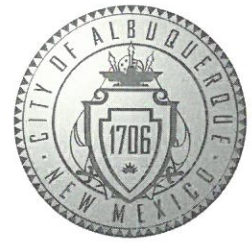


CITY OF ALBUQUERQUE



Richard J. Berry, Mayor

August 31, 2017

Jake Bordenave, P.E., P.S.
Bordenave Designs
PO Box 91194
Albuquerque, NM 87199

**RE: Garcia Honda Gen 3 Service Bldg
8301 Lomas NE
Grading and Drainage Plan
Engineer's Stamp Date 8/29/17 (File: J19D072)**

Dear Mr. Bordenave:

PO Box 1293

Based on the information provided in your submittal received 8/30/17, the Grading and Drainage Plan are approved for Building Permit. However, prior to Hydrology Final Inspection for Certificate of Occupancy the following condition must be met:

Albuquerque

1. A Bernalillo County Recorded Private Facility Drainage Covenant is required for the ponds. 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.

NM 87103

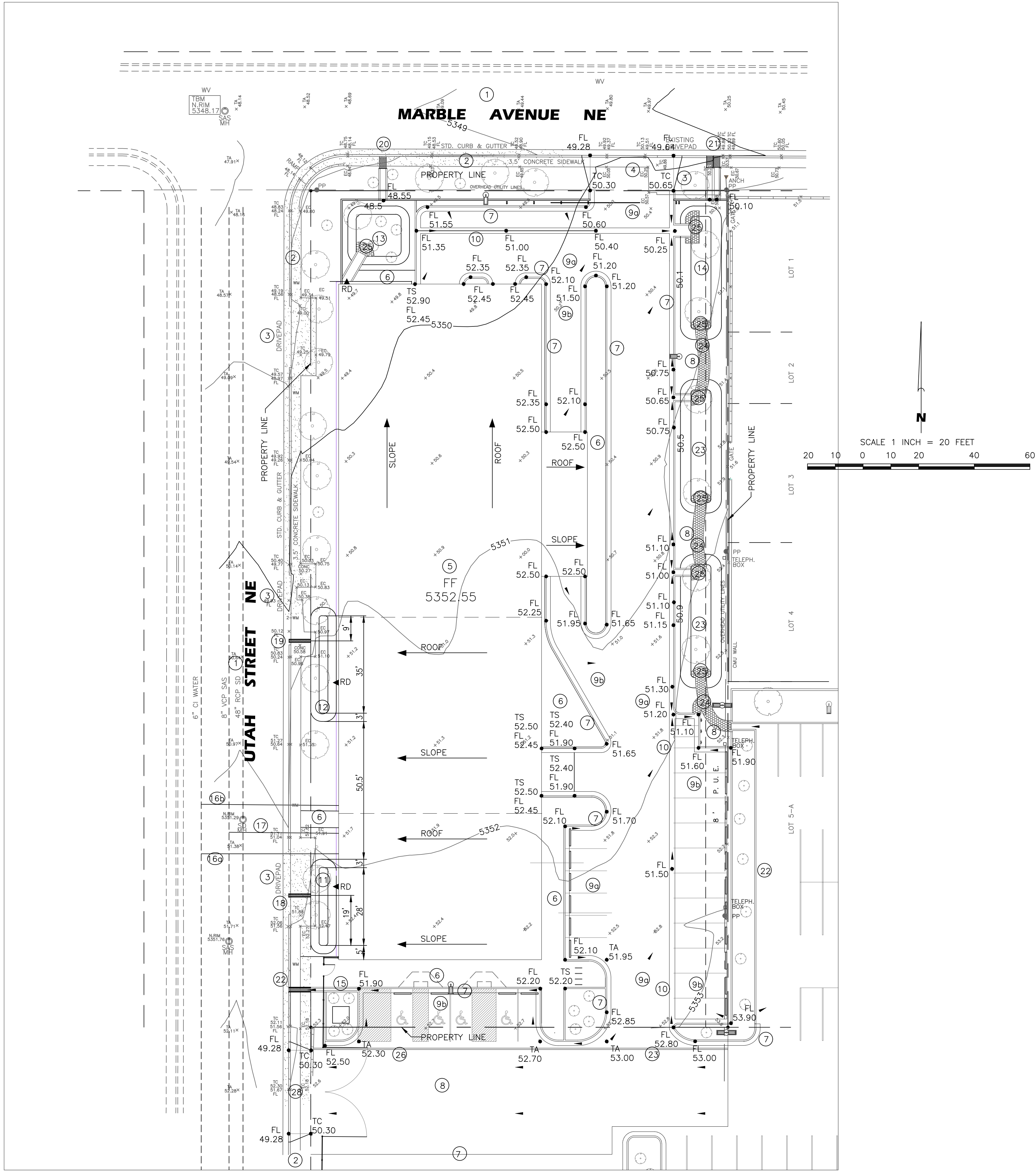
If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

