

CONSTRUCTION PLANS
FOR
KELLER COURT
IMPROVEMENTS
LOTS 1 Thru 3

(IMPROVEMENTS WITHIN THE CITY OF ALBUQUERQUE)

PUBLIC WATER & SANITARY SEWER EXTENSION,
& SERVICES, AND PRIVATE ROADWAY IMPROVEMENTS

INDEX

SHEET NO.

TITLE

1

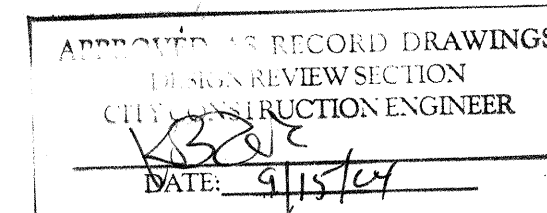
COVER SHEET

2

GRADING & DRAINAGE PLAN

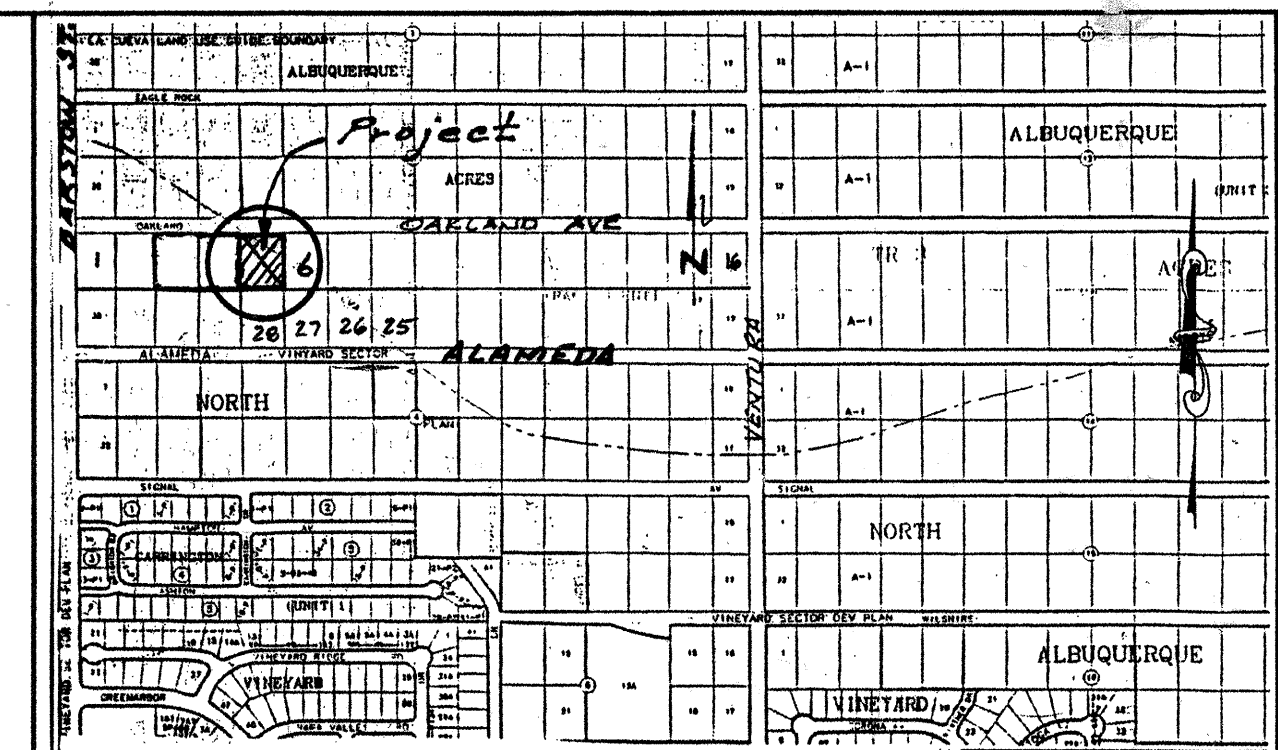
3 & 4

ROADWAY, WATER, AND SANITARY
SEWER PLAN & PROFILES



CITY OF
Albuquerque
NEW MEXICO — USA

AS-CONSTRUCTED
I, PHILIP W. CLARK, OF CLARK CONSULTING ENGINEERS, A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF NEW MEXICO, DO HEREBY CERTIFY TO THE BEST OF MY KNOWLEDGE AND BELIEF THAT THE INFRASTRUCTURE INSTALLED AS PART OF THIS PROJECT HAS BEEN OBSERVED BY ME OR BY A QUALIFIED PERSON UNDER MY DIRECT SUPERVISION AND HAS BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS APPROVED BY THE CITY ENGINEER, AND THAT THE ORIGINAL DESIGN INTENT OF THE APPROVED PLANS HAS BEEN MET, EXCEPT AS NOTED BY ME ON THE AS-BUILT CONSTRUCTION DRAWINGS. THIS CERTIFICATION IS BASED ON THE INSPECTIONS PROVIDED BY ME OR PERSONNEL UNDER MY DIRECTION AND SUPERVISION.
PHILIP W. CLARK
N.M.P.E. # 10204



