# CITY OF ALBUQUERQUE

*Planning Department*
David Campbell, Director

*Mayor Timothy M. Keller*

July 3, 2018

David Aube, P.E.
Design Group
120 Vassar SE, Suite 100
Albuquerque, NM, 87106

RE: **GAHP Silver Downtown**
**800 Silver SW**
**Request for Certificate of Occupancy – Permanent**
**Hydrology Final Inspection - Approved**
**Engineer's Stamp Date 2/21/17 (K13D013)**
**Certification Dated: 6/27/18**

Dear Mr. Aube:

Based on the submittal received 6/28/18, the Engineer's Certification is approved in support of Permanent Certificate of Occupancy by Hydrology.

If you have any questions, contact me at 924-3695 or dpeterson@cabq.gov.

Sincerely,

Dana Peterson, P.E.
Senior Engineer, Planning Dept.
Development Review Services

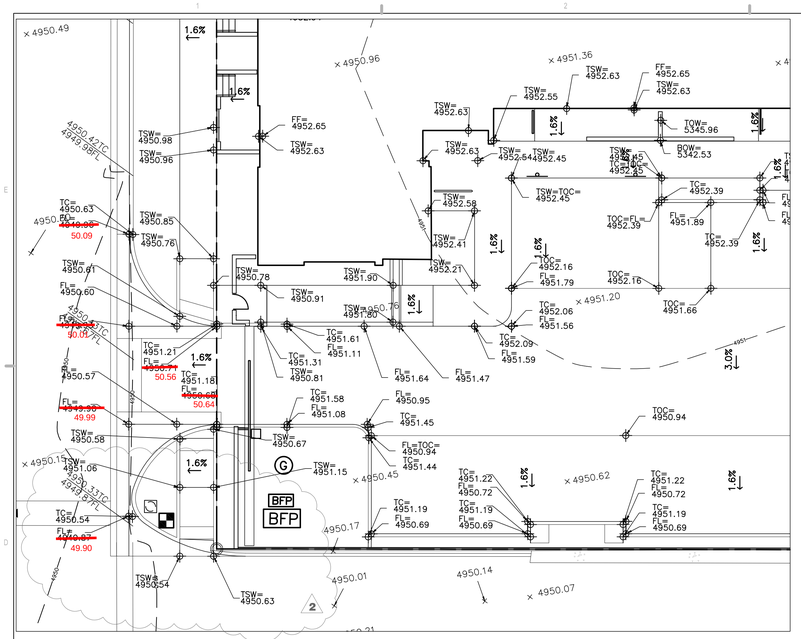
C: Email Serna, Yvette M.; Fox, Debi; Tena, Victoria C.; Sandoval, Darlene M.

PO Box 1293

Albuquerque

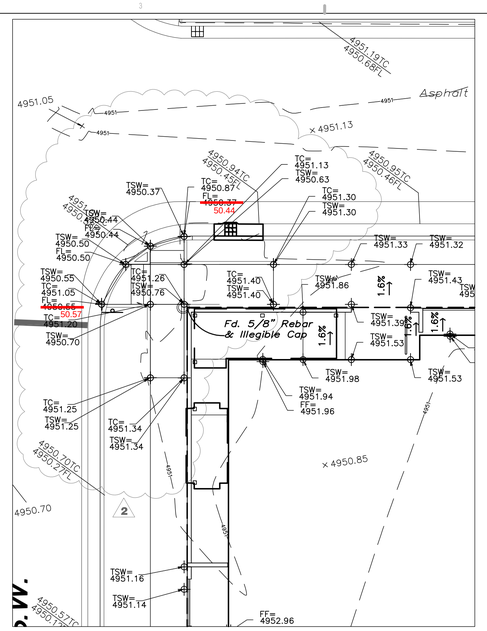
NM 87103

www.cabq.gov



## D1 ENLARGED GRADING PLAN

1" = 10'-0"



