

CITY OF ALBUQUERQUE

Planning Department
Brennon Williams, Interim Director



Mayor Timothy M. Keller

August 23, 2019

Mike Balaskovits, PE
Bohannon Huston, Inc.
7500 Jefferson St NE
Albuquerque, NM 87109

**RE: Ascension Subdivision
Revised Drainage Report and Revised Grading Plan
Engineer's Stamp Date: 08/09/19
Hydrology File: B17D006**

Dear Mr. Balaskovits:

PO Box 1293

Based upon the information provided in your submittal received 08/12/2019, the Revised Drainage Report and Revised Grading Plan are approved for Grading Permit and Work Order.

Albuquerque

As a reminder, prior to obtaining Work Order approval, please pay the Payment in Lieu of **\$25,825.64**. The Owner needs to bring three copies of the previously provided Treasury Form to the Building Permits and pay the fee. Then provide Hydrology with one copy showing the receipt

NM 87103

www.cabq.gov

As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Dough Hughes, PE, jhughes@cabq.gov, 924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Renée C. Brissette, P.E. CFM
Senior Engineer, Hydrology
Planning Department



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: _____ Building Permit #: _____ Hydrology File #: _____

DRB#: 1010693 ; 17DRB-70297 EPC#: 15EPC-40070 Work Order#: _____

Legal Description: _____

City Address: _____

Applicant: _____ Contact: _____

Address: _____

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

Other Contact: _____ Contact: _____

Address: _____

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

TYPE OF DEVELOPMENT: _____ PLAT _____ RESIDENCE _____ DRB SITE _____ ADMIN SITE

Check all that Apply:

DEPARTMENT:

_____ HYDROLOGY/ DRAINAGE
_____ TRAFFIC/ TRANSPORTATION

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

_____ BUILDING PERMIT APPROVAL
_____ CERTIFICATE OF OCCUPANCY

TYPE OF SUBMITTAL:

_____ ENGINEER/ARCHITECT CERTIFICATION
_____ PAD CERTIFICATION
_____ CONCEPTUAL G & D PLAN
_____ GRADING PLAN
_____ DRAINAGE REPORT
_____ DRAINAGE MASTER PLAN
_____ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
_____ ELEVATION CERTIFICATE
_____ CLOMR/LOMR
_____ TRAFFIC CIRCULATION LAYOUT (TCL)
_____ TRAFFIC IMPACT STUDY (TIS)
_____ STREET LIGHT LAYOUT
_____ OTHER (SPECIFY) _____
_____ PRE-DESIGN MEETING?

_____ PRELIMINARY PLAT APPROVAL
_____ SITE PLAN FOR SUB'D APPROVAL
_____ SITE PLAN FOR BLDG. PERMIT APPROVAL
_____ FINAL PLAT APPROVAL

_____ SIA/ RELEASE OF FINANCIAL GUARANTEE
_____ FOUNDATION PERMIT APPROVAL
_____ GRADING PERMIT APPROVAL
_____ SO-19 APPROVAL
_____ PAVING PERMIT APPROVAL
_____ GRADING/ PAD CERTIFICATION
_____ WORK ORDER APPROVAL
_____ CLOMR/LOMR
_____ FLOODPLAIN DEVELOPMENT PERMIT
_____ OTHER (SPECIFY) _____

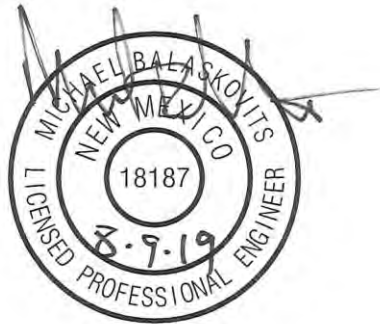
IS THIS A RESUBMITTAL?: _____ Yes _____ No

DATE SUBMITTED: _____ By: _____

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____



MEMORANDUM

DATE: Aug 9, 2019
TO: COA Hydrology
FROM: Kelly Klein, PE and Mike Balaskovits, PE
SUBJECT: Amendment to "Drainage Report for Ascension Subdivision"
dated 1-21-19

PURPOSE

The purpose of this amendment to the Drainage Report for Ascension Subdivision is to amend the flow direction of Basin 6 in *Exhibit C- Amended Basin Map From DMP* and add the corresponding Offsite Basin 2 in *Exhibit D- Developed Conditions Basin Map*.

DEVELOPED HYDRAULIC AND HYDROLOGIC CONDITIONS

A. OFFSITE FLOWS

In this section, the original Drainage Report states:

"However, the offsite portion of FPCCDMP Basin 6 (Tract 3B-2-A), south of Ascension, currently drains east to Balloon Fiesta Park. A swale along the west edge of the Balloon Fiesta property conveys the flow from this portion of Basin 6 to Basin 10. This drainage pattern for the southern portion of Basin 6 will not change with the Ascension development."

This memorandum amends this statement as such:

The offsite portion of FPCCDMP Basin 6 (Tract 3B-2-A), south of Ascension, currently drains east and discharges into the southeastern corner of Ascension Subdivision. A new swale (sized to accommodate 19.4 cfs) along the east edge of the Ascension Subdivision property conveys the flow from this offsite Basin 6 to Basin 10 as it historically does today.

B. ONSITE FLOWS

In this section, to Original Drainage Report states:

"The site has been divided into two basins in the developed conditions."

This memorandum amends this statement as such:

The site has been divided into three basins in the developed conditions; Basin DEV-1, DEV-2, Basin DEV-2a. Basin DEV-2a will serve as a surface private drainage easement to allow the flows from OFFSITE Basin 2 to pass through the site to Basin 10 per the amended Fiesta Park Care Center Drainage Master Plan (FPCCDMP).

CONCLUSION:

This amendment to the original Drainage Report for Ascension Subdivision does not change the overall hydrologic analysis or conclusions presented in the report but rather addresses the offsite flows from Basin 6. The drainage plan for the subdivision still maintains the overall drainage patterns of the area as presented in the FPCCDMP and discharges the allowable flows (77.7cfs) into the North Diversion Channel.

AMENDED APPENDICES (attached):

APPENDIX B – STREET HYDRAULICS AND STORM DRAIN INLET ANALYSIS
Pages 22-26: Revised HGL Calculations and Profile

ADDED APPENDICES (attached):

APPENDIX C – EAST SWALE CAPACITY

AMENDED EXHIBITS (attached):

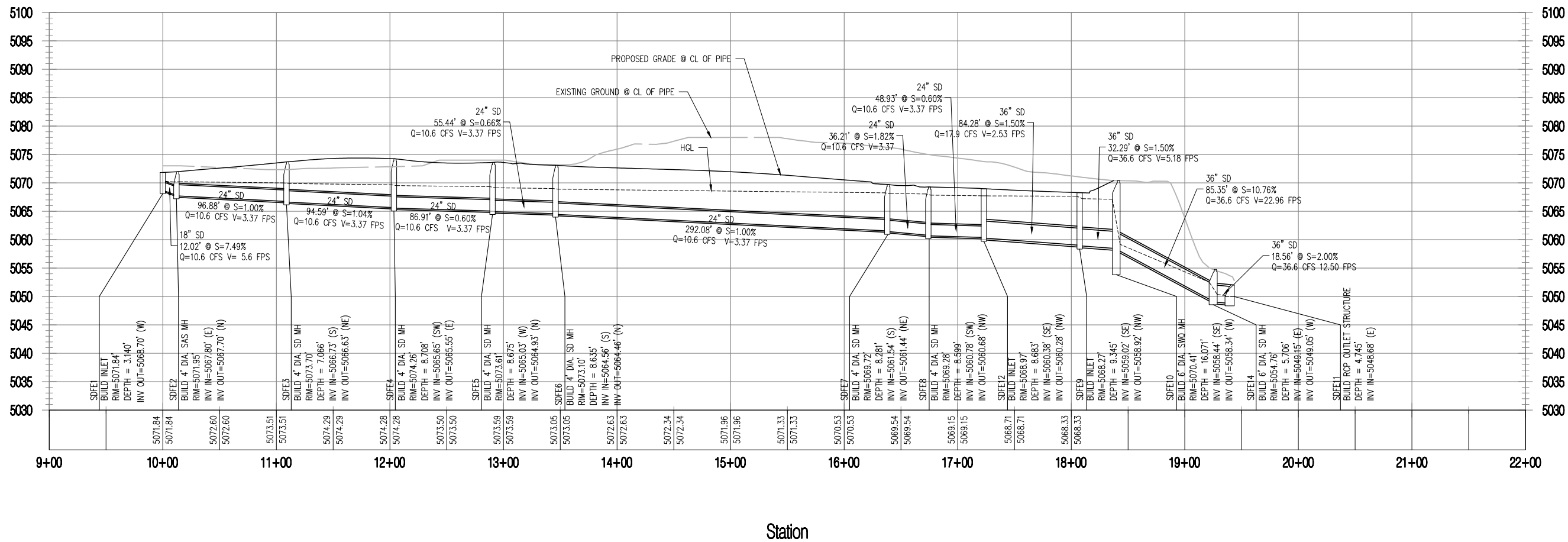
EXHIBIT C – AMENDED BASIN MAP FROM DMP
EXHIBIT D – DEVELOPED CONDITIONS BASIN MAP
EXHIBIT E – GRADING PLAN
EXHIBIT F – GRADING PLAN DETAILS

