

CONSTRUCTION PLANS FOR THE TRAILS UNIVERSE STORM DRAIN ALBUQUERQUE, NEW MEXICO

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9	MISC DRAINAGE DETAILS 7/9/13 SJS

STORM DRAIN PLANS

SHEET NO.	DESCRIPTION
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8	UNIVERSE STORM DRAIN STA 60+00 TO 63+36

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL ABIDE BY ALL LOCAL, STATE, AND FEDERAL LAWS, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS.
2. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR CONSTRUCTION OBSERVER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
3. ALL ELECTRICAL, TELEPHONE, CABLE TV, GAS AND OTHER UTILITY LINES, CABLES AND APPURTENANCES ENCOUNTERED DURING CONSTRUCTION THAT REQUIRE RELOCATION, SHALL BE COORDINATED WITH THAT UTILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF ALL NECESSARY UTILITY ADJUSTMENTS. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR DELAYS OR INCONVENIENCES CAUSED BY UTILITY COMPANY WORK CREWS. THE CONTRACTOR MAY BE REQUIRED TO RESCHEDULE HIS ACTIVITIES TO ALLOW UTILITY CREWS TO PERFORM THEIR REQUIRED WORK.
4. DISPOSAL SITE FOR ALL EXCESS EXCAVATION MATERIAL, AND UNSUITABLE MATERIAL SHALL BE OBTAINED BY THE CONTRACTOR IN COMPLIANCE WITH APPLICABLE ENVIRONMENTAL REGULATIONS AND APPROVED BY THE CONSTRUCTION OBSERVER. ALL COSTS INCURRED IN OBTAINING A DISPOSAL SITE AND HAUL THERETO SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO SEPARATE MEASUREMENT OR PAYMENT SHALL BE MADE.

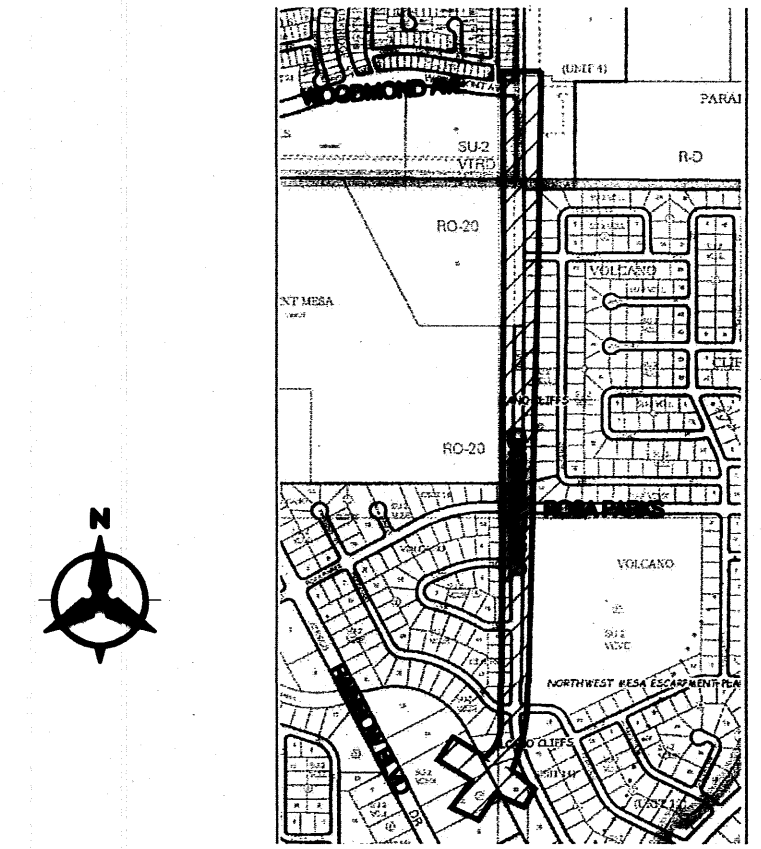
5. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING THE EXISTING UTILITY LINES WITHIN THE CONSTRUCTION AREA. ANY DAMAGE TO EXISTING FACILITIES CAUSED BY CONSTRUCTION ACTIVITY SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE AND APPROVED BY THE CONSTRUCTION OBSERVER.
6. CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PROPERTY AND/OR PROJECT LIMITS. ANY DAMAGE TO ADJACENT PROPERTIES RESULTING FROM THE CONSTRUCTION PROCESS IS THE RESPONSIBILITY OF THE CONTRACTOR. ANY COSTS INCURRED FOR REPAIRS SHALL BE THE COST OF THE CONTRACTOR.
7. OVERNIGHT PARKING OF CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAYS OR DESIGNATED TRAFFIC LANES. THE CONTRACTOR SHALL NOT STORE ANY EQUIPMENT OR MATERIAL WITHIN THE PUBLIC RIGHT-OF-WAY.
8. THE CONTRACTOR SHALL OBTAIN ALL THE NECESSARY PERMITS FOR THE PROJECT PRIOR TO COMMENCING CONSTRUCTION (I.E. BARRICADING, SURFACE DISTURBANCE).
9. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPLACE AT HIS EXPENSE ANY AND ALL PROPERTY CORNERS DESTROYED DURING CONSTRUCTION. ALL PROPERTY CORNERS MUST BE RESET BY A REGISTERED LAND SURVEYOR.
10. ALL PERMANENT PAVEMENT MARKING AND TRAFFIC SIGNING SHALL BE FURNISHED AND PLACED BY THE CONTRACTOR PER PLAN.

11. THE CONTRACTOR SHALL COORDINATE WITH THE CITY OF ALBUQUERQUE, DMD CONSTRUCTION COORDINATION DIVISION, PRIOR TO BEGINNING ANY CONSTRUCTION WORK ON OR ADJACENT TO EXISTING STREETS.
12. ALL BARRICADES AND CONSTRUCTION SIGNING SHALL CONFORM TO APPLICABLE SECTIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), U.S. DEPARTMENT OF TRANSPORTATION, LATEST EDITION.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING CONSTRUCTION SIGNAGE UNTIL THE PROJECT HAS BEEN ACCEPTED BY THE CITY OF ALBUQUERQUE. THE CONTRACTOR SHALL VERIFY THE PROPER LOCATION OF ALL BARRICADING AT THE END AND BEGINNING OF EACH DAY.
14. ALL SAWCUT PAVEMENT SHALL HAVE A UNIFORM EDGE AND BE SPRAYED WITH TACK.
15. WHEN ABUTTING NEW CURB AND GUTTER TO EXISTING PAVEMENT, A 1' WIDE SECTION OF EXISTING PAVEMENT ADJACENT TO THE CURB AND GUTTER SHALL BE SAWCUT, REMOVED, AND REPLACED AS PER THE STANDARD SPECIFICATIONS.
16. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY DAMAGE TO EXISTING PAVEMENTS, PAVEMENT MARKINGS, CURB & GUTTER, DRIVE PADS, WHEELCHAIR RAMPS, AND SIDEWALK DURING CONSTRUCTION, APART FROM THOSE SECTIONS INDICATED FOR REMOVAL ON THE PLANS AND SHALL REPAIR OR REPLACE PER COA STANDARDS, AT HIS OWN EXPENSE.

NOTES:

1. ALL SHOULDER WORK, CLEAR ZONE & SIDE SLOPE CRITERIA PER ROADSIDE DESIGN CRITERIA DURING WORK & NON WORK HOURS (SHALL BE COMPLIED) NBY 02/12/13
2. CONTRACTOR TO COORDINATE WITH THE CITY OF ALBUQUERQUE CONSTRUCTION COORDINATION ENGINEER (924-3400) PRIOR TO THE PRE-CONSTRUCTION MEETING.
3. CONTRACTOR TO COORDINATE WITH SAD 228 CITY OF ALBUQUERQUE PM MANH TRAIL (168.2791) PRIOR TO START OF CONSTRUCTION.

17. AN SO 19 PERMIT IS REQUIRED TO PLACE ANY MATERIAL ON OR AROUND A STORM DRAIN INLET IN THE CITY RIGHT-OF-WAY THAT WOULD INTERFERE WITH THE INLET RECEIVING STORM WATER PER THE ENGINEER'S DESIGN. CITY PERSONNEL MAY REMOVE THIS MATERIAL AT ANY TIME WITHOUT NOTICE. THE PREFERRED BMP IS TO REMOVE SEDIMENT/POLLUTANTS ON THE PROPERTY WHERE CONSTRUCTION ACTIVITY IS OCCURRING.
18. ALL EXCAVATION, TRENCHING, AND SHORING ACTIVITIES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P.