## D2 ENLARGED GRADING PLAN

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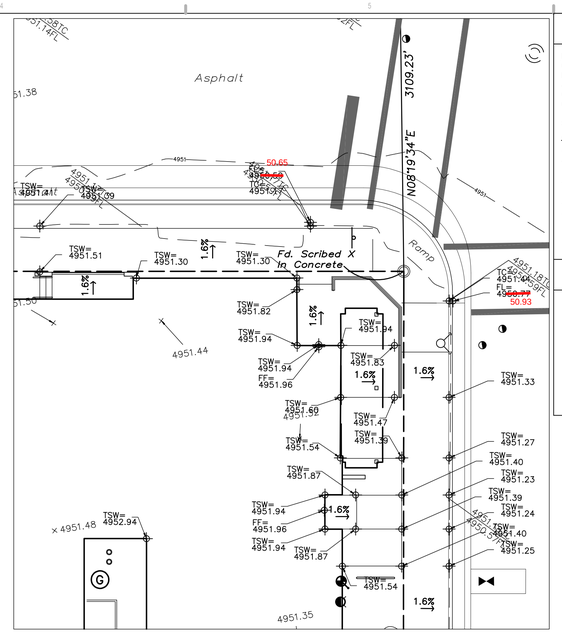

## D4 ENLARGED GRADING PLAN

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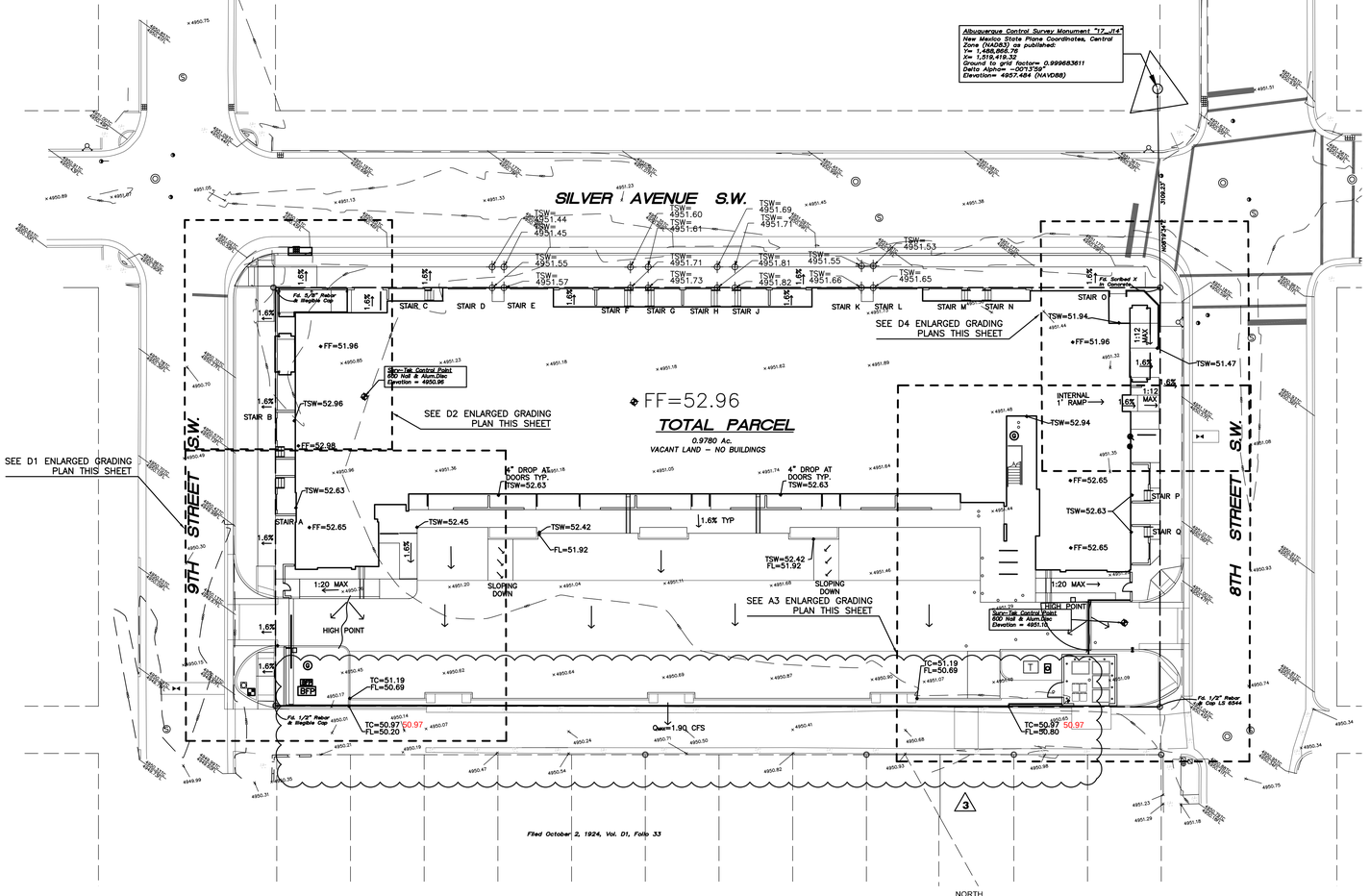
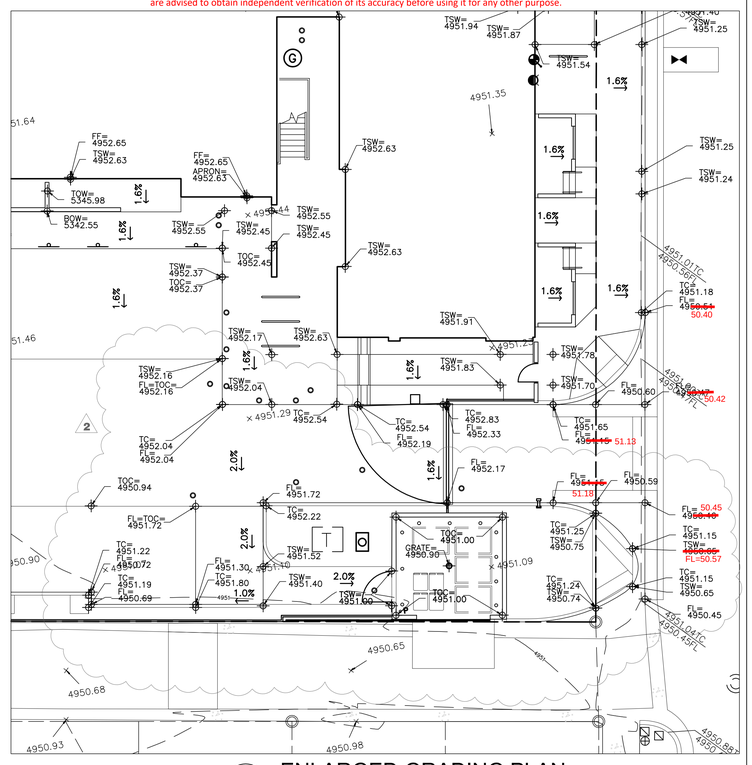



