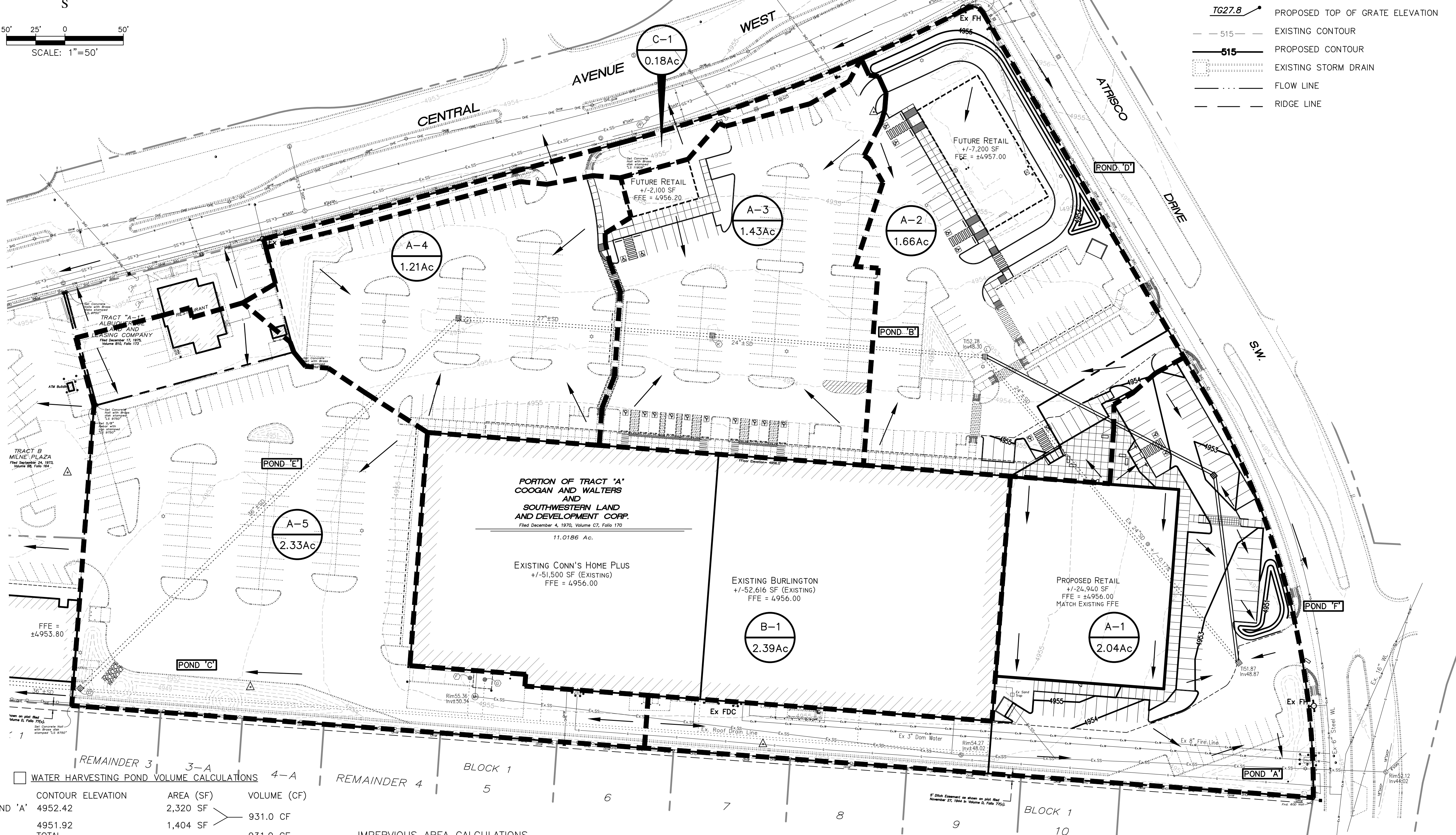
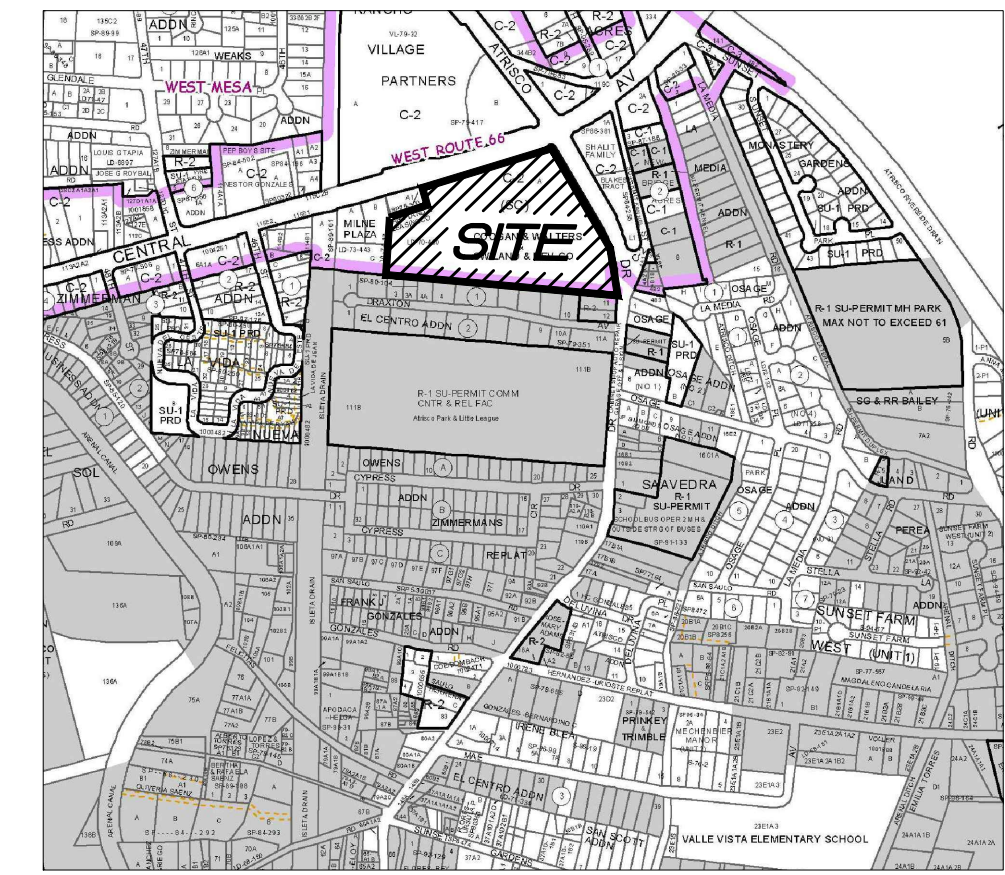


