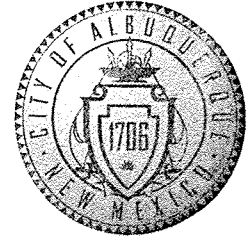


CITY OF ALBUQUERQUE



October 8, 2008

Genny Donart, PE
Isaacson & Arfman
128 Monroe NE
Albuquerque, NM 87108

Re: Westside Medical Office Grading and Drainage Plan
Engineer's Stamp dated 10-6-08, (B13/D22A)

Dear Ms. Donart,

Based upon the information provided in your submittal dated 10-6-08, the above referenced plan is approved for Building Permit and SO19 Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

This project requires a National Pollutant Discharge Elimination System (NPDES) permit. In addition to submitting an NOI to the EPA and preparing a SWPPP, please send a copy of the SWPPP on a CD in .pdf format to the following address:

PO Box 1293

Albuquerque

NM 87103

www.cabq.gov

Department of Municipal Development
Storm Drainage Division
P.O. Box 1293, One Civic Plaza, Rm. 301
Attn: Kathy Verhage
Albuquerque, NM 87103

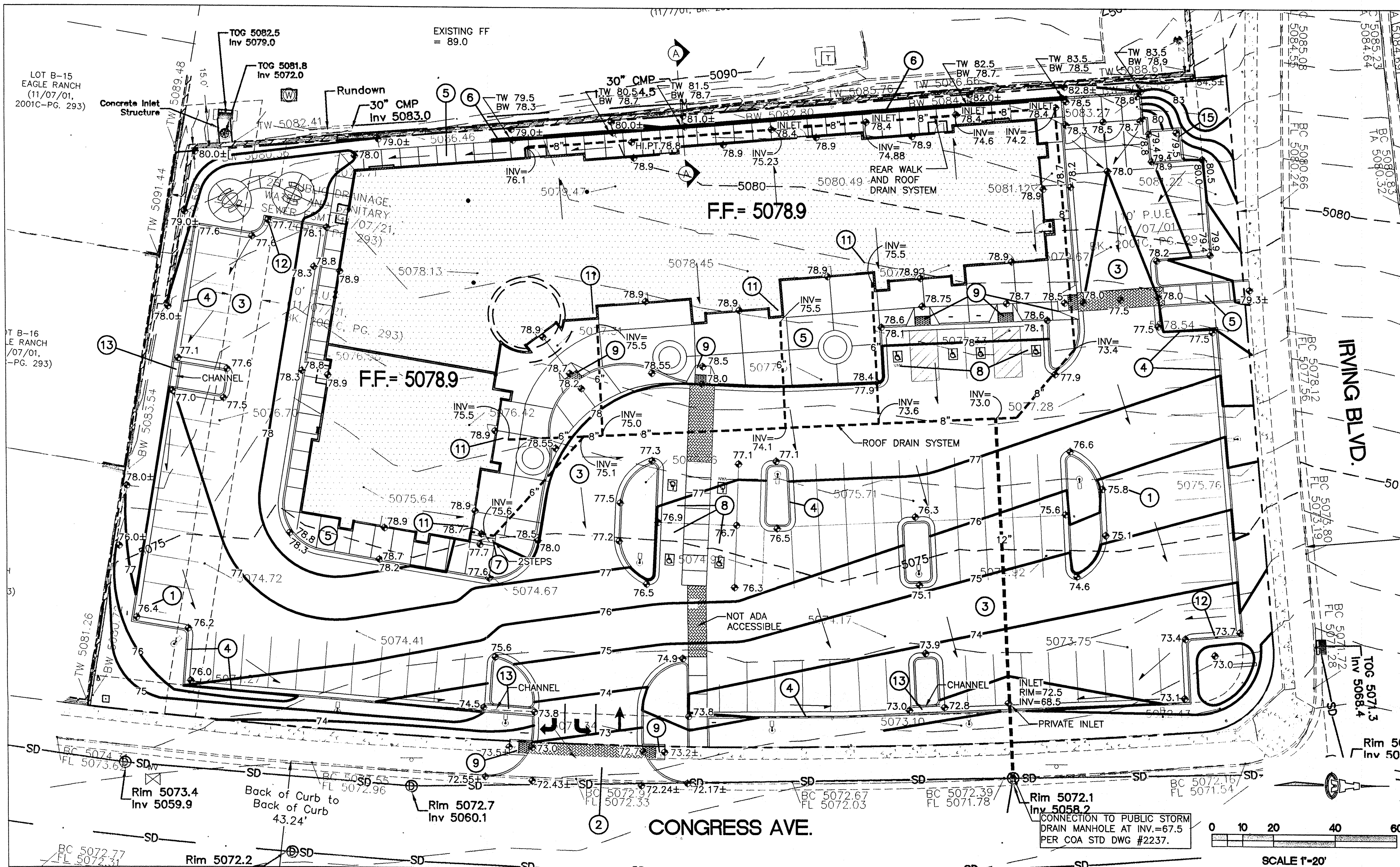
This SWPPP CD will be a requirement of signing off the Building Permit. If you have any questions about this permit, please feel free to call the Municipal Development Department, Hydrology section at 768-3654.