VICINITY MAP
C-09-Z / D-09-Z

NOTICE TO CONTRACTORS

1. AN EXCAVATION/CONSTRUCTION PERMITS WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN THE CITY RIGHT-OF-WAY.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THROUGH UPDATE #8.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (260-1990) 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 IMMEDIATELY SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. SEVEN (7) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION COORDINATION ENGINEER (924-3400) PRIOR TO OCCUPYING AN INTERSECTION. REFER TO SECTION 19 OF THE GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS.
6. ALL WORK EFFECTING ARTERIAL ROADWAYS REQUIRES TWENTY-FOUR HOUR CONSTRUCTION.
7. ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED WITH PLASTIC REFLECTORIZED PAVEMENT MARKING BY CONTRACTOR TO THE SAME LOCATION AS WAS EXISTING, OR AS INDICATED BY THIS PLAN SET.
8. 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.
9. CONTRACTOR SHALL RECORD DATA ON ALL UTILITY LINES AND ACCESSORIES AS REQUIRED BY ABCWUA FOR THE PREPARATION OF "AS CONSTRUCTED" DRAWINGS. CONTRACTOR SHALL NOT COVER UTILITY LINES AND ACCESSORIES UNTIL ALL DATA HAS BEEN RECORDED.
10. CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORK SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY GRAFFITI FROM ALL EQUIPMENT, WHETHER PERMANENT OR TEMPORARY.
11. THE CONTRACTOR SHALL COORDINATE WITH THE WATER AUTHORITY SEVEN (7) DAYS IN ADVANCE OF PERFORMING WORK THAT WILL AFFECT THE PUBLIC WATER OR SANITARY SEWER INFRASTRUCTURE. WORK REQUIRING SHUTOFF OF WELL COLLECTORS, TRANSMISSION LINES, OR FACILITIES DESIGNATED AS MASTER PLAN FACILITIES MUST BE COORDINATED WITH THE WATER AUTHORITY 14 DAYS IN ADVANCE OF PERFORMING SUCH WORK. ONLY WATER AUTHORITY CREWS ARE AUTHORIZED TO OPERATE PUBLIC VALVES. SHUTOFF REQUESTS MUST BE MADE ONLINE AT <http://abcwua.org/content/view/463/729/>.

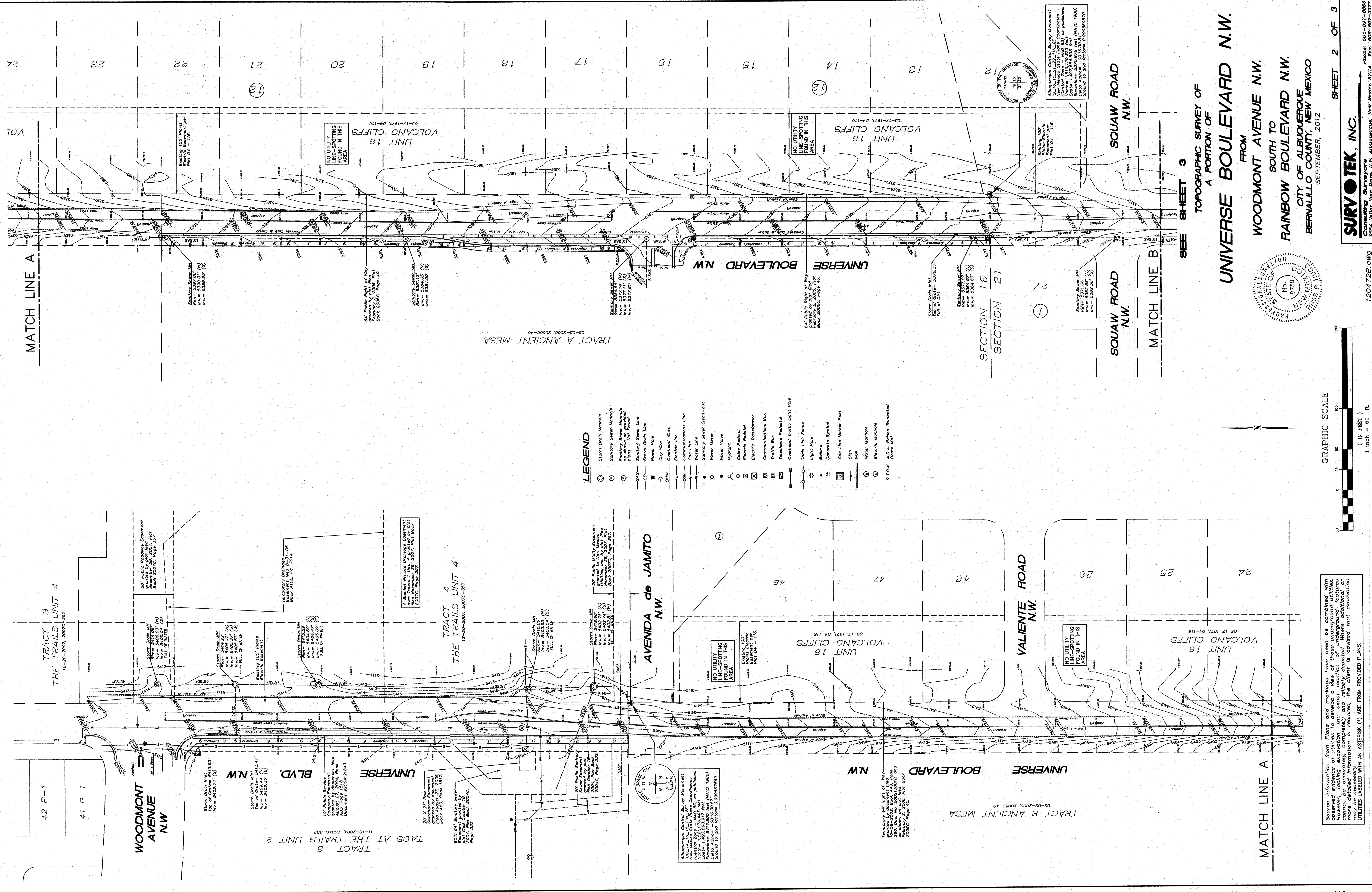
THE FOLLOWING NOTES ALSO APPLY WHEN CHECKED

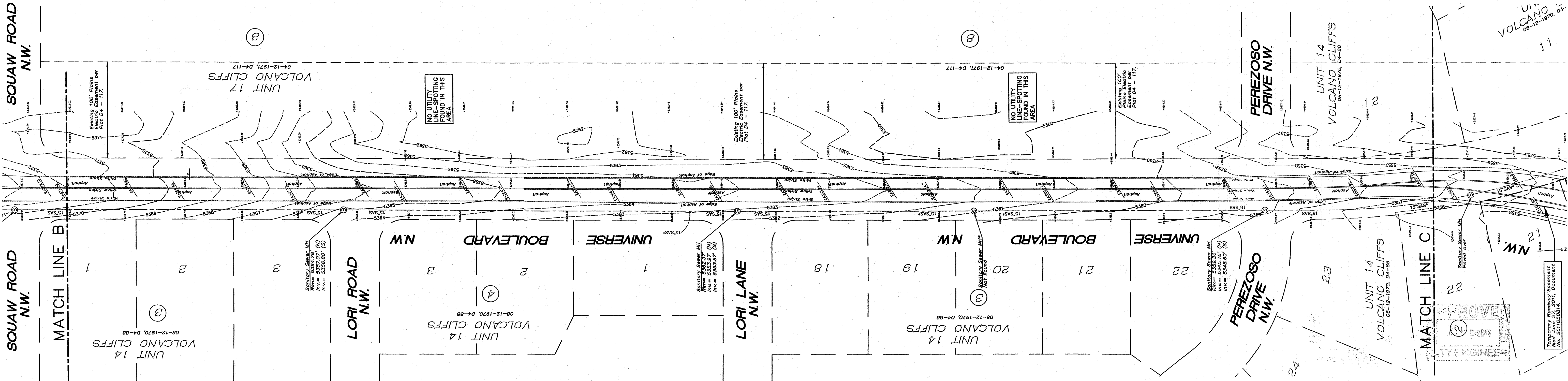
- ☒ ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING.
- ☒ BACKFILL COMPACTION SHALL BE ACCORDING TO SPECIFIED STREET USE.
- ☒ SIDEWALKS AND WHEELCHAIR RAMPS WITHIN THE CURB RETURNS SHALL BE CONSTRUCTED WHEREVER A NEW CURB RETURN IS CONSTRUCTED.
- ☒ IF CURB IS DEEPRESSED FOR 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.

DRB #1008797

REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE		APPROVALS		ENGINEER		DATE	
		DRC Chairman		7/9/13		APPROVED FOR CONSTRUCTION	
		Transportation		7/9/13			
		Water/Wastewater		7/9/13			
		Hydrology		7/9/13			
		Parks		7/9/13			
Const. Coord.							
City Project No.		761283		Sheet		Of	
				1		X9	

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LEGEND

- Storm Drain Manhole
- Sanitary Sewer Manhole
- Sanitary Sewer Clean-out
- Sanitary Sewer Line
- Storm Drain Line
- Power Pole
- Overhead Wires
- Electric Line
- Communications Line
- Gas Line
- Water Line
- Sanitary Sewer Clean-out
- Water Valve
- Hydrant
- Cable Pedestal
- Electric Pedestal
- Electric Transformer
- Communications Box
- Traffic Box
- Telephone Pedestal
- Overhead Traffic Light Pole
- Chain Link Fence
- Light Pole
- Railroad
- Concrete Symbol
- Gas Line Marker Post
- Sign
- Wall
- Water Manhole
- Electric Manhole
- R.T.O.M. A.D.A. Road Truncated
- Done Mat

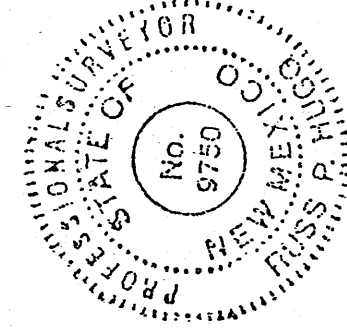
TOPOGRAPHIC SURVEY OF
A PORTION OF

UNIVERSE BOULEVARD N.W.

