

CITY OF ALBUQUERQUE

Planning Department
Suzanne Lubar, Director



Mayor Richard J. Berry

April 26, 2016

Ronald R. Bohannan, PE
Tierra West, LLC
5571 Midway Park Place NE
Albuquerque, NM 87109

Re: Imperial Building
205 Silver Ave SW
Request Permanent C.O. - Accepted
Engineer's Stamp dated: 12-8-14 (K14D106)
Certification dated: 4-21-16

Dear Mr. Bohannan,

PO Box 1293

Based on the Certification received 4/22/2016, the above referenced site is acceptable for release of Certificate of Occupancy by Hydrology.

Albuquerque

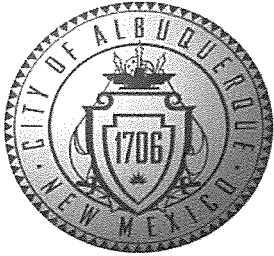
If you have any questions, you can contact me at 924-3695 or Rudy Rael at 924-3977.

New Mexico 87103 Sincerely,

www.cabq.gov

Rita Harmon, P.E.
Senior Engineer, Hydrology
Planning Department

RR/RH
C: email



City of Albuquerque

Planning Department

Development & Building Services Division

RAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: Imperial Building City Drainage #: _____

DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: Tract 9-A-1-A, Renaissance Center

City Address: 205 Silver Avenue

Engineering Firm: Tierra West LLC Contact: Ronald R. Bohannan

Address: 5571 Midway Park Place, NE, Albuquerque, NM 87109

Phone#: 505-858-3100 Fax#: _____ E-mail: rrb@tierrawestllc.com

Owner: Yes Housing inc. Contact: Dory Wegrzyn

Address: 104 Roma NW, Albuquerque, NM 87102

Phone#: 505-254-1373 Fax#: _____ E-mail: DWegrzyn@yeshousing.org

Architect: Dekker/Perich/Sabatini Contact: Jeremy Shelton

Address: 7601 Jefferson NE, Suite 100, Albuquerque, NM 87109

Phone#: 505-761-9700 Fax#: _____ E-mail: JeremyS@dpsdesign.org

Surveyor: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Contractor: Jaynes Corporation Contact: Brian O'Connell

Address: 2906 Broadway NE, Albuquerque, NM 87107

Phone#: 505-345-8591 Fax#: _____ E-mail: brian.oconnell@jaynescorp.com

TYPE OF SUBMITTAL:

- DRAINAGE REPORT
- DRAINAGE PLAN 1st SUBMITTAL
- DRAINAGE PLAN RESUBMITTAL
- CONCEPTUAL G & D PLAN
- GRADING PLAN
- EROSION & SEDIMENT CONTROL PLAN (ESC)
- ENGINEER'S CERT (HYDROLOGY)
- CLOMR/LOMR
- TRAFFIC CIRCULATION LAYOUT (TCL)
- ENGINEER'S CERT (TCL)
- ENGINEER'S CERT (DRB SITE PLAN)
- ENGINEER'S CERT (ESC)
- SO-19
- OTHER (SPECIFY)

