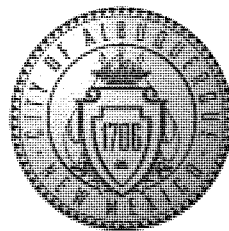


CITY OF ALBUQUERQUE



September 17, 2012

Fred C. Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe St. NE
Albuquerque, NM 87108

Re: Paradise Bakery
Grading and Drainage Plan
Engineer's Stamp dated 8-29-12 (A14/D006)

Dear Mr. Arfman,

Based upon the information provided in your submittal received 9-4-12, the above referenced plan is approved for Grading Permit and Building Permit. Hydrology is requesting that all proposed landscape areas are depressed to retain/infiltrate the moisture that falls on them.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

PO Box 1293

If you have any questions, you can contact me at 924-3695 or Rudy Rael at 924-3977.

Albuquerque

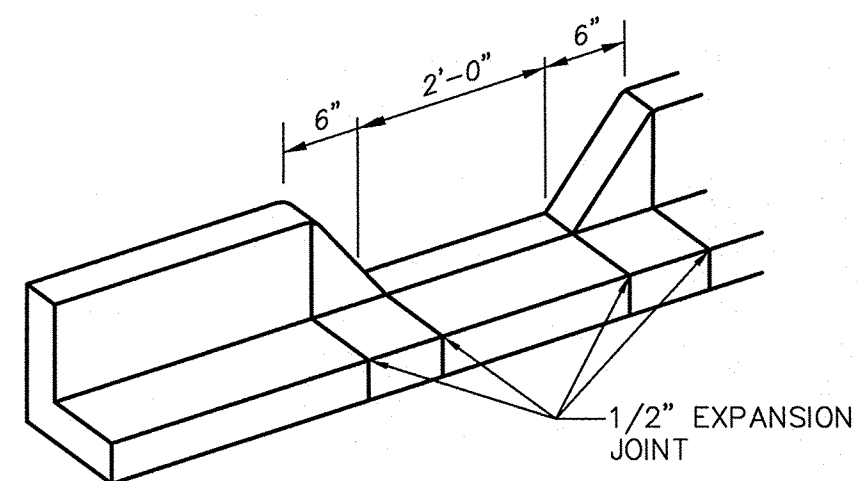
NM 87103

www.cabq.gov

Sincerely,

Shahab Biazar, P.E., CFM.
Senior Engineer, Planning Dept.
Development and Building Services

RER/SB
C: File



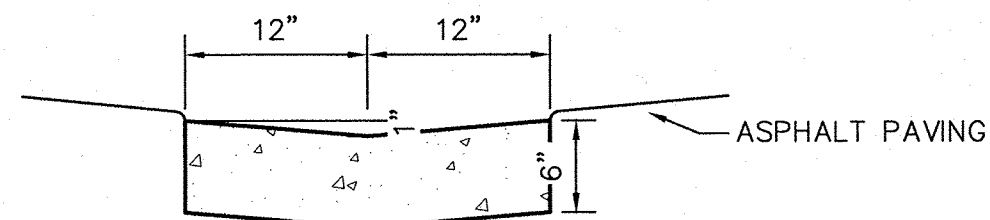
GENERAL NOTES

- EDGES NOT SPECIFICALLY DIMENSIONED SHALL BE SHAPED WITH A 3/8" EDGING TOOL.

1

CURB OPENING

SCALE: N.T.S.