NORTH

## A4 OVERALL GRADING PLAN

1" = 20'-0"



## A5 ENLARGED GRADING PLAN

1" = 10'-0"

# SITE INFORMATION

LEGAL DESCRIPTION
060N M T ADD LOTS 1 AND 2,18NMT3 X 4 BLK 60 FRACTIONAL OF LOT 3 X 4 BLK 18 RAYNOLDS ADDITION, LOTS 5 & 6 BLK 60 NEW MEXICO TOWN CO ORIGINAL TOWNSITE & LOTS 5 & 6 BLK 18, 018 RAYNOLDS LTS 7XEXPORT LT7 BLK 60 NMT ADDITION, 009 018 RAYNOLDS X LOT 10, 011 018 RAYNOLDS N PORT L11 L12, 018 RAYNOLDS ADDITION SO PORT OF LOTS 11X12

SURVEY CONTROL MONUMENT DATA
*Albuquerque Control Survey Monument "17_J14"*
*New Mexico State Plane Coordinates, Central Zone (NAD83) as published:*
*Y= 1,488,866.76*
*X= 1,519,419.32*
*Ground to grid factor= 0.999683611*
*Delta Alpha= -00°13'59"*
*Elevation= 4957.484 (NAVD88)*

# GENERAL SHEET NOTES

1. REFER TO CIVIL PAVING DRAWINGS FOR ON-SITE BUILDING LOCATION, CURBS AND GUTTERS DIMENSIONS, AND OTHER DIMENSIONS NOT SHOWN ON THIS SHEET.

