

ABBREVIATIONS

A	=	AIR LINE
AD	=	AREA DRAIN
AIP	=	ABANDONED IN PLACE
BLDG	=	BUILDING
BM	=	BENCHMARK
CATV	=	CABLE TELEVISION LINE
CIP	=	CAST IRON PIPE
CMP	=	CORRUGATED METAL PIPE
CMPA	=	CORRUGATED METAL PIPE ARCH
CO	=	CLEANOUT
COA	=	CITY OF ALBUQUERQUE
CONC	=	CONCRETE
CL	=	CENTERLINE
DIA	=	DIAMETER
DIP	=	DUCTILE IRON PIPE
DTL	=	DETAIL
DWG	=	DRAWING
EG	=	EXISTING GRADE
ELEC.	=	ELECTRIC
ELEV	=	ELEVATION
EX	=	EXISTING
FF	=	FINISHED FLOOR ELEVATION
FG	=	FINISHED GRADE
FH	=	FIRE HYDRANT
FL	=	FLOW LINE
G	=	GAS PIPE
GM	=	GAS METER
GV	=	GATE VALVE
HI PT	=	HIGH POINT
INV	=	INVERT ELEVATION
LF	=	LINEAL FEET
LP	=	LIGHT POLE
L/S	=	LANDSCAPING
MH	=	MANHOLE
NG	=	NATURAL GROUND
OE	=	OVERHEAD ELECTRIC LINE
OT	=	OVERHEAD TELEPHONE LINE
PB	=	ELECTRICAL PULL BOX
PCC	=	PORTLAND CEMENT CONCRETE
PP	=	POWER POLE
PROP	=	PROPOSED
PVC	=	POLYVINYL CHLORIDE PIPE
RCP	=	REINFORCED CONCRETE PIPE
R/W	=	RIGHT-OF-WAY
S	=	SLOPE
SAS	=	SANITARY SEWER
SD	=	STORM DRAIN
STA	=	STATION
STD	=	STANDARD
SW	=	SIDEWALK
T	=	TELEPHONE
TA	=	TOP OF ASPHALT PAVEMENT
TAC	=	TOP OF ASPHALT CURB
TC	=	TOP OF CONCRETE SLAB (PAVEMENT)
TCC	=	TOP OF CONCRETE CURB
TS	=	TOP OF SIDEWALK
TW	=	TOP OF WALL
TYP	=	TYPICAL
UE	=	UNDERGROUND ELECTRIC
UT	=	UNDERGROUND TELEPHONE
W	=	WATER
WM	=	WATER METER
WV	=	WATER VALVE

I, LARRY D. READ, PE of the firm of LARRY READ & ASSOC., INC.
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
inspected 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 site inspections by me or personnel under
my direction and survey information provided by Thomas D. JOHNSON, NMPS
number 14269.



KUMAIL SUBDIVISION

CITY OF ALBUQUERQUE, IMPROVEMENTS FOR PAVING, WATER, AND SANITARY SEWER

INDEX TO DRAWINGS

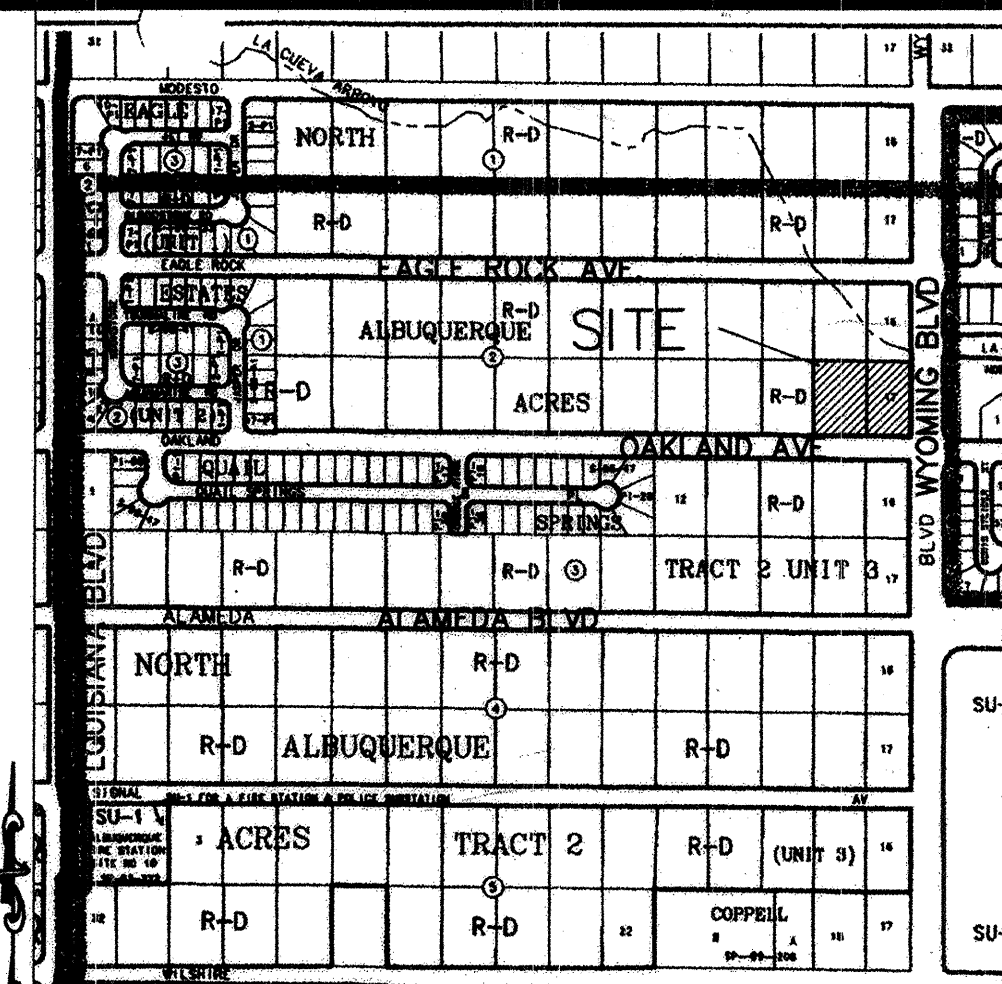
SHEET NO.	DESCRIPTION
1	COVER SHEET AND INDEX TO DRAWINGS
2	PLAT OF GEOMETRY
3	GRADING AND DRAINAGE PLAN
4	OAKLAND AVENUE PAVING PLAN AND PROFILE
5	KUMAIL COURT PAVING PLAN AND PROFILE AND DETAILS
6	OAKLAND AVENUE UTILITY PLAN AND PROFILE
6A	SEWER REVISION PLAN AND PROFILE
7	KUMAIL COURT UTILITIES

LEGEND

=====	NEW CURB AND GUTTER & SIDEWALK	⊙	EX SAS MANHOLE	—8" SAS—	PROPOSED SANITARY SEWER LINE
=====	EX CURB AND GUTTER & SIDEWALK	⊙	PROP SAS MANHOLE		EX SANITARY SEWER LINE
•	PROP FIRE HYDRANT	⊙	PROP WATER METER	—NEW 6" W—	PROPOSED WATER LINE
⋈	PROP WATER VALVE	—S—	PROPOSED SANITARY SEWER SERVICE	—8"W—	EX WATER LINE
---	PROPERTY LINE		(S 83°39'25" W)		RECORD BEARING AND DISTANCES
⊙	PROP STREET LIGHT		N 00°07'27" W		MEASURED BEARING AND DISTANCES

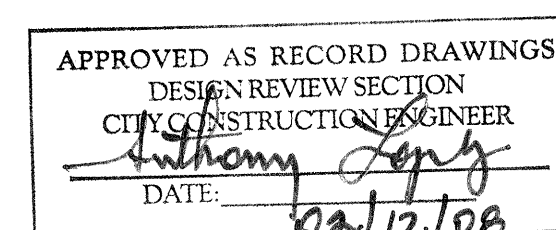
GENERAL NOTES

- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION THROUGH MOST RECENT UPDATE (UPDATE #7) AND WILL BE REFERRED TO HEREIN AS "STANDARD SPECIFICATIONS".
- ALL CONSTRUCTION WITHIN CITY RIGHT-OF-WAY OR EASEMENTS MUST BE DONE FROM APPROVED WORK ORDER DOCUMENTS FROM THE CITY.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, ORDINANCES, RULES, AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- CONTRACTOR AGREES THAT HE SHALL ASSUME THE SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD HARMLESS THE OWNER AND ENGINEER FROM ANY AND ALL LIABILITY REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPT LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
- ALL EXCAVATION, TRENCHING, AND SHORING ACTIVITIES MUST BE ACCOMPLISHED IN ACCORDANCE WITH OSHA 29CFR 1926.650 SUBPART P.
- AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
- CONTRACTOR SHALL SECURE A "TOPSOIL DISTURBANCE PERMIT" PRIOR TO BEGINNING CONSTRUCTION (IF REQUIRED BY CITY OF ALBUQUERQUE PUBLIC WORKS).
- PERMIT REQUESTS MAY BE DENIED OR DELAYED DUE TO CONFLICTS WITH OTHER PROJECTS IN THE AREA.
- 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. ONLY THE CITY SURVEYOR SHALL REPLACE SURVEY MONUMENTS. 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 STANDARD SPECIFICATIONS SECTION 4.4.
- CONTRACTOR SHALL COORDINATE WITH WATER SYSTEMS DIVISION (857-8200) SEVEN (7) WORKING DAYS PRIOR TO ANY WORK THAT MAY AFFECT EXISTING CITY PUBLIC WATER OR SEWER UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR TIMING AND COORDINATION OF WATER SHUTOFF. EXISTING CITY VALVES TO BE OPERATED BY CITY PERSONNEL ONLY.
- FIVE (5) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION, CONTRACTOR SHALL SUBMIT TO CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION, CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (924-3400) PRIOR TO OCCUPYING AN INTERSECTION. REFER TO SECTION 19 OF STANDARD SPECIFICATIONS.
- CONTRACTOR SHALL DETERMINE IN ADVANCE OF HIS CONSTRUCTION IF OVERHEAD UTILITY LINES, SUPPORT STRUCTURES, POLES, GUYS, ETC. ARE AN OBSTRUCTION TO CONSTRUCTION OPERATIONS. IF ANY OBSTRUCTION TO CONSTRUCTION OPERATIONS IS EVIDENT, CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE APPROPRIATE UTILITY OWNER TO REMOVE OR SUPPORT THE UTILITY OBSTRUCTION. ANY COST ASSOCIATED WITH THIS EFFORT SHALL BE THE RESPONSIBILITY OF CONTRACTOR.
- PNM WILL PROVIDE AT NO COST TO THE CITY OR THE CONTRACTOR THE REQUIRED PERSONNEL FOR INSPECTION OR OBSERVATION DEEMED NECESSARY BY PNM WHILE THE CONTRACTOR IS EXPOSING PNM'S CABLES. HOWEVER, THE CONTRACTOR SHALL BE CHARGED THE TOTAL COST ASSOCIATED WITH REPAIRS TO ANY DAMAGED CABLES OR FOR ANY COST ASSOCIATED WITH SUPPORTING OR RELOCATING THE POLES AND CABLES DURING CONSTRUCTION.
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (260-1990) FOR LOCATION OF EXISTING UTILITIES.
- PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL PERTINENT EXISTING UTILITIES AND/OR OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
- EXISTING UTILITY LINE LOCATION ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. THE LOCATION OF ANY SUCH EXISTING LINES IS BASED UPON INFORMATION PROVIDED BY THE UTILITY COMPANY, THE OWNER, OR BY OTHERS, AND THE INFORMATION MAY BE INCOMPLETE OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES.
- THE ENGINEER HAS UNDERTAKEN NO FIELD VERIFICATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UNDERGROUND UTILITY LINES, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY, AND PRESERVE ANY AND ALL EXISTING UTILITIES.
- CONTRACTOR SHALL SUPPORT ALL EXISTING, UNDERGROUND UTILITY LINES WHICH, BECOME EXPOSED DURING CONSTRUCTION. PAYMENT FOR SUPPORTING WORK SHALL BE INCIDENTAL TO WATERLINE AND/OR SEWER LINE COSTS.