VICINITY MAP C-20

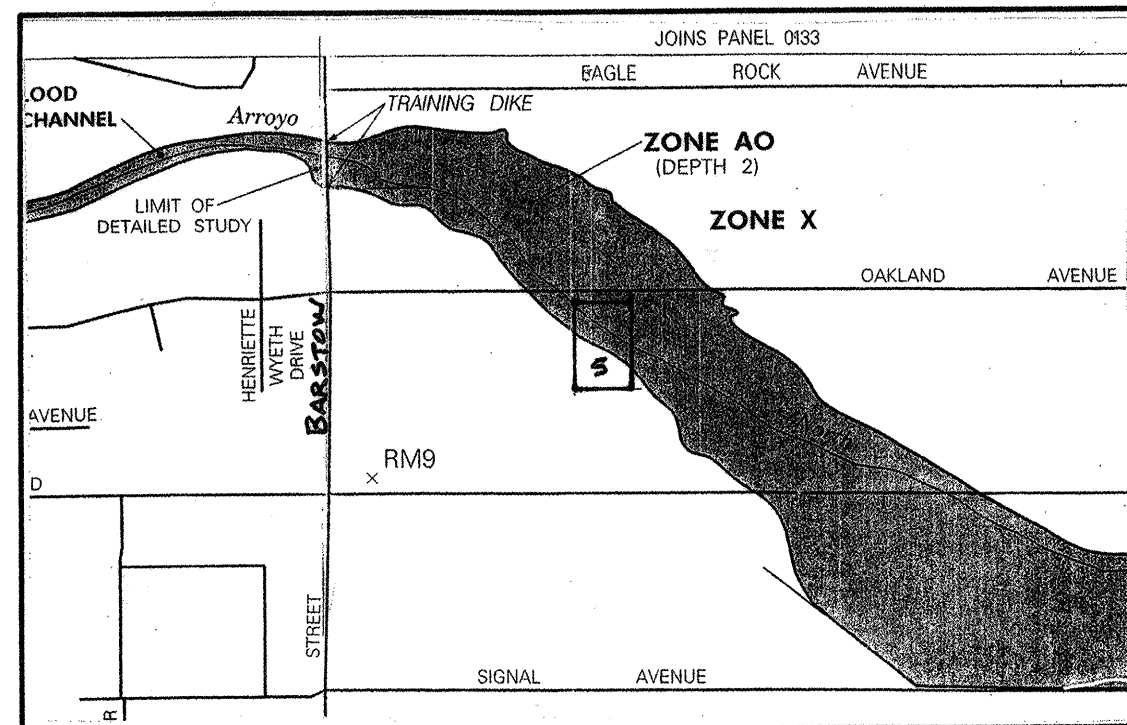
GENERAL NOTES

1. 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 AMENDED THRU UPDATE #6), AND CITY STANDARD DRAWINGS.
2. ALL WORK PERFORMED ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
3. CONTRACTOR SHALL NOTIFY AND COORDINATE ALL CONSTRUCTION TWO WEEKS PRIOR TO START WITH THE FOLLOWING UTILITIES: WEST COMMUNICATIONS, PUBLIC SERVICE CO. OF NEW MEXICO, GAS AND ELECTRIC SERVICES. (PNM)
4. CONTRACTOR SHALL MAINTAIN ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION.
5. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NM ONE-CALL SYSTEM, 260-1990, FOR LOCATION OF EXISTING UTILITIES.
6. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR SURVEYOR SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
7. TACK COAT REQUIREMENTS SHALL BE DETERMINED BY THE ENGINEER.
8. FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO THE COORDINATION DIVISION, A DETAILED CONSTRUCTION SCHEDULE REGARDING TRAFFIC CONTROL. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM SAME DIVISION. CONTRACTOR SHALL NOTIFY THE BARRICADE ENGINEER (924-3400) PRIOR TO OCCUPYING AN INTERSECTION, AS PER SECT. 19 OF THE SPECIFICATIONS.
9. ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED BY THE CONTRACTOR TO EXISTING LOCATION.

- ☒ ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING
☒ BACKFILL COMPACTION SHALL BE ACCORDING TO SPECIFIED STREET USE

Clark Consulting Engineers
19 Ryan Road Edgewood, New Mexico 87015
(505) 281-2444 FAX (505) 281-2444

REV	SHEET	CITY ENGINEER	DATE	USER DEPT.	DATE	USER DEPT.	DATE
ENGINEERS STAMP & SIGNATURE							
APPROVALS		ENGINEER		DATE		APPROVED FOR CONSTRUCTION	
DRC Chairman		[Signature]		6-26-03		[Signature] 7/11/03	
Transportation		[Signature]		6/23/03		[Signature]	
Water/Wastewater		[Signature]		6/23/03		[Signature]	
Hydrology		[Signature]		6-23-03		[Signature]	
Parks		[Signature]		[Signature]		[Signature]	
Constr. Mgmt.		[Signature]		[Signature]		[Signature]	
Constr. Coord.		[Signature]		6-26-03		[Signature]	
City Project No.				Sheet			
7146.81				1 OF 4			



