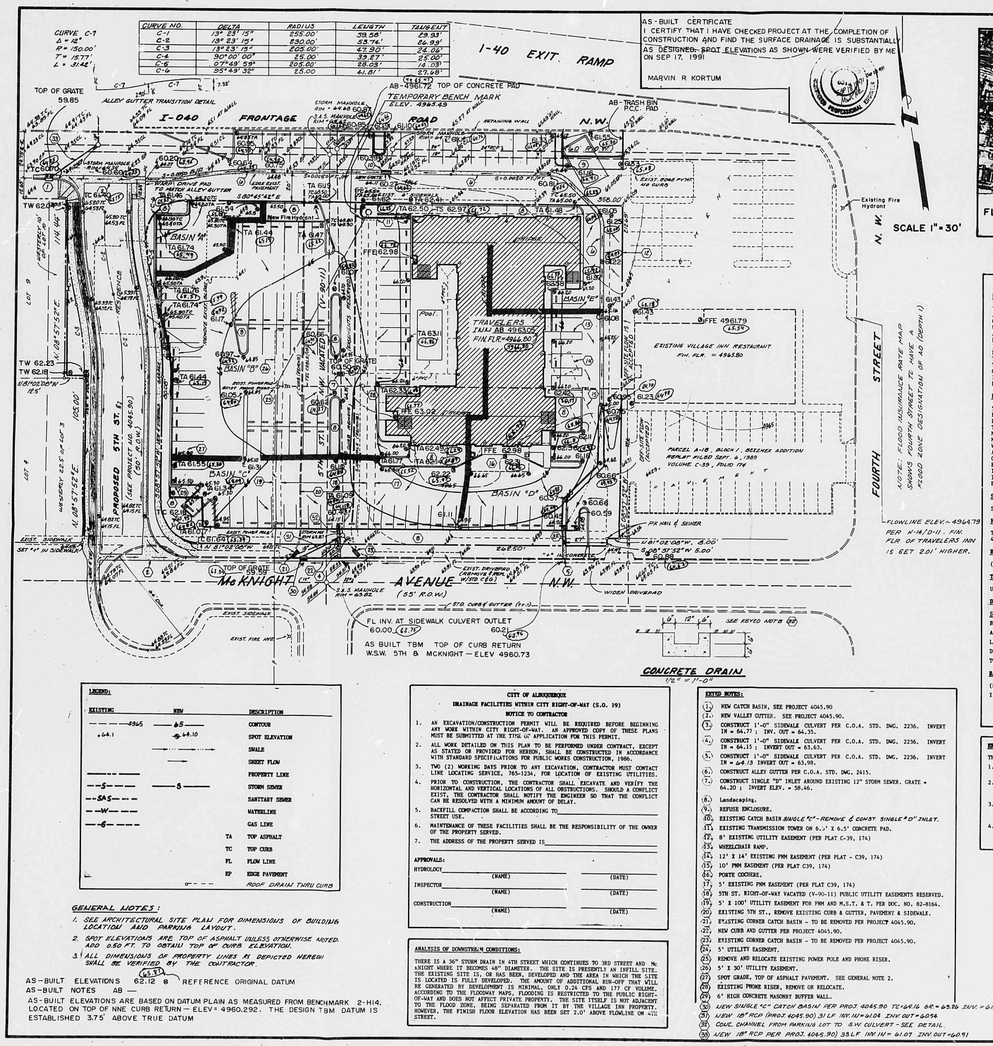
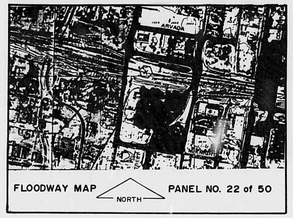


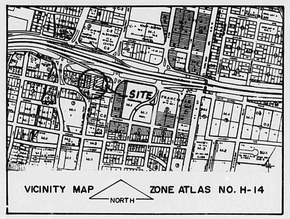
CURVE NO.	DELTA	RADIUS	LENGTH	TANGENT
C-1	13° 23' 15"	255.00'	59.58'	29.93'
C-2	13° 23' 15"	230.00'	53.74'	26.99'
C-3	13° 23' 15"	205.00'	47.90'	24.06'
C-4	90° 00' 00"	25.00'	39.27'	25.00'
C-5	57° 49' 59"	205.00'	206.63'	112.09'
C-6	95° 49' 32"	25.00'	41.81'	27.98'

CURVE C-7
Δ = 4°
R = 750.00'
T = 52.77'
L = 104.42'

ALLEY GUTTER TRANSITION DETAIL

AS-BUILT CERTIFICATE
I CERTIFY THAT I HAVE CHECKED PROJECT AT THE COMPLETION OF CONSTRUCTION AND FIND THE SURFACE DRAINAGE IS SUBSTANTIALLY AS DESIGNED. SPOT ELEVATIONS AS SHOWN WERE VERIFIED BY ME ON SEP 17, 1991
MARVIN R KORTUM





SCALE 1" = 30'

DRAINAGE CALCULATIONS

EXISTING CONDITIONS:

THE SITE IS BOUNDED ON THE NORTH BY INDIAN SCHOOL ROAD (I-040 FRONTAGE ROAD) AND ON THE SOUTH BY MC KNIGHT AVENUE. THE SITE IS CURRENTLY PARTIALLY DEVELOPED AND IS DIVIDED AT APPROXIMATELY IN THE MIDDLE BY EXISTING 5TH STREET WHICH HAS BEEN VACATED. THE EASTERN PORTION OF THE SITE IS TWO-THIRDS PAVED AND DEVELOPED. THE WESTERN PORTION OF THE SITE HAS COMMERCIAL AND RESIDENTIAL BUILDINGS. THE EXISTING SITE DRAINS TO THE NORTHWEST INTO 5TH STREET WHICH CONNECTS TO A 24" STORM SEWER IN INDIAN SCHOOL ROAD AND FINALLY TO THE 36" LINE IN 4TH STREET. THERE ARE EXISTING CATCH BASINS AT THE NW AND NE CORNERS OF 5TH AND MC KNIGHT AND AT THE SE CORNER OF 5TH AND THE I-040 FRONTAGE ROAD. EAST OF THE SITE IS AN EXISTING RESTAURANT (HYDROLOGY FILE NO. H-14/D-11) AND WEST OF THE SITE IS RESIDENTIAL. A PORTION OF I-040 FRONTAGE ROAD (THE PORTION BORDERING THE SITE ON THE NORTH) IS LEASED FROM THE NEW MEXICO HIGHWAY AND TRANSPORTATION DEPARTMENT BY TRAVELERS INN.

PROPOSED CONDITIONS:

5TH STREET WILL BE RELOCATED TO NEWLY-DEDICATED RIGHT-OF-WAY AT THE EAST END OF THE SITE AND WILL CONNECT THE EXISTING I-040 FRONTAGE ROAD TO THE EXISTING TURNAROUND OF MC KNIGHT AVENUE. THE SITE WILL BE DEVELOPED AS A TRAVELERS INN WITH BUILDING, LANDSCAPING ASPHALT PAVING AND SIDEWALKS. AS MUCH AS POSSIBLE, RUNOFF WILL BE DISCHARGED THROUGH SIDEWALK CULVERTS TO MC KNIGHT AVENUE AND THE I-040 FRONTAGE ROAD. GRADES ON THE FRONTAGE ROAD WILL NOT BE CHANGED. CURB AND GUTTER WILL BE ADDED AS REQUIRED FOR DRAINAGE CONTROL ALONG THE PROPERTY LINE. ASPHALT PAVING AND SIDEWALKS. CURB AND GUTTER IS PROPOSED BECAUSE THE GRADES HAVE TO BE REVISED, FLAT TO MATCH EXISTING GRADES ADJACENT TO THE RESTAURANT. O. SINGLE "D" INLET IS PROPOSED IN THE PARKING LOT TO DRAIN ALL AREAS NOT DRAINED BY SIDEWALK CULVERTS. IT IS PROPOSED TO CONSTRUCT THE SINGLE "D" INLET OVER (CONNECTED TO) THE EXISTING 12" RCP STORM SEWER LINE IN THE VACATED 5TH STREET RIGHT-OF-WAY.

SOIL INFORMATION:

SOIL IS Ca, CLEDDALE LOAM, HYDROLOGIC SOIL GROUP "B".

FLOOD ZONE:

THE SITE IS IN THE 500-YEAR FLOOD ZONE. THERE IS A 100-YEAR FLOOD ZONE ON 4TH STREET.

RAINFALL, 100-YEAR, 6-HOUR:

(REFER TO D.P.M. PLATE 22.2 D-1.) R_6 = 2.2 INCHES.

TIME OF CONCENTRATION:

USE TCN (10) MINUTES, MINIMUM TIME OF CONCENTRATION.

DRAINAGE AREAS (IMPERVIOUSNESS):

SURFACE TYPE	"C"	CN	DIRECT RUNOFF	AREA (SQUARE FEET) EXISTING	DEVELOPED
BUILDING	0.90	98	2.00	33373	10942
ASPHALT & CONCRETE	0.95	98	2.00	31610	59086
LANDSCAPING	0.25	61	0.15	-	6053
DIRT	0.40	82	0.80	11098	-
TOTAL				76081	76081

RAINFALL INTENSITY:

(REFER TO D.P.M. PLATE 22.2 D-2.) $i = R_6 \times 6.84 \times (T_C)^{-0.51}$

$i = 2.2 \times 6.84 \times 10^{-0.51} = 4.65$ INCHES PER HOUR.

WEIGHTED RUNOFF COEFFICIENT:

EXISTING CONDITIONS: $C_5 = \frac{(33373 \times 0.90 + 31610 \times 0.95 + 11098 \times 0.40)}{76081} = 0.85$

DEVELOPED CONDITIONS:

$C_5 = \frac{(10942 \times 0.90 + 59086 \times 0.95 + 6053 \times 0.25)}{76081} = 0.88$

PEAK RUNOFF:

USE RATIONAL EQUATION. $Q_{100} = CIA$; $Q_{10} = 0.657(Q_{100})$

EXISTING CONDITIONS: $Q_{100} = 0.85 \times 4.65 \times 1.75 = 6.92$ CFS

DEVELOPED CONDITIONS: $Q_{100} = 0.88 \times 4.65 \times 1.75 = 7.16$ CFS

6-HOUR VOLUME:

(USE SCS METHOD V = (AREA X DIRECT RUNOFF)/12)

EXISTING CONDITIONS:

$V_{100} = \frac{(66983 \times 2.00 + 11098 \times 0.80)}{12} = 11570$ CF

DEVELOPED CONDITIONS:

$V_{100} = \frac{(70028 \times 2.00 + 6053 \times 0.15)}{12} = 11747$ CF

DRAINAGE BASINS:

THE ABOVE RUNOFF RATES AND VOLUMES ARE DIVIDED BETWEEN THE VARIOUS BASINS BY PRORATING THE INDIVIDUAL BASIN AREAS TO THE TOTAL SITE AREA. THIS METHOD IS NOT ENTIRELY ACCURATE BUT IS ADEQUATE FOR CHECKING INITIALL CAPACITIES.

