CITY OF ALBUQUERQUE

December 15, 2015

Josh Root, P.E.
Entitlement and Engineering Solutions, Inc.
518 17th Street Ste. 1575
Denver, Colorado 80202

Re: DaVita Del Norte Dialysis Center
5207 San Mateo Blvd. NE
Permanent CO – Accepted
Engineer's Stamp dated: 5-6-15 (F17D095A)
Certification dated: 12-14-15

Dear Mr. Root,

Based upon the information provided in your submittal received 12/15/2015, the above referenced Certification received is acceptable for the release of Certificate of Occupancy by Hydrology.

If you have any questions, you can contact me at 924-3696 or Totten Elliott at 924-3982.

Sincerely,

Abiel Carrillo, P.E.
Principal Engineer, Planning Department
Development and Review Services

TE/AC
C: email

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: DaVita Del Norte Dialysis Center Building Permit #: _____ City Drainage #: F17-D095 A

DRB#: 1007867 EPC#: _____ Work Order#: _____

Legal Description: Sandia Addition Tract B-1

City Address: 5207 SAN MATEO BLVD NE

Engineering Firm: Entitlement and Engineering Solutions, Inc. Contact: Josh Root

Address: 518 17th Street, Ste. 1575, Denver, CO 80108

Phone#: 303-572-7997 Fax#: _____ E-mail: josh.root@ees.us.com

Owner: DaVita Healthcare Partners Contact: Marshall Stewman

Address: 2000 16th Street, Denver CO 80202

Phone#: 972-765-6256 Fax#: _____ E-mail: _____

Architect: InForm Studio Contact: Megan Martin-Campbell

Address: 235 E. Main St. Ste. 102B, Northville, MI 48167

Phone#: 248-449-3564 Fax#: _____ E-mail: _____

Other Contact: SurvTek, Inc. Contact: Russ Hugg

Address: 9384 Valley View Drive, Albuquerqe

Phone#: 505-897-3366 Fax#: _____ E-mail: _____

Check all that Apply:

DEPARTMENT:

x HYDROLOGY/ DRAINAGE
____ TRAFFIC/ TRANSPORTATION
____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

____ ENGINEER/ ARCHITECT CERTIFICATION

____ CONCEPTUAL G & D PLAN
____ GRADING PLAN
____ DRAINAGE MASTER PLAN
____ 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
x CERTIFICATE OF OCCUPANCY

____ 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

____ PRE-DESIGN MEETING
____ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: ____ Yes ____ No

DATE SUBMITTED: December 15, 2015 By: Joshua Root, EES

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: ____

RECEIVED 12-15-15

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: DaVita Del Norte Dialysis Center Building Permit #: _____ City Drainage #: F17-D095 A

DRB#: 1007867 EPC#: _____ Work Order#: _____

Legal Description: Sandia Addition Tract B-1

City Address: _____

Engineering Firm: Entitlement and Engineering Solutions, Inc. Contact: Josh Root

Address: 518 17th Street, Ste. 1575, Denver, CO 80108

Phone#: 303-572-7997 Fax#: _____ E-mail: josh.root@ees.us.com

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Other Contact: SurvTek, Inc. Contact: Russ Hugg

Address: 9384 Valley View Drive, Albuquerqe

Phone#: 505-897-3366 Fax#: _____ E-mail: _____

Check all that Apply:

DEPARTMENT:

x HYDROLOGY/ DRAINAGE
____ TRAFFIC/ TRANSPORTATION
____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

____ ENGINEER/ ARCHITECT CERTIFICATION

____ CONCEPTUAL G & D PLAN
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____ DRAINAGE REPORT
____ CLOMR/LOMR

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

____ OTHER (SPECIFY) _____

Verbal NO

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ BUILDING PERMIT APPROVAL
x CERTIFICATE OF OCCUPANCY

____ 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

____ PRE-DESIGN MEETING
____ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: ____ Yes ____ No

DATE SUBMITTED: December 7, 2015 By: Joshua Root, EES

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: ___

RECEIVED 12-11-15

EES

Entitlement and Engineering Solutions, Inc.

Company:	City of Albuquerque	Date:	12/11/15
Address:	600 2nd Street NW, Suite 201 Albuquerque, NM 87102	Project:	DaVita Del Norte
Attention:	Totten Elliott	From:	Josh Root
Re:	CO Hydrology	Project No.:	F17-D095

We are sending you:

Delivered by: Hand Delivered

Transmitted: For Your Use

Summary of enclosed materials

Quantity	Sheet No.	Description
2		DRS – Drainage Info Sheet
2	C2.0	24x36 plan - Del Norte Grading As-built - Stamped

Comments:

CC:

Attention	Transmittal Only	Delivered by
	☐	
	☐	
	☐	

File Code	☐ Transmittal Only

CITY OF ALBUQUERQUE

May 11, 2015

Krisinda Rapiejka, PE
Entitlement and Engineering Solutions, Inc.
518 17th Street Ste. 1575
Denver, Colorado 80202

RE: **DaVita Dialysis Center, 5207 San Mateo Blvd.**
Grading and Drainage Plan
Plan Dated 4-20-15 for Sheets C2.0-C.2.2; Plan Dated 5-6-2015 for Sheet C5.0
(File: F17-D095A)

Dear Ms. Rapiejka:

Based upon the information provided in your submittal received 5-07-15, the above referenced plans are approved for Building Permit. Please attach a copy of this approved plan in the construction sets when submitting for a building permit.

Prior to Certificate of Occupancy release, Engineer Certification per the DPM Checklist will be required.

If you have any questions, you can contact me at 924-3924.

Sincerely,

Jeanne Wolfenbarger, P.E.
Senior Engineer, Planning Dept.
Development Review Services

Orig: Drainage file
c.pdf Addressee via Email

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: Del Norte Dialysis Center (for DaVita Dialysis) Building Permit #: TBD City Drainage #: F17-D095-A

DRB#: 1007867 EPC#: _____ Work Order#: _____

Legal Description: Sandia Addition Tract B-1

City Address: _____

Engineering Firm: Entitlement and Engineering Solutions, Inc. Contact: Krisinda Rapiejko, PE

Address: 518 17th Street, Ste 1575, Denver CO 80202

Phone#: 303-717-8843 Fax#: _____ E-mail: krapiejko@ees.us.com

Owner: DaVita Healthcare Partners Contact: Marshall Stewman

Address: 2000 16th Street, Denver CO 80202

Phone#: 972-765-6256 Fax#: _____ E-mail: _____

Architect: InForm Studio Contact: Megan Martin-Campbill

Address: 235 E. Main St. Ste. 102B, Northville, MI 48167

Phone#: 248-449-3564 Fax#: _____ E-mail: _____

Surveyor: SurvTek, Inc. Contact: Russ Hugg

Address: 9384 Valley View Drive, Albuquerqe

Phone#: 505-897-3366 Fax#: _____ E-mail: _____

Contractor: TBD Contact: _____

Address: _____

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

TYPE OF SUBMITTAL:

- X DRAINAGE REPORT
- ___ DRAINAGE PLAN 1st SUBMITTAL
- X DRAINAGE PLAN RESUBMITTAL
- ___ CONCEPTUAL G & D PLAN
- ___ GRADING PLAN
- ___ EROSION & SEDIMENT CONTROL PLAN (ESC)
- ___ ENGINEER'S CERT (HYDROLOGY)
- ___ CLOMR/LOMR
- ___ TRAFFIC CIRCULATION LAYOUT (TCL)
- ___ ENGINEER'S CERT (TCL)
- ___ ENGINEER'S CERT (DRB SITE PLAN)
- ___ ENGINEER'S CERT (ESC)
- ___ SO-19
- ___ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ___ SIA/FINANCIAL GUARANTEE RELEASE
- ___ PRELIMINARY PLAT APPROVAL
- ___ S. DEV. PLAN FOR SUB'D APPROVAL
- X S. DEV. FOR BLDG. PERMIT APPROVAL
- ___ SECTOR PLAN APPROVAL
- ___ FINAL PLAT APPROVAL
- ___ CERTIFICATE OF OCCUPANCY (PERM)
- ___ CERTIFICATE OF OCCUPANCY (TCL TEMP)
- ___ FOUNDATION PERMIT APPROVAL
- ___ BUILDING PERMIT APPROVAL
- ___ GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- ___ WORK ORDER APPROVAL
- ___ GRADING CERTIFICATION
- ___ SO-19 APPROVAL
- ___ ESC PERMIT APPROVAL
- ___ ESC CERT. ACCEPTANCE
- ___ OTHER (SPECIFY)

RECEIVED 5-7-2015

WAS A PRE-DESIGN CONFERENCE ATTENDED: ___ Yes ___ No ___ Copy Provided

DATE SUBMITTED: 05-06-2015 By: Krisinda Rapiejko

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, anc scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the followin

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report**: Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

EES
Entitlement and Engineering Solutions, Inc

Krisinda Rapiejko, P.E.
(for Amanda O'Connor, P.E.)
518 17th Street, Suite 1575
Denver, CO 80202

May 06, 2015

Jeanne Wolfenbarger, P.E.
City of Albuquerque
600 2nd Street NW, Ste. 201 (Ground Floor)
Albuquerque, NM 87102

Subject: **Del Norte Dialysis Center, 5207 San Mateo Blvd. NE**
Final Drainage Submittal Response
Project: F17-D095A

1. Please include all drainage calculations that you provided on 4/27/15. **This has been done. However there was a minor change to the required overall pond volume calculations. In the 4/27/15 email submittal for DRB I mistakenly did not include the entire tributary area for the basin GC3 as depicted on the Golden Corral Drainage Plan – the west Golden Corral parking area already tributary to the North Pond. In addition, I also did not expand the Basin GC1 to the full extents of the survey. I have made corrections to these basins and therefore the new required overall pond volume has been increased from 23,100 cf to 23,340 cf. The required overall pond volume still falls within the provided pond volume of 23,493 cf at the 5197.00 pond contour. This provides a 0.51 feet of freeboard depth to the emergency spillway elevation of 5197.5 (shown as 0.84' depth in 4/27/15 submittal). The 0.51' of freeboard falls within the original design intent of the North Pond to have 0.5' of freeboard as shown on the Arfman Detention Pond Plan. All associated calculations incorporating the enlarged GC1 and GC3 have been modified as well (see updated report, Excess Precipitation calcs, both hydrographs on drainage plan, and Design Pt 5 hydraulic calcs).**

2. On the Sheet C5.0, include your computed WSEL for the 100 year storm, the total volume provided for the storage pond, and the corresponding pond volume at the WSEL.
   All information as described above is now shown on Sheet C5.0 in the text box titled Overall North Pond Storage at the top of the sheet.
3. Also, on Sheet C5.0, show all basins that contribute to the north pond which shall include all off-site storm water runoff from the Golden Corral parking lot. **Done. The offsite stormwater tributary to the North Pond is shown as GC3 and this basin was recreated using the Golden Corral Drainage Plan (see report appendix for this plan). Basin GC3 incorporates Basins DA No. 13 & 14 on the Golden Corral Plan.**

EES

Entitlement and Engineering Solutions, Inc.

Company:	City of Albuquerque	Date:	May 6, 2015
Address:	600 2nd Street NW, Ste. 201 (Ground Floor) Albuquerque, NM 87102	Project:	Del Norte Dialysis Center, 5207 San Mateo Blvd. NE Final Drainage Report and Plan
Attention:	Monica Ortiz Rita Harm PE Jeanne Wolfenbarger PE	From:	Krisinda Rapiejko EES
Re:	Final Drainage Re-submittal	Project No.:	F17-D095A

We are sending you:

Delivered by: FED EX

Transmitted: For Submittal

Summary of enclosed materials

Quantity	Sheet No.	Description
1		Drainage and Transportation Information Sheet
1		Final Drainage Comment Response Memo
1		Del Norte Dialysis Final Drainage Report and assoc. Plans
1		C5.0 - Drainage Area Plan

Comments:
Rita and Jeanne, Please let me know if you need anything else.
Call or email with any questions,
Krisinda 303-717-8843

CC:

Attention	Transmittal Only	Delivered by
	☐	
File Code	☐ Transmittal Only	

EES

Entitlement and Engineering Solutions, Inc.

EES, Inc ■ Phone: 303-572-7997 ■ 518 17th Street, Suite 1575 ■ Denver, CO 80202

Del Norte Dialysis
Final
Drainage Report

5207 San Mateo Blvd.
Albuquerque, NM 87109

May 5, 2015

Prepared By:

EES

Entitlement and Engineering Solutions, Inc.
518 17th Street, Suite 1575
Denver, CO 80202
Phone: (303) 572-7997
Attn: Amanda M. O'Connor, P.E.

Engineer's Statement

This report for the conceptual design of the Del Norte Dialysis Center was prepared by me or under my direct supervision in accordance with the provisions of City of Albuquerque, Bernalillo County, New Mexico Design Process Manual Section 22. I understand that the City of Albuquerque, New Mexico does not and will not assume liability for drainage facilities designed by others.

Amanda M. O'Conner

Registered Professional Engineer

State of New Mexico No. 19951

AMANDA M. O'CONNER
NEW MEXICO
19951
5-6-2015
PROFESSIONAL ENGINEER

(Affix Seal)

Table of Contents

Executive Summary 1
Project Location and Zoning 1
Existing Site and Drainage Concept 1
Project Description and Drainage Concept 2
Required Project Approvals 2

Existing Conditions 2

Drainage pattern and facilities 2

Proposed Conditions 4

Drainage Concept 4
Hydrology Criteria 7
Hydraulic Criteria 7

Summary 7
REFERENCES 9
APPENDIX 10

Executive Summary

Project Location and Zoning

The Del Norte Dialysis Center project site is located on the west side of San Mateo Boulevard approximately 430 feet north of Mcleod Road in the Tract B-1 (formerly Tract B) of the Sandia Addition in the City of Albuquerque, Bernalillo County. This site falls within a designated Enhanced Transit Corridor of an Established Urban Area of the Comprehensive Plan. It is located within the boundaries of the City Zone Map F-17 as shown on the Drainage Map within Appendix C. The site lies within the Flood Zone X and therefore is not designated as a flood prone area in accordance with the National Flood Insurance Program Rate Map No. 35001C0139 G, effective date 9-26-2008. The current zoning for the site is C3, heavy commercial and the proposed use is permissive within this zone category.

Existing Site and Drainage Concept

The site was previously used as a garden nursery but has since been cleared of all structures and overlot graded to follow the historic drainage patterns with topography that falls to the southwest. The site maintains minimal vegetation due to this grading disturbance and demolition.

In 2011, the Golden Corral was designed and constructed in the Tract A of the Sandia Addition, due north of this project. The proposed grading for this site generally drains southwesterly with the northern perimeter of the site draining to the north. This site utilizes curb cuts, cobbled swale rundowns and concrete flumes to connect their site drainage with the existing channel along the north property line of Tract A and then across Tract C-1 (formerly Tract C) to the existing channel along the west Tract-C-1 perimeter. The building roof drains and a portion of this site's west perimeter connect subsurface to the existing storm system within San Mateo Boulevard.

In 2013 two ponds were designed and constructed on west side of Tract C-1 to the north and south (see Appendix A for the Temporary Detention Plan by Isaacson & Arfman, PA, dated 8-27-13). Tract C-1 is located west of this project. These ponds were designed and constructed in response to a failure of the berm along the west side of the existing channel along the Tract C-1 perimeter. The berm was eroding after a series of large rain storms and allowing drainage to flood the adjacent property to the west of Tract C-1. Both detention ponds were designed to detain the 100-year, 6-hour storm for the Sandia Addition Tracts A, B-1 (formerly Tract B) and C-1 in the full developed condition. The contributing basin for each pond is designed with an estimated land treatment D (impervious area) of 80% for the overall basin area. Both ponds outlet flows to the existing west perimeter channel with a controlled release rate. In addition, the existing channels along the north and west perimeters were repaired with shotcrete as part of the overall design of these detention ponds.

Project Description and Drainage Concept

The proposed Del Norte Dialysis Center is an outpatient medical facility with a single story 8,535 sf building. The site layout will incorporate 30 stalls of onsite parking with landscape medians framing each parking aisle and with landscape buffers aligning the perimeters of the site. The proposed site will drain storm flows away from the building toward the curb and gutter aligning the perimeter of the parking area and drives. The storm flow will channelize within the curb and gutter and convey it to the west along the south drive aisle, north along the west row of parking stalls, and west along the north parking area perimeter and then outlet the parking area drainage through two proposed concrete drainage chases located to the northwest corner of the parking area.

These chases will direct Tract B-1 parking area drainage to the existing 28' wide drive aisle to the north of the project site and running east-west along the southern boundary of the Golden Corral parking area. The drive aisle will drain surface flows to the west and outlet at the existing curb cut located to the west end of this drive aisle. A proposed rock lined trapezoidal channel will convey drainage flow from the curb cut to the north pond. The north pond footprint will be extended south to accommodate the additional drainage contributed by Tract B-1 and the south drive aisle. In addition, the rock lined channel originally conveying drainage westerly from this curb and discharging to the existing channel along the west Tract C-1 boundary will be removed. The Golden Corral parking area drainage contributing surface flow to this south drive aisle will remain unchanged.

Required Project Approvals

The development process for this project will require the following approvals listed below. Some approvals are already in process:

- Grading and Drainage Plan
- West lot line adjustment for Tract B and C for the Sandia Addition Plat was approved by the DRB on March 11, 2015 with the project number 1007867. This also included a defined utility easement through Tract B for the benefit of Tract C. With this plat adjustment, Both Tracts B and C were renamed to Tracts C-1 and B-1 to signify the lot line change.
- SDP for Subdivision Minor Amendment reflecting Sandia Addition Plat adjustments listed above was approved on the same date and project number.
- SDP for Building Permit through DRB
- Building Permit
- Retaining Wall Permit

Existing Conditions

Drainage pattern and facilities

The site is currently undeveloped and located in the precipitation zone 2 as outline in the DPM Chapter 22.2. The existing land treatment for Tract B-1 is mostly C where undeveloped. The eastern portion of Tract B-1 is currently built out with an approximate 28' wide shared access

drive for Tracts A, B and C and a finished 20' wide landscape buffer dividing this access drive from the San Mateo Boulevard ROW as was developed with the design and construction of the Golden Corral. The south adjacent property Tract A-1A of the Sanbusco Addition is developed as an industrial use and is elevated above the south Tract B-1 perimeter grades with the use of a small 1-3 foot retaining wall that aligns the south property line (see proposed drainage map). The grading for the Tract B-1 falls to the southwest, allowing for developed flows to drain along the north side of this retaining wall. This retaining wall appears to keep developed flow originating from Tract B-1 to remain within Tract B-1 as well as a portion of Tract C-1 as it drains westerly to the south detention pond. There appears to be no offsite drainage entering this site.

The existing North Pond located to the northwest of Tract C-1 was designed and constructed as a solution to eliminate drainage generated from the Golden Corral site from overtopping the existing west perimeter channel along Tract C-1. The North Pond basin area used to calculate the required pond volume is a simple rectangular basin that incorporates most of the Golden Corral area but does not include the drive aisle aligning the south parking area. The North Pond basin is a conservative depiction of the drainage area tributary to this pond for detention volume calculations but does not reflect the true drainage pattern in the existing condition. This analysis was prepared by Isaacson & Arfman and approved by the City in 2013 (see Appendix A for the Temporary Detention Plan by Isaacson & Arfman, PA, dated 8-27-13).

The true drainage pattern for area draining to the North Pond includes only the large parking area located to the west of the Golden Corral building as tributary area. This west parking area drains surface flow to the pond by way of a curb cut located in the west perimeter curb near the northwest corner of the parking lot (See Curb Opening No. 8 on Golden Corral Restaurant Drainage Plan provided in Appendix A). Drainage outlets to the north pond through the curb cut and is conveyed west down to the pond by a rock lined channel.

The Golden Corral parking area south of the building drains flows southwesterly to the drive aisle running along the south perimeter of the site. The south drive aisle continues to drain surface flow westerly to an existing curb cut located at the west boundary of the drive aisle. The curb cut outlets drainage to a rock lined channel that conveys flows west before discharging to the Tract C-1 west perimeter channel. The shared access drive within Tract B-1 that connects the Golden Corral site to San Mateo Boulevard NE also drains to this south drive aisle and contributes flow directly to the existing west channel by the drainage pattern outline above. As mentioned previously, the Golden Corral parking area was included in the North Pond basin for detention pond calculations but is not actually tributary to the pond in the existing condition.

Proposed Conditions

Drainage Concept

The proposed Del Norte Dialysis site improvements will incorporate a grading and drainage design to include redirecting the Tract B-1 site to drain to the northwest. Retaining walls are proposed along the south and west perimeters of the site to catch grade as necessary to accommodate the proposed grading design. The proposed basin drainage concepts are outline below:

Basin A-1: This basin incorporates the parking area and the drive aisle on the north side of the building. It also includes the adjacent building walks, garden and landscape areas along the north building perimeter. The general drainage pattern within this basin drains storm water away from the building, across the drive aisles to the curb and gutter aligning the north perimeter parking area where flows then become channelized. The curb and gutter along the north drains west to a curb chase located to the northwest of the parking area and denoted on the drainage area map as curb chase #1. The developed peak flows generated in this basin contribute 0.46 and 0.70 cfs for the 10 and 100 year storms. The curb chase #1 outlets this basin flow to the existing Golden Corral south drive aisle (Basin GC1) at design point 2 .

Basin A-2: This basin incorporates the parking area and the drive aisle on the south and west side of the building. It also includes the adjacent building walks and landscape areas along the south and west building perimeter. The general drainage pattern within this basin drains storm water away from the building, across the drive aisles to the curb and gutter aligning the south and west perimeter parking area where flows then become channelized. The curb and gutter along the drains west and then north to a curb chase located to the northwest of the parking area and denoted on the drainage area map as curb chase #2. The developed peak flows generated in this basin contribute 1.12 and 1.69 cfs for the 10 and 100 year storms. The curb chase #2 outlets this basin flow to the existing Golden Corral south drive aisle (Basin GC1) at design point 3.

Basin B: This basin incorporates the building roof drains which are proposed to be conveyed to curb chases and outlet to the drive aisle along the south side of the building at design point 1. Basin B drainage then follows the drainage pattern outlined in Basin A-2 and eventually outlets flow to the curb chase #2 at design point 3.

Basin R: This basin incorporates the developed eastern portion of Tract B-1 that includes the shared access drive, the 20' wide finished landscape buffer east of this shared access, some landscape area along the east side of the Del Norte building and a narrow strip of landscape area aligning the Tract B-1 north perimeter. The existing infrastructure within this basin generally drains storm water northwesterly. The developed flows within the access drive and the eastern landscape median are channeled into the curb and gutter located on the west side of the access drive. Flows continue north in this gutter before it rounds the curb and continues west along the Golden Corral south drive aisle (Basin GC1). At the proposed DaVita site access

points, a 5'valley gutter is proposed to replace the existing curb and gutter to maintain the existing drainage patterns of this access drive described above. This basin generates peak flows of 0.52 and 0.82 cfs for the 10 and 100 storm, respectively.

Basin OS1: This basin contains the landscape strip aligning the south perimeter of Tract B-1 and will continue to drain in a southwesterly direction. The existing retaining wall along the south perimeter will remain intact as is. The minimal flows developed within this basin will continue to drain westerly along the north side of this retaining wall per the existing condition but with greatly reduced flows since the majority of the Tract B-1 drainage is now contained within the Basins A1 and A2. The peak flows generated in Basin OS1 are 0.14 and 0.26 cfs for the 10 and 100 year storm, respectively.

Basin OS2: This basin incorporates the narrow landscape strip aligning the west property line of Tract B-1 and drains westerly into Tract C-1 as done in the existing condition. This basin generates peak flows of 0.06 and 0.10 cfs for the 10 and 100 year storm, respectively.

Basin GC1: This basin contains the existing Golden Corral south drive aisle being used to convey Tract B-1 drainage to the North Pond. This 28' wide asphalt drive drains westerly with a cross slope pushing surface drainage to the south curb and gutter. As this drive extends west the cross slope transitions northwesterly pushing drainage to the north curb and gutter to the existing 8' wide curb cut at the west boundary of this drive aisle (see Curb Opening No. 8 on Golden Corral Restaurant Drainage Plan provided in Appendix A). The existing rock lined channel taking flows from the curb cut to the existing channel along the Tract C-1 west perimeter (bypassing the existing pond) will be eliminated. A new riprap rundown and pad will be constructed to direct flows from the curb cut to the expanded North Pond. This basin generated peak flows of 1.00 and 1.51 cfs for the 10 and 100 year storm, respectively. Design Point 5 designates the cumulative flow entering Basin GC1 that will outlet at the existing curb cut. The access drive is considered a 'common area' for the Sandia Addition Tracts and therefore can serve as a shared drainage way (see highlighted text within Sandia Addition Title Commitment Declaration of Easements, Covenants, and Restrictions included in the appendices of this report).

Basin GC2: This basin contains the existing Golden Corral south parking area. Drainage for this basin surface flows in a southwesterly direction and enters the Golden Corral south drive aisle (Basin GC1, design point 4). This basin will remain unchanged with the proposed Tract B-1 improvements. As discussed in the existing condition section of this report, this area is also already included in the original North Pond basin detention pond required volume (see Appendix A for the Temporary Detention Plan and calculations by Isaacson & Arfman, PA, dated 8-27-13). This basin has been delineated for this report to include its calculated peak runoff and analyze the cumulative impact of this basin and the Tract B-1 added drainage to the south drive aisle surface flows as displayed at design points 4 and 5. The Flowmaster program was used to calculate the normal depth and spread of cumulative flow generated from this basin, Basin GC1 and Tract B-1 drainage and the results are included in the appendix of this report.

This basin generates peak flows of 1.63 and 2.45 cfs for the 10 and 100 year storms, respectively.

Basin GC3: This basin contains most of the existing Golden Corral west parking area and was delineated to include both Basins DA No. 13 & 14 as depicted on the Golden Corral Drainage Plan submitted to the City Hydrology department June of 2010 (see plan in appendix). Basin GC3 (Basins DA No. 13 & 14) drains northwesterly and outlets through two existing curb cuts located along the west perimeter curb of the Golden Corral parking area shown as curb cuts No. 6 & 7 on the Golden Corral Plan. The existing curb cuts outlet to riprap rundowns that direct flows to the North Pond. The proposed Del Norte Dialysis Center improvements on Tract B-1 will not impact the existing infrastructure or drainage pattern within this basin. Basin GC3 was created for the sole purpose of calculating the overall peak flow tributary to the North Pond to establish a new 100 year water surface elevation. This basin generates peak flows of 3.42 and 5.15 cfs for the 10 and 100 year storm, respectively.

Basin P: This basin contains the North Pond including the pond expansion area (see pond expansion discussion below). Basin P was created for the sole purpose of calculating the overall peak flow tributary to the North Pond to establish a new 100 year water surface elevation. This basin generates peak flows of 1.12 and 2.05 cfs for the 10 and 100 year storm, respectively.

North Pond Expansion: The existing North Pond volume and footprint will be expanded to include additional drainage area contributed by the Del Norte parking area and the Golden Corral south drive aisle. The existing outlet structure system which includes a standpipe grate inlet (see Isaacson and Arfman detail on Temporary Drainage Plan) will remain intact and continue the calculated 1 cfs release rate to the Tract C-1 west perimeter channel.
The existing North Pond volume and the proposed expanded pond volume calculations are shown in a Civil 3d generated Pond Stage Volume Output Tables located in the appendix of this report.
Using data from a survey prepared April 8, 2015 (Survey included in the Appendix of this report), the existing pond volume was calculated to be 15,784 cf. The Isaacson and Arfman approved proposed provided pond volume is 15,694 cf. The calculated required North Pond expansion volume to accommodate the proposed site improvements is 7,176 cf. The calculated overall North Pond volume required to accommodate the proposed site improvements is 23,340 cf. See the Drainage Area Map for the North Pond Inflow/Outflow Hydrographs for the expansion and overall calculations. The overall proposed North Pond volume provided including the expanded volume is 23,493 cf at the pond contour elevation of 5197.00. The overall required peak volume of 23,340 cf creates a 100 year water surface elevation of 5,196.99 feet within the expanded pond. The resulting freeboard to the emergency spillway elevation of 5197.5 is a depth of 0.51 feet.

The first flush calculations for the Tract B-1 site are shown with the Basin Qpeak Analysis Tables. The required first flush storage volume to be retained is calculated to be 1004 cf. The North Pond invert elevation for the lowest orifice in the outlet structure system before release

to the west channel is 5195.6. The area of the 5295 lowest pond contour surrounding this outlet structure is 2187 sf. The depth to lowest outlet structure invert is 0.60' resulting in a provided 1,312 cf of retained storage volume prior to the release of pond flows to the west channel.

Hydrology Criteria

In keeping with the previous drainage studies performed for the Sandia Addition Tracts A, B, and C, the Peak Flow per Acre for small watersheds method outlined in the Design Process Manual (DPM), Section 22.2 uses the land treatment values listed in Table A-9 to calculate peak runoff for the for the respective storm. The Table A-9 land treatment values reflect the 12 minute time of concentration and produces similar if not slightly more conservative results of those calculated by the Manning Equation Q=CIA. Refer to the Appendix B Basin Qpeak Analysis spreadsheet for calculations of the composite peak flow for each basin.

The proposed pond expansion volume calculations will be based on the 100 year, 6 hour storm using the Weighted Excess Precipitation for the developed Peak flows as outlined in the DPM Section 22.2. The equations and calculations are included in the report appendix.

Hydraulic Criteria

Hydraulic criteria used for this analysis conforms to the City of Albuquerque DPM 22.3 Hydraulic Design. No variances from the criteria are requested. All proposed expanded detention pond volume, drainage channel (riprap rundown to pond) and parking area-drive aisle hydraulic calculations conform to the DPM Chapter 22. The drainage channel and parking area/drive aisle depth and spread were calculated using the Bentley Flowmaster V8i program. The pond volumes were calculated using the 2014 Civil 3d Grading Model. Additional calculations will be provided in the Final Drainage Analysis as directed by the City of Albuquerque Hydrology Department. See all hydraulic calculations for the expanded pond volume, drainage chase #1 and 2, the hydraulic depth and spread calculations for various basins and design points within the parking area and the south drive aisle in the appendix of this report.

<u>Summary</u>

The proposed Del Norte Dialysis Center site improvements within Tract B-1 will redirect site grades to drain to the northwest. All grading and storm system improvements including the Del Norte parking area and the Golden Corral south drive aisle are shown to adequately convey the developed peak flows without negative impacts to the existing infrastructure for the Golden Corral as well as the proposed Del Norte Dialysis building. The existing North Pond volume and footprint will be expanded to include additional drainage area contributed by the Del Norte parking area and the Golden Corral south drive aisle. The existing outlet structure system which includes a standpipe grate inlet (see Isaacson and Arfman detail on Temporary Drainage Plan) will remain intact and continue the calculated 1 cfs release rate to the Tract C-1 west perimeter channel. Moreover, the existing rock lined channel taking flows from the curb cut to

the existing channel along the Tract C-1 west perimeter (bypassing the existing pond) will be eliminated to include a new riprap channel/rundown that will drain tributary flows directly to the pond. Further reducing direct drainage to this existing west perimeter channel will be a huge improvement for the overall development and the adjacent property owners since there have been issues with this channel previously.

The existing pond volume was calculated to be 15,784 cf. The Isaacson and Arfman approved proposed provided pond volume is 15,694 cf. The calculated required North Pond expansion volume to accommodate the proposed site improvements is 7,176 cf. The overall proposed North Pond volume after the expanded volume is 23,493 cf exceeding the overall required volume of 23,340 cf at the pond contour elevation 5197.00. The overall required peak volume of 23,340 cf creates a 100 year water surface elevation of 5,196.99 feet within the expanded pond. The resulting freeboard to the emergency spillway elevation of 5197.5 is a depth of 0.51 feet.

