CITY OF ALBUQUERQUE

May 8, 2018

David Soule, P.E.
Rio Grande Engineering
PO Box 93924
Albuquerque, NM 87199

RE: **North Second St Storage**
5124 2nd St NW
Grading Plan Stamp Date: 5/1/18
Drainage Report Stamp Date: 5/2/18
Drainage File: F15D052E

Dear Mr. Soule:

Based on the information provided in your submittal received 5/3/18, the grading plan and drainage report cannot be approved until the following are addressed:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Prior to Grading Permit/ SO-19:

1. Please correct and clarify the site hydrology.
   a. The basins in the basin delineation map need to be labeled, some labels are duplicated or missing and these need to match what's shown on the excel spreadsheet.
   b. The portion of lot 3 that currently drains to its ponding area needs to be considered as retention and cannot be considered when establishing the allowable/existing discharge rate for the larger project.
   c. The excel spreadsheet has additional basins that are not defined on the basin delineation maps, the 'proposed' and 'comparison' rows do not seem to be added correctly.
   d. The water quality ponding requirement should be closer to ~3000cf, not 6100 cf and the bypass/fee-in-lieu amount should be 696cf. Please recheck the spreadsheet formulas.
2. This project requires an ESC Plan, submitted to the Stormwater Quality Engineer (Curtis Cherne PE, ccherne@cabq.gov or 924-3420).
3. Show on plans where the emergency spillway from the storage units is; provide a section of this with elevations and dimensional data. Provide hydraulic calculations to demonstrate that it can pass the 100-yr peak flow without flooding the storage units.

CITY OF ALBUQUERQUE

Prior to Building Permit:

4. Payment of Fee-in-Lieu will be required for the first flush bypass volume.

5. A Private Facility Drainage Covenant will be required for the stormwater quality pond. The original notarized form, exhibit A (legible on 8.5x11 paper), and recording fee ($25, payable to City of Albuquerque) must be turned into DRC (4th, Plaza del Sol) for routing. Please contact Charlotte LaBadie (clabadie@cabq.gov, 924-3996) or Madeline Carruthers (mtafoya@cabq.gov, 924-3997) regarding the routing and recording process for covenants.

Prior to C.O:

6. The Private Facility Drainage Covenant must be recorded with Bernalillo County and a copy included with the drainage certification.

7. Provide photographs of the installed orifice plate, including one showing its dimensions and include with the drainage certification.

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

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Sincerely,

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

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: NORTH SECOND STORAGE Building Permit #: _____ City Drainage #: F15D052E

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

Legal Description: LLOTS1-3 NORTH SECOND BUSINESS CENTER

City Address: 5124 SECOND STREET NW

Engineering Firm: RIO GRANDE ENGINEERING Contact: DAVID SOULE

Address: PO BOX 93924, ALBUQUERQUE, NM 87199

Phone#: 505.321.9099 Fax#: 505.872.0999 E-mail: DAVID@RIOGRANDEENGINEERING.COM

Owner: MURPHY PROPERTIES Contact: _____

Address: 5124 SECOND STREET NW ALB NM87107

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

Architect: JOSEPH SIMONS Contact: _____

Address: _____

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

Other Contact: _____ Contact: _____

Address: _____

Phone#: _____ 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

x 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:

x 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) _____

IS THIS A RESUBMITTAL?: _____ Yes x No

DATE SUBMITTED: 5/2/18 By: _____

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: ___

CITY OF ALBUQUERQUE

March 28, 2018

David Soule, P.E.
Rio Grande Engineering
PO Box 93924
Albuquerque, NM 87199

RE: **North Second St Storage**
5124 2nd St NW
Grading Plan Stamp Date: 3/15/18
Drainage Report Stamp Date: 3/14/18
Drainage File: F15D052E

Dear Mr. Soule:

Based on the information provided in your submittal received 3/16/18, the grading plan and drainage report cannot be approved until the following are addressed:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Prior to Grading Permit/ SO-19:

1. Clarify where in the referenced master development plan free discharge, or 10.56cfs are authorized and provide the relevant excerpts. It appears more likely that discharge from the site needs to be restricted to the current condition, unless downstream capacity is demonstrated. Please keep in mind that the roof and the north side of Lot 3 discharge to a 100% retention pond (see F15D052D) have no discharge.
   we have enclosed the master plan but reduced peak to less than existing
2. This project requires an ESC Plan, submitted to the Stormwater Quality Engineer (Curtis Cherne PE, ccherne@cabq.gov or 924-3420).
   acknowledged and will be submitted
3. Clarify the origin of the first flush bypass amounts. If the drive pad is existing and are not being in rebuild/repaved, than there is no fee-in-lieu requirement. If the drive pad is being built new, over previously pervious area, fee-in-lieu is required at the rate of: 0.34/12 x impervious area. If the drive pad is being built over previously impervious area, than fee-in-lieu is required at a rate of: 0.26/12 x impervious area. It appears this project has a blend of these scenarios; this accounting should decrease the fee-in-lieu requirement.
   we have updated calculations,
4. Correct the grading plan and notes to show construction of (3x) 2' sidewalk culverts.
   corrected
5. The subbasins map appears to be overlaid on a previous iteration of the grading plan where stormtechs were employed. Please update this underlay to avoid confusion.
   updated
6. Please use the latest SO-19 standard notes (attached).
   added

CITY OF ALBUQUERQUE

Prior to Building Permit:

7. The site will need to be re-platted. in process
8. Payment of Fee-in-Lieu will be required for the first flush bypass volume. in process
9. A Private Facility Drainage Covenant will be required for the stormwater quality pond. The original notarized form, exhibit A (legible on 8.5x11 paper), and recording fee ($25, payable to City of Albuquerque) must be turned into DRC (4th, Plaza del Sol) for routing. Please contact Charlotte LaBadie (clabadie@cabq.gov, 924-3996) or Madeline Carruthers (mtafoya@cabq.gov, 924-3997) regarding the routing and recording process for covenants. in process

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Sincerely,

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

PO Box 1293
Albuquerque
NM 87103
www.cabq.gov

REVISED
DRAINAGE REPORT

For

North Second Street Storage
Lots 1,2,3 North Second Business Park

Albuquerque, New Mexico

Prepared by

Rio Grande Engineering
PO Box 93924
Albuquerque, New Mexico 87199

MARCH 2018

David Soule P.E. No. 14522

TABLE OF CONTENTS

Appendix

Map

Site Grading and Drainage Plan

PURPOSE

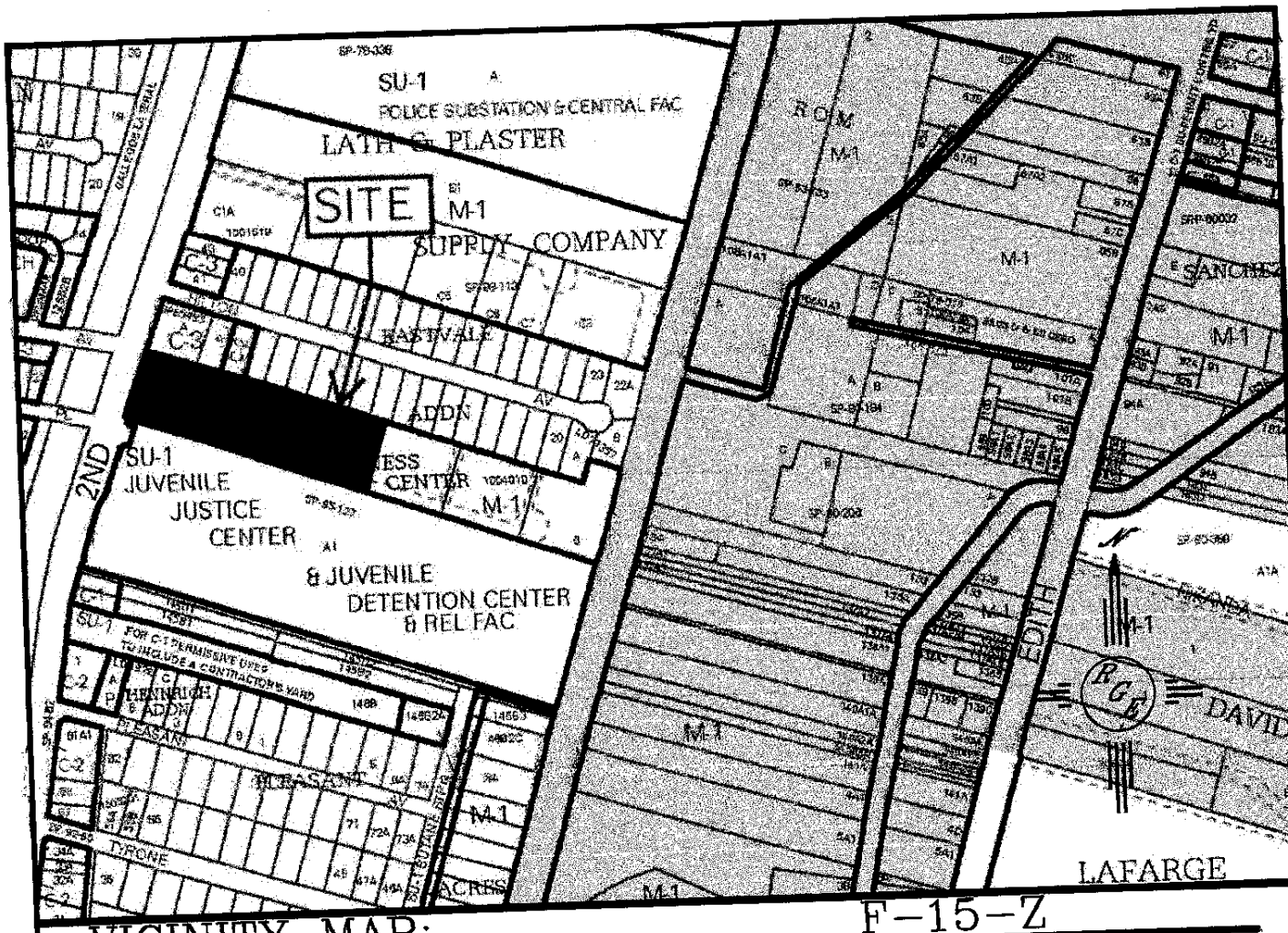
The purpose of this report is to provide the Drainage Management Plan for the development of a 2.32 acre tract of land that is being consolidated and redeveloped as storage units. This plan was prepared in accordance with the City of Albuquerque design regulations, utilizing the City of Albuquerque's Development Process Manual drainage guidelines. This report will demonstrate that the grading does not adversely affect the surrounding properties, nor the upstream or downstream facilities.

