## CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director



October 3, 2018

Robert Fierro, P.E. Fierro & Company 5508 Costa Uerde Rd. NW Albuquerque, NM, 87120

**RE:** Yale Retail & Apartments

416 Yale Blvd SE

Grading and Drainage Plan Engineer's Stamp Date: 09/26/18

**Hydrology File: K16D011** 

Dear Mr. Fierro:

PO Box 1293 Based upon the information provided in your resubmittal received 09/27/2018, the Grading and

Drainage Plan is approved for Building Permit and SO-19 Permit.

Albuquerque 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.

NM 87103

Renée C. Brissette

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

Sincerely,

www.cabq.gov

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

Planning Department



COA STAFF:

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

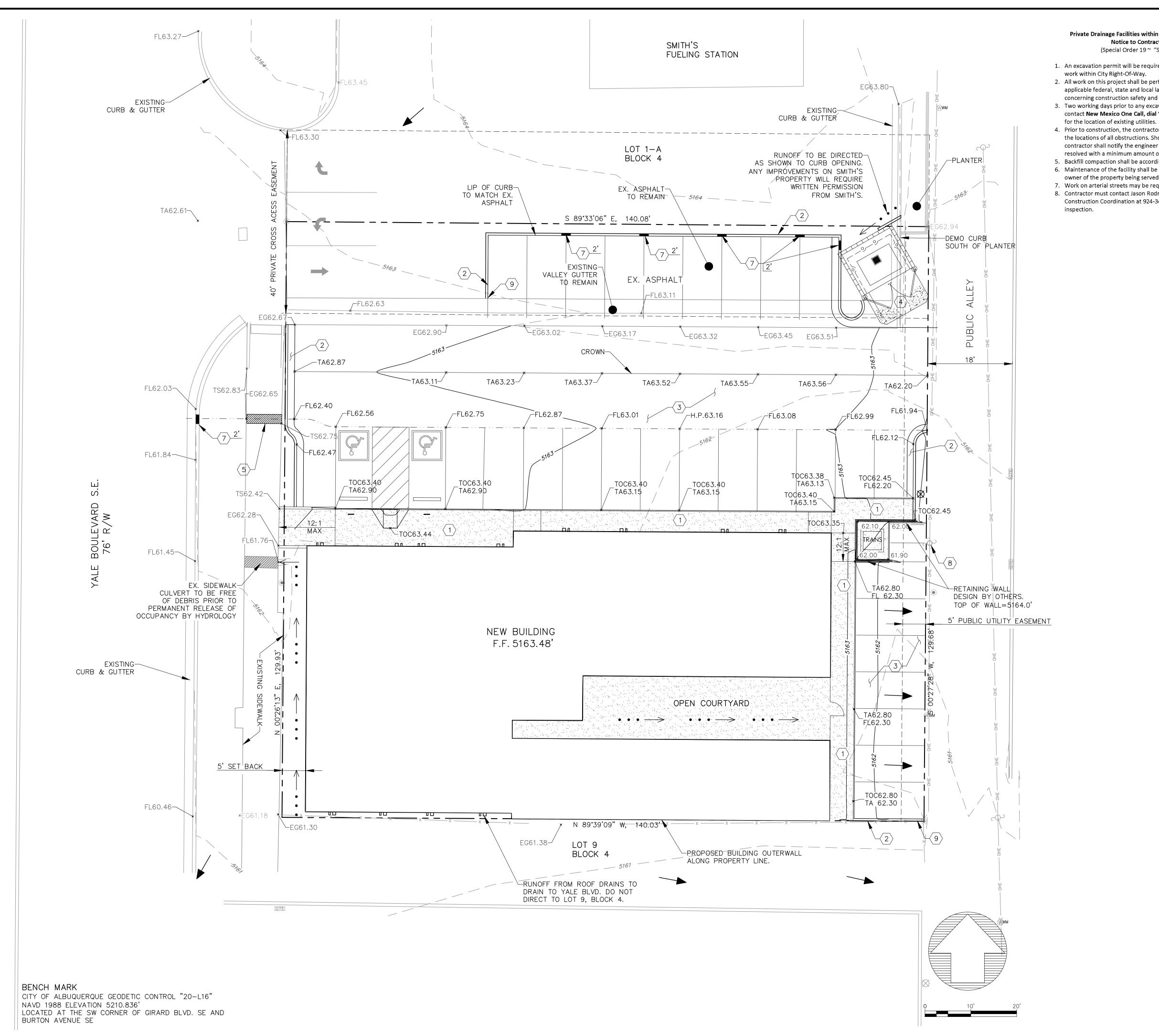
# City of Albuquerque

### Planning Department

#### Development & Building Services Division

#### DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title:		Building Permit #:	City Drainage #:		
PPP "			Work Order#:		
Legal Description:					
City Address:					
Engineering Firm:		Cont	act:		
Address:					
Phone#:	Fax#:	E-ma	il:		
Owner:		Cont	act:		
Address:					
Phone#:	Fax#:	E-ma	il:		
Architect:		Cont	act:		
Address:					
Phone#:	Fax#:	E-ma	il:		
Other Contact:		Cont	act:		
Address:					
Phone#:	Fax#:		il:		
Check all that Apply:					
DEPARTMENT:		CHECK TYPE OF APPR	OVAL/ACCEPTANCE SOUGHT:		
HYDROLOGY/ DRAINAGE TRAFFIC/ TRANSPORTATION		BUILDING PERMIT	BUILDING PERMIT APPROVAL		