The required first flush storage volume to be retained is calculated to be 1004 cf. The North Pond invert elevation for the lowest orifice in the outlet structure system before release to the west channel is 5195.6. The area of the 5295 lowest pond contour surrounding this outlet structure is 2187 sf. The depth to lowest outlet structure invert is 0.60' resulting in a provided 1,312 cf of retained storage volume prior to the release of pond flows to the west channel. All existing invert and grade elevations as provided in the existing survey dated April 8, 2015 (Survey provided in the Appendix of this report).

In addition, this analysis has shown that the Golden Corral south drive aisle has capacity to convey the increased peak flows contributed from the Tract B-1 site improvements. With all combined flows shown at Design Point 5, the calculated depth is 0.25' depth with a 15.1' spread for the 100 year storm. This drive aisle is considered to be a 'common area' defined in the Declaration of Easements, Covenants and Restrictions of the Sandia Addition title commitment and therefore can be used as a shared drainage way for the Sandia Addition Tracts (see highlighted sections included in the Appendix of this report).

In the unlikely case that the existing curb cut draining all tributary flows from the Golden Corral basins GC1 and GC2 and the Del Norte Dialysis site to the expanded North Pond becomes blocked (flow line elevation of 5199.3), this area will pond to a maximum depth of 6 inches (top of curb elevation of 5199.8), the accumulated flow will overtop the curb and flow down the proposed riprap pad directing flows to the pond. There would be no adverse impacts to any proposed or existing infrastructure in this scenario.

REFERENCES

1. **Design Process Manual, Volume II Design Criteria.**
   City of Albuquerque, Bernalillo County, New Mexico. April 1993.

2. **Flood Insurance Rate Map.**
   Community Panel No. 35001C01139G. Bernalillo County, New Mexico. Federal Emergency Management Agency. September 26, 2008.

3. **Temporary Detention Plan and Calculations.**
   Prepared by Isaacson & Arfman, P.A. Consulting Engineers and Associates. August 28, 2013.

4. **Drainage Impact Analysis for Golden Corral Restaurant.**
   Prepared by SMC Consulting Engineers, P.C. Revised May 28, 2010.

APPENDIX

Appendix A – Drainage Area Map & Drainage Plans of Previous Studies and associated documents
Appendix B - Hydrology
Appendix C – Hydraulics
Appendix D – Construction Plans

APPENDIX A – Basin Information & Drainage Plans of Previous Studies

Proposed Drainage Area Map
Existing Drainage Maps from previous studies
Prepared Survey of Existing Conditions
Title Commitment Declaration of Easement, Covenants and Restrictions

1895 - 5207 San Mateo Blvd. **Aug. 26, 2013**

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

NORTH POND BASIN

AREA OF SITE: 128502 SF = 2.95 **acres**

100-year, 6-hour

DEVELOPED FLOWS: **EXCESS PRECIP:**

		Treatment SF	%	Precip. Zone 2
Area A	=	0	0%	E_A = 0.53
Area B	=	6425	5%	E_B = 0.78
Area C	=	19275	15%	E_C = 1.13
Area D	=	102802	80%	E_D = 2.12
Total Area	=	128502	100%	

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

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

Developed E = 1.90 in.

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

Developed V_{360} = 20394 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 2

Q_{pA} = 1.56 Q_{pC} = 3.14

Q_{pB} = 2.28 Q_{pD} = 4.70

Developed Q_p = 12.8 CFS

CALCULATIONS: 1895 - 5207 San Mateo Blvd. : Aug. 26, 2013
HYDROGRAPH FOR SMALL WATERSHED
DPM SECTION 22-2 * PAGE A-13/14

Base time, t_B, for a small watershed hydrograph is,

$tB = (2.107 * E * A / Q_P) - (0.25 * A_D / A)$

Where

E	=	1.90 inches
A	=	2.95 acres
A_D	=	2.36 acres
Q_P	=	12.8 cfs

t_B	=	0.72 hours

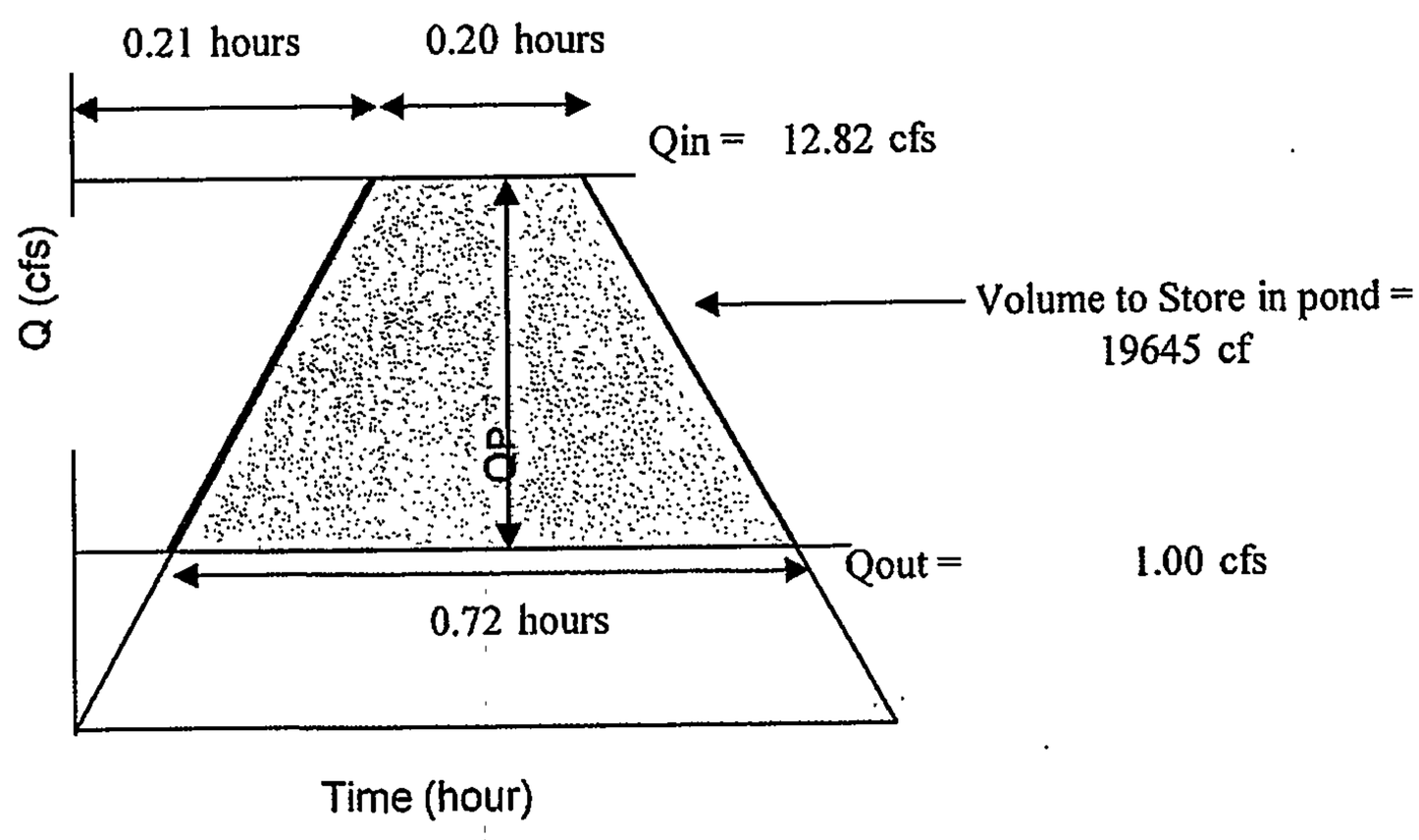
E is the excess precipitation in inches (from DPM TABLE A-8), Q_P is the peak flow, A_D is the area (acres) of treatment D, and A_T is the total area in acres. Using the time of concentration, t_C (hours), the time to peak in hours is:

$t_P = (0.7 * tC) + ((1.6 - (A_D / A)) / 12)$

Where t_C = 0.20 hours

t_P = 0.21 hours

Continue the peak for $0.25 * A_D / A_T$ hours. When A_D is zero, the hydrograph will be triangular. When A_D is not zero, the hyrograph will be trapezoidal. see the graph below:



NORTH BASIN INFLOW / OUTFLOW HYDROGRAPH

NORTH DETENTION POND		
Contour	Area	Volume
5197.00	12406	
5196.00	9793	11100 CF
5195.50	8585	4595 CF
TOTAL VOL.		**15694** CF

SOUTH DETENTION POND		
Contour	Area	Volume
5199.50	14474	
5199.00	13060	6884 CF
5198.00	10400	11730 CF
TOTAL VOL.		**18614** CF

9030189CSD Stewart Title

DECLARATION OF EASEMENTS, COVENANTS AND RESTRICTIONS

THIS DECLARATION OF EASEMENTS, COVENANTS AND RESTRICTIONS ("Declaration') is made this 28th day of July, 2010, by SANDIA FOUNDATION, a New Mexico non-profit corporation, its successors or assigns (the "Declarant"). GOLDEN CORRAL CORPORATION, a North Carolina corporation ("Golden Corral"), joins this Declaration with respect to that certain tract of land described as Tract A in Exhibit "A-1" (the "Tract A").

WHEREAS, Declarant currently owns the property described in Exhibit "A" consisting of Tract A and the remainder tract which Declarant has divided into two (2) separate tracts (collectively, the "Premises");

WHEREAS, Declarant intends to sell, convey and/or lease all or portions of the Premises to various separate entities as part of a general plan of developing the Premises;

WHEREAS, Declarant desires to develop the Premises for sale as an integrated development for the mutual benefit of each of the tracts and, therefore, wishes to establish certain easements, covenants and restrictions on the Premises;

WHEREAS, in order to preserve the quality and harmonious development of the Premises, the Declarant desires to impose upon the Premises certain protective covenants, conditions and restrictions governing the parking, access, drainage, utilities, landscaping, lighting, signage, maintenance and use of the Premises and of each of the tracts to be sold, conveyed and/or leased by the Declarant;

WHEREAS, the Premises including any of the tracts contained therein shall be sold, conveyed, and/or leased subject to these provisions;

WHEREAS, Golden Corral has contracted to purchase the Tract A from Declarant; and

WHEREAS, Declarant is willing to grant (a) Golden Corral a specific non-exclusive access easement over and across a portion of the remainder of the Premises for purposes of access to and from San Mateo Blvd. NE as shown and designated on Exhibit "A-2" (the "Corral Access Easement") and a shared parking easement (the "Shared Parking Easement") and (b) non-exclusive easements for purposes of signage and water, sewer and utility easements needed for the development of each Tract on the terms and conditions hereinafter stated in this Declaration.

NOW, THEREFORE, Declarant hereby certifies and declares that all of the Premises shall be owned, held, sold, leased, exchanged, conveyed, occupied, improved, maintained and used subject to the covenants, conditions and restrictions hereinafter set forth, all of which shall run with the right, title and/or interest in and to the Premises, and/or any part or parts thereof, and shall be binding upon and inure to the benefit of the present and all future owners of the Premises and/or any part or parts thereof.

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07/30/2010 12:01 PM Page: 1 of 22
DEC R:$51.00 M. Toulouse Oliver, Bernalillo County

ARTICLE I
DEFINITIONS

The following terms shall have the meanings specified below.

1.01. Tract A. A certain tract of land containing approximately 2.5064 acres, more or less, located within the Premises as is more specifically shown and designated and specifically described in Exhibit "A-1" hereto.

1.02. Building Area(s). The Building Areas in the Premises are the portions of the Premises upon which buildings or other improvements are constructed from time to time in accordance with approved plans and specifications approved by the City of Albuquerque and/or Bernalillo County, and shall consist of the area within or attached to the exterior surfaces of the exterior walls of any heated building or structure. The approximate location of the Building Areas, to the extent they are known at this time, is limited to the Tract A as shown on the Site Plan for Subdivision, the Site Plan for Building Permit, and the related grading, drainage, master utility, landscape and other plans, as approved by the City of Albuquerque, Bernalillo County, New Mexico, reference City of Albuquerque Project #1007867 and City EPC Case Numbers 09EPC – 400042 & 40043.

1.03. Common Area(s). The Common Areas are all real property within the Premises excluding the Building Areas and the Limited Common Areas; provided, those portions of the Building Areas upon which buildings are not constructed shall be deemed to be Common Areas until such time as the initial construction of buildings thereon commences. The Common Areas shall include, but not be limited to, parking lots, landscaping, lighting, curbs, sidewalks, drainage facilities, driveways and any other Common Area improvements as specifically designated and/or required by the City as Common Areas for the common benefit of the project.

1.04. Date Hereof. The Date Hereof shall mean the date of execution of this Declaration by all parties hereto, as evidenced by the date of the signatures as provided on the signature page of this Declaration.

1.05. Interest Rate. The Interest Rate shall mean the rate of eighteen percent (18%) per annum or two percentage points over the U.S. Prime Rate published in The Wall Street Journal in the latest edition thereof published prior to the date such interest commences, whichever is greater, provided that the Interest Rate shall not exceed the maximum rate permitted by law.

1.06. Limited Common Area(s). That portion of any Tract that is designated on a Site Plan as approved by the City of Albuquerque, Bernalillo County, New Mexico used with respect to specific Building Areas for the exclusive use by the owner of the Tract on which such improvements are located and its customers, invitees, licensees, agents and employees.

1.07. Majority Parties. The "Majority Parties" shall mean those Parties who, collectively, have fee simple title to a total of more than 50% of the square footage of land within the Tracts.

more in which twenty percent (20%) or more of the projected annual gross sales from the restaurant are from the sale of food served buffet style: (II) a Ryan's Family Steakhouse, Fire Mountain Grill, Furr's Cafeteria, Old Country Buffet, or a Hometown Buffet or (III) the following parking intensive users: tavern, bar, or cocktail lounge; restaurant that generates more than 50% of its gross sales from the sale of alcohol beverages; automobile, truck, trailer, or recreational vehicle sales, leasing display or repair facility; phone call center; theater; full service gym or full service health club; and a facility that caters primarily to students or trainees as opposed to customers.

5.03. Non-Interference with Common Area. The Common Area is intended for the nonexclusive use by the Occupants and Permittees.

ARTICLE VI
EASEMENTS

6.01. Ingress and Egress. Except as expressly provided by Article IX as to Tract A, Declarant declares, grants and conveys for the benefit of the each Tract, a non-exclusive easement appurtenant to each Tract for ingress and egress by vehicular and pedestrian traffic upon, over and across the Common Area. All easements referenced in this Section 6.01 shall be subject to all restrictions imposed on such uses by this Declaration; provided, such easements shall not pertain to the construction and/or maintenance of utility lines, which shall be governed by the provisions in Section 6.02 below. All such easements shall be as approved by the appropriate governmental authority and the appropriate utility company. Each future Tract owner, by taking title or by leasing its Tract subject to this Declaration, shall be deemed to have accepted such easement(s) with respect to the Common Area.

No fence or other barrier which would unreasonably prevent or obstruct the passage of pedestrian or vehicular travel for the purposes herein permitted shall be erected or permitted within or across the easement areas.

In connection with any construction, reconstruction, repair or maintenance on a Tract, each Tract owner reserves the right to create a temporary staging and/or storage area in the Common Area as will not unreasonably interfere with access between such Tract and the other areas of the Premises and public streets or roadways adjacent to the Premises.

6.02. Utility Lines/Drainage. Except as expressly provided by Article IX as to Tract A, Declarant declares, grants and conveys, for the benefit of each Tract, non-exclusive easements appurtenant to the Tract owned, an easement under, through and across the Common Area, to be specifically described and shown on the Site Plans, for the installation, maintenance, repair and replacement of water drainage systems, flows or structures, water mains, storm drains, sewers, telephone or electrical conduits or systems, gas mains or other public utility facilities necessary for the orderly development and operation of the Common Area and Tract; provided that all such improvements and utilities shall be approved, in writing, by the appropriate governmental authority(s) and utility company(s); provided, further, that the rights granted pursuant to such

easements shall at all times be exercised in such a manner as to cause the least interference with the normal operation of the development on the Premises.

All such systems, structures, mains, sewers, conduits, lines and other public utilities shall be, to the extent reasonably possible, installed and maintained below the ground level or surface of such easements. In the event any Tract owner deems it to be necessary to cause the installation of any utility line across the Common Area provided, however, that in no event will such installation be permitted if it would unreasonably interfere with the normal operation of any business on the Premises or the quiet enjoyment of the Premises or easements thereon by the Tract owner or their successor and/or assigns.

If in exercising the foregoing granted rights, a Tract owner disturbs or otherwise damages any portion of the Common Area improvements, such Tract owner shall expeditiously prosecute to completion the utility work, and at its sole expense, shall immediately restore and repair the Common Area improvements to their condition prior to the commencement of construction. In the event that it should be necessary to grant any of the foregoing easements and rights to the local utility companies as a condition of their providing or continuing service, such rights shall be granted so long as the Tract owner deems the terms and conditions of such grant to be reasonable and necessary.

6.03. Parking Restrictions. Except as expressly provided in Section 9.02 as to Tract A, no persons, other than customers, employees and invitees of the Occupants of the Premises, shall be permitted to park in the Limited Common Areas, unless the Tract owner of the respective Tract gives prior written approval thereto.

ARTICLE VII
INSURANCE PROVISIONS

Insurance. Each Tract owner agrees to maintain, or cause to be maintained, liability insurance against claims for bodily injury, death or property damage occurring on, in or about the Common Area within its Tract with a "Combined Single Limit" (covering bodily injury liability and property damage) of not less than One Million Dollars ($1,000,000.00). Such insurance may be in the form of blanket liability coverage applicable to the Tract owner's Tract and other property owned or occupied by the Tract owner or the party carrying such insurance coverage (or the responsible parent, subsidiary or affiliated companies of such Tract owner or party). Each Tract owner shall, upon request, provide the other Tract owners with evidence of such coverage. Each Tract owner as indemnitor shall indemnify, defend and hold harmless all other Tract owners from all claims, demands, liabilities, losses, costs and expenses with respect to the negligent and/or wrongful acts or omissions of the indemnifying Tract owner relating to construction, restriction, maintenance, use, operation, occupancy and/or management of any part of the Premises and/or with respect to the use by the indemnifying Tract owner and its tenants and Permittees of the easements granted in Article VI. Such indemnity shall not apply to the extent of any loss or claim due to or arising from the negligent or wrongful acts or omissions of the indemnified party.

the requesting Tract owner is not in default in the performance of its obligations under this Declaration, or if in default, to describe the nature and amount of defaults. Each Tract owner receiving such request shall execute and such return such certificate within thirty (30) days following the receipt thereof. The Tract owners acknowledge that such certificate may be relied upon the by third parties designated in the request by the Tract owner requesting such certificate.

10.10. Counterparts. This Declaration, and any amendment thereof, may be executed in any number of counterparts, each of which, when so executed, shall be deemed to be an original; and such counterparts together shall constitute one instrument.

In witness whereof, the undersigned have executed this Declaration effective as of the date first written above.

Sandia Foundation

By: _____
Name: Robert M. Goodman
Title: President & CEO

Golden Corral Corporation

By: _____
Name: Richard T. Chase
Title: VP Development

GOLDEN CORRAL CORPORATION CORPORATE SEAL NORTH CAROLINA

ACKNOWLEDGMENT

STATE OF NEW MEXICO)
)
COUNTY OF BERNALILLO)

THIS INSTRUMENT was acknowledged before me on 28th day of July, 2010, by Robert M. Goodman, President & CEO of Sandia Foundation, a non-profit corporation, on behalf of said corporation

_____
Notary Public

My Commission Expires: 5/9/2019

STATE OF NC)

COUNTY OF Wake)

THIS INSTRUMENT was acknowledged before me on 27 day of July, 2010, by Richard T. Chase Jr, VP-Dev. of Golden Corral Corporation, a North Carolina corporation, on behalf of said corporation.

Kathryn F Page
Notary Public

My Commission Expires:
April 1, 2014

KATHRYN F. PAGE NOTARY PUBLIC WAKE COUNTY, NC

APPENDIX B - Hydrology

Qpeak and Weighted E Pond Calculations

Basin Qpeak Analysis per DPM Section 22.2

Design Package: Del Norte Dialysis Center
Location: Albuquerque, NM 5207 San Mateo NE

Computed KLR Date 4/27/2015
Checked Date

Total Area Tract B-1 = 45541.71 sf 1.05 ac

10-year

Sub-Basin Data				Impervious Area		Zone 2 Land Treatment A				Zone 2 Land Treament B				Zone 2 Land Treament C				Zone 2 Land Treament D				Composite
Basin ID	Description	Total Area (sf)	Total Area (ac)	Area (ac)	Basin IMP	Qp A (10-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp A (cfs)	Qp B (10-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp B (cfs)	Qp C (10-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp C (cfs)	Qp D (10-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp D (cfs)	Basin Qpeak 10-Yr Total (cfs)
Proposed Conditions																						
A1	Pr Parking area north of building	6941 00	0 159	0.14	88 0%	0 38	0	0	0 00	0 95	834	0 019	0 02	1 71	0	0 000	0 00	3 14	6107	0 140	0 44	0 46
A2	Pr.Parking area south and west of building	16096 00	0 370	0 35	94 9%	0.38	0	0	0 00	0 95	818	0 019	0 02	1 71	0	0 000	0 00	3 14	15278	0 351	1.10	1.12
B	Proposed Building Roof drain to pipe	8535 00	0 196	0 20	100 0%	0.38	0	0	0 00	0 95	0	0 000	0.00	1.71	0	0.000	0 00	3.14	8535	0 196	0 62	0 62
R	Ex Access Drive and LS areas	8921 00	0 205	0.12	60.9%	0.38	0	0	0 00	0.95	709	0.016	0 02	1.71	2775	0 064	0.11	3.14	5436	0.125	0.39	0 52
OS1	Landscape area along south permeter	3604 00	0 083	0 00	1.7%	0.38	0	0	0.00	0 95	180	0 004	0.00	1.71	3364	0 077	0.13	3.14	80	0 001	0 00	0 14
OS2	Landscape area along west perimeter	1427.00	0 033	0.00	2 4%	0 38	0	0	0.00	0 95	0	0 000	0 00	1.71	1393	0 032	0 05	3 14	34	0 001	0 00	0 06
GC1	Ex Tract A south drive aisle	14266.00	0 328	0.31	95 0%	0.38	0	0	0 00	0.95	0	0 000	0 00	1 71	713	0 016	0 03	3 14	13553	0.311	0 98	1.00
GC2	Ex Tract A south parking area	23087 00	0 530	0 50	95 0%	0.38	0	0	0 00	0 95	0	0 000	0 00	1.71	1154	0 026	0 05	3 14	21933	0 504	1.58	1.63
GC3	Ex Tract A west parking area	55223 00	1.268	1.12	88 1%	0 38	0	0	0 00	0 95	0	0 000	0.00	1.71	2561	0 059	0.10	3 14	48647	1.117	3 51	3.61
P	Ex North Pond Basin	28453 00	0.653	0.00	0.0%	0.38	0	0	0 00	0 95	0	0 000	0.00	1.71	28453	0.653	1.12	3.14	0	0.000	0 00	1.12
		Tract B-1 Total Impervious Area=			77.8%	Tract B-1 Land Treatment (A) Total =			0.00%	Tract B-1 Land Treatment (B) Total =			5.58%	Tract B-1 Land Treatment (C) Total =			16.54%	Tract B-1 Land Treatment (D) Total =			77.84%	

Basins (B)	Total 10-Yr Qpeak to Design Pt 1 =	0.62	cfs
Basins (A1)	Total 10-Yr Qpeak to Design Pt 2 =	0.46	cfs
Basins (A2+B)	Total 10-Yr Qpeak to Design Pt 3=	1.73	cfs
Basins (A1+A2+B+R+GC2)	Total 10-Yr Qpeak to Design Pt 4 =	4.34	cfs
Basins (A1+A2+B+R+GC2+GC1)	Total 10-Yr Qpeak to Design Pt 5 =	5 34	cfs
Basins (OS1+OS2) to Tract C-1	Total 10-Yr Qpeak to Design Pt C-1 =	0 20	cfs

100-year

Sub-Basin Data				Impervious Area		Zone 2 Land Treatment A				Zone 2 Land Treament B				Zone 2 Land Treament C				Zone 2 Land Treament D				Composite
Basin ID	Description	Total Area (sf)	Total Area (ac)	Area (ac)	Basin IMP	Qp A (100-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp A (cfs)	Qp B (100-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp B (cfs)	Qp C (100-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp C (cfs)	Qp D (100-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp D (cfs)	Basin Qpeak 100-Yr Total (cfs)
Proposed Conditions																						
A1	Pr Parking area north of building	6941.00	0,159	0 14	88.0%	1.56	0	0	0.00	2.28	834	0 019	0 04	3.14	0	0 000	0 00	4.70	6107	0.140	0.66	0.70
A2	Pr Parking area south and west of building	16096 00	0 370	0.35	94 9%	1.56	0	0	0 00	2.28	818	0 019	0 04	3 14	0	0 000	0 00	4 70	15278	0 351	1 65	1 69
B	Proposed Building Roof drain to pipe	8535 00	0 196	0 20	100 0%	1 56	0	0	0 00	2 28	0	0 000	0 00	3 14	0	0 000	0 00	4 70	8535	0 196	0 92	0.92
R	Ex Access Drive and LS areas	8921.00	0 205	0.12	60 9%	1.56	0	0	0 00	2 28	709	0 016	0 04	3 14	2775	0 064	0 20	4 70	5436	0.125	0 59	0 82
OS1	Landscape area along south permeter	3604 00	0 083	0.00	1.7%	1 56	0	0	0.00	2.28	180	0 004	0 01	3.14	3364	0.077	0 24	4 70	80	0 001	0.01	0 26
OS2	Landscape area along west perimeter	1427 00	0.033	0.00	2 4%	1.56	0	0	0 00	2.28	0	0.000	0 00	3.14	1393	0 032	0 10	4 70	34	0 001	0 00	0 10
GC1	Ex Tract A south drive aisle	14266 00	0.328	0 31	95.0%	1 56	0	0	0 00	2.28	0	0 000	0 00	3.14	713	0.016	0.05	4.70	13553	0 311	1.46	1.51
GC2	Ex Tract A south parking area	23087.00	0.530	0 50	95 0%	1.56	0	0	0.00	2.28	0	0 000	0.00	3 14	1154	0 026	0 08	4.70	21933	0 504	2.37	2 45
GC3	Ex Tract A west parking area	55223.00	1.268	1.12	88.1%	1.56	0	0	0.00	2.28	0	0 000	0.00	3.14	2561	0 059	0 18	4.70	48647	1.117	5.25	5.43
P	Ex North Pond Basin	28453 00	0.653	0.00	0 0%	1.56	0	0	0 00	2.28	0	0.000	0.00	3.14	28453	0 653	2.05	4 70	0	0.000	0.00	2.05
		Tract B-1 Total Impervious Area=			77.8%	Tract B-1 Land Treatment (A) Total =			0.00%	Tract B-1 Land Treatment (B) Total =			5.58%	Tract B-1 Land Treatment (C) Total =			16.54%	Tract B-1 Land Treatment (D) Total =			77.84%	

Basins (B)	Total 100-Yr Qpeak to Design Pt 1 =	0.92	cfs
Basins (A1)	Total 100-Yr Qpeak to Design Pt 2 =	0.70	cfs
Basins (A2+B)	Total 100-Yr Qpeak to Design Pt 3=	2.61	cfs
Basins (A1+A2+B+R+GC2)	Total 100-Yr Qpeak to Design Pt 4 =	6.59	cfs
Basins (A1+A2+B+R+GC2+GC1)	Total 100-Yr Qpeak to Design Pt 5 =	8.10	cfs
Basins (OS1+OS2) to Tract C-1	Total 100-Yr Qpeak to Design Pt C-1 =	0 36	cfs

90th Percentile Storm Event Treatment for Water Quality

90th Percentile Runoff Depth =	0.44 inches	
Initial Impervious Abstraction (Table A-6) =	0.10 inches	
Required Treatment Depth (D) =	0.34 inches	
Sandia Addition Total Impervious Area (Land Treatment D) =	0.81 acres	
Required Retainment for Treatment (D x Imp Area)/12 in/ft=	0.02 acre-ft	1,004 cf
Provided First Flush Volume =		

Required North Pond Detention Volume Expansion Calculations

Project: Del Norte Dialysis Center
Address: Albuquerque, NM 5207 San Mateo NE
Tract B-1: 45541 ft^2 1.05 acres

Based on Drainage Design Criteria for City of Albuquerque Section 22.2, D.P.M., Vol 2

Excess Precipitation E (Inches) 100 Yr, 6 hr Storm DPM Sect. 22.2 Table A-8				
Zone	A	B	C	D
1	0.44	0.67	0.99	1.97
2	0.53	0.78	1.13	2.12
3	0.66	0.92	1.29	2.36
4	0.80	1.08	1.46	2.64

Basin Name: Tract B-1+Basin GC1
Precipitation Zone (1-4): 2
Area: 59790.00 ft^2 1.37 acres

Tract B-1 + Basin GC1 Excess Precipitation				
Treatment	Area		%	E
	ft^2	acres		inches
A	0.00	0.00	0.00%	0.53
B	2541.00	0.06	4.25%	0.78
C	8245.00	0.19	13.79%	1.13
D	49003.00	1.12	81.96%	2.12
Total	59789.00	1.37	100.00%	

1. Weighted E: $\frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D} =$ 1.93 inches

2. Onsite Volume of Runoff V_{360}:

V360 (Weighted E * A)/12 = 9,599 cf

3. Peak Runoff Qp 100-YR:

Qp $Q_A A_A + Q_B A_B + Q_C A_C + Q_D A_D =$ 6.01 cfs

(Qpeak value obtained from Basin Qpeak Analysis for the 100 year)

TABLE A-9. PEAK DISCHARGE (CFS/ACRE)				
Zone	100-YR. Treatment [2-YR., 10-YR.]			
	A	B	C	D
1	1.29 [0.00, 0.24]	2.03 [0.03, 0.76]	2.87 [0.47, 1.49]	4.37 [1.69, 2.89]
2	1.56 [0.00, 0.28]	2.28 [0.08, 0.95]	3.14 [0.60, 1.71]	4.7 [1.86, 3.14]
3	1.87 [0.00, 0.58]	2.6 [0.21,1.19]	3.45 [0.78, 2.00]	5.02 [2.04, 3.29]
4	2.2 [0.05, 0.87]	2.92 [0.38, 1.45]	3.73 [1.00, 2.26]	5.25 [2.17, 3.57]

Hyrograph for Small Watershed

E =	1.93	inches
A =	1.37	acres
AD =	1.12	acres
Qp =	6.01	cfs

Note: E is the Excess Precipitation, Qp is the peak flow, AD is the area of Treatment D, and A is the total contributing area to the north pond.

