

CONSTRUCTION PLANS FOR
14th STREET
AND COAL AVE.

APPROVED AS RECORD DRAWINGS
DESIGN REVIEW SECTION
CITY CONSTRUCTION ENGINEER
DATE: 2/19/2014

ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO
JANUARY 2014

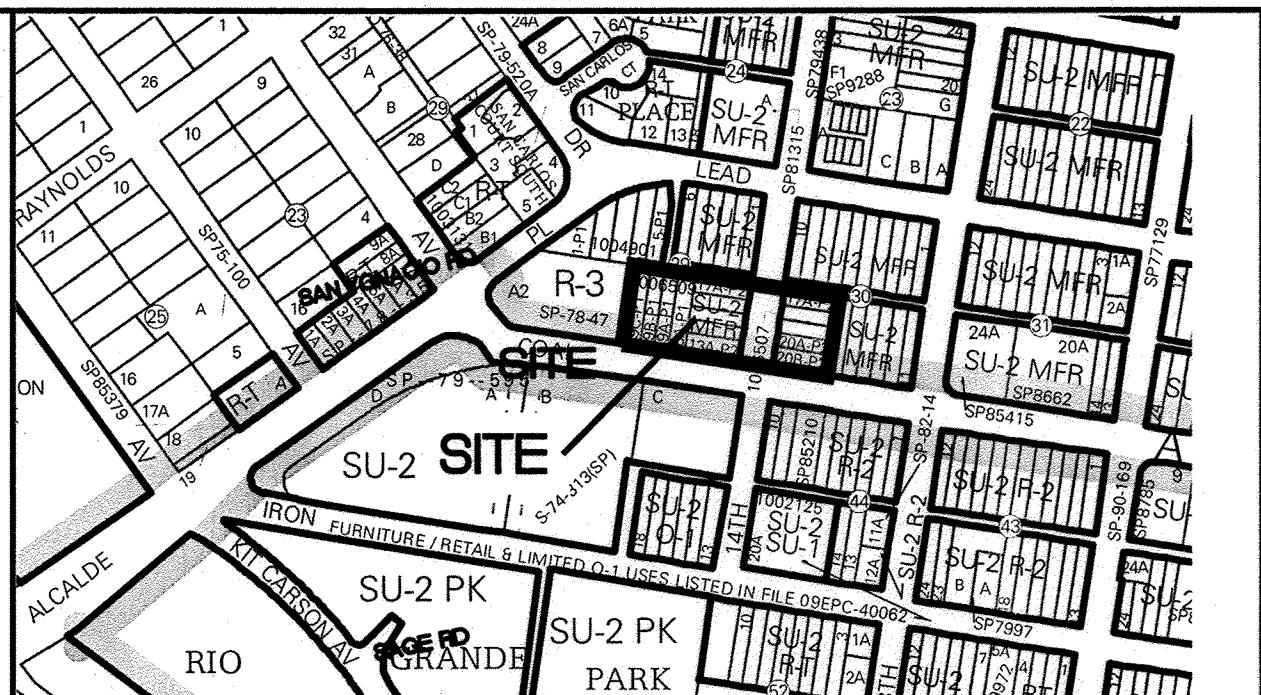
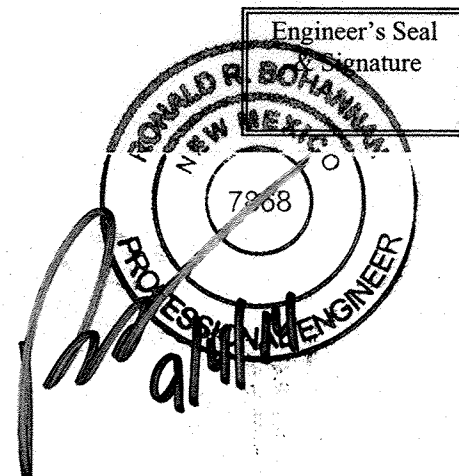
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INDEX TO DRAWINGS

- 01 TITLE SHEET
02 PLAT - UNIT 1 & 2
03 GRADING AND DRAINAGE PLAN - THE 14TH EAST
04 GRADING AND DRAINAGE PLAN - THE 14TH WEST
05 ALLEY IMPROVEMENTS
14TH ST. STA: 10+00 TO 22+50

CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

I, Ronald R. Bohannon, of the firm of Tierra West LLC, 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 with survey information provided by Community Sciences NMPLS #4972.



VICINITY MAP K-13-Z
SCALE NONE

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 UPDATE #8.
- TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (260-1990) FOR LOCATION OF EXISTING UTILITIES.
- ANY WORK AFFECTING AN ARTERIAL ROADWAY REQUIRES 24-HOUR CONSTRUCTION.
- 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.
- SEVEN (7) WORKING DAYS PRIOR TO BEGINNING OF 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 BARRICADE PERMIT FROM THE CONST. COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (924-3400) PRIOR TO OCCUPYING AN INTERSECTION. REFER TO STANDARD SPECIFICATIONS.
- ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED WITH PLASTIC REFLECTORIZED PAVEMENT MARKINGS BY THE 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 ENGINEER MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE ENGINEER AND SHALL NOTIFY THE ENGINEER 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 PERMANENT SURVEY MONUMENT LOCATED WITHIN 50' OF THIS PROJECT THAT IS NOT SHOWN ON THE PLAN AND IS DESTROYED DURING CONSTRUCTION WILL BE REPLACED AT THE DESIGNERS EXPENSE.
- CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORK SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY AND ALL GRAFFITI FROM 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.
- 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 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 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://abowua.org/content/view/463/729>
- ALL EXCAVATION, TRENCHING, AND SHORING ACTIVITIES MUST BE CARRIED OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P.
- ELECTRONIC MARKER DEVICES (EMS) WILL BE PLACED ACCORDING TO SECTION 170 OF THE COA STANDARD SPECIFICATIONS.
- CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL CONSTRUCTION SIGNING UNTIL PROJECT HAS BEEN ACCEPTED BY THE COA.

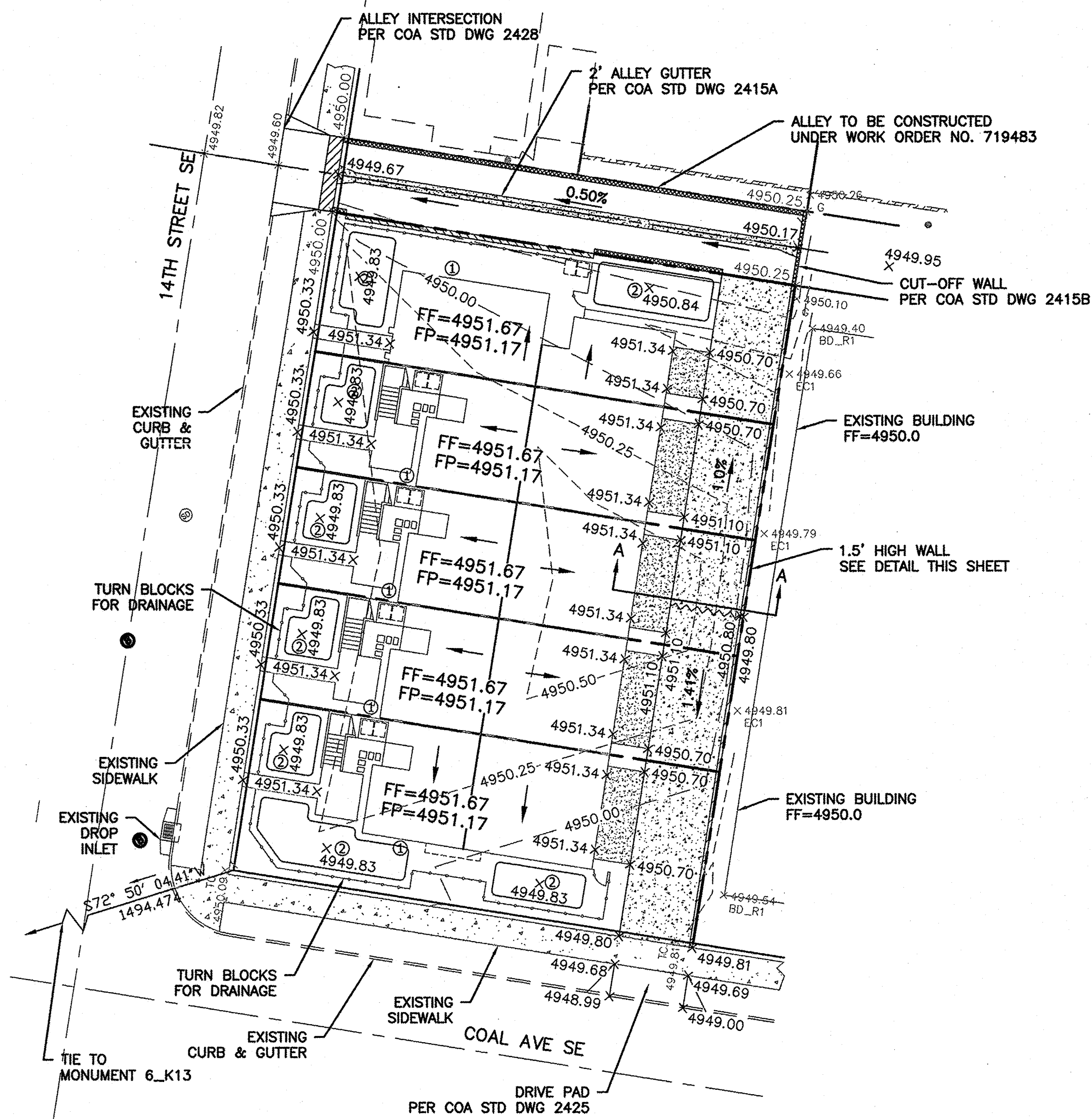
THE FOLLOWING NOTES ALSO APPLY WHEN CHECKED

