

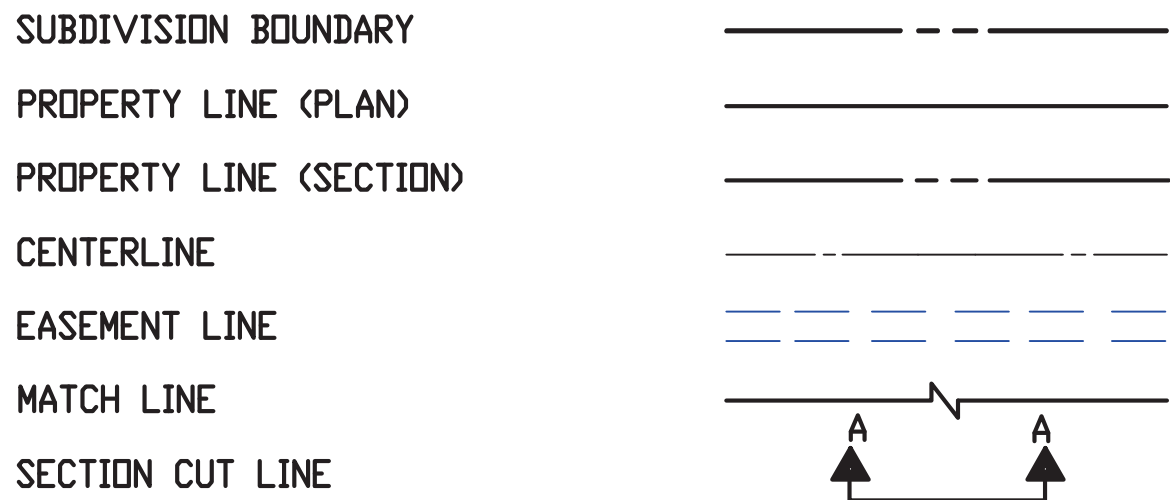
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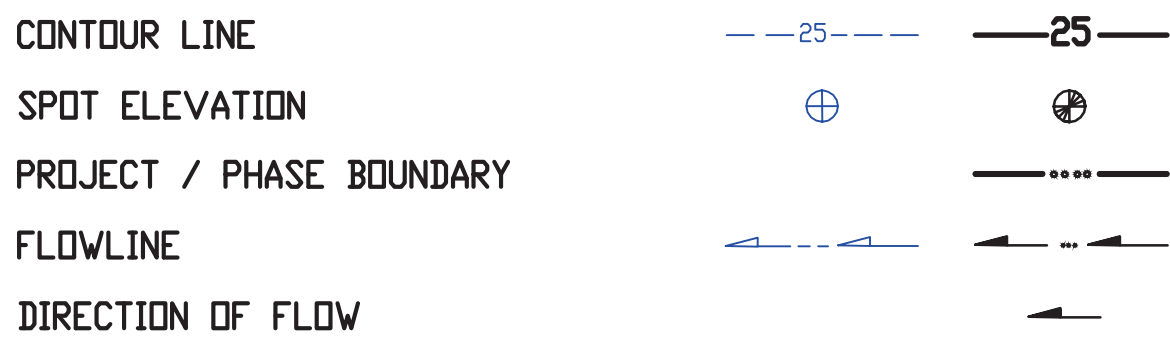
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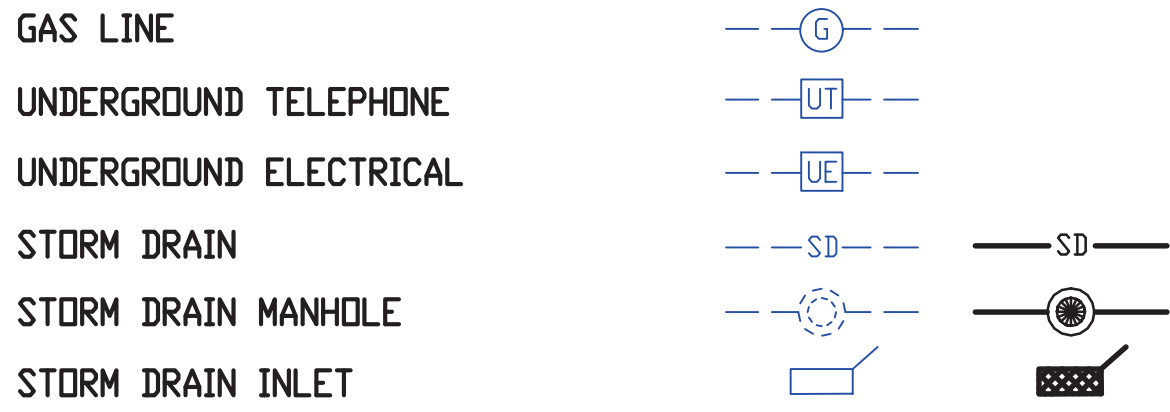
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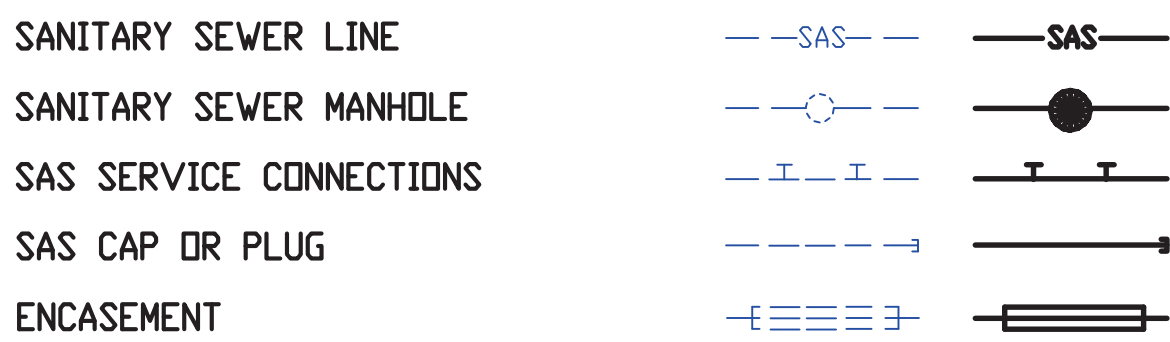
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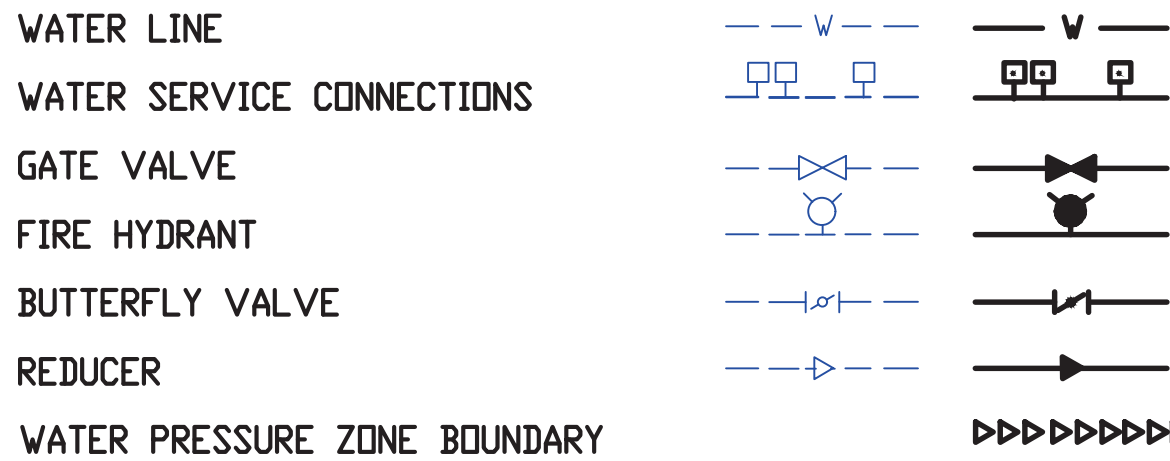
MISCELLANEOUS UTILITIES