INTRODUCTION

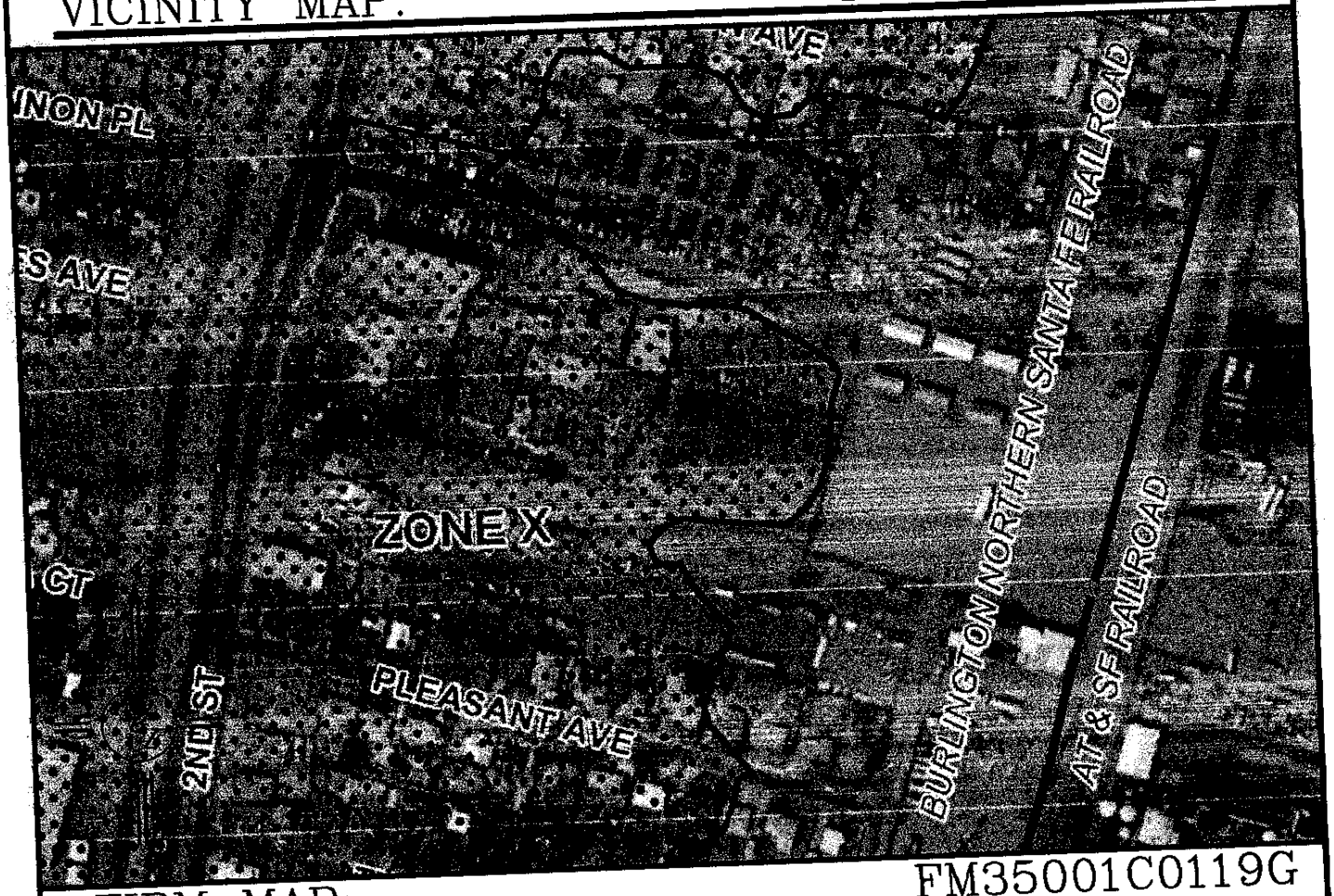
The subject of this report, as shown on the Exhibit A, is a 2.32 -acre parcel of land located on the eastside of Second Street drive between Montano and Griegos NW. The current legal description of this site is lots 1, 2, 3 North Second Business Park. The three lots are in the process of being consolidated. As shown on FIRM map35001C0119GH, the entire site is located within Flood Zone X. The site is bound on all sides by roadways, rail road tracts and wall and is not impacted by upland flows. The site is an existing developed site, with a building on lot 3 and compacted asphalt millings and outdoor RV storage on lots 1 and 2. The site currently discharges 9.47 cfs to an inlet located at the southeast corner of this site within Second Street. The site was developed utilizing (F15-D22). The Conceptual drainage plan allowed to free discharge based upon 90% impervious. Based upon subsequent development, this appears not to be an implemented plan. The proposed improvements include the redevelopment of the existing building and the construction of several new buildings with associated paved drive isles. The site must discharge less than the existing peak flow requirements and must retain the first flush volume onsite.

EXISTING CONDITIONS

The site is currently developed. The site currently discharges developed flow of 9.47 cfs to the inlet located within Second Street at the southwest corner of this site. The flows are captured by an inlet and conveyed downstream within a city maintained storm drain. Due to rail



VICINITY MAP: F-15-Z



FIRM MAP: FM35001C0119G

road track and walls on the north and east side, as well as roadway along south side, the site is not impacted by upland flows.

PROPOSED CONDITIONS

The proposed improvements consist of interior improvements to the existing building and the construction of multiple new buildings. The area between the buildings will be paved. The buildings will drain to the interior paved access roads. The flows will be captured by a series of inline drains. The drains are connected via an 18" storm drain to a single type D inlet located at the North West corner of the storage unit areas. An 11" orifice plate is placed at the outfall of this inlet. As shown in appendix B, the orifice plate restricts the flow of 9.71 cfs to 5.73 cfs. The storage for this detention solution is provided within the access isles. The maximum predicted water surface is 4976.75. In the event of clogging the flow will exit the site via the emergency access driveway and flow directly to Second Street. The throttled flow is conveyed from the onsite inlet to a first flush pond located adjacent to Second Street. This pond captures the required first flush volume of 2,760 cubic feet. The pond outfalls once full to 3-2' sidewalk culvert to be constructed directly upstream of the existing collection inlet. The site contains several smaller drainage basins, existing roadways and water blocks for the site. These basins exist therefore the resultant water quality volume for those areas not captured are 47.5 cubic feet of redeveloped and 39.1 cubic feet of new generation, creating a fee in lieu of $412.00.