DRAINAGE BASIN	AREA (SF)	PERCENT	Q_{10}	Q_{100}	V_{100}
A	2450	3.22	0.23	0.15	378	249
B	4434	5.83	0.38	4.17	2.74	6866	4498
C	10615	13.95	1.00	0.66	1639	1077
D	13075	17.19	1.23	0.80	2020	1326
E	5600	7.36	0.53	0.35	864	568
TOTAL	76081	100.00	7.16	4.70	11747	7718

SIDEWALK CULVERT CAPACITY:

SLOPE FROM INLET TO PROPERTY LINE IS 0.005 FT./FT. SLOPE FROM PROPERTY LINE TO STREET FLOWLINE IS 0.0200 FT./FT. USE THE FLATTER OF THE TWO SLOPES TO CALCULATE CAPACITY.

USE MANING'S EQUATION TRY 1.0' SIDEWALK CULVERT, DEPTH OF 6".

$Q = A(1.486/N)R^{2/3}S^{1/2}$ $A = 1 \times 0.5 = 0.5$ SF $P = 0.5 + 1.0 + 0.5 = 2.0$

$R = A/P = 0.5 / 2 = 0.25$ $R = 0.013$

$Q = 0.5(1.486/0.013)(0.25)^{2/3}(0.005)^{1/2} = 1.60$ CFS A 12" SIDEWALK CULVERT IS ADEQUATE TO DRAIN BASINS "A", "C", AND "D".

SINGLE "D" INLET CAPACITY:

USE ORIFICE EQUATION. ASSUME 3" DEPTH OVER GRATE. PER STANDARD DRAWING NO. 2220, EACH OPENING IS 1.54" X 4.44" = 6.83 SQ. IN. = 0.0475 SF

$Q = CA(2GH)^{1/2}$ $C = 0.6$ $A = 0.0475$ SF $H = 0.25$ FT.

$Q = 0.6 \times 0.0475 (2 \times 32.2 \times 0.25)^{1/2} = 0.114$ CFS PER OPENING.

96 X 0.114 = 10.94 CFS. SINGLE "D" CATCH BASIN IS ADEQUATE.

EROSION CONTROL NOTES:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE FOLLOWING:

1. NO SEDIMENT-BEARING WATER SHALL BE ALLOWED TO DISCHARGE FROM THE SITE DURING CONSTRUCTION.
2. DURING GRADING OPERATIONS AND UNTIL THE PROJECT HAS BEEN COMPLETED, ALL ADJACENT PROPERTY, RIGHTS-OF-WAY, AND EASEMENTS SHALL BE PROTECTED FROM FLOODING BY RUNOFF FROM THE SITE.
3. SHOULD THE CONTRACTOR FAIL TO PREVENT SEDIMENT BEARING WATER FROM ENTERING PUBLIC RIGHT-OF-WAY, HE SHALL PROMPTLY REMOVE THEM FROM THE PUBLIC RIGHT-OF-WAY AND ALL SEDIMENTATION ORIGINATING FROM THE SITE.
4. CONTROL OF SEDIMENT LADEN WATERS WILL BE ACCOMPLISHED BY USE OF A COMPACTED EARTH BERM OF ADEQUATE HEIGHT. THE BERM SHALL BE LOCATED ALONG THE DOWNSTREAM PERIMETER OF THE PROPERTY.

BENCH MARK:

A.C.S. STATION C-424 LOCATED IN THE NW QUADRANT OF WESTBOUND I-040 AND 4TH STREET SET VERTICALLY IN THE NORTH FACE OF THE WEST NORTHBAY OF THREE PIERS OF THE WEST BOUND OVERPASS OF 4TH STREET, 49.7 FT. WEST OF CENTERLINE 4TH STREET AND 3.8 FT. ABOVE GROUND. A 3" B.C.S. BRASS CAP STAMPED "C-424 1982", DRILLED IN THE CONCRETE BRIDGE PILAR. ELEVATION 4966.899 FEET.

TEMPORARY BENCH MARK:

CONTROLET CORNER OF EXISTING 6.5' X 6.5' CONCRETE PAD FOR TRANSMISSION TOWER LOCATED IN THE SE CORNER OF THE INTERSECTION OF VACATED 5TH STREET AND I-040 FRONTAGE ROAD. ELEVATION 4965.49 FEET.

LEGAL DESCRIPTION:

TRACT "A", BLOCK 1, BEZDEK ADDITION WITHIN SECTION 8, T.10 N., R.3 E., N.M.P.M., ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, APRIL 1990.

LEGEND:

EXISTING	NEW	DESCRIPTION
4945	45	CONTOUR
+64.1	+64.10	SPOT ELEVATION
		SWALE
		SHEET FLOW
		PROPERTY LINE
—S—	—S—	STORM SEWER
—SAS—		SANITARY SEWER
—W—		WATERLINE
—G—		GAS LINE
	TA	TOP ASPHALT
	TC	TOP CURB
	FL	FLOW LINE
	EP	EDGE PAVEMENT
		ROOF DRAIN THRU CURB

GENERAL NOTES:

1. SEE ARCHITECTURAL SITE PLAN FOR DIMENSIONS OF BUILDING LOCATION AND PARKING LAYOUT.
2. SPOT ELEVATIONS ARE TOP OF ASPHALT UNLESS OTHERWISE NOTED AND 0.50 FT. TO OBTAIN TOP OF CURB ELEVATION.
3. ALL DIMENSIONS OF PROPERTY LINES AS DEPICTED HEREON SHALL BE VERIFIED BY THE CONTRACTOR.

AS-BUILT ELEVATIONS 62.12 @ REFERENCE ORIGINAL DATUM
AS-BUILT NOTES AB —
AS-BUILT ELEVATIONS ARE BASED ON DATUM PLAIN AS MEASURED FROM BENCHMARK 2-H14, LOCATED ON TOP OF NNE CURB RETURN — ELEV = 4960.292. THE DESIGN TBM DATUM IS ESTABLISHED 3.75' ABOVE TRUE DATUM

CITY OF ALBUQUERQUE
DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY (S.O. 19)
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 THIS PLAN TO BE PERFORMED UNDER CONTRACT, EXCEPT AS STATED OR PROVIDED FOR HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986.
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 COMMENCING WORK, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF UTILITY INTERFERENCES. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO _____ STREET USE.
6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. THE ADDRESS OF THE PROPERTY SERVED IS _____

APPROVALS:
HYDROLOGY _____ (NAME) _____ (DATE)
INSPECTOR _____ (NAME) _____ (DATE)
CONSTRUCTION _____ (NAME) _____ (DATE)

ANALYSIS OF DOWNSTREAM CONDITIONS:

THERE IS A 36" STORM DRAIN IN 4TH STREET WHICH CONTINUES TO 3RD STREET AND MC KNIGHT WHERE IT BECOMES 48" DIAMETER. THE SITE IS PRESENTLY AN INFILL SITE. THE EXISTING SITE IS, OR HAS BEEN, DEVELOPED AND THE AREA IN WHICH THE SITE IS LOCATED IS FULLY DEVELOPED. THE AMOUNT OF ADDITIONAL RUN-OFF THAT WILL BE GENERATED BY DEVELOPMENT IS MINIMAL, ONLY 0.24 CFS AND 177 CF VOLUME. ACCORDING TO THE FLOODWAY MAPS, FLOODING IS RESTRICTED TO THE PUBLIC RIGHT-OF-WAY AND DOES NOT AFFECT PRIVATE PROPERTY. THE SITE ITSELF IS NOT ADJACENT TO THE FLOOD ZONE, BEING SEPARATED FROM IT BY THE VILLAGE INN PROPERTY. HOWEVER, THE FINISH FLOOR ELEVATION HAS BEEN SET 2.0' ABOVE FLOWLINE ON 4TH STREET.

EXTRA NOTES:

(1) NEW CATCH BASIN, SEE PROJECT 4045.90
(2) NEW VALLEY GUTTER. SEE PROJECT 4045.90
(3) CONSTRUCT 1'-0" SIDEWALK CULVERT PER C.O.A. STD. DWG. 2236. INVERT IN = 64.77 ; INV. OUT = 64.35.
(4) CONSTRUCT 1'-0" SIDEWALK CULVERT PER C.O.A. STD. DWG. 2236. INVERT IN = 64.13 ; INVERT OUT = 63.63.
(5) CONSTRUCT 1'-0" SIDEWALK CULVERT PER C.O.A. STD. DWG. 2236. INVERT IN = 64.03 INVERT OUT = 63.90.
(6) CONSTRUCT ALLEY GUTTER PER C.O.A. STD. DWG. 2415.
(7) CONSTRUCT SINGLE "D" INLET AROUND EXISTING 12" STORM SEWER. GRATE = 64.20 ; INVERT ELEV. = 58.46.
(8) Landscaping.
(9) REFUSE ENCLOSURE.
(10) EXISTING CATCH BASIN (SINGLE "C" - REMOVE & CONST SINGLE "D" INLET.
(11) EXISTING TRANSMISSION TOWER OR 6.5' X 6.5' CONCRETE PAD.
(12) 80' EXISTING UTILITY EASEMENT (PER PLAT C-39, 174)
(13) WHEELCHAIR RAMP.
(14) 12' X 14' EXISTING PNM EASEMENT (PER PLAT - C39, 174)
(15) 10' PNM EASEMENT (PER PLAT C39, 174)
(16) PORTE COCHERE.
(17) 5' EXISTING PNM EASEMENT (PER PLAT C39, 174)
(18) 5TH ST. RIGHT-OF-WAY VACATED (V-90-11) PUBLIC UTILITY EASEMENTS RESERVED.
(19) 5' X 100' UTILITY EASEMENT PER PNM AND N.S.T. & T. PER DOC. NO. 82-8164.
(20) EXISTING 5TH ST., REMOVE EXISTING CURB & GUTTER, PAVEMENT & SIDEWALK.
(21) EXISTING CORNER CATCH BASIN - TO BE REMOVED PER PROJECT 4045.90.
(22) NEW CURB AND GUTTER PER PROJECT 4045.90.
(23) EXISTING CORNER CATCH BASIN - TO BE REMOVED PER PROJECT 4045.90.
(24) 5' UTILITY EASEMENT.
(25) REMOVE AND RELOCATE EXISTING POWER POLE AND PHONE RISER.
(26) 5' X 30' UTILITY EASEMENT.
(27) SPOT GRADE. TOP OF ASPHALT PAVEMENT. SEE GENERAL NOTE 2.
(28) EXISTING PHONE RISER. REMOVE OR RELOCATE.
(29) 6' HIGH CONCRETE MASONRY BUFFER WALL.
(30) VIEW SINGLE "C" CATCH BASIN (PER PROJ 4045.90 TC/GRATE = 63.76 INV. = 61.06
(31) VIEW 18" RCP (PROJ 4045.90) 31.5' INV IN=61.04 INV OUT=60.54
(32) CONC. CHANNEL FROM PARKING LOT TO S.W. CULVERT - SEE DETAIL
(33) VIEW 18" RCP PER PROJ 4045.90) 33.5' INV IN= 61.07 INV OUT=60.91

REVISED 6/29/90

GRADING AND DRAINAGE PLAN		
TRAVELERS INN 5TH STREET & McKNIGHT AVE. ALBUQUERQUE, NEW MEXICO		SEP 24 1991
PROJECT NUMBER 4045.90		SHEET 3 OF 5

REF 21 DATE 6-24-93 CDF

CITY OF ALBUQUERQUE

This microimage is certified to be a complete and accurate copy of the original as it appears in the files of the PUBLIC WORKS DEPARTMENT - HYDROLOGY DIVISION and was filmed in the normal course of business. The photographic processes used meet the Basic Microfilm Standards of the National Micrographics Association (NMA)(S-1977).