FROM
WOODMONT AVENUE N.W.

SOUTH TO
RAINBOW BOULEVARD N.W.

CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO
SEPTEMBER, 2012

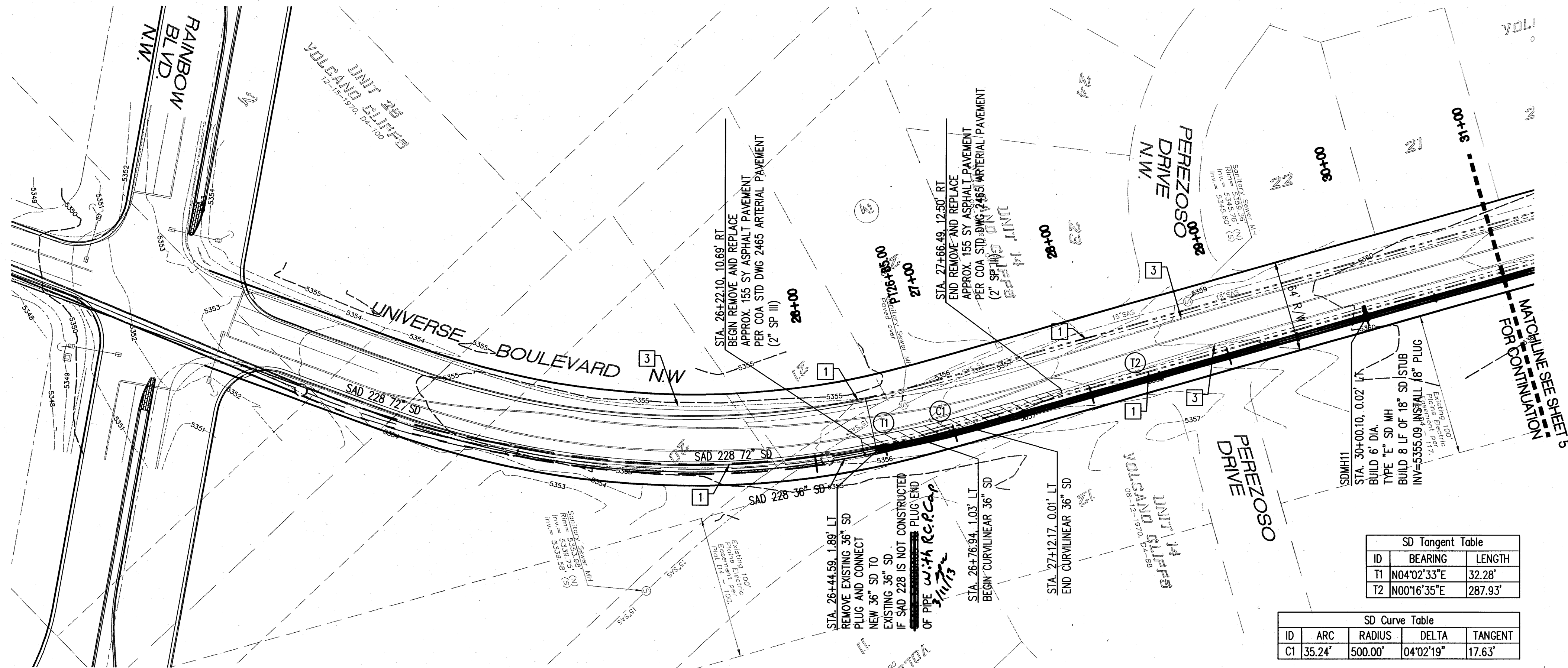


GRAPHIC SCALE

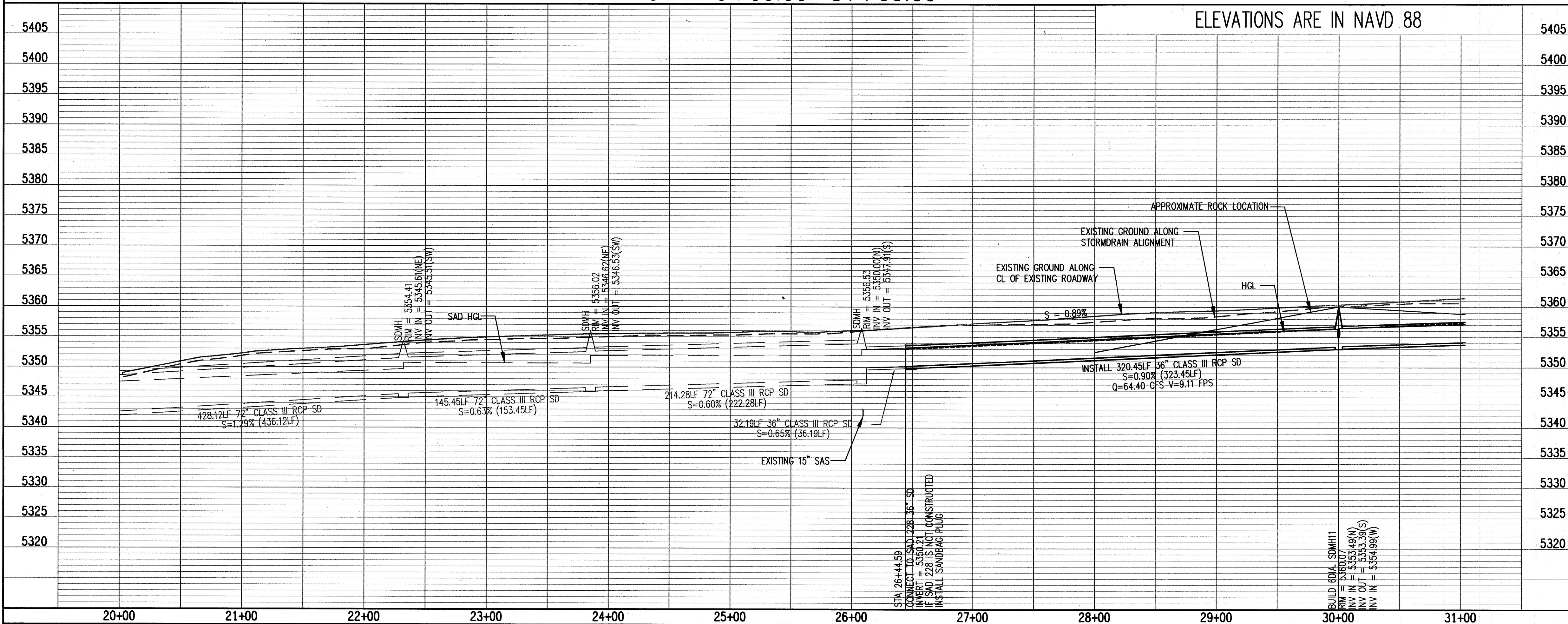


(IN FEET)
1 inch = 50 ft

Source: Information from Plans and markings have been combined with observed evidence of utilities to develop a view of those underground utilities. However, lacking excavation, the exact location of underground features cannot be accurately determined, and the client is advised that excavation may be necessary. UTILITIES LABELED WITH AN ASTERISK (*) ARE FROM PROVIDED PLANS.



STA. 26+00.00 - 31+00.00



P:\2013\2023\CDP\Plans\PNP\Universe SD\Universe SD.dwg
February 13, 2013 - 9:16am

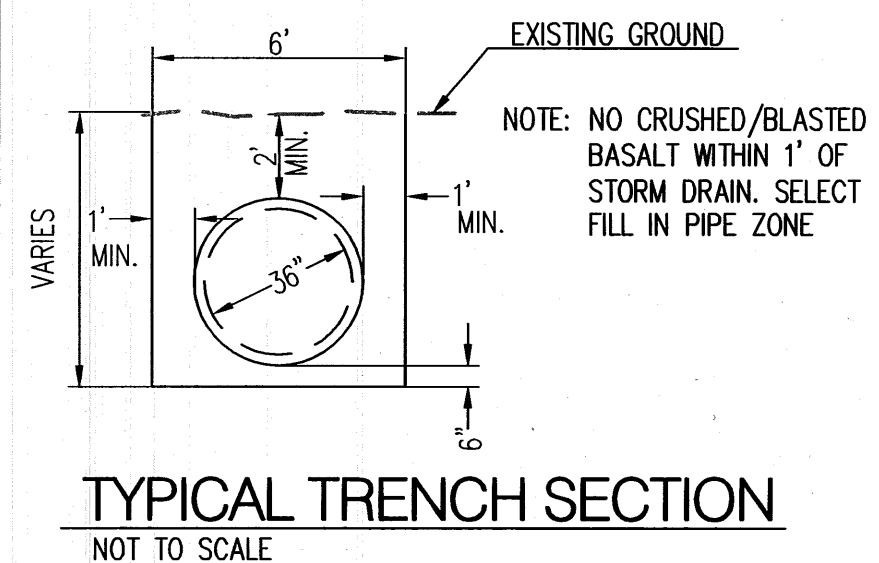
1" = 50' (HORIZ.)
1" = 10' (VERT.)