www.cabq.gov

Sincerely,

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

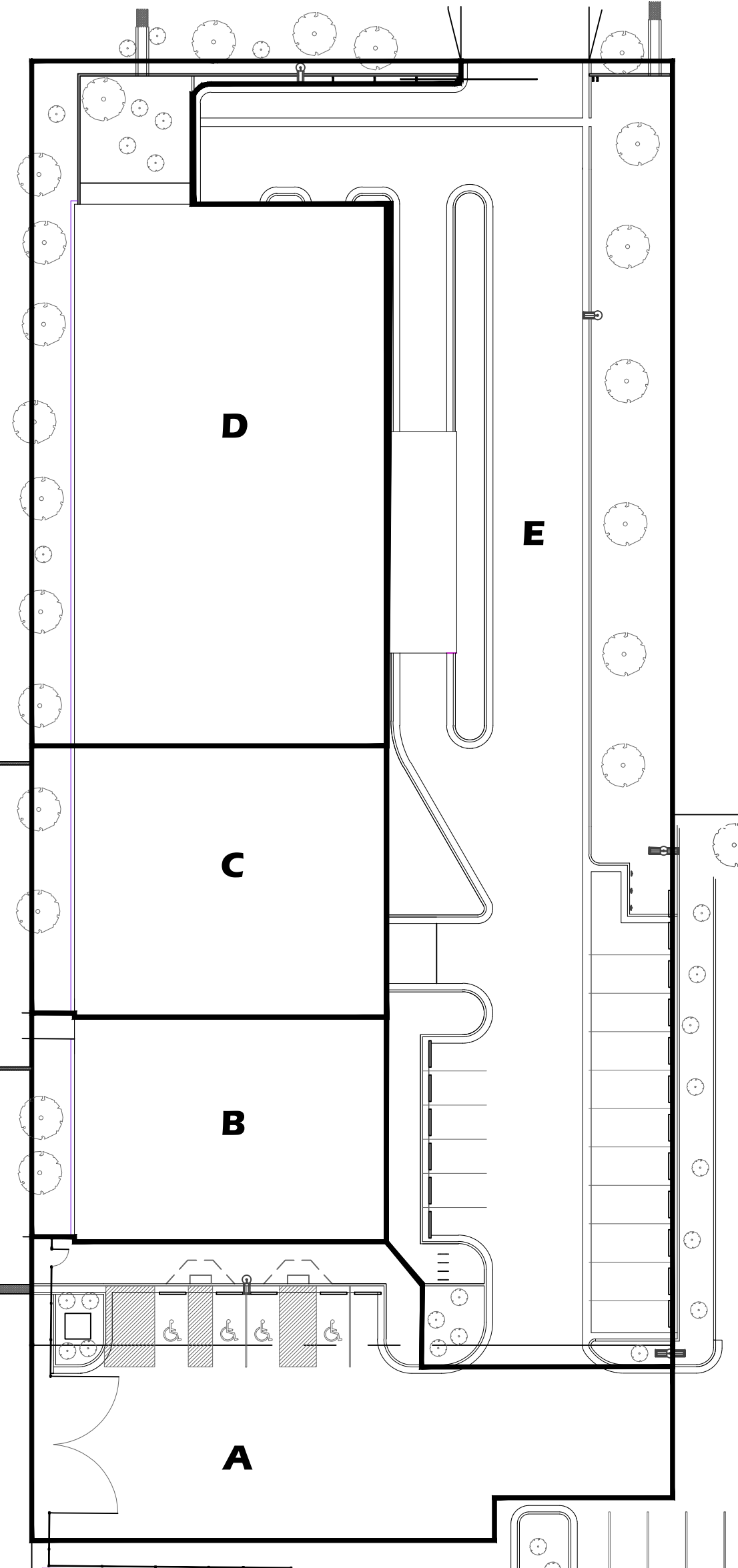
VICINITY MAP NO. F-11



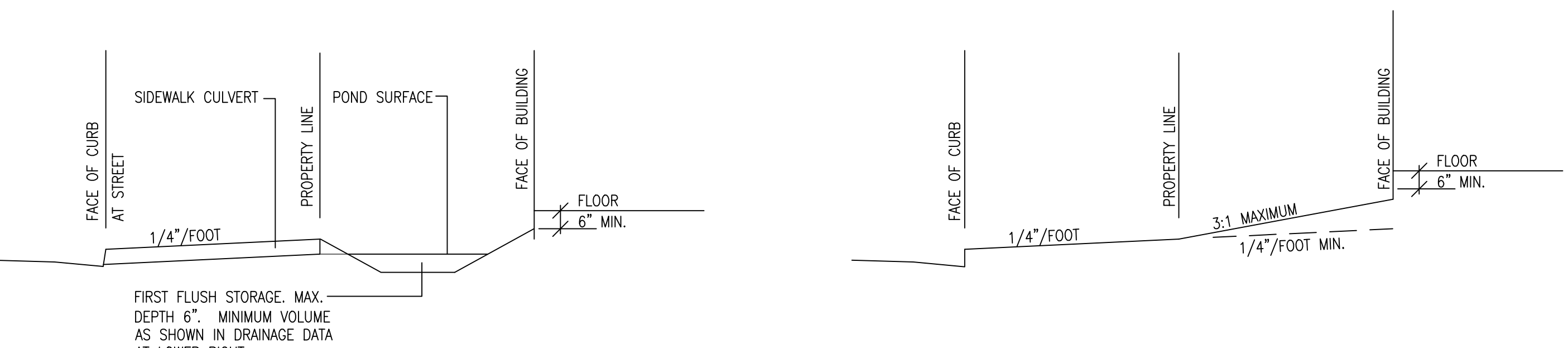
NOTE: ALL PUBLIC IMPROVEMENTS IN THE PUBLIC RIGHT-OF-WAY ARE INCLUDED ON A PUBLIC WORK ORDER. THIS INCLUDES REMOVAL OF EXISTING WATER METER BOXES AND CAPPING WATER SERVICE AND SANITARY SERVICE LINES AND INSTALLATION OF NEW WATER AND SANITARY SEWER SERVICES. IT ALSO INCLUDES ITEMS 3, 4 AND 18 THRU 21 SHOWN ON THIS SHEET AND DEFINED IN THE KEYED NOTES AT RIGHT.