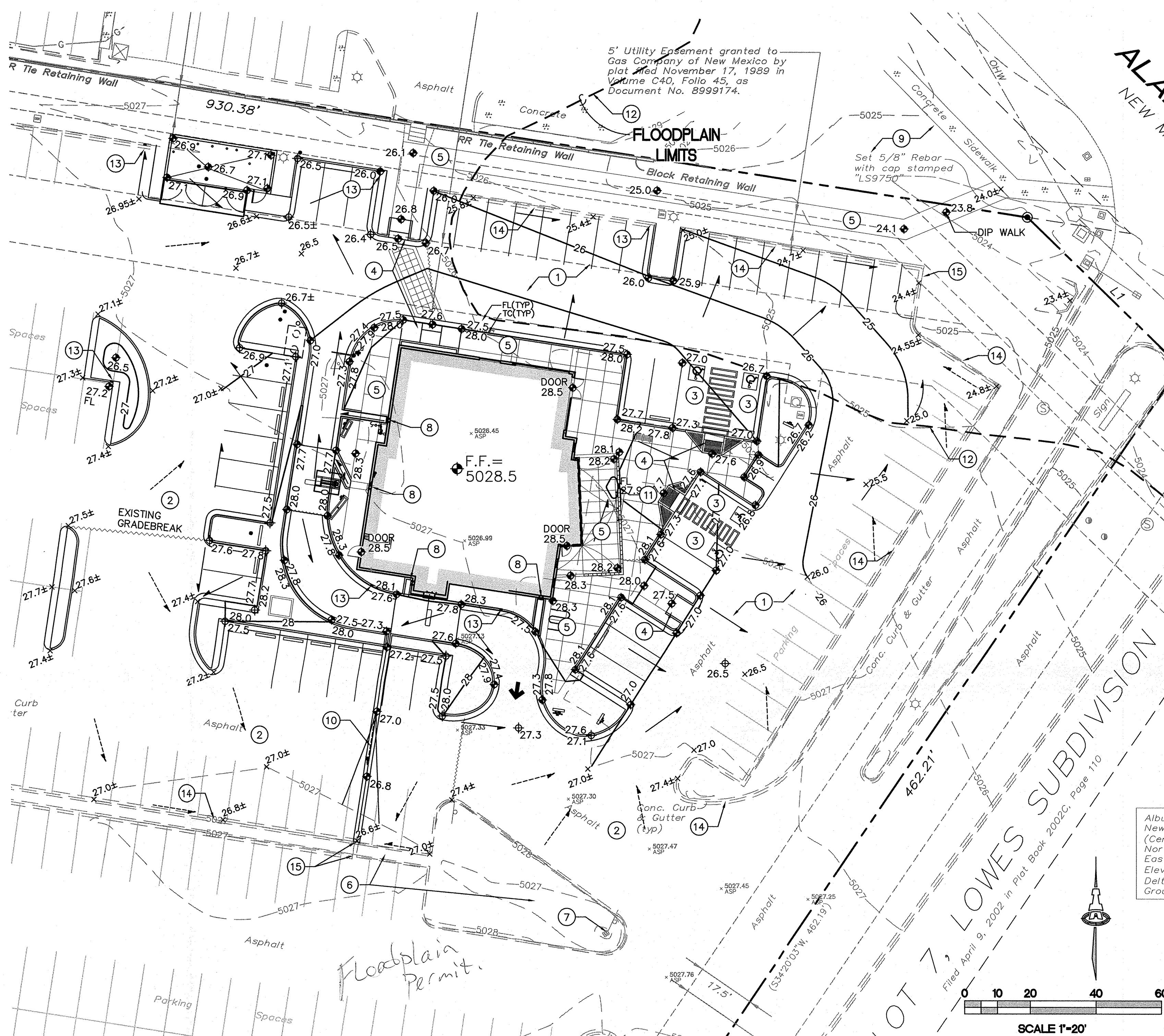
GENERAL NOTES

- EDGES SHALL BE SHAPED WITH A 3/8" EDGING TOOL.
- CONSTRUCTION CONTROL JOINTS AT 6' O.C. MAX.
- 1/2" EXPANSION JOINTS 48' O.C.
- EDGE OF ASPHALT PAVING TO BE 1/2" ABOVE EDGE OF CONCRETE (TYP).

2

CONCRETE ALLEY GUTTER

SCALE: N.T.S.