SANITARY SEWER



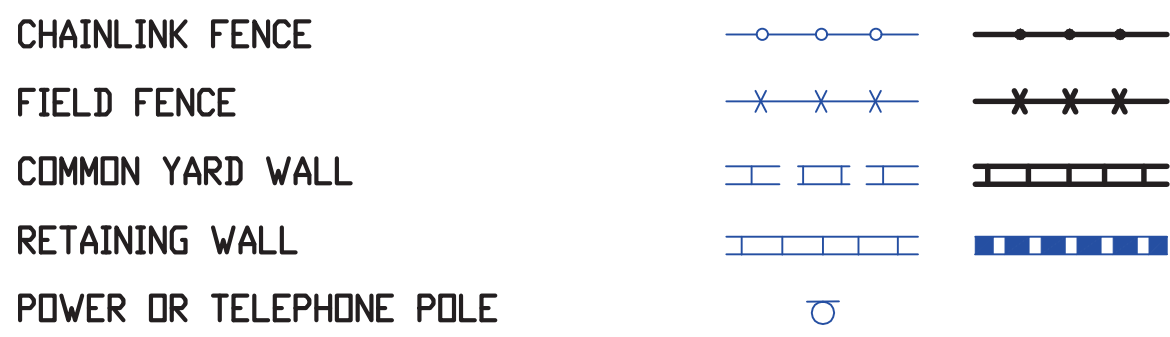
WATER



WATER FITTINGS



MISCELLANEOUS



CONSTRUCTION PLANS

for

ARROYO DEL OSO
ELEMENTARY SCHOOL
PUBLIC DRAINAGE
INFRASTRUCTURE
IMPROVEMENTS

ALBUQUERQUE, NEW MEXICO

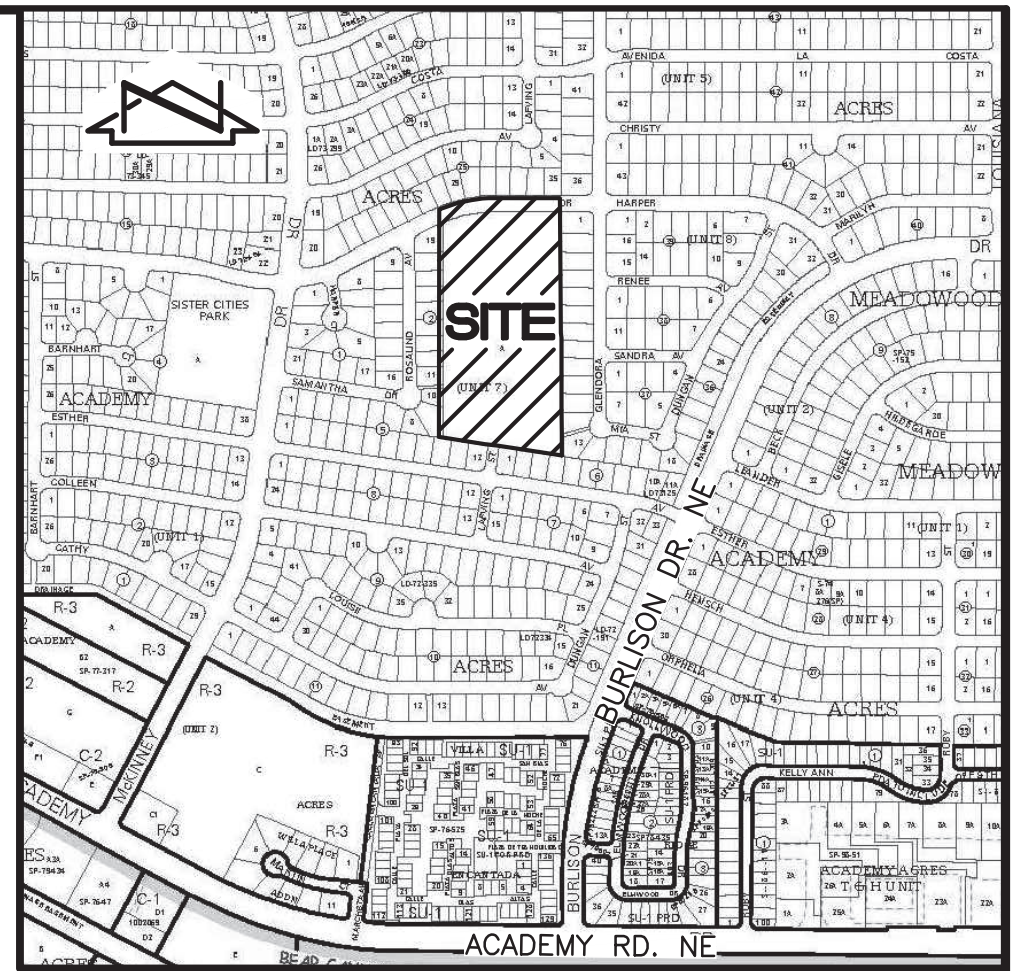
FEBRUARY, 2023



INDEX OF DRAWINGS

SHEET	DESCRIPTION
1	COVER SHEET, VICINITY MAP, GENERAL NOTES, LEGEND AND INDEX OF DRAWINGS
2 - 4	BOUNDARY SURVEY PLAT
5	OVERALL PLAN BASIN MAP, DRAINAGE PLAN AND CALCULATIONS
6	PUBLIC STORM DRAINAGE CHANNEL PLAN AND PROFILE
7	DRAINAGE SECTIONS AND DETAILS; RETAINING WALL PROFILE

APPROVED RECORD DRAWINGS	
City Inspector	Daniel Padilla
Contractor	Thompson Construction, Inc.
Construction Engineer	David Bishop
Date	11/1/2023



VICINITY MAP

SCALE: 1" = 500'

E-18

GENERAL NOTES:

- ALL WORK DETAILED ON THESE PLANS, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2020 EDITION, UPDATE NO. 1, AND WILL BE REFERRED TO HEREIN AS "STANDARD SPECIFICATIONS".
- 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.
- UTILITY INFORMATION SHOWN HEREON IS BASED UPON ONSITE SURFACE EVIDENCE, REVIEW OF AVAILABLE OWNER RECORD DRAWINGS AND UTILITY LINE-SPOTS PROVIDED BY HIGH MESA CONSULTING GROUP (APS-SUE 2017.0189). IN ADDITION, UTILITY LINE-SPOTS WERE REQUESTED VIA THE NEW MEXICO ON CALL SERVICE (TICKET NO. 17MY300561). UTILITY LINES THAT APPEAR ON THESE DRAWINGS ARE SHOWN IN AN APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH EXISTING LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES. THE ENGINEER HAS CONDUCTED ONLY PRELIMINARY INVESTIGATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES. THIS INVESTIGATION IS NOT CONCLUSIVE, AND MAY NOT BE COMPLETE, THEREFORE, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFORE. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.
- SHOULD A CONFLICT EXIST BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER IN WRITING SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY FOR ALL PARTIES.
- CONTRACTOR 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.
- AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
- CONTRACTOR SHALL NOTIFY THE CONSTRUCTION ENGINEER (OR PROJECT MANAGER) 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.
- EXISTING UTILITY LINE LOCATIONS ARE SHOWN IN AN APPROXIMATE MANNER ONLY, AND LINES MAY EXIST WHERE NONE ARE SHOWN. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR SHALL CONTACT NEW MEXICO ONE CALL SYSTEM (260-1990) FOR LOCATION OF EXISTING UTILITIES. CONTRACTOR SHALL THEN 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. CONTRACTOR SHALL THEN COORDINATE RELOCATION OF UTILITY LINES WITH UTILITY COMPANIES AS REQUIRED. ANY DAMAGE CAUSED BY FAILURE TO LOCATE, IDENTIFY, AND PRESERVE ANY EXISTING UTILITIES IS THE FULL RESPONSIBILITY OF THE CONTRACTOR.
- 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 BUILT" DRAWINGS. CONTRACTOR SHALL NOT COVER UTILITY LINES AND ACCESSORIES UNTIL ALL DATA HAS BEEN RECORDED.
- CONTRACTOR SHALL ASSUME FINANCIAL RESPONSIBILITY FOR ANY DAMAGE TO EXISTING PAVEMENT, PAVEMENT MARKINGS, SIGNAGE, CURB AND GUTTER, HANDICAP RAMPS, AND SIDEWALK DURING CONSTRUCTION APART FROM THOSE SECTIONS INDICATED ON THE PLANS, AND SHALL REPAIR OR REPLACE, PER THE STANDARD SPECIFICATIONS, ANY SUCH DAMAGE.
- CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORK SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY AND ALL GRAFFITI FROM EQUIPMENT, WHETHER PERMANENT OR TEMPORARY.
- CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE AND MAINTAIN ALL CONSTRUCTION SIGNING UNTIL THE PROJECT HAS BEEN ACCEPTED BY THE CITY AND OTHER JURISDICTIONAL AUTHORITIES WHERE APPLICABLE.
- CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PROPERTY AND/OR PROJECT LIMITS SHOWN. ANY DAMAGE TO ADJACENT PROPERTIES RESULTING FROM THE CONSTRUCTION PROCESS IS THE RESPONSIBILITY OF THE CONTRACTOR, INCLUDING ANY SUCH COSTS INCURRED.
- REMOVALS SHALL BE DISPOSED OF OFF-SITE AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- ANY STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED WITH THERMO-PLASTIC REFLECTORIZED PAVEMENT MARKING BY CONTRACTOR TO THE SAME LOCATION AS EXISTING OR AS INDICATED BY THIS PLAN SET.
- REMOVAL OF EXISTING CURB & GUTTER AND SIDEWALKS SHALL BE TO THE NEAREST JOINT.
- 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.
- CURB AND GUTTER, SIDEWALKS, AND DRIVE PADS SHALL MATCH THE LINE AND GRADE OF ABUTTING EXISTING AREAS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE PROJECT ENGINEER.
- THE SUBGRADE PREP SHALL EXTEND ONE FOOT BEYOND THE FREE EDGE OF NEW CURB AND GUTTER AND SIDEWALK.
- IN THE EVENT THE R-VALUE IS LESS THAN 50, REMOVE 2 FEET OF SUBGRADE MATERIAL AND IMPORT MATERIAL WITH R-VALUE GREATER THAN 50 OR CONTACT THE ENGINEER IMMEDIATELY SO THE PAVEMENT SECTION CAN BE MODIFIED.
- AT ALL PAVEMENT REMOVAL AND REPLACEMENTS, SAW-CUT EDGES SHALL BE STRAIGHT AND CLEAN, AND LONGITUDINAL JOINTS SHALL NOT BE PLACED WITHIN WHEEL PATHS. PATCHES SHALL BE REGULAR AND SQUARE OR RECTANGULAR WITH FOUR STRAIGHT SIDES. FINISHED PAVEMENT SURFACE SHALL BE FLUSH WITH EXISTING PAVEMENT SURFACE WITH NO SPILLOVER OF ASPHALT OR TACK COAT. CARE MUST BE TAKEN TO AVOID DAMAGING THE INTEGRITY OR APPEARANCE OF SURROUNDING PAVEMENTS; IF DAMAGED, THE ENTIRE SURFACE PATCH MUST BE EXPANDED TO COVER DAMAGES.
- CONTRACTOR WILL ENSURE THE ASPHALT HAS A SMOOTH, UNIFORM EDGE WHEN REMOVING AND REPLACING CURB AND GUTTER. IF THE ASPHALT EDGE IS NOT SMOOTH AND UNIFORM, CONTRACTOR WILL SAW CUT AND REPLACE A ONE-FOOT STRIP OF ASPHALT ALONG THE FULL SECTION BEING REPLACED; REFER TO C.O.A. STANDARD DRAWING # 2465 WITH THE APPROPRIATE PAVING SECTION BASED ON ROADWAY CLASSIFICATION.
- ALL EXCAVATION, TRENCHING, AND SHORING ACTIVITIES MUST BE ACCOMPLISHED IN ACCORDANCE WITH OSHA 29CFR 1926.650 SUBPART P.
- WHEN DISTURBING MORE THAN ¼ ACRES, CONTRACTOR SHALL SECURE A "TOPSOIL DISTURBANCE PERMIT" PRIOR TO BEGINNING CONSTRUCTION.
- IN ADVANCE OF CONSTRUCTION, CONTRACTOR SHALL DETERMINE 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.
- CONTRACTOR SHALL SUPPORT AND PROTECT ALL EXISTING, UNDERGROUND UTILITY LINES WHICH BECOME EXPOSED DURING CONSTRUCTION. PAYMENT FOR SUPPORTING WORK SHALL BE INCIDENTAL TO WATERLINE AND/OR SEWER LINE COSTS.
- CONTRACTOR IS TO SUPPORT, PROTECT, 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 SPACING OF 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 PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY OR PRIVATE ROADWAY EASEMENTS TO PREVENT ANY EXCAVATED MATERIAL BEING WASHED DOWN THE STREET OR INTO ANY PUBLIC DRAINAGE FACILITY.
- CONTRACTOR SHALL CONDUCT ALL MINORIZE INTERFERENCES WITH LOCAL TRAFFIC.
- DISPOSAL SITE FOR ALL EXCESS EXCAVATION MATERIAL AND UNSUITABLE MATERIAL SHALL BE ARRANGED BY THE CONTRACTOR IN COMPLIANCE WITH ALL APPLICABLE ENVIRONMENTAL REGULATIONS. NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE FOR COSTS ASSOCIATED WITH OBTAINING A DISPOSAL SITE AND HAUL THERETO.

ENGINEER'S DRAINAGE CERTIFICATION

I, J. GRAEME MEANS, NMPE 13676, OF THE FIRM HIGH MESA CONSULTING GROUP HERBY CERTIFY THAT THIS PROJECT HAS BEEN CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE ORIGINAL APPROVED PLAN SHEETS DATED 05-26-2023

THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT WAS OBTAINED 09-28-2023 BY HIGH MESA CONSULTING GROUP UNDER THE DIRECTION OF JOSEPH M. SOLOMON, JR, NMPS 15075. I FURTHER CERTIFY THAT PERSONNEL UNDER MY DIRECT SUPERVISION VISITED THE PROJECT SITE ON 09-28-2023 AND DETERMINED BY VISUAL OBSERVATION THAT THE SURVEY DATA PROVIDED APPEARS TO BE REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED TO SUPPORT A PERMANENT CERTIFICATE OF OCCUPANCY.

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



RECORD DRAWING

2022.181.5 / 2023.181.1



CALL NM ONE-CALL
SYSTEM SEVEN (7) DAYS
PRIOR TO ANY EXCAVATION

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REV.	SHEETS	CITY	ENGINEER	DATE	USER	DEPARTMENT	DATE	USER	DEPARTMENT
ENGINEERS' STAMP & SIGNATURE		APPROVALS		ENGINEER	DATE	*****			
<div><div><div><div><div><div></div></div></div><div><div><div></div></div></div><div><div><div></div></div></div></div></div></div> <div>10-16-2023</div> <div>02-15-2023</div>		IRC Chairman		<i>David Bishop</i>	2/21/2023	APPROVED FOR CONSTRUCTION			
		Transportation		<i>MAH -- BE</i>	2/16/2023				
		Water/Wastewater		<i>John H. H.</i>	2/21/23				
		Hydrology		<i>Kevin J. Bonasorte</i>	02/16/23				
		C.I.P.							
		Const. Mngt.							
		Const. Coord.							
City Project No.					SHEET OF				
576281					1 7				

UNPLATTED LANDS BOARD OF EDUCATION
A.K.A. TRACT A, ACADEMY ACRES SUBDIVISION, UNIT 7
AND A.K.A. ARROYO DEL OSO ELEMENTARY SCHOOL
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO
OCTOBER, 2017

BOARD OF EDUCATION OWNER	PROJECTED SEC. 25, T 11 N, R 3 E, N.M.P.M. LOCATION	ACADEMY ACRES SUBDIVISION, UNIT 7 SUBDIVISION
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COUNTY CLERK FILING DATA

VICINITY MAP
E-18

SCALE: 1" = 750'

