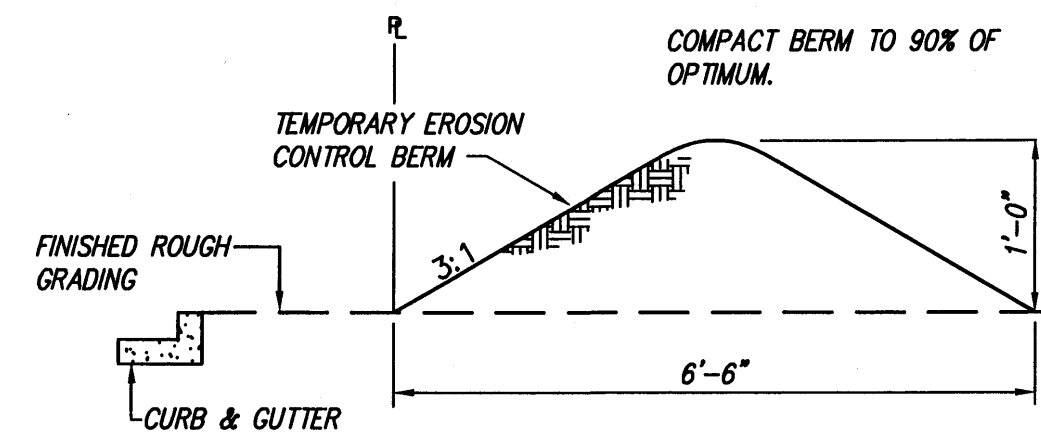


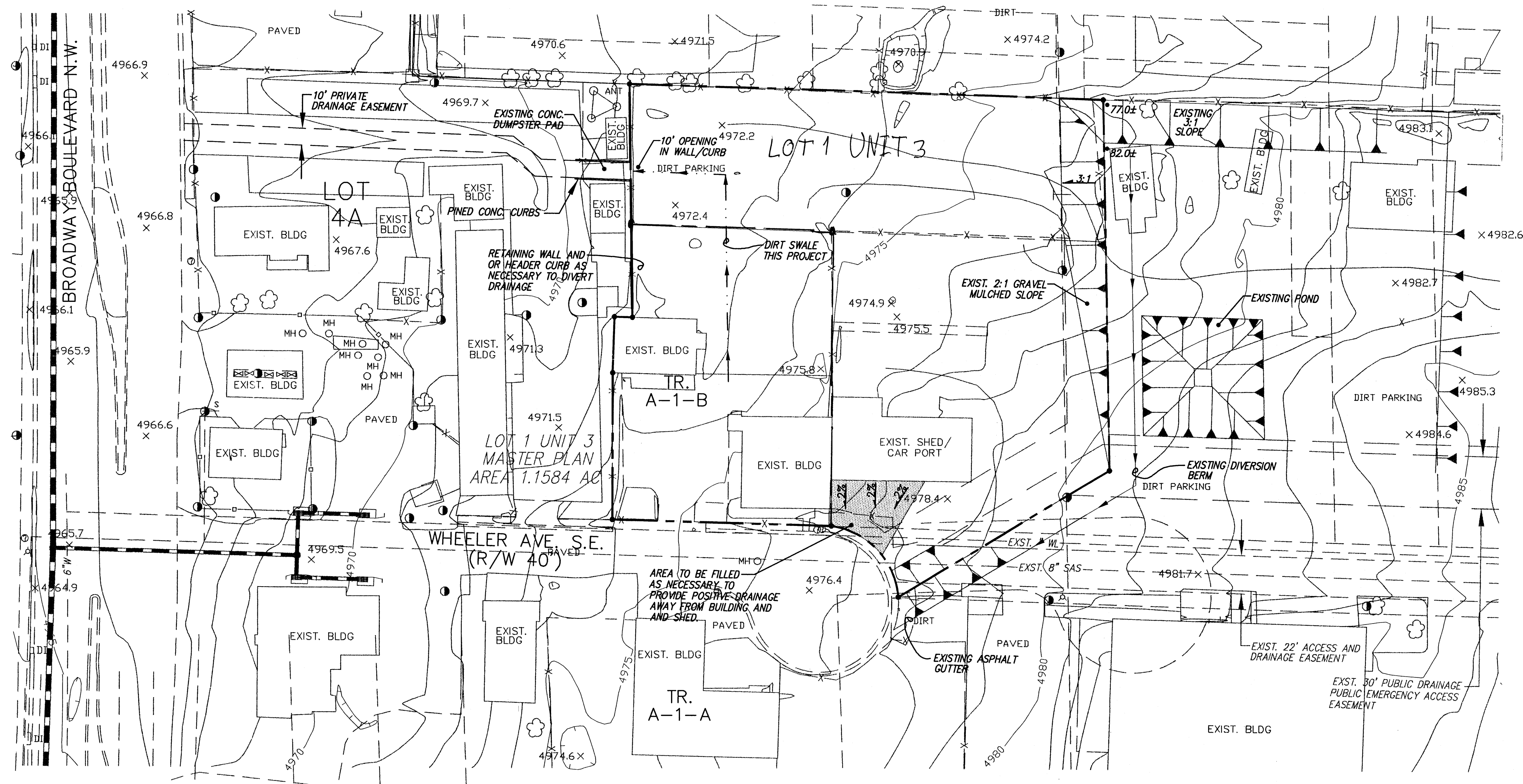
# EROSION CONTROL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK, IF ONE IS REQUIRED.
2. CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL SEDIMENT OUT OF EXISTING RIGHT-OF-WAY.
3. CONTRACTOR IS RESPONSIBLE FOR CLEANING UP ANY SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
4. EROSION CONTROL BERMS ARE REQUIRED AROUND THE ENTIRE SITE.
5. ALL EROSION CONTROL BERMS MUST BE IN PLACE AND ENGINEER CERTIFIED PRIOR TO BUILDING PERMIT RELEASE.
6. TWO DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (260-1990) AND DETERMINE LOCATION EXISTING UTILITIES.



