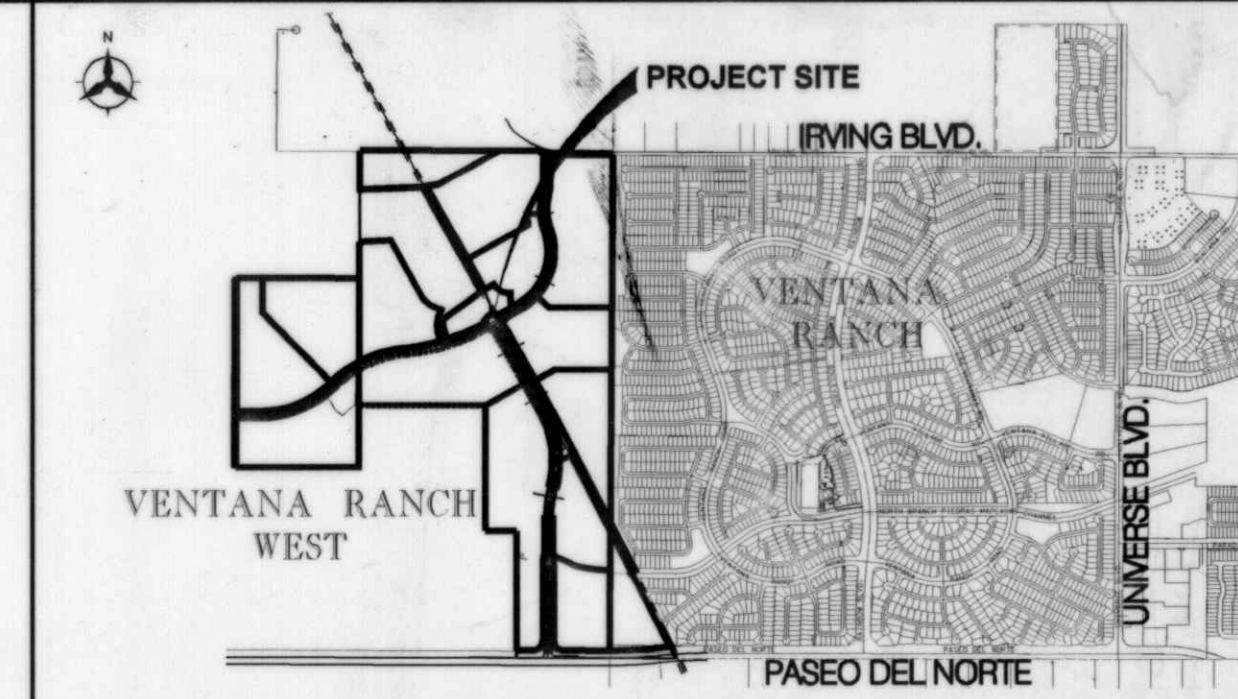


CONSTRUCTION PLANS
FOR
VENTANA RANCH WEST
WATER & SANITARY SEWER IMPROVEMENTS -
PHASE 1
ALBUQUERQUE, NEW MEXICO



VICINITY MAP: NOT TO SCALE ZONE MAP NO. B-8-Z

- NOTICE TO CONTRACTORS**
- 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 STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AND SHALL INCLUDE UPDATE No. 7.
 - 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 OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR SURVEYOR IMMEDIATELY SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
 - FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONST. COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (924-3400) PRIOR TO OCCUPYING AN INTERSECTION. REFER TO SECTION 19 OF THE GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS.
 - ALL PERMANENT STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED W/ PLASTIC REFLECTORIZED PAVEMENT MARKING BY CONTRACTOR TO LOCATION AS EXISTING OR AS INDICATED BY THIS PLAN SET.
 - CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE CITY SURVEYOR MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE CITY SURVEYOR AND SHALL NOTIFY THE CITY SURVEYOR AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE CITY SURVEYOR. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATIONS OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 4.4 OF THE GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS.
 - ANY WORK WITHIN AN ARTERIAL ROADWAY REQUIRES TWENTY-FOUR HOUR CONSTRUCTION.
 - ALL UTILITY WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH NEW MEXICO UTILITIES, INC. SPECIFICATIONS FOR WATER AND WASTEWATER FACILITIES (MOST RECENT REVISIONS).
 - THE CONTRACTOR SHALL NOTIFY NEW MEXICO UTILITIES (898-2661) THREE WORKING DAYS PRIOR TO BEGINNING THE CONSTRUCTION OF THE UTILITIES.
 - CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORK SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY GRAFFITI FROM ALL EQUIPMENT, WHETHER PERMANENT OR TEMPORARY.
 - FOR STORM DRAIN CONSTRUCTION, RCP PIPE JOINTS SHALL NOT BE GROUTED PRIOR TO FINAL INSPECTION. FINAL INSPECTION WILL DETERMINE JOINTS TO BE GROUTED FOR FINAL ACCEPTANCE OF THE CONSTRUCTION.

- THE FOLLOWING NOTES ALSO APPLY WHEN CHECKED**
- ☒ ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING.
 - ☒ BACKFILL COMPACTION SHALL BE ACCORDING TO SPECIFIED STREET USE.
 - ☐ TACK COAT REQUIREMENTS SHALL BE DETERMINED BY THE ENGINEER.
 - ☒ SIDEWALKS AND WHEELCHAIR RAMPS WITHIN THE CURB RETURNS SHALL BE CONSTRUCTED WHEREVER A NEW CURB RETURN IS CONSTRUCTED.
 - ☐ IF CURB IS DEPRESSED FOR A DRIVEPAD, THE DRIVEPAD SHALL BE CONSTRUCTED PRIOR TO ACCEPTANCE OF CURB AND GUTTER.
 - ☐ ALL STORM DRAINAGE FACILITIES SHALL BE COMPLETED PRIOR TO FINAL ACCEPTANCE.
 - ☒ THE REQUESTOR OR DEVELOPER SHALL BE RESPONSIBLE FOR REPAIR OR REPLACEMENT OF ALL CURB AND GUTTER OR SIDEWALK DAMAGED AFTER APPROVAL BY THE CITY ENGINEER OF WORK COMPLETED BY THE CONTRACTOR.

INDEX

SHEET NUMBER	DESCRIPTION
1	TITLE SHEET
2 - 4	PLAT
5	SITE DESCRIPTION PLAN
6	OVERALL UTILITY PLAN
UTILITY PLAN AND PROFILE SHEETS	
7	VENTANA WEST PARKWAY STA. 0+00.00 - 7+50.00
8	VENTANA WEST PARKWAY STA. 7+50.00 - 17+50.00
9	VENTANA WEST PARKWAY STA. 17+50.00 - 28+00.00
10	VENTANA WEST PARKWAY STA. 28+00.00 - 39+00.00
11	VENTANA RIDGE ROAD STA. 23+00.00 - 32+50.00
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14	20" TRANSMISSION WATERLINE, STA. 1+00.00 - 13+94.78
15	12" WATERLINE STA. 64+21.82 - 73+00.00
16	12" WATERLINE STA. 73+00.00 - 83+00.00
17	12" WATERLINE STA. 83+00.00 - 91+00.00
18	IRVING/N. BOUNDARY STA. 91+00.00 - 102+00.00
19	LINE "A" SAS STA. 0+00.00 - 6+50.00
20	LINE "A" SAS STA. 6+50.00 - 11+82.61
21	TRACT 5 SAS STA. 0+00 - 3+00 AND STA. 10+00 - 13+81.76
22	LINE "B" AND LINE "C" SAS CROSSING

No work order
For information only

APPROVED AS RECORD DRAWINGS
DESIGN REVIEW SECTION
CITY ENGINEER
DATE: 7/23/04

RECORD DRAWINGS

SURVEYOR'S CERTIFICATION

"I, Timothy Aldrich, a duly qualified Registered Professional Land Surveyor under the laws of the State of New Mexico, do hereby certify that the 'as-built' information shown on these drawings was obtained from field construction and 'as-built' surveys performed by me or under my supervision, that the 'as-built' information shown on these drawings was added by me or under my supervision, and that this 'as-built' information is true and correct to the best of my knowledge and belief." Aldrich Land Surveying is not responsible for any of the design concepts, calculations, engineering, or intent of the record drawings.

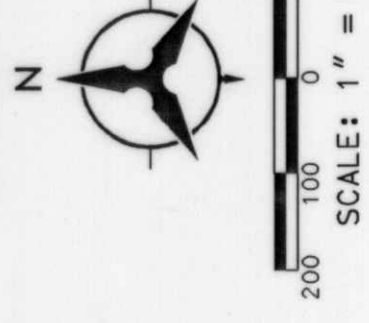
Timothy Aldrich, P.S. No. 7719

Bohannon & Huston

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ENGINEERING • SPATIAL DATA • ADVANCED TECHNOLOGIES

REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE		APPROVALS	ENGINEER	DATE	APPROVED FOR CONSTRUCTION		
		DRC Chairman		7-23-04			
		Transportation		6/8/04			
		Water/Wastewater		6/8/04			
		Hydrology					
		CIP					
		Const. Mngmt.					
		Const. Coord.		7-22-04			
		NMUI		6-8-04			
DRB CASE NUMBER		CITY PROJECT NO.		SHEET			
04 DRB-00128		617684		1 OF 22			

BULK LAND PLAT FOR
VENTANA RANCH WEST
WITHIN THE CITY OF ALBUQUERQUE
AND BERNALILLO COUNTY, NEW MEXICO
FEBRUARY, 2004



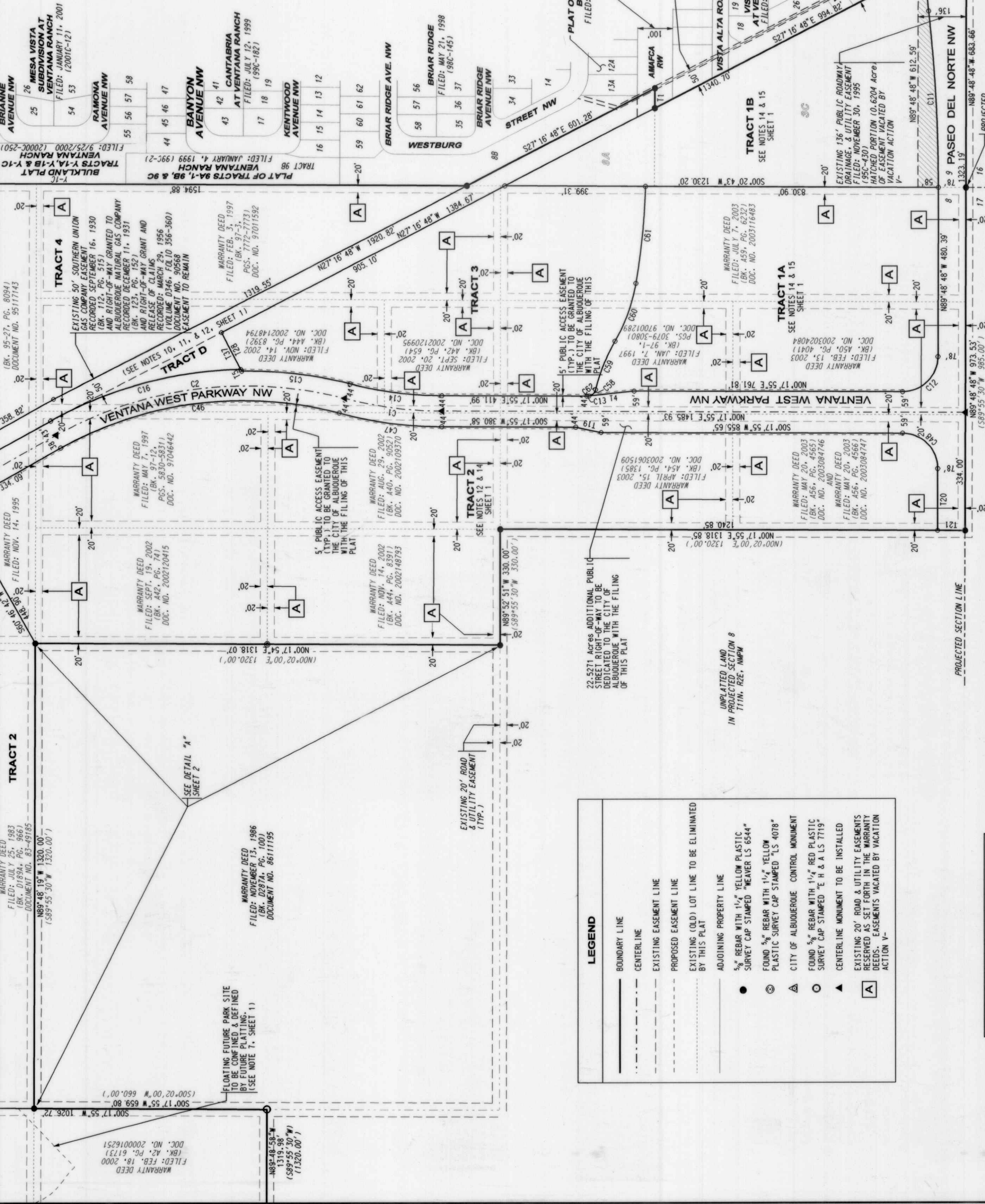
NOTE: SEE SHEET 6 FOR CURVE & TANGENT DATA



SHEET 5
SHEET 4
SHEET 3

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Advanced Technologies

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07/28/2004
07:28:04
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NOTE: SEE SHEET 6 FOR CURVE & TANGENT DATA

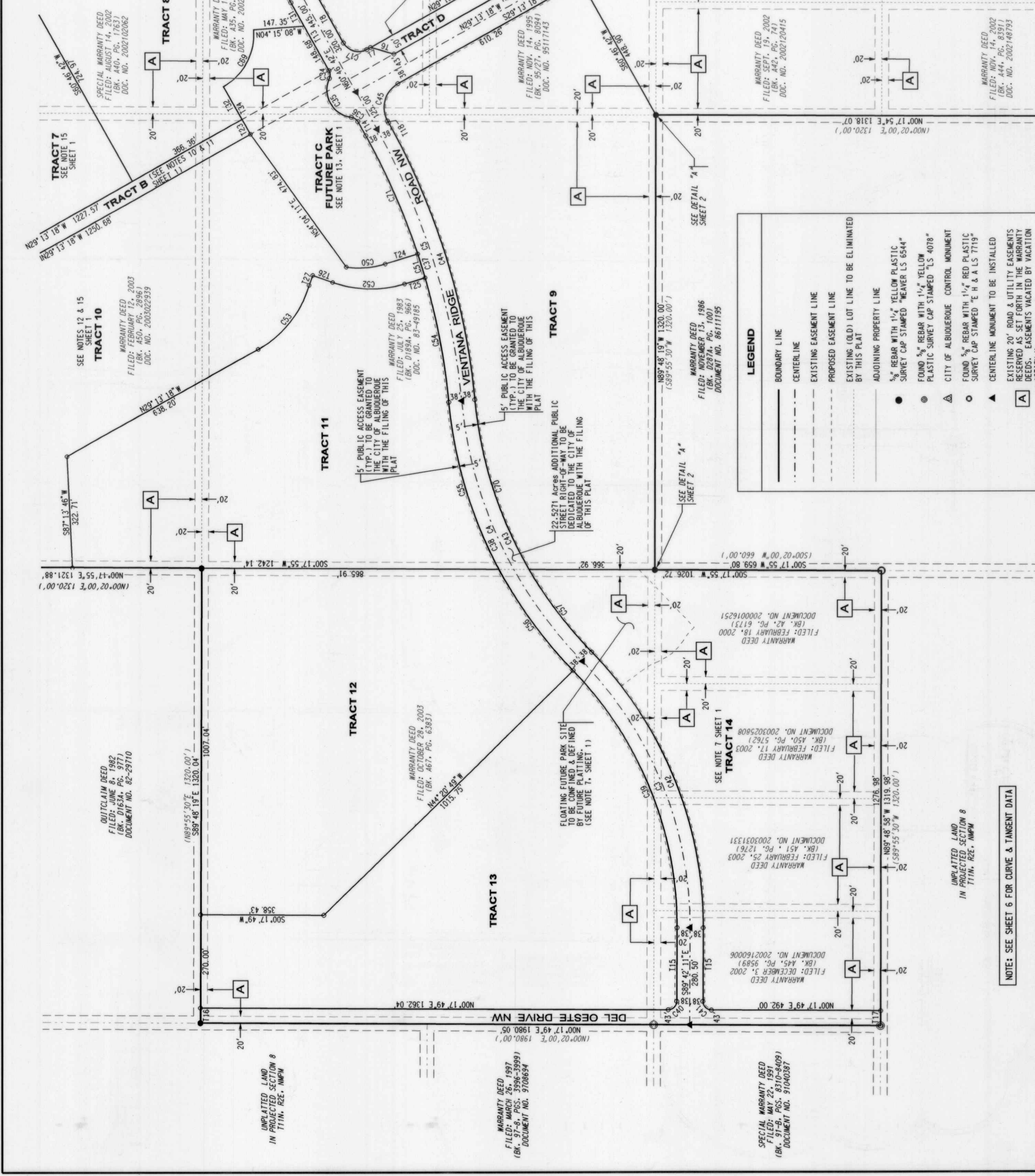
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BOUNDARY LINE	—
CENTERLINE	—
EXISTING EASEMENT LINE	- - -
PROPOSED EASEMENT LINE	- - -
EXISTING (OLD) LOT LINE TO BE ELIMINATED BY THIS PLAT	
ADJOINING PROPERTY LINE	
22.5271 Acres ADDITIONAL PUBLIC STREET RIGHT-OF-WAY TO BE DEDICATED TO THE CITY OF ALBUQUERQUE WITH THE FILING OF THIS PLAT	
●	5/8" REBAR WITH 1/4" YELLOW PLASTIC SURVEY CAP STAMPED "WEAVER LS 6544"
⊙	FOUND 5/8" REBAR WITH 1/4" YELLOW PLASTIC SURVEY CAP STAMPED "LS 4078"
⊙	CITY OF ALBUQUERQUE CONTROL MONUMENT
⊙	FOUND 5/8" REBAR WITH 1/4" RED PLASTIC SURVEY CAP STAMPED "E H A & L S 7719"
⊙	CENTERLINE MONUMENT TO BE INSTALLED
▲	EXISTING 20' ROAD & UTILITY EASEMENTS RESERVED AS SET FORTH IN THE WARRANTY DEEDS. EASEMENTS VACATED BY VACATION ACTION V-
⊠	

BULK LAND PLAT FOR
VENTANA RANCH WEST
WITHIN THE CITY OF ALBUQUERQUE
AND BERNALILLO COUNTY, NEW MEXICO
FEBRUARY, 2004



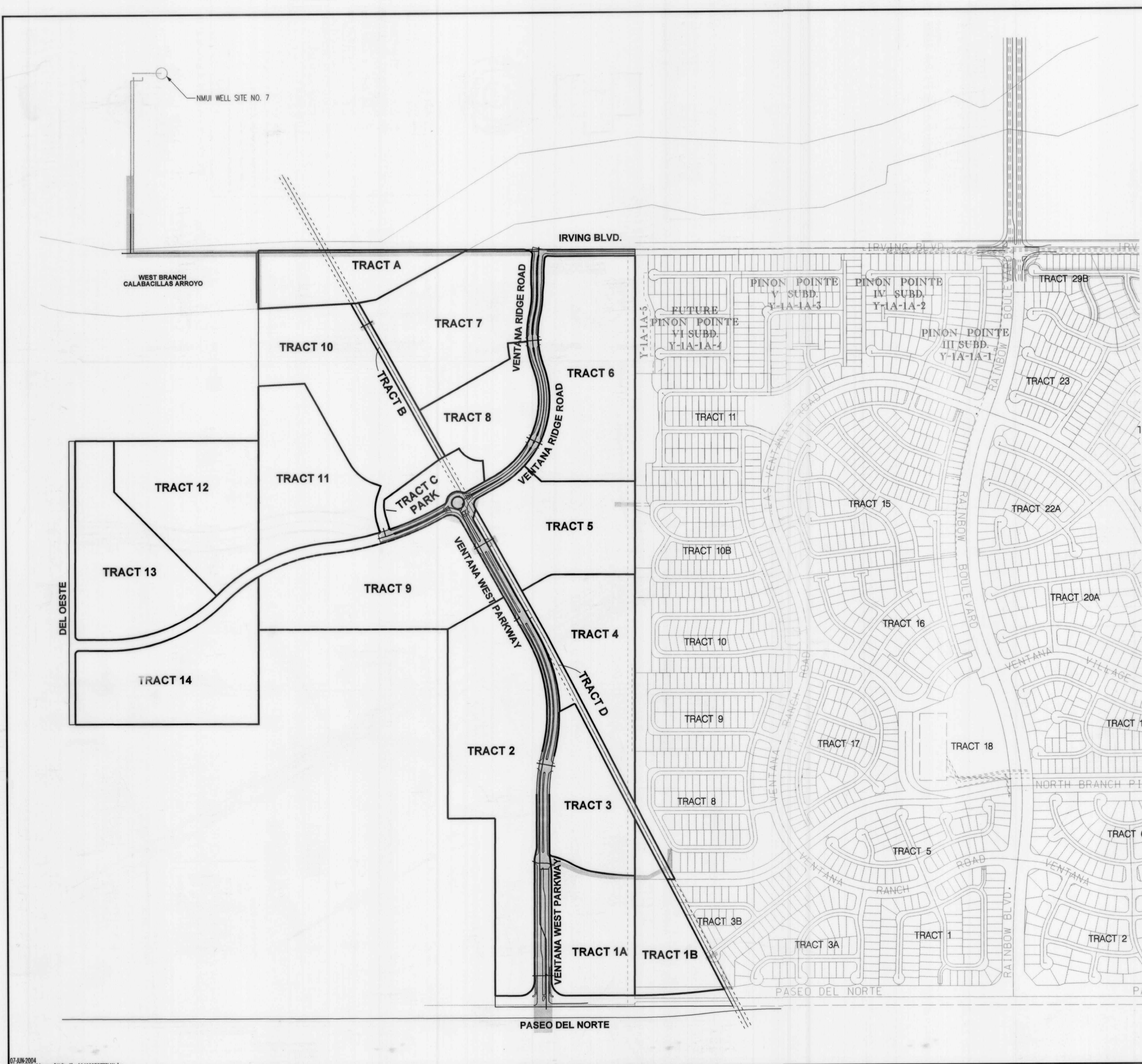
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Engineering & Spatial Data
Advanced Technologies