LEGAL DESCRIPTION

A CERTAIN UNPLATTED TRACT OF LAND LOCATED WITHIN THE CORPORATE LIMITS OF THE CITY OF ALBUQUERQUE, NEW MEXICO, COMPRISING THE UNPLATTED PARCEL (UPC #101806232312940832), AS DESCRIBED BY WARRANTY DEED FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO ON OCTOBER 27, 1987, BOOK D-835, PAGE 538, DCC #70006, ALSO DESIGNATED AS TRACT A (SCHOOL SITE), ACADEMY ACRES SUBDIVISION, UNIT 7, (A.K.A. ARROYO DEL MONTE) OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO ON OCTOBER 31, 1972, IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO ON OCTOBER 31, 1972, PLAT BOOK D5, PAGE 64 (APNS NOT PARTY TO THE PLATTING ACTION), AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHWEST CORNER OF THE PARCEL HEREIN DESCRIBED, ALSO BEING THE NORTHWEST CORNER OF SAID UNPLATTED PARCEL (UPC # 01806233123940832), ALSO BEING THE CENTERLINE OF HARPER DRIVE N.E. AS THE SAME IS SHOWN AND DESIGNATED ON THE PLAT FILED IN THE OFFICE OF THE COUNTY CLERK ON MAY 23, 1972, PLAT BOOK D5, PAGE 17, THENCE THE ACRES CONTAINED IN SAID TRACT BEING 36-36.51 "A" A DISTANCE OF 1036.32 FEET; THENCE ALONG THE CENTER STATION (S.W. 21) BEARING S 21° 17' 11" E A DISTANCE OF 234.00 FEET; THENCE ALONG THE CHORD BEARING N 79° 27' 11" E A CHORD DISTANCE OF 234.00 FEET; ALONG CENTERLINE TO THE CENTERLINE; THENCE S 89° 53' 08" E A DISTANCE OF 245.00 FEET ALONG CENTERLINE TO THE NORTHEAST CORNER OF THE PARCEL HEREIN DESCRIBED; THENCE S 07° 06' 52" W A DISTANCE OF 1006.25 FEET TO THE SOUTHEAST CORNER OF THE PARCEL HEREIN DESCRIBED, BEING THE SOUTHWEST CORNER OF LOT 13, BLOCK 36, ACADEMY ACRES SUBDIVISION, UNIT 8, AS THE SAME IS SHOWN AND DESIGNATED ON THE PLAT FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO, ON AUGUST 6, 1971, PLAT BOOK D4, PAGE 144; BEING A POINT ON THE NORTH PROPERTY LINE OF LOT 4, BLOCK 6, ACADEMY ACRES SUBDIVISION, UNIT 1, AS THE SAME IS SHOWN AND DESIGNATED ON THE PLAT FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO ON AUGUST 6, 1971, PLAT BOOK D4, PAGE 144; THENCE N 81° 17' 18" W A DISTANCE OF 481.05 FEET TO THE SOUTHWEST CORNER OF THE PARCEL HEREIN DESCRIBED, BEING A POINT ON THE NORTH PROPERTY LINE OF LOT 10, BLOCK 5 OF SAID ACADEMY ACRES SUBDIVISION, UNIT 7, AS THE SAME IS SHOWN AND DESIGNATED ON THE PLAT FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO ON OCTOBER 31, 1972, PLAT BOOK D5, PAGE 64; THENCE N 07° 08' 52" E A DISTANCE OF 890.91 FEET TO THE POINT OF BEGINNING AND CONTAINING 10.5193 ACRES MORE OR LESS.

SURVEYORS CERTIFICATION

I, CHARLES G. CALA, JR., NEW MEXICO PROFESSIONAL SURVEYOR NO. 11,184, DO HEREBY CERTIFY THAT THIS BOUNDARY SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I FURTHER CERTIFY THAT THIS SURVEY IS NOT A LAND DIVISION OR SUBDIVISION AS DEFINED IN THE NEW MEXICO SUBDIVISION ACT AND THAT THIS INSTRUMENT IS A BOUNDARY SURVEY PLAT OF AN EXISTING TRACT OR TRACTS.

DATE 10.3.2017

Charles G. Cala
CHARLES G. CALA, JR., NMPS 11184

HIGH
MESA Consulting Group

6010-B MIDWAY PARK BLVD. NE • ALBUQUERQUE, NEW MEXICO 87109
PHONE: 505.345.4250 • FAX: 505.345.4254 • www.highmesacg.com
JOB #2016.183.3 ESPIAT-1

DOCH 2017094887

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SRV R: \$25.00 B: 2017S P: 0095 Linda Stover, Bernalillo County

BOUNDARY SURVEY PLAT OF
UNPLATTED LANDS BOARD OF EDUCATION
A.K.A. TRACT A, ACADEMY ACRES SUBDIVISION, UNIT 7
AND A.K.A. ARROYO DEL OSO ELEMENTARY SCHOOL
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO
OCTOBER, 2017

GENERAL NOTES

1. A. BOUNDARY, TOPOGRAPHIC AND UTILITY SURVEY WAS PERFORMED IN JUNE AND JULY, 2017. THE TOPOGRAPHIC AND UTILITY SURVEY WAS EXPANDED IN SEPTEMBER, 2017. PROPERTY CORNERS WERE SET AS INDICATED.
2. ALL DISTANCES ARE GROUND DISTANCES.
3. SITE LOCATED WITHIN PROJECTED SECTION 25, TOWNSHIP 11 NORTH, RANGE 3 EAST, N.M.P.M. (ELENA GALLEGOS GRANT).
4. BEARINGS SHOWN HEREON ARE NEW MEXICO STATE PLANE GRID BEARINGS. CENTRAL ZONE (NAD 83). THESE BEARINGS ARE POSITIONED FROM AGRS CONTROL STATION "SWM-12". RECORD BEARINGS AND DISTANCES ARE SHOWN IN PARENTHESIS.
5. UTILITY INFORMATION SHOWN HEREON IS BASED UPON ONSITE SURFACE EVIDENCE, REVIEW OF AVAILABLE OWNER RECORD DRAWINGS AND UTILITY LINE SPOTS PROVIDED BY HIGH MESA CONSULTING GROUP (APR-SUE 2017.01.089), IN ADDITION, UTILITY LINE-SPOTS WERE REQUESTED VIA THE NEW MEXICO ON CALL SERVICE (TICKET NO. 17M300561). UTILITY LINES MAY EXIST WHERE DRAWING ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND SUCH INFORMATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES. THE SURVEYOR HAS CONDUCTED ONLY PRELIMINARY INVESTIGATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES. THIS INVESTIGATION IS NOT CONCLUSIVE, AND MAY NOT BE COMPLETE, THEREFORE, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE PROPERTY OWNER, DEVELOPER, OR CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ALL UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES, AND OF THE LOCATION OF THE WORK IN ADVANCE OF DURING EXCAVATION WORK. THE PROPERTY OWNER, DEVELOPER, OR CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH STATE, STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.

GENERAL NOTES - CONTINUED

7. THIS TOPOGRAPHIC AND UTILITY SURVEY HAS BEEN PREPARED BASED UPON NAVD. 88 DATUM. PREVIOUS SURVEYS OF THIS AREA CONDUCTED BY OUR FIRM AND OTHER CONSULTANTS HAVE BEEN CONDUCTED BASED UPON NGVD 29 DATUM. SPECIAL CARE SHOULD BE EXERCISED WHEN COMPARING ELEVATIONS FROM THIS SURVEY TO CURRENT AND PREVIOUS SURVEYS, PLANS AND AS-BUILT DOCUMENTS.
8. THE PROPERTY SURVEYED HEREON HAS A ZONE X DESIGNATION WHICH IS FURTHER DESCRIBED AS "AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN" BASED UPON REVIEW OF THE NATIONAL FLOOD INSURANCE PROGRAM, FLOOD INSURANCE RATE MAPS, PANEL 139 OF 825, DATED SEPTEMBER 26, 2008.
9. THE PROPERTY SURVEYED HEREON MAY BE SUBJECT TO A MEMORANDUM OF UNDERSTANDING BETWEEN THE COUNTY OF BERKLEY AND ALBUQUERQUE PUBLIC SCHOOL DISTRICT DATED JULY 07, 2005 (EXPIRED JUNE 30, 2007) FOR THE DESIGN OF SCHOOL IMPROVEMENTS.
10. THE PROPERTY SURVEYED HEREON MAY BE SUBJECT TO AN INTERGOVERNMENTAL SUB-LEASE PARK IMPROVEMENT AGREEMENT BETWEEN THE CITY OF ALBUQUERQUE AND THE BOARD OF EDUCATION ENTERED ON NOVEMBER 20, 1996 (EXPIRED NOVEMBER 20, 2016) FOR THE DESIGN AND JOINT USE OF A PARK.
11. THE RESOLVED BOUNDARY SURVEYED HEREON WAS IN PART UPON A STREET SPLIT OF GLENORA DRIVE N.E. AND CHISELED PROPERTY CURB SCRIBES ON THE EAST SIDE OF ROSSALD AVENUE N.E.; TOGETHER WITH OWNER AND ADJOINER PROPERTY OCCUPATION LINES (WALLS AND FENCES).

CONTROL SURVEY NOTE

A CONTROL SURVEY WAS CONDUCTED AT THE SITE ON JUNE 06, 2017. CONTROL WAS PROJECTED ONTO THE SUBJECT SITE UTILIZING RTK GPS OBSERVATIONS COMBINED WITH NGS COMJUL08 MODEL DATUM. THE CONTROL POINTS WERE USED TO ESTABLISH HORIZONTAL AND VERTICAL POSITIONS BASED UPON NAD83/NAVD 88 DATUM. THE RTK OBSERVATIONS WERE USED TO ESTABLISH THE ELEVATIONS FOR THE CONTROL POINTS AND BENCHMARKS AT THE PROJECT SITE.