4. Base Time tb
tb: (2.107*E*A/Qp) - (0.25*AD/A) = 0.72 hours
5. Time to Peak tp
tp: (0.70*tc) + ((1.6 - (AD/A)) /12 =
tc = 0.20 hours
(tc is 12 minutes for small watersheds 40 acres or under)
tp = 0.21 hours
6. (0.25*Ad/A) = 0.20 hours (Peak Duration)
7. Inflow/Outflow Hydrograph Area for Required Detention volume:
Qp In = 6.01 cfs
Qp Out = 1 cfs
***Required Detention Volume =** 7,176 cf
(*See hydrograph illustration on the Drainage Map for Hydrograph Area Calculations)

Overall North Pond Detention Volume Calculations

Project: Del Norte Dialysis Center
Address: Albuquerque, NM 5207 San Mateo NE
Tract B-1,Basins GC1-3, & P: 157,506 ft^2 3.62 acres

Based on Drainage Design Criteria for City of Albuquerque Section 22.2, D.P.M., Vol 2

Excess Precipitation E (Inches)				
100 Yr, 6 hr Storm				DPM
Sect. 22.2 Table A-8				
Zone	A	B	C	D
1	0.44	0.67	0.99	1.97
2	0.53	0.78	1.13	2.12
3	0.66	0.92	1.29	2.36
4	0.80	1.08	1.46	2.64

Basin Name: Tributary Tract B-1 Basins +Basin GC1, GC2, GC3,
Precipitation Zone (1-4): 2
Area: 157,506 ft^2 3.62 acres

Tract B-1 + Basin GC1-3, P Excess Precipitation				
Treatment	Area		%	E
	ft^2	acres		inches
A	0.00	0.00	0.00%	0.53
B	2361.00	0.05	1.50%	0.78
C	35656.00	0.82	22.64%	1.13
D	119489.00	2.74	75.86%	2.12
Total	157506.00	3.62	100.00%	

1. Weighted E: $\frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D} =$ 1.88 inches

2. Onsite Volume of Runoff V_{360}:

V360 (Weighted E * A)/12 = 24,621 cf

3. Peak Runoff Qp 100-YR:

Qp $Q_A A_A + Q_B A_B + Q_C A_C + Q_D A_D =$ 15.95 cfs

(Qpeak value obtained from Basin Qpeak Analysis for the 100 year)

TABLE A-9. PEAK DISCHARGE (CFS/ACRE)				
Zone	100-YR. Treatment [2-YR., 10-YR.]			
	A	B	C	D
1	1.29 [0.00, 0.24]	2.03 [0.03, 0.76]	2.87 [0.47, 1.49]	4.37 [1.69, 2.89]
2	1.56 [0.00, 0.38]	2.28 [0.08, 0.95]	3.14 [0.60, 1.71]	4.7 [1.86, 3.14]
3	1.87 [0.00, 0.58]	2.6 [0.21,1.19]	3.45 [0.78, 2.00]	5.02 [2.04, 3.39]
4	2.2 [0.05, 0.87]	2.92 [0.38, 1.45]	3.73 [1.00, 2.26]	5.25 [2.17, 3.57]

Hyrograph for Small Watershed

E =	1.88	inches
A =	3.62	acres
AD =	2.74	acres
Qp =	15.95	cfs

Note: E is the Excess Precipitation, Qp is the peak flow, AD is the area of Treatment D, and A is the total contributing area to the north pond.

4. Base Time tb
tb: (2.107*E*A/Qp) - (0.25*AD/A) = 0.71 hours
5. Time to Peak tp
tp: (0.70*tc) + ((1.6 - (AD/A)) /12 =
tc = 0.20 hours
(tc is 12 minutes for small watersheds 40 acres or under)
tp = 0.21 hours
6. (0.25*Ad/A) = 0.19 hours (Peak Duration)
7. Inflow/Outflow Hydrograph Area for Required Detention volume:
Qp In = 15.95 cfs
Qp Out = 1 cfs
***Required Detention Volume =** 23,340 cf
(*See hydrograph illustration on the Drainage Map for Hydrograph Area Calculations)

Del Norte Dialysis Center North Pond Stage Storage Volume
Storage Volume Calculations Obtained by Civil 3D 2014
Date: 5/5/2015

Existing North Pond				
Contour Elevation	Contour Area	Depth	Incremental Volume Average End	Cumulative Volume Average End
	sf	ft	cf	cf
5,194.50	2.72	N/A	N/A	0
5,195.00	2,168.65	0.5	542.84	542.84
5,195.50	6,452.63	0.5	2155.32	2698.16
5,196.00	8,382.02	0.5	3708.66	6406.83
5,196.50	9,353.61	0.5	4433.91	10840.73
5,197.00	10,422.60	0.5	4944.05	15784.79
Proposed North Pond Expansion				
5,194.50	2.72	N/A	N/A	0
5,195.00	2,168.65	0.5	542.84	542.84
5,195.50	6,878.97	0.5	2261.91	2804.75
5,196.00	14,029.17	0.5	5227.04	8031.79
5,196.50	15,554.98	0.5	7396.04	15427.82
5,197.00	16,704.25	0.5	8064.81	23492.63

North Pond 100-Year Storage Vol. =	**23,340**	cf	WSEL Calculation includes
North Pond 100-Year WSEL =	**5,196.99**	ft	Total Area (basins)
Depth of Freeboard (Emerg. Spillway 5197.50) =	**0.51**	ft	Tributary to North Pond
			(A1, A2, B, R, GC1-3, & P)

DPM Section 22.2 Notes Land Treatment Descriptions

Land Treatments Table A-4	
A	Soil uncompacted by human activity with 0 to 10 percent slopes. Native grasses, weeds and shrubs in typical densities with minimal disturbance to grading, ground cover and infiltration capacity.
B	Irrigated lawns, parks and golf courses with 0 to 10 percent slopes. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes greater than 10 percent and less than 20 percent.
C	Soil compacted by human activity. Minimal vegetation. Unpaved parking, roads, trails. Most vacant lots. Gravel or rock on plastic (desert landscaping). Irrigated lawns and parks with slopes greater than 10 percent. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes at 20 percent or greater. Native grass, weed and shrub areas with clay or clay loam soils and other soils of very low permeability as classified by SCS Hydrologic Soil Group D.
D	Impervious areas, pavement and roofs.
Most watersheds contain a mix of land treatments. To determine proportional treatments, measure respective subareas. In lieu of specific measurement for treatment D, the area percentages in TABLE A-5 may be employed.	

APPENDIX C – Hydraulics

Proposed Channel/Rundown and Curb Flow Calculations

West Parking Curb Basins A2 and B 100 Yr

Project Description

Solve For	Spread

Input Data

Channel Slope	0.00900	ft/ft
Discharge	2.61	ft^3/s
Gutter Width	1.00	ft
Gutter Cross Slope	0.07	ft/ft
Road Cross Slope	0.03	ft/ft
Roughness Coefficient	0.013	

Results

Spread	7.43	ft
Flow Area	0.85	ft^2
Depth	0.26	ft
Gutter Depression	0.04	ft
Velocity	3.08	ft/s

Cross Section for West Parking Curb Basins A2 and B 100 Yr

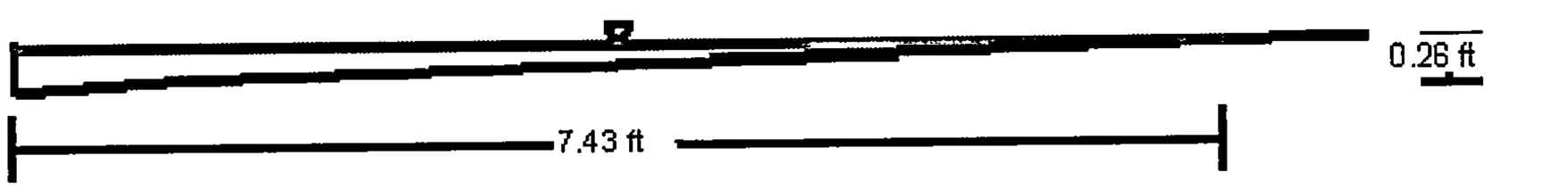
Project Description

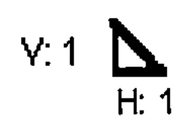
Solve For	Spread

Input Data

Channel Slope	0.00900	ft/ft
Discharge	2.61	ft^3/s
Gutter Width	1.00	ft
Gutter Cross Slope	0.07	ft/ft
Road Cross Slope	0.03	ft/ft
Spread	7.43	ft
Roughness Coefficient	0.013	

Cross Section Image





North Parking Curb Basin A1 100 Yr

Project Description

Solve For	Spread

Input Data

Channel Slope	0.03900	ft/ft
Discharge	0.70	ft^3/s
Gutter Width	1.00	ft
Gutter Cross Slope	0.07	ft/ft
Road Cross Slope	0.03	ft/ft
Roughness Coefficient	0.013	

Results

Spread	3.19	ft
Flow Area	0.17	ft^2
Depth	0.14	ft
Gutter Depression	0.04	ft
Velocity	4.05	ft/s

Cross Section for North Parking Curb Basin A1 100 Yr

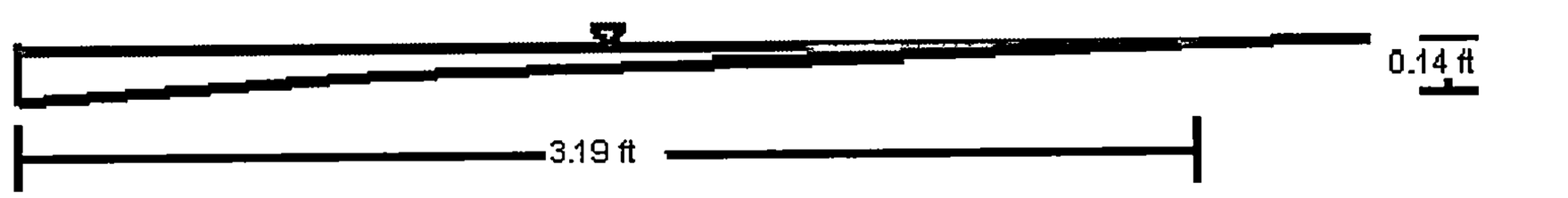
Project Description

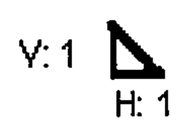
Solve For	Spread

Input Data

Channel Slope	0.03900	ft/ft
Discharge	0.70	ft³/s
Gutter Width	1.00	ft
Gutter Cross Slope	0.07	ft/ft
Road Cross Slope	0.03	ft/ft
Spread	3.19	ft
Roughness Coefficient	0.013	

Cross Section Image





Drainage Chase #1

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01700	ft/ft
Bottom Width	2.00	ft
Discharge	0.70	ft^3/s

Results

Normal Depth	0.11	ft
Flow Area	0.22	ft^2
Wetted Perimeter	2.22	ft
Hydraulic Radius	0.10	ft
Top Width	2.00	ft
Critical Depth	0.16	ft
Critical Slope	0.00555	ft/ft
Velocity	3.19	ft/s
Velocity Head	0.16	ft
Specific Energy	0.27	ft
Froude Number	1.70	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.11	ft
Critical Depth	0.16	ft
Channel Slope	0.01700	ft/ft
Critical Slope	0.00555	ft/ft

Drainage Chase #1

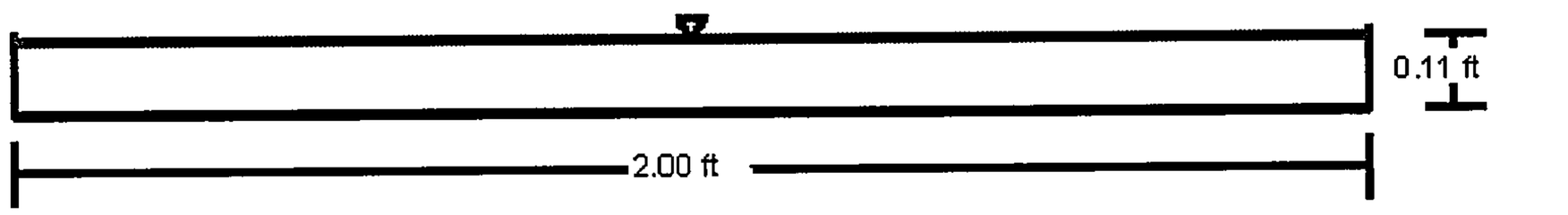
Project Description

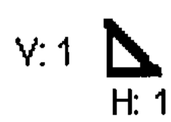
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.01700	ft/ft
Normal Depth	0.11	ft
Bottom Width	2.00	ft
Discharge	0.70	ft^3/s

Cross Section Image





Drainage Chase #2

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.10000	ft/ft
Bottom Width	2.00	ft
Discharge	2.61	ft^3/s

Results

Normal Depth	0.14	ft
Flow Area	0.29	ft^2
Wetted Perimeter	2.29	ft
Hydraulic Radius	0.13	ft
Top Width	2.00	ft
Critical Depth	0.38	ft
Critical Slope	0.00522	ft/ft
Velocity	9.07	ft/s
Velocity Head	1.28	ft
Specific Energy	1.42	ft
Froude Number	4.22	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.14	ft
Critical Depth	0.38	ft
Channel Slope	0.10000	ft/ft
Critical Slope	0.00522	ft/ft

Drainage Chase #2

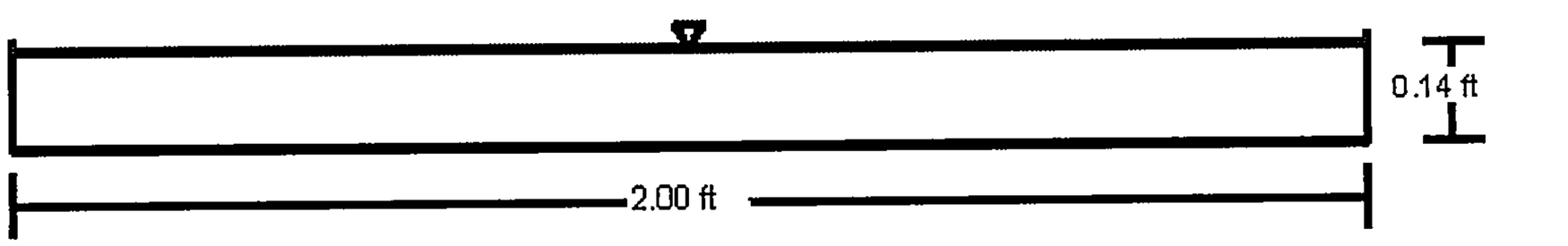
Project Description

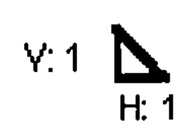
Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.013	
Channel Slope	0.10000	ft/ft
Normal Depth	0.14	ft
Bottom Width	2.00	ft
Discharge	2.61	ft^3/s

Cross Section Image





Golden Corral Drive Design Pt 4 100 Yr

Project Description

Solve For	Spread

Input Data

Channel Slope	0.03000	ft/ft
Discharge	6.60	ft^3/s
Gutter Width	1.00	ft
Gutter Cross Slope	0.07	ft/ft
Road Cross Slope	0.02	ft/ft
Roughness Coefficient	0.013	

Results

Spread	10.84	ft
Flow Area	1.20	ft^2
Depth	0.27	ft
Gutter Depression	0.05	ft
Velocity	5.50	ft/s

Cross Section for Golden Corral Drive Design Pt 4 100 Yr

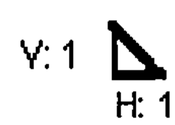
Project Description

Solve For	Spread

Input Data

Channel Slope	0.03000	ft/ft
Discharge	6.60	ft^3/s
Gutter Width	1.00	ft
Gutter Cross Slope	0.07	ft/ft
Road Cross Slope	0.02	ft/ft
Spread	10.84	ft
Roughness Coefficient	0.013	

Cross Section Image



Golden Corral Drive Design Pt 5 100 Yr

Project Description

Solve For	Spread

Input Data

Channel Slope	0.03700	ft/ft
Discharge	7.90	ft^3/s
Gutter Width	1.00	ft
Gutter Cross Slope	0.07	ft/ft
Road Cross Slope	0.01	ft/ft
Roughness Coefficient	0.013	

Results

Spread	14.96	ft
Flow Area	1.43	ft^2
Depth	0.24	ft
Gutter Depression	0.06	ft
Velocity	5.53	ft/s

Cross Section for Golden Corral Drive Design Pt 5 100 Yr

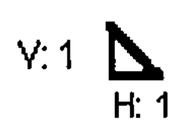
Project Description

Solve For	Spread

Input Data

Channel Slope	0.03700	ft/ft
Discharge	7.90	ft³/s
Gutter Width	1.00	ft
Gutter Cross Slope	0.07	ft/ft
Road Cross Slope	0.01	ft/ft
Spread	14.96	ft
Roughness Coefficient	0.013	

Cross Section Image



North Pond Trapezoidal Channel (Rundown) 100 Yr

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.069	
Channel Slope	0.16700	ft/ft
Left Side Slope	4.00	ft/ft (H:V)
Right Side Slope	4.00	ft/ft (H:V)
Bottom Width	8.00	ft
Discharge	7.90	ft^3/s

Results

Normal Depth	0.26	ft
Flow Area	2.37	ft^2
Wetted Perimeter	10.16	ft
Hydraulic Radius	0.23	ft
Top Width	10.10	ft
Critical Depth	0.30	ft
Critical Slope	0.10942	ft/ft
Velocity	3.33	ft/s
Velocity Head	0.17	ft
Specific Energy	0.43	ft
Froude Number	1.21	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.26	ft
Critical Depth	0.30	ft
Channel Slope	0.16700	ft/ft

North Pond Trapezoidal Channel (Rundown) 100 Yr

GVF Output Data

Critical Slope	0.10942	ft/ft

Cross Section for North Pond Rundown100 Yr

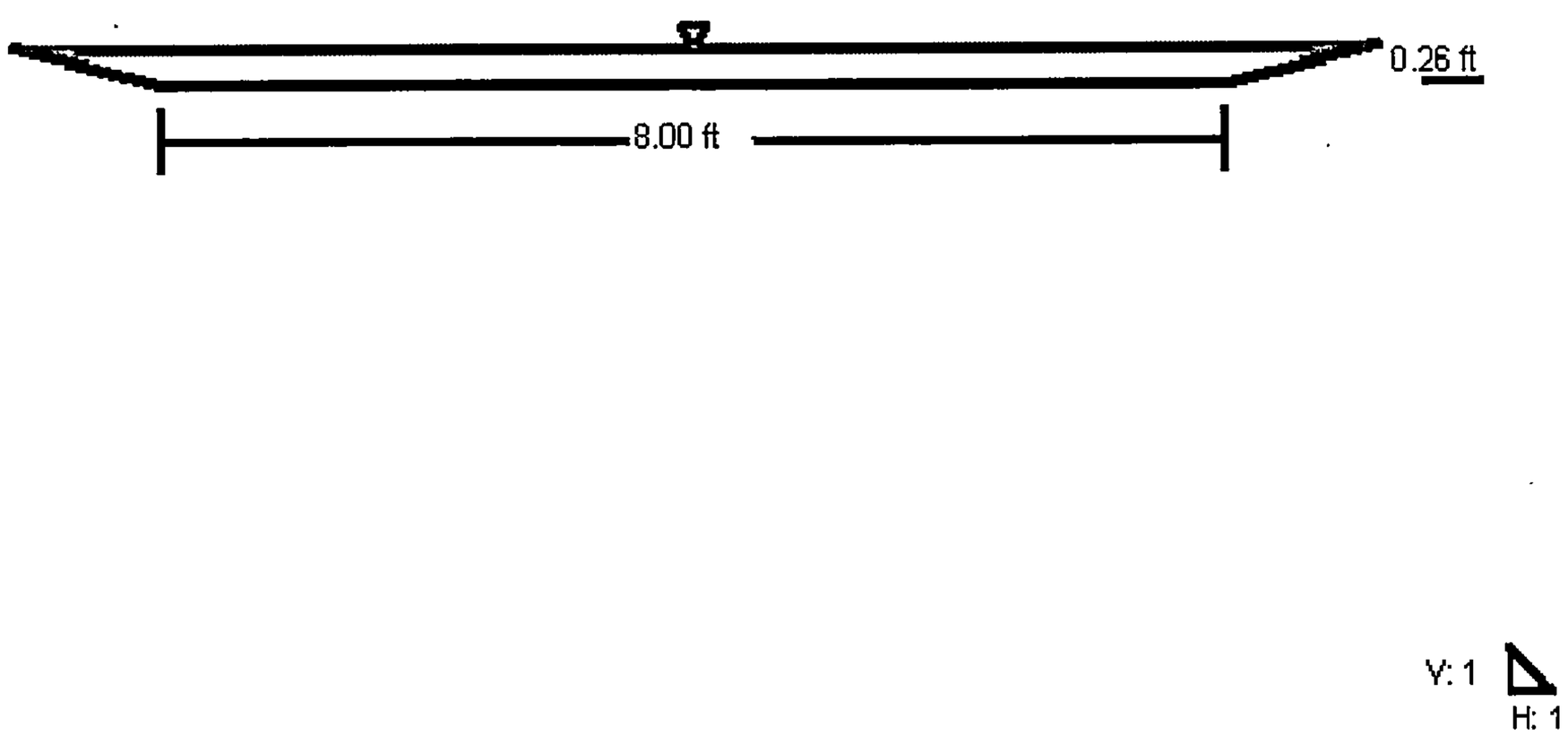
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.069	
Channel Slope	0.16700	ft/ft
Normal Depth	0.26	ft
Left Side Slope	4.00	ft/ft (H:V)
Right Side Slope	4.00	ft/ft (H:V)
Bottom Width	8.00	ft
Discharge	7.90	ft^3/s

Cross Section Image



APPENDIX D –Construction Plans

Grading Plans

CITY OF ALBUQUERQUE

April 27, 2015

Krisinda Rapiejka, PE
Entitlement and Engineering Solutions, Inc.
518 17th Street Ste. 1575
Denver, Colorado 80202

RE: **DaVita Dialysis Center, 5207 San Mateo Blvd.**
Grading and Drainage Plan
Plan Dated 4-20-15 (File: F17-D095A)

Dear Ms. Rapiejka:

Based upon the information provided in your submittal received 4-23-15, the above referenced plan is approved for DRB action on the Site Development Plan for Building Permit.

PO Box 1293

Prior to receiving approval on this project for Building Permit, please include all of the drainage calculations that you provided on 4/27/15 within the final drainage report. On the Sheet C5.0, include your computed WSEL for the 100-year-storm, the total volume provided for the storage pond, and the corresponding pond volume at the WSEL. Also, on Sheet C5.0, show all basins that contribute to the north pond which shall include all off-site stormwater runoff from the Golden Corral parking lot.

Albuquerque

New Mexico 87103

If you have any questions, you can contact me at 924-3924.

www.cabq.gov

Sincerely,

Jeanne Wolfenbarger, P.E.
Senior Engineer, Planning Dept.
Development Review Services

Orig: Drainage file
c.pdf Addressee via Email

Del Norte Dialysis Center North Pond Stage Storage Volume
Calculations Obtained by Civil 3D 2014
Date: 4/18/2015

Existing North Pond				
Contour Elevation	Contour Area	Depth	Incremental Volume Average End	Cumulative Volume Average End
	sf	ft	cf	cf
5,194.50	2.72	N/A	N/A	0
5,195.00	2,168.65	0.5	542.84	542.84
5,195.50	6,452.63	0.5	2155.32	2698.16
5,196.00	8,382.02	0.5	3708.66	6406.83
5,196.50	9,353.61	0.5	4433.91	10840.73
5,197.00	10,422.60	0.5	4944.05	15784.79
Proposed North Pond Expansion				
5,194.50	2.72	N/A	N/A	0
5,195.00	2,168.65	0.5	542.84	542.84
5,195.50	6,878.97	0.5	2261.91	2804.75
5,196.00	14,029.17	0.5	5227.04	8031.79
5,196.50	15,554.98	0.5	7396.04	15427.82
5,197.00	16,704.25	0.5	8064.81	23492.63

Overall North Pond Detention Volume Calculations

Project: Del Norte Dialysis Center
Address: Albuquerque, NM 5207 San Mateo NE
Tract B-1: 45541 ft^2 1.05 acres

Based on Drainage Design Criteria for City of Albuquerque Section 22 2, D.P.M., Vol 2

Excess Precipitation E (Inches) 100 Yr, 6 hr Storm DPM Sect. 22.2 Table A-8				
Zone	A	B	C	D
1	0.44	0.67	0 99	1.97
2	0.53	0.78	1.13	2.12
3	0.66	0.92	1.29	2 36
4	0.80	1.08	1.46	2 64

Basin Name. Tract B-1+Basin GC1, GC2, GC3, P
Precipitation Zone (1-4): 2
Area: 159871.00 ft^2 3.67 acres

Tract B-1 + Basin GC1 Excess Precipitation				
Treatment	Area		%	E
	ft^2	acres		inches
A	0.00	0 00	0 00%	0 53
B	2541.00	0.06	1.59%	0.78
C	40279.00	0.92	25.19%	1.13
D	117050 00	2 69	73 22%	2 12
Total	159870 00	3 67	100.00%	

1. Weighted E: $\frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D} =$ 1.85 inches

2. Onsite Volume of Runoff V_{360}:

V360 (Weighted E * A)/12 = 24,637 cf

3. Peak Runoff Qp 100-YR:

Qp $Q_A A_A + Q_B A_B + Q_C A_C + Q_D A_D =$ 15.67 cfs

(Qpeak value obtained from Basin Qpeak Analysis for the 100 year)

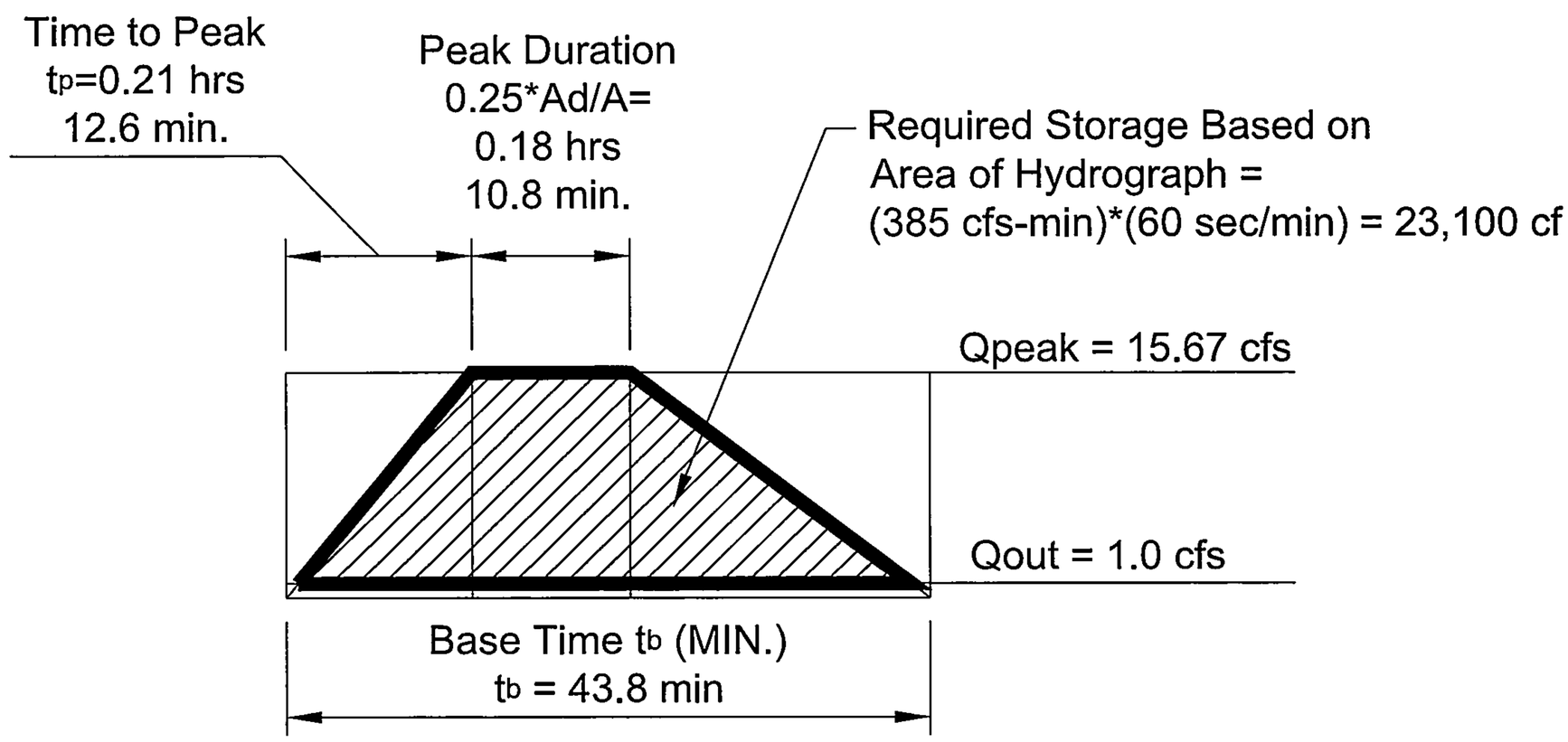
TABLE A-9. PEAK DISCHARGE (CFS/ACRE)				
Zone	100-YR. Treatment [2-YR , 10-YR.]			
	A	B	C	D
1	1.29 [0.00, 0.24]	2.03 [0.03, 0.76]	2.87 [0.47, 1.49]	4.37 [1.69, 2.89]
2	1.56 [0.00, 0.28]	2.28 [0.08, 0.95]	3.14 [0.60, 1.71]	4.7 [1.86, 2.11]
3	1.87 [0.00, 0.58]	2.6 [0.21,1.19]	3.45 [0.78, 2.00]	5.02 [2.04, 2.20]
4	2.2 [0.05, 0 87]	2.92 [0.38, 1.45]	3.73 [1.00, 2.26]	5.25 [2.17, 3.57]

Hyrograph for Small Watershed

E = 1.85 inches
A = 3 67 acres
A_D = 2 69 acres
Q_P = 15.67 cfs

Note: E is the Excess Precipitation, Qp is the peak flow, A_D is the area of Treatment D, and A is the total contributing area to the north pond.

4. Base Time tb
tb: (2.107*E*A/Qp) - (0.25*A_D/A) = 0.73 hours
5. Time to Peak tp
tp: (0.70*tc) + ((1.6 - (A_D/A)) /12 =
tc = 0.20 hours
(tc is 12 minutes for small watersheds 40 acres or under)
tp = 0.21 hours
6. (0.25*A_d/A) = 0.18 hours (Peak Duration)
7. Inflow/Outflow Hydrograph Area for Required Detention volume:
Q_P In = 15.67 cfs
Q_P Out = 1 cfs
***Required Detention Volume =** 23,100 cf
(*See hydrograph illustration on the Drainage Map for Hydrograph Area Calculations)



OVERALL NORTH POND STORAGE VOLUME INFLOW/OUTFLOW HYDROGRAPH

N.T.S.

Del Norte Dialysis Center North Pond Stage Storage Volume
Calculations Obtained by Civil 3D 2014
Date: 4/27/2015

Contour Elevation	Contour Area	Depth	Incremental Volume Average End	Cumulative Volume Average End
	sf	ft	cf	cf
Existing North Pond				
5,194.50	2.72	N/A	N/A	0
5,195.00	2,168.65	0.5	542.84	542.84
5,195.50	6,452.63	0.5	2155.32	2698.16
5,196.00	8,382.02	0.5	3708.66	6406.83
5,196.50	9,353.61	0.5	4433.91	10840.73
5,197.00	10,422.60	0.5	4944.05	15784.79
Proposed North Pond Expansion				
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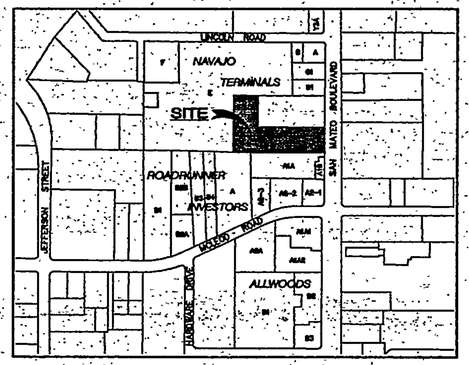
5,195.50	6,878.97	0.5	2261.91	2804.75
5,196.00	14,029.17	0.5	5227.04	8031.79
5,196.50	15,554.98	0.5	7396.04	15427.82
5,197.00	16,704.25	0.5	8064.81	23492.63

North Pond 100-Year Storage Vol. =	**23,100**	cf
North Pond 100-Year WSEL =	**5,196.66**	ft
Depth of Freeboard (Emerg. Spillway 5197.50) =	**0.84**	ft

WSEL Calculation includes Total Area (basins) Tributary to North Pond (Tract B-1, GC1-3, & P)



LOCATION MAP

NOT TO SCALE

SUBDIVISION DATA

1. DRB No.
2. Zone Atlas Index No. F-17.
3. Zoning: C-3.
3. Gross Subdivision Acreage: 3.6897 Acres.
4. Total number of tracts Created: Two (2) Tracts.
5. No public street right-of-way is created.
6. Date of Survey: December, 2009.
7. Plat is located within the Elena Gallegos Grant, projected Section 35, Township 11 North, Range 3 East, New Mexico Principal Meridian, Bernalillo County, New Mexico.