If you have any questions, you can contact me at 924-3986.

Sincerely,

Bradley L. Bingham, PE
Principal Engineer, Planning Dept.
Development and Building Services

C: Kathy Verhage, DMD
Duane Schmitz, DMD
file



PROJECT DATA

PROPERTY: THE SITE IS A 1.69 ACRE UNDEVELOPED SU-1 (FOR C-1 WITH RESTRICTED USES) PROPERTY LOCATED WITHIN C.O.A. VICINITY MAP B-13. THE SITE IS BOUND TO THE EAST BY IRVING BLVD., TO THE WEST BY DEVELOPED RESIDENTIAL, TO THE NORTH BY DEVELOPED COMMERCIAL AND TO THE SOUTH BY CONGRESS AVE.

PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE APPROX. 15,440 SF MEDICAL OFFICE BUILDING WITH ASSOCIATED ASPHALT PAVED ACCESS, PARKING, AND LANDSCAPING.

LEGAL: TRACT 10-A, PLAT OF EAGLE RANCH, ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO.

ADDRESS: 4401 IRVING BLVD. N.W. - 87114

BENCHMARK: ACS MONUMENT "6-C12" HAVING AN ELEVATION OF 5200.744 (NAVD 1988).

OFF-SITE: PER SAD 226, THE PROPERTY TO THE NORTH DRAINS TO AN EXISTING DOUBLE 'D' CATCH BASIN AT ITS SOUTHWEST CORNER. THIS FLOW (APPROX. 9.4 CFS) THEN PASSES TO AN EXISTING 36" DIA. SQUASH PIPE TO BE ROUTED SOUTH WITHIN AN EXISTING PUBLIC STORM DRAIN EASEMENT TO THE CONGRESS AVENUE PUBLIC STORM DRAIN SYSTEM. NO SURFACE OFF-SITE FLOW AFFECTS THIS PROPERTY.

FLOOD HAZARD: PER BERNALILLO COUNTY FIRM MAP #108, THE SITE IS LOCATED WITHIN FLOODZONE 'X' DESIGNATED AS AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN.

DRAINAGE PLAN CONCEPT:

THIS SITE WAS INCLUDED AS PART OF SSD 226 AND WAS ORIGINALLY PLANNED FOR MULTI-FAMILY RESIDENTIAL. PER SAD 226, THE CALCULATED SITE DISCHARGE WAS BASED ON LAND TREATMENTS OF 10% B, 10% C AND 80% D FOR A TOTAL ALLOWABLE DISCHARGE OF 6.7 CFS.

THE F.F. ELEVATION OF 5078.9 FOR THE PROPOSED BUILDING IS BASED ON AN 8% PAVEMENT SLOPE FROM THE EXISTING CONGRESS BLVD. FLOWLINE TO THE BUILDING.