Karen Aaron
CITY CLERK RECORDER

OFFICIAL SEAL
NORBERTA SANCHEZ
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires May 8, 1995
Norberta Sanchez

THIS PLAN SHOT TWICE ONCE ON LIGHT AND ONCE ON DARK.

CITY OF ALBUQUERQUE
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.

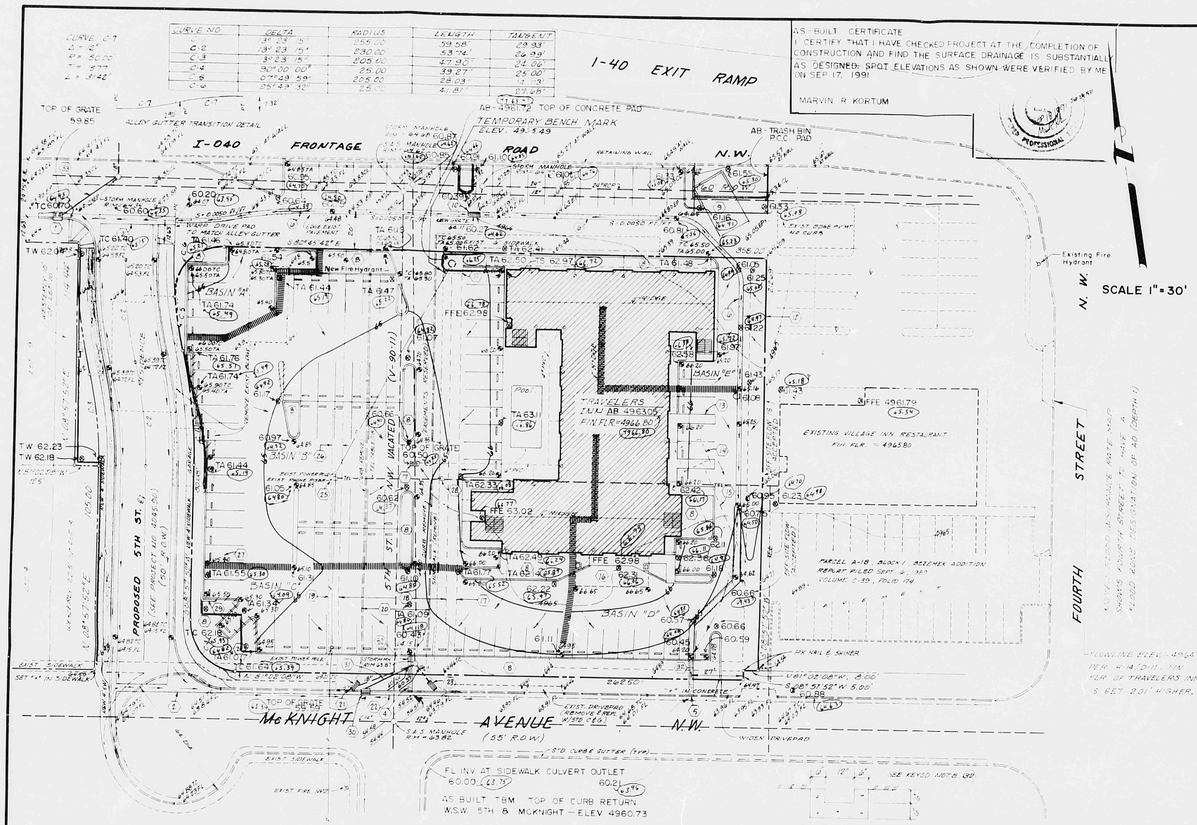
PLANS/PLATS ON FILE

FILE DESC: H-14/D068

PLANS/PLATS 2

F 30 D 24 C 20 B 16 A 12 CITY OF ALBUQUERQUE C D F

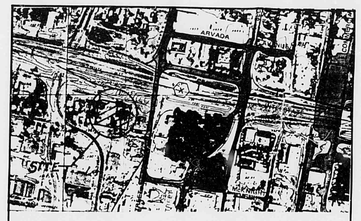
CURVE NO.	DELTA	RADIUS	LENGTH	TANGENT
C-1	3°-13'-51"	255.00	59.54	29.93
C-2	13°-23'-41"	230.00	53.74	26.99
C-3	9°-23'-15"	205.00	33.90	24.06
C-4	90°00'00"	25.00	39.27	25.00
C-5	07°39'59"	205.00	28.03	14.04
C-6	55°23'32"	25.00	24.17	13.18



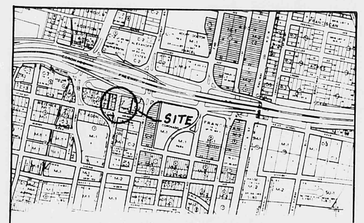
AS-BUILT CERTIFICATE

I CERTIFY THAT I HAVE CHECKED PROJECT AT THE COMPLETION OF CONSTRUCTION AND FIND THE SURFACE DRAINAGE IS SUBSTANTIALLY AS DESIGNED. SPOT ELEVATIONS AS SHOWN WERE VERIFIED BY ME ON SEP 17, 1991

MARVIN R. KORTUM



FLOODWAY MAP — NORTH — PANEL NO. 22 of 50



VICINITY MAP — NORTH — ZONE ATLAS NO. H-14

DRAINAGE CALCULATIONS

EXISTING CONDITIONS:

THE SITE IS BOUNDED ON THE NORTH BY INDIAN SCHOOL ROAD (I-40 FRONTAGE ROAD) AND ON THE SOUTH BY MC KNIGHT AVENUE. THE SITE IS CURRENTLY PARTIALLY DEVELOPED AND IS DIVIDED AT APPROXIMATELY IN THE MIDDLE BY EXISTING 5TH STREET WHICH HAS BEEN VACATED. THE EASTERN PORTION OF THE SITE IS TWO-THIRDS PAVED AND ONE-THIRD DIRT. THE WESTERN PORTION OF THE SITE HAS COMMERCIAL AND RESIDENTIAL BUILDINGS WHICH WILL BE REMOVED. THERE IS A 12" STORM SEWER IN 5TH STREET WHICH CONNECTS TO A 24" STORM SEWER IN INDIAN SCHOOL ROAD AND FINALLY TO THE MC GINN DITCH IN 4TH STREET. THERE ARE EXISTING CATCH BASINS AT THE SW AND SE CORNERS OF 5TH AND MC KNIGHT AND AT THE SE CORNER OF 5TH AND THE I-040 FRONTAGE ROAD. EAST OF THE SITE IS AN EXISTING RESTAURANT (HYDROLOGY FILE NO. H-14/D-111) AND WEST OF THE SITE IS RESIDENTIAL. A PORTION OF I-040 FRONTAGE ROAD (THE PROPERTY BORDERING THE SITE ON THE NORTH) IS LEASED FROM THE NEW MEXICO HIGHWAY AND TRANSPORTATION DEPARTMENT BY TRAVELERS INN.

PROPOSED CONDITIONS:

5TH STREET WILL BE RELOCATED TO NEWLY-DEDICATED RIGHT-OF-WAY AT THE EAST END OF THE SITE AND WILL CONNECT THE EXISTING I-040 FRONTAGE ROAD TO THE EXISTING TURNAROUND ON MC KNIGHT AVENUE. THE SITE WILL BE DEVELOPED AS A TRAVELERS INN WITH BUILDING, LANDSCAPING ASPHALT PAVING AND SIDEWALKS. AS MUCH AS POSSIBLE, RUNOFF WILL BE DISCHARGED THROUGH SIDEWALK CULVERTS TO MC KNIGHT AVENUE AND THE I-040 FRONTAGE ROAD. GRADES ON THE FRONTAGE ROAD WILL NOT BE CHANGED. CURB AND GUTTER WILL BE ADDED AS REQUIRED FOR DRAINAGE AND TRAFFIC CONTROL. ALONG THE EAST SIDE OF THE SITE, A SECTION OF ALLEY GUTTER IS PROPOSED BECAUSE THE GRADES HAVE TO BE EXTREMELY FLAT TO MATCH EXISTING GRADES ADJACENT TO THE RESTAURANT. ONE SINGLE "D" INLET IS PROPOSED IN THE PARKING LOT TO DRAIN ALL AREAS NOT DRAINED BY SIDEWALK CULVERTS. IT IS PROPOSED TO CONSTRUCT THE SINGLE "D" INLET OVER CONNECTED TO THE EXISTING 12" RCP STORM SEWER LINE IN THE VACATED 5TH STREET RIGHT-OF-WAY.

SOIL INFORMATION:

SOIL IS GA, GLENDALE LOAM, HYDROLOGIC SOIL GROUP "B".

FLOOD ZONE:

THE SITE IS IN THE 500-YEAR FLOOD ZONE. THERE IS A 100-YEAR FLOOD ZONE ON 4TH STREET.

RAINFALL, 100-YEAR, 6-HOUR:

(REFER TO D.P.M. PLATE 22.2 D-1.) $R_6 = 2.2$ INCHES.

TIME OF CONCENTRATION:

USE TEN (10) MINUTES, MINIMUM TIME OF CONCENTRATION.

DRAINAGE AREAS (IMPERVIOUSNESS):

SURFACE TYPE	"C"	CN	DIRECT RUNOFF	AREA (SQUARE FEET) EXISTING	DEVELOPED
BUILDING	0.90	98	2.00	33373	10642
ASPHALT & CONCRETE	0.95	98	2.00	31610	59086
LANDSCAPING	0.25	61	0.45		6053
DIRT	0.40	82	0.80	11096	
TOTAL				76081	76081

RAINFALL INTENSITY:

(REFER TO D.P.M. PLATE 22.2 D-2.) $I = R_6 \times 0.84 \times (Tc)^{-0.51}$

$I = 2.2 \times 0.84 \times 10^{-0.51} = 4.65$ INCHES PER HOUR.

WEIGHTED RUNOFF COEFFICIENTS:

EXISTING CONDITIONS: $C_w = \frac{(33373 \times 0.90 + 31610 \times 0.95 + 11096 \times 0.40)}{76081} = 0.85$

DEVELOPED CONDITIONS: $C_w = \frac{(10642 \times 0.90 + 59086 \times 0.95 + 6053 \times 0.25)}{76081} = 0.88$

PEAK RUNOFF:

USE RATIONAL EQUATION: $Q_{100} = CIA$; $Q_{100} = 0.85 IQ_{100}$

EXISTING CONDITIONS: $Q_{100} = 0.85 \times 4.65 \times 1.75 = 6.92$ CFS

DEVELOPED CONDITIONS: $Q_{100} = 0.88 \times 4.65 \times 1.75 = 7.16$ CFS

6-HOUR VOLUME:

(USE SCS METHOD $V = (AREA \times DIRECT\ RUNOFF)/12$)

EXISTING CONDITIONS:

$V_{100} = \frac{(76081 \times 2.2)(0.85 \times 1.00)}{12} = 11520$ CF

DEVELOPED CONDITIONS:

$V_{100} = \frac{(76081 \times 2.2)(0.88 \times 0.95)}{12} = 11747$ CF

DRAINAGE BASINS:

THE ABOVE RUNOFF RATES AND VOLUMES ARE DIVIDED BETWEEN THE VARIOUS BASINS BY PRORATING THE INDIVIDUAL BASIN AREAS TO THE TOTAL SITE AREA. THIS METHOD IS NOT ENTIRELY ACCURATE BUT IS ADEQUATE FOR CHECKING OUTFALL CAPACITIES.