DRAINAGE BASINS

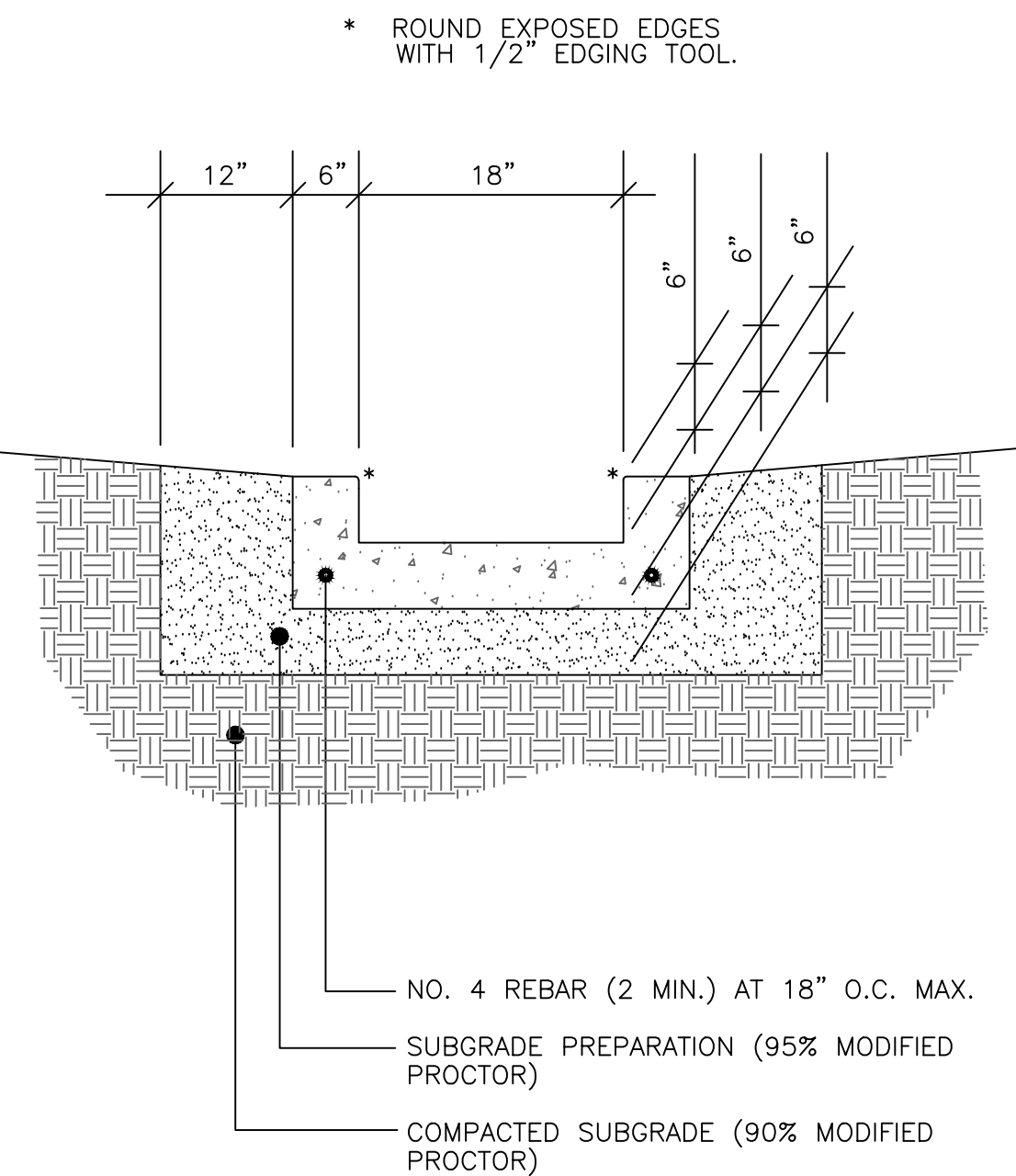
SCALE 1" = 30'



TYPICAL GRADING - WEST SIDE OF BUILDING



CONCRETE CHANNEL



DRAINAGE DATA

CONDITION	BASIN	STORM PERIOD	TREATMENT TYPE	TREATMENT AREA	PRECIPITATION IN.	PEAK RUNOFF CFS	RUNOFF VOLUME CU. FT.	RUNOFF RATE CFS
		Year	(table 4)	sq. ft.	(table 8)	(table 9)	cu. ft.	cfs.
EXISTING	100	A	B	9750	0.19	0.58	0.00	0.00
		C	B	0	0.36	1.19	293	0.27
		C	D	0	0.62	2.0	500	0.46
		D	D	41924	1.5	3.39	5241	3.26
		TOTAL	D	51674			5533	3.53
DEVELOPED	100	A	C	0	0.66	1.87	0.00	0.00
		B	C	9750	0.92	2.6	748	0.58
		C	D	0	1.29	3.45	0	0.00
		D	D	41924	2.36	5.02	8245	4.83
		TOTAL	D	51674			8993	5.41
A	100	A	B	7490	0.19	0.58	0.00	0.00
		B	C	0	0.36	1.19	225	0.20
		C	D	0	0.62	2.0	0	0.00
		D	D	44184	1.5	3.39	5523	3.44
		TOTAL	D	51674			5748	3.64
B	100	A	B	0	0.66	1.87	0.00	0.00
		B	C	7490	0.92	2.6	574	0.45
		C	D	0	1.29	3.45	0	0.00
		D	D	44184	2.36	5.02	8650	5.00
		TOTAL	D	51674			9264	5.54
C	100	A	B	0	0.66	1.87	0.00	0.00
		B	C	0	0.92	2.6	11	0.01
		C	D	0	1.29	3.45	0	0.00
		D	D	8190	2.36	5.02	1611	0.94
		TOTAL	D	8330			1621	0.95
D	100	A	B	0	0.66	1.87	0.00	0.00
		B	C	438	0.92	2.6	34	0.03
		C	D	0	1.29	3.45	0	0.00
		D	D	3928	2.36	5.02	773	0.45
		TOTAL	D	4366			806	0.48
E	100	A	C	0	0.66	1.87	0.00	0.00
		B	C	572	0.92	2.6	44	0.03
		C	D	0	1.29	3.45	0	0.00
		D	D	4700	2.36	5.02	924	0.54
		TOTAL	D	5232			968	0.58
D	100	A	C	0	0.66	1.87	0.00	0.00
		B	C	2630	0.92	2.6	202	0.16
		C	D	0	1.29	3.45	0	0.00
		D	D	9580	2.36	5.02	1886	1.11
		TOTAL	D	12220			2088	1.36
E	100	A	C	0	0.66	1.87	0.00	0.00
		B	C	3710	0.92	2.6	284	0.22
		C	D	0	1.29	3.45	0	0.00
		D	D	17776	2.36	5.02	3466	2.05
		TOTAL	D				3780	2.27