CAUTION - NOTICE TO CONTRACTOR
 THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.



LEGEND

- FLOW ARROW
- 27.8 PROPOSED TOP OF GRADE/PVMT ELEVATIONS
- FL27.8 PROPOSED FLOW LINE/GUTTER ELEVATIONS
- TC27.8 PROPOSED TOP OF CURB ELEVATIONS
- TG27.8 PROPOSED TOP OF GRATE ELEVATION
- - - 515 EXISTING CONTOUR
- 515 PROPOSED CONTOUR
- EXISTING STORM DRAIN
- FLOW LINE
- RIDGE LINE



VICINITY MAP - Zone Atlas K-12



FIRM MAP 35001C0333H
 Per FIRM Map 35001C0333H, dated August 16, 2012, the site is located in the 0.2% chance Annual Floodplain with Average Depth of less than 1 foot.

DRAINAGE MANAGEMENT PLAN

INTRODUCTION
 The purpose of this submittal is to provide a conceptual grading plan and drainage management plan for the Redevelopment of West Central Plaza, located at the SWC of Central Ave SW and Atrisco Dr SW in Albuquerque, NM. The site contains approximately 11.02 acres. A prior Drainage Management Plan for this site was submitted by Wooten Engineering on 9/30/2015 and approved on 11/10/2015.

