

# CITY OF ALBUQUERQUE

Planning Department  
Brennon Williams, Director



Mayor Timothy M. Keller

September 10, 2020

Thomas C. David, Jr., P.E.  
Pan American Engineers  
1717 Jackson Street  
Alexandria, LA 71301

**RE: Murphy Express – Eubank Blvd  
110 Eubank Blvd. NE  
Grading and Drainage Plan  
Engineer's Stamp Date: 08/31/20  
Hydrology File: L21D059A**

Dear Mr. David:

Based upon the information provided in your submittal received 09/03/2020, the Grading & Drainage Plan is approved for Building Permit.

PO Box 1293

Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter. Prior to approval in support of Permanent Release of Occupancy by Hydrology, Engineer Certification per the DPM checklist will be required.

Albuquerque

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 (Doug Hughes, PE, [jhughes@cabq.gov](mailto:jhughes@cabq.gov), 924-3420) 14 days prior to any earth disturbance.

NM 87103

[www.cabq.gov](http://www.cabq.gov)

The Payment in Lieu payment of \$ **6,282.00** must be paid prior to Permanent Release of Occupancy approval. Please use the attached City of Albuquerque Treasury Deposit form. The Owner needs to bring three copies of this form to the cashier on the Building Permits side of the ground floor and pay the fee. Once paid, please provide Hydrology with one of the copies showing the receipt.

If you have any questions, please contact me at 924-3995 or [rbrissette@cabq.gov](mailto:rbrissette@cabq.gov).

Sincerely,

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

September 3, 2020



**PAN AMERICAN  
ENGINEERS, LLC**

Consulting Professional  
Engineers and Land Surveyors

City of Albuquerque  
Planning Department  
Plaza Del Sol Building  
600 2<sup>nd</sup> Street, NW  
Suite 201  
Albuquerque, New Mexico 87102

Attention: Hydrology Department

Re: **Hydrology/DTIS Submittal**  
**BP-2020-34260**  
Murphy Express  
Eubank Blvd. NE at Central Avenue  
Albuquerque, New Mexico  
PAE Job No. 11309

To Whom it May Concern:

Regarding the above referenced project, enclosed herewith are the following documents for review and approval.

1. Drainage Transportation Information Sheet
2. Two copies of the Site Grading Plan
3. PAE Check No. 21510 in the amount of \$50 for review fee

This information has also been submitted electronically to [PLNDRS@cabq.gov](mailto:PLNDRS@cabq.gov).

Please review the attached for approval at your earliest convenience.

If you have any questions or require additional information, please feel free to contact our office for assistance.


Yours very truly,

PAN AMERICAN ENGINEERS, LLC

Thomas C. David, Jr.

TCDJr/jmg  
Enclosures

21510

DATE	INVOICE NO.	COMMENT	AMOUNT	NET AMOUNT
09/02/2020	11309	Hydrology/DTIS Murphy Express Eubank @ Central		50.00
				
<b>DATE</b> 09/02/20		<b>VENDOR</b> City of Albuquerque	<b>TOTAL</b>	50.00



**PAN AMERICAN ENGINEERS, LLC**

1717 JACKSON STEET  
ALEXANDRIA, LOUISIANA 71301  
(318) 473-2100

RED RIVER BANK  
1412 CENTRE CT. STE. 101  
ALEXANDRIA, LA 71301

84-526  
652

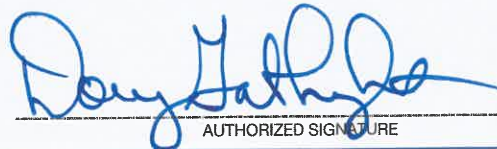
21510

**Fifty and no/100**

DATE	AMOUNT
09/02/20	21510 \$50.00

PAY  
TO THE  
ORDER  
OF

**CITY OF ALBUQUERQUE**  
**600 2ND STREET, NW**  
**SUITE 201**  
**ALBUQUERQUE NM 87102**

  
AUTHORIZED SIGNATURE



⑈021510⑈ ⑆065205264⑆ 107⑈543⑈1⑈



# City of Albuquerque

Planning Department  
Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 11/2018)

**Project Title:** Murphy Express (Eubank Blvd) Building Permit #: BP-2020-34260 Hydrology File #: \_\_\_\_\_  
DRB#: \_\_\_\_\_ EPC#: \_\_\_\_\_ Work Order#: \_\_\_\_\_  
Legal Description: Tract A-1-B of Bellamah's Central Addition  
City Address: 110 Eubank Blvd. NE Albuquerque 87123

**Applicant:** Pan American Engineers, LLC. Contact: Ron Bordelon  
Address: 1717 Jackson Street Alexandria, Louisiana 71301  
Phone#: (318) 473-2100 Fax#: (318) 473-2275 E-mail: ron@paealex.com  
**Owner:** Murphy Oil USA, Inc. Contact: Terry Rigdon  
Address: 200 Peach Street El Dorado, Arkansas 717301  
Phone#: (870) 866-7457 Fax#: N/A E-mail: terry.rigdon@murphyusa.com

**TYPE OF SUBMITTAL:** \_\_\_\_\_ PLAT (\_\_\_\_ # OF LOTS) \_\_\_\_\_ RESIDENCE  DRB SITE \_\_\_\_\_ ADMIN SITE  
IS THIS A RESUBMITTAL?: \_\_\_\_\_ Yes  No  
**DEPARTMENT:** \_\_\_\_\_ TRAFFIC/ TRANSPORTATION  HYDROLOGY/ DRAINAGE

Check all that Apply:

- TYPE OF SUBMITTAL:**
- \_\_\_\_\_ ENGINEER/ARCHITECT CERTIFICATION
  - \_\_\_\_\_ PAD CERTIFICATION
  - \_\_\_\_\_ CONCEPTUAL G & D PLAN
  - GRADING PLAN
  - \_\_\_\_\_ DRAINAGE MASTER PLAN
  - \_\_\_\_\_ DRAINAGE REPORT
  - \_\_\_\_\_ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
  - \_\_\_\_\_ ELEVATION CERTIFICATE
  - \_\_\_\_\_ CLOMR/LOMR
  - \_\_\_\_\_ TRAFFIC CIRCULATION LAYOUT (TCL)
  - \_\_\_\_\_ TRAFFIC IMPACT STUDY (TIS)
  - \_\_\_\_\_ OTHER (SPECIFY) \_\_\_\_\_
  - \_\_\_\_\_ PRE-DESIGN MEETING?

**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
- \_\_\_\_\_ FLOODPLAIN DEVELOPMENT PERMIT
- \_\_\_\_\_ OTHER (SPECIFY) \_\_\_\_\_

DATE SUBMITTED: 9-3-2020 By: Ron Bordelon

COA STAFF: \_\_\_\_\_

ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

FEE PAID: \_\_\_\_\_



PAN AMERICAN ENGINEERS

ALEXANDRIA • LOUISIANA  
318-473-2100 FAX 318-473-2275

Job No.