CALCULATIONS

CALCULATIONS: 1944 - Paradise Bakery : Aug. 28, 2012									
Based on Drainage Design Criteria for City of Albuquerque Section 22.2, DPM, Vol 2, dated Jan., 1993									
ON-SITE									
AREA OF SITE:		41933		SF		=		1.0	
100-year, 6-hour									
HISTORIC FLOWS:				DEVELOPED FLOWS:				EXCESS PRECIP:	
		Treatment SF		%				Precip. Zone	
Area A	=	0	0%	Area A	=	0	0%	E _A	= 0.44
Area B	=	2000	5%	Area B	=	2550	5%	E _B	= 0.67
Area C	=	3964	9%	Area C	=	2000	6%	E _C	= 0.99
Area D	=	35969	86%	Area D	=	37383	89%	E _D	= 1.97
Total Area	=	41933	100%	Total Area	=	41933	100%		
On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)									
Weighted E =				$\frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D}$					
A _A + A _B + A _C + A _D									
Historic E	=	1.82 in.		Developed E	=	1.85 in.			
On-Site Volume of Runoff: V ₃₆₀ = E * A / 12									
Historic V ₃₆₀	=	6344 CF		Developed V ₃₆₀	=	6459 CF			
On-Site Peak Discharge Rate: Q _p = Q _{pA} A _A + Q _{pB} A _B + Q _{pC} A _C + Q _{pD} A _D / 43,560									
For Precipitation Zone 1									
Q _{pA}		=	1.29	Q _{pC}		=	2.87		
Q _{pB}		=	2.03	Q _{pD}		=	4.37		
Historic Q _p	=	4.0 CFS		Developed Q _p	=	4.0 CFS			

GENERAL NOTES

- COORDINATE WORK WITH SITE PLAN AND UTILITY PLAN.
- ALL TRASH, DEBRIS, & SURFACE VEGETATION SHALL BE CLEARED AND LEGALLY DISPOSED OF OFFSITE.
- FINAL GRADES SHOWN REPRESENT TOP OF FINISH MATERIAL (I.E. TOP OF CONCRETE, TOP OF CONCRETE BUILDING PAD, TOP OF PAVEMENT MATERIAL, TOP OF LANDSCAPING MATERIAL, ETC.). CONTRACTOR SHALL GRADE, COMPACT SUBGRADE AND DETERMINE EARTHWORK ESTIMATES BASED ON ELEVATIONS SHOWN MINUS FINISH MATERIAL THICKNESSES.
- MINIMUM SLOPES SHALL BE 1% UNLESS OTHERWISE NOTED.
- EXISTING UTILITY LINES ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND MAY BE INCOMPLETE OR OBSOLETE. SUCH LINES MAY OR MAY NOT EXIST WHERE SHOWN OR NOT SHOWN. ALL UTILITIES SHALL BE FIELD VERIFIED AND LOCATED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES.
- THE ENVIRONMENTAL PROTECTION AGENCY REQUIRES A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR PROJECTS WHERE CONSTRUCTION ACTIVITIES (INCLUDING OTHER LAND-DISTURBING ACTIVITIES) DISTURB ONE ACRE OR MORE IF REQUIRED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTRACTING WITH AND OBTAINING THE NECESSARY INFORMATION TO OBTAIN THE NECESSARY PERMITS.
- ADJUST RIMS OF EXISTING UTILITY FEATURES AS NECESSARY TO MATCH NEW GRADES, TYPICAL.
- NEW GRADES SHOWN AS 'MATCH' OR 'E' REPRESENT AREAS OF OVERLAY AND TRANSITIONS TO EXISTING INFRASTRUCTURE. FIELD ADJUST TO ENSURE POSITIVE DRAINAGE. TRANSITIONS TO EXISTING SHALL BE SMOOTH, SHALL ALLOW FOR POSITIVE DRAINAGE AS INTENDED ON PLAN AND SHALL MEET ADA REQUIREMENTS.
- ALL PERMANENT EROSION PROTECTION TO BE 8" DEPTH OF 6" AVG. DIA. FRACTURED FACED ROCK (F.F. ROCK) OVER GEOTEX 50 NON-WOVEN GEOTEXTILE.
- OWNER SHALL MAINTAIN EROSION PROTECTION ELEMENTS. ENGINEER RECOMMENDS THAT OWNER INSPECT SITE YEARLY AND AFTER EACH RAINFALL TO MAINTAIN GRADES, IDENTIFY NEW AREAS OF EROSION AND INSTALL ADDITIONAL EROSION PROTECTION AS NEEDED BASED ON ACTUAL OCCURRENCES.
- LANDSCAPED AREAS SHALL BE DEPRESSED TO RETAIN MOISTURE THAT FALLS ON THEM FOR INFILTRATION. DO NOT DEPRESS LANDSCAPING WITHIN 10' OF BUILDING.

