

gan



TIERRA WEST, LLC

Brad Frosch
Construction Inspector

263-5908

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Capacity of a Single 'C' Storm Drop Inlet Inlet 'CI-5'

Capacity of the grate:

$$\begin{aligned} L &= 40'' - 2(2''_{\text{ends}}) - 7(1/2''_{\text{middle bars}}) \\ &= 32 \frac{1}{2}'' \\ &= 2.7083' \end{aligned}$$

$$\begin{aligned} W &= 25'' - 13(1/2''_{\text{middle bars}}) \\ &= 18.5'' \\ &= 1.54' \end{aligned}$$

$$\begin{aligned} \text{Area} &= 2.7083' \times 1.54' \\ &= 4.18 \text{ ft}^2 \end{aligned}$$

$$\begin{aligned} \text{Effective Area} &= 4.18 - 4.18 \times 0.5 \text{ (clogging factor)} \\ &= 2.09 \text{ ft}^2 \text{ at the grate} \end{aligned}$$

Orifice Equation

$$\begin{aligned} Q &= CA \sqrt{2gH} \\ Q &= 0.6 \times 2.09 \times \sqrt{2 \times 32.2 \times 0.72} \\ Q &= 8.54 \text{ cfs} \end{aligned}$$

Capacity of the Throat:

$$L = 2.95'$$

$$\begin{aligned} H &= 10 \frac{3}{4}'' - 4 \frac{1}{2}'' \\ &= 6 \frac{1}{4}'' \\ &= 0.5208' \end{aligned}$$

$$\begin{aligned} \text{Area} &= 2.95' \times 0.5208' \\ &= 1.54 \text{ ft}^2 \text{ at the throat} \end{aligned}$$

Weir Equation

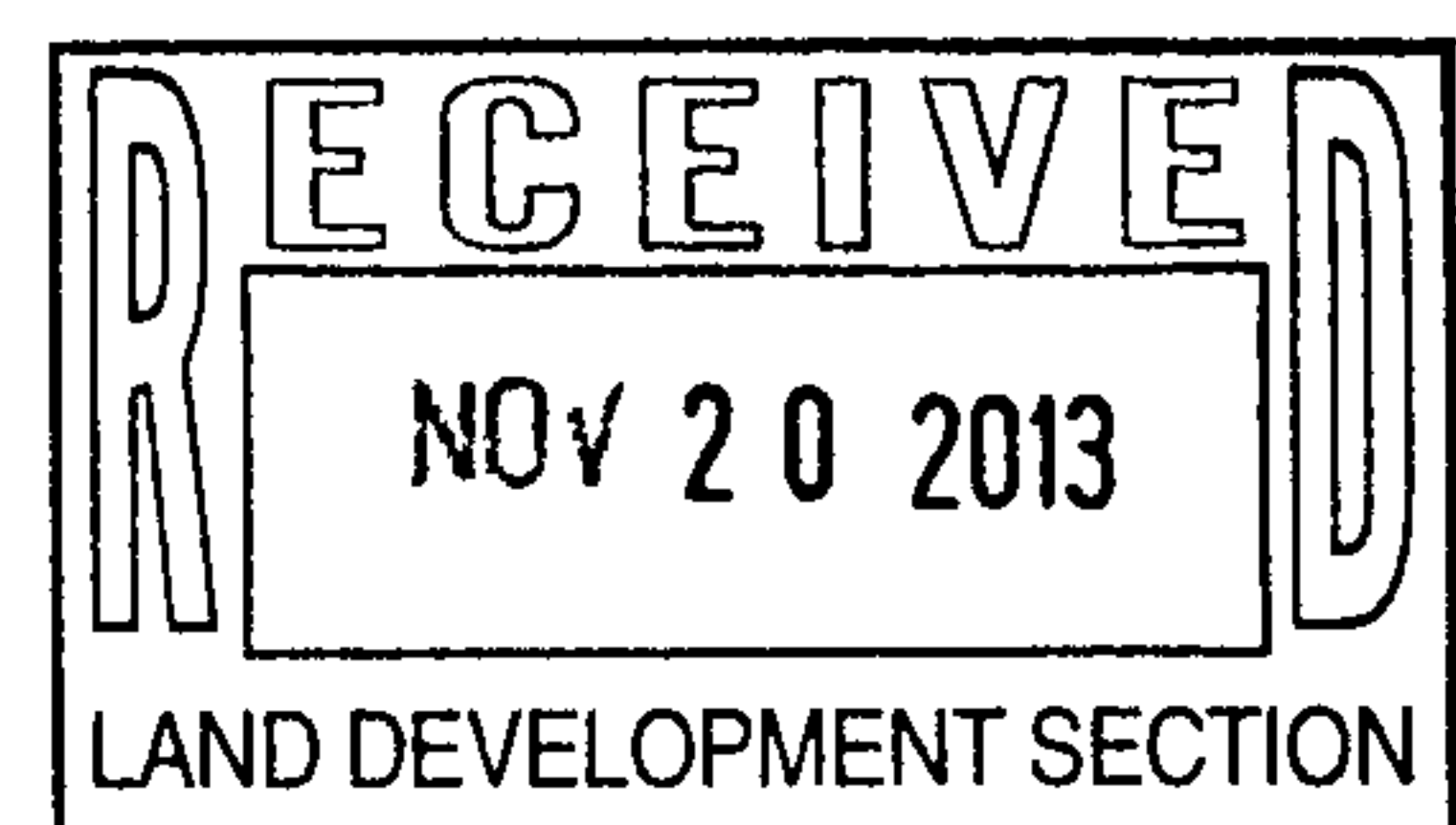
$$\begin{aligned} Q &= CLH^{(3/2)} \\ Q &= 2.95 \times 1.54 \times 0.90^{(3/2)} \\ Q &= 3.87 \text{ cfs} \end{aligned}$$

Total Capacity:

$$\begin{aligned} Q_{\text{cap}} &= 8.54_{\text{grate}} + 3.87_{\text{throat}} \\ Q_{\text{cap}} &= 12.41 \text{ cfs} \end{aligned}$$

$$Q_{\text{req}} = \boxed{10.68 \text{ cfs}} \text{ (Revised 11/20/13)}$$

Inlet Checks OK



Capacity of a Double 'C' Storm Drop Inlet Inlet 'CI-6'

Capacity of the grate:

$$\begin{aligned} L &= 80'' - 2(2''_{\text{ends}}) - 14(1/2''_{\text{middle bars}}) - 6''_{\text{center piece}} \\ &= 66 \frac{1}{2}'' \\ &= 5.25' \end{aligned}$$

$$\begin{aligned} W &= 25'' - 13(1/2''_{\text{middle bars}}) \\ &= 18.5'' \\ &= 1.54' \end{aligned}$$

$$\begin{aligned} \text{Area} &= 5.25' \times 1.54' \\ &= 8.09 \text{ ft}^2 \end{aligned}$$

$$\begin{aligned} \text{Effective Area} &= 8.09 - 8.09 \times 0.5 \text{ (clogging factor)} \\ &= 4.04 \text{ ft}^2 \text{ at the grate} \end{aligned}$$

Orifice Equation

$$\begin{aligned} Q &= CA \sqrt{2gH} \\ Q &= 0.6 \times 4.04 \times \sqrt{2 \times 32.2 \times 0.72} \\ Q &= 16.51 \text{ cfs} \end{aligned}$$

Capacity of the Throat:

$$L = 6.50'$$

$$\begin{aligned} H &= 10 \frac{3}{4}'' - 4 \frac{1}{2}'' \\ &= 6 \frac{1}{4}'' \\ &= 0.5208' \end{aligned}$$

$$\begin{aligned} \text{Area} &= 6.50' \times 0.5208' \\ &= 3.39 \text{ ft}^2 \text{ at the throat} \end{aligned}$$

Weir Equation

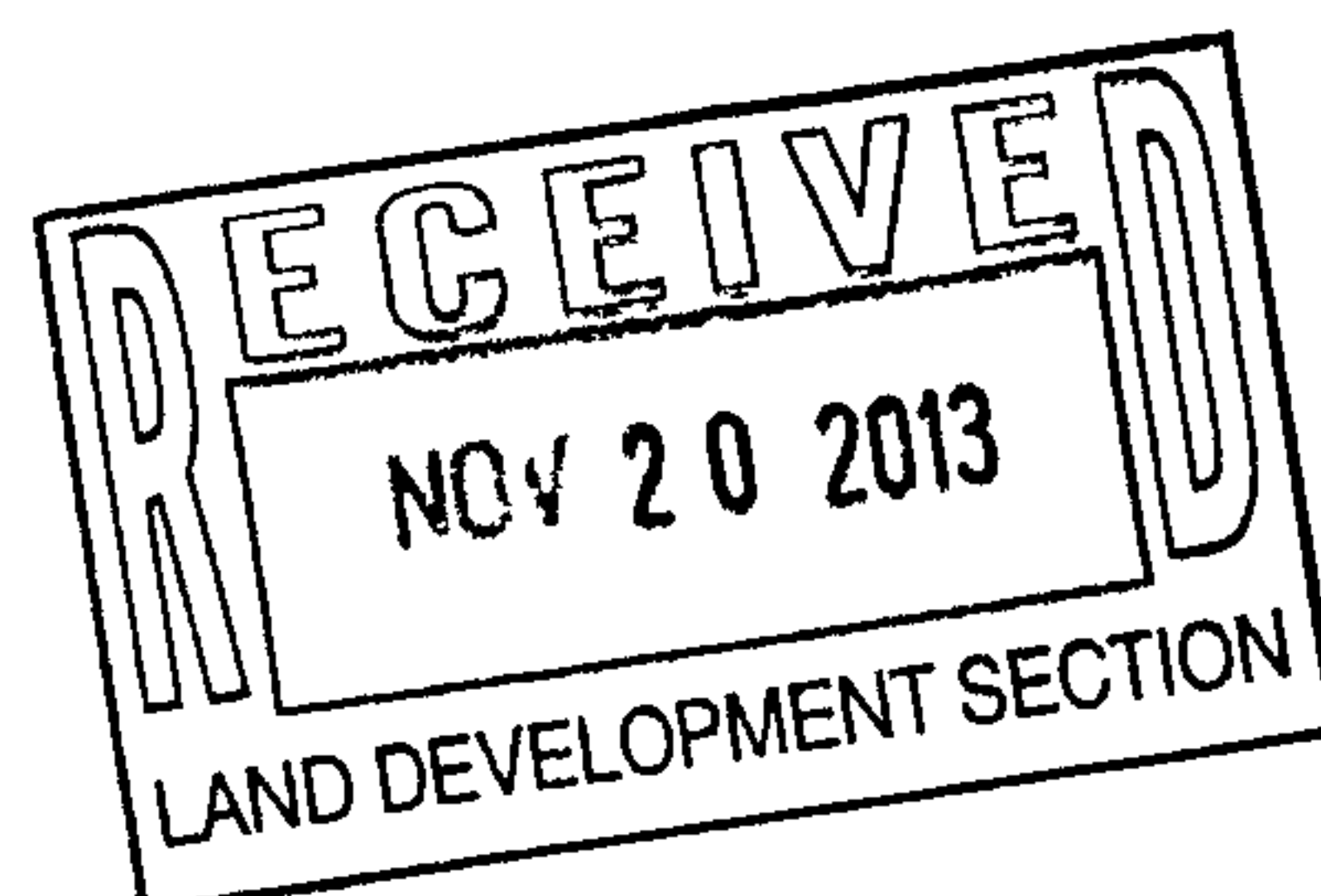
$$\begin{aligned} Q &= CLH^{(3/2)} \\ Q &= 2.95 \times 3.39 \times 0.90^{(3/2)} \\ Q &= 8.54 \text{ cfs} \end{aligned}$$

