

# CITY OF ALBUQUERQUE

*Planning Department*  
Brennon Williams, Director



*Mayor Timothy M. Keller*

September 25, 2020

Jonathan Niski  
Tierra West, LLC  
5571 Midway Park Place NE  
Albuquerque, NM 87109

**RE: Multi-Use Recreational Facility  
1600 Desert Surf Circle NE  
Request for Certificate of Occupancy - Permanent  
Hydrology Final Inspection –Approved  
Grading and Drainage Plan Stamp Date: 2/12/19  
Certification Dated: 9/8/20  
Drainage File: F19D003E1**

PO Box 1293

Dear Mr. Niski:

Albuquerque

Based on the submittal received on 9/11/20 and field inspection 9/24/20, this certification is approved in support of Permanent Certificate of Occupancy by Hydrology.

If you have any questions, please contact me at 924-3986 or [earmijo@cabq.gov](mailto:earmijo@cabq.gov).

NM 87103

Sincerely,

[www.cabq.gov](http://www.cabq.gov)

Ernest Armijo, P.E.  
Principal Engineer, Planning Dept.  
Development Review Services



# City of Albuquerque

Planning Department  
Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

**Project Title:** Multi-Use Recreational Facility **Building Permit #:** \_\_\_\_\_ **Hydrology File #:** F16D003E1  
**DRB#:** \_\_\_\_\_ **EPC#:** \_\_\_\_\_ **Work Order#:** \_\_\_\_\_  
**Legal Description:** Parcel B-1 Plat of Parcels C-1, C-2, C-3, C-4 & B-1  
**City Address:** 1600 Desert Surf Circle. NE Albuquerque NM 87107

**Applicant:** Tierra West, LLC **Contact:** Jonathan Niski  
**Address:** 5571 Midway Park Place NE Albuquerque NM 87109  
**Phone#:** 505-858-3100 **Fax#:** 505-858-1118 **E-mail:** jniski@tierrawestllc.com

**Other Contact:** \_\_\_\_\_ **Contact:** \_\_\_\_\_  
**Address:** \_\_\_\_\_  
**Phone#:** \_\_\_\_\_ **Fax#:** \_\_\_\_\_ **E-mail:** \_\_\_\_\_

**TYPE OF DEVELOPMENT:** \_\_\_\_\_ PLAT (# of lots) \_\_\_\_\_ RESIDENCE \_\_\_\_\_ DRB SITE ☒ ADMIN SITE

IS THIS A RESUBMITTAL? \_\_\_\_\_ 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  
☐ FLOODPLAIN DEVELOPMENT PERMIT APPLIC  
☐ ELEVATION CERTIFICATE  
☐ CLOMR/LOMR  
☐ TRAFFIC CIRCULATION LAYOUT (TCL)  
☐ TRAFFIC IMPACT STUDY (TIS)  
☐ STREET LIGHT LAYOUT  
☐ OTHER (SPECIFY) \_\_\_\_\_  
☐ PRE-DESIGN MEETING?

**TYPE OF APPROVAL/ACCEPTANCE SOUGHT:**

- ☐ BUILDING PERMIT APPROVAL  
☒ CERTIFICATE OF OCCUPANCY Permanent  
☐ 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  
☐ FLOODPLAIN DEVELOPMENT PERMIT  
☐ OTHER (SPECIFY) \_\_\_\_\_