MS4/ EROSION & SEDIMENT CONTROL		CERTIFICATE OF OCCUPANCY			
TYPE OF SUBMITTAL:		PRELIMINARY PL	AT APPROVAL		
ENGINEER/ ARCHITECT CERTIFI	CATION	SITE PLAN FOR SUB'D APPROVAL			
			LDG. PERMIT APPROVAL		
CONCEPTUAL G & D PLAN		FINAL PLAT APPROVAL			
GRADING PLAN			SIA/ RELEASE OF FINANCIAL GUARANTEE		
DRAINAGE MASTER PLAN		SIA/ RELEASE OF	FINANCIAL GUARANTEE		
DRAINAGE REPORT		FOUNDATION PE	RMIT APPROVAL		
DRAINAGE REPORT CLOMR/LOMR		FOUNDATION PEI	RMIT APPROVAL		
		FOUNDATION PEI GRADING PERMIT SO-19 APPROVAL	RMIT APPROVAL APPROVAL		
	T (TCL)	FOUNDATION PEI GRADING PERMIT SO-19 APPROVAL PAVING PERMIT	RMIT APPROVAL APPROVAL APPROVAL		
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#### 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
- 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]
- 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 may be required on a 24-hour basis. 8. Contractor must contact Jason Rodriguez at 235-8016 and Construction Coordination at 924-3416 to schedule an

**GENERAL GRADING NOTES:** 

1. THIS PLAN RECOMMENDS POSITIVE DRAINAGE AWAY FROM ALL STRUCTURES TO PROHIBIT PONDING OF RUNOFF WHICH MAY CAUSE STRUCTURAL SETTLEMENT. FUTURE ALTERATION OF GRADES ADJACENT TO THE PROPOSED STRUCTURES IS NOT RECOMMENDED.

2. PERFORM GRADING AND EXCAVATION WORK IN COMPLIANCE WITH APPLICABLE SPECIFICATIONS, REQUIREMENTS, CODES AND ORDINANCES OF ALBUQUERQUE, NEW MEXICO.

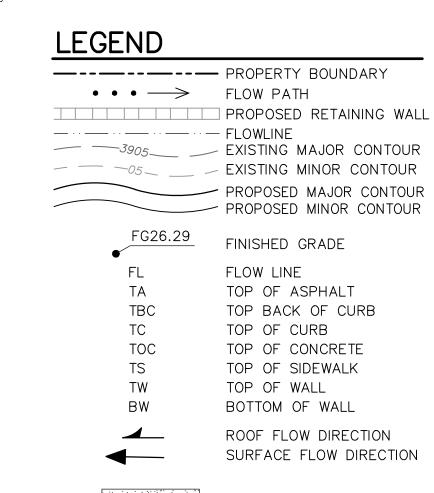
3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISPOSAL OF OR OBTAINING EXCESS CUT OR FILL MATERIAL REQUIRED FOR FINAL GRADE.

4. CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WITH NEW MEXICO ONE CALL PRIOR EXCAVATION.

5. DO NOT DEPRESS LANDSCAPING WITHIN 15-FEET FROM BUILDING FOUNDATION.

#### **KEYED NOTES:**

- $\langle 1 \rangle$  CONSTRUCT TURNDOWN SIDEWALK PER DETAIL E7/C-3.
- $\langle 2 \rangle$  CONSTRUCT CURB & GUTTER PER DETAIL E1/C-3.
- $\langle 3 \rangle$  CONSTRUCT ASPHALT PAVEMENT PER DETAIL C1/C-3.
- $\langle 4 \rangle$  CONSTRUCT CONCRETE PER DETAIL G7/C-3.
- 5 CONSTRUCT 2-FT WIDE SIDEWALK CULVERT WITH
- STEEL PLAT TOP PER COA STD. DWG. 2236.
- $\overline{\left\langle 6\right\rangle }$  OPTIONAL: CONSTRUCT FRENCH DRAIN DESIGNED BY OTHERS.
- $\langle 7 \rangle$  CONSTRUCT CURB BLOCK OUT FOR SURFACE DRAINAGE.
- $\langle 8 \rangle$  EX. POWER POLE.
- $\overline{\left\langle 9 \right\rangle}$  Transition curb height from 6" to 0" in 2.0'.



NEW SIDEWALK

FIRST FLUSH PONDING LIMITS

TMENTS
RD SE, ALE 416 LBU(

PROJECT NO: DESIGNED BY: DRAWN BY: CHECKED BY:

> GRADING PLAN

SHEET TITLE

JUNE 2018

SHEET NO: **C-1** 



MAP NO. 35001C035

Peak Rate of Discharge

The proposed site is located at 416 Yale Boulevard, Albuquerque, NM. The development will include a

reports were found for the site. The purpose of this Grading & Drainage Plan is to 1) provide hydrologic

and hydraulic analysis of the existing and proposed condition, 2) satisfy the first flush requirement, and

Hydrologic procedures presented in the Hydrology Section of the DMP, Section 22.2, revised April 7,

Prior to 2012 the site contained a commercial building with an approximate footprint of 3,700 sq.ft. The site was fully developed and the impervious area being over 98%. In 2012 the site was demolished and

vacated with the only improvements being within the 40-foot access easement. Hydrology analysis

Başin 101 is within the Southern 20 feet of the 40-foot access easement. Offsite runoff from Lot 1-A

sidewalk culvert on Yale Boulevard. Runoff from Basin 103 surface drains West to the Public Alley. The

The redeveloped site will contain a 6,100 sq.ft. retail and apartment building. The proposed drainage

The new improvements in Basin 200 will not affect the existing drainage. Minimal asphalt will be sawcut

and removed to build the Curb & Gutter, trash enclosure, and transformer. The Curb & Gutter will have

Basin 201 will discharge to Yale Boulevard. The Southern portion of the retail building's roof will direct

curb openings to allow offsite runoff to continue draining to the existing 6-foot wide valley gutter.

gutters to Yale Boulevard. Basin 202 will discharge to the Public Alley. The public Alley drops in

pattern is similar to the existing and will free discharge to Yale Boulevard and the Public Alley.

drains to the Valley Gutter as illustrated on Sheet C-2. Runoff from Basin 102 outlets through the

under the existing condition is based on the developed site prior to 2012.

existing condition free discharged to Yale Boulevard and the Public Alley.

elevation from North to South and runoff will drain to Garfied Rd.

certification. This drainage plan seeks approval for building permit.

retail and apartment building with a combined footprint of approximately 6,100 sq.ft. Access will be

obtained from Yale Boulevard through a shared Access Easement with Lot 1-A. No prior drainage

Basin 102

Area of Treatment A = 0.000

Area of Treatment B = 0.00 ft<sup>2</sup>

Area of Treatment C = 0.00 ft<sup>2</sup>

Area of Treatment D =  $3222.00 \text{ ft}^2$ 

Volumetric Flow

Peak Rate of Discharge

Introduction

Methodology

1993 were followed.