EXISTING HYDROLOGIC CONDITIONS
 The site is currently developed and drains via an underground storm drain system which outfalls to an existing 36" storm drain in the alley to the west of the site. The parking lot currently surface drains to several Type 'D' Inlets as shown on the Grading Plan. The roof of the existing main retail buildings (Conn's Home Plus and Burlington) drain to downspouts which are connected to a storm drain system on the south side of the building. This roof drain connects to the main site storm sewer system located at the southwest corner of the site. There is a small off-site drainage area that flows onto the site from the existing Long John Silver's site as shown within Basins 'A-4' and 'A-5'. Per the Calculations table this sheet, the total existing flow leaving the site in the storm drain system is 47.78 cfs during the 100-Yr Storm Event. This excludes Basin 'C-1', which is a small area that drains directly to Central Ave.

PROPOSED HYDROLOGIC CONDITIONS
 The newest building addition to the site (+/-24,940 SF) will further reduce the impervious area by just over 1,000 SF due to the parking lot configuration. There is an existing 24" storm drain that is located under the proposed building and will be relocated with this project per the grading plan on Sheet 1.1. There is also a new Type 'D' Inlet located within Basin A-1 at the deflection point of the new 24" pipes. The drainage patterns generally remain the same as the Pre-Developed condition; however, we have added some water harvesting ponds in key areas in order to capture the first flush from the site.

The total runoff from the site (excluding Basin 'C-1') is 46.03 cfs during the 100-Yr, 6-Hr Storm Event which is less than the original KMart development. Reference the Plan approved on 11/10/2015 for additional information.

FIRST FLUSH CALCULATIONS
 Per the First Flush Calculations on this sheet, the total First Flush Volume required to be collected for the site is 8,770 CF. Since the roof of the existing large retail building is flowing directly into a storm drain system and cannot be routed through a landscape area, we have not taken the building roof area into account for the calculation. Per the Water Harvesting Pond Calculations table this sheet, we are collecting 14,554.50 CF of flow from the site which is greater than that required.

CONCLUSION
 This Drainage Management Plan provides for grading and drainage elements which are capable of safely passing the 100 year storm, do not burden downstream systems, and meet city requirements. In addition, the proposed water harvesting ponds will help treat stormwater runoff per the DPM. The proposed improvements to the site should not have any negative impacts to facilities downstream. With this submittal, we are requesting Drainage Management and Grading Plan approval for the Site Development Plan for Building Permit.

WATER HARVESTING POND VOLUME CALCULATIONS

POND	CONTOUR ELEVATION	AREA (SF)	VOLUME (CF)
POND 'A'	4952.42	2,320 SF	931.0 CF
	4951.92	1,404 SF	931.0 CF
	TOTAL		931.0 CF
POND 'B'	4953.00	1,166 SF	1,024 CF
	4952.00	882 SF	752 CF
	4951.00	622 SF	511 CF
	4950.00	400 SF	2,287 CF
TOTAL		4,732 CF	
POND 'C'	4952.00	5,704 SF	2,885 CF
	4951.00	3,760 SF	1,440 CF
	4950.00	2,010 SF	1,440 CF
	4949.00	870 SF	9,057 CF
	TOTAL		1,172.5 CF
POND 'D'	4955.00	1,844 SF	699.5 CF
	4954.50	955 SF	304.5 CF
	4954.00	263 SF	168.5 CF
	4953.00	74 SF	
TOTAL		1,172.5 CF	
POND 'E'	4953.00	378 SF	299 CF
	4952.00	220 SF	157 CF
	4951.00	94 SF	456 CF
TOTAL		651.0 CF	
POND 'A'	4952.00	884 SF	651.0 CF
	4951.00	418 SF	651.0 CF
TOTAL		651.0 CF	
SUBTOTAL			14,554.5 CF