EROSION CONTROL BERM DETAIL

N.T.S.



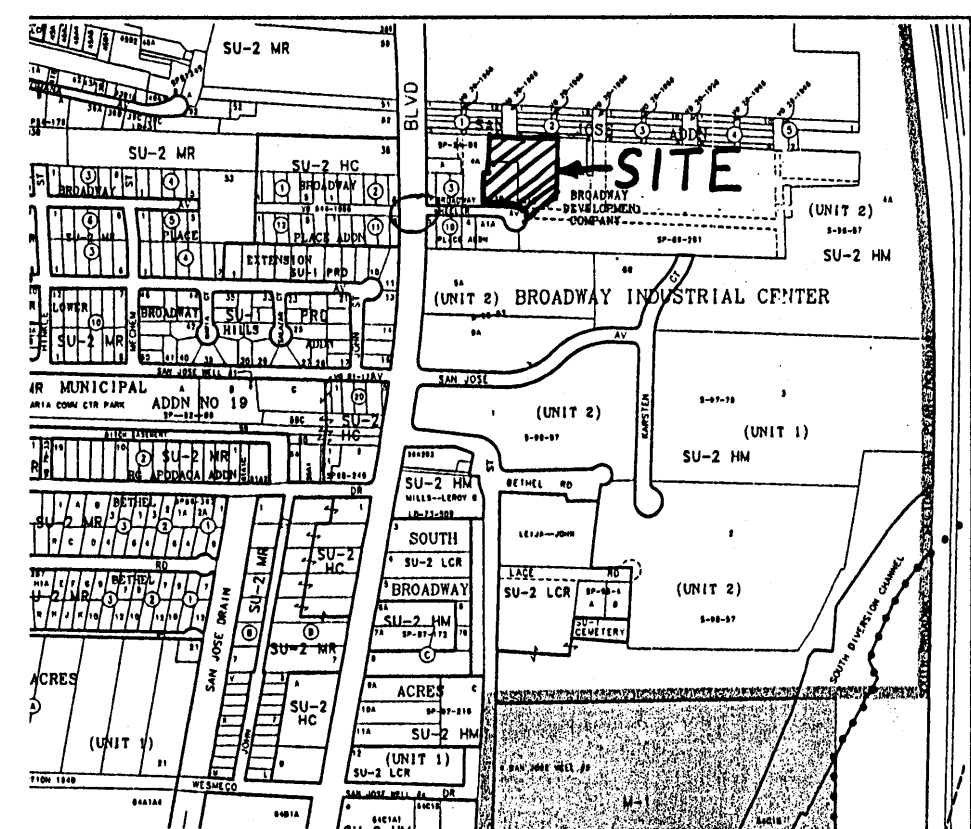
## DRAINAGE MANAGEMENT PLAN

THE PURPOSE OF THIS DRAINAGE PLAN IS TO MODIFY THE PREVIOUSLY APPROVED PLANS FOR THE TWO ADJACENT TRACTS (LOT 4A, BLOCK 3 AND LOT 1, UNIT 3). THE OWNER OF TRACT A-1-B (BIXBY ELECTRIC) HAS PURCHASED LOT 1, UNIT 3 AND WISHES TO CLEARLY ESTABLISH THE DEVELOPED DRAINAGE PATTERN FOR THESE TWO LOTS COMBINED.