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

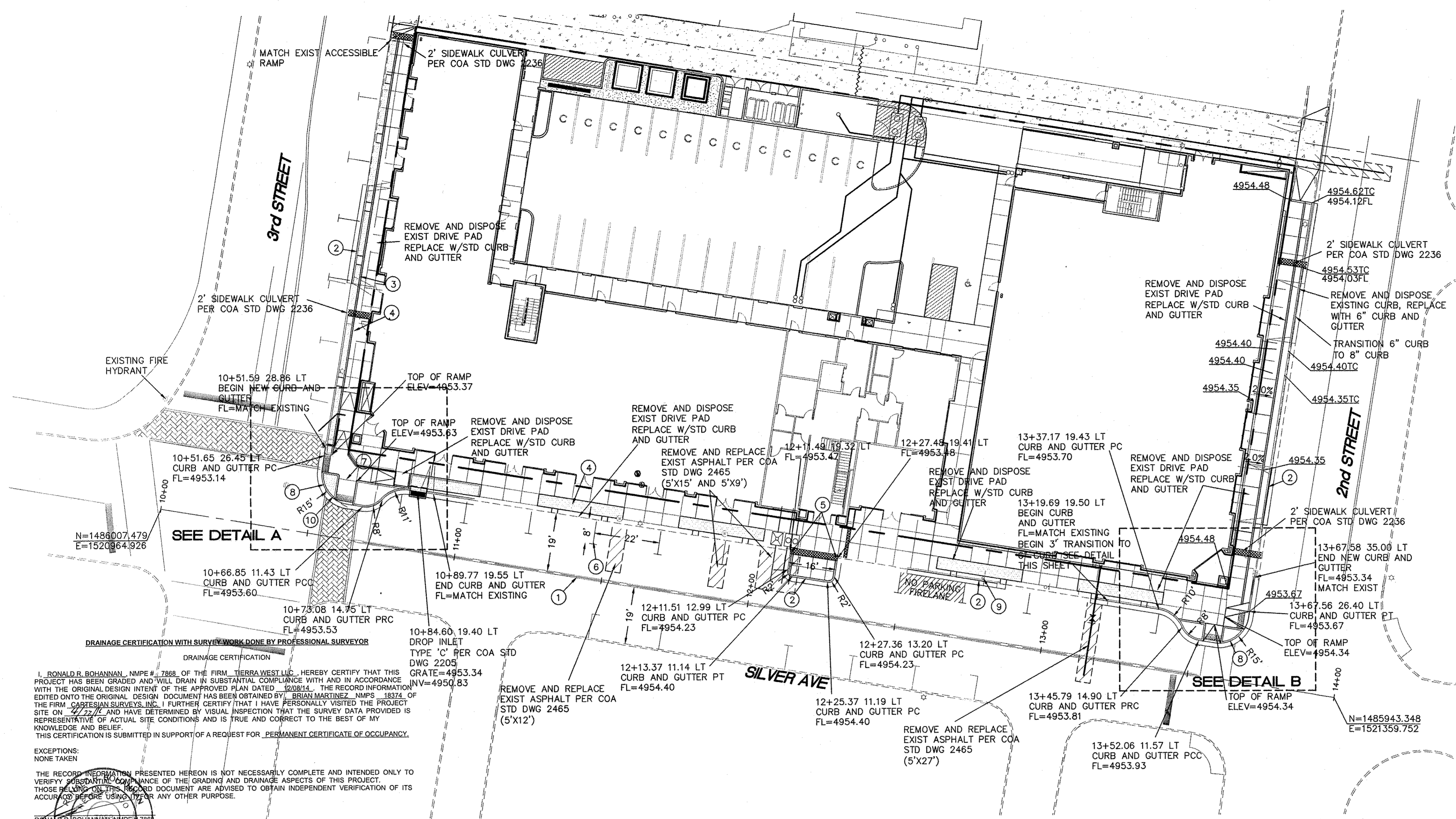
- SIA/FINANCIAL GUARANTEE RELEASE
- PRELIMINARY PLAT APPROVAL
- S. DEV. PLAN FOR SUB'D APPROVAL
- S. DEV. FOR BLDG. PERMIT APPROVAL
- SECTOR PLAN APPROVAL
- FINAL PLAT APPROVAL
- CERTIFICATE OF OCCUPANCY (PERM)
- CERTIFICATE OF OCCUPANCY (TCL TEMP)
- FOUNDATION PERMIT APPROVAL
- BUILDING PERMIT APPROVAL
- GRADING PERMIT APPROVAL
- PAVING PERMIT APPROVAL
- WORK ORDER APPROVAL
- GRADING CERTIFICATION
- SO-19 APPROVAL
- ESC PERMIT APPROVAL
- ESC CERT. ACCEPTANCE
- OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED: _____ Yes _____ No _____ Copy Provided

DATE SUBMITTED: 4/22/16 By: RJB - BRIAN FRESCH

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report:** Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development



LEGEND

- BOUNDARY LINE
- - - EXISTING CURB & GUTTER
- EXISTING SD MANHOLE
- EXISTING SAS MANHOLE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING POWER POLE
- EXISTING GAS VALVE
- EXISTING OVERHEAD UTILITIES
- EXISTING GAS
- EXISTING SANITARY SEWER LINE
- EXISTING WATER LINE
- EXISTING STORM SEWER LINE
- EXISTING INDEX CONTOUR
- EXISTING CONTOUR
- SAWCUT LINE
- ▨ PERMEABLE PAVERS SEE DETAIL SHEET 11
- ▨ TREE WELL SEE DETAIL 3 SHEET 11
- ▨ TREE WELL SEE DETAIL 4 SHEET 11
- ▨ REMOVE AND REPLACE EXIST ASPH PER COA STD DWG 2465
- ▨ EXISTING STAMPED CONCRETE CROSSWALK
- ▨ SIDEWALK CULVERT PER COA STD DWG 2236

NOTE

1. BASIS OF STATIONING IS CENTERLINE OF ALLEY
2. CITY TO REMOVE, STORE AND REINSTALL PARKING METERS, CONTACT MARK SHEPHERD FROM CITY OF ALBUQUERQUE TWO WEEKS PRIOR TO SIDEWALK REMOVAL AND BEFORE NEW SIDEWALK IS INSTALLED, CONTACT (505) 924-3944 mshepherd@cabq.gov. CONTRACTOR SHALL REMOVE POST AND FOOTING
3. ADJUST PULL BOXES, VALVE BOXES AND MANHOLES TO NEW GRADES

DRAINAGE CERTIFICATION WITH SURVEY WORK DONE BY PROFESSIONAL SURVEYOR

DRAINAGE CERTIFICATION

I, RONALD R. BOHANNAN, N.M.P.E. # 7868, OF THE FIRM, TIERRA WEST, LLC, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE ORIGINAL DESIGN INTENT OF THE APPROVED PLAN DATED 12/28/14. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY BRIAN MARTINEZ, N.M.P.S. # 8374 OF THE FIRM, CARDESIAN SURVEYS, INC. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 2/27/16 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR PERMANENT CERTIFICATE OF OCCUPANCY.

EXCEPTIONS:
NONE TAKEN

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE GRADING AND DRAINAGE ASPECTS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING FOR ANY OTHER PURPOSE.