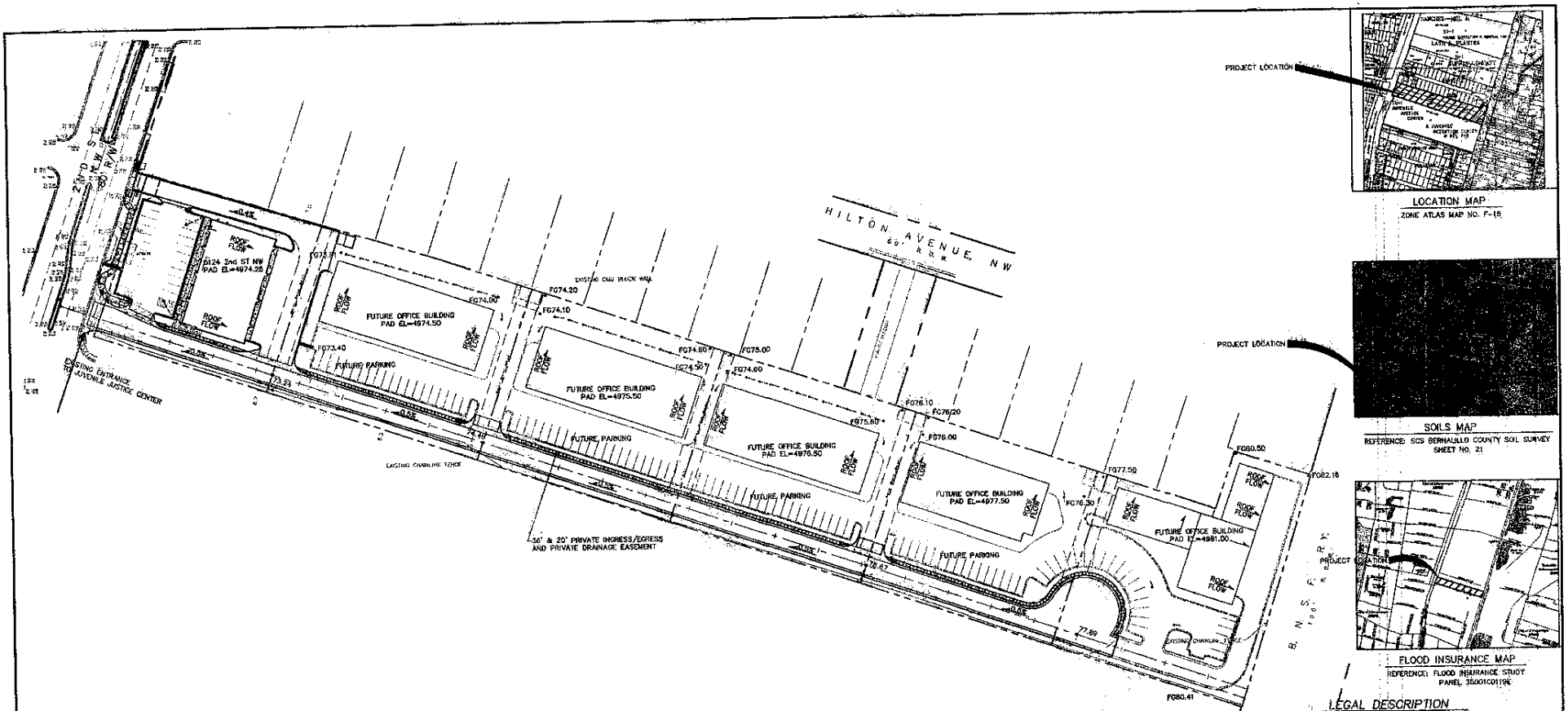
SUMMARY AND RECOMMENDATIONS

This project is a redevelopment of an existing site that discharges 9.47 cfs. The site generates a flow greater than allowed, so the flow is metered by onsite detention ponding and an orifice controlled outlet. The majority of the flow passes thru a first flush pond that retains the required volume. The portions of the site that can not be captured results in a fee in lieu to be paid. The onsite storm drain and outfalls were designed to convey the flow. The ponds will overflow in an emergency or clogging situation via the emergency access roadway to the historical outfall at Second Street. The development of this site will not negatively impact the

upstream nor down stream facilities. Since the work area does exceed 1 acre, erosion and sediment Control Plan shall be required prior to any construction activity.

APPENDIX A

SITE HYDROLOGY



LOCATION MAP
ZONE ATLAS MAP NO. F-15

SOILS MAP
REFERENCE: SCS BERNALILLO COUNTY SOIL SURVEY
SHEET NO. 21

FLOOD INSURANCE MAP
REFERENCE: FLOOD INSURANCE STUDY
PANEL 35001C0119E

LEGAL DESCRIPTION

A TRACT OF LAND SITUATE IN PROJECTED SECTION 33, TOWNSHIP 11 NORTH, RANGE 3 EAST, NEW MEXICO PRINCIPAL MERIDIAN, BERNALILLO COUNTY, NEW MEXICO, COMPRISED OF PARCEL 2, TRACT 1279, MRGCD MAP 32; PARCEL 1, TRACT 1288, MRGCD MAP32, PARCEL 4, TRACTS 128 B-2, 131 AND 131A, MRGCD MAP 32, AND A PORTION OF THE VACATED GALLEGOS LATERAL (FILED AUGUST 29, 1975, BOOK MISC. 437, PP. 740, 741).

BENCH MARK

ACS STATION 8-F15 1 3/4" ALUMINUM DISK EPOXIED TO THE TOP OF A CONCRETE BASE OF A GALVANIZED STEEL ELECTRIC TRANSMISSION LINE POLE, APPROXIMATELY 10' NORTH OF THE NORTHWEST OF THIS PROPERTY. ELEVATION 4973.196 (NGVD 1988)

LEGEND

WV WATER VALVE	FLOWLINE
WM WATER METER	METAL FENCE
FH FIRE HYDRANT	CHAIN LINK FENCE
SMH SANITARY SEWER MANHOLE	WIRE OR WOOD FENCE
WM WATER METER	CONCRETE BLOCK WALL
PP POWER POLE	EXISTING CONTOURS @ 1 FT. INTERVALS
ANCH ANCHOR	INDEX CONTOURS @ 5 FT. INTERVALS
LP LIGHT POLE	PROPOSED 3" ASPHALT
STL PYL STEEL TRANSMISSION LINE PYLON	
CATV CABLE TELEVISION RISER	BASIN (101) EXISTING BASIN DESIGNATION
OVERHEAD POWER LINE	BASIN (201) PROPOSED BASIN DESIGNATION
SPOT ELEVATION UNLESS OTHERWISE INDICATED, SPOT ELEVATIONS ARE TO NATURAL GRADE	EXISTING BASIN BOUNDARY
EC EDGE OF CONCRETE	PROPOSED BASIN BOUNDARY
TC TOP OF CURB	ROOF DRAIN FLOW DIRECTION
	SWALE/DIRECTION OF SURFACE FLOW
	PROPERTY LINE

Bradley L. Bishop 11/2/07
APPROVED FOR ROUGH GRADING

GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

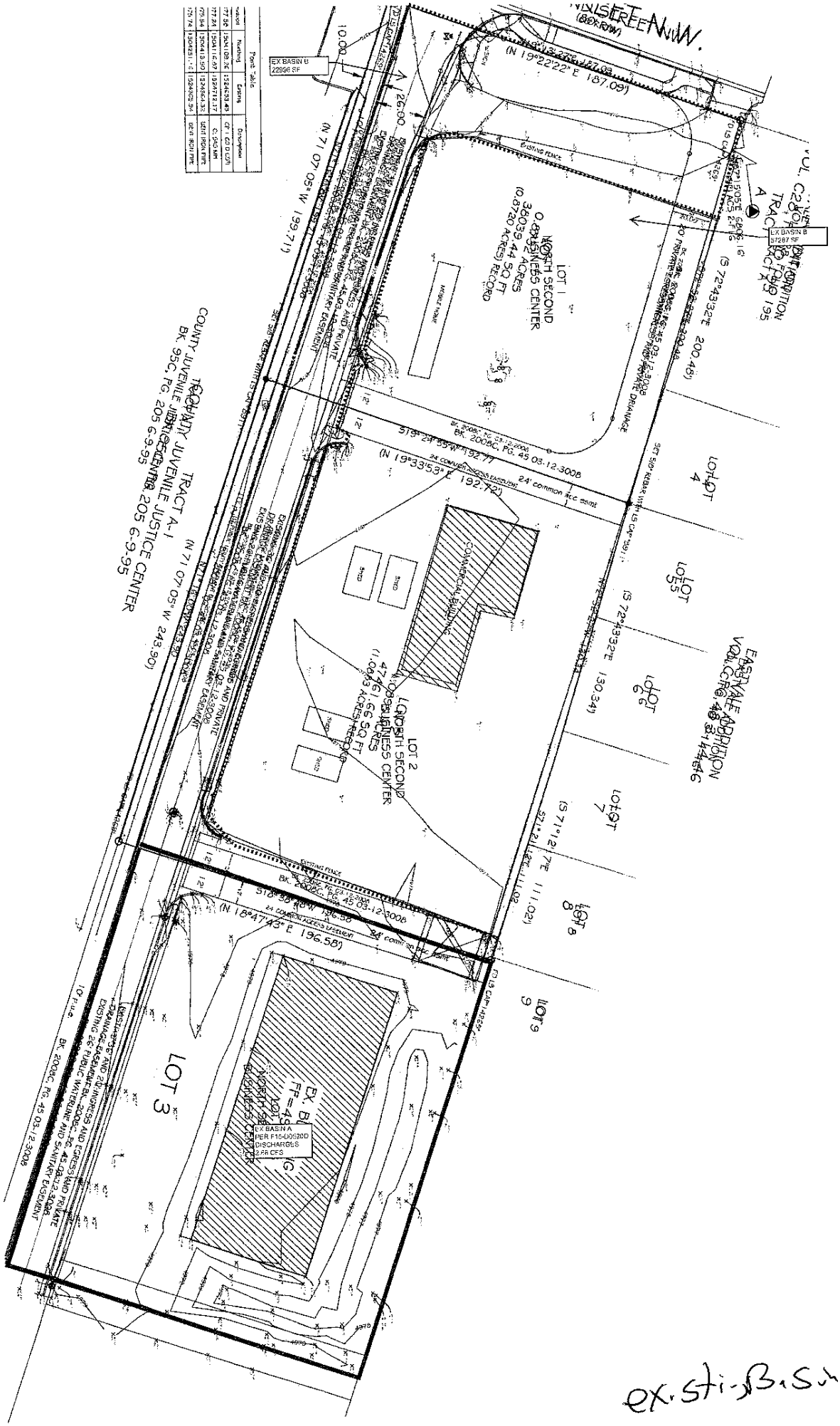
WILSON & COMPANY
4900 LAND AVE
ALBUQUERQUE, NEW MEXICO 87110
(505) 348-4000
(505) 348-4072 Fax
www.wilsonco.com