Existing Condition

 $Q_{100YR-6HR} = 0.74 \text{ CFS}$ 

 $V_{100YR-6HR} = 0.028 AC-FT$ 

3) seek building approval.

Volume (24hr) =

Total Area =  $3222.00 \text{ ft}^2$ 

Weighted E = 2.120 inches

Volume (4days) = 0.019 acre-ft

Volume (10days) = 0.023 acre-ft

0.000 ac

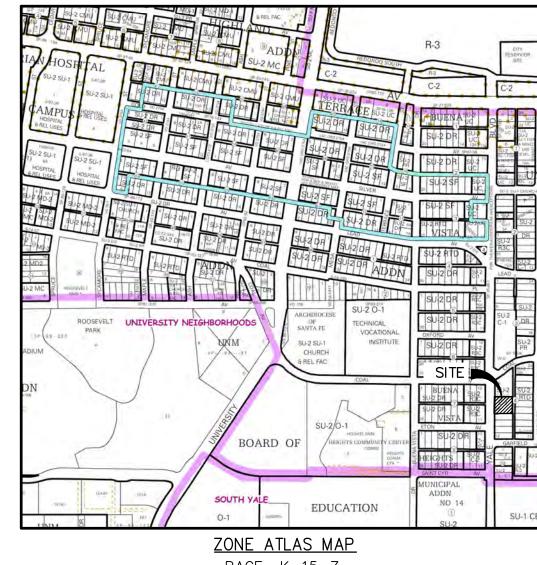
0.000 ac

0.074 ac

0.074 ac

0.016 acre-ft

sin 102				Basin 103			
Area of Treatment A	=	0.000	ft <sup>2</sup>	Area of Treatment A	=	0.000	ft <sup>2</sup>
		0	ac			0	ac
Area of Treatment B	=	331.00	ft <sup>2</sup>	Area of Treatment B	=	0.00	ft <sup>2</sup>
		0.008	ac			0.000	ac
Area of Treatment C	=	192.00	ft <sup>2</sup>	Area of Treatment C	=	0.00	ft <sup>2</sup>
		0.004	ac			0.000	ac
Area of Treatment D	=	9329.00	ft <sup>2</sup>	Area of Treatment D	=	5106.00	ft <sup>2</sup>
		0.214	ac			0.117	ac
Total Area	=	9852.00	ft <sup>2</sup>	Total Area	=	5106.00	ft <sup>2</sup>
		0.226	ac			0.117	ac
Volumetric Flow				Volumetric Flow			
volumetric riow				voidinetric i low			
Weighted E	=	2.056	inches	Weighted E	=	2.120	inches
Volume (6hr)	=	0.039	acre-ft	Volume (6hr)	=	0.021	acre-f
Volume (24hr)	=	0.046	acre-ft	Volume (24hr)	=	0.025	acre-f
Volume (4days)	=	0.056	acre-ft	Volume (4days)	=	0.030	acre-f
Volume (10days)	=	0.067	acre-ft	Volume (10days)	=	0.036	acre-f
ak Rate of Discharge				Peak Rate of Discharge			
Q <sub>100</sub>	=	1.038	cfs	Q <sub>100</sub>	=	0.551	cfs