PURPOSE OF PLAT

The purpose of this Plat is to relocate tract lines common to Tracts B and C, Plat of Tracts A, B & C, Sandia Addition, as the same is shown and designated on the plat thereof, filed in the office of the County Clerk of Bernalillo County, New Mexico on July 9, 2010 in Book 2010C, Page 0080 as Document No.2010068217 and to grant Easements and vacate Private Easements.

PUBLIC UTILITY EASEMENTS

PUBLIC UTILITY EASEMENTS shown on this plat are granted for the common and joint use of:

A. Public Service Company of New Mexico ("PNM"), a New Mexico corporation, (PNM Electric) for installation, maintenance, and service of overhead and underground electrical lines, transformers, and other equipment and related facilities reasonably necessary to provide electrical services.

B. New Mexico Gas Company for installation, maintenance, and service of natural gas lines, valves and other equipment and facilities reasonably necessary to provide natural gas services.

C. Qwest Corporation d/b/a CenturyLink QC for the installation, maintenance, and service of such lines, cable, and other related equipment and facilities reasonably necessary to provide communication services.

D. Cable One for the installation, maintenance, and service of such lines, cable, and other related equipment and facilities reasonably necessary to provide Cable services.

Included, is the right to build, rebuild, construct, reconstruct, locate, relocate within the easement, change, remove, replace, modify, renew, operate and maintain facilities for purposes described above, together with free access to, from, and over said easements, with the right and privilege of going upon, over and across adjoining lands of Grantor for the purposes set forth herein and with the right to utilize the right of way and easement to extend services to customers of Grantee, including sufficient working area space for electric transformers, with the right and privilege to trim and remove trees, shrubs or bushes which interfere with the purposes set forth herein. No building, sign, pool (aboveground or subsurface), hot tub, concrete or wood pool decking, or other structure shall be erected or constructed on said easements, nor shall any well be drilled or operated thereon. Property owners shall be solely responsible for correcting any violations of National Electrical Safety Code by construction of pools, decking, or any structures adjacent to or near easements shown on this plat.

Easements for electric transformer/switchgears, as installed, shall extend ten (10) feet in front of transformer/switchgear doors and five (5) feet on each side.

Disclaimer

In approving this plat, Public Service Company of New Mexico (PNM), New Mexico Gas Company (NMGC) and Qwest Corporation D/B/A CenturyLink (QWEST) did not conduct a Title Search of the properties shown hereon. Consequently, PNM, NMGC and QWEST do not waive or release any easement or easement rights which may have been granted by prior plat, replat or other document and which are not specifically described and shown on this plat.

The City of Albuquerque and its designees and/or contractors may install, maintain and service water and wastewater lines within the 10' PUE.

DESCRIPTION

A certain tract of land located within the Elena Gallegos Grant, City of Albuquerque, Bernalillo County, New Mexico, being and comprising all of of Tracts "B" & "C", Plat of Tracts A, B & C, Sandia Addition, as the same is shown and designated on the plat thereof, filed in the office of the County Clerk of Bernalillo County, New Mexico on July 9, 2010 in Book 2010C, Page 0080 as Document No. 2010068217.

Tract contains 3.6897 acres of land, more or less.

FREE CONSENT

The plat shown hereon is made with free consent and in accordance of the desires of the undersigned owner(s), the execution of this plat is their free act and deed. Those signing as owner(s) warrant that they hold among them, complete indefeasible title in fee simple to the land shown on this plat. Owner(s) hereby affirm that the described property shown on this plat lies within the platting and subdivision jurisdiction of Albuquerque, New Mexico. Said owner(s) hereby grant all Easements as may shown on this plat.

Sandia Foundation
~~SDMK Property Company, LLC~~

By: Robert M. Goodman
Robert M. Goodman
~~Manager, SDMK Property Company, LLC~~
Pres., Sandia Foundation

State of New Mexico)
SS
County of Bernalillo)

This instrument was acknowledged before me on 24th day of February 2015, by Robert M. Goodman

My Commission Expires: 6/22/2017 Gail E. Miller
Notary Public

OFFICIAL SEAL
Gail E. Miller
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 6/22/2017

NOTES

1. Bearings are New Mexico State Plane Grid Bearings (Central Zone) NAD 1983 and the basis of bearings is the inverse between city of Albuquerque Control Monuments "9-F18" and "1-F18A". Bearing = N30°55'08"E.
2. Record Bearings and distances are the same as as-shown on this plat and the same as shown on Plat of Tracts A, B & C, Sandia Addition, filed in the office of the County Clerk of Bernalillo County, New Mexico on July 9, 2010 in Book 2010C, Page 0080 as Document No.2010068217.
3. Distances are ground distances.
4. Pursuant to section 14-14-4-7 of the City of Albuquerque Code of Ordinances, "No property within the area of this Plat shall at anytime be subject to a deed restriction, covenant, or binding agreement prohibiting solar collectors from being installed on buildings or erected on the tracts within the area of proposed plat. The foregoing requirements shall be a condition to approval of this plat."
5. An existing private reciprocal blanket pedestrian, private parking, vehicular access, and drainage easement granted to and maintained by Tracts A, B and C as the same is shown and designated on the Plat of Tracts A, B & C, Sandia Addition filed in the office of the County Clerk of Bernalillo County, New Mexico on July 9, 2010 in Book 2010C, Page 0080 as Document No. 2010068217.
6. Tracts A, B, and C are subject to a Mutual Parking Agreement filed April 4, 1966 in Misc. Bk 607A, page 187 as Document No. 8630247, records of Bernalillo County, New Mexico.
7. Tracts A and C are subject to a Shared Parking Agreement filed July 26, 2010 as Document No. 2010077109, records of Bernalillo County, New Mexico. Amendment to Shared Parking Easement filed September 11, 2012 as Document No. 2012093452, records of Bernalillo County, New Mexico.
8. Tracts B and C are subject to a Supplemental Easement for encroachments benefiting Tract A filed July 6, 2012 as Document No. 2012092570, records of Bernalillo County, New Mexico.
9. Tracts A, B & C are subject to covenants, conditions, restrictions, terms, provisions, assessments, liens, levies and easements in Declaration of Easements, Covenants and Restrictions recorded filed July 30, 2010 as Document No. 2010077107, records of Bernalillo County, New Mexico
10. Easements of record are based on Title Commitment No. 5011635-1966478-AL01 issued by First American Title Insurance Company effective November 24, 2014.

PLAT OF
TRACTS B-1 & C-1
SANDIA ADDITION

(A REPLAT OF TRACTS B & C SANDIA ADDITION)

ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO
FEBRUARY, 2015

PROJECT NUMBER _____

APPLICATION NUMBER _____

UTILITY APPROVALS:

QWEST CORPORATION d/b/a CENTURYLINK QC — DATE

COMCAST CABLE — DATE

PNM ELECTRIC SERVICES — DATE

NEW MEXICO GAS COMPANY — DATE

CITY APPROVALS:

Sean M. Rutherford P.S. 2/25/15
CITY SURVEYOR — DATE

TRAFFIC ENGINEERING, TRANSPORTATION DIVISION — DATE

ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY — DATE

PARKS & RECREATION DEPARTMENT — DATE

A.M.A.F.C.A. — DATE

CITY ENGINEER — DATE

DRB CHAIRPERSON, PLANNING DEPARTMENT — DATE

REAL PROPERTY DIVISION — DATE

TAX CERTIFICATION

THIS IS TO CERTIFY THAT TAXES ARE CURRENT AND PAID ON UPC #

PROPERTY OWNER OF RECORD: _____

BERNALILLO COUNTY TREASURER'S OFFICE — DATE

SURVEYOR'S CERTIFICATION

I, Robert Gromatzky, a registered Professional New Mexico Surveyor, certify that I am responsible for this survey and that this plat was prepared by me or under my supervision, shows all existing easements as shown on the plats of record, or made known to me by the owner, utility companies, or other interested parties and conforms to the Minimum Requirements of the Board of Registration for Professional Engineers and Professional Surveyors and meets the minimum requirements for monumentation and surveys contained in the Albuquerque Subdivision Ordinance, and is true and accurate to the best of my knowledge and belief.

Robert Gromatzky
New Mexico Professional Surveyor 16469

Date: FEBRUARY 24, 2015

ROBERT GROMATZKY
NEW MEXICO
16469
LICENSED PROFESSIONAL SURVEYOR

SHEET 1 OF 2

Bohannan Huston
7500 JEFFERSON STREET NE ALBUQUERQUE, NEW MEXICO

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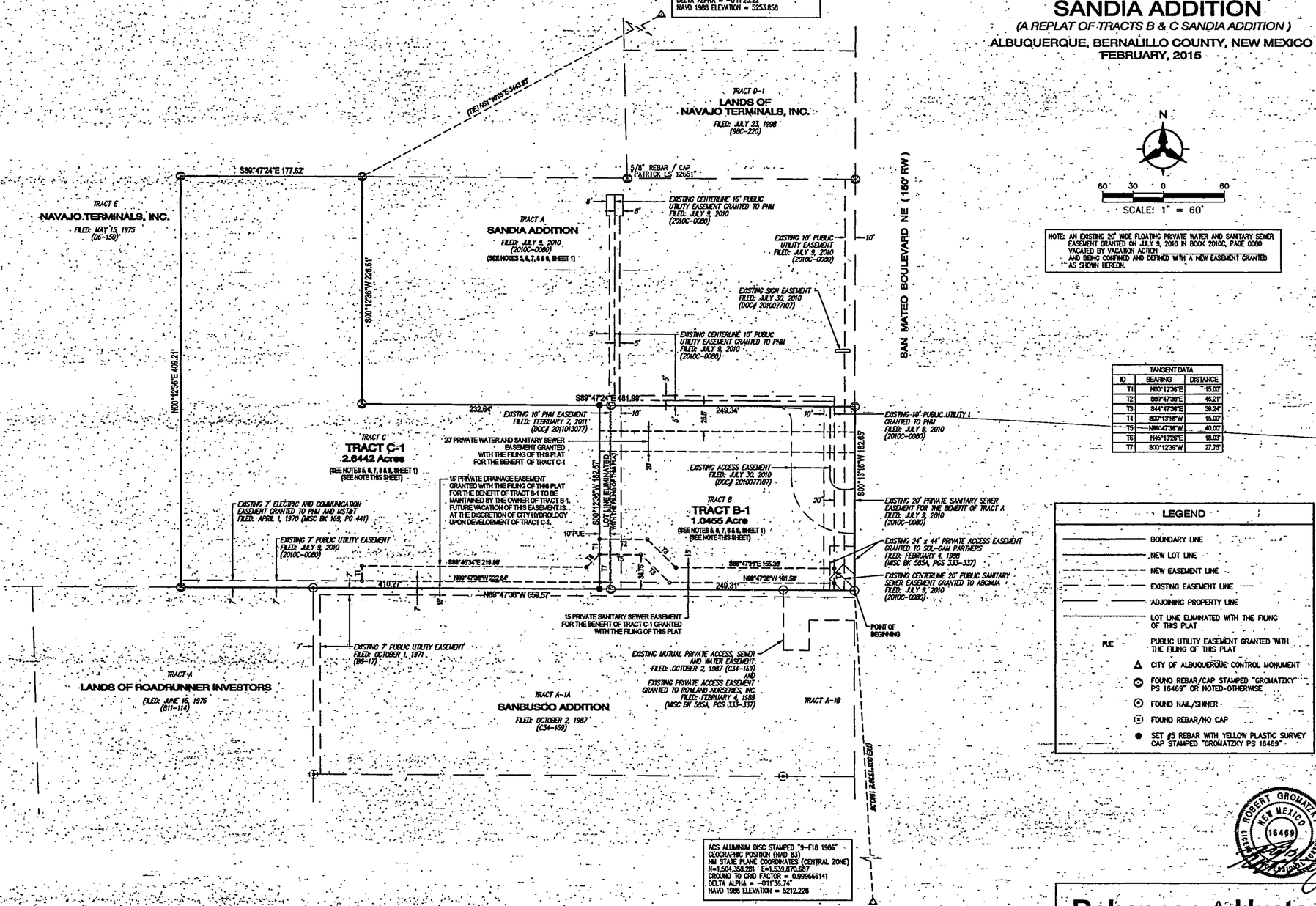
Tue, 24-Feb-2015 - 3:47pm, Plotted by: WAMOS

PLAT OF
TRACTS B-1 & C-1
SANDIA ADDITION

(A REPLAT OF TRACTS B & C SANDIA ADDITION)

ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO
FEBRUARY, 2015



NOTE: AN EXISTING 20' WIDE FLOATING PRIVATE WATER AND SANITARY SEWER EASEMENT GRANTED ON JULY 9, 2010 IN BOOK 2010C, PAGE 0080 VACATED BY VACATION ACTION AND BEING CONFINED AND DEFINED WITH A NEW EASEMENT GRANTED AS SHOWN HEREON.

TANGENT DATA		
ID	BEARING	DISTANCE
T1	N00°12'36"E	15.00'
T2	S89°47'36"E	46.21'
T3	S44°47'36"E	39.24'
T4	S00°13'16"W	15.00'
T5	N89°47'36"W	40.00'
T6	N45°13'28"E	18.03'
T7	S00°12'36"W	27.75'

LEGEND

- BOUNDARY LINE
- NEW LOT LINE
- NEW EASEMENT LINE
- EXISTING EASEMENT LINE
- ADJOINING PROPERTY LINE
- LOT LINE ELIMINATED WITH THE FILING OF THIS PLAT
- PUE — PUBLIC UTILITY EASEMENT GRANTED WITH THE FILING OF THIS PLAT
- CITY OF ALBUQUERQUE CONTROL MONUMENT
- FOUND REBAR/CAP STAMPED "GROMATZKY PS 16469" OR NOTED-OTHERWISE
- FOUND NAIL/SHINER
- FOUND REBAR/NO CAP
- SET #5 REBAR WITH YELLOW PLASTIC SURVEY CAP STAMPED "GROMATZKY PS 16469"

ROBERT GROMATZKY
NEW MEXICO
16469
LICENSED PROFESSIONAL SURVEYOR

SHEET 2 OF 2

Bohannan Huston
7500 JEFFERSON STREET NE ALBUQUERQUE, NEW MEXICO

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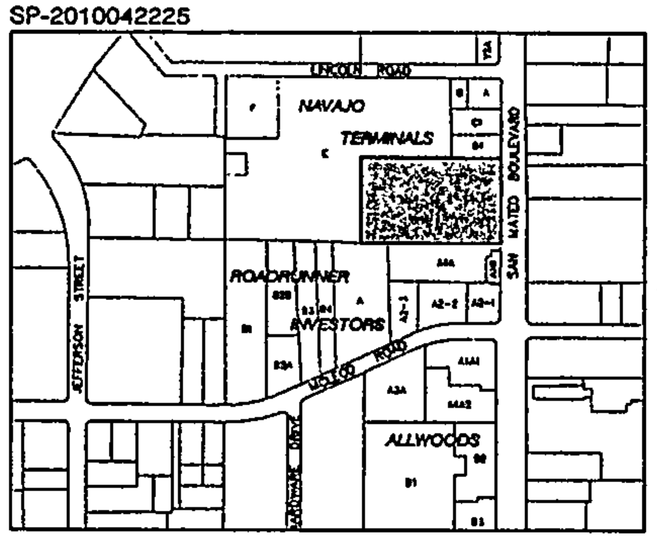
Tue, 24-Feb-2015 - 3:44pm, Plotted by: VRAMOS

2010C - 080 (7)

SP-2010042225



LOCATION MAP
ZONE ATLAS INDEX MAP No. F-17
NOT TO SCALE

SUBDIVISION DATA

1. DRB No.
2. Zone Atlas Index No. F-17.
3. Zoning: C-1.
4. Gross Subdivision Acreage: 6.1961 Acres.
5. Total number of tracts Created: Three (3) Tracts.
6. No public street right-of-way is created.
7. Date of Survey: December, 2008.
8. Plat is located within the Elena Gallegos Grant, projected Section 35, Township 11 North, Range 3 East, New Mexico Principal Meridian, Bernalillo County, New Mexico.

DISCLOSURE STATEMENT

The purpose of this Plat is to create three (3) tracts of land from the parcel described in Warranty Deed filed: July 21, 2005 in Book A100, Page 4479 and to grant easements.

PUBLIC UTILITY EASEMENTS

PUBLIC UTILITY EASEMENTS shown on this plat are granted for the common and joint use of:

1. New Mexico Gas Company for installation, maintenance and service of natural gas lines, valves and other equipment and facilities reasonably necessary to provide natural gas.
2. Public Service Company of New Mexico for the installation, maintenance, and service of overhead and underground electrical lines, transformers, and other equipment, fixtures, structures and related facilities reasonable necessary to provide electrical service.
3. Qwest for installation, maintenance and service of all buried and aerial communication lines and other related equipment and facilities reasonably necessary to provide communication services, including but not limited to above ground pedestals and closures.
4. Cable TV for installation, maintenance and service of such lines, cable and other related equipment and facilities reasonably necessary to provide Cable TV service. Included, is the right to build, rebuild, construct, reconstruct, locate, relocate, change, remove, modify, renew, operate and maintain facilities for the purposes described above, together with free access to, from, and over said right of way and easement, with the right and privilege of going upon, over and across adjoining lands of Grantor for the purposes set forth herein and with the right to utilize the right of way and easement to extend services to customers of Grantee, and to trim and remove trees, shrubs or bushes which interfere with the purposes set forth herein. No building, sign, pool (above ground or subsurface), hot tub, concrete or wood pool decking, or other structure shall be erected or constructed on said easements, nor shall any well be drilled or operated thereon.

Disclaimer

In approving this plat, Public Service Company of New Mexico (PNM) and New Mexico Gas Company (NMGC) did not conduct a Title Search of the properties shown hereon. Consequently, PNM and NMGC do not waive or release any easement or easement rights which may have been granted by prior plat, replat or other document and which are not shown on this plat.

DESCRIPTION

A certain tract of land situate within the Elena Gallegos Grant, City of Albuquerque, Bernalillo County, New Mexico, being and comprising a tract of land described in a Warranty Deed, filed in the Office of the County Clerk of Bernalillo County, New Mexico on July 21, 2005 in Book A100, page 4479 as Document No. 2005104795 and being more particularly described by New Mexico State Plane Grid Bearings (NAD 83 Central Zone) and ground distances as follows:

BEGINNING at a found nail and shiner at the southeast corner of the tract herein described, identical to the northeast corner of Tract A-1A, Sanbusco Addition as the same is shown and designated on the plat thereof filed in the Office of the County Clerk of Bernalillo County, New Mexico on October 2, 1987 in Book C34, page 168 and also being a point on the westerly right-of-way of San Mateo Boulevard NE, WHENCE the City of Albuquerque survey monument "9-F18 1986", an aluminum disc set in top of curb, having New Mexico State Plane Grid Coordinates NAD83 (Central Zone) N=1504358.261 and E=1539670.687, bears S00°13'36"E a distance of 1983.38 feet;

THENCE leaving said right-way along the southerly boundary of the tract herein described, coincident with the northerly boundary of said Tract A-1A, N89°47'36"W a distance of 530.00 feet to a found nail and shiner at the northwest corner of said Tract A-1A, identical to the northeast corner of Tract A, Lands of Roadrunner Investors, as the same is shown and designated on the plat thereof filed in the Office of the County Clerk of Bernalillo County, New Mexico on June 16, 1978 in Book B11, Page 114;

THENCE continuing along the southerly boundary of the tract herein described, coincident with the northerly boundary of said Tract A, N89°47'36"W a distance of 128.57 feet to the southwest corner of the tract herein described, identical to the southeast corner of Tract E, Navajo Terminals, Inc. as the same is shown and designated on the plat thereof filed in the Office of the County Clerk of Bernalillo County, New Mexico on May 15, 1975 in Book D6, page 150;

THENCE along the westerly boundary of the tract herein described, coincident with the easterly boundary of said Tract E, N 0°12'36"E a distance of 408.21 feet to the northwest corner of the tract herein described, identical to an angle point in the easterly boundary of said Tract E;

THENCE along the northerly boundary of the tract herein described, coincident with said easterly boundary of Tract E, S89°47'24"E a distance of 438.90 feet to a found rebar and survey cap stamped "PATRICK LS 12061" at an angle point in the easterly boundary of said Tract E, identical to the southwest corner of Tract D-1, Lands of Navajo Terminals, Inc. as the same is shown and designated on the plat thereof filed in the Office of the County Clerk of Bernalillo County, New Mexico on July 23, 1998 in Book 98C, page 220;

THENCE continuing along the northerly boundary of the tract herein described, coincident with the southerly boundary of said Tract D-1, S89°47'24"E a distance of 222.75 feet to the northeast corner of the tract herein described, identical to the southeast corner of said Tract D-1 and a point on the westerly right-of-way of San Mateo Boulevard NE;

THENCE along the easterly boundary of the tract herein described, coincident with said westerly right-of-way of San Mateo Boulevard NE, S00°13'16"W a distance of 408.16 feet to the POINT OF BEGINNING.

This tract contains 6.1961 acres, more or less.

NOTES

1. Bearings are New Mexico State Plane Grid Bearings (Central Zone) NAD 1983 and the basis of bearings is the inverse between city of Albuquerque Control Monuments "9-F18" and "1-F18A". Bearing = N30°55'06"E.
2. Record Bearings and distances of adjoining Plat of Tracts A-1A & A-1B, Sanbusco Addition filed on October 2, 1987 in Book C34, page 168 are shown in brackets ( ). Record Bearings and distances of adjoining Plat of Tracts A & B, Lands of Roadrunner Investors filed on June 16, 1978 in Book B11, page 114 are shown in asterisks * . Record bearings and distances of adjoining Plat of Tracts E and F, Navajo Terminals, Inc. filed on May 15, 1975 in Book D6, page 150 are shown in parenthesis ( ). Record bearings and distances of adjoining plat Tracts C-1 & D-1, Lands of Navajo Terminals, Inc. filed on July 23, 1998 in Book 98C, page 220 are shown in brackets [ ].
3. Distances are ground distances.
4. Pursuant to section 14-14-4-7 of the City of Albuquerque Code of Ordinances, "No property within the area of this Plat shall at anytime be subject to a deed restriction, covenant, or binding agreement prohibiting solar collectors from being installed on buildings or erected on the tracts within the area of proposed plat. The foregoing requirements shall be a condition to approval of this plat."
5. A private reciprocal blanket pedestrian, private parking, vehicular access, and drainage easement granted to and maintained by Tracts A, B and C with the filing of this plat.
6. Tracts A, B, and C are subject to a Mutual Parking Agreement filed April 4, 1968 in Misc. Bk 607A, page 187 as Document No. 6530247, records of Bernalillo County, New Mexico.

SURVEYOR'S CERTIFICATION

I, Robert Gromatzky, a registered Professional New Mexico Surveyor, certify that I am responsible for this survey and that this plat was prepared by me or under my supervision, shows all easements as shown on the plat of record, or made known to me by the owner, utility companies, or other interested parties and conforms to the Minimum Requirements of the Board of Registration for Professional Engineers and Professional Surveyors and meets the minimum requirements for monumentation and surveys contained in the City of Albuquerque Subdivision Ordinance, and is true and accurate to the best of my knowledge and belief.

Robert Gromatzky
New Mexico Professional Surveyor 16469

Date: February 2, 2010

ROBERT GROMATZKY NEW MEXICO 16469 LICENSED PROFESSIONAL SURVEYOR

FREE CONSENT AND DEDICATION

The foregoing plat of that certain tract of land situate within the Elena Gallegos Grant, projected Section 35, Township 11 North, Range 3 East, New Mexico Principal Meridian, Bernalillo County, New Mexico, being and comprising a tract of land described in a Warranty Deed filed July 21, 2005 in Book A100, page 4479, now comprising Tracts A, B and C Sandia Addition is with the free consent and in accordance with the desires of the undersigned owner(s) and/or proprietor(s) thereof. Said owner(s) and/or proprietor(s) do hereby grant: All Access, Utility and Drainage Easements shown hereon including the right to construct, operate, inspect, and maintain facilities therein; and all Public Utility Easements shown hereon for the common and joint use of Gas, Electrical Power, and Communication Services for buried distribution lines, conduits, and pipes for underground utilities where shown or indicated, including the right of ingress and egress for construction and maintenance, and the right to trim interfering trees and shrubs. The City has the right to enter upon the Grantees Property at any time and perform whatever inspection, installation, maintenance, repair, modification or removal ("Work") it deems appropriate without liability to the City. If the Work effects any improvements or Encroachments made by the Grantee, the City will not be financially or otherwise responsible for rebuilding or repairing of improvements or encroachments. If in the opinion of the City, the Work to be performed by the City could endanger the structural integrity or otherwise damage the improvements or encroachments, the Grantee shall, at its own expense, take whatever protective measures are required to safeguard the improvements or encroachments. Said owner warrants that he holds complete and indefeasible title in fee simple to the land subdivided. Said owner(s) and/or proprietor(s) affirm that the property described does lie within the platting jurisdiction of the City of Albuquerque and do hereby consent to all of the foregoing and do hereby certify that this subdivision is their free act and deed.

SDMK Property Company, LLC

BY: Robert M. Goodman
Manager, SDMK Property Company, LLC

State of New Mexico)
) SS
County of Bernalillo)

This instrument was acknowledged before me on the 17 day of February 2010, by Robert M. Goodman, Manager, SDMK Property Company, LLC.

My Commission Expires: 6/22/2013 Gail E. Miller Notary Public

OFFICIAL SEAL
Gail E. Miller
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: 6/22/2013

PLAT OF
TRACTS A, B & C
SANDIA ADDITION

ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO
FEBRUARY, 2010

DOCH 2010068217
07/09/2010 11:05 AM Page: 1 of 3
PLAT R:$12.00 B: 2010C P: 0080 A. Toulouse Oliver, Bernalillo Cou

PROJECT NUMBER 1007867

APPLICATION NUMBER 10DRB-70068

PLAT APPROVAL

UTILITY APPROVALS:

QWEST TELECOMMUNICATIONS	2/24/10 DATE
COMCAST CABLE	3.9.10 DATE
PNM ELECTRIC SERVICES	3/9/10 DATE
NEW MEXICO GAS COMPANY	2/24/2010 DATE

CZB 4/30/10 (PNM)

CITY APPROVALS:

CITY SURVEYOR	2-18-10 DATE
TRAFFIC ENGINEERING, TRANSPORTATION DIVISION	04/14/10 DATE
ALBUQUERQUE BERNALILLO COUNTY WATER UTILITY AUTHORITY	04/14/10 DATE
PARKS & RECREATION DEPARTMENT	4/14/10 DATE
A.M.A.F.C.A.	4/14/10 DATE
CITY ENGINEER	4/14/10 DATE
DRB CHAIRPERSON, PLANNING DEPARTMENT	6-07-10 DATE

TAX CERTIFICATION

THIS IS TO CERTIFY THAT TAXES ARE CURRENT AND PAID ON UPC #

PARCEL # 1-017-061-488341-102-42

BERNALILLO COUNTY TREASURER'S OFFICE 6-8-10 DATE

Bohannan ▲ Huston
Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
ENGINEERING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES

SHEET 1 OF 2

JOB NO. 2010052

2010C - 080 (7)

2010C - 080 (7)

Land Records Corp. FT ALB10269 BE 2010068217.001

2010C-80(2)

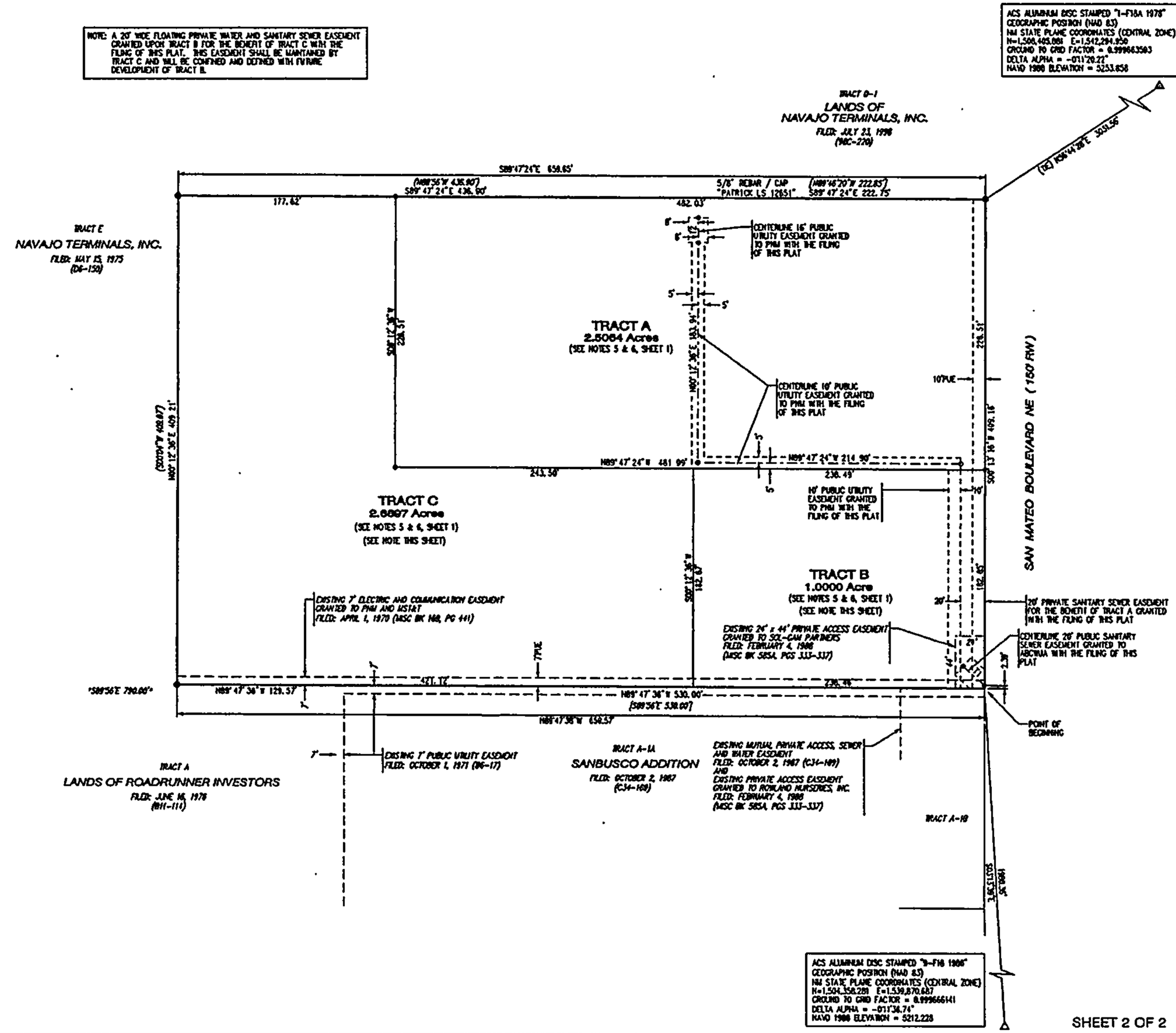
PLAT OF

TRACTS A, B & C SANDIA ADDITION

ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO
FEBRUARY, 2010

NOTE: A 20' WIDE FLOATING PRIVATE WATER AND SANITARY SEWER EASEMENT GRANTED UPON TRACT B FOR THE BENEFIT OF TRACT C WITH THE FILING OF THIS PLAT. THIS EASEMENT SHALL BE MAINTAINED BY TRACT C AND SHALL BE CONFINED AND DEFINED WITH FUTURE DEVELOPMENT OF TRACT B.