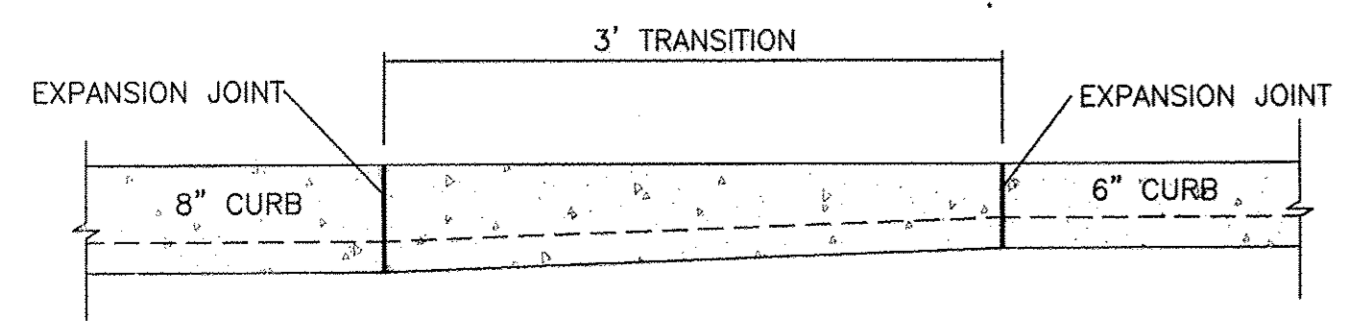
RONALD R. BOHANNAN, N.M.P.E. # 7868
(SEAL)

- KEY NOTES**
- 1 EXISTING STRIPE
 - 2 8" STD CURB AND GUTTER PER COA STD DWG 2415A
 - 3 PERMEABLE PAVERS (TYP) SEE DETAIL SHEET 11
 - 4 TREE WELL SEE DETAIL SHEET 11
 - 5 1' CURB CUT TO LANDSCAPE AREA
 - 6 NEW PARKING STRIPING (22'X8')
 - 7 EXISTING INLET
GRATE=4953.16
INV=4950.66
REPLACE W/MH
RIM=4954.13
INV=4950.66
 - 8 6" CURB AND GUTTER PER APPROVED GRADING PLAN
 - 9 EXISTING BIKE BOULEVARD SIGN TO BE REMOVED AND REPLACED AFTER CONSTRUCTION
 - 10 SAWCUT EXISTING CROSSWALK, REMOVE AND DISPOSE

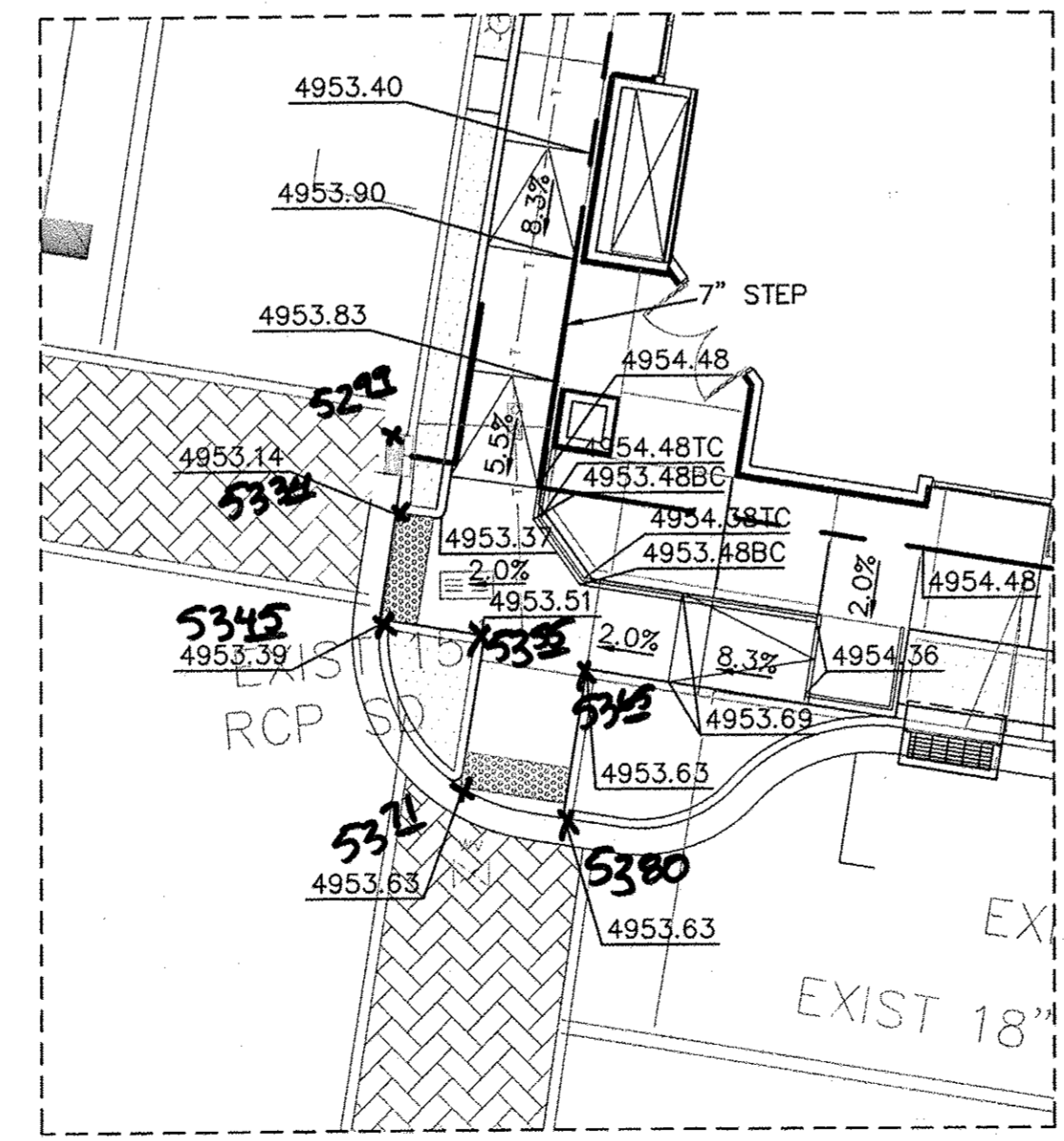
CURB GENERAL NOTES:

1. ALL CURBS TO BE CONSTRUCTED OF PORTLAND CEMENT CONCRETE, PER COA SPECIFICATIONS.
2. PROVIDE CONTRACTION JTS. 12" MAX., SPACING, 1/2" EXP. JTS. AT CURB RETURNS AND AT A MAX. SPACING OF 120' BETWEEN CURB RETURNS AND EACH SIDE OF SEPARATELY CONSTRUCTED DRIVEWAYS. CONTRACTION JTS. SHALL BE EITHER SAWS OR TOOLED A MINIMUM OF 1" DEEP AT FINISHED FACES.
3. ALL EDGES SHALL BE EDGED WITH A 3/8" RADIUS EDGING TOOL.
4. 1/4" ISOLATION JOINT SHALL BE PLACED BETWEEN SIDEWALK AND CURB WHEN CAST ADJACENT TO EACH OTHER.

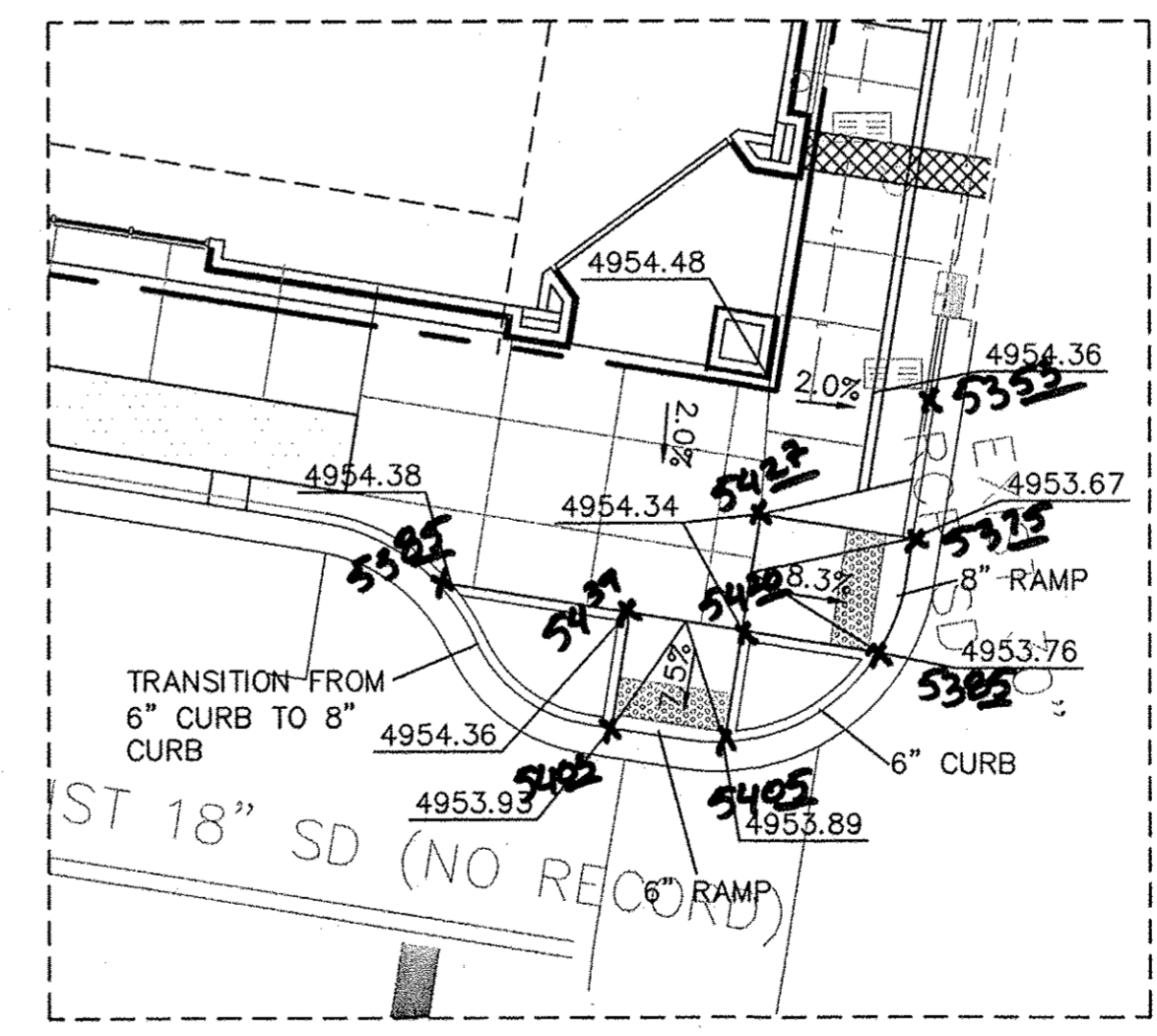
STANDARD 6" CURB / GUTTER



TRANSITION 8" TO 6" CURB DETAIL



DETAIL A



DETAIL B

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.