THE DRAINAGE FROM LOT 1, UNIT 3 BROADWAY INDUSTRIAL CENTER WILL FLOW IN ITS HISTORIC PATTERN TO THE NORTHWEST CORNER WHERE IT WILL BE FREELY DISCHARGED ONTO LOT 4A, BLOCK 3 BROADWAY PLACE ADDITION INSTEAD OF DRAINING TO WHEELER AVE AS SHOWN ON THE BROADWAY INDUSTRIAL CENTER DRAINAGE MASTER-PLAN WITH ENGINEER'S STAMP DATED 1-26-99 AND REVISED 2-4-99. THE GRADING SHOWN ON THAT MASTERPLAN CAN NOT BE ACCOMPLISHED BECAUSE AN EXISTING SHED IS IN THE WAY.

THE CHANGE TO THE DRAINAGE PLAN FOR LOT 4D, BLOCK 3 BROADWAY PLACE ADDITION IS THAT UPSTREAM OFF-SITE FLOWS WILL NOW BE ALLOWED TO ENTER THE PROPERTY AND FLOW THROUGH IN A 10' PRIVATE DRAINAGE EASEMENT TO BROADWAY BLVD ACCORDING TO HISTORIC PATTERNS BUT AT REDUCED RATES. THE PERMANENT DIVERSION OF UPSTREAM FLOWS FROM BROADWAY INDUSTRIAL CENTER LOTS 2, 3, 4, 6, 7 AND 8, UNIT 3 INTO STORM SEWER IN BROADWAY BLVD WILL REDUCE FLOWS THROUGH LOT 4A BROADWAY PLACE ADDITION SUCH THAT THIS SITE MAY DEVELOP AT 90% IMPERVIOUS COVER AND FREE DISCHARGE TO LOT 4A WITHOUT INCREASING FLOWS THERE AND WITHOUT EXCEEDING DOWN STREAM CAPACITY AS ESTABLISHED BY THE SOUTH BROADWAY SECTOR PLAN. PERMANENT PONDS WITHIN BROADWAY INDUSTRIAL CENTER ALLOW FREE DISCHARGE FROM THIS SITE.

TEMPORARY ON-SITE RETENTION PONDS ARE REQUIRED FOR ALL NEW DEVELOPMENTS, BOTH ON THIS SITE AND UPSTREAM OF THIS SITE IN BROADWAY INDUSTRIAL CENTER UNTIL THE 72" STORM SEWER IS CONSTRUCTED IN BROADWAY BLVD TO THE SAN JOSE DRAIN. NEW DEVELOPMENT IS NOT CURRENTLY PROPOSED FOR THIS SITE.



VICINITY MAP ZONE MAP: ## M-14

## LEGAL DESCRIPTION

TRACT A-1-B LANDS OF BROADWAY DEVELOPMENT CO. AND LOT 1, UNIT 3, BROADWAY INDUSTRIAL CENTER.

## LEGEND

- EXISTING 3:1 SLOPE
- EXISTING 2:1 SLOPE WITH GRAVEL MULCHED SLOPE
- LIMITS OF GRADING
- TRACT/LOT BOUNDARY
- EASEMENTS
- SWALE
- PINED CONCRETE CURB
- RETAINING WALL OR HEADER CURB
- EXISTING STORM DRAIN LINE
- EXISTING SANITARY SEWER
- 5135 EXISTING CONTOUR
- x 00.00 EXISTING SPOT ELEVATION
- EXISTING CURB AND GUTTER
- EXISTING SANITARY SEWER MANHOLE
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING DROP INLET
- OE EXISTING OVERHEAD ELECTRIC
- EXISTING EDGE OF PAVEMENT
- EXISTING EASEMENTS
- WL EXISTING WATERLINE
- x-x-x EXISTING FENCE
- EXISTING GUY
- EXISTING STREET LIGHT