Total Capacity:

$$\begin{aligned} Q_{\text{cap}} &= 16.51_{\text{grate}} + 8.54_{\text{throat}} \\ Q_{\text{cap}} &= 25.05 \text{ cfs} \end{aligned}$$

$$Q_{\text{req}} = \boxed{13.11 \text{ cfs}} \text{ (Revised 11/20/13)}$$

Inlet Checks OK



Capacity of a Double 'C' Storm Drop Inlet Inlet 'CI-14'

Capacity of the grate:

$$\begin{aligned} L &= 80'' - 2(2''_{\text{ends}}) - 14(1/2''_{\text{middle bars}}) - 6''_{\text{center piece}} \\ &= 66 \frac{1}{2}'' \\ &= 5.25' \end{aligned}$$

$$\begin{aligned} W &= 25'' - 13(1/2''_{\text{middle bars}}) \\ &= 18.5'' \\ &= 1.54' \end{aligned}$$

$$\begin{aligned} \text{Area} &= 5.25' \times 1.54' \\ &= 8.09 \text{ ft}^2 \end{aligned}$$

$$\begin{aligned} \text{Effective Area} &= 8.09 - 8.09 \times 0.5 \text{ (clogging factor)} \\ &= 4.04 \text{ ft}^2 \text{ at the grate} \end{aligned}$$

Orifice Equation

$$\begin{aligned} Q &= CA \sqrt{2gH} \\ Q &= 0.6 \times 4.04 \times \sqrt{2 \times 32.2 \times 0.72} \\ Q &= 16.51 \text{ cfs} \end{aligned}$$

Capacity of the Throat:

$$L = 6.50'$$

$$\begin{aligned} H &= 10 \frac{3}{4}'' - 4 \frac{1}{2}'' \\ &= 6 \frac{1}{4}'' \\ &= 0.5208' \end{aligned}$$

$$\begin{aligned} \text{Area} &= 6.50' \times 0.5208' \\ &= 3.39 \text{ ft}^2 \text{ at the throat} \end{aligned}$$

Weir Equation

$$\begin{aligned} Q &= CLH^{(3/2)} \\ Q &= 2.95 \times 3.39 \times 0.90^{(3/2)} \\ Q &= 8.54 \text{ cfs} \end{aligned}$$

Total Capacity:

$$\begin{aligned} Q_{\text{cap}} &= 16.51_{\text{grate}} + 8.54_{\text{throat}} \\ Q_{\text{cap}} &= 25.05 \text{ cfs} \end{aligned}$$

$$Q_{\text{req}} = \boxed{11.45 \text{ cfs}} \text{ (Revised 11/20/13)}$$

Inlet Checks OK



DPM Weighted E Method

Precipitation Zone 2

Capstone Student Housing

I-25 and Sunport Blvd SE

TWLLC/JW, PE

6-Jun-13

Rev 20-Jun-13

Existing Conditions

Basin Descriptions												100-Year, 6-Hr			10-Year, 6-Hr		
Basin ID	Area (sf)	Area (acres)	Area (sq miles)	Treatment A		Treatment B		Treatment C		Treatment D		Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs
				%	(acres)	%	(acres)	%	(acres)	%	(acres)						
Ex-A1	237,886.14	5.46	0.00853	0%	0	0%	0.000	100%	5.461114	0%	0.000	1.130	0.514	17.15	0.520	0.237	9.34
Ex-A2	213,668.45	4.91	0.00766	0%	0	0%	0.000	100%	4.905153	0%	0.000	1.130	0.462	15.40	0.520	0.213	8.39
Ex-B	1,054,224.00	24.20	0.03782	0%	0	0%	0.000	100%	24.20165	0%	0.000	1.130	2.279	75.99	0.520	1.049	41.38
Ex-C	113,030.00	2.59	0.00405	0%	0	0%	0.000	100%	2.594812	0%	0.000	1.130	0.244	8.15	0.520	0.112	4.44
Total	1,618,808.59	37.163	0.05807										3.499	116.69		1.610	63.55

Notes:

Developed Conditions

Basin Descriptions												100-Year, 6-Hr			10-Year, 6-Hr		
Basin ID	Area (sf)	Area (acres)	Area (sq miles)	Treatment A		Treatment B		Treatment C		Treatment D		Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs
				%	(acres)	%	(acres)	%	(acres)	%	(acres)						
A-1	24,838.00	0.57	0.00089	0%	0	0%	0.000	15%	0.08553	85%	0.485	1.972	0.094	2.55	1.217	0.058	1.67
A-2	105,565.00	2.42	0.00379	0%	0	0%	0.000	15%	0.363516	85%	2.060	1.972	0.398	10.82	1.217	0.246	7.09
A-3	29,549.00	0.68	0.00106	0%	0	0%	0.000	15%	0.101753	85%	0.577	1.972	0.111	3.03	1.217	0.069	1.98
A-4	30,691.00	0.70	0.00110	0%	0	0%	0.000	15%	0.105685	85%	0.599	1.972	0.116	3.15	1.217	0.071	2.06
A-5	104,192.00	2.39	0.00374	0%	0	0%	0.000	15%	0.358788	85%	2.033	1.972	0.393	10.68	1.217	0.243	7.00
A-6	72,418.00	1.66	0.00260	0%	0	0%	0.000	15%	0.249373	85%	1.413	1.972	0.273	7.42	1.217	0.169	4.86
A-7	33,351.00	0.77	0.00120	0%	0	0%	0.000	15%	0.114845	85%	0.651	1.972	0.126	3.42	1.217	0.078	2.24
A-8	22,174.00	0.51	0.00080	0%	0	0%	0.000	15%	0.076357	85%	0.433	1.972	0.084	2.27	1.217	0.052	1.49
A-9	12,937.00	0.30	0.00046	0%	0	0%	0.000	100%	0.296993	0%	0.000	1.130	0.028	0.93	0.520	0.013	0.51
A-10	40,443.00	0.93	0.00145	0%	0	0%	0.000	100%	0.928444	0%	0.000	1.130	0.087	2.92	0.520	0.040	1.59
A-11	51,106.00	1.17	0.00183	0%	0	0%	0.000	100%	1.173232	0%	0.000	1.130	0.110	3.68	0.520	0.051	2.01
B-1	93,541.00	2.15	0.00336	0%	0	0%	0.000	15%	0.322111	85%	1.825	1.972	0.353	9.59	1.217	0.218	6.28
B-2	15,607.00	0.36	0.00056	0%	0	0%	0.000	15%	0.053743	85%	0.305	1.972	0.059	1.60	1.217	0.036	1.05
B-3	91,753.00	2.11	0.00329	0%	0	0%	0.000	15%	0.315954	85%	1.790	1.972	0.346	9.41	1.217	0.214	6.16
B-4	18,480.00	0.42	0.00066	0%	0	0%	0.000	15%	0.063636	85%	0.361	1.972	0.070	1.89	1.217	0.043	1.24
B-5	48,223.00	1.11	0.00173	0%	0	0%	0.000	15%	0.166057	85%	0.941	1.972	0.182	4.94	1.217	0.112	3.24
B-6	52,071.00	1.20	0.00187	0%	0	0%	0.000	15%	0.179308	85%	1.016	1.972	0.196	5.34	1.217	0.121	3.50
B-7	7,973.00	0.18	0.00029	0%	0	0%	0.000	15%	0.027455	85%	0.156	1.972	0.030	0.82	1.217	0.019	0.54
B-8	42,800.00	0.98	0.00154	0%	0	0%	0.000	15%	0.147383	85%	0.835	1.972	0.161	4.39	1.217	0.100	2.87
B-9	60,848.00	1.40	0.00218	0%	0	0%	0.000	15%	0.209532	85%	1.187	1.972	0.229	6.24	1.217	0.142	4.09
B-10	47,490.00	1.09	0.00170	0%	0	0%	0.000	100%	1.09022	0%	0.000	1.130	0.103	3.42	0.520	0.047	1.86
B-11	509,537.00	11.70	0.01828	0%	0	0%	0.000	100%	11.69736	0%	0.000	1.130	1.102	36.73	0.520	0.507	20.00
C-1	113,067.00	2.60	0.00406	0%	0	0%	0.000	100%	2.595661	0%	0.000	1.130	0.244	8.15	0.520	0.112	4.44
Total	1,628,654.00	37.389	0.05842										4.896	143.40		2.759	87.77

Notes:

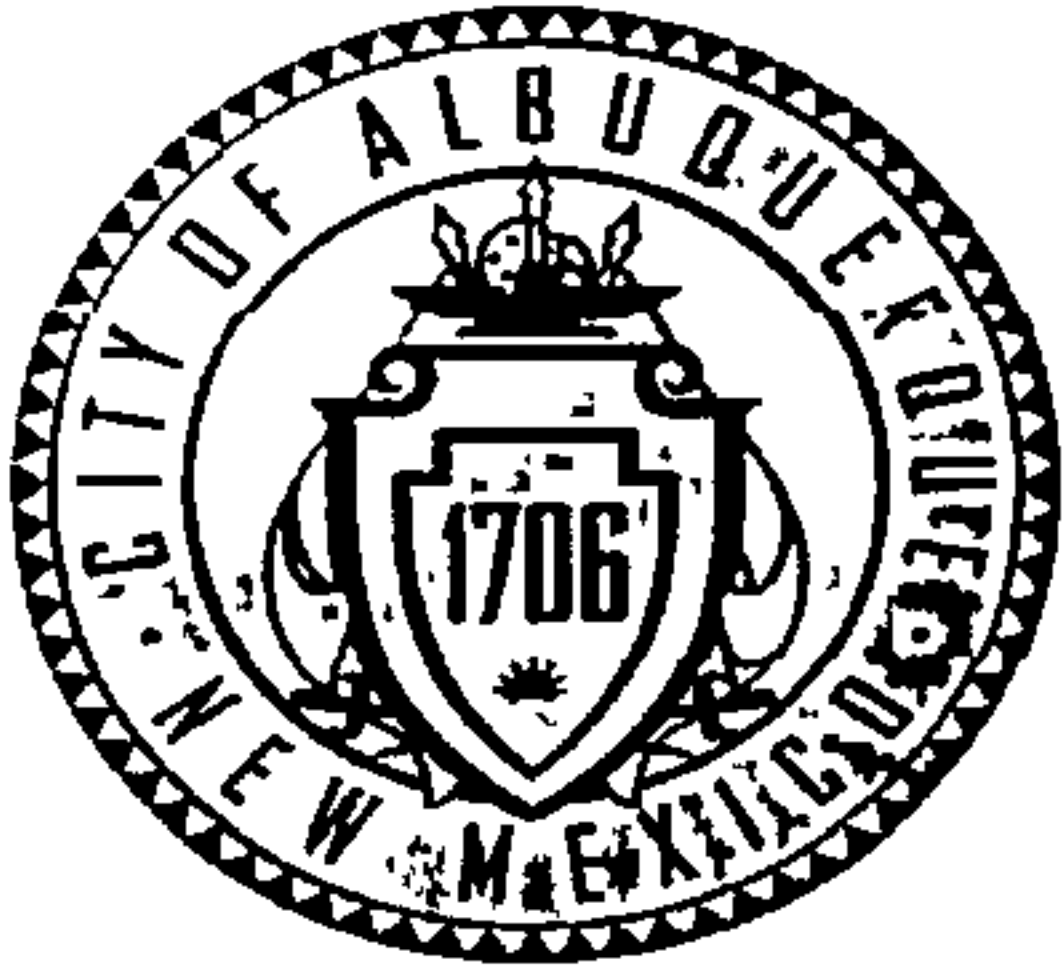
Equations:

Weighted E = E_a*A_a + E_b*A_b + E_c*A_c + E_d*A_d / (Total Area)



11.70
2.6

14.30



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: Coronado Villa Retirement Community / aka Resort Lifestyle Communities Building Permit #: _____ City Drainage # D18/D054C
DRB# _____ EPC#: 14EPC-40045; 16AA-10070 Work Order# _____
Legal Description The Eastern Portion of Tract 4, Santa Monica Place
City Address 6900 San Vicente Ave NE - Albuquerque, NM

Engineering Firm: Isaacson & Arfman, P.A. Contact Fred C. Arfman
Address 128 Monroe Street NE - Albuquerque, NM 87108
Phone#: (505) 268-8828 Fax#: _____ E-mail: freda@iacivil.com

Owner: Cameron General Contractors Contact: Paul Richie
Address 8040 Eiger Drive - Lincoln, NE 68516
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)

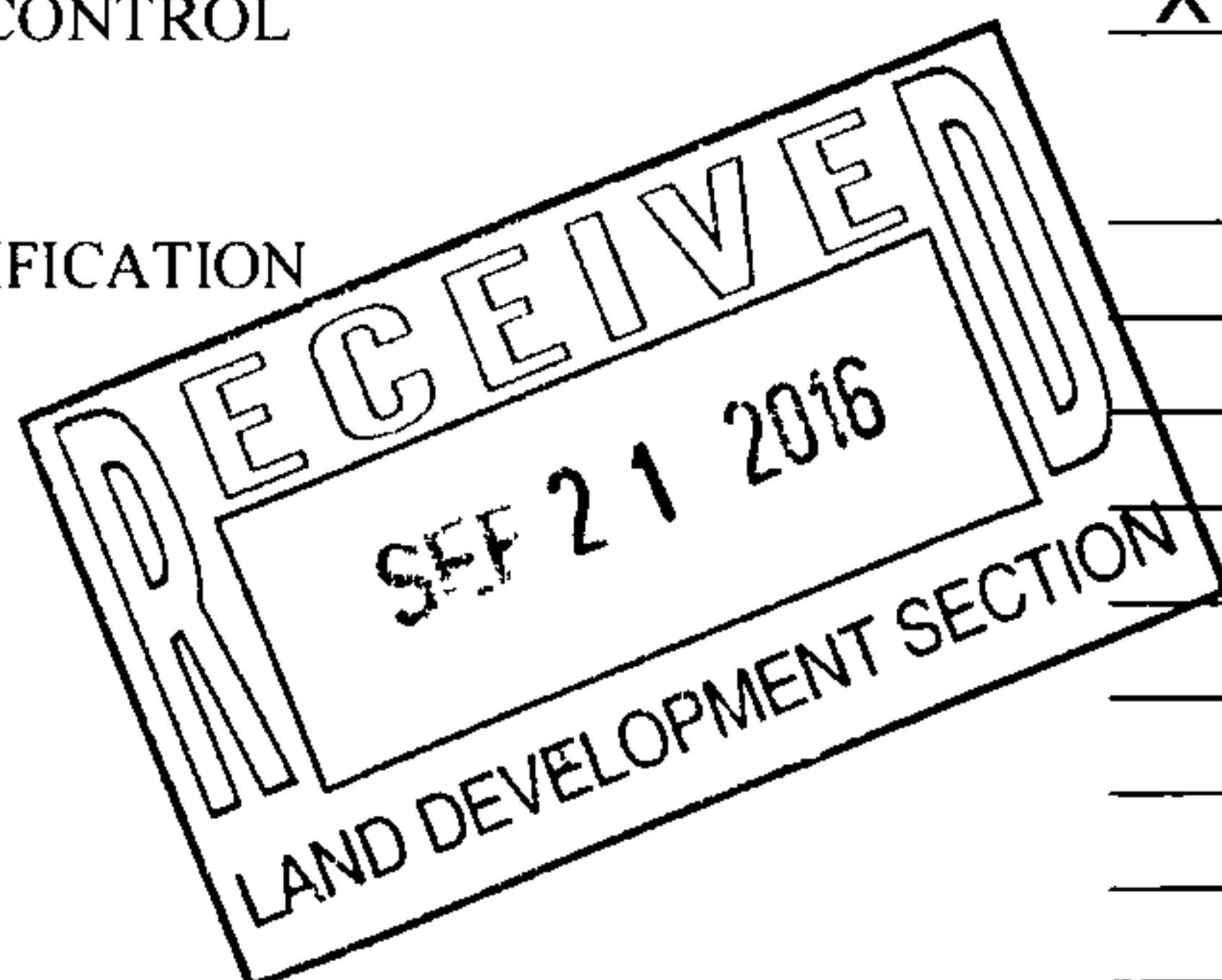
☐ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL? ☒ Yes ☐ No

DATE SUBMITTED September 22, 2016 By Fred C. Arfman

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) _____



COA STAFF ELECTRONIC SUBMITTAL RECEIVED _____

M15 / D2G

Gilbert Aldaz

480-81825

Applied Engr

Biazar, Shahab

From: Biazar, Shahab
Sent: Monday, November 18, 2013 10:40 AM
To: 'Jeff Wooten'
Subject: RE: Capstone - Revised Zone 2 Grading Plan
Attachments: ZONE 2 WALL MARKUP.PDF

Hi,

I have attached couple of options on the walls.

Thanks

Shahab Biazar, P.E.
Senior Engineer
Planning Department
Development & Building Services Division
600 2nd St. NW, Suite 201
Albuquerque, NM 87102
t 505-924-3695
f 505-924-3864

-----Original Message-----

From: Jeff Wooten [mailto:jwooten@tierrawestllc.com]
Sent: Monday, November 18, 2013 7:31 AM
To: Biazar, Shahab
Cc: TAlexander@capstonemail.com
Subject: RE: Capstone - Revised Zone 2 Grading Plan
Importance: High

Shahab,

- We may have to remove the inlet as shown on the plan. The reason for having this previously was because of the cast in place wall and minimizing and drainage behind the wall. In the case of the Keystone wall, drainage should be ok to flow to the wall and over if necessary. There will not be any concentrated flows in this case and the area draining to the wall is only a 13' wide landscape area. The multi-use trail is constructed of crusher fines and is pervious.

- I am not aware of any conflicts with the tension mats except for the aforementioned drop inlet. Removing the inlet as suggested would solve this issue. Let me know your thoughts so I can adjust the plan and resubmit.

- I am not aware of any other conflicts with utilities except where the existing public sanitary sewer and storm drain lines will cross under the wall. These existing lines are very deep and will not be in direct conflict with the geo-grid.

Thanks and feel free to call if you need to discuss further. I need to get this approved today if at all possible.

Jeff Wooten, PE, LEED AP
Tierra West, LLC
5571 Midway park Place, NE
Albuquerque, NM 87109
Office: (505) 858-3100
Cell: (505) 980-3560

jwooten@tierrawestllc.com
www.tierrawestllc.com

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-----Original Message-----

From: Biazar, Shahab [mailto:sbiazar@cabq.gov]
Sent: Friday, November 15, 2013 2:26 PM
To: Jeff Wooten
Subject: RE: Capstone - Revised Zone 2 Grading Plan

Hi Jeff,

How is the wall being constructed where by the drop inlet? Will there be any conflict with tension mats? Are there any other conflicts with utilities?

Thanks

Shahab Biazar, P.E.
Senior Engineer
Planning Department
Development & Building Services Division
600 2nd St. NW, Suite 201
Albuquerque, NM 87102
t 505-924-3695
f 505-924-3864

-----Original Message-----

From: Jeff Wooten [mailto:jwooten@tierrawestllc.com]
Sent: Friday, November 15, 2013 11:56 AM
To: Biazar, Shahab; TAlexander@capstonemail.com
Cc: jgarcia@tierrawestllc.com
Subject: Capstone - Revised Zone 2 Grading Plan
Importance: High

<<C5D-Detailed Grading Plan - Zone 2-Rev 111513.pdf>> Shahab, Jaimie is delivering the revised Zone 2 grading plan for Capstone at noon today. Please review and let me know if there is anything else you need. If you recall, this is a Fast Track review.