11309

Design by:

WDM

Date:

9/2/2020

Checked by:

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Murphy Express - Eubank @ Central  
Drainage Colr

### \* Assumptions:

- DPM §(6-2(A) Controls
- Zone 3
- 100 YR
- While a small portion of site drains towards Central Avenue, the majority of site drains towards Eubank Blvd. Furthermore, Central Avenue flows toward Eubank Blvd. Therefore the entire site will be considered as having one outfall, being Eubank Blvd.

### ① Existing Conditions:

Land Treatment:

$$C(\text{landscaped islands}) = 0.211 \text{ Ac.}$$

$$D(\text{pavement}) = 0.864 \text{ Ac}$$

$$Q_p = Q_{pc}Ac + Q_{pd}Ad$$

$$Q_p = 3.17 \text{ cfs/acre} * 0.211 \text{ Ac} + 4.49 \text{ cfs/ac} * 0.864 \text{ Ac} = \boxed{4.55 \text{ cfs}}$$



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Date:

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## ② PROPOSED CONDITIONS:

Land Treatment:

$$C(\text{landscaped areas}) = 0.243 \text{ AC}$$

$$X(\text{pavement}) = 0.832 \text{ AC}$$

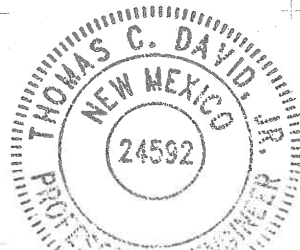
$$Q_p = 3.17 \text{ cfm/ac} * 0.243 \text{ ac} + 4.49 \text{ cfs/ac} * 0.832 \text{ ac} = 4.51 \text{ cfs}$$

## ③ Existing v.s. Proposed Peak Flow

$$\text{EXISTING } Q_p = 4.55 \text{ cfm}$$

$$\text{PROPOSED } Q_p = 4.51 \text{ cfs}$$

Proposed  $Q_p <$  Existing  $Q_p$ ; therefore, meets requirements.



9/3/2020  
*Thomas C. David, Jr.*





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318-473-2100 FAX 318-473-2275

Job No.

Design by:

Date:

Checked by:

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④ Stormwater Quality Volume Calculations:

Req'd SWQ: 0.26" \* Imp. Area of site  
(re-development)

$$= \frac{0.26'}{12} * 0.832 \text{ Acres} = 0.018 \text{ Ac-feet}$$
$$= \boxed{785.24 \text{ CF}}$$

$$\text{At } \$8/\text{CF} \Rightarrow \$8/\text{CF} * 785.24 \text{ CF} = \boxed{\$6,282}$$

## ARTICLE 6-2 HYDROLOGY

The primary method for hydrology calculations in the DPM since the update in 1993 has been the Arid-lands Hydrologic Model (AHYMO), and it continues to be the basis for hydrology calculations in this Article. Other methods described in this Article are calibrated to produce results close to the AHYMO method.

*Part 6-2(A) Procedure for 40-Acre and Smaller Basins* is calibrated to exactly match AHYMO. In 1993, AHYMO replaced a Rational Method that had been derived from the Soil Conservation Service (SCS) Curve Number method. One version of the SCS Curve Number method is being allowed with the DPM update 2020 because its results closely match AHYMO's results.

The methods in the 1993 DPM were based on precipitation data from the National Oceanic and Atmospheric Agency (NOAA) Atlas 2, which has been superseded by NOAA Atlas 14. Atlas 14 Volume 1, Version 1 was published in 2001; Volume 4 was published in 2006; and Version 5, the most current version, was published in 2011. Atlas 14 precipitation data can be accessed via the NOAA website: <https://hdsc.nws.noaa.gov/hdsc/pfds>. More revisions are expected as new data are collected. AHYMO-93 and AHYMO-97 used the precipitation distributions from NOAA Atlas 2. AHYMO-S4, released in 2009, uses precipitation distribution based on NOAA Atlas 14. The methods, graphs, and tables that follow will be used by City staff to review and evaluate development plans and drainage management plans, including 2 basic methods of analysis.

1. *Part 6-2(A)* describes a simplified procedure for smaller watersheds based on the Rational Method and initial abstraction/uniform infiltration precipitation losses. The procedure is applicable to watersheds up to 40 acres in size, and the procedure may be used for certain larger watersheds, with some limitations.
2. *Part 6-2(C)* describes 2-unit hydro graph procedures that are accomplished using computer programs. One method is the AHYMO method, and the other method is the SCS Curve Number method. The AHYMO-S4 program is used for the AHYMO method, and TR-20 and HEC-HMS are two of the programs that can be used for the SCS Curve Number method and the Atlas 14 precipitation distribution. These procedures are applicable for small and large watersheds.

*Part 6-2(B)* describes the computation of time of concentration, lag time, and time to peak that are used in *Part 6-2(A)* and *Part 6-2(C)*.

*Part 6-2(D)* contains a list of definitions of symbols used in this chapter and a bibliography.

### Part 6-2(A) Procedure for 40-Acre and Smaller Basins

A simplified procedure for projects with basins smaller than 40 acres has been developed based on initial abstraction/uniform infiltration precipitation losses and Rational Method procedures. For this procedure, the portion of Bernalillo County within City limits has been divided into 4 precipitation zones, as shown in *FIGURE 6.2.3*.

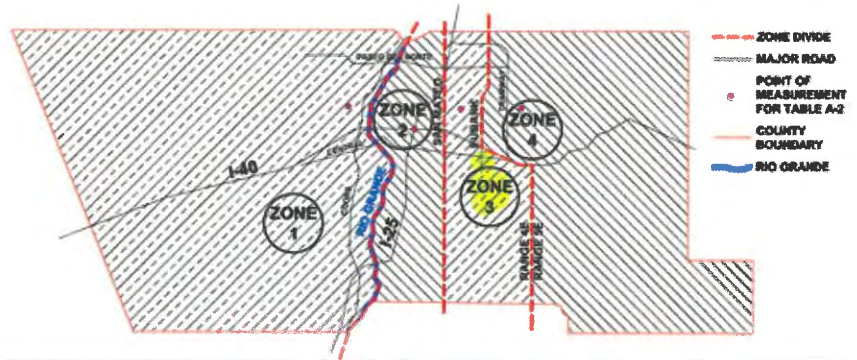


### Section 6-2(A)(1) Precipitation Zones

Albuquerque's 4 precipitation zones are indicated in [TABLE 6.2.7](#) and on [FIGURE 6.2.3](#), and the corresponding precipitation values are in [TABLE 6.2.8](#). When modeling the storm, the standard practice is to set the peak intensity 1.5 hours into the storm when using AHYMO losses and 12 hours into the storm when using the SCS Curve Number losses, which must use NOAA Atlas 14 precipitation distributions, must not smooth the distribution, and must not use the SCS precipitation distribution. The storm duration must be 24 hours, and the calculation increment should be set to 5 minutes for the distribution used with the SCS Curve Number method. The unit hydrograph time increment must be 0.01 hours or less. NOAA Atlas 14 can be used for several other frequency events, and it can be used to obtain a more precise precipitation depth for a particular location than the precipitation depths listed in [TABLE 6.2.8](#).