1"=600'±
VICINITY MAP C-19

- CONTRACTOR IS TO SUPPORT AND MAINTAIN THE INTEGRITY OF ALL UNDERGROUND TELEPHONE, ELECTRIC CABLES AND CABLE TELEVISION UTILITIES AT NO ADDITIONAL COST TO THE OWNER. CABLE IS TO BE SUPPORTED AT A MAXIMUM OF EVERY FIFTEEN (15) FEET. CONTRACTOR SHALL COORDINATE WITH AND MAKE NECESSARY PAYMENT (IF ANY) TO UTILITY OWNER FOR DE-ENERGIZATION OF CABLES OR SUPPORT OF CABLES BY THE UTILITY OWNER.
- CONTRACTOR SHALL ASSIST THE ENGINEER/INSPECTOR IN THE RECORDING OF DATA ON ALL UTILITY LINES AND ACCESSORIES AS REQUIRED BY THE CITY OF ALBUQUERQUE FOR THE PREPARATION OF "AS CONSTRUCTED" DRAWINGS. CONTRACTOR SHALL NOT COVER UTILITY LINES AND ACCESSORIES UNTIL ALL DATA HAS BEEN RECORDED.
- ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING.
- ALL FINAL BACKFILL FOR TRENCHES SHALL BE COMPACTED TO A MINIMUM OF 90% MAXIMUM DENSITY PER ASTM D-1557 AND AS DIRECTED BY STANDARD SPECIFICATIONS SECTION 701.14.2 AND STANDARD DRAWING NUMBER 2315.
- CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY OR PRIVATE ROADWAY EASEMENTS SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET OR INTO ANY PUBLIC DRAINAGE FACILITY.
- REMOVALS SHALL BE DISPOSED OF OFF-SITE AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL DISPOSE OF ALL UNSUITABLE MATERIAL IN AN ENVIRONMENTALLY ACCEPTABLE MANNER AT A LOCATION ACCESSIBLE TO THE PROJECT MANAGER. THERE WILL BE NO DIRECT COMPENSATION FOR THIS WORK.
- CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN A MANNER WHICH WILL MINIMIZE INTERFERENCE WITH LOCAL TRAFFIC.
- ANY WORK AFFECTING AN ARTERIAL ROADWAY REQUIRES TWENTY-FOUR (24) HOURS OF CONSTRUCTION.
- ALL EXISTING SIGNS, MARKERS, DELINEATORS, ETC., WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED, STORED AND RE-SET BY THE CONTRACTOR.
- WHEN ABUTTING EXISTING PAVEMENT TO NEW, SAW CUT EXISTING PAVEMENT TO A STRAIGHT EDGE AND AT A RIGHT ANGLE, OR AS APPROVED BY THE FIELD ENGINEER. REMOVAL OF BROKEN OR CRACKED PAVEMENT WILL ALSO BE REQUIRED.
- REMOVAL OF EXISTING CURB AND GUTTER OR SIDEWALK SHALL BE TO THE NEAREST JOINT OR SAW CUT.
- AT HIS OWN EXPENSE, CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY DAMAGE TO EXISTING PAVEMENT, PAVEMENT MARKINGS, CURB AND GUTTER, HANDICAP RAMPS, AND SIDEWALK DURING CONSTRUCTION APART FROM THOSE SECTIONS INDICATED FOR REMOVAL ON THE PLANS AND SHALL REPAIR OR REPLACE, PER STANDARD SPECIFICATIONS.
- ALL STREET STRIPING, ALTERED OR DESTROYED, SHALL BE REPLACED WITH PLASTIC REFLECTORIZED PAVEMENT MARKINGS BY CONTRACTOR TO SAME LOCATION AS EXISTING, OR AS INDICATED BY THIS PLAN SET.
- CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORK SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY AND ALL GRAFFITI FROM EQUIPMENT, WHETHER PERMANENT OR TEMPORARY.
- ELECTRONIC MARKER DISKS (EMD) WILL BE PLACED ACCORDING TO SECTION 170 OF THE CITY OF ALBUQUERQUE STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THROUGH UPDATE #7.



LARRY READ & ASSOCIATES, Inc.
Civil Engineers
2430 Midtown Place NE Suite C
Albuquerque, New Mexico 87107
(505) 237-8421

DRB NO. 1003779

REV.	SHEETS	CITY ENGINEER	DATE	USER DEPT.	DATE	USER DEPT.	DATE
ENGINEER'S SEAL		APPROVALS		ENGINEER		DATE	
		DRC CHAIRMAN		11-7-05			
		TRANSPORTATION		10/24/01			
		WATER/WASTEWATER		10/14/05			
		HYDROLOGY		10/14/05			
		PARKS		11-7-05			
		CONSTR. COORD.					
PROJECT NO. 7153.82				SHEET 1 78			

PLAT OF
KUMAIL SUBDIVISION
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO

WITHIN THE ELENA GALLEGOS GRANT
PROJECTED SECTION 18, T. 11 N., R. 4 E., NMPM

SEPTEMBER 2005

COUNTY CLERK RECORDING LABEL HERE

BLOCK 2
TRACT 2 UNIT 3
NORTH ALBUQUERQUE ACRES
(filed September 10, 1931; Vol .D1, folio 20)

PUBLIC UTILITY EASEMENTS

Public Utility Easements shown on this plat are granted for the common and joint use of:
1. The PNM Electric Services Division for the installation, maintenance and service of overhead and underground electrical lines, transformers, poles and any other equipment, fixtures, structures and related facilities reasonably necessary to provide electrical service.
2. The PNM Gas Services Division for installation, maintenance, and service of natural gas lines, valves and any other equipment and facilities reasonably necessary to provide natural gas.
3. Qwest for installation, maintenance and service of such lines, cable and other related equipment and facilities reasonably necessary to provide communication services, including but not limited to above ground pedestals and closures.
4. Comcast Cable for installation, maintenance and service of such lines, cable and other related facilities reasonably necessary to provide Cable TV services.

Included, is the right to build, rebuild, construct, reconstruct, locate, Relocate, change, remove, modify, renew, operate and maintain facilities for the purposes described above, together with the free access to, from and over said easement, including sufficient working area space for electric transformers, with the right and privilege to trim and remove trees, shrubs or bushes which interfere with the purposes set forth herein. No building, sign, pool (above ground or subsurface), hot tub, concrete or wood pool decking, or other structure shall be erected or constructed on said easements, nor shall any well be drilled or operated thereon. Property owners shall be solely responsible for correcting any violations or National Electrical Safety Code caused by construction of pools, decking or any structures adjacent to within or near easements shown on this plat.

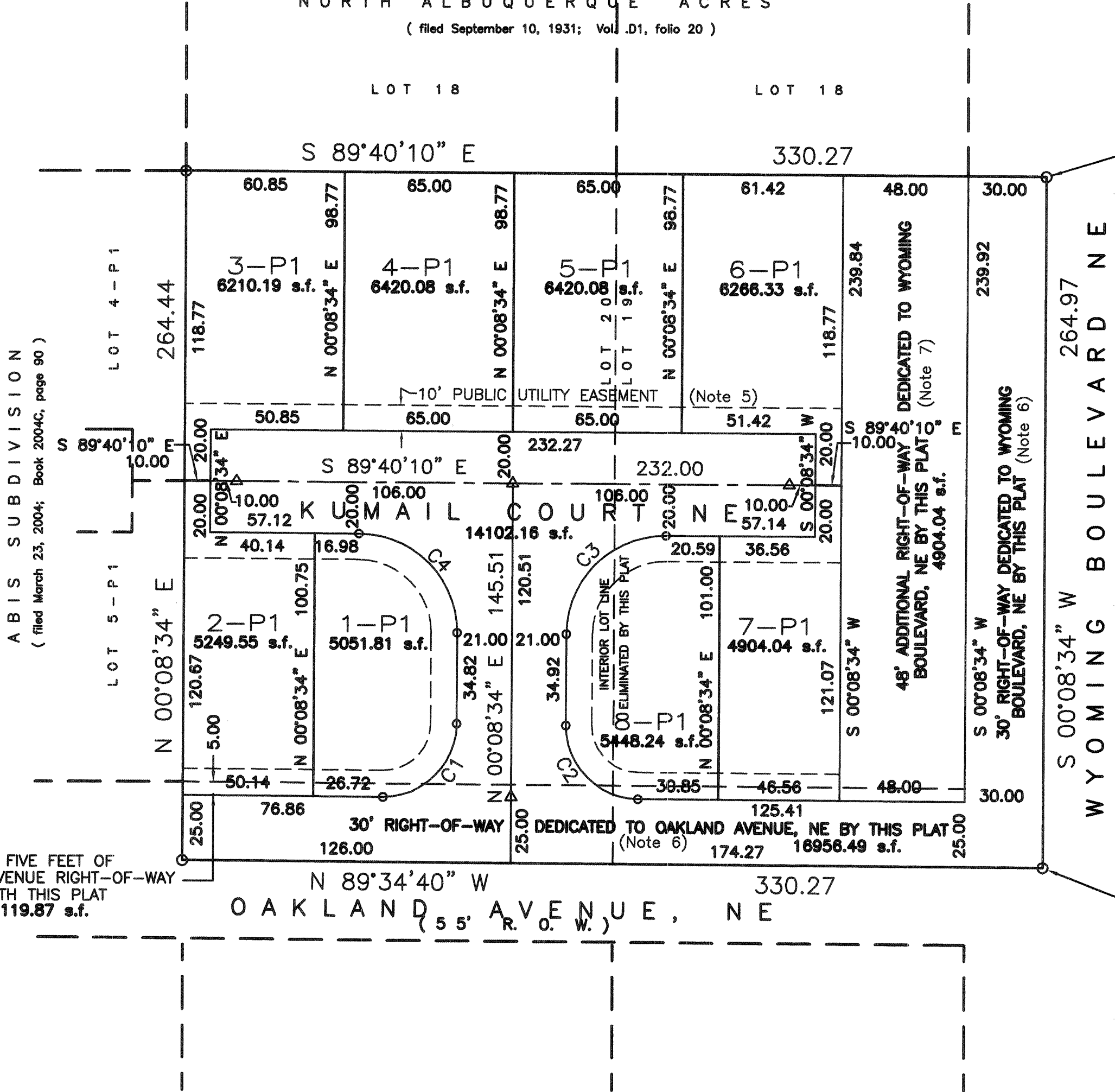
In approving this plat, the utility companies did not conduct a Title Search of the properties shown hereon. Consequently, the utility companies do not waive or release any easement or easement rights which may have been granted by prior plat, replat or other document and which are not shown on this plat.
Easements for electric transformers/switchgears, as installed, shall extend ten feet (10') in front of transformers/switchgear doors and five feet (5') on each side.

METAL TAGS STAMPED "WAYJOHN PS 14269" WERE ATTACHED TO ALL RECOVERED AND ACCEPTED BOUNDARY CORNERS.

BOUNDARY CORNERS RESET WERE SET WITH A 1/2" REBAR AND PLASTIC CAP STAMPED "WAYJOHN PS 14269"

NOTE: CENTERLINE (IN LIEU OF R/W) MONUMENTATION IS TO BE INSTALLED AT ALL CENTERLINE PC's, PT's, ANGLE POINTS AND STREET INTERSECTIONS AS SHOWN HEREON, AND WILL CONSIST OF A FOUR INCH (4") ALUMINUM ALLOY CAP STAMPED "CITY OF ALBUQUERQUE", "CENTERLINE MONUMENT", "DO NOT DISTURB", "PLS #14269".

NORTHERLY FIVE FEET OF OAKLAND AVENUE RIGHT-OF-WAY VACATED WITH THIS PLAT 1119.87 s.f.



ACS STA "1-B20"
X = 410237.56
Y = 1524092.46
G-G .99964740
Δα -00°10'23"
NEW MEXICO STATE PLANE
GRID COORDINATES, CENTRAL ZONE
NAD 1927

SCALE: 1 INCH = 50 FEET

ACS STA "7-C19"
X = 410171.36
Y = 1522006.02
G-G .999647055
Δα -00°10'24"
NEW MEXICO STATE PLANE
GRID COORDINATES, CENTRAL ZONE
NAD 1927

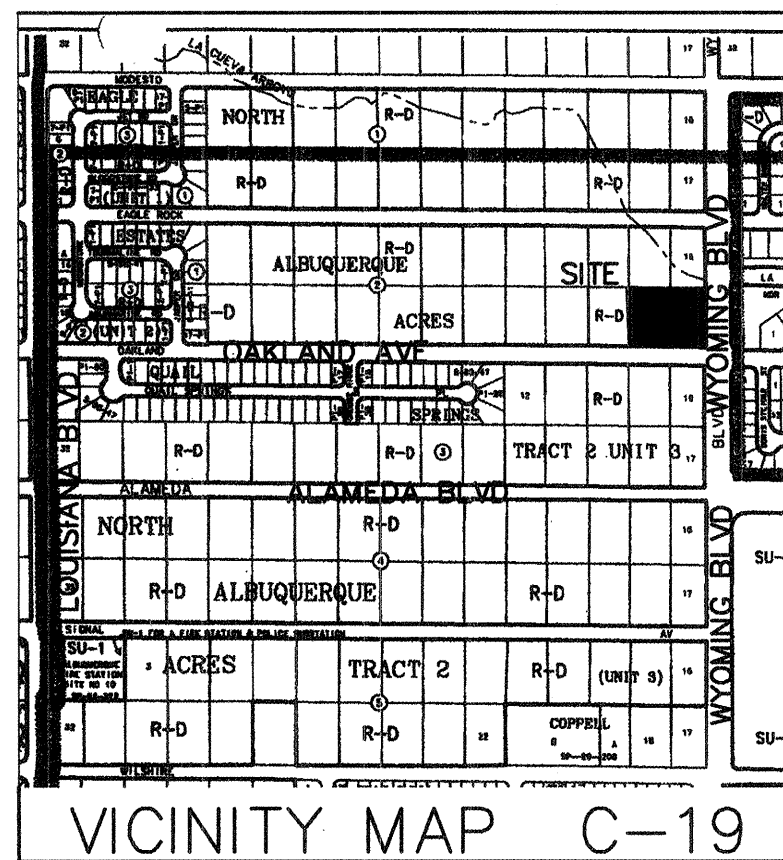
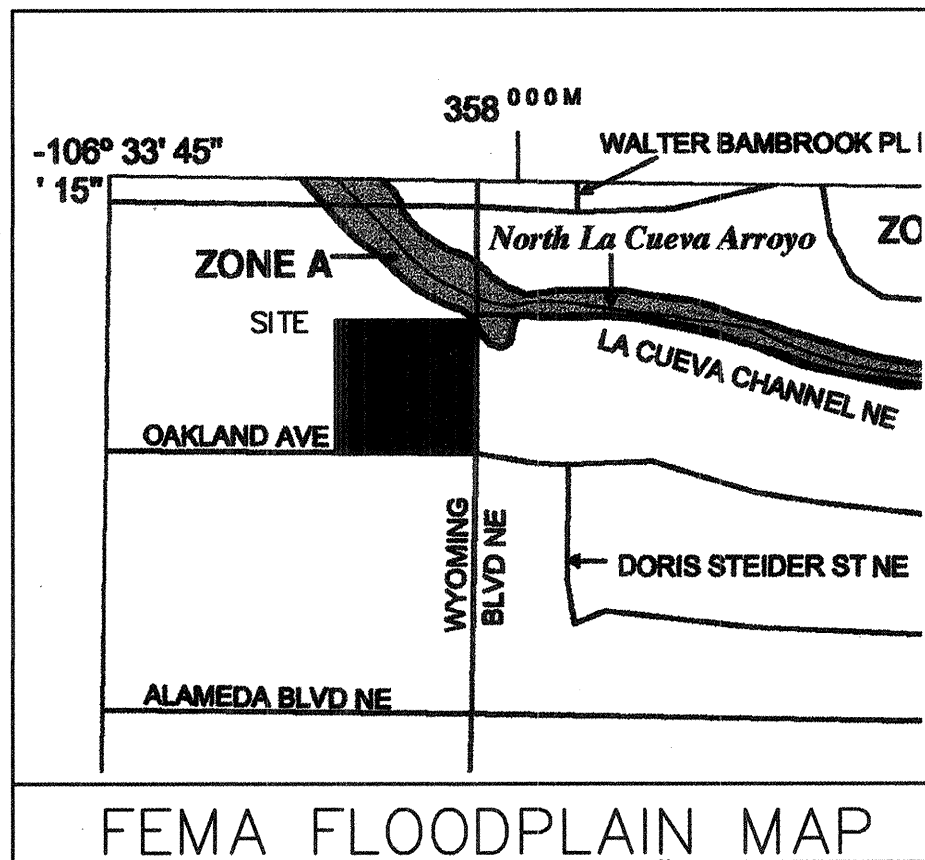
CURVES					
NUMBER	DELTA ANGLE	RADIUS	ARC LENGTH	CHORD DIRECTION	CHORD LENGTH
C1	90°16'46"	28.00	44.12	S 45°16'57" W	39.89
C2	89°43'14"	28.00	43.85	N 44°43'03" W	39.50
C3	90°11'16"	38.00	59.81	N 45°14'12" E	53.83
C4	89°48'44"	38.00	59.57	S 44°45'48" E	53.65