- ☐ 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 PROJECT ENGINEER.
☒ SIDEWALKS AND WHEELCHAIR RAMPS WITHIN THE CURB RETURNS SHALL BE CONSTRUCTED WHEREVER A NEW CURB RETURN IS CONSTRUCTED.
☒ IF CURB IS DERESSED 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.

DRB #

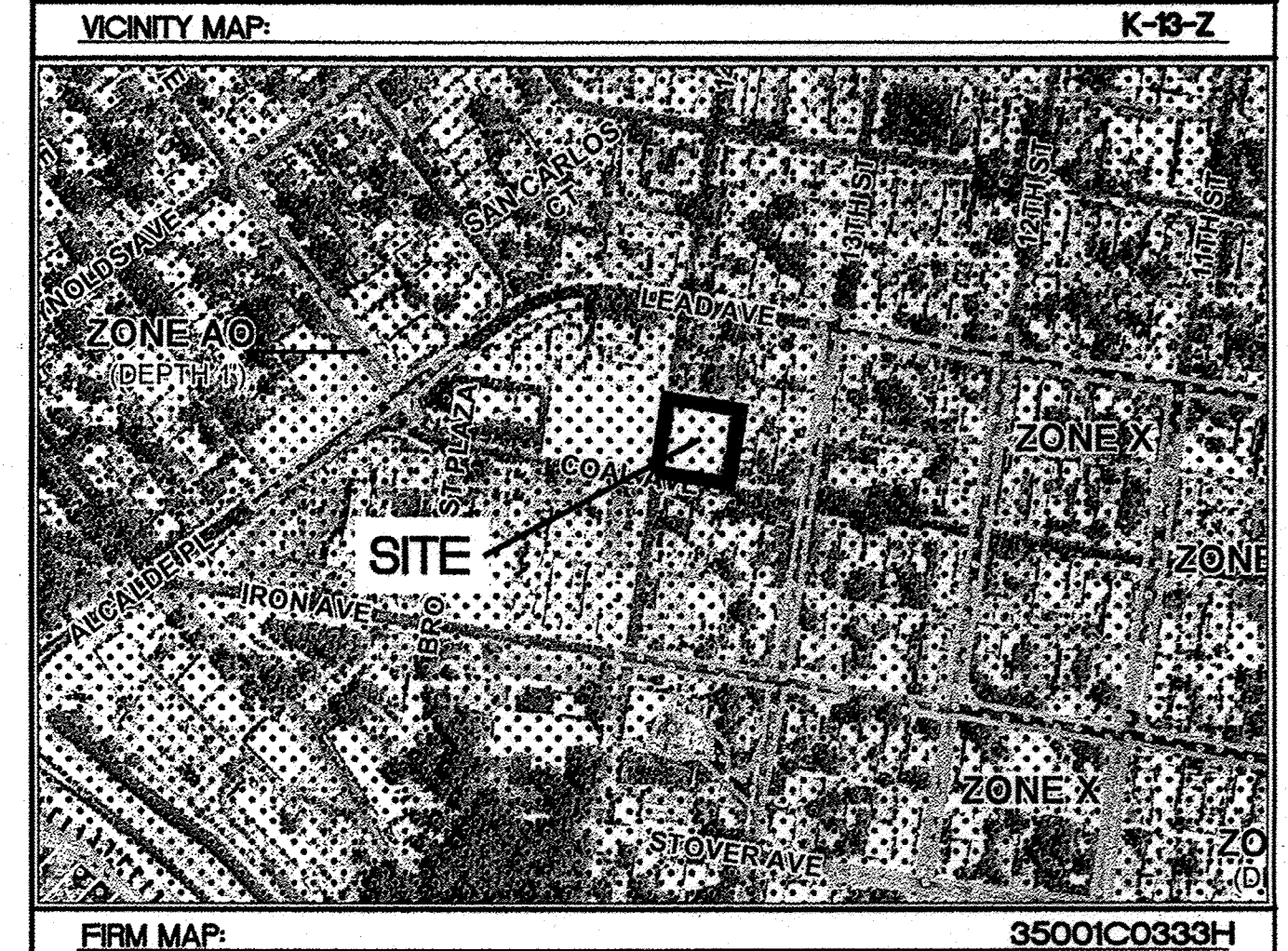
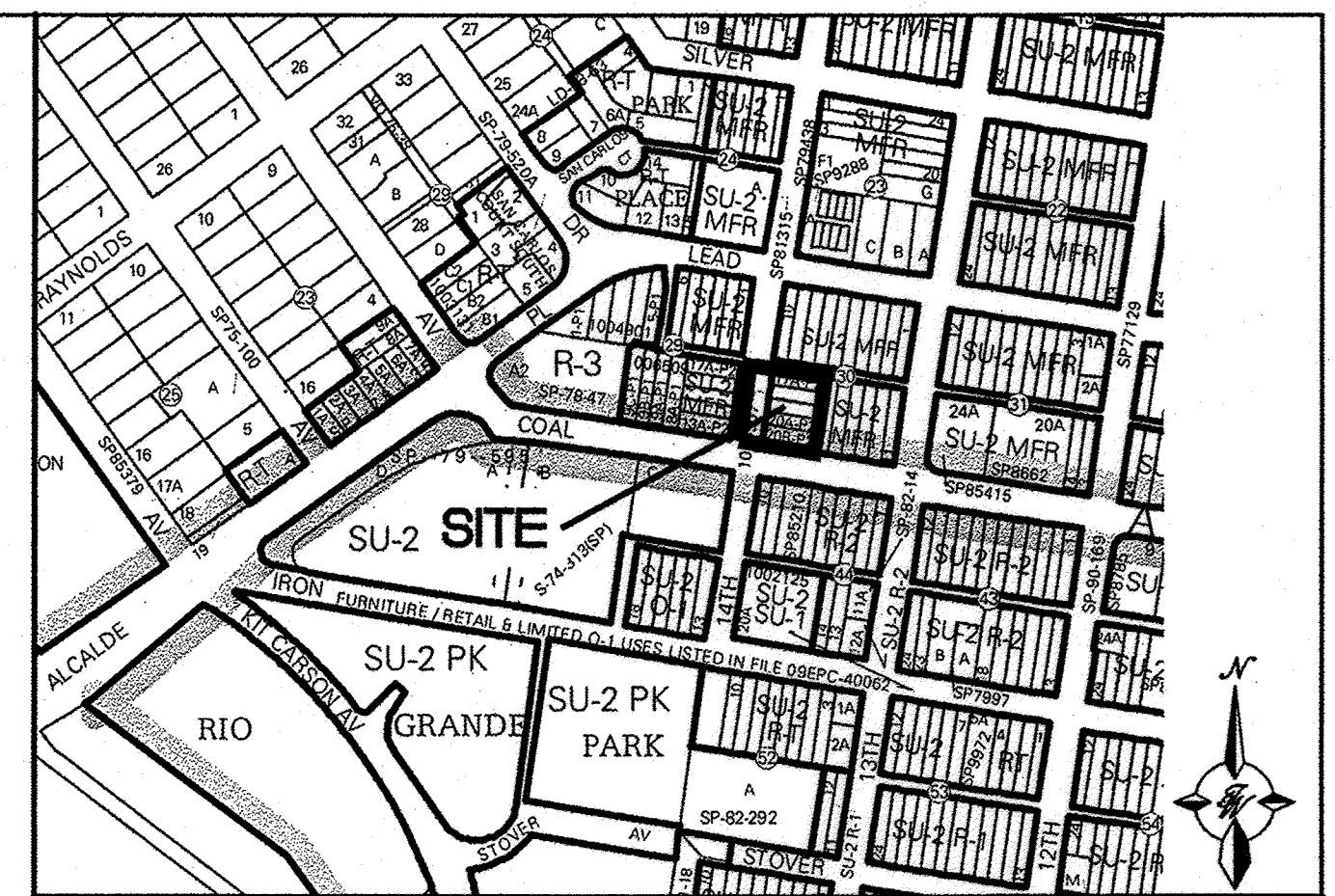
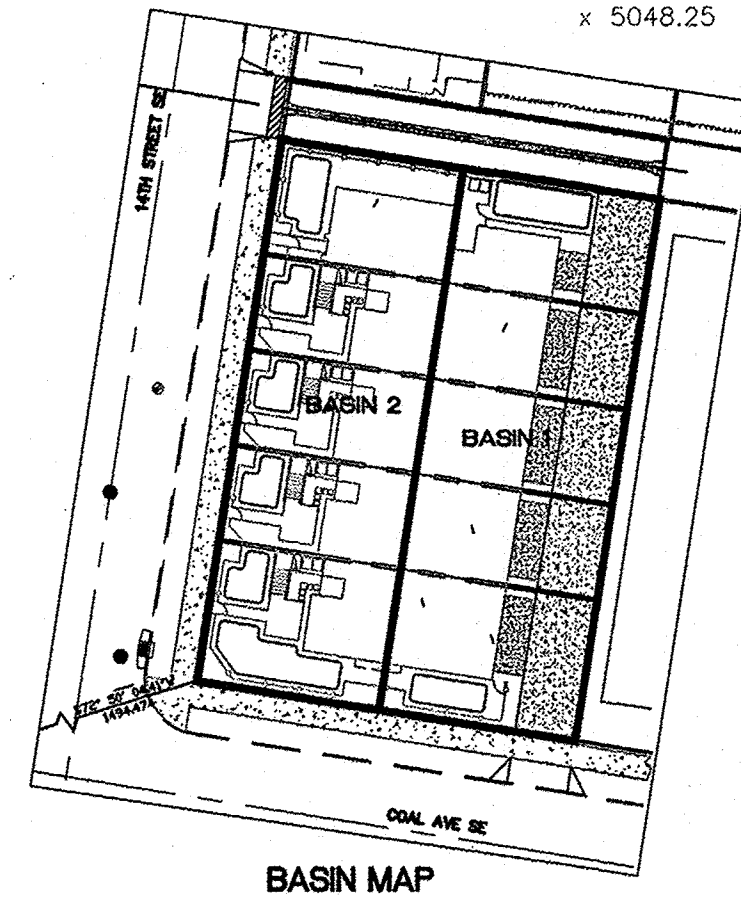
TERRA WEST, LLC
5571 MIDWAY PARK PLACE NE
ALBUQUERQUE, NEW MEXICO 87109
505-858-3100
www.tierrawestllc.com