TABLE 6.2.7 Precipitation Zones	
Zone	Location
1	West of the Rio Grande
2	Between the Rio Grande and San Mateo
3	Between San Mateo and Eubank, North of Interstate 40 and between San Mateo and the East boundary of Range 4 East, South of Interstate 40
4	East of Eubank, North of Interstate 40 and East of the East boundary of Range 4 East, South of Interstate 40  Not including the Cibola National Forest

FIGURE 6.2.3 Precipitation Zones



**TABLE 6.2.8 Precipitation for Zones 1-4**

Partial Duration	500 year		100 year		10 year		2 year		
	Depth (in)	Intensity in/hr	Depth (in)	Intensity in/hr	Depth (in)	Intensity in/hr	Depth (in)	Intensity in/hr	
<b>ZONE 1</b>									
5	min.	0.701	8.41	0.538	6.46	0.335	4.02	0.207	2.48
10	min.	1.070	6.42	0.819	4.91	0.511	3.07	0.315	1.89
12	min.	-	5.96	-	4.58	-	2.85	-	1.76
15	min.	1.320	5.28	1.020	4.08	0.633	2.53	0.390	1.56
30	min.	1.780	3.56	1.370	2.74	0.852	1.70	0.525	1.05
60	min.	2.200	2.20	1.690	1.69	1.060	1.06	0.650	0.65
2	hr.	2.530	1.27	1.920	0.96	1.190	0.60	0.746	0.37
3	hr.	2.760	0.92	2.000	0.67	1.250	0.42	0.800	0.27
6	hr.	2.780	0.46	2.170	0.36	1.400	0.23	0.920	0.15
24	hr.	3.090	0.13	2.490	0.10	1.680	0.07	1.160	0.05
4	day	3.780	0.04	3.120	0.03	2.190	0.02	1.560	0.02
10	day	4.680	0.02	3.900	0.02	2.760	0.01	1.970	0.01
<b>Zone 2</b>									
5	min.	0.731	8.77	0.565	6.78	0.355	4.26	0.220	2.64
10	min.	1.110	6.66	0.860	5.16	0.540	3.24	0.335	2.01
12	min.	-	6.20	-	4.81	-	3.01	-	1.87
15	min.	1.380	5.52	1.070	4.28	0.669	2.68	0.415	1.66
30	min.	1.860	3.72	1.440	2.88	0.901	1.80	0.559	1.12
60	min.	2.300	2.30	1.780	1.78	1.120	1.12	0.692	0.69
2	hr.	2.660	1.33	2.030	1.02	1.260	0.63	0.797	0.40
3	hr.	2.730	0.91	2.100	0.70	1.320	0.44	0.844	0.28
6	hr.	2.980	0.50	2.290	0.38	1.480	0.25	0.977	0.16

### Section 6-2(A)(2) Land Treatments

All land areas are described by one of four basic land treatments or by a combination of the four land treatments. Land treatments are provided in [TABLE 6.2.9](#).

Treatment	Land Condition
A (CN=77)	Soil uncompacted by human activity with 0 to 10% slopes. Native grasses, weeds, and shrubs in typical densities with minimal disturbance to grading, ground cover, and infiltration capacity.
B (CN=79)	Irrigated lawns, parks and golf courses with 0 to 10% slopes. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes greater than 10% and less than 20%.
C (CN=86)	Soil compacted by human activity. Minimal vegetation. Unpaved parking, roads, trails. Most vacant lots. Gravel or rock (desert landscaping). Irrigated lawns and parks with slopes greater than 10%. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes at 20% or greater. Native grass, weed and shrub areas with clay or clay loam soils, and other soils of very low permeability as classified by SCS Hydrologic Soil Group D.
D (CN=98)	Impervious areas, pavement, and roofs. Ponds, channels, and wetlands, even if seasonally dry.

*Most watersheds contain a mix of land treatments. To determine proportional treatments, measure respective subareas. For large developed basins, the areal percentages in [TABLE 6.2.10](#) may be used instead of specific measurement for treatment D.*

Land Use	Percent
Commercial*	90
Single Family Residential N=units/acre, N≤6	$7 * [(N^2) + (5N)]^{0.5}$
Multiple Unit Residential	
Detached*	60
Attached*	70
Industrial	
Light*	70
Heavy*	80
Parks, Cemeteries	7
Playgrounds	13
Schools	50
Collector & Arterial Streets	90

*\*Includes local streets*

[TABLE 6.2.10](#) does not provide areal percentages for land treatments A, B, and C. Use of [TABLE 6.2.10](#) will require additional analysis to determine the appropriate areal percentages of these land treatments.

### Section 6-2(A)(5) Peak Discharge Rate for Small Watersheds

The peak discharge rate is given in [TABLE 6.2.14](#) for small watersheds, less than or equal to 40 acres, where the time of concentration is assumed to be 12 minutes.

TABLE 6.2.14 Peak Discharge				
Zone	Land Treatment			
	A	B	C	D
<b>100-YEAR PEAK DISCHARGE (CSF/ACRE)</b>				
1	1.54	2.16	2.87	4.12
2	1.71	2.36	3.05	4.34
3	1.84	2.49	3.17	4.49
4	2.09	2.73	3.41	4.78
<b>2-YEAR PEAK DISCHARGE (CSF/ACRE)</b>				
1	0.00	0.02	0.50	1.56
2	0.00	0.08	0.61	1.66
3	0.00	0.15	0.71	1.73
4	0.00	0.28	0.87	1.88
<b>10-YEAR PEAK DISCHARGE (CSF/ACRE)</b>				
1	0.30	0.81	1.46	2.57
2	0.41	0.95	1.59	2.71
3	0.51	1.07	1.69	2.81
4	0.70	1.28	1.89	3.04

To determine the peak rate of discharge,

1. Determine the area in each treatment,  $A_A, A_B, A_C, A_D$
2. Multiply the peak rate for each treatment by the respective areas and sum to compute the total  $Q_p$ .