THE POINTS OBSERVED HAVE BEEN QUALITY CONTROLLED FOR RELATIVE ACCURACY. ALL HORIZONTAL COORDINATES ARE MODIFIED NAD 83 GRID VALUES AND HAVE BEEN ADJUSTED TO THE GROUND AT THE PROJECTION POINT (NAD 83 GRID VALUES USE 1/CF=1.00033589). THE PROJECTION POINT USED FOR THIS PROJECT IS A.G.R.S. CONTROL STATION "SW-12" WITH NAD 83 GRID COORDINATES OF: NORTHING= 1,510,982.798

THE VERTICAL CONTROL BENCHMARK USED FOR THIS PROJECT IS A.C.R.S. BENCHMARK "5MW-12" WITH NAVD 88 ELEVATION OF: ELEVATION= 5242.356 FEET (NAVD 88). THE ELEVATIONS ARE BASED UPON THE NAVD 88 DATUM AND REQUIRE NO FURTHER ADJUSTMENT. ATTITUDE: 35°09'09.2467" NORTH LONGITUDE: 106°34'46.19835" WEST

DOCH 2017094887

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SRVY R: \$25.00 B: 2017S P: 0095 Linda Stover, Bernalillo County

The logo for High MESA Consulting Group features the word "HIGH" in a bold, sans-serif font, followed by a stylized graphic element resembling a bracket or a stylized "M" that incorporates the word "MESA" in a smaller, bold, sans-serif font. To the right of this graphic, the words "Consulting Group" are written in a smaller, sans-serif font.

6010-B MIDWAY PARK BLVD. NE • ALBUQUERQUE, NEW MEXICO 87109
PHONE: 505.345.4250 • FAX: 505.345.4254 • www.highmesacg.com
JOB #2016.183.3 8SPLOT-1

FOR INFORMATION ONLY

RECORD DRAWING

BOUNDARY SURVEY PLAT OF
UNPLATTED LANDS BOARD OF EDUCATION
A.K.A. TRACT A, ACADEMY ACRES SUBDIVISION, UNIT 7
AND A.K.A. ARROYO DEL OSO ELEMENTARY SCHOOL
ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO
OCTOBER, 2017

KEYED NOTES

EASEMENTS

① 5' PNM AND MST&T EASEMENT GRANTED BY DOCUMENT EXECUTED 02-04-1974 (UNRECORDED)

② 20' PUBLIC WATER LINE EASEMENT GRANTED BY DOCUMENT FILED 06-15-1995, BOOK 95-14, PAGES 3422-3426, DOC. #1995059154

③ RIGHT-OF-WAY EASEMENT BETWEEN ALBUQUERQUE ACADEMY AND BOARD OF EDUCATION (APS), GRANTED BY DOCUMENT FILED 06-15-1995, BOOK 95-14, PAGES 3422-3426, DOC. #1995059154. THIS PLATTING ACTION (SEE GENERAL NOTE 6B & 6J)

EASEMENTS — OFFSITE

④ 7' PUBLIC ELECTRIC POWER AND TELEPHONE EASEMENT GRANTED BY PLAT D4-144

⑤ 7' PUBLIC ELECTRIC POWER AND TELEPHONE EASEMENT GRANTED BY PLAT D5-64

⑥ 7' PUBLIC ELECTRIC POWER AND TELEPHONE EASEMENT GRANTED BY PLAT D5-66

⑦ 10' DRAINAGE AND PEDESTRIAN RIGHT-OF-WAY GRANTED BY PLAT D5-64

⑧ 10' DRAINAGE AND PEDESTRIAN RIGHT-OF-WAY GRANTED BY PLAT D5-66

⑨ 10' PUBLIC UTILITY EASEMENT GRANTED BY PLAT D4-144

⑩ 10' PUBLIC UTILITY EASEMENT GRANTED BY PLAT D5-66

EASEMENT — DEPICTED ON PLAT D5-64

⑪ 7' PUBLIC ELECTRIC POWER AND TELEPHONE EASEMENT DEPICTED BY PLAT D5-64 (APS NOT PARTY TO PLATTING ACTION)

MONUMENTS

Ⓐ SET MAG NAIL W/WASHER STAMPED "NMPS 11184", IN ASPHALT PAVEMENT

Ⓑ SET MAG NAIL W/WASHER STAMPED "NMPS 11184", IN TOP OF WALL

BOUNDARY TABLES

LINE	DIRECTION	DISTANCE
L1	S 89°53'08" E	245.00'
(L1)	N 89°54'10" E	245.00'

CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA
C1	634.28	236.06	N 79°27'11" E	234.70'	21°19'21"
(C1)	634.28	236.06	N 79°14'28" E	234.70'	

EASEMENT TABLES

LINE	DIRECTION	DISTANCE
E1	N 00°05'50" W	642.84'
E2	S 89°54'10" W	160.00'
E3	S 00°05'50" E	685.63'
E4	S 89°54'10" W	20.00'
E5	N 00°05'50" W	677.95'
T1	S 81°30' E	9.50'
T2	N 00°05'50" W	34.49'

NOTE: EASEMENT BEARINGS AND DISTANCES ARE BASED UPON RECORD DOCUMENTS

CURVE	RADIUS	LENGTH	CHORD BEARING	CHORD	DELTA
EC1	602.27	21.50'	N 68°24'54" E	21.49'	02°02'42"

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Linda Stover, Bernalillo County
Surveyor

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JOB #2016.183.3 BSPLAT_1

BOUNDARY SURVEY PLAT OF
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ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO
OCTOBER, 2017

NOTE: FOR BOUNDARY TABLES, EASEMENT TABLES
AND KEYED NOTES, SEE SHEET 3 OF 5

RECORD DRAWING

FOR INFORMATION ONLY

CPN 576281

Sheet 3 of 7

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JOB #2016.183.3 BSPLAT_1

SITE HYDROLOGIC CALCULATIONS (FOR INFORMATION ONLY)

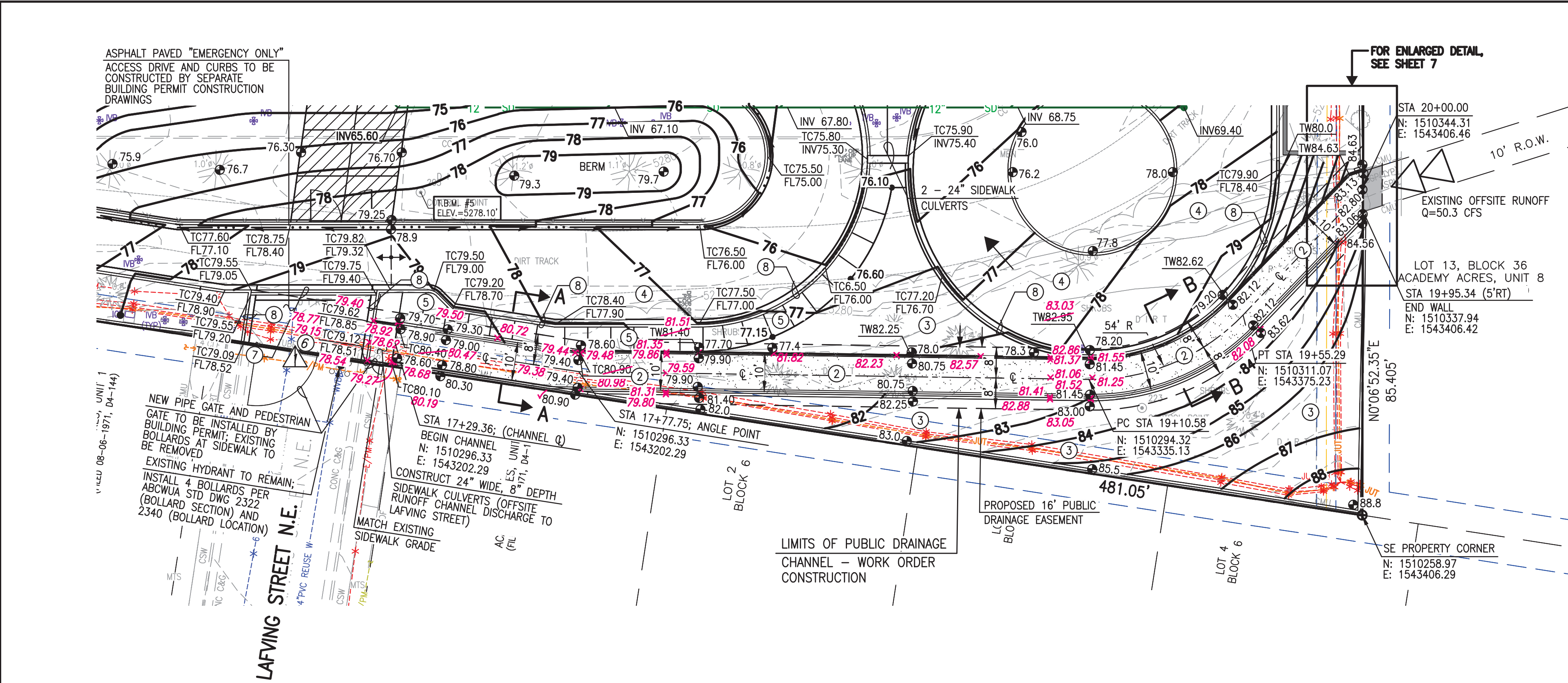
SITE CHARACTERISTICS					
A. PRECIPITATION ZONE =		3		IN	
B. $P_{100, 6 \text{ HR}} = P_{300} =$		2.43		IN	
C. TOTAL PROJECT AREA (A_T) =		443,559 SF		10.18 AC	
D. LAND TREATMENTS					
1. EXISTING LAND TREATMENT					
BASIN A		431,309 SF		9.90 AC	
LAND TREATMENT	AREA (SF/AC)	%	BASIN A		
A			431,443 SF		
B	115,437 SF	27%	9.90 AC		
C	137,213 SF	32%			
D	178,859 SF	41%			
	4.10 AC				
BASIN B		12,250 SF		0.28 AC	
LAND TREATMENT	AREA (SF/AC)	%	BASIN B		
A			431,443 SF		
B			9.90 AC		
C	12,250 SF	100%			
D	0.28 AC				
OFFSITE BASIN (PER 1994 MDP LAND TREATMENT VALUES)		668,645 SF		15.35 AC	
LAND TREATMENT	AREA (SF/AC)	%	OFFSITE BASIN (PER 1994 MDP LAND TREATMENT VALUES)		
A			668,645 SF		
B	405,545 SF	61%	15.35 AC		
C	9.31 AC				
D	263,100 SF	39%			
	6.04 AC				
			BASIN A (INTERIM)*		
			431,443 SF		
			9.90 AC		
			AREA (SF/AC)		
			A		
			B		
			C		
			D		
			40,620 SF		
			0.93 AC		
			85,900 SF		
			1.96 AC		
			305,323 SF		
			7.01 AC		
			9%		
			20%		
			71%		