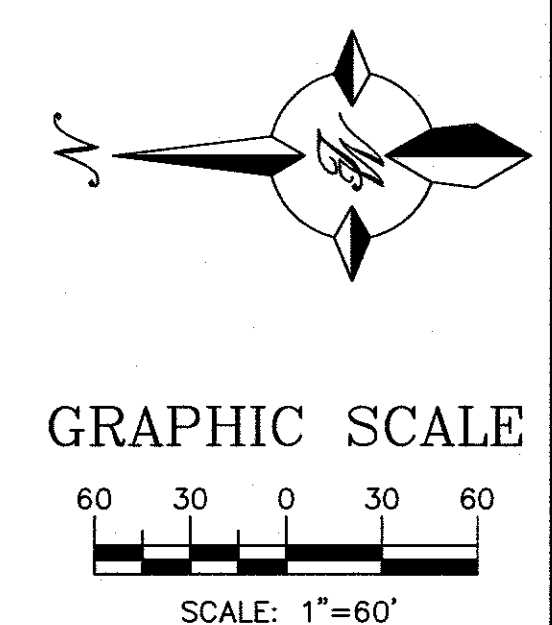
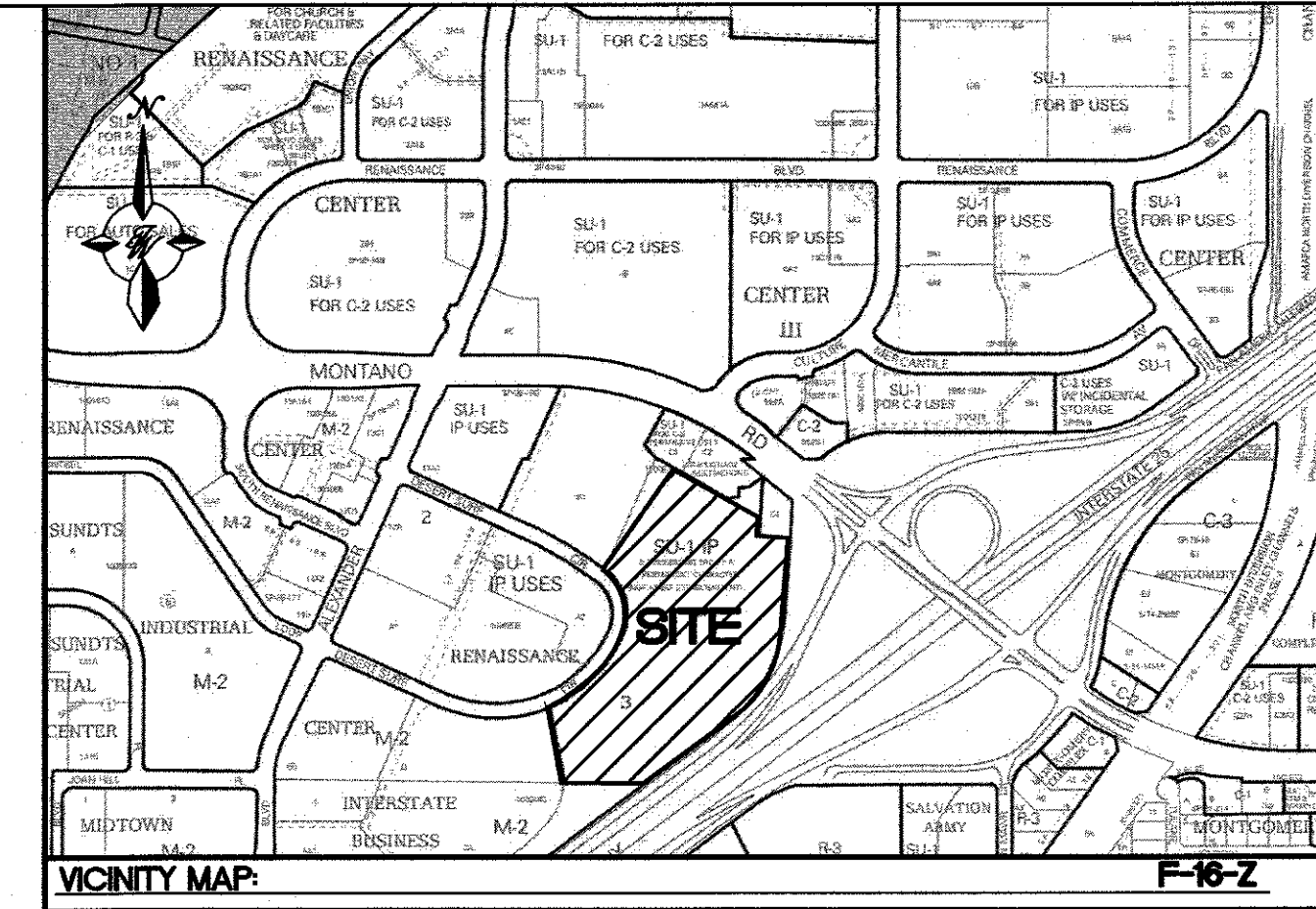
**DATE SUBMITTED:** 9-10-2020 **By:** Jonathan Niski