| Stair | Number Risers | Top Elev at Bldg | Bot Elev at Bldg | Riser Height |
|---|---|---|---|---|
| A * | 3 | 4952.54 | 4950.98 | 0.52 |
| B * | 3 | 4952.86 | 4951.14 | 0.57 |
| C | 2 | 4952.63 | 4951.56 | 0.53 |
| D | 2 | 4952.63 | 4951.63 | 0.50 |
| E | 2 | 4952.63 | 4951.64 | 0.49 |
| F | 2 | 4952.63 | 4951.81 | 0.41 |
| G | 2 | 4952.63 | 4951.83 | 0.40 |
| H | 2 | 4952.63 | 4951.91 | 0.36 |
| J | 2 | 4952.63 | 4951.93 | 0.35 |
| K | 2 | 4952.63 | 4951.72 | 0.45 |
| L | 2 | 4952.63 | 4951.74 | 0.45 |
| M | 2 | 4952.63 | 4951.61 | 0.51 |
| N | 2 | 4952.63 | 4951.58 | 0.53 |
| O * | 1 | 4951.81 | 4951.31 | 0.50 |
| P * | 2 | 4952.53 | 4951.42 | 0.55 |
| Q * | 2 | 4952.53 | 4951.40 | 0.57 |

Notes:
1. Typical stair treads follow the slope of the lower sidewalk slope toward street of 1.6%.
2. Stairs with "*" have level treads.

Drainage Certification (K13D013, PWO 7194.85, DRB#10096056)

I, David A Aube. NMPE 14221, of the firm The Hartman + Majewski Design Group, Inc, hereby certify that The sterling Downtown project (800 Silver Avenue SW) is in substantial compliance with and in accordance with the design intent of the Grading and Drainage plan approved plan dated 2-21-17. The record information that has been edited onto the original design documents where obtained by The Surveying Office (Tony Harris NM PS # 11463 and further supplemented by data on access routes for ADA compliance from Bradbury Stamm). I further certify that I have personally visited the project site on June 25, 2018 and have determined by visual inspection that the actual site conditions shown on this plan to be true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Permanent Certificate of Occupancy for Sterling Downtown at 800 Silver Avenue SW.

The street scale swale along 9th Street was not constructed deep enough to contain the first flush volume. Because the landscaping was completed it was preferred to Pay-in-lieu of ponding. There was an agreement to pay for pay for the 109 cubic feet of water that was to be retained in this street scape swale.

The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the drainage aspects of this project. Those relying on the record documents are advised to obtain independent verification of its accuracy before using it for any other purpose.

DAVID A. AUBE STATE OF NEW MEXICO 14221 REGISTERED PROFESSIONAL ENGINEER
2-21-17


ARCHITECTURE / DESIGN / INSPIRATION

DEKKER PERICH SABATINI

7601 JEFFERSON NE, SUITE 100 ALBUQUERQUE, NM 87109

505.761.9700 / DPSDESIGN.ORG

ARCHITECT

ENGINEER

PROJECT


# STERLING | DOWNTOWN

800 SILVER AVENUE SW
ALBUQUERQUE, NM

100% CONSTRUCTION DOCUMENTS

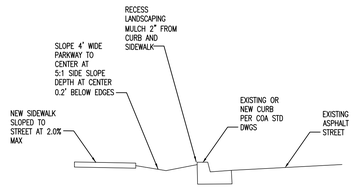
REVISIONS

| | |
|---|---|
| 3 | Addendum #3 2-20-17 |
| 2 | Addendum #2 2-1-17 |

| | |
|---|---|
| DRAWN BY | DAA |
| REVIEWED BY | DAA |
| DATE | November 18, 2016 |
| PROJECT NO. | 16-0078 |

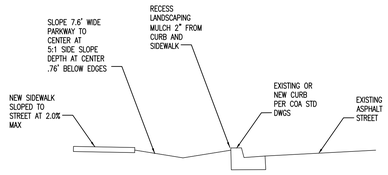
DRAWING NAME
OVERALL GRADING PLAN

SHEET NO.
C201
OF



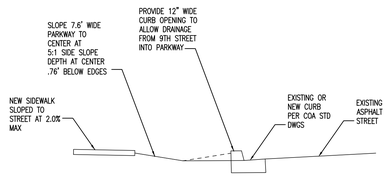

## TYP. SECTION THROUGH SILVER PARKWAY

NOT TO SCALE




## TYP. SECTION THROUGH 9TH STREET PARKWAY

NOT TO SCALE




## TYP. SECTION THROUGH 9TH STREET PARKWAY

NOT TO SCALE

**Drainage Summary**

| | |
|---|---|
| Project | Sterling Downtown |
| Project Number | 2516 |
| Date | 11/11/16 |
| By | Dave A. |

