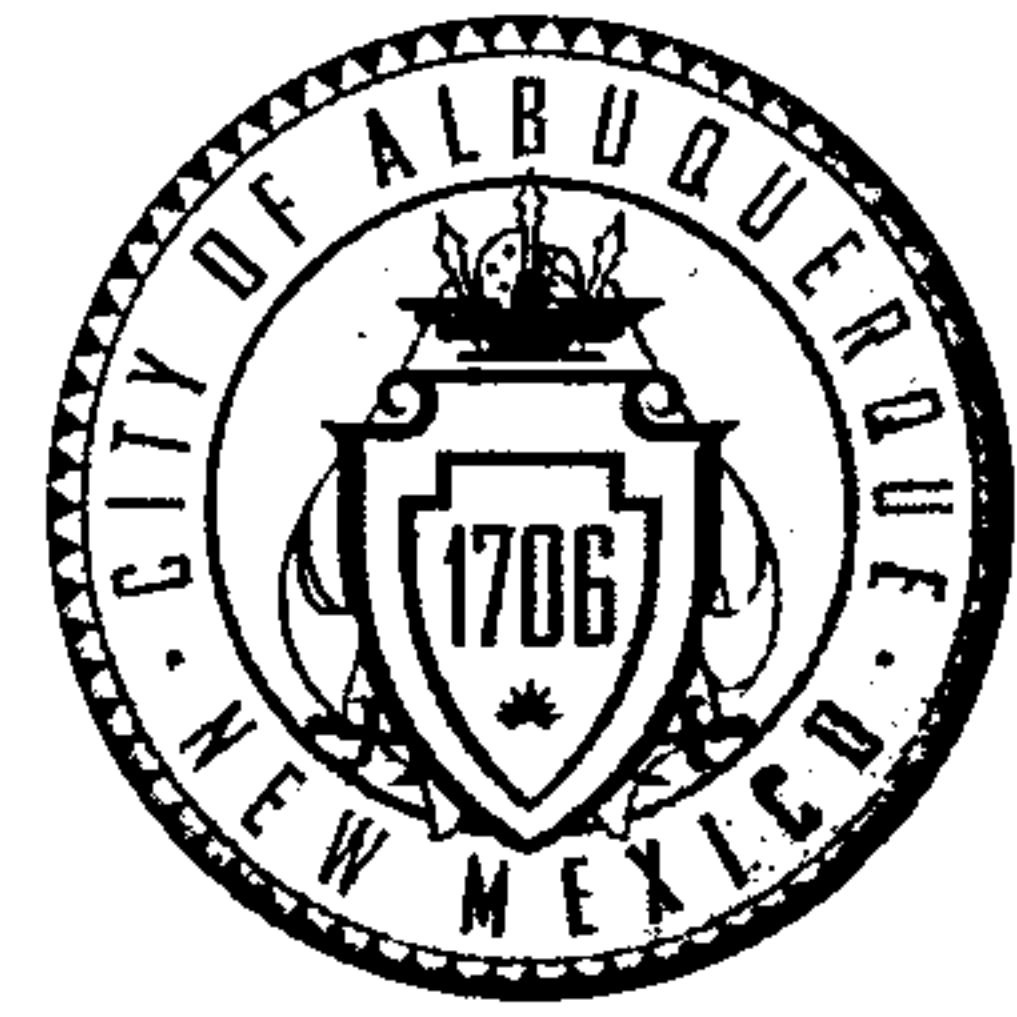


CITY OF ALBUQUERQUE

DRB 1010551



January 11, 2016

Richard J. Berry, Mayor

Ronald R. Bohannon
Tierra West, LLC
5571 Midway Park Pl, NE
Albuquerque, NM, 87109

**RE: Westgate Mobile Home Park
Site Plan for Building Permit / Drainage Supplement
Engineer's Stamp Date 12-28-2015 (File: L09D44)**

Dear Mr. Bohannon:

Based upon the information provided in your submittal received 12-30-2015, the above-referenced plan is approved for Grading Permit. The Grading and Drainage Plan for this project was approved by the City in 2000, and still appears to be appropriate for this site.

Please ensure to coordinate the need for an approved Erosion and Sediment Control Plan from the Stormwater Engineer prior to any earthwork.