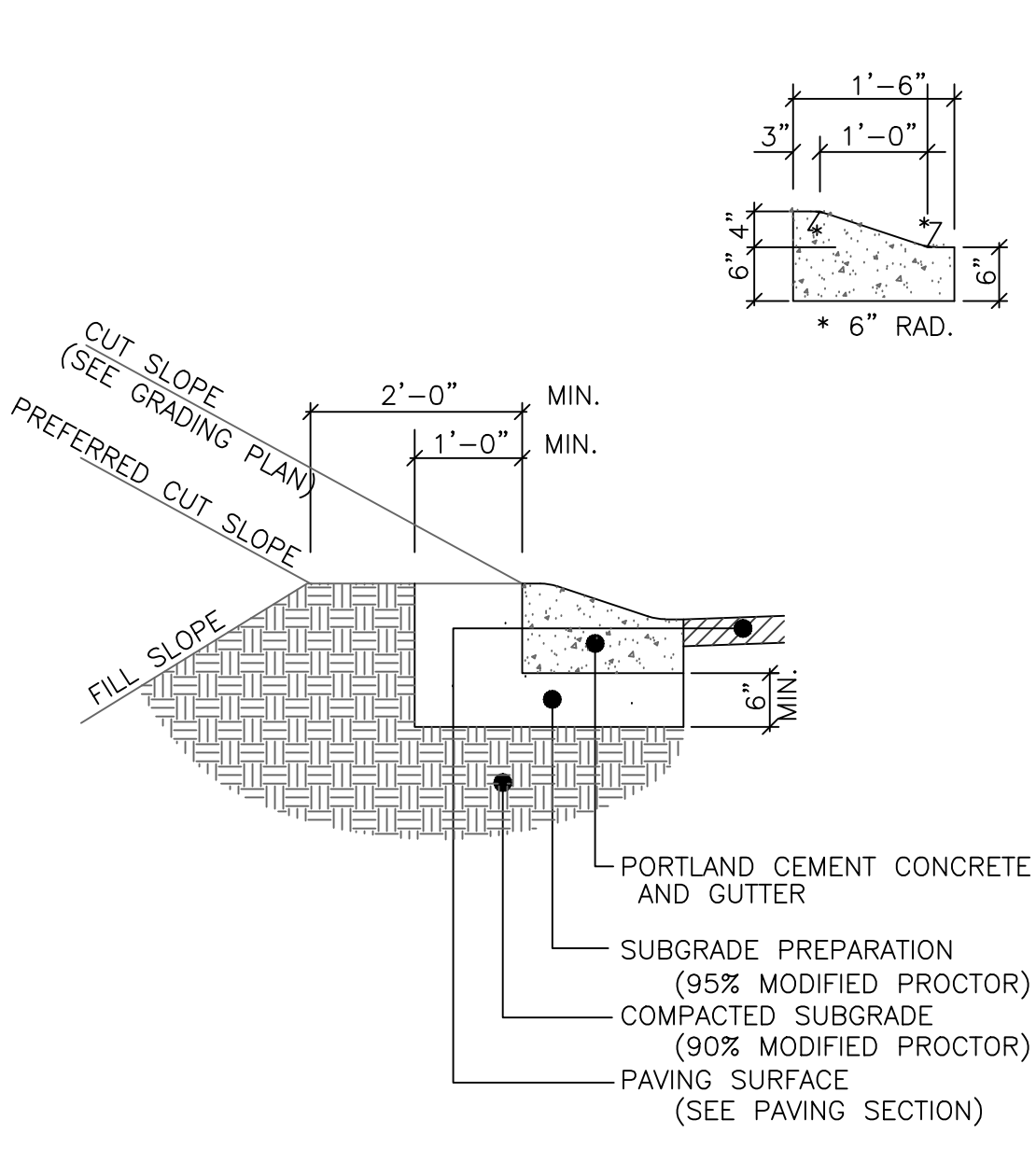
WATER HARVESTING VOLUME PER BASIN
VOLUME = IMPERVIOUS AREA X (0.44-0.10)/12
BASIN IMP. AREA VOL. REDD
SF CF
A 8190 0 MOST OF BASIN 'X' IS AN EXISTING PAVED AREA AND ONLY SHOWN FOR TPO CLARITY. THE BALANCE IS A TRANSITION FROM THE OLD BUILDING.
B 3928 111
C 4700 133
D 9590 272
E 17776 504

POND OUTLETS (CONCRETE CHANNELS AND/OR SIDEWALK CULVERTS)
ASSUME FACILITY TO BEHAVE AS A BROAD CRESTED WEIR, FLOW FROM 100 YEAR STORM
FLOW RATE Q = CUL^{3/2}, where Q from table above, where C=2.6, H=0.4

BASIN FLOW RATE CFS WER LENGTH WER LENGTH CALC. L (FT) USE L (IN)
B 0.48 0.73 9 9
C 0.58 0.88 11 11
D 1.26 1.91 23 23
E 2.27 3.45 42 (DOUBLE BARREL 21")

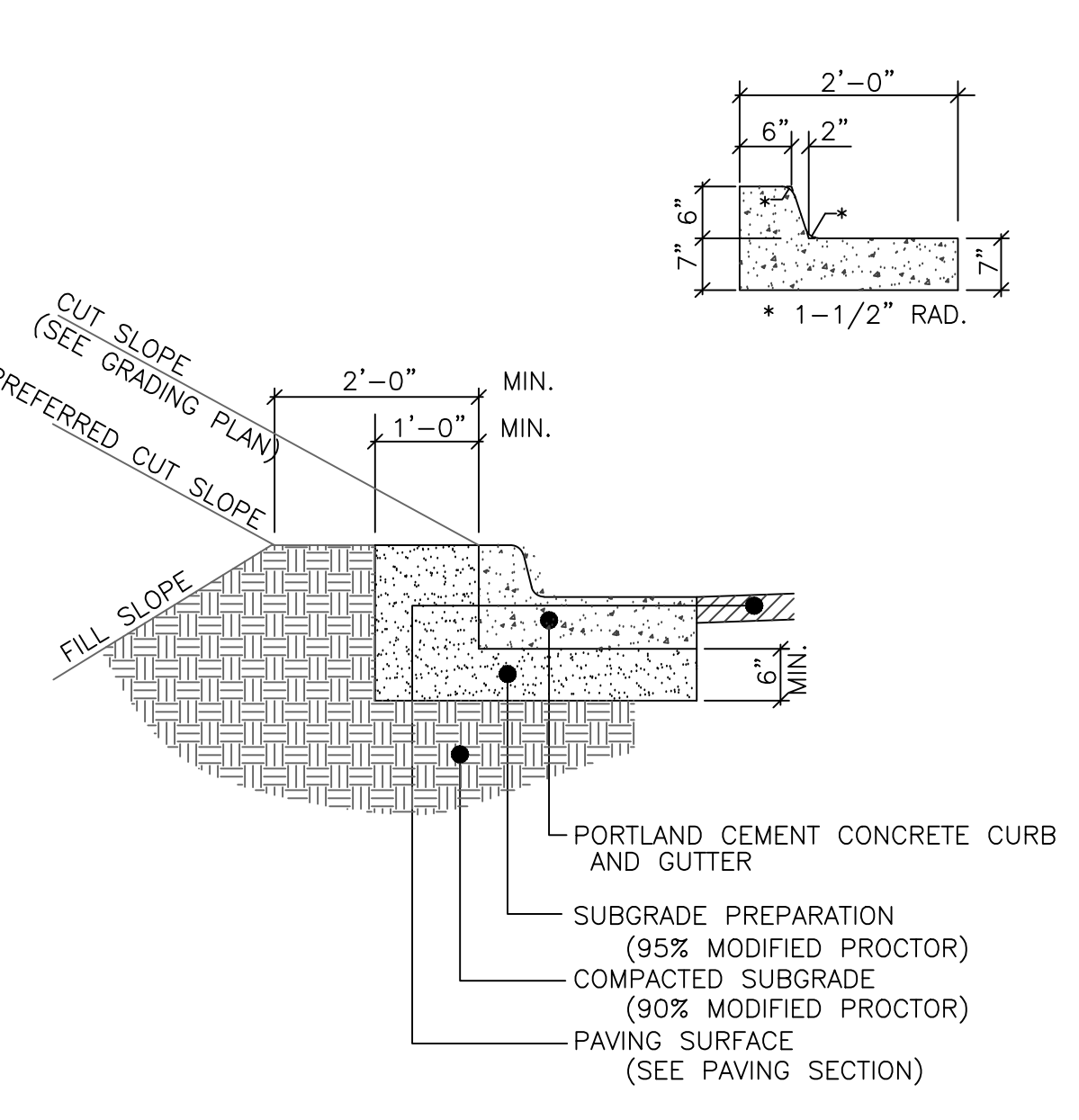
NOTES:
1. ASPHALT MIX DESIGN TO USE CITY OF ALBUQUERQUE AGGREGATE CLASS C AND HAVE A MARSHALL STABILITY GREATER THAN 1800 LBS.
2. ASPHALT CONCRETE COURSES GREATER THAN 3" IN THICKNESS SHALL BE PLACED WITH MULTIPLE LIFTS. MINIMUM LIFT THICKNESS 1 1/2".