A SECOND RETAINING WALL (DESIGN BY OTHERS) ALONG THE NORTH AND EAST PROPERTY LINES WILL BE REQUIRED (FROM 1' TO 5' HIGH) TO ACHIEVE THE REQUIRED GRADE DIFFERENCES.

ALL SITE DISCHARGE WILL FREE DISCHARGE AS FOLLOWS: APPROXIMATELY 30% WILL DRAIN OUT THE PROPOSED ACCESS DRIVE TO TRAVEL A SHORT DISTANCE EAST TO ENTER THE EXISTING STORM DRAIN SYSTEM. THE REMAINING 70% WILL BE CAPTURED IN A PRIVATE STORM DRAIN SYSTEM AND DISCHARGED DIRECTLY INTO AN EXISTING STORM DRAIN MH AS SHOWN.

VICINITY MAP B-13



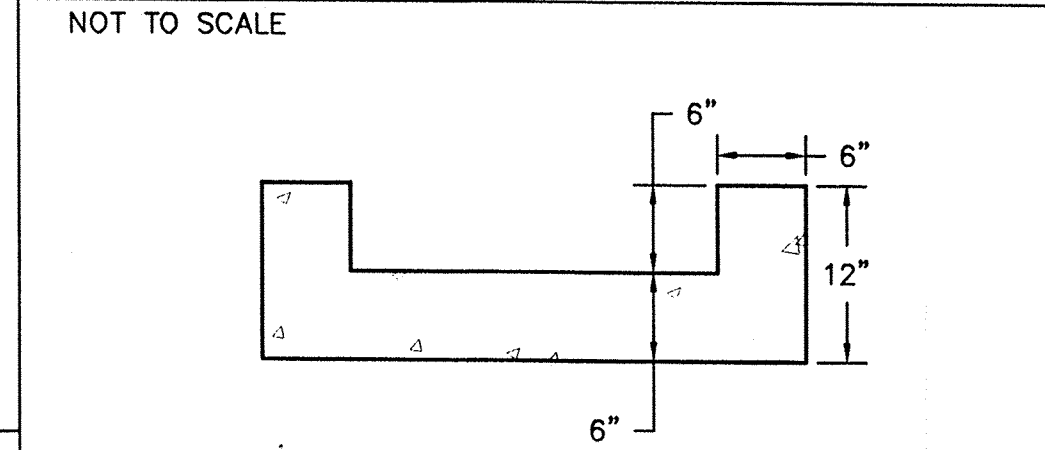
KEYED NOTES

- SPOT ELEVATION TEXT WITHIN FLOWLINE AREA REPRESENT FLOWLINE UNLESS NOTED. ADD 0.5' TYPICAL FOR TOP OF CURB / TOP OF ADJACENT WALK ELEVATIONS.
- SITE ACCESS - CONSTRUCT TO ELEVATIONS SHOWN. SAWCUT EXISTING ASPHALT TO PROVIDE SMOOTH BONDING EDGE. MATCH EXISTING INFRASTRUCTURE.
- CONSTRUCT ASPHALT PAVING AT ELEVATIONS SHOWN.
- CONSTRUCT MEDIAN CURB AND GUTTER AT ALL CURB LOCATIONS UNLESS NOTED.
- CONSTRUCT CONCRETE WALK AT ELEVATIONS SHOWN.
- CONSTRUCT RETAINING WALL - STRUCTURAL DESIGN BY OTHERS.
- STEP(S) IN CONCRETE WALK. SEE ARCHITECTURAL.
- SLOPES WITHIN HANDICAP PARKING AREA TO MEET ADA REQUIREMENTS. MAX. SLOPE = 2% IN ANY DIRECTION.
- CONSTRUCT HANDICAP ACCESS RAMP TO ADA STANDARDS.
- NOT USED.
- ROOF DISCHARGE TO BE PIPED TO PROPOSED PRIVATE STORM DRAIN SYSTEM. SEE ARCHITECTURAL FOR ADDITIONAL INFORMATION.
- PROVIDE 1' WIDE OPENING IN CURB TO PASS FLOW TO / FROM DEPRESSED LANDSCAPING AREA.
- CONSTRUCT 2' WIDE "U" SHAPED CONCRETE CHANNEL AT FL ELEVATIONS SHOWN. SEE DETAIL THIS SHEET.
- INSTALL 6" DIA. INLINE DRAIN WITH DOMED GRATE (RIM=06.7) AND 4" OUTLET PIPE IN LANDSCAPING. EXTEND 4" DIA. DRAIN LINE THROUGH CURB PER C.O.A. STD. DWG. 2235.
- CONSTRUCT CONCRETE TRANSFORMER PAD WITH MAX. 24" RETAINING WALL AS NECESSARY TO ACHIEVE GRADE DIFFERENCES SHOWN.