AS BUILT INFORMATION	
CONTRACTOR	AS BUILT INFORMATION
DESIGNED BY	AS BUILT INFORMATION
DRAWN BY	AS BUILT INFORMATION
CHECKED BY	AS BUILT INFORMATION
DATE	AS BUILT INFORMATION

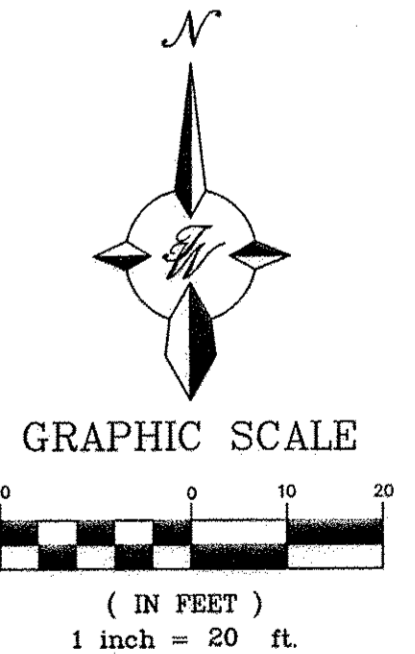
BENCH MARKS	
CONTRACTOR	BENCH MARKS
DESIGNED BY	BENCH MARKS
DRAWN BY	BENCH MARKS
CHECKED BY	BENCH MARKS
DATE	BENCH MARKS

SURVEY INFORMATION	
FIELD NOTES	SURVEY INFORMATION
NO.	SURVEY INFORMATION
BY	SURVEY INFORMATION
DATE	SURVEY INFORMATION

ENGINEER'S SEAL	
NO.	ENGINEER'S SEAL
BY	ENGINEER'S SEAL
DATE	ENGINEER'S SEAL

REVISIONS	
NO.	REVISIONS
DATE	REVISIONS
BY	REVISIONS
REMARKS	REVISIONS

DESIGN	
DESIGNED BY	DESIGN
DRAWN BY	DESIGN
CHECKED BY	DESIGN
DATE	DESIGN



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

CITY OF ALBUQUERQUE
PUBLIC WORKS DIVISION
ENGINEERING GROUP

IMPERIAL BUILDING (205 SILVER AVE)
PAVING IMPROVEMENTS SILVER AVENUE

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	MO./DAY/YR.	MO./DAY/YR.
APR 05 2016	APR 06 2016		

CITY PROJECT NO. **788882** ZONE MAP NO. **P-14-7** SHEET # **10R of 11**

I, RONALD R. BOHANNAN, NMPE # 7868, OF THE FIRM, TIERRA WEST, LLC, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN GRADED AND WILL DRAIN IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE ORIGINAL DESIGN INTENT OF THE APPROVED PLAN DATED 12/28/14. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY BRIAN MARTINEZ, NMPS 18324, OF THE FIRM, CARTERIAN SURVEYS, INC. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 02/27/17, AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR PERMANENT CERTIFICATE OF OCCUPANCY.

EXCEPTIONS: NONE TAKEN

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A.G.S. MONUMENT 27, 214' STANDARD A.G.S. BRASS TABLE FOUND IN PLACE. SOIL MONITORING POINT COORDINATES: NAD83 DATUM. PROJECT: 35001C0334G. DATE: 02/27/17. DRAWN BY: RRB. CHECKED BY: BMM. PUBLISHED BY: TIERRA WEST, LLC. PUBLISHED DATE: 02/27/17. (NAD 1983)

NOTICE TO CONTRACTORS

- TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
- 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.
- BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
- MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
- SOURCE OF TOPO IS ALTA/ACSM LAND TITLE SURVEY OF LOT 2 HARMS INDUSTRIAL PARK PREPARED BY PRECISION SURVEYS, INC DATED JUNE, 2014.

NOTICE TO CONTRACTORS

- AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
- 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.
- TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
- 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.
- BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
- MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
- WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