ACS ALUMINUM DISC STAMPED "1-F16A 1978"
GEOGRAPHIC POSITION (NAD 83)
NM STATE PLANE COORDINATES (CENTRAL ZONE)
N=1,506,465.081 E=1,542,294.950
GROUND TO GRID FACTOR = 0.999663503
DELTA ALPHA = -0°11'20.22"
NAVD 1988 ELEVATION = 5253.858



DOCN 2010068217
07/09/2010 11:05 AM Page: 2 of 2
LPLAT R:512.00 B: 2010C P: 0080 M Toulous Olivera, Bernalillo Cour

N

SCALE: 1" = 60'

LEGEND

- BOUNDARY LINE
- NEW LOT LINE
- CENTERLINE
- PROPOSED EASEMENT LINE
- EXISTING EASEMENT LINE
- ADJOINING PROPERTY LINE
- PUE — PUBLIC UTILITY EASEMENT GRANTED WITH THE FILING OF THIS PLAT
- ▲ CITY OF ALBUQUERQUE CONTROL MONUMENT
- FOUND REBAR/CAP AS NOTED
- FOUND NAIL/SHINER
- FOUND REBAR/NO CAP
- SET #5 REBAR WITH YELLOW PLASTIC SURVEY CAP STAMPED "GROMATZKY PS 16469"

Tangent Data		
ID	BEARING	DISTANCE
T1	N47°12'46"W	24.00'
T2	N00°12'36"E	21.00'

ROBERT GROMATZKY
NEW MEXICO
16469
LICENSED PROFESSIONAL SURVEYOR

ACS ALUMINUM DISC STAMPED "9-F16 1988"
GEOGRAPHIC POSITION (NAD 83)
NM STATE PLANE COORDINATES (CENTRAL ZONE)
N=1,504,358.281 E=1,539,570.637
GROUND TO GRID FACTOR = 0.999666141
DELTA ALPHA = -0°11'36.74"
NAVD 1988 ELEVATION = 5212.228

SHEET 2 OF 2

Bohannan ▲ Huston

Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335

ENGINEERING ▲ SPATIAL DATA ▲ ADVANCED TECHNOLOGIES

P:\2060067\SURVEY\GRAPHICS\2060062 PlatLgs
29-JUN-2010 --
08:40
mcole

JOB NO. 2060062

2010C-80(2)

2010C-80(2)

Land Records Corp. FT ALB10269 BE 2010068217.002

SANDIA FOUNDATION

A HUGH AND HELEN WOODWARD CHARITY

March 30, 2015

DaVita HealthCare Partners, Inc.
2000 16th Street
Denver, CO 80202
Attn: Jeff Pretty

Re: Purchase of 5207-B San Mateo Blvd. NE, Albuquerque, NM; Site Plan approval

Dear Mr. Pretty,

This letter serves as confirmation that Sandia Foundation has approved the site plan proposed by DaVita HealthCare Partners, Inc. ("DaVita") that has been submitted to the City of Albuquerque for approval and is scheduled to be considered by the DRB at its meeting April 8. Sandia Foundation, as owner of Tracts B and C has approved the elimination of direct access between Tracts B and C.

DaVita may provide a copy of this letter to the City of Albuquerque. Please let me know if you need anything further from me.

Sincerely yours,

Robert M. Goodman
President and CEO

cc Ruth M. Schifani, Esq.

First flush pond on tract C1 (stated on site plan) SHT C2.0
RTH 4/27/15

RMG/rms

K:\dox\client\64600\166\W2394643.DOCX

DRB # 1007867

DRB 4/29/15

SANDIA FOUNDATION

A HUGH AND HELEN WOODWARD CHARITY

March 30, 2015

DaVita HealthCare Partners, Inc.
2000 16th Street
Denver, CO 80202
Attn: Jeff Pretty

Re: Purchase of 5207-B San Mateo Blvd. NE, Albuquerque, NM; Site Plan approval

Dear Mr. Pretty,

This letter serves as confirmation that Sandia Foundation has approved the site plan proposed by DaVita HealthCare Partners, Inc. ("DaVita") that has been submitted to the City of Albuquerque for approval and is scheduled to be considered by the Development Review Board ("DRB") at its meeting April 8. If necessary or desirable, DaVita may revise the site plan to address pedestrian access between Tracts B and C without further consent from Sandia Foundation. We would, of course, appreciate being notified of the change and being provided with the revised site plan. Sandia Foundation is not consenting to any other revisions to the site plan. In particular any change to the site plan to provide for vehicular access between Tracts B and C will require Sandia Foundation's prior written consent.

Additionally, as we discussed, if DaVita is required to take the Site Plan for Building Permit to the Environmental Planning Commission ("EPC"), DaVita will request the addition of access arrows between Tract A and Tract C-1 as shown on the attached Exhibit 1.

Please let me know if you need anything further from me.

Sincerely yours,

Robert M. Goodman
President and CEO

cc Ruth M. Schifani, Esq.

RMG/rms

DRB 4/29/15

K:\dax\client\64600\166\W2394643.DOCX

www.sandiafoundation.org 6211 San Mateo Blvd. NE, Suite 100, Albuquerque, NM 87109 505.242.2684 PHONE 505.246.2411 FAX

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: Del Norte Dialysis Center (for DaVita Dialysis) Building Permit #: TBD City Drainage #: F17-D095

DRB#: 1007867 EPC#: _____ Work Order#: _____

Legal Description: Sandia Addition Tract B-1

City Address: _____

Engineering Firm: Entitlement and Engineering Solutions, Inc. Contact: Krisinda Rapiejko, PE

Address: 518 17th Street, Ste 1575, Denver CO 80202

Phone#: 303-717-8843 Fax#: _____ E-mail: krapiejko@ees.us.com

Owner: DaVita Healthcare Partners Contact: Marshall Stewman

Address: 2000 16th Street, Denver CO 80202

Phone#: 972-765-6256 Fax#: _____ E-mail: _____

Architect: InForm Studio Contact: Megan Martin-Campbill

Address: 235 E. Main St. Ste. 102B, Northville, MI 48167

Phone#: 248-449-3564 Fax#: _____ E-mail: _____

Surveyor: SurvTek, Inc. Contact: Russ Hugg

Address: 9384 Valley View Drive, Albuquerqe

Phone#: 505-897-3366 Fax#: _____ E-mail: _____

Contractor: TBD Contact: _____

Address: _____

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

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
____ DRAINAGE PLAN 1st SUBMITTAL
X DRAINAGE PLAN RESUBMITTAL
____ CONCEPTUAL G & D PLAN
X GRADING PLAN
____ EROSION & SEDIMENT CONTROL PLAN (ESC)
____ ENGINEER'S CERT (HYDROLOGY)
____ CLOMR/LOMR
____ TRAFFIC CIRCULATION LAYOUT (TCL)
____ ENGINEER'S CERT (TCL)
____ ENGINEER'S CERT (DRB SITE PLAN)
____ ENGINEER'S CERT (ESC)
____ SO-19
____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ SIA/FINANCIAL GUARANTEE RELEASE
____ PRELIMINARY PLAT APPROVAL
____ S. DEV. PLAN FOR SUB'D APPROVAL
X S. DEV. FOR BLDG. PERMIT APPROVAL
____ SECTOR PLAN APPROVAL
____ FINAL PLAT APPROVAL
____ CERTIFICATE OF OCCUPANCY (PERM)
____ CERTIFICATE OF OCCUPANCY (TCL TEMP)
____ FOUNDATION PERMIT APPROVAL
____ BUILDING PERMIT APPROVAL
____ GRADING PERMIT APPROVAL
____ PAVING PERMIT APPROVAL
____ WORK ORDER APPROVAL
____ GRADING CERTIFICATION
____ SO-19 APPROVAL
____ ESC PERMIT APPROVAL
____ ESC CERT. ACCEPTANCE
____ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED: ____ Yes ____ No ____ Copy Provided

DATE SUBMITTED: 4-20-2015 By: Krisinda Rapiejko

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, anc scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the followin

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report:** Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

Rec'd 4/22/15

EES
Entitlement and Engineering Solutions, Inc

Krisinda Rapiejko, P.E.
(for Amanda O'Connor, P.E.)
518 17th Street, Suite 1575
Denver, CO 80202

April 18, 2015

Jeanne Wolfenbarger, P.E.
City of Albuquerque
600 2nd Street NW, Ste. 201 (Ground Floor)
Albuquerque, NM 87102

Subject: **DaVita Dialysis Center, 5207 San Mateo Blvd. NE**
Drainage/Grading Comment Response
Project: F17-D095A

1. Please include an engineer's stamp on all plans including the "Grading and Drainage Plan" and "Drainage Area Plan". **Done.**

2. Per the City Drainage ordinance, the 90th Percentile Storm Event, which is 0.44 inches, is to be managed. Reduce 0.44 inch by the 0.1 inch for the initial impervious abstraction in Table A-6 of Section 22 of the DPM. Then multiply the remaining 0.34 inch by your impervious area which should be the portion required to be retained. Show these computations, and show this retention area on the plan. (There are opportunities to include this retention either within the existing pond, within the proposed channel, or within landscaped areas while ensuring that any ponding is a minimum of 10 feet away from the building.)
A first flush calculation has been provided on the Basin Qpeak Analysis Spreadsheet and is discussed in the report. The site is now draining to the existing North Pond. The outlet structure system in the pond includes an invert that is raised above the bottom of pond. The retained storage below this raised invert exceeds the required first flush volume for our site.
3. Show proposed channel on plan, channel outfall to existing pond, and existing pond, including the necessary invert elevations, grading, and necessary details. **This plan includes the grading and all design details for the rock lined rundown channel to the North Pond. All existing inverts are provided on the plan from a prepared survey included in the report.**

4. Under "Drainage Legend", clarify "impervious area" as a percentage of total basin area. Double-check your labeling of 58.2% impervious area for Tract B-1 within your 100-year storm flow calculations since the total impervious area from Tract B-1 within your 100-year storm flow calculations since the total impervious area from Tract B-1 looks higher than 58.2%. **The proposed impervious area calculations shown on the spreadsheet have been corrected.**

Show drainage easement information on the plan including easement width, DRB Case number, and approved plat date. **The southern drainage easement previously requested across C-1 is no longer applicable with the modified drainage design. An easement to the pond is no longer necessary because the shared access drive that will convey the water is considered a common area for the Sandia Additions Tracts and therefore can serve as a shared drainage way per the "Sandia Addition Title Commitment Declaration of Easement, Covenants, and Restrictions."**

5. Provide existing contours for Tract C to verify the extent of the basin limits for Tract C. **An existing survey was prepared on April 8, 2015 (survey included in report appendix) and the contours are now shown on the plans.**

   Prior to obtaining a building permit, please address the following comments:

   1. Show the cumulative flow that is discharged to channel from Tract B and the total flow that is discharged into the existing pond from the new channel. (This can be shown in Table 1 on the Grading and Drainage Plan by showing the total flow that corresponds to the Design Point.) **A design point cumulative flow column has been added to the Summary table for all points of combined flows to ensure the existing and proposed infrastructure (i.e. parking area and drive aisle curb, rock line channel/rundown to pond) could accommodate the capacity.**
   2. An elevation of 5216.00 is shown on the northeast corner of the building near the door which shows a 5215.36 elevation. Because two conflicting elevations are shown at this location, ensure drainage away from the door by providing a curb or something similar at this northeast corner of the building. **The grading has been revised and a curb is now shown along the front door walk to catch grade differential between the pad and adjacent landscape area.**
   3. List final grate elevations of the inlet and cleanout. **This comment is not applicable with new drainage design. All proposed subsurface storm previously shown has been eliminated with the site grading design.**
   4. Show capacity calculations for the Type "A" inlet and for the storm drain runs. Label the flow that each pipe run is conveying on the plan view. **This comment is not applicable with new design.**
   5. Show the detail of the storm drain connection to the proposed channel. **This comment is not applicable but more detail has been provided for the proposed channel/rundown to the North Pond.**

SANDIA FOUNDATION

A HUGH AND HELEN WOODWARD CHARITY

VIA EMAIL
(Revised)

April 20, 2015

Rita Harmon
Acting City Hydrologist
City of Albuquerque
600 Second NW
Albuquerque NM 87102

Re: Drainage Tract B-1 onto Tract C-1

Dear Ms. Harmon,

Sandia Foundation, the owner of Tract C-1, is aware of and in concurrence with the proposal to drain Tract B-1 storm water runoff through the shared access drive located on the south side of Tract A and into the existing northern detention basin located on Tract C-1 by means of a new riprap run down. This shared access drive is considered a common area for the Sandia Additions Tracts and therefore can serve as a shared drainage way per the Reciprocal drainage easement included on the Plat of Tract A, B, & C, Sandia Addition filed in the office of the County Clerk of Bernalillo County, New Mexico on July 9, 2010 in Book 2010C, Page 0080 as Document No. 2010068217. The existing northern detention basin will be expanded to include the flows from B-1, as further outlined in the drainage report. This concurrence is conditioned upon the developer of Tract B-1 obtaining approval from the City of Albuquerque for their proposed Grading and Drainage Plan.

Sincerely,

Robert M. Goodman
President and CEO

www.sandiafoundation.org 6211 San Mateo Blvd. NE, Suite 100, Albuquerque, NM 87109 505.242.2684 PHONE 505.246.2411 FAX

EES

Entitlement and Engineering Solutions, Inc.

Company:	City of Albuquerque	Date:	April 20, 2015
Address:	600 2nd Street NW, Ste. 201 (Ground Floor) Albuquerque, NM 87102	Project:	DaVita Dialysis Center, 5207 San Mateo Blvd. NE Drainage/Grading
Attention:	Rita Harm PE Jeanne Wolfenbarger PE	From:	Krisinda Rapiejko EES
Re:	Grading-Drainage Submittal	Project No.:	F17-D095A

We are sending you:

Delivered by: FED EX

Transmitted: For Submittal

Summary of enclosed materials

Quantity	Sheet No.	Description
1		Drainage and Transportation Information Sheet
1		Drainage/Grading Comment Response Memo
1		Revised Hydrology Letter – Drainage Tract B-1 onto Tract C-1
1		Del Norte Dialysis Final Drainage Report
2		C2.0 - Grading Plan
2		C2.1 - Grading Enlargement Plan
2		C2.2 - Pond Grading Plan
2		C5.0 - Drainage Area Plan

Comments:
Rita and Jeanne, Please let me know if you need anything else.
Call with any questions,
Krisinda 303-717-8843

CC:

Attention	Transmittal Only	Delivered by
	☐	
File Code	☐ Transmittal Only	

Del Norte Dialysis Center North Pond Stage Storage Volume
Calculations Obtained by Civil 3D 2014
Date: 4/18/2015

Existing North Pond				
Contour Elevation	Contour Area	Depth	Incremental Volume Average End	Cumulative Volume Average End
	sf	ft	cf	cf
5,194.50	2.72	N/A	N/A	0
5,195.00	2,168.65	0.5	542.84	542.84
5,195.50	6,452.63	0.5	2155.32	2698.16
5,196.00	8,382.02	0.5	3708.66	6406.83
5,196.50	9,353.61	0.5	4433.91	10840.73
5,197.00	10,422.60	0.5	4944.05	15784.79
Proposed North Pond Expansion				
5,194.50	2.72	N/A	N/A	0
5,195.00	2,168.65	0.5	542.84	542.84
5,195.50	6,878.97	0.5	2261.91	2804.75
5,196.00	14,029.17	0.5	5227.04	8031.79
5,196.50	15,554.98	0.5	7396.04	15427.82
5,197.00	16,704.25	0.5	8064.81	23492.63

Del Norte Dialysis
Final
Drainage Report

5207 San Mateo Blvd.
Albuquerque, NM 87109

April 18, 2015

Prepared By:

EES

Entitlement and Engineering Solutions, Inc.
518 17th Street, Suite 1575
Denver, CO 80202
Phone: (303) 572-7997
Attn: Amanda M. O'Connor, P.E.

Final Drainage Report
Del Norte Dialysis Center
Albuquerque, NM

Engineer's Statement

This report for the conceptual design of the Del Norte Dialysis Center was prepared by me or under my direct supervision in accordance with the provisions of City of Albuquerque, Bernalillo County, New Mexico Design Process Manual Section 22. I understand that the City of Albuquerque, New Mexico does not and will not assume liability for drainage facilities designed by others.

Amanda M. O'Connor
Registered Professional Engineer

State of New Mexico No. 19951

AMANDA M. O'CONNOR
NEW MEXICO
19951
4-20-15
PROFESSIONAL ENGINEER

(Affix Seal)

Table of Contents

Executive Summary 1
Project Location and Zoning 1
Existing Site and Drainage Concept 1
Project Description and Drainage Concept 2
Required Project Approvals 2

Existing Conditions 2

Drainage pattern and facilities 2

Proposed Conditions 4

Drainage Concept 4
Hydrology Criteria 6
Hydraulic Criteria 6

Summary 7
REFERENCES 8
APPENDIX 9

Executive Summary

Project Location and Zoning

The Del Norte Dialysis Center project site is located on the west side of San Mateo Boulevard approximately 430 feet north of Mcleod Road in the Tract B-1 (formerly Tract B) of the Sandia Addition in the City of Albuquerque, Bernalillo County. This site falls within a designated Enhanced Transit Corridor of an Established Urban Area of the Comprehensive Plan. It is located within the boundaries of the City Zone Map F-17 as shown on the Drainage Map within Appendix C. The site lies within the Flood Zone X and therefore is not designated as a flood prone area in accordance with the National Flood Insurance Program Rate Map No. 35001C0139 G, effective date 9-26-2008. The current zoning for the site is C3, heavy commercial and the proposed use is permissive within this zone category.

Existing Site and Drainage Concept

The site was previously used as a garden nursery but has since been cleared of all structures and overlot graded to follow the historic drainage patterns with topography that falls to the southwest. The site maintains minimal vegetation due to this grading disturbance and demolition.

In 2011, the Golden Corral was designed and constructed in the Tract A of the Sandia Addition, due north of this project. The proposed grading for this site generally drains southwesterly with the northern perimeter of the site draining to the north. This site utilizes curb cuts, cobbled swale rundowns and concrete flumes to connect their site drainage with the existing channel along the north property line of Tract A and then across Tract C-1 (formerly Tract C) to the existing channel along the west Tract-C-1 perimeter. The building roof drains and a portion of this site's west perimeter connect subsurface to the existing storm system within San Mateo Boulevard.

In 2013 two ponds were designed and constructed on west side of Tract C-1 to the north and south (see Appendix A for the Temporary Detention Plan by Isaacson & Arfman, PA, dated 8-27-13). Tract C-1 is located west of this project. These ponds were designed and constructed in response to a failure of the berm along the west side of the existing channel along the Tract C-1 perimeter. The berm was eroding after a series of large rain storms and allowing drainage to flood the adjacent property to the west of Tract C-1. Both detention ponds were designed to detain the 100-year, 6-hour storm for the Sandia Addition Tracts A, B-1 (formerly Tract B) and C-1 in the full developed condition. The contributing basin for each pond is designed with an estimated land treatment D (impervious area) of 80% for the overall basin area. Both ponds outlet flows to the existing west perimeter channel with a controlled release rate. In addition, the existing channels along the north and west perimeters were repaired with shotcrete as part of the overall design of these detention ponds.

Project Description and Drainage Concept

The proposed Del Norte Dialysis Center is an outpatient medical facility with a single story 8,535 sf building. The site layout will incorporate 30 stalls of onsite parking with landscape medians framing each parking aisle and with landscape buffers aligning the perimeters of the site. The proposed site will drain storm flows away from the building toward the curb and gutter aligning the perimeter of the parking area and drives. The storm flow will channelize within the curb and gutter and convey it to the west along the south drive aisle, north along the west row of parking stalls, and west along the north parking area perimeter and then outlet the parking area drainage through two proposed concrete drainage chases located to the northwest corner of the parking area.

These chases will direct Tract B-1 parking area drainage to the existing 28' wide drive aisle to the north of the project site and running east-west along the southern boundary of the Golden Corral parking area. The drive aisle will drain surface flows to the west and outlet at the existing curb cut located to the west end of this drive aisle. A proposed rock lined trapezoidal channel will convey drainage flow from the curb cut to the north pond. The north pond footprint will be extended south to accommodate the additional drainage contributed by Tract B-1 and the south drive aisle. In addition, the rock lined channel originally conveying drainage westerly from this curb and discharging to the existing channel along the west Tract C-1 boundary will be removed. The Golden Corral parking area drainage contributing surface flow to this south drive aisle will remain unchanged.

Required Project Approvals

The development process for this project will require the following approvals listed below. Some approvals are already in process:

- Grading and Drainage Plan
- West lot line adjustment for Tract B and C for the Sandia Addition Plat was approved by the DRB on March 11, 2015 with the project number 1007867. This also included a defined utility easement through Tract B for the benefit of Tract C. With this plat adjustment, Both Tracts B and C were renamed to Tracts C-1 and B-1 to signify the lot line change.
- SDP for Subdivision Minor Amendment reflecting Sandia Addition Plat adjustments listed above was approved on the same date and project number.
- SDP for Building Permit through DRB
- Building Permit
- Retaining Wall Permit

Existing Conditions

Drainage pattern and facilities

The site is currently undeveloped and located in the precipitation zone 2 as outline in the DPM Chapter 22.2. The existing land treatment for Tract B-1 is mostly C where undeveloped. The eastern portion of Tract B-1 is currently built out with an approximate 28' wide shared access

drive for Tracts A, B and C and a finished 20' wide landscape buffer dividing this access drive from the San Mateo Boulevard ROW as was developed with the design and construction of the Golden Corral. The south adjacent property Tract A-1A of the Sanbusco Addition is developed as an industrial use and is elevated above the south Tract B-1 perimeter grades with the use of a small 1-3 foot retaining wall that aligns the south property line (see proposed drainage map). The grading for the Tract B-1 falls to the southwest, allowing for developed flows to drain along the north side of this retaining wall. This retaining wall appears to keep developed flow originating from Tract B-1 to remain within Tract B-1 as well as a portion of Tract C-1 as it drains westerly to the south detention pond. There appears to be no offsite drainage entering this site.

The existing North Pond located to the northwest of Tract C-1 was designed and constructed as a solution to eliminate drainage generated from the Golden Corral site from overtopping the existing west perimeter channel along Tract C-1. The North Pond basin area used to calculate the required pond volume is a simple rectangular basin that incorporates most of the Golden Corral area but does not include the drive aisle aligning the south parking area. The North Pond basin is a conservative depiction of the drainage area tributary to this pond for detention volume calculations but does not reflect the true drainage pattern in the existing condition. This analysis was prepared by Isaacson & Arfman and approved by the City in 2013 (see Appendix A for the Temporary Detention Plan by Isaacson & Arfman, PA, dated 8-27-13).

The true drainage pattern for area draining to the North Pond includes only the large parking area located to the west of the Golden Corral building as tributary area. This west parking area drains surface flow to the pond by way of a curb cut located in the west perimeter curb near the northwest corner of the parking lot (See Curb Opening No. 8 on Golden Corral Restaurant Drainage Plan provided in Appendix A). Drainage outlets to the north pond through the curb cut and is conveyed west down to the pond by a rock lined channel.

The Golden Corral parking area south of the building drains flows southwesterly to the drive aisle running along the south perimeter of the site. The south drive aisle continues to drain surface flow westerly to an existing curb cut located at the west boundary of the drive aisle. The curb cut outlets drainage to a rock lined channel that conveys flows west before discharging to the Tract C-1 west perimeter channel. The shared access drive within Tract B-1 that connects the Golden Corral site to San Mateo Boulevard NE also drains to this south drive aisle and contributes flow directly to the existing west channel by the drainage pattern outline above. As mentioned previously, the Golden Corral parking area was included in the North Pond basin for detention pond calculations but is not actually tributary to the pond in the existing condition.

Proposed Conditions

Drainage Concept

The proposed Del Norte Dialysis site improvements will incorporate a grading and drainage design to include redirecting the Tract B-1 site to drain to the northwest. Retaining walls are proposed along the south and west perimeters of the site to catch grade as necessary to accommodate the proposed grading design. The proposed basin drainage concepts are outline below:

Basin A-1: This basin incorporates the parking area and the drive aisle on the north side of the building. It also includes the adjacent building walks, garden and landscape areas along the north building perimeter. The general drainage pattern within this basin drains storm water away from the building, across the drive aisles to the curb and gutter aligning the north perimeter parking area where flows then become channelized. The curb and gutter along the north drains west to a curb chase located to the northwest of the parking area and denoted on the drainage area map as curb chase #1. The developed peak flows generated in this basin contribute 0.46 and 0.70 cfs for the 10 and 100 year storms. The curb chase #1 outlets this basin flow to the existing Golden Corral south drive aisle (Basin GC1) at design point 2 .

Basin A-2: This basin incorporates the parking area and the drive aisle on the south and west side of the building. It also includes the adjacent building walks and landscape areas along the south and west building perimeter. The general drainage pattern within this basin drains storm water away from the building, across the drive aisles to the curb and gutter aligning the south and west perimeter parking area where flows then become channelized. The curb and gutter along the drains west and then north to a curb chase located to the northwest of the parking area and denoted on the drainage area map as curb chase #2. The developed peak flows generated in this basin contribute 1.12 and 1.69 cfs for the 10 and 100 year storms. The curb chase #2 outlets this basin flow to the existing Golden Corral south drive aisle (Basin GC1) at design point 3.

Basin B: This basin incorporates the building roof drains which are proposed to be conveyed to curb chases and outlet to the drive aisle along the south side of the building at design point 1. Basin B drainage then follows the drainage pattern outlined in Basin A-2 and eventually outlets flow to the curb chase #2 at design point 3.

Basin R: This basin incorporates the developed eastern portion of Tract B-1 that includes the shared access drive, the 20' wide finished landscape buffer east of this shared access, some landscape area along the east side of the Del Norte building and a narrow strip of landscape area aligning the Tract B-1 north perimeter. The existing infrastructure within this basin generally drains storm water northwesterly. The developed flows within the access drive and the eastern landscape median are channeled into the curb and gutter located on the west side of the access drive. Flows continue north in this gutter before it rounds the curb and continues west along the Golden Corral south drive aisle (Basin GC1). At the proposed DaVita site access

points, a 5'valley gutter is proposed to replace the existing curb and gutter to maintain the existing drainage patterns of this access drive described above. This basin generates peak flows of 0.52 and 0.82 cfs for the 10 and 100 storm, respectively.

Basin OS1: This basin contains the landscape strip aligning the south perimeter of Tract B-1 and will continue to drain in a southwesterly direction. The existing retaining wall along the south perimeter will remain intact as is. The minimal flows developed within this basin will continue to drain westerly along the north side of this retaining wall per the existing condition but with greatly reduced flows since the majority of the Tract B-1 drainage is now contained within the Basins A1 and A2. The peak flows generated in Basin OS1 are 0.14 and 0.26 cfs for the 10 and 100 year storm, respectively.

Basin OS2: This basin incorporates the narrow landscape strip aligning the west property line of Tract B-1 and drains westerly into Tract C-1 as done in the existing condition. This basin generates peak flows of 0.06 and 0.10 cfs for the 10 and 100 year storm, respectively.

Basin GC1: This basin contains the existing Golden Corral south drive aisle being used to convey Tract B-1 drainage to the North Pond. This 28' wide asphalt drive drains westerly with a cross slope pushing surface drainage to the south curb and gutter. As this drive extends west the cross slope transitions northwesterly pushing drainage to the north curb and gutter to the existing 8' wide curb cut at the west boundary of this drive aisle (see Curb Opening No. 8 on Golden Corral Restaurant Drainage Plan provided in Appendix A). The existing rock lined channel taking flows from the curb cut to the existing channel along the Tract C-1 west perimeter (bypassing the existing pond) will be eliminated. A new riprap rundown and pad will be constructed to direct flows from the curb cut to the expanded North Pond. This basin generated peak flows of 0.86 and 1.29 cfs for the 10 and 100 year storm, respectively. Design Point 5 designates the cumulative flow entering Basin GC1 that will outlet at the existing curb cut. The access drive is considered a 'common area' for the Sandia Addition Tracts and therefore can serve as a shared drainage way (see highlighted text within Sandia Addition Title Commitment Declaration of Easements, Covenants, and Restrictions included in the appendices of this report).

Basin GC2: This basin contains the existing Golden Corral south parking area. Drainage for this basin surface flows in a southwesterly direction and enters the Golden Corral south drive aisle (Basin GC1, design point 4). This basin will remain unchanged with the proposed Tract B-1 improvements. As discussed in the existing condition section of this report, this area is also already included in the original North Pond basin detention pond required volume (see Appendix A for the Temporary Detention Plan and calculations by Isaacson & Arfman, PA, dated 8-27-13). This basin has been delineated for this report to include its calculated peak runoff and analyze the cumulative impact of this basin and the Tract B-1 added drainage to the south drive aisle surface flows as displayed at design points 4 and 5. The Flowmaster program was used to calculate the normal depth and spread of cumulative flow generated from this basin, Basin GC1 and Tract B-1 drainage and the results are included in the appendix of this report.

This basin generates peak flows of 1.63 and 2.45 cfs for the 10 and 100 year storms, respectively.

North Pond Expansion: The existing North Pond volume and footprint will be expanded to include additional drainage area contributed by the Del Norte parking area and the Golden Corral south drive aisle. The existing outlet structure system which includes a standpipe grate inlet (see Isaacson and Arfman detail on Temporary Drainage Plan) will remain intact and continue the calculated 1 cfs release rate to the Tract C-1 west perimeter channel.
The existing North Pond volume and the proposed expanded pond volume calculations are shown in a Civil 3d generated Pond Stage Volume Output Tables located in the appendix of this report.
Using data from a survey prepared April 8, 2015 (Survey included in the Appendix of this report), the existing pond volume was calculated to be 15,784 cf. The Isaacson and Arfman approved proposed provided pond volume is 15,694 cf. The calculated required North Pond expansion volume to accommodate the proposed site improvements is 7,176 cf. See the Drainage Area Map for the North Pond Inflow/Outflow Hydrograph. The overall proposed North Pond volume after the expanded volume is 23,492 cf.

The first flush calculations for the Tract B-1 site are shown with the Basin Qpeak Analysis Tables. The required first flush storage volume to be retained is calculated to be 1004 cf. The North Pond invert elevation for the lowest orifice in the outlet structure system before release to the west channel is 5195.6. The area of the 5295 lowest pond contour surrounding this outlet structure is 2187 sf. The depth to lowest outlet structure invert is 0.60' resulting in a provided 1,312 cf of retained storage volume prior to the release of pond flows to the west channel.