ZONE	ATL	.AS	MAP
PAGE	K	-15	-Z

sin 201				Basin 202	
Area of Treatment A	=	0.000	ft <sup>2</sup>	Area of Treatment A	=
		0	ac		
Area of Treatment B	=	0.00	ft <sup>2</sup>	Area of Treatment B	=
		0.000	ac		
Area of Treatment C	=	0.00	ft <sup>2</sup>	Area of Treatment C	=
		0.000	ac		
Area of Treatment D	=	8110.00	ft <sup>2</sup>	Area of Treatment D	=
		0.186	ac		
Total Area	=	8110.00	ft <sup>2</sup>	Total Area	=
7,000		0.186	ac		
Volumetric Flow				Volumetric Flow	
Weighted E	Ξ	2.120	inches	Weighted E	=
Volume (6hr)	=	0.033	acre-ft	Volume (6hr)	=
Volume (24hr)	=	0.039	acre-ft	Volume (24hr)	=
Volume (4days)	=	0.048	acre-ft	Volume (4days)	=
Volume (10days)	=	0.058	acre-ft	Volume (10days)	=
ak Rate of Discharge				Peak Rate of Discharge	
Q100	=	0.875	cfs	Q <sub>100</sub>	=

#### SIDEWALK CULVERT CAPACITY REQUIRED CONVENACE = 0.9 CFS

CAPACITY CALCULATED USING MANNINGS EQUATION =2.7 CFS COMPUTATION BELOW:

0.75 2.5 0.005	ft2
0.75	ft2
	ft2
55.59357	in
0.013	
1.49	US units

NEW LAND TREATMENT "D" ROUTED THROUGH DEPRESS LANDSCAPING: TOTAL AREA = 14,958 SQ.FT.

WATER QUALITY STORAGE NEEDED=14,958 SQ.FT.\*(.34")\*(1'/12")=424 CU.FT.

SWALE EXISTING MAJOR CONTOUF EXISTING MINOR CONTOUR PROPOSED MAJOR CONTOU PROPOSED MINOR CONTOUF SURFACE FLOW DIRECTION
ROOF FLOW DIRECTION

PROPOSED BASIN MAP

DRAINAGE PLAN

PROJECT NO:

DESIGNED BY:

DRAWN BY:

CHECKED BY:

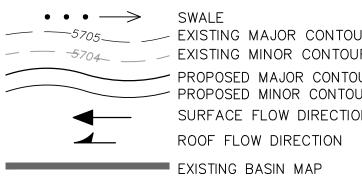
SHEET TITLE

**JUNE 2018** 

FIRST FLUSH STORAGE:

## DEPRESSED LANDSCAPING

## LEGEND



EXISTING BASIN

PROPOSED BASIN

FIRST FLUSH PONDING LIMITS

ALE 416 LBU(

 $0.000 ft^2$ 

 $0.00 ft^2$ 

0.000 ac

0.00 ft

0.000 ac

6848.00 ft<sup>2</sup>

0.157 ac

0.157 ac

2.120 inches

0.028 acre-ft

0.033 acre-ft

0.040 acre-ft

0.049 acre-ft

(2) PROPOSED BASIN MAP

This site is opting to pay the fee in lieu of containing the first flush. The first flush volume is 424 CU.FT.

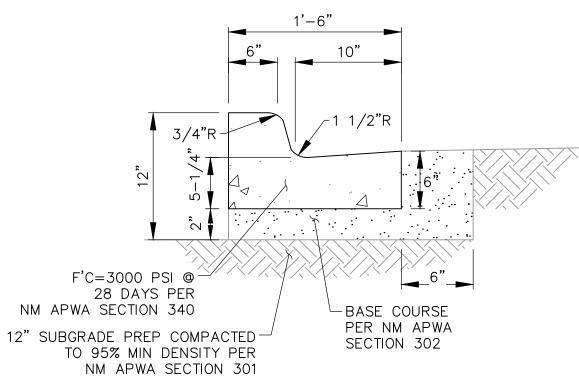
The proposed site is similar to the existing site prior to 2012 in the following ways: 1) the drainage pattern, 2) area of impervious area, and 3) commercial use. Therefore, it will not adversely affect the regional drainage. The Site is compact, but will greatly serve the community with needed retail space and apartments. The first flush volume of 424 cu.ft. will not be stored on-site and the fee will be paid instead. The contractor shall follow this drainage plan and is required to obtain an approved drainage