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07/28/2004
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NOTE: SEE SHEET 6 FOR CURVE & TANGENT DATA

LEGEND	
BOUNDARY LINE	—
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⊠	



UTILITY IMPROVEMENTS THIS PROJECT

APPROVED: [Signature] DATE: 6-7-04

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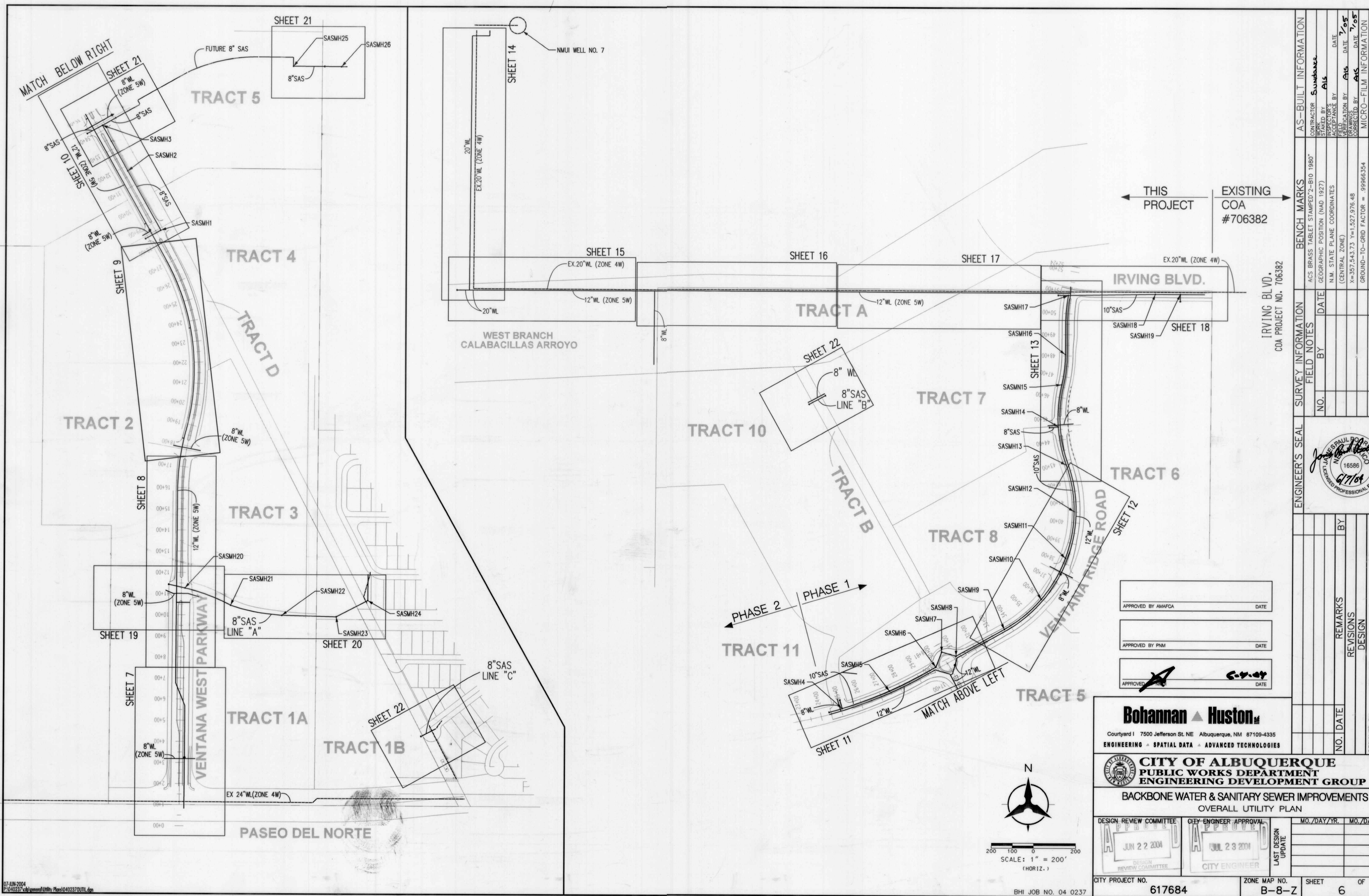
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

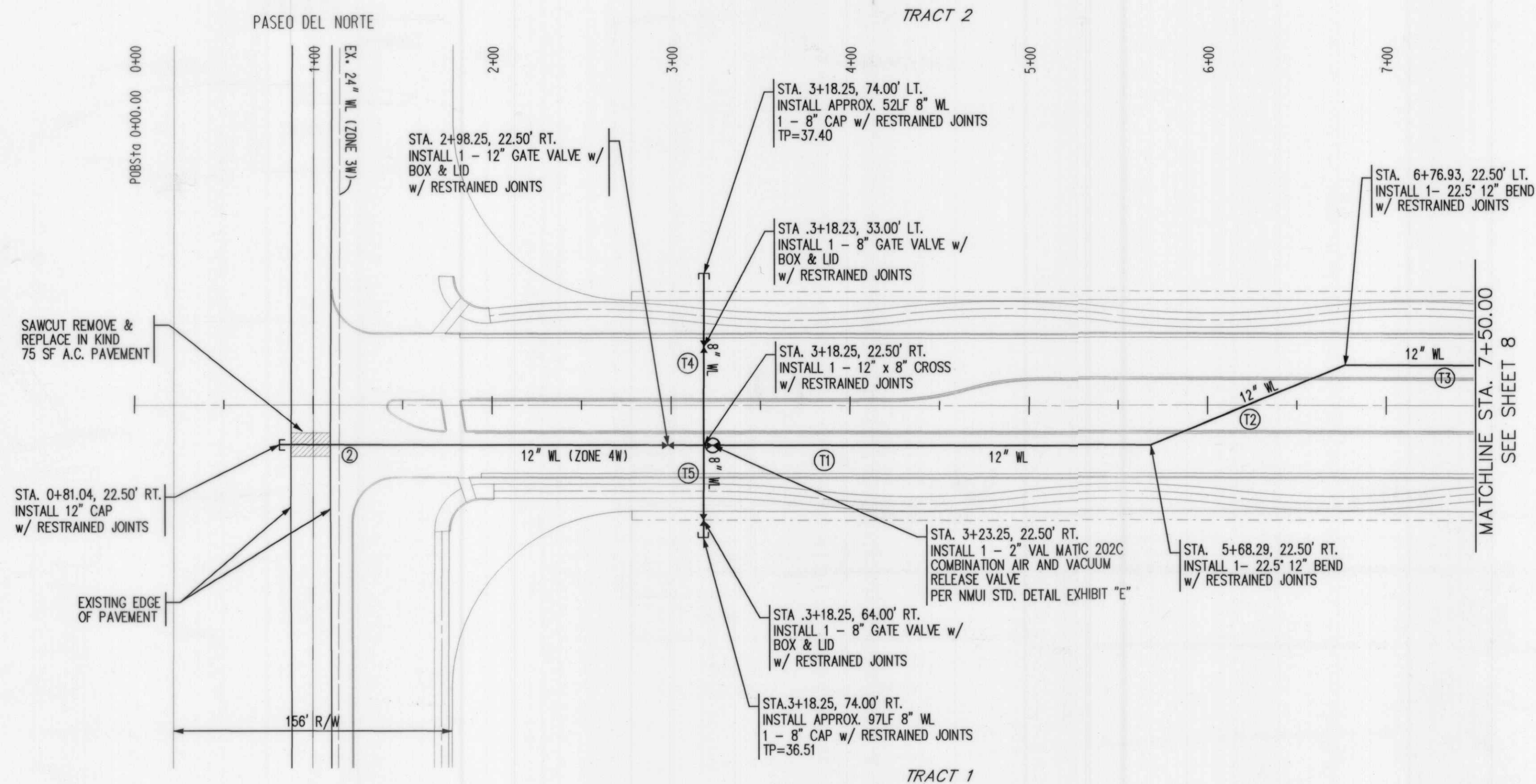
BACKBONE WATER & SANITARY SEWER IMPROVEMENT
SITE DESCRIPTION PLAN

DESIGN REVIEW COMMITTEE APPROVE JUN 22 2004
CITY ENGINEER APPROVE JUL 23 2004
LAST DESIGN UPDATE

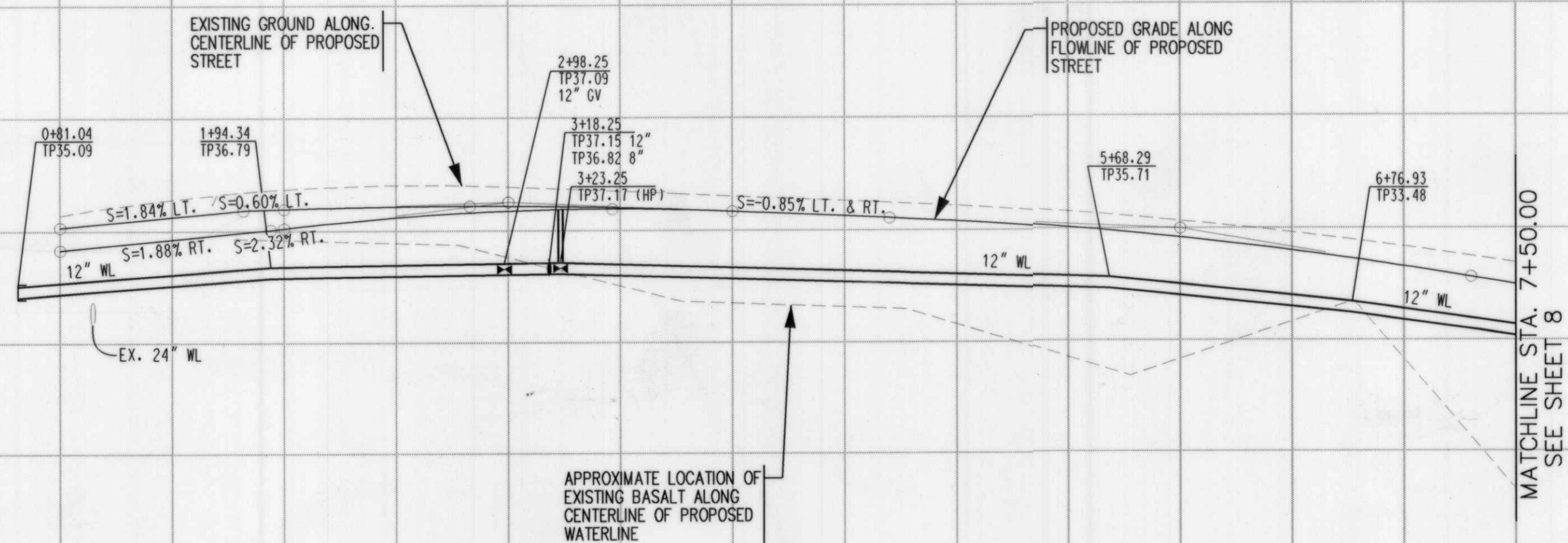
CITY PROJECT NO. 617684
ZONE MAP NO. B-8-Z
SHEET 5

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS-BUILT INFORMATION	
		FIELD NOTES		ACS BRASS TABLET STAMPED "2-BIO 1980"		CONTRACTOR Sundance	
		NO. BY DATE		GEOGRAPHIC POSITION (NAD 1927)		DRAWN BY ALS	
		REVISIONS		N.M. STATE PLANE COORDINATES (CENTRAL ZONE)		INSPECTOR'S ACCEPTANCE BY ALS	
		NO. DATE		X=357,543.73 Y=1,527,976.48		DATE 7/05	
		BY		GROUND-TO-GRID FACTOR = .99966354		MICRO-FILM INFORMATION	



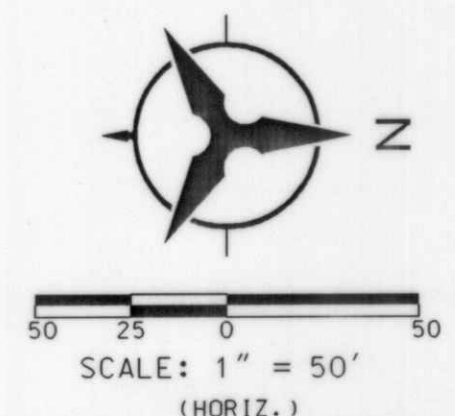


VENTANA WEST PARKWAY STA 0+00.00 - 7+50.00



ID	BEARING	LENGTH
T1	N00°17'55\"E	487.25'
T2	N22°12'05\"W	117.58'
T3	N00°17'55\"E	909.00'
T4	N89°45'40\"W	96.49'
T5	S89°42'05\"E	51.50'

DES	EX. WL	WL	Clearance
2	24\" TP	33.74	12\" TP 35.63
	24\" BP	31.69	12\" BP 34.55



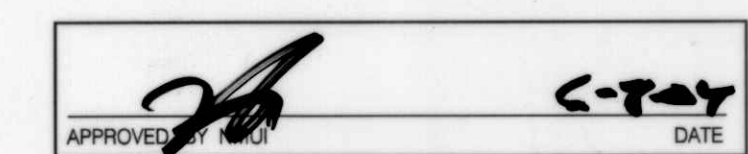
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- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
 - CONTRACTOR IS TO INSTALL A 4\" X 4\" X 5\" POST AND END AT THE END OF EACH SANITARY SEWER SERVICE.
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 - CONTRACTOR SHALL PARK EQUIPMENT AND VEHICLES AS NOT TO INTERFERE WITH NORMAL ACTIVITIES OF RESIDENTS OR OTHER CONTRACTORS ON SITE.
 - ANY DAMAGE TO THE EXISTING FACILITIES (CURB & GUTTER, PAVEMENT, CONDUITS, LANDSCAPING, UTILITY LINES, ETC.) DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTORS' EXPENSE.
 - REMOVAL OF THE EXISTING CURB AND GUTTER SHALL BE AS PER COA STD. DWG. 2415 (SAWCUT ONLY).
 - ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P.
 - NO WORK SHALL BE UNDER TAKEN WITHIN EXISTING 50' GASLINE EASEMENT WITHOUT FIRST CONTACTING PNM.
 - CONTRACTOR MUST MAINTAIN TWO-WAY TRAFFIC AT ALL TIMES ON PASEO DEL NORTE. THE USE OF AN UNPAVED DETOUR FOR UP TO TWO DAYS WILL BE ALLOWED WITH PROPER BARRICADING.

RESTRAINING JOINT TABLE			
MECHANICAL JOINTS	LENGTH OF RESTRAINED JOINTS		
	20\" DIP/12\" PVC	8\" PVC	65'
GATE/AIR RELEASE VALVE	N/A	65'	65'
BUTTERFLY/AIR RELEASE VALVE	55'	N/A	N/A
CAP	55'	65'	65'
TEE	14'	18'	-
REDUCER	35'	-	-
22.5\" HORIZ. BEND	-	6'	4'
45\" HORIZ. BEND	-	11'	-

- NOTE:
- ALL MECHANICAL JOINTS SHALL BE RESTRAINED AT THE FITTING.
 - THE CONTRACTOR SHALL PROVIDE A MINIMUM PIPE LENGTH OF 20 LF FROM ALL MECHANICAL JOINTS. ALL PIPE JOINTS WITHIN 20 LF OF MJ SHALL BE RESTRAINED AT THE CONTRACTORS EXPENSE.
 - THE CONTRACTOR SHALL RESTRAIN ALL PIPE JOINTS IN THE SPECIFIED DISTANCE LISTED IN THE TABLE ABOVE. (SEE NOTE 2 ABOVE).
 - THE CONTRACTOR SHALL RESTRAIN ALL FIRE HYDRANTS JOINTS FROM THE TEE ON THE MAIN TO THE FIRE HYDRANT FLANGE.
 - RESTRAINED LENGTHS FOR REDUCERS ARE FOR THE LARGE SIDE.
 - RESTRAINED LENGTHS FOR VERTICAL BENDS ARE SHOWN IN PROFILE.

GENERAL NOTE:
***ALL SANITARY SEWER MANHOLES SHALL BE 4' DIAMETER TYPE "E" AS PER NM APWA STANDARD DRAWING 2102 UNLESS OTHERWISE NOTED.**

***STORM DRAIN AND ROADWAY SHOWN FOR REFERENCE ONLY. FOR CONSTRUCTION INFORMATION SEE C.O.A. PROJECT # 617683**

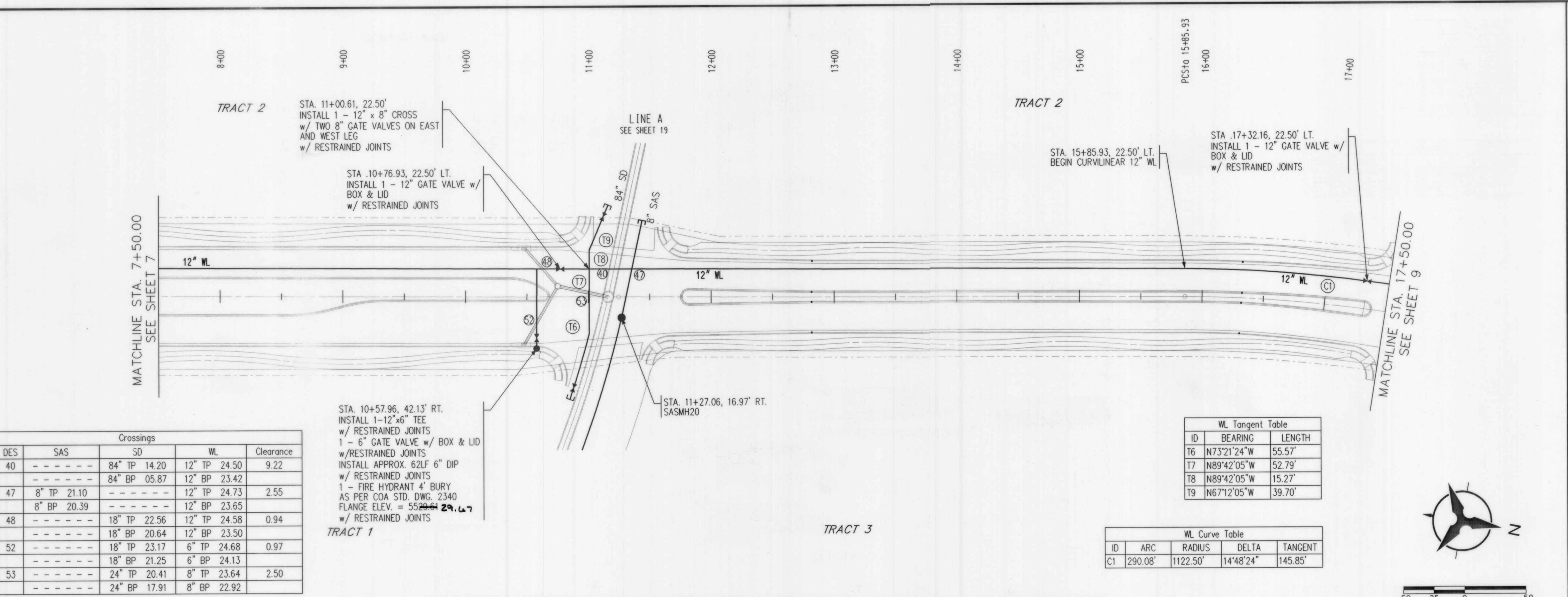


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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP
BACKBONE WATER & SANITARY SEWER IMPROVEMENTS
UTILITY PLAN & PROFILE
VENTANA WEST PARKWAY STA 0+00.00 - 7+50.00

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	MO./DAY/YR.	MO./DAY/YR.
APPROVED JUN 22 2004 DESIGN REVIEW COMMITTEE	APPROVED JUL 23 2004 CITY ENGINEER		

CITY PROJECT NO. **617684** ZONE MAP NO. **B-8-Z** SHEET **7** OF **22**



Crossings				
DES	SAS	SD	WL	Clearance
40	-----	84" TP 14.20	12" TP 24.50	9.22
47	8" TP 21.10	-----	12" TP 24.73	2.55
48	8" BP 20.39	-----	12" BP 23.65	-----
52	-----	18" TP 23.17	6" TP 24.68	0.97
53	-----	18" BP 21.25	6" BP 24.13	-----
53	-----	24" TP 20.41	8" TP 23.64	2.50
-----	-----	24" BP 17.91	8" BP 22.92	-----

WL Tangent Table		
ID	BEARING	LENGTH
T6	N73°21'24"W	55.57'
T7	N89°42'05"W	52.79'
T8	N89°42'05"W	15.27'
T9	N67°12'05"W	39.70'

WL Curve Table			
ID	ARC	RADIUS	TANGENT
C1	290.08'	1122.50'	145.85'

NOTES

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- CONTRACTOR SHALL PARK EQUIPMENT AND VEHICLES AS NOT TO INTERFERE WITH NORMAL ACTIVITIES OF RESIDENTS OR OTHER CONTRACTORS ON SITE.
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- CONTRACTOR MUST MAINTAIN TWO-WAY TRAFFIC AT ALL TIMES ON PASO DEL NORTE. THE USE OF AN UNPAVED DETOUR FOR UP TO TWO DAYS WILL BE ALLOWED WITH PROPER BARRICADING.