**Site Location**

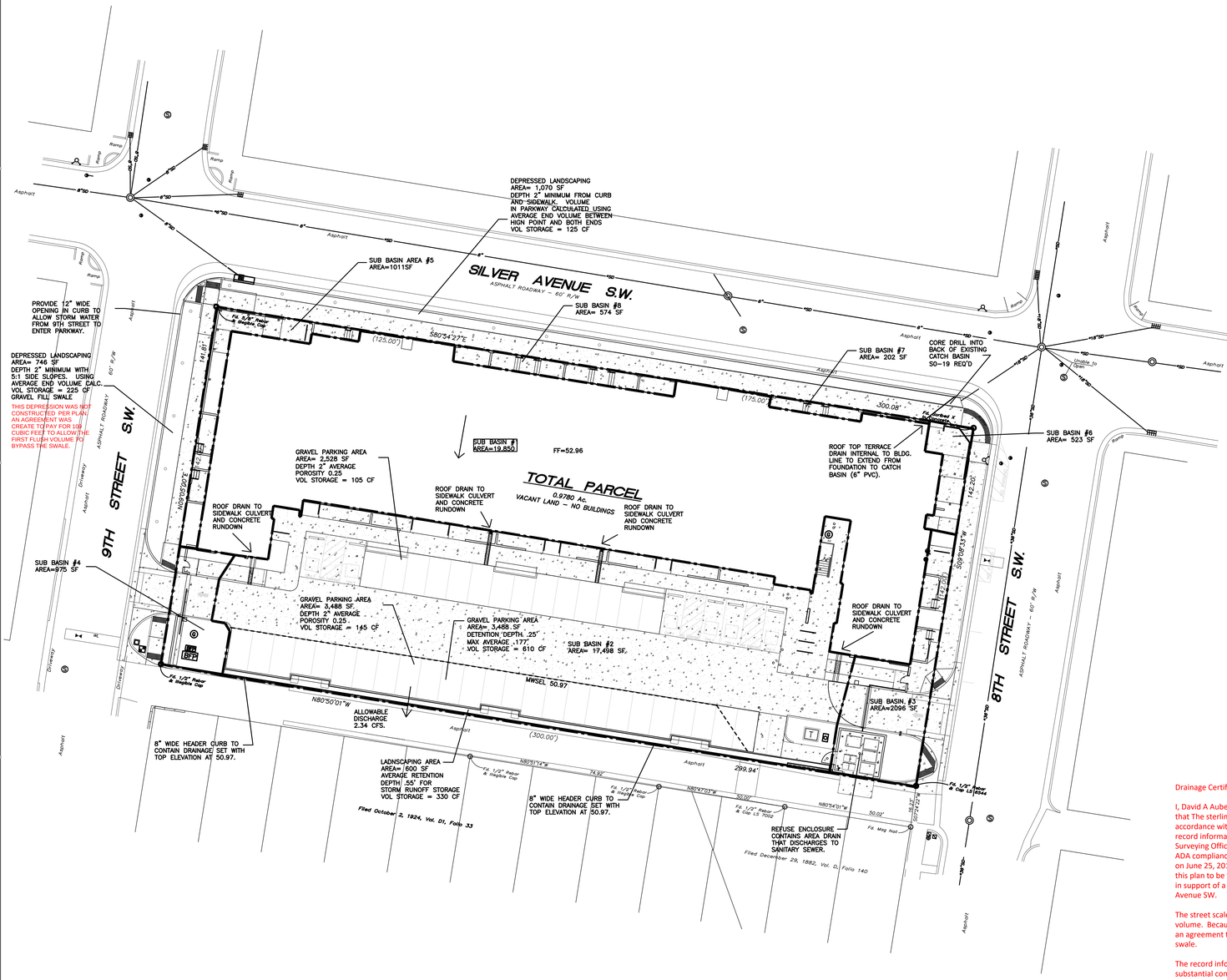
**Precipitation Zone** 2 Per Table A-1 COA DPM Section 22.2