GENERAL NOTES

1. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY LINES WITH UTILITY COMPANIES AS REQUIRED.
2. ALL CURVE DATA AND DIMENSIONS ARE CALCULATED FROM CENTERLINE OF PIPE OR MANHOLE. ALL SAS & SD SLOPES ARE CALCULATED TO TRUE PIPE DIMENSIONS FROM INVERT TO INVERT. (PAY ITEMS ARE SHOWN IN PARENTHESES)
3. GRADE ELEVATIONS, WHERE NOTED, ARE FOR FLOWLINE OF STANDARD CURB UNLESS OTHERWISE SPECIFIED.
4. CONTRACTOR IS RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ALL DAMAGED EXISTING UTILITY CONDUITS AND EXISTING LINES.
5. CONTRACTOR SHALL PARK EQUIPMENT AND VEHICLES AS NOT TO INTERFERE WITH NORMAL ACTIVITIES OF RESIDENTS OR OTHER CONTRACTORS ON SITE.
6. ANY DAMAGE TO THE EXISTING FACILITIES (CURB & GUTTER, PAVEMENT, LANDSCAPING, ETC.) DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
7. MH RIMS & CATCH BASIN INLET ELEVATIONS, FIRE HYDRANT & FLANGE ELEVATIONS ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY AND ADJUST TO FINAL PAVEMENT OR SURFACE GRADES.
8. STORM DRAIN STATIONING FOLLOWS CL OF STORM DRAIN UNLESS OTHERWISE NOTED.
9. STATIONING OF DROP INLET IS TO MIDDLE OF DOWN HILL GRATE AT FACE OF CURB.
10. FLOWLINE ELEVATIONS FOR DROP INLETS ARE PROJECTED FROM FLOWLINE OF STANDARD CURB TO MIDDLE OF DOWNHILL GRATE.
11. ALL WATERLINE FITTINGS, VALVES, BENDS, TEES, CROSSES AND APPURTENANCES SHALL USE RESTRAINED JOINTS UNLESS OTHERWISE NOTED ON THE PLANS.
12. AT UTILITY CROSSING WHERE LESS THAN 1 FOOT OF COVER OVER STORM DRAIN PIPE IS PRESENT LEAN FILL IS TO BE USED FOR A DISTANCE OF 5 FEET ON EACH SIDE OF THE SD & FROM TOP OF STORM DRAIN TO BOTTOM OF SANITARY SEWER OR WATER LINE.
13. RCP SHALL BE INSTALLED SO THAT THE JOINT GAP AT THE HOME POSITION SHALL CONFORM TO THE APPROVED MANUFACTURER'S RECOMMENDATIONS. MANUFACTURER'S RECOMMENDED JOINT GAP TOLERANCES FOR EACH PIPE SIZE AND TYPE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PLACEMENT OF PIPE. RCP JOINTS SHALL NOT BE GROUTED UNLESS DIRECTED BY THE ENGINEER AFTER CITY APPROVAL.
14. ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P.

KEYED NOTES

- 1. FUTURE CURB & GUTTER
- 2. EXISTING CURB & GUTTER
- 3. EXISTING EDGE OF ASPHALT
- 4. EXISTING 48" STORM DRAIN

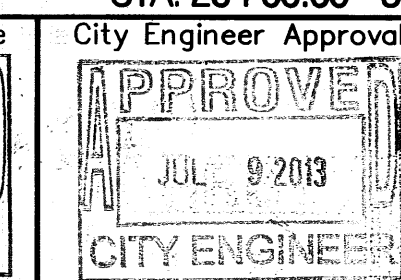


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**CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT**

**THE TRAILS UNIVERSE STORM DRAIN
UTILITY PLAN AND PROFILE
STA. 26+00.00 - 31+00.00**



City Project No.

761283

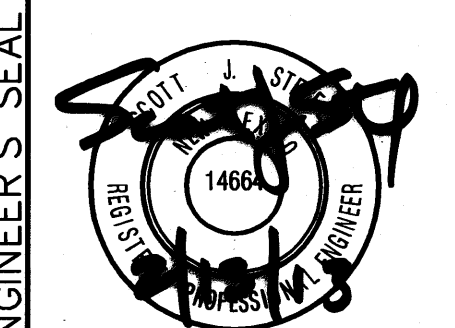
Zone Map No.
C-9 / D-9

Sheet

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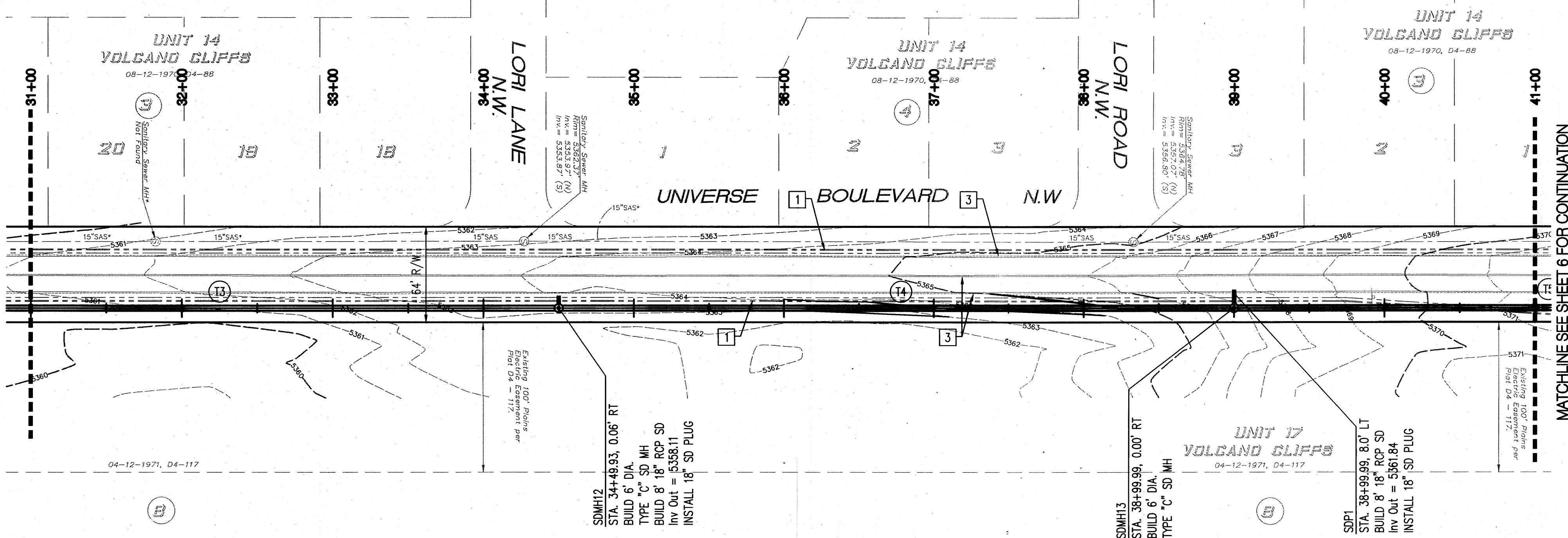
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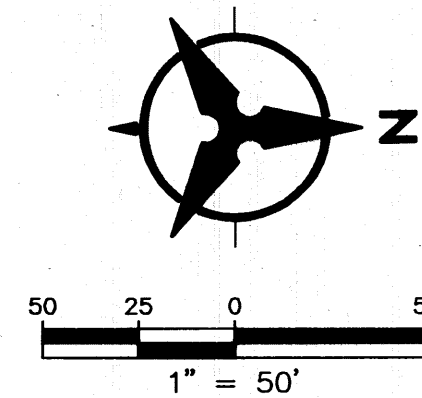