RESTRAINING JOINT TABLE

MECHANICAL JOINTS	LENGTH OF RESTRAINED JOINTS	
	20" DIP 12" PVC 8" PVC	20" DIP 12" PVC 8" PVC
GATE/AIR RELEASE VALVE	N/A	65'
BUTTERFLY/AIR RELEASE VALVE	55'	N/A
CAP	55'	65'
TEE	14'	18'
REDUCER	35'	-
22.5" HORIZ. BEND	-	6'
45" HORIZ. BEND	-	11'

NOTE:

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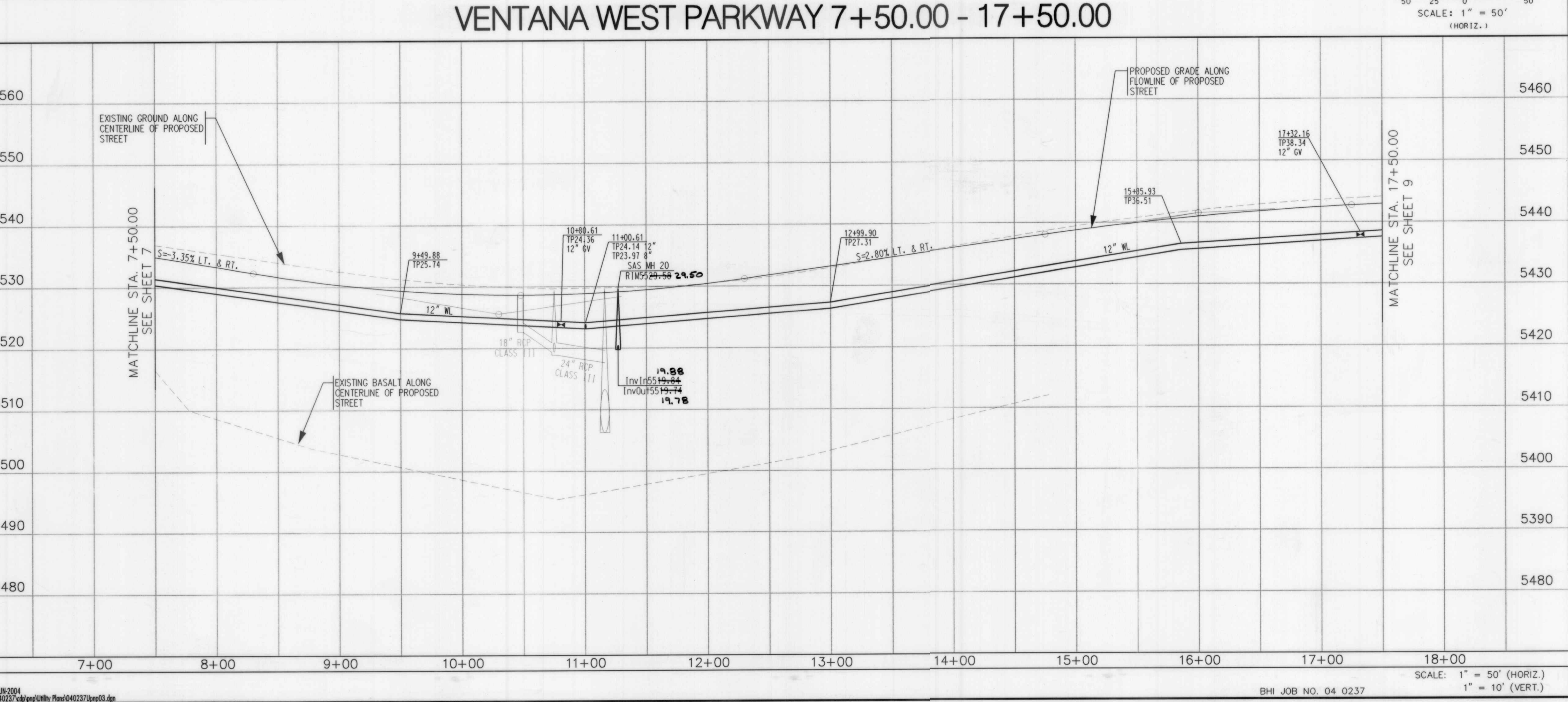
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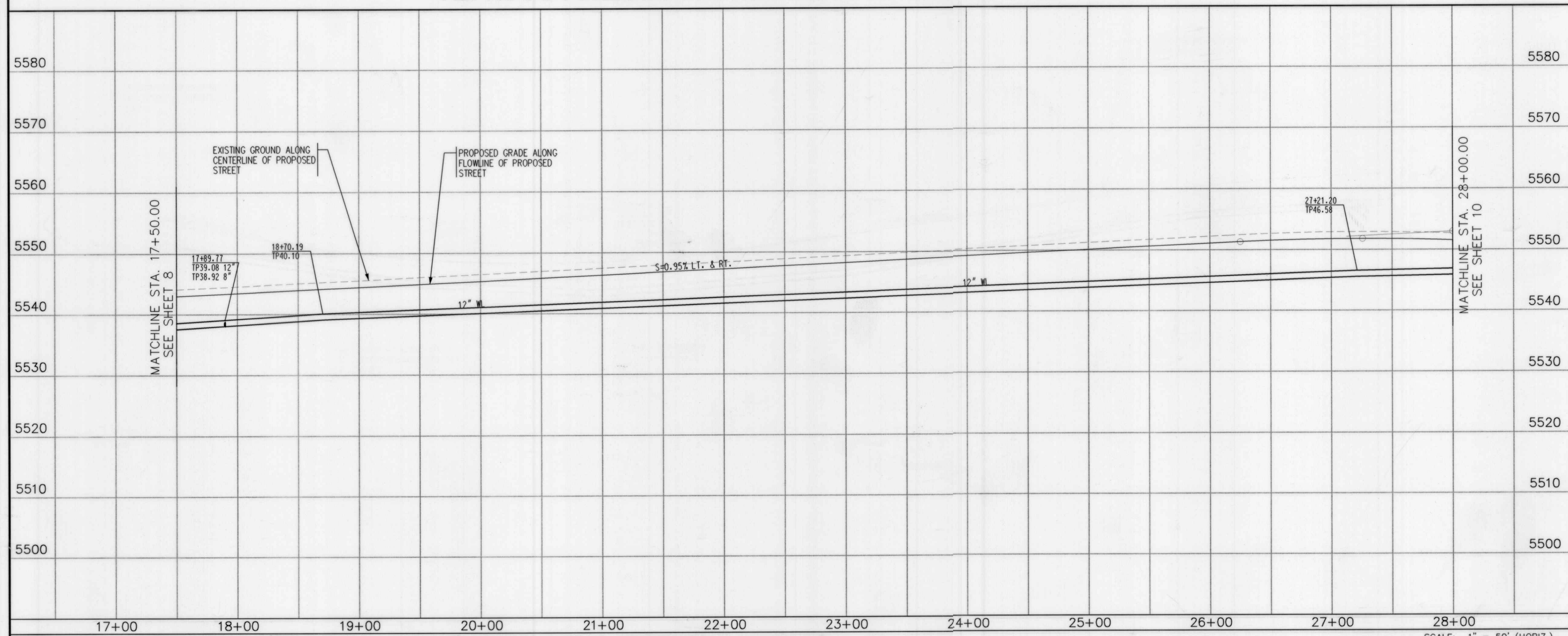
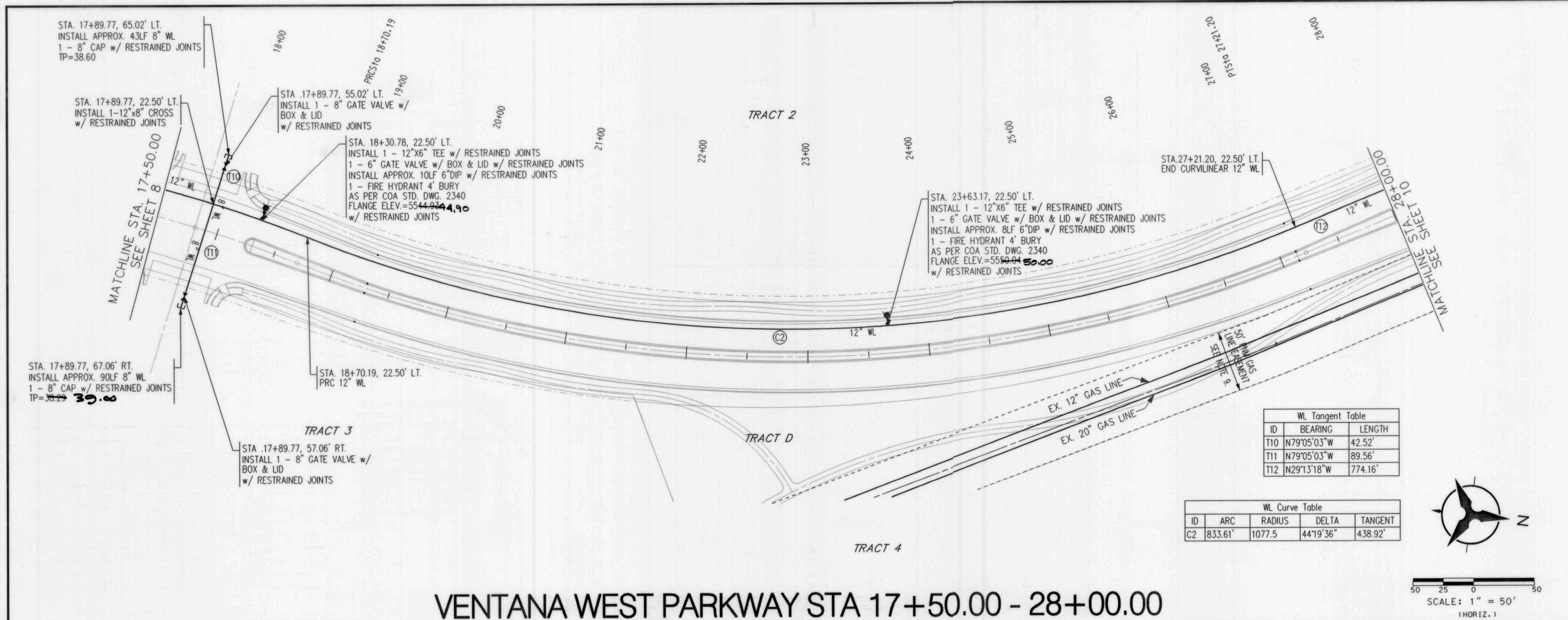
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

BACKBONE WATER & SANITARY SEWER IMPROVEMENTS
UTILITY PLAN & PROFILE
VENTANA WEST PARKWAY 7+50.00 - 17+50.00

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	MO./DAY/YR.	MO./DAY/YR.
DESIGN REVIEW COMMITTEE	CITY ENGINEER	LAST DESIGN UPDATE	

CITY PROJECT NO.	ZONE MAP NO.	SHEET	OF
617684	B-8-Z	8	22





NOTES

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RESTRAINING JOINT TABLE

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BUTTERFLY/AIR RELEASE VALVE	55'	N/A
CAP	55'	65'
TEE	14'	18'
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22.5° HORIZ. BEND	-	6'
45° HORIZ. BEND	-	11'

NOTE:

- ALL MECHANICAL JOINTS SHALL BE RESTRAINED AT THE FITTING.
- THE CONTRACTOR SHALL PROVIDE A MINIMUM PIPE LENGTH OF 20 LF FROM ALL MECHANICAL JOINTS. ALL PIPE JOINTS WITHIN 20 LF OF MJ SHALL BE RESTRAINED AT THE CONTRACTORS EXPENSE.
- THE CONTRACTOR SHALL RESTRAIN ALL PIPE JOINTS IN THE SPECIFIED DISTANCE LISTED IN THE TABLE ABOVE. (SEE NOTE 2 ABOVE).
- THE CONTRACTOR SHALL RESTRAIN ALL FIRE HYDRANTS JOINTS FROM THE TEE ON THE MAIN TO THE FIRE HYDRANT FLANGE.
- RESTRAINED LENGTHS FOR REDUCERS ARE FOR THE LARGE SIDE.
- RESTRAINED LENGTHS FOR VERTICAL BENDS ARE SHOWN IN PROFILE.

GENERAL NOTE:

***ALL SANITARY SEWER MANHOLES SHALL BE 4' DIAMETER TYPE "E" AS PER NM APWA STANDARD DRAWING 2102 UNLESS OTHERWISE NOTED.**

***STORM DRAIN AND ROADWAY SHOWN FOR REFERENCE ONLY. FOR CONSTRUCTION INFORMATION SEE C.O.A. PROJECT # 617683**

APPROVED BY PNM
DATE

APPROVED BY C-104
DATE

Bohannon & Huston

Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
ENGINEERING & SPATIAL DATA & ADVANCED TECHNOLOGIES

CITY OF ALBUQUERQUE

PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

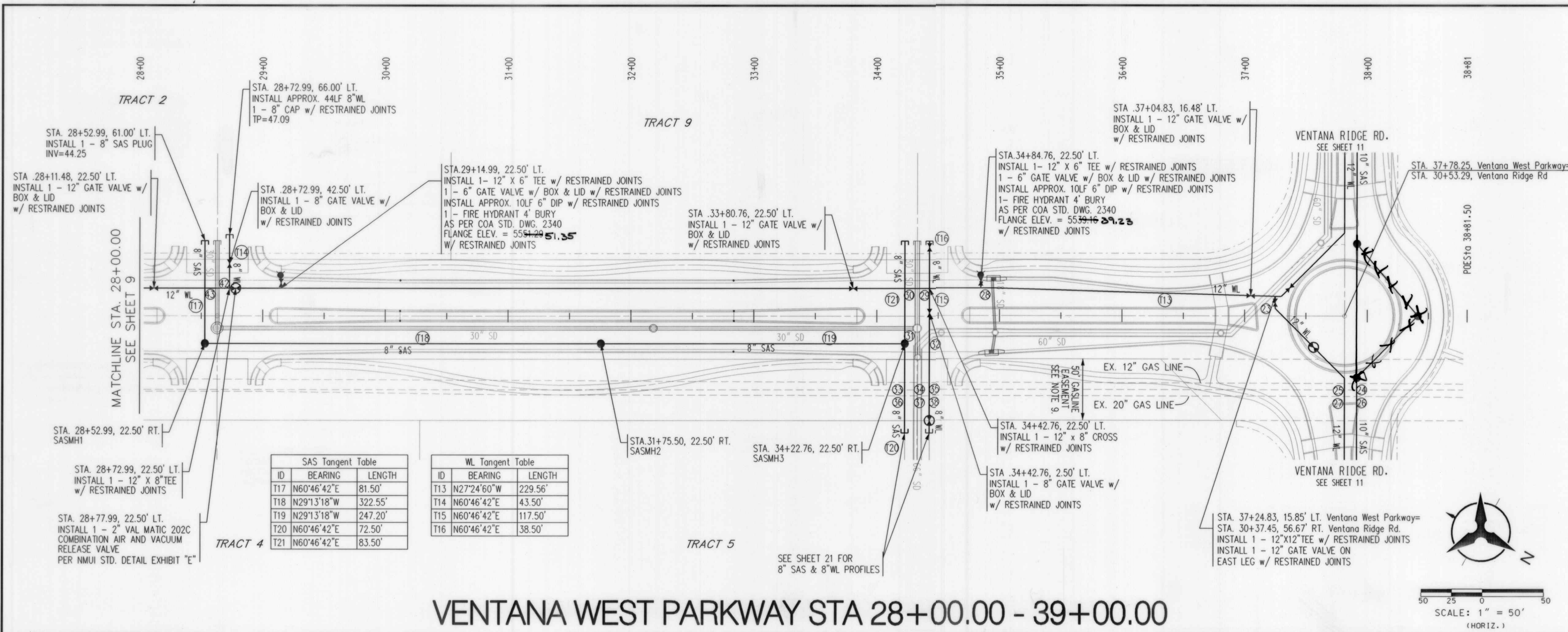
BACKBONE WATER & SANITARY SEWER IMPROVEMENTS
UTILITY PLAN & PROFILE
VENTANA WEST PARKWAY 17+50.00 - 28+00.00

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	MO./DAY/YR.	MO./DAY/YR.
APPROVE JUN 22 2004 DESIGN REVIEW COMMITTEE	APPROVE JUL 23 2004 CITY ENGINEER		

CITY PROJECT NO. 617684

ZONE MAP NO. B-8-Z

SHEET 9 OF 22



NOTES

- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
- CONTRACTOR IS TO INSTALL A 4" X 4" X 5' POST AND END AT THE END OF EACH SANITARY SEWER SERVICE.
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- NO WORK SHALL BE UNDER TAKEN WITHIN EXISTING 50' GASLINE EASEMENT WITHOUT FIRST CONTACTING PNM.
- CONTRACTOR MUST MAINTAIN TWO-WAY TRAFFIC AT ALL TIMES ON PASEO DEL NORTE. THE USE OF AN UNPAVED DETOUR FOR UP TO TWO DAYS WILL BE ALLOWED WITH PROPER BARRICADE

RESTRAINING JOINT TABLE

MECHANICAL JOINTS	LENGTH OF RESTRAINING JOINTS
GATE/AIR RELEASE VALVE	N/A
BUTTERFLY/AIR RELEASE VALVE	55'
CAP	55'
TEE	14'
REDUCER	35'
22.5" HORIZ. BEND	6'
45" HORIZ. BEND	11'

NOTE:

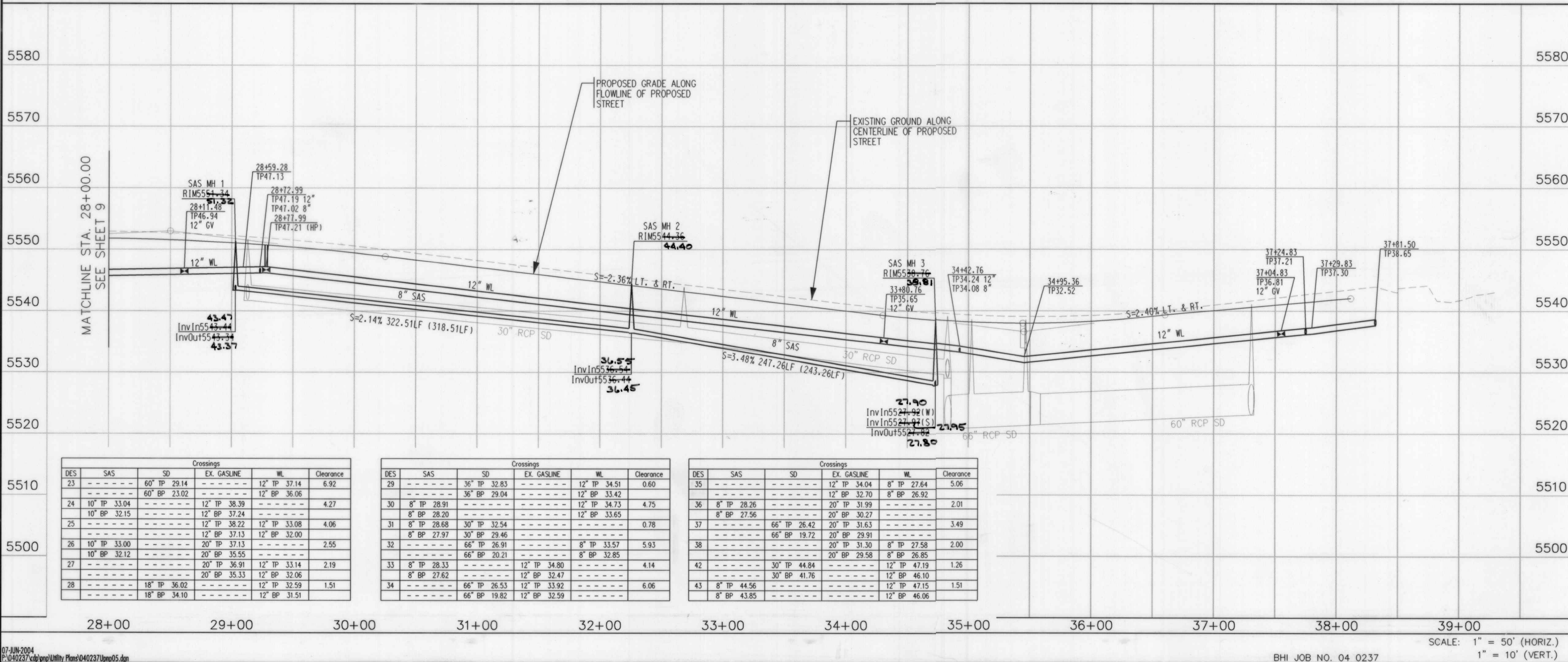
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APPROVED BY PNM
DATE