Tim,

Please make sure this plan is updated into your building permit sets otherwise the plans won't match and you will not get approved. Also, please make sure to update this and all the other current sheets I sent you onto the FTP site.

Thanks,

Jeff Wooten, PE, LEED AP
Tierra West, LLC
5571 Midway park Place, NE
Albuquerque, NM 87109
Office: (505) 858-3100
Cell: (505) 980-3560
jwooten@tierrawestllc.com
www.tierrawestllc.com

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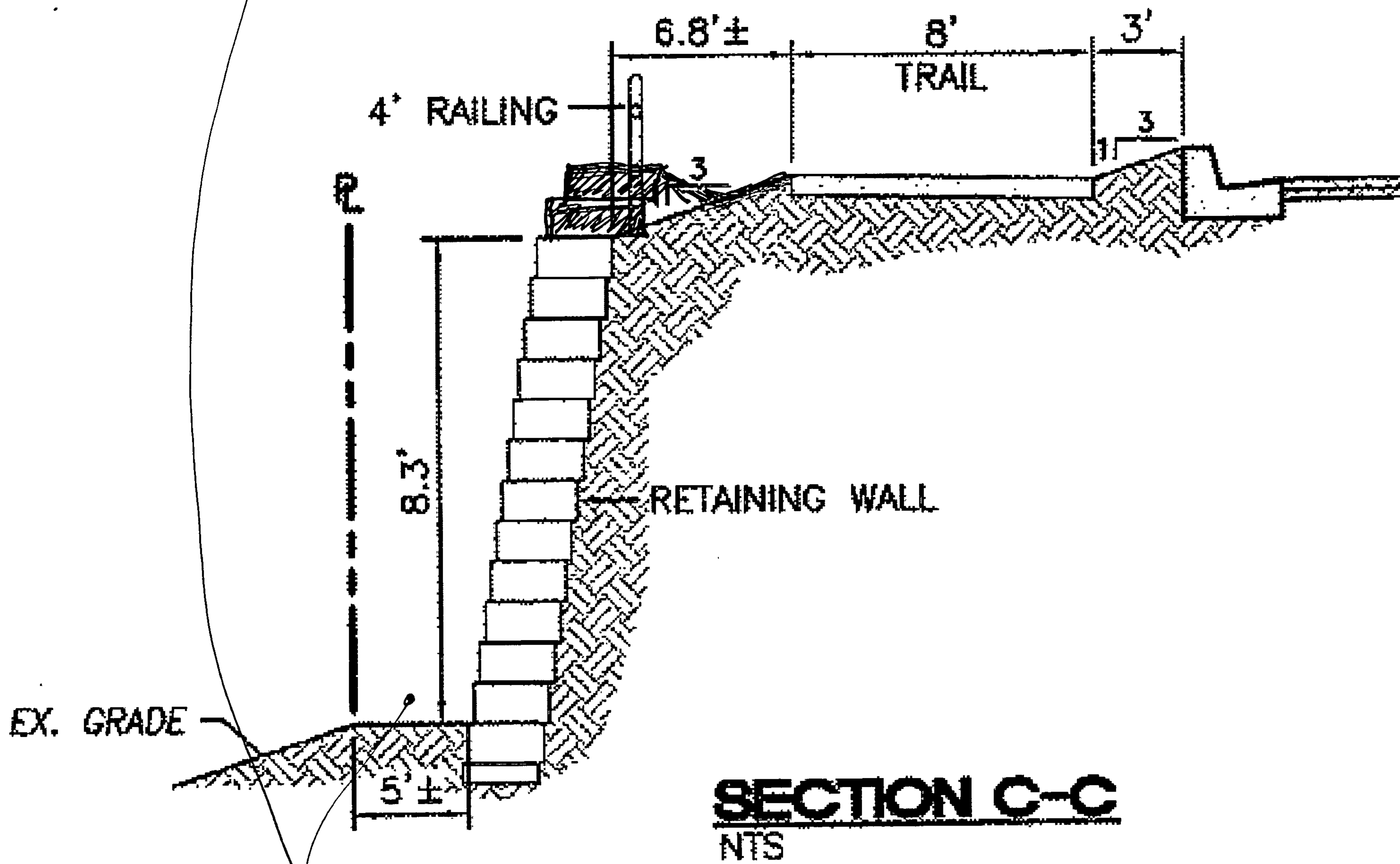
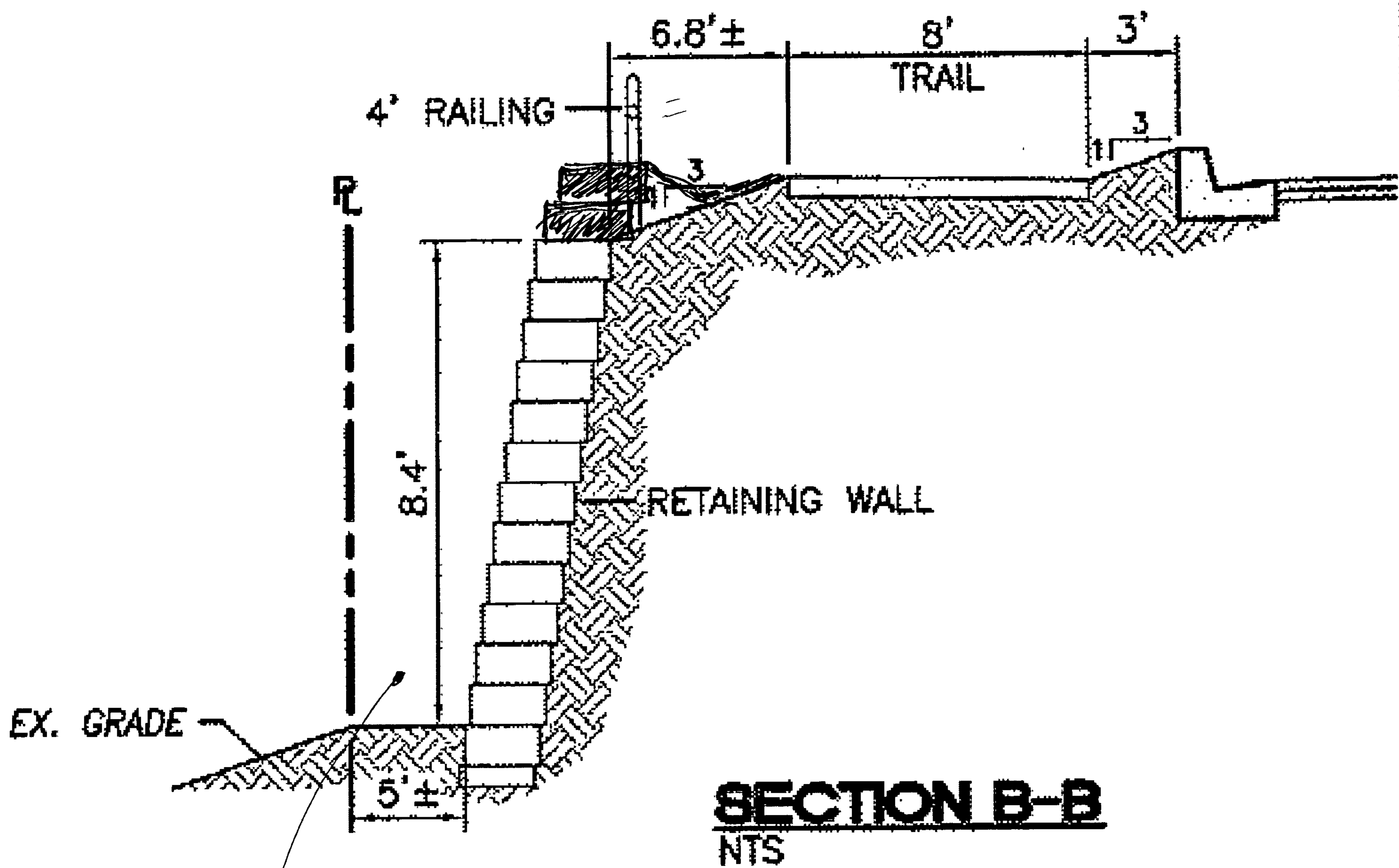
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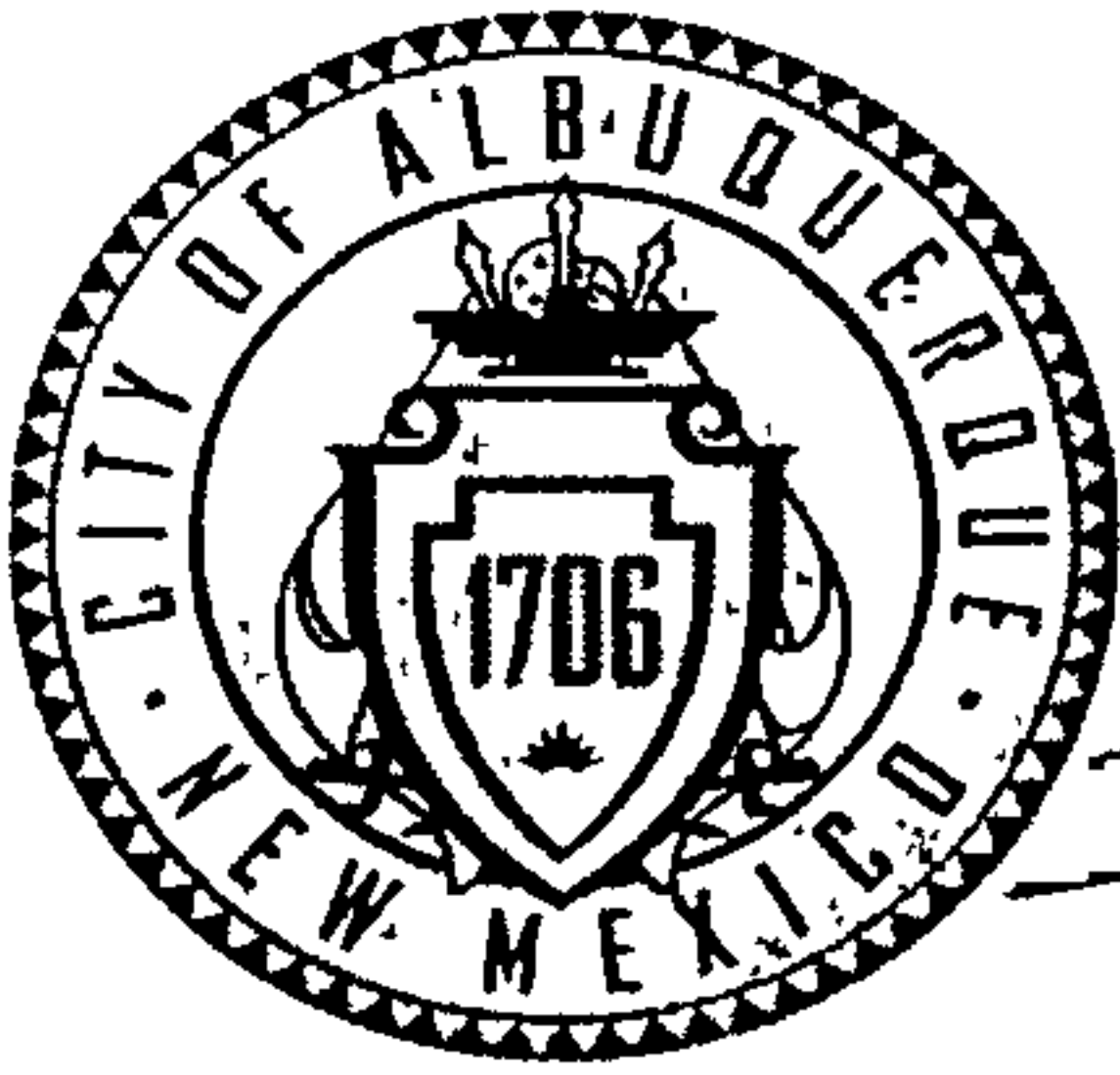
https://support.onlymyemail.com/view/report_spam/MTUxMTQ2OjE2MDA3OTQxOTI6andvb3RlbnkBOaWVycmF3ZXN0bGxjLmNvbTpkZWxpdmVyZWQ

