

NO.	REVISION	BY	DATE

PROJECT:	DRAWN BY: BLN
DATE:	CHECKED BY:
HORIZ. SCALE:	APPROVED BY:
VERT. SCALE:	FILE:

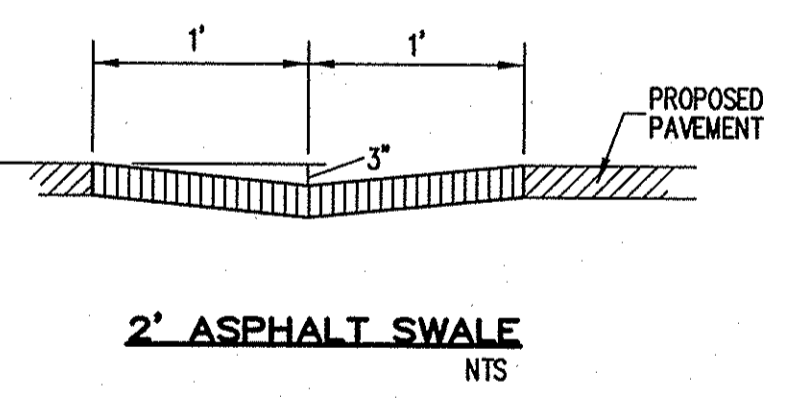
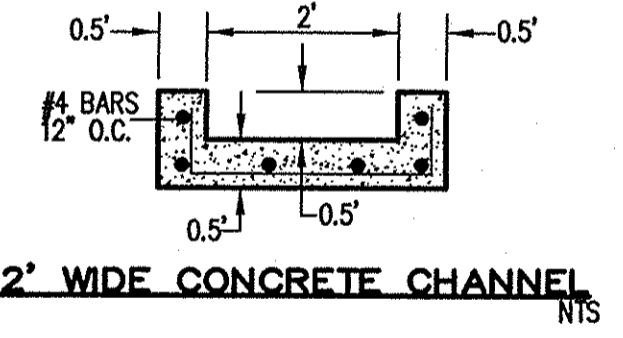
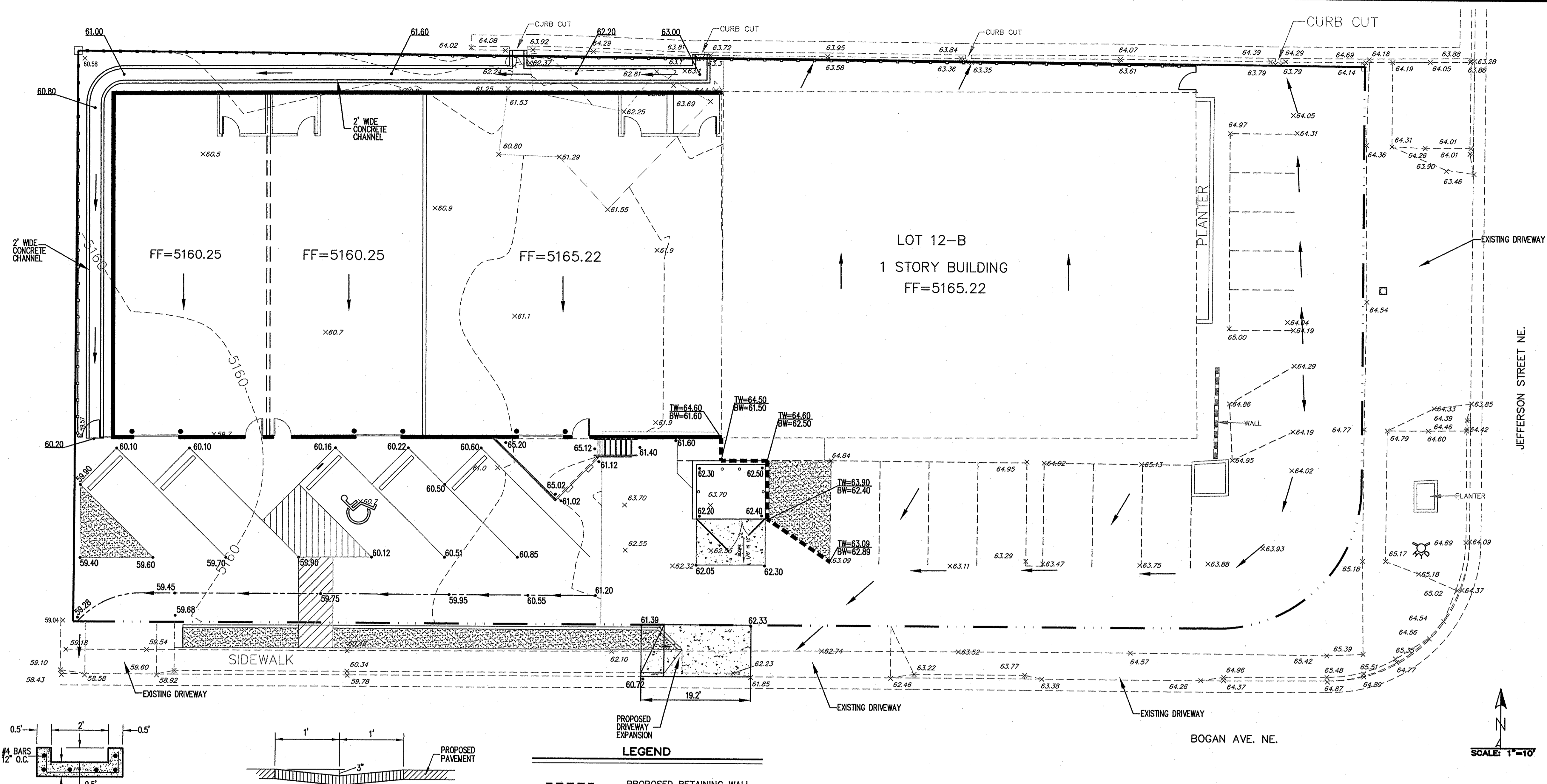