*INTERIM BASIN A CONDITION BASED UPON 4-6 MONTH PERIOD WHEN NEW BUILDING CONSTRUCTION IS COMPLETE AND OLD BUILDING DEMOLISHED BEGINS, FOLLOWED BY NEW FIELD INSTALLATION

HYDROLOGY		
A. EXISTING CONDITION 100 YEAR STORM		
1. BASIN A		
a. VOLUME 100-YR. 6-HR		
$WTE = (E_A \cdot A_A + E_B \cdot A_B + E_C \cdot A_C + E_D \cdot A_D) / A_T$		1.65 IN
$\Rightarrow (0.67 \cdot 0.00) + (0.86 \cdot 2.65) + (1.09 \cdot 3.15) + (2.58 \cdot 4.10) / 9.90 =$		59,300 CF
$V_{100, 6 \text{ HR}} = (E_W / 12) \cdot A_T$		$\Rightarrow (1.65 / 12) \cdot 9.90 = 1.3615 \text{ AC-FT} =$
b. PEAK DISCHARGE 100-YR		
$Q_{100} = Q_A \cdot A_A + Q_B \cdot A_B + Q_C \cdot A_C + Q_D \cdot A_D$		35.0 CFS
$\Rightarrow (1.84 \cdot 0.00) + (2.49 \cdot 2.65) + (3.17 \cdot 3.15) + (4.49 \cdot 4.10) =$		
2. BASIN B		
a. VOLUME 100-YR. 6-HR		
$WTE = (E_A \cdot A_A + E_B \cdot A_B + E_C \cdot A_C + E_D \cdot A_D) / A_T$		1.09 IN
$\Rightarrow (0.67 \cdot 0.00) + (0.86 \cdot 0.00) + (1.09 \cdot 0.28) + (2.58 \cdot 0.00) / 0.28 =$		1,110 CF
$V_{100, 6 \text{ HR}} = (E_W / 12) \cdot A_T$		$\Rightarrow (1.09 / 12) \cdot 0.28 = 0.0255 \text{ AC-FT} =$
b. PEAK DISCHARGE 100-YR		
$Q_{100} = Q_A \cdot A_A + Q_B \cdot A_B + Q_C \cdot A_C + Q_D \cdot A_D$		0.9 CFS
$\Rightarrow (1.84 \cdot 0.00) + (2.49 \cdot 0.00) + (3.17 \cdot 0.28) + (4.49 \cdot 0.00) =$		
3. OFFSITE BASIN (PER 1994 MDP LAND TREATMENT VALUES)		
a. VOLUME 100-YR. 6-HR		
$WTE = (E_A \cdot A_A + E_B \cdot A_B + E_C \cdot A_C + E_D \cdot A_D) / A_T$		1.54 IN
$\Rightarrow (0.67 \cdot 0.00) + (0.86 \cdot 9.31) + (1.09 \cdot 0.00) + (2.58 \cdot 6.04) / 15.35 =$		85,810 CF
$V_{100, 6 \text{ HR}} = (E_W / 12) \cdot A_T$		$\Rightarrow (1.54 / 12) \cdot 15.35 = 1.9699 \text{ AC-FT} =$
b. PEAK DISCHARGE 100-YR		
$Q_{100} = Q_A \cdot A_A + Q_B \cdot A_B + Q_C \cdot A_C + Q_D \cdot A_D$		50.3 CFS
$\Rightarrow (1.84 \cdot 0.00) + (2.49 \cdot 9.31) + (3.17 \cdot 0.00) + (4.49 \cdot 6.04) =$		
B. DEVELOPED CONDITION 100 YEAR STORM		
1. BASIN A		
a. VOLUME 100-YR. 6-HR		
$WTE = (E_A \cdot A_A + E_B \cdot A_B + E_C \cdot A_C + E_D \cdot A_D) / A_T$		1.85 IN
$\Rightarrow (0.67 \cdot 0.00) + (0.86 \cdot 2.59) + (1.09 \cdot 1.88) + (2.58 \cdot 5.43) / 9.90 =$		66,510 CF
$V_{100, 6 \text{ HR}} = (E_W / 12) \cdot A_T$		$\Rightarrow (1.85 / 12) \cdot 9.90 = 1.5270 \text{ AC-FT} =$
b. PEAK DISCHARGE 100-YR		
$Q_{100} = Q_A \cdot A_A + Q_B \cdot A_B + Q_C \cdot A_C + Q_D \cdot A_D$		36.8 CFS
$\Rightarrow (1.84 \cdot 0.00) + (2.49 \cdot 2.59) + (3.17 \cdot 1.88) + (4.49 \cdot 5.43) =$		
2. BASIN B		
a. VOLUME 100-YR. 6-HR		
$WTE = (E_A \cdot A_A + E_B \cdot A_B + E_C \cdot A_C + E_D \cdot A_D) / A_T$		1.50 IN
$\Rightarrow (0.67 \cdot 0.00) + (0.86 \cdot 0.00) + (1.09 \cdot 0.20) + (2.58 \cdot 0.08) / 0.28 =$		1,510 CF
$V_{100, 6 \text{ HR}} = (E_W / 12) \cdot A_T$		$\Rightarrow (1.50 / 12) \cdot 0.28 = 0.0348 \text{ AC-FT} =$
b. PEAK DISCHARGE 100-YR		
$Q_{100} = Q_A \cdot A_A + Q_B \cdot A_B + Q_C \cdot A_C + Q_D \cdot A_D$		1.0 CFS
$\Rightarrow (1.84 \cdot 0.00) + (2.49 \cdot 0.00) + (3.17 \cdot 0.20) + (4.49 \cdot 0.08) =$		
3. OFFSITE BASIN (PER 1994 MDP LAND TREATMENT VALUES)		
a. VOLUME 100-YR. 6-HR		
$WTE = (E_A \cdot A_A + E_B \cdot A_B + E_C \cdot A_C + E_D \cdot A_D) / A_T$		1.54 IN
$\Rightarrow (0.67 \cdot 0.00) + (0.86 \cdot 9.31) + (1.09 \cdot 0.00) + (2.58 \cdot 6.04) / 15.35 =$		85,810 CF
$V_{100, 6 \text{ HR}} = (E_W / 12) \cdot A_T$		$\Rightarrow (1.54 / 12) \cdot 15.35 = 1.9699 \text{ AC-FT} =$
b. PEAK DISCHARGE 100-YR		
$Q_{100} = Q_A \cdot A_A + Q_B \cdot A_B + Q_C \cdot A_C + Q_D \cdot A_D$		50.3 CFS
$\Rightarrow (1.84 \cdot 0.00) + (2.49 \cdot 9.31) + (3.17 \cdot 0.00) + (4.49 \cdot 6.04) =$		
C. NEW PUBLIC STORM DRAIN CHANNEL CAPACITY (MANNING'S EQUATION FOR OPEN CHANNEL FLOW)		
USING MANNING'S EQUATION FOR 10' WIDE CHANNEL, 1.5' WALL HEIGHT (0.7' WATER FLOW DEPTH, 0.8' FREEBOARD), MIN. SLOPE = 1.2%		
$Q_{\text{CHANNEL CAP}} = 1.49 \text{ ft}^3 \cdot A \cdot R^{2/3} \cdot S^{1/2} = (1.49 \cdot 0.013) \times (7 \text{ SF}) \times (0.61)^{2/3} \times (0.012)^{1/2} = 63.3 \text{ CFS}$		
$Q_{\text{CHANNEL CAP}} = 63.3 \text{ CFS} > Q_{\text{OFFSITE DISCHARGE}} = 50.3 \text{ CFS}$; OK		
4. BASIN A (INTERIM)*		
a. VOLUME 100-YR. 6-HR		
$WTE = (E_A \cdot A_A + E_B \cdot A_B + E_C \cdot A_C + E_D \cdot A_D) / A_T$		2.12 IN
$\Rightarrow (0.67 \cdot 0.00) + (0.86 \cdot 0.93) + (1.09 \cdot 1.96) + (2.58 \cdot 7.01) / 9.90 =$		76,220 CF
$V_{100, 6 \text{ HR}} = (E_W / 12) \cdot A_T$		$\Rightarrow (2.12 / 12) \cdot 9.90 = 1.7498 \text{ AC-FT} =$
b. PEAK DISCHARGE 100-YR		
$Q_{100} = Q_A \cdot A_A + Q_B \cdot A_B + Q_C \cdot A_C + Q_D \cdot A_D$		40.0 CFS
$\Rightarrow (1.84 \cdot 0.00) + (2.49 \cdot 0.93) + (3.17 \cdot 1.96) + (4.49 \cdot 7.01) =$		

