

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

February 22, 2023

Åsa Nilsson-Weber, P.E.
Isaacson & Arfman, Inc
128 Monroe St NE
Albuquerque NM 87108

**RE: Manzano Mesa Pickleball Courts Ph. II
501 Elizabeth St SE, Albuquerque, NM 87123
Grading & Drainage Plan
Engineers Stamp Date: 02/20/2023
Hydrology File: L21D037B2**

Dear Ms. Weber,

Based upon the information provided in your submittal received 2/22/2023, the Grading & Drainage Plan is approved for Building Permit approval. Please attach a copy of this approved plan in the construction sets for Building Permit processing along with a copy of this letter.

PO Box 1293

Albuquerque

PRIOR TO CERTIFICATE OF OCCUPANCY:

NM 87103

Engineer's Certification, per the DPM Part 6-14 (F): *Engineer's Certification Checklist For Non-Subdivision* is required.

www.cabq.gov

As a reminder, if the project total area of disturbance (including the staging area and any work within the adjacent Right-of-Way) is 1 acre or more, then an Erosion and Sediment Control (ESC) Plan and Owner's certified Notice of Intent (NOI) is required to be submitted to the Stormwater Quality Engineer (Doug Hughes, PE, jhughes@cabq.gov, 505-924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 505-924-3695 or tchen@cabq.gov.

Sincerely,

Tiequan Chen, P.E.
Principal Engineer, Hydrology
Planning Department, Development Review Services



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

Manzano Mesa

Project Title: Pickleball Courts Ph. II **Building Permit #** _____ **Hydrology File #** L21D037B2
DRB# _____ **EPC#** _____

Legal Description: A Portion of Manzano Mesa Park **City Address OR Parcel** 501 Elizabeth St., SE

Applicant/Agent: Isaacson & Arfman, Inc. **Contact:** Åsa Nilsson-Weber / Bryan Bobrick
Address: 128 Monroe St., NE Abq. NM 87108 **Phone:** 505-268-8828
Email: asaw@iacivil.com

Applicant/Owner: City of Albuquerque - Parks & Recreation Department **Contact:** Jesse Scott
Address: _____ **Phone:** 505-768-5364
Email: jessescott@cabq.gov

TYPE OF DEVELOPMENT: PLAT (#of lots) RESIDENCE DRB SITE ADMIN SITE:
RE-SUBMITTAL: YES NO

DEPARTMENT: TRANSPORTATION HYDROLOGY/DRAINAGE

Check all that apply:

TYPE OF SUBMITTAL:

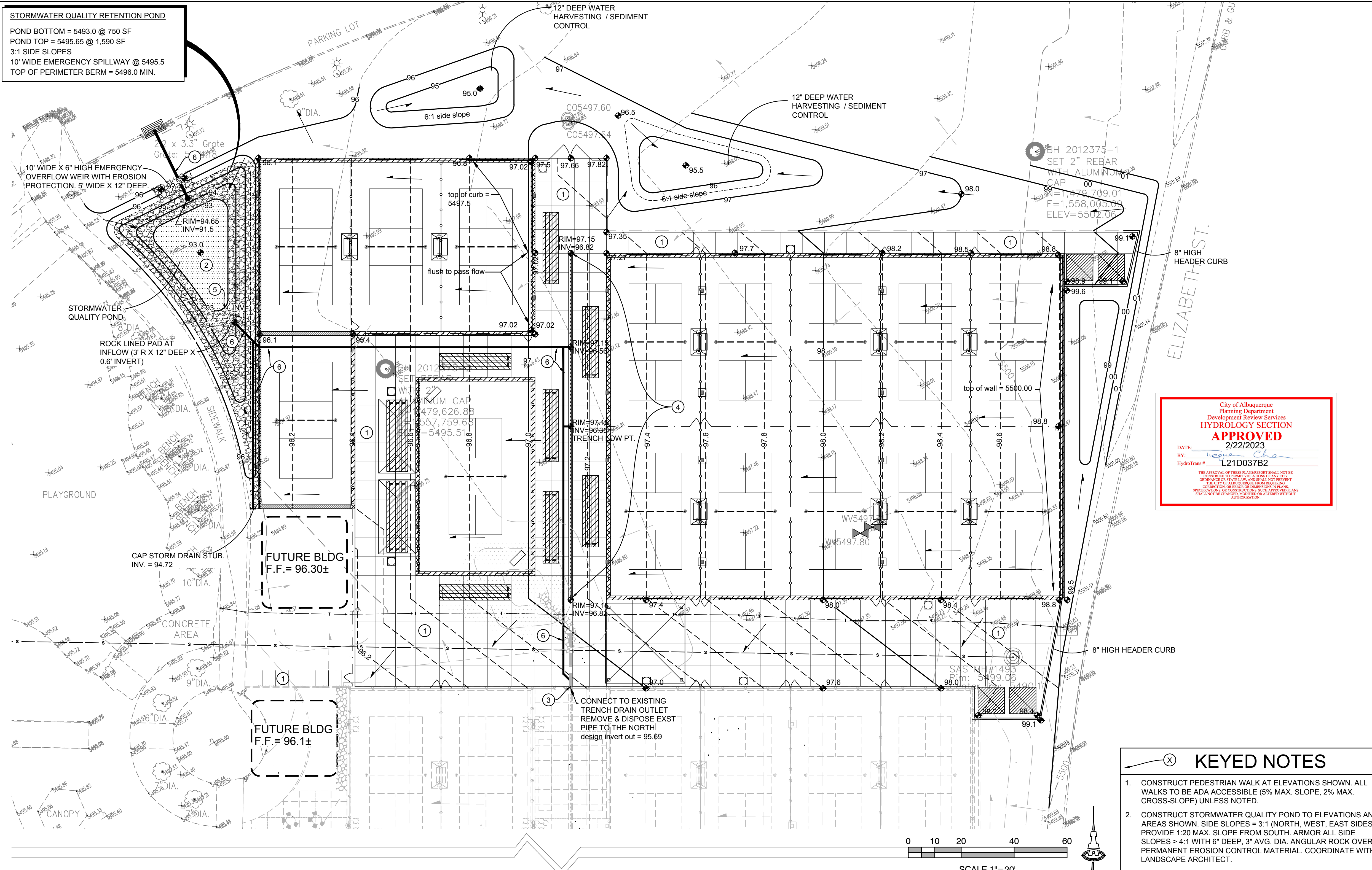
- ENGINEER/ARCHITECT CERTIFICATION
- PAD CERTIFICATION
- CONCEPTUAL G&D PLAN
- GRADING PLAN
- DRAINAGE REPORT
- DRAINAGE MASTER PLAN
- FLOOD PLAN DEVELOPMENT PERMIT APP.
- ELEVATION CERTIFICATE
- CLOMR/LOMR
- TRAFFIC CIRCULATION LAYOUT (TCL) ADMINISTRATIVE
- TRAFFIC CIRCULATION LAYOUT FOR DRB APPROVAL
- TRAFFIC IMPACT STUDY (TIS)
- STREET LIGHT LAYOUT
- OTHER (SPECIFY)
- PRE-DESIGN MEETING?

TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- BUILDING PERMIT APPROVAL
- CERTIFICATE OF OCCUPANCY
- CONCEPTUAL TCL DRB APPROVAL
- PRELIMINARY PLAT APPROVAL
- SITE PLAN FOR SUB'D APPROVAL
- SITE PLAN FOR BLDG PERMIT APPROVAL
- FINAL PLAT APPROVAL
- SIA/RELEASE OF FINANCIAL GUARANTEE
- FOUNDATION PERMIT APPROVAL
- GRADING PERMIT APPROVAL
- SO-19 APPROVAL
- PAVING PERMIT APPROVAL
- GRADING PAD CERTIFICATION
- WORK ORDER APPROVAL
- CLOMR/LOMR
- FLOOD PLAN DEVELOPMENT PERMIT
- OTHER (SPECIFY) _____

DATE SUBMITTED: 02/20/2023

STORMWATER QUALITY RETENTION POND
 POND BOTTOM = 5493.0 @ 750 SF
 POND TOP = 5495.65 @ 1,590 SF
 3:1 SIDE SLOPES
 10' WIDE EMERGENCY SPILLWAY @ 5495.5
 TOP OF PERIMETER BERM = 5496.0 MIN.