APPROVED BY
DATE



ENGINEER'S SEAL

NO. DATE BY

REMARKS

REVISIONS

DESIGN

DESIGNED BY JP/KGP DATE 3/2004

DRAWN BY BS/ARR DATE 3/2004

CHECKED BY KGP DATE 3/2004

Bohannon & Huston

Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335

ENGINEERING • SPATIAL DATA • ADVANCED TECHNOLOGIES

CITY OF ALBUQUERQUE

PUBLIC WORKS DEPARTMENT

ENGINEERING DEVELOPMENT GROUP

BACKBONE WATER & SANITARY SEWER IMPROVEMENTS

UTILITY PLAN & PROFILE

VENTANA WEST PARKWAY 28+00.00 - 39+00.00

DESIGN REVIEW COMMITTEE
JUN 22 2004

CITY ENGINEER APPROVAL
JUL 23 2004

LAST DESIGN UPDATE

CITY PROJECT NO. 617684

ZONE MAP NO. B-8-Z

SHEET 10 OF 22

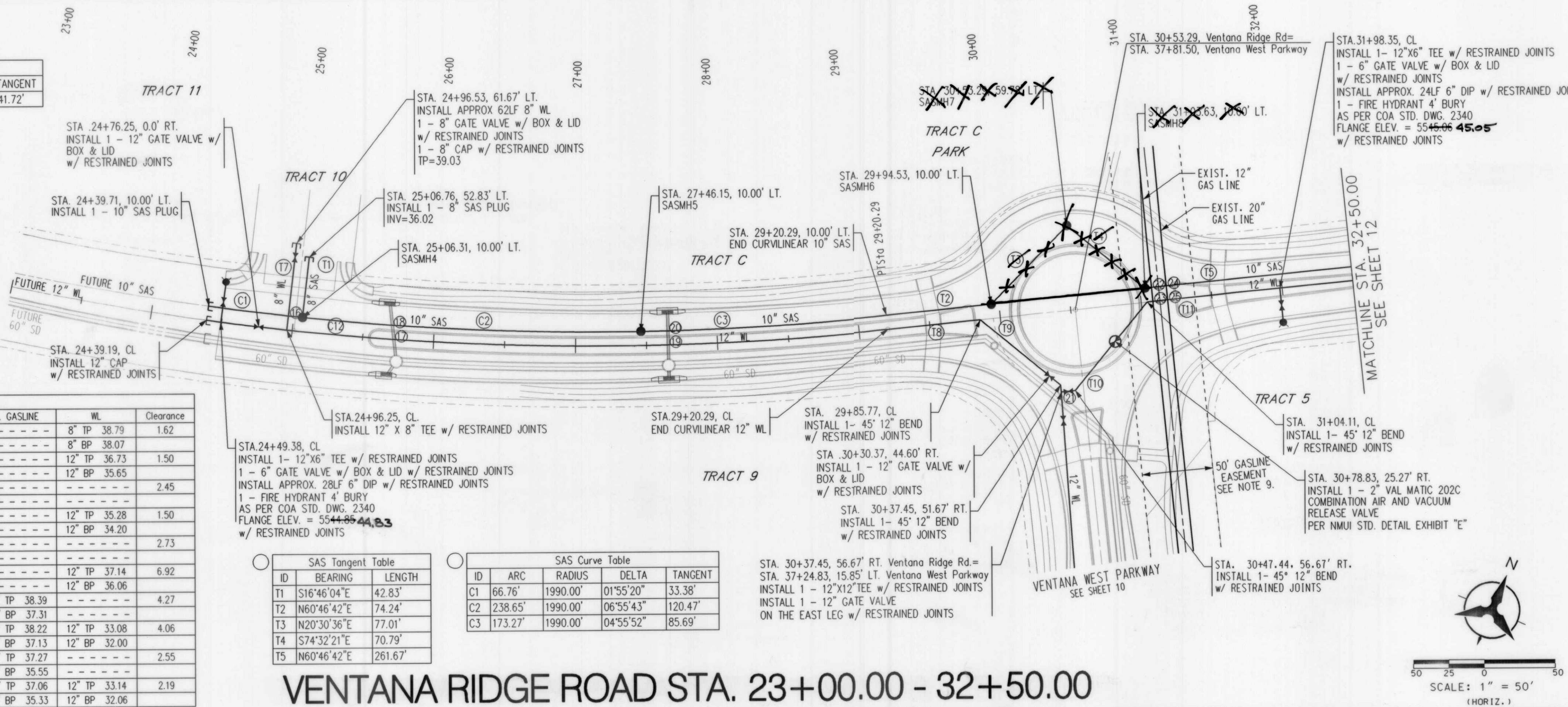
WL Curve Table				
ID	ARC	RADIUS	DELTA	TANGENT
C12	481.10'	2000.00'	13°46'57"	241.72'

WL Tangent Table		
ID	BEARING	LENGTH
T7	N16°49'32"W	61.67'
T8	S60°46'42"W	65.48'
T9	N74°13'18"W	73.08'
T10	N15°46'42"E	80.15'
T11	N60°46'42"E	261.19'

Crossings					
DES	SAS	SD	EX. GASLINE	WL	Clearance
16	10" TP 36.45	---	---	8" TP 38.79	1.62
17	10" BP 35.57	---	---	12" TP 36.73	1.50
18	10" TP 35.84	18" TP 40.11	---	12" BP 35.65	2.45
19	10" BP 34.96	18" BP 38.29	---	12" TP 35.28	1.50
20	10" TP 34.44	18" TP 39.09	---	12" BP 34.20	2.73
21	10" BP 33.56	18" BP 37.17	---	12" TP 37.14	6.92
22	10" TP 33.04	18" TP 37.31	---	12" BP 36.06	4.27
23	10" BP 32.15	12" TP 38.22	---	12" TP 33.08	4.06
24	10" TP 33.00	12" BP 37.13	---	12" BP 32.00	2.55
25	10" BP 32.12	20" TP 37.06	---	12" TP 33.14	2.19
26	10" TP 31.24	20" BP 35.33	---	12" BP 32.06	---

SAS Tangent Table		
ID	BEARING	LENGTH
T1	S16°46'04"E	42.83'
T2	N60°46'42"E	74.24'
T3	N20°30'36"E	77.01'
T4	S74°32'21"E	70.79'
T5	N60°46'42"E	261.67'

SAS Curve Table				
ID	ARC	RADIUS	DELTA	TANGENT
C1	66.76'	1990.00'	01°55'20"	33.38'
C2	238.65'	1990.00'	06°55'43"	120.47'
C3	173.27'	1990.00'	04°55'52"	85.69'



- ### NOTES
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RESTRAINING JOINT TABLE			
MECHANICAL JOINTS	LENGTH OF RESTRAINING JOINTS		
	20" DIPI12" PVC 8" PVC	20" DIPI12" PVC 8" PVC	20" DIPI12" PVC 8" PVC
GATE/AIR RELEASE VALVE	N/A	65'	65'
BUTTERFLY/AIR RELEASE VALVE	55'	N/A	N/A
CAP	55'	65'	65'
TEE	14'	18'	-
REDUCER	35'	-	-
22.5" HORIZ. BEND	-	6'	4'
45" HORIZ. BEND	-	11'	-

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GENERAL NOTE:
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***STORM DRAIN AND ROADWAY SHOWN FOR REFERENCE ONLY. FOR CONSTRUCTION INFORMATION SEE C.O.A. PROJECT # 617683**

APPROVED BY PNM

DATE

APPROVED BY NMUI

DATE

Bohannon & Huston
 Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
 ENGINEERING • SPATIAL DATA • ADVANCED TECHNOLOGIES

CITY OF ALBUQUERQUE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DEVELOPMENT GROUP

BACKBONE WATER & SANITARY SEWER IMPROVEMENTS
 UTILITY PLAN & PROFILE
 VENTANA RIDGE ROAD STA. 23+00.00 - 32+50.00

DESIGN REVIEW COMMITTEE

APPROVED

JUN 22 2004

CITY ENGINEER APPROVAL

APPROVED

JUL 23 2004

DESIGN REVIEW COMMITTEE

APPROVED

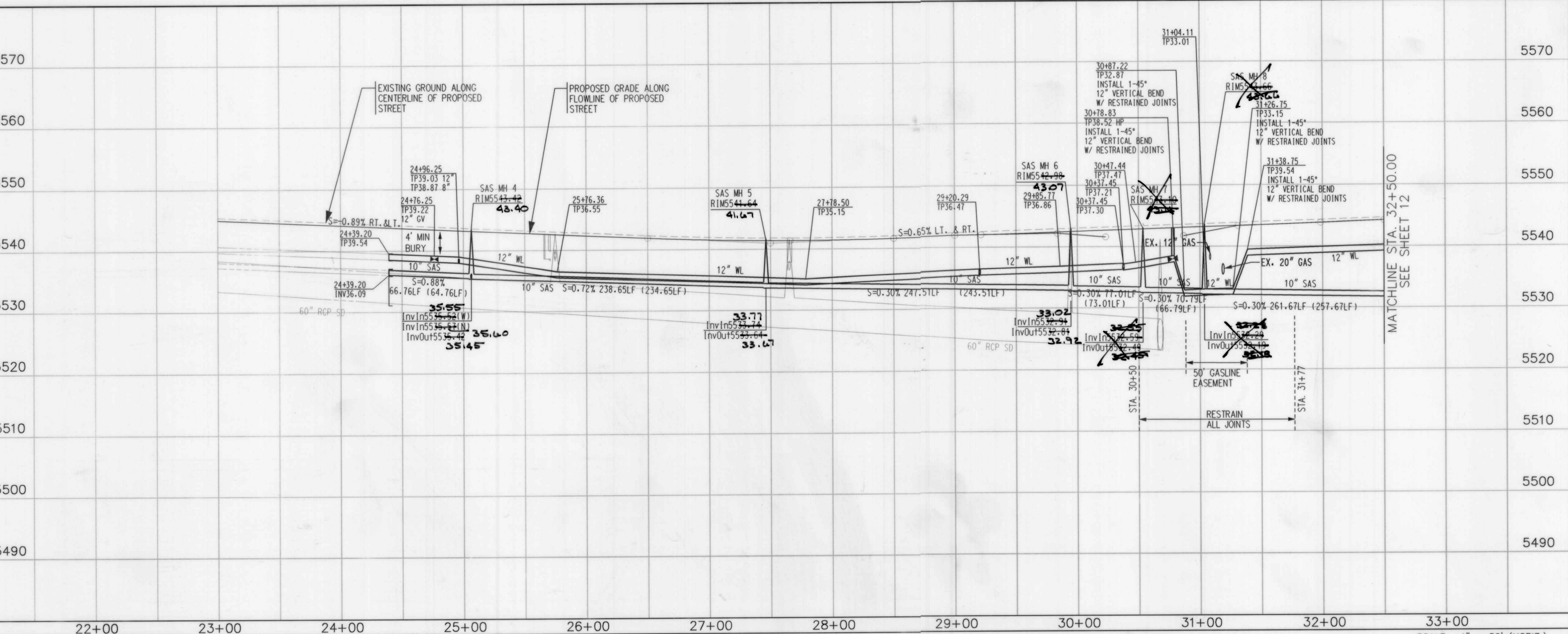
JUN 22 2004

CITY ENGINEER

APPROVED

JUL 23 2004

CITY PROJECT NO. **617684** ZONE MAP NO. **B-8-Z** SHEET **11** OF **22**



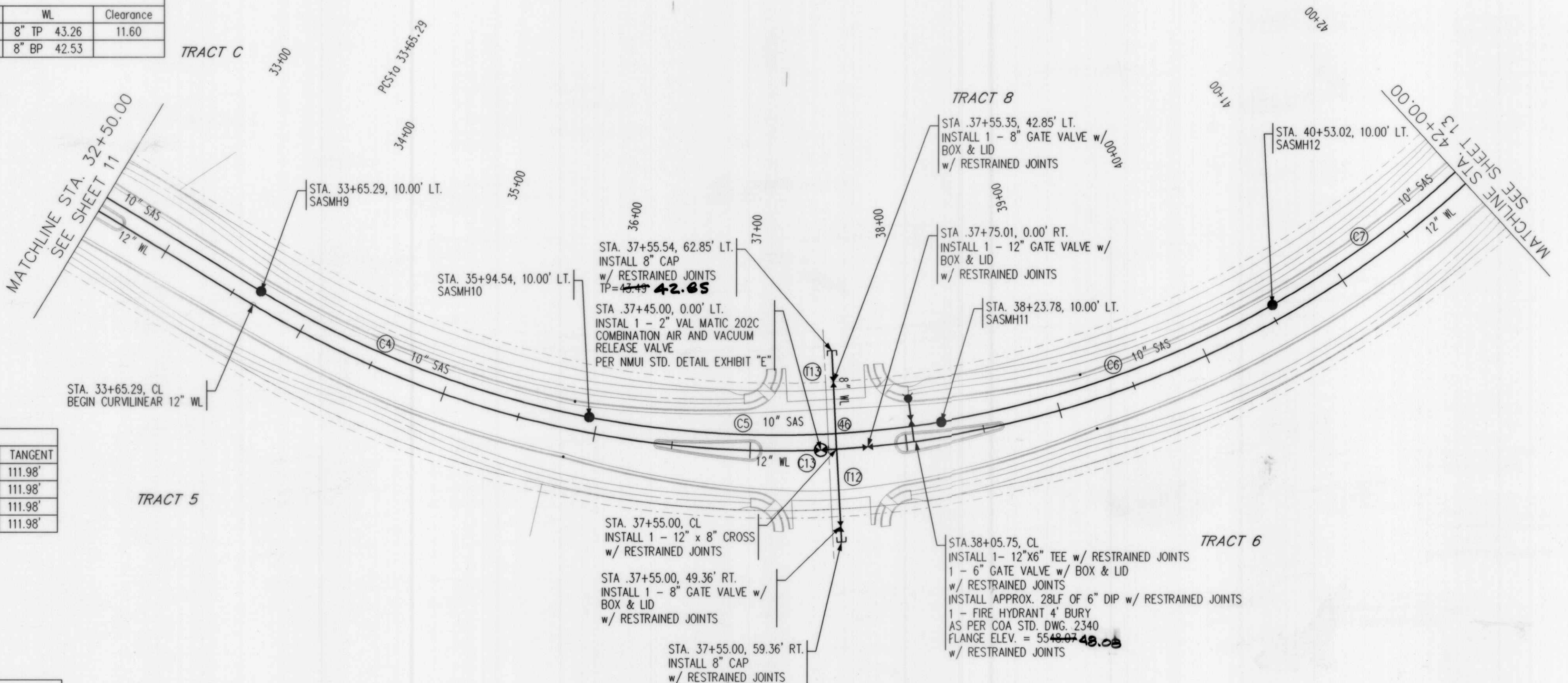
SCALE: 1" = 50' (HORIZ.)
 1" = 10' (VERT.)

Crossings				
DES	SAS	SD	WL	Clearance
46	10" TP 30.94	-----	8" TP 43.26	11.60
	10" BP 30.05	-----	8" BP 42.53	

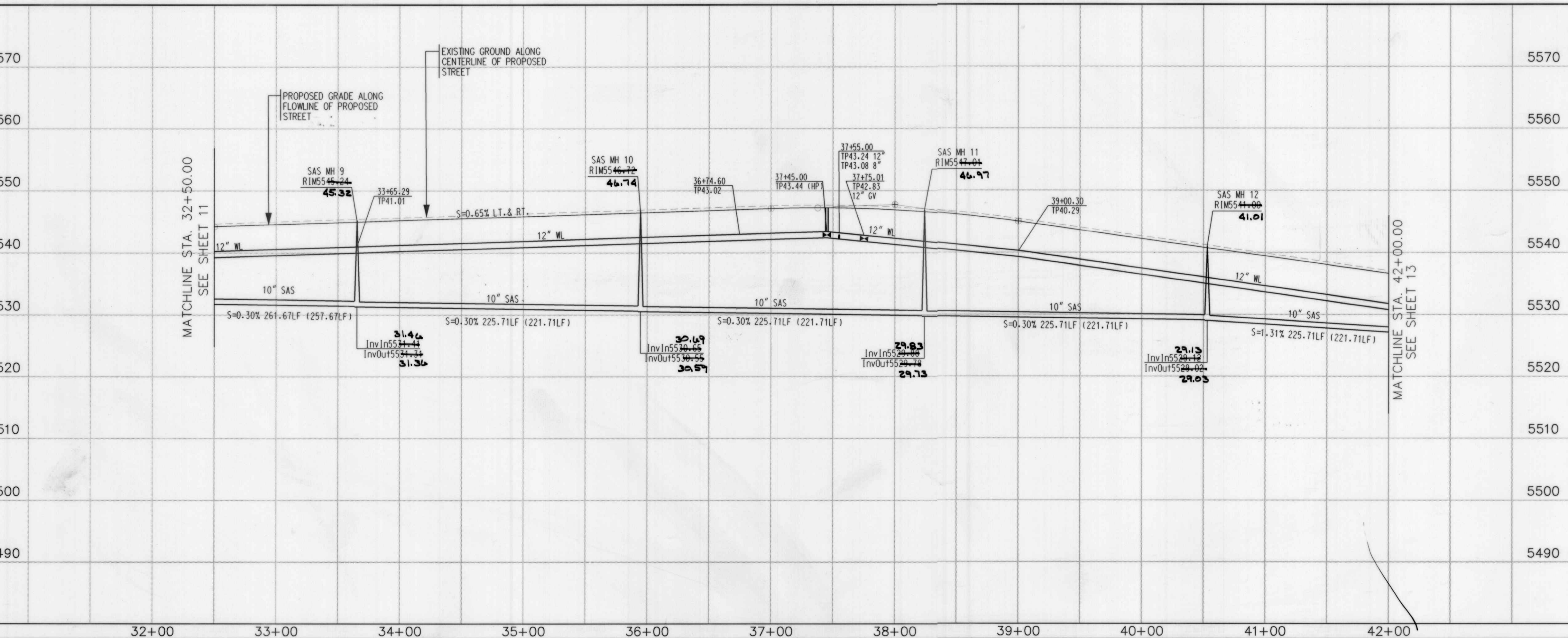
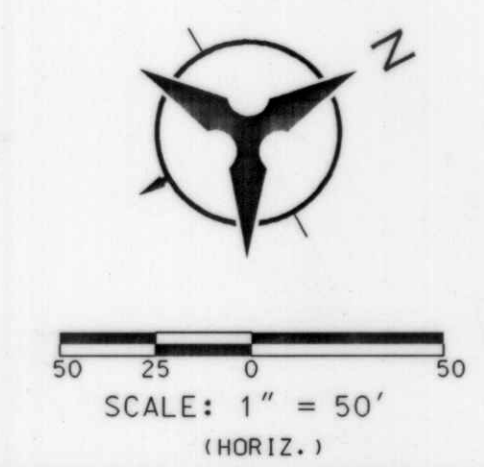
SAS Curve Table				
ID	ARC	RADIUS	DELTA	TANGENT
C4	225.71'	640.00'	19°50'56"	111.98'
C5	225.71'	640.00'	19°50'56"	111.98'
C6	225.71'	640.00'	19°50'56"	111.98'
C7	225.71'	640.00'	19°50'56"	111.98'

WL Tangent Table		
ID	BEARING	LENGTH
T12	N63°34'23"W	59.36'
T13	N63°07'57"W	62.85'

WL Curve Table				
ID	ARC	RADIUS	DELTA	TANGENT
C13	916.96'	650.00'	80°49'40"	553.47'