Shahab's
Markups

11/18/13



Can the Wall
Be Moved to R
To give More Distance
to Slope



City of Albuquerque

Planning Department

Development & Building Services Division

RAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Email MO
11/18/13
Shahab

Project Title: Capstone Student Housing - Zone 2 Area Building Permits City Drainage #: M15D026
DRB#: 1009090 EPC#: 11EPC-40091/40092/40093 Work Order#: _____
Legal Description: Parcel 1A block 3 of Lots 1A, 2B, in Block 3, Parcels 1A1, 1A2, 1B1 in Block 4, Parcels 2A, 2B, 2C, & 2D of Sunport CONT
City Address: _____

Engineering Firm: Tierra West, LLC Contact: Jeffrey T. Wooten, P.E.
Address: 5571 Midway Park Place NE, Albuquerque, NM 87109
Phone#: 505-858-3100 Fax#: 505-858-1118 E-mail: jwooten@tierrawestllc.com

Owner: Capstone Collegiate Communities, LLC Contact: Amanda Wallis
Address: 431 Office Park Drive Birmingham, AL 35223
Phone#: 205-612-1107 Fax#: 205-949-2070 E-mail: awallis@capstonemail.com

Architect: _____ Contact: _____
Address: _____
Phone#: _____ Fax#: _____ E-mail: _____

Surveyor: _____ Contact: _____
Address: _____
Phone#: _____ Fax#: _____ E-mail: _____

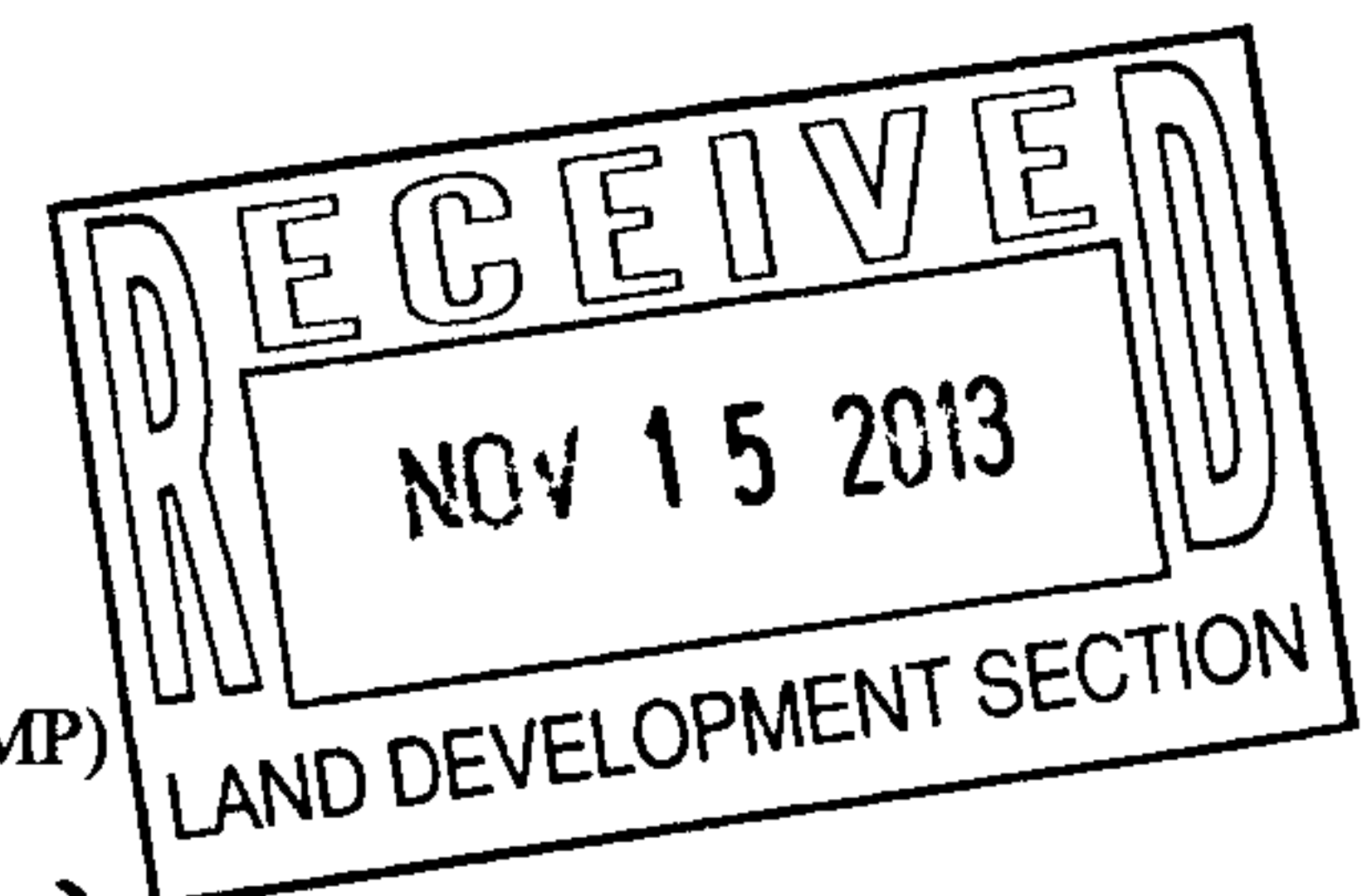
Contractor: _____ Contact: _____
Address: _____
Phone#: _____ Fax#: _____ E-mail: _____

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL
- ☐ 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) RESUBMITTAL

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☐ SIA/FINANCIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB'D APPROVAL
- ☐ 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 (Zone 2)
- ☐ 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: November 15, 2013 By: Jeffrey T. Wooten, P.E.

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 following

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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

Biazar, Shahab

*I talked w/ Jeff & he will come up w/
an alternative Plan Shahab 11/18/13*

From: Jeff Wooten <jwooten@tierrawestllc.com>
Sent: Monday, November 18, 2013 10:47 AM
To: Biazar, Shahab
Subject: RE: Capstone - Revised Zone 2 Grading Plan

2:15 PM

Shahab,

Pricing just came back in on this wall and if I go by to the Client again telling them I need to raise the wall they are going to kill us....literally. Raising the wall even by 1' would raise the price by about \$50,000. I tried your office line and couldn't get through...can you call me when you get a chance to discuss?

Thanks,

Jeff Wooten, PE, LEED AP
Tierra West, LLC
5571 Midway park Place, NE
Albuquerque, NM 87109
Office: (505) 858-3100
Cell: (505) 980-3560
jwooten@tierrawestllc.com
www.tierrawestllc.com

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-----Original Message-----

From: Biazar, Shahab [mailto:sbiazar@cabq.gov]
Sent: Monday, November 18, 2013 10:40 AM
To: Jeff Wooten
Subject: RE: Capstone - Revised Zone 2 Grading Plan

Hi,

I have attached couple of options on the walls.

Thanks

Shahab Biazar, P.E.
Senior Engineer
Planning Department
Development & Building Services Division
600 2nd St. NW, Suite 201
Albuquerque, NM 87102
t 505-924-3695

f 505-924-3864

-----Original Message-----

From: Jeff Wooten [mailto:jwooten@tierrawestllc.com]
Sent: Monday, November 18, 2013 7:31 AM
To: Biazar, Shahab
Cc: TAlexander@capstonemail.com
Subject: RE: Capstone - Revised Zone 2 Grading Plan
Importance: High

Shahab,

- We may have to remove the inlet as shown on the plan. The reason for having this previously was because of the cast in place wall and minimizing and drainage behind the wall. In the case of the Keystone wall, drainage should be ok to flow to the wall and over if necessary. There will not be any concentrated flows in this case and the area draining to the wall is only a 13' wide landscape area. The multi-use trail is constructed of crusher fines and is pervious.
- I am not aware of any conflicts with the tension mats except for the aforementioned drop inlet. Removing the inlet as suggested would solve this issue. Let me know your thoughts so I can adjust the plan and resubmit.
- I am not aware of any other conflicts with utilities except where the existing public sanitary sewer and storm drain lines will cross under the wall. These existing lines are very deep and will not be in direct conflict with the geo-grid.

Thanks and feel free to call if you need to discuss further. I need to get this approved today if at all possible.