REV	SHEETS	CITY ENGINEER	DATE	USER DEPT.	DATE	USER DEPT.	DATE
ENGINEERS STAMP & SIGNATURE	APPROVALS	ENGINEER	DATE	*****			
	DRC Chairman	<i>Woodell</i>	2/18/14	APPROVED FOR CONSTRUCTION			
	Transportation	<i>B. M. M.</i>	2/18/14				
	Water/Wastewater	<i>A. M.</i>	2/18/14				
	Hydrology	<i>A. M.</i>	2/26/14				
	AMAFCA						
CITY PROJECT NO.		719483		SHEET 01 OF 05		Date 3/24/2014	



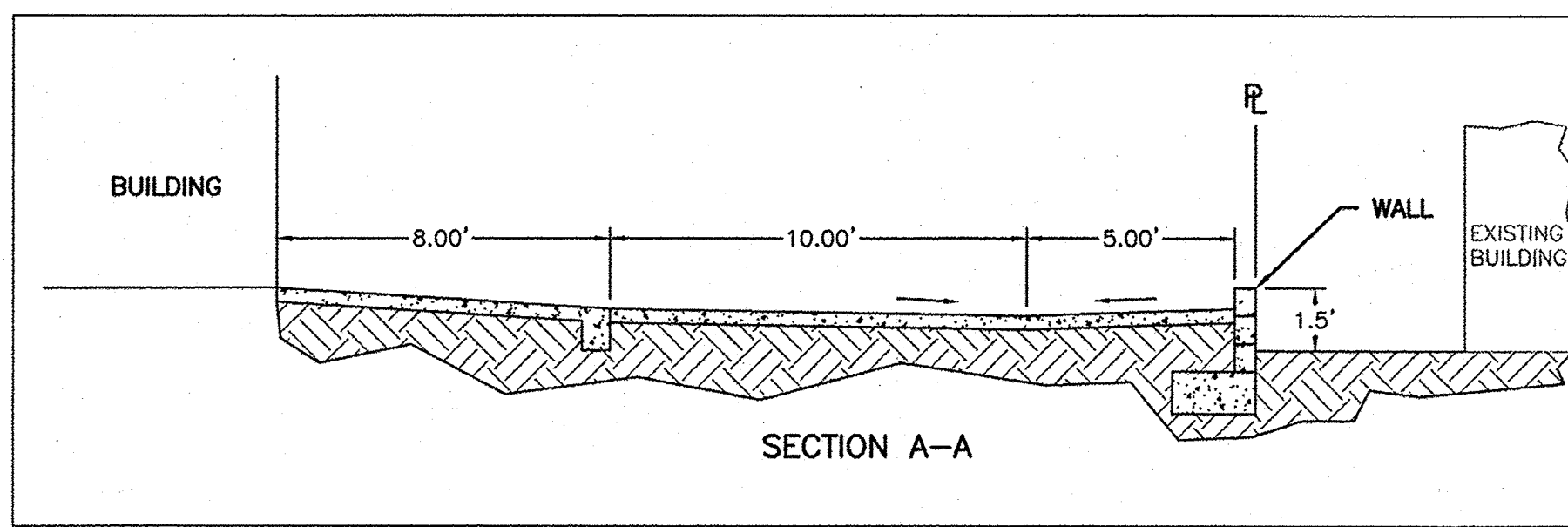
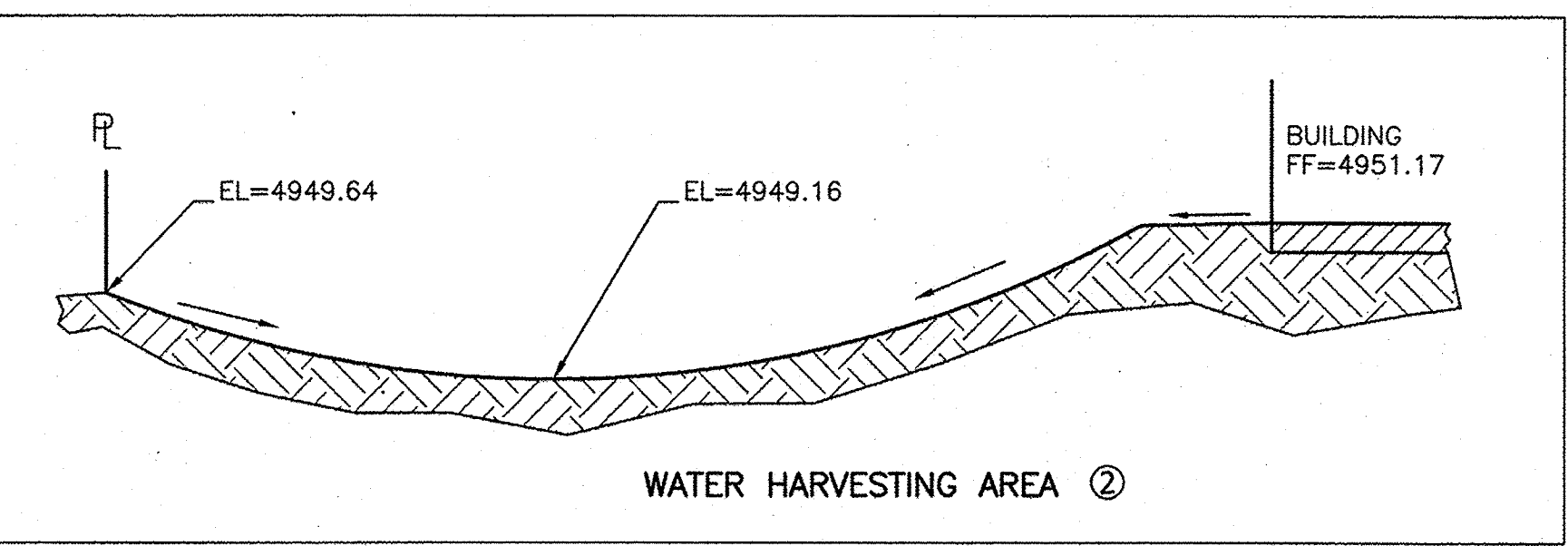
A.G.R.S. MONUMENT "6_K13"
STANDARD A.G.R.S. BRASS TABLET
(FOUND IN PLACE)
NEW MEXICO STATE PLANE COORDINATES
(CENTRAL ZONE-N.A.D. 1983)
N=1,485,023.666
E=1,515,142.468
PUBLISHED EL=4959.62 (NAVD 1988)
GROUND TO GRID FACTOR=0.999684989
DELTA ALPHA ANGLE=0°14'26.38"