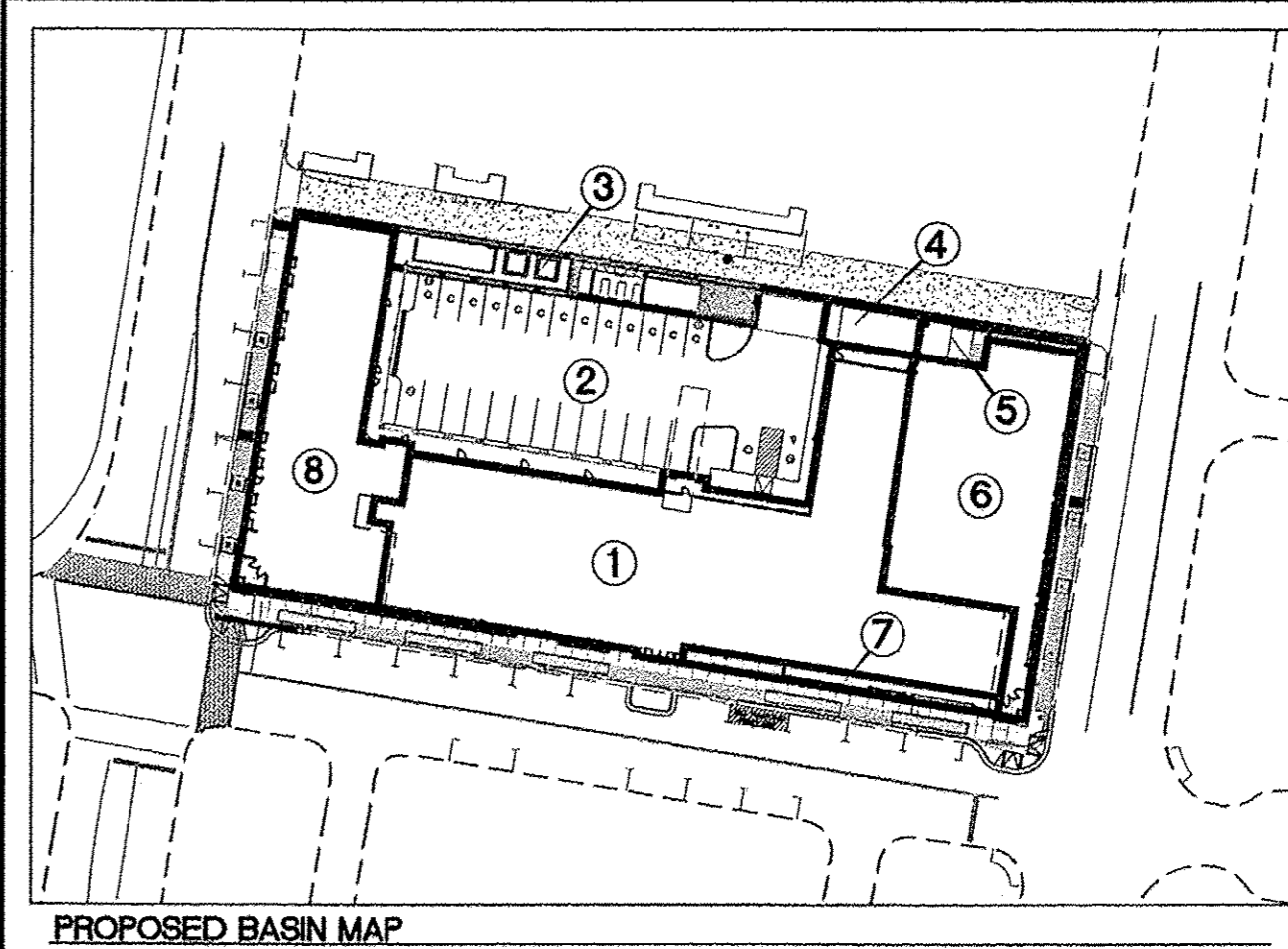
APPROVAL	NAME	DATE
INSPECTOR		



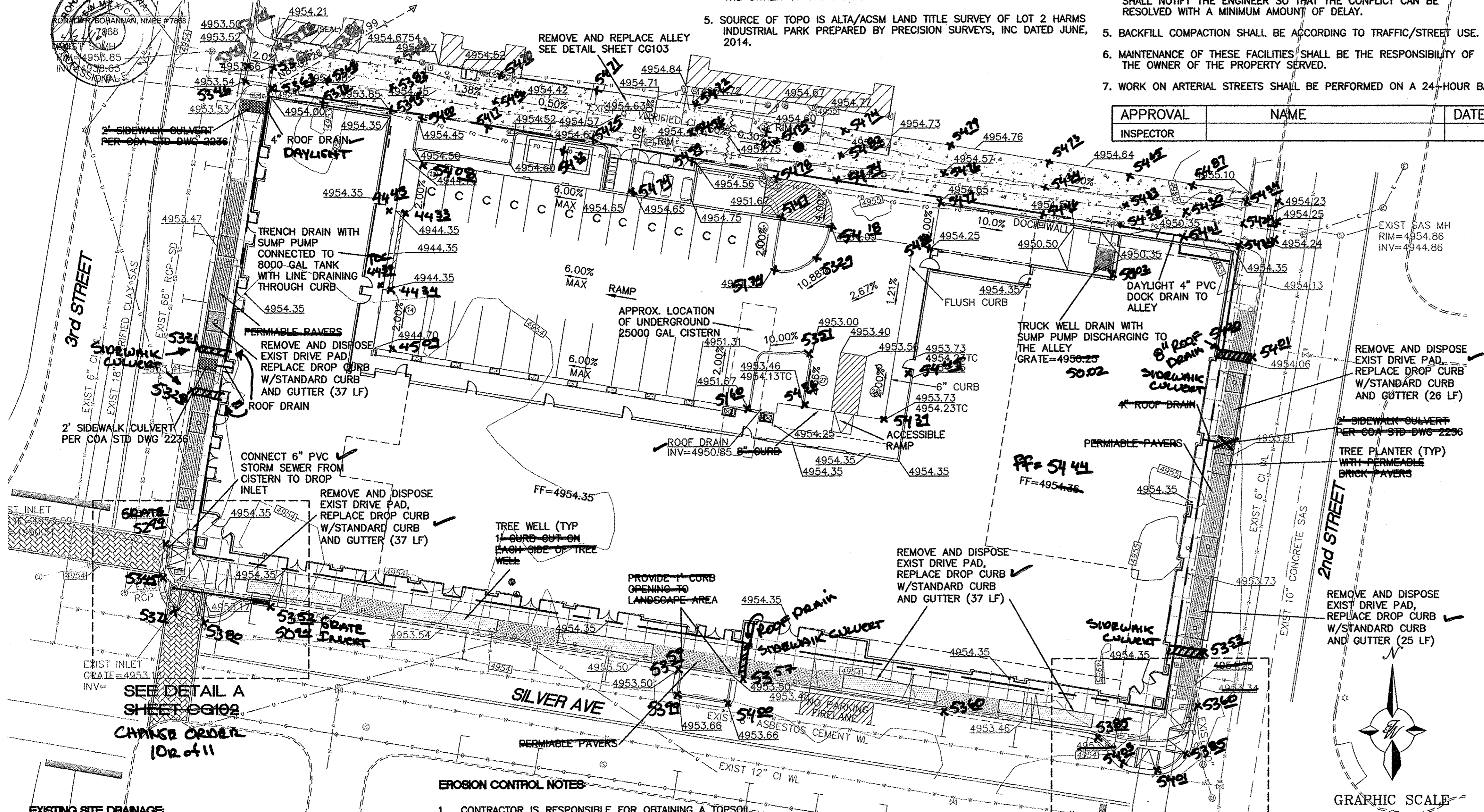
VICINITY MAP K-14Z



FIRM MAP 35001C0334G



PROPOSED BASIN MAP



EXISTING SITE DRAINAGE:
THE 0.98 ACRE SITE IS LOCATED IN DOWNTOWN ALBUQUERQUE ON THE NORTH SIDE OF SILVER AVENUE BETWEEN 2ND STREET AND 3RD STREET. THE SITE IS BOUNDED ON THE NORTH BY AN EXISTING ALLEY WITH BUILDINGS AND A PARKING LOT TO THE NORTH OF THE ALLEY.

THE SITE IS CURRENTLY VACANT AND DRAINS FROM THE NORTHEAST TO THE SOUTHWEST. THE SITE CURRENTLY GENERATES A 100-YR, 6-HR PEAK FLOW OF 2.23 CFS RESULTING IN 0.064 AC-FT OF RUNOFF VOLUME AS SHOWN IN THE TABLE BELOW. THE STORM WATER SHEET FLOWS OVER THE SIDEWALK AND INTO THE STREET GUTTER WHERE IT IS COLLECTED IN AN EXISTING DROP INLET. THERE ARE NO OFF-SITE FLOWS THAT ENTER THIS SITE NOR IS THIS SITE LOCATED IN A FLOOD PLAIN AS SHOWN ON FIRM MAP #35001C0334G.

EROSION CONTROL NOTES:

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
- CONTRACTOR IS RESPONSIBLE FOR MAINTAINING RUN-OFF ON SITE DURING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT THAT GETS INTO EXISTING RIGHT-OF-WAY.
- REPAIR OF DAMAGED FACILITIES AND CLEANUP OF SEDIMENT ACCUMULATIONS ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.

PROPOSED SITE DRAINAGE:

THIS SITE WILL BE DEVELOPED WITH A MIXED USE MULTI-LEVEL BUILDING THAT WILL TAKE UP THE ENTIRE LOT. THERE ARE EIGHT PROPOSED BASINS AS SHOWN ON THE PROPOSED BASIN MAP TO THE RIGHT.

BASIN 1 CONSISTS OF THE BUILDING WHICH WILL CONTAIN A ROOF TOP GARDEN. ALL OF THE STORM RUNOFF WILL BE COLLECTED WITH ROOF DRAINS AND ROUTED TO A CISTERN LOCATED IN THE UNDERGROUND GARAGE AREA. PRIOR TO ENTERING THE CISTERN ALL OF THE WATER WILL BE RUN THROUGH A WALL MOUNTED VORTEX FILTER. THE CISTERN IS SIZED TO HOLD 24,000 GALLONS WHICH IS THE DIFFERENCE IN RUNOFF BETWEEN THE DEVELOPED AND UNDEVELOPED CONDITIONS. THE WATER COLLECTED IN THE CISTERN WILL BE USED TO WATER VARIOUS LANDSCAPING FEATURES AS WELL AS THE ROOF TOP GARDEN. SINCE BASIN 1 GENERATES A PEAK FLOW OF 1.53 CFS WITH 0.057 AC-FT (18,571 GALLONS) OF VOLUME, THE CISTERN IS ABLE TO CONTAIN THE ENTIRE 100-YR VOLUME. ANY POTENTIAL OVERFLOW FROM THE CISTERN WILL BE PUMPED FROM THE CISTERN TO THE ALLEY THROUGH THE TRUCK DOCK SUMP. THAT OVERFLOW WILL BE HANDLED WITH A REDUNDANT PUMP SYSTEM.

BASINS 5-8 ARE ROOF AREAS THAT ARE AT DIFFERENT LEVELS THAT BASIN 1 AND WILL DRAIN THROUGH AN INTERNAL ROOF DRAIN TO THE STREETS AND ALLEY. EACH OF THE ROOF DRAINS ON THE STREETS WILL DRAIN TO A SIDEWALK CULVERT AND SURFACE FLOW TO THE DROP INLETS LOCATED AT THE CORNERS ON SILVER AVENUE.