Hydrology Criteria
In keeping with the previous drainage studies performed for the Sandia Addition Tracts A, B, and C, the Peak Flow per Acre for small watersheds method outlined in the Design Process Manual (DPM), Section 22.2 uses the land treatment values listed in Table A-9 to calculate peak runoff for the for the respective storm. The Table A-9 land treatment values reflect the 12 minute time of concentration and produces similar if not slightly more conservative results of those calculated by the Manning Equation Q=CIA. Refer to the Appendix B Basin Qpeak Analysis spreadsheet for calculations of the composite peak flow for each basin.

The proposed pond expansion volume calculations will be based on the 100 year, 6 hour storm using the Weighted Excess Precipitation for the developed Peak flows as outlined in the DPM Section 22.2. The equations and calculations are included in the report appendix.

Hydraulic Criteria
Hydraulic criteria used for this analysis conforms to the City of Albuquerque DPM 22.3 Hydraulic Design. No variances from the criteria are requested. All proposed expanded detention pond volume, drainage channel (riprap rundown to pond) and parking area-drive aisle hydraulic calculations conform to the DPM Chapter 22. The drainage channel and parking

area/drive aisle depth and spread were calculated using the Bentley Flowmaster V8i program. The pond volumes were calculated using the 2014 Civil 3d Grading Model. Additional calculations will be provided in the Final Drainage Analysis as directed by the City of Albuquerque Hydrology Department. See all hydraulic calculations for the expanded pond volume, drainage chase #1 and 2, the hydraulic depth and spread calculations for various basins and design points within the parking area and the south drive aisle in the appendix of this report.

Summary

The proposed Del Norte Dialysis Center site improvements within Tract B-1 will redirect site grades to drain to the northwest. All grading and storm system improvements including the Del Norte parking area and the Golden Corral south drive aisle are shown to adequately convey the developed peak flows without negative impacts to the existing infrastructure for the Golden Corral as well as the proposed Del Norte Dialysis building. The existing North Pond volume and footprint will be expanded to include additional drainage area contributed by the Del Norte parking area and the Golden Corral south drive aisle. The existing outlet structure system which includes a standpipe grate inlet (see Isaacson and Arfman detail on Temporary Drainage Plan) will remain intact and continue the calculated 1 cfs release rate to the Tract C-1 west perimeter channel. Moreover, the existing rock lined channel taking flows from the curb cut to the existing channel along the Tract C-1 west perimeter (bypassing the existing pond) will be eliminated to include a new riprap channel/rundown that will drain tributary flows directly to the pond. Further reducing direct drainage to this existing west perimeter channel will be a huge improvement for the overall development and the adjacent property owners since there have been issues with this channel previously.

The existing pond volume was calculated to be 15,784 cf. The Isaacson and Arfman approved proposed provided pond volume is 15,694 cf. The calculated required North Pond expansion volume to accommodate the proposed site improvements is 7,176 cf. The overall proposed North Pond volume after the expanded volume is 23,492 cf exceeding the required volume of 22,870 cf.

The required first flush storage volume to be retained is calculated to be 1004 cf. The North Pond invert elevation for the lowest orifice in the outlet structure system before release to the west channel is 5195.6. The area of the 5295 lowest pond contour surrounding this outlet structure is 2187 sf. The depth to lowest outlet structure invert is 0.60' resulting in a provided 1,312 cf of retained storage volume prior to the release of pond flows to the west channel. All existing invert and grade elevations as provided in the existing survey dated April 8, 2015 (Survey provided in the Appendix of this report).

In addition, this analysis has shown that the Golden Corral south drive aisle has capacity to convey the increased peak flows contributed from the Tract B-1 site improvements. With all

combined flows shown at Design Point 5, the calculated depth is 0.24' depth with a 15' spread for the 100 year storm. This drive aisle is considered to be a 'common area' defined in the Declaration of Easements, Covenants and Restrictions of the Sandia Addition title commitment and therefore can be used as a shared drainage way for the Sandia Addition Tracts (see highlighted sections included in the Appendix of this report).

In the unlikely case that the existing curb cut draining all tributary flows from the Golden Corral basins GC1 and GC2 and the Del Norte Dialysis site to the expanded North Pond becomes blocked (flow line elevation of 5199.3), this area will pond to a maximum depth of 6 inches (top of curb elevation of 5199.8), the accumulated flow will overtop the curb and flow down the proposed riprap pad directing flows to the pond. There would be no adverse impacts to any proposed or existing infrastructure in this scenario.

REFERENCES

1. **Design Process Manual, Volume II Design Criteria.**
   City of Albuquerque, Bernalillo County, New Mexico. April 1993.

2. **Flood Insurance Rate Map.**
   Community Panel No. 35001C01139G. Bernalillo County, New Mexico. Federal Emergency Management Agency. September 26, 2008.

3. **Temporary Detention Plan and Calculations.**
   Prepared by Isaacson & Arfman, P.A. Consulting Engineers and Associates. August 28, 2013.

4. **Drainage Impact Analysis for Golden Corral Restaurant.**
   Prepared by SMC Consulting Engineers, P.C. Revised May 28, 2010.

APPENDIX

Appendix A – Drainage Area Map & Drainage Plans of Previous Studies and associated documents
Appendix B - Hydrology
Appendix C – Hydraulics
Appendix D – Construction Plans

APPENDIX A – Basin Information & Drainage Plans of Previous Studies

Proposed Drainage Area Map
Existing Drainage Maps from previous studies
Prepared Survey of Existing Conditions
Title Commitment Declaration of Easement, Covenants and Restrictions

1895 - 5207 San Mateo Blvd. **Aug. 26, 2013**

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

NORTH POND BASIN

AREA OF SITE: 128502 SF = 2.95 **acres**

100-year, 6-hour

DEVELOPED FLOWS:

		Treatment SF	%
Area A	=	0	0%
Area B	=	6425	5%
Area C	=	19275	15%
Area D	=	102802	80%
Total Area	=	128502	100%

EXCESS PRECIP:

Precip. Zone 2

$E_A = 0.53$

$E_B = 0.78$

$E_C = 1.13$

$E_D = 2.12$

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

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

Developed E = 1.90 in.

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

Developed V_{360} = 20394 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 2

Q_{pA} = 1.56 Q_{pC} = 3.14

Q_{pB} = 2.28 Q_{pD} = 4.70

Developed Q_p = 12.8 CFS

CALCULATIONS: 1895 - 5207 San Mateo Blvd. : Aug. 26, 2013
HYDROGRAPH FOR SMALL WATERSHED
DPM SECTION 22-2 * PAGE A-13/14

Base time, t_B, for a small watershed hydrograph is,

$tB = (2.107 * E * A / Q_P) - (0.25 * A_D / A)$

Where

E	=	1.90 inches
A	=	2.95 acres
A_D	=	2.36 acres
Q_P	=	12.8 cfs

t_B	=	0.72 hours

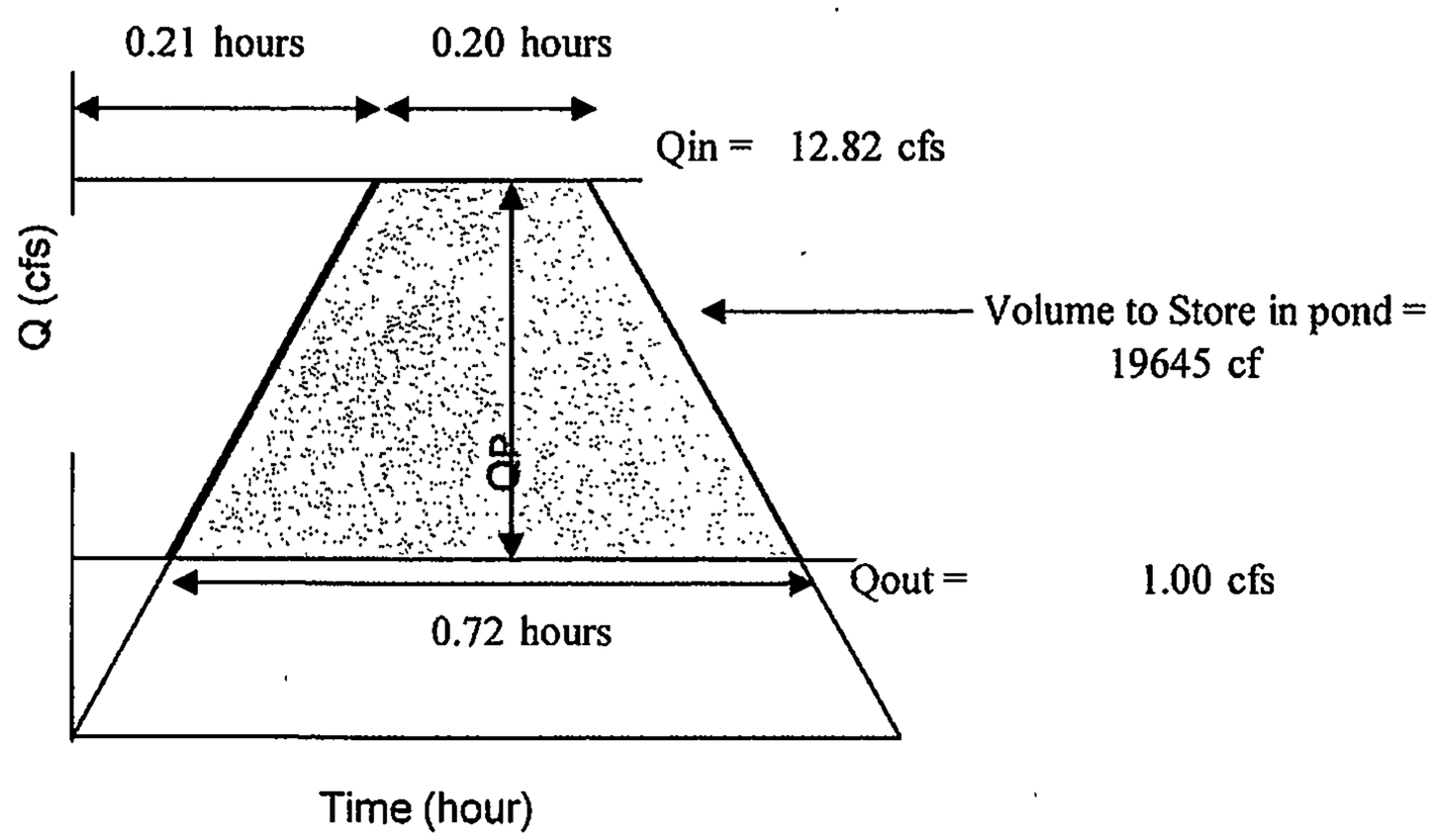
E is the excess precipitation in inches (from DPM TABLE A-8), Q_P is the peak flow, A_D is the area (acres) of treatment D, and A_T is the total area in acres. Using the time of concentration, t_C (hours), the time to peak in hours is:

$t_P = (0.7 * tC) + ((1.6 - (A_D / A)) / 12)$

Where t_C = 0.20 hours

t_P = 0.21 hours

Continue the peak for $0.25 * A_D / A_T$ hours. When A_D is zero, the hydrograph will be triangular. When A_D is not zero, the hyrograph will be trapezoidal. see the graph below:



NORTH BASIN INFLOW / OUTFLOW HYDROGRAPH

NORTH DETENTION POND		
Contour	Area	Volume
5197.00	12406	
5196.00	9793	11100 CF
5195.50	8585	4595 CF
TOTAL VOL.		**15694** CF

SOUTH DETENTION POND		
Contour	Area	Volume
5199.50	14474	
5199.00	13060	6884 CF
5198.00	10400	11730 CF
TOTAL VOL.		**18614** CF

9030189CSD Stewart Title

DECLARATION OF EASEMENTS, COVENANTS AND RESTRICTIONS

THIS DECLARATION OF EASEMENTS, COVENANTS AND RESTRICTIONS ("Declaration') is made this 28th day of July, 2010, by SANDIA FOUNDATION, a New Mexico non-profit corporation, its successors or assigns (the "Declarant"). GOLDEN CORRAL CORPORATION, a North Carolina corporation ("Golden Corral"), joins this Declaration with respect to that certain tract of land described as Tract A in Exhibit "A-1" (the "Tract A").

WHEREAS, Declarant currently owns the property described in Exhibit "A" consisting of Tract A and the remainder tract which Declarant has divided into two (2) separate tracts (collectively, the "Premises");

WHEREAS, Declarant intends to sell, convey and/or lease all or portions of the Premises to various separate entities as part of a general plan of developing the Premises;

WHEREAS, Declarant desires to develop the Premises for sale as an integrated development for the mutual benefit of each of the tracts and, therefore, wishes to establish certain easements, covenants and restrictions on the Premises;

WHEREAS, in order to preserve the quality and harmonious development of the Premises, the Declarant desires to impose upon the Premises certain protective covenants, conditions and restrictions governing the parking, access, drainage, utilities, landscaping, lighting, signage, maintenance and use of the Premises and of each of the tracts to be sold, conveyed and/or leased by the Declarant;

WHEREAS, the Premises including any of the tracts contained therein shall be sold, conveyed, and/or leased subject to these provisions;

WHEREAS, Golden Corral has contracted to purchase the Tract A from Declarant; and

WHEREAS, Declarant is willing to grant (a) Golden Corral a specific non-exclusive access easement over and across a portion of the remainder of the Premises for purposes of access to and from San Mateo Blvd. NE as shown and designated on Exhibit "A-2" (the "Corral Access Easement") and a shared parking easement (the "Shared Parking Easement") and (b) non-exclusive easements for purposes of signage and water, sewer and utility easements needed for the development of each Tract on the terms and conditions hereinafter stated in this Declaration.

NOW, THEREFORE, Declarant hereby certifies and declares that all of the Premises shall be owned, held, sold, leased, exchanged, conveyed, occupied, improved, maintained and used subject to the covenants, conditions and restrictions hereinafter set forth, all of which shall run with the right, title and/or interest in and to the Premises, and/or any part or parts thereof, and shall be binding upon and inure to the benefit of the present and all future owners of the Premises and/or any part or parts thereof.

DocH 2010077107
07/30/2010 12:01 PM Page: 1 of 22
DEC R:$51.00 M. Toulouse Oliver, Bernalillo County

ARTICLE I
DEFINITIONS

The following terms shall have the meanings specified below.

1.01. Tract A. A certain tract of land containing approximately 2.5064 acres, more or less, located within the Premises as is more specifically shown and designated and specifically described in Exhibit "A-1" hereto.

1.02. Building Area(s). The Building Areas in the Premises are the portions of the Premises upon which buildings or other improvements are constructed from time to time in accordance with approved plans and specifications approved by the City of Albuquerque and/or Bernalillo County, and shall consist of the area within or attached to the exterior surfaces of the exterior walls of any heated building or structure. The approximate location of the Building Areas, to the extent they are known at this time, is limited to the Tract A as shown on the Site Plan for Subdivision, the Site Plan for Building Permit, and the related grading, drainage, master utility, landscape and other plans, as approved by the City of Albuquerque, Bernalillo County, New Mexico, reference City of Albuquerque Project #1007867 and City EPC Case Numbers 09EPC – 400042 & 40043.

1.03. Common Area(s). The Common Areas are all real property within the Premises excluding the Building Areas and the Limited Common Areas; provided, those portions of the Building Areas upon which buildings are not constructed shall be deemed to be Common Areas until such time as the initial construction of buildings thereon commences. The Common Areas shall include, but not be limited to, parking lots, landscaping, lighting, curbs, sidewalks, drainage facilities, driveways and any other Common Area improvements as specifically designated and/or required by the City as Common Areas for the common benefit of the project.

1.04. Date Hereof. The Date Hereof shall mean the date of execution of this Declaration by all parties hereto, as evidenced by the date of the signatures as provided on the signature page of this Declaration.

1.05. Interest Rate. The Interest Rate shall mean the rate of eighteen percent (18%) per annum or two percentage points over the U.S. Prime Rate published in The Wall Street Journal in the latest edition thereof published prior to the date such interest commences, whichever is greater, provided that the Interest Rate shall not exceed the maximum rate permitted by law.

1.06. Limited Common Area(s). That portion of any Tract that is designated on a Site Plan as approved by the City of Albuquerque, Bernalillo County, New Mexico used with respect to specific Building Areas for the exclusive use by the owner of the Tract on which such improvements are located and its customers, invitees, licensees, agents and employees.

1.07. Majority Parties. The "Majority Parties" shall mean those Parties who, collectively, have fee simple title to a total of more than 50% of the square footage of land within the Tracts.

more in which twenty percent (20%) or more of the projected annual gross sales from the restaurant are from the sale of food served buffet style: (II) a Ryan's Family Steakhouse, Fire Mountain Grill, Furr's Cafeteria, Old Country Buffet, or a Hometown Buffet or (III) the following parking intensive users: tavern, bar, or cocktail lounge; restaurant that generates more than 50% of its gross sales from the sale of alcohol beverages; automobile, truck, trailer, or recreational vehicle sales, leasing display or repair facility; phone call center; theater; full service gym or full service health club; and a facility that caters primarily to students or trainees as opposed to customers.

5.03. Non-Interference with Common Area. The Common Area is intended for the nonexclusive use by the Occupants and Permittees.

ARTICLE VI
EASEMENTS

6.01. Ingress and Egress. Except as expressly provided by Article IX as to Tract A, Declarant declares, grants and conveys for the benefit of the each Tract, a non-exclusive easement appurtenant to each Tract for ingress and egress by vehicular and pedestrian traffic upon, over and across the Common Area. All easements referenced in this Section 6.01 shall be subject to all restrictions imposed on such uses by this Declaration; provided, such easements shall not pertain to the construction and/or maintenance of utility lines, which shall be governed by the provisions in Section 6.02 below. All such easements shall be as approved by the appropriate governmental authority and the appropriate utility company. Each future Tract owner, by taking title or by leasing its Tract subject to this Declaration, shall be deemed to have accepted such easement(s) with respect to the Common Area.

No fence or other barrier which would unreasonably prevent or obstruct the passage of pedestrian or vehicular travel for the purposes herein permitted shall be erected or permitted within or across the easement areas.

In connection with any construction, reconstruction, repair or maintenance on a Tract, each Tract owner reserves the right to create a temporary staging and/or storage area in the Common Area as will not unreasonably interfere with access between such Tract and the other areas of the Premises and public streets or roadways adjacent to the Premises.

6.02. Utility Lines/Drainage. Except as expressly provided by Article IX as to Tract A, Declarant declares, grants and conveys, for the benefit of each Tract, non-exclusive easements appurtenant to the Tract owned, an easement under, through and across the Common Area, to be specifically described and shown on the Site Plans, for the installation, maintenance, repair and replacement of water drainage systems, flows or structures, water mains, storm drains, sewers, telephone or electrical conduits or systems, gas mains or other public utility facilities necessary for the orderly development and operation of the Common Area and Tract; provided that all such improvements and utilities shall be approved, in writing, by the appropriate governmental authority(s) and utility company(s); provided, further, that the rights granted pursuant to such

easements shall at all times be exercised in such a manner as to cause the least interference with the normal operation of the development on the Premises.

All such systems, structures, mains, sewers, conduits, lines and other public utilities shall be, to the extent reasonably possible, installed and maintained below the ground level or surface of such easements. In the event any Tract owner deems it to be necessary to cause the installation of any utility line across the Common Area provided, however, that in no event will such installation be permitted if it would unreasonably interfere with the normal operation of any business on the Premises or the quiet enjoyment of the Premises or easements thereon by the Tract owner or their successor and/or assigns.

If in exercising the foregoing granted rights, a Tract owner disturbs or otherwise damages any portion of the Common Area improvements, such Tract owner shall expeditiously prosecute to completion the utility work, and at its sole expense, shall immediately restore and repair the Common Area improvements to their condition prior to the commencement of construction. In the event that it should be necessary to grant any of the foregoing easements and rights to the local utility companies as a condition of their providing or continuing service, such rights shall be granted so long as the Tract owner deems the terms and conditions of such grant to be reasonable and necessary.

6.03. Parking Restrictions. Except as expressly provided in Section 9.02 as to Tract A, no persons, other than customers, employees and invitees of the Occupants of the Premises, shall be permitted to park in the Limited Common Areas, unless the Tract owner of the respective Tract gives prior written approval thereto.

ARTICLE VII
INSURANCE PROVISIONS

Insurance. Each Tract owner agrees to maintain, or cause to be maintained, liability insurance against claims for bodily injury, death or property damage occurring on, in or about the Common Area within its Tract with a "Combined Single Limit" (covering bodily injury liability and property damage) of not less than One Million Dollars ($1,000,000.00). Such insurance may be in the form of blanket liability coverage applicable to the Tract owner's Tract and other property owned or occupied by the Tract owner or the party carrying such insurance coverage (or the responsible parent, subsidiary or affiliated companies of such Tract owner or party). Each Tract owner shall, upon request, provide the other Tract owners with evidence of such coverage. Each Tract owner as indemnitor shall indemnify, defend and hold harmless all other Tract owners from all claims, demands, liabilities, losses, costs and expenses with respect to the negligent and/or wrongful acts or omissions of the indemnifying Tract owner relating to construction, restriction, maintenance, use, operation, occupancy and/or management of any part of the Premises and/or with respect to the use by the indemnifying Tract owner and its tenants and Permittees of the easements granted in Article VI. Such indemnity shall not apply to the extent of any loss or claim due to or arising from the negligent or wrongful acts or omissions of the indemnified party.

APPENDIX B - Hydrology

Qpeak and Weighted E Pond Calculations

Basin Qpeak Analysis per DPM Section 22.2

Design Package: Del Norte Dialysis Center
Location: Albuquerque, NM 5207 San Mateo NE

Computed: KLR Date: 4/16/2015
Checked: Date:

Total Area Tract B-1 = 45541.71 sf 1.05 ac

10-year

Sub-Basin Data				Impervious Area		Zone 2 Land Treatment A				Zone 2 Land Treament B				Zone 2 Land Treament C				Zone 2 Land Treament D				Composite
Basin ID	Description	Total Area (sf)	Total Area (ac)	Area (ac)	Basin IMP	Qp A (100-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp A (cfs)	Qp B (100-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp B (cfs)	Qp C (100-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp C (cfs)	Qp D (100-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp D (cfs)	Basin Qpeak 10-Yr Total (cfs)
Proposed Conditions																						
A1	Pr Parking area north of building	6941.00	0.159	0.14	88.0%	0.38	0	0	0.00	0.95	834	0.019	0.02	1.71	0	0.000	0.00	3.14	6107	0.140	0.44	0.46
A2	Pr.Parking area south and west of building	16096.00	0.370	0.35	94.9%	0.38	0	0	0.00	0.95	818	0.019	0.02	1.71	0	0.000	0.00	3.14	15278	0.351	1.10	1.12
B	Proposed Building Roof drain to pipe	8535.00	0.196	0.20	100.0%	0.38	0	0	0.00	0.95	0	0.000	0.00	1.71	0	0.000	0.00	3.14	8535	0.196	0.62	0.62
R	Ex Access Drive and LS areas	8921.00	0.205	0.12	60.9%	0.38	0	0	0.00	0.95	709	0.016	0.02	1.71	2775	0.064	0.11	3.14	5436	0.125	0.39	0.52
OS1	Landscape area along south perimeter	3604.00	0.083	0.00	1.7%	0.38	0	0	0.00	0.95	180	0.004	0.00	1.71	3364	0.077	0.13	3.14	60	0.001	0.00	0.14
OS2	Landscape area along west perimeter	1427.00	0.033	0.00	2.4%	0.38	0	0	0.00	0.95	0	0.000	0.00	1.71	1393	0.032	0.05	3.14	34	0.001	0.00	0.06
GC1	Ex Tract A south drive aisle	12197.00	0.280	0.27	95.0%	0.38	0	0	0.00	0.95	0	0.000	0.00	1.71	610	0.014	0.02	3.14	11587	0.266	0.84	0.86
GC2	Ex Tract A south parking area	23087.00	0.530	0.50	95.0%	0.38	0	0	0.00	0.95	0	0.000	0.00	1.71	1154	0.026	0.05	3.14	21933	0.504	1.58	1.63

Tract B-1 Total Impervious Area= 77.8% Tract B-1 Land Treatment (A) Total = 0.00% Tract B-1 Land Treatment (B) Total = 5.58% Tract B-1 Land Treatment (C) Total = 16.54% Tract B-1 Land Treatment (D) Total = 77.84%

Basins (B)	Total 10-Yr Qpeak to Design Pt 1 =	0.62	cfs
Basins (A1)	Total 10-Yr Qpeak to Design Pt 2 =	0.46	cfs
Basins (A2+B)	Total 10-Yr Qpeak to Design Pt 3=	1.73	cfs
Basins (A1+A2+B+R+GC2)	Total 10-Yr Qpeak to Design Pt 4 =	4.34	cfs
Basins (A1+A2+B+R+GC2+GC1)	Total 10-Yr Qpeak to Design Pt 5 =	5.19	cfs
Basins (OS1+OS2) to Tract C-1	Total 10-Yr Qpeak to Design Pt 6 =	0.20	cfs

100-year

Sub-Basin Data				Impervious Area		Zone 2 Land Treatment A				Zone 2 Land Treament B				Zone 2 Land Treament C				Zone 2 Land Treament D				Composite
Basin ID	Description	Total Area (sf)	Total Area (ac)	Area (ac)	Basin IMP	Qp A (100-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp A (cfs)	Qp B (100-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp B (cfs)	Qp C (100-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp C (cfs)	Qp D (100-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp D (cfs)	Basin Qpeak 100-Yr Total (cfs)
Proposed Conditions																						
A1	Pr Parking area north of building	6941.00	0.159	0.14	88.0%	1.56	0	0	0.00	2.28	834	0.019	0.04	3.14	0	0.000	0.00	4.70	6107	0.140	0.66	0.70
A2	Pr.Parking area south and west of building	16096.00	0.370	0.35	94.9%	1.56	0	0	0.00	2.28	818	0.019	0.04	3.14	0	0.000	0.00	4.70	15278	0.351	1.65	1.69
B	Proposed Building Roof drain to pipe	8535.00	0.196	0.20	100.0%	1.56	0	0	0.00	2.28	0	0.000	0.00	3.14	0	0.000	0.00	4.70	8535	0.196	0.92	0.92
R	Ex Access Drive and LS areas	8921.00	0.205	0.12	60.9%	1.56	0	0	0.00	2.28	709	0.016	0.04	3.14	2775	0.064	0.20	4.70	5436	0.125	0.59	0.82
OS1	Landscape area along south perimeter	3604.00	0.083	0.00	1.7%	1.56	0	0	0.00	2.28	180	0.004	0.01	3.14	3364	0.077	0.24	4.70	60	0.001	0.01	0.26
OS2	Landscape area along west perimeter	1427.00	0.033	0.00	2.4%	1.56	0	0	0.00	2.28	0	0.000	0.00	3.14	1393	0.032	0.10	4.70	34	0.001	0.00	0.10
GC1	Ex Tract A south drive aisle	12197.00	0.280	0.27	95.0%	1.56	0	0	0.00	2.28	0	0.000	0.00	3.14	610	0.014	0.04	4.70	11587	0.266	1.25	1.29
GC2	Ex Tract A south parking area	23087.00	0.530	0.50	95.0%	1.56	0	0	0.00	2.28	0	0.000	0.00	3.14	1154	0.026	0.08	4.70	21933	0.504	2.37	2.45

Tract B-1 Total Impervious Area= 77.8% Tract B-1 Land Treatment (A) Total = 0.00% Tract B-1 Land Treatment (B) Total = 5.58% Tract B-1 Land Treatment (C) Total = 16.54% Tract B-1 Land Treatment (D) Total = 77.84%

90th Percentile Storm Event Treatment for Water Quality

90th Percentile Runoff Depth =	0.44	inches	
Initial Impervious Abstraction (Table A-6) =	0.10	inches	
Required Treatment Depth (D) =	0.34	inches	
Sandia Addition Total Impervious Area (Land Treatment D) =	0.81	acres	
Required Retainment for Treatment (D x Imp Area)/12 in/ft=	0.02	acre-ft	1004.41667 cf
Provided First Flush Volume =			

Basins (B)	Total 100-Yr Qpeak to Design Pt 1 =	0.92	cfs
Basins (A1)	Total 100-Yr Qpeak to Design Pt 2 =	0.70	cfs
Basins (A2+B)	Total 100-Yr Qpeak to Design Pt 3=	2.61	cfs
Basins (A1+A2+B+R+GC2)	Total 100-Yr Qpeak to Design Pt 4 =	6.59	cfs
Basins (A1+A2+B+R+GC2+GC1)	Total 100-Yr Qpeak to Design Pt 5 =	7.88	cfs
Basins (OS1+OS2) to Tract C-1	Total 100-Yr Qpeak to Design Pt 6 =	0.36	cfs

Required North Pond Detention Volume Expansion Calculations

Project: Del Norte Dialysis Center
Address: Albuquerque, NM 5207 San Mateo NE
Tract B-1: 45541 ft^2 1.05 acres

Based on Drainage Design Criteria for City of Albuquerque Section 22.2, D.P.M., Vol 2

Excess Precipitation E (Inches) 100 Yr, 6 hr Storm DPM Sect. 22.2 Table A-8				
Zone	A	B	C	D
1	0.44	0.67	0.99	1.97
2	0.53	0.78	1.13	2.12
3	0.66	0.92	1.29	2.36
4	0.80	1.08	1.46	2.64

Basin Name: Tract B-1+Basin GC1
Precipitation Zone (1-4): 2
Area: 57721.00 ft^2 1.33 acres

Tract B-1 + Basin GC1 Excess Precipitation				
Treatment	Area		%	E
	ft^2	acres		inches
A	0.00	0.00	0.00%	0.53
B	2541.00	0.06	4.40%	0.78
C	8142.00	0.19	14.11%	1.13
D	47037.00	1.08	81.49%	2.12
Total	57720.00	1.33	100.00%	

1. Weighted E: $\frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D} =$ 1.92 inches

2. Onsite Volume of Runoff V_{360}:

V360 (Weighted E * A)/12 = 9,242 cf

3. Peak Runoff Qp 100-YR:

Qp $Q_A A_A + Q_B A_B + Q_C A_C + Q_D A_D =$ 5.80 cfs

(Qpeak value obtained from Basin Qpeak Analysis for the 100 year)

TABLE A-9. PEAK DISCHARGE (CFS/ACRE)				
Zone	100-YR. Treatment [2-YR., 10-YR.]			
	A	B	C	D
1	1.29 [0.00, 0.24]	2.03 [0.03, 0.76]	2.87 [0.47, 1.49]	4.37 [1.69, 2.89]
2	1.56 [0.00, 0.38]	2.28 [0.08, 0.95]	3.14 [0.60, 1.71]	4.7 [1.86, 3.14]
3	1.87 [0.00, 0.58]	2.6 [0.21,1.19]	3.45 [0.78, 2.00]	5.02 [2.04, 3.39]
4	2.2 [0.05, 0.87]	2.92 [0.38, 1.45]	3.73 [1.00, 2.26]	5.25 [2.17, 3.57]

Hyrograph for Small Watershed

E = 1.92 inches
A = 1.33 acres
AD = 1.08 acres
Qp = 5.80 cfs

Note: E is the Excess Precipitation, Qp is the peak flow, AD is the area of Treatment D, and A is the total contributing area to the north pond.