- LEGEND**
- BOUNDARY LINE
 - EASEMENT
 - CENTERLINE
 - RIGHT-OF-WAY
 - CMU BLOCK WALL
 - ALLEY CUT-OFF WALL
 - x 5048.25 SPOT ELEVATION
 - ① FLOW ARROW
 - ② RAIN BARREL (50 GALLON MIN.)
 - EXISTING SIDEWALK
 - EXISTING CURB & GUTTER
 - EXISTING BOUNDARY LINE
 - 5010 EXISTING CONTOUR MAJOR
 - 5011 EXISTING CONTOUR MINOR
 - x 5048.25 EXISTING ELEVATION



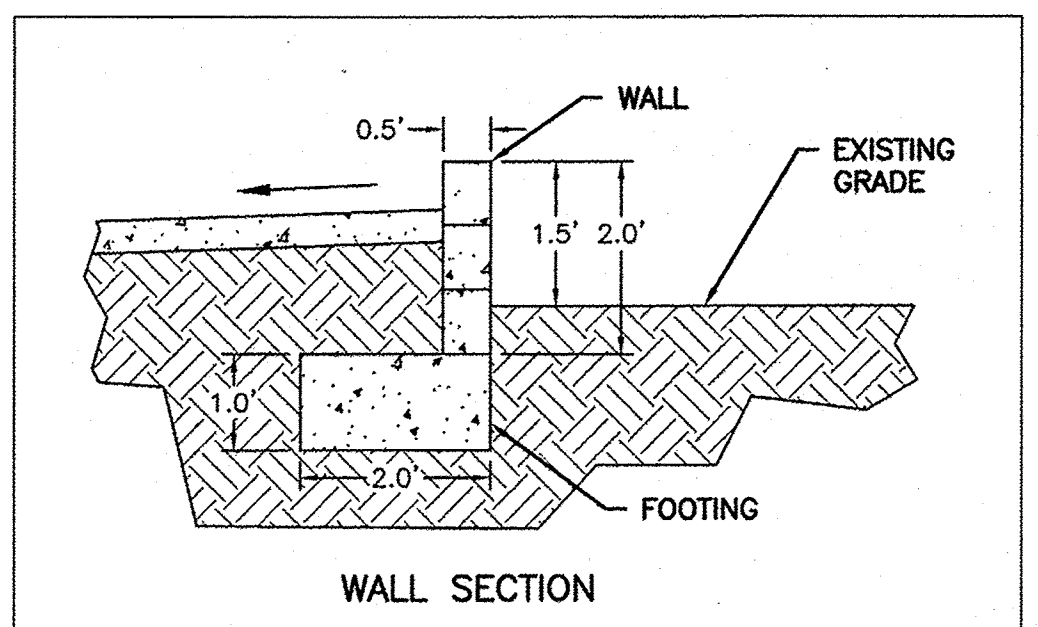
NOTICE TO CONTRACTORS

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2. 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 INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1985.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONNECTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.



EXISTING DRAINAGE:
THE SITE IS CURRENTLY VACANT AND IS LOCATED AT THE NORTHEAST CORNER OF 14TH STREET AND COAL AVENUE. THE SITE IS BOUNDED ON THE SOUTH BY COAL AVENUE, ON THE WEST BY 14TH STREET, ON THE NORTH BY AN ALLEY AND ON THE EAST BY APARTMENTS. THE SITE WAS DEVELOPED AT ONE TIME WITH A PARKING LOT THAT HAS SINCE BEEN REMOVED. ACCORDING TO A DRAINAGE REPORT COMPLETED BY COMMUNITY SCIENCES AND APPROVED ON MAY 15, 2007 THIS SITE HAS A HISTORIC DISCHARGE RATE OF 1.37 CFS. THAT STORM WATER SURFACED DRAINED TO THE STREETS AND INTO A DROP INLET LOCATED AT THE CORNER.

PROPOSED DRAINAGE:
THE SITE IS DIVIDED INTO 2 BASINS. BASIN 1 DRAINS TO COAL AVENUE AND THE ALLEY, BASIN 2 DRAINS TO 14TH STREET. THE STORM WATER FOLLOWS THE SAME PATH AS IT DOES HISTORICALLY AND FLOWS INTO THE DROP INLET AT THE CORNER. THE TOTAL FLOW DISCHARGED FROM THE SITE IS 1.37 CFS. EACH UNIT WILL HAVE A RAIN BARREL AS SHOWN ON THE PLAN AND WILL CAPTURE ABOUT 50 GALLONS OF STORM WATER TO BE USED FOR IRRIGATION. THE DEVELOPED FLOWS WERE CALCULATED USING THE WEIGHTED "E" METHOD AND ARE SHOWN IN THE TABLE BELOW.