MOUNTABLE CURB



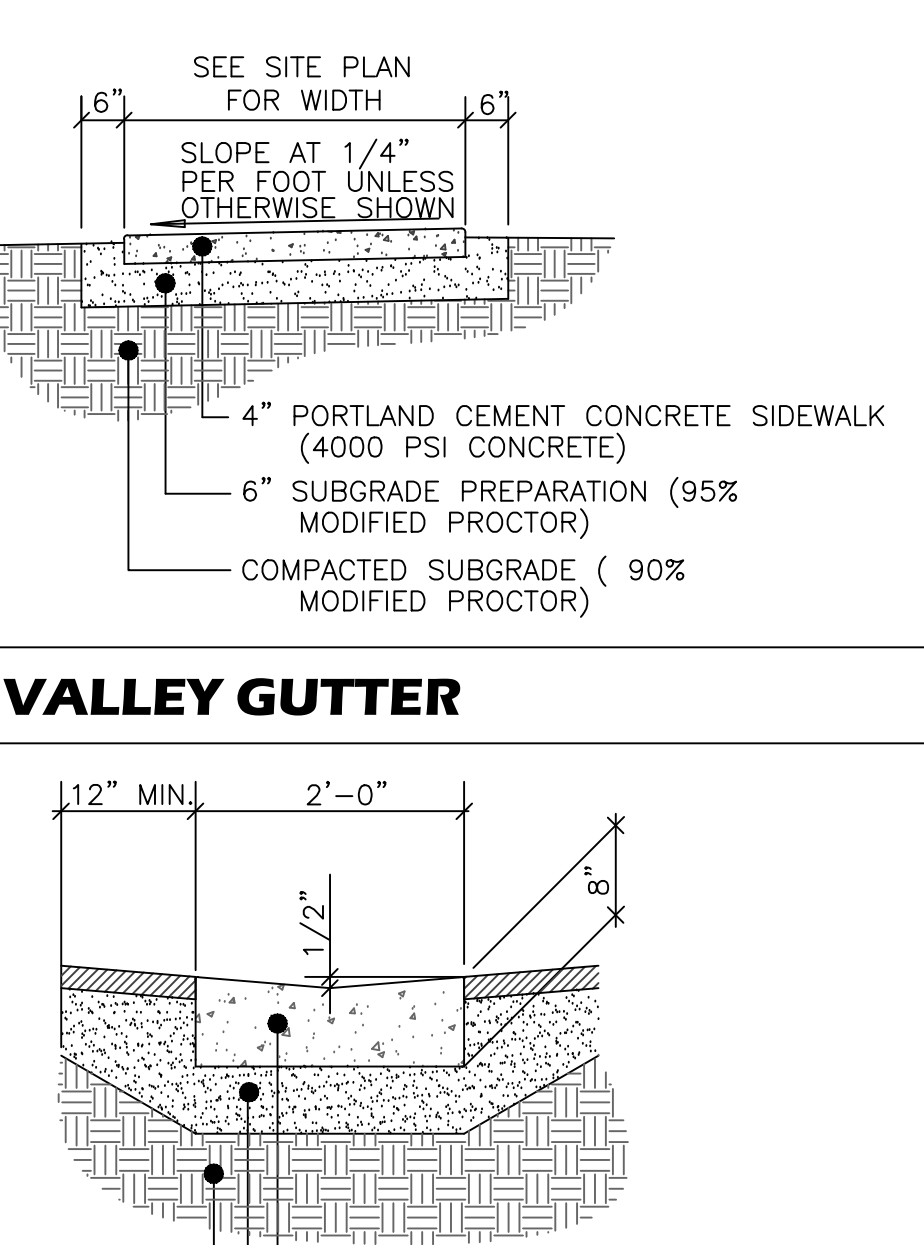
NOTE:
PROVIDE CONTRACTION JOINTS AT 5 FEET ON CENTER AND EXPANSION JOINTS AT 50 FEET ON CENTER UNLESS OTHERWISE STATED ON SITE PLANS OR IF CURB ABUTS SIDEWALK; WHERE CURB JOINTS SHALL MATCH SIDEWALK JOINTS.