**EQUATION 6.6** 
$$\text{Total } Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$$

#### EXAMPLE 3

Find 100-year  $Q_p$  for 14 acres in zone 1. The four land treatments are: 3 acres in treatment A, 5 acres in treatment B, 2 acres in treatment C and 4 acres in treatment D.

$$\text{Total } Q_p = (1.54 * 3) + (2.16 * 5) + (2.87 * 2) + (4.12 * 4) = 37.64 \text{ cfs}$$

## ARTICLE 6-12 STORMWATER QUALITY AND LOW-IMPACT DEVELOPMENT

All new development and redevelopment projects shall apply best Management Practices (BMPs) to manage the stormwater quality volume (SWQV) by management on-site, or payment-in-lieu, or private off-site mitigation. BMPs remove pollutants from SWQV by first capturing the volume of the area draining to them, then either infiltrate the volume into the soil, or reuse the volume for irrigation, or treat the volume by extended filtration, or some combination thereof. Where practical, stormwater volumes in excess of the SWQV should bypass the BMP rather than being allowed to pass thru the BMP to prevent pollutants from being washed downstream. The BMP bypass shall be designed for the peak 100-year flow rate.

The stormwater quality volume new development sites are required to manage is the runoff from a 0.62 inch storm. The stormwater quality volume redevelopment sites are required to manage is the runoff from a 0.48 inch storm. A site is defined as a redevelopment site if the land was occupied by an artificial surface or by any structure intended for human occupation, including structures intended for commercial enterprise.

The methodology used in the U.S. Environmental Protection Agency (EPA) Report, [Estimating Predevelopment Hydrology in the Middle Rio Grande Watershed](#), New Mexico, TetraTech, April 2014, EPA Publication Number 832-R-14-007, yields runoff values of 0.42 inches for the 90th percentile storm and using the same methodology but generated from HEC-HMS, 0.26 inches for the 80th percentile storm.

To calculate the required SWQV, multiply the impervious area draining to the BMP by 0.42 inches for new development sites and 0.26 inches for redevelopment sites. The calculations of both the required and the provided volume of each BMP must be shown on the Grading and Drainage Plan. Each BMP should be labeled on the Grading and Drainage Plan with the required SWQV and associated water surface elevation and the 100-year water surface elevation. Landscaping of surface BMPs is also required to be noted on the Grading and Drainage Plan.

For single-family subdivisions, stormwater quality ponds will not be allowed on individual lots. Instead, a centralized stormwater quality pond for the entire subdivision must be constructed for all impervious areas to include the houses, patios, sidewalks, driveways, and public or private streets, or a payment-in-lieu can be paid. The following equation can be used to determine the amount of impervious area for single-family subdivisions:

$$\text{EQUATION 6.62 Impervious percentage} = 7 \cdot \sqrt{(N \cdot N)} = (5 \cdot N)$$

**where:**

**N** = units/acre



- vii. A waiver to State water law or acquisition of water rights would be required in order to implement management on site.
2. The basis for requesting payment-in-lieu or private off-site mitigation is to be clearly demonstrated on the drainage plan.

### **Section 6-12(C)(1) Payment-in-lieu**

In new development and redevelopment cases where the SWQV cannot be met through either management on-site or private off-site mitigation and that qualify for a waiver per *Part 6-12(C)*, payment-in-lieu is required for the difference between the amount of SWQV met and the total required, except in two areas. Payment in lieu that would be otherwise owed is waived for new development or redevelopment in either of the following areas: (1) Metropolitan Redevelopment Areas or (2) within City limits as of 1959.

Metropolitan Redevelopment Areas are shown on the City's Advanced Map Viewer, which is available here: <https://www.cabq.gov/gis/advanced-map-viewer>.

If a site does not qualify for a waiver of management on-site, then the developer may elect payment-in-lieu of providing the required management on-site.

The amount of payment-in-lieu is \$6/cubic foot of impervious area for detached single-family residential projects and \$8/cubic foot of impervious for all other projects.