VENTANA RIDGE ROAD 32+50.00 - 42+00.00



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RESTRAINING JOINT TABLE			
MECHANICAL JOINTS	LENGTH OF RESTRAINED JOINTS		
	20" DI 12" PVC 8" PVC	20" DI 12" PVC 8" PVC	20" DI 12" PVC 8" PVC
GATE/AIR RELEASE VALVE	N/A	65'	65'
BUTTERFLY/AIR RELEASE VALVE	55'	N/A	N/A
CAP	55'	65'	65'
TEE	14'	18'	-
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APPROVED BY: DATE:

Bohannon & Huston
 Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
 ENGINEERING • SPATIAL DATA • ADVANCED TECHNOLOGIES

CITY OF ALBUQUERQUE
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 VENTANA RIDGE ROAD STA 32+50.00 - 42+00.00

DESIGN REVIEW COMMITTEE: JUN 23 2004
 CITY ENGINEER APPROVAL: JUL 23 2004
 LAST DESIGN UPDATE

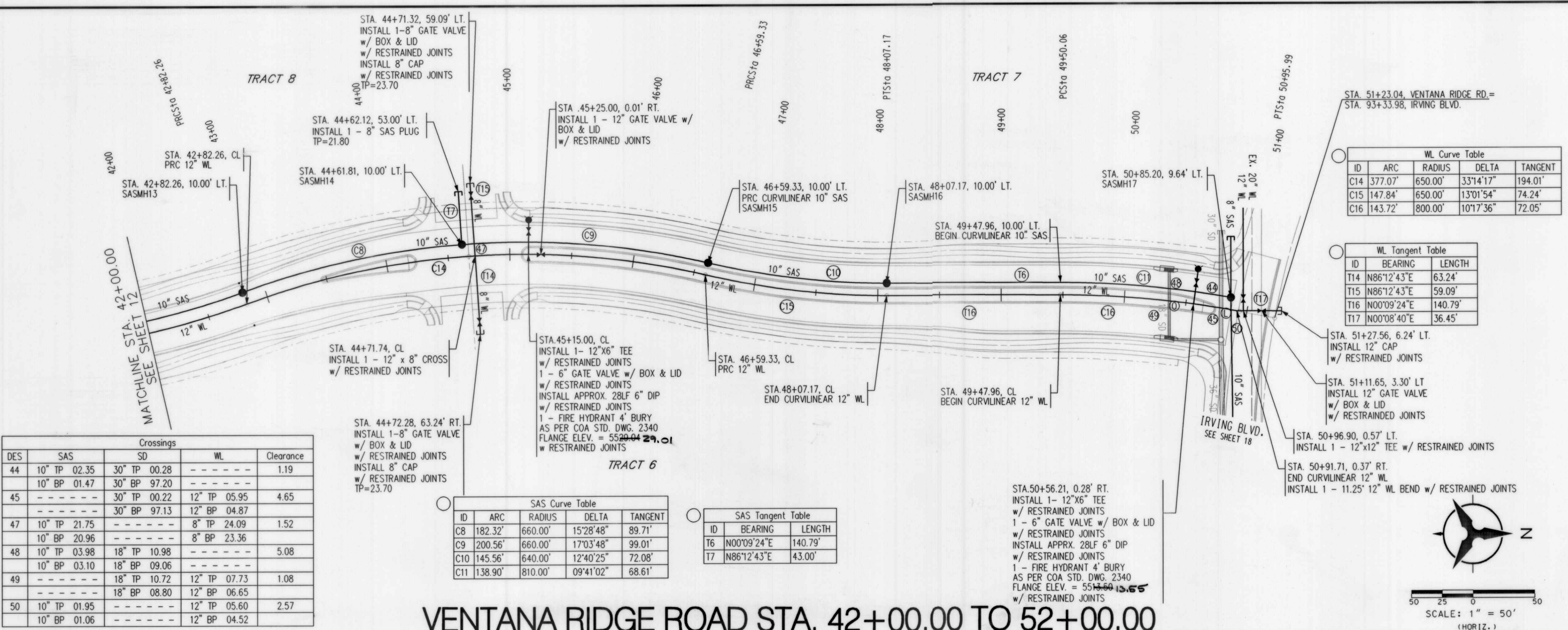
CITY PROJECT NO. 617684
 ZONE MAP NO. B-8-Z
 SHEET 12 OF 22

AS-BUILT INFORMATION			
CONTRACTOR	DATE	BY	NO.
Sundank	7/25	ALS	
WORKING BY	DATE	BY	NO.
INSPECTOR'S	DATE	BY	NO.
ACCEPTANCE BY	DATE	BY	NO.
FIELD LOCATION BY	DATE	BY	NO.
DRAWINGS	DATE	BY	NO.
CORRECTED BY	DATE	BY	NO.
MICRO-FILM INFORMATION	DATE	BY	NO.
RECORDED BY	DATE	BY	NO.
NO.	DATE	BY	NO.

BENCH MARKS			
CONTRACTOR	DATE	BY	NO.
INSPECTOR'S	DATE	BY	NO.
ACCEPTANCE BY	DATE	BY	NO.
FIELD LOCATION BY	DATE	BY	NO.
DRAWINGS	DATE	BY	NO.
CORRECTED BY	DATE	BY	NO.
MICRO-FILM INFORMATION	DATE	BY	NO.
RECORDED BY	DATE	BY	NO.
NO.	DATE	BY	NO.

SURVEY INFORMATION			
ACCS BRASS TABLET STAMPED 2-BIO 1980"	DATE	BY	NO.
GEOGRAPHIC POSITION (NAD 1977)	DATE	BY	NO.
N.M. STATE PLANE COORDINATES	DATE	BY	NO.
(CENTRAL ZONE)	DATE	BY	NO.
X=357,543.73 Y=1,527,976.48	DATE	BY	NO.
GROUND-TO-GRID FACTOR = .99966354	DATE	BY	NO.
DELTA ALPHA = -00°16'30"	DATE	BY	NO.
NGVD 1929 ELEVATION = 5429.35	DATE	BY	NO.

ENGINEER'S SEAL			
NO.	DATE	BY	NO.
REVISIONS	DATE	BY	NO.
DESIGN	DATE	BY	NO.
DESIGNED BY	DATE	BY	NO.
DRAWN BY	DATE	BY	NO.
CHECKED BY	DATE	BY	NO.



NOTES

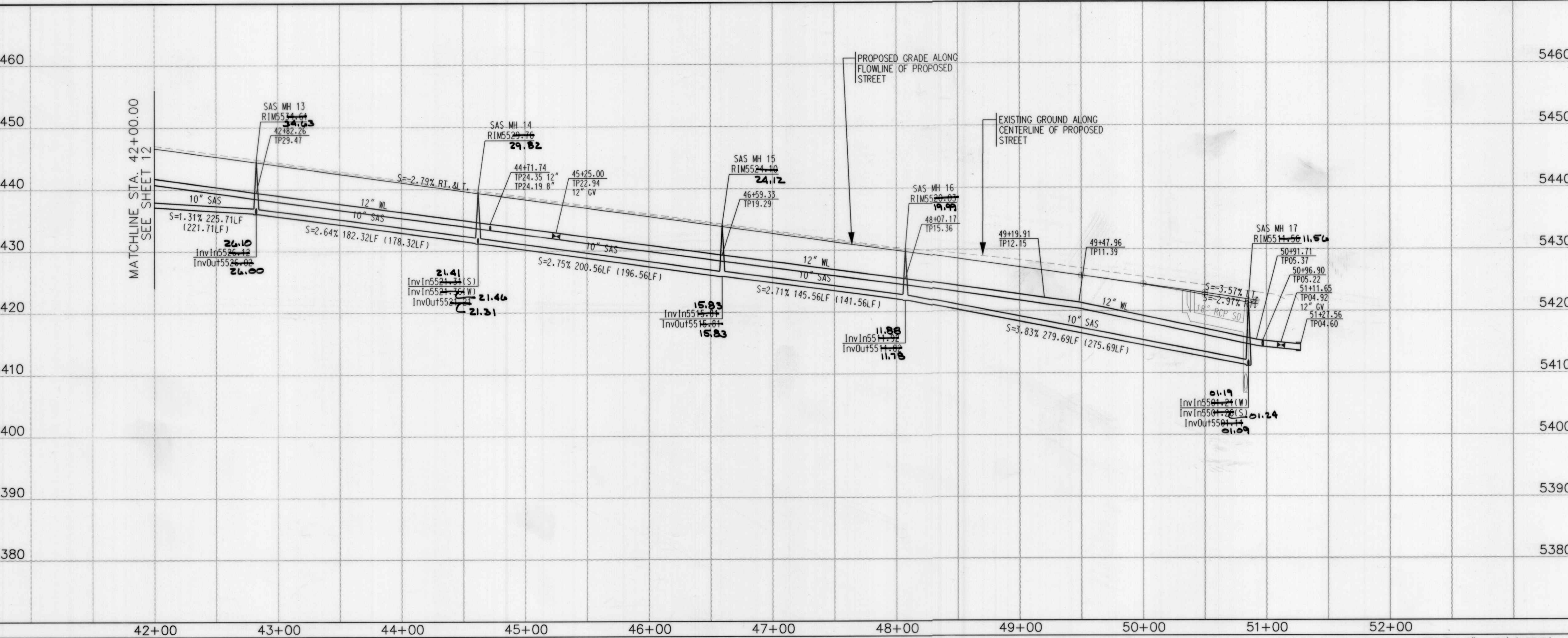
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RESTRAINING JOINT TABLE

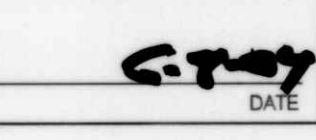
MECHANICAL JOINTS	LENGTH OF RESTRAINED JOINTS	
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ENGINEER'S SEAL

APPROVED BY:  DATE: 

Bohannon & Huston

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ENGINEERING • SPATIAL DATA • ADVANCED TECHNOLOGIES

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UTILITY PLAN & PROFILE
VENTANA RIDGE ROAD STA 42+00.00 - 52+00.00

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	MO./DAY/YR.	MO./DAY/YR.
APPROVED JUN 22 2004	APPROVED JUL 23 2004		

DESIGNED BY	DRAWN BY	CHECKED BY	DATE
JP/KGP	BS/ARR	KGP	3/2004

NO.	DATE	REVISIONS
1	3/2004	DESIGN

NOTES

FIELD VERIFY ALL EXISTING
AND NOTIFY THE ENGINEER
OF ANY DISCREPANCIES.

INSTALL A 4" X 4" X 5' POST AND
EACH SANITARY SEWER SERVICE.

RESPONSIBLE FOR REPAIR AND/OR
UTILITY CONDUITS AND EXISTING

ADVISE THE INSPECTORS, (CITY AND
PROPOSED HYDROSTATIC TESTING
MUST BE APPROVED BEFORE TESTING

WORK EQUIPMENT AND VEHICLES AS
DURING NORMAL ACTIVITIES OF
CONTRACTORS ON SITE.

EXISTING FACILITIES (CURB &
CONDUITS, LANDSCAPING, UTILITY
CONSTRUCTION SHALL BE REPLACED
AT OWNER'S EXPENSE.

INSTALLING CURB AND GUTTER SHALL BE
IN ACCORDANCE WITH OSHA 29 CFR

SHIELDING AND SHORING ACTIVITIES
IN ACCORDANCE WITH OSHA 29 CFR

NOT TO BE TAKEN WITHIN EXISTING
WITHOUT FIRST CONTACTING PNM.

MAINTAIN TWO-WAY TRAFFIC AT ALL
TIMES. THE USE OF AN UNPAVED
ROADWAY FOR 3 DAYS WILL BE ALLOWED WITH

JOINT TABLE

	LENGTH OF RESTRAINED JOINTS		
	20" DIP	12" PVC	8" PVC
1	N/A	65'	65'
2	55'	N/A	N/A
3	55'	65'	65'
4	14'	18'	-
5	35'	-	-
6	-	6'	4'
7	-	11'	-
8	25'	-	-

ALL JOINTS SHALL BE RESTRAINED AT THE FITTING.

MAINTAIN A MINIMUM PIPE LENGTH OF 20 LF FROM
PIPE JOINTS WITHIN 20 LF OF MJ SHALL BE
AT CONTRACTOR'S EXPENSE.

MAINTAIN ALL PIPE JOINTS IN THE SPECIFIED
LOCATION ABOVE. (SEE NOTE 2 ABOVE).

MAINTAIN ALL FIRE HYDRANTS JOINTS FROM THE
HYDRANT FLANGE.

REDUCERS ARE FOR THE LARGE SIDE.

VERTICAL BENDS ARE SHOWN IN PROFILE.

[Signature] 6-11-04
CITY OF ALBUQUERQUE UTILITIES DEPT. DATE

DATE

6-8-07
DATE

Huston

St. NE Albuquerque, NM 87109-4335

DATA & ADVANCED TECHNOLOGIES

CITY OF ALBUQUERQUE

ENGINEERING DEVELOPMENT GROUP

WATER & SANITARY SEWER IMPROVEMENT

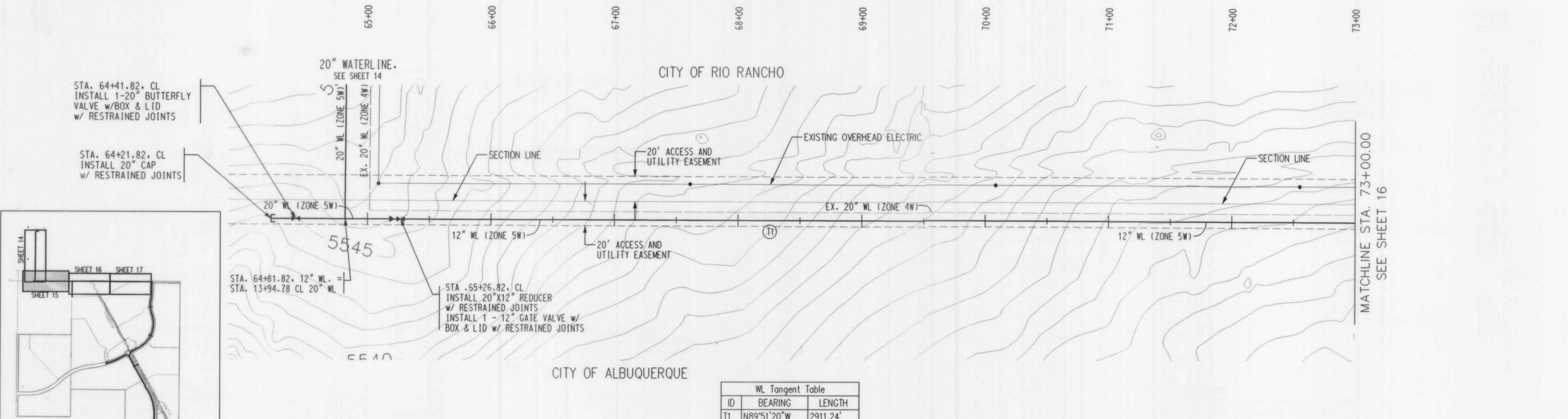
UTILITY PLAN & PROFILE

MISSION WATERLINE 1+00.00 TO 13+94.7

CITY ENGINEER APPROVAL JUL 23 2004 CITY ENGINEER	LAST DESIGN UPDATE	MO./DAY/YR.	MO.

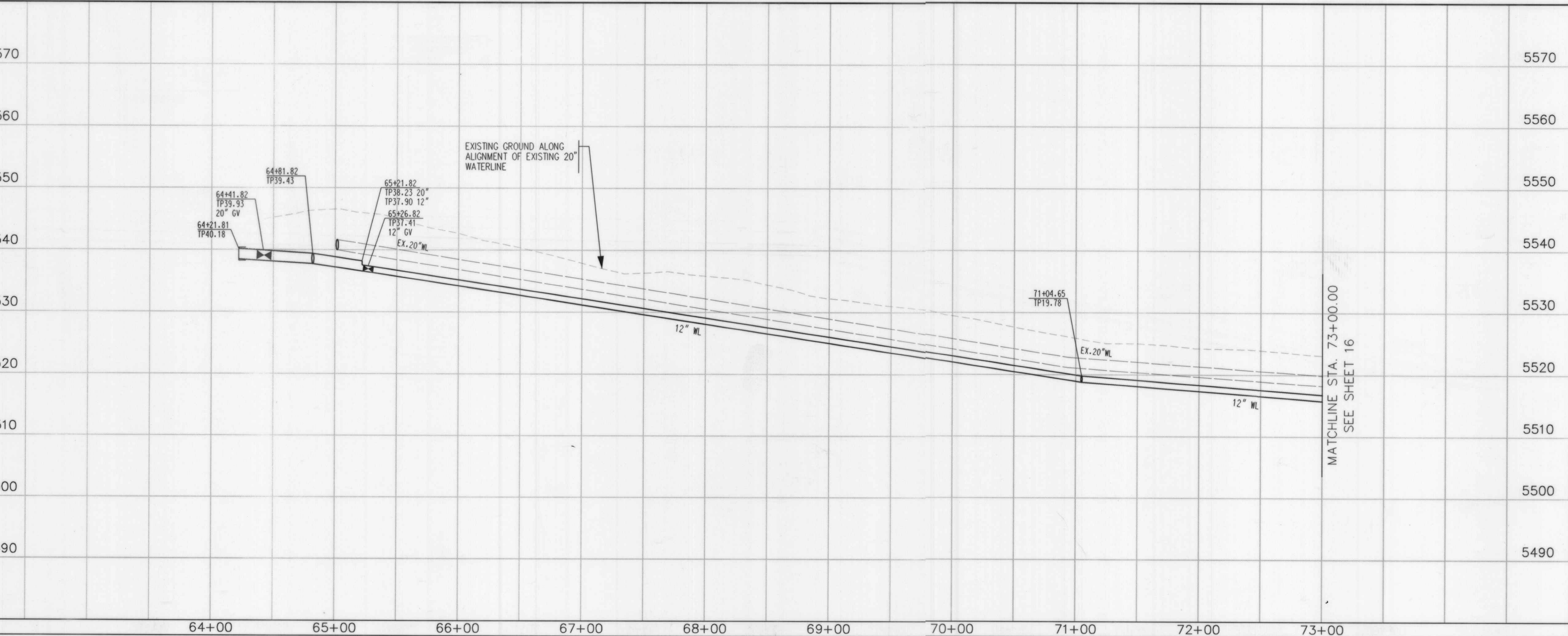
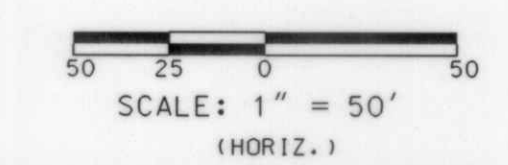
34	ZONE MAP NO. A-8-Z	SHEET 14
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AS-BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR Sundance		ACS BRASS TABLET STAMPED "2-B10 1980"		FIELD NOTES			
WORK STAKED BY ALS		GEOGRAPHIC POSITION (NAD 1927)		NO.			
INSPECTOR'S ACCEPTANCE BY		N.M. STATE PLANE COORDINATES		BY			
FIELD VERIFICATION BY ALS DATE 7/05		(CENTRAL ZONE)		REMARKS			
DRAWINGS CORRECTED BY ALS DATE 7/05		X=357,543.73 Y=1,527,976.48		REVISIONS			



12" WATERLINE, STA. 64+21.82 TO 73+00.00

WL Tangent Table		
ID	BEARING	LENGTH
T1	N89°51'20"W	2911.24'



- ### NOTES
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
 - CONTRACTOR IS TO INSTALL A 4" X 4" X 5' POST AND END AT THE END OF EACH SANITARY SEWER SERVICE.
 - CONTRACTOR IS RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ALL UTILITY CONDUITS AND EXISTING LINES.
 - CONTRACTOR SHALL PROVIDE THE INSPECTORS, (CITY AND PRIVATE) WITH THE PROPOSED HYDROSTATIC TESTING PLAN. THE PLAN MUST BE APPROVED BEFORE TESTING OPERATIONS BEGIN.
 - CONTRACTOR SHALL PARK EQUIPMENT AND VEHICLES AS NOT TO INTERFERE WITH NORMAL ACTIVITIES OF RESIDENTS OR OTHER CONTRACTORS ON SITE.
 - ANY DAMAGE TO THE EXISTING FACILITIES (CURB & GUTTER, PAVEMENT, CONDUITS, LANDSCAPING, UTILITY LINES, ETC.) DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTORS' EXPENSE.
 - REMOVAL OF THE EXISTING CURB AND GUTTER SHALL BE AS PER COA STD. DWG. 2415 (SAWCUT ONLY).
 - ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P.
 - NO WORK SHALL BE UNDER TAKEN WITHIN EXISTING 50' GASLINE EASEMENT WITHOUT FIRST CONTACTING PNM.
 - CONTRACTOR MUST MAINTAIN TWO-WAY TRAFFIC AT ALL TIMES ON PASEO DEL NORTE. THE USE OF AN UNPAVED DETOUR FOR UP TO TWO DAYS WILL BE ALLOWED WITH PROPER BARRICADING

RESTRAINING JOINT TABLE		
MECHANICAL JOINTS	LENGTH OF RESTRAINED JOINTS	
	20" DIPI12" PVC 8" PVC	
GATE/AIR RELEASE VALVE	N/A	65'
BUTTERFLY/AIR RELEASE VALVE	55'	N/A
CAP	55'	65'
TEE	14'	18'
REDUCER	35'	-
22.5° HORIZ. BEND	-	6'
45° HORIZ. BEND	-	11'

- NOTE:
- ALL MECHANICAL JOINTS SHALL BE RESTRAINED AT THE FITTING.
 - THE CONTRACTOR SHALL PROVIDE A MINIMUM PIPE LENGTH OF 20 LF FROM ALL MECHANICAL JOINTS. ALL PIPE JOINTS WITHIN 20 LF OF MJ SHALL BE RESTRAINED AT THE CONTRACTORS EXPENSE.
 - THE CONTRACTOR SHALL RESTRAIN ALL PIPE JOINTS IN THE SPECIFIED DISTANCE LISTED IN THE TABLE ABOVE. (SEE NOTE 2 ABOVE).
 - THE CONTRACTOR SHALL RESTRAIN ALL FIRE HYDRANTS JOINTS FROM THE TEE ON THE MAIN TO THE FIRE HYDRANT FLANGE.
 - RESTRAINED LENGTHS FOR REDUCERS ARE FOR THE LARGE SIDE.
 - RESTRAINED LENGTHS FOR VERTICAL BENDS ARE SHOWN IN PROFILE.