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

FEE PAID: \_\_\_\_\_





LEGEND	
	CURB & GUTTER
	BOUNDARY LINE
	EASEMENT
	CENTERLINE
	RIGHT-OF-WAY
	BUILDING
	SIDEWALK
	CONTOUR MAJOR
	CONTOUR MINOR
	SPOT ELEVATION
	FLOW ARROW
	EXISTING CURB & GUTTER
	EXISTING RETAINING WALL
	EXISTING SIDEWALK
	EXISTING BOUNDARY LINE
	PROPOSED CONTOUR MAJOR
	PROPOSED CONTOUR MINOR
	EXISTING CONTOUR MAJOR
	EXISTING CONTOUR MINOR
	EXISTING SPOT ELEVATION
	EXISTING SD MANHOLE
	EXISTING STORM SEWER LINE

**CAUTION:**  
ALL EXISTING UTILITIES SHOWN WERE OBTAINED FROM RESEARCH, AS-BUILTS, SURVEYS OR INFORMATION PROVIDED BY OTHERS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO AND INCLUDING ANY EXCAVATION TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS. PRIOR TO STARTING THE WORK, ANY CHANGES FROM THIS PLAN SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.

**\*\*See C4.1, C4.2 and C4.3 for Details\*\***

**DRAINAGE CERTIFICATION WITH SURVEY WORK DONE BY PROFESSIONAL SURVEYOR**

I, RONALD R. BOHANNAN, NMPE # 7868, OF THE FIRM, TIERRA WEST LLC, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 2/12/19. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY BRIAN MARTINEZ, NMPS # 18374, OF THE FIRM, CARTESIAN SURVEYS INC.

I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 2/12/19 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR PERMANENT CERTIFICATE OF OCCUPANCY.

EXCEPTIONS:  
NONE TAKEN

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

RONALD R. BOHANNAN, NMPE # 7868  
DATE 2/12/19  
(SEAL)

**NOTICE TO CONTRACTORS**

- TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONNECTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
- MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
- SOURCE OF TOPO IS ALTA/ACSM LAND TITLE SURVEY OF LOT 2 HARMS INDUSTRIAL PARK PREPARED BY PRECISION SURVEYS, INC DATED JANUARY 11, 2012.
- STORM WATER RUNOFF WILL BE PASSIVELY HARVESTED ALONG THE WEST, SOUTH AND EAST PROPERTY LINES WITHIN LANDSCAPED AREAS IN COMPLIANCE WITH WATER CONSERVATION ORDINANCE REQUIREMENTS.

**EXISTING DRAINAGE CONDITIONS**  
THE SITE IS CURRENTLY UNDEVELOPED AND WAS FORMALLY THE BEACH WATERPARK. THERE IS A PREVIOUSLY APPROVED MASTER DRAINAGE MANAGEMENT PLAN AND REPORT FOR THE SITE DATED 10/29/18 BY TIERRA WEST LLC. (F-16/D3E1). THE REPORT DEFINES BASINS AND PROVIDED FOR STORM SEWER ANALYSIS FOR THIS PARCEL AS WELL AS THE BALANCE OF WHAT WAS FORMERLY THE BEACH WATERPARK. THE OVERALL SITE WILL BE GRADED BASED ON THAT OVERALL GRADING PLAN AND THIS GRADING PLAN IS DESIGNED ASSUMING THOSE IMPROVEMENTS ARE COMPLETED AND THE REVISED STORM SEWER IS IN PLACE. THE SITE IS LOCATED ON FIRM MAP 3500C0138H AS SHOWN ABOVE. THE MAP SHOWS THAT THE SITE DOES NOT LIE WITHIN ANY 100 YEAR FLOOD PLAINS.