DRAINAGE BASIN	AREA (SF)	PERCENT	Q_{100}	Q_{10}	V_{100}	V_{10}
A	2400	3.22	0.23	0.15	378	240
B	44341	58.28	4.17	2.74	6848	4349
C	11625	15.28	1.09	0.66	1639	1037
D	13075	17.19	1.23	0.80	2020	1282
E	5640	7.38	0.53	0.35	866	549
TOTAL	76081	100.00	7.16	4.70	11747	7458

SIDEWALK CULVERT CAPACITY:

SLOPE FROM INLET TO PROPERTY LINE IS 0.0055 FT./FT. SLOPE FROM PROPERTY LINE TO STREET FLOWLINE IS 0.0200 FT./FT. USE THE FLATTER OF THE TWO SLOPES TO CALCULATE CAPACITY.

USE MANNING'S EQUATION: TRY 1.00' SIDEWALK CULVERT, DEPTH OF 6".

$Q = A(1.486/N)R^{2/3}S^{1/2}$; $A = 1 \times 0.5 = 0.5$ SF ; $P = 0.5 + 1.0 + 0.5 = 2.0$

$R = A/P = 0.5 / 2.0 = 0.25$; $S = 0.020$

$Q = (0.5)(1.486/0.01)(0.25)^{2/3}(0.020)^{1/2} = 1.60$ CFS. A 12" SIDEWALK CULVERT IS ADEQUATE TO DRAIN BASINS "A", "B", AND "D".

SINGLE "D" INLET CAPACITY:

USE ORIFICE EQUATION. ASSUME 3" DEPTH OVER GRATE. PER STANDARD DRAWING NO. 2220, EACH OPENING IS 1.94" X 4.44" = 0.57 SQ. IN. = 0.0075 SF

$Q = CA(2gh)^{1/2}$; $C = 0.6$; $A = 0.0075$ SF ; $H = 0.25$ FT.

$Q = 0.6 \times 0.0075\ (2 \times 32.2 \times 0.25)^{1/2} = 0.114$ CFS PER OPENING.

96 X 0.114 = 10.94 CFS. SINGLE "D" CATCH BASIN IS ADEQUATE.

EROSION CONTROL NOTES:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE FOLLOWING:

1. NO SEDIMENT-BEARING WATER SHALL BE ALLOWED TO DISCHARGE FROM THE SITE DURING CONSTRUCTION.
2. DURING GRADING OPERATIONS AND UNTIL THE PROJECT HAS BEEN COMPLETED, ALL ADJACENT PROPERTY, RIGHT-OF-WAY, AND EASEMENTS SHALL BE PROTECTED FROM FLOODING BY RUNOFF FROM THE SITE.
3. SHIELD THE CONTRACTOR FALL TO PREVENT SEDIMENT BEARING WATER FROM ENTERING PUBLIC RIGHT-OF-WAY, BE SHALL PROMPTLY REMOVE FROM THE PUBLIC RIGHT-OF-WAY ANY AND ALL SEDIMENTATION ORIGINATING FROM THE SITE.
4. CONTROL OF SEDIMENT LADEN WATER WILL BE ACCOMPLISHED BY USE OF A COMPACTED EARTH BERM OF ADEQUATE HEIGHT. THE BERM SHALL BE LOCATED ALONG THE DOWNSTREAM PERIMETER OF THE PROPERTY.

BENCH MARK:

A.C.S. STATION C-424 LOCATED IN THE NW QUADRANT OF WESTBOUND I-040 AND 6TH STREET SET VERTICALLY IN THE NORTH FACE OF THE MOST NORTHERLY OF THREE PIERS OF THE WEST BOUND OVERPASS OF 6TH STREET. 492' FT. WEST OF CENTERLINE 6TH STREET AND 3.6 FT. ABOVE GROUND. A 3½" X 3½" BRASS CAP STAMPED "C-424 1982", DRILLED IN THE CONCRETE BRIDGE PILAR. ELEVATION 4966.900 FEET.

TEMPORARY BENCH MARK:

SOUTHWEST CORNER OF EXISTING 6.5' X 6.5' CONCRETE PAD FOR TRANSMISSION TOWER LOCATED AT THE S.E. CORNER OF THE INTERSECTION OF LACETAS TR. STREET AND I-040 FRONTAGE ROAD. ELEVATION 4965.68 FEET.

LEGAL DESCRIPTION:

TRACT "A", BLOCK 1, BELTONA ADDITION WITHIN SECTION 9, T.10 N., R.3 E., N.M.P.M., ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, APRIL 1966.

LEGEND:

EXISTING	NEW	DESCRIPTION
5965	65	CONTOUR
64.1	64.10	SPOT ELEVATION
		SWALE
		SHEET FLOW
		PROPERTY LINE
S	S	STORM SEWER
SAS		SANITARY SEWER
W		WATERLINE
G		GAS LINE
	TA	TOP ASPHALT
	TC	TOP CURB
	FL	FLOW LINE
	EP	EDGE PAVEMENT

ROOF DRAIN AT THIS SIGN

GENERAL NOTES:

1. SEE ARCHITECTURAL SITE PLAN FOR DIMENSIONS OF BUILDING LOCATION AND PARKING LAYOUT.
2. GRID ELEVATIONS ARE TOP OF ASPHALT UNLESS OTHERWISE NOTED. ADD 0.50 FT. TO OBTAIN TOP OF CURB ELEVATION.
3. ALL DIMENSIONS OF PROPERTY LINES AS DEPICTED HEREON SHALL BE VERIFIED BY THE CONTRACTOR.

AS-BUILT ELEVATIONS 62.12 & REFERENCE ORIGINAL DATUM

AS-BUILT NOTES AS

AS-BUILT ELEVATIONS ARE BASED ON DATUM PLAIN AS MEASURED FROM BENCHMARK 2-H14, LOCATED ON TOP OF NW CURB RETURN – ELEV= 4960.292. THE DESIGN TBM DATUM IS ESTABLISHED 3.75 ABOVE TRUE DATUM

CITY OF ALBUQUERQUE
DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY (S.O. 19)
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 THIS PLAN TO BE PERFORMED UNDER CONTRACT, EXCEPT AS STATED OR PROVIDED FOR HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986.
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 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.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO _____ STREET USE.
6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. THE ADDRESS OF THE PROPERTY SERVED IS _____

APPROVALS:

HYDROLOGY _____ (NAME) _____ (DATE)

INSPECTOR _____ (NAME) _____ (DATE)

CONSTRUCTION _____ (NAME) _____ (DATE)

ANALYSIS OF DOWNSTREAM CONDITIONS:

THERE IS A 24" STORM DRAIN IN 4TH STREET WHICH CONTINUES TO 3RD STREET AND MC KNIGHT WHERE IT BECOMES 48" DIAMETER. THE SITE IS PRESENTLY AS INFILL SITE. THE EXISTING SITE IS, OR HAS BEEN, DEVELOPED AND THE AREA IN WHICH THE SITE IS LOCATED IS FULLY DEVELOPED. THE AMOUNT OF ADDITIONAL RUN-OFF THAT WILL BE GENERATED BY DEVELOPMENT IS MINIMAL. ONLY 0.26 AND 127 CF VOLUME, ACCORDING TO THE FLOODWAY MAPS, FLOODING IS RESTRICTED TO THE PUBLIC RIGHT-OF-WAY AND DOES NOT AFFECT PRIVATE PROPERTY. THE SITE itself IS NOT ADJACENT TO THE FLOOD ZONE, BEING SEPARATED FROM IT BY THE VILLAGE INN PROPERTY. DATUM, THE FINISH FLOOR ELEVATION HAS BEEN SET 2.0' ABOVE FLOWLINE ON 4TH STREET.

KEYED NOTES:

1. NEW CATCH BASIN, SEE PROJECT 4045.90.
2. NEW VALLEY GUTTER, SEE PROJECT 4045.90.
3. CONSTRUCT 1'-0" SIDEWALK CULVERT PER C.O.A. STD. DWG. 2236. INVERT IN = 64.77 ; INV. OUT = 64.35.
4. CONSTRUCT 1'-0" SIDEWALK CULVERT PER C.O.A. STD. DWG. 2236. INVERT IN = 64.41 ; INVERT OUT = 63.63.
5. CONSTRUCT 1'-0" SIDEWALK CULVERT PER C.O.A. STD. DWG. 2236. INVERT IN = 64.13 INVERT OUT = 63.95.
6. CONSTRUCT ALLEY GUTTER PER C.O.A. STD. DWG. 2415.
7. CONSTRUCT SINGLE "D" INLET AROUND EXISTING 12" STORM SEWER. GRATE = 64.20 ; INVERT ELEV. = 58.46.
8. Landscaping.
9. REFUSE ENCLOSURE.
10. EXISTING CATCH BASIN *SINGLE "D" - REMOVE & CONST SINGLE "D" INLET*
11. EXISTING TRANSMISSION TOWER ON 6.5' X 6.5' CONCRETE PAD.
12. 8' EXISTING UTILITY EASEMENT (PER PLAT C-59, 174)
13. WHEELCHAIR RAMP.
14. 12' X 14' EXISTING PNM EASEMENT (PER PLAT - C59, 174)
15. 10' PNM EASEMENT (PER PLAT C-59, 174)
16. PORTE COCHERE.
17. 5' EXISTING PNM EASEMENT (PER PLAT C59, 174)
18. 5TH ST. RIGHT-OF-WAY VACATED (V-90-11) PUBLIC UTILITY EASEMENTS RESERVED.
19. 5' X 100' UTILITY EASEMENT FOR PNM AND M. T. & T. PER DOC. NO. 82-4164.
20. EXISTING 5TH ST., REMOVE EXISTING CURB & GUTTER, PAVEMENT & SIDEWALK.
21. EXISTING CORNER CATCH BASIN - TO BE REMOVED PER PROJECT 4045.90.
22. NEW CURB AND GUTTER PER PROJECT 4045.90.
23. EXISTING CORNER CATCH BASIN - TO BE REMOVED PER PROJECT 4045.90.
24. 5' UTILITY EASEMENT.
25. REMOVE AND RELOCATE EXISTING POWER POLE AND PHONE RISER.
26. 5' X 30' UTILITY EASEMENT.
27. SPOT GRADE, TOP OF ASPHALT PAVEMENT. SEE GENERAL NOTE 2.
28. EXISTING PHONE RISER, REMOVE OR RELOCATE.
29. 6' HIGH CONCRETE MASONRY BUFFER WALL.
30. *NEW SINGLE "C" CATCH BASIN (PER PROJ 4045.90 TC=4.76 DP=0.26 INV OUT=61.61*
31. NEW 18" RCP (PROJ 4045.90) 31 LF "N" IN=61.04 INV OUT=60.94
32. CONC. CHANNEL FROM PARKING LOT TO S.W. CULVERT. SEE DETAIL
33. NEW 18" RCP (PER PROJ 4045.90) 33 LF INV IN= 61.07 INV OUT=60.91

REVISED 6/29/90

GRADING AND DRAINAGE PLAN
TRAVELERS INN
5TH STREET & McKNIGHT AVE.
ALBUQUERQUE, NEW MEXICO

PROJECT NUMBER 4045.90

SHEET 3 OF 5

THIS PLAN SHOT TWICE ONCE IN LIGHT AND ONCE ON DARK.