**APPENDIX B -
STREET HYDRAULICS AND STORM DRAIN INLET
ANALYSIS**

| | | | | | | | | | | | | | | | | | | | |
|---------|------------|------|--------------|------|---------|--------|-------|--------|-------|----------|----------|-----------------|-------|----------|----------|-------|----------|---------------|----------|
| 17.92.5 | Struct. ID | D | Q | L | V | d | dc | v^2/2g | EGLo | HGLo | Sf | Total Pipe Loss | EGLi | HGLi | Ea | EGLa | U/S TOC | Surface Elev. | |
| | | (ft) | (cu. ft/sec) | (ft) | (ft/s) | (ft) | (ft) | (ft) | (ft) | (ft) | | (ft) | (ft) | (ft) | (ft) | (ft) | (ft) | (ft) | |
| | 1 SDFE14 | | 3 | 36.6 | 18.565 | 12.498 | 1.297 | 1.968 | 2.428 | 5052.406 | 5049.977 | 0 | 0 | 5052.777 | 5050.349 | 3.726 | 5052.777 | 5052.151 | 5054.758 |
| | 2 SDFE10 | | 3 | 36.6 | 85.842 | 22.96 | 0.83 | 1.968 | 8.196 | 5052.944 | 5052.527 | 0.003 | 0 | 5067.364 | 5059.167 | 9.027 | 5067.364 | 5061.437 | 5070.408 |
| | 3 SDFE9 | | 3 | 36.6 | 32.297 | 5.178 | 3 | 0 | 0.417 | 5067.53 | 5067.113 | 0.003 | 0.097 | 5067.627 | 5067.211 | 8.79 | 5067.711 | 5062.021 | 5068.266 |
| | 4 SDFE12 | | 3 | 17.9 | 84.29 | 2.532 | 3 | 0 | 0.1 | 5067.751 | 5067.651 | 0.001 | 0.061 | 5067.811 | 5067.712 | 7.546 | 5067.831 | 5062.385 | 5068.968 |
| | 5 SDFE8 | | 2 | 10.6 | 48.935 | 3.374 | 2 | 0 | 0.177 | 5067.902 | 5067.725 | 0.002 | 0.107 | 5068.01 | 5067.833 | 7.47 | 5068.15 | 5062.78 | 5069.279 |
| | 6 SDFE7 | | 2 | 10.6 | 36.214 | 3.374 | 2 | 0 | 0.177 | 5068.221 | 5068.044 | 0.002 | 0.08 | 5068.301 | 5068.124 | 6.913 | 5068.353 | 5063.539 | 5069.721 |
| | 7 SDFE6 | | 2 | 10.6 | 292.097 | 3.374 | 2 | 0 | 0.177 | 5068.424 | 5068.247 | 0.002 | 0.641 | 5069.065 | 5068.888 | 4.656 | 5069.116 | 5066.562 | 5073.095 |
| | 8 SDFE5 | | 2 | 10.6 | 55.441 | 3.374 | 2 | 0 | 0.177 | 5069.187 | 5069.01 | 0.002 | 0.122 | 5069.309 | 5069.132 | 4.506 | 5069.436 | 5067.029 | 5073.605 |
| | 9 SDFE4 | | 2 | 10.6 | 86.911 | 3.374 | 2 | 0 | 0.177 | 5069.507 | 5069.33 | 0.002 | 0.191 | 5069.697 | 5069.52 | 4.225 | 5069.775 | 5067.65 | 5074.258 |
| | 10 SDFE3 | | 2 | 10.6 | 94.591 | 3.374 | 2 | 0 | 0.177 | 5069.846 | 5069.669 | 0.002 | 0.208 | 5070.054 | 5069.877 | 3.467 | 5070.097 | 5068.731 | 5073.696 |
| | 11 SDFE2 | | 2 | 10.6 | 96.886 | 3.374 | 2 | 0 | 0.177 | 5070.168 | 5069.991 | 0.002 | 0.213 | 5070.381 | 5070.204 | 2.802 | 5070.502 | 5069.3 | 5071.951 |
| | 12 SDFE1 | | 1.5 | 10.6 | 12.05 | 5.998 | 1.5 | 0 | 0.559 | 5070.726 | 5070.166 | 0.01 | 0.123 | 5070.848 | 5070.289 | 2.26 | 5070.96 | --- | 5071.84 |

| #Line | Struct. ID | Exit Ho (ft) | Hf (ft) | Hb (ft) | Hc (ft) | He (ft) | Hj (ft) | Total (ft) | Ei (ft) | y+(P/gamr (ft) | DI | Eai (ft) | CB | C-theta | Cp | Ha (ft) | Ea (ft) | |
|-------|------------|-----------------|------------|------------|------------|------------|------------|---------------|------------|-------------------|-------|-------------|-------|---------|-------|------------|------------|-------|
| 1 | SDFE14 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 3.726 | 1.297 | 0.527 | 3.126 | -0.911 | 0 | 0 | 0.547 | 3.726 |
| 2 | SDFE10 | 0.167 | | 0 | 0 | 0 | 0 | 0 | 0 | 9.027 | 0.83 | 0.527 | 3.126 | -0.911 | 0.739 | 0 | 1.013 | 9.027 |
| 3 | SDFE9 | 0.167 | 0.097 | | 0 | 0 | 0 | 0 | 0.097 | 8.706 | 8.29 | 0.527 | 8.79 | -0.05 | 0.015 | 0 | 0 | 8.79 |
| 4 | SDFE12 | 0.04 | 0.061 | | 0 | 0 | 0 | 0 | 0.061 | 7.526 | 7.427 | 0.258 | 7.546 | -0.05 | 0.046 | 0 | 0 | 7.546 |
| 5 | SDFE8 | 0.071 | 0.107 | | 0 | 0 | 0 | 0 | 0.107 | 7.33 | 7.153 | 0.421 | 7.365 | -0.25 | 3.224 | 0 | 0.105 | 7.47 |
| 6 | SDFE7 | 0.071 | 0.08 | | 0 | 0 | 0 | 0 | 0.08 | 6.861 | 6.684 | 0.421 | 6.896 | -0.25 | 0.726 | 0 | 0.017 | 6.913 |
| 7 | SDFE6 | 0.071 | 0.641 | | 0 | 0 | 0 | 0 | 0.641 | 4.605 | 4.428 | 0.421 | 4.64 | -0.332 | 0.78 | 0 | 0.016 | 4.656 |
| 8 | SDFE5 | 0.071 | 0.122 | | 0 | 0 | 0 | 0 | 0.122 | 4.379 | 4.202 | 0.421 | 4.414 | -0.383 | 2.974 | 0 | 0.092 | 4.506 |
| 9 | SDFE4 | 0.071 | 0.191 | | 0 | 0 | 0 | 0 | 0.191 | 4.147 | 3.97 | 0.421 | 4.183 | -0.435 | 1.63 | 0 | 0.042 | 4.225 |
| 10 | SDFE3 | 0.071 | 0.208 | | 0 | 0 | 0 | 0 | 0.208 | 3.424 | 3.247 | 0.421 | 3.459 | -0.599 | 0.837 | 0 | 0.008 | 3.467 |
| 11 | SDFE2 | 0.071 | 0.213 | | 0 | 0 | 0 | 0 | 0.213 | 2.681 | 2.504 | 0.421 | 2.716 | -0.768 | 3.182 | 0 | 0.085 | 2.802 |
| 12 | SDFE1 | 0.224 | 0.123 | | 0 | 0 | 0 | 0 | 0.123 | 2.148 | 1.589 | 0.864 | 2.26 | 0 | 0 | 0 | 0 | 2.26 |