FIRM MAP PANEL # 141 E

SCANNED BY
MESA REPRO

GRADING & DRAINAGE PLAN

THE RESIDENTIAL HOME PROJECT IS LOCATED IN UNIT 3 OF NORTH ALBUQUERQUE ACRES APPROXIMATELY 11 MILES FROM THE DOWNTOWN CORE OF ALBUQUERQUE, NM. THE GRADING AND DRAINAGE SCHEME HEREON IS IN COMPLIANCE WITH THE BERNALILLO COUNTY FLOOD HAZARD ORDINANCE, NO. 88-46, AND CITY STORM DRAINAGE ORDINANCE. THE PLAN IS REQUIRED IN ORDER TO FACILITATE THE OWNER'S REQUEST FOR BUILDING PERMIT. THE PLAN SHOWS:

- EXISTING CONTOURS, SPOT ELEVATIONS, AND EXISTING DRAINAGE PATTERNS.
- PROPOSED IMPROVEMENTS: RESIDENTIAL HOME, NEW PERIMETER SOLID WALL, GRAVEL DRIVEWAY, AND NEW GRADE ELEVATIONS.
- CONTINUITY BETWEEN EXISTING AND PROPOSED ELEVATIONS.
- QUANTIFICATION AND ACCEPTANCE OF UPSTREAM OFFSITE FLOWS WHICH CONTRIBUTE TO THE DEVELOPED FLOWS GENERATED BY THE IMPROVEMENTS.
- UPSTREAM ANALYSIS AS TO WATER SURFACE MODEL AND EROSION SETBACK.

THE PURPOSE OF THE PLAN IS TO ESTABLISH CRITERIA FOR CONTROLLING STORM RUNOFF AND EROSION, AND ESSENTIALLY ALLOWING HISTORIC FLOWS TO CONTINUE TO DRAIN THROUGH THE PROPERTY. PRESENTLY, THE SITE IS BOUNDED ON THE EAST BY UNDEVELOPED PROPERTY. OAKLAND COURT SUBDIVISION TO THE WEST IS A RECENTLY APPROVED CITY SUBDIVISION. UNDER CONSTRUCTION. OAKLAND AVENUE ON THE NORTH IS AN UNIMPROVED, GRAVEL ROADWAY ALONG THE PROJECT FRONTAGE. THE SITE GENERALLY FALLS FROM EAST TO WEST AT 4%. ALL OFFSITE FLOWS ARE QUANTIFIED ON THE PLAN, AND ADDRESSED IN THE CALCULATIONS.

A PORTION OF THE SITE IS ENCOMBERED BY A DESIGNATED FEMA FLOODPLAIN.

HISTORICAL SITE RUNOFF OUTFALL LOCATIONS WILL REMAIN UNCHANGED IN DEVELOPMENT. SINCE OAKLAND IS NOT IMPROVED MINIMAL GRADING IS PROPOSED WITHIN THE CITY R.O.W. FREE DISCHARGE OF DEVELOPED FLOW IS ACCEPTABLE SINCE DOWNSTREAM CAPACITY (LA CUEVA "NOR ESTE" CHANNEL) EXISTS.

DESIGN CRITERIA

HYDROLOGIC METHODS PER SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL (DPM) REVISED JANUARY 1993 FOR CITY OF ALBUQUERQUE, ADOPTED BY THE COUNTY OF BERNALILLO
DISCHARGE RATE: $Q = Q_{PEAK} \times AREA$. "Peak Discharge Rates For Small Watersheds"
VOLUMETRIC DISCHARGE: $VOLUME = E_{WEIGHTED} \times AREA$
 $P_{100} = 2.60$ inches, Zone 3 Time of Concentration, $TC = 10$ Minutes
DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [] = 10 YEAR VALUES

EXISTING CONDITIONS

18% B, 82% A
PROJECT AREA = 0.89 ACRES, WHERE EXCESS PRECIP. "Weighted" = 0.71 in. [0.22]
PEAK DISCHARGE, $Q_{100} = 1.8$ CFS [1.06], WHERE UNIT PEAK DISCHARGE "A" = 1.9 CFS/AC. [0.60]
THEREFORE: $VOLUME_{100} = 2294$ CF [711]
"B" = 2.60 CFS/AC. [1.19]

DEVELOPED CONDITIONS DETERMINE LAND TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE FOR STUDY AREA

AREA	LAND TREATM'T	Q_{Peak}	E
UNDEVELOPED	0.35 Ac.	A	1.87[0.58]
LANDSCAPING - 10% SL	0.20 Ac.	B	2.60[1.19]
COMPACTED SOIL & Slopes >	0.21 Ac.	C	3.45[2.00]
ROOF - PAVEMENT	0.13 Ac.	D	5.02[3.39]
	0.89 Ac.		2.36[1.50]

THEREFORE: $E_{Weighted} = 1.12$ in. [0.52] &
 $Q_{100} = 2.6$ CFS
 $Q_{10} = 1.3$ CFS
VOLUME 100 = 3618 CF
VOLUME 10 = 1680 CF

UNIT DISCHARGE = 2.6 CFS/0.89 AC. = 2.92 CFS/AC.

- UPSTREAM ANALYSIS - SEE HEC-RAS WATER SURFACE MODEL OF LA CUEVA, ON FILE WITH CITY HYDROLOGY (Ref. C-20/D35)

PER RTI STUDY, $Q_{100} = 2796$ CFS AT VENTURA ST.