**Existing summary**

| Basin Name | Ex 1 |
|---|---|
| Area (sf) | 41953 |
| Area (acres) | 0.96 |
| %A Land treatment | 0 |
| %B Land treatment | 15 |
| %C Land treatment | 0 |
| %D Land treatment | 85 |
| **Soil Treatment (acres)** | |
| Area "A" | 0.00 |
| Area "B" | 0.15 |
| Area "C" | 0.00 |
| Area "D" | 0.83 |
| **Excess Runoff (acre-feet)** | |
| 100yr 6hr | 0.1562 acre-ft. |
| 10yr 6hr | 0.0961 acre-ft. |
| 2yr 6hr | 0.0549 acre-ft. |
| 100yr 24hr | 0.1839 acre-ft. |
| **Peak Discharge (cfs)** | |
| 100 yr | 4.24 cfs |
| 10yr | 2.75 cfs |
| 2yr | 1.56 cfs |

**Proposed summary**

| Basin Name | Pro 1 | Pro 2 | Pro 3 | Pro 4 | Pro 5 | Pro 6 | Pro 7 | Pro 8 | |
|---|---|---|---|---|---|---|---|---|---|
| Area (sf) | 19850 | 17,498 | 2096 | 975 | 1011 | 523 | 202 | 574 | |
| Area (acres) | 0.456 | 0.402 | 0.048 | 0.022 | 0.023 | 0.012 | 0.005 | 0.013 | |
| %A Land treatment | 0 | | | 0 | | | | | |
| %B Land treatment | 0 | 10 | 20 | 45 | 15 | 0 | 0 | 0 | |
| %C Land treatment | 0 | 45 | | | | | | | |
| %D Land treatment | 100 | 45 | 80 | 55 | 85 | 100 | 100 | 100 | |
| **Soil Treatment (acres)** | | | | | | | | | |
| Area "A" | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Area "B" | 0.00 | 0.04 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Area "C" | 0.00 | 0.18 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Area "D" | 0.46 | 0.18 | 0.04 | 0.01 | 0.02 | 0.01 | 0.00 | 0.01 | |
| **Excess Runoff (acre-feet)** | | | | | | | | | |
| 100yr 6hr | 0.0805 | 0.0516 | 0.0074 | 0.0028 | 0.0037 | 0.0021 | 0.0008 | 0.0023 | acre-ft. |
| 10yr 6hr | 0.0506 | 0.0290 | 0.0045 | 0.0016 | 0.0023 | 0.0013 | 0.0005 | 0.0015 | acre-ft. |
| 2yr 6hr | 0.0300 | 0.0142 | 0.0026 | 0.0008 | 0.0013 | 0.0008 | 0.0003 | 0.0009 | acre-ft. |
| 100yr 24hr | 0.0987 | 0.0576 | 0.0067 | 0.0032 | 0.0044 | 0.0025 | 0.0010 | 0.0026 | acre-ft. |
| **Peak Discharge (cfs)** | | | | | | | | | |
| 100 yr | 2.14 | 1.51 | 0.20 | 0.08 | 0.10 | 0.06 | 0.02 | 0.06 | cfs |
| 10yr | 1.43 | 0.91 | 0.13 | 0.05 | 0.07 | 0.04 | 0.01 | 0.04 | cfs |
| 2yr | 0.85 | 0.45 | 0.07 | 0.02 | 0.04 | 0.02 | 0.01 | 0.02 | cfs |
| First Flush Ponding Voulme (cf) | 560.4 | 223.1 | 47.5 | 15.2 | 24.3 | 14.8 | 7.4 | 21.0 | |
| First Flush Acre Feet | 0.0129 | 0.0051 | 0.0011 | 0.0003 | 0.0006 | 0.0003 | 0.0002 | 0.0005 | |
| Total First Flush Required | 915.8 cf | | | | | | | | |