BIXBY ELECTRIC

GRADING & DRAINAGE PLAN



MARK GOODWIN & ASSOCIATES, P.A.  
CONSULTING ENGINEERS

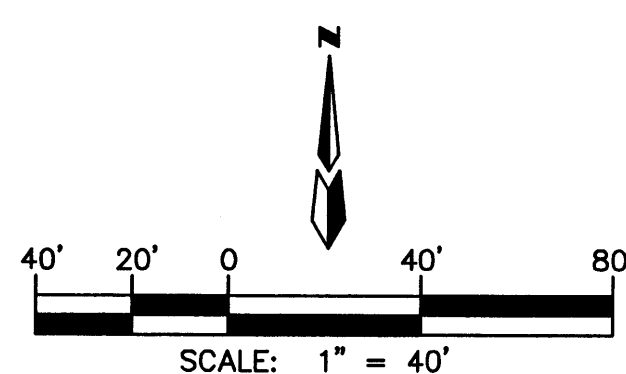
P.O. BOX 90606  
ALBUQUERQUE, NEW MEXICO 87199  
(505)828-2200, FAX (505)797-9539

Designed: JDH Drawn: ACH Checked: DMG  
Scale: 1" = 40' Date: 10-18-99 Job: 99104 Sheet 1 of 1