REVISIONS	By	Date
DESIGN	SJS	DATE: 10/2012
REVISED	DH	DATE: 10/2012
REVISED	SJS	DATE: 10/2012

MATCHLINE SEE SHEET 4 FOR CONTINUATION

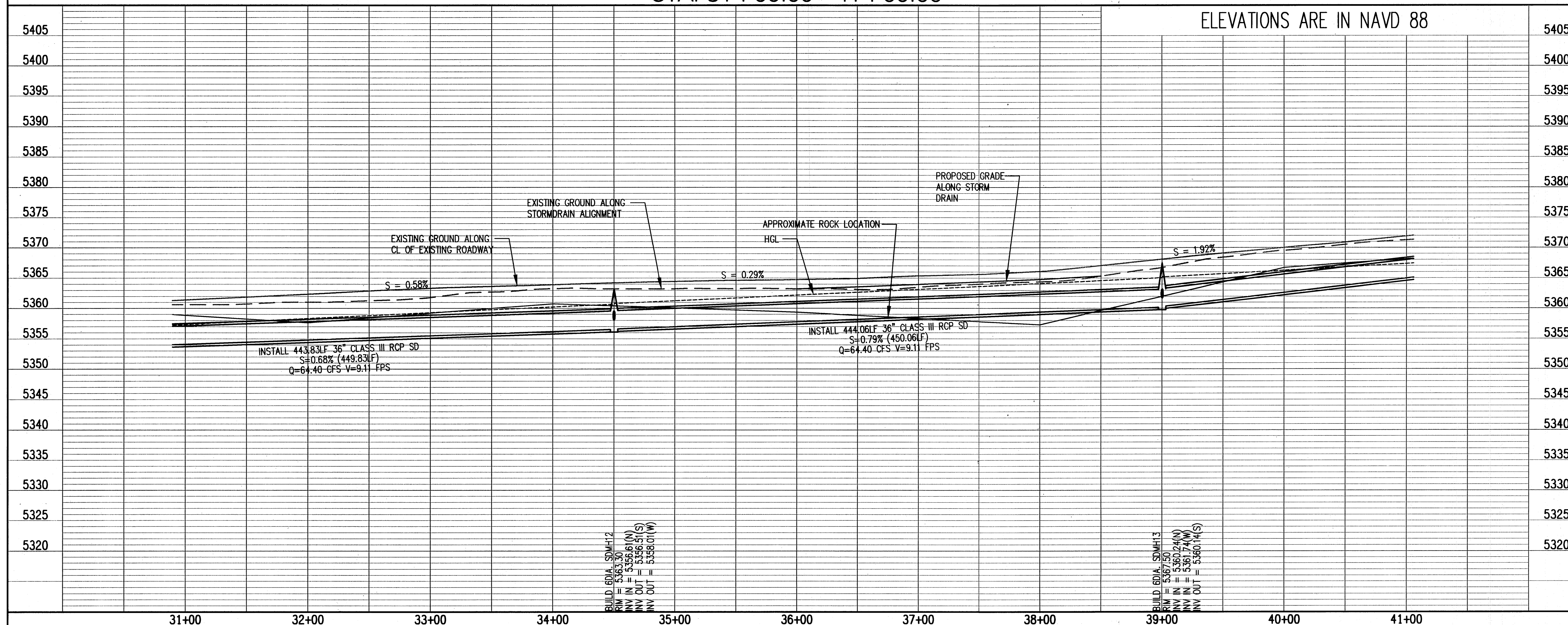


SD Tangent Table		
ID	BEARING	LENGTH
T3	N00°17'22"E	449.83'
T4	N00°16'21"E	450.06'



STA. 31+00.00 - 41+00.00

ELEVATIONS ARE IN NAVD 88



GENERAL NOTES

- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY LINES WITH UTILITY COMPANIES AS REQUIRED.
- ALL CURVE DATA AND DIMENSIONS ARE CALCULATED FROM CENTERLINE OF PIPE OR MANHOLE. ALL SAS & SD SLOPES ARE CALCULATED TO TRUE PIPE DIMENSIONS FROM INVERT TO INVERT. (PAY ITEMS ARE SHOWN IN PARENTHESES)
- GRADE ELEVATIONS, WHERE NOTED, ARE FOR FLOWLINE OF STANDARD CURB UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR IS RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ALL DAMAGED EXISTING UTILITY CONDUITS AND EXISTING LINES.
- 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, LANDSCAPING, ETC.) DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- MH RIMS & CATCH BASIN INLET ELEVATIONS, FIRE HYDRANT & FLANGE ELEVATIONS ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY AND ADJUST TO FINAL PAVEMENT OR SURFACE GRADES.
- STORM DRAIN STATIONING FOLLOWS CL OF STORM DRAIN UNLESS OTHERWISE NOTED.
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- FLOWLINE ELEVATIONS FOR DROP INLETS ARE PROJECTED FROM FLOWLINE OF STANDARD CURB TO MIDDLE OF DOWNHILL GRATE.
- ALL WATERLINE FITTINGS, VALVES, BENDS, TEES, CROSSES AND APPURTENANCES SHALL USE RESTRAINED JOINTS UNLESS OTHERWISE NOTED ON THE PLANS.
- AT UTILITY CROSSING WHERE LESS THAN 1 FOOT OF COVER OVER STORM DRAIN PIPE IS PRESENT LEAN FILL IS TO BE USED FOR A DISTANCE OF 5 FEET ON EACH SIDE OF THE SD & FROM TOP OF STORM DRAIN TO BOTTOM OF SANITARY SEWER OR WATER LINE.
- RCP SHALL BE INSTALLED SO THAT THE JOINT GAP AT THE HOME POSITION SHALL CONFORM TO THE APPROVED MANUFACTURER'S RECOMMENDATIONS. MANUFACTURER'S RECOMMENDED JOINT GAP TOLERANCES FOR EACH PIPE SIZE AND TYPE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PLACEMENT OF PIPE. RCP JOINTS SHALL NOT BE GROUTED UNLESS DIRECTED BY THE ENGINEER AFTER CITY APPROVAL.
- ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P.

KEYED NOTES

- FUTURE CURB & GUTTER
- EXISTING CURB & GUTTER
- EXISTING EDGE OF ASPHALT
- EXISTING 48" STORM DRAIN

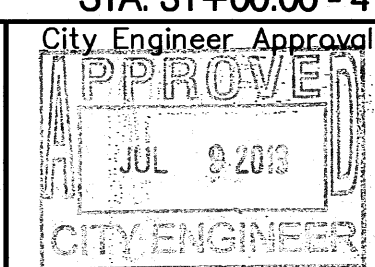
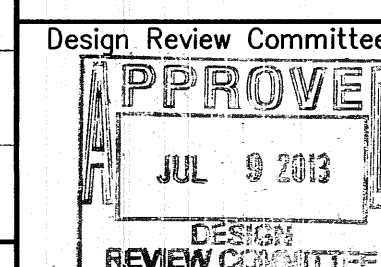


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**CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT**

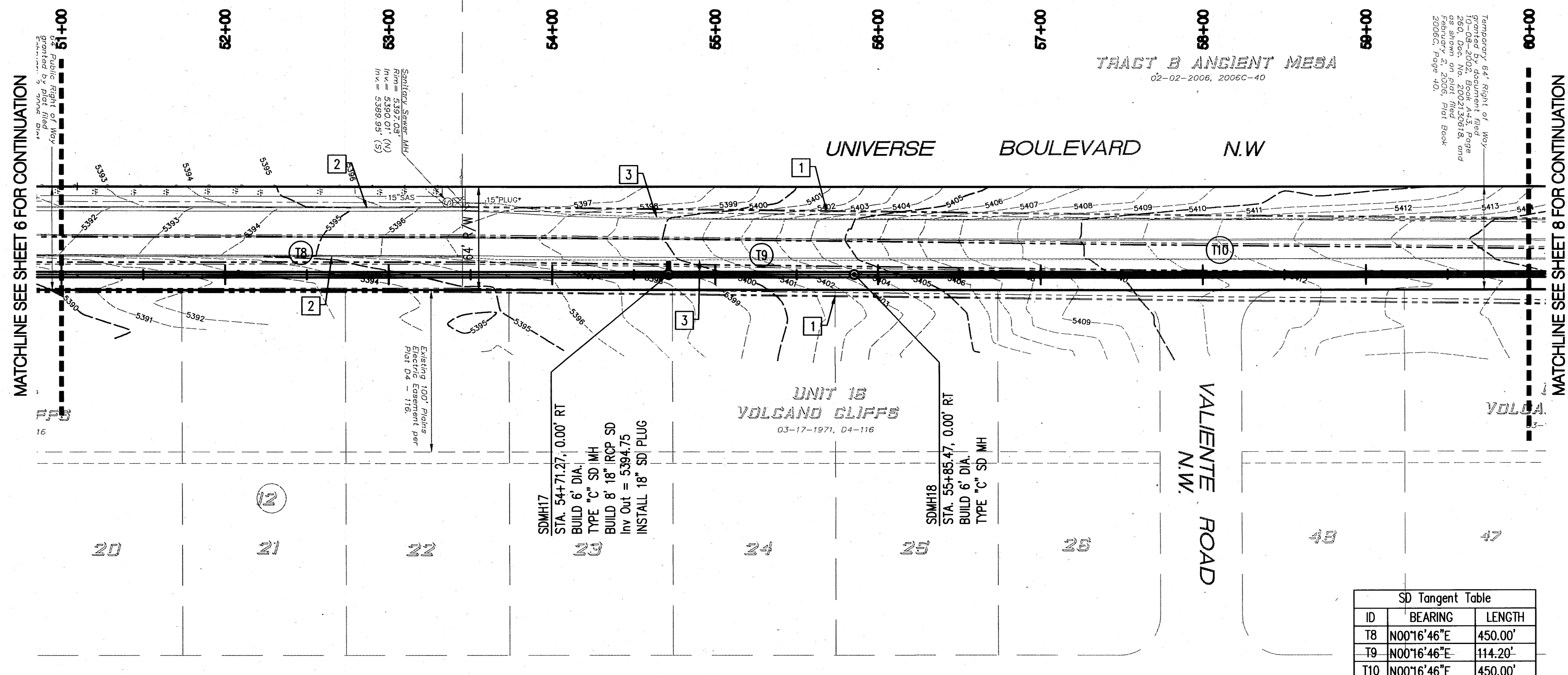
THE TRAILS UNIVERSE STORM DRAIN
UTILITY PLAN AND PROFILE
STA. 31+00.00 - 41+00.00