2' x 6" HIGH CONCRETE CURB



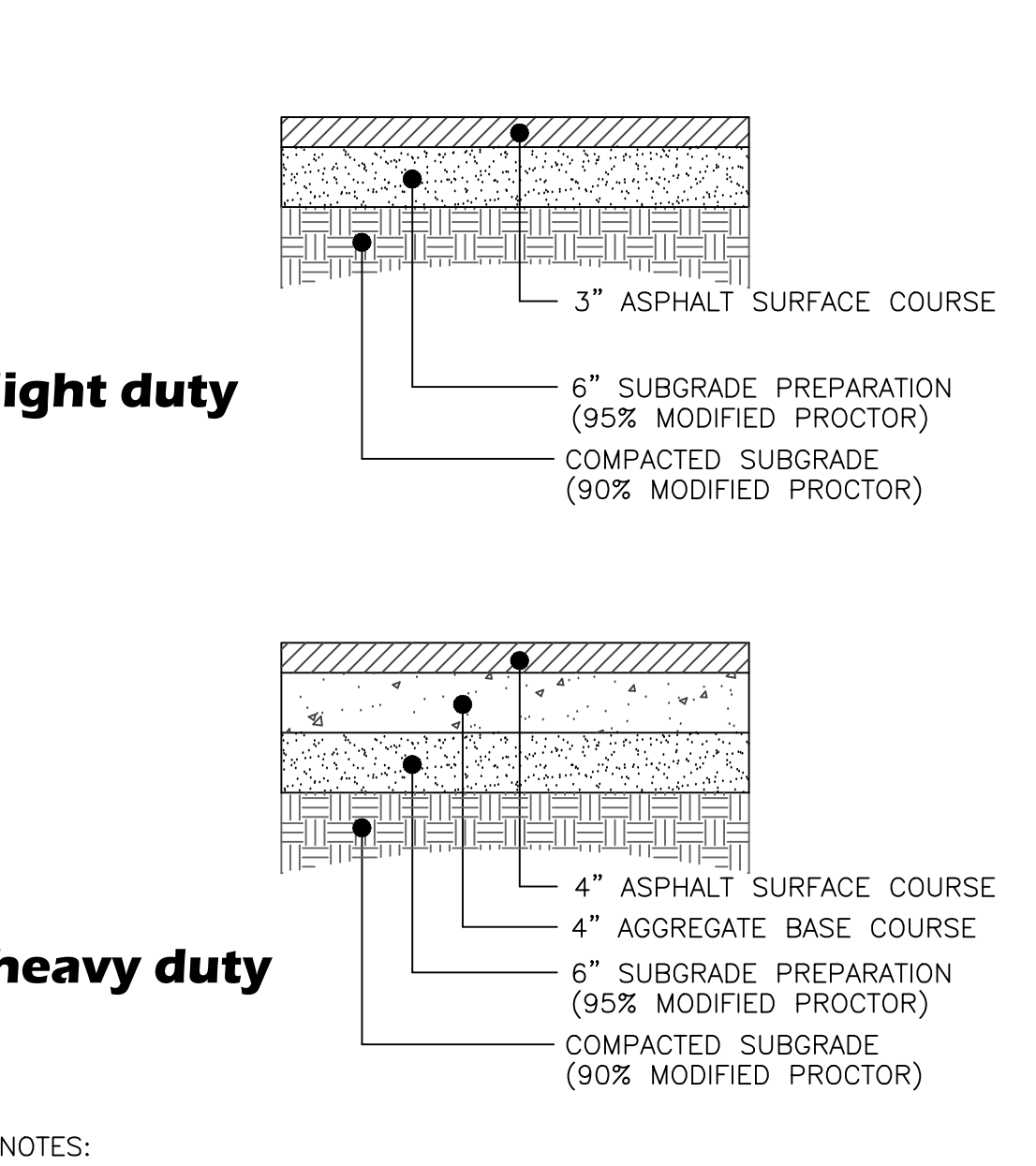
NOTE:
PROVIDE CONTRACTION JOINTS AT 5 FEET ON CENTER AND EXPANSION JOINTS AT 50 FEET ON CENTER UNLESS OTHERWISE STATED ON SITE PLANS OR IF CURB ABUTS SIDEWALK; WHERE CURB JOINTS SHALL MATCH SIDEWALK JOINTS.

SIDEWALK



NOTE:
PROVIDE CONTRACTION JOINTS AT 5 FEET ON CENTER AND EXPANSION JOINTS AT 50 FEET ON CENTER UNLESS OTHERWISE STATED ON SITE PLANS OR IF CURB ABUTS SIDEWALK; WHERE CURB JOINTS SHALL MATCH SIDEWALK JOINTS.

ASPHALT PAVEMENT

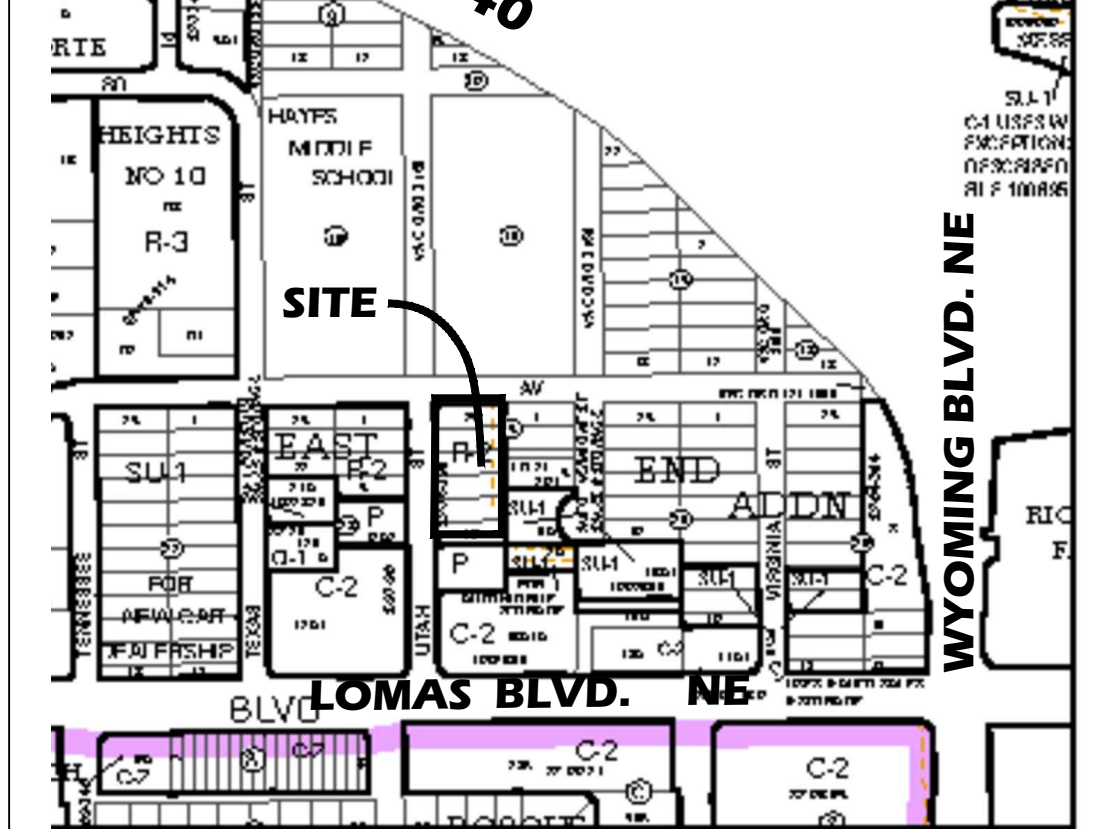


NOTE:
PROVIDE CONTRACTION JOINTS AT 5 FEET ON CENTER AND EXPANSION JOINTS AT 50 FEET ON CENTER UNLESS OTHERWISE STATED ON SITE PLANS OR IF CURB ABUTS SIDEWALK; WHERE CURB JOINTS SHALL MATCH SIDEWALK JOINTS.