NORTH 2ND STREET
BUSINESS CENTER

OVERALL
GRADING & DRAINAGE PLAN

REVISIONS	NO.	DATE	REMARKS	BY

DESIGN	MJI	WCEA NO. 06600090	DATE APR 2007
DRAWN	STAFF	PROJECT NO. N/A	SHEET NO. C-103A
CHECK	MJI		



existing basins

CAUTION:

EXISTING UTILITIES ARE NOT SHOWN. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO ANY EXCAVATION TO DETERMINE THE ACTUAL LOCATION OF UTILITIES & OTHER IMPROVEMENTS.

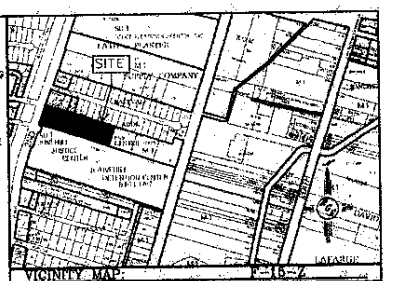
NOTICE TO CONTRACTORS

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1985.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

APPROVAL	NAME	DATE
INSPECTOR		

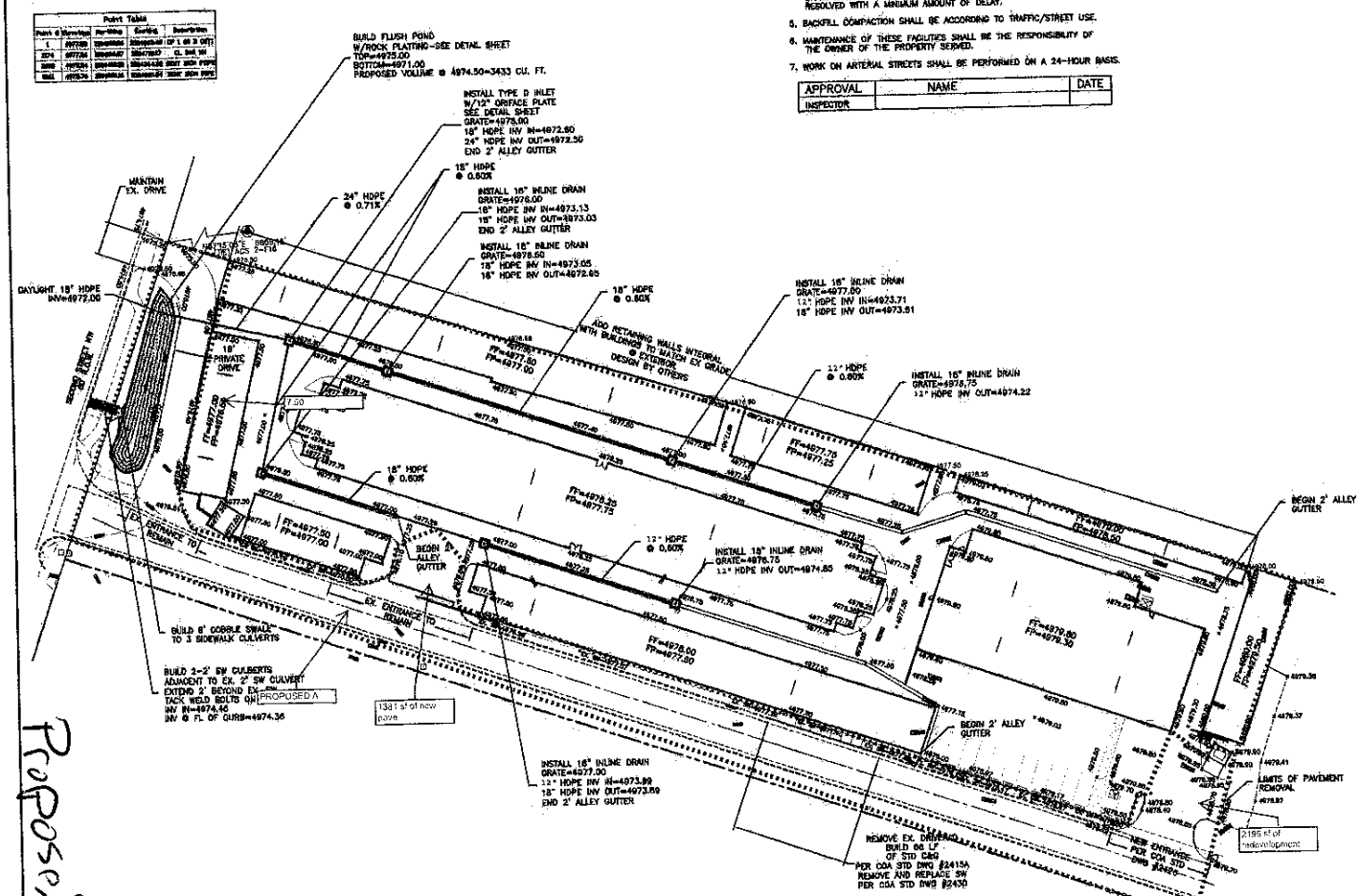
EROSION CONTROL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.



LEGAL DESCRIPTION:

LOTS 1, 2 & 3 NORTH SECOND STREET BUSINESS CENTER



NOTES:

1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.
2. ALL CURB AND GUTTER TO 6" HEADER UNLESS OTHERWISE NOTED.
3. ALL RETAINING WALL DESIGN SHALL BE BY OTHERS.
4. ALL NEW PAVING SHALL BE 6" PCC OVER 8" SUBGRADE PREPARATION IN CONFORMANCE TO ACI 330R-08 UNLESS OTHERWISE NOTED.
5. ANY CURBS OR PAVEMENT NEGATIVELY IMPACTED BY CONSTRUCTION ACTIVITY SHALL BE REPLACED TO MATCH EXISTING CONDITIONS.
6. ALL SITE WORK SHALL CONFORM TO CITY OF ALBUQUERQUE STANDARDS FOR PUBLIC WORKS CONSTRUCTION EDITION 9

LEGEND

- EXISTING CONTOUR
- EXISTING INDEX CONTOUR
- PROPOSED CONTOUR
- PROPOSED INDEX CONTOUR
- SLOPE TIE
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- BOUNDARY
- CENTERLINE
- RIGHT-OF-WAY
- PROPOSED CURB
- EXISTING CURB AND GUTTER
- PROPOSED SIDEWALK
- EXISTING SIDEWALK

ENGINEER'S SEAL
DAVID SOULE N.M. 14522 REGISTERED PROFESSIONAL ENGINEER
3/15/18
DAVID SOULE P.E. #14522

MURPHY STORAGE AND RV PARKING
GRADING AND DRAINAGE PLAN

Rio Grande Engineering
1606 CENTRAL AVENUE SE SUITE 200 ALBUQUERQUE, NM 87106 (505) 872-1999