INDEXING INFORMATION FOR COUNTY CLERK
OWNER:
X
LOCATION: SECTION 21
T. 11 N., R. 4 E., N.M.P.M.
SUBDIVISION: KUMAIL SUBDIVISION

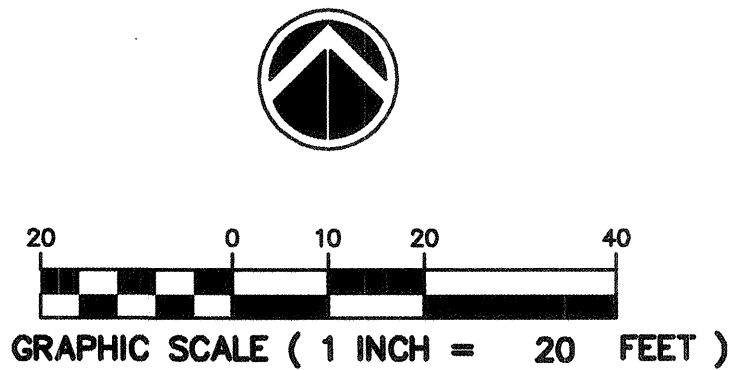
DRAWN: E W K
CHECKED: T D J
DRAWING NO. SP60305.DWG
SCALE: N/A
FILE NO. SP-6-03-2005
1 SEP 2005
SHEET 2 OF 2

330 LOUISIANA BLVD., N.E.
ALBUQUERQUE, N.M. 87108
PHONE: (505) 255-2052 FAX: (505) 255-2887



LOTS 17 AND 18, BLOCK 2, TRACT 2, UNIT 3, NORTH ALBUQUERQUE ACRES, BERNALILLO COUNTY, NEW MEXICO, AS THE SAME IS SHOWN AND DESIGNATED ON THE PLAT THEREOF, FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO, ON SEPTEMBER 10, 1931, IN PLAT BOOK D1, PAGE 20.

LEGAL DESCRIPTION



100-YEAR HYDROLOGIC CALCULATIONS

BASIN #	AREA (acre)	LAND TREATMENT				WEIGHTED E (in)	V (6-hr) (acre-ft)	V (10 day) (acre-ft)	Q (cfs)
		A (%)	B (%)	C (%)	D (%)				
EXISTING CONDITIONS									
BASIN #1	0.3798	100.00	0.00	0.00	0.00	0.66	0.02	0.02	0.71
BASIN #2	0.7822	100.00	0.00	0.00	0.00	0.66	0.02	0.02	1.46
BASIN #3	0.2774	100.00	0.00	0.00	0.00	0.66	0.02	0.02	0.52
TOTAL	1.4394					0.66	0.06	0.06	2.69
PROPOSED CONDITIONS									
BASIN #1	0.3798	0.00	21.03	27.86	51.11	1.76	0.06	0.09	1.55
BASIN #2	0.7822	0.00	6.21	14.49	79.30	2.12	0.07	0.26	3.63
BASIN #3	0.2774	0.00	16.90	39.44	43.66	1.69	0.04	0.06	1.11
TOTAL	1.4394					1.85	0.23	0.41	6.29
EXCESS PRECIP. 0.66 0.92 1.29 2.36 E (in)									
PEAK DISCHARGE 1.87 2.6 3.45 5.02 Q _h (cfs)									
WEIGHTED E (in) = (E ₁ X%A) + (E ₂ X%B) + (E ₃ X%C) + (E ₄ X%D)									
V _{6hr} (acre-ft) = (WEIGHTED E)(AREA)/12									
V _{10day} (acre-ft) = V _{6hr} + (A ₁)(P _{10day} - P _{6hr})/12									
Q (cfs) = (Q _h X%A) + (Q ₁₀ X%B) + (Q ₂₄ X%C) + (Q ₄₈ X%D)									
ZONE = 3									
P _{6hr} (in.) = 2.60									
P _{10day} (in.) = 3.10									
P _{24hr} (in.) = 4.90									

DRAINAGE INFORMATION

LOCATION & DESCRIPTION

THE PROPOSED SITE IS 2.00 ACRES LOCATED ON THE NORTH SIDE OF OAKLAND AVENUE AT THE NORTHWEST CORNER WITH WYOMING AS SEEN ON THE ATTACHED VICINITY MAP. THE SITE IS CURRENTLY UNDEVELOPED. THE LOTS TO THE NORTH AREA ALSO UNDEVELOPED. THE LOT TO THE WEST IS DEVELOPED AS A WALLED RESIDENTIAL SUBDIVISION. WYOMING BOULEVARD BORDERS THE EAST SIDE OF THE SITE AND OAKLAND AVENUE BORDERS THE SOUTH PROPERTY LINE. THE PROPOSED DEVELOPMENT WILL BE TEN (10) SINGLE FAMILY RESIDENTIAL LOTS ON CUL-DE-SACS.

FLOODPLAIN STATUS

THIS PROJECT, AS SHOWN ON FEMA'S FLOOD INSURANCE RATE MAP 35001C0141 F, DATED NOVEMBER 19, 2003 IS NOT WITHIN A DESIGNATED 100-YEAR FLOODPLAIN. AN EXHIBIT WITH THE SITE SHOWN ON THE FIRM PANEL IS INCLUDED ON THIS SHEET.

METHODOLOGY

THE HYDROLOGY FOR THIS PROJECT WAS ANALYZED USING THE QUICK CALCULATIONS OF THE JUNE 1997 RELEASE OF THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2.

PRECIPITATION

THE 100-YR 6-HR DURATION STORM WAS USED AS THE DESIGN STORM FOR THIS ANALYSIS. THIS SITE IS WITHIN ZONE 3 AS IDENTIFIED IN THE CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL, SECTION 22.2. TABLES WITHIN THIS SECTION WAS USED TO ESTABLISH THE 6-HOUR PRECIPITATION, EXCESS PRECIPITATION, AND PEAK DISCHARGE.

EXISTING DRAINAGE

THIS LOT TO THE WEST IS A DEVELOPED WALLED COMMUNITY WITH THE DEVELOPED DRAINAGE CONVEYED TO OAKLAND AVENUE AND AWAY FROM THIS SITE. THE LOT TO THE NORTH IS UNDEVELOPED BUT DUE TO THE EXISTING RIDGE LINE NEAR THE NORTH PROPERTY LINE OF THIS SITE, THE RUNOFF DIRECTION IS TOWARD THE NORTHWEST AWAY FROM THIS LOT. OAKLAND AVENUE, BORDERING THE SITE ON THE SOUTH, IS A CURBED SECTION THAT WILL CONTAIN THE RUNOFF AND CONVEY IT WEST TO THE EXISTING STORM DRAIN SYSTEM IN OAKLAND TO THE WEST.

ALTHOUGH WYOMING BOULEVARD HAS TEMPORARY CURBS ON THE WEST SIDE WHERE IT BORDERS THIS SITE, IT HAS A DIP SECTION TO ALLOW THE RUNOFF IN THE LA CUEVA ARROYO TO CROSS INTO THE SOIL CEMENT LINED SWALE AT THE NORTHEAST CORNER OF THIS SITE. THE RUNOFF IN THE ARROYO IS CONTAINED IN THE CHANNEL SECTION WHICH PROTECTS THIS SITE FROM THE FLOW BY USE OF THE EXISTING SOIL CEMENT BERM.

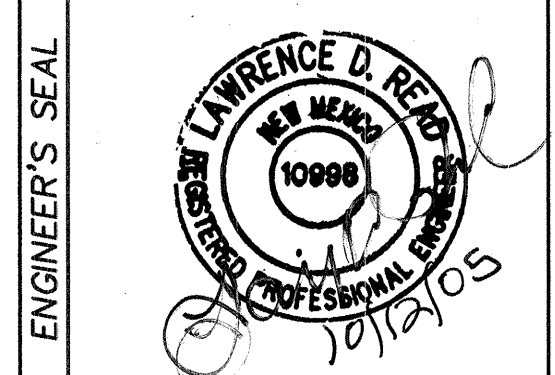
RUNOFF FROM THIS SITE IS TOWARD THE WEST AND SOUTHWEST IN A COMBINATION OF SHALLOW SHEET FLOW WITH SOME MINOR CONCENTRATED FLOW IN THE SOUTHEAST CORNER OF THE SITE. DUE TO A MINOR RIDGE LINE THAT RUNS IN AN EAST/WEST DIRECTION THROUGH THE CENTER OF THE SITE, SOME RUNOFF, IN THE UNDEVELOPED STATE, FROM THE NORTHERN PORTION OF THE SITE FLOWS INTO THE ADJACENT LOT (LOT 19). THE RUNOFF FROM THE SOUTHERN PORTION OF THE SITE COLLECTS IN OAKLAND AVENUE.

DEVELOPED CONDITION

THIS SITE WILL BE DEVELOPED WITH THE LOTS NORTH OF EAST/WEST PORTION OF KUMAIL COURT (EXCEPT FRO LOT 3 ON THE WEST END) AND THE LOTS EAST OF THE STEM PORTION OF KUMAIL COURT DRAINING TO KUMAIL. KUMAIL COURT WILL CONVEY THE RUNOFF DIRECTLY TO OAKLAND AVENUE. LOTS 2 AND 3 ON THE WEST END OF THE SITE ARE PROPOSED TO DRAIN WEST INTO A 5-FOOT WIDE GRAVEL/PAVE CHANNEL (IN A DEDICATED DRAINAGE EASEMENT) ALONG THE WEST PROPERTY LINE. THE CHANNEL WILL DIRECT THE RUNOFF INTO OAKLAND THROUGH A SIDEWALK CULVERT. LOT 1 WILL DRAIN TOWARD ITS SOUTHWEST CORNER AND DISCHARGE DIRECTLY INTO OAKLAND THROUGH AN 8 X 16 OPENING IN THE SITE WALL. BECAUSE OF THE GRADING PROPOSED IN THIS GRADING PLAN, THE RUNOFF FROM THIS SITE THAT NOW FLOWS INTO LOT 19 TO THE WEST WILL BE CUT OFF AND DIRECTED AWAY FROM THAT LOT.

48-FOET OF THE WESTERN PORTION OF THE SITE WILL BE DEDICATED TO THE CITY AS REQUIRED RIGHT-OF-WAY FOR FUTURE WIDENING OF WYOMING BOULEVARD. THIS AREA OF LAND CURRENTLY DRAINS TOWARD THE WEST AND SOUTHWEST JUST AS THE BALANCE OF THE SITE DOES. DUE TO THE PROPOSED LAYOUT OF THIS SUBDIVISION, THE EXISTING RUNOFF FROM THE 48-FOOT STRIP WOULD FLOW DIRECTLY INTO THE NEW LOTS. THIS PLAN HAS PROPOSED A RETAINING WALL ALONG THE NEW EAST PROPERTY LINE TO ISOLATE THE FLOW TO PROTECT THE WALL FROM PONDING WATER. A 4:1 FILL SLOPE IS PROPOSED ON THE EAST SIDE OF THE WALL TO PUSH THE PONDING EAST AWAY FROM THE WALL. HOWEVER, THIS EXCESS 48-FOET OF RIGHT-OF-WAY WILL CONTINUE TO POND UNTIL THE FUTURE WIDENING OF WYOMING IS COMPLETED.