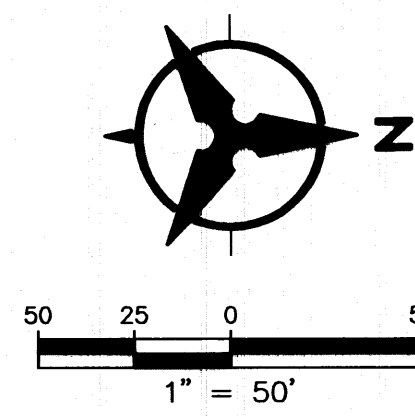
City Project No. 761283

Zone Map No. C-9 / D-9

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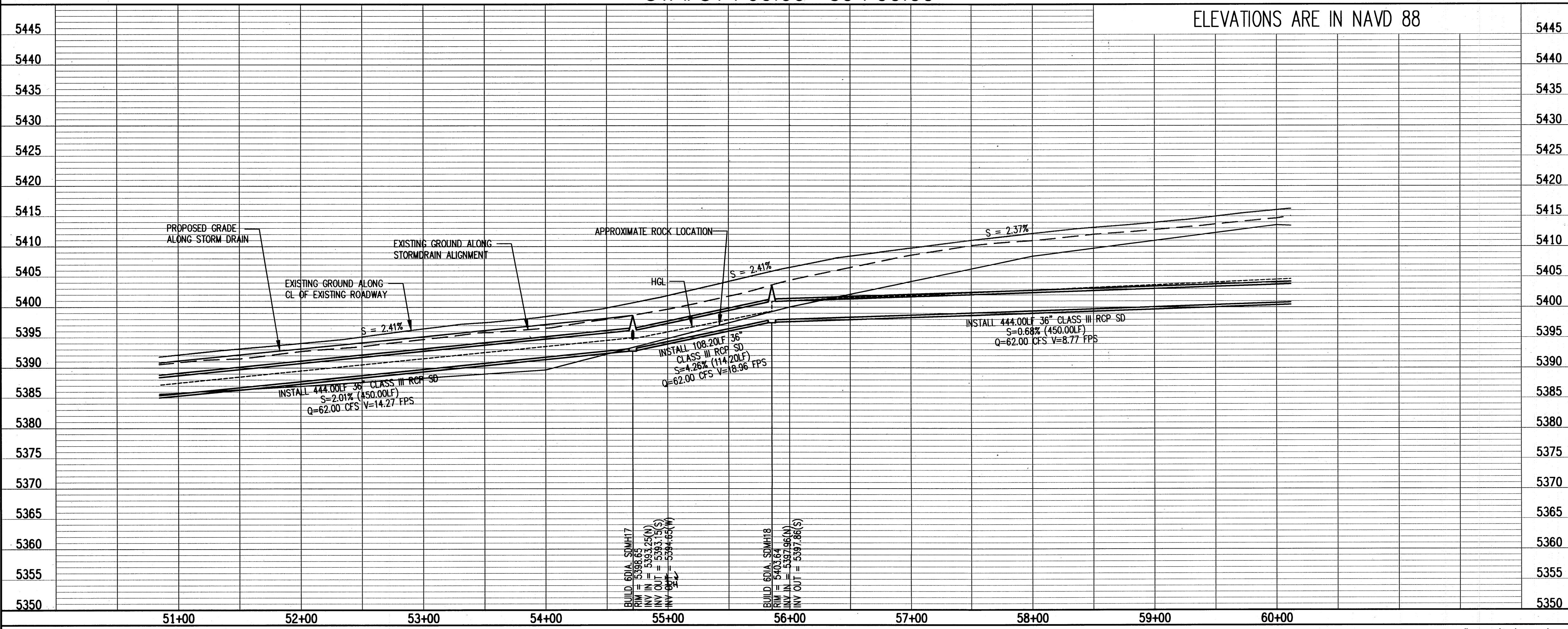


SD Tangent Table		
ID	BEARING	LENGTH
T8	N00°16'46"E	450.00'
T9	N00°16'46"E	114.20'
T10	N00°16'46"E	450.00'



STA. 51+00.00 - 60+00.00

ELEVATIONS ARE IN NAVD 88



GENERAL NOTES

- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY LINES WITH UTILITY COMPANIES AS REQUIRED.
- ALL CURVE DATA AND DIMENSIONS ARE CALCULATED FROM CENTERLINE OF PIPE OR MANHOLE. ALL S&S & SD SLOPES ARE CALCULATED TO TRUE PIPE DIMENSIONS FROM INVERT TO INVERT. (PAY ITEMS ARE SHOWN IN PARENTHESES)
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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, LANDSCAPING, ETC.) DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- MH RIMS & CATCH BASIN INLET ELEVATIONS, FIRE HYDRANT & FLANGE ELEVATIONS ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY AND ADJUST TO FINAL PAVEMENT OR SURFACE GRADES.
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- ALL WATERLINE FITTINGS, VALVES, BENDS, TEES, CROSSES AND APPURTENANCES SHALL USE RESTRAINED JOINTS UNLESS OTHERWISE NOTED ON THE PLANS.
- AT UTILITY CROSSING WHERE LESS THAN 1 FOOT OF COVER OVER STORM DRAIN PIPE IS PRESENT LEAN FILL IS TO BE USED FOR A DISTANCE OF 5 FEET ON EACH SIDE OF THE SD & FROM TOP OF STORM DRAIN TO BOTTOM OF SANITARY SEWER OR WATER LINE.
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- ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P.

KEYED NOTES

- FUTURE CURB & GUTTER
- EXISTING CURB & GUTTER
- EXISTING EDGE OF ASPHALT
- EXISTING 48" STORM DRAIN

AS-BUILT INFORMATION

CONTRACTOR	DATE
DATE	DATE
DATE	DATE
DATE	DATE
DATE	DATE
DATE	DATE

SURVEY INFORMATION

FIELD NOTES	DATE	BY
NO.	DATE	BY
NO.	DATE	BY
NO.	DATE	BY
NO.	DATE	BY
NO.	DATE	BY

ENGINEER'S SEAL

14666

REGISTERED PROFESSIONAL ENGINEER

BOHANNAN & HUSTON

By: [Signature] Date: 10/2012

Designed By: SUS Date: 10/2012

Drawn By: DH Date: 10/2012

Checked By: SUS Date: 10/2012

Bohannon & Huston

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

THE TRAILS UNIVERSE STORM DRAIN
UTILITY PLAN AND PROFILE
STA. 51+00.00 - 60+00.00

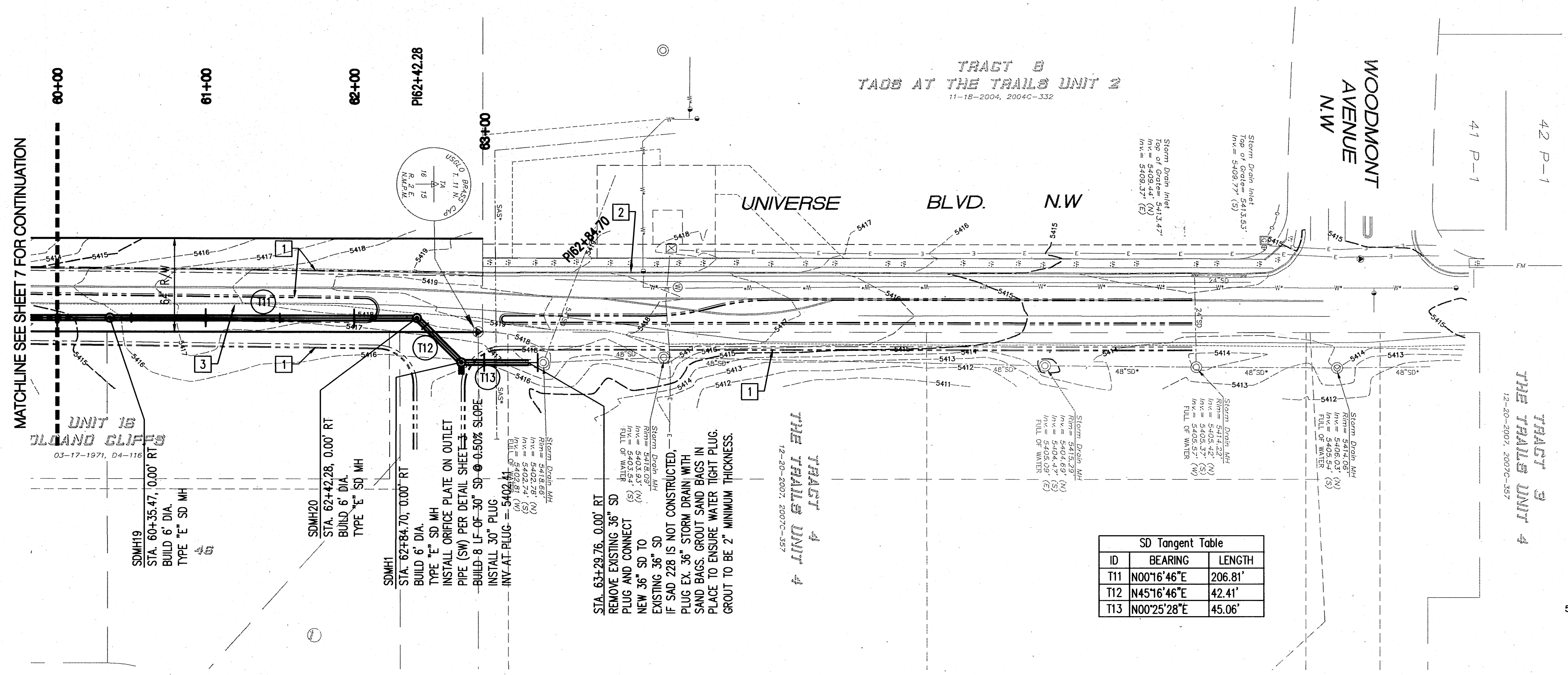
Design Review Committee: APPROVED MAR 12 2013