RED ROCK ROASTERS
4801 JEFFERSON ST. N.E.

GRADING AND DRAINAGE PLAN

CITY/COUNTY REVIEW	DATE	SIGN-OFF
	DEPARTMENT	
	WASTEWATER MGMT. DIV.	
	WATER SERVICES	
	SUBDIVISION ENG.	
STREETS		
TRAFFIC		
FOR CITY/COUNTY USE ONLY		

SHEET No. **C1**



LEGEND

- PROPOSED RETAINING WALL
- PROPOSED SWALE
- 14.80 • PROPOSED SPOT ELEVATIONS
- 14.80 x EXISTING SPOT ELEVATIONS
- PROPOSED FLOW DIRECTION
- PROPERTY LINE

DRAINAGE PLAN

LEGAL DESCRIPTION: LOT 12-B, REINDEER ADDITION
SITE AREA: 0.513 ACRES
FLOOD HAZARD STATEMENT: F.E.M.A. FLOODWAY BOUNDARY AND FLOODWAY MAP DATED SEPTEMBER 26, 2008 (PANEL NO. 35043C0138 G) INDICATES A FLOOD HAZARD ZONE X.
EXISTING DRAINAGE CONDITIONS:
THIS PROJECT INVOLVES THE EXPANSION OF THE RED ROCK ROASTERS SITE TO ADD TO WAREHOUSE WITH A DOCK AND TWO OFFICE WAREHOUSE SPACES INCLUDING PARKING. THIS AREA IS CURRENTLY VACANT. RUNOFF FROM THIS AREA OF THE SITE DISCHARGES DIRECTLY TO BOGAN AVENUE THROUGH A DRIVEWAY. APPROXIMATELY ONE-HALF OF THE PROPERTY TO THE NORTH DRAINS ONTO THIS PROPERTY THROUGH THE TWO FURTHER WEST CURB OPENINGS ALONG THE PROPERTY LINE. THE EASTERN PORTION OF THE RED ROCK ROASTERS PROPERTY DRAINS TO THE PROPERTY TO THE NORTH THROUGH CURB OPENINGS. THE RUNOFF IS CONVEYED IN A SWALE IN THE PARKING AREA TO THE WEST AND THEN RE-ENTERS THE RED ROCK ROASTERS PROPERTY THROUGH THE TWO FURTHER WEST CURB OPENINGS.
THE DRAINAGE ANALYSIS FOR THIS SITE IS IN ACCORDANCE WITH SECTION 22 OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM), ENTITLED "DRAINAGE, FLOOD CONTROL, AND EROSION CONTROL." THE DESIGN STORM USED FOR BOTH UNDEVELOPED AND DEVELOPED CONDITIONS IS THE 100-YEAR, 6-HOUR STORM EVENT FOR RUNOFF VOLUME COMPUTATIONS. THE SITE IS LOCATED IN ZONE 2 SO THE 100-YEAR, 6-HOUR STORM EVENT IS 2.35 INCHES. UNDER EXISTING CONDITIONS THE LOT HAS LAND TREATMENTS A, B, C, & D.