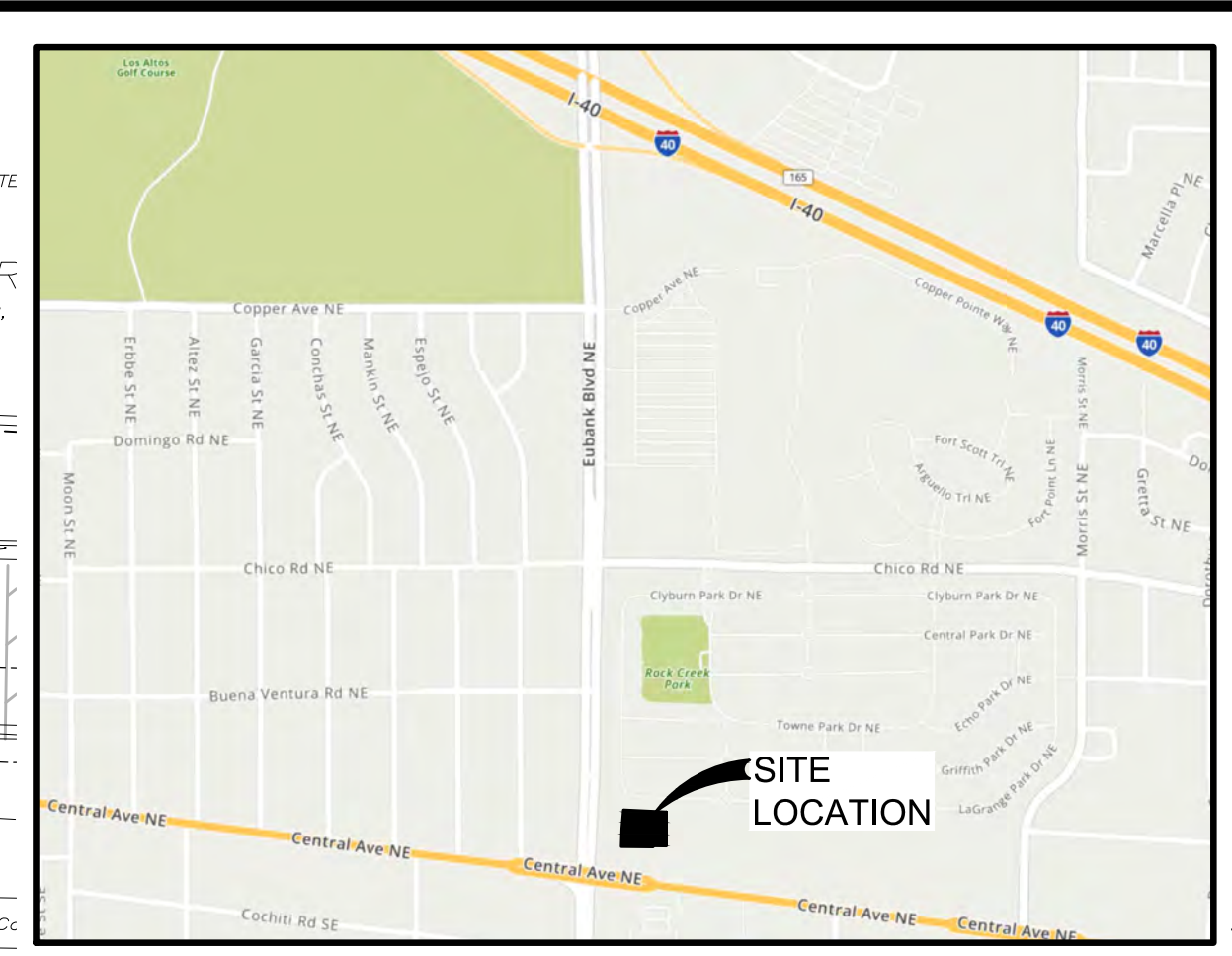
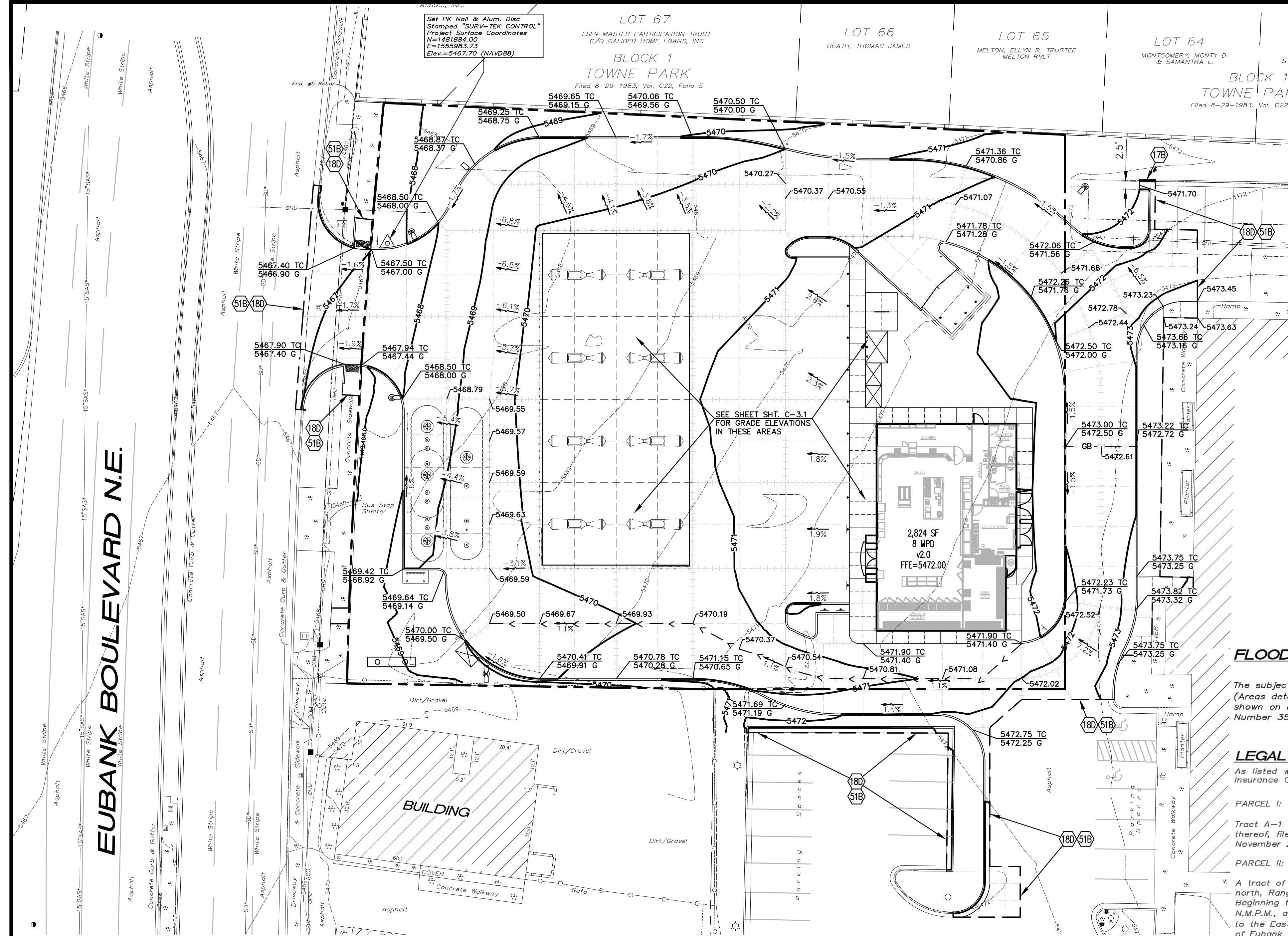
The total required SWQV calculation must be included on the Grading and Drainage Plan along with calculation of the portion of the SWQV for which payment-in-lieu is requested. Payment shall be made at the following steps in the City's review/decision process:

1. Multi-family Development: prior to the issuance of a Building Permit.
2. Commercial Development: prior to the issuance of a Building Permit.
3. Single-family Subdivision: prior to recording the Final Plat and prior to issuance of a work order.

### **Section 6-12(C)(2) Annual Adjustment of Fee**

The fees shall be adjusted upward on every July 1 by multiplying the rates in effect on the prior July 1 by 100% of the percentage increase in the Consumer Price Index (CPI) for the 12-month period ending the preceding April. The fees shall remain the same in the event the CPI indicates a decrease. If the index ceases to be published on a monthly basis, the adjustment shall be based on the CPI for the most recent 12-month period. The CPI to be used shall be the Consumer Price Index - All Urban Consumers as published by the U.S. Department of Labor for the Albuquerque Metropolitan area.





BM  
SET PK NAIL & ALUMINUM DISK  
ELEVATION=5467.70

BM  
SET PK NAIL & ALUMINUM DISK  
ELEVATION=5468.89

MURPHY OIL USA, INC. HAS ELECTED  
TO NOT PROVIDE THE REQUIRED  
"STORMWATER QUALITY VOLUME" OF  
785.24 CUBIC FEET BUT INSTEAD WILL  
PAY THE "PAYMENT IN LIEU" OF \$6,282.

**FLOOD ZONE DETERMINATION**

The subject properties (as shown hereon) appear to lie within "Zone X"  
(Areas determined to be outside the 0.2% annual chance floodplain) as  
shown on National Flood Insurance Program Flood Insurance Rate Map  
Number 35001C0358H, Map Revised August 16, 2012.