HGL calculations methodology from Autodesk Civil 3D (ver 2020) HEC-22 Hydraulic Analysis Program using "Analyze Gravity Network"



PROFILE VIEW: PV - (22)
ALG: SD alignment for HGLview
HORZ. SCALE: 1"=50'
VERT. EXAG.: 5
VERT. SCALE: 1"=10'

**APPENDIX C -
EAST SWALE CAPACITY**

Channel Report

Hydraflow Express Extension for Autodesk® AutoCAD® Civil 3D® by Autodesk, Inc.

Friday, May 31 2019

East Easement Swale

Trapezoidal

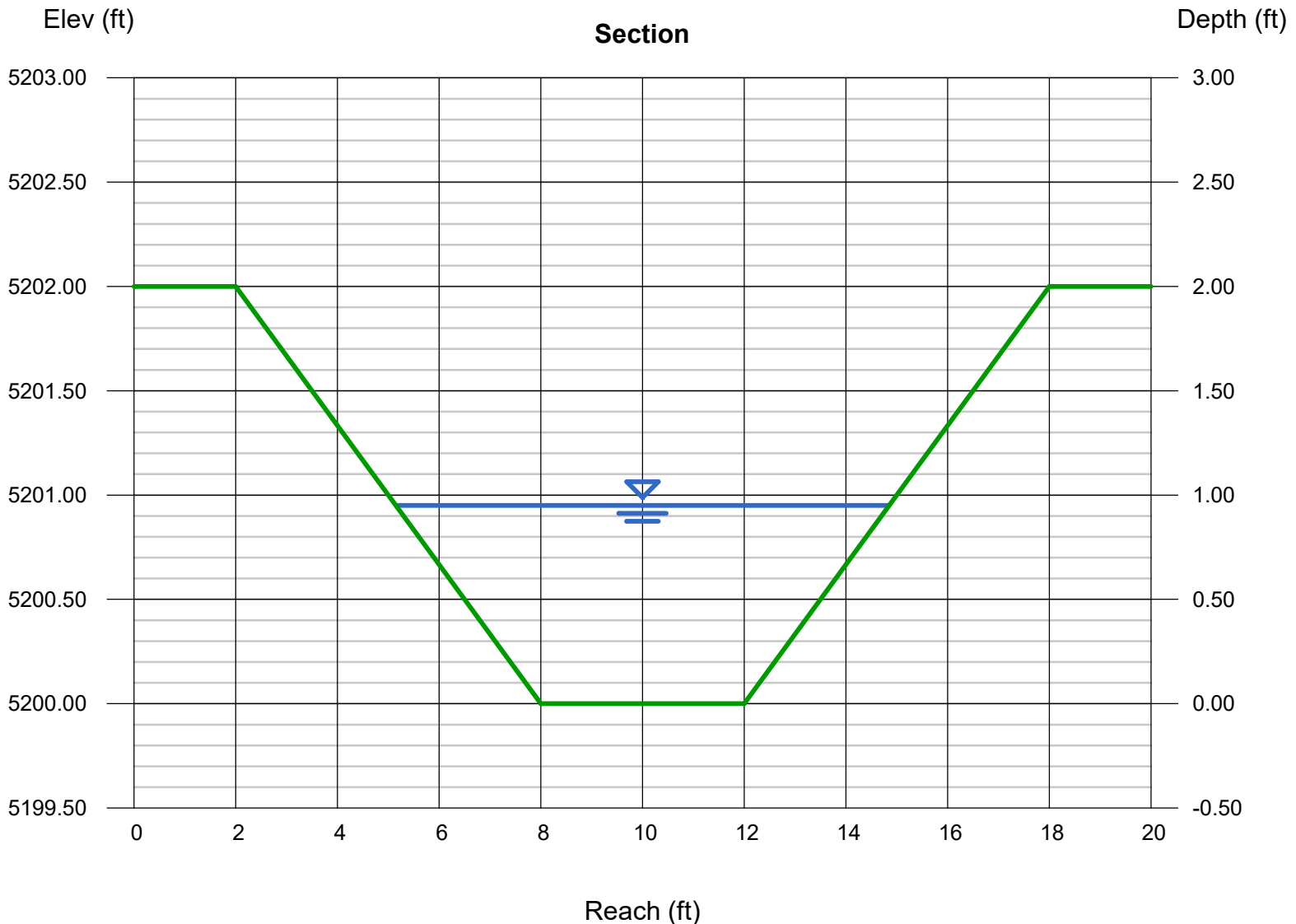
Bottom Width (ft) = 4.00
Side Slopes (z:1) = 3.00, 3.00
Total Depth (ft) = 2.00
Invert Elev (ft) = 5200.00
Slope (%) = 0.91
N-Value = 0.035

Calculations

Compute by: Known Q
Known Q (cfs) = 19.40

Highlighted

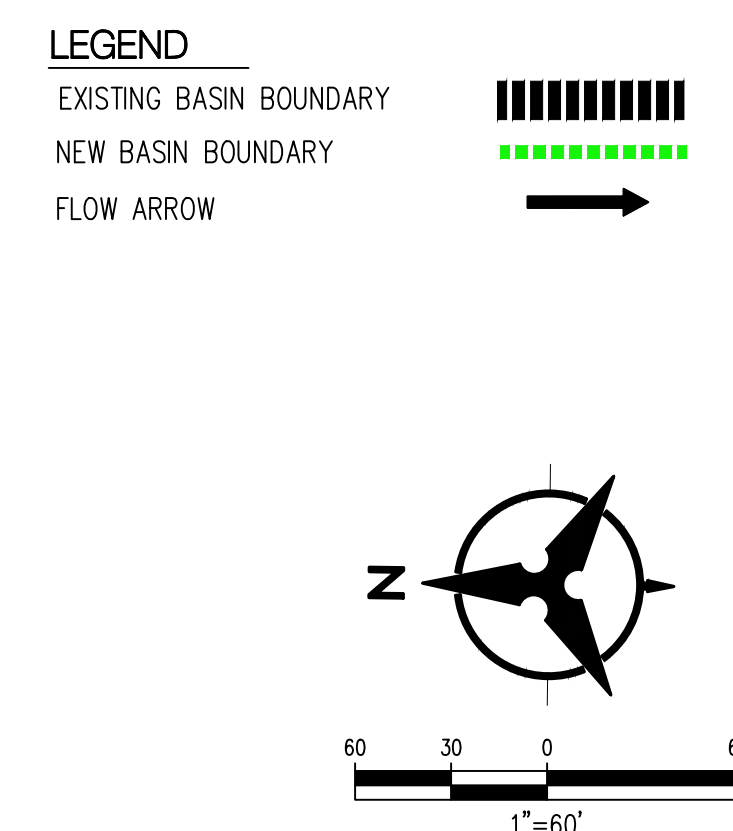
Depth (ft) = 0.95
Q (cfs) = 19.40
Area (sqft) = 6.51
Velocity (ft/s) = 2.98
Wetted Perim (ft) = 10.01
Crit Depth, Yc (ft) = 0.75
Top Width (ft) = 9.70
EGL (ft) = 1.09