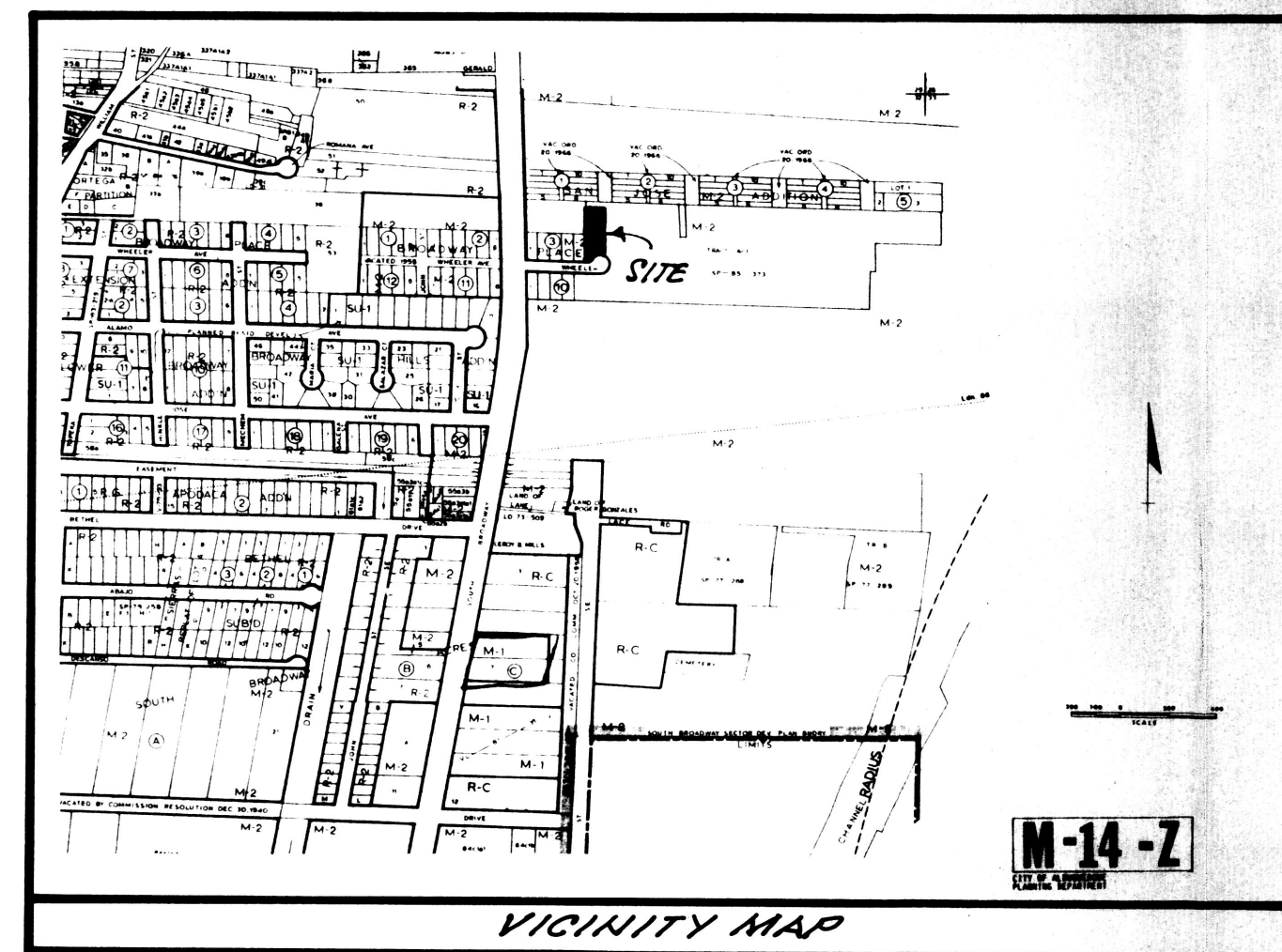
9104BIX/9104GD40/10-06-99/ACH

## GENERAL NOTES

1. GRADING THIS PROJECT IS LESS THAN 500 YARDS AN DOES NOT REQUIRE GRADING PERMIT.
2. TOPO FROM 1997 AERIAL PHOTOS BY THOMAS R. MANN.







#### CONSTRUCTION NOTES:

- 1.) TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE AT 260-1290 FOR LOCATION OF EXISTING UTILITIES.
- 2.) PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL OBSTRUCTIONS: SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM OF DELAY.
- 3.) ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- 4.) ALL CONSTRUCTION WITHIN CITY RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

#### EROSION CONTROL MEASURES:

THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR MANAGEMENT FOR STORM RUN-OFF DURING CONSTRUCTION; HE SHALL INSURE THAT THE FOLLOWING MEASURES ARE TAKEN:

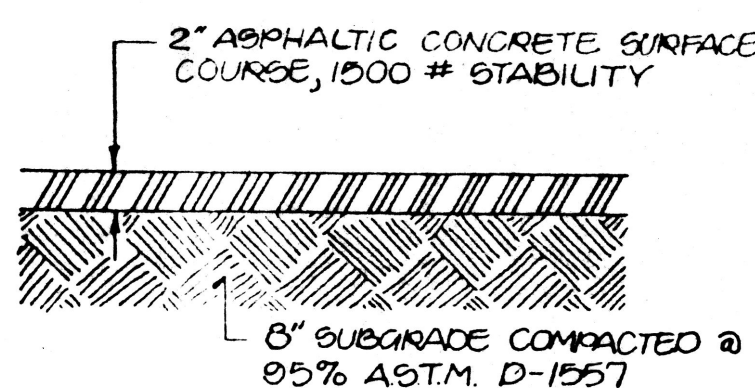
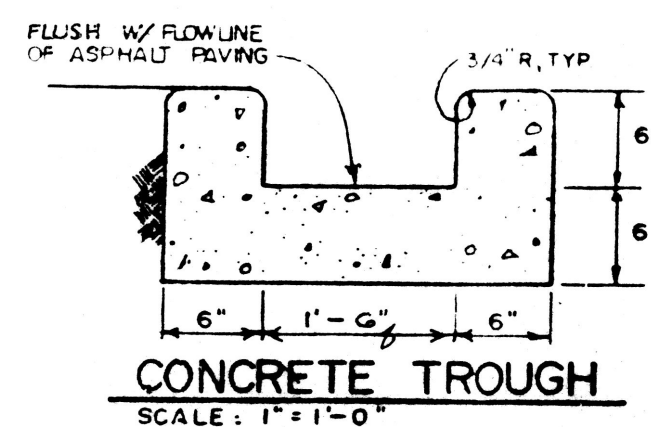
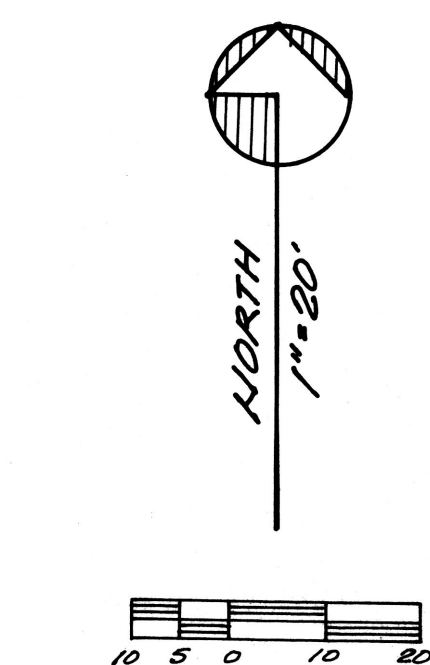
- 1.) ADJACENT PROPERTY SHALL BE PROTECTED AT ALL TIMES BY CONSTRUCTION OF BERMS, DIKES, SWALES, PONDS, AND OTHER TEMPORARY GRADING AS REQUIRED TO PREVENT STORM RUNOFF FROM LEAVING THE SITE AND ENTERING ADJACENT PROPERTIES.
- 2.) ADJACENT PUBLIC RIGHT-OF-WAYS SHALL BE PROTECTED AT ALL TIMES FROM STORM WATER RUNOFF FROM THE SITE. NO SEDIMENT BEARING WATER SHALL BE PERMITTED TO ENTER PUBLIC STREETS.
- 3.) THE CONTRACTOR SHALL IMMEDIATELY AND THOROUGHLY REMOVE ANY AND ALL SEDIMENT WITHIN PUBLIC STREETS THAT HAS BEEN ERODED FROM THE SITE AND DEPOSITED THERE.