City Engineer Approval: APPROVED JUL 9 2013

City Project No. 761283

Zone Map No. C-9 / D-9

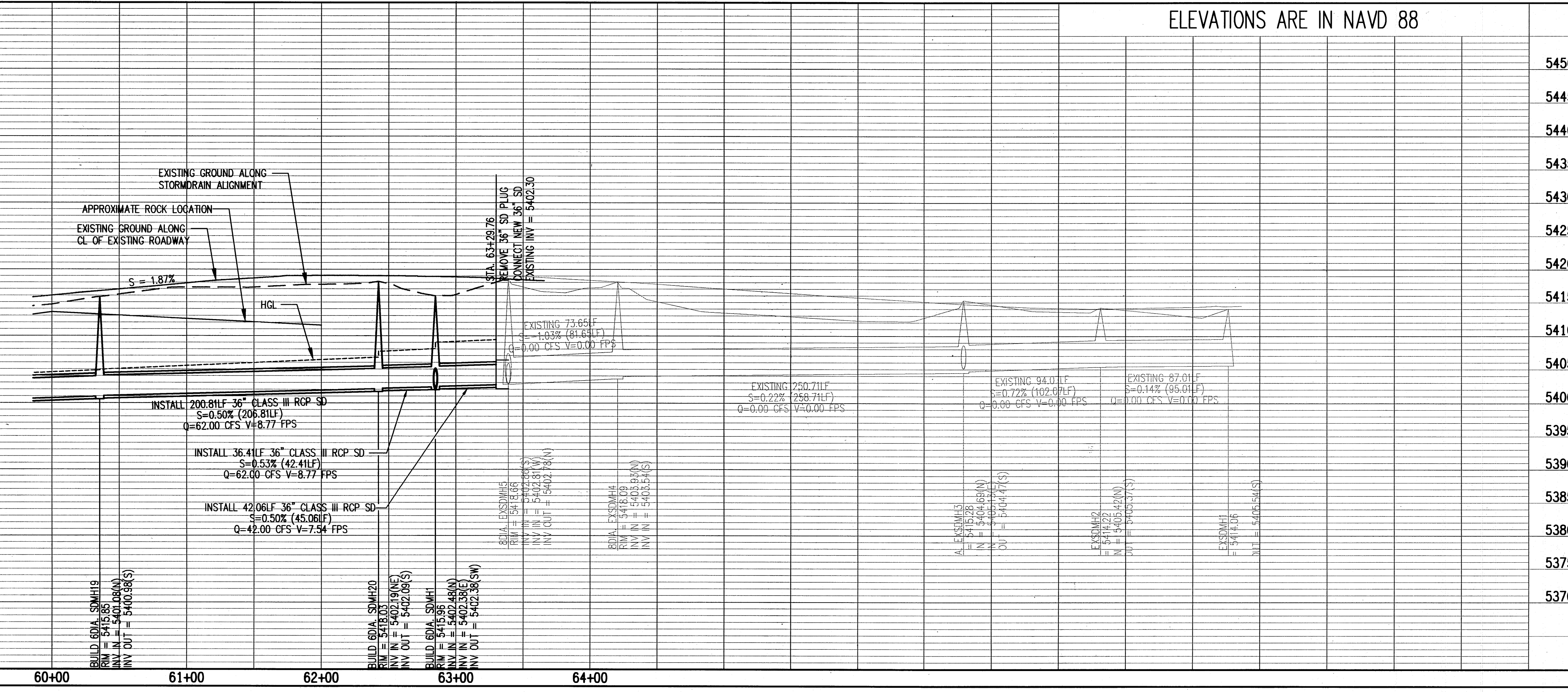
Sheet 7 of 9



ID	BEARING	LENGTH
T11	N00°16'46"E	206.81'
T12	N45°16'46"E	42.41'
T13	N00°25'28"E	45.06'

STA. 60+00.00 - 63+36.00

ELEVATIONS ARE IN NAVD 88



- GENERAL NOTES**
- THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES. CONTRACTOR SHALL COORDINATE RELOCATION OF UTILITY LINES WITH UTILITY COMPANIES AS REQUIRED.
 - ALL CURVE DATA AND DIMENSIONS ARE CALCULATED FROM CENTERLINE OF PIPE OR MANHOLE. ALL SAS & SD SLOPES ARE CALCULATED TO TRUE PIPE DIMENSIONS FROM INVERT TO INVERT. (PAY ITEMS ARE SHOWN IN PARENTHESES)
 - GRADE ELEVATIONS, WHERE NOTED, ARE FOR FLOWLINE OF STANDARD CURB UNLESS OTHERWISE SPECIFIED.
 - CONTRACTOR IS RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ALL DAMAGED EXISTING UTILITY CONDUITS AND EXISTING LINES.
 - 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, LANDSCAPING, ETC.) DURING CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
 - MH RIMS & CATCH BASIN INLET ELEVATIONS, FIRE HYDRANT & FLANGE ELEVATIONS ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY AND ADJUST TO FINAL PAVEMENT OR SURFACE GRADES.
 - STORM DRAIN STATIONING FOLLOWS CL OF STORM DRAIN UNLESS OTHERWISE NOTED
 - STATIONING OF DROP INLET IS TO MIDDLE OF DOWN HILL GRATE AT FACE OF CURB.
 - FLOWLINE ELEVATIONS FOR DROP INLETS ARE PROJECTED FROM FLOWLINE OF STANDARD CURB TO MIDDLE OF DOWNHILL GRATE.
 - ALL WATERLINE FITTINGS, VALVES, BENDS, TEES, CROSSES AND APPURTENANCES SHALL USE RESTRAINED JOINTS UNLESS OTHERWISE NOTED ON THE PLANS.
 - AT UTILITY CROSSING WHERE LESS THAN 1 FOOT OF COVER OVER STORM DRAIN PIPE IS PRESENT LEAN FILL IS TO BE USED FOR A DISTANCE OF 5 FEET ON EACH SIDE OF THE SD & FROM TOP OF STORM DRAIN TO BOTTOM OF SANITARY SEWER OR WATER LINE.
 - RCP SHALL BE INSTALLED SO THAT THE JOINT GAP AT THE HOME POSITION SHALL CONFORM TO THE APPROVED MANUFACTURER'S RECOMMENDATIONS. MANUFACTURER'S RECOMMENDED JOINT GAP TOLERANCES FOR EACH PIPE SIZE AND TYPE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PLACEMENT OF PIPE. RCP JOINTS SHALL NOT BE GROUTED UNLESS DIRECTED BY THE ENGINEER AFTER CITY APPROVAL.
 - ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P.

- KEYED NOTES**
- [1] FUTURE CURB & GUTTER
 - [2] EXISTING CURB & GUTTER
 - [3] EXISTING EDGE OF ASPHALT
 - [4] EXISTING 48" STORM DRAIN

Bohannon & Huston

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

THE TRAILS UNIVERSE STORM DRAIN
UTILITY PLAN AND PROFILE
STA. 60+00.00 - 63+36.00

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
APPROVED MAR 12 2013 DESIGN REVIEW COMMITTEE	APPROVED JUL 02 2013 CITY ENGINEER		

City Project No. 761283

Zone Map No. C-9 / D-9

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AS-BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	CONTRACTOR	DATE	NO.	DATE	REMARKS	By
STAMPED BY	DATE	CONTRACTOR	DATE			REVISIONS	
FIELD BY	DATE	CONTRACTOR	DATE			DESIGN	
REVISION BY	DATE	CONTRACTOR	DATE				
CHECKED BY	DATE	CONTRACTOR	DATE				
RECORDED BY	DATE	CONTRACTOR	DATE				
NO.		CONTRACTOR	DATE				