**PROPOSED DRAINAGE MANAGEMENT PLAN**  
THIS PROPOSED GRADING AND DRAINAGE PLAN IS FOR THE SITE SPECIFIC IMPROVEMENTS FOR THE TOP GOLF PARCEL AND BUILDING CONSTRUCTION. THIS PLAN IS CONSISTENT WITH THE PREVIOUSLY APPROVED MASTER DRAINAGE MANAGEMENT PLAN WITH THE EXCEPTION THAT BASIN 5 WILL NOW DRAIN THROUGH A DROP INLET AND CONNECT TO A STORM SEWER SYSTEM DESIGNED TO DRAIN THE OUTFIELD OF TOP GOLF. BASIN 5 PREVIOUSLY DRAINED THROUGH BASIN 6 AND THE FLOWS FROM THOSE BASINS WERE TO BE RESTRICTED DUE TO DOWNSTREAM CAPACITY LIMITATIONS IN THE STORM SEWER. THE STORM SEWER PREVIOUSLY DESIGNED FOR THE OUTFIELD DRAINAGE HAS CAPACITY TO ACCEPT THE FLOWS FROM BASIN 5.

BASIN 6 WILL CONTINUE TO DISCHARGE TO THE EXISTING STORM SEWER AS PREVIOUSLY APPROVED IN THE MASTER DRAINAGE PLAN. BASIN 6 DISCHARGES A TOTAL OF 2.14 CFS TO THE EXISTING STORM SEWER WHICH IS SLIGHTLY ABOVE THE CAPACITY. THEREFORE THE DROP INLET IN BASIN 6 WILL HAVE A 5.75" ORIFICE PLATE ON THE DISCHARGE PIPE TO LIMIT THE FLOW TO 2.08 CFS WHICH IS SLIGHTLY BELOW THE ALLOWED DISCHARGE OF 2.10 CFS. THE AREA AROUND THE DROP INLET IS DEPRESSIONED AND HAS ENOUGH CAPACITY TO POND THE DISCHARGE TO THE DROP INLET AT THE RESTRICTED FLOW RATE.

THE REMAINDER OF THE SITE WILL CONTINUE TO DRAIN AS PROPOSED IN THE APPROVED MASTER DRAINAGE MANAGEMENT PLAN AT THE FLOW RATES IDENTIFIED ON THE DRAINAGE BASIN MAP.

**ARCO MURRAY**  
DESIGN BUILD

	ENGINEER'S SEAL	DRAWN BY BF
	TOPGOLF ALBUQUERQUE, NM	DATE 02/12/19
	TOPGOLF GRADING PLAN FOR BUILDING PERMIT	2017035-GRB-3
		SHEET # <b>C4</b>
TIERRA WEST, LLC 5571 MIDWAY PARK PLACE NE ALBUQUERQUE, NM 87109 (505) 858-3100 www.tierrawestllc.com		JOB # 2017065

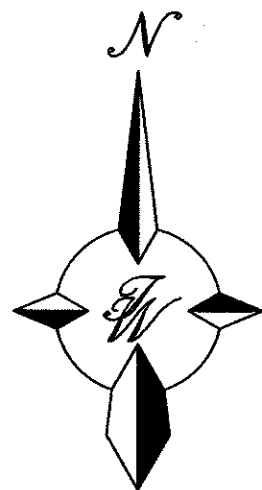
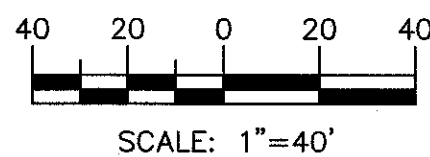


# LEGEND

	CURB & GUTTER
	BOUNDARY LINE
	EASEMENT
	CENTERLINE
	RIGHT-OF-WAY
	BUILDING
	SIDEWALK
	CONTOUR MAJOR
	CONTOUR MINOR
	SPOT ELEVATION
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	EXISTING SD MANHOLE
	EXISTING STORM SEWER LINE

NOTES  
1. SPOT ELEVATIONS ARE AT FLOWLINE UNLESS OTHERWISE SPECIFIED.

GRAPHIC SCALE



Area Certified

Area Certified

## DRAINAGE CERTIFICATION WITH SURVEY WORK DONE BY PROFESSIONAL SURVEYOR

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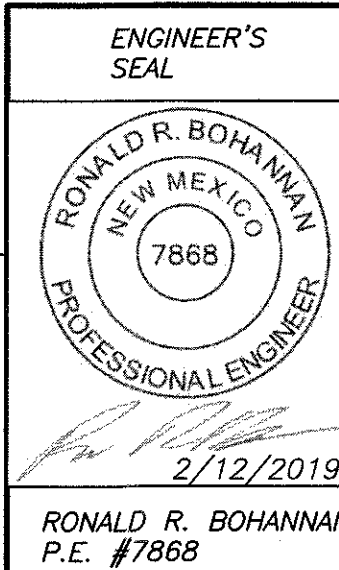
(SEAL)

## EROSION CONTROL NOTES

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
- REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.