The 14 East Weighted E Method																
On-Site Basins																
											100-Year			10-Year		
Basin	Area (sf)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs
			%	(acres)	%	(acres)	%	(acres)	%	(acres)						
1	7,632	0.18	0%	0	25%	0.04	0%	0.00	75%	0.13	1.785	0.026	0.72	1.075	0.016	0.45
2	6,568	0.15	0%	0	15%	0.02	0%	0.00	85%	0.13	1.919	0.024	0.65	1.181	0.015	0.42
											1.37					

Equations:

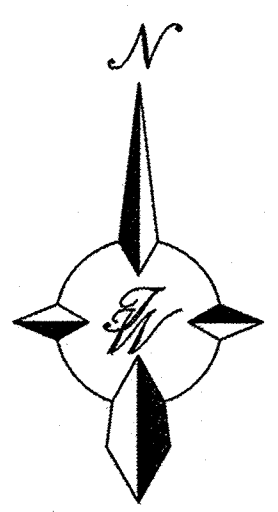
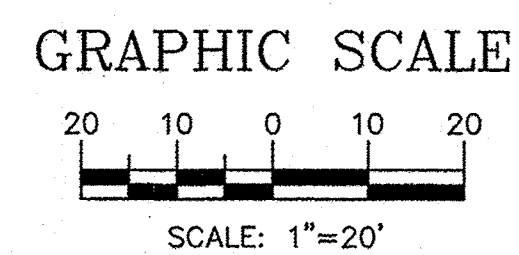
Weighted E = $E_a \cdot A_a + E_b \cdot A_b + E_c \cdot A_c + E_d \cdot A_d$ / (Total Area)

Volume = Weighted E * Total Area

Flow = $Q_a \cdot A_a + Q_b \cdot A_b + Q_c \cdot A_c + Q_d \cdot A_d$

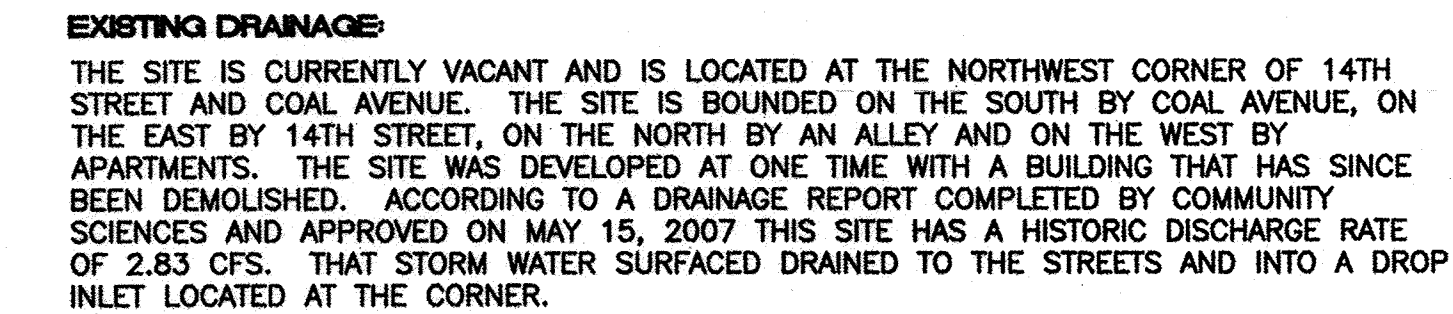
Excess Precipitation, E (inches)			Peak Discharge (cfs/acre)		
Zone	100-Year	10-Year	Zone	100-Year	10-Year
E _a	0.53	0.13	Q _a	1.56	0.38
E _b	0.78	0.28	Q _b	2.28	0.95
E _c	1.13	0.52	Q _c	3.14	1.71
E _d	2.12	1.34	Q _d	4.70	3.14

CAUTION:
ALL EXISTING UTILITIES SHOWN WERE OBTAINED FROM RESEARCH, AS-BUILTS, SURVEYS OR INFORMATION PROVIDED BY OTHERS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO AND INCLUDING ANY EXCAVATION, TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS, PRIOR TO STARTING THE WORK. ANY CHANGES FROM THIS PLAN SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.



For Reference Only

	THE 14TH EAST 14TH AND COAL GRADING AND DRAINAGE PLAN	DRAWN BY BJF DATE 02/15/14 2013044_GRE
	TERRA WEST, LLC 5571 MIDWAY PARK PLACE NE ALBUQUERQUE, NM 87109 (505) 858-3100 www.tierrowestllc.com	SHEET # 3 of 5
	JOB # 2013044	
	P.E. #7866	



THE SITE IS DIVIDED INTO 4 BASINS. BASIN 1 DRAINS TO 14TH STREET, BASIN 2 DRAINS TO COAL AVENUE AND THE ALLEY, BASIN 3 DRAINS TO THE ALLEY AND BASIN 4 DRAINS TO COAL AVENUE. THE STORM WATER FOLLOWS THE SAME PATH AS IT DOES HISTORICALLY AND FLOWS INTO THE DROP INLET AT THE CORNER. THE TOTAL FLOW DISCHARGED FROM THE SITE IS 2.83 CFS. EACH UNIT WILL HAVE A RAIN BARREL AS SHOWN ON THE PLAN AND WILL CAPTURE ABOUT 50 GALLONS OF STORM WATER TO BE USED FOR IRRIGATION. THE DEVELOPED FLOWS WERE CALCULATED USING THE WEIGHTED "E" METHOD AND ARE SHOWN IN THE TABLE BELOW.

Equations:

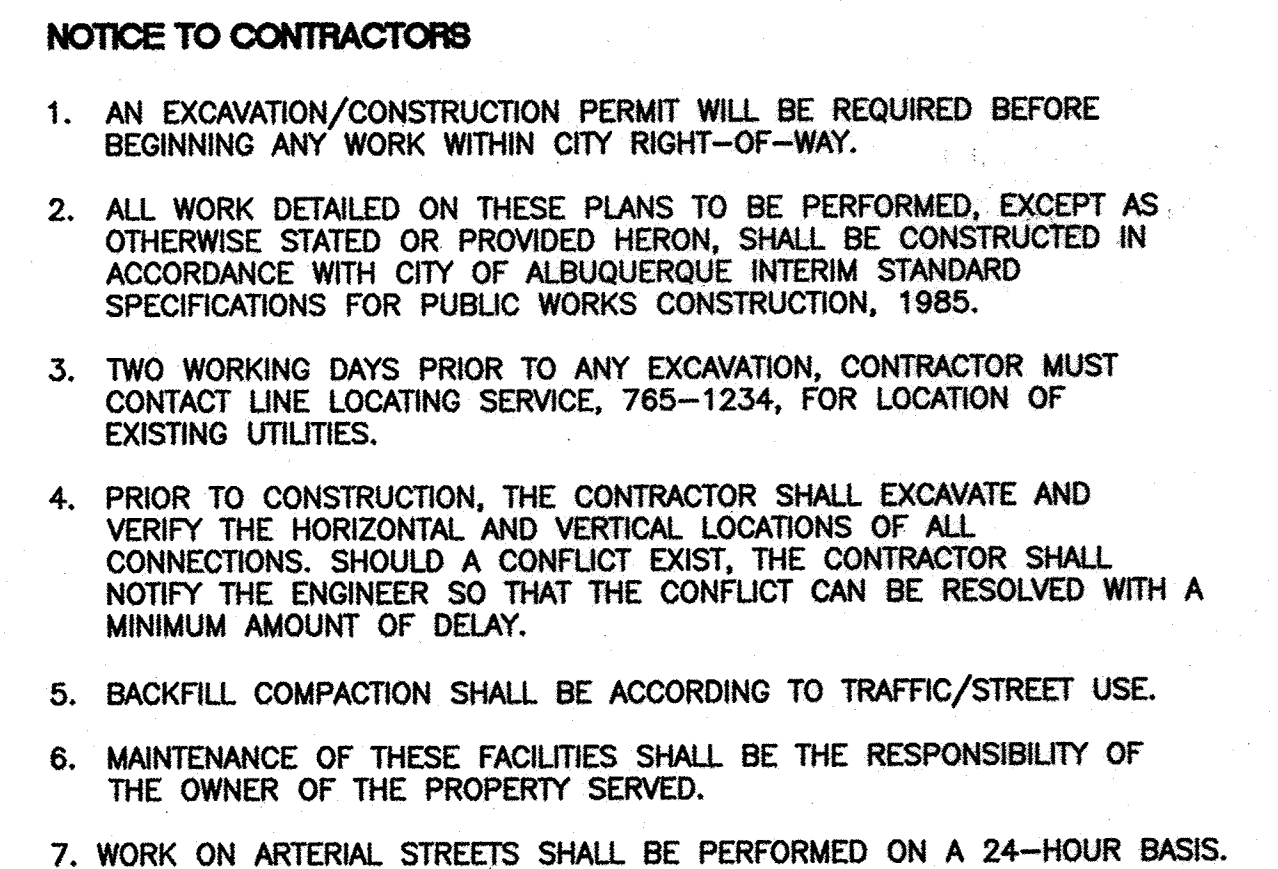
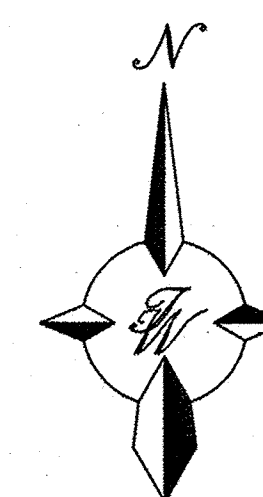
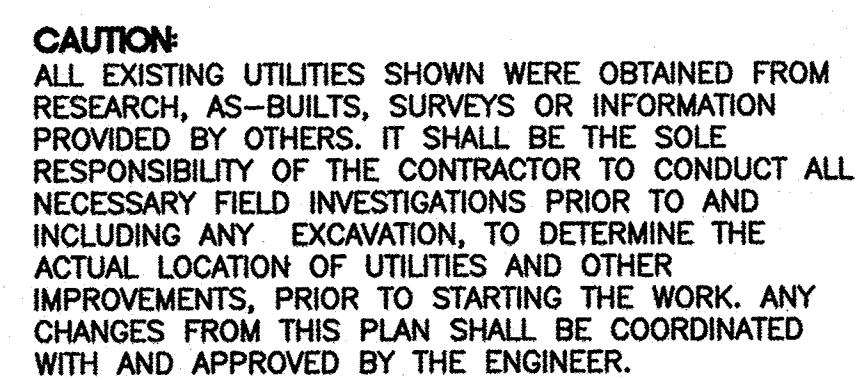
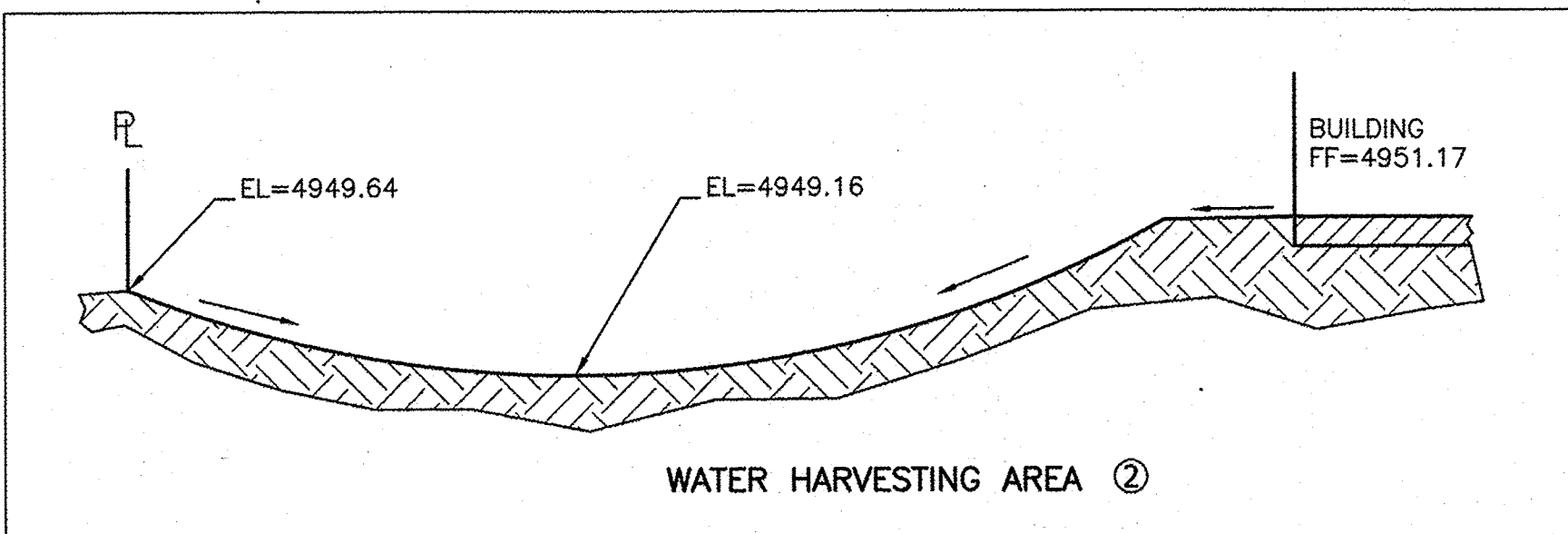
Weighted E = $E_a \cdot A_a + E_b \cdot A_b + E_c \cdot A_c + E_d \cdot A_d$ / (Total Area)

Volume = Weighted D * Total Area

Flow = $Q_a \cdot A_a + Q_b \cdot A_b + Q_c \cdot A_c + Q_d \cdot A_d$

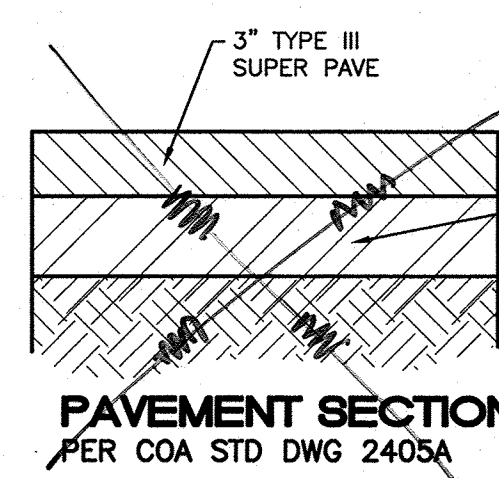
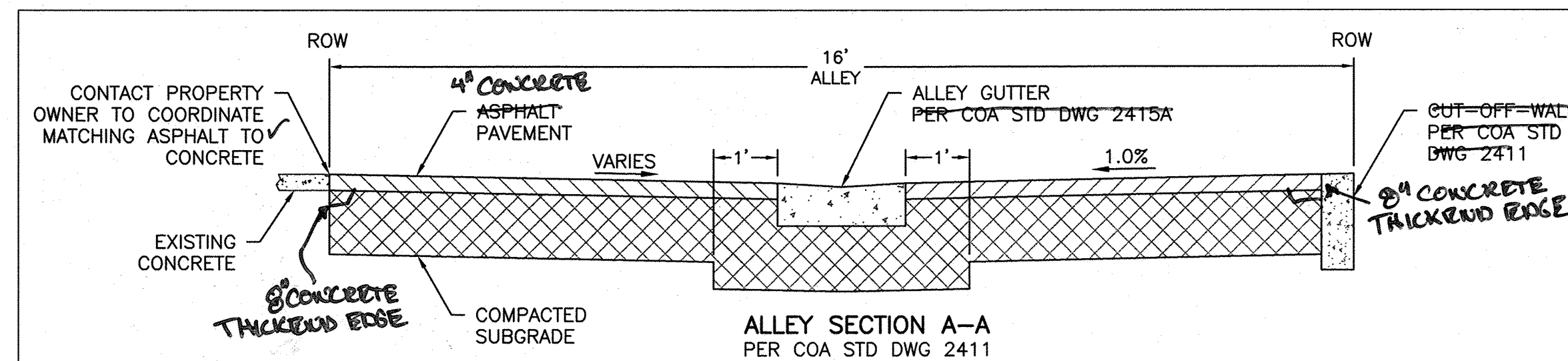
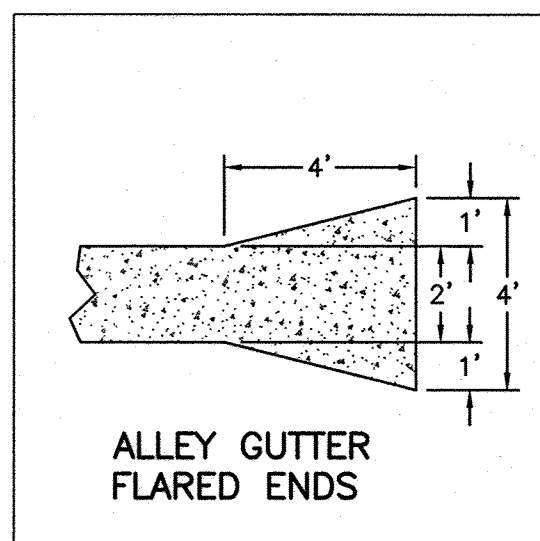
LEGEND