4. Base Time tb
tb: (2.107*E*A/Qp) - (0.25*AD/A) = 0.72 hours
5. Time to Peak tp
tp: (0.70*tc) + ((1.6 - (AD/A)) /12 =
tc = 0.20 hours
(tc is 12 minutes for small watersheds 40 acres or under)
tp = 0.21 hours
6. (0.25*Ad/A) = 0.20 hours (Peak Duration)
7. Inflow/Outflow Hydrograph Area for Required Detention volume:
Qp In = 5.80 cfs
Qp Out = 1 cfs
***Required Detention Volume =** 7,176 cf
(*See hydrograph illustration on the Drainage Map for Hydrograph Area Calculations)

DPM Section 22.2 Notes Land Treatment Descriptions

Land Treatments Table A-4	
A	Soil uncompacted by human activity with 0 to 10 percent slopes. Native grasses, weeds and shrubs in typical densities with minimal disturbance to grading, ground cover and infiltration capacity.
B	Irrigated lawns, parks and golf courses with 0 to 10 percent slopes. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes greater than 10 percent and less than 20 percent.
C	Soil compacted by human activity. Minimal vegetation. Unpaved parking, roads, trails. Most vacant lots. Gravel or rock on plastic (desert landscaping). Irrigated lawns and parks with slopes greater than 10 percent. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes at 20 percent or greater. Native grass, weed and shrub areas with clay or clay loam soils and other soils of very low permeability as classified by SCS Hydrologic Soil Group D.
D	Impervious areas, pavement and roofs.
Most watersheds contain a mix of land treatments. To determine proportional treatments, measure respective subareas. In lieu of specific measurement for treatment D, the area percentages in TABLE A-5 may be employed.	

APPENDIX C – Hydraulics

Proposed Channel/Rundown and Curb Flow Calculations

West Parking Curb Basins A2 and B 100 Yr

Project Description

Solve For	Spread

Input Data

Channel Slope	0.00900	ft/ft
Discharge	2.61	ft^3/s
Gutter Width	1.00	ft
Gutter Cross Slope	0.07	ft/ft
Road Cross Slope	0.03	ft/ft
Roughness Coefficient	0.013	

Results

Spread	7.43	ft
Flow Area	0.85	ft^2
Depth	0.26	ft
Gutter Depression	0.04	ft
Velocity	3.08	ft/s

Cross Section for West Parking Curb Basins A2 and B 100 Yr

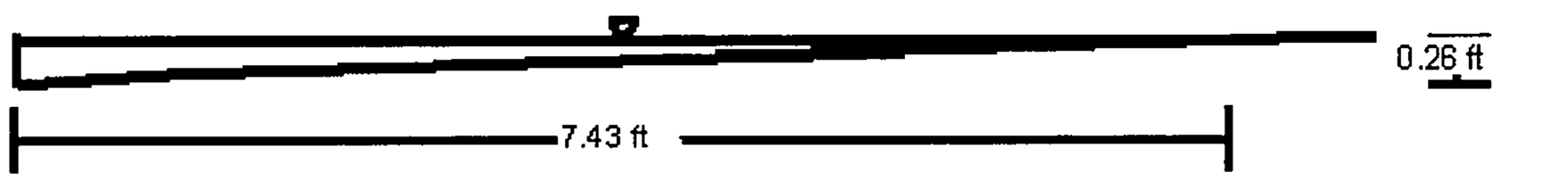
Project Description

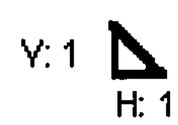
Solve For	Spread

Input Data

Channel Slope	0.00900	ft/ft
Discharge	2.61	ft^3/s
Gutter Width	1.00	ft
Gutter Cross Slope	0.07	ft/ft
Road Cross Slope	0.03	ft/ft
Spread	7.43	ft
Roughness Coefficient	0.013	

Cross Section Image





North Parking Curb Basin A1 100 Yr

Project Description

Solve For	Spread

Input Data

Channel Slope	0.03900	ft/ft
Discharge	0.70	ft^3/s
Gutter Width	1.00	ft
Gutter Cross Slope	0.07	ft/ft
Road Cross Slope	0.03	ft/ft
Roughness Coefficient	0.013	

Results

Spread	3.19	ft
Flow Area	0.17	ft^2
Depth	0.14	ft
Gutter Depression	0.04	ft
Velocity	4.05	ft/s

Cross Section for North Parking Curb Basin A1 100 Yr

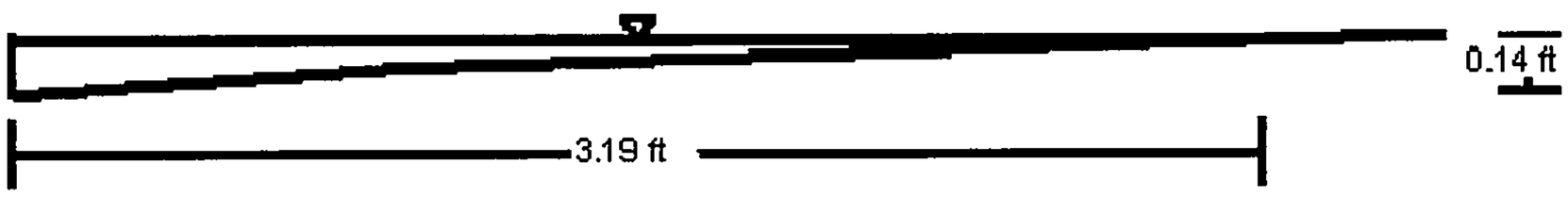
Project Description

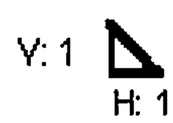
Solve For	Spread

Input Data

Channel Slope	0.03900	ft/ft
Discharge	0.70	ft³/s
Gutter Width	1.00	ft
Gutter Cross Slope	0.07	ft/ft
Road Cross Slope	0.03	ft/ft
Spread	3.19	ft
Roughness Coefficient	0.013	

Cross Section Image





Golden Corral Drive Design Pt 4 100 Yr

Project Description

Solve For	Spread

Input Data

Channel Slope	0.03000	ft/ft
Discharge	6.60	ft^3/s
Gutter Width	1.00	ft
Gutter Cross Slope	0.07	ft/ft
Road Cross Slope	0.02	ft/ft
Roughness Coefficient	0.013	

Results

Spread	10.84	ft
Flow Area	1.20	ft^2
Depth	0.27	ft
Gutter Depression	0.05	ft
Velocity	5.50	ft/s

Cross Section for Golden Corral Drive Design Pt 4 100 Yr

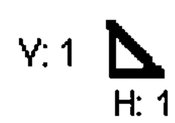
Project Description

Solve For	Spread

Input Data

Channel Slope	0.03000	ft/ft
Discharge	6.60	ft³/s
Gutter Width	1.00	ft
Gutter Cross Slope	0.07	ft/ft
Road Cross Slope	0.02	ft/ft
Spread	10.84	ft
Roughness Coefficient	0.013	

Cross Section Image



Golden Corral Drive Design Pt 5 100 Yr

Project Description

Solve For	Spread

Input Data

Channel Slope	0.03700	ft/ft
Discharge	7.90	ft^3/s
Gutter Width	1.00	ft
Gutter Cross Slope	0.07	ft/ft
Road Cross Slope	0.01	ft/ft
Roughness Coefficient	0.013	

Results

Spread	14.96	ft
Flow Area	1.43	ft^2
Depth	0.24	ft
Gutter Depression	0.06	ft
Velocity	5.53	ft/s

Cross Section for Golden Corral Drive Design Pt 5 100 Yr

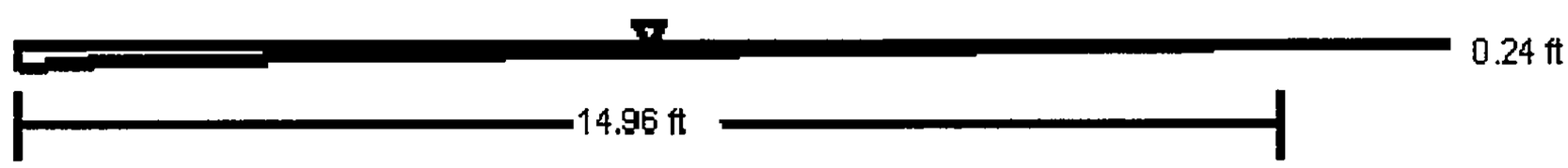
Project Description

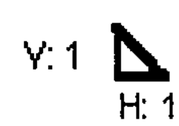
Solve For	Spread

Input Data

Channel Slope	0.03700	ft/ft
Discharge	7.90	ft^3/s
Gutter Width	1.00	ft
Gutter Cross Slope	0.07	ft/ft
Road Cross Slope	0.01	ft/ft
Spread	14.96	ft
Roughness Coefficient	0.013	

Cross Section Image





North Pond Trapezoidal Channel (Rundown) 100 Yr

Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.069	
Channel Slope	0.16700	ft/ft
Left Side Slope	4.00	ft/ft (H:V)
Right Side Slope	4.00	ft/ft (H:V)
Bottom Width	8.00	ft
Discharge	7.90	ft^3/s

Results

Normal Depth	0.26	ft
Flow Area	2.37	ft^2
Wetted Perimeter	10.16	ft
Hydraulic Radius	0.23	ft
Top Width	10.10	ft
Critical Depth	0.30	ft
Critical Slope	0.10942	ft/ft
Velocity	3.33	ft/s
Velocity Head	0.17	ft
Specific Energy	0.43	ft
Froude Number	1.21	
Flow Type	Supercritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.26	ft
Critical Depth	0.30	ft
Channel Slope	0.16700	ft/ft

North Pond Trapezoidal Channel (Rundown) 100 Yr

GVF Output Data

Critical Slope	0.10942	ft/ft

Cross Section for North Pond Rundown100 Yr

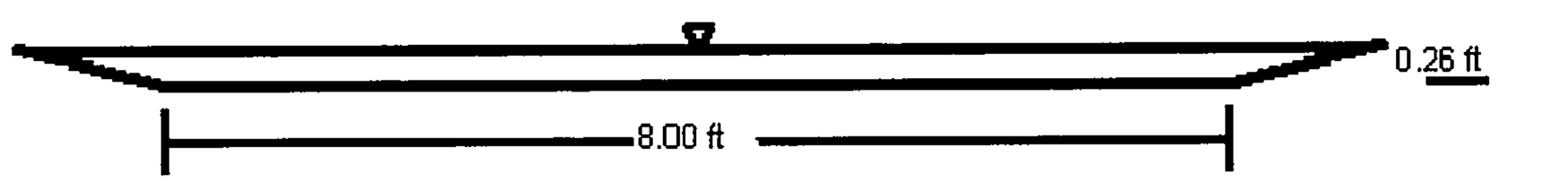
Project Description

Friction Method	Manning Formula
Solve For	Normal Depth

Input Data

Roughness Coefficient	0.069	
Channel Slope	0.16700	ft/ft
Normal Depth	0.26	ft
Left Side Slope	4.00	ft/ft (H:V)
Right Side Slope	4.00	ft/ft (H:V)
Bottom Width	8.00	ft
Discharge	7.90	ft^3/s

Cross Section Image



APPENDIX D –Construction Plans

Grading Plans

CITY OF ALBUQUERQUE

March 27, 2015

Krisinda Rapiejka, PE
Entitlement and Engineering Solutions, Inc.
518 17th Street Ste. 1575
Denver, Colorado 80202

RE: **DaVita Dialysis Center, 5207 San Mateo Blvd.**
Grading and Drainage Plan
Plan Dated 2-23-15 (File: F17-D095A)

Dear Ms. Rapiejka:

Based upon the information provided in your submittal received 3-4-15, the above referenced plan cannot be approved for DRB action on the Site Plan for Building Permit until the following comments are addressed:

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

1) Please include an engineer's stamp on all plans including the "Grading and Drainage Plan" and "Drainage Area Plan".

2) Per the City Drainage ordinance, the 90th Percentile Storm Event, which is 0.44 inches, is to be managed. Reduce 0.44 inch by the 0.1 inch for the initial impervious abstraction in Table A-6 of Section 22 of the DPM. Then multiply the remaining 0.34 inch by your impervious area which should be the portion required to be retained. Show these computations, and show this retention area on the plan. (There are opportunities to include this retention either within the existing pond, within the proposed channel, or within landscaped areas while ensuring that any ponding is a minimum of 10 feet away from the building.)

3) Show proposed channel on plan, channel outfall to existing pond, and existing pond, including the necessary invert elevations, grading, and necessary details.

4) Under "Drainage Legend", clarify "impervious area" as a percentage of total basin area. Double-check your labeling of 58.2% impervious area for Tract B-1 within your 100-year storm flow calculations since the total impervious area from Tract B-1 looks higher than 58.2%.

5) Show drainage easement information on the plan including easement width, DRB Case number, and approved plat date.

CITY OF ALBUQUERQUE

March 27, 2015

Krisinda Rapiejka, PE
Entitlement and Engineering Solutions, Inc.
518 17th Street Ste. 1575
Denver, Colorado 80202

RE: **DaVita Dialysis Center, 5207 San Mateo Blvd.**
Grading and Drainage Plan
Plan Dated 2-23-15 (File: F17-D095A)

Dear Ms. Rapiejka:

Based upon the information provided in your submittal received 3-4-15, the above referenced plan cannot be approved for DRB action on the Site Plan for Building Permit until the following comments are addressed:

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Albuquerque

New Mexico 87103

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3) Show proposed channel on plan, channel outfall to existing pond, and existing pond, including the necessary invert elevations, grading, and necessary details.

4) Under "Drainage Legend", clarify "impervious area" as a percentage of total basin area. Double-check your labeling of 58.2% impervious area for Tract B-1 within your 100-year storm flow calculations since the total impervious area from Tract B-1 looks higher than 58.2%.

5) Show drainage easement information on the plan including easement width, DRB Case number, and approved plat date.

6) Provide existing contours for Tract C to verify the extent of the basin limits for Tract C.

Prior to obtaining a building permit, please address the following comments:

1) Show the cumulative flow that is discharged to channel from Tract B and the total flow that is discharged into the existing pond from the new channel. (This can be shown in Table 1 on the Grading and Drainage Plan by showing the total flow that corresponds to the Design Point.)

2) An elevation of 5216.00 is shown on the northeast corner of the building near the door which shows a 5215.36 elevation. Because two conflicting elevations are shown at this location, ensure drainage away from the door by providing a curb or something similar at this northeast corner of the building.

3) List final grate elevations of the inlet and cleanout.

4) Show capacity calculations for the Type "A" inlet and for the storm drain runs. Label the flow that each pipe run is conveying on the plan view.

5) Show the detail of the storm drain connection to the proposed channel.

If you have any questions, you can contact me at 924-3924.

Sincerely,

Jeanne Wolfenbarger, P.E.
Senior Engineer, Planning Dept.
Development Review Services

Orig: Drainage file
c.pdf Addressee via Email

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

F17D095A

Project Title: DaVita Dialysis ~~Facility~~ Center Building Permit #: TBD City Drainage #: TBD

DRB#: TBD EPC#: N/A Work Order#: N/A

Legal Description: Tract B, Sandia Addition, Elena Gallegos Grant, City of Albq

City Address: 5207 San Mateo Blvd

Engineering Firm: Entitlement and Engineering Solutions, Inc. Contact: Krisinda Rapiejko

Address: 518 17th St Ste. 1575, Denver CO 80202

Phone#: (303) 717-8843 Fax#: E-mail: krapiejko@ees.us.com

Owner: DaVita HealthCare Partners, Inc. Contact: Marshall Stewman

Address: 2000 16th Street Denver CO 80202

Phone#: (972) 765-6256 Fax#: E-mail:

Architect: InForm Studio Contact: Kenneth Van Tine, AIA

Address: 235 E. Main St. Ste 102B, Northville, MI 48167

Phone#: (248) 449-3564 Fax#: E-mail: kvantine@in-formstudio.com

Surveyor: SurvTek, Inc. Consulting Surveyors Contact: Russ Hugg

Address: 9384 Valley View Drive

Phone#: (505) 897-3366 Fax#: E-mail:

Contractor: T.B.D. Contact:

Address:

Phone#: Fax#: E-mail:

TYPE OF SUBMITTAL:

- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN 1st SUBMITTAL
- ____ DRAINAGE PLAN RESUBMITTAL
- X CONCEPTUAL G & D PLAN
- ____ GRADING PLAN
- ____ EROSION & SEDIMENT CONTROL PLAN (ESC)
- ____ ENGINEER'S CERT (HYDROLOGY)
- ____ CLOMR/LOMR
- X TRAFFIC CIRCULATION LAYOUT (TCL)
- ____ ENGINEER'S CERT (TCL)
- ____ ENGINEER'S CERT (DRB SITE PLAN)
- ____ ENGINEER'S CERT (ESC)
- ____ SO-19
- ____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ____ SIA/FINANCIAL GUARANTEE RELEASE
- ____ PRELIMINARY PLAT APPROVAL
- ____ S. DEV. PLAN FOR SUB'D APPROVAL
- X S. DEV. FOR BLDG. PERMIT APPROVAL ← DRB Public Hearing Date T.B.D. Soon. Likely date 4/15/15 or 4/22/15
- ____ SECTOR PLAN APPROVAL
- ____ FINAL PLAT APPROVAL
- ____ CERTIFICATE OF OCCUPANCY (PERM)
- ____ CERTIFICATE OF OCCUPANCY (TCL TEMP)
- ____ FOUNDATION PERMIT APPROVAL
- X BUILDING PERMIT APPROVAL
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ GRADING CERTIFICATION
- ____ SO-19 APPROVAL
- ____ ESC PERMIT APPROVAL
- ____ ESC CERT. ACCEPTANCE
- ____ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED: X Yes ____ No ____ Copy Provided ← telephone conference meeting W/Racquel Michel date 2/3/15.

DATE SUBMITTED: 3/4/15 By: Krisinda Rapiejko, PE

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the followin

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report:** Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

Included: (1) copy of Drainage Report & Associated Plans to Hydrology (i.e. drainage map, Grading & Utility Plan)

(2) TCL Site Plan & Detail Sheet

$50.00 check to COA for Conceptual G&D submittal

DPM Section 22.2 Notes Land Treatment Descriptions

Land Treatments Table A-4	
A	Soil uncompacted by human activity with 0 to 10 percent slopes. Native grasses, weeds and shrubs in typical densities with minimal disturbance to grading, ground cover and infiltration capacity.
B	Irrigated lawns, parks and golf courses with 0 to 10 percent slopes. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes greater than 10 percent and less than 20 percent.
C	Soil compacted by human activity. Minimal vegetation. Unpaved parking, roads, trails. Most vacant lots. Gravel or rock on plastic (desert landscaping). Irrigated lawns and parks with slopes greater than 10 percent. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes at 20 percent or greater. Native grass, weed and shrub areas with clay or clay loam soils and other soils of very low permeability as classified by SCS Hydrologic Soil Group D.
D	Impervious areas, pavement and roofs.
Most watersheds contain a mix of land treatments. To determine proportional treatments, measure respective subareas. In lieu of specific measurement for treatment D, the area percentages in TABLE A-5 may be employed.	

(1)
Drainage Report
Hydrology

Davita Dialysis Facility Conceptual Drainage Report

5207 San Mateo Blvd.
Albuquerque, NM 87109

March 2, 2015

Prepared By:

EES

Entitlement and Engineering Solutions, Inc.
518 17th Street, Suite 1575
Denver, CO 80202
Phone: (303) 572-7997
Attn: Amanda M. O'Connor, P.E.

Engineer's Statement

This report for the conceptual design of the DaVita Dialysis Facility was prepared by me or under my direct supervision in accordance with the provisions of City of Albuquerque, Bernalillo County, New Mexico Design Process Manual Section 22. I understand that the City of Albuquerque, New Mexico does not and will not assume liability for drainage facilities designed by others.

_____

Registered Professional Engineer

State of New Mexico No. _____

(Affix Seal)

Table of Contents

Executive Summary 1
Project Location and Zoning 1
Existing Site and Drainage Concept 1
Project Description and Drainage Concept 2
Required Project Approvals 2
Existing Conditions 2
Drainage pattern and facilities 2
Proposed Conditions 3
Drainage Concept 3
Hydrology Criteria 5
Hydraulic Criteria 5
Summary 6
REFERENCES 6
APPENDIX 7

Executive Summary

Project Location and Zoning

The DaVita Dialysis Facility project site is located on the west side of San Mateo Boulevard approximately 430 feet north of Mcleod Road in the Tract B-1 (formerly Tract B) of the Sandia Addition in the City of Albuquerque, Bernalillo County. This site falls within a designated Enhanced Transit Corridor of an Established Urban Area of the Comprehensive Plan. It is located within the boundaries of the City Zone Map F-17 as shown on the Drainage Map within Appendix C. The site lies within the Flood Zone X and therefore is not designated as a flood prone area in accordance with the National Flood Insurance Program Rate Map No. 35001C0139 G, effective date 9-26-2008. The current zoning for the site is C3, heavy commercial and the proposed use is permissive within this zone category.

Existing Site and Drainage Concept

The site was previously used as a garden nursery but has since been cleared of all structures and overlot graded to follow the historic drainage patterns with topography that falls to the southwest. The site maintains minimal vegetation due to this grading disturbance and demolition.

In 2011, the Golden Corral was designed and constructed in the Tract A of the Sandia Addition, due north of this project. The proposed grading for this site generally drains southwesterly with the northern perimeter of the site draining to the north. This site utilizes curb cuts, cobbled swale rundowns and concrete flumes to connect their site drainage with the existing channels along the north and south of the property line of Tract A and then across Tract C to the existing channel along the west Tract-C perimeter. The building roof drains and a portion of this site's west perimeter connect subsurface to the existing storm system within San Mateo Boulevard.

In 2013 two ponds were designed and constructed on west side of Tract C to the north and south (see Appendix A for the Temporary Detention Plan by Isaacson & Arfman, PA, dated 8-27-13). Tract C is located west of this project. These ponds were designed and constructed in response to a failure of the berm along the west side of the existing channel along the Tract C perimeter. The berm was eroding after a series of large rain storms and allowing drainage to flood the adjacent property to the west of Tract C. Both detention ponds were designed to detain the 100-year, 6-hour storm for the Sandia Addition Tracts A, B and C in the full developed condition. The contributing basin for each pond is designed with an estimated land treatment D (impervious area) of 80% for the overall basin area. Both ponds outlet flows to the existing west perimeter channel with a controlled release rate. In addition, the existing channels along the north and south perimeters were repaired with shotcrete as part of the overall design of these detention ponds.

Project Description and Drainage Concept

The proposed DaVita Dialysis Facility is an outpatient medical facility with a single story 8,535 sf building. The site layout will incorporate 33 stalls of onsite parking with landscape medians framing each parking aisle and aligning the perimeters of the site. The majority of the site drainage will be captured by a curb inlet located to the southwest of the parking area and convey flows west via subsurface pipe through the proposed retaining wall along the west Tract B perimeter. These flows will daylight into a rock lined channel within Tract C which will convey this drainage west. A portion of the Tract C drainage will also contribute flows to this channel as it extends west with the developed condition land treatment ratios incorporated into the design (see Basin C of the proposed drainage map). This proposed channel will outlet into the existing south pond within Tract C. The proposed drainage concept for the DaVita Dialysis site conforms to the south detention pond design intent as outlined in the calculations and drainage plan prepared by Isaacson and Arfman, PA in 2013 (See Temporary Drainage Plan Appendix A).

Required Project Approvals

The development process for this project will require the following approvals listed below. Some approvals are already in process:

- Traffic Circulation Layout Plan
- Grading and Drainage Plan
- West lot line adjustment for Tract B and C for the Sandia Addition Plat. This also includes a defined utility easement through Tract B for the benefit of Tract C. Moreover, a 15' drainage easement through Tract C to the existing south pond for the benefit of Tract B is also defined on this plat adjustment. With this plat adjustment, Both Tracts B and C will be renamed to Tracts C-1 and B-1 to signify the lot line change.
- SDP for Subdivision Minor Amendment reflecting Sandia Addition Plat adjustments listed above.
- SDP for Building Permit through DRB or EPC process (process yet to be confirmed)
- Building Permit
- Retaining Wall Permit
- Site Signage Permit

Existing Conditions

Drainage pattern and facilities

The site is currently undeveloped and located in the precipitation zone 2 as outline in the DPM Chapter 22.2. The existing land treatment for Tract B is mostly C where undeveloped. The eastern portion of Tract B is currently built out with an approximate 28' wide shared access drive for Tracts A, B and C and a finished 20' wide landscape buffer dividing this access drive from the San Mateo Boulevard ROW as was developed with the design and construction of the Golden Corral. The south adjacent property Tract A-1A of the Sanbusco Addition is developed as an industrial use and is elevated above the south Tract B perimeter grades with the use of a

small 1-3 foot retaining wall that aligns the south property line (see proposed drainage map). The grading for the Tract B falls to the southwest, allowing for developed flows to drain along the north side of this retaining wall. This retaining wall appears to keep developed flow originating from Tract B to remain within Tract B as well as a portion of Tract C as it drains westerly to the south detention pond. There appears to be no offsite drainage entering this site.

For this analysis, the drainage impact analysis for the proposed site will be based not only on its adherence to maintain the current drainage patterns set forth by previous developments on the Sandia Addition tracts, but also on its conformance to the estimated developed conditions used to calculate the Tract C south detention pond volume. The tributary basin for the South Pond contains the Tract B area in its entirety and uses the following land treatments for its required basin volume calculations as displayed in Table 1 below.

Table 1

Basin	Area	Land Treatment Percentage				Qp100
ID	(ac)	A	B	C	D	(cfs)
South Pond	2.72	0	5	15	80	11.8

*This information was reproduced using the calculations and drainage plan prepared by Isaacson and Arfman, PA in 2013. See Appendix A for Temporary Drainage Plan and calculations prepared by Isaacson and Arfman.

Proposed Conditions

Drainage Concept

The proposed site improvements will incorporate a grading and drainage design that will maintain the current drainage pattern set up for the overall Sandia Addition Tract A, B and C. The proposed basin drainage concepts are outline below:

Basin A: This basin incorporates the entire DaVita paved parking area and the drive aisles on the north, south and west side of the building. It also includes the adjacent building walks, garden and landscape areas around the building to the north, south and west. The general drainage pattern within this basin drains storm water away from the building, across the drive aisles to the curb and gutter aligning the perimeter parking area where flows then become channelized. The curb and gutter along the north, south and west all drain toward the single curb inlet located at the low point of the parking area in the southwest corner of the site. The developed peak flows generated in this basin contribute 0.95 and 1.46 cfs for the 10 and 100 year storms to the Type A curb inlet at Design Point 2. These flows are conveyed in subsurface pipe to the west and outlet through the retaining wall along the west property line. At Design Point 3, these flows daylight into the proposed channel which then drains west to the existing south pond in Tract C.

Basin B: This basin incorporates the building roof drains which are proposed to be conveyed subsurface to the 12" storm pipe along the south side of the building. This pipe connects to the proposed Type A curb inlet located at the southwest corner of the parking area and delineated as Design Point 2. At Design Point 2, Basin A and B flows join and continue west before daylighting into the proposed channel on the west side of the proposed retaining wall along the south Tract B perimeter. This outlet point into the channel is delineated at Design Point 3.

Basin OS1: This basin incorporates the developed eastern portion of Tract B that includes the shared access drive, the 20' wide finished landscape buffer east of this shared access, some landscape area along the east side of the DaVita building and a narrow strip of landscape area aligning the Tract B north perimeter. The existing infrastructure within this basin generally drains storm water northwesterly. The developed flows within the access drive and the eastern landscape median are channeled into the curb and gutter located on the west side of the access drive. Flows continue north in this gutter before it rounds the curb and continues west along the Golden Corral south drive aisle. At the proposed DaVita site access points, a 5'valley gutter is proposed to replace the existing curb and gutter to maintain the existing drainage patterns of this access drive described above. Drainage generated by Basin OS1 in Tract B and a portion of the Golden Corral parking area eventually outlet at a curb cut along the west border of the Golden Corral south drive aisle (See Curb Opening No. 8 on Golden Corral Restaurant Drainage Plan provided in Appendix A). An existing cobbled rundown takes these flows to the existing North Pond. The existing conditions and patterns contained within Basin OS1 will remain intact as originally designed. The proposed DaVita site improvements will have little to no impact on the drainage flows already routed to the Golden Corral infrastructure described above. This basin generates peak flows of 0.51 and 0.82 cfs for the 10 and 100 storm, respectively.

Basin OS2: This basin incorporates the narrow landscape strip aligning the west property line of Tract B and drains westerly into Tract C, Basin C. Within the Basin C of Tract C, these developed flows drain overland in a southwesterly direction to the proposed channel along the south perimeter of Tract C, as delineated by Design Point 4. This basin generates peak flows of 0.06 and 0.11 cfs for the 10 and 100 year storm, respectively.

Basin OS3: This basin contains the landscape strip aligning the south perimeter of Tract B and will continue to drain in a southwesterly direction. The existing retaining wall along the south perimeter will remain intact as is. The minimal flows developed within this basin will continue to drain westerly along the north side of this retaining wall per the existing condition but with greatly reduced flows since the majority of the Tract B drainage is now contained within the Basin A. The peak flows generated in Basin OS3 are 0.14 and 0.26 cfs for the 10 and 100 year storm, respectively.

Basin C: This basin contains the proposed channel aligning the south perimeter of Tract C as well as the portion of Tract C area tributary to this channel. The land treatments ratios for this basin are for the developed condition and that of the Isaacson & Arfman calculations. The peak

flows generated in Basin C are 1.26 and 1.94 cfs for the 10 and 100 year storm, respectively and are shown to join the channel at Design Point 4. The full extent of this channel will be designed to accommodate the summation of flows at Design Point 4.

Hydrology Criteria

In keeping with the previous drainage studies performed for the Sandia Addition Tracts A, B, and C, the Peak Flow per Acre for small watersheds method outlined in the Design Process Manual (DPM), Section 22.2 uses the land treatment values listed in Table A-9 to calculate peak runoff for the for the respective storm. The Table A-9 land treatment values reflect the 12 minute time of concentration and produces similar if not slightly more conservative results of those calculated by the Manning Equation Q=CIA. Refer to the Appendix B Basin Qpeak Analysis spreadsheet for calculations of the composite peak flow for each basin.

Hydraulic Criteria

Hydraulic criteria used for this analysis conforms to the City of Albuquerque DPM 22.3 Hydraulic Design. No variances from the criteria are requested. All proposed storm pipes, inlet and channel conform to the DPM Chapter 22. Additional calculations will be provided in the Final Drainage Analysis as directed by the City of Albuquerque Hydrology Department.

The proposed COA standard Type A curb inlet located in the southwest corner of the DaVita parking area will adequately intercept both the 10 and 100 year peak flows generated in Basin A. Per the nomograph shown on the Plate 22.3 D-4 Type A Grating Capacity, the 10 and 100 year respective peak flows of .89 and 1.46 cfs will produce a depth of .22 and .25 feet above the grate for a gutter slope of 1.00%.

The proposed channel extending from the Tract B west perimeter retaining wall to the existing south detention pond is designed to carry the summation of peak flows of 4.68 cfs shown at Design Point 4 for the 100 year storm. This includes all Tract B Basins, A through OS3. It does not include Basin OS1 which drains to the Golden Corral infrastructure per the existing condition. In addition, Design point 4 also includes flows generated in Basin C of Tract C for the developed condition (with assumed 80% Land Treatment area D). The Flowmaster program was used to calculate the required dimensions for a rock lined (average 6" diam.) trapezoidal channel with a bottom width of 2 feet, a maximum normal depth of 9 inches, and 4:1 side slopes (see Appendix C for channel hydraulic calculations, see Drainage Map for channel detail). This design can accommodate a maximum flow of 8.3 cfs flow, at a 2.2 f/s velocity with a sub-critical flow and Froude No. of 0.83. The final drainage analysis and construction documents will include a profile of the pipe from the Type A inlet to the pipe outlet into this drainage channel through the retaining wall with the calculated hydraulic properties.

APPENDIX A – Basin Information & Drainage Plans of Previous Studies

Existing Drainage Maps from previous studies
Proposed Drainage Plan
Proposed Grading Plan

Summary

The proposed DaVita Dialysis site improvements within Tract B follow the drainage patterns set forth by the previous studies cited throughout this report. No variance from criteria is requested. All grading and storm system improvements are shown to adequately convey the developed peak flows without impacting the existing infrastructure as well as the proposed DaVita building.