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TOPGOLF  
ALBUQUERQUE, NM  
GRADING PLAN 1

TIERRA WEST, LLC  
5571 MIDWAY PARK PLACE NE  
ALBUQUERQUE, NM 87109  
(505) 858-3100  
www.tierrawestllc.com

DRAWN BY  
BF

DATE  
02/12/19

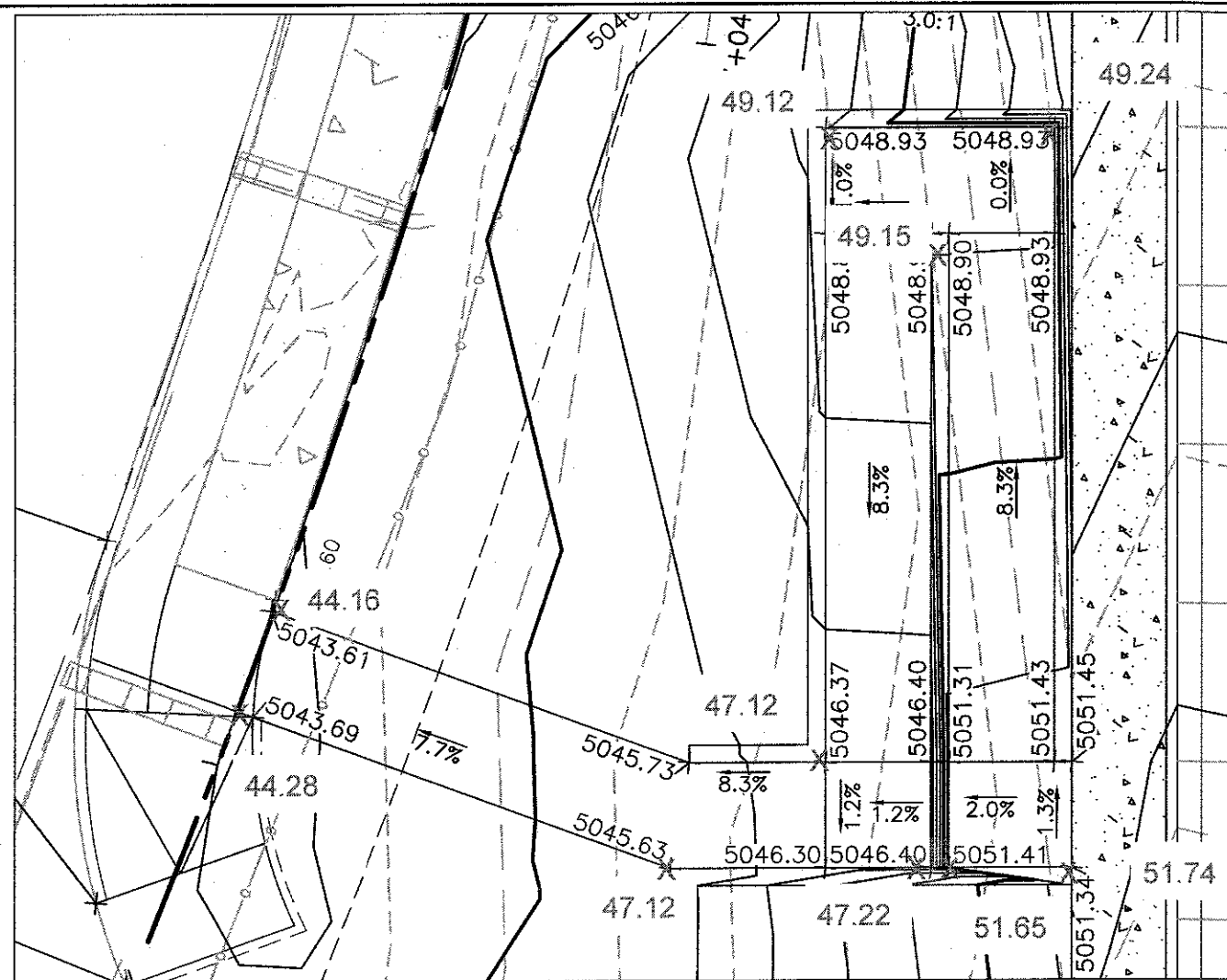
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SHEET #  
C4.1