#### GENERAL NOTES:

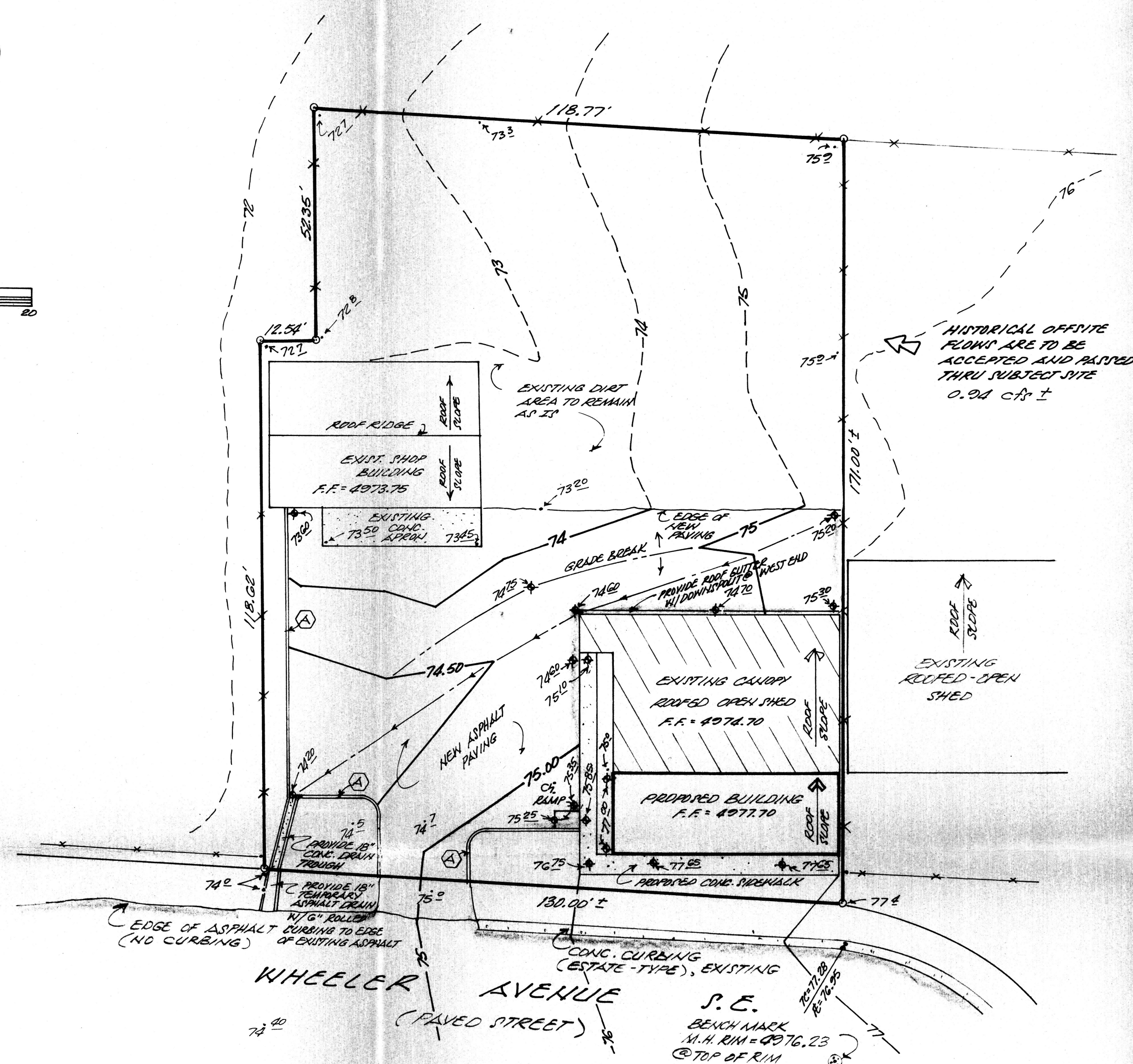
- 1.) NO PERIMETER BOUNDARY CORNERS HAVE BEEN FIELD ESTABLISHED PER THIS SURVEY OF THE SUBJECT PROPERTY.
- 2.) NO SEARCH HAS BEEN MADE FOR EASEMENTS OF RECORD WITHIN THE SUBJECT SITE OTHER THAN THOSE SHOWN ON THE PLAT OF RECORD.
- 3.) REFER TO "ARCHITECTURAL SITE PLAN" FOR FIELD LAYOUT OF THE PROPOSED IMPROVEMENTS.
- 4.) TOPOGRAPHY SURVEY OBTAINED BY "TRANSIT-STADIA" METHOD.