PO Box 1293

Albuquerque

The supplemental drainage submittal and Grading/Drainage plan satisfies Hydrology's requirement from the Development Review Board hearing of 12-9-2015. The condition of final (Site Plan for Building Permit) sign off from Planning was to show the layout of the first flush ponds on the site plan.

New Mexico 87103

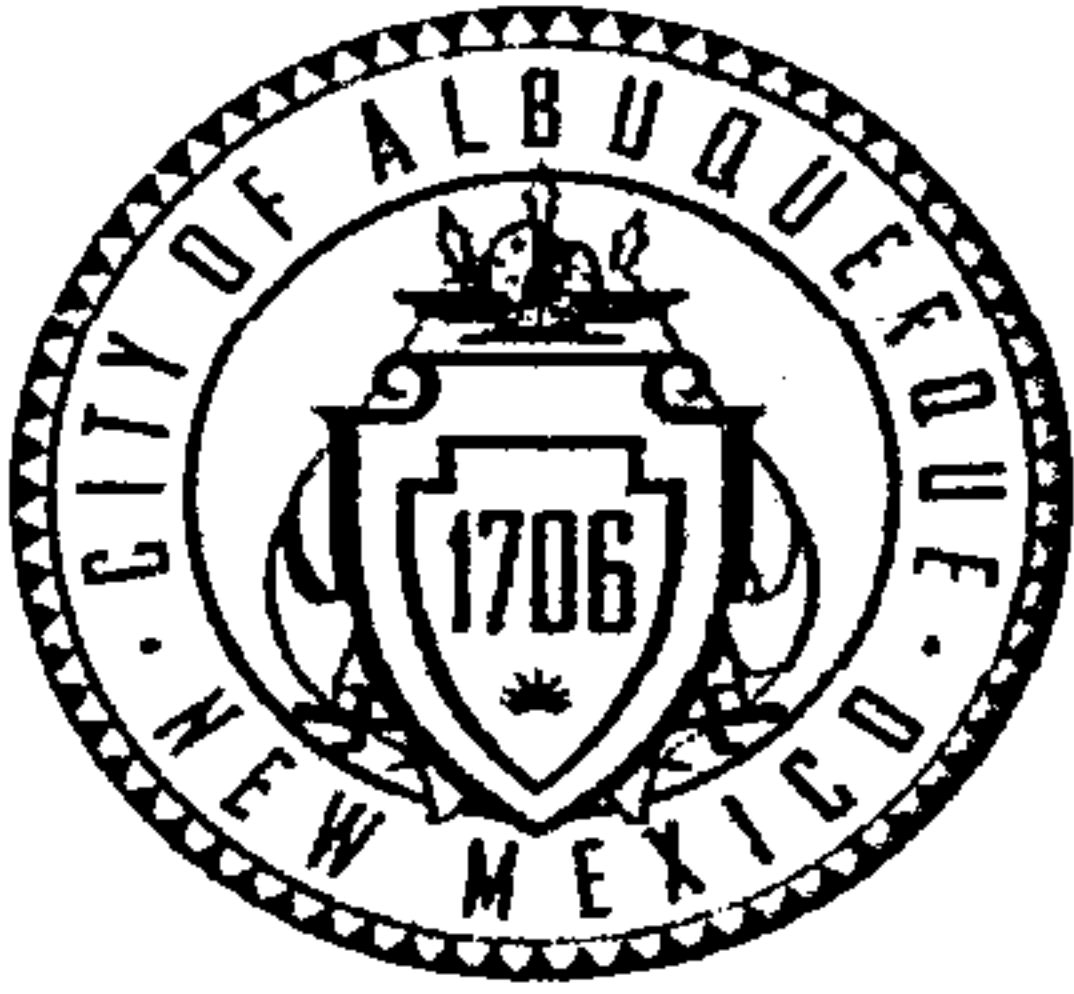
If you have any questions, you can contact me at 924-3986.