CITY OF ALBUQUERQUE
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION OF THE PAPER QUALITY OF THE ORIGINAL DOCUMENT.

for _____ DATE _____
CITY OF ALBUQUERQUE

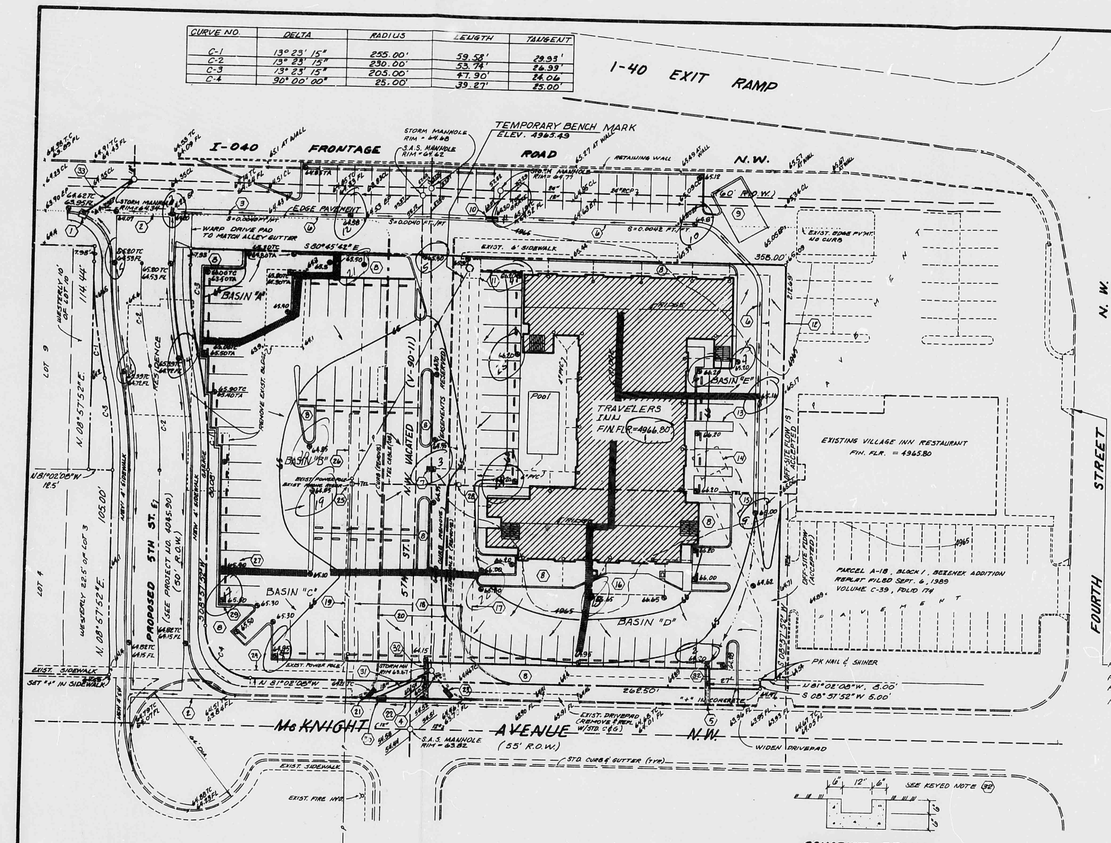
This microimage is certified to be a complete and accurate copy of the original as it appears in the files of the PUBLIC WORKS DEPARTMENT – HYDROLOGY DIVISION and was filmed in the normal course of business. The photographic processes used meet the Basic Microfilm Standards of the National Micrographics Association (MS115-1977).

Karen Aiuer
CITY CLERK RECORDER

OFFICIAL SEAL
NORBERTA SANCHEZ
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 7/24/92

D 24 | C 20 | B 16 | A 12 | CITY OF ALBUQUERQUE | C | D

CURVE NO.	DELTA	RADIUS	LENGTH	TANGENT
C-1	13° 23' 15"	255.00'	59.58'	29.93'
C-2	13° 23' 15"	230.00'	53.74'	26.99'
C-3	13° 23' 15"	205.00'	47.90'	24.04'
C-4	90° 00' 00"	25.00'	39.27'	25.00'



SCALE 1"=30'

NOTE: FLOOD INSURANCE RATE MAP SHOWS FOURTH STREET TO HAVE A FLOOD ZONE DESIGNATION OF AO (DEPTH 1)

FLOODWAY MAP — NORTH — PANEL NO. 22 of 50

VICINITY MAP — NORTH — ZONE ATLAS NO. H-14

DRAINAGE CALCULATIONS

EXISTING CONDITIONS:

THE SITE IS BOUNDED ON THE NORTH BY INDIAN SCHOOL ROAD (I-040 FRONTAGE ROAD) AND ON THE SOUTH BY MC KNIGHT AVENUE. THE SITE IS CURRENTLY PARTIALLY DEVELOPED AND IS DIVIDED AT APPROXIMATELY IN THE MIDDLE BY EXISTING 5TH STREET WHICH HAS BEEN VACATED. THE EASTERN PROTION OF THE SITE IS TWO-THIRDS PAVED AND ONE-THIRD DIRT. THE WESTERN PORTION OF THE SITE HAS COMMERCIAL AND RESIDENTIAL BUILDINGS WHICH WILL BE REMOVED. THERE IS A 12" STORM SEWER IN 5TH STREET WHICH CONNECTS TO A 24" STORM SEWER IN INDIAN SCHOOL ROAD AND FINALLY TO THE 36" LINE IN 4TH STREET. THERE ARE EXISTING CATCH BASINS AT THE NW AND NE CORNERS OF 5TH AND MC KNIGHT AND AT THE SE CORNER OF 5TH AND THE I-040 FRONTAGE ROAD. EAST OF THE SITE IS AN EXISTING RESTAURANT (HYDROLOGY FILE NO. H-14/D-11) AND WEST OF THE SITE IS RESIDENTIAL. A PORTION OF I-040 FRONTAGE ROAD (THE PROTION BORDERING THE SITE ON THE NORTH) IS LEASED FROM THE NEW MEXICO HIGHWAY AND TRANSPORTATION DEPARTMENT BY TRAVELERS INN.

PROPOSED CONDITIONS:

5TH STREET WILL BE RELOCATED TO NEWLY-DEDICATED RIGHT-OF-WAY AT THE EAST END OF THE SITE AND WILL CONNECT THE EXISTING I-040 FRONTAGE ROAD TO THE EXISTING TURNAROUND ON MC KNIGHT AVENUE. THE SITE WILL BE DEVELOPED AS A TRAVELERS INN WITH BUILDING, LANDSCAPING ASPHALT PAVING AND SIDEWALKS. AS MUCH AS POSSIBLE, RUNOFF WILL BE DISCHARGED THROUGH SIDWALK CULVERTS TO MC KNIGHT AVENUE AND THE I-040 FRONTAGE ROAD. GRADES ON THE FRONTAGE ROAD WILL NOT BE CHANGED. CURB AND GUTTER WILL BE ADDED AS REQUIRED FOR DRAINAGE AND TRAFFIC CONTROL. ALONG THE EAST SIDE OF THE SITE, A SECTION OF ALLEY GUTTER IS PROPOSED BECAUSE THE GRADES HAVE TO BE EXTREMELY FLAT TO MATCH EXISTING GRADES ADJACENT TO THE RESTAURANT. ONE SINGLE "D" INLET IS PROPOSED IN THE PARKING LOT TO DRAIN ALL AREAS NOT DRAINED BY SIDWALK CULVERTS. IT IS PROPOSED TO CONSTRUCT THE SINGLE "D" INLET OVER (CONNECTED TO) THE EXISTING 12" RCP STORM SEWER LINE IN THE VACATED 5TH STREET RIGHT-OF-WAY.

SOIL INFORMATION:

SOIL IS Gk, GLENDALE LOAM, HYDROLOGIC SOIL GROUP "B".

FLOOD ZONE:

THE SITE IS IN THE 500-YEAR FLOOD ZONE. THERE IS A 100-YEAR FLOOD ZONE ON 4TH STREET.

RAINFALL, 100-YEAR, 6-HOUR:

(REFER TO D.P.M. PLATE 22.2 D-1.) R_6 = 2.2 INCHES.

TIME OF CONCENTRATION:

USE TEN (10) MINUTES, MINIMUM TIME OF CONCENTRATION.

DRAINAGE AREAS (DEPERVIOUSNESS):

SURFACE TYPE	"C"	CN	DIRECT RUNOFF	AREA (SQUARE FEET) EXISTING	DEVELOPED
BUILDING	0.90	98	2.00	33373	10942
ASPHALT & CONCRETE	0.95	98	2.00	31610	59086
LANDSCAPING	0.25	61	0.15	-	6053
DIRT	0.40	82	0.80	11098	-
TOTAL				76081	76081

RAINFALL INTENSITY:

(REFER TO D.P.M. PLATE 22.2 D-2.) $I = R_6 \times 6.84 \times (Tc)^{-0.51}$

$I = 2.2 \times 6.84 \times 10^{-0.51} = 4.65$ INCHES PER HOUR.

WEIGHTED RUNOFF COEFFICIENTS:

EXISTING CONDITIONS: $C_w = \frac{(33373 \times 0.90 + 31610 \times 0.95 + 11098 \times 0.40)}{76081} = 0.85$

DEVELOPED CONDITIONS: $C_w = \frac{(10942 \times 0.90 + 59086 \times 0.95 + 6053 \times 0.25)}{76081} = 0.88$

PEAK RUNOFF:

USE RATIONAL EQUATION: $Q_{100} = CIA$; $Q_{10} = 0.657(Q_{100})$

EXISTING CONDITIONS: $Q_{100} = 0.85 \times 4.65 \times 1.75 = 6.92$ CFS

DEVELOPED CONDITIONS: $Q_{100} = 0.88 \times 4.65 \times 1.75 = 7.16$ CFS

6-HOUR VOLUME:

(USE SCS METHOD $V = (AREA \times DIRECT\ RUNOFF)/12$)

EXISTING CONDITIONS:

$V_{100} = \frac{(44683 \times 2.00 + 11098 \times 0.80)}{12} = 11570$ CF

DEVELOPED CONDITIONS:

$V_{100} = \frac{(70028 \times 2.00 + 6053 \times 0.15)}{12} = 11747$ CF

DRAINAGE BASINS:

THE ABOVE RUNOFF RATES AND VOLUMES ARE DIVIDED, BETWEEN THE VARIOUS BASINS BY PRORATING THE INDIVIDUAL BASIN AREAS TO THE TOTAL SITE AREA. THIS METHOD IS NOT ENTIRELY ACCURATE BUT IS ADEQUATE FOR CHECKING OUTFALL CAPACITIES.