LARRY READ & ASSOCIATES, Inc.
Civil Engineers
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Albuquerque, New Mexico 87111
(505) 237-8421

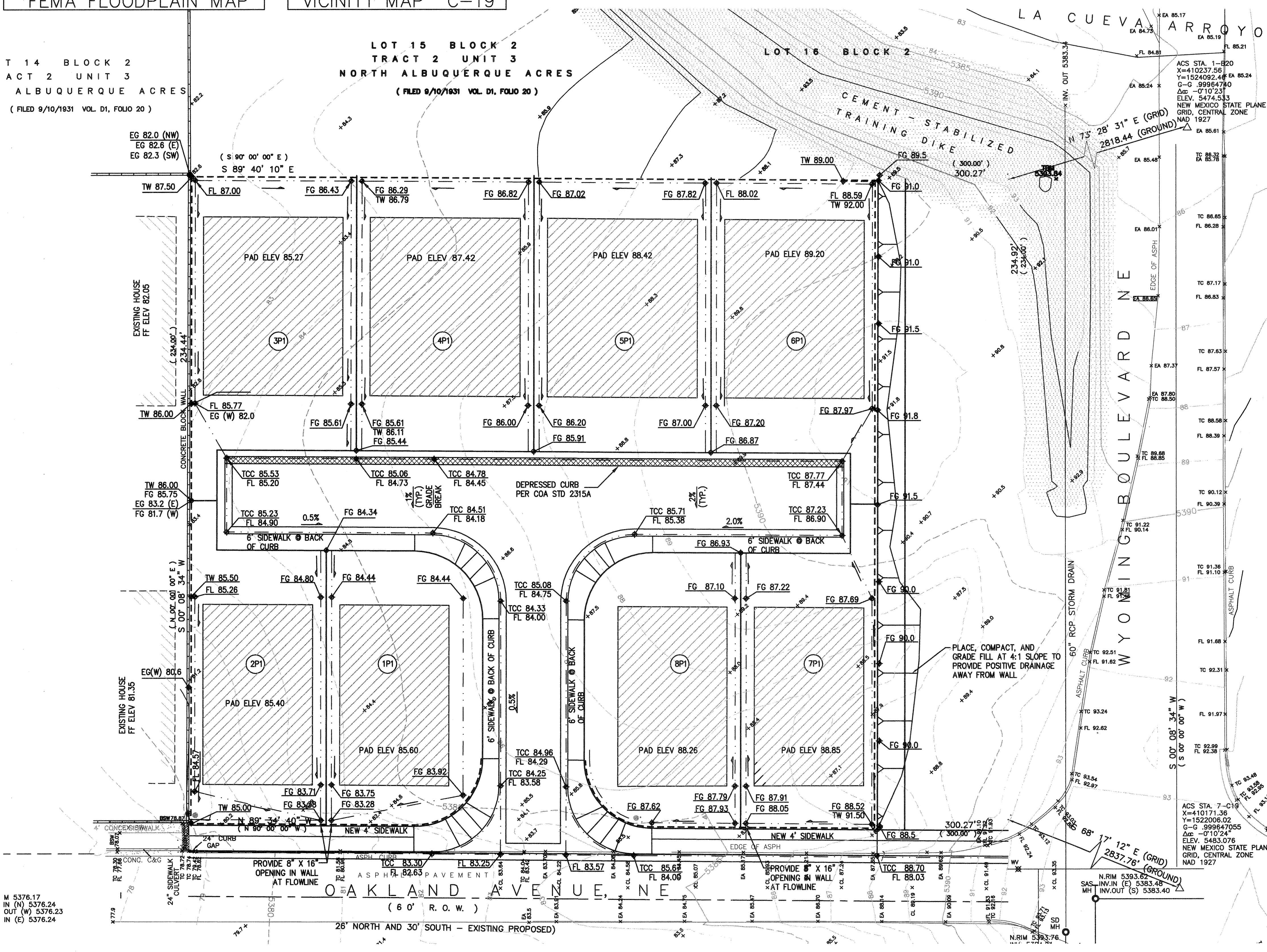


NO.	DATE	REVISIONS
1	03/02	WYOMING SURVEYING
2	03/02	333 LOUISIANA BLVD NE
3	03/02	RIO RANCHO, NM 87108
4	03/02	PHONE: (505) 255-2052
5	03/02	FAX: (505) 255-2887

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP			
TITLE: KUMAIL SUBDIVISION GRADING AND DRAINAGE PLAN			
DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	LAST DESIGN DATE	MO./DAY/YR.
PROJECT NO. 7153.82		MAP NO. C-20	SHEET 3 OF 78

T 14 BLOCK 2
ACT 2 UNIT 3
ALBUQUERQUE ACRES
(FILED 9/10/1931 VOL. D1, FOLIO 20)

LOT 15 BLOCK 2
TRACT 2 UNIT 3
NORTH ALBUQUERQUE ACRES
(FILED 9/10/1931 VOL. D1, FOLIO 20)

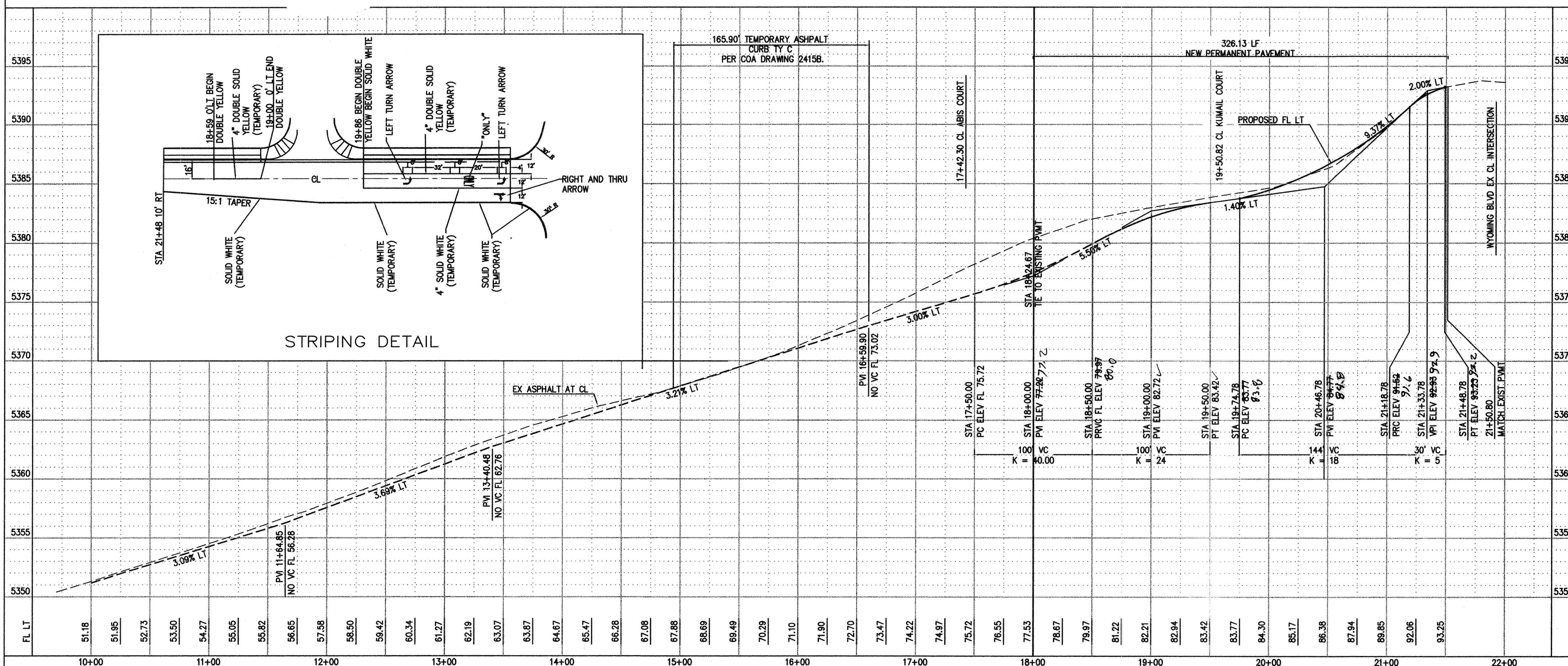
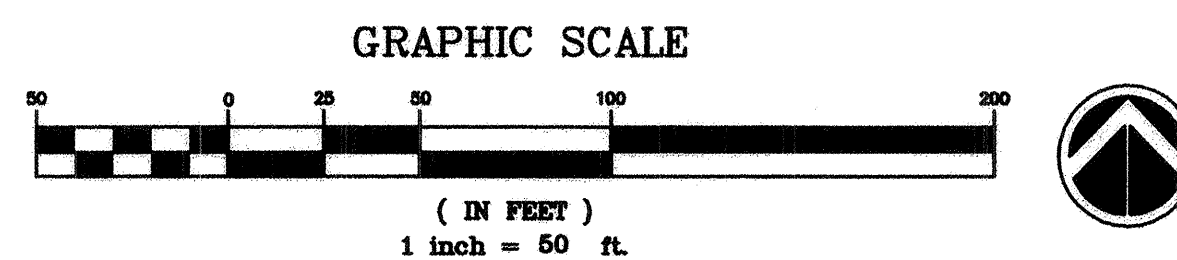


M 5376.17
IN (N) 5376.24
OUT (W) 5376.23
IN (E) 5376.24

I, LARRY D. READ, PE, of the firm of LARRY READ & ASSOC., INC., 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 inspected 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 plan has been met, except as noted by me on the as-built construction drawings. This certification is based on site inspections by me or personnel under my direction and survey information provided by THOMAS D. JOHNSON, NMPS construction 112629.



OAKLAND AVENUE



LEGEND

	DEPRESSED MOUNTABLE CURB
	NEW PERMANENT PVMT
	NEW TEMPORARY PVMT
*	STREET LIGHT

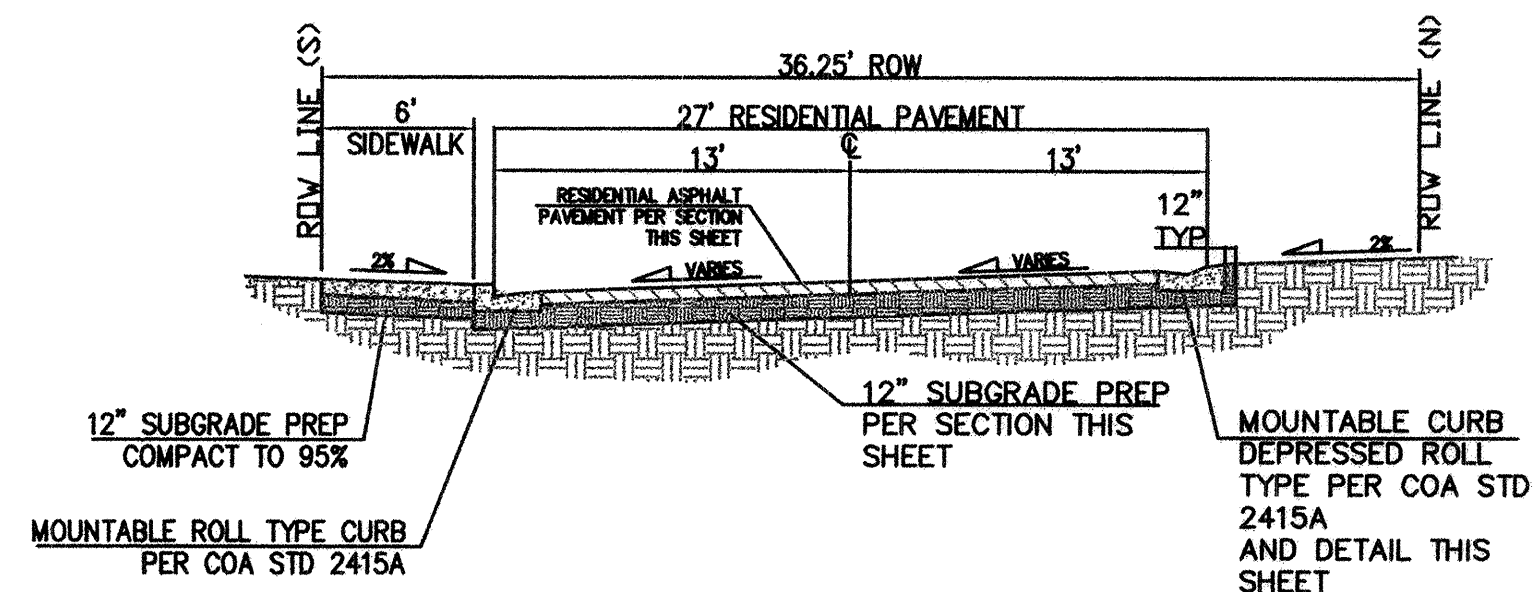
LARRY READ & ASSOCIATES, Inc.
Civil Engineers
2430 Midtown Place NE Suite C
Albuquerque, New Mexico 87107
(505) 237-8421

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

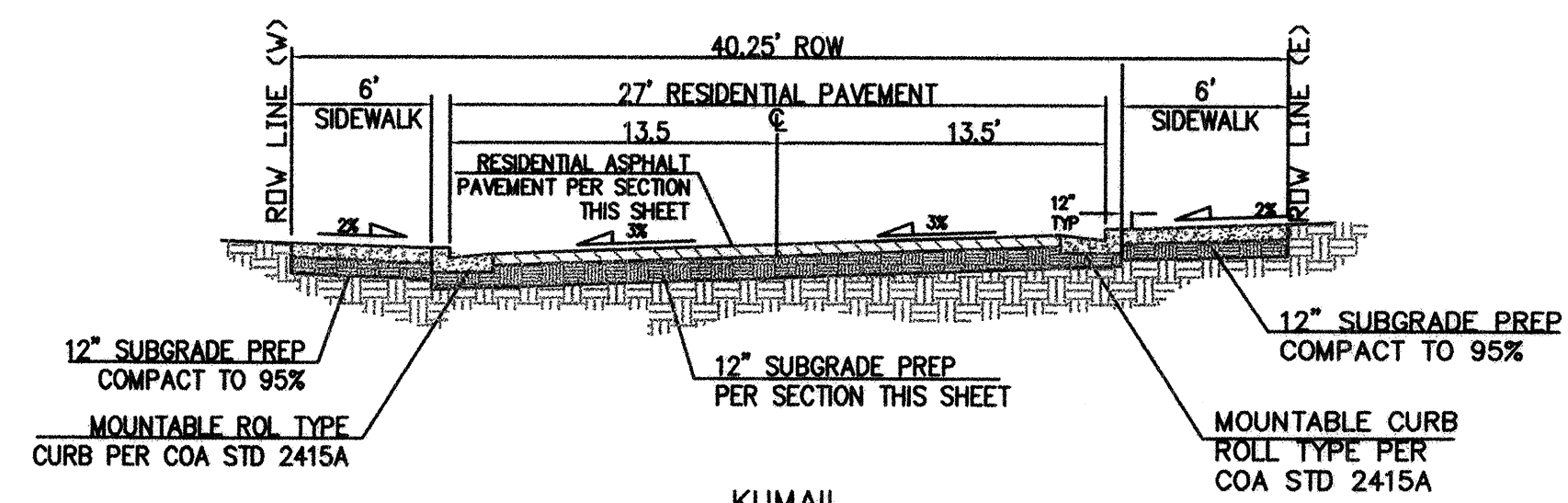
TITLE:		KUMAIL SUBDIVISION	
		OAKLAND AVE PAVING	
		PLAN AND PROFILE	
		DATE	MO./DAY/YR.
PROJECT NO.	7153.82	MAP NO.	C-19
		SHEET	4 OF 78

KEYED NOTES:

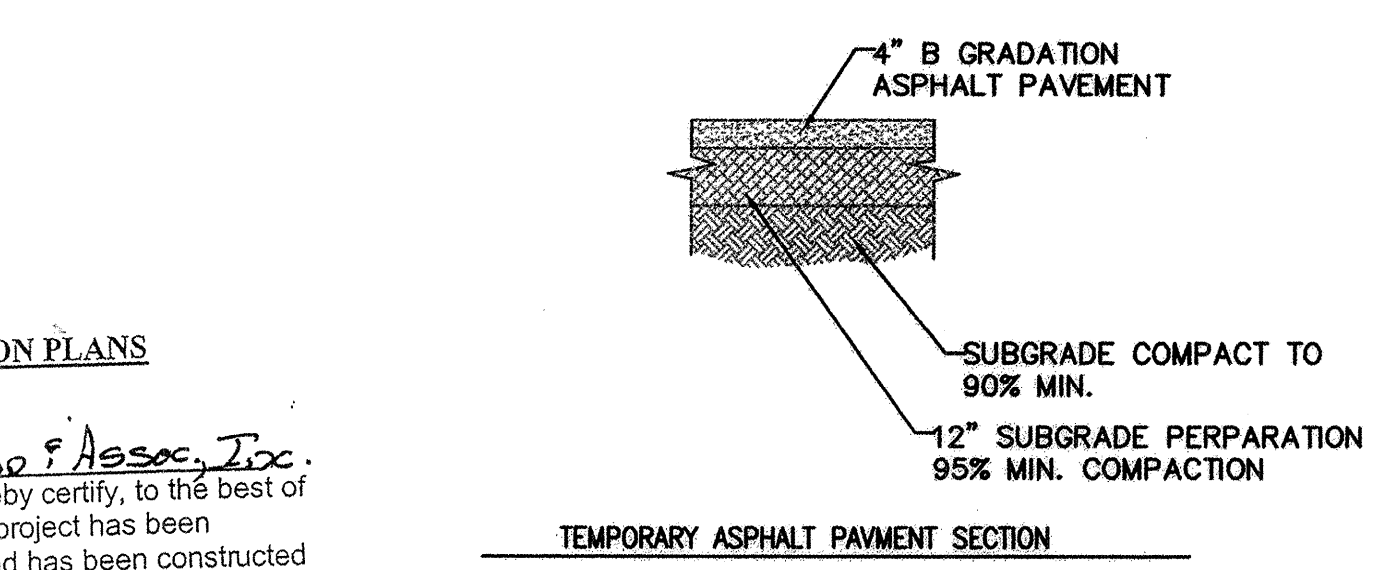
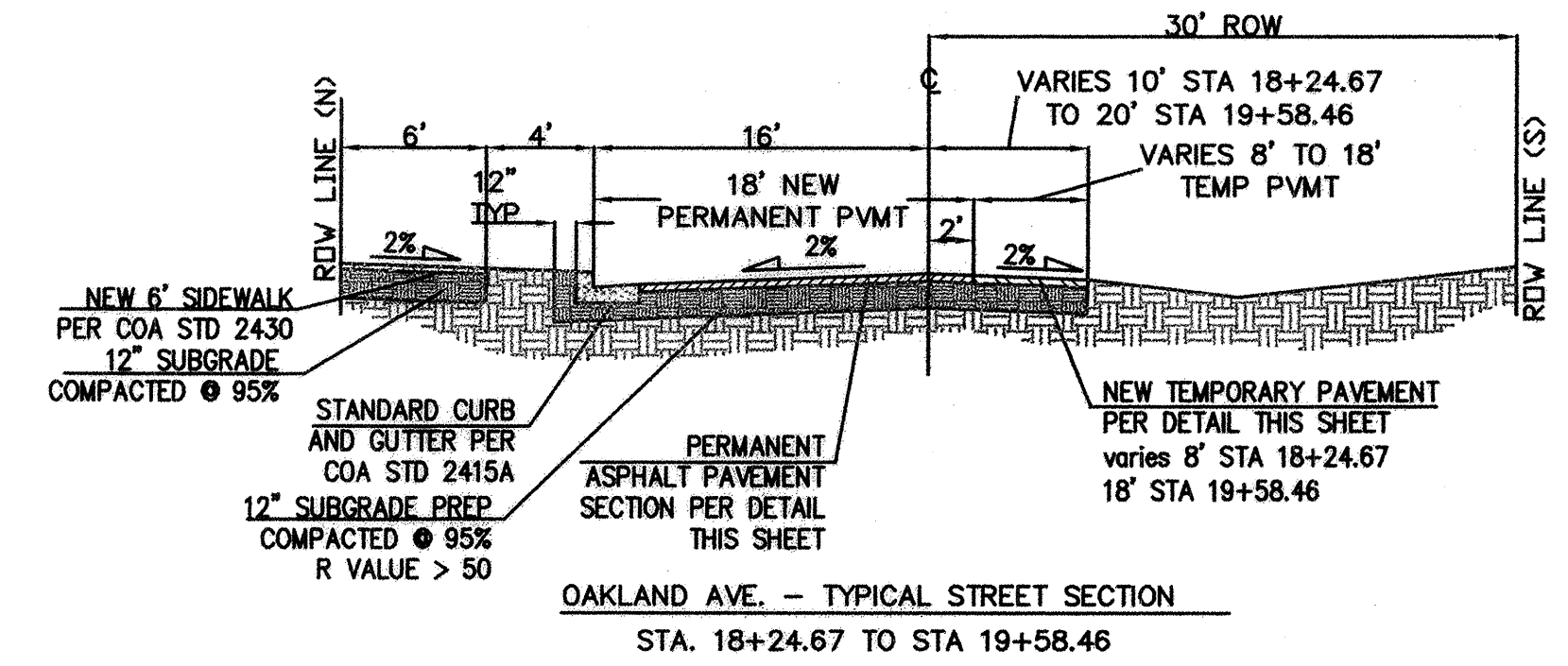
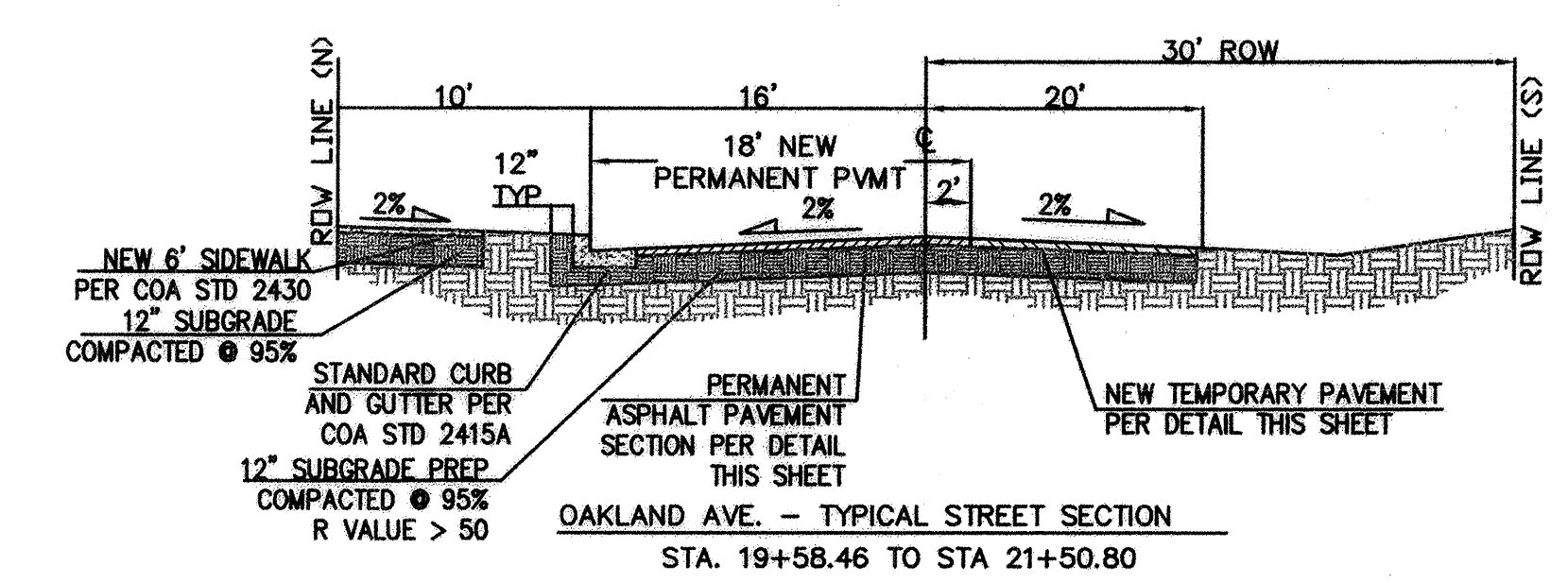
1. COA MOUNTABLE CURB PER COA STD DWG 2415A.
2. COA STANDARD CURB AND GUTTER PER COA STD DWG 2415A.
3. NEW 6" CONC SIDEWALK PER COA STD DWG 2430.
4. 6" CONC VALLEY GUTTER PER COA STD DWG 2420.
5. WHEEL CHAIR RAMP PER COA STD DWG 2441 CASE II WITH CURB TRANSITIONS PER COA STD DWG 2418. REMOVE TEMPORARY ASPHALTIC CURB AND PAVEMENT. CONSTRUCT ARTERIAL ASPHALTIC PAVEMENT PER DETAIL THIS SHEET. MATCH EXISTING OAKLAND AVE. ARTERIAL PAVING SECTION.



KUMAIL
TYPICAL STREET SECTION



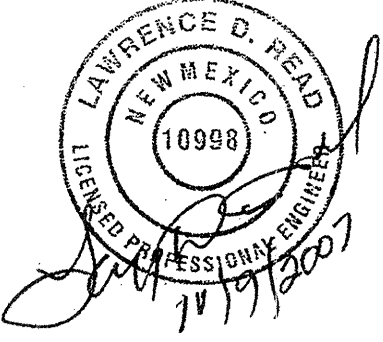
KUMAIL
TYPICAL STREET SECTION



TEMPORARY ASPHALT PAVEMENT SECTION

CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

I, **LARRY D. READ, PE** of the firm of **LARRY READ & ASSOC., INC.**, 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 inspected 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 site inspections by me or personnel under my direction and survey information provided by **THOMAS D. JOHNSON**, NMPS number **14269**.



NOTE:
THIS MODIFICATION IS TO BE USED WHERE THE PLANS CALL FOR MOUNTABLE DEPRESSED CURB.
ALL NOTES REFER TO COA STD DWG 2415A AND B.
ALL COA STD SPECIFICATIONS APPLY

MOUNTABLE ROLL TYPE CURB
MODIFIED FOR DEPRESSED CONDITIONS

1-1/2" TYPE C ASPHALTIC CONCRETE FINISH COURSE KUMAIL COURT
2" TYPE B ASPHALTIC CONCRETE FINISH COURSE OAKLAND AVE.
PLACED AFTER ALL MANHOLES, VALVE COVERS/RINGS ARE SET TO GRADE

FINISH SURFACE OF SUBGRADE SHALL BE MOISTURE CONTROLLED AT COMPACTION MOISTURE RANGE, OR PRIME COAT APPLIED AS REQUIRED BY THE ENGINEER UNTIL NEXT/FINAL SURFACING. COMPLETED SUBGRADE PREPARATION SHALL BE PERFORMED AFTER ALL SUBSURFACE R/W UTILITIES CONSTRUCTION IS COMPLETED.

90% MIN. COMPACTION.

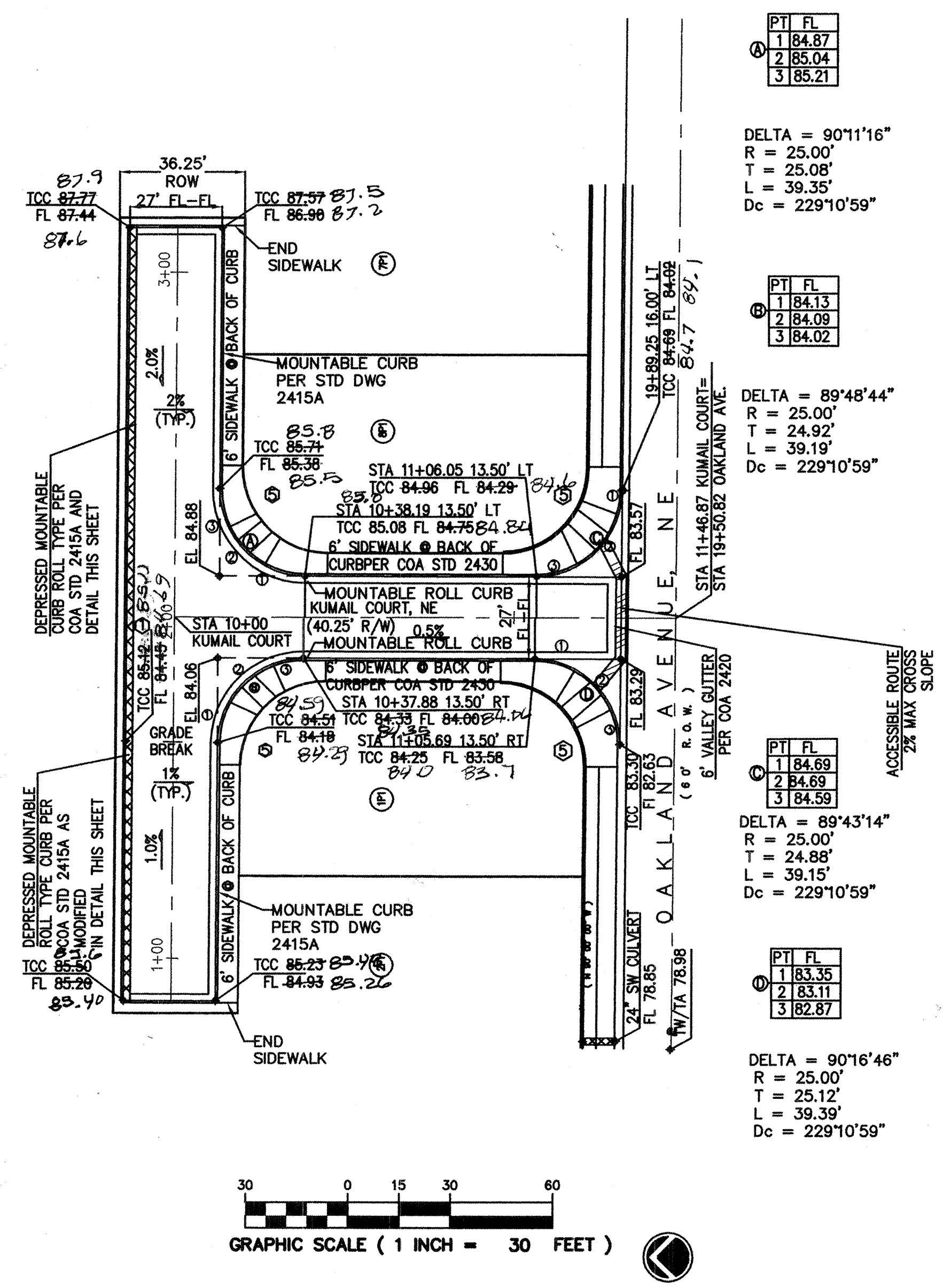
TACK COAT AS REQUIRED BY ENGINEER BETWEEN ALL ASPHALT/AGGREGATE MATERIAL LIFTS.