DRAWN BY: MDW
DATE: 12-14-17
SHEET # 1
JOB # 21837

Proposed Basis

Weighted E Method

north second street storage

Existing Developed Basins

Basin	Area (sf)	Area (acres)	Treatment A %	Treatment A (acres)	Treatment B %	Treatment B (acres)	Treatment C %	Treatment C (acres)	Treatment D %	Treatment D (acres)	100-Year, 6-hr. Weighted E (ac-ft)	100-Year, 6-hr. Volume (ac-ft)	100-Year, 6-hr. Flow cfs	10-day Volume (ac-ft)
													2.66	
EXISTING A(FROM REPORT)	22996	0.528	0%	0	0.0%	0.000	6.0%	0.03167	94%	0.496	2.061	0.091	2.43	0.157
EXISTING B	57287	1.315	0%	0	0.0%	0.000	88.0%	1.15731	12%	0.158	1.249	0.137	4.38	0.158
EXISTING C	32713	0.751	0%	0	0.0%	0.000	6.0%	0.04506	94%	0.706	2.061	0.129	3.46	0.223
PROPOSED A	90905	2.087	0%	0	0.0%	0.000	3.0%	0.06261	97%	2.024	2.090	0.364	9.71	0.633
PROPOSED B	3565	0.082	0%	0	0.0%	0.000	7.0%	0.00573	93%	0.076	2.051	0.014	0.38	0.024
BASIN C	2718	0.062	0%	0	50.0%	0.031	50.0%	0.0312	0%	0.000	0.955	0.005	0.17	0.005
BASIN D	90680	2.082	0%	0	0.0%	0.000	0.0%	0	100%	2.082	2.120	0.368	9.78	0.645
BASIN E	220581	5.064	0.0%	0	0.6%	0.03	2.9%	0.14	96.5%	4.89		0.879	23.50	1.531
PROPOSED				0.000		0.000		1.112		-0.548		0.742	19.123	1.373
COMPARISON														

Equations:

Weighted E = Ea*Aa + Eb*Ab + Ec*Ac + Ed*Ad / (Total Area)

Volume = Weighted D * Total Area

Flow = Qa * Aa + Qb * Ab + Qc * Ac + Qd * Ad

Where for 100-year, 6-hour storm (zone 2)

Ea= 0.53
Eb= 0.78
Ec= 1.13
Ed= 2.12

Qa= 1.56
Qb= 2.28
Qc= 3.14
Qd= 4.7

0.071166208

	PEAK FLOW 100-YEAR 6-HOUR	TOTAL DISCHARGE 100-YEAR 6-HR	TOTAL DISCHARGE 100-YEAR 10-DAY
Existing	9.47 CFS	0.091 AC-FT	0.157 AC-FT
Total discharge(PRIOR TO POND ROUTING)	13.17 CFS	0.879 AC-FT	1.531 AC-FT
Discharge after pond routing	9.19 CFS	0.808 AC-FT	1.460 AC-FT

water quality ponding required	6032.833 cf			
water quality ponding provided	3100.000 cf			
fee in lieu volume for bypass	redev	47.55833 cf	x 8	=$380
	new	39.12833 cf	x 8	=$32
				=$412

DRAINAGE NARRATIVE

This site is a repurposing of an existing site. The currently discharges to the private access road which conveys the flow to an single inlet located in second street at the southwest corner of the site. The proposed development will pond the increase in site discharge as compared to the existing. The flow will be collected by an onsite storm drain and discharge to second street directly upstream from the existing inlet. The flow will pass thru a water quality pond. The peak flow rate is reduced to less than existing and allowed by introducing an orifice plate to restrict the flow and the drive isles provide the required storage volume.

APPENDIX B

HYDRAULIC MODELING AND CALCULATIONS

VOLUME CALCULATIONS

COMMONS POND

POND OUTLET

ACTUAL ELEV.	DEPTH (FT)	AREA SF	VOLUME PER UNIT	VOLUME CUMULATIVI	VOLUME AC-FT	Q (CFS)
72.50	0.00	0.0000				
73.50	0.00	340.0000	170.0000	170	0.004	0.00
76.00	2.50	360.0000	350.0000	520	0.012	5.02
76.50	3.00	400.0000	190.0000	710	0.016	5.50
76.75	3.25	3283.0000	460.3750	1170.375	0.027	5.73
77.00	3.75	7769.0000	1381.5000	2551.875	0.059	6.15
77.25	4.00	8640.0000	2051.1250	4603	0.106	6.36

Orifice Equation

Q = CA SQRT(2gH)

C =	0.6
Diameter (in)	11
Area (ft^2)=	0.659952623
g =	32.2
H (Ft) =	Depth of water above center of orifice
Q (CFS)=	Flow

```
*S      AHYMO -  DETENTION-NVALLEY STORAGE
*S             POND ROUTING

START                 TIME=0.0   PUNCH CODE=0

RAINFALL              TYPE=2
                      QUARTER=0.0     ONE= 2.01 IN
                      SIX=2.35 IN    DAY= 2.75 IN    DT = 0.05 HR



COMPUTE NM HYD        ID=1  HYD NO=101  DA= .003253 SQ MI
                      PER A=0  PER B=0 PER C=03  PER D=97
                      TP=-.140  MASSRAIN=-1

PRINT HYD             ID=1  CODE=3

* ROUTE THE TOTAL FLOW THROUGH THE PROPOSED RESERVOIR
ROUTE RESERVOIR       ID=2   HYD NO=102   INFLOW=1   CODE=3
                      OUTFLOW(CFS)     STORAGE(AC-FT)     ELEV(FT)
                          0.00              0.004           73.50
                          5.02              0.012           76.00
                      5.50                  0.016           76.50
                          5.73              0.027           76.75
                          6.15              0.059           77.00
                      6.36                  0.106           77.25

FINISH
```

```
      AHYMO PROGRAM (AHYMO-S4)                          - Version: S4.01a - Rel: 01a
           RUN DATE (MON/DAY/YR) = 05/02/2018
           START TIME (HR:MIN:SEC) = 16:00:01      USER NO.=
RioGrandeSingleA41963517
           INPUT FILE = tings\Owner\Desktop\2017 jobs\1732-abq north storage
facility\pondrout031318.txt

    *S      AHYMO -  DETENTION-NVALLEY STORAGE
    *S              POND ROUTING

    START                TIME=0.0  PUNCH CODE=0


    RAINFALL             TYPE=2
                         QUARTER=0.0    ONE= 2.01 IN
                         SIX=2.35 IN    DAY= 2.75 IN    DT = 0.05 HR



                  24-HOUR RAINFALL DIST. - BASED ON NOAA ATLAS 14 FOR CONVECTIVE
AREAS (NM & AZ) - D1
                  DT =   0.050000 HOURS        END TIME =    24.000002 HOURS
                    0.0000  0.0023  0.0046  0.0071  0.0099  0.0127  0.0159
                    0.0203  0.0272  0.0347  0.0424  0.0509  0.0595  0.0684
                    0.0776  0.0870  0.0974  0.1084  0.1204  0.1437  0.1728
                    0.2117  0.2559  0.3104  0.3831  0.4649  0.6062  0.8258
                    1.2021  1.4666  1.6752  1.7800  1.8719  1.9379  1.9905
                    2.0362  2.0697  2.1005  2.1259  2.1418  2.1530  2.1629
                    2.1722  2.1803  2.1879  2.1953  2.2025  2.2084  2.2118
                    2.2152  2.2186  2.2217  2.2247  2.2278  2.2307  2.2336
                    2.2363  2.2391  2.2417  2.2443  2.2469  2.2494  2.2518
                    2.2542  2.2565  2.2588  2.2611  2.2633  2.2654  2.2676
                    2.2697  2.2717  2.2738  2.2758  2.2778  2.2798  2.2817
                    2.2837  2.2856  2.2874  2.2893  2.2911  2.2930  2.2948
                    2.2965  2.2983  2.3000  2.3017  2.3034  2.3051  2.3068
                    2.3084  2.3100  2.3117  2.3133  2.3148  2.3164  2.3180
                    2.3195  2.3210  2.3225  2.3240  2.3255  2.3269  2.3284
                    2.3298  2.3313  2.3327  2.3341  2.3355  2.3368  2.3382
                    2.3396  2.3409  2.3422  2.3436  2.3449  2.3462  2.3474
                    2.3487  2.3500  2.3513  2.3525  2.3538  2.3551  2.3563
                    2.3576  2.3589  2.3601  2.3614  2.3627  2.3639  2.3652
                    2.3665  2.3677  2.3690  2.3702  2.3715  2.3728  2.3740
                    2.3753  2.3765  2.3778  2.3790  2.3803  2.3815  2.3828
                    2.3840  2.3853  2.3865  2.3878  2.3890  2.3903  2.3915
                    2.3927  2.3940  2.3952  2.3965  2.3977  2.3989  2.4002
                    2.4014  2.4027  2.4039  2.4051  2.4064  2.4076  2.4088
                    2.4101  2.4113  2.4125  2.4137  2.4150  2.4162  2.4174
                    2.4186  2.4199  2.4211  2.4223  2.4235  2.4247  2.4260
                    2.4272  2.4284  2.4296  2.4308  2.4320  2.4333  2.4345
                    2.4357  2.4369  2.4381  2.4393  2.4405  2.4417  2.4429
                    2.4441  2.4453  2.4465  2.4478  2.4490  2.4502  2.4514
                    2.4526  2.4538  2.4550  2.4561  2.4573  2.4585  2.4597
                    2.4609  2.4621  2.4633  2.4645  2.4657  2.4669  2.4681
                    2.4692  2.4704  2.4716  2.4728  2.4740  2.4752  2.4764
                    2.4775  2.4787  2.4799  2.4811  2.4822  2.4834  2.4846
                    2.4858  2.4869  2.4881  2.4893  2.4905  2.4916  2.4928
                    2.4940  2.4951  2.4963  2.4975  2.4986  2.4998  2.5010
                    2.5021  2.5033  2.5044  2.5056  2.5068  2.5079  2.5091
                    2.5102  2.5114  2.5125  2.5137  2.5148  2.5160  2.5171
```