Jeff Wooten, PE, LEED AP
Tierra West, LLC
5571 Midway park Place, NE
Albuquerque, NM 87109
Office: (505) 858-3100
Cell: (505) 980-3560
jwooten@tierrawestllc.com
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-----Original Message-----

From: Biazar, Shahab [mailto:sbiazar@cabq.gov]
Sent: Friday, November 15, 2013 2:26 PM
To: Jeff Wooten
Subject: RE: Capstone - Revised Zone 2 Grading Plan

Hi Jeff,

How is the wall being constructed where by the drop inlet? Will there be any conflict with tension mats? Are there any other conflicts with utilities?

Thanks

Shahab Biazar, P.E.
Senior Engineer
Planning Department
Development & Building Services Division
600 2nd St. NW, Suite 201
Albuquerque, NM 87102
t 505-924-3695
f 505-924-3864

-----Original Message-----

From: Jeff Wooten [mailto:jwooten@tierrawestllc.com]
Sent: Friday, November 15, 2013 11:56 AM
To: Biazar, Shahab; TAlexander@capstonemail.com
Cc: jgarcia@tierrawestllc.com
Subject: Capstone - Revised Zone 2 Grading Plan
Importance: High

<<C5D-Detailed Grading Plan - Zone 2-Rev 111513.pdf>> Shahab, Jaimie is delivering the revised Zone 2 grading plan for Capstone at noon today. Please review and let me know if there is anything else you need. If you recall, this is a Fast Track review.

Tim,
Please make sure this plan is updated into your building permit sets otherwise the plans won't match and you will not get approved. Also, please make sure to update this and all the other current sheets I sent you onto the FTP site.

Thanks,

Jeff Wooten, PE, LEED AP
Tierra West, LLC
5571 Midway park Place, NE
Albuquerque, NM 87109
Office: (505) 858-3100
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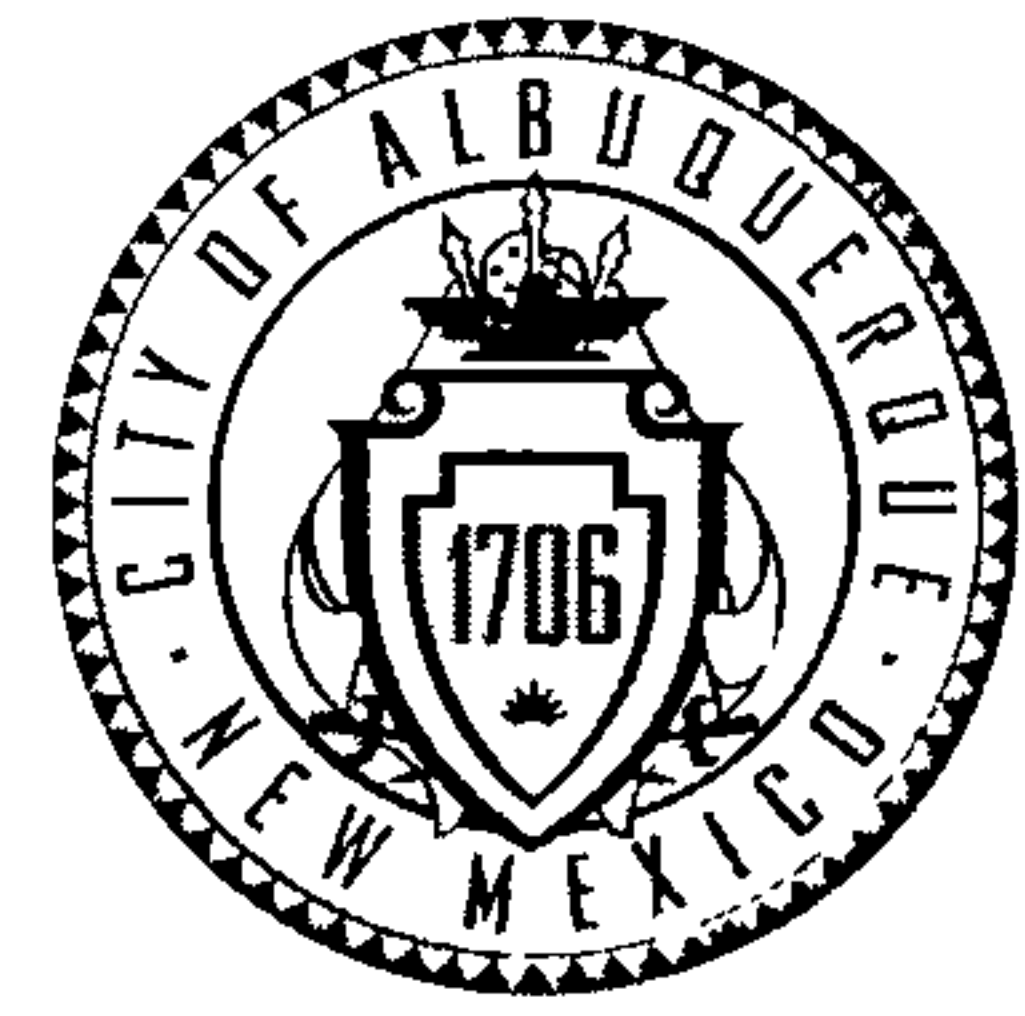
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CITY OF ALBUQUERQUE



August 5, 2014

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

Re: Capstone Student Housing *Fine 2*
Transport Street SE
Request Permanent C.O. - Accepted
Engineer's Stamp dated: 11-20-13 (M15D026)
Certification dated: 7-31-14

Dear Mr. Bohannon,

Based on the Certification received 8/4/2014, the site is acceptable for release of Certificate of Occupancy by Hydrology.

PO Box 1293

If you have any questions, you can contact me at 924-3695 or Rudy Rael at 924-3977.

Albuquerque

New Mexico 87103

www.cabq.gov

Sincerely,

Rita Harmon, P.E.
Senior Engineer, Planning Dept.
Development and Review Services

C: RR/RH
CO Clerk
email



City of Albuquerque

Planning Department

Development & Building Services Division

RAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: Capstone Student Housing (Zone 2) City Drainage #: M150024

DRB#: _____ EPC#: 11EPC-40091/40092/40093 Work Order#: _____

Legal Description: Parcel 1A Block 3 plat of Lots 1A, 1A2, 1B1 in Block 4, Parcels 2A, 2B, 2C, & 2D of Sunport Cont

City Address: _____

Engineering Firm: Tierra West LLC Contact: Joel Hernandez

Address: 5571 Midway Park Place NE, Albuquerque, NM 87109

Phone#: 505-858-3100 Fax#: _____ E-mail: jdhernandez@tierrawestllc.com

Owner: Capstone Collegiate Communities, LLC Contact: Amanda Wallis

Address: 431 Office Park Drive Birmingham, AL35223

Phone#: 205-612-1107 Fax#: _____ E-mail: awallis@capstonemail.com

Architect: _____ Contact: _____

Address: _____

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

Surveyor: _____ Contact: _____

Address: _____

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

Contractor: _____ Contact: _____

Address: _____

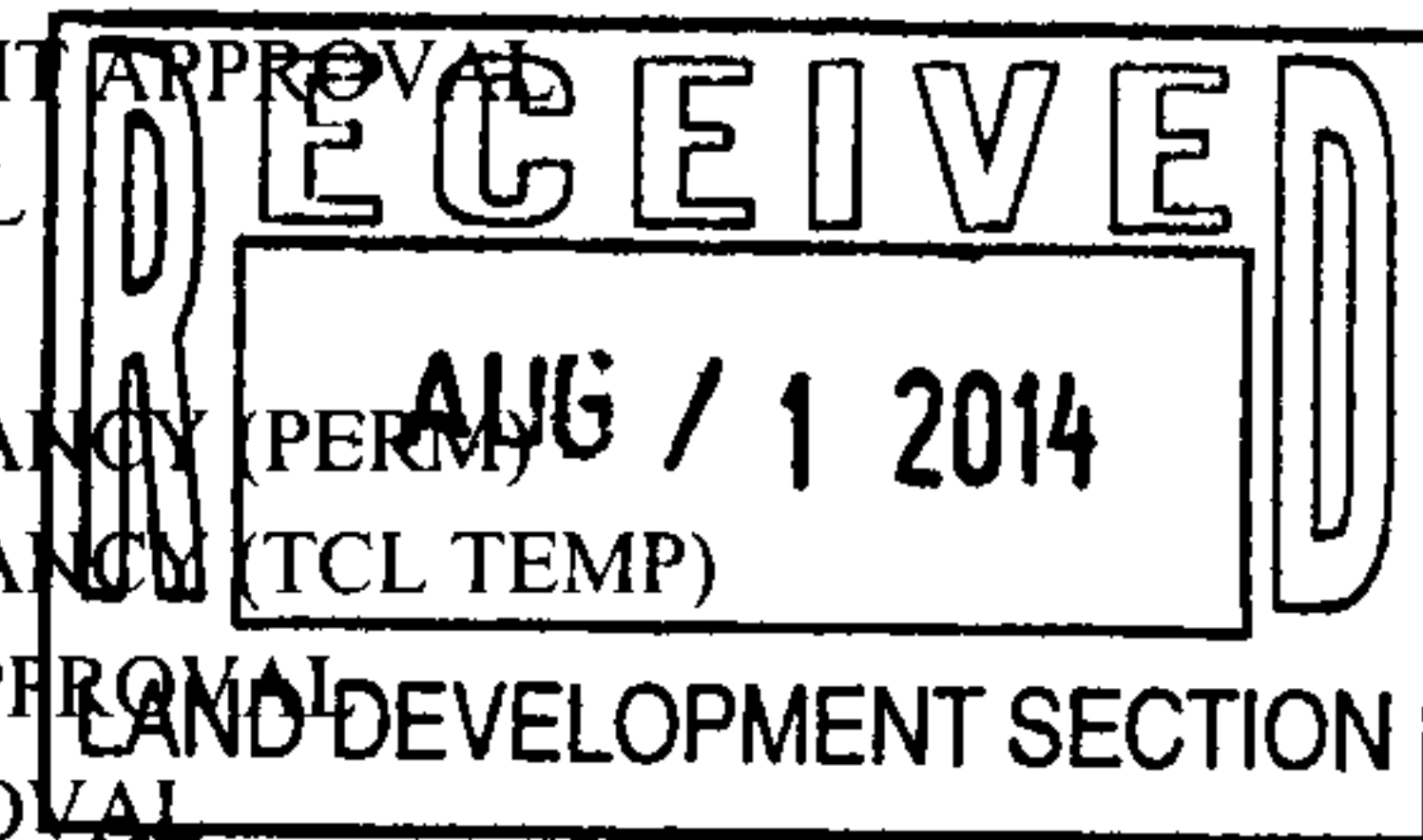
Phone#: _____ Fax#: _____ E-mail: _____

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL
- ☐ 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
- ☐ 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