#### NOTICE TO CONTRACTOR:

- 1.) AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
- 2.) ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH "CONTRACT DOCUMENTS FOR CITY WIDE UTILITIES AND CASH PAYING NO. 31".
- 3.) TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE (260-1290), FOR LOCATION OF EXISTING OF SURFACE AND SUBSURFACE UTILITIES.
- 4.) PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS: SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY FOR THE PROJECT.

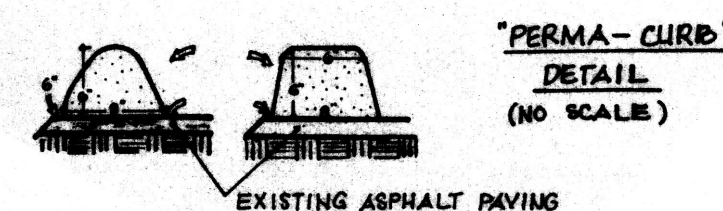


**TYPICAL PAVEMENT SECTION**  
SCALE: 1" = 1'-0"



#### TECHNICAL SPECIFICATIONS FOR "PERMA-CURBS":

CURBS SHALL BE MACHINE EXTRUDED PERMA-CURB OF THE SHAPE AND DIMENSIONS TO SUITE CLIENT REQUIREMENTS. THE CONCRETE USED FOR PERMA-CURB SHALL BE A SPECIAL NO SLUMP, DESIGN MIX ATTAINING APPROXIMATELY 3,500 LB. STRENGTH IN 28 DAYS. PERMA-CURBS SHALL BE A DENSE, UNIFORM TEXTURE. COLD JOINTS SHALL BE INSTALLED EVERY 15 LINEAL FEET. PERMA-CURBS SHALL IMMEDIATELY BE SPRAYED WITH SEALER TO ATTAIN THE MAXIMUM MOISTURE RETENTION. PERMA-CURBS SHALL BE BONDED TO ASPHALT AND/OR CONCRETE SURFACES WITH EPOXY RESIN OR CSS 1 BITUMENS IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS. TO ASSURE A STRONG MOISTURE PROOF BOND, ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH GOOD CONSTRUCTION PRACTICE.



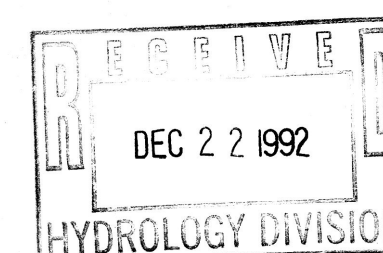
#### LEGEND:

- 74.10 = TOP OF CURB ELEVATION
- 73.00 = CURB FLOW LINE ELEVATION
- EXISTING OR PROPOSED CURBS
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING FENCE
- PROPOSED FENCE ELEVATION
- PROPOSED LIMIT OF NEW BUILDING

#### NOTICE TO CONTRACTOR:

- 1.) AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THIS PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION OF THIS PERMIT.
- 2.) ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATION - PUBLIC WORKS CONSTRUCTION - 1985.
- 3.) TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE (765-1234), FOR LOCATION OF EXISTING UTILITIES.
- 4.) PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE ANY VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS: SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR SUPERVISOR SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- 5.) BACKFILL COMPACTION SHALL BE ACCORDING TO ACTUAL STREET USE.
- 6.) MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.