2.5183	2.5194	2.5206	2.5217	2.5229	2.5240	2.5252
2.5263	2.5274	2.5286	2.5297	2.5309	2.5320	2.5331
2.5343	2.5354	2.5365	2.5377	2.5388	2.5399	2.5411
2.5422	2.5433	2.5445	2.5456	2.5467	2.5478	2.5490
2.5501	2.5512	2.5523	2.5535	2.5546	2.5557	2.5568
2.5579	2.5590	2.5602	2.5613	2.5624	2.5635	2.5646
2.5657	2.5668	2.5679	2.5691	2.5702	2.5713	2.5724
2.5735	2.5746	2.5757	2.5768	2.5779	2.5790	2.5801
2.5812	2.5823	2.5834	2.5845	2.5856	2.5867	2.5878
2.5889	2.5899	2.5910	2.5921	2.5932	2.5943	2.5954
2.5965	2.5976	2.5986	2.5997	2.6008	2.6019	2.6030
2.6040	2.6051	2.6062	2.6073	2.6084	2.6094	2.6105
2.6116	2.6126	2.6137	2.6148	2.6159	2.6169	2.6180
2.6191	2.6201	2.6212	2.6223	2.6233	2.6244	2.6254
2.6265	2.6276	2.6286	2.6297	2.6307	2.6318	2.6328
2.6339	2.6350	2.6360	2.6371	2.6381	2.6392	2.6402
2.6413	2.6423	2.6433	2.6444	2.6454	2.6465	2.6475
2.6486	2.6496	2.6506	2.6517	2.6527	2.6538	2.6548
2.6558	2.6569	2.6579	2.6589	2.6600	2.6610	2.6620
2.6630	2.6641	2.6651	2.6661	2.6672	2.6682	2.6692
2.6702	2.6712	2.6723	2.6733	2.6743	2.6753	2.6763
2.6774	2.6784	2.6794	2.6804	2.6814	2.6824	2.6834
2.6844	2.6854	2.6865	2.6875	2.6885	2.6895	2.6905
2.6915	2.6925	2.6935	2.6945	2.6955	2.6965	2.6975
2.6985	2.6995	2.7005	2.7015	2.7025	2.7034	2.7044
2.7054	2.7064	2.7074	2.7084	2.7094	2.7104	2.7114
2.7123	2.7133	2.7143	2.7153	2.7163	2.7172	2.7182
2.7192	2.7202	2.7211	2.7221	2.7231	2.7241	2.7250
2.7260	2.7270	2.7280	2.7289	2.7299	2.7309	2.7318
2.7328	2.7338	2.7347	2.7357	2.7366	2.7376	2.7386
2.7395	2.7405	2.7414	2.7424	2.7433	2.7443	2.7452
2.7462	2.7472	2.7481	2.7491	2.7500		

COMPUTE NM HYD ID=1 HYD NO=101 DA= .003253 SQ MI
PER A=0 PER B=0 PER C=03 PER D=97
TP=-.140 MASSRAIN=-1

K = 0.076300HR TP = 0.140000HR K/TP RATIO = 0.545000 SHAPE CONSTANT, N = 7.106428
UNIT PEAK = 11.862 CFS UNIT VOLUME = 0.9975 B = 526.28
P60 = 2.0100
AREA = 0.003155 SQ MI IA = 0.10000 INCHES INF = 0.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

K = 0.112846HR TP = 0.140000HR K/TP RATIO = 0.806046 SHAPE CONSTANT, N = 4.440407
UNIT PEAK = 0.26735 CFS UNIT VOLUME = 0.9581 B = 383.54
P60 = 2.0100
AREA = 0.000098 SQ MI IA = 0.35000 INCHES INF = 0.83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = 0.050000

PRINT HYD ID=1 CODE=3

PARTIAL HYDROGRAPH 101.00

TIME	FLOW	TIME	FLOW	TIME	FLOW

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
0.000	0.0	4.950	0.0	9.900	0.0
14.850	0.0	19.800	0.0		
0.150	0.0	5.100	0.0	10.050	0.1
15.000	0.0	19.950	0.0		
0.300	0.0	5.250	0.0	10.200	0.0
15.150	0.0	20.100	0.0		
0.450	0.0	5.400	0.0	10.350	0.0
15.300	0.0	20.250	0.0		
0.600	0.0	5.550	0.0	10.500	0.0
15.450	0.0	20.400	0.0		
0.750	0.0	5.700	0.0	10.650	0.0
15.600	0.0	20.550	0.0		
0.900	0.1	5.850	0.0	10.800	0.0
15.750	0.0	20.700	0.0		
1.050	0.6	6.000	0.0	10.950	0.0
15.900	0.0	20.850	0.0		
1.200	1.5	6.150	0.1	11.100	0.0
16.050	0.0	21.000	0.0		
1.350	3.4	6.300	0.1	11.250	0.0
16.200	0.0	21.150	0.0		
1.500	9.7	6.450	0.1	11.400	0.0
16.350	0.0	21.300	0.0		
1.650	6.1	6.600	0.1	11.550	0.0
16.500	0.0	21.450	0.0		
1.800	3.1	6.750	0.1	11.700	0.0
16.650	0.0	21.600	0.0		
1.950	1.8	6.900	0.1	11.850	0.0
16.800	0.0	21.750	0.0		
2.100	0.9	7.050	0.1	12.000	0.0
16.950	0.0	21.900	0.0		
2.250	0.5	7.200	0.1	12.150	0.0
17.100	0.0	22.050	0.0		
2.400	0.4	7.350	0.1	12.300	0.0
17.250	0.0	22.200	0.0		
2.550	0.2	7.500	0.1	12.450	0.0
17.400	0.0	22.350	0.0		
2.700	0.1	7.650	0.1	12.600	0.0
17.550	0.0	22.500	0.0		
2.850	0.1	7.800	0.1	12.750	0.0
17.700	0.0	22.650	0.0		
3.000	0.0	7.950	0.1	12.900	0.0
17.850	0.0	22.800	0.0		
3.150	0.0	8.100	0.1	13.050	0.0
18.000	0.0	22.950	0.0		
3.300	0.0	8.250	0.1	13.200	0.0
18.150	0.0	23.100	0.0		
3.450	0.0	8.400	0.0	13.350	0.0
18.300	0.0	23.250	0.0		
3.600	0.0	8.550	0.0	13.500	0.0
18.450	0.0	23.400	0.0		
3.750	0.0	8.700	0.1	13.650	0.0
18.600	0.0	23.550	0.0		
3.900	0.0	8.850	0.1	13.800	0.0
18.750	0.0	23.700	0.0		
4.050	0.0	9.000	0.0	13.950	0.0
18.900	0.0	23.850	0.0		
4.200	0.0	9.150	0.1	14.100	0.0
19.050	0.0	24.000	0.0		
4.350	0.0	9.300	0.0	14.250	0.0
19.200	0.0	24.150	0.0		

4.500 0.0 9.450 0.1 14.400 0.0
19.350 0.0 24.300 0.0
4.650 0.0 9.600 0.0 14.550 0.0
19.500 0.0 24.450 0.0
4.800 0.0 9.750 0.0 14.700 0.0
19.650 0.0 24.600 0.0

RUNOFF VOLUME = 2.46628 INCHES = 0.4279 ACRE-FEET
PEAK DISCHARGE RATE = 9.70 CFS AT 1.500 HOURS BASIN AREA = 0.0033 SQ. MI.

* ROUTE THE TOTAL FLOW THROUGH THE PROPOSED RESERVOIR
ROUTE RESERVOIR ID=2 HYD NO=102 INFLOW=1 CODE=3

OUTFLOW(CFS)	STORAGE(AC-FT)	ELEV(FT)
0.00	0.004	73.50
5.02	0.012	76.00
5.73	0.027	76.75
0.059	77.00	

6.