2. BASIN B	
a. VOLUME 100-YR. 6-HR	
$\Delta V_{100, 6 \text{ HR}} = 1510 - 1110 =$	<u>400 CF</u> (INCREASE)
b. PEAK DISCHARGE 100-YR	
$\Delta Q_{100} = 1.0 - 0.9 =$	<u>0.1 CFS</u> (INCREASE)
3. BASIN A (INTERIM)*	
a. VOLUME 100-YR. 6-HR (GROSS)	
$\Delta V_{100, 6 \text{ HR}} = 76220 - 59300 =$	<u>16,920 CF</u> (INCREASE)
b. PEAK DISCHARGE 100-YR	
$\Delta Q_{100} = 40.0 - 35.0 =$	<u>5.0 CFS</u> (INCREASE)
c. SUBSURFACE INFILTRATION SYSTEM CAPACITY	
$V_{\text{INFILTRATION CAPACITY}} =$	<u>14,593 CF</u>
$V_{\text{CAP}} < \Delta V_{100, 6 \text{ HR}} = 14,593 \text{ CF} < 16,920 \text{ CF}$; 86% INCREASED RUNOFF MANAGED VIA INFILTRATION ONSITE	
d. STORMWATER QUALITY VOLUME = 1,500 + 230 + 300 =	<u>2,030 CF</u>
e. VOLUME 100-YR. 6 HR (NET)	
$\Delta V_{100, 6 \text{ HR}} (\text{NET}) = 16,920 - 14,593 - 2,030 =$	<u>297 CF</u> (INCREASE)
$V_{\text{CAP}} > \Delta V_{100, 6 \text{ HR}} (\text{GROSS}) = 14,593 \text{ CF} + 2,030 \text{ CF} = 16,920 \text{ CF}$; 99% INCREASED RUNOFF MANAGED VIA INFILTRATION & SURFACE STORM WATER QUALITY ONSITE	
D. STORM WATER QUALITY AND LEED CALCULATIONS	
THE MEASURES ASSOCIATED WITH THIS PROJECT ARE INTENDED TO EXCEED THOSE REQUIRED FOR THE CITY OF ALBUQUERQUE STORMWATER QUALITY ORDINANCE AND ALSO THOSE FOR LEED BD+C: NEW CONSTRUCTION V4.1 SUSTAINABLE SITES RAINWATER MANAGEMENT CREDIT OPTION 1 - 3 CREDITS FOR MANAGING THE 90 TH PERCENTILE EVENT. THE ASSOCIATED FINAL CONDITION VOLUME REQUIRED OF 8,400 CF HAS BEEN DETERMINED USING THE CITY OF ALBUQUERQUE METHODOLOGY AS FOLLOWS:	
LEED BOUNDARY AREA = 443,559 SF (10.18 AC); IMPERVIOUS AREA = 5.51 AC	
90 TH PERCENTILE RUNOFF DEPTH = 0.42"	
PER COA DPM ARTICLE 6-12 (STORMWATER QUALITY AND LOW IMPACT DEVELOPMENT), THE IMPERVIOUS AREA SHALL BE MULTIPLIED BY THE 0.42" STORM EVENT FROM THE 90 TH PERCENTILE STORM EVENT.	
$V_{90\text{TH}} = (E_W \cdot 90\text{TH})^{1/2} \cdot A_T$	
$\Rightarrow (0.42 / 12) \cdot 5.51 = 0.42 / 12 \cdot 5.51 = 0.1929 \text{ AC-FT} = \mathbf{8,400 \text{ CF}}$	
IN RECOGNITION THAT THERE WILL BE AN INTERIM CONDITION WHEREBY THE NEW CONSTRUCTION IS COMPLETE PRIOR TO DEMOLITION OF THE EXISTING SCHOOL, THE FOLLOWING CALCULATIONS ARE FOR THE INTERIM WORST CASE TEMPORARY CONDITION:	
LEED BOUNDARY AREA = 443,559 SF (10.18 AC); IMPERVIOUS AREA = 7.09 AC	
90 TH PERCENTILE RUNOFF DEPTH = 0.42"	
$V_{90\text{TH}} = (E_W \cdot 90\text{TH})^{1/2} \cdot A_T$	
$\Rightarrow (0.42 / 12) \cdot 7.09 = 0.42 / 12 \cdot 7.09 = 0.2482 \text{ AC-FT} = \mathbf{10,810 \text{ CF}}$	

NOTE:
THIS IS NOT A BOUNDARY SURVEY; DATA IS SHOWN FOR ORIENTATION ONLY. THE BOUNDARY INFORMATION DEPICTED BY THIS PLAN IS BASED UPON AN UNRECORDED BOUNDARY SURVEY PREPARED BY HIGH MESA CONSULTING GROUP, NMPS 11184, DATED 10/04/2017 (2016.183.3). THE TOPOGRAPHIC INFORMATION DEPICTED HEREON IS BASED UPON THE "BOUNDARY, TOPOGRAPHIC AND UTILITY SURVEY" PREPARED BY HIGH MESA CONSULTING GROUP, NMPS NO. 11184, DATED 10/04/2017 (2016.183.3).



- KEYED NOTES:**
1. CONSTRUCT FOUR (4) 24" WIDE SIDEWALK CULVERTS PER TYPICAL DETAIL, SHEET 7
 2. CONSTRUCT 10' WIDE PUBLIC DRAINAGE CHANNEL PER TYPICAL SECTIONS, SHEET 7
 3. NEW LANDSCAPING, GRADING & INSTALLATION BY SEPARATE BUILDING PERMIT
 4. NEW PRIVATE BUS DROP-OFF / PARENT DROP-OFF ROAD BY SEPARATE BUILDING PERMIT
 5. NEW PRIVATE SIDEWALK BY SEPARATE BUILDING PERMIT
 6. NEW PRIVATE ASPHALT PAVED "FIRE ROAD" CONNECTION TO LAYING STREET BY SEPARATE BUILDING PERMIT; SAWCUT EXISTING ASPHALT PROPERTY LINE FOR CLEAN EDGE
 7. NEW BACK-TO-BACK MOUNTABLE CURBS / "WATER BLOCK" BY SEPARATE BUILDING PERMIT
 8. NEW PRIVATE CURB AND GUTTER BY SEPARATE BUILDING PERMIT