APPROVALS	NAME	DATE
A.C.E./DESIGN		
INSPECTOR		
A.C.E./FIELD		



#### DRAINAGE COMMENTS:

AS SHOWN ON THE VICINITY MAP HEREON, THE SUBJECT SITE IS LOCATED ON WHEELER AVENUE S.E., EAST OF BROADWAY BLVD. S.E. AND SOUTH OF GIBSON BOULEVARD S.E., IN THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO.

THE PROPOSED PROJECT ON THE SUBJECT SITE CONSISTS OF CONSTRUCTING AN ADDITION TO AN EXISTING BUILDING; THE PROPOSED DRAINAGE PLAN IS TO DIRECT THE DEVELOPED RUNOFF (PROPOSED BUILDING ADDITION AND ASPHALT PAVED PARKING AREA) TOGETHER WITH THE RUNOFF CREATED BY THE EXISTING BUILDING, TOWARD AND THROUGH THE PROPOSED CONCRETE TROUGH (AS SHOWN ON THE PLAN HEREON) AND FREE DISCHARGE SAID FLOWS INTO WHEELER AVENUE S.E..

THE EXISTING UNDEVELOPED NORTHERLY PORTION OF THE SUBJECT SITE WILL REMAIN AS IS; HOWEVER, OFFSITE FLOWS BEING ACCEPTED FROM THE PROPERTY THAT LIES EAST OF THE SUBJECT SITE WILL CONTINUE TO BE ACCEPTED.

UPON DEVELOPMENT OF SAID NORTHERLY PORTION OF SAID SITE PROVISIONS MUST BE MADE TO OUTLET SAID DEVELOPED FLOWS (TOGETHER WITH THE AFOREMENTIONED OFFSITE FLOWS), VIA A SUMP-PUMP SYSTEM OR OTHER APPROVED DESIGN, TOWARD AND INTO THE PROPOSED CONCRETE DRAIN TROUGH AS SHOWN HEREON, AND INTO WHEELER AVENUE S.E..

THE SUBJECT SITE DOES NOT LIE WITHIN A DESIGNATED FLOODPLAIN (PANEL 34 OF 50).

**LEGAL DESCRIPTION:** TRACT "A-1-B", LAND OF BROADWAY DEVELOPMENT, ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO.

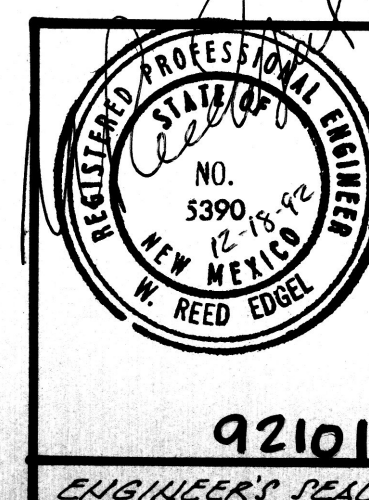
ADDRESS: 521 WHEELER AVENUE S.E.

**BENCH MARK:** ACS STATION "NM 361-3", LOCATED ON STREET MEDIAN ON BROADWAY BLVD. S.E.; M.S.L.D. ELEVATION = 4966.055; PROJECT BENCH MARK AS SHOWN ON PLAN HEREON.

#### DRAINAGE CALCULATIONS:

SITE AREA: 21,775.7 SQ. FT. = 0.50 ACRE  
 $R_G = 2.3$  INCHES  $T_D = 10$  MINUTES "I" = 4.86 IN./HR.  
**EXISTING CONDITIONS:**  
 $C_p = \frac{3500 \times 0.20}{21,775.7} = 0.18$   
 $C_u = \frac{18,275.7 \times 0.40}{21,775.7} = 0.34$   
 $Q_{100} = 0.48 \times 4.86 \times 0.50 = 1.17$  CFS

**PROPOSED OUTLET TO WHEELER AVE. S.E.**  
 $C_p = \frac{2810 \times 0.20}{21,775.7} = 0.12$   
 $C_p = \frac{3760 \times 0.25}{21,775.7} = 0.16$   
 $Q_{100} = 0.28 \times 4.86 \times 0.15 = 0.20$  CFS



**GRADING AND DRAINAGE PLAN**  
FOR PROPOSED ADDITION  
BIXBY ELECTRIC  
521 WHEELER AVE. S.E.  
ALBUQUERQUE, NEW MEXICO  
DECEMBER, 1992