GENERAL NOTES

- COORDINATE WORK WITH SITE PLAN, UTILITY PLAN, AND LANDSCAPING PLAN.
- ALL TRASH, DEBRIS, & SURFACE VEGETATION SHALL BE CLEARED AND LEGALLY DISPOSED OF OFFSITE.
- ALL SUBGRADE, OVEREXCAVATION, AND FILL SHALL BE PLACED AND / OR COMPACTED PER THE GEOTECHNICAL REPORT AND CITY OF ALBUQUERQUE SPECIFICATIONS.
- 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.
- MAXIMUM SLOPES SHALL BE 3:1. 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 SHOULD 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 AND THE CITY OF ALBUQUERQUE REQUIRE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) FOR PROJECTS WHERE CONSTRUCTION ACTIVITIES (INCLUDING OTHER LAND-DISTURBING ACTIVITIES) DISTURB ONE ACRE OR MORE (BY OTHERS). A SWPPP MUST BE INCLUDED WITH THE CONTRACTOR'S SUBMITTAL FOR A ROUGH GRADING, GRADING, PAVING OR BUILDING PERMIT. THE SWPPP MUST BE IN PDF OR MS WORD FORMAT ON A CD.
- ADJUST RIMS OF EXISTING UTILITY FEATURES AS NECESSARY TO MATCH NEW GRADES, TYPICAL.
- ALL NEW PAVEMENT SURFACES SHALL BE CONSTRUCTED WITH POSITIVE SLOPE AWAY FROM BUILDINGS AND POSITIVE SLOPE TOWARD EXISTING AND/OR PROPOSED DRAINAGE PATHS. WHERE NEW GRADES ARE SHOWN AS 'MATCH' OR '±', TRANSITIONS SHALL BE SMOOTH AND LEVEL.
- ALL FRACTURED FACE ROCK (F.F. ROCK) TO BE 6" AVG. DIA. ANGULAR FRACTURED FACE ROCK PLACED OVER GEOTEXT 50 NON-WOVEN GEOTEXTILE (O.E.). NOTE: PERMANENT TURF REINFORCEMENT MATERIAL (LANDLOK TRM 450 O.E.) MAY BE SUBSTITUTED AT ALL AREAS REFERENCE F.F. ROCK EROSION PROTECTION.
- SIDESLOPES STEEPER THAN 3:1 BUT LESS THAN 2:1 MUST HAVE PERMANENT EROSION CONTROL (F.F. ROCK OR LANDLOK TRM 450 O.E.) INSTALLED, TYPICAL. NO SLOPE SHALL BE STEEPER THAN 2:1.
- OWNER SHALL MAINTAIN EROSION PROTECTION ELEMENTS. OWNER SHALL INSPECT SITE YEARLY AND AFTER EACH RAINFALL TO IDENTIFY NEW AREAS OF EROSION AND INSTALL ADDITIONAL EROSION PROTECTION AS NEEDED BASED ON ACTUAL OCCURRENCES.