GENERAL NOTE:
*ALL SANITARY SEWER MANHOLES SHALL BE 4' DIAMETER TYPE "E" AS PER NM APWA STANDARD DRAWING 2102 UNLESS OTHERWISE NOTED.

*STORM DRAIN AND ROADWAY SHOWN FOR REFERENCE ONLY. FOR CONSTRUCTION INFORMATION SEE C.O.A. PROJECT # 617683

APPROVED BY AMAFCA	DATE
APPROVED BY NMU	DATE

Bohannon & Huston
Court yard 1 7500 Jefferson St. NE Albuquerque, NM 87109-4335
ENGINEERING • SPATIAL DATA • ADVANCED TECHNOLOGIES

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP
BACKBONE WATER & SANITARY SEWER IMPROVEMENTS
UTILITY PLAN & PROFILE
12" WATERLINE 64+21.82 TO 73+00

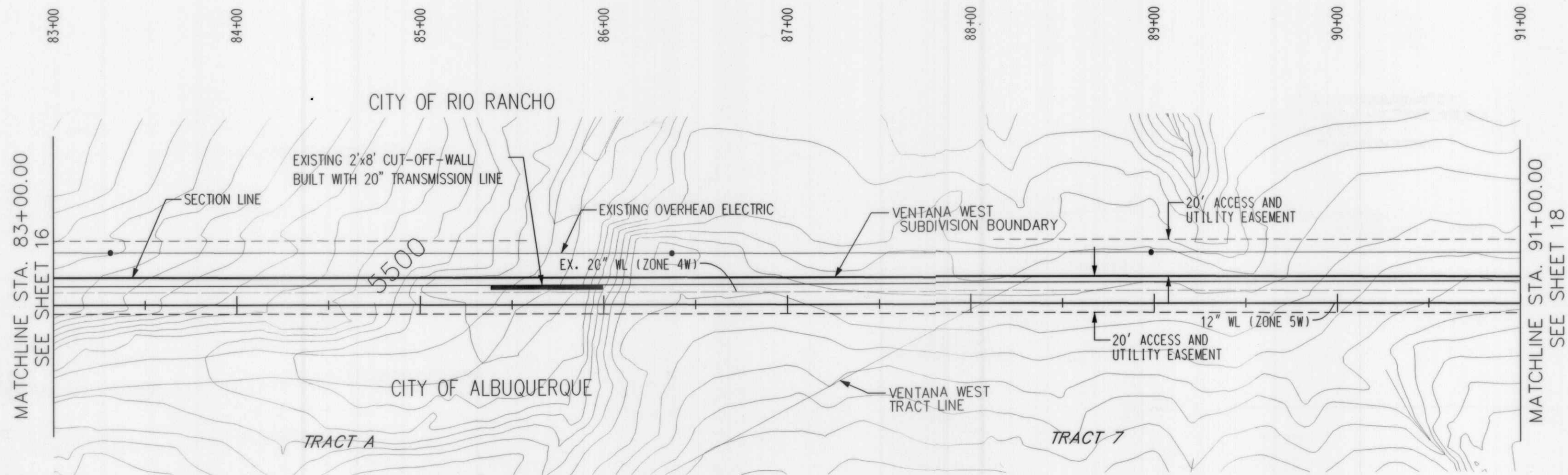
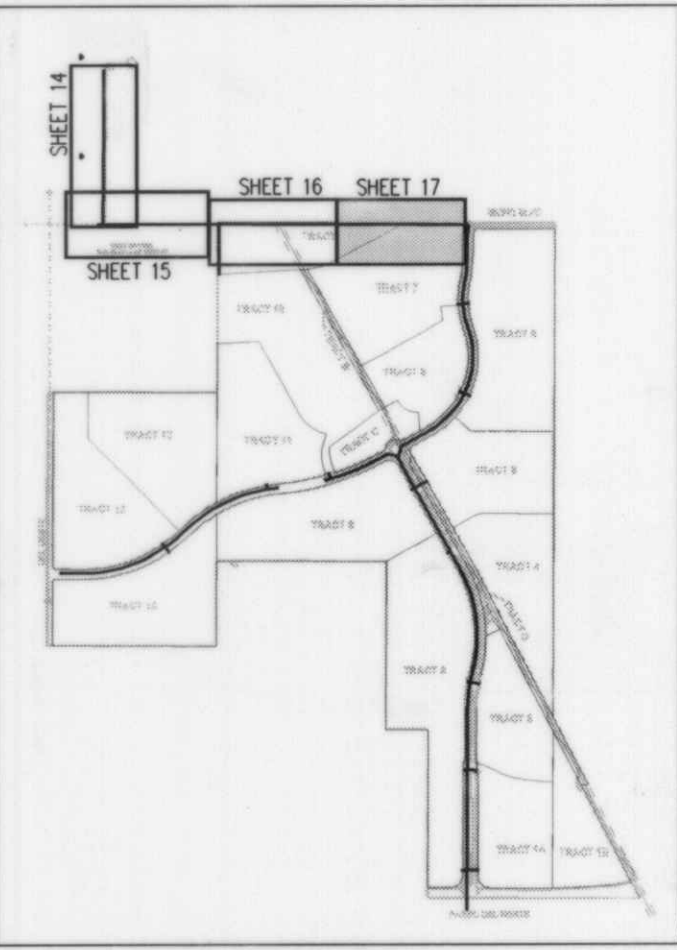
DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	MO./DAY/YR.
JUN 22 2004	JUL 23 2004	
DESIGN REVIEW COMMITTEE	CITY ENGINEER	LAST DESIGN UPDATE

CITY PROJECT NO.	ZONE MAP NO.	SHEET	OF
617684	B-8-Z	15	22

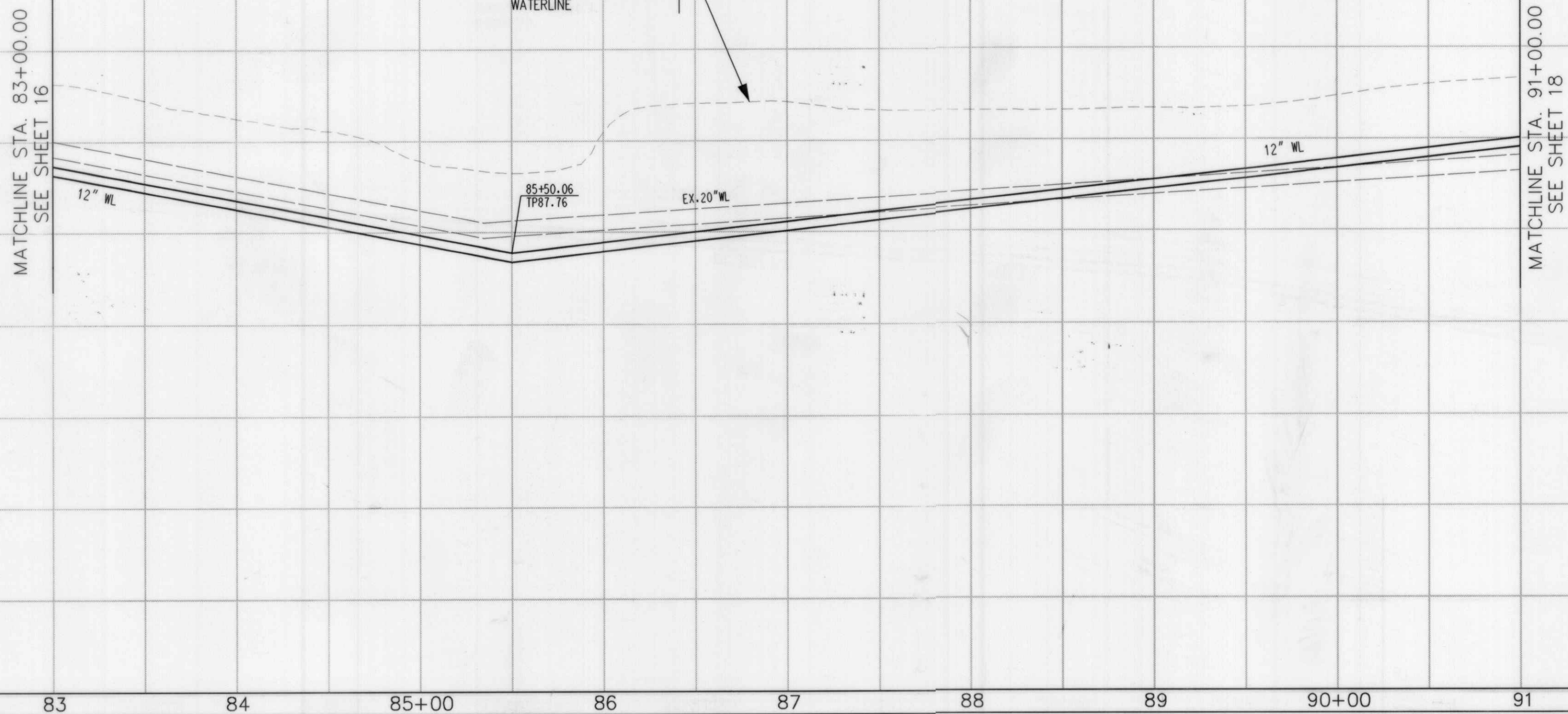
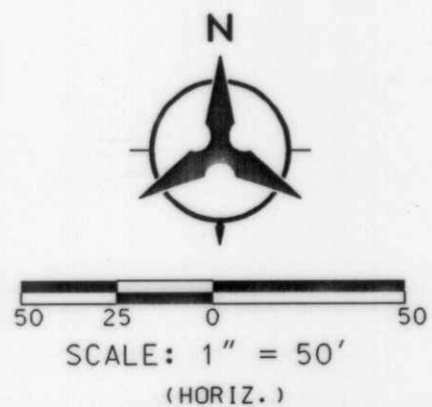
AS-BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	Sundance	ACCS BRASS TABLET STAMPED 72-B10 1980"	DATE	NO.	BY	NO.	DATE
INSPECTED BY	ALS	GEOREGRAPHIC POSITION (NAD 1927)	DATE	NO.	BY	NO.	DATE
ACCEPTANCE BY	ALS	N.M. STATE PLANE COORDINATES (CENTRAL ZONE)	DATE	NO.	BY	NO.	DATE
FIELD DRAWINGS BY	ALS	X=357,543.73 Y=1,527,976.48	DATE	NO.	BY	NO.	DATE
FIELD CORRECTED BY	ALS	GROUND-TO-GRID FACTOR = .99966354	DATE	NO.	BY	NO.	DATE
MICRO-FILM INFORMATION		DELTA ALPHA = 0016'30"	DATE	NO.	BY	NO.	DATE
RECORDED BY		NGVD 1929 ELEVATION = 5429.35	DATE	NO.	BY	NO.	DATE

PAUL POOLE
16586
NEW MEXICO
REGISTERED PROFESSIONAL ENGINEER

REVISIONS	BY	DATE
DESIGN	JP/KGP	3/2004
	BS/ARR	3/2004
	KGP	3/2004



12" WATERLINE, STA. 83+00.00 TO 91+00.00



- NOTES**
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
 - CONTRACTOR IS TO INSTALL A 4" X 4" X 5' POST AND END AT THE END OF EACH SANITARY SEWER SERVICE.
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 - REMOVAL OF THE EXISTING CURB AND GUTTER SHALL BE AS PER COA STD. DWG. 2415 (SAWCUT ONLY).
 - ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P.
 - NO WORK SHALL BE UNDER TAKEN WITHIN EXISTING 50' GASLINE EASEMENT WITHOUT FIRST CONTACTING PNM.
 - CONTRACTOR MUST MAINTAIN TWO-WAY TRAFFIC AT ALL TIMES ON PASEO DEL NORTE. THE USE OF AN UNPAVED DETOUR FOR UP TO TWO DAYS WILL BE ALLOWED WITH PROPER BARRICADING

RESTRAINING JOINT TABLE			
MECHANICAL JOINTS	LENGTH OF RESTRAINED JOINTS		
	20" DIP 12" PVC	8" PVC	8" PVC
GATE/AIR RELEASE VALVE	N/A	65'	65'
BUTTERFLY/AIR RELEASE VALVE	55'	N/A	N/A
CAP	55'	65'	65'
TEE	14'	18'	-
REDUCER	35'	-	-
22.5° HORIZ. BEND	-	6'	4'
45° HORIZ. BEND	-	11'	-

- NOTE:
- ALL MECHANICAL JOINTS SHALL BE RESTRAINED AT THE FITTING.
 - THE CONTRACTOR SHALL PROVIDE A MINIMUM PIPE LENGTH OF 20 LF FROM ALL MECHANICAL JOINTS. ALL PIPE JOINTS WITHIN 20 LF OF MJ SHALL BE RESTRAINED AT THE CONTRACTORS EXPENSE.
 - THE CONTRACTOR SHALL RESTRAIN ALL PIPE JOINTS IN THE SPECIFIED DISTANCE LISTED IN THE TABLE ABOVE. (SEE NOTE 2 ABOVE).
 - THE CONTRACTOR SHALL RESTRAIN ALL FIRE HYDRANTS JOINTS FROM THE TEE ON THE MAIN TO THE FIRE HYDRANT FLANGE.
 - RESTRAINED LENGTHS FOR REDUCERS ARE FOR THE LARGE SIDE.
 - RESTRAINED LENGTHS FOR VERTICAL BENDS ARE SHOWN IN PROFILE.

GENERAL NOTE:
*ALL SANITARY SEWER MANHOLES SHALL BE 4' DIAMETER TYPE "E" AS PER NM APWA STANDARD DRAWING 2102 UNLESS OTHERWISE NOTED.
*STORM DRAIN AND ROADWAY SHOWN FOR REFERENCE ONLY. FOR CONSTRUCTION INFORMATION SEE C.O.A. PROJECT # 617683

APPROVED BY AMAPCA	DATE
APPROVED BY NMU	DATE

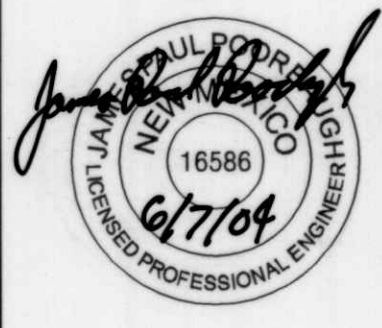
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Courtney I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP
BACKBONE WATER & SANITARY SEWER IMPROVEMENTS
UTILITY PLAN & PROFILE
12" WATERLINE 83+00 TO 91+00

DESIGN REVIEW COMMITTEE APPROVED JUN 22 2004	CITY ENGINEER APPROVAL APPROVED JUL 23 2004	LAST DESIGN UPDATE
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CITY PROJECT NO. 617684	ZONE MAP NO. B-8-Z	SHEET 17 OF 22
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AS-BUILT INFORMATION				BENCH MARKS				SURVEY INFORMATION			
CONTRACTOR	Sundance	WORK	STAMPED 2-B10 1980"	ACS BRASS TABLET	POSITION	STAMPED 2-B10 1980"	DATE	NO.	BY	DATE	NO.
INSPECTOR	ALS	ACCEPTANCE	BY	N.M. STATE PLANE COORDINATES	(CENTRAL ZONE)	X=357,543.73 Y=1,527,976.48	DATE	NO.	BY	DATE	NO.
DATE	7/65	DATE	7/65	GROUND-TO-GRID FACTOR	= .99966354	DELTA ALPHA	-00'16.30"	NO.	BY	DATE	NO.
DATE	7/65	DATE	7/65	MICRO-FILM INFORMATION		NGVD 1929 ELEVATION	= 5429.35	NO.	BY	DATE	NO.



0+00 PCS1a 0+00.00

1+00

2+00

3+00

4+00

PCS1a 4+45.20

5+00

6+00

TRACT 2

VENTANA WEST PARKWAY
SEE SHEET 8

TRACT 3

TRACT 2

TRACT 1A

MATCHLINE STA. 6+50.00
SEE SHEET 20

SAS Tangent Table		
ID	BEARING	LENGTH
T1	S77°54'33"E	80.65'

SAS Curve Table				
ID	ARC	RADIUS	DELTA	TANGENT
C1	233.18'	914.00'	14°37'01"	117.22'

STA. 3+74.92, 14.19' LT.
INSTALL 1 - 8" SAS PLUG
INV=25.86

STA. 3+78.44, 17.42' RT.
INSTALL 1 - 8" GATE VALVE w/
BOX & LID
w/ RESTRAINED JOINTS

STA. 3+68.39, 15.52' RT.
INSTALL 8" CAP
w/ RESTRAINED JOINTS
TP=24.18

STA. 4+07.41, 22.88' RT.
INSTALL 1 - 22.5" 8" BEND
w/ RESTRAINED JOINTS

STA. 4+22.35, 19.75' RT. SD Align=
STA. 11+00.61, 22.50' LT. Ventana West Parkway

STA. 3+00.31, 84" STORM DRAIN=
STA. 11+16.13, Ventana West Parkway

STA. 4+55.18, 14.45' LT.
SAS MH20
BEGIN 8" SAS CURVILINEAR

STA. 4+74.43, 8.01' RT.
INSTALL 1 - 22.5" 8" BEND
w/ RESTRAINED JOINTS

8" SAS

STA. 5+30.50, 8.02' RT.
INSTALL 8" CAP
w/ RESTRAINED JOINTS
TP=21.97

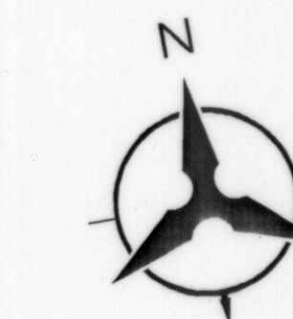
STA. 5+20.22, 7.73' RT.
INSTALL 1 - 8" GATE VALVE w/
BOX & LID
w/ RESTRAINED JOINTS

LINE "A" SAS 0+00.00 - 6+50.00

Crossings				
DES	SAS	SD	WL	Clearance
40	84" TP 14.20	12" TP 24.50	9.22	
47	8" TP 21.10	12" TP 24.73	2.55	
48	8" BP 20.39	12" BP 23.65	0.94	
52	18" TP 22.56	12" TP 24.58	0.97	
53	18" BP 20.64	6" TP 24.68	2.50	
	18" BP 21.25	6" BP 24.13		
	24" TP 20.41	8" TP 23.64		
	24" BP 17.91	8" BP 22.92		

Storm Drain Curve Table				
ID	ARC	RADIUS	DELTA	TANGENT
C1	233.18'	914.00'	14°37'01"	117.22'

Storm Drain Tangent Table		
ID	BEARING	LENGTH
T1	N77°55'22"W	73.03'
T2	N77°54'33"W	192.97'



SCALE: 1" = 50'
(HORIZ.)

RESTRAINING JOINT TABLE			
MECHANICAL JOINTS	LENGTH OF RESTRAINED JOINTS		
	20" DIP12" PVC	8" PVC	8" PVC
GATE/AIR RELEASE VALVE	N/A	65'	65'
BUTTERFLY/AIR RELEASE VALVE	55'	N/A	N/A
CAP	55'	65'	65'
TEE	14'	18'	-
REDUCER	35'	-	-
22.5" HORIZ. BEND	-	6'	4'
45" HORIZ. BEND	-	11'	-

NOTE:

1. ALL MECHANICAL JOINTS SHALL BE RESTRAINED AT THE FITTING.
2. THE CONTRACTOR SHALL PROVIDE A MINIMUM PIPE LENGTH OF 20 LF FROM ALL MECHANICAL JOINTS. ALL PIPE JOINTS WITHIN 20 LF OF MJ SHALL BE RESTRAINED AT THE CONTRACTORS EXPENSE.
3. THE CONTRACTOR SHALL RESTRAIN ALL PIPE JOINTS IN THE SPECIFIED DISTANCE LISTED IN THE TABLE ABOVE. (SEE NOTE 2 ABOVE).
4. THE CONTRACTOR SHALL RESTRAIN ALL FIRE HYDRANTS JOINTS FROM THE TEE ON THE MAIN TO THE FIRE HYDRANT FLANGE.
5. RESTRAINED LENGTHS FOR REDUCERS ARE FOR THE LARGE SIDE.
6. RESTRAINED LENGTHS FOR VERTICAL BENDS ARE SHOWN IN PROFILE.