**LEGAL DESCRIPTION**

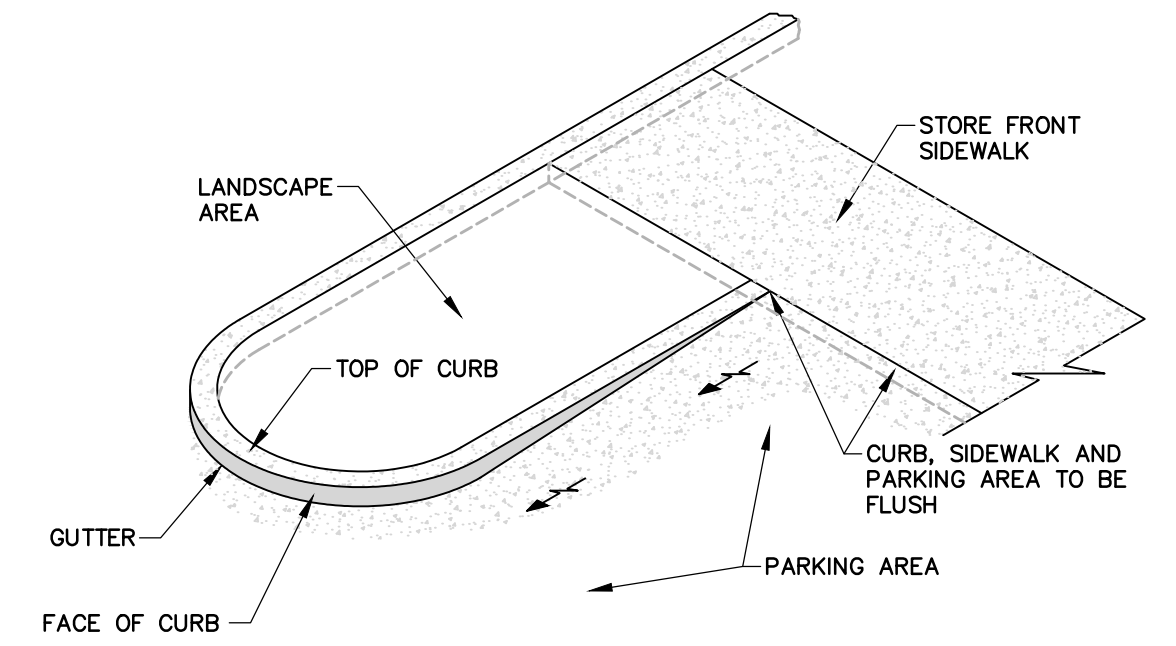
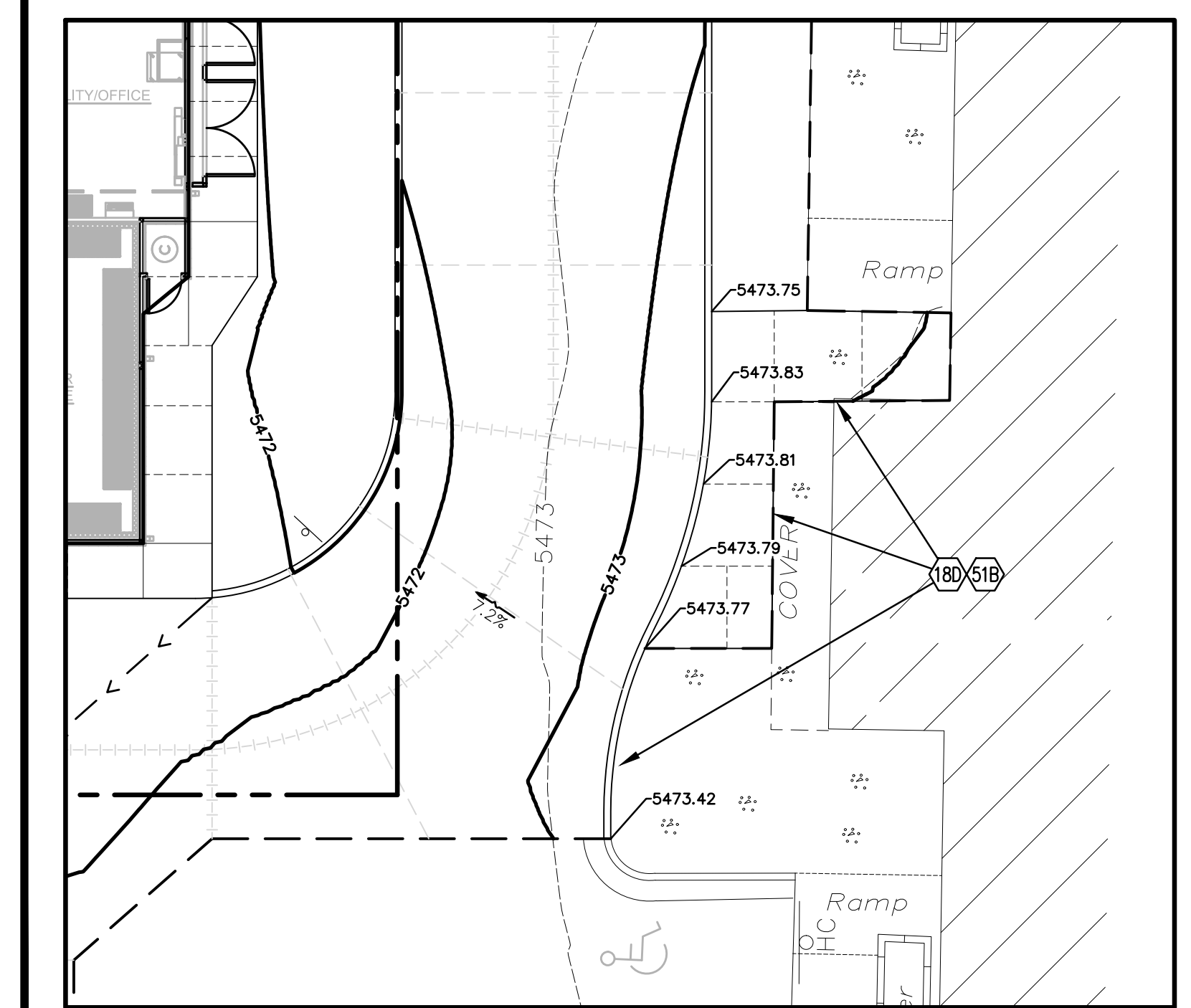
As listed within the Title Commitment prepared for this property by Fidelity National Title  
Insurance Company, Commitment SP000065171, commitment date February 5, 2020.

**PARCEL I:**

Tract A-1 of Bellamah's Central Addition, as the same is shown and designated on the Plat  
thereof, filed in the office of the County Clerk of Bernalillo County, New Mexico, on  
November 22, 2005, in Plat Book 2005C, folio 376.