| Column1 | Column2 | Column3 | Column4 | Column5 | Column6 | Column7 | Column8 |
|---------|---------|---------|---------|---------|---------|----------|---------|
| Depth | Q | Area | Veloc | Wp | Yc | TopWidth | Energy |
| (ft) | (cfs) | (sqft) | (ft/s) | (ft) | (ft) | (ft) | (ft) |
| 0.20 | 1.164 | 0.920 | 1.27 | 5.26 | 0.14 | 5.20 | 0.22 |
| 0.40 | 3.928 | 2.080 | 1.89 | 6.53 | 0.29 | 6.40 | 0.46 |
| 0.60 | 8.231 | 3.480 | 2.37 | 7.79 | 0.46 | 7.60 | 0.69 |
| 0.80 | 14.17 | 5.120 | 2.77 | 9.06 | 0.63 | 8.80 | 0.92 |
| 1.00 | 21.88 | 7.000 | 3.13 | 10.32 | 0.80 | 10.00 | 1.15 |
| 1.20 | 31.48 | 9.120 | 3.45 | 11.59 | 0.98 | 11.20 | 1.39 |
| 1.40 | 43.12 | 11.48 | 3.76 | 12.85 | 1.16 | 12.40 | 1.62 |
| 1.60 | 56.92 | 14.08 | 4.04 | 14.12 | 1.34 | 13.60 | 1.85 |
| 1.80 | 73.02 | 16.92 | 4.32 | 15.38 | 1.52 | 14.80 | 2.09 |
| 2.00 | 91.54 | 20.00 | 4.58 | 16.65 | 1.70 | 16.00 | 2.33 |

**EXHIBIT C -
AMENDED BASIN MAP FROM DMP**

EXHIBIT C

Bohannon  Huston

**EXHIBIT D -
DEVELOPED CONDITIONS BASIN MAP**

ASCENSION SUBDIVISION
DRAINAGE MANAGEMENT PLAN
JANUARY 2019 – AMENDED JULY 2019
EXHIBIT D

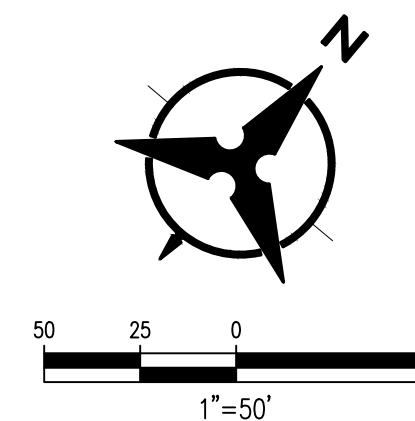
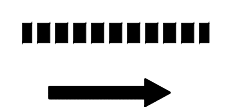
| DEVELOPED BASIN SUMMARY | | | | | | |
|-------------------------|------|------------------|--------|--------|--------|--------------------------------|
| BASIN | AREA | % LAND TREATMENT | | | | DISCHARGE (CFS) VOLUME (AC-FT) |
| I.D. | (AC) | A | B | C | D | 100YR |
| DEV-1 | 3.44 | 3.00% | 27.50% | 27.50% | 45.00% | 12.4 3.42 |
| DEV-2 | 3.78 | 3.00% | 27.50% | 27.50% | 45.00% | 13.6 3.47 |
| DEV-2A | 3.25 | 3.00% | 27.50% | 27.50% | 45.00% | 11 3.03 |
| OFFSITE 1 | 2.62 | 10.00% | 5.00% | 25.00% | 60.00% | 13.6 3.42 |
| OFFSITE 2 | 5.35 | 10.00% | 5.00% | 25.00% | 60.00% | 19.4 3.61 |
| BASELINE | 5.33 | 10.00% | 5.00% | 25.00% | 60.00% | 19.4 3.61 |
| TOTAL | | | | | | 76.6 2.5 |

| STORM DRAIN PIPE TABLE | | | | | |
|---|----------|--------|---------------------------|-----------------|----------------|
| PIPE # | Size in. | Slope | Capacity ¹ cfs | ACTUAL FLOW cfs | PIPE LENGTH ft |
| ONSITE | | | | | |
| SDP1 | 24 | 1.00% | 22.62 | 10.6 | 318.5 |
| SDP2 | 24 | 1.04% | 23.07 | 10.6 | 15.0 |
| SDP3 | 24 | 0.60% | 17.52 | 10.6 | 23.0 |
| SDP4 | 24 | 0.66% | 18.38 | 10.6 | 27.4 |
| SDP5 | 24 | 1.00% | 22.62 | 10.6 | 127.8 |
| SDP6 | 24 | 1.82% | 30.52 | 10.6 | 54.0 |
| SDP7 | 24 | 0.60% | 17.52 | 10.6 | 126.8 |
| SDP8 | 36 | 0.60% | 51.66 | 17.9 | 126.8 |
| SDP9 | 36 | 0.60% | 51.66 | 36.6 | 27.4 |
| SDP10 | 36 | 11.98% | 230.86 | 36.6 | 213.0 |
| SDP11 | 36 | 2.00% | 94.33 | 36.6 | 213.0 |
| ¹ Capacity Based on Manning's Eq w/ N= 0.013 | | | | | |

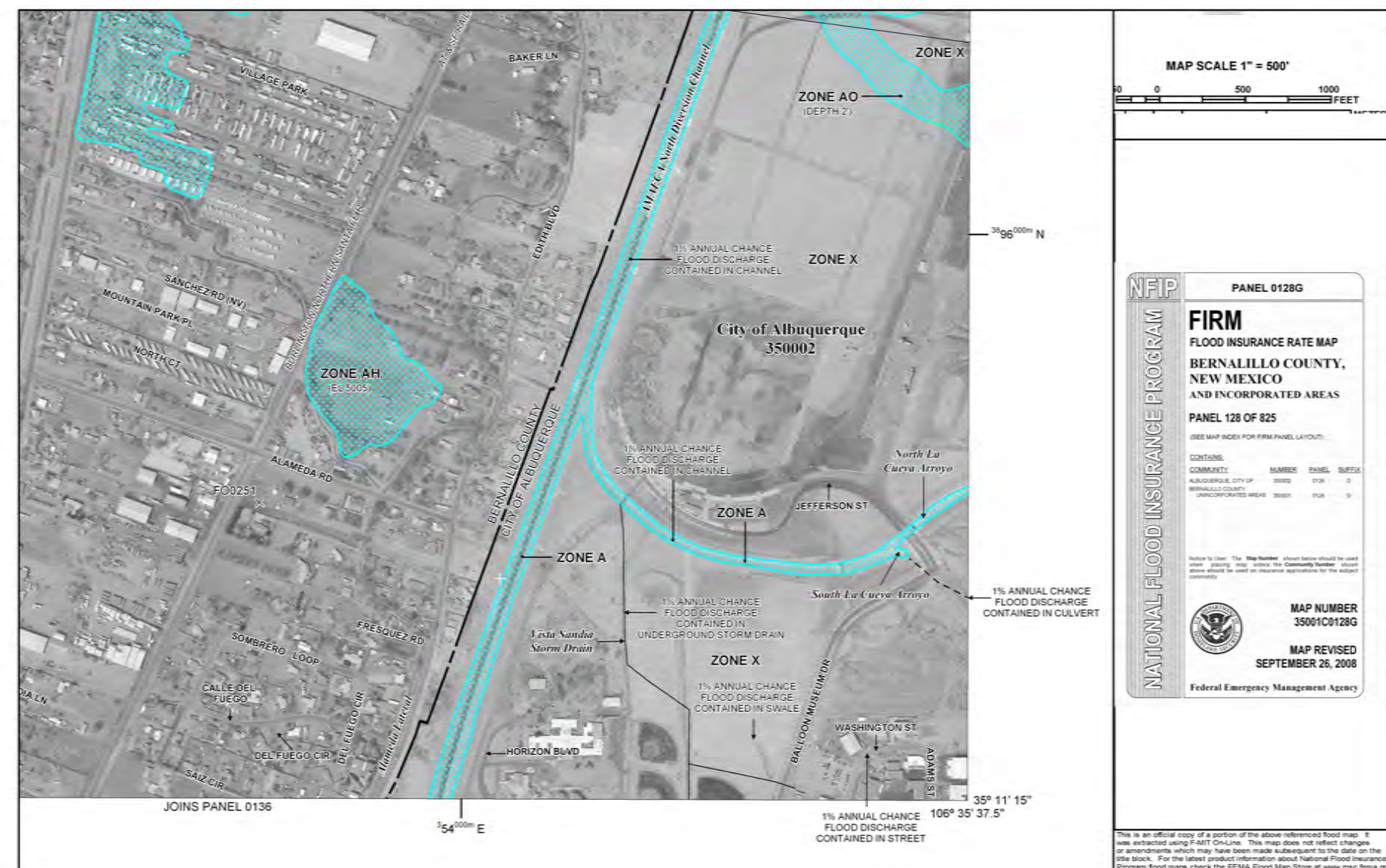
| INLET TABLE | | | | |
|-------------|------------------|-------------|---------------|--------------|
| Inlet # | Inlet Type | Actual Flow | Avail Head ft | Capacity CFS |
| IN* | 1-DBL CCA TYPE A | 10.60 | 0.66 | 50.52 |
| IN2 | 1-SGL CCA TYPE A | 7.30 | 0.62 | 8.90 |
| IN3 | 1-DBL CCA TYPE A | 18.68 | 0.66 | 50.52 |