GENERAL NOTE:
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*STORM DRAIN AND ROADWAY SHOWN FOR REFERENCE ONLY. FOR CONSTRUCTION INFORMATION SEE C.O.A. PROJECT # 617684

APPROVED BY:  DATE: 6-20-04

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BACKBONE WATER & SANITARY SEWER IMPROVEMENTS
UTILITY PLAN & PROFILE
LINE "A" SAS STA 0+00.00 - 6+50.00

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	MO./DAY/YR.	MO./DAY/YR.
APPROVE JUN 22 2004 DESIGN REVIEW COMMITTEE	APPROVE JUL 23 2004 CITY ENGINEER		
LAST DESIGN UPDATE			

CITY PROJECT NO. 617684 ZONE MAP NO. B-8-Z SHEET 19 OF 22

Crossings				
DES	SAS	SD	EX. WL	Clearance
14	8" TP 95.46	-----	8" TP 97.87	1.69
15	8" BP 94.75	-----	8" BP 97.15	
15	8" TP 87.97	-----	8" TP 92.15	3.46
	8" BP 87.26	-----	8" BP 91.43	

SAS Tangent Table		
ID	BEARING	LENGTH
T3	N84°02'27"W	59.21'
T4	N88°44'57"W	257.24'
T5	S62°43'12"W	167.82'
T6	S00°20'42"W	124.33'

SAS Curve Table				
ID	ARC	RADIUS	DELTA	TANGENT
C2	189.19'	834.00'	12°51'36"	93.99'

Storm Drain Tangent Table		
ID	BEARING	LENGTH
T2	S87°56'02"W	126.94'

Storm Drain Curve Table				
ID	ARC	RADIUS	DELTA	TANGENT
C1	233.18'	914.00'	14°37'01"	117.22'
C2	203.21'	848.18'	13°43'37"	102.09'
C3	297.42'	1514.71'	11°15'01"	149.19'

****NOTE:**
 POTHOLES ATTEMPTED - FAILED TO LOCATE EX. GASLINES AT DEPTH OF 6 FT. SAS DESIGN ASSUMES GASLINE DEPTH > 8". CONTRACTOR SHALL CONTACT PNM PRIOR TO FIELD VERIFICATION OF GASLINE LOCATION OR CONSTRUCTION OF SANITARY SEWER.

- ### NOTES
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
 - CONTRACTOR IS TO INSTALL A 4" X 4" X 5' POST AND END AT THE END OF EACH SANITARY SEWER SERVICE.
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 - NO WORK SHALL BE UNDER TAKEN WITHIN EXISTING 50' GASLINE EASEMENT WITHOUT FIRST CONTACTING PNM.
 - CONTRACTOR MUST MAINTAIN TWO-WAY TRAFFIC AT ALL TIMES ON PASEO DEL NORTE. THE USE OF AN UNPAVED DETOUR FOR UP TO TWO DAYS WILL BE ALLOWED WITH PROPER BARRICADING.

RESTRAINING JOINT TABLE			
MECHANICAL JOINTS	LENGTH OF RESTRAINED JOINTS		
	20" DIP12" PVC	8" PVC	8" PVC
GATE/AIR RELEASE VALVE	N/A	65'	65'
BUTTERFLY/AIR RELEASE VALVE	55'	N/A	N/A
CAP	55'	65'	65'
TEE	14'	18'	-
REDUCER	35'	-	-
22.5" HORIZ. BEND	-	6'	4'
45" HORIZ. BEND	-	11'	-

- NOTE:**
- ALL MECHANICAL JOINTS SHALL BE RESTRAINED AT THE FITTING.
 - THE CONTRACTOR SHALL PROVIDE A MINIMUM PIPE LENGTH OF 30 LF FROM ALL MECHANICAL JOINTS. ALL PIPE JOINTS WITHIN 20 LF OF MJ SHALL BE RESTRAINED AT THE CONTRACTORS EXPENSE.
 - THE CONTRACTOR SHALL RESTRAIN ALL PIPE JOINTS IN THE SPECIFIED DISTANCE LISTED IN THE TABLE ABOVE. (SEE NOTE 2 ABOVE).
 - THE CONTRACTOR SHALL RESTRAIN ALL FIRE HYDRANTS JOINTS FROM THE TEE ON THE MAIN TO THE FIRE HYDRANT FLANGE.
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GENERAL NOTE:
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APPROVED BY PNM _____ DATE _____

APPROVED  _____ DATE _____

Bohannon & Huston
 Courtyard I 7500 Jefferson St. NE Albuquerque, NM 87109-4335
 ENGINEERING • SPATIAL DATA • ADVANCED TECHNOLOGIES

CITY OF ALBUQUERQUE
 PUBLIC WORKS DEPARTMENT
 ENGINEERING DEVELOPMENT GROUP
 BACKBONE WATER & SANITARY SEWER IMPROVEMENTS
 UTILITY PLAN & PROFILE
 LINE "A" SAS STA. 6+50.00 - 11+82.61

DESIGN REVIEW COMMITTEE APPROVED JUN 22 2004

CITY ENGINEER APPROVAL APPROVED JUL 23 2004

DESIGN REVIEW COMMITTEE CITY ENGINEER

CITY PROJECT NO. 617684

ZONE MAP NO. B-8-Z

SHEET 20 OF 22

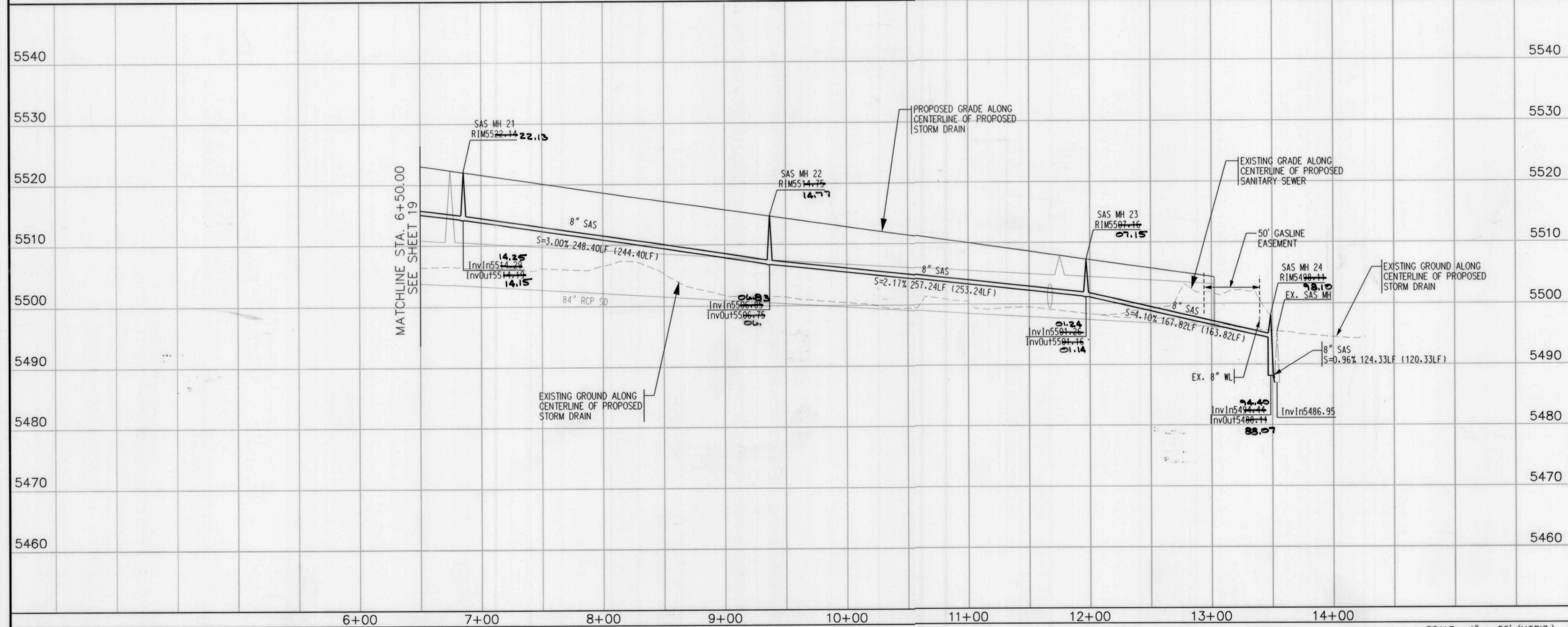
AS-BUILT INFORMATION			
CONTRACTOR	Subcontract	DATE	7-05
INSPECTOR'S	By	DATE	7-05
STAKED BY	By	DATE	7-05
REPLACEMENT BY	By	DATE	7-05
VERIFICATION BY	By	DATE	7-05
COPIES	By	DATE	7-05
MICRO-FILM INFORMATION			
RECORDED BY	NO.	DATE	
NOV 1929 ELEVATION = 5429.35			

BENCH MARKS	
ACS BRASS TABLE STAMPED 2-B10 1980"	
GEOGRAPHIC POSITION (NAD 1927)	
N.M. STATE PLANE COORDINATES	
(CENTRAL ZONE)	
X=357,543.73 Y=1,527,976.48	
GROUND-TO-GRID FACTOR = .99966354	
DELTA ALPHA -00°16'30"	
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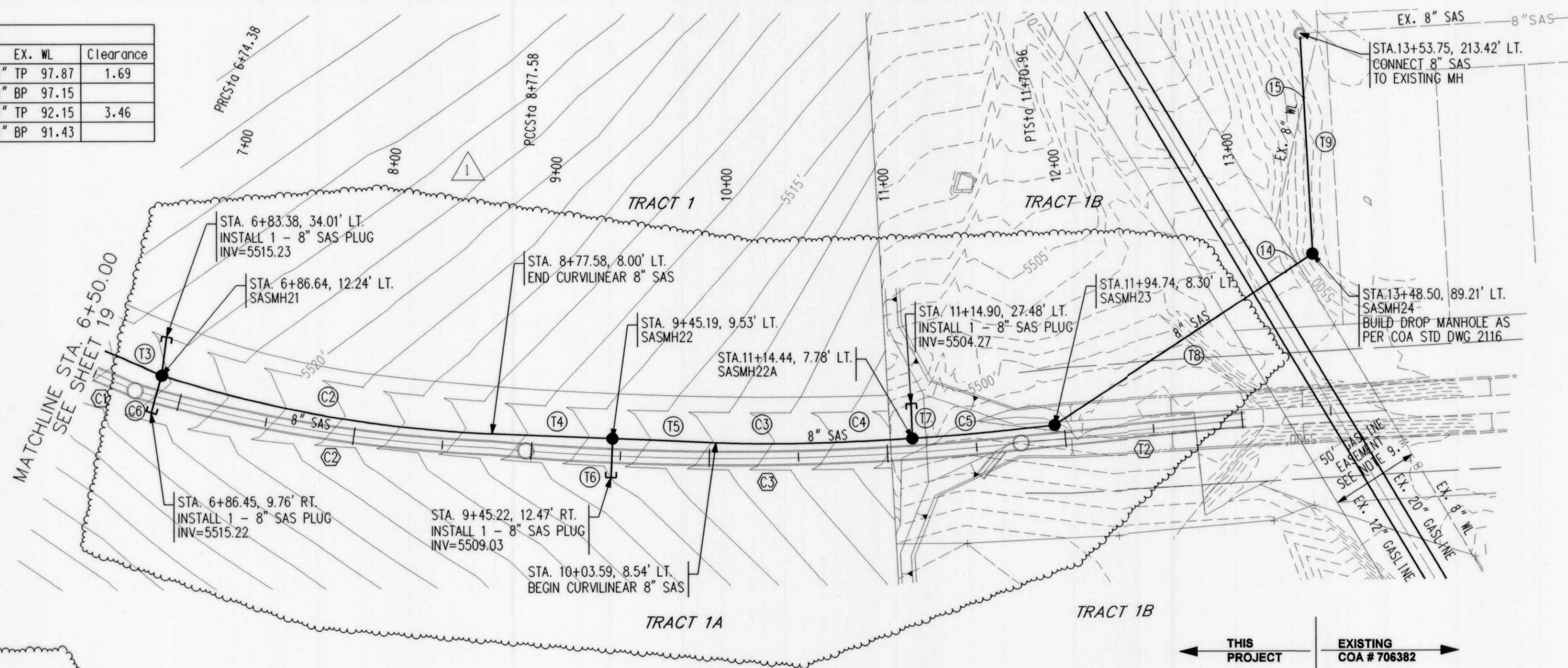
SURVEY INFORMATION	
FIELD NOTES	
DATE	
BY	
NO.	

ENGINEER'S SEAL	
NO.	
DATE	
BY	
REMARKS	
REVISIONS	
DESIGN	
NO.	
DATE	
DESIGNED BY	
DRAWN BY	
SUPPLIED BY	
DATE	
DATE	
DATE	

LINE "A" SAS 6+50.00 - 11+82.61



Crossings				
DES	SAS	SD	EX. WL	Clearance
14	8" TP 95.46	-----	8" TP 97.87	1.69
	8" BP 94.75	-----	8" BP 97.15	
15	8" TP 87.97	-----	8" TP 92.15	3.46
	8" BP 87.26	-----	8" BP 91.43	



****NOTE:**
POTHOLES ATTEMPTED - FAILED TO LOCATE EX. GASLINES AT DEPTH OF 6 FT. SAS DESIGN ASSUMES GASLINE DEPTH > 8". CONTRACTOR SHALL CONTACT PNM PRIOR TO FIELD VERIFICATION OF GASLINE LOCATION OR CONSTRUCTION OF SANITARY SEWER.

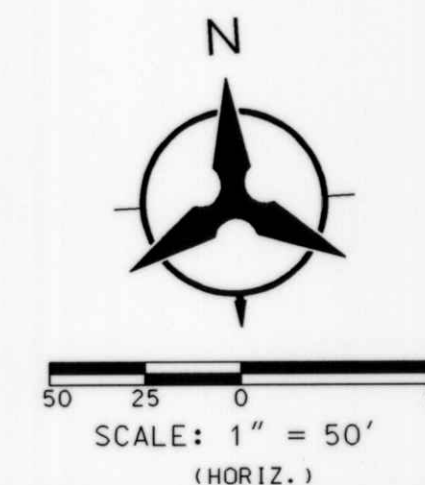
Storm Drain Tangent Table		
ID	BEARING	LENGTH
T2	S87°56'02"W	126.94'

Storm Drain Curve Table				
ID	ARC	RADIUS	DELTA	TANGENT
C1	233.18'	914.00'	14°37'01"	117.22'
C2	203.21'	848.18'	13°43'37"	102.09'
C3	297.42'	1514.71'	11°15'01"	149.19'

SAS Tangent Table		
ID	BEARING	LENGTH
T3	N10°41'29"E	22.00'
T4	N84°02'27"W	67.60'
T5	N84°02'27"W	58.08'
T6	S05°57'33"W	22.00'
T7	N01°15'03"E	19.71'
T8	S60°10'18"W	173.75'
T9	S00°20'42"W	124.33'

SAS Curve Table				
ID	ARC	RADIUS	DELTA	TANGENT
C2	188.89'	700.00'	15°27'39"	95.02'
C3	51.61'	750.00'	03°56'35"	25.82'
C4	58.70'	1506.71'	02°13'56"	29.35'
C5	80.02'	1506.71'	03°02'34"	40.02'
C6	22.00'	275.00'	04°35'06"	11.00'

LINE "A" SAS 6+50.00 - 11+82.61



RESTRAINING JOINT TABLE		
MECHANICAL JOINTS	LENGTH OF RESTRAINED JOINTS	
	20" DIPT12" PVC 8" PVC	20" DIPT12" PVC 8" PVC
GATE/AIR RELEASE VALVE	N/A	65'
BUTTERFLY/AIR RELEASE VALVE	55'	N/A
CAP	55'	65'
TEE	14'	18'
REDUCER	35'	-
22.5" HORIZ. BEND	-	6'
45" HORIZ. BEND	-	11'

- NOTE:**
- ALL MECHANICAL JOINTS SHALL BE RESTRAINED AT THE FITTING.
 - THE CONTRACTOR SHALL PROVIDE A MINIMUM PIPE LENGTH OF 20 LF FROM ALL MECHANICAL JOINTS. ALL PIPE JOINTS WITHIN 20 LF OF MJ SHALL BE RESTRAINED AT THE CONTRACTORS' EXPENSE.
 - THE CONTRACTOR SHALL RESTRAIN ALL PIPE JOINTS IN THE SPECIFIED DISTANCE LISTED IN THE TABLE ABOVE. (SEE NOTE 2 ABOVE).
 - THE CONTRACTOR SHALL RESTRAIN ALL FIRE HYDRANT JOINTS FROM THE TEE ON THE MAIN TO THE FIRE HYDRANT FLANGE.
 - RESTRAINED LENGTHS FOR REDUCERS ARE FOR THE LARGE SIDE.
 - RESTRAINED LENGTHS FOR VERTICAL BENDS ARE SHOWN IN PROFILE.

GENERAL NOTE:
*ALL SANITARY SEWER MANHOLES SHALL BE 4' DIAMETER TYPE "E" AS PER NM APWA STANDARD DRAWING 2102 UNLESS OTHERWISE NOTED.

*STORM DRAIN AND ROADWAY SHOWN FOR REFERENCE ONLY. FOR CONSTRUCTION INFORMATION SEE C.O.A. PROJECT # 617683

APPROVED BY PNM _____ DATE _____

APPROVED BY NMU _____ DATE _____

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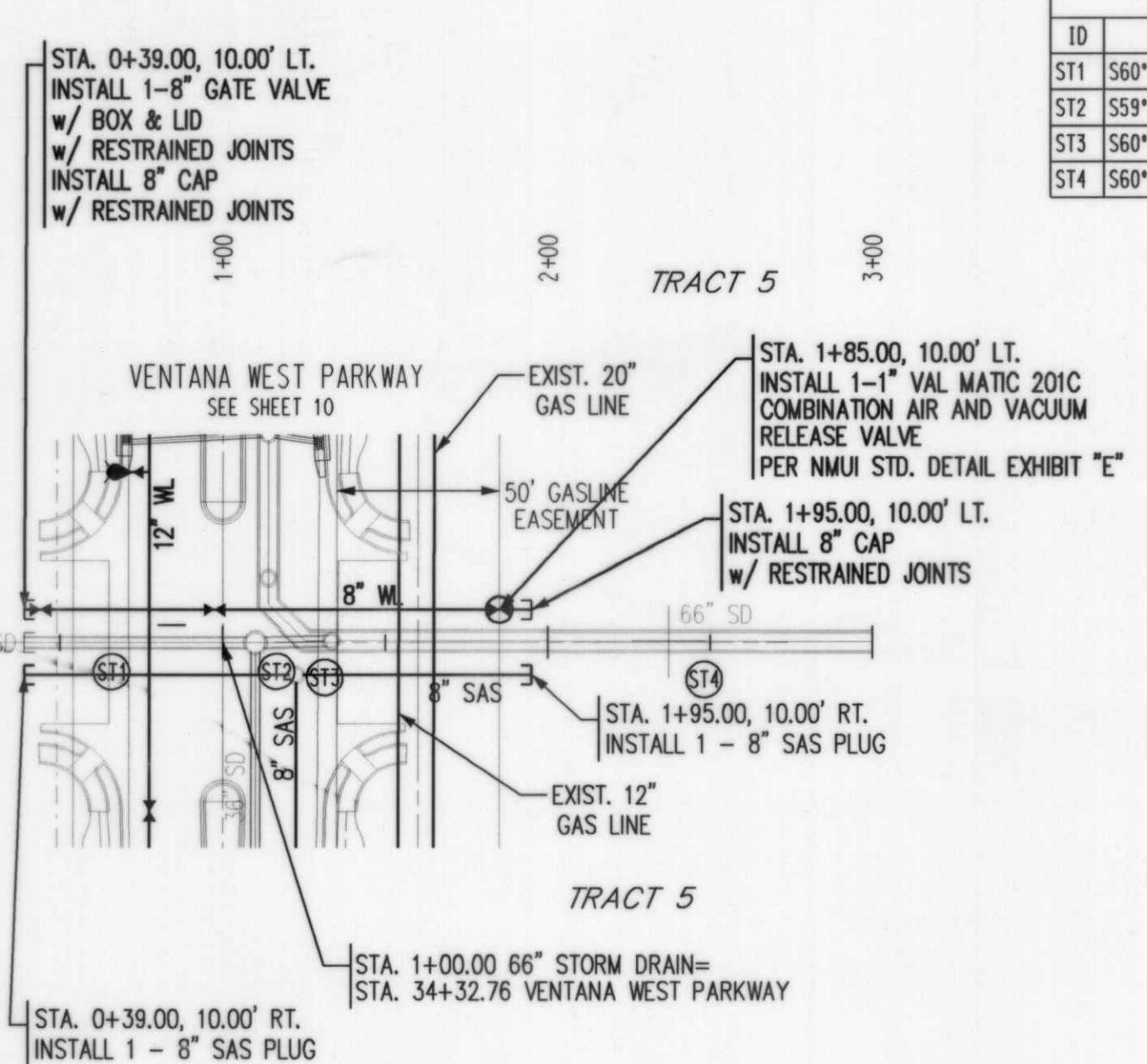
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