DRAINAGE BASIN	AREA (SF)	PERCENT	Q_{100}	Q_{10}	V_{100}	V_{10}
A	2450	3.22	0.23	0.15	378	249
B	44341	58.28	4.17	2.74	6846	4498
C	10615	13.95	1.00	0.66	1639	1077
D	13075	17.19	1.23	0.80	2020	1326
E	5600	7.36	0.53	0.35	864	568
TOTAL	76081	100.00	7.16	4.70	11747	7718

SIDEWALK CULVERT CAPACITY:

SLOPE FROM INLET TO PROPERTY LINE IS 0.005 FT./FT. SLOPE FROM PROPERTY LINE TO STREET FLOWLINE IS 0.0200 FT./FT. USE THE FLATTER OF THE TWO SLOPES TO CALCULATE CAPACITY.

USE MANNING'S EQUATION TRY 1.0' SIDEWALK CULVERT, DEPTH OF 6".

$Q = A(1.486/N)R^{2/3}S^{1/2}$ $A = 1 \times 0.5 = 0.5$ SF $P = 0.5 + 1.0 + 0.5 = 2.0$

$R = A/P = 0.5 / 2 = 0.25$ $N = 0.013$

$Q = 0.5(1.486/0.013)(0.25)^{2/3}(0.005)^{1/2} = 1.60$ CFS A 12" SIDEWALK CULVERT IS ADEQUATE TO DRAIN BASINS "A", "C", AND "F".

SINGLE "D" INLET CAPACITY:

USE ORIFICE EQUATION. ASSUME 3" DEPTH OVER GRATE. PER STANDARD DRAWING NO. 2220, EACH OPENING IS 1.54" X 4.44" = 6.83 SQ. IN. = 0.0475 SF

$Q = CA(2GH)^{1/2}$ $C = 0.6$ $A = 0.0475$ SF $H = 0.25$ FT.

$Q = 0.6 \times 0.0475 (2 \times 32.2 \times 0.25)^{1/2} = 0.1114$ CFS PER OPENING.

$96 \times 0.1114 = 10.94$ CFS. SINGLE "D" CATCH BASIN IS ADEQUATE.

LEGEND:

EXISTING	NEW	DESCRIPTION
4945	45	CONTOUR
x64.1	64.10	SPOT ELEVATION
		SWALE
		SHEET FLOW
		PROPERTY LINE
S	S	STORM SEWER
SAS		SANITARY SEWER
W		WATERLINE
G		GAS LINE
	TA	TOP ASPHALT
	TC	TOP CURB
	FL	FLOW LINE
	EP	EDGE PAVEMENT
		ROOF DRAIN THRU CURB

GENERAL NOTES:

1. SEE ARCHITECTURAL SITE PLAN FOR DIMENSIONS OF BUILDING LOCATION AND PARKING LAYOUT.
2. SPOT ELEVATIONS ARE TOP OF ASPHALT UNLESS OTHERWISE NOTED. ADD 0.50 FT. TO OBTAIN TOP OF CURB ELEVATION.
3. ALL DIMENSIONS OF PROPERTY LINES AS DEPICTED HEREON SHALL BE VERIFIED BY THE CONTRACTOR.

CITY OF ALBUQUERQUE
DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY (S.O. 19)
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 THIS PLAN TO BE PERFORMED UNDER CONTRACT, EXCEPT AS STATED OR PROVIDED FOR HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986.
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 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.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO _____ STREET USE.
6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. THE ADDRESS OF THE PROPERTY SERVED IS _____

APPROVALS:

HYDROLOGY Bruce Montoya (NAME) 7/1/90 (DATE)

INSPECTOR _____ (NAME) _____ (DATE)

CONSTRUCTION _____ (NAME) _____ (DATE)

ANALYSIS OF DOWNSTREAM CONDITIONS:

THERE IS A 36" STORM DRAIN IN 4TH STREET WHICH CONTINUES TO 3RD STREET AND Mc KNIGHT WHERE IT BECOMES 48" DIAMETER. THE SITE IS PRESENTLY AN INFILL SITE. THE EXISTING SITE IS, OR HAS BEEN, DEVELOPED AND THE AREA IN WHICH THE SITE IS LOCATED IS FULLY DEVELOPED. THE AMOUNT OF ADDITIONAL RUN-OFF THAT WILL BE GENERATED BY DEVELOPMENT IS MINIMAL, ONLY 0.24 CFS AND 177 CF VOLUME. ACCORDING TO THE FLOODWAY MAPS, FLOODING IS RESTRICTED TO THE PUBLIC RIGHT-OF-WAY AND DOES NOT AFFECT PRIVATE PROPERTY. THE SITE ITSELF IS NOT ADJACENT TO THE FLOOD ZONE, BEING SEPARATED FROM IT BY THE VILLAGE INN PROPERTY. HOWEVER, THE FINISH FLOOR ELEVATION HAS BEEN SET 2.0' ABOVE FLOWLINE ON 4TH STREET.

KEYED NOTES:

1. NEW CATCH BASIN, SEE PROJECT 4045.90
2. NEW VALLEY GUTTER. SEE PROJECT 4045.90.
3. CONSTRUCT 1'-0" SIDEWALK CULVERT PER C.O.A. STD. DWG. 2236. INVERT IN = 64.77 ; INV. OUT = 64.35.
4. CONSTRUCT 1'-0" SIDEWALK CULVERT PER C.O.A. STD. DWG. 2236. INVERT IN = 64.15 ; INVERT OUT = 63.63.
5. CONSTRUCT 1'-0" SIDEWALK CULVERT PER C.O.A. STD. DWG. 2236. INVERT IN = 64.18 INVERT OUT = 63.98.
6. CONSTRUCT ALLEY GUTTER PER C.O.A. STD. DWG. 2415.
7. CONSTRUCT SINGLE "D" INLET AROUND EXISTING 12" STORM SEWER. GRATE = 64.20 ; INVERT ELEV. = 58.46.
8. Landscaping.
9. REFUSE ENCLOSURE.
10. EXISTING CATCH BASIN *SINGLE "C"* - REMOVE & CONST. SINGLE "D" INLET.
11. EXISTING TRANSMISSION TOWER ON 6.5' X 6.5' CONCRETE PAD.
12. 8' EXISTING UTILITY EASEMENT (PER PLAT C-39, 174)
13. WHEELCHAIR RAMP.
14. 12' X 14' EXISTING PNM EASEMENT (PER PLAT - C39, 174)
15. 10' PNM EASEMENT (PER PLAT C39, 174)
16. PORTE COCHERE.
17. 5' EXISTING PNM EASEMENT (PER PLAT C39, 174)
18. 5TH ST. RIGHT-OF-WAY VACATED (V-90-11) PUBLIC UTILITY EASEMENTS RESERVED.
19. 5' X 100' UTILITY EASEMENT FOR PNM AND M.S.T. & T. PER DOC. NO. 82-8164.
20. EXISTING 5TH ST., REMOVE EXISTING CURB & GUTTER, PAVEMENT & SIDEWALK.
21. EXISTING CORNER CATCH BASIN - TO BE REMOVED PER PROJECT 4045.90.
22. NEW CURB AND GUTTER PER PROJECT 4045.90.
23. EXISTING CORNER CATCH BASIN - TO BE REMOVED PER PROJECT 4045.90.
24. 5' UTILITY EASEMENT.
25. REMOVE AND RELOCATE EXISTING POWER POLE AND PHONE RISER.
26. 5' X 30' UTILITY EASEMENT.
27. SPOT GRADE, TOP OF ASPHALT PAVEMENT. SEE GENERAL NOTE 2.
28. EXISTING PHONE RISER, REMOVE OR RELOCATE.
29. 6' HIGH CONCRETE MASONRY BUFFER WALL.
30. *VIEW SINGLE "C" CATCH BASIN/ PER PROJ. 4045.90 TC=64.16 GR.=63.76 INV.=61.04*
31. *VIEW 18" RCP (PROJ. 4045.90) 31 LF INV.IN=61.04 INV.OUT=60.54*
32. *CONC. CHANNEL FROM PARKING LOT TO S.W. CULVERT - SEE DETAIL*
33. *VIEW 18" RCP PER PROJ. 4045.90) 38 LF INV.IN= 61.07 INV.OUT=60.51*

EROSION CONTROL NOTES:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE FOLLOWING:

1. NO SEDIMENT-BEARING WATER SHALL BE ALLOWED TO DISCHARGE FROM THE SITE DURING CONSTRUCTION.
2. DURING GRADING OPERATIONS AND UNTIL THE PROJECT HAS BEEN COMPLETED, ALL ADJACENT PROPERTY RIGHTS-OF-WAY, AND EASEMENTS SHALL BE PROTECTED FROM FLOODING BY RUNOFF FROM THE SITE.
3. SHOULD THE CONTRACTOR FAIL TO PREVENT SEDIMENT BEARING WATER FROM ENTERING PUBLIC RIGHT-OF-WAY, HE SHALL PROMPTLY REMOVE FROM THE PUBLIC RIGHT-OF-WAY ANY AND ALL SEDIMENTATION ORIGINATING FROM THE SITE.
4. CONTROL OF SEDIMENT LADEN WATERS WILL BE ACCOMPLISHED BY USE OF A COMPACTED EARTH BERM OF ADEQUATE HEIGHT. THE BERM SHALL BE LOCATED ALONG THE DOWNSTREAM PERIMETER OF THE PROPERTY.

HYDROLOGY APPROVAL & INSPECTION

APPROVED FOR BUILDING PERMIT

ENGINEER B Montoya DATE 7/1/90

INSPECTION REQUESTED DATE _____

APPROVAL DATE _____ DISAPPROVED _____

SDHP APPROVAL DATE _____

SURVEY DATE _____

HYDROLOGY BOOK NO / PAGE NO. _____

FRANK O. LOVELADY — NEW MEXICO — 9512 — REGISTERED PROFESSIONAL ENGINEER — 6/29/90

REVISED 6/29/90

BENCH MARK:

A.C.S. STATION C-424 LOCATED IN THE NW QUADRANT OF WESTBOUND I-040 AND 5TH STREET SET VERTICALLY IN THE NORTH FACE OF THE EAST BUTTRESS OF BRIDGE PIER OF THE WEST BOUND OVERPASS OF 4TH STREET, 46.7 FT. WEST OF CENTERLINE OF 4TH STREET AND 3.8 FT. ABOVE GROUND. A 3½" N.G.S. BRASS CAP STAMPED "C-424 1982", DRILLED IN THE CONCRETE BRIDGE PILAR. ELEVATION 4966.899 FEET.

TEMPORARY BENCH MARK:

SOUTHWEST CORNER OF EXISTING 6.5' X 6.5' CONCRETE PAD FOR TRANSMISSION TOWER LOCATED AT THE S.E. CORNER OF THE INTERSECTION OF VACATED 5TH STREET AND I-040 FRONTAGE ROAD. ELEVATION 4963.43 FEET.

LEGAL DESCRIPTION:

TRACT "A", BLOCK 1, BEZEMEK ADDITION WITHIN SECTION 6, T.10 N., R.3 E., N.M.P.M., ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, APRIL 1990.