JOB #  
2017065

**ARCO  
MURRAY**  
DESIGN BUILD





PEDESTRIAN HC RAMP  
SCALE=1"=10'

MATCHLINE B - SEE SHEET C5

Area Certified

# LEGEND

- CURB & GUTTER
- BOUNDARY LINE
- EASEMENT
- CENTERLINE
- RIGHT-OF-WAY
- BUILDING
- SIDEWALK
- 5010 — CONTOUR MAJOR
- 5011 — CONTOUR MINOR
- x 5048.25 SPOT ELEVATION
- FLOW ARROW
- EXISTING CURB & GUTTER
- EXISTING RETAINING WALL
- EXISTING SIDEWALK
- EXISTING BOUNDARY LINE
- 5010 — PROPOSED CONTOUR MAJOR
- 5010 — PROPOSED CONTOUR MINOR
- EXISTING CONTOUR MAJOR
- EXISTING CONTOUR MINOR
- x 5048.25 EXISTING SPOT ELEVATION
- (D) EXISTING SD MANHOLE
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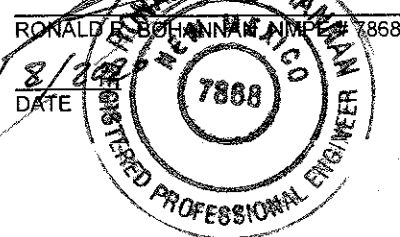
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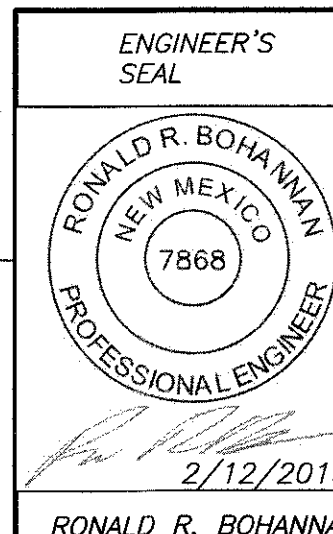
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**ARCO MURRAY**  
DESIGN BUILD