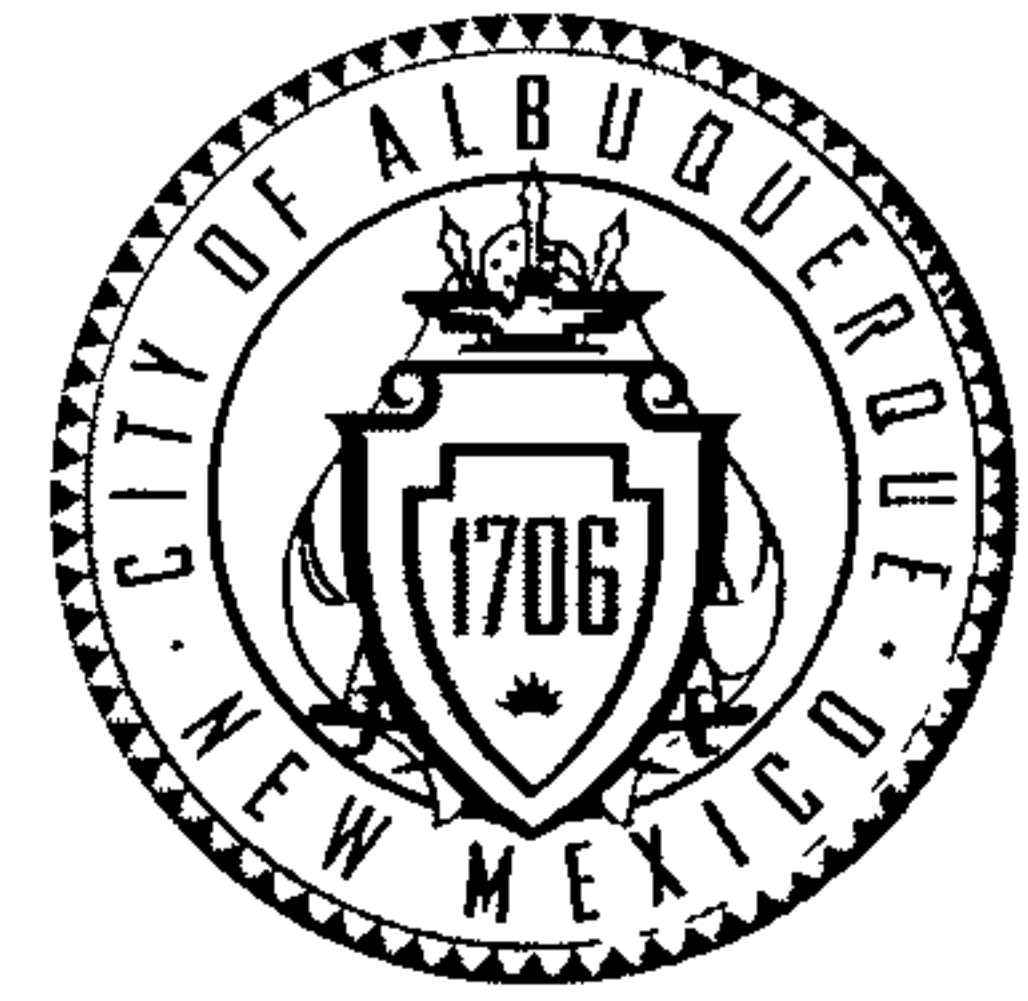
DATE SUBMITTED: 8/1/2014 By: Brad Frosch for Ron Bohannon

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 following:

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*disc w/ file turned in 8.1.14

CITY OF ALBUQUERQUE



November 21, 2013

Jeffrey T. Wooten, P.E.
Tierra West, LLC
5571 Midway Park Pl. NE
Albuquerque, NM 87109

**Re: Revised Capstone Drainage Management Plan
Zone 2 Grading Plan
Engineer's Stamp Date 11-20-2013 (M-15/D026)**

Dear Mr. Wooten,

Based the following plans and documents provided in your submittal received 11-20-13 the project is approved for Building Permit for **buildings 1 through 28** and the **maintenance building** east of building 1.

This project requires a National Pollutant Discharge Elimination System (NPDES) permit for storm water discharge for disturbing one acre or more and a Topsoil Disturbance Permit for disturbing $\frac{3}{4}$ of an acre or more. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

If you have any questions, you may contact me by telephone at 505-924-3695.

Sincerely,

Shahab Biazar, P.E.
Senior Engineer, Planning Department
Development Review Services

C: e-mail

PO Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov



City of Albuquerque

Planning Department

Development & Building Services Division

RAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: Capstone Student Housing - Zone 2 Area Building Permits City Drainage #: M15D026
DRB#: 1009090 EPC#: 11EPC-40091/40092/40093 Work Order#: _____
Legal Description: Parcel 1A block 3 of Lots 1A, 2B, in Block 3, Parcels 1A1, 1A2, 1B1 in Block 4, Parcels 2A, 2B, 2C, & 2D of Sunport CONT
City Address: _____

Engineering Firm: Tierra West, LLC Contact: Jeffrey T. Wooten, P.E.
Address: 5571 Midway Park Place NE, Albuquerque, NM 87109
Phone#: 505-858-3100 Fax#: 505-858-1118 E-mail: jwooten@tierrawestllc.com

Owner: Capstone Collegiate Communities, LLC Contact: Amanda Wallis
Address: 431 Office Park Drive Birmingham, AL 35223
Phone#: 205-612-1107 Fax#: 205-949-2070 E-mail: awallis@capstonemail.com

Architect: _____ Contact: _____
Address: _____
Phone#: _____ Fax#: _____ E-mail: _____

Surveyor: _____ Contact: _____
Address: _____
Phone#: _____ Fax#: _____ E-mail: _____

Contractor: _____ Contact: _____
Address: _____
Phone#: _____ Fax#: _____ E-mail: _____

TYPE OF SUBMITTAL:

- ☒ DRAINAGE REPORT *Revisions*
☐ DRAINAGE PLAN 1st SUBMITTAL
☐ 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) *Resubmittal*

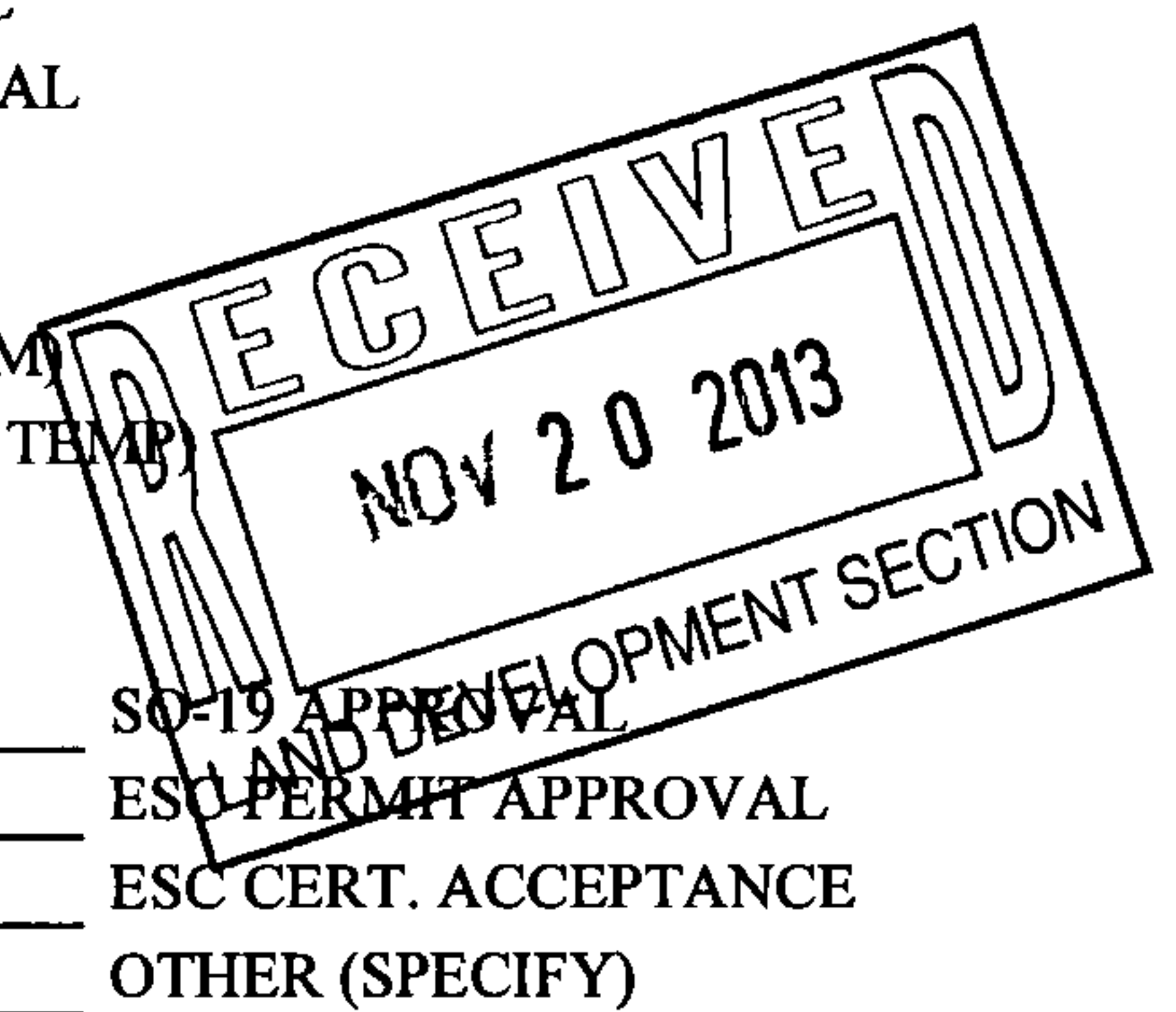
CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

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☐ S. DEV. FOR BLDG. PERMIT APPROVAL
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☐ CERTIFICATE OF OCCUPANCY (PERM)
☐ CERTIFICATE OF OCCUPANCY (TCL TEMP)
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☐ 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: November 20, 2013 By: Jeffrey T. Wooten, P.E.