NORTH

A4 DRAINAGE PLAN

1" = 20'-0"

0 10' 20' 40'

NORTH

## SITE INFORMATION

LEGAL DESCRIPTION
060N M T ADD LOTS 1 AND 2,18NMT3 X 4 BLK 60 FRACTIONAL OF LOT 3 X 4 BLK 18 RAYNOLDS ADDITION, LOTS 5 & 6 BLK 60 NEW MEXICO TOWN CO ORIGINAL TOWNSITE & LOTS 5 & 6 BLK 18, 018 RAYNOLDS LTS 7XBXPORT L77 BLK 60 NMT ADDITION, 009 018 RAYNOLDS X LOT 10, 011 018 RAYNOLDS N PORT L11 L12, 018 RAYNOLDS ADDITION SO PORT OF LOTS 11X12

GROSS BUILDING AREA (GBA):
BUILDING (GROUND FLOOR) = 20,413 SF
TOTAL (ALL FLOORS)= 80,435 SF

TOTAL SITE AREA: 42,613 SF = .98 AC

## DRAINAGE MANAGEMENT

The project site is located just west of downtown Albuquerque between 8th and 9th Streets SW and between Silver Avenue SW and the alley tot eh south. The site is currently utilized as a parking lot. A small portion of the site (approx 15%) is exposed soil with the remainder being asphalt pavement.

The site is approximately 0.98 acres and generally drains from north east to the south west. Currently no formal storm management facilities exist on the site. The excess runoff flows directly out into the surrounding streets and alley to the south.

This area has a restricted runoff rate to reduce drainage problems in the surround neighborhood. The allowable runoff is 2.75 cfs/acre. The 0.98 acre site is allowed a peak runoff rate of 2.70 cfs.

The sub-basins for defining runoff rates have been established similar to the previously approved Conceptual Drainage Plans prepared in 2013. The building and a majority of the parking lot will drain toward the southern property line along the public alley. These two basins generate a peak runoff of 3.65 cfs. Runoff from the building will be directed toward two gravel surfaced parking areas. The parking area closest to the building will have a storage volume of 105 cubic feet of water within the gravel surface. This was computed bases on the area of the parking lot, average depth of water that will be contained by the concrete driveway up the center and a porosity of 0.25. The second gravel parking area is located south of the center driveway and has a capacity of 145 cubic feet of water without any water above the gravel surface itself. Once the gravel parking surface material is filled, the water will back up within the parking areas approximately 2 additional inches during the 100 year storm event. This will provide 583 cubic feet of water storage above the parking lot surface.

Sub-basins 3 through 8 will generate a combined peak runoff rate of 0.52 cfs. Basins 3, 4, 6 and 7 will flow directly into the public street and create 0.36 cfs. The remaining basins 5, and 8 (0.16 cfs) will flow into a depressed landscaping area between the sidewalk and curb. These depressed areas have a available volume of 337 cubic feet and would fully contain any runoff from these basins into the public street. This volume will be used in conjunction with the First Flush volumes.

The allowable discharge for the site is limited to 2.70 cfs total. After removing the 0.36 cfs identified above, the allowable discharge from the pond is 2.70 - 0.36 = 2.34 cfs. This discharge rate will be controlled by a restrictor plate at a small concrete wall (tall header curb) along the north edge of the alley.

There is a narrow landscaping strip between the back of curb and the alley. This landscaping strip will be surrounded by a header curb to harvest the first flush water when available from storm events. The area of this landscaping strip is 600 sf and will hold an average of 0.52' of water from the surrounding alley and parking. This will provide 300 cubic feet of retention and will reduce excess runoff.

The total peak runoff for this site is 4.17 cfs and generates a excess runoff volume of 5755 cubic feet 0.1321 ac-ft. Once the 0.36 that drains directly into the street is removed the peak runoff entering the gravel parking areas and eventually the landscaping strip is 3.65 cfs. Once the runoff is routed through the parking area and allowed to be released at 2.34 cfs, a detention volume of 1540 cubic feet. First we need to remove the First Flush Volume of 930 cubic feet throughout the site. This leaves 610 cf of additional runoff that needs to be detained In the parking lot area. With a surface area of 218'x16' the ponding water would be an average of 2" deep (max depth 3"). Part of this water would be contained within the gravel section as described above, but surface ponding would be required during the 100 year 6 hour storm event,.