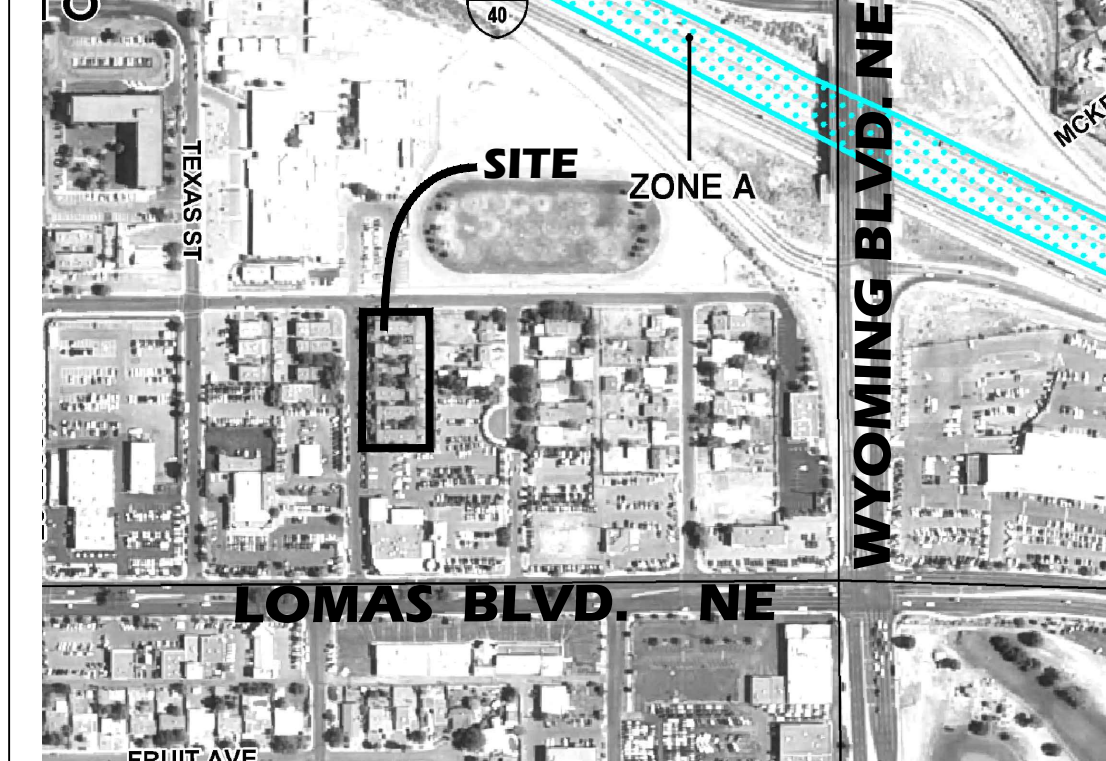
light duty

heavy duty

VICINITY MAP NO. J-19



FEMA FIRM PANEL NO. 358H



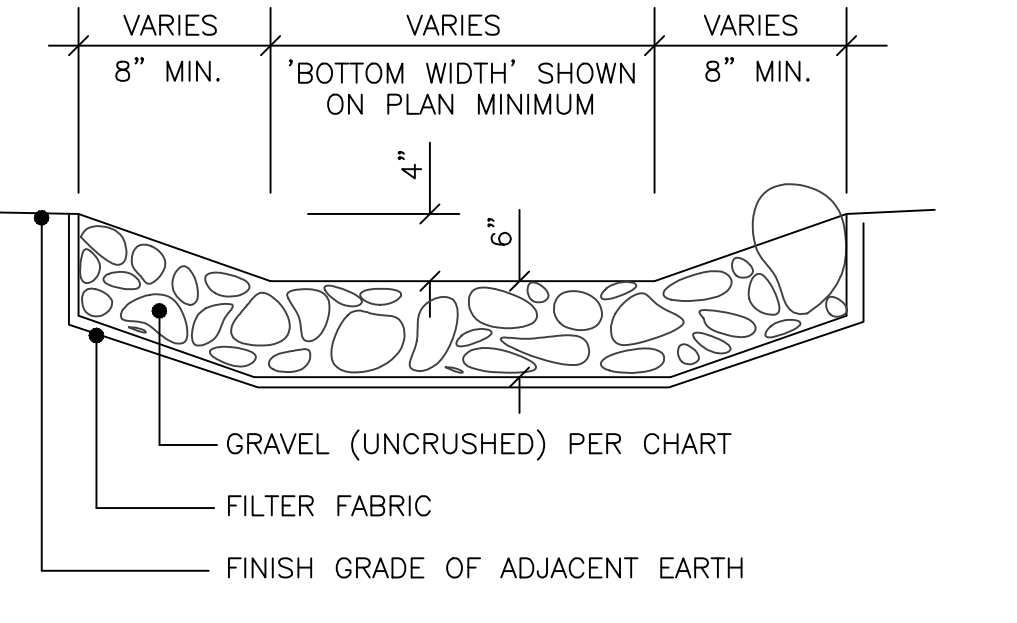
LEGAL DESCRIPTION

LOTS 19 THRU 24, BLOCK 24, EAST END ADDITION

PERMANENT BENCHMARK

ACS STATION 17-K19, ELEVATION 5544.389 (NAVD 1988)

DRY STREAM/ ENERGY DISSIPATOR



DRY STREAM	ENERGY DISSIPATOR
PERCENT BY VOL.	PERCENT BY VOL.
> 6"	0-5
3"-6"	40-60
1"-3"	10-30
3/8"-1"	10-15
< 3/8"	0-5

STREAM CONSTRUCTION NOTES:
BOTTOM AND BANK WIDTHS SHALL BE FLAT. VARY TO SIMULATE A NATURAL STREAM.
STONES GREATER THAN 6" SHALL BE LIMITED TO THE BANK AREA.

DISSIPATOR CONSTRUCTION NOTES:
DISSIPATOR SHALL BE FLAT. INCREASE STONE PORTION OF SECTION TO 10" THICKNESS.
WIDTH OF DISSIPATOR TO BE AT LEAST 6" BEYOND THE APPROACH CHANNEL WIDTH AND 5' LONG IN THE DIRECTION OF TRAVEL.