EROSION SET BACK ANALYSIS - PER SEDIMENT EROSION DESIGN GUIDE (SEDG)

$Q_{100} = 2850$ CFS...LA CUEVA ARROYO
 $Q_{10} = 570$ CFS $W_D = 4.6$ FEET
 $Q_{10} = 0.29$ FEET

LAMDA = $[0.8 + 4 \log Q_{10}] W_D = 685$ FEET

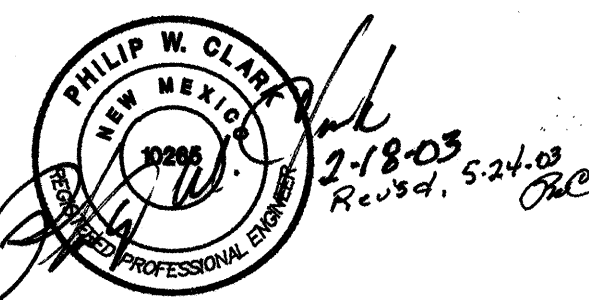
BANK SETBACK = $LAMDA/4 = 171$ FEET

CENTER LINE SETBACK = $BSB + W_D/2 = 200$ FEET

I, PHILIP W. CLARK, A PROFESSIONAL ENGINEER LICENSED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT I HAVE VISITED THE SITE SHOWN HEREON, AND THAT THE CONTOURS SHOWN REPRESENT THE EXISTING GROUND CONDITIONS, AND DO FURTHER CERTIFY THAT NO EARTHWORK OF ANY KIND, NOR ANY DISTURBANCE OF THE EXISTING GROUND HAS OCCURRED ON THIS SITE SINCE THE CONTOURS WERE DETERMINED.

2-18-03
PHILIP W. CLARK NMPE #10265

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
26 71 46.81 0204



PROJECT DATA

LEGAL DESCRIPTION

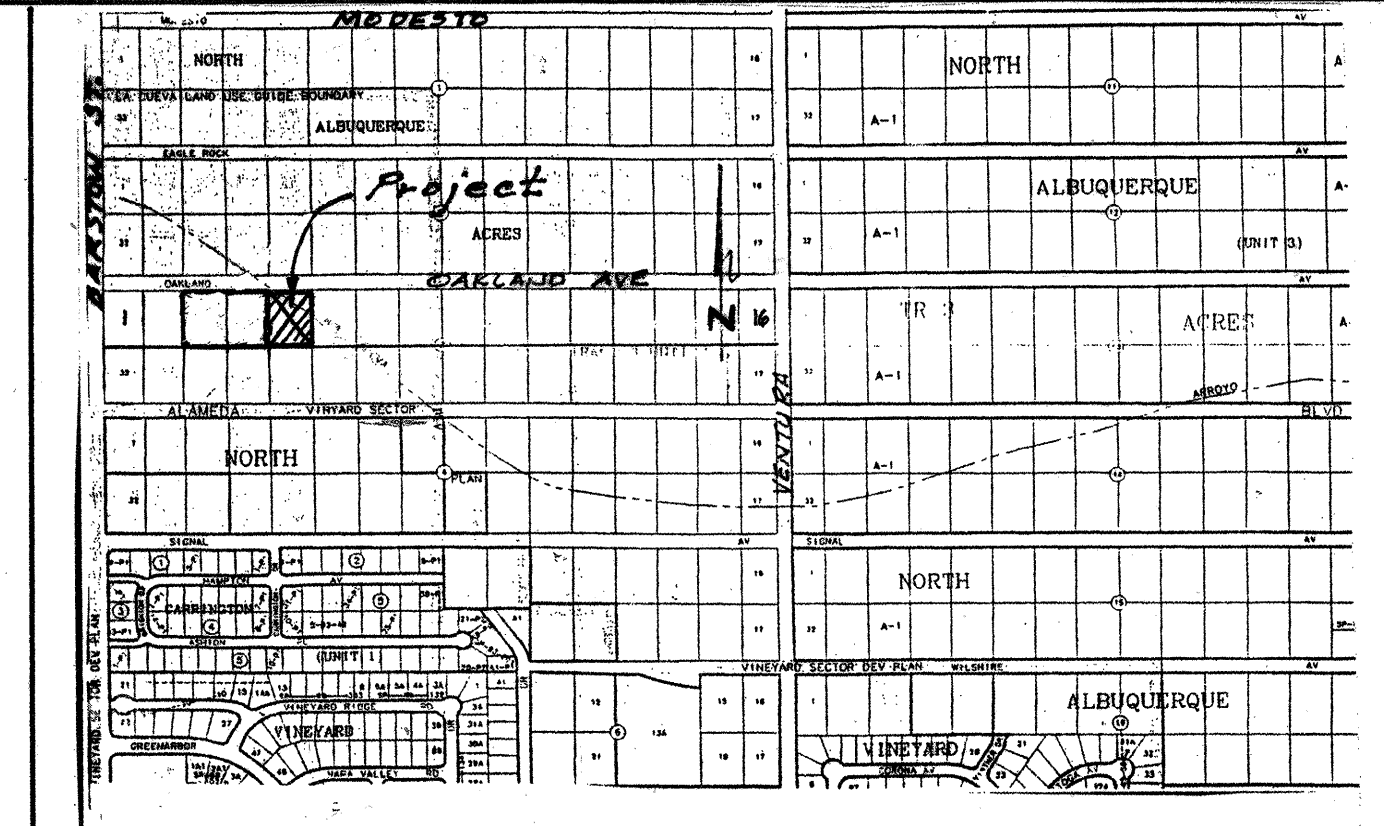
LOT 5, BLOCK 3, TRACT 3, UNIT 3
NORTH ALBUQUERQUE ACRES, ALBUQUERQUE, NEW MEXICO