BACKBONE WATER & SANITARY SEWER IMPROVEMENTS
UTILITY PLAN & PROFILE

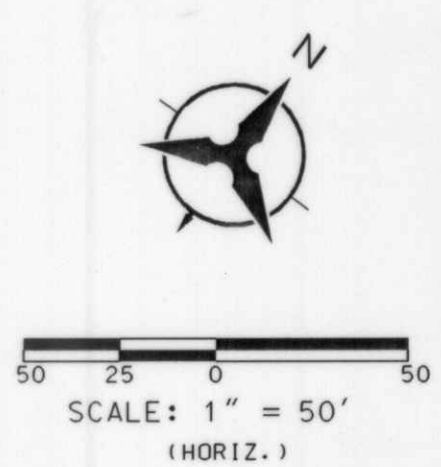
LINE "A" SAS STA. 6+50.00 - 11+82.61

DESIGN REVIEW COMMITTEE CITY ENGINEER APPROVAL

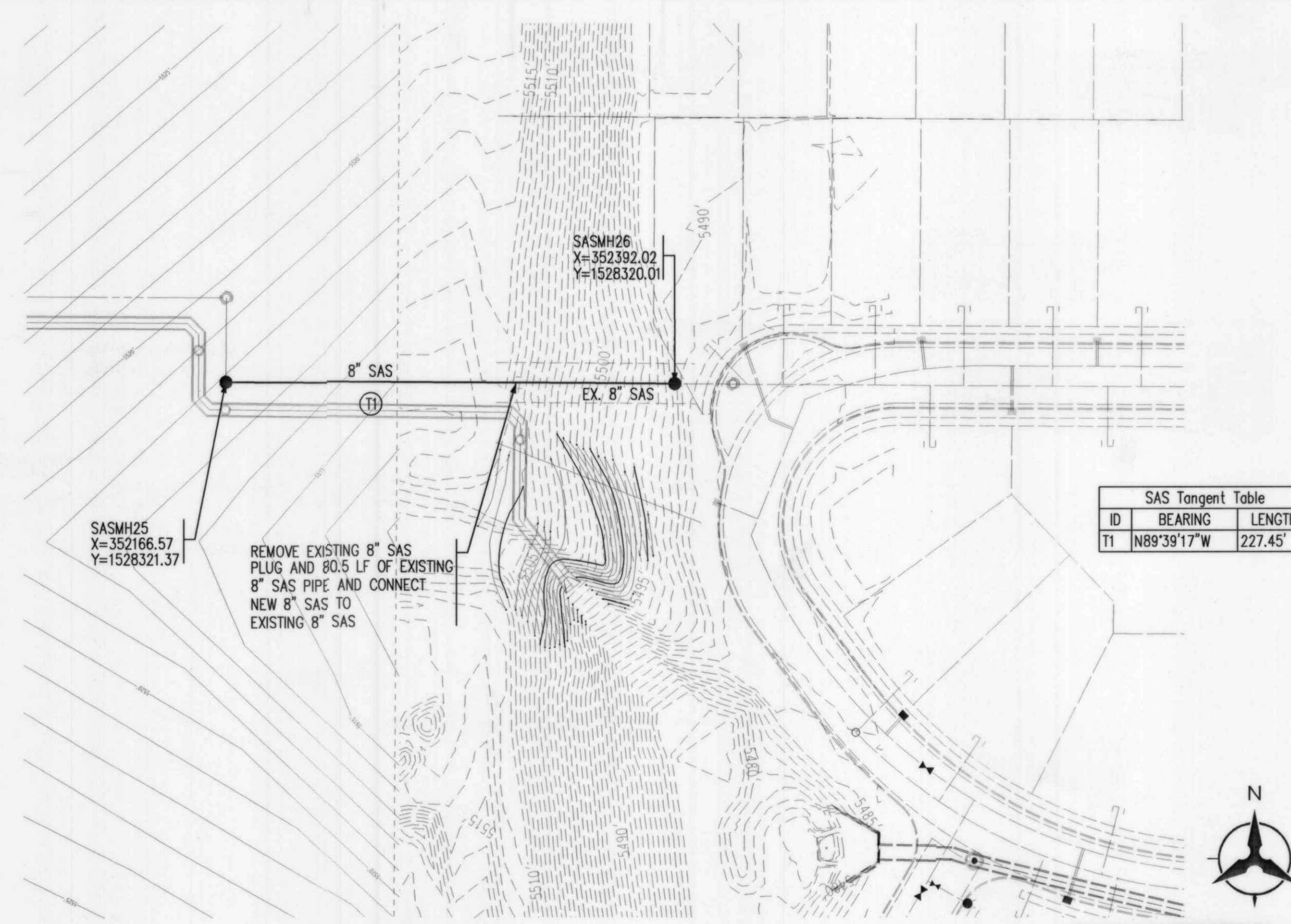
CITY PROJECT NO. 617684 ZONE MAP NO. B-8-Z SHEET 20A OF 22



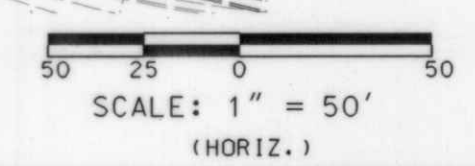
ID	BEARING	LENGTH
ST1	S60°46'42"W	71.00'
ST2	S59°35'19"W	23.32'
ST3	S60°54'41"W	8.00'
ST4	S60°50'44"W	208.00'



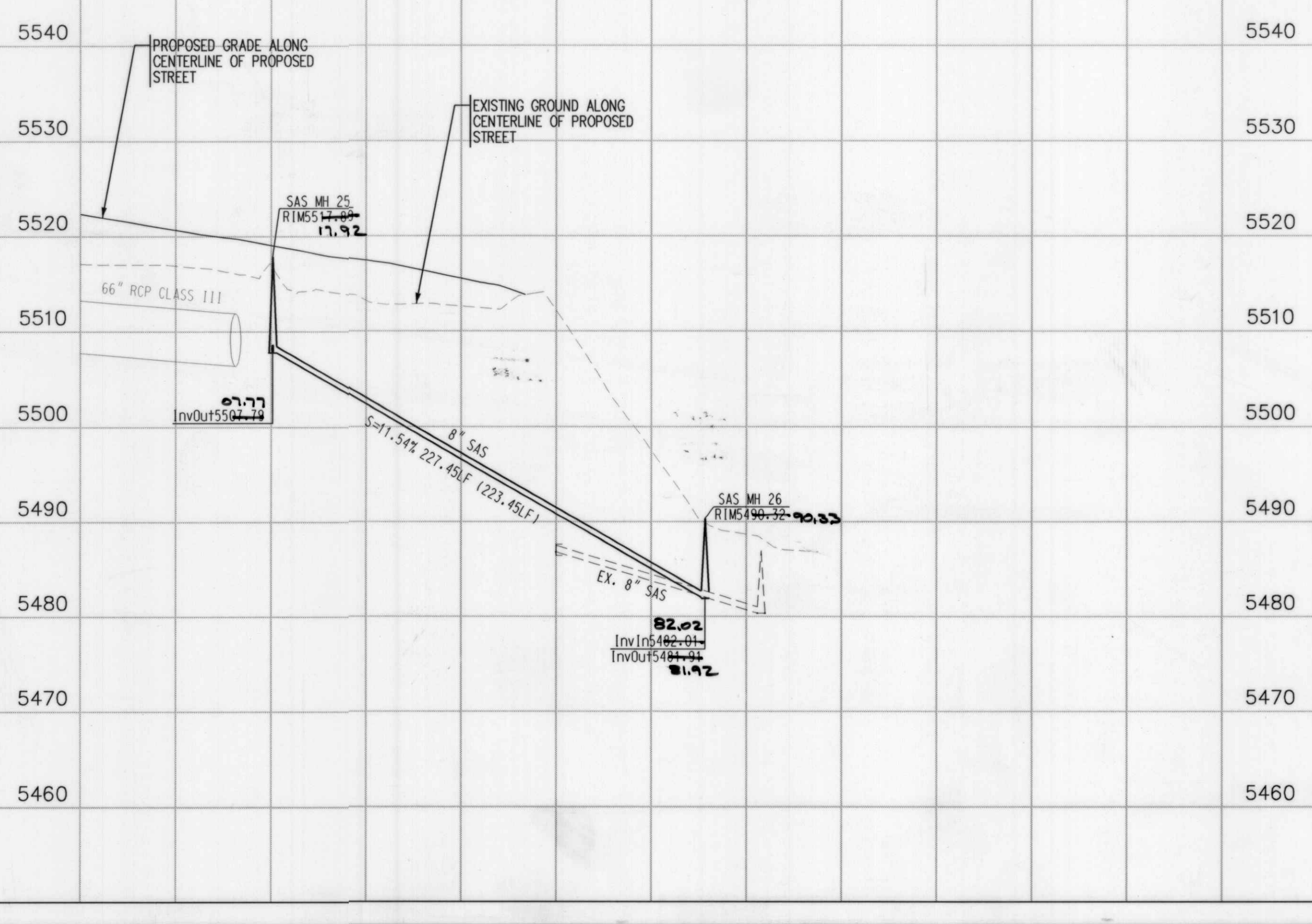
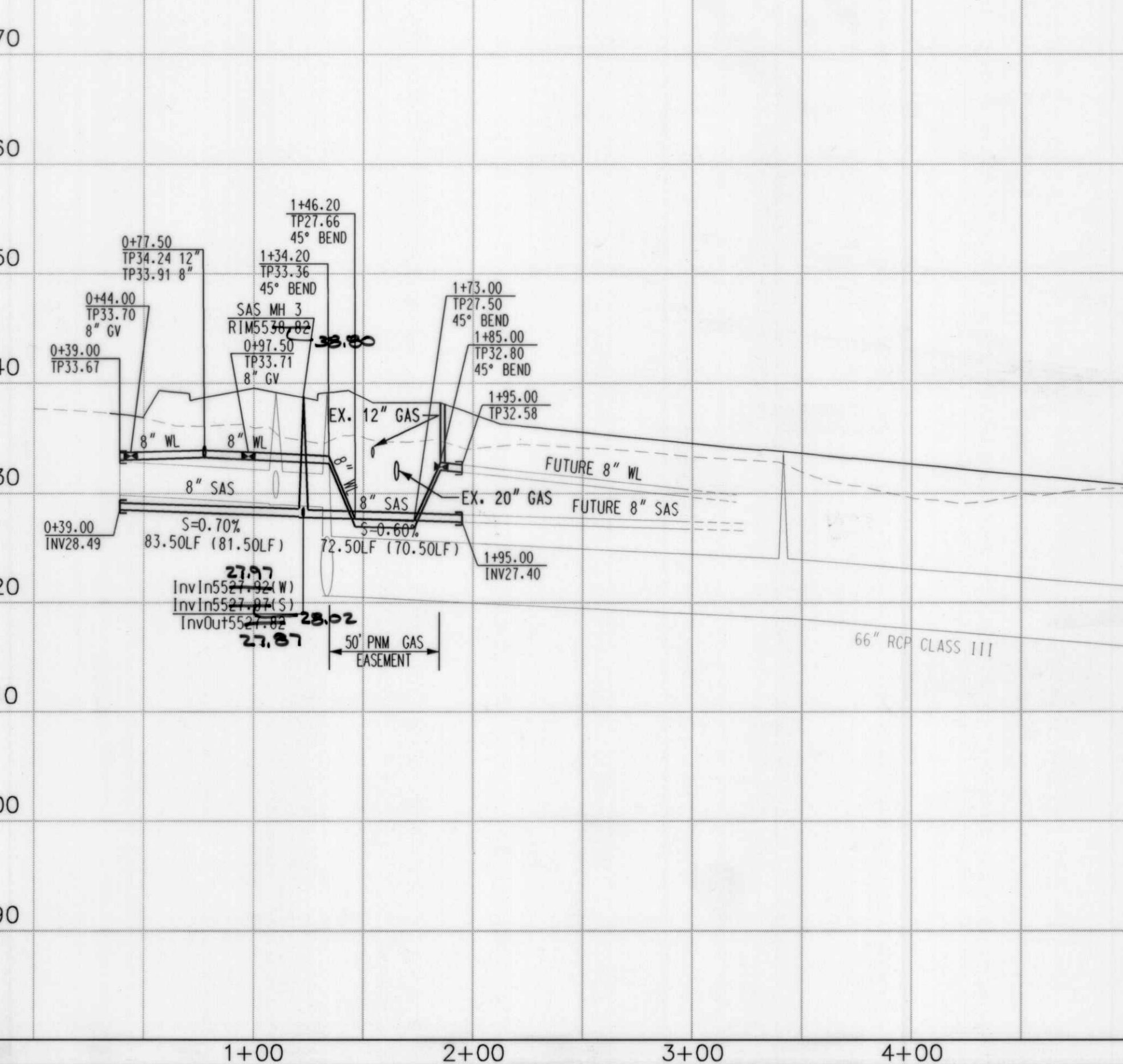
TRACT 5 SAS STA. 0+00 - 3+00



ID	BEARING	LENGTH
T1	N89°39'17"W	227.45'



TRACT 5 SAS STA. 10+00 - 13+81.76



- ### NOTES
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 - CONTRACTOR IS TO INSTALL A 4" X 4" X 5' POST AND END AT THE END OF EACH SANITARY SEWER SERVICE.
 - CONTRACTOR IS RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ALL UTILITY CONDUITS AND EXISTING LINES.
 - CONTRACTOR SHALL PROVIDE THE INSPECTORS, (CITY AND PRIVATE) WITH THE PROPOSED HYDROSTATIC TESTING PLAN. THE PLAN MUST BE APPROVED BEFORE TESTING OPERATIONS BEGIN.
 - CONTRACTOR SHALL PARK EQUIPMENT AND VEHICLES AS NOT TO INTERFERE WITH NORMAL ACTIVITIES OF RESIDENTS OR OTHER CONTRACTORS ON SITE.
 - ANY DAMAGE TO THE EXISTING FACILITIES (CURB & GUTTER, PAVEMENT, CONDUITS, LANDSCAPING, UTILITY LINES, ETC.) DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTORS' EXPENSE.
 - REMOVAL OF THE EXISTING CURB AND GUTTER SHALL BE AS PER COA STD. DWG. 2415 (SAWCUT ONLY).
 - ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART F.
 - NO WORK SHALL BE UNDER TAKEN WITHIN EXISTING 50' GASLINE EASEMENT WITHOUT FIRST CONTACTING PNM.
 - CONTRACTOR MUST MAINTAIN TWO-WAY TRAFFIC AT ALL TIMES ON PASEO DEL NORTE. THE USE OF AN UNPAVED DETOUR FOR UP TO TWO DAYS WILL BE ALLOWED WITH PROPER BARRICADING.

RESTRAINING JOINT TABLE		
MECHANICAL JOINTS	LENGTH OF RESTRAINED JOINTS	
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GENERAL NOTE:
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APPROVED BY PNM _____ DATE _____

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ENGINEERING DEVELOPMENT GROUP
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UTILITY PLAN & PROFILE
TRACT 5 SAS STA. 0+00 - 3+00 AND STA. 10+00 - 13+81.76

DESIGN REVIEW COMMITTEE: JUN 22 2004

CITY ENGINEER APPROVAL: JUL 28 2004

LAST DESIGN UPDATE

CITY PROJECT NO. 617684

ZONE MAP NO. B-8-Z

SHEET 21 OF 22

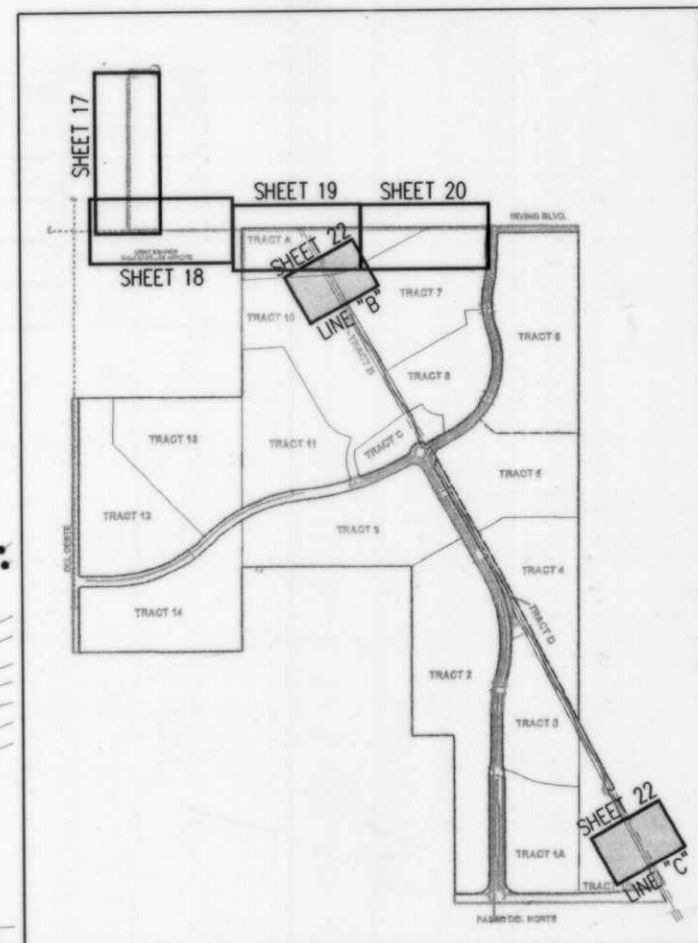
AS-BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	CONTRACTOR	DATE	NO.	DATE	NO.	DATE
INSPECTOR	DATE	INSPECTOR	DATE	BY	DATE	BY	DATE
FIELD	DATE	FIELD	DATE	REMARKS	DATE	REMARKS	DATE
VERIFY	DATE	VERIFY	DATE	DESIGN	DATE	DESIGN	DATE
CORRECT	DATE	CORRECT	DATE	NO.	DATE	NO.	DATE
MICRO-FILM	DATE	MICRO-FILM	DATE	DESIGNED BY	DATE	DESIGNED BY	DATE
NO.	DATE	NO.	DATE	DRAWN BY	DATE	DRAWN BY	DATE
				CHECKED BY	DATE	CHECKED BY	DATE

Crossings				
DES	SAS	EX. GASLINE	WL	Clearance
1	8" TP 15.08	12" TP 19.46	---	3.61
2	8" BP 14.23	20" TP 18.89	---	2.20
3	8" BP 14.23	20" BP 17.71	---	---
4	---	12" TP 19.46	8" TP 13.35	4.28
5	---	12" BP 18.02	8" BP 13.82	---
6	---	20" TP 18.41	8" TP 13.49	3.80
7	---	20" BP 16.69	8" BP 12.97	---

0007
11.31
10.55
11.25
10.90

22.62
21.18
21.47
19.75
23.18
21.85
22.14
20.42

TRACT A



INSTALL 8" GAS PLUG
w/ RESTRAINED JOINTS
X=350420.81
Y=1529526.17

INSTALL 1 - 8" SAS PLUG
X=350420.81
Y=1529526.17

INSTALL 8" GAS PLUG
w/ RESTRAINED JOINTS
X=350449.41
Y=1529570.13

INSTALL 1 - 8" SAS PLUG
X=350504.29
Y=1529561.41

LINE "B" SAS

Crossings			
DES	SAS	EX. WL	Clearance
5	8" TP 88.75	10" TP 90.49	0.83
6	8" BP 88.05	10" BP 89.59	---

50' GASLINE
EASEMENT
SEE NOTE 9

INSTALL 1 - 8" SAS PLUG
X=352782.11
Y=1525153.28

SAWCUT REMOVE & REPLACE
INKIND 255 SF A.C. PAVEMENT

LINE "C" SAS

SCALE: 1" = 50'
(HORIZ.)

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APPROVED BY PNM DATE

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UTILITY PLAN & PROFILE
LINE "B" & LINE "C" SAS CROSSING

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	MO./DAY/YR.	MO./DAY/YR.
JUN 22 2004	JUL 23 2004		
DESIGN REVIEW COMMITTEE	CITY ENGINEER	LAST DESIGN UPDATE	

CITY PROJECT NO. 617684 ZONE MAP NO. B-8-Z SHEET 22 OF 22