- CURB GENERAL NOTES

  1. ANY DEVIATIONS FROM THESE STANDARDS SHALL BE SUBMITTED TO THE CITY ENGINEER FOR PRIOR APPROVAL
- 2. ALL WORK IN PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED BY A LICENSED CONTRACTOR AND REQUIRES PERMIT AND APPROVAL BY THE DEPT OF PUBLIC WORKS.
- 3. SUBGRADE SHALL BE COMPACTED TO 95% ASTM D 1557, MIN.
- 4. CURB SHALL BE PORTLAND CEMENT CONCRETE. PORTLAND CEMENT CONCRETE SHALL BE 3000 PSI @ 28 DAYS w/CLASS F FLY ASH AND 7% + /- 2% AIR ENTRAINMENT. (MAX 20% FLY ASH BY WEIGHT).
- 5. FOR CONCRETE CURB CONSTRUCT TRANSVERSE JOINTS AS
- FOLLOWS: - TOOLED CONTRACTION JOINTS AT 5' INTERVALS.
- 1/2" PRE-MOLDED BITUMINOUS EXPANSION JOINTS AT 15' INTERVALS. SEALED EXPANSION JOINTS AT 90' INTERVALS.

6. DIMENSIONS AT ROUNDED CORNERS MEASURED TO INTERSECTION OF STRAIGHT LINES.

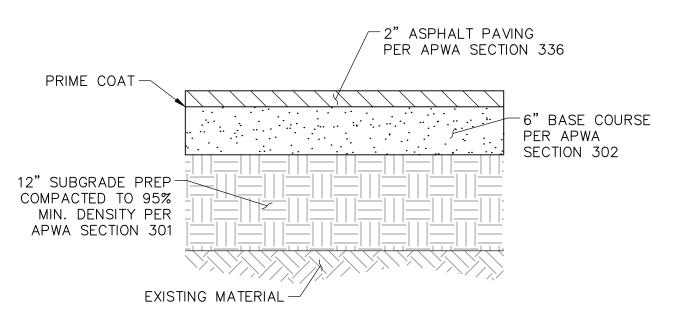
HEADER CURB DETAIL SCALE: NTS



CURB AND GUTTER GENERAL NOTES

- ANY DEVIATIONS FROM THESE STANDARDS SHALL BE SUBMITTED TO THE CITY ENGINEER FOR PRIOR APPROVAL
- 2. ALL WORK IN PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED BY A LICENSED CONTRACTOR AND REQUIRES PERMIT AND APPROVAL BY THE DEPT OF PUBLIC WORKS.
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- 5. FOR CONCRETE CURB AND GUTTER CONSTRUCT TRANSVERSE JOINTS AS FOLLOWS:
  - TOOLED CONTRACTION JOINTS AT 5' INTERVALS. - 1/2" PRE-MOLDED BITUMINOUS EXPANSION JOINTS AT 15' INTERVALS. - SEALED EXPANSION JOINTS AT 90' INTERVALS.
- 6. DIMENSIONS AT ROUNDED CORNERS MEASURED TO INTERSECTION OF STRAIGHT LINES.

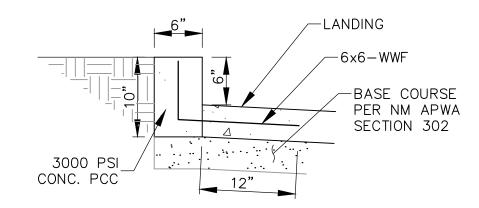
CURB AND GUTTER SCALE: NTS



**CONSTRUCTION NOTES** 

1. PRIOR TO CONSTRUCTION, CONTRACTOR TO OBTAIN PAVEMENT DESIGN FROM A MATERIAL LAB WITH A LICENSED PROFESSIONAL ENGINEER. USE PAVEMENT SECTION RECOMMENDED UNDER PAVEMENT DESIGN FROM MATERIAL LAB. THIS DETAIL IS PROVIDED AS A BASES FOR COST ESTIMATING PURPOSES.