Sincerely,

www.cabq.gov

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

Orig: Drainage file



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: West Gate Mobile Home Park Building Permit #: _____ City Drainage #: LO9D044

DRB#: 1010551 15DRB-7034 EPC#: _____ Work Order#: _____

Legal Description: TR2-A WestGate Mobile Home Park Add Redivision of TR 2 and Port of Unplat, TRS 1&3 Unplatted Land Snow Vista w/n Sec 33 T10N R2E Exc Nely

City Address: Port of TR 1, TR of Land Being Nely Port of TR 1 Unplatted Land Snow Vista within Sec 33 T10N R2E

Engineering Firm: Tierra West, LLC Contact: Ronald R. Bohannon

Address: 5571 Midway Park Place NE Albuquerque NM 87109

Phone#: 505-858-3100 Fax#: 505-858-1118 E-mail: rrb@tierrawestllc.com

Owner: Deemer Properties NM LLC Contact: _____

Address: 2455 Roop Rd Gilroy CA 95020

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

Architect: _____ Contact: _____

Address: _____

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

Other Contact: _____ Contact: _____

Address: _____

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

Check all that Apply:

DEPARTMENT:

- ☒ 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) Modification of Approved Drainage Rpt
1st Flush, Referencing Drainage Plan L9/D25

Stamped 12/26/2000

IS THIS A RESUBMITTAL?: ☐ Yes ☐ No

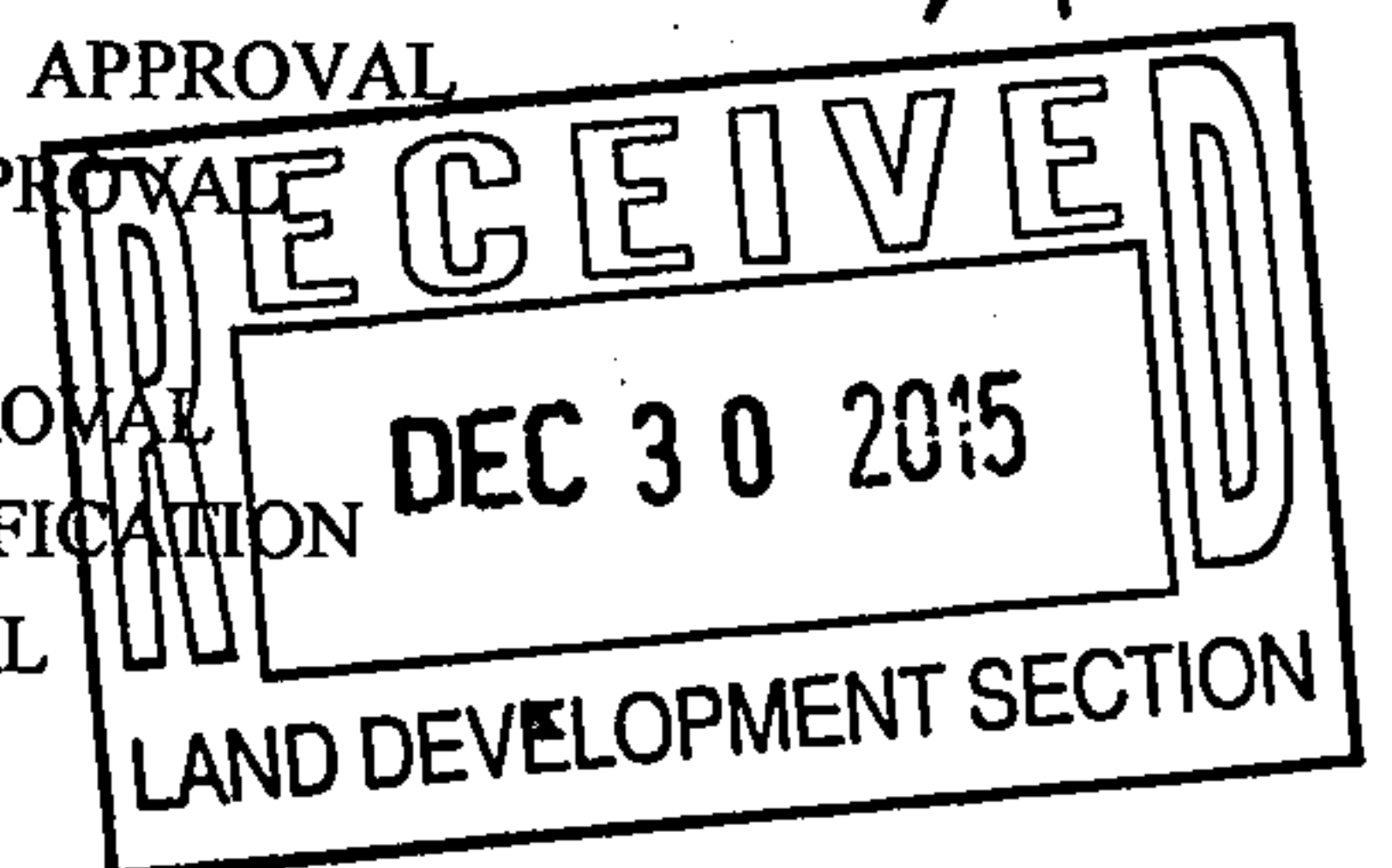
CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☐ BUILDING PERMIT APPROVAL
☐ 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) _____