KEYED NOTES

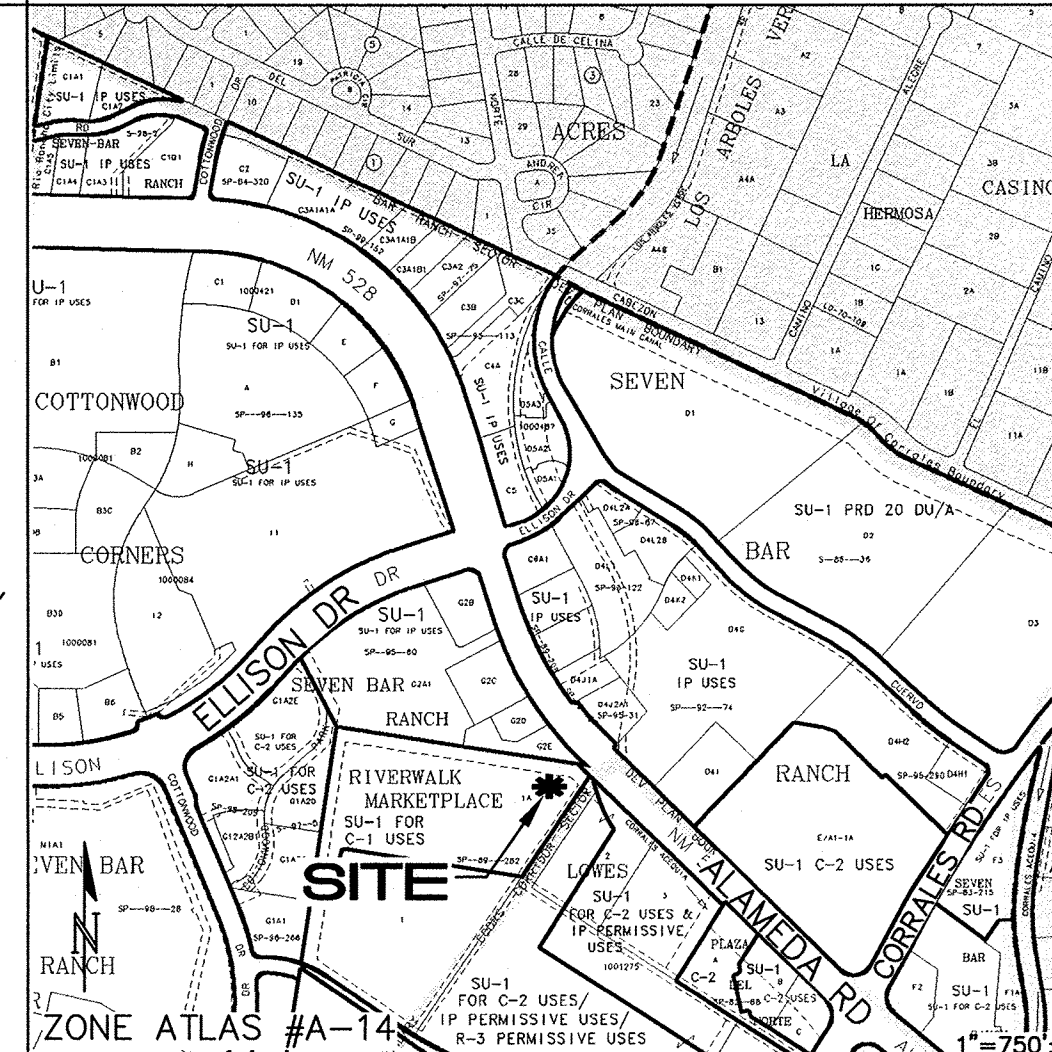
SEE ARCHITECTURAL FOR SITE PAVING DETAILS.