IMPERVIOUS AREA CALCULATIONS
PROPOSED SITE CONDITIONS
 PERVIOUS AREA: 66,317 SF
 IMPERVIOUS AREA (EXCL BLDGS): 309,537 SF
 MAIN RETAIL BUILDING AREA: 104,115 SF
 TOTAL SITE AREA: 479,969 SF
 % IMPERVIOUS = 86.18%

NOTE: THE MAIN RETAIL BUILDING IS EXCLUDED FROM THE FIRST FLUSH CALCULATIONS SINCE IT DRAINS TO AN EXISTING BELOW GRADE STORM DRAIN SYSTEM AND CANNOT BE CAPTURED IN THE LANDSCAPE AREAS.

FIRST FLUSH CALCULATION
 TOTAL IMPERVIOUS AREA (LESS MAIN RETAIL BLDG) = 309,537 SF
 FIRST FLUSH = 309,537 * 0.34" / 12 = 8,770 CF
 TOTAL VOLUME PROVIDED = 14,554.5 CF

Existing West Central/Atrisco Drainage Calculations
 This table is based on the COA DPM Section 22.2, Zone:1

BASIN	Area (SQ. FT)	Area (AC.)	Land Treatment Percentages				Q(100) (cfs/ft)	Q(100) (CFS)	WTE (inches)	V(100)360 (CF)	V(100)1440 (CF)	V(100)1080 (CF)
			A	B	C	D	(cfs/ft)	(CFS)	(inches)	(CF)	(CF)	(CF)
A-1	88652	2.04	0.0%	0.0%	13.4%	86.4%	4.16	8.47	1.83	13554	16108	23767
A-2	72473	1.66	0.0%	0.0%	13.4%	86.4%	4.16	6.92	1.83	11081	13168	19430
A-3	62387	1.43	0.0%	0.0%	13.4%	86.4%	4.16	5.96	1.83	9539	11335	16726
A-4	52756	1.21	0.0%	0.0%	13.4%	86.4%	4.16	5.04	1.83	8066	9586	14144
A-5	101524	2.33	0.0%	0.0%	13.4%	86.4%	4.16	9.70	1.83	15523	18446	27218
B-1	104116	2.39	0.0%	0.0%	13.4%	86.4%	4.16	9.94	1.83	15919	18917	27913
C-1	7960	0.18	0.0%	0.0%	13.4%	86.4%	4.16	0.76	1.83	1217	1446	2134
TOTAL	489868	11.25						46.79		74898	89007	131331

Proposed West Central/Atrisco Drainage Calculations
 Ultimate Development Conditions Basin Data Table
 This table is based on the COA DPM Section 22.2, Zone:1

BASIN	Area (SQ. FT)	Area (AC.)	Land Treatment Percentages				Q(100) (cfs/ft)	Q(100) (CFS)	WTE (inches)	V(100)360 (CF)	V(100)1440 (CF)	V(100)1080 (CF)
			A	B	C	D	(cfs/ft)	(CFS)	(inches)	(CF)	(CF)	(CF)
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TOTAL	489868	11.25						46.79		74898	89007	131331

REV	DATE	BY	REVISION
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MODULUS ARCHITECTS
 220 COPPER AVE. N.W. SUITE 350
 ALBUQUERQUE, NEW MEXICO 87102
 PHONE (505) 338-1499 FAX (505) 338-1498

JEFFREY TODD WOOTEN
 NEW MEXICO
 16892
 PROFESSIONAL ENGINEER
 7/27/2016

PROJECT TITLE: WEST CENTRAL PLAZA - PROP. ADDITION
 PROJECT NUMBER: 2015064
 SHEET TITLE: DRAINAGE MANAGEMENT PLAN

DATE: 3/28/2016
 SCALE: AS NOTED
 DRAWN BY: JTW
 SHEET: 1 of 3

Wooten Engineering
 1005 21st Street SE, Suite B1
 Rio Rancho, NM 87124
 Ph: 505.980.3560