**PARCEL II:**

A tract of land comprising a portion of the Northwest quarter of Section 28, Township 10  
north, Range 4 East, N.M.P.M., described by survey as follows:  
Beginning for a tie at the Northwest corner of Section 28, Township 10 North, Range 4 East,  
N.M.P.M., and running thence S87° 38' E along the north line of said Section 28, 30.01 feet  
to the Easterly line of Eubank Boulevard, N.E.; thence S 34° 50' W, along the Easterly line  
of Eubank Boulevard, N.E., 183.12 feet to the Northwest corner and beginning point of the  
parcel herein described; thence S 89° 25' 10" E, at right angle from said Easterly line of  
Eubank Boulevard, N.E., 149.92 feet; thence S 00° 34' 50" W, parallel with said easterly line  
of Eubank Boulevard, N.E., 117.79 feet; thence N 82° 39' 10" W, along the Northerly line of  
U.S. Highway 68 (Central Ave., N.E.), 150.97 feet; thence N00° 34' 50" E along the Easterly  
line of Eubank Boulevard, N.E., 100.00 feet to the Northwest corner and beginning point of  
the parcel herein described.



**EXISTING**

⊙	Storm Drain Manhole	⊕	Hydrant
⊙	Sanitary Sewer Manhole	⊕	Cable Pedestal
SAS	Sanitary Sewer Line	⊕	Electric Pedestal
SD	Storm Drain Line	⊕	Utility Vault
⊕	Storm Drain Inlet	⊕	Traffic Box
E	Underground Electric Line	⊕	Telephone Pedestal
COM	Underground Communications Line	⊕	Utility Box
G	Underground Gas Line	⊕	Fiber Optic Box
W	Underground Water Line	⊕	Light Pole
⊕	Sanitary Sewer Clean-out	⊕	Bollard
⊕	Water Meter	⊕	Concrete Symbol
⊕	Water Valve	⊕	Raised Truncated Dome Mat
		⊕	Control Point

**PROPOSED**

---	BOUNDARY LINE
---	GRADE BREAK
---	SWALE/FLOW DIRECTION
---	CONTOUR ELEVATIONS
XX.XX	SPOT ELEVATIONS:
XX.XX TC	= TOP OF CURB
XX.XX G	= GUTTER
XX.XX TI	= TOP OF ISLAND
XX.XX	= FINISHED GRADE
---	DRAINAGE SLOPE AND DIRECTION
---	CONSTRUCTION FENCE (SEE DETAIL SHEETS)
---	PROPOSED STORM PIPE

**GENERAL GRADING NOTES**

- PRIOR TO INSTALLATION OF STORM OR SANITARY SEWER, WATER MAIN, OR ANY OTHER UTILITIES, THE CONTRACTOR SHALL EXCAVATE, VERIFY, AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSING AND INFORM THE OWNER AND THE ENGINEER OF ANY CONFLICTS OR REQUIRED DEVIATIONS FROM THE PLAN PRIOR TO CONSTRUCTION. NOTIFICATION SHALL BE MADE A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION, THE ENGINEER AND ITS CLIENTS SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.
- ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH AND GROUND COVER ESTABLISHED. ANY RELOCATED TREES SHALL BE MAINTAINED UNTIL SUCH POINT AS TREE IS RE-ESTABLISHED. ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE PROJECT SHALL BE STABILIZE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES.
- REFER TO GEOTECHNICAL REPORT FOR SPECIFIC SITE SOIL CONDITIONS AND CONSIDERATIONS.
- CONTRACTOR SHALL COMPLY COMPLETELY WITH THE LATEST STANDARDS OF OSHA DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL USE SUPPORT SYSTEMS, SLOPING, BENCHING AND OTHER MEANS OF PROTECTION. THIS IS TO INCLUDE, BUT NOT LIMITED TO ACCESS AND EGRESS FROM ALL EXCAVATION AND TRENCHING. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH PERFORMANCE CRITERIA AS REQUIRED BY OSHA.
- ALL HDPE PIPE IN SANDY OR HIGHLY EROSION, OR EXPANSIVE SOILS SHALL BE N-12 WT IB (OR EQUIVALENT WITH SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS. 4"-48" PIPE SHALL MEET ASTM F2648 (OR AASHTO M252 TYPE S) REQUIREMENTS AND SHALL HAVE A MINIMUM MANNINGS "n" DESIGN VALUE OF 0.012. JOINTS SHALL BE WATERTIGHT ACCORDING TO ASTM D3212 (OR AASHTO M252, M294) REQUIREMENTS. GASKETS SHALL MEET THE REQUIREMENTS OF ASTM F477. JOINT PERFORMANCE, FITTINGS, MATERIAL PROPERTIES AND INSTALLATION SHALL BE DONE PER THE COMPLETE ADS SPECIFICATION FOR ADS N-12 WE IB PIPE FOUND IN THE ADS, INC. DRAINAGE HANDBOOK, LATEST EDITION.
- ALL OTHER HDPE PIPE SHALL BE N-12 ST IB (OR EQUIVALENT WITH SMOOTH INTERIOR AND ANNULAR EXTERIOR CORRUGATIONS. 4"-48" SHALL MEET ASTM F2648 (OR AASHTO M252 TYPE S OR SP) REQUIREMENTS AND SHALL HAVE A MINIMUM MANNINGS "n" DESIGN VALUE OF 0.012. JOINT PERFORMANCE, FITTINGS, MATERIAL PROPERTIES AND INSTALLATION SHALL BE DONE PER THE COMPLETE ADS SPECIFICATIONS FOR ADS N-12 ST IB PIPE FOUND IN THE ADS, INC. HAND BOOK, LATEST EDITION.
- IF USING HDPE PERFORATED PIPE FOR SUBSURFACE DRAINAGE AND DETENTION/RETENTION SYSTEMS, THE PERFORATION SHALL MEET THE AASHTO CLASS II STANDARD PERFORATION PATTERN REQUIREMENTS.
- ALL STORM SEWER LINES 18"-54" DIAMETER ARE TO BE REINFORCED CONCRETE PIPE ACCORDING TO ASTM C-76 TYPE III UNLESS OTHERWISE INDICATED.
- CORRUGATED METAL PIPE, WHERE SPECIFICALLY SPECIFIED ON PLAN, SHALL BE TYPE II OF AASHTO M 36 GALVANIZED WITH TYPE 3 JOINTS.
- CONTRACTOR SHALL ESTABLISH GRADES OF FINISH PAVEMENT TO ENSURE PROPER (POSITIVE) DRAINAGE AND PREVENT PONDING OF WATER, ESPECIALLY IN PEDESTRIAN WALKWAYS. UNPAVED AREAS OF SITE SHALL ALSO BE GRADED FOR POSITIVE DRAINAGE. CONSULT ENGINEER SHOULD THEIR BE CONFLICTS WITH CRITICAL GRADES SHOWN HEREON.