- CONSTRUCT NEW PAVING AT ELEVATIONS SHOWN. SEE ARCHITECTURAL FOR EXTENTS AND PAVING DETAILS. SEE LEGEND FOR CONTOUR AND SPOT ELEVATION SYMBOLS IN AREAS OF PAVING OVERLAY AND AREAS TO BE REGRADED AND REPAVED. TYPICAL.
- EXISTING PAVING TO REMAIN. CONTRACTOR SHALL FIELD VERIFY POSITIVE DRAINAGE AND ELIMINATE ANY EXISTING BIRDBATHS WHERE NECESSARY.
- CONSTRUCT HANDICAP PARKING AREA AT ELEVATIONS SHOWN. SLOPE WITHIN HANDICAP PARKING AREA TO MEET ADA REQUIREMENTS. MAX. SLOPE = 2% IN ANY DIRECTION.
- CONSTRUCT 1:12 (MAX.) RAMP TO ADA STANDARDS. SEE ARCHITECTURAL FOR DETAILS.
- CONSTRUCT CONCRETE PEDESTRIAN WALKS AND PATIOS AT ELEVATIONS SHOWN.
- EXISTING DRAINAGE SWALE WITHIN MATURE LANDSCAPING. CONTRACTOR TO CLEAR EXISTING CURB OPENINGS AND ADJUST LANDSCAPE MATERIAL AS NECESSARY TO PROVIDE POSITIVE SLOPE FROM CURB OPENING TO EXISTING STORM DRAIN INLET.
- EXISTING STORM DRAIN INLET AND OUTLET PIPE. CONTRACTOR TO REMOVE AND DISPOSE OF DIRT AND TRASH AND FLUSH SYSTEM TO RESTORE FUNCTIONALITY.
- PROPOSED ROOF DISCHARGE LOCATION. SEE ARCHITECTURAL FOR COVERED SIDEWALK CULVERTS, ETC. TO DIRECT DISCHARGE BENEATH WALKS TO PAVEMENT.
- EXISTING DETENTION AREA DISCHARGES TO ALAMEDA PUBLIC STORM DRAIN SYSTEM. REESTABLISH ALL DISTURBED SLOPES AND RESEED ALL DISTURBED AREAS.
- CONSTRUCT 2' WIDE CONCRETE ALLEY GUTTER AT GRADES SHOWN. TRANSITION ASPHALT PAVEMENT OVER 4' EACH SIDE. SEE DETAIL THIS SHEET.
- INSTALL THREE (3) 4" DIA. PIPES THROUGH WALL AT LOW POINT SHOWN TO PASS FLOW.
- EXISTING FLOODPLAIN LIMIT (ZONE AO 1' DEPTH).
- PROVIDE 12" WIDE OPENING IN CURB TO PASS MINOR FLOW.
- EXISTING CURB TO REMAIN. NEW ASPHALT GRADES TO MATCH.
- EXISTING CURB OPENING.

LEGEND

- EXISTING SPOT ELEVATION
- EXISTING CONTOUR
- PROPOSED SPOT ELEVATION
- PROPOSED CONTOUR AND SPOT ELEVATIONS AT AREAS OF NEW GRADING / ASPHALT PAVEMENT.
- PROPOSED CONTOUR AND SPOT ELEVATIONS AT AREAS OF ASPHALT OVERLAY.
- PROPOSED SPOT ELEVATIONS AT AREAS OF EXISTING ASPHALT TO REMAIN.
- FLOW ARROW - PROPOSED CONDITION
- FLOW ARROW - EXISTING CONDITION
- FLOW LINE
- FINISHED FLOOR
- GRADE BREAK HIGH POINT

VICINITY MAP



PROJECT DATA

PROPERTY: THE AREA TO BE DEVELOPED IS A FULLY DEVELOPED ASPHALT PARKING LOT PROPERTY WITH ASSOCIATED LANDSCAPED ISLANDS AND STRIPING LOCATED WITHIN C.O.A. VICINITY MAP A-14. THE SITE IS BOUND TO THE NORTH BY N.M. STATE HIGHWAY 528, AND TO THE WEST, SOUTH AND EAST BY DEVELOPED COMMERCIAL PROPERTY.

PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE AN 4,160 SF(±) COMMERCIAL RESTAURANT WITH ASSOCIATED ASPHALT PAVED PARKING AND LANDSCAPING.

LEGAL: A PORTION OF LOT 1-A, RIVERWALK MARKETPLACE, CITY OF ALBUQUERQUE BERNALILLO COUNTY, NEW MEXICO

SURVEYOR: SURV-TEK
RUSS HUGG - NMPS#9750
9384 VALLEY VIEW DRIVE
ALBUQUERQUE, NM 87114
505-897-3366

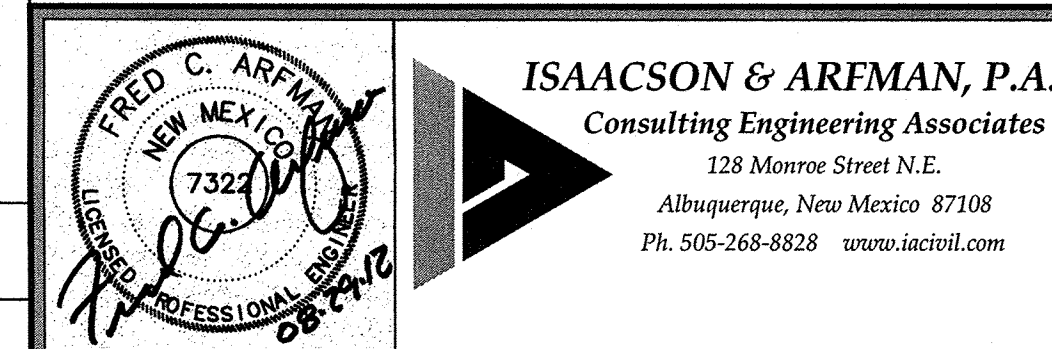
BENCHMARK: VERTICAL DATUM FOR THIS PROJECT IS BASED UPON ALBUQUERQUE CONTROL SURVEY MONUMENT "NM-448-N12", HAVING A PUBLISHED ELEVATION OF 5,026.132 FEET (NAVD 1988).

OFF-SITE: HISTORIC FLOW FROM THE WEST PORTION OF LOT-1, RIVERWALK MARKETPLACE WILL CONTINUE TO PASS THROUGH THIS PROPERTY. MINOR GRADING WILL DIVERT THIS FLOW AROUND THE PROPOSED BUILDING WHICH WILL THEN RETURN TO THE HISTORIC FLOWPATHS.

FLOOD HAZARD: PER BERNALILLO COUNTY FIRM MAP #35001C0109H DATED AUGUST 16, 2012, THE MAJORITY OF THE SITE IS LOCATED WITHIN FLOODZONE 'X' DESIGNATED AS AREAS DETERMINED TO BE OUTSIDE THE 0.2-PERCENT-ANNUAL-CHANCE FLOODPLAIN. A PORTION AT THE NORTHEAST CORNER OF THE PROPERTY FALLS WITHIN FLOODZONE AO (DEPTH 1') DESIGNATED AS AREAS OF SHEET-FLOW SHALLOW FLOODING TO A DEPTH OF 1'.

DRAINAGE PLAN CONCEPT:

PER THE CALCULATIONS, THE CURRENT AND PROPOSED DEVELOPED CONDITIONS EACH GENERATE APPROXIMATELY 4.0 CFS. THE SITE WILL CONTINUE TO DISCHARGE TO THE EXISTING CURB OPENING / STORM DRAIN INLET TO THE SOUTH AND TO THE EXISTING DETENTION AREA (FLOODZONE DESIGNATION AO) TO THE NORTH. CONTROLLED RUNOFF FROM THE DETENTION BASIN WILL CONTINUE TO PASS UNDISTURBED, TO THE EXISTING ALAMEDA STORM SEWER.



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PARADISE BAKERY

SEP - 4 2012

HYDROLOGY SECTION

GRADING AND DRAINAGE PLAN

Date:	08-23-12	No.:	Revision:	Date:	Job No.
Drawn By:					1944
Ckd By:	FCA				CG-101
					SH. OF