In the unlikely case that the proposed onsite Type A curb inlet were to clog completely, ponding would develop around the inlet grate (rim elevation of 5211.0) with a maximum depth of 6 inches (DaVita Building FFE 5215.36), the cumulated flow would overtop the curb, overland flow down the landscape area in a westerly direction, and spill over the proposed retaining wall before being intercepted by the proposed channel in Tract C. There would be no adverse impacts to any proposed or existing infrastructure in this scenario.

REFERENCES

1. **Design Process Manual, Volume II Design Criteria.**
   City of Albuquerque, Bernalillo County, New Mexico. April 1993.

2. **Flood Insurance Rate Map.**
   Community Panel No. 35001C01139G. Bernalillo County, New Mexico. Federal Emergency Management Agency. September 26, 2008.

3. **Temporary Detention Plan and Calculations.**
   Prepared by Isaacson & Arfman, P.A. Consulting Engineers and Associates. August 28, 2013.

4. **Drainage Impact Analysis for Golden Corral Restaurant.**
   Prepared by SMC Consulting Engineers, P.C. Revised May 28, 2010.

APPENDIX

Appendix A – Basin Information & Drainage Plans of Previous Studies
Appendix B - Hydrology
Appendix C – Hydraulics
Appendix D – Plans (to be submitted with Final Drainage Report)

APPENDIX B - Hydrology

Qpeak Calculations

APPENDIX B - Hydrology

Qpeak Calculations

DPM Section 22.2 Notes Land Treatment Descriptions

Land Treatments Table A-4	
A	Soil uncompacted by human activity with 0 to 10 percent slopes. Native grasses, weeds and shrubs in typical densities with minimal disturbance to grading, ground cover and infiltration capacity.
B	Irrigated lawns, parks and golf courses with 0 to 10 percent slopes. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes greater than 10 percent and less than 20 percent.
C	Soil compacted by human activity. Minimal vegetation. Unpaved parking, roads, trails. Most vacant lots. Gravel or rock on plastic (desert landscaping). Irrigated lawns and parks with slopes greater than 10 percent. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes at 20 percent or greater. Native grass, weed and shrub areas with clay or clay loam soils and other soils of very low permeability as classified by SCS Hydrologic Soil Group D.
D	Impervious areas, pavement and roofs.
Most watersheds contain a mix of land treatments. To determine proportional treatments, measure respective subareas. In lieu of specific measurement for treatment D, the area percentages in TABLE A-5 may be employed.	

City of Albuquerque DPM 22.2

Project: DaVita Dialysis Center
Address: Albuquerque, NM 5207 San Mateo

Based on Drainage Design Criteria for City of Albuquerque Section 22.2, D.P.M., Vol 2

Peak Flow per Acre - DPM Sect. 22.2 Table A-9 10 Yr, 100 Yr				
Zone	A	B	C	D
1	0.24, 1.29	0.76, 2.03	1.49, 2.87	2.89, 4.37
2	0.38, 1.56	0.95, 2.28	1.71, 3.14	3.14, 4.70
3	0.58, 1.87	1.19, 2.60	2.00, 3.45	3.39, 5.02
4	0.87, 2.20	1.45, 2.92	2.26, 3.73	3.57, 5.25

1895 - 5207 San Mateo Blvd. **Aug. 26, 2013**

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

SOUTH POND BASIN

AREA OF SITE: 118567 SF = 2.72 **acres**

100-year, 6-hour

DEVELOPED FLOWS:

		Treatment SF	%	Precip. Zone 2
Area A	=	0	0%	E_A = 0.53
Area B	=	5928	5%	E_B = 0.78
Area C	=	17785	15%	E_C = 1.13
Area D	=	94854	80%	E_D = 2.12
Total Area	=	118567	100%	

EXCESS PRECIP:

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

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

Developed E = 1.90 in.

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

Developed V_{360} = 18818 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 2

Q_{pA} = 1.56 Q_{pC} = 3.14

Q_{pB} = 2.28 Q_{pD} = 4.70

Developed Q_p = 11.8 CFS

RECEIVED
AUG 29 2013
LAND DEVELOPMENT SECTION

CALCULATIONS: 1895 - 5207 San Mateo Blvd. : Aug. 26, 2013
HYDROGRAPH FOR SMALL WATERSHED
DPM SECTION 22-2 * PAGE A-13/14

Base time, t_B, for a small watershed hydrograph is,

$tB = (2.107 * E * A / Q_P) - (0.25 * A_D / A)$

Where

E	=	1.90 inches
A	=	2.72 acres
A_D	=	2.18 acres
Q_P	=	11.8 cfs

t_B	=	0.72 hours

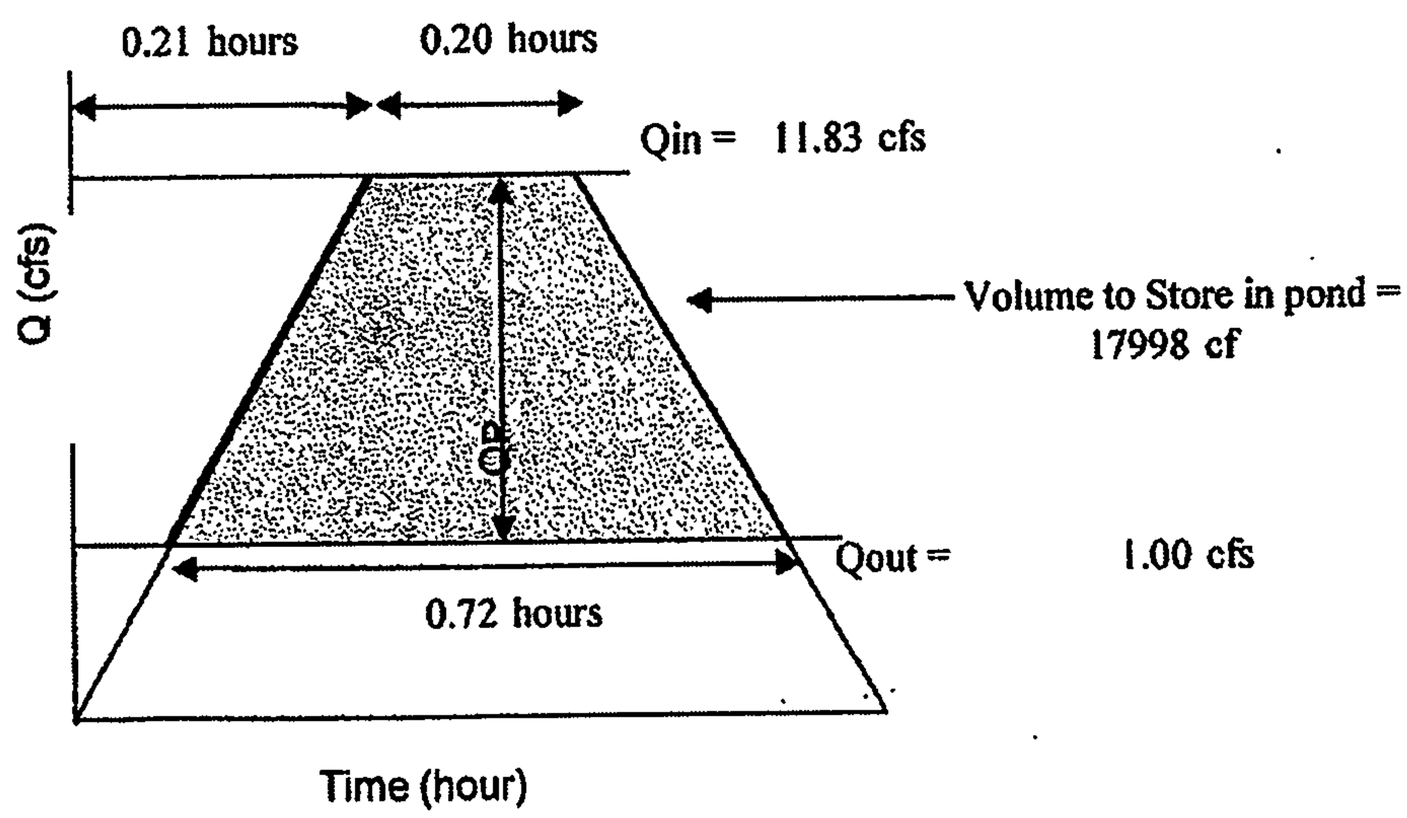
E is the excess precipitation in inches (from DPM TABLE A-8), Q_P is the peak flow, A_D is the area (acres) of treatment D, and A_T is the total area in acres. Using the time of concentration, t_C (hours), the time to peak in hours is:

$t_P = (0.7 * tC) + ((1.6 - (A_D / A)) / 12)$

Where t_C = 0.20 hours

t_P = 0.21 hours

Continue the peak for $0.25 * A_D / A_T$ hours. When A_D is zero, the hydrograph will be triangular. When A_D is not zero, the hyrograph will be trapezoidal. see the graph below:



SOUTH BASIN INFLOW / OUTFLOW HYDROGRAPH

Basin Qpeak Analysis per DPM Section 22.2

Design Package: DaVita Dialysis Center
Location: Albuquerque, NM 5207 San Mateo

Computed: KLR Date: 2/25/2015 ✓
Checked: Date:

Total Area Tract B-1 = 45541.71 sf 1.045 ac
Tract C Basin Area Tributary to channel = 19476 sf 0.447 ac

10-year

Sub-Basin Data				Impervious Area		Zone 2 Land Treatment A				Zone 2 Land Treament B				Zone 2 Land Treament C				Zone 2 Land Treament D				Composite
Basin ID	Description	Total Area (sf)	Total Area (ac)	Area (ac)	Basin IMP	Qp A (10-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp A (cfs)	Qp B (10-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp B (cfs)	Qp C (10-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp C (cfs)	Qp D (10-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp D (cfs)	Basin Qpeak 10-Yr Total (cfs)
Proposed Conditions																						
A	Proposed Parking Area to Inlet	14563.00	0.334	0.29	85.3%	0.38	0	0	0.00	0.95	1930	0.044	0.04	1.71	218	0.005	0.01	3.14	12415	0.285	0.89	0.95
B	Proposed Building Roof drain to pipe	8535.00	0.196	0.20	100.0%	0.38	0	0	0.00	0.95	0	0.000	0.00	1.71		0.000	0.00	3.14	8535	0.196	0.62	0.62
OS1	Ex and Pr Area draining to GC	8843.00	0.203	0.12	61.5%	0.38	0	0	0.00	0.95	709	0.016	0.02	1.71	2698	0.062	0.11	3.14	5436	0.125	0.39	0.51
OS2	Pr Parking area west to Basin C	1462.00	0.034	0.00	2.3%	0.38	0	0	0.00	0.95	0	0.000	0.00	1.71	1428	0.033	0.06	3.14	34	0.001	0.00	0.06
OS3	Pr Parking area south to Tract C	3604.00	0.083	0.00	1.7%	0.38	0	0	0.00	0.95	180	0.004	0.00	1.71	3364	0.077	0.13	3.14	60	0.001	0.00	0.14
C	Tract C basin tributary to channel	19476.00	0.447	0.36	80.0%	0.38	0	0	0.00	0.95	974	0.022	0.02	1.71	2921	0.067	0.11	3.14	15581	0.358	1.12	1.26

Tract B-1 Total Impervious Area= 58.2% Tract B-1 Land Treatment (A) Total = 0.00% Tract B-1 Land Treatment (B) Total = 6.19% Tract B-1 Land Treatment (C) Total = 16.93% Tract B-1 Land Treatment (D) Total = 58.17%
Tract C Total Impervious Area= 80.0% Tract C Land Treatment (A) Total = 0.00% Tract C Land Treatment (B) Total = 5.00% Tract C Land Treatment (C) Total = 15.00% Tract C Land Treatment (D) Total = 80.02%

Basins (B)	Total 10-Yr Qpeak to Design Pt 1 =	0.62	cfs
Basins (A + B)	Total 10-Yr Qpeak to Design Pt 2 =	1.56	cfs
Basins (A + B+OS3)	Total 10-Yr Qpeak to Design Pt 3=	1.70	cfs
Basins (A+B+OS2+OS3+C)	Total 10-Yr Qpeak to Design Pt 4 =	3.02	cfs

100-year

Sub-Basin Data				Impervious Area		Zone 2 Land Treatment A				Zone 2 Land Treament B				Zone 2 Land Treament C				Zone 2 Land Treament D				Composite
Basin ID	Description	Total Area (sf)	Total Area (ac)	Area (ac)	Basin IMP	Qp A (100-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp A (cfs)	Qp B (100-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp B (cfs)	Qp C (100-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp C (cfs)	Qp D (100-YR) Table A-9	Area (sf)	Area (ac)	(Qp * Area (ac)) = Qp D (cfs)	Basin Qpeak 100-Yr Total (cfs)
Proposed Conditions																						
A	Proposed Parking Area to Inlet	14563.00	0.334	0.29	85.3%	1.56	0	0	0.00	2.28	1930	0.044	0.10	3.14	218	0.005	0.02	4.70	12415	0.285	1.34	1.46
B	Proposed Building Roof drain to pipe	8535.00	0.196	0.20	100.0%	1.56	0	0	0.00	2.28	0	0.000	0.00	3.14		0.000	0.00	4.70	8535	0.196	0.92	0.92
OS1	Ex and Pr Area draining to GC	8843.00	0.203	0.12	61.5%	1.56	0	0	0.00	2.28	709	0.016	0.04	3.14	2698	0.062	0.19	4.70	5436	0.125	0.59	0.82
OS2	Pr Parking area west to Basin C	1462.00	0.034	0.00	2.3%	1.56	0	0	0.00	2.28	0	0.000	0.00	3.14	1428	0.033	0.10	4.70	34	0.001	0.00	0.11
OS3	Pr Parking area south to Tract C	3604.00	0.083	0.00	1.7%	1.56	0	0	0.00	2.28	180	0.004	0.01	3.14	3364	0.077	0.24	4.70	60	0.001	0.01	0.26
C	Tract C basin tributary to channel	19476.00	0.447	0.36	80.0%	1.56	0	0	0.00	2.28	974	0.022	0.05	3.14	2921	0.067	0.21	4.70	15581	0.358	1.68	1.94

Tract B-1 Total Impervious Area= 58.2% Tract B-1 Land Treatment (A) Total = 0.00% Tract B-1 Land Treatment (B) Total = 6.19% Tract B-1 Land Treatment (C) Total = 16.93% Tract B-1 Land Treatment (D) Total = 58.17%
Tract C Total Impervious Area= 80.0% Tract C Land Treatment (A) Total = 0.00% Tract C Land Treatment (B) Total = 5.00% Tract C Land Treatment (C) Total = 15.00% Tract C Land Treatment (D) Total = 80.02%

Basins (B)	Total 10-Yr Qpeak to Design Pt 1 =	0.92	cfs
Basins (A + B)	Total 10-Yr Qpeak to Design Pt 2 =	2.38	cfs
Basins (A + B+OS3)	Total 10-Yr Qpeak to Design Pt 3=	2.64	cfs
Basins (A+B+OS2+OS3+C)	Total 10-Yr Qpeak to Design Pt 4 =	4.68	cfs

APPENDIX C – Hydraulics

Proposed Channel Calculations

Rock Lined Trapezoidal Channel

GVF Output Data

Critical Slope	0.09944	ft/ft

Rock Lined Trapezoidal Channel

Project Description

Friction Method	Manning Formula
Solve For	Discharge

Input Data

Roughness Coefficient	0.069	
Channel Slope	0.03000	ft/ft
Normal Depth	0.75	ft
Left Side Slope	4.00	ft/ft (H:V)
Right Side Slope	4.00	ft/ft (H:V)
Bottom Width	2.00	ft

Results

Discharge	8.31	ft^3/s
Flow Area	3.75	ft^2
Wetted Perimeter	8.18	ft
Hydraulic Radius	0.46	ft
Top Width	8.00	ft
Critical Depth	0.57	ft
Critical Slope	0.09944	ft/ft
Velocity	2.22	ft/s
Velocity Head	0.08	ft
Specific Energy	0.83	ft
Froude Number	0.57	
Flow Type	Subcritical	

GVF Input Data

Downstream Depth	0.00	ft
Length	0.00	ft
Number Of Steps	0	

GVF Output Data

Upstream Depth	0.00	ft
Profile Description		
Profile Headloss	0.00	ft
Downstream Velocity	Infinity	ft/s
Upstream Velocity	Infinity	ft/s
Normal Depth	0.75	ft
Critical Depth	0.57	ft
Channel Slope	0.03000	ft/ft

Cross Section for Trapezoidal Channel

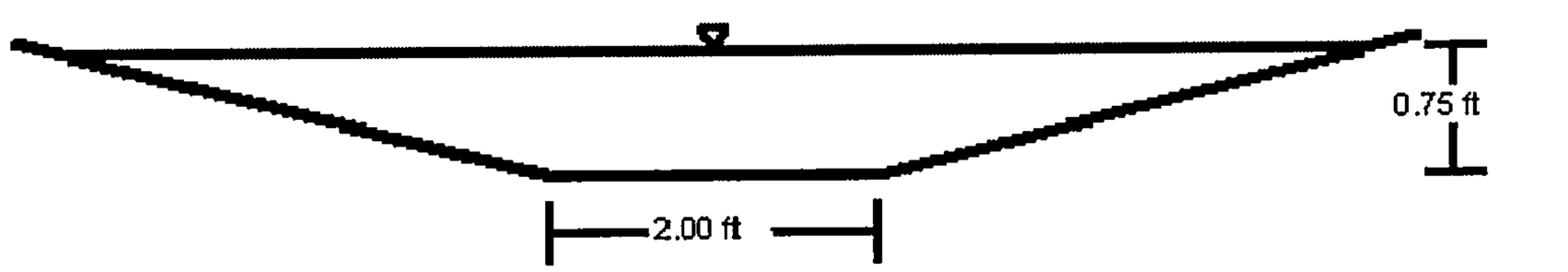
Project Description

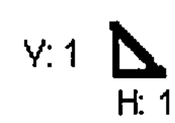
Friction Method	Manning Formula
Solve For	Discharge

Input Data

Roughness Coefficient	0.069	
Channel Slope	0.03000	ft/ft
Normal Depth	0.75	ft
Left Side Slope	4.00	ft/ft (H:V)
Right Side Slope	4.00	ft/ft (H:V)
Bottom Width	2.00	ft
Discharge	8.31	ft^3/s

Cross Section Image





APPENDIX D –Construction Plans

Pipe Profile through Wall (provided in Final Drainage Analysis)

CITY OF ALBUQUERQUE

Planning Department
Transportation Development Services

December 16, 2015

Josh Root
Entitlement and Engineering Solutions, Inc.
518 17th St., Ste. 1575
Denver, CO 80108

Re: DaVita Del Norte Dialysis Center
Request for Certificate of Occupancy- Transportation Development
DRB Site Plan Approval dated 5-15-15 (F17-D095A)
Certification dated 9-22-15

Dear Mr. Root,

Based upon the information provided in your submittal received 12-15-15, Transportation Development has no objection to the issuance of a Permanent Certificate of Occupancy. This letter serves as a "green tag" from Transportation Development for a Permanent Certificate of Occupancy to be issued by the Building and Safety Division.

If you have any questions, please contact Gary Sandoval at (505) 924-3675 or me at (505)924-3991.

Sincerely,

Racquel M. Michel, P.E.
Traffic Engineer, Planning Dept.
Development Review Services

\gs via: email
C: CO Clerk, File

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

√ CO
NO issues

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: DaVita Del Norte Dialysis Center Building Permit #: _____ City Drainage #: F17-D095A

DRB#: 1007867 EPC#: _____ Work Order#: _____

Legal Description: Sandia Addition Tract B-1

City Address: _____

Engineering Firm: Entitlement and Engineering Solutions, Inc. Contact: Josh Root

Address: 518 17th Street, Ste. 1575, Denver, CO 80108

Phone#: 303-572-7997 Fax#: _____ E-mail: josh.root@ees.us.com

Owner: DaVita Healthcare Partners Contact: Marshall Stewman

Address: 2000 16th Street, Denver CO 80202

Phone#: 972-765-6256 Fax#: _____ E-mail: _____

Architect: InForm Studio Contact: Megan Martin-Campbell

Address: 235 E. Main St. Ste. 102B, Northville, MI 48167

Phone#: 248-449-3564 Fax#: _____ E-mail: _____

Other Contact: SurvTek, Inc. Contact: Russ Hugg

Address: 9384 Valley View Drive, Albuquerqe

Phone#: 505-897-3366 Fax#: _____ E-mail: _____

Check all that Apply:

DEPARTMENT:

4 HYDROLOGY/ DRAINAGE
X TRAFFIC/ TRANSPORTATION
____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

____ ENGINEER/ ARCHITECT CERTIFICATION

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

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

____ OTHER (SPECIFY) _____

RECEIVED 12/15/15

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

____ BUILDING PERMIT APPROVAL
x CERTIFICATE OF OCCUPANCY

____ 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

____ PRE-DESIGN MEETING
____ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: ____ Yes ____ No

DATE SUBMITTED: December 15, 2015 By: Joshua Root, EES

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: ___

inFORM
studio

detroit • myrtle beach • new york

Project: DaVita Dialysis Clinic
Del Norte Albuquerque – Shell
5201 San Mateo Blvd NE
Albuquerque, NM 87109

TRAFFIC CERTIFICATION

I, **Kenneth Van Tine**, NMRA **005454**, OF THE FIRM **inFORM Studio**, HEREBY CERTIFY THAT THIS PROJECT IS IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED PLAN DATED **12/14/2015**. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY _____ OF THE FIRM _____. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON **09/22/2015** 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 **Certificate of Occupancy**.

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

Signature of Architect

ARCHITECT'S STAMP

STATE OF NEW MEXICO
KENNETH VAN TINE
NO. 005454
REGISTERED ARCHITECT

12/14/15

Date

RECEIVED
12/15/15

235 east main street, suite 102b
northville, mi 48167

(p) 248.449.3564
(f) 248.449.6984

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detroit • myrtle beach • new york

Project: DaVita Dialysis Clinic
Del Norte Albuquerque – Shell
5201 San Mateo Blvd NE
Albuquerque, NM 87109

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

Signature of Architect

ARCHITECT'S STAMP

RECEIVED

STATE OF NEW MEXICO
KENNETH VAN TINE
NO. 005454
REGISTERED ARCHITECT

12/14/15
Date

235 east main street, suite 102b
northville, mi 48167
(p) 248.449.3564
(f) 248.449.6984
inFORM studio
www.in-formstudio.com

CITY OF ALBUQUERQUE

Planning Department
Transportation Development Services

March 19, 2015

Krisinda Rapiejko, P.E.,
Entitlement and Engineering Solutions, Inc.
518 17th Street Ste. 1575
Denver, Colorado 80202

Re: Davita Dialysis Center - Albuquerque, 5207 San Mateo Blvd.
Traffic Circulation Layout
(F17-D095A)

Dear Ms. Rapiejko,

Based upon the information provided in your submittal received 3-04-15, the above referenced plan cannot be approved for Building Permit until the following comments are addressed:

1. For the vicinity map on the plan set, please include a zone atlas page and upsize "McLeod Road" on the map.
2. Clarify the beginning and end of new curb and gutter versus existing curb and gutter at the site entrance off of San Mateo Blvd. Also clarify exact location with text where the new sidewalk begins and ties into existing sidewalk. Where new curb and gutter and sidewalk ties to existing, call out for a smooth connection. Also show where new pavement begins and ends.
3. The traffic circulation layout must be stamped, signed, and dated by an engineer or architect licensed in the state of New Mexico.
4. The traffic circulation layout will not be approved until DRB action is taken to change the location of the west property boundary line.
5. Along the north side of the parking lot, if the standard spaces are all 9 feet wide, label "9' TYP". Do the same along the far west edge of the parking lot.
6. The ADA van accessible sign must have the required language per 66-7-352.4C NMSA 1978 **"Violators Are Subject to a Fine and/or Towing."**
7. Per the DPM, a 6 ft. wide ADA accessible pedestrian pathway is required from the public sidewalk to the building entrances and from the HC parking stall access aisles to the building entrances. Clearly show this 6-foot wide ADA pathway, and if the "Existing ADA Ramp to Remain" needs to be upsized to provide a 6-foot ADA accessible route, remove and replace this ramp to meet

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New Mexico 87103
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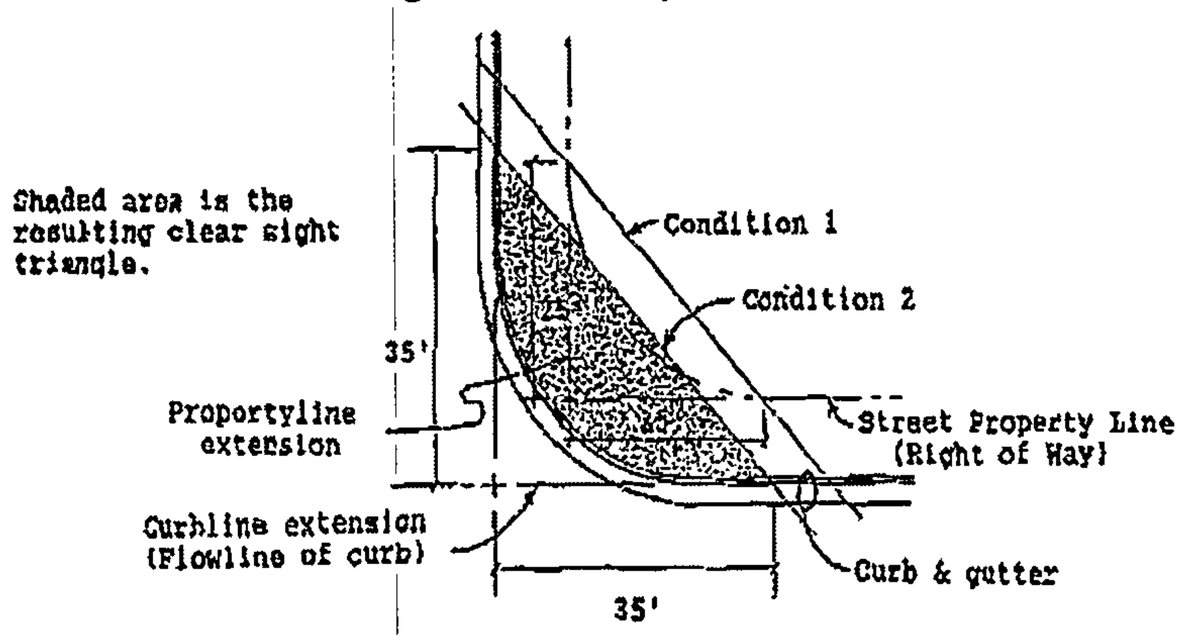
the 6-foot requirement. Provide a curb ramp detail with necessary dimensioning and slopes.

8. It is not apparent what type of pavement surface is being proposed. A hard driving surface will be required as part of this proposed project for parking area and drive aisles. Show the typical pavement section for the parking lot.

9. Please provide a sight distance exhibit for the San Mateo Boulevard access. (See the *Development Process Manual, Chapter 23, Section 3, Part D.5 Intersection Sight Distance*).



Please add the following note to the clear sight triangle: "Landscaping and signage will not interfere with clear sight requirements. Therefore, signs, walls, trees, and shrubbery between 3 and 8 feet tall (as measured from the gutter pan) will not be acceptable in this area."

10. Please include a copy of your shared access agreement with the adjacent property owner for Golden Corral Restaurant.

11. Provide more detail along the north side of the proposed building. Include details of curb ramps along the north and northwest corners of the buildings. Provide sidewalk width along the north side of the building. If truncated domes are being provided for the patient loading area, provide dimensioning for these.

12. Provide curb radius for curb just west of Keyed Note 11. (All curb radii for proposed curb should be shown.)

13. Provide motorcycle parking in accordance with the City of Albuquerque Zoning Code 14-16-3-1(C).

14. Please include two copies of the traffic circulation layout at the next submittal.

CITY OF ALBUQUERQUE

Resubmit acceptable package along with fully completed Drainage Transportation Information Sheet to front counter personnel for log in and evaluation by Transportation. If you have any questions, please contact me at (505) 924-3924.

Sincerely,

Jeanne Wolfenbarger, P.E.
Senior Engineer, Planning Dept.
Development Review Services

c: File
CO Clerk

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

F17D095A

Project Title: DaVita Dialysis ~~Facility~~ Center Building Permit #: TBD City Drainage #: ~~TBD~~

DRB#: TBD EPC#: N/A Work Order#: N/A

Legal Description: Tract B, Sandia Addition, Elena Gallegos Grant, City of Albq

City Address: 5207 San Mateo Blvd

Engineering Firm: Entitlement and Engineering Solutions, Inc. Contact: Krisinda Rapiejko

Address: 518 17th St Ste. 1575, Denver CO 80202

Phone#: (303) 717-8843 Fax#: E-mail: krapiejko@ees.us.com

Owner: DaVita Health Care Partners, Inc. Contact: Marshall Stewman

Address: 2000 16th Street, Denver CO 80202

Phone#: (972) 765-6256 Fax#: E-mail:

Architect: In Form Studio Contact: Kenneth Van Tine, AIA

Address: 235 E. Main St. Ste 102B, Northville, MI 48167

Phone#: (248) 449-3564 Fax#: E-mail: kvantine@in-formstudio.com

Surveyor: SurvTek, Inc. Consulting Surveyors Contact: Russ Hugg

Address: 9384 Valley View Drive

Phone#: (505) 897-3366 Fax#: E-mail:

Contractor: T.B.D. Contact:

Address:

Phone#: Fax#: E-mail:

TYPE OF SUBMITTAL:

- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN 1st SUBMITTAL
- ____ DRAINAGE PLAN RESUBMITTAL
- X CONCEPTUAL G & D PLAN
- ____ GRADING PLAN
- ____ EROSION & SEDIMENT CONTROL PLAN (ESC)
- ____ ENGINEER'S CERT (HYDROLOGY)
- ____ CLOMR/LOMR
- X TRAFFIC CIRCULATION LAYOUT (TCL)
- ____ ENGINEER'S CERT (TCL)
- ____ ENGINEER'S CERT (DRB SITE PLAN)
- ____ ENGINEER'S CERT (ESC)
- ____ SO-19
- ____ OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ____ SIA/FINANCIAL GUARANTEE RELEASE
- ____ PRELIMINARY PLAT APPROVAL
- ____ S. DEV. PLAN FOR SUB'D APPROVAL
- X S. DEV. FOR BLDG. PERMIT APPROVAL ← DRB Public Hearing Date T.B.D. Soon. Likely date 4/15/15 or 4/22/15
- ____ SECTOR PLAN APPROVAL
- ____ FINAL PLAT APPROVAL
- ____ CERTIFICATE OF OCCUPANCY (PERM)
- ____ CERTIFICATE OF OCCUPANCY (TCL TEMP)
- ____ FOUNDATION PERMIT APPROVAL
- X BUILDING PERMIT APPROVAL
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ GRADING CERTIFICATION
- ____ SO-19 APPROVAL
- ____ ESC PERMIT APPROVAL
- ____ ESC CERT. ACCEPTANCE
- ____ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED: X Yes ____ No ____ Copy Provided ← telephone conference meeting W/Racquel Michel date 2/3/15.

DATE SUBMITTED: 3/4/15 By: Krisinda Rapiejko, PE

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the followin

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report:** Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

Included: (1) copy of Drainage Report & Associated Plans to Hydrology (ie. drainage map, Grading & Utility Plans)
(2) TCL Site Plan & Detail Sheet
$ 50.00 check to COA for Conceptual G&D submittal