ASPHALT CONCRETE, 1500 LBS. STABILITY.
1-1/2" TYPE C GRADATION FOR KUMAIL COURT AND
2-1/2" TYPE B GRADATION FOR OAKLAND AVE PLACED IN ONE LIFT.

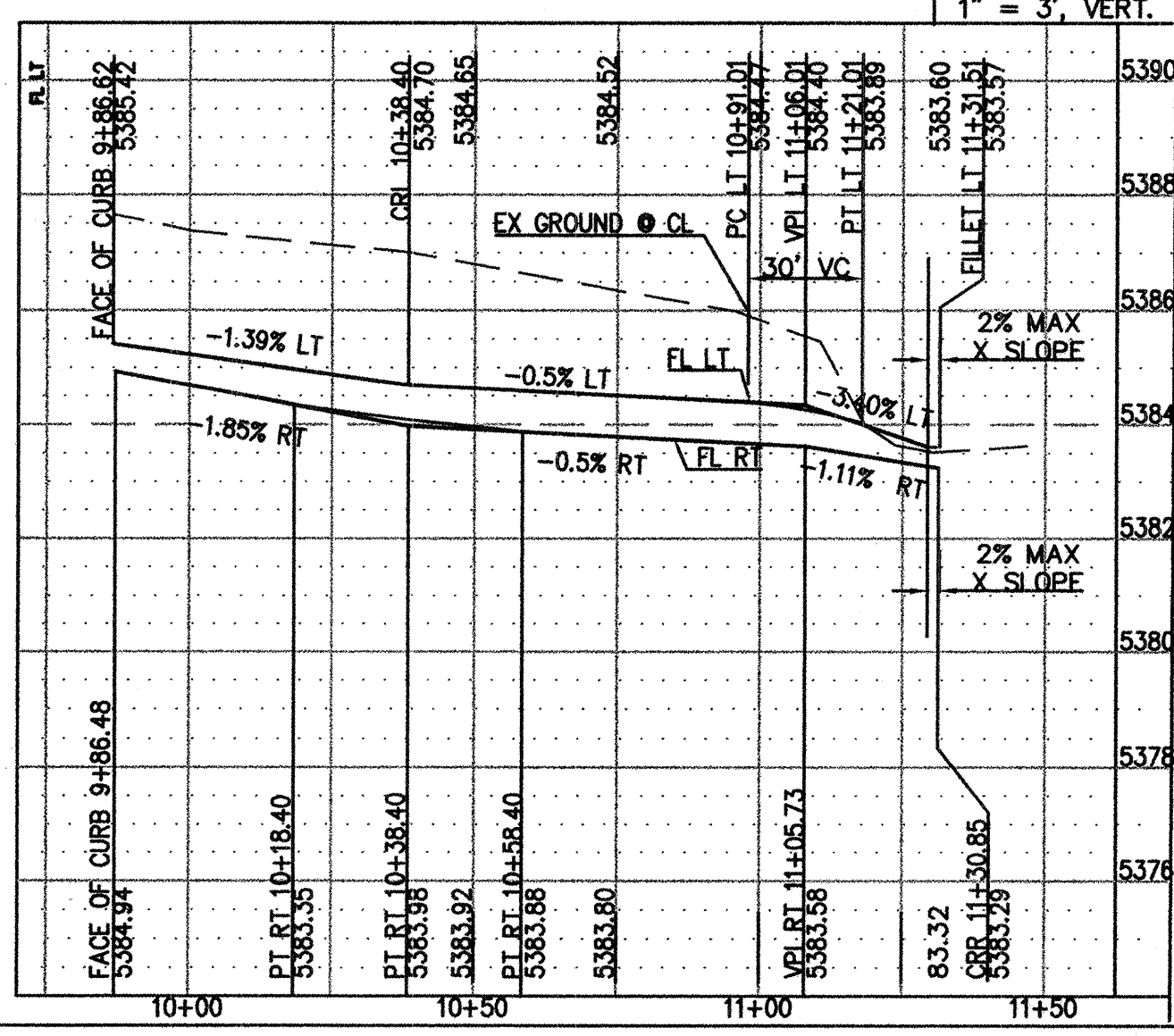
12" SUBGRADE SOIL. R-VALUE > 50 PLACED IN 2 - 6" COMPACTED LIFTS. 95% MIN. COMPACTION AT OPT. MOISTURE +/- 2% ASTM D1557, OR OPT. MOISTURE, TO +4% ASTM D698 FOR SOIL W/ 35% OR MORE MATERIAL PASSING THE NO. 200 SIEVE

IF UNSUITABLE SOIL IS ENCOUNTERED, IT SHALL BE EXCAVATED TO A DEPTH OF 2" AND REPLACED WITH SOIL HAVING AN R-VALUE > 50 AND PLACED IN 6" LOOSE (MAXIMUM) COMPACTED LIFTS. 95% MIN. COMPACTION AT OPT. MOISTURE +/- 2% ASTM D1557, OR OPT. MOISTURE, TO +4% ASTM D698 FOR SOIL W/ 35% OR MORE MATERIAL PASSING THE

PAVEMENT SECTION DETAIL FOR OAKLAND AND SHAHEEN COURT
REFERENCE COA PROJECT #5590.81



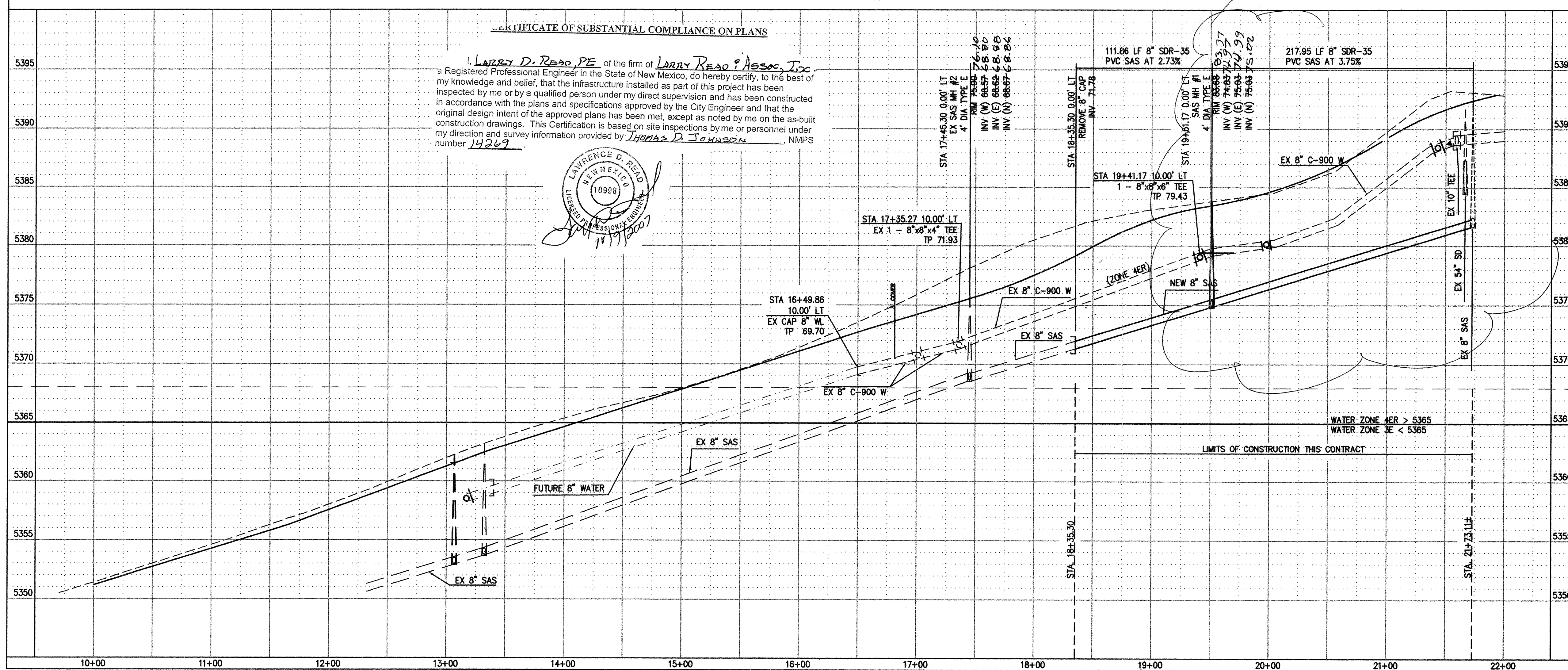
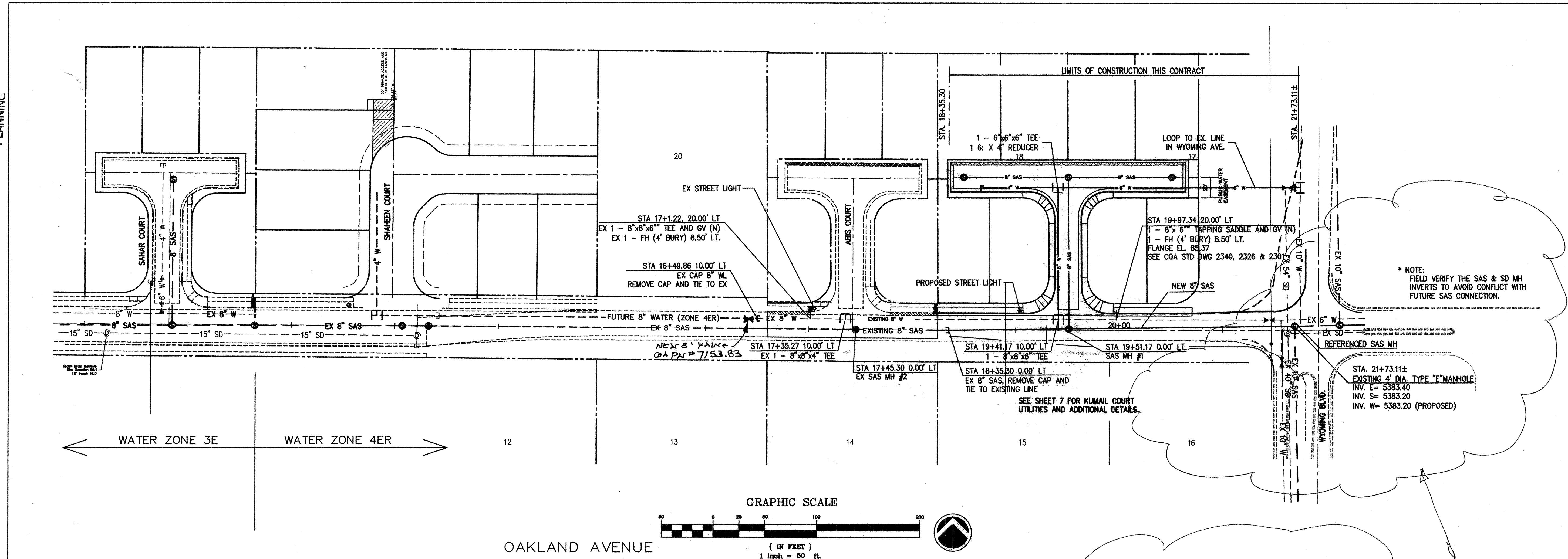
KUMAIL COURT (LINE A)



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CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP			
TITLE: KUMAIL SUBDIVISION KUMAIL COURT PAVING PLAN AND PROFILE			
DESIGNER APPROVED NOV - 7 2005 DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVED FEB 09 2007 CITY ENGINEER	MO./DAY/YR. DATE	MO./DAY/YR. DATE
PROJECT NO. 7153.82	MAP C-19	SHEET 5	OF 78

CONTENTS



LARRY READ & ASSOCIATES, Inc.
Civil Engineers
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Albuquerque, New Mexico 87107
(505) 237-8421

	CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP
5	TITLE: KUMAIL SUBDIVISION DAKLAND AVE UTILITY PLAN AND PROFILE

DESIGN REVIEW COMMITTEE

APPROVED

NOV - 7 2005

DESIGN REVIEW COMMITTEE

CITY ENGINEER APPROVAL

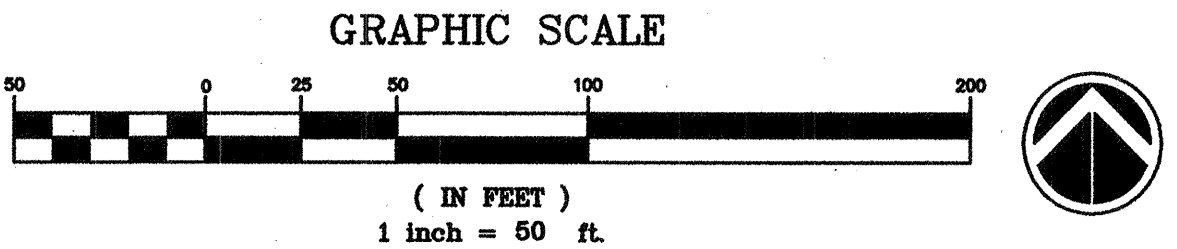
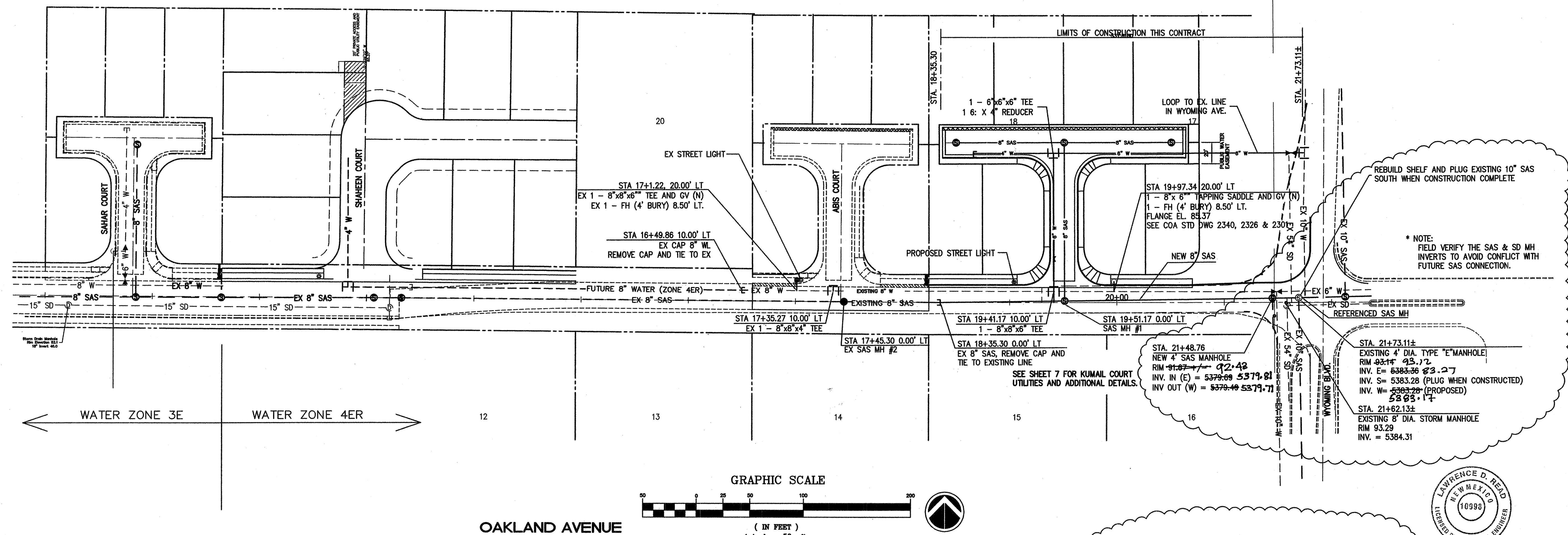
FEB 09 2007

CITY ENGINEER

LAST DESIGN DATE	MO./DAY/YR.	MO./DAY/YR.
19	SHEET 6	OF 78

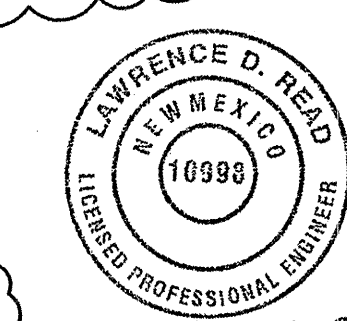
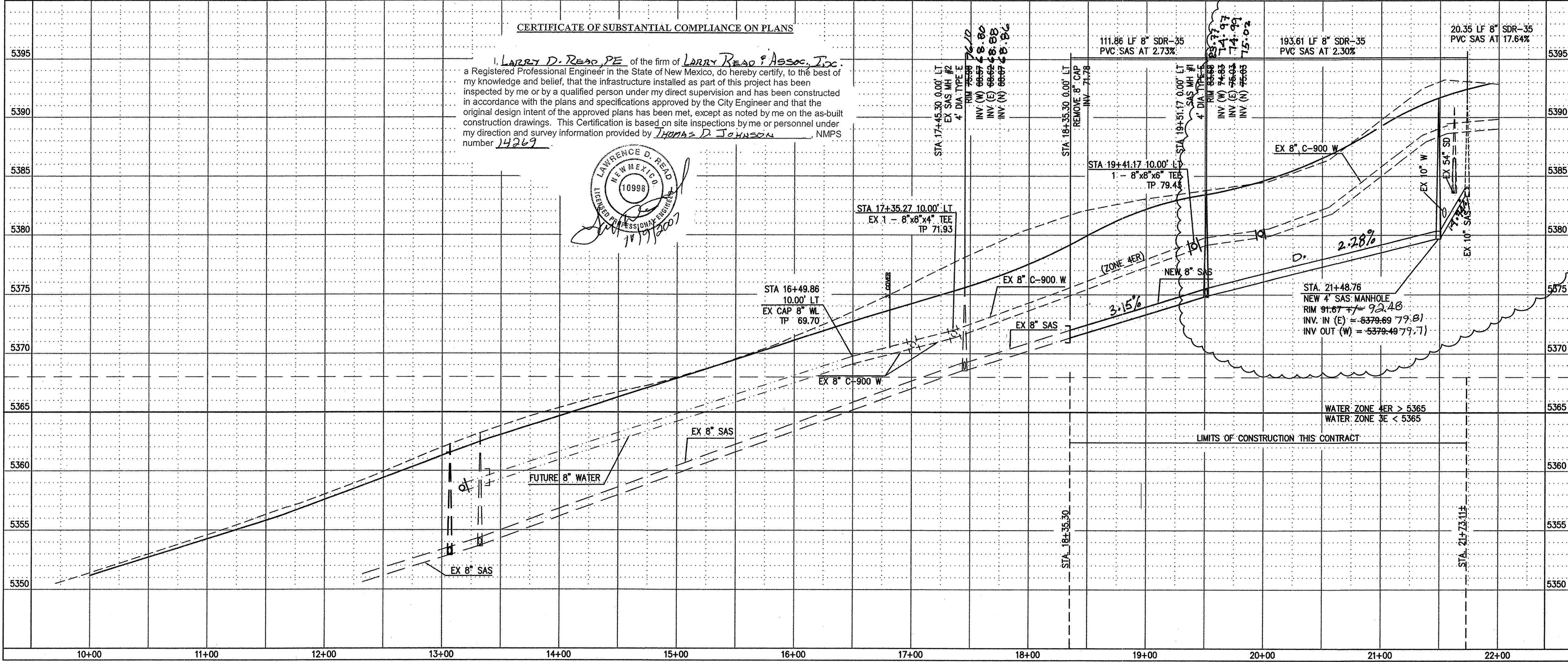
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SCANNED
PLANNING



CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

I, LARRY D. READ, PE of the firm of LARRY READ & ASSOC., INC., 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 inspected 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 site inspections by me or personnel under my direction and survey information provided by Thomas D. Johnson, NMPS number 14267.

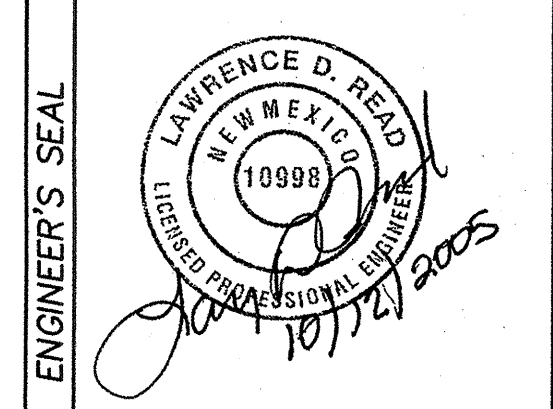


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Clouded
Jm Read
3/19/2007

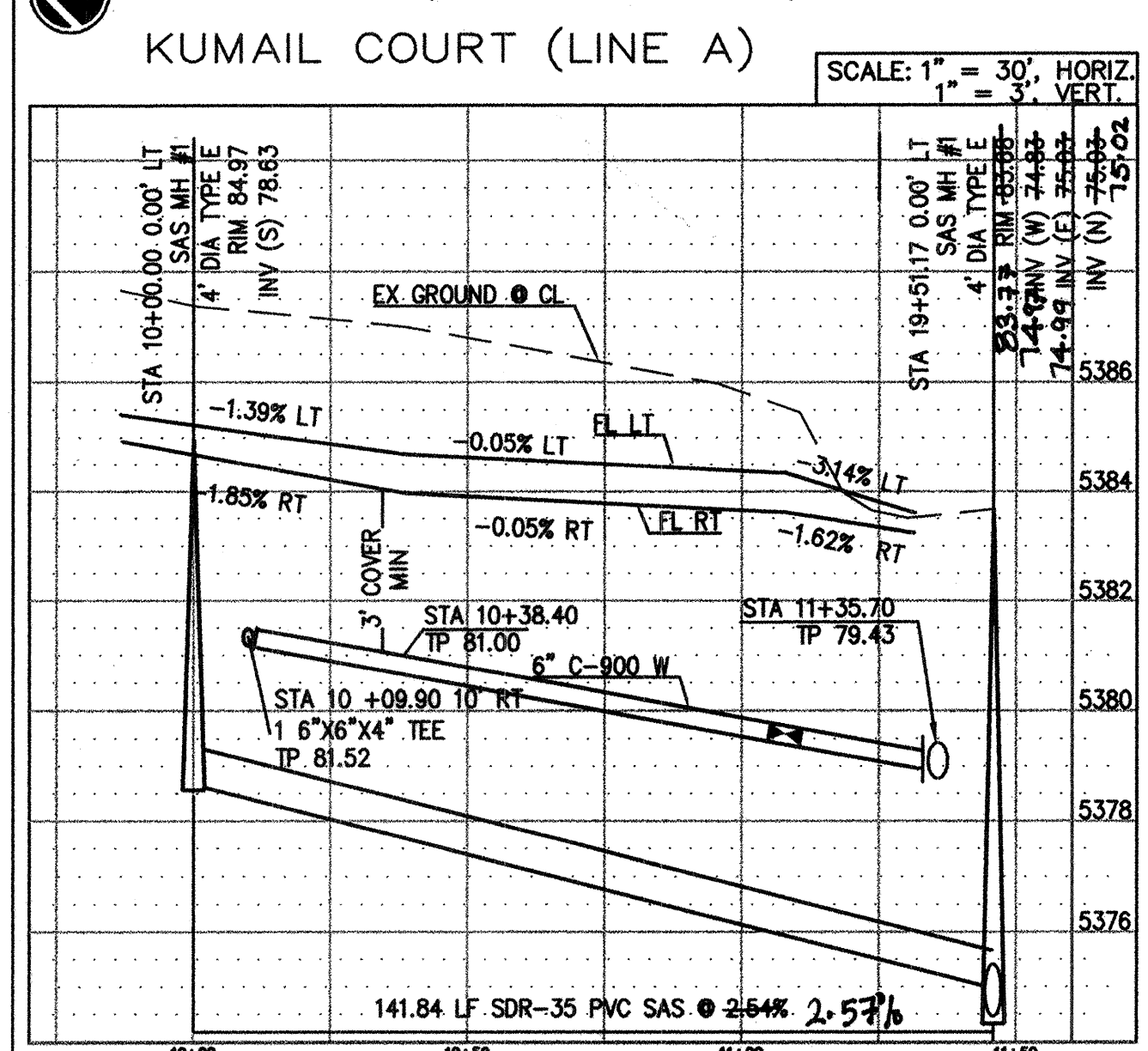
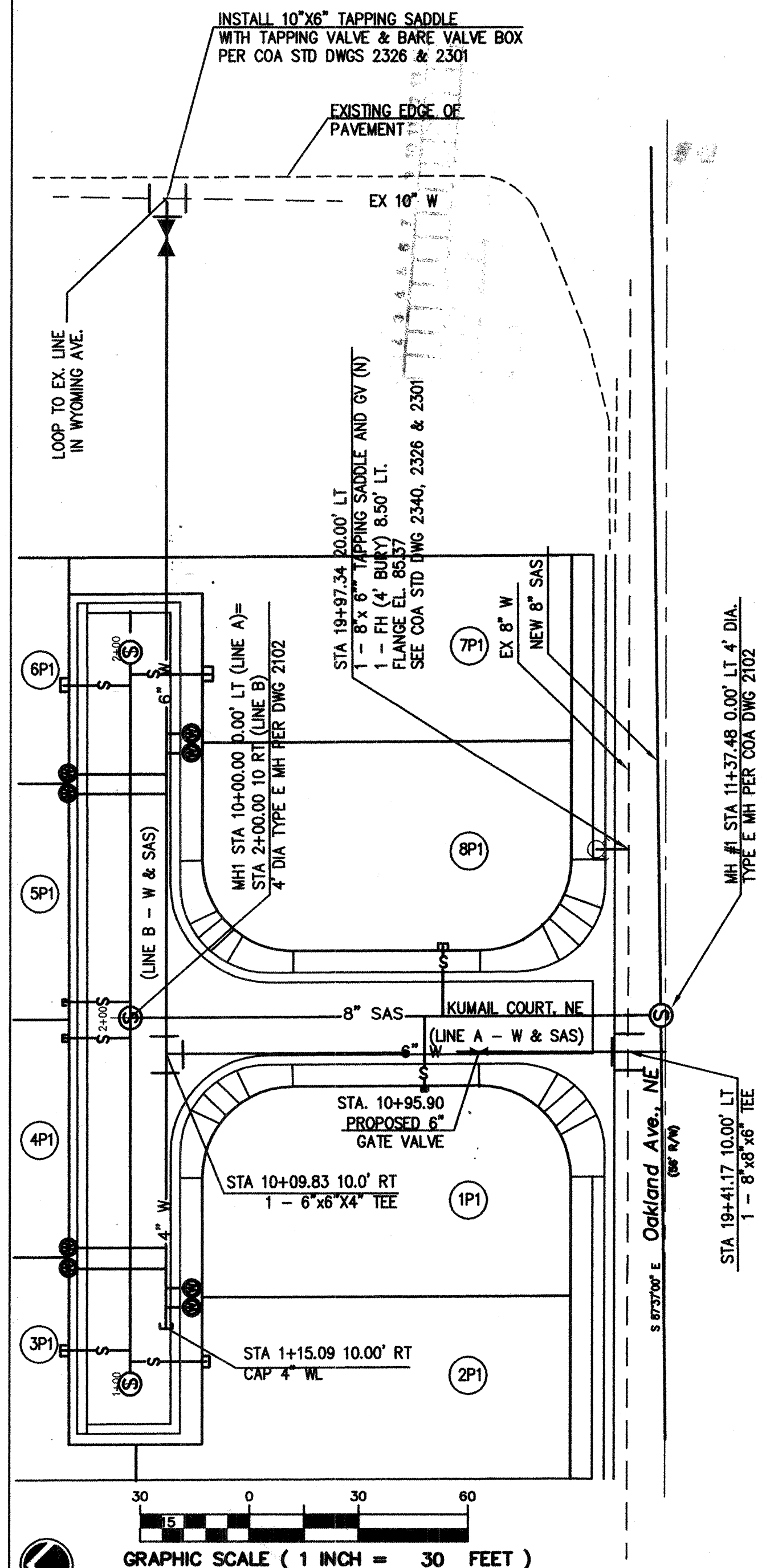
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Civil Engineers
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Albuquerque, New Mexico 87111
(505) 237-8421