TOPGOLF  
ALBUQUERQUE, NM  
GRADING PLAN 2

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DRAWN BY

BF

DATE

02/12/19

2017035\_GRB-3

SHEET #

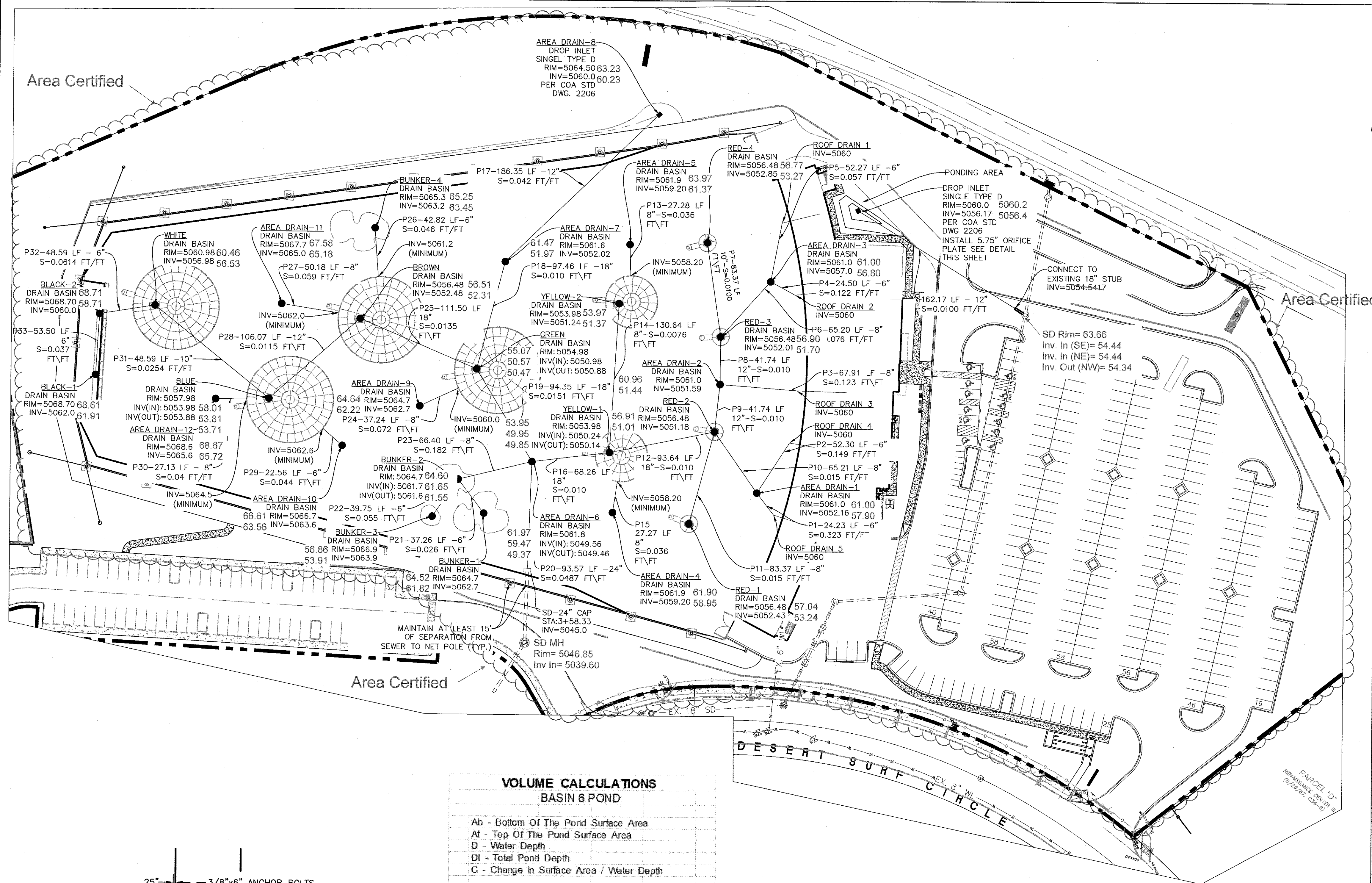
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JOB #

2017065



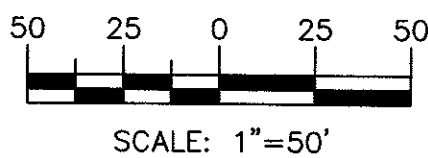
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# LEGEND

- CURB & GUTTER
- BOUNDARY LINE
- EASEMENT
- BUILDING
- SIDEWALK
- EXISTING RETAINING WALL
- EXISTING CURB & GUTTER
- STORM DRAIN LINE
- EXISTING STORM DRAIN LINE
- STORM DRAIN MANHOLE
- EXISTING STORM DRAIN MANHOLE

## GRAPHIC SCALE



### NOTE:

PIPES 6"-10" ARE SCHEDULE 40 PVC AND ALL PIPE SIZES LARGER THAN 10" MAY BE HDPE OR EQUIVALENT.