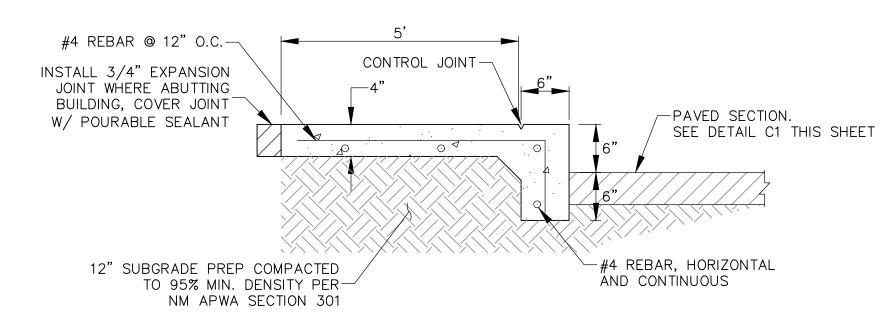
TYPICAL ASPHALT PAVEMENT SECTION SCALE: NTS



CONSTRUCTION JOINT NOT REQUIRED IF LANDING AND CURB POURED MONOLITHIC.

B2 STRAIGHT CURB
SCALF 1"

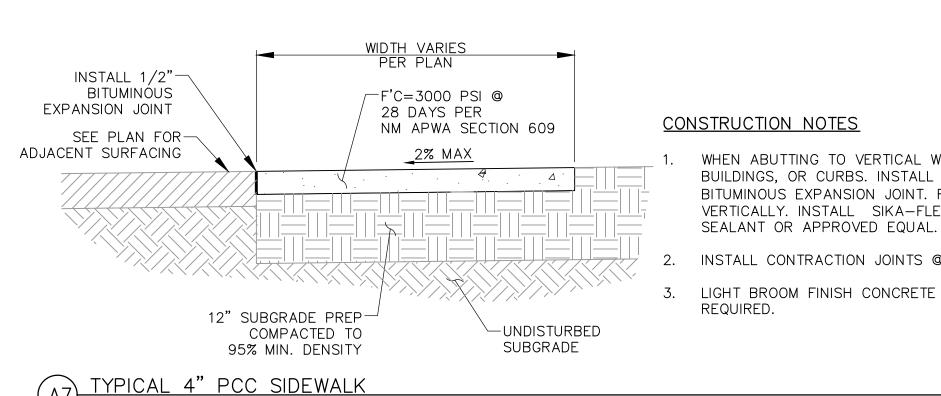
6" CONCRETE (4000 PSI)-REINFORCED WITH #4 REBAR @ 18" O.C. EACH WAY **CONSTRUCTION NOTES:** WHEN ABUTTING TO VERICAL WALLS, BENCHES OR BUILDINGS, INSTALL 1/2" BITUMINOUS EXPANSION JOINT. RECESS 1/4" VERTICALLY. INSTALL SIKA-FLEX POLYMER SEALANT OR APPROVED EQUAL. 2. INSTALL CONTRACTION JOINTS @ 6'-0" O.C. LIGHT BROOM FINISH CONCRETE SURFACE REQUIRED. 12" SUBGRADE PREP-COMPACTED TO EXISTING MATERIAL 95% MIN. DENSITY



- 1. CONTROL JOINTS SHALL BE PLACED @ 5' O.C.
- 2. EXPANSION JOINTS SHALL BE PLACED @ 20' O.C.
- 3. 4000 PSI CONCRETE W/ BRUSH FINISH.

TURN DOWN SIDEWALK SCALE: 1" = 1'

SCALE: NTS



WHEN ABUTTING TO VERTICAL WALLS, BENCHES, BUILDINGS, OR CURBS. INSTALL 1/2" BITUMINOUS EXPANSION JOINT. RECESS 1/4" VERTICALLY. INSTALL SIKA-FLEX POLYMER

- INSTALL CONTRACTION JOINTS @ 6'-0" OC.
- LIGHT BROOM FINISH CONCRETE SURFACE

A7) TYPICAL 4" PCC SIDEWALK SCALE: NTS

SHEET NO: **C-3** 



RTMENTS /ARD SE, W MEXICO YALE 416 ALBUC

PROJECT NO: 162-20 **DESIGNED BY:** DRAWN BY: CHECKED BY: JUNE 2018

SHEET TITLE

**DETAILS**