LEGEND






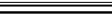
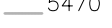






BASIN BOUNDARY
FLOW ARROW



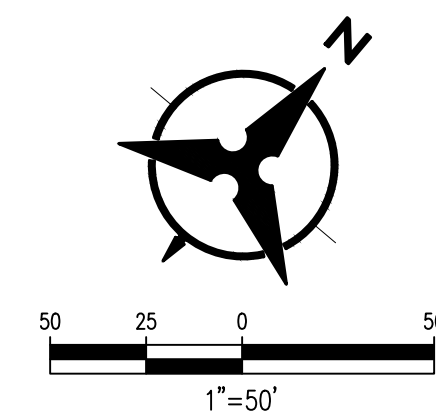
**EXHIBIT E -
GRADING PLAN**



1. CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS TO REFER TO EARTHWORK SPECIFICATION AS NOTED IN THE SOILS REPORT.
3. THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE, AND FEDERAL SUBCUT MEASURES & REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.
4. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BARRIERS AS PER DETAIL, SHEET 3B, AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
5. ALL SPOT ELEVATIONS ARE TO FLOWLINE UNLESS OTHERWISE NOTED.
6. Boulders greater than 3 feet in diameter excavated during grading activities shall be stockpiled and disposed of at the discretion of the owner.
7. All walls shown are to be placed along property line. Walls are shown offset for visual purpose only.

- ## LEGEND
- | | |
|---|-------------------------------------|
|  | PROPOSED SPOT ELEVATION |
|  | EXISTING SPOT ELEVATION (GRND & TC) |
|  | EXISTING CURB & GUTTER |
|  | PROPOSED MOUNTABLE CURB & GUTTER |
|  | PROPOSED STANDARD CURB & GUTTER |
|  | EXISTING CONTOUR W/ INDEX ELEVATION |
|  | FLOW ARROW |
|  | PROPOSED RETAINING WALL |
|  | PROPOSED SLOPE |
|  | PROPOSED STORM DRAIN |
|  | PROPOSED STORM DRAIN MANHOLE |
|  | PROPOSED STORM DRAIN INLET |
|  | HIGH POINT |

OWNER HAS ELECTED TO FULFILL STORMWATER QUALITY REQUIREMENTS VIA A PAYMENT IN-LIEU OF \$25,825.64



Bohannon  **Huston**
www.bhinc.com 800.877.5332

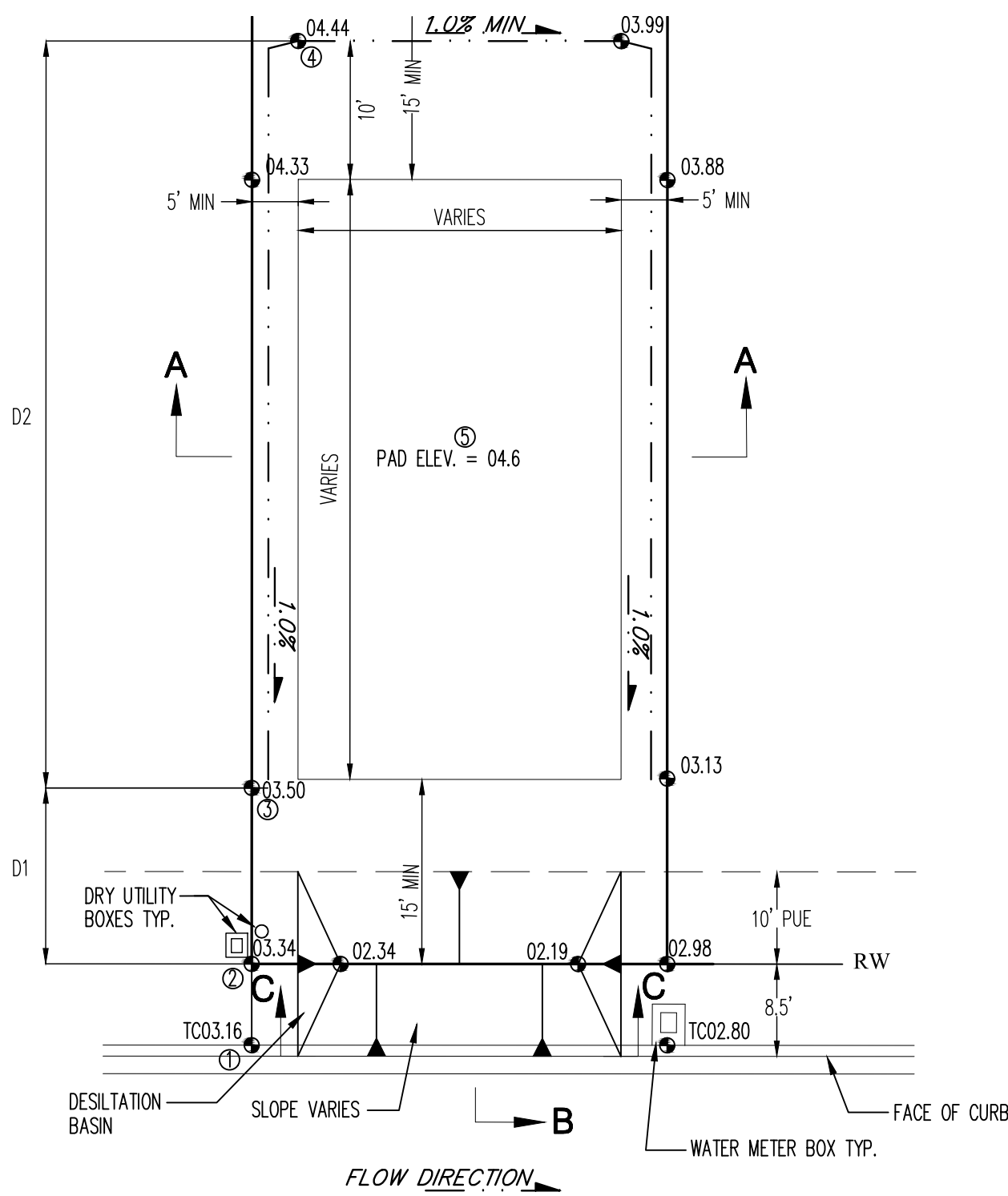


ASCENSION SUBDIVISION

GRADING PLAN

| | | | | |
|-------------------------|------------------------|--------------------|-------------|-------------|
| Design Review Committee | City Engineer Approval | Last Design Update | Mo./Day/Yr. | Mo./Day/Yr. |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| City Project No. | Zone Map No. | Sheet | Of | |
| | B-17-Z | 1 | 2 | |