	BOUNDARY LINE
	EASEMENT
	CENTERLINE
	RIGHT-OF-WAY
	CMU BLOCK WALL
	ALLEY CUT-OFF WALL
x 5048.25	SPOT ELEVATION
	FLOW ARROW
①	RAIN BARREL (50 GALLON MIN.)
②	WATER HARVESTING AREA
	EXISTING SIDEWALK
	EXISTING CURB & GUTTER
	EXISTING BOUNDARY LINE
5010	EXISTING CONTOUR MAJOR
5011	EXISTING CONTOUR MINOR
x 5048.25	EXISTING ELEVATION



TIERRA WEST, LLC
5571 MIDWAY PARK PLACE NE
ALBUQUERQUE, NM 87109
(505) 858-3100
www.tierrawestllc.com

DRAWN BY
BJF
DATE
11/15/14
013044_GRE
SHEET #
1 of 5
JOB #
2013044



12" COMPACTED SUBGRADE PREP
R-VALUE > 50, 95% MINIMUM COMPACTION
PER SECTION 301. SOIL NOT HAVING THE MIN.
R-VALUE OF 50, SHALL BE REMOVED TO A
DEPTH OF 2 FEET AND REPLACED BY THE
CONTRACTOR WITH SUITABLE MATERIAL
CHANGED TO 4" CONCRETE PAVING
WITH 8" TURN DOWN EDGE

LEGEND

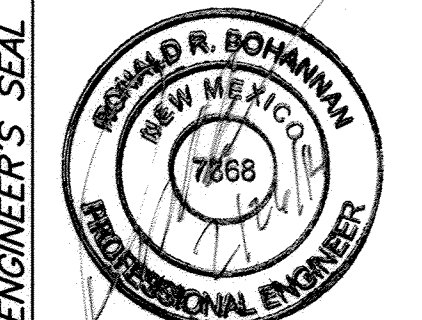
- BOUNDARY LINE
- CENTERLINE
- RIGHT-OF-WAY
- CMU BLOCK WALL
- ALLEY CUT-OFF WALL
- EXISTING CURB & GUTTER
- EXISTING BOUNDARY LINE
- EXISTING POWER POLE
- EXISTING SPOT ELEVATION

SITE LEGEND

- MAINTAIN 3' WIDE ADA ACCESS ACROSS ALLEY ENTRANCE

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DESIGNED BY: JN
DRAWN BY: BJF
CHECKED BY: JN

DATE: 12/10/2013
DATE: 01/06/2014
JOB NO.: 2013044
DRAWING NAME: 2013044-SH05-ALLEY

DATE: 01/06/2014

DATE: 01/06/2014

DATE: 01/06/2014

TIERRA WEST, LLC
5571 MIDWAY PARK PLACE NE
ALBUQUERQUE, NM 87109
(505)858-3100
www.tierrawestllc.com

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

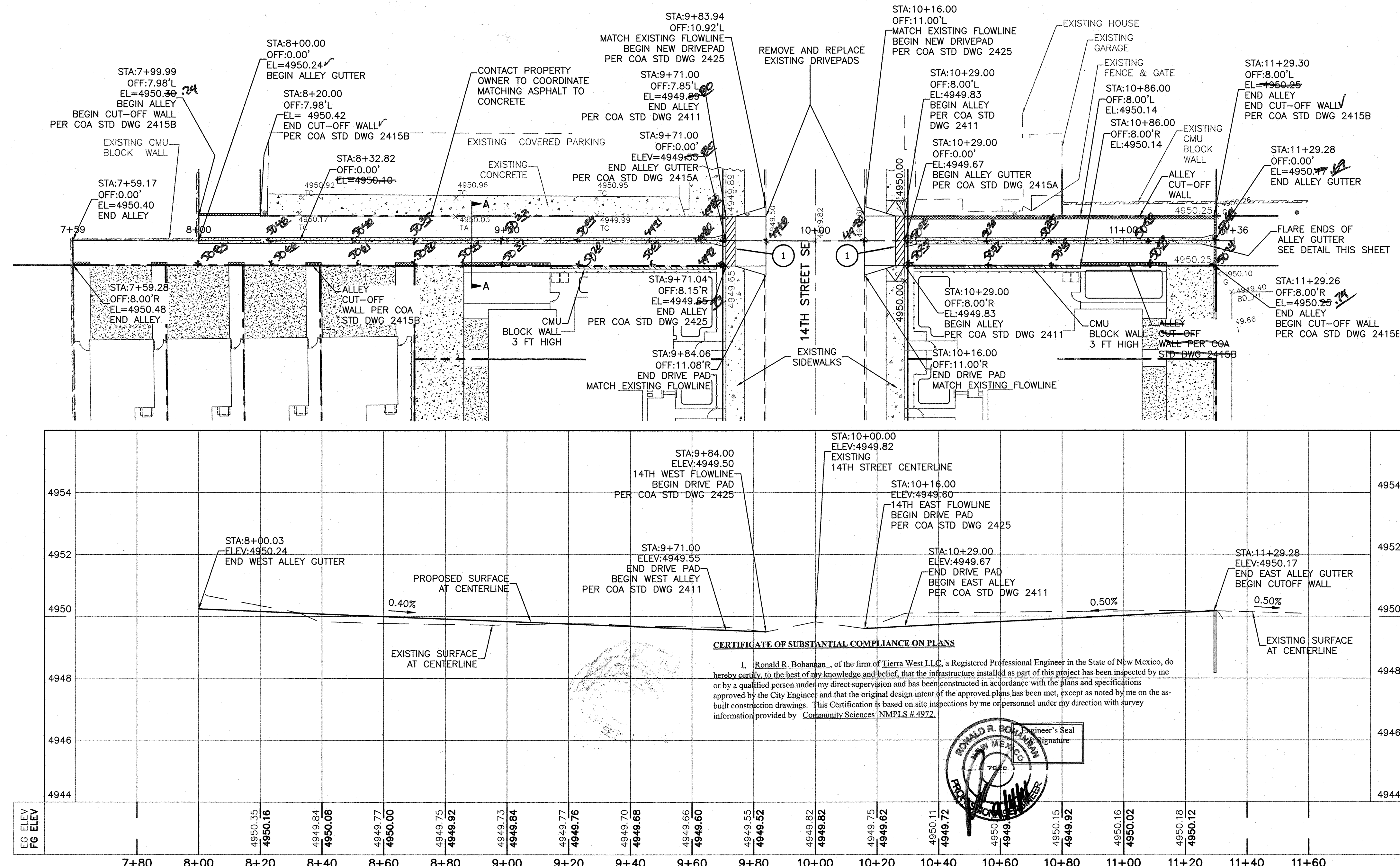
TITLE: 14TH ST. AND COAL AV
ALLEYWAY IMPROVEMENTS
STA: 7+59.17 TO 11+29.28

DESIGN REVIEW COMMITTEE
APPROVED
FEB 28 2014

CITY ENGINEER APPROVAL
APPROVED
MAR 24 2014

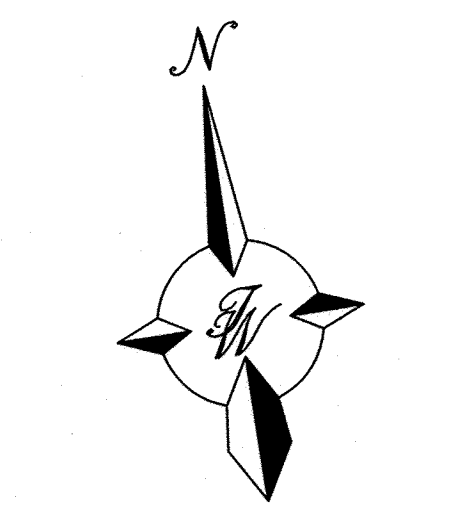
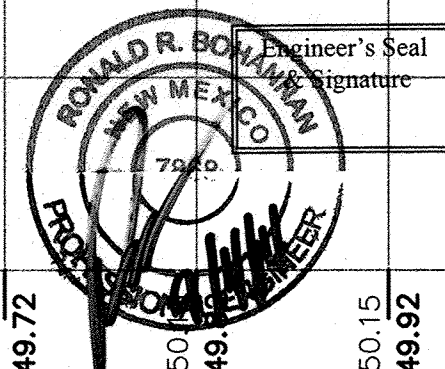
MO./DAY/YR.
MO./DAY/YR.