The MWSEL will be 50.94 (FL at curb is 50.69 plus 2" of average depth (centroid of triangular cross section is ⅓ from long side, therefore 1" down from top water surface) for ponding water In parking area) and will provide the required 1540 cubic feet total (930 First Flush retention and 610 cubic feet detention In parking area) of storm water management volume available on site.

The header curb between the landscaping and alley will be used was the final pond edge. With the water held In first Flush ponds and the water held in the parking/landsscaping strip the final discharge into the alley was computed to be 1.90 cfs. Water will overtop the header curb into the alley over the full length of the curb. The alley is fully paved and will then drain toward 8th or 9th Streets.

In summary, the first flush and landscaping strip along the southern property line will provide the required storage to reduce the peak runoff rate to below the 2.75 cfs per acre.

## VICINITY MAP


Drainage Certification (K13D013, PWO 7194.85, DRB#10096056)

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DAVID A. AUBE STATE OF NEW MEXICO 14221 REGISTERED PROFESSIONAL ENGINEER
2-21-17

ARCHITECTURE / DESIGN / INSPIRATION

DEKKER PERICH SABATINI

7601 JEFFERSON NE, SUITE 100 ALBUQUERQUE, NM 87109

505.761.9700 / DPSDESIGN.ORG

ARCHITECT

ENGINEER

DAVID A. AUBE STATE OF NEW MEXICO 14221 REGISTERED PROFESSIONAL ENGINEER
2-21-17

PROJECT

# STERLING | DOWNTOWN

800 SILVER AVENUE SW
ALBUQUERQUE, NM

100% CONSTRUCTION DOCUMENTS

REVISIONS

3 Addendum #3 2-20-17

| | |
|---|---|
| DRAWN BY | DAA |
| REVIEWED BY | DAA |
| DATE | November 18, 2016 |
| PROJECT NO. | 16-0078 |
| DRAWING NAME | DRAINAGE PLAN |
| SHEET NO. | CD1 |
| OF | |

City of Albuquerque Treasury
J-24 Deposit
Date: 7/2/2018 Office: ANNEX
Station ID Cashier: TRSRMS
Batch: 9376 Trans: 38
Fund: 305 Activity ID7547210
Account: 461615 Project ID24_MS4
Dept ID: Bus.Unit: PCDMD
Alloc Amt: $872.00
Trans Amt: $872.00
Check Tendered : $872.00

TREASURY DIVISION DAILY DEPOSIT

Transmittals for:
PROJECTS Only

# Payment In-Lieu for Storm Water Quality Volume Requirement

| CASH COUNT | AMOUNT | ACCOUNT NUMBER | FUND NUMBER | BUSINESS UNIT | PROJECT ID | ACTIVITY ID | AMOUNT |
|---|---|---|---|---|---|---|---|
| TOTAL CHECKS | $ 872.00 | 461615 | 305 | PCDMD | 24_MS4 | 7547210 | $ 872.00 |
| | | | | | | | |
| TOTAL AMOUNT | | | | | | TOTAL DEPOSIT | **$872.00** |

Hydrology#: K13D013 Name: Sterling Downtown, 3847sf Imp.
Payment In-Lieu For Storm Water Quality Volume Requirement

Address/Legal Description: 800 Silver Ave SW
Lots 1-20 Reynolds Addition

DEPARTMENT NAME: Planning Department/Development Review Services, Hydrology

PREPARED BY Dana Peterson PHONE 924-3695

BUSINESS DATE 7/2/18

DUAL VERIFICATION OF DEPOSIT _____
EMPLOYEE SIGNATURE

AND BY _____
EMPLOYEE SIGNATURE

REMITTER: _____
AMOUNT: _____
BANK: _____
CHECK #: _____ DATE ON CHECK: _____

The Payment-in-Lieu can be paid at the Plaza del Sol Treasury, 600 2nd St. NW. **Bring two copies of this invoice to the Treasury** and provide a copy of the receipt to Hydrology, Suite 201, 600 2nd St. NW, or e-mail with the Hydrology submittal to PLNDRS@cabq.gov.