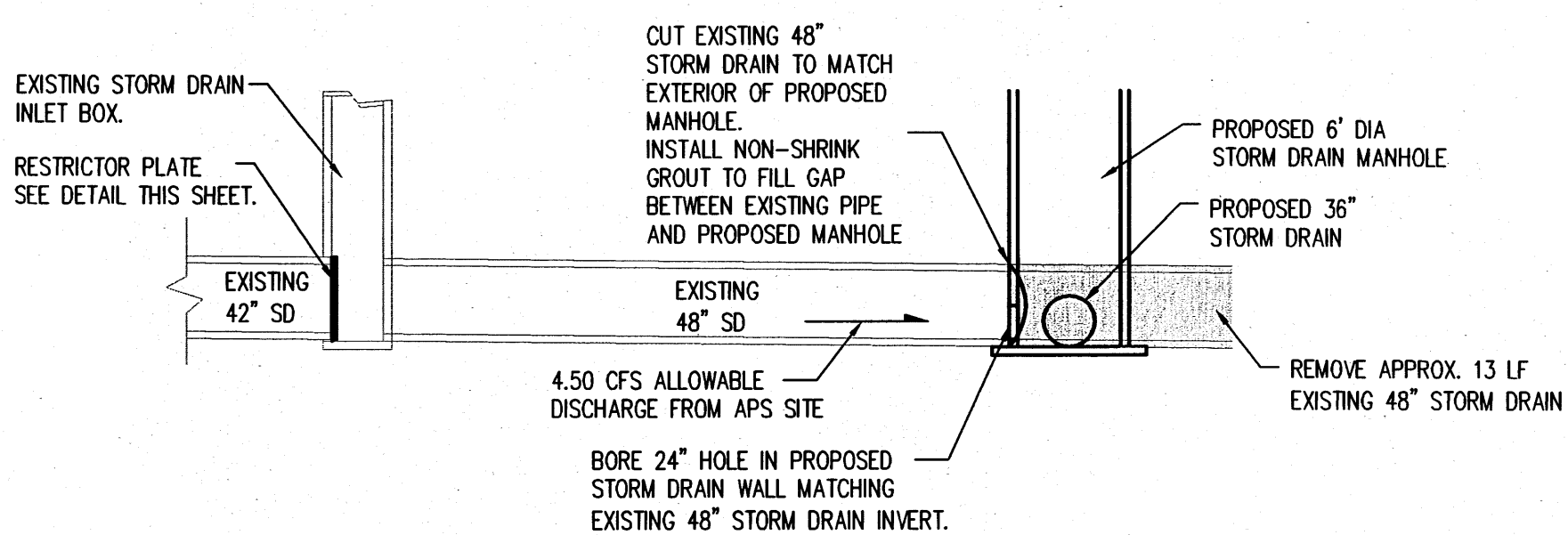
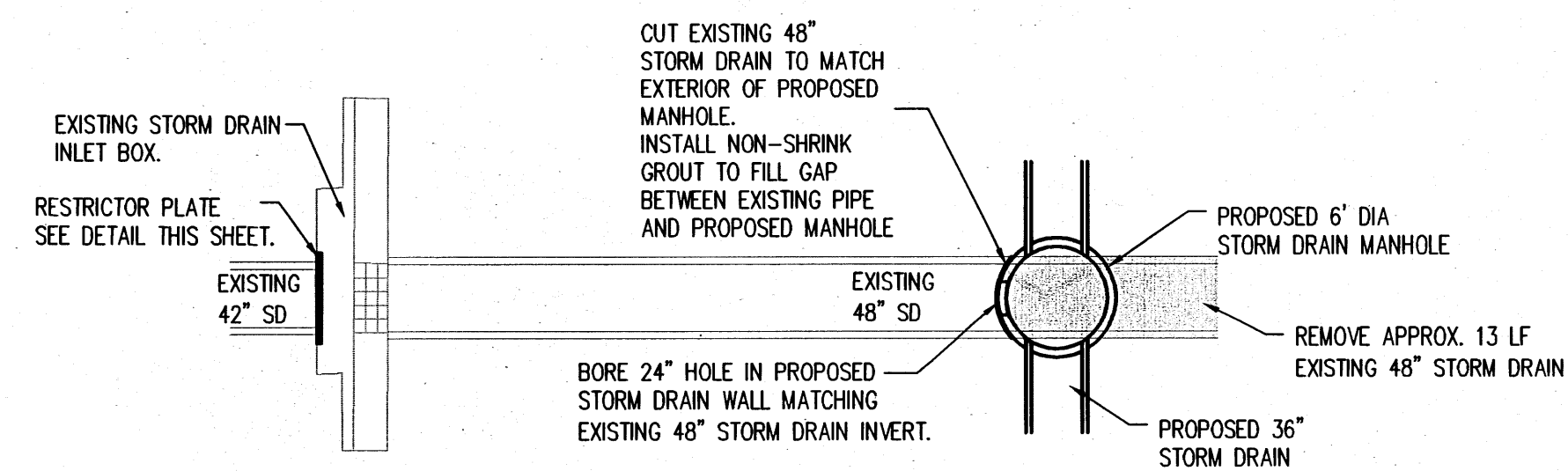
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REGISTERED PROFESSIONAL ENGINEER

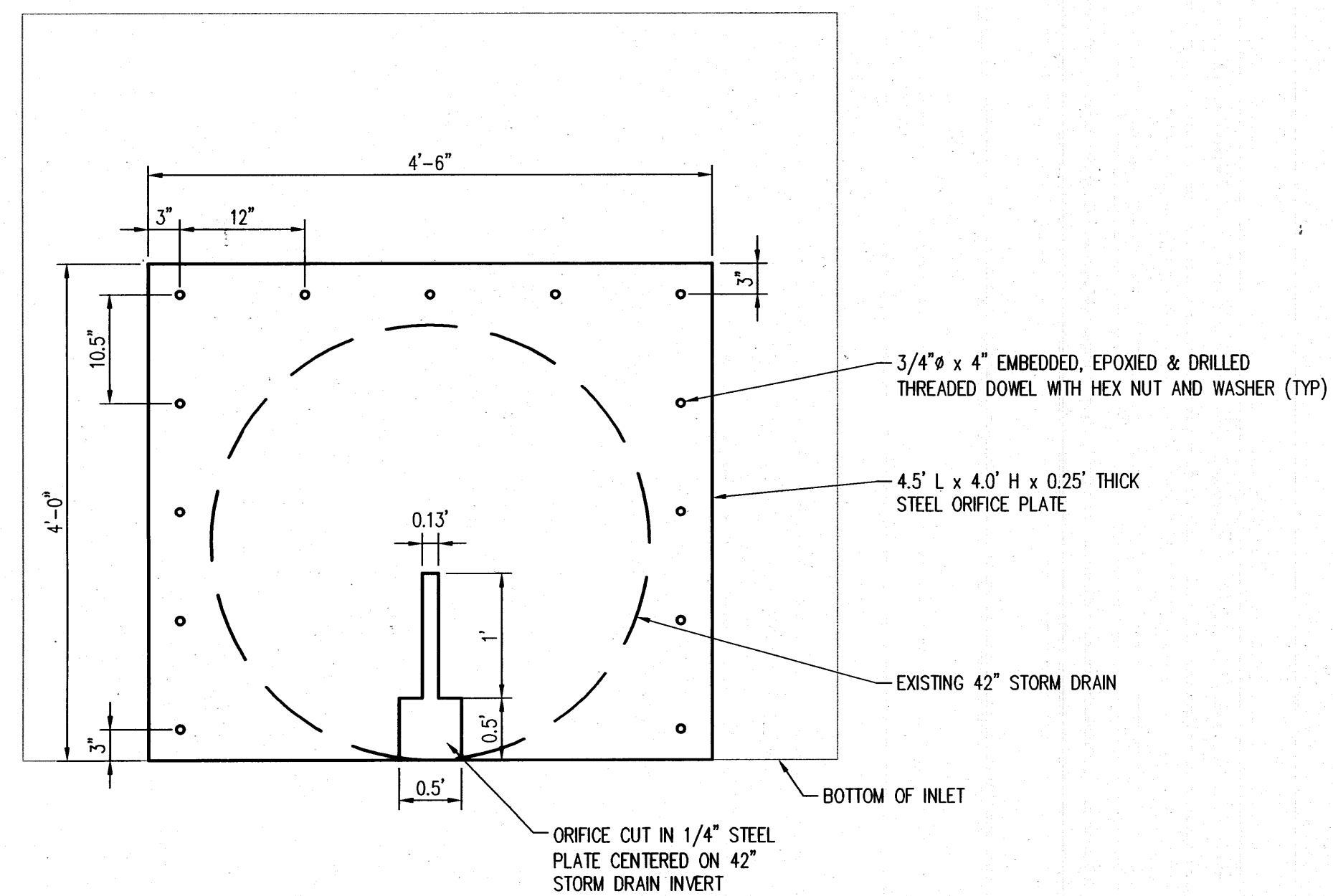
DESIGNED BY: SUS DATE: 10/2012

DRAWN BY: DH DATE: 10/2012

CHECKED BY: SUS DATE: 10/2012



A STORM DRAIN DETAIL
NOT TO SCALE



B ORIFICE PLATE DETAIL
NOT TO SCALE

Bohannon & Huston



CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT

THE TRAILS UNIVERSE STORM DRAIN
MISCELLANEOUS PAVING DETAILS
DRAINAGE 7/1/13 SUS

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
APPROVED JUL 9 2013 DESIGN REVIEW COMMITTEE	APPROVED JUL 9 2013 CITY ENGINEER		

City Project No.	Zone Map No.	Sheet	Of
761283	C-9 / D-9	9	9

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS-BUILT INFORMATION	
		FIELD NOTES		ACCS BRASS TABLET STAMPED "7-C10"		CONTRACTOR	
		NO.	DATE	GEOGRAPHIC POSITION (NAD 83)		STAMPED BY	DATE
				N.M. STATE PLANE COORDINATES (CENTRAL ZONE)		INSPECTOR'S	DATE
				X = 1,499,200.29 Y = 1,521,836.43		FIELD	DATE
				GROUND-TO-GRID FACTOR = 0.999667290		MODIFICATION BY	DATE
				Delta = -00'16"20"		COMPLETED BY	DATE
						RECORDED BY	DATE
						NO.	NO.