* * * * * * * * * * * * * * * * *

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
0.00	0.00	73.50	0.004	0.00
0.15	0.00	73.50	0.004	0.00
0.30	0.00	73.50	0.004	0.00
0.45	0.00	73.50	0.004	0.00
0.60	0.00	73.50	0.004	0.00
0.75	0.00	73.50	0.004	0.00
0.90	0.07	73.52	0.004	0.04
1.05	0.63	73.77	0.005	0.53
1.20	1.48	74.18	0.006	1.37
1.35	3.37	74.98	0.009	2.98
1.50	9.70	76.75	0.027	5.73
1.65	6.12	76.75	0.027	5.73
1.80	3.10	76.75	0.027	5.73
1.95	1.83	75.66	0.011	4.34
2.10	0.94	74.01	0.006	1.03
2.25	0.54	73.79	0.005	0.58
2.40	0.35	73.69	0.005	0.38
2.55	0.17	73.60	0.004	0.19
2.70	0.10	73.55	0.004	0.11
2.85	0.06	73.53	0.004	0.07
3.00	0.04	73.52	0.004	0.04
3.15	0.03	73.52	0.004	0.03
3.30	0.02	73.51	0.004	0.02
3.45	0.02	73.51	0.004	0.02
3.60	0.02	73.51	0.004	0.02
3.75	0.02	73.51	0.004	0.02

3.90	0.02	73.51	0.004	0.02
4.05	0.02	73.51	0.004	0.02
4.20	0.02	73.51	0.004	0.02
4.35	0.02	73.51	0.004	0.02
4.50	0.03	73.51	0.004	0.03
4.65	0.03	73.51	0.004	0.03
4.80	0.03	73.52	0.004	0.03
4.95	0.03	73.52	0.004	0.03
5.10	0.03	73.52	0.004	0.03
5.25	0.04	73.52	0.004	0.04
5.40	0.04	73.52	0.004	0.04
5.55	0.04	73.52	0.004	0.04
5.70	0.04	73.52	0.004	0.04
5.85	0.05	73.52	0.004	0.05
6.00	0.05	73.52	0.004	0.05
6.15	0.05	73.53	0.004	0.05
6.30	0.05	73.53	0.004	0.05
6.45	0.05	73.53	0.004	0.05
6.60	0.05	73.53	0.004	0.05
6.75	0.05	73.53	0.004	0.05
6.90	0.05	73.53	0.004	0.05
7.05	0.05	73.53	0.004	0.05
7.20	0.05	73.53	0.004	0.05
7.35	0.05	73.53	0.004	0.05
7.50	0.05	73.53	0.004	0.05
7.65	0.05	73.53	0.004	0.05
7.80	0.05	73.53	0.004	0.05
7.95	0.05	73.53	0.004	0.05
8.10	0.05	73.53	0.004	0.05
8.25	0.05	73.53	0.004	0.05

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
8.40	0.05	73.52	0.004	0.05
8.55	0.05	73.52	0.004	0.05
8.70	0.05	73.52	0.004	0.05
8.85	0.05	73.52	0.004	0.05
9.00	0.05	73.52	0.004	0.05
9.15	0.05	73.52	0.004	0.05
9.30	0.05	73.52	0.004	0.05
9.45	0.05	73.52	0.004	0.05
9.60	0.05	73.52	0.004	0.05
9.75	0.05	73.52	0.004	0.05
9.90	0.05	73.52	0.004	0.05
10.05	0.05	73.52	0.004	0.05
10.20	0.05	73.52	0.004	0.05
10.35	0.05	73.52	0.004	0.05
10.50	0.05	73.52	0.004	0.05
10.65	0.05	73.52	0.004	0.05
10.80	0.05	73.52	0.004	0.05
10.95	0.05	73.52	0.004	0.05
11.10	0.05	73.52	0.004	0.05
11.25	0.05	73.52	0.004	0.05
11.40	0.05	73.52	0.004	0.05
11.55	0.05	73.52	0.004	0.05
11.70	0.05	73.52	0.004	0.05
11.85	0.05	73.52	0.004	0.05
12.00	0.05	73.52	0.004	0.05
12.15	0.05	73.52	0.004	0.05
12.30	0.05	73.52	0.004	0.05
12.45	0.05	73.52	0.004	0.05
12.60	0.05	73.52	0.004	0.05

12.75	0.05	73.52	0.004	0.05
12.90	0.05	73.52	0.004	0.05
13.05	0.05	73.52	0.004	0.05
13.20	0.05	73.52	0.004	0.05
13.35	0.05	73.52	0.004	0.05
13.50	0.05	73.52	0.004	0.05
13.65	0.05	73.52	0.004	0.05
13.80	0.05	73.52	0.004	0.05
13.95	0.05	73.52	0.004	0.05
14.10	0.05	73.52	0.004	0.05
14.25	0.05	73.52	0.004	0.05
14.40	0.05	73.52	0.004	0.05
14.55	0.05	73.52	0.004	0.05
14.70	0.05	73.52	0.004	0.05
14.85	0.05	73.52	0.004	0.05
15.00	0.05	73.52	0.004	0.05
15.15	0.04	73.52	0.004	0.04
15.30	0.05	73.52	0.004	0.05
15.45	0.04	73.52	0.004	0.05
15.60	0.04	73.52	0.004	0.04
15.75	0.04	73.52	0.004	0.04
15.90	0.04	73.52	0.004	0.04
16.05	0.04	73.52	0.004	0.04
16.20	0.04	73.52	0.004	0.04
16.35	0.04	73.52	0.004	0.04
16.50	0.04	73.52	0.004	0.04
16.65	0.04	73.52	0.004	0.04

TIME (HRS)	INFLOW (CFS)	ELEV (FEET)	VOLUME (AC-FT)	OUTFLOW (CFS)
16.80	0.04	73.52	0.004	0.04
16.95	0.04	73.52	0.004	0.04
17.10	0.04	73.52	0.004	0.04
17.25	0.04	73.52	0.004	0.04
17.40	0.04	73.52	0.004	0.04
17.55	0.04	73.52	0.004	0.04
17.70	0.04	73.52	0.004	0.04
17.85	0.04	73.52	0.004	0.04
18.00	0.04	73.52	0.004	0.04
18.15	0.04	73.52	0.004	0.04
18.30	0.04	73.52	0.004	0.04
18.45	0.04	73.52	0.004	0.04
18.60	0.04	73.52	0.004	0.04
18.75	0.04	73.52	0.004	0.04
18.90	0.04	73.52	0.004	0.04
19.05	0.04	73.52	0.004	0.04
19.20	0.04	73.52	0.004	0.04
19.35	0.04	73.52	0.004	0.04
19.50	0.04	73.52	0.004	0.04
19.65	0.04	73.52	0.004	0.04
19.80	0.04	73.52	0.004	0.04
19.95	0.04	73.52	0.004	0.04
20.10	0.04	73.52	0.004	0.04
20.25	0.04	73.52	0.004	0.04
20.40	0.04	73.52	0.004	0.04
20.55	0.04	73.52	0.004	0.04
20.70	0.04	73.52	0.004	0.04
20.85	0.04	73.52	0.004	0.04
21.00	0.04	73.52	0.004	0.04
21.15	0.04	73.52	0.004	0.04
21.30	0.04	73.52	0.004	0.04
21.45	0.04	73.52	0.004	0.04

21.60	0.04	73.52	0.004	0.04
21.75	0.04	73.52	0.004	0.04
21.90	0.04	73.52	0.004	0.04
22.05	0.04	73.52	0.004	0.04
22.20	0.04	73.52	0.004	0.04
22.35	0.04	73.52	0.004	0.04
22.50	0.04	73.52	0.004	0.04
22.65	0.04	73.52	0.004	0.04
22.80	0.04	73.52	0.004	0.04
22.95	0.04	73.52	0.004	0.04
23.10	0.04	73.52	0.004	0.04
23.25	0.04	73.52	0.004	0.04
23.40	0.04	73.52	0.004	0.04
23.55	0.04	73.52	0.004	0.04
23.70	0.04	73.52	0.004	0.04
23.85	0.04	73.52	0.004	0.04
24.00	0.04	73.52	0.004	0.04
24.15	0.02	73.51	0.004	0.02
24.30	0.01	73.50	0.004	0.01
24.45	0.00	73.50	0.004	0.00

PEAK DISCHARGE = 5.730 CFS - PEAK OCCURS AT HOUR 1.50
MAXIMUM WATER SURFACE ELEVATION = 76.750
MAXIMUM STORAGE = 0.0270 AC-FT INCREMENTAL TIME= 0.050000HRS