PROJECT BENCHMARK

THE BASIS OF ELEVATIONS FOR THIS SURVEY IS ACS BENCHMARK 1-B20, ELEVATION OF WHICH IS 5474.51. BENCHMARK IS LOCATED AT THE INTERSECTION OF BARSTOW ST. AND MODESTO AVE.

TOPOGRAPHIC DESIGN SURVEY

COMPILED BY CLARK CONSULTING ENGINEERS FROM DESIGN SURVEY BY PHILIP W. TURNER P.S., DATED JANUARY 2003



VICINITY MAP ZONE C-20

NOTES

- ALL WORK WITHIN THE RIGHT-OF-WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECS. FOR PUBLIC WORKS CONSTRUCTION, 6TH EDITION W/UPDATES.
- AN EXCAVATION/CONSTRUCTION PERMIT IS REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY R.O.W. AN APPROVED COPY OF THIS PLAN MUST BE SUBMITTED AT THE TIME OF APPLICATION.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEDIMENT OR SILT ENTER THE RIGHT-OF-WAYS DURING CONSTRUCTION.
- AREAS DISTURBED DUE TO CONSTRUCTION PER CITY OF ALBUQ. SPEC. 1011, NATIVE SEED MIX.
- MAXIMUM SITE GRADING WITHOUT EROSION PROTECTION: 3 HORIZONTAL TO 1 VERTICAL, 3:1. ALL DIMENSIONS TO FACE OF CURB, UNLESS NOTED OTHERWISE.

LEGEND

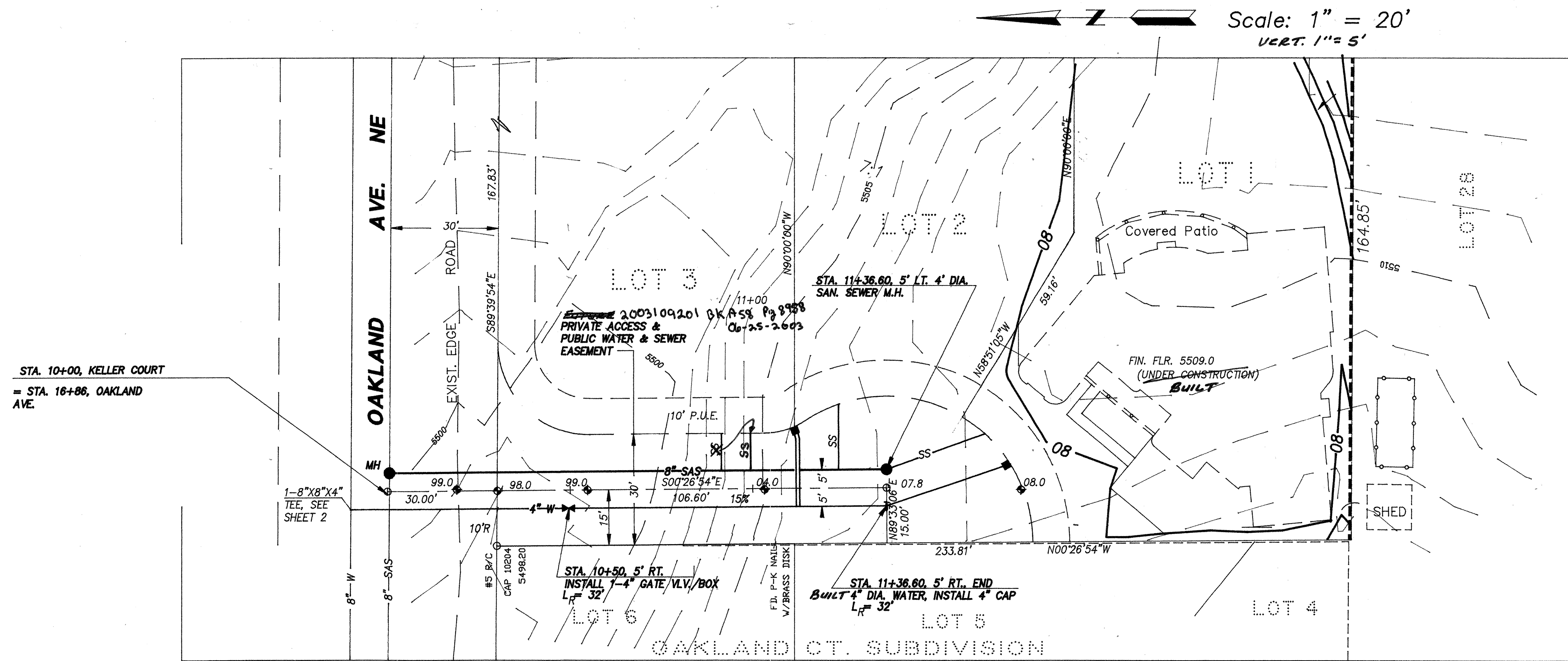
- +24.0 EXIST. SPOT ELEVATION
- 10 EXIST. CONTOUR
- 24.0 NEW SPOT ELEVATION
- 12 NEW CONTOUR
- EXIST. CURB & GUTTER
- NEW SWALE
- DRAINAGE DIRECTION, EXISTING
- 05 SG FUTURE PAD ELEVATION
- TA NEW P.C.C. CONCRETE
- TC OR BC TOP OF ASPHALT, EXISTING
- FL TOP OF CURB
- PP FLOWLINE
- EXISTING POWER POLE
- BLOCK WALL, EXIST.