GRADING AND DRAINAGE PLAN
TRAVELERS INN
5TH STREET & McKNIGHT AVE.
ALBUQUERQUE, NEW MEXICO

PROJECT NUMBER 4045.90

RECEIVED JUN 29 1990 HYDROLOGY

SHEET 3 OF 5

THIS PLAN SHOT TWICE
ONCE ON LIGHT AND
ONCE ON DARK.

CITY OF ALBUQUERQUE
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.

REF 21 DATE 6-24-93 OPERATOR

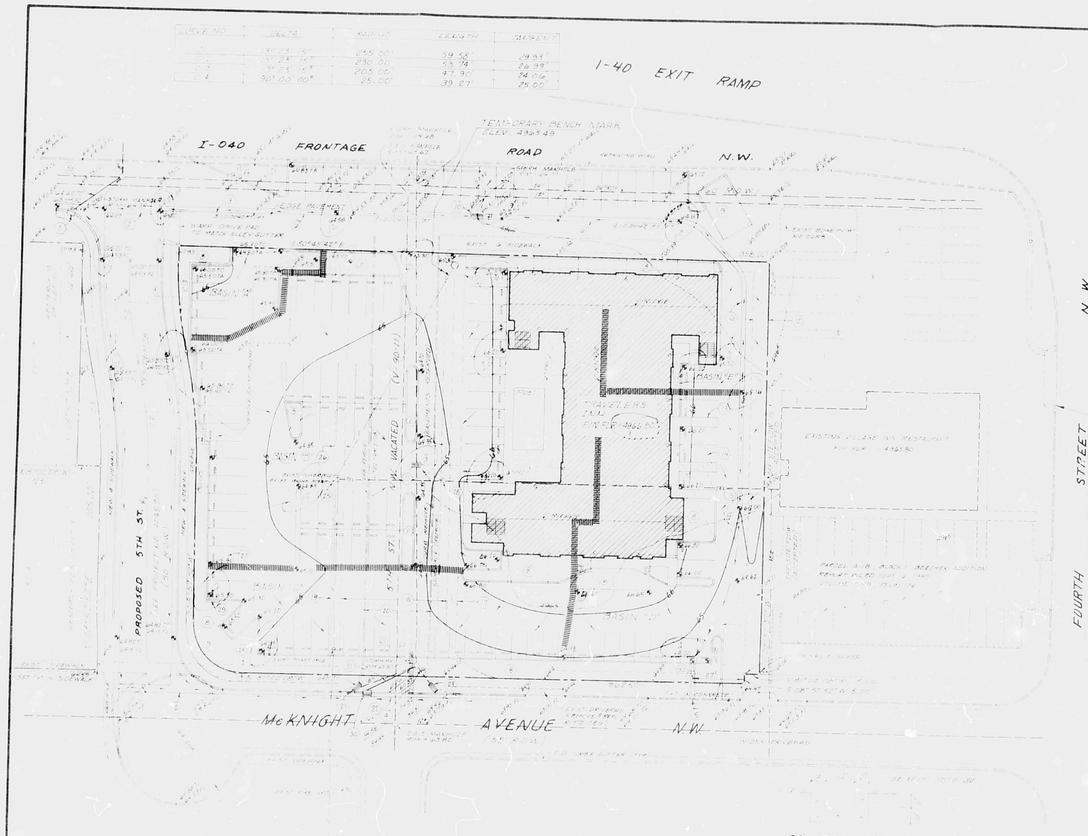
CITY OF ALBUQUERQUE
This microimage is certified to be a complete and accurate copy of the original as it appears in the files of the PUBLIC WORKS DEPARTMENT - HYDROLOGY DIVISION and was filmed in the normal course of business. The photographic processes used meet the Basic Microfilm Standards of the National Micrographics Association (NS115-1977).

Karen Acree
CITY CLERK RECORDER

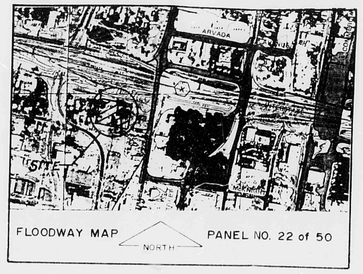
OFFICIAL SEAL
NORZERTA SANCHEZ
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires MAY 8 1993
Norzerta Sanchez

D 24 | C 20 | B 16 | A 12 | CITY OF ALBUQUERQUE | C | D

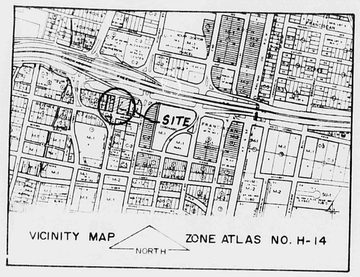
CURVE NO.	DELTA	RADIUS	LENGTH	TANGENT
1	41°24'00"	85.00'	59.58'	31.03'
2	41°24'00"	230.00'	166.24'	86.59'
3	41°24'00"	20.00'	14.46'	7.53'
4	90°00'00"	25.00'	39.27'	25.00'



SCALE 1"=30'



FLOODWAY MAP — NORTH — PANEL NO. 22 of 50



VICINITY MAP — NORTH — ZONE ATLAS NO. H-14

DRAINAGE CALCULATIONS

EXISTING CONDITIONS:

THE SITE IS BOUNDED ON THE NORTH BY INDIAN SCHOOL ROAD (I-40 FRONTAGE ROAD) AND ON THE SOUTH BY MC KNIGHT AVENUE. THE SITE IS CURRENTLY PARTIALLY DEVELOPED AND IS DIVIDED AT APPROXIMATELY IN THE MIDDLE BY EXISTING 5TH STREET WHICH HAS BEEN VACATED. THE EASTERN PORTION OF THE SITE IS TWO-THIRDS PAVED AND ONE-THIRD DIRT. THE WESTERN PORTION OF THE SITE HAS COMMERCIAL AND RESIDENTIAL BUILDINGS WHICH WILL BE REMOVED. THERE IS AN 18" STORM SEWER IN 5TH STREET WHICH CONNECTS TO A 24" STORM SEWER IN INDIAN SCHOOL ROAD AND FINALLY TO THE 60" LINE IN 4TH STREET. THERE ARE EXISTING CATCH BASINS AT THE NW AND SE CORNERS OF 5TH AND MC KNIGHT AND AT THE N CORNER OF 5TH AND MC KNIGHT. THE EXISTING ROAD, 5TH ST. ON THE SITE IS AN EXISTING INTERMITTENT DRAINAGE FLOW WHICH FLOWS SOUTH AND WEST OF THE SITE IS RESPONSIBLE. A PORTION OF I-40 FRONTAGE ROAD. THE PROPERTY BORDERING THE SITE ON THE NORTH IS FLOODED FROM THE NEW MEXICO STORM SEWER AND TRANSPORTATION DEPARTMENT IS TRAVELERS INN.

PROPOSED CONDITIONS:

5TH STREET WILL BE RELOCATED TO NEWLY-DEDICATED RIGHT-OF-WAY AT THE EAST END OF THE SITE AND WILL CONNECT THE EXISTING I-40 FRONTAGE ROAD TO THE EXISTING TERMINUS ON MC KNIGHT AVENUE. THE SITE WILL BE DEVELOPED AS A TRAVELERS INN WITH BUILDING, LANDSCAPING, ASPHALT PAVING AND SIDEWALKS. AS MUCH AS POSSIBLE, RUNOFF WILL BE DISCHARGED THROUGH SIDEWALK CULVERTS TO MC KNIGHT AVENUE AND THE I-40 FRONTAGE ROAD. GRADES ON THE FRONTAGE ROAD WILL NOT BE CHANGED. CURB AND GUTTER WILL BE ADDED AS REQUIRED FOR DRAINAGE AND TRAFFIC CONTROL. ALONG THE EAST SIDE OF THE SITE, A SECTION OF ALLEY GUTTER IS PROPOSED BECAUSE THE GRADES HAVE TO BE EXTREMELY FLAT TO MATCH EXISTING GRADES ADJACENT TO THE RESTAURANT. AN SINGLE "D" INLET IS PROPOSED IN THE PARKING LOT TO DRAIN ALL AREAS NOT DRAINED BY SIDEWALK CULVERTS. IT IS PROPOSED TO CONNECT THE SINGLE "D" INLET OVER CONNECTED TO THE EXISTING 12" RCP STORM SEWER LINE IN THE VACATED 5TH STREET RIGHT-OF-WAY.

SOIL INFORMATION:

SOIL IS OSO, SLIGHTLY SALINE, WITH GROUP "D".

FLOOD ZONE:

THE SITE IS IN THE SHADEAR FLOOD ZONE. THERE IS A 100-YEAR FLOOD ZONE ON THE STREET.

RAINFALL, 100-YEAR, 6-HOUR:

REFER TO D.P.M. PLATE 22.2 (D-2.): $P_6 = 2.2$ INCHES.

TIME OF CONCENTRATION:

ONE-TEN (10) MINUTES, MINIMUM TIME OF CONCENTRATION.

DRAINAGE AREAS (IMPERVIOUSNESS):

SURFACE TYPE	"C"	CN	DIRECT RUNOFF	AREA (SQUARE FEET) EXISTING	DEVELOPED
BUILDING	0.90	98	90%	8700	17400
ASPHALT & CONCRETE	0.95	98	100%	31610	56098
LANDSCAPING	0.25	61	0%		6053
DIRT	0.40	71	10%	11098	—
TOTAL				76418	76418

RAINFALL INTENSITY:

REFER TO D.P.M. PLATE 22.2 (D-2.): $i = P_6 \times 0.044 \times (Tc)^{-0.29}$

$= 2.2 \times 0.044 \times 10^{-0.29} = 4.65$ INCHES PER HOUR.

WEIGHTED RUNOFF COEFFICIENTS:

EXISTING CONDITIONS: $C_w = \frac{(31273 \times 0.90) + (31610 \times 0.95) + (11098 \times 0.40)}{76418} = 0.85$

DEVELOPED CONDITIONS: $C_w = \frac{(10942 \times 0.90) + (59096 \times 0.95) + (6053 \times 0.25)}{76418} = 0.88$

PEAK RUNOFF:

USE RATIONAL EQUATION: $Q_{100} = CIA$; $Q_{10} = 0.657Q_{100}$

EXISTING CONDITIONS: $Q_{100} = 0.85 \times 4.65 \times 1.75 = 6.92$ CFS

DEVELOPED CONDITIONS: $Q_{100} = 0.88 \times 4.65 \times 1.75 = 7.16$ CFS

6-HOUR VOLUME:

USE SCS METHOD: V = (AREA X DIRECT RUNOFF)/12

EXISTING CONDITIONS:

$V_{100} = \frac{(6498 \times 2.00) + (11098 \times 0.40)}{12} = 11570$ CF

DEVELOPED CONDITIONS:

$V_{100} = \frac{(17002 \times 2.00) + (6053 \times 0.15)}{12} = 11747$ CF

DRAINAGE BASINS:

THE ABOVE RUNOFF RATES AND VOLUMES ARE DIVIDED BETWEEN THE VARIOUS BASINS BY PRORATING THE INDIVIDUAL BASIN AREAS TO THE TOTAL SITE AREA. THIS METHOD IS NOT ENTIRELY ACCURATE BUT IS ADEQUATE FOR CHECKING OUTFALL CAPACITIES.