DATE SUBMITTED: 12/29/2015

By: Ronald R. Bohannon

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____

DRAINAGE MANAGEMENT PLAN

For

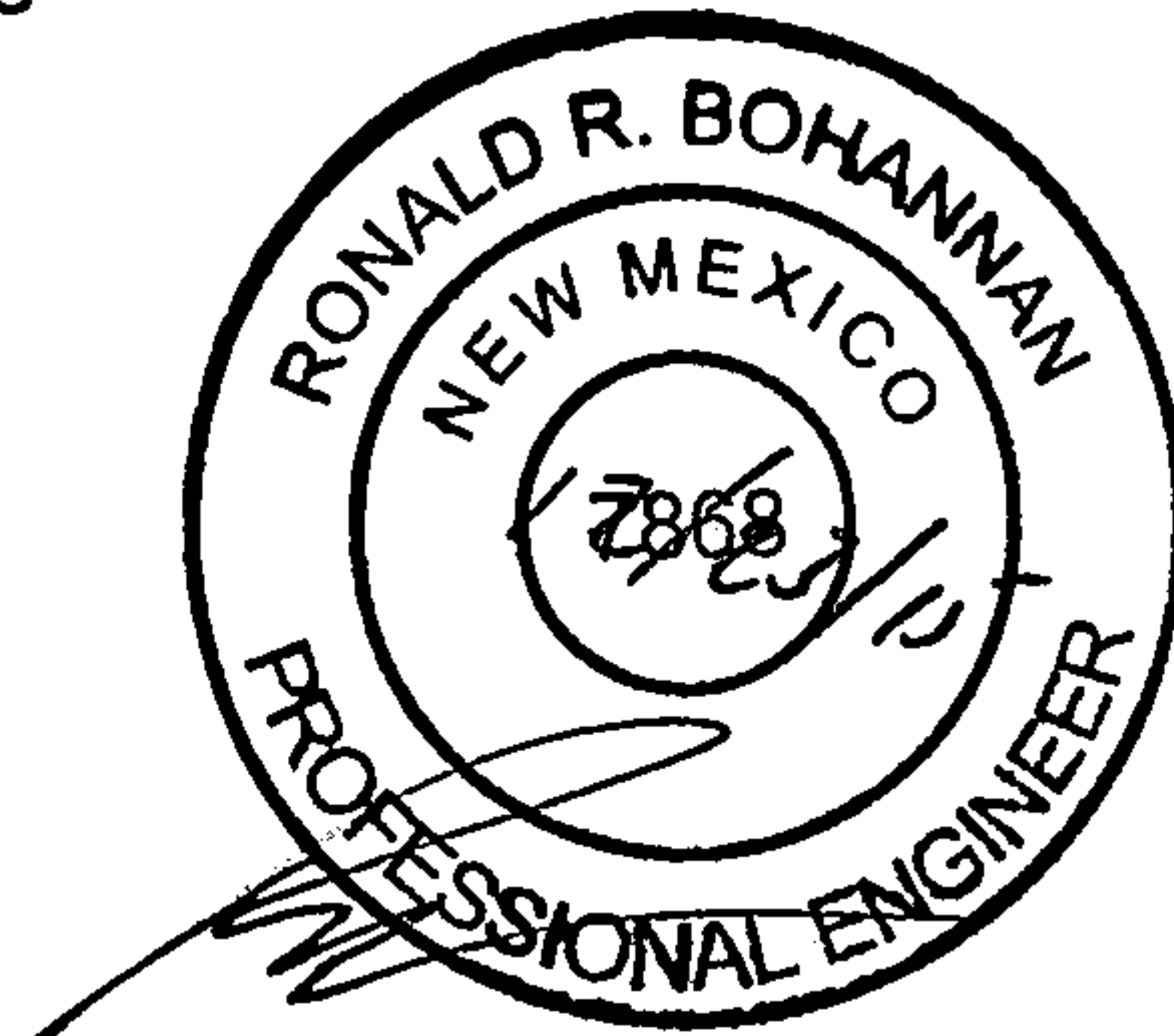
Westgate Mobile Home Park First Flush Retention