NOTE:
BIFURCATION
Split @ S.E. CORNER LOT 7

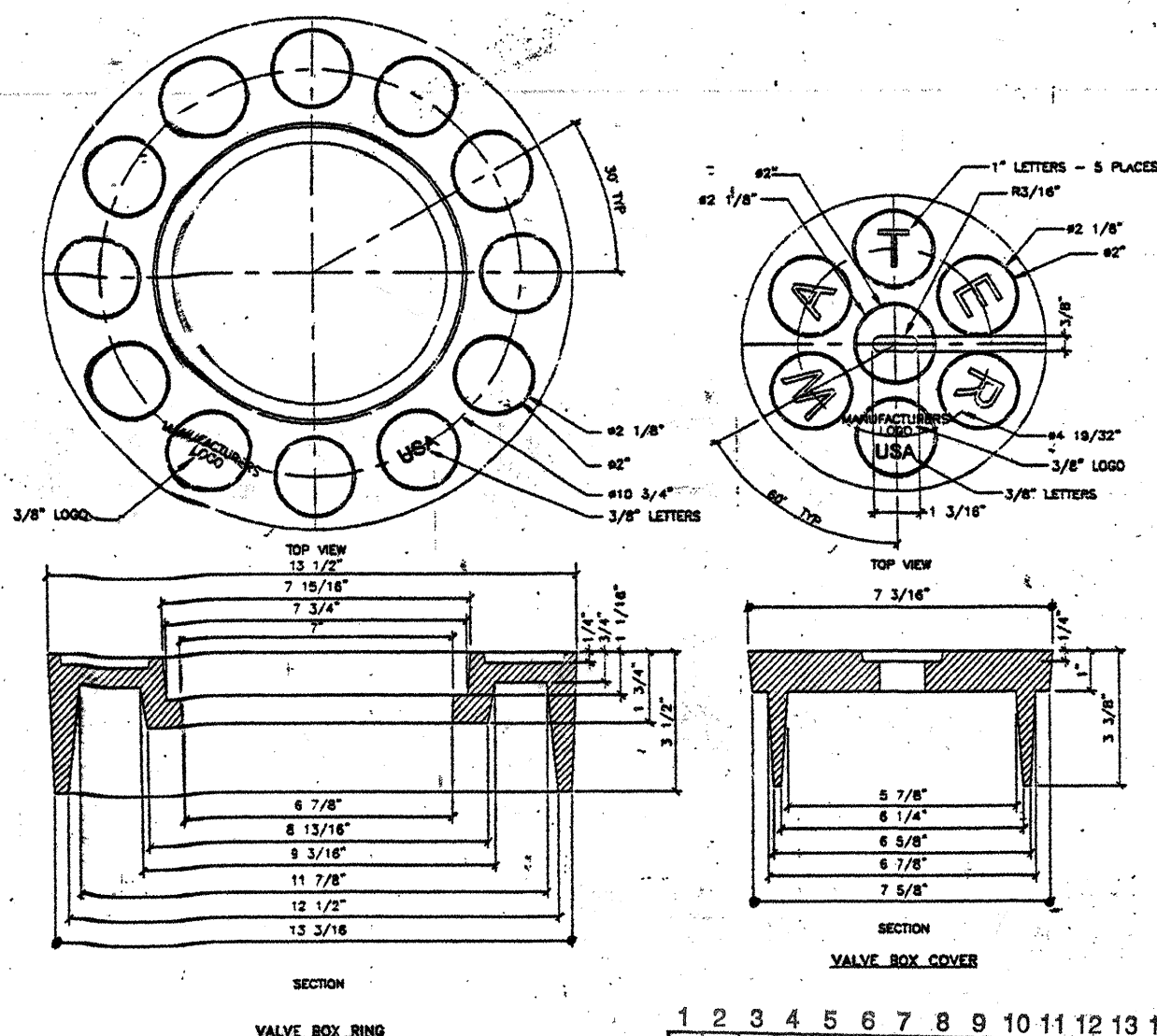
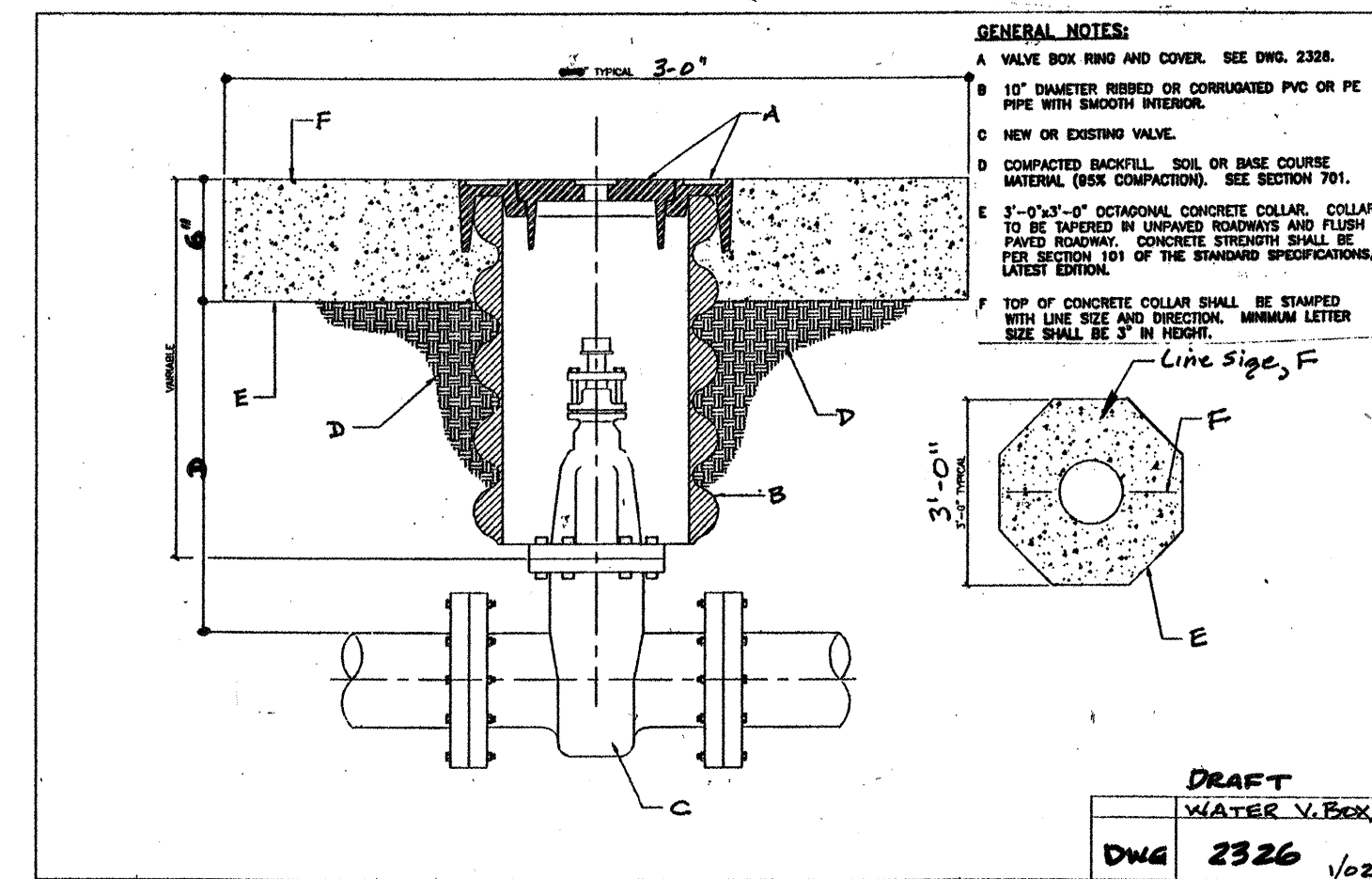
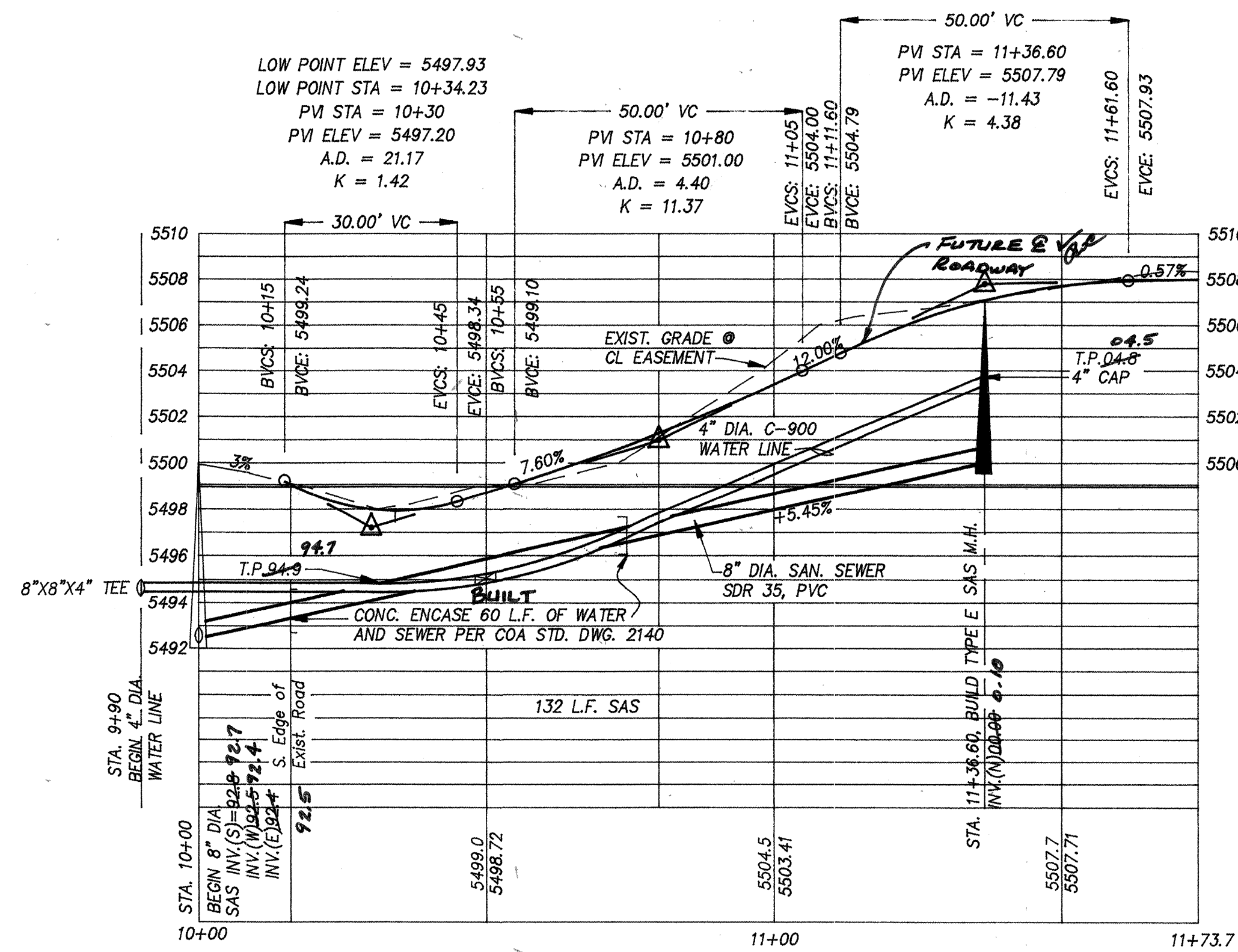
Clark Consulting Engineers 19 Ryan Road Edgewood, New Mexico 87015 Tel: (505) 281-2444 Fax: (505) 281-2444	
DATE	REVISION
5-29-03	Added Future Lots/Easements
LOT 5, BLK. 3, TR. 3, UNIT 3 NORTH ALBUQ. ACRES, ALBUQ. NEW MEXICO 8550 Oakland N.E. Grading & Drainage Plan	
DESIGNED BY: PWC	DRAWN BY: CCE
CHECKED BY: PWC	DATE: 2/15/03
JOB #: Kell.Ct.	FILE #: G/D
SHEET 2 OF 4	