"U" SHAPED CONCRETE CHANNEL



LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- FLOW ARROW
- FF = 6881.0 FINISH FLOOR ELEVATION
- SIDEWALK CULVERT
- FLOWLINE ELEVATION
- INVERT ELEVATION
- DRAIN LINE WITH SIZE
- ADDITIONAL NON-RETAINING WALL HEIGHT. SEE ARCHITECTURAL.
- TW XXX.X TOP OF RETAINING WALL ELEVATION
- BW XXX.X BOTTOM OF RETAINING WALL ELEVATION
- SEE STRUCTURAL PLAN FOR RETAINING WALL DESIGN

DRAINAGE CALCULATIONS

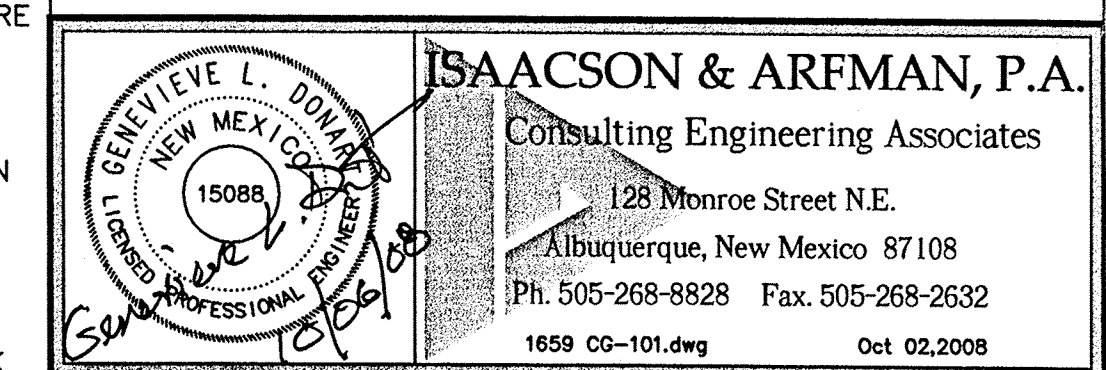
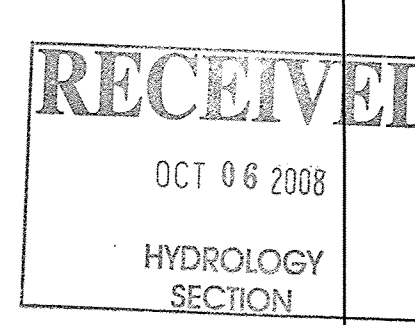
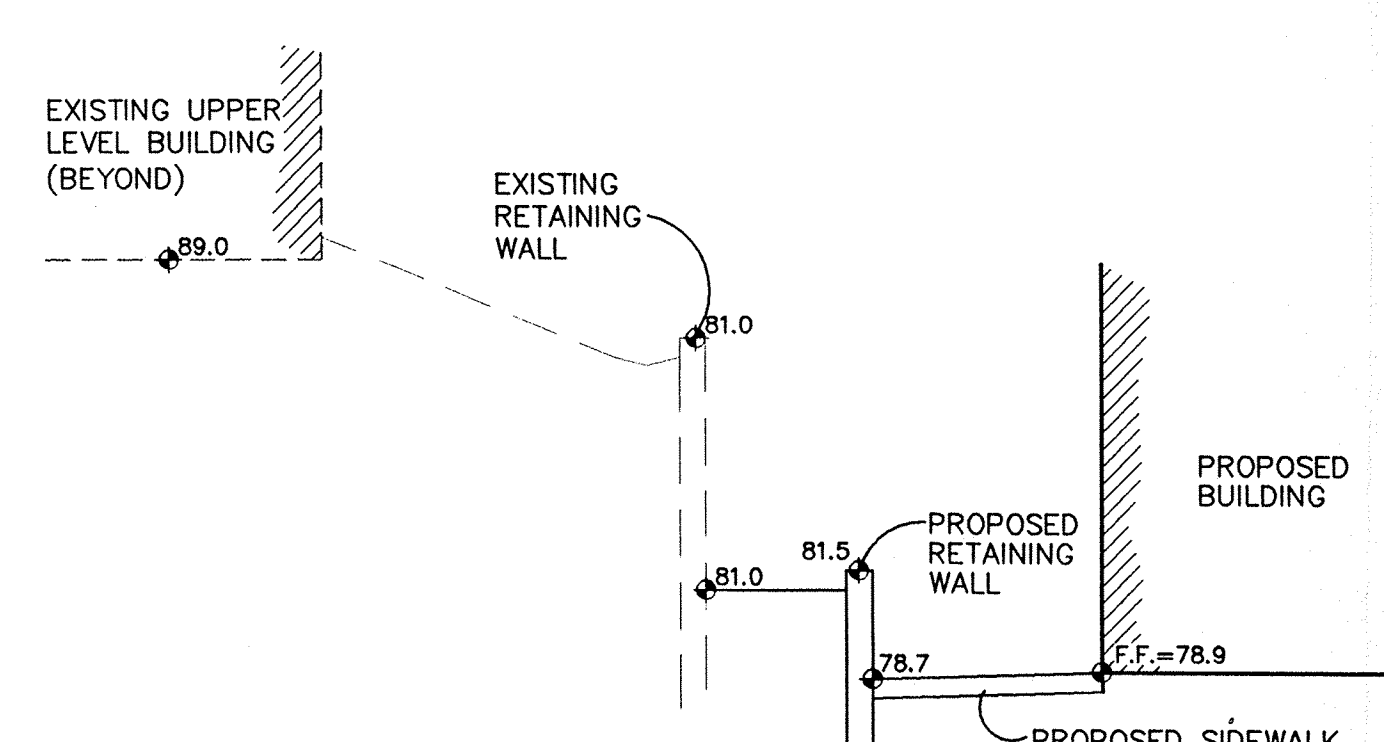
CALCULATIONS: 1659 - WEST SIDE MEDICAL OFFICE : April 23, 2008				
Based on Drainage Design Criteria for City of Albuquerque Section 22.2, DPM, Vol 2, dated Jan., 1993				
ON-SITE				
AREA OF SITE:	73429 SF	=	1.69	Ac.
ALLOWABLE DISCHARGE				
DEVELOPED FLOWS:				
EXCESS PRECIP:				
On-Site Historic Land Condition	Area a = 0 SF	On-Site Developed Land Condition	Area a = 0 SF	Ea = 0.44
Area b = 7343 SF		Area b = 3671 SF		Eb = 0.67
Area c = 7343 SF		Area c = 7343 SF		Ec = 0.99
Area d = 58743 SF		Area d = 62415 SF		Ed = 1.97
Total Area = 73429 SF		Total Area = 73429 SF		
On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)				