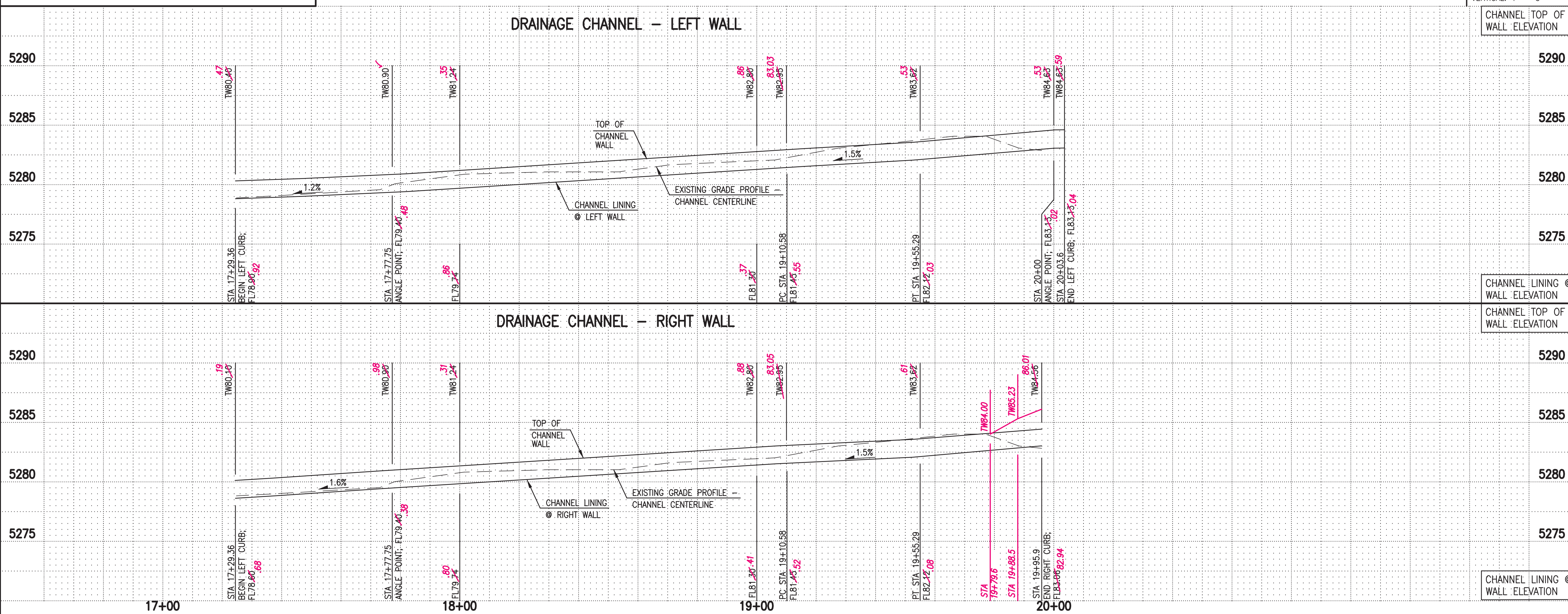
- CONSTRUCTION NOTES**
1. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION 2020 EDITION.
 2. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM, 811, FOR DESIGNATION (LINE-SPOTTING) OF EXISTING PUBLIC UTILITIES AND EXISTING UTILITIES OWNED AND OPERATED BY ALBUQUERQUE PUBLIC SCHOOLS.
 3. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL INTERPRETATIONS IT MAKES WITHOUT FIRST CONTACTING THE ENGINEER AS REQUIRED ABOVE.
 4. 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.
 5. ALL CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.
 6. UTILITY INFORMATION SHOWN HEREON IS BASED UPON ONSITE SURFACE EVIDENCE, REVIEW OF AVAILABLE OWNER RECORD DRAWINGS AND UTILITY LINE-SPOTS PROVIDED BY HIGH MESA CONSULTING GROUP (APS-SUE 2017018). IN ADDITION, UTILITY LINE-SPOTS WERE REQUESTED VIA THE NEW MEXICO ONE CALL SERVICE (TICKET NO. 17M330561). UTILITY LINES THAT APPEAR ON THESE DRAWINGS ARE SHOWN IN AN APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH EXISTING LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES. THE ENGINEER HAS CONDUCTED ONLY PRELIMINARY INVESTIGATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES. THIS INVESTIGATION IS NOT CONCLUSIVE, AND MAY NOT BE COMPLETE. THEREFORE, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.
 7. THE DESIGN OF PLANTERS AND LANDSCAPED AREAS IS NOT PART OF THIS PLAN. ALL PLANTERS AND LANDSCAPED AREAS ADJACENT TO THE BUILDING(S) SHALL BE PROVIDED WITH POSITIVE DRAINAGE TO AVOID ANY PONDING ADJACENT TO THE STRUCTURE. FOR CONSTRUCTION DETAILS, REFER TO LANDSCAPING PLAN BY SEPARATE PERMIT.
 8. THE GRADES INDICATED ON THIS PLAN ARE FINISHED GRADES UNLESS OTHERWISE INDICATED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LEAVING SUBGRADE AT ELEVATIONS THAT SHALL ACCOMMODATE PROPOSED IMPROVEMENTS AS INDICATED ON THE PLANS INCLUDING, BUT NOT LIMITED TO, SURFACE DRAINAGE STRUCTURES, PAVING AND LANDSCAPING SURFACING.
 9. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
 10. CONTRACTOR SHALL REFER TO GEOTECHNICAL REPORT AND/OR STRUCTURAL FOR EARTHWORK REQUIREMENTS, AS APPLICABLE.
 11. ALL KNOWN EXISTING UTILITIES ARE SHOWN HEREON FOR REFERENCE AND INFORMATION. ALTHOUGH REMOVALS OF CONFLICTING UTILITIES MAY BE ACCOUNTED FOR BY OTHER SHEETS AND OTHER DISCIPLINES, THEY ARE SHOWN HEREON TO HELP PREVENT INADVERTENT DAMAGE AND INFORM THE GENERAL CONTRACTOR OF UTILITIES THAT MAY NOT HAVE BEEN OTHERWISE ACCOUNTED FOR.

- RECORD DRAWING LEGEND**
- | | |
|-----------|--|
| CONSTRUCT | RECORD INFORMATION (VERIFIED BY ENGINEER) |
| ✓ | AS-CONSTRUCTED = AS-DESIGNED (VERIFIED BY AS-BUILT SURVEY) |
| 38' 42" | RECORD INFORMATION FROM AS-BUILT SURVEY |
| +25.2 | RECORD INFORMATION FROM AS-BUILT SURVEY |
| 28.95.92 | RECORD INFORMATION FROM AS-BUILT SURVEY |

RECORD DRAWING FOR CERTIFICATION, SEE SHEET 1



SCALE:
HORIZONTAL: 1" = 20'
VERTICAL: 1" = 5'
CHANNEL TOP OF WALL ELEVATION



811
CALL NM ONE-CALL SYSTEM SEVEN (7) DAYS PRIOR TO ANY EXCAVATION

HIGH MESA Consulting Group
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Phone: 505.345.4250 • Fax: 505.345.4254 • www.highmesacg.com

**CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP**

**TITLE: ARROYO DEL OSO ELEMENTARY SCHOOL
INFRASTRUCTURE IMPROVEMENTS
PUBLIC STORM DRAINAGE CHANNEL PLAN AND PROFILE**

Design Review Committee
APPROVED
Feb. 21, 2023
DESIGN REVIEW COMMITTEE

City Engineer Approval
APPROVED
Mar. 1, 2023
CITY ENGINEER

Revisions

NO.	DATE	REMARKS
1	10-16-23	RECORD DRAWING & CERTIFICATION
2	02-23	ADDRESS DRC COMMENT

Design By J.D.S. **Date** 02-2023
Drawn By J.Y.R. **Date** 02-2023
Checked By G.M. **Date** 02-2023

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	AN AGRS 3 1/4" ALUMINUM SURVEY CONTROL CAP SET IN A CONCRETE POST, FLUSH WITH THE GROUND, STAMPED "SWM-12, 2005", LOCATED IN THE NORTHWEST QUADRANT OF SISTER CITIES PARK WHICH IS WEST OF THE INTERSECTION OF HARPER DRIVE AND MCKINNEY DRIVE N.E.	DATE	NO.	BY	J.D.S.	J.D.S.
INSPECTOR'S DATE	DATE		10/04/2017	2016.183.3	HMCG		
FIELD VERIFICATION DATE	DATE						
FIELD CORRECTION DATE	DATE						
RECORDED BY	DATE						
NO.	DATE						

J. GRAEME MEANS
NEW MEXICO
REGISTERED PROFESSIONAL ENGINEER
13676
10-16-2023
02-21-2023
02-15-2023