Prepared by:

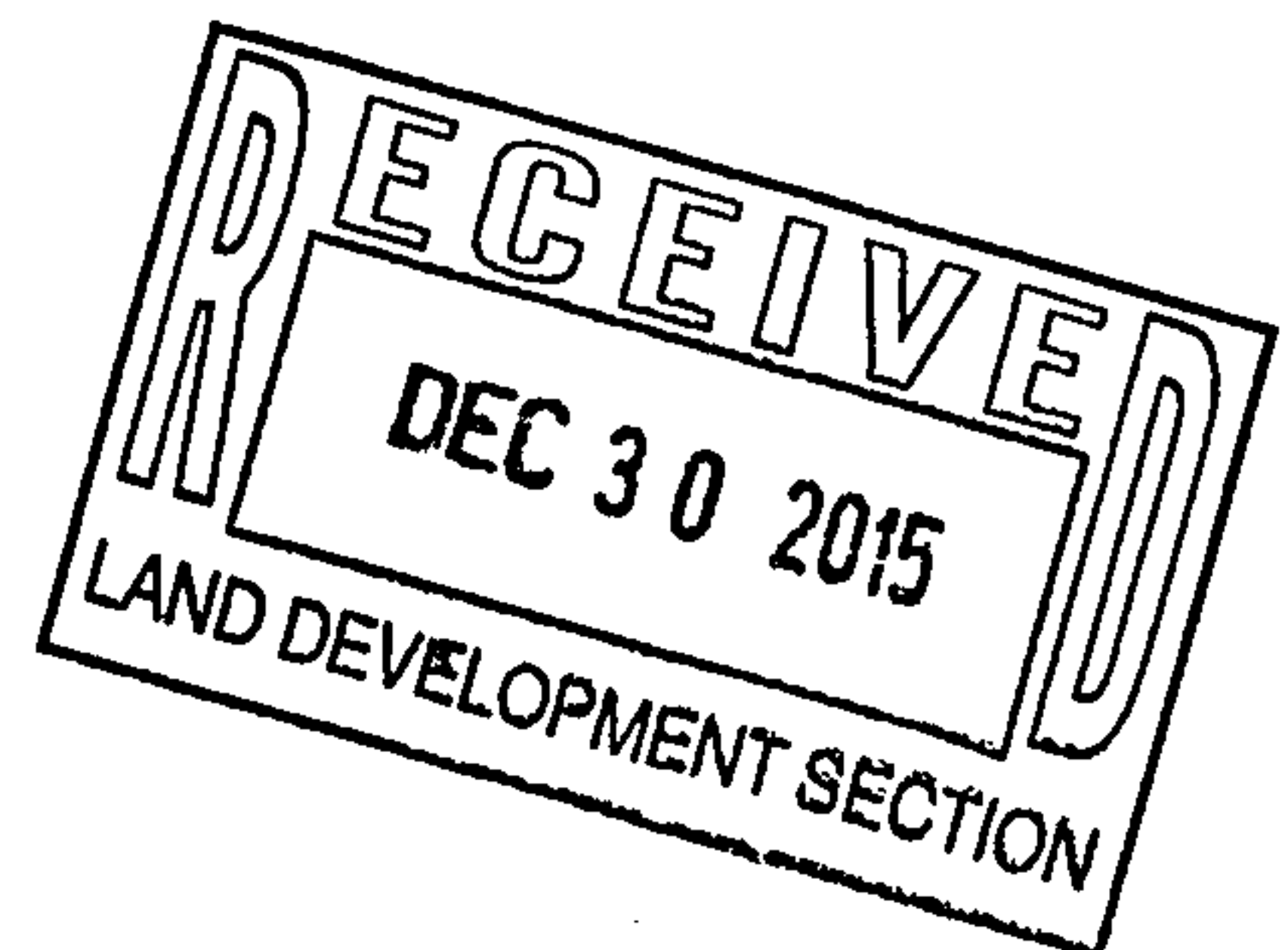
Tierra West, LLC
5571 Midway Park Place NE
Albuquerque, New Mexico 87109

December 28, 2015

I certify that this report was prepared under my supervision, and I am a registered professional engineer in the State of New Mexico in good standing.