DRAINAGE NOTES

1. THE SITE WAS PREVIOUSLY DEVELOPED AS AN APARTMENT COMPLEX. THAT CONSTRUCTION HAS BEEN RAZED AND THE SITE IS BARE. THE PROPOSED DEVELOPMENT WILL BE LANDSCAPED ON THE PERIMETER AND THE BALANCE OF THE SITE WILL BE DEVELOPED WITH IMPERVIOUS SURFACES.

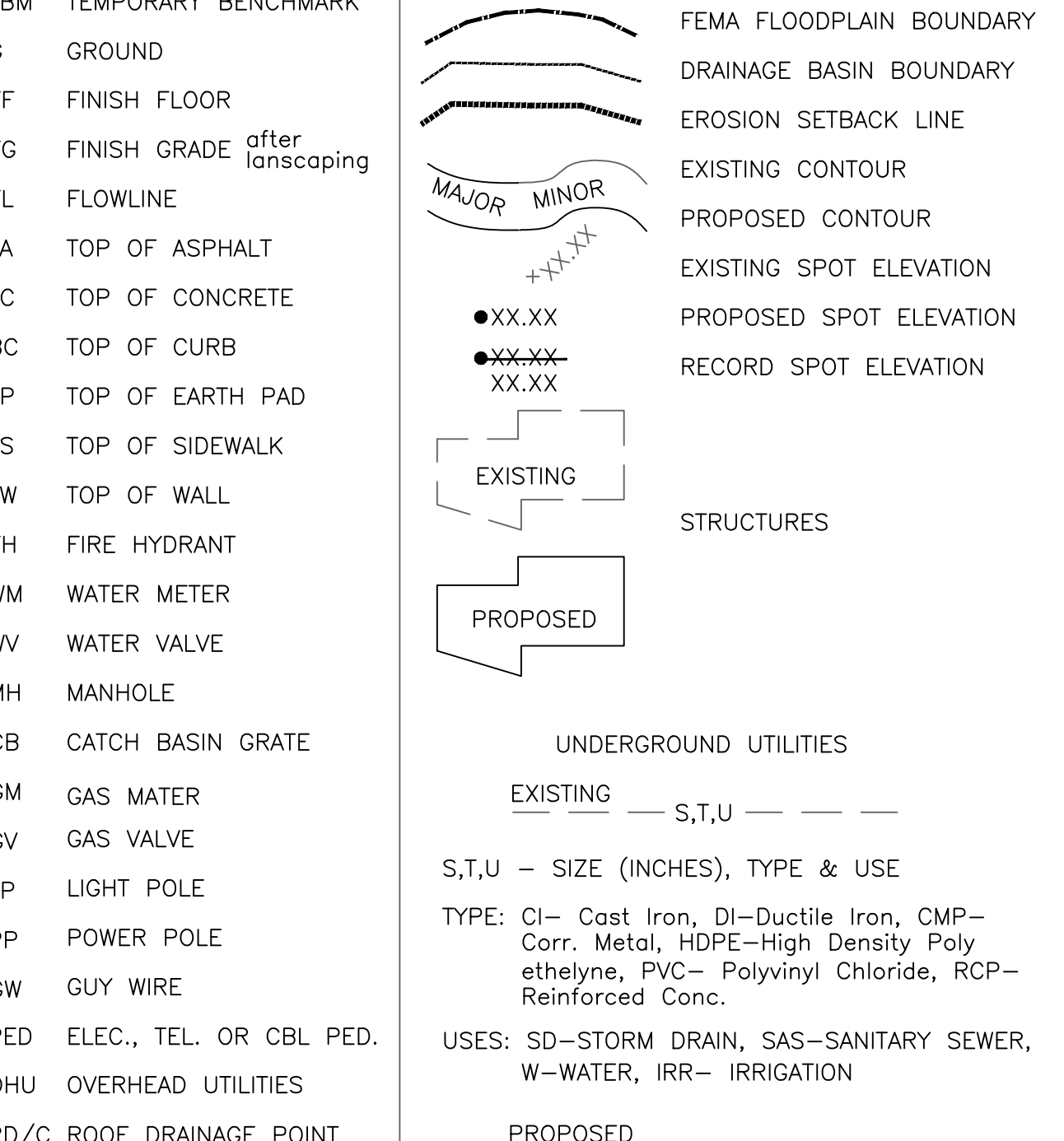
2. RUNOFF IS ROUTED THROUGH RETENTION PONDS. RUNOFF VOLUMES FROM RAINFALL IN EXCESS OF 0.44 INCHES ON IMPERVIOUS SURFACES IS ALLOWED TO OVERFLOW FROM THE PONDS TO ADJUTING STREETS VIA CONCRETE CHANNELS AND SIDEWALK CULVERTS.

3. THE SITE IS LOCATED IN RAINFALL ZONE 3. THERE WILL BE A VERY SLIGHT INCREASE 0.13 CFS (FROM THE EXISTING DEVELOPMENT CONDITIONS) IN RUNOFF VOLUMES AND FLOW RATES. SEE TABLE (AT LEFT) FOR EXISTING AND DEVELOPED FLOW RATES AND RUNOFF VOLUMES.

4. THE SITE IS LOCATED IN AN AREA DESIGNATED 'ZONE X' PER FEMA FIRM MAP NO. 358H, DATED AUGUST, 2012.

5. EXISTING TOPOGRAPHY FOR THE SITE WAS OBTAINED BY HARRIS SURVEYING, INC. IN APRIL, 2017.

LEGEND



Van H. Gilbert Architect PC

ARCHITECTURE • INTERIORS • PLANNING

VHGA

2428 Baylor Dr SE Albuquerque, NM 87106
Tel 505-247-8955 Fax 505-247-1826
E-mail info@vhgarchitect.com
Web Site www.vhgarchitect.com

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ph (505)823-1344 cell (505)480-6812
email jakebordenave@comcast.net

GARCIA AUTOMOTIVE GROUP

GARCIA HONDA - GENERATION 3 - NEW SERVICE BUILDING

ADDRESS
8301 LOMAS BLVD,
ALBUQUERQUE, NM
87110

PERMIT SET

Mark	Date	Description
	05/05/17	Date
	15918	Project Number
	JUB	Drawn By
		Checked By
		Copyright ©
		PC
		VAN H. GILBERT ARCHITECT
		SHEET TITLE
		GRADING, DRAINAGE & UTILITY SERVICE PLAN
		C-101
		OF