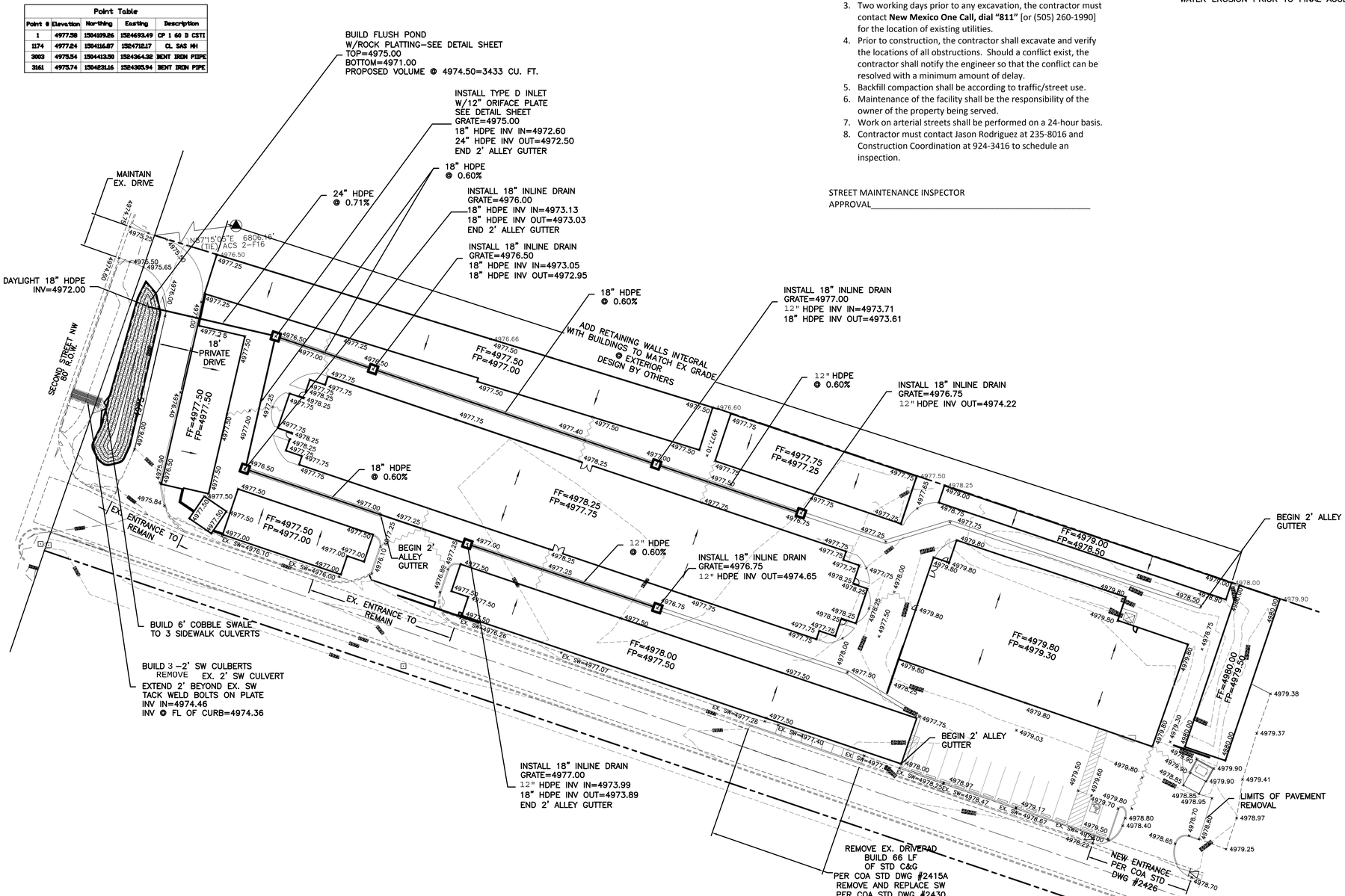
FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 16:00:01

CAUTION:

EXISTING UTILITIES ARE NOT SHOWN. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO ANY EXCAVATION TO DETERMINE THE ACTUAL LOCATION OF UTILITIES & OTHER IMPROVEMENTS.

Point Table				
Point #	Elevation	Northing	Easting	Description
1	4977.58	1504109.26	1524693.49	CP 1 60 D CSTI
1174	4977.24	1504116.87	1524712.17	CL SAS MH
3003	4975.54	1504413.59	1524364.32	BENT IRON PIPE
3161	4973.74	1504231.16	1524305.94	BENT IRON PIPE



Private Drainage Facilities within City Right-of-Way
Notice to Contractor
(Special Order 19 ~ "SO-19")

1. An excavation permit will be required before beginning any work within City Right-Of-Way.
2. All work on this project shall be performed in accordance with applicable federal, state and local laws, rules and regulations concerning construction safety and health.
3. Two working days prior to any excavation, the contractor must contact **New Mexico One Call, dial "811"** [or (505) 260-1990] for the location of existing utilities.
4. Prior to construction, the contractor shall excavate and verify the locations of all obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
5. Backfill compaction shall be according to traffic/street use.
6. Maintenance of the facility shall be the responsibility of the owner of the property being served.
7. Work on arterial streets shall be performed on a 24-hour basis.
8. Contractor must contact Jason Rodriguez at 235-8016 and Construction Coordination at 924-3416 to schedule an inspection.

STREET MAINTENANCE INSPECTOR
APPROVAL_____

EROSION CONTROL NOTES:

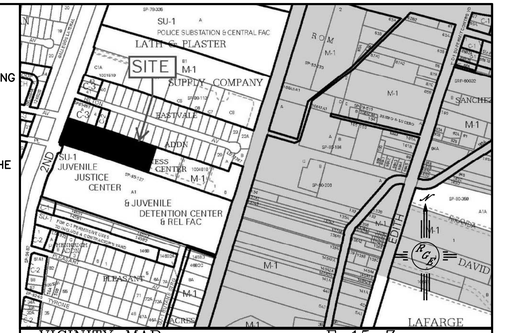
1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.

2. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN–OFF ON SITE DURING CONSTRUCTION.

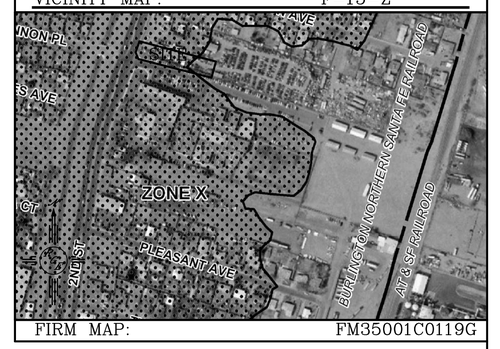
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT–OF–WAY.

4. REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.

5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.



VICINITY MAP: F–15–Z



FIRM MAP: FM35001C0119G

LEGAL DESCRIPTION:

LOTS1, 2 & 3 NORTH SECOND STREET BUSINESS CENTER

NOTES:

1. ALL SPOT ELEVATIONS REPRESENT FLOWLINE ELEVATION UNLESS OTHERWISE NOTED.

2. ALL CURB AND GUTTER TO 6" HEADER UNLESS OTHERWISE NOTED.

3. ALL RETAINING WALL DESIGN SHALL BE BY OTHERS.

4. ALL NEW PAVING SHALL BE 6" PCC OVER 8" SUBGRADE PREPARATION IN CONFORMANCE TO ACI 330R–08. UNLESS OTHERWISE NOTED.

5. ANY CURBS OR PAVEMENT NEGATIVELY IMPACTED BY CONSTRUCTION ACTIVITY SHALL BE REPLACED TO MATCH EXISTING CONDITIONS.

6. ALL SITE WORK SHALL CONFORM TO CITY OF ALBUQUERQUE STANDARDS FOR PUBLIC WORKS CONSTRUCTION EDITION 9

LEGEND

- EXISTING CONTOUR (5414)
- EXISTING INDEX CONTOUR (5415)
- PROPOSED CONTOUR (5414)
- PROPOSED INDEX CONTOUR (5415)
- SLOPE TIE
- EXISTING SPOT ELEVATION (× 4048.25)
- PROPOSED SPOT ELEVATION (1· × 4048.25)
- BOUNDARY
- CENTERLINE
- RIGHT–OF–WAY
- PROPOSED CURB
- EXISTING CURB AND GUTTER
- PROPOSED SIDEWALK
- EXISTING SIDEWALK

N

GRAPHIC SCALE
30 15 0 15 30
SCALE: 1"=30'

ENGINEER'S SEAL
DAVID SOULE NEW MEXICO 14522 REGISTERED PROFESSIONAL ENGINEER
5/1/18
DAVID SOULE
P.E. #14522

MURPHY STORAGE

GRADING AND DRAINAGE PLAN

Rio Grande Engineering
1606 CENTRAL AVENUE SE
SUITE 201
ALBUQUERQUE, NM 87106
(505) 872–0999

DRAWN BY WCWJ
DATE 12–14–17
21837–LAYOUT–12–14–17
SHEET # 1
JOB # 21837