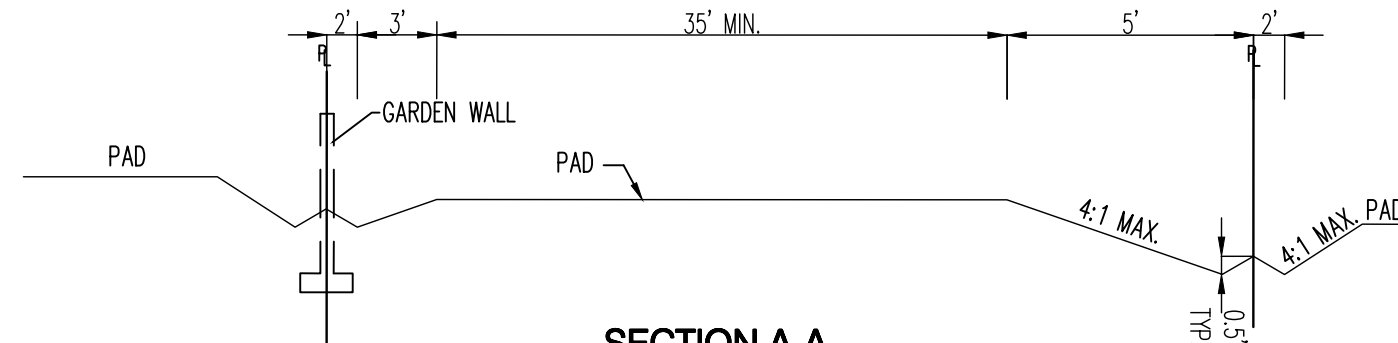
**EXHIBIT F -
GRADING PLAN DETAILS**



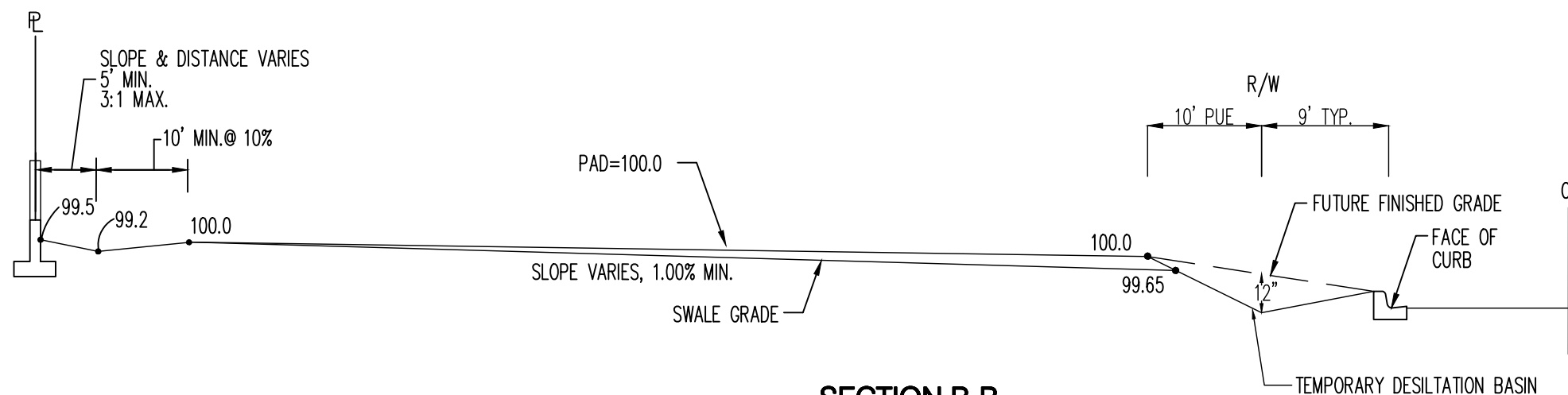
**TYPICAL LOT GRADE DETAIL
WITH DESILTATION BASIN FOR SEDIMENTATION CONTROL**
NOT TO SCALE

TO SET SPOT ② - ADD 0.17' TO SPOT ①
TO SET SPOT ③ - MULTIPLY BY 1.0% AND ADD TO SPOT ②
TO SET SPOT ④ - MULTIPLY BY 1.0% AND ADD TO SPOT ②
TO SET SPOT ⑤ - ADD 0.2' TO SPOT ③

BOTTOM OF BASIN IS 1' BELOW PROPERTY LINE ELEVATION.
SEE GRADING PLANS FOR EXACT ELEVATIONS.
CONTRACTOR SHALL CONSTRUCT TEMPORARY DESILTATION BASIN AT EACH LOT.



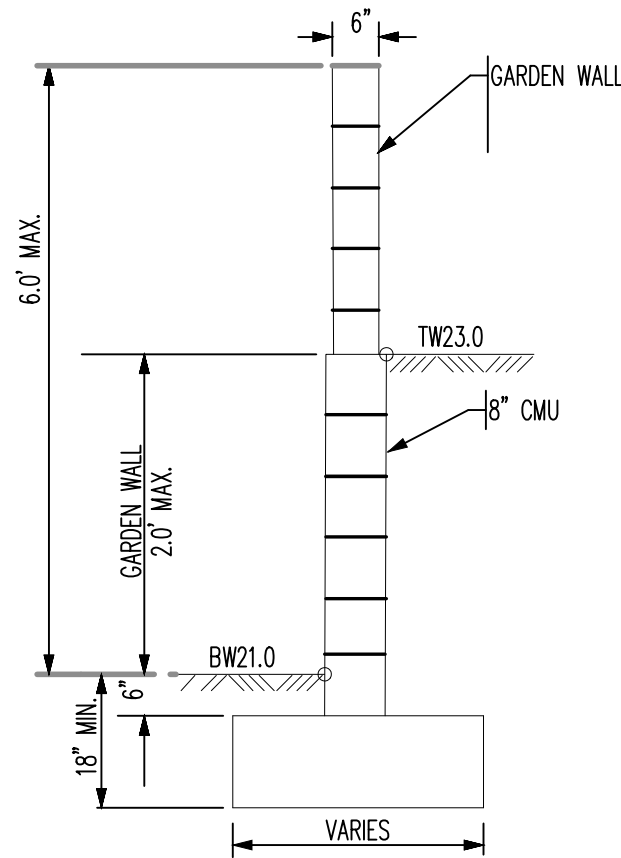
**SECTION A-A
TYPICAL SIDE YARD SWALE**
NOT TO SCALE



SECTION B-B
NOT TO SCALE

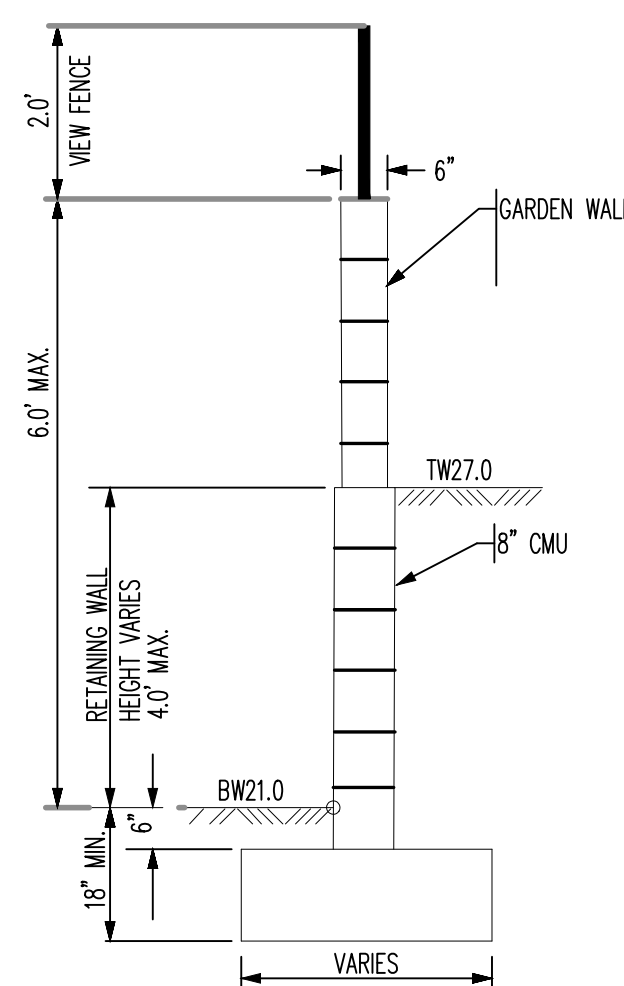
NOTE:

1. CONTRACTOR IS TO MASS GRADE ROADS TO 2' BEYOND FUTURE CURB. EXCESS FROM DRY UTILITY TRENCH IS TO BE USED TO BACK FILL BEHIND CURB.
2. FRONT YARDS ARE TO BE GRADED AS SHOWN ON THIS DETAIL FOR FINAL GRADING AND CERTIFICATION THIS DETAIL TO BE COORDINATED WITH.
3. HOME BUILDER TO BRING FRONT YARD TO ULTIMATE FRONT YARD GRADES AFTER HOME CONSTRUCTION IS COMPLETED. SEE ULTIMATE FRONT YARD GRADING DETAIL ON THIS SHEET.



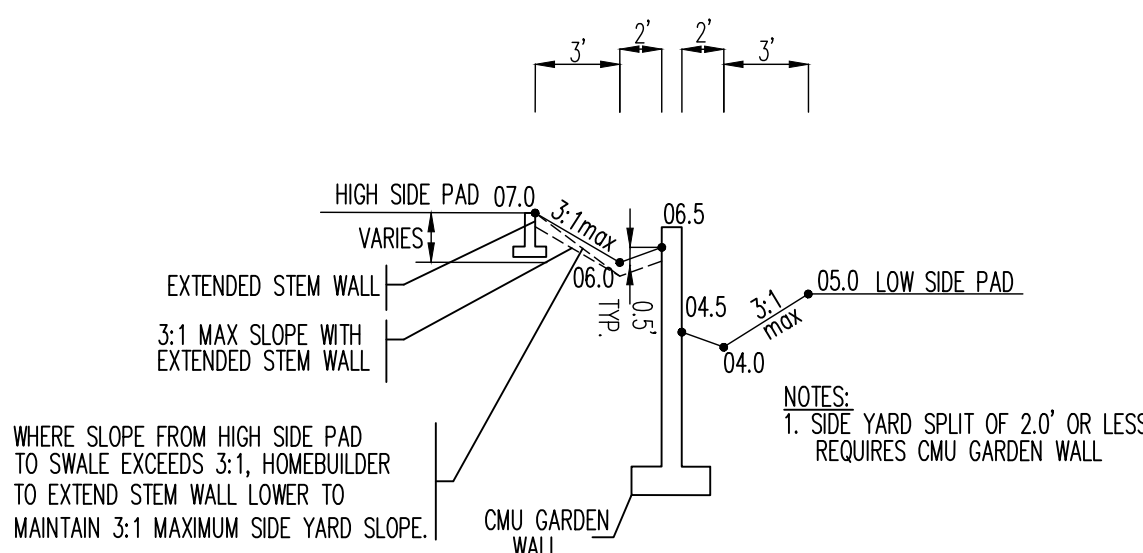
TYPICAL GARDEN WALL NOMENCLATURE
NOT TO SCALE

(RETAINING HEIGHT IS TAKEN TO BE DIFFERENCE IN FINISHED GRADES ON LEFT AND RIGHT SIDE OF WALL.)

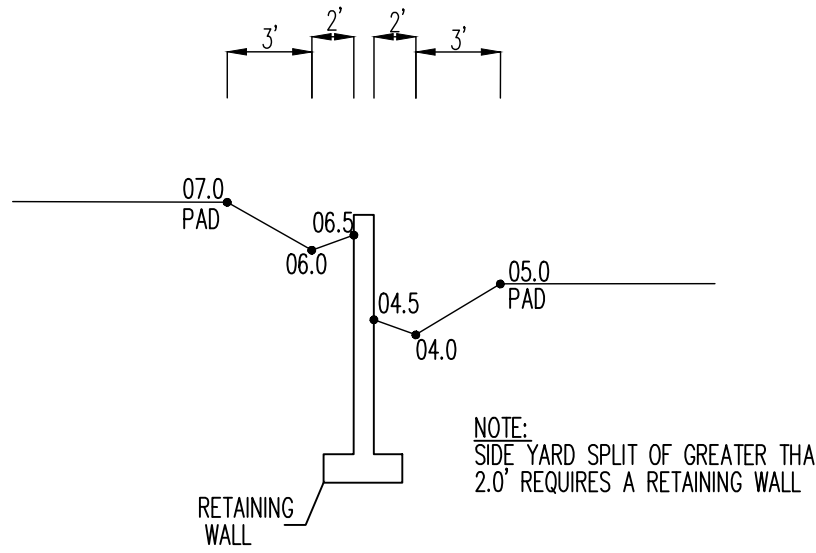


TYPICAL RETAINING WALL NOMENCLATURE
NOT TO SCALE

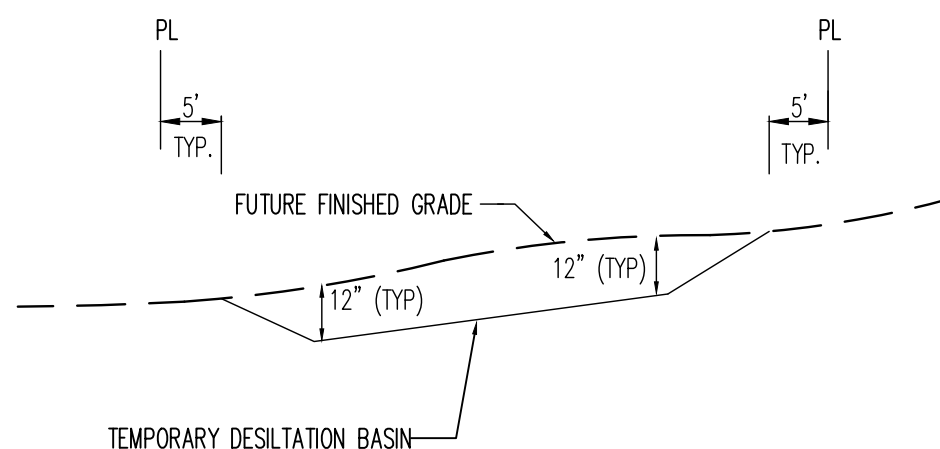
(RETAINING HEIGHT IS TAKEN TO BE DIFFERENCE IN FINISHED GRADES ON LEFT AND RIGHT SIDE OF WALL.)



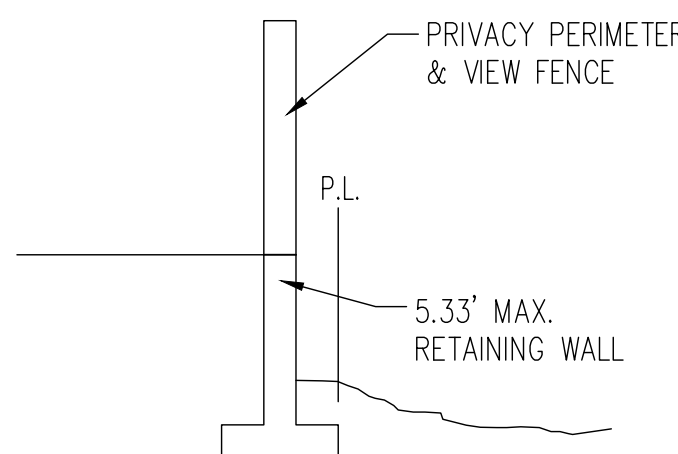
SIDE YARD GARDEN WALL DETAIL
NOT TO SCALE