## Pipe Capacity

Pipe	D (in)	Slope (%)	Area (ft²)	R	Q Provided (cfs)	Q Required (cfs)	Velocity (ft/s)
1	6	1.08	0.20	0.125	0.69	0.59	3.00
2	6	1.08	0.20	0.125	0.69	0.40	2.04
3	8	1.00	0.35	0.167	1.43	0.87	2.49
4	6	1.08	0.20	0.125	0.69	0.43	2.19
5	6	1.08	0.20	0.125	0.69	0.32	1.63
6	8	1.08	0.35	0.167	1.49	0.75	2.15
7	10	1.00	0.55	0.208	2.60	2.04	3.74
8	12	1.00	0.79	0.250	4.22	2.79	3.55
9	12	2.00	0.79	0.250	5.97	5.62	7.16
10	8	1.08	0.35	0.167	1.49	1.09	3.12
11	8	1.08	0.35	0.167	1.49	1.50	4.30
12	18	1.00	1.77	0.375	12.45	8.81	4.87
13	8	1.00	0.35	0.167	1.43	1.09	3.12
14	8	1.00	0.35	0.167	1.43	1.09	3.12
15	8	1.00	0.35	0.167	1.43	1.33	3.81
16	18	1.00	1.77	0.375	12.45	11.03	6.24
17	12	1.08	0.79	0.250	4.39	4.06	5.17
18	18	1.00	1.77	0.375	12.45	6.28	3.55
19	18	1.51	1.77	0.375	15.30	14.72	8.33
20	24	4.87	3.14	0.500	59.16	27.57	8.78
21	6	1.00	0.20	0.125	0.66	0.40	2.04
22	6	1.00	0.20	0.125	0.66	0.40	2.04
23	8	1.00	0.35	0.167	1.43	1.16	3.32
24	8	1.00	0.35	0.167	1.43	1.80	5.16
25	18	1.35	1.77	0.375	14.46	6.64	3.76
26	6	1.00	0.20	0.125	0.66	0.48	2.44
27	8	2.00	0.35	0.167	2.03	2.00	5.73
28	12	1.15	0.79	0.250	4.53	4.16	5.30
29	6	1.00	0.20	0.125	0.66	0.50	2.55
30	8	2.00	0.35	0.167	2.03	1.57	4.50
31	10	2.54	0.55	0.208	4.14	2.09	3.83
32	6	6.14	0.20	0.125	1.65	0.25	1.27
33	6	1.00	0.20	0.125	0.66	0.50	2.55

### Manning's Equation:

$$Q = 1.49 \text{ m}^3 \text{ s}^{-1} \text{ A} \cdot R^{2/3} \cdot S^{1/2}$$

A = Area  
R = D/4  
S = Slope  
n = 0.011

## VOLUME CALCULATIONS BASIN 6 POND

Ab - Bottom Of The Pond Surface Area  
At - Top Of The Pond Surface Area  
D - Water Depth  
Dt - Total Pond Depth  
C - Change In Surface Area / Water Depth

$$\text{Volume} = \text{Ab} \cdot D + 0.5 \cdot C \cdot D^2$$
$$C = (\text{At} - \text{Ab}) / \text{Dt}$$

Ab =	7.00
At =	1,700.00
Dt =	6.00
C =	282.17

ACTUAL ELEV.	DEPTH (FT)	VOLUME (AC-FT)	Q (CFS)
5056.00	0.00	0.00	0.0000
5057.00	1.00	0.0002	0.7572
5058.00	2.00	0.0036	1.1520
5059.00	3.00	0.0134	1.4426
5060.00	4.00	0.0298	1.6837
5060.50	4.50	0.0404	1.7922
5061.00	5.00	0.0526	1.8944
5061.50	5.50	0.0665	1.9914
5062.00	6.00	0.0819	2.0839

### Orifice Equation

$$Q = \text{CA} \sqrt{2gh}$$

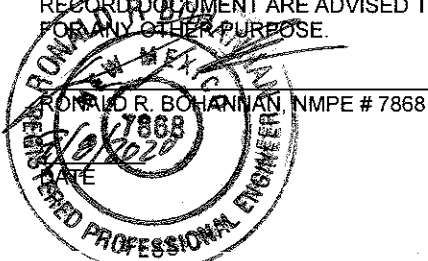
C = 0.6  
Diameter (in) = 5.75  
Area (ft²) = 0.180  
g = 32.2  
H (ft) = Depth of water above center of orifice  
Q (CFS) = Flow

### DRAINAGE CERTIFICATION WITH SURVEY WORK DONE BY PROFESSIONAL SURVEYOR

I, RONALD R. BOHANNAN, NMPE # 7868, OF THE FIRM, TIERRA WEST, LLC, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED 2/12/2019. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY BRIAN MARTINEZ, NMPS # 18374, OF THE FIRM, CARTESIAN SURVEYS, INC. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 2/12/2019 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR PERMANENT CERTIFICATE OF OCCUPANCY.

EXCEPTIONS:  
NONE TAKEN

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS INFORMATION ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.



(SEAL)

**ARCO MURRAY**  
DESIGN BUILD

ENGINEER'S SEAL  
RONALD R. BOHANNAN  
NEW MEXICO  
7868  
PROFESSIONAL ENGINEER  
2/12/2019  
RONALD R. BOHANNAN  
P.E. #7868

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STORM DRAIN PLAN

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DRAWN BY  
BF  
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2017065