**GRADING NOTES**

- 17B CONCRETE FLUME
- 18B MATCH EXISTING PAVEMENT ELEVATIONS
- 51B LIMITS OF SAWCUT AND PAVEMENT REMOVAL

**SHEET NO. C-3**

THOMAS C. DAVID JR.  
NEW MEXICO  
24592  
PROFESSIONAL ENGINEER  
8/19/20  
Amos C. Blum Jr.

**GRADING PLAN**  
MURPHY EXPRESS  
110 EUBANK BOULEVARD N.E.  
ALBUQUERQUE NEW MEXICO

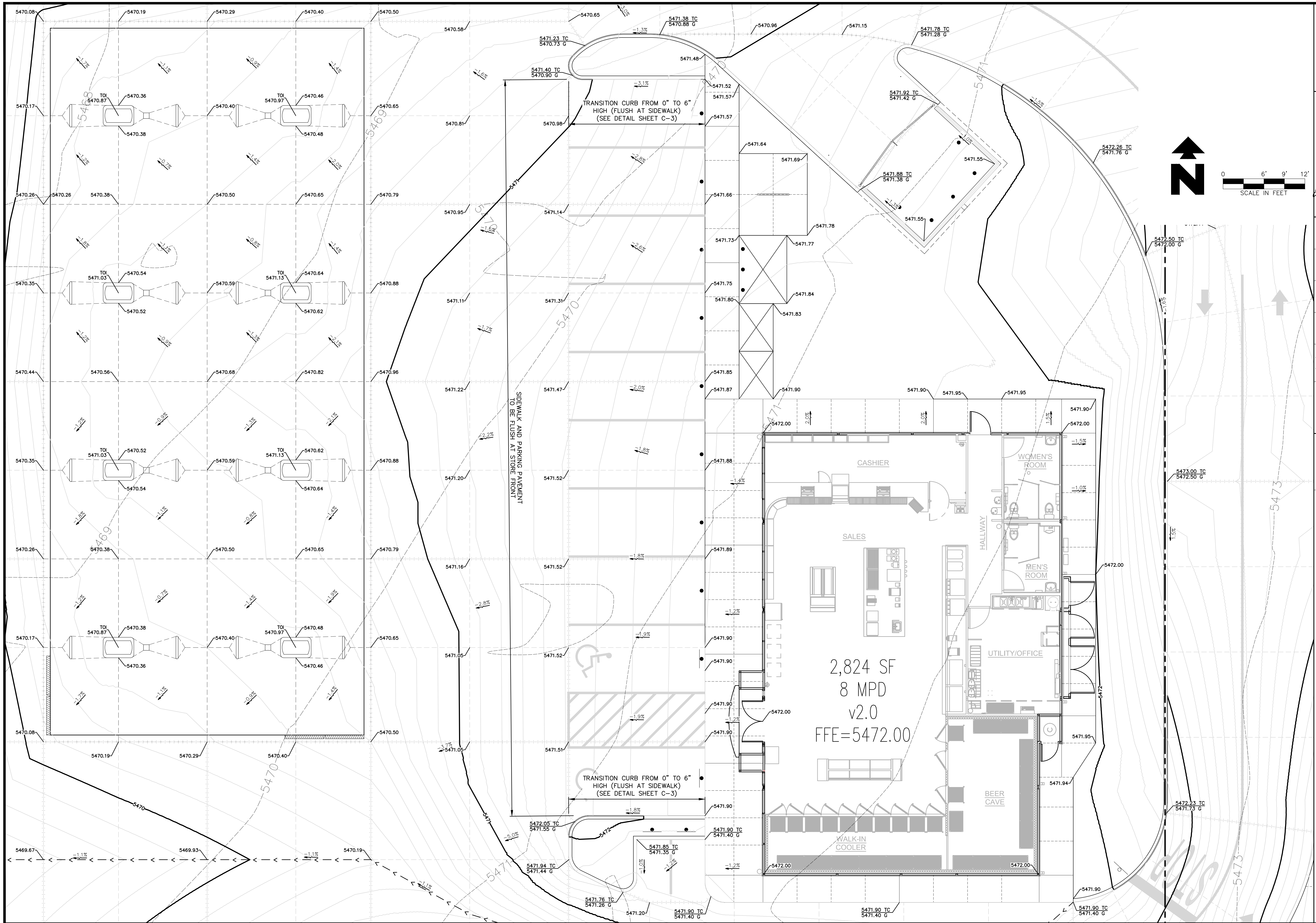
PAN AMERICAN ENGINEERS, LLC  
1717 JACKSON STREET  
ALEXANDRIA, LA. 71301  
(504) 475-9100  
CONTACT: RON BORDOLON

**MURPHY OIL USA, INC.**  
200 PEACH STREET  
EL DORADO, AR 71730

**MURPHY USA**

PAE JOB NO. 11309  
REV-1  
DATE 8/31/20  
TCD PRN  
RDB PM  
JNS DES  
JNS DRW



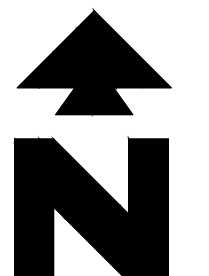


TRANSITION CURB FROM 0" TO 6" HIGH (FLUSH AT SIDEWALK) (SEE DETAIL SHEET C-3)

SIDEWALK AND PARKING PAVEMENT TO BE FLUSH AT STORE FRONT

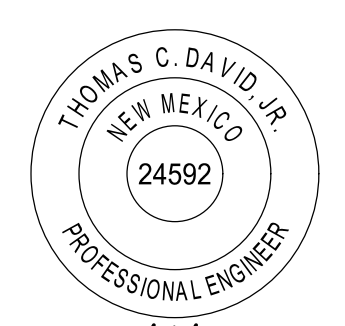
2,824 SF  
8 MPD  
v2.0  
FFE=5472.00

TRANSITION CURB FROM 0" TO 6" HIGH (FLUSH AT SIDEWALK) (SEE DETAIL SHEET C-3)



SHEET NO.

C-3.1



8/19/20  
Thomas C. David, Jr.

ENLARGED GRADING PLAN  
MURPHY EXPRESS  
110 EUBANK BOULEVARD N.E.  
ALBUQUERQUE NEW MEXICO

PAN AMERICAN ENGINEERS, LLC  
1717 JACKSON STREET  
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MURPHY USA

REV	DATE	TCD	PRN	PM	DES	DRW
REV-1	8/31/20					

PAE JOB NO. 11309