DRAINAGE BASIN	AREA (SF)	PERCENT	Q_{100}	Q_{10}	V_{100}	V_{10}
A	1400	1.83	0.13	0.09	336	240
B	14161	18.53	1.28	0.84	3402	2268
C	10615	13.89	1.00	0.66	1699	1077
D	15973	20.91	1.51	0.99	2020	1326
E	5600	7.33	0.53	0.35	864	588
TOTAL	76749	100.00	7.16	4.70	11747	7718

SIDEWALK CULVERT CAPACITY:

SLOPE FROM INLET TO PROPERTY LINE IS 0.005 FT./FT. SLOPE FROM PROPERTY LINE TO STREET FLOWLINE IS 0.0020 FT./FT. USE THE FLATTER OF THE TWO SLOPES TO CALCULATE CAPACITY.

USE MANNING'S EQUATION TRY 1.0' SIDEWALK CULVERT, DEPTH OF 6".

$Q = \frac{1.486}{n} A R^{2/3} S^{1/2}$; $A = (1.0 \times 0.5) + (0.5 \times SF)$; $P = (0.5 + 1.0 + 0.5 = 2.0)$

$R = A/P = 0.5$; $S = 0.005$; $N = 0.013$

$Q = \frac{1.486}{0.013}(0.50)(0.50)^{2/3}(0.005)^{1/2} = 0.660$ CFS. A 12" SIDEWALK CULVERT IS ADEQUATE TO DRAIN BASINS "A", "C", AND "D".

SINGLE "D" INLET CAPACITY:

USE ORIFICE EQUATION. ASSUME 3" DEPTH OVER GRATE. PER STANDARD DRAWING NO. 2220, EACH OPENING IS 1.50' X 0.167' = 0.25 SQ. FT. = 0.0475 SF

$Q = CA(2GH)^{1/2}$; $C = 0.6$; $A = 0.0475$ SF ; $H = 0.25$ FT.

$Q = 0.6 \times 0.0475 (2 \times 32.2 \times 0.25)^{1/2} = 0.114$ CFS PER OPENING.

$96 \times 0.114 = 10.94$ CFS. SINGLE "D" CATCH BASIN IS ADEQUATE.

EROSION CONTROL NOTES:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH THE FOLLOWING:

1. NO SEDIMENT-BEARING WATER SHALL BE ALLOWED TO DISCHARGE FROM THE SITE DURING CONSTRUCTION.
2. DURING GRADING OPERATIONS AND UNTIL THE PROJECT HAS BEEN COMPLETED, ADJACENT PROPERTY, RIGHTS-OF-WAY, AND EASEMENTS SHALL BE PROTECTED FROM FLOODING BY WATER FROM THE SITE.
3. SHOULD THE CONTRACTOR FAIL TO PREVENT SEDIMENT BEARING WATER FROM ENTERING PUBLIC RIGHTS-OF-WAY, HE SHALL REMOVE SEDIMENT FROM THE PUBLIC RIGHTS-OF-WAY AND ALL SEDIMENTATION RESULTING FROM THE SITE.
4. CONTROL OF SEDIMENT BEARING WATER WILL BE ACCOMPLISHED BY USE OF A COMPACTED EARTH BERM OR ADEQUATE HEIGHT. THE BERM SHALL BE LOCATED ALONG THE PROPERTY LINE OF THE PROPERTY.

E.M. Montoya 7/1/90

BENCH MARK:

A.C.S. STATION C-426 LOCATED IN THE SW QUADRANT OF WESTBOUND I-040 AND 4TH STREET SET VERTICALLY IN THE NORTH FACE OF THE MOST NORTHERLY OF THREE PIERS OF THE WEST BOUND OVERPASS OF 4TH STREET, 49.7 FT. WEST OF CENTERLINE 4TH STREET AND 3.5 FT. ABOVE GROUND. A 3" ALUM. BRASS CAP STAMPED "C-426 1982", DRILLED IN THE CONCRETE BRIDGE PILAR. ELEVATION 4966.899 FEET.

TEMPORARY BENCH MARK:

SOUTHWEST CORNER OF EXISTING 6.5' X 6.5' CONCRETE PAD FOR TRANSMISSION TOWER LOCATED AT THE S.E. CORNER OF THE INTERSECTION OF VACATED 5TH STREET AND I-40 FRONTAGE ROAD. ELEVATION 4995.49 FEET.

LEGAL DESCRIPTION:

PART "A", BLOCK 1, BRIDGES ADDITION WITHIN SECTION 9, T.10 N., R.3 E., N.M.P.M., ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, APRIL 1990.

LEGEND:

EXISTING	NEW	DESCRIPTION
4960	65	CONTOUR
4.41	4.10	SPOT ELEVATION
		SWALE
		SPLIT FLOW
		PROPERTY LINE
S	S	STORM SEWER
SAS		SANITARY SEWER
W		WATERLINE
G		GAS LINE
	TA	TOP ASPHALT
	TC	TOP CURB
	FL	FLOW LINE
	EP	EDGE PAVEMENT

GENERAL NOTES:

1. SEE ARCHITECTURAL SITE PLAN FOR DIMENSIONS OF BUILDING LOCATION AND PARKING LAYOUT.
2. ALL ELEVATIONS ARE BASED ON MEAN SEA LEVEL ELEVATIONS AND ARE AS SHOWN ON THE ALBUQUERQUE BENCHMARK DATUM.
3. ALL DIMENSIONS IN PROPERTY LINES & DEFINED HEREON SHALL BE VERIFIED BY THE CONTRACTOR.

CITY OF ALBUQUERQUE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY (S.D. 191)

NOTES TO CONTRACTOR

1. AS EXCAVATION/CONSTRUCTION PROCEEDS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR OF ALL UTILITIES DAMAGED DURING CONSTRUCTION.
2. ALL EXCAVATION, BACKFILL, COMPACTION, AND SUBGRADE PREPARATION SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY SPECIFICATIONS FOR PUBLIC WORK CONSTRUCTION.
3. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE CITY SPECIFICATIONS FOR PUBLIC WORK CONSTRUCTION.
4. ALL DIMENSIONS, ELEVATIONS, AND LOCATIONS OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR.
5. ALL EXCAVATED MATERIAL SHALL BE STOCKPILED ON SITE.
6. ALL EXCAVATED MATERIAL SHALL BE STOCKPILED ON SITE.
7. ALL EXCAVATED MATERIAL SHALL BE STOCKPILED ON SITE.
8. ALL EXCAVATED MATERIAL SHALL BE STOCKPILED ON SITE.
9. ALL EXCAVATED MATERIAL SHALL BE STOCKPILED ON SITE.
10. ALL EXCAVATED MATERIAL SHALL BE STOCKPILED ON SITE.
11. ALL EXCAVATED MATERIAL SHALL BE STOCKPILED ON SITE.
12. ALL EXCAVATED MATERIAL SHALL BE STOCKPILED ON SITE.

APPROVAL:

Kenny Montoya 7/1/90

CITY ENGINEER — DATE

CONSTRUCTION — DATE

ANALYSIS OF DOWNSTREAM CONDITIONS:

KEYED NOTES:

1. NEW CATCH BASIN, SEE PROJECT DRAWING.
2. NEW VALLEY GUTTER, SEE PROJECT DRAWING.
3. CONSTRUCT 1'-0" SIDEWALK CULVERT PER D.P.O.S. STD. DWG. 2236. INVERT IN = 64.75 ; INVERT OUT = 64.65.
4. CONSTRUCT 1'-0" SIDEWALK CULVERT PER D.P.O.S. STD. DWG. 2236. INVERT IN = 64.75 ; INVERT OUT = 64.65.
5. CONSTRUCT 1'-0" SIDEWALK CULVERT PER D.P.O.S. STD. DWG. 2236. INVERT IN = 64.75 ; INVERT OUT = 64.65.
6. CONSTRUCT 1'-0" SIDEWALK CULVERT PER D.P.O.S. STD. DWG. 2236. INVERT IN = 64.75 ; INVERT OUT = 64.65.
7. CONSTRUCT ALLEY GUTTER PER D.P.O.S. STD. DWG. 2415.
8. CONSTRUCT SINGLE "D" INLET BEHIND EXISTING 12" STORM SEWER. INVERT = 64.25 ; INVERT ELEV. = 64.25.
9. [illegible]
10. [illegible]
11. REFER TO ENGINEER.
12. REMOVE EXISTING CATCH BASIN. REMOVE 6" REMOVE 5 CONST SINGLE "D" INLET
13. EXISTING TRANSMISSION TOWER ON 6.5' X 6.5' CONCRETE PAD.
14. 50' EASEMENT (PER PLAT 1-79, 174).
15. [illegible]
16. 50' X 50' EXISTING PDNM EASEMENT (PER PLAT 1-79, 174).
17. 50' PDNM EASEMENT (PER PLAT 1-79).
18. [illegible]
19. EXISTING 30' ALLEY (PER PLAT 1-79, 174).
20. 30' X 30' EXISTING PUBLIC UTILITY EASEMENT (PER PLAT 1-79, 174).
21. [illegible]
22. EXISTING 10' STREET LIGHTS (PER PLAT 1-79, 174).
23. EXISTING 10' STREET LIGHTS (PER PLAT 1-79, 174).
24. EXISTING CONCRETE CATCH BASIN. TO BE REMOVED PER PROJECT DRAWING.
25. 5TH STREET RIGHT-OF-WAY (PER PLAT 1-79, 174).
26. EXISTING CONCRETE CATCH BASIN. TO BE REMOVED PER PROJECT DRAWING.
27. 5' UTILITY EASEMENT.
28. REMOVE ALL EXISTING EXISTING, POWER POLES AND OVERHEAD WIRES.
29. 5' X 50' UTILITY EASEMENT.
30. SPOT GRADE, TOP OF ASPHALT PAVEMENT. SEE GENERAL NOTE.
31. EXISTING PHONE RISER, REMOVE OR RELOCATE.
32. 6" REBAR CONCRETE MASONRY RETAINER WALL.
33. NEW SINGLE "D" CATCH BASIN. SEE PROJECT DRAWING. [illegible]
34. [illegible]
35. [illegible]
36. [illegible]

REVISED 6/29/90

GRADING AND DRAINAGE PLAN
TRAVELERS INN
5TH STREET & McKNIGHT AVE.
ALBUQUERQUE, NEW MEXICO

PROJECT NUMBER 4045.90

SHEET 3 OF 5

RECEIVED JUN 28 1990 HYDROLOGY

THIS PLAN SHOT TWICE ONCE ON LIGHT AND ONCE ON DARK.

CITY OF ALBUQUERQUE
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.

FILM NO. ___ DATE ___ OF ___

CITY OF ALBUQUERQUE

This microimage is certified to be a complete and accurate copy of the original as it appears in the files of the PUBLIC WORKS DEPARTMENT - HYDROLOGY DIVISION and was filmed in the normal course of business. The photographic processes used meet the Basic Microfilm Standards of the National Micrographics Association (NMA) (1977).

Karen Aiuwi
CITY CLERK RECORDER

OFFICIAL SEAL NORBERTA SANCHEZ NOTARY PUBLIC STATE OF NEW MEXICO My Commission Expires 11/14/92

D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE

C D