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP			
TITLE: KUMAIL SUBDIVISION OAKLAND AVE UTILITY PLAN AND PROFILE			
DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	LAST DESIGN DATE	MO./DAY/YR.
PROJECT NO. 7153.82		MAP NO. C-19	SHEET 6A OF 78

SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
NO.	BY	DATE	IN THE NW QUADRANT OF BARSTOW STREET AND MODERATO AVENUE, NE	CONTRACTOR	DATE
1	WAYDOR SURVEYING	6/2004	ELEVATION = 5474.533 (NGVD 29)	SALUS BROTHERS	DATE 8/6/05
	330 LOUISIANA BLVD. NE				DATE 12/07
	ALBUQUERQUE, NM 87108				DATE 9/07
	PHONE: (505) 255-2052				DATE 12/07
	FAX: (505) 255-2887				DATE 12/07
		MICROFILM INFORMATION			
		RECORDED BY			
		NO.			



NO.	DATE	REVISIONS
		DESIGN
DESIGNED BY	LRA	DATE APRIL 2005
DRAWN BY	LRA	DATE APRIL 2005
CHECKED BY	LRA	DATE APRIL 2005



SANITARY		SEWER SERVICES		
LOT	STATION	SIZE	LENGTH	INV @ PL
1	10+81.0(A)	4"	19'	80.43
2	1+06.2(B)	4"	17'	81.11
3	1+09.2(B)	4"	14'	81.27
4	1+94.0(B)	4"	17'	81.72
5	2+06.0(B)	4"	17'	81.96
6	2+91.0(B)	4"	14'	83.93
7	2+94.0(B)	4"	17'	83.19
8	10+86.0(A)	4"	18'	81.07

LOTS 2, 3, 6 & 7'S SERVICE SHALL BE CONSTRUCTED PER COA DWG 2118. ALL OTHER SANITARY SEWER SERVICES SHALL BE CONSTRUCTED PER COA DWG 2125.

WATER SERVICES				
LOT	STATION	SIZE	LENGTH x DIA	TYPE
1	1+21.0(B)	3/4"	9' x 3/4"	DOUBLE
2	1+20.9(B)	3/4"	9' x 3/4"	DOUBLE
3	1+33.0(B)	3/4"	27' x 3/4"	DOUBLE
4	1+35.0(B)	3/4"	27' x 3/4"	DOUBLE
5	2+63.5(B)	3/4"	27' x 3/4"	DOUBLE
6	2+65.5(B)	3/4"	27' x 3/4"	DOUBLE
7	2+75.0(B)	3/4"	10' x 3/4"	DOUBLE
8	2+74.0(B)	3/4"	10' x 3/4"	DOUBLE

ALL WATER SERVICES SHALL BE
CONSTRUCTED PER CITY OF ALBUQUERQUE
STANDARD DRAWINGS 2360 & 2361.

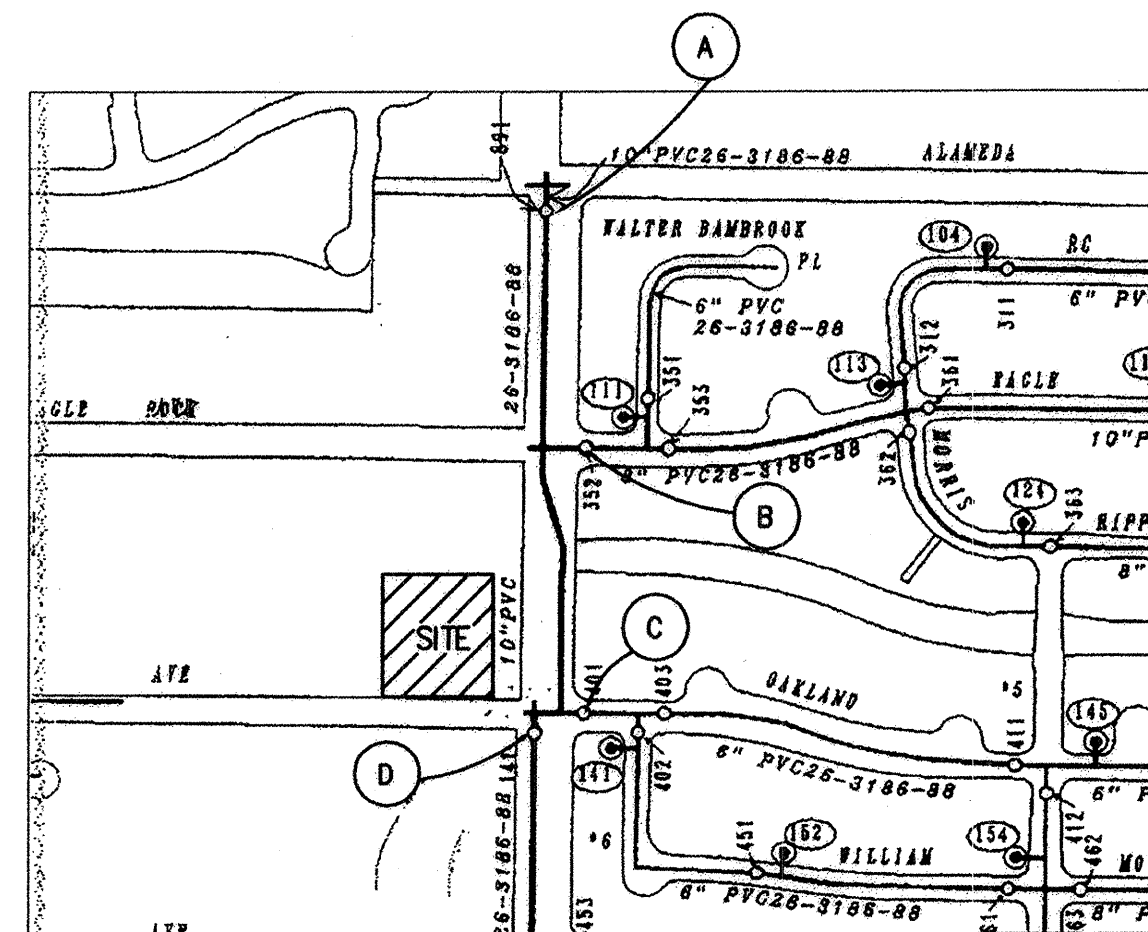
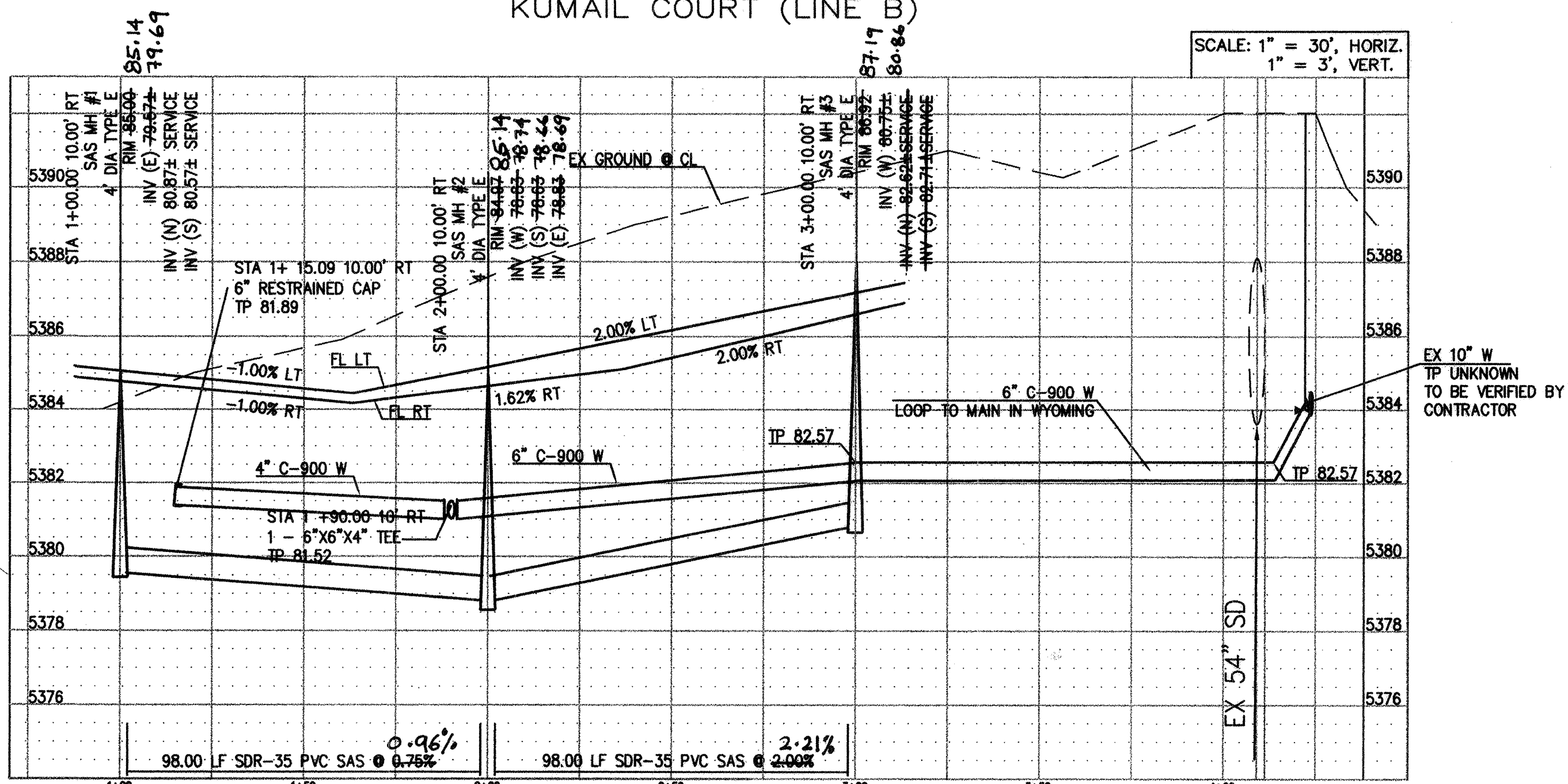
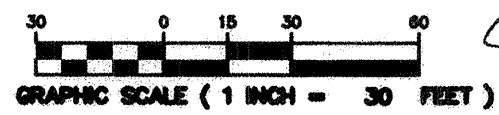
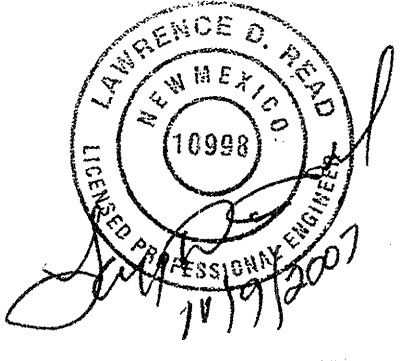
CONSTRUCTION NOTE:

MEGA-LUG RESTRAINED JOINTS (OR APPROVED EQUAL) SHALL BE USED ON ALL JOINTS FOR A MINIMUM DISTANCE OF 32' FROM THE 4" CAP AND 46' FROM THE 6" GATE VALVE. THE 6" GATE VALVE RESTRAINT WILL BE SUFFICIENT FOR THE 6" X 4" REDUCER.

WATER VALVE BOX AND RING AND COVER
SHALL CONSTRUCTED PER COA DWG 2326
AND 2328.

CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

I, LARRY D. READ, PE, of the firm of LARRY READ & ASSOC., INC., 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 inspected 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 construction of the project in accordance with the plans has been met, except as noted by me on the as-built construction drawings. This Certification is based on inspection by me or personnel under my direction and survey information provided by THOMAS D. JOHNSON NMPS number 14269.



WATER SHUT OFF PLAN

1. VALVES NUMBER A=891, B=352, C=401 AND D=141 SHALL BE SHUT OFF SO NON PRESSURE CONNECTIONS CAN BE MADE.
2. CONTRACTOR SHALL CONTACT WATER SYSTEMS DIVISION (857-8200) SEVEN (7) WORKING DAYS PRIOR TO VALVE SHUT OFF. ONLY WATER SYSTEMS PERSONNEL ARE AUTHORIZED TO OPERATE VALVES.

[illegible]

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(505) 237-8421

CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP			
TITLE: KUMAIL SUBDIVISION KUMAIL COURT UTILITIES PLAN AND PROFILE		APPROVED DESIGN REVIEW COMMITTEE NOV - 7 2005 DESIGN REVIEW COMMITTEE CITY ENGINEER APPROVAL FEB 09 2007 CITY ENGINEER	
PROJECT NO. 7153.82		MAP NO. C-19	SHEET 7 OF 78