City of Albuquerque
 Planning Department
 Development Review Services
HYDROLOGY SECTION
APPROVED
 DATE: 2/22/2023
 BY: *[Signature]*
 HydroTrans # L21D037B2

- KEYED NOTES**
- CONSTRUCT PEDESTRIAN WALK AT ELEVATIONS SHOWN. ALL WALKS TO BE ADA ACCESSIBLE (5% MAX. SLOPE, 2% MAX. CROSS-SLOPE) UNLESS NOTED.
 - CONSTRUCT STORMWATER QUALITY POND TO ELEVATIONS AND AREAS SHOWN. SIDE SLOPES = 3:1 (NORTH, WEST, EAST SIDES). PROVIDE 1:20 MAX. SLOPE FROM SOUTH. ARMOR ALL SIDE SLOPES > 4:1 WITH 6" DEEP, 3" AVG. DIA. ANGULAR ROCK OVER PERMANENT EROSION CONTROL MATERIAL. COORDINATE WITH LANDSCAPE ARCHITECT.
 - CONTRACTOR TO CLEAN / FLUSH EXISTING TRENCH DRAIN AND STORM DRAIN SYSTEM.
 - CONSTRUCT NDS DURA-SLOPE TRENCH DRAIN (O.E.) WITH HIGH POINT AT ENDS, SLOPING TO CENTER. EXTEND OUTLET PIPES (2 LOCATIONS) TO STORM DRAIN. INSTALL ROCK EROSION PROTECTION FROM OUTLET TO LOW POINT. SEE CG-501 FOR ADDITIONAL INFORMATION.
 - INSTALL ROCK EROSION PROTECTION (AVG. 3"Ø X 6" DEEP) TO EXTENTS SHOWN ON PLAN. SEE PLANTING PLAN FOR ADDITIONAL EROSION CONTROL/EROSION PROTECTION AND ROCK SPECIFICATION.
 - INSTALL STORM DRAIN SYSTEM AT RIM / INVERT ELEVATIONS SHOWN ON CG-501.



PROJECT DATA

PROPERTY: THE SITE IS AN UNDEVELOPED PORTION OF THE MANZANO MESA PARK PROPERTY LOCATED WITHIN C.O.A. VICINITY MAP L-21. THE SITE IS BOUND TO THE EAST BY ELIZABETH ST., AND TO THE NORTH BY ASPHALT PAVED PARKING, TO THE SOUTH BY PICKLEBALL COURTS (PHASE I) AND TO THE WEST BY PARK PLAYGROUND.

PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE PHASE II OF THE PICKLEBALL COMPLEX WITH ASSOCIATED PEDESTRIAN ACCESS AND SITE LANDSCAPING.

LEGAL: A PORTION OF MANZANO MESA PARK, BERNALILLO COUNTY, NEW MEXICO.

ADDRESS: 501 ELIZABETH ST SE

OFF-SITE: NO OFFSITE DRAINAGE IMPACTS THE PROPERTY.

FLOOD HAZARD: PER BERNALILLO COUNTY FIRM MAP #35001C0359G DATED 09-26-2008, THE SITE IS LOCATED WITHIN FLOODZONE 'X' DESIGNATED AS AREAS DETERMINED TO BE OUTSIDE 500-YEAR FLOODPLAIN.

DRAINAGE PLAN CONCEPT: THE NEW IMPERVIOUS COURTS WILL SHEETFLOW FROM EAST TO WEST. STORMWATER QUALITY RETENTION POND(S) WILL PROVIDE THE REQUIRED STORAGE WITHIN THE PROPOSED LANDSCAPED AREAS. A STORM DRAIN INLET WITH RIM ABOVE THE STORMWATER QUALITY VOLUME WILL COLLECT RUNOFF AND ROUTE FLOW TO THE EXISTING PUBLIC STORM DRAIN INLET LOCATED IN THE NORTH PARKING LOT. STORMWATER WILL THEN PASS TO THE ON-SITE POND LOCATED AT THE SOUTHWEST PORTION OF THE PARK PROPERTY.