DEVELOPED DRAINAGE CONDITIONS:
A 2-FOOT WIDE CONCRETE CHANNEL WILL BE CONSTRUCTED ON THE NORTH AND WEST SIDES OF THE PROPOSED BUILDING TO ACCEPT OFFSITE RUNOFF AND RUNOFF FROM A PORTION OF THE ROOF AND DIRECT THE FLOWS TO THE PARKING AREA AND DISCHARGE TO BOGAN AVENUE THROUGH THE EXISTING DRIVEWAY. RUNOFF FROM THE SOUTH PORTION OF THE ROOF AND FROM THE PARKING AREA TO THE SOUTH OF THE BUILDING WILL BE COLLECTED IN A SWALE AND CONVEYED TO BOGAN AVENUE THROUGH THE FURTHER WEST DRIVEWAY. A TOTAL OF 3.83 CFS WILL BE DISCHARGED TO BOGAN AVENUE DURING THE 100-YEAR, 6-HOUR STORM. THIS IS AN INCREASE OF 0.81 CFS FROM EXISTING CONDITIONS.

100-YEAR HYDROLOGIC CALCULATIONS

BASIN #	AREA (acre)	LAND TREATMENT				WEIGHTED (%)	100-YEAR PRECIPITATION				Q (cfs)
		A (%)	B (%)	C (%)	D (%)		V (6-hr) (in)	V (6-hr) (acre-ft)	V(10 day) (in)	V(10 day) (acre-ft)	
EXISTING CONDITIONS											
OFFSITE	0.3058	0.00	10.00	5.00	85.00	1.94	0.05	2.150	0.08	3.659	1.34
ONSITE	0.5478	49.20	3.50	0.00	47.30	1.29	0.06	2.567	0.09	4.072	1.68
TOTAL RUNOFF	0.85					0.11	0.11	4716	0.18	7731	3.02
PROPOSED CONDITIONS											
OFFSITE	0.3058	0.00	10.00	5.00	85.00	1.94	0.05	2.150	0.08	3.659	1.34
ONSITE	0.5478	0.00	3.50	4.50	92.00	2.03	0.09	4.034	0.16	6.961	2.49
TOTAL RUNOFF	0.85					0.14	0.14	6183	0.24	10620	3.83
EXCESS PRECIP.		0.53	0.78	1.13	2.12			E _n (in)			
PEAK DISCHARGE		1.56	2.28	3.14	4.7			Q _n (cfs)			
ZONE = 2											
WEIGHTED E (in) = (E _n)(%A) + (E _n)(%B) + (E _n)(%C) + (E _n)(%D)											
V _{6-hr} (acre-ft) = (WEIGHTED E)(AREA)/12											
V _{10-day} (acre-ft) = V _{6-hr} + (A _d)(P _{10-day} - P _{6-hr})/12											
Q (cfs) = (Q _n)(A _n) + (Q _n)(A _s) + (Q _n)(A _c) + (Q _n)(A _d)											
P _{6-hr} (in.) = 2.35											
P _{24-hr} (in.) = 2.75											
P _{10-day} (in.) = 3.95											

VICINITY MAP F-17-Z