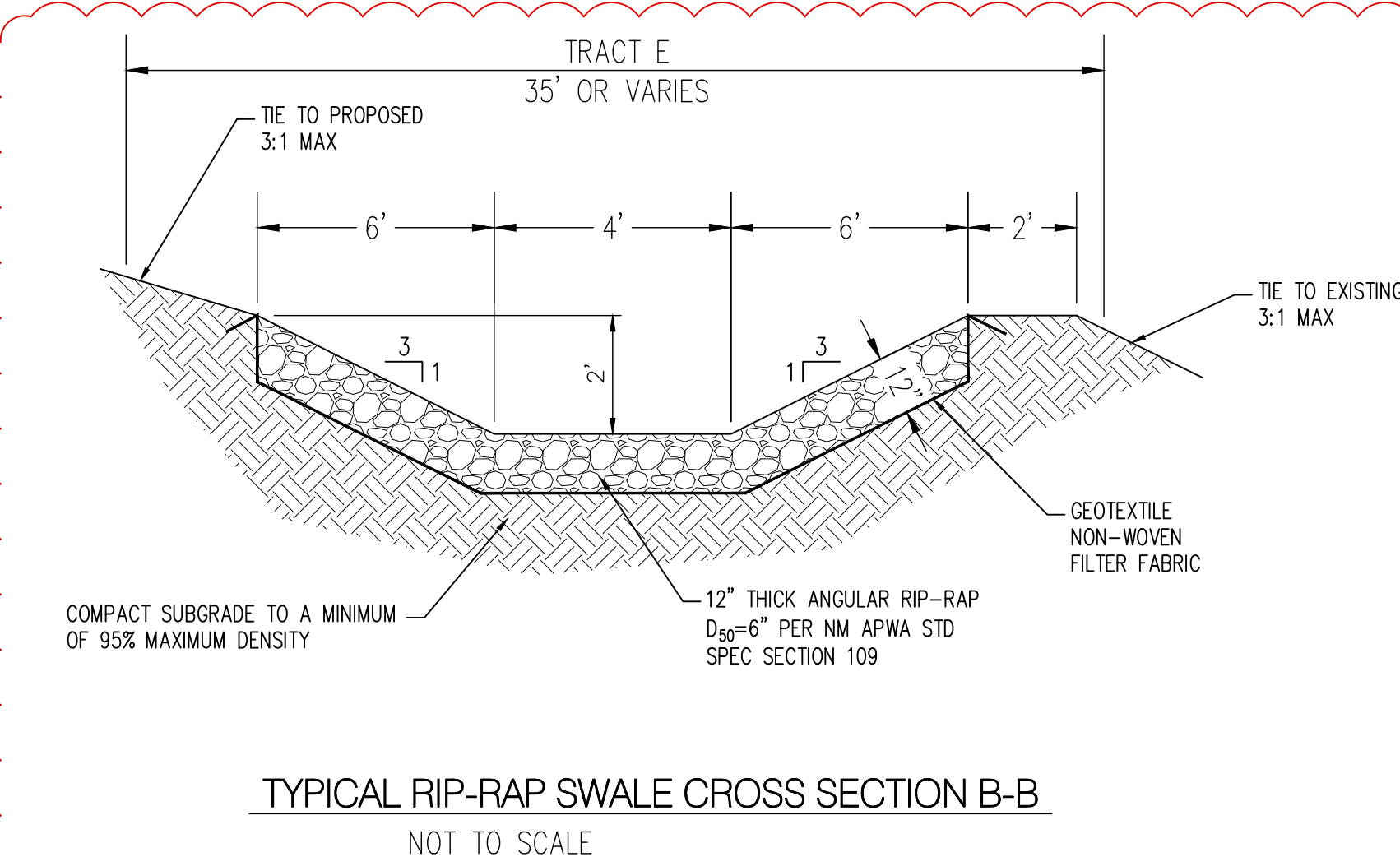
SIDE YARD RETAINING WALL DETAIL
NOT TO SCALE



SECTION C-C
NOT TO SCALE



TYPICAL RETAINING WALL CROSS SECTION A-A
NOT TO SCALE



TYPICAL RIP-RAP SWALE CROSS SECTION B-B
NOT TO SCALE

GENERAL NOTES

1. CONTRACTOR MUST OBTAIN A TOPSOIL DISTURBANCE PERMIT FROM THE ENVIRONMENTAL HEALTH DIVISION PRIOR TO CONSTRUCTION.
2. THE CONTRACTOR IS TO REFER TO EARTHWORK SPECIFICATION AS NOTED IN THE SOILS REPORT.
3. THE CONTRACTOR SHALL CONFORM TO ALL CITY, COUNTY, STATE, AND FEDERAL DUST CONTROL MEASURES & REQUIREMENTS AND WILL BE RESPONSIBLE FOR PREPARING AND OBTAINING ALL NECESSARY APPLICATIONS AND APPROVALS.
4. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE LOTS INTO PUBLIC RIGHT-OF-WAY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AS PER DETAIL, SHEET 3B, AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
5. ALL SPOT ELEVATIONS ARE TO FLOWLINE UNLESS OTHERWISE NOTED.
6. BOULDERS GREATER THAN 3 FEET IN DIAMETER EXCAVATED DURING GRADING ACTIVITIES SHALL BE STOCKPILED AND DISPOSED OF AT THE DISCRETION OF THE OWNER.
7. ALL WALLS SHOWN ARE TO BE PLACED ALONG PROPERTY LINE. WALLS ARE SHOWN OFFSET FOR VISUAL PURPOSE ONLY.

LEGEND

- 91.62 PROPOSED SPOT ELEVATION
- 92.46 EXISTING SPOT ELEVATION (GRND & TC)
- EXISTING CURB & GUTTER
- PROPOSED MOUNTABLE CURB & GUTTER
- PROPOSED STANDARD CURB & GUTTER
- EXISTING CONTOUR W/ INDEX ELEVATION
- 5470 EXISTING CONTOUR W/ INDEX ELEVATION
- PROPOSED RETAINING WALL
- PROPOSED SLOPE
- PROPOSED STORM DRAIN
- PROPOSED STORM DRAIN MANHOLE
- PROPOSED STORM DRAIN INLET
- HIGH POINT

| AS-BUILT INFORMATION | | BENCH MARKS | | SURVEY INFORMATION | | ENGINEER'S SEAL | | REVISIONS | | DESIGN | |
|-----------------------|------|-----------------------------------|------|--------------------|------|-----------------|------|-----------|------|--------|------|
| CONTRACTOR | DATE | CONTRACTOR | DATE | NO. | DATE | NO. | DATE | NO. | DATE | NO. | DATE |
| WORKS BY | DATE | AGRS Station: "NDC 7.1A" | | | | | | | | | |
| INSPECTED BY | DATE | NM State Plane Coordinates, | | | | | | | | | |
| ACCEPTANCE BY | DATE | Central Zone 3002, NAD 83 | | | | | | | | | |
| VERIFICATION BY | DATE | N: 1524419.502 USsft | | | | | | | | | |
| DRAWINGS BY | DATE | E: 1534929.428 USsft | | | | | | | | | |
| CHECKED BY | DATE | Ground to Grid Factor: | | | | | | | | | |
| MICROFILM INFORMATION | | 0.998674466 | | | | | | | | | |
| RECORDED BY | DATE | Mapping Angle: 00°12'12.47" | | | | | | | | | |
| NO. | | Orthometric Height: 5065.92 USsft | | | | | | | | | |
| | | (CSC GNSS) | | | | | | | | | |
| | | Elevation Datum: NAVD88 | | | | | | | | | |

Bohannon & Huston
www.bhinc.com 800.877.5332

**CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT**

**ASCENSION SUBDIVISION
GRADING PLAN DETAILS**

| Design Review Committee | City Engineer Approval | Mo./Day/Yr. | Mo./Day/Yr. |
|-------------------------|------------------------|-------------|-------------|
| | | | |
| | | | |
| | | | |
| | | | |
| City Project No. | Zone Map No. | Sheet | Of |
| | B-17-Z | 2 | 2 |