Ronald R. Bohannon
PE # 7868



Job No. 2015099

Westgate Mobile Home Park – First Flush Retention

The purpose of this submittal is to adjust the outfall ponds for the mobile home park located at the northwest corner of 98th Street and Sage Road. The adjustment of the ponds is to retain the first flush elevation onsite before outfalling to the storm drain on 98th Street.

The mobile home park consists of 13 drainage basins that surface flow to a drainage pond within its respective area and outfalls from the pond to the storm drain located on 98th Street. Although there are a series of ponds onsite, two of the ponds act as the outfall for the drainage. Basins 1 thru 6 are directed towards the excess pond located within the public right-of-way, the outfall of the pond connects to the back of a catch basin underneath 98th street. Basins 7 thru 13 are directed towards a series of ponds that eventually makes its way towards Pond F. Like the public right-of-way pond, Pond F connects to the back of a catch basin underneath 98th Street.

The concept of capturing the first flush for water quality retention is the same for both ponds; keep both pond grades as-is and raise the pond outfall inverts high enough to maintain the required volume of retention below the outfall. The grades, invert elevations, and drainage basins were referenced from the approved grading and drainage plan stamped 12/26/2000 (L9/D25).

Pond F:

The pond has an average bottom elevation of 5158.36 and slopes towards the outfall which has an elevation of 5158.0. The volume of raising the outfall invert elevation was calculated and can be found on the following page. The total first flush retention required for the impervious area of Basins 1 thru 6 is 9768 cubic feet. In order to meet this capacity, the invert of the pond outfall needs to be raised 1 foot from the existing elevation.

Excess ROW Pond:

The pond has an average bottom of elevation of 5143.5 and has a Single D drop inlet for the outfall. The volume of raising the outfall invert elevation was calculated and can be found on the following page. The total first flush retention required for the impervious area of Basins 7 thru 13 is 7993.9 cubic feet. In order to meet this capacity, the invert of the pond outfall needs to be raised 0.22 feet above the existing inlet grate elevation.

RETENTION VOLUME CALCULATIONS

ROW POND (Basins 1 thru 6):

$$\text{Impervious Area} = 6.477 \text{ ac} = 282,138.12 \text{ ft}^2$$

$$\text{Retention Volume Required} = (0.44'' - 0.1'') * 282,138.12 \text{ ft}^2 = \boxed{7993.9 \text{ ft}^3}$$

Raise Inlet Grate 0.22 ft:

$$\text{Pond Area}_{\text{BOP}} = 37884.3 \text{ ft}^2$$

$$\text{Pond Area}_{\text{New Inlet Elev.}} = 38095.8 \text{ ft}^2$$

$$\text{Retention Volume} = (37884.3 + 38095.8) / 2 * 0.22 = \boxed{8357.8 \text{ ft}^3}$$

Retention Volume > Volume Required Therefore, OK

POND F (Basins 7 thru 13):

$$\text{Impervious Area} = 7.915 \text{ ac} = 344,777.4 \text{ ft}^2$$

$$\text{Retention Volume Required} = (0.44'' - 0.1'') * 344,777.4 \text{ ft}^2 = \boxed{9768.7 \text{ ft}^3}$$

Raise Outfall Invert 1 ft:

$$\text{Pond Area}_{\text{BOP}} = 9054.9 \text{ ft}^2$$

$$\text{Retention Volume}_{\text{from BOP to existing invert}} = (9054.9 / 2) * 0.36 = 1630 \text{ ft}^3$$

$$\text{Pond Area}_{\text{New Invert Elev.}} = 16376 \text{ ft}^2$$

$$\text{Retention Volume}_{\text{from new invert to BOP}} = (16376 + 9054.9 / 2) * 0.64 = 8138 \text{ ft}^3$$

$$\text{Total Retention Volume} = 1630 + 8138 = \boxed{9768 \text{ ft}^3}$$

Retention Volume = Volume Required Therefore, OK

[illegible]