714681

SCANNED BY
MESA REPRO



KELLER COURT NE



NOTES:

1. ALL METER BOXES SHALL BE INSTALLED WITH HEAVY WEIGHT COVER AND LIDS PER COA STD DWG. 2369
2. ALL WATER VALVE BOXES, RINGS, AND COVERS SHALL BE INSTALLED PER COA STD DWGS. 2326 & 2328, (JAN. 2002, DRAFT) RESPECTIVELY. (LATEST REV.)

WATER SERVICES		
LOT	STA.	OFFSET
1	11+70.5, 6.3' LT.	
2/3	11+158, 16.7' LT.	

SAN. SEWER SERVICES			
LOT	STA.	INVERT	Ø PL
1	11+63.6, 14.5' LT.	04.0	
2	11+23.5, 22.8' LT.	00.2	
3	10+02, 15' LT.	99.0 012	

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19 Ryan Road
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CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

PRIVATE ROADWAY, WATER AND SANITARY SEWER LINE
KELLER COURT IMPROVEMENTS - PLAN & PROFILE

Design Review Committee 		City Engineer Approval 		Last Design Update <table border="1"> <thead> <tr> <th>Mo./Day/Yr.</th> </tr> </thead> <tbody> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </tbody> </table>	Mo./Day/Yr.						<table border="1"> <thead> <tr> <th>Mo./Day/Yr.</th> </tr> </thead> <tbody> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td> </td></tr> </tbody> </table>	Mo./Day/Yr.					
Mo./Day/Yr.																	
Mo./Day/Yr.																	
City Project No. 7146.81		Zone Map No. C-20		SHEET 4 OF 4													

AS-BUILT INFORMATION

BENCH MARKS

SURVEY INFORMATION

ENGINEER'S SEAL

[illegible]

	Mr
0	\$

• Sept. 5, 2003 by Philip W. Turner, P.S.
Contractor: Straightline Util., L.L.C.

A STANDARD CITY OF ALBUQUERQUE ALUMINUM DISK IN
OF CURB OF CONCRETE PEDESTAL AT THE INTERSECTION
BARSTOW ROAD AND MODESTO AVE. STAMPED 1-B20,
MEAN SEA LEVEL ELEVATION = 5474.51, 1929 DATUM.

FROM TOPOGRAPHIC SURVEY PERFORMED BY
PHILIP W. TURNER P.S., DATED 4/13/03

[illegible]

E MENT GROUP	
RY SEWER LI c PROFILE	
Day/Yr.	Mo./

SHEET 4 OF