BASIN 2 CONSISTS OF THE PARKING AREA BEHIND THE BUILDING THAT INCLUDES THE RAMP DOWN TO THE UNDERGROUND PARKING GARAGE. THOSE FLOWS, 1.22 CFS WITH 0.046 AC-FT (14,990 GALLONS) OF VOLUME WILL BE COLLECTED BY A TRENCH DRAIN AT THE BOTTOM OF THE RAMP AND DIRECTED TO A 7,000 GALLON SAND/OIL INTERCEPTOR. THE WATER WILL THEN GO TO A 2000 GALLON SUMP AND BE PUMPED UP TO THE EXISTING DROP INLET LOCATED AT SILVER AVENUE AND 3RD STREET. A REDUNDANT PUMP SYSTEM SIZED FOR THE 100-YR PEAK FLOW WILL PUMP THE WATER TO THE DROP INLET. THE 14,990 GALLONS EXCEEDS THE FIRST FLUSH REQUIREMENT OF 0.036 AC-FT (11,677 GALLONS) THUS MEETING THE CITY DRAINAGE ORDINANCE.

BASIN 3 CONSISTS OF AN AREA LONG THE ALLEY THAT WILL CONTAIN RECYCLING BINS AND PARKING. THOSE FLOWS, 0.21 CFS WILL FLOW INTO THE ALLEY AND EVENTUALLY INTO THE DROP INLET LOCATED AT 3RD STREET AND SILVER AVENUE.

BASIN 4 CONSISTS OF ENTRANCE AND TRUCK WELL. THOSE FLOWS, 0.06 CFS GENERATING 0.002 AC-FT (760 GALLONS) OF VOLUME WILL BE COLLECTED IN THE SUMP OF THE TRUCK WELL AND PUMPED TO THE ALLEY AND ALLOWED TO SURFACE FLOW TO THE EXISTING DROP INLET LOCATED AT SILVER AVENUE AND 2ND STREET.

LEGEND

—	CURB & GUTTER	⊙	EXISTING POWER POLE
- - -	BOUNDARY LINE	⊙	EXISTING GAS VALVE
- - -	EASEMENT	U	EXISTING OVERHEAD UTILITIES
—	SIDEWALK	—	EXISTING GAS
—	EXISTING CURB & GUTTER	— EX. S	EXISTING SANITARY SEWER LINE
—	SINGLE CLEAN OUT	— EX. WL	EXISTING WATER LINE
—	DOUBLE CLEAN OUT	— EX. RCP	EXISTING STORM SEWER LINE
—	EXISTING SD MANHOLE	— 4900	EXISTING INDEX CONTOUR
—	EXISTING SAS MANHOLE	—	EXISTING CONTOUR
—	EXISTING FIRE HYDRANT		
—	EXISTING WATER METER		

Weighted E Method

Basin	Area (sf)	Area (acres)	Treatment				100-Year			10-Year					
			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			
Ex. Basin 1	42,575	0.98	0%	0%	100%	0.98	0.00	0.00	0.00	0.780	0.064	2.23	0.280	0.023	0.93
Basin 1	14,511	0.33	0%	0%	5%	0.02	0.00	0.95	0.32	2.053	0.057	1.53	1.287	0.036	1.01
Basin 2	11,343	0.26	0%	0%	0%	0.00	0.00	100%	0.26	2.120	0.046	1.22	1.340	0.029	0.82
Basin 3	1,939	0.04	0%	0%	0%	0.00	0.00	100%	0.04	2.120	0.008	0.21	1.340	0.005	0.14
Basin 4	575	0.01	0%	0%	0%	0.00	0.00	100%	0.01	2.120	0.002	0.06	1.340	0.001	0.04
Basin 5	582	0.01	0%	0%	0%	0.00	0.00	100%	0.01	2.120	0.002	0.06	1.340	0.001	0.04
Basin 6	6,342	0.15	0%	0%	0%	0.00	0.00	100%	0.15	2.120	0.026	0.68	1.340	0.016	0.45
Basin 7	750	0.02	0%	0%	0%	0.00	0.00	100%	0.02	2.120	0.003	0.08	1.340	0.002	0.05
Basin 8	6,533	0.15	0%	0%	10%	0.00	0.01	100%	0.15	2.233	0.028	0.75	1.392	0.017	0.50
										0.172	0.028	4.60			

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

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

DEKKER PERICH SABATINI

7601 JEFFERSON NE, SUITE 100 ALBUQUERQUE, NM 87109

505.761.9700 / DPSDESIGN.ORG

ARCHITECT

TIERRA WEST, LLC

5571 MIDWAY PARK PL NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100 www.tierwest.com

ENGINEER

PROJECT

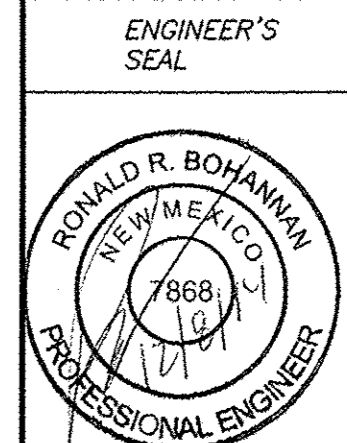
Imperial Building
205 Silver Avenue SW
Albuquerque, NM 87102

REVISIONS

△	
△	
△	
△	

DRAWN BY
REVIEWED BY
DATE 10-8-14
PROJECT NO. 14-0064
DRAWING NAME

GRADING AND DRAINAGE PLAN



RONALD R. BOHANNAN P.E. #7868

SHEET NO.

CG101

OF