CITY PROJECT NO. 719483 ZONE MAP NO. K-13-Z SHEET 05 OF 05

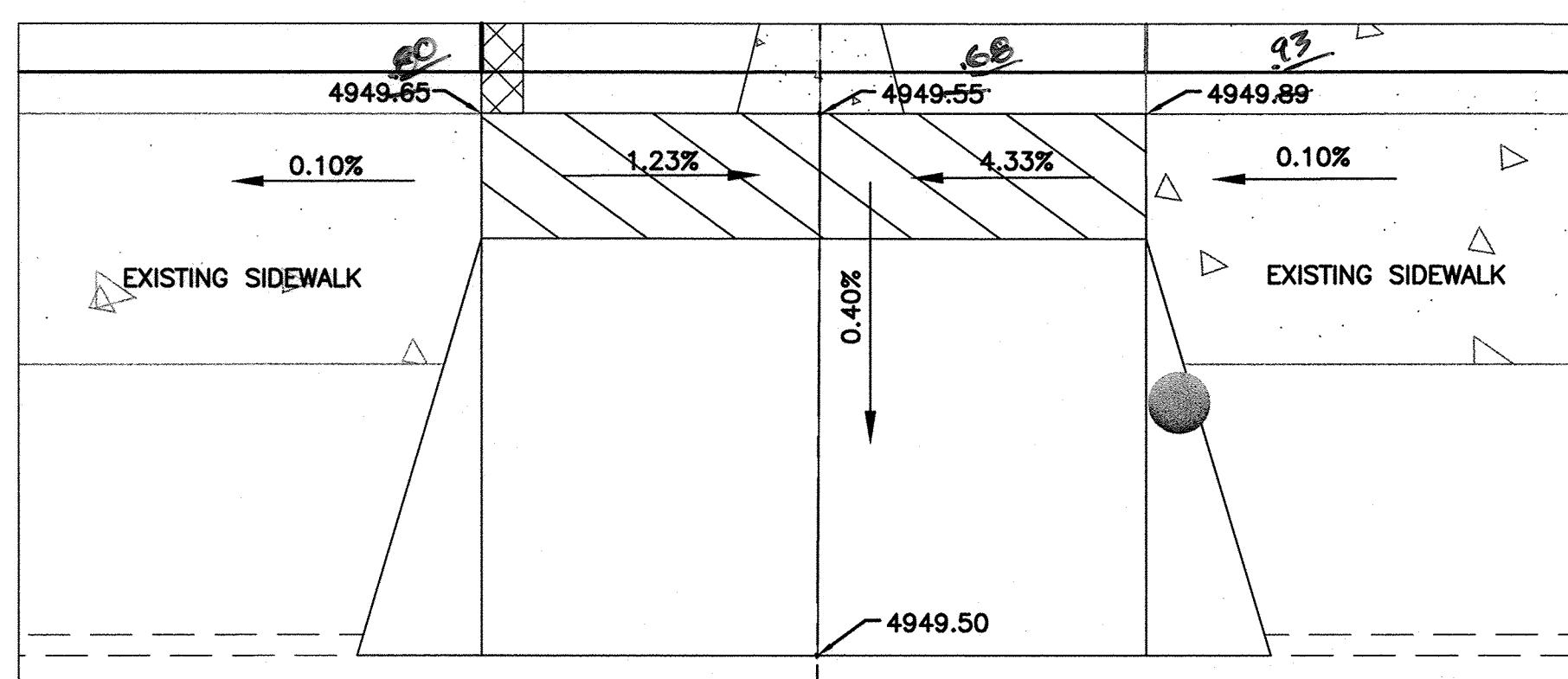


CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

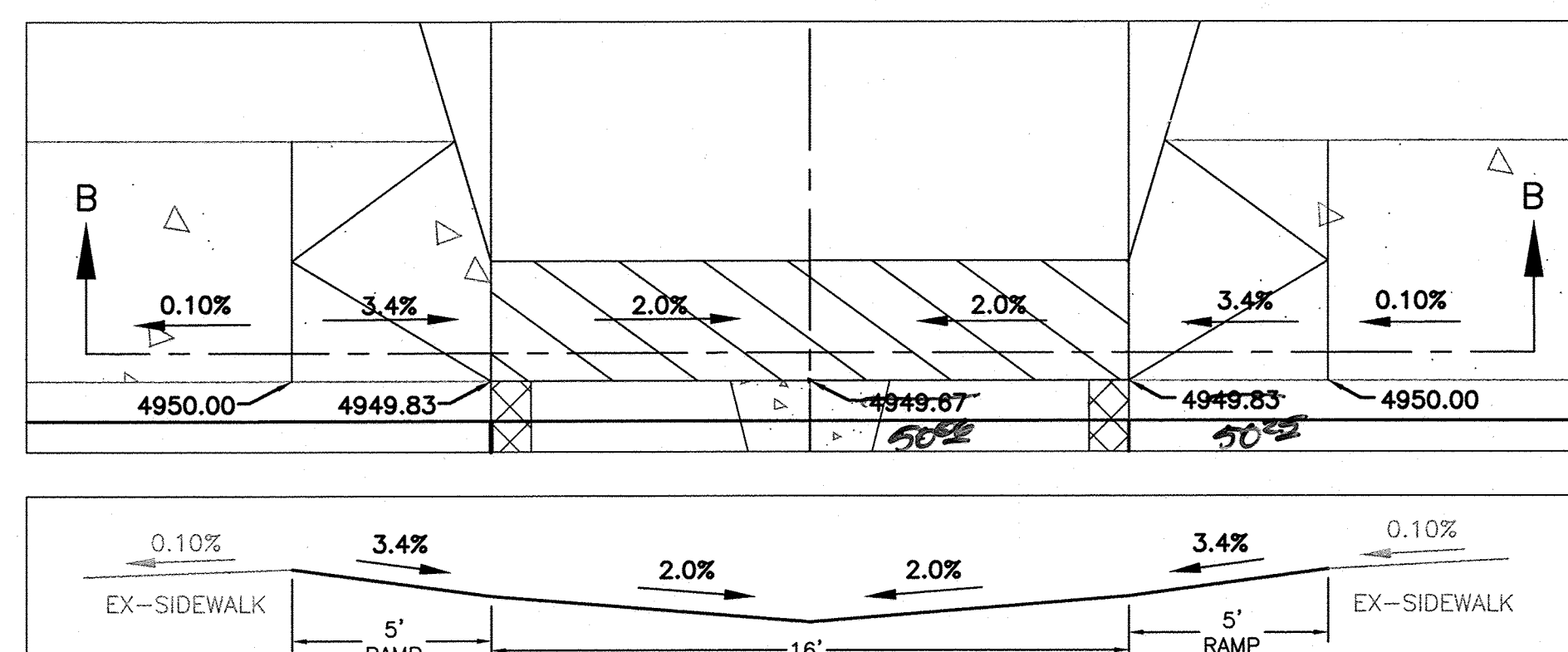
I, Ronald R. Bohannon, of the firm of Tierra West LLC, a Registered Professional Engineer in the State of New Mexico, do hereby certify, to the best of my knowledge and belief, that the infrastructure installed as part of this project has been inspected by me or by a qualified person under my direct 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 with survey information provided by Community Sciences NMPLS #4972.



SCALE: HORIZ. 1"=20'
VERT. 1"=2'



ALLEY AND SIDEWALK CONNECTION DETAIL WESTSIDE



SECTION B-B

ALLEY AND SIDEWALK CONNECTION DETAIL EASTSIDE

CAUTION:

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