LEGEND

- EXISTING CONTOUR
- 97--- EXISTING SPOT ELEVATION
- 96.8--- PROPOSED CONTOUR (< 1' INCREMENT)
- ◆95.8 PROPOSED SPOT ELEVATION
- FLOW ARROW
- PROPOSED STORM DRAIN
- PROPOSED EROSION CONTROL LIMITS (6" AVG. DIA. ANGULAR FRACTURED FACE ROCK)

Isaacson & Artman, Inc.
 Civil Engineering Consultants
 128 Monroe Street NE
 Albuquerque, NM 87108
 505-268-8828 | www.isacivil.com

MRWM
 LANDSCAPE ARCHITECTS
 Morrow Reedon Wilkinson Miller, Ltd.
 mrwmlls.com 505 268 2266

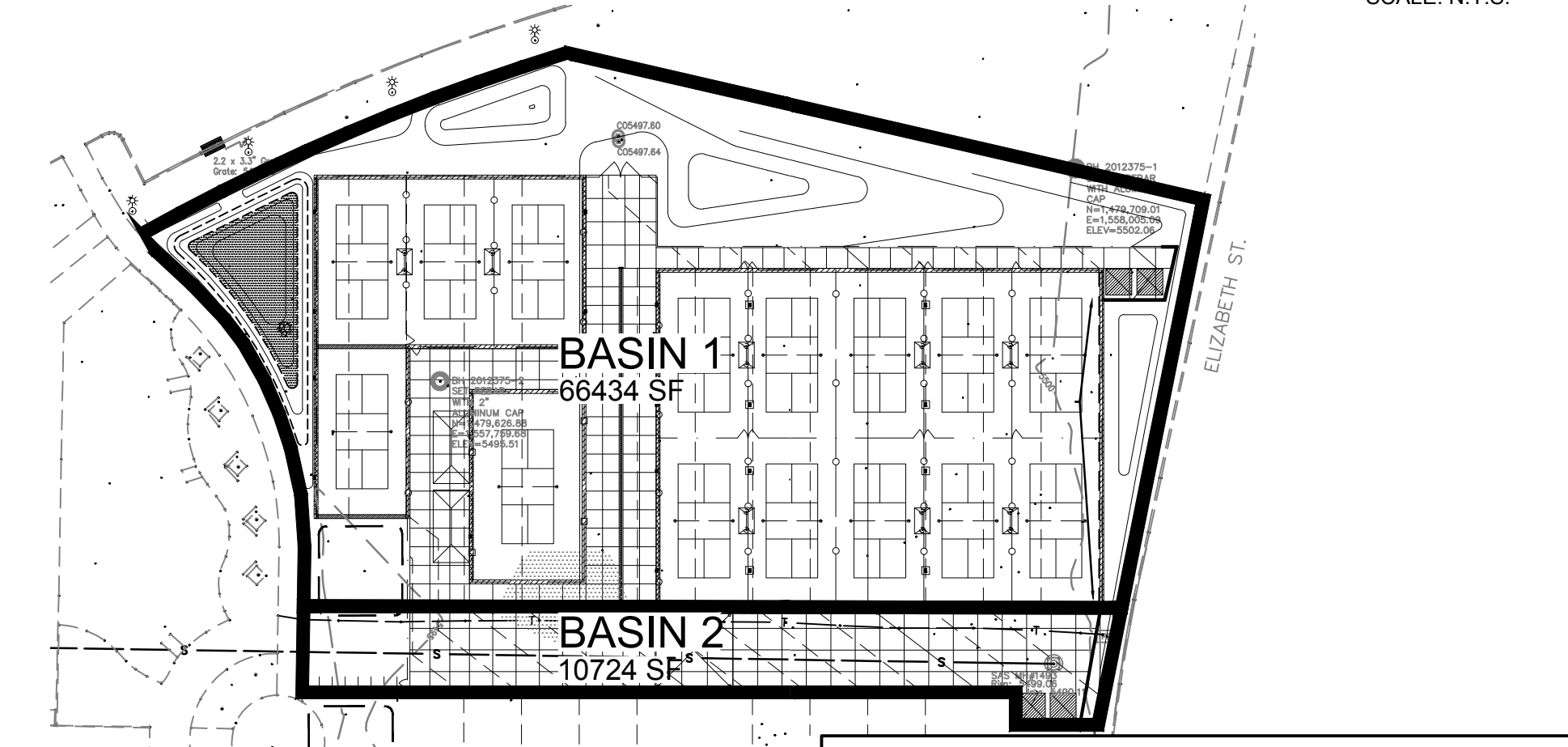