Weighted E = $\frac{EaAa + EbAb + EcAc + EdAd}{Aa + Ab + Ac + Ad}$				
E = 1.74 in.		Developed E = 1.81 in.		
On-Site Volume of Runoff: V360 = $\frac{E \cdot A}{12}$				
V360 = 10659 CF		Developed V360 = 11057 CF		
On-Site Peak Discharge Rate: Qp = $\frac{QpaAa + QpbAb + QpcAc + QpdAd}{43.560}$				
For Precipitation Zone 1				
Qpa = 1.29		Qpc = 2.87		
Qpb = 2.03		Qpd = 4.37		
Qp = 6.7 CFS		Developed Qp = 6.9 CFS		

S.O.19 : NOTICE TO CONTRACTORS

- AN EXCAVATION / CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN THE CITY RIGHT-OF-WAY.
 - ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THROUGH UPDATE #7 AMENDMENT 1.
 - TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (260-1990) FOR LOCATION OF EXISTING UTILITIES.
 - PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
 - BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC / STREET USE.
 - MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
 - WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.
- APPROVAL NAME _____ DATE _____
- INSPECTOR _____

SECTION A-A

SCALE: 1"=5'



WEST SIDE MEDICAL OFFICE

4410 IRVING BLVD. NW

GRADING AND DRAINAGE PLAN

Date: 4-22-08	No. 1	Revised	Date	Job No. 1659
Drawn By: BJB				CG-101
Ckd By: FCA				SH. OF