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Biazar, Shahab

From: Biazar, Shahab
Sent: Thursday, November 14, 2013 10:28 AM
To: Jeffrey Wooten (jwooten@tierrawestllc.com)
Cc: Sims, Timothy E.
Subject: Capstone Housing Grading Plan - ZONE 2 (M15/D26)
Attachments: M15D026_ZONE2_SHAHAB_MARKUPS.pdf

Hi,

Attached please find my markups on the grading plan for Capstone Housing - ZONE 2 (M15/D26).

Thanks

Shahab Biazar, P.E.

Senior Engineer

Planning Department

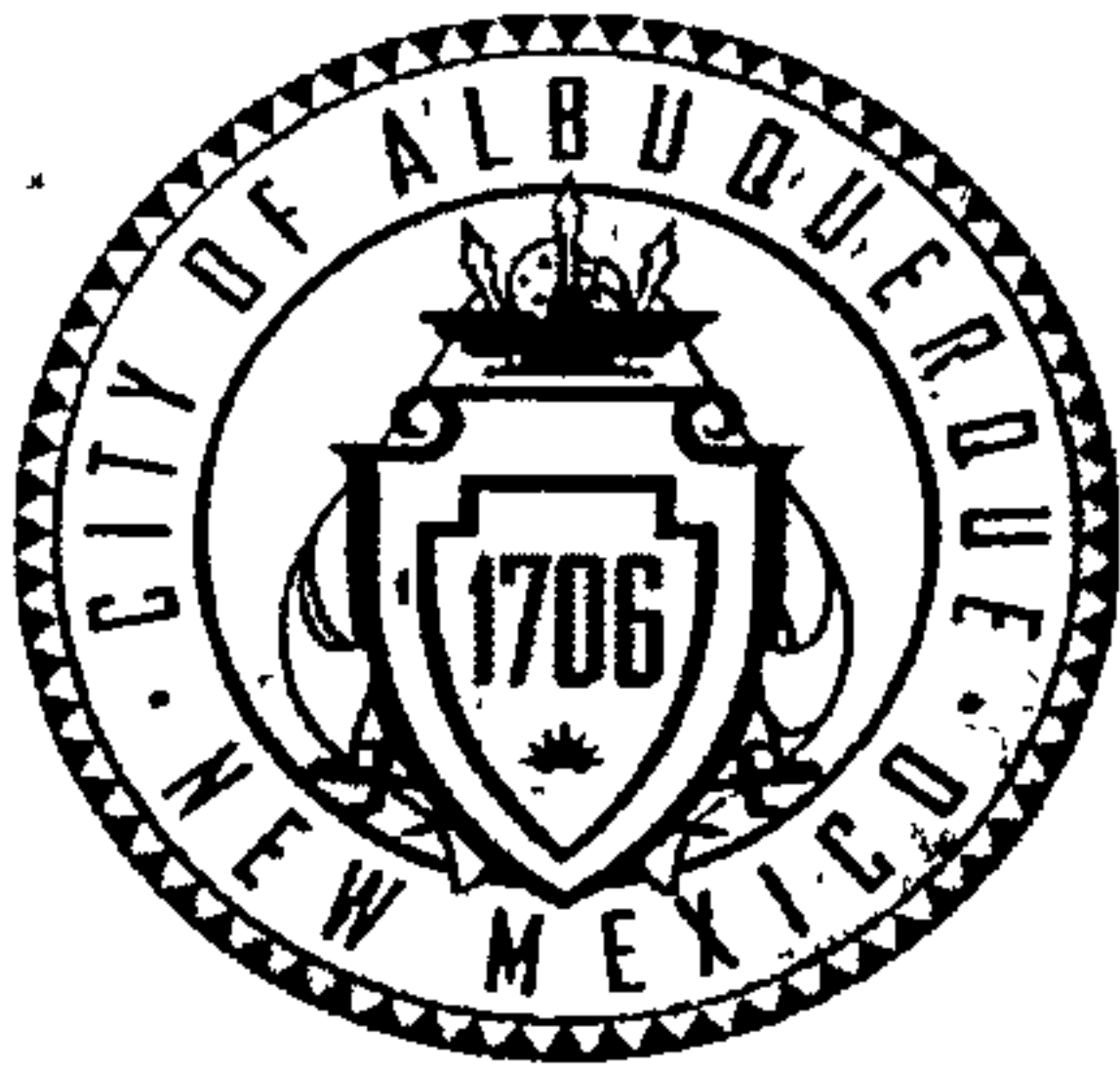
Development & Building Services Division

600 2nd St. NW, Suite 201

Albuquerque, NM 87102

t 505-924-3695

f 505-924-3864



City of Albuquerque

Planning Department

Development & Building Services Division

RAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: Capstone Student Housing - Zone 2 Area Building Permits City Drainage #: M15/P026
DRB#: 1009090 EPC#: TEPC-40091/40092/40093 Work Order#: _____
Legal Description: Parcel 1A block 3 of Lots 1A, 2B, in Block 3, Parcels 1A1, 1A2, 1B1 in Block 4, Parcels 2A, 2B, 2C, & 2D of Sunport CONT
City Address: _____

Engineering Firm: Tierra West, LLC Contact: Jeffrey T. Wooten, P.E.
Address: 5571 Midway Park Place NE, Albuquerque, NM 87109
Phone#: 505-858-3100 Fax#: 505-858-1118 E-mail: jwooten@tierrawestllc.com

Owner: Capstone Collegiate Communities, LLC Contact: Amanda Wallis
Address: 431 Office Park Drive Birmingham, AL 35223
Phone#: 205-612-1107 Fax#: 205-949-2070 E-mail: awallis@capstonemail.com

Architect: _____ Contact: _____
Address: _____
Phone#: _____ Fax#: _____ E-mail: _____

Surveyor: _____ Contact: _____
Address: _____
Phone#: _____ Fax#: _____ E-mail: _____

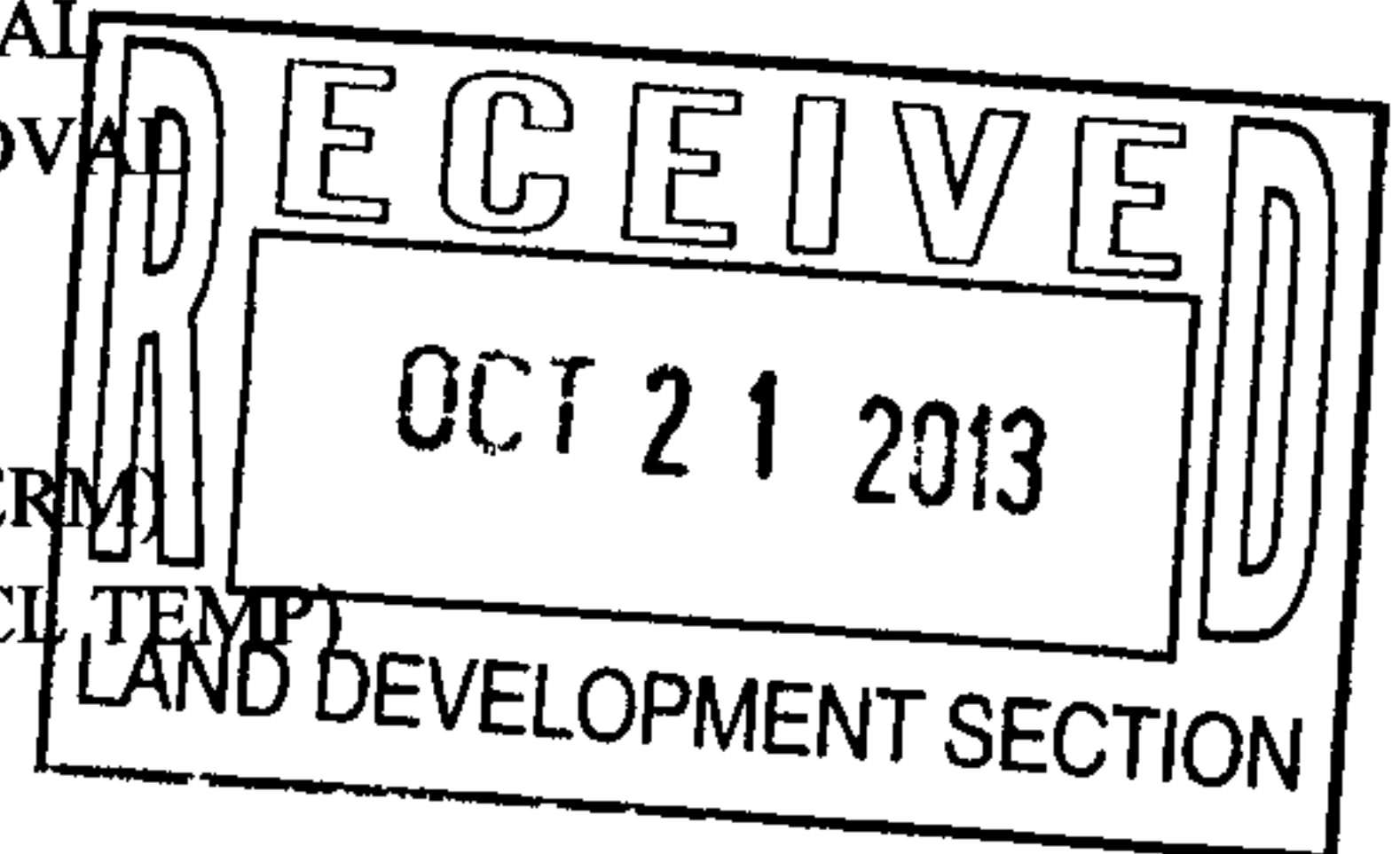
Contractor: _____ Contact: _____
Address: _____
Phone#: _____ Fax#: _____ E-mail: _____

TYPE OF SUBMITTAL:

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- ☐ OTHER (SPECIFY) _____

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- ☐ FOUNDATION PERMIT APPROVAL
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- ☐ ESC PERMIT APPROVAL
- ☐ ESC CERT. ACCEPTANCE
- ☐ OTHER (SPECIFY) _____



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

DATE SUBMITTED: October 21, 2013 By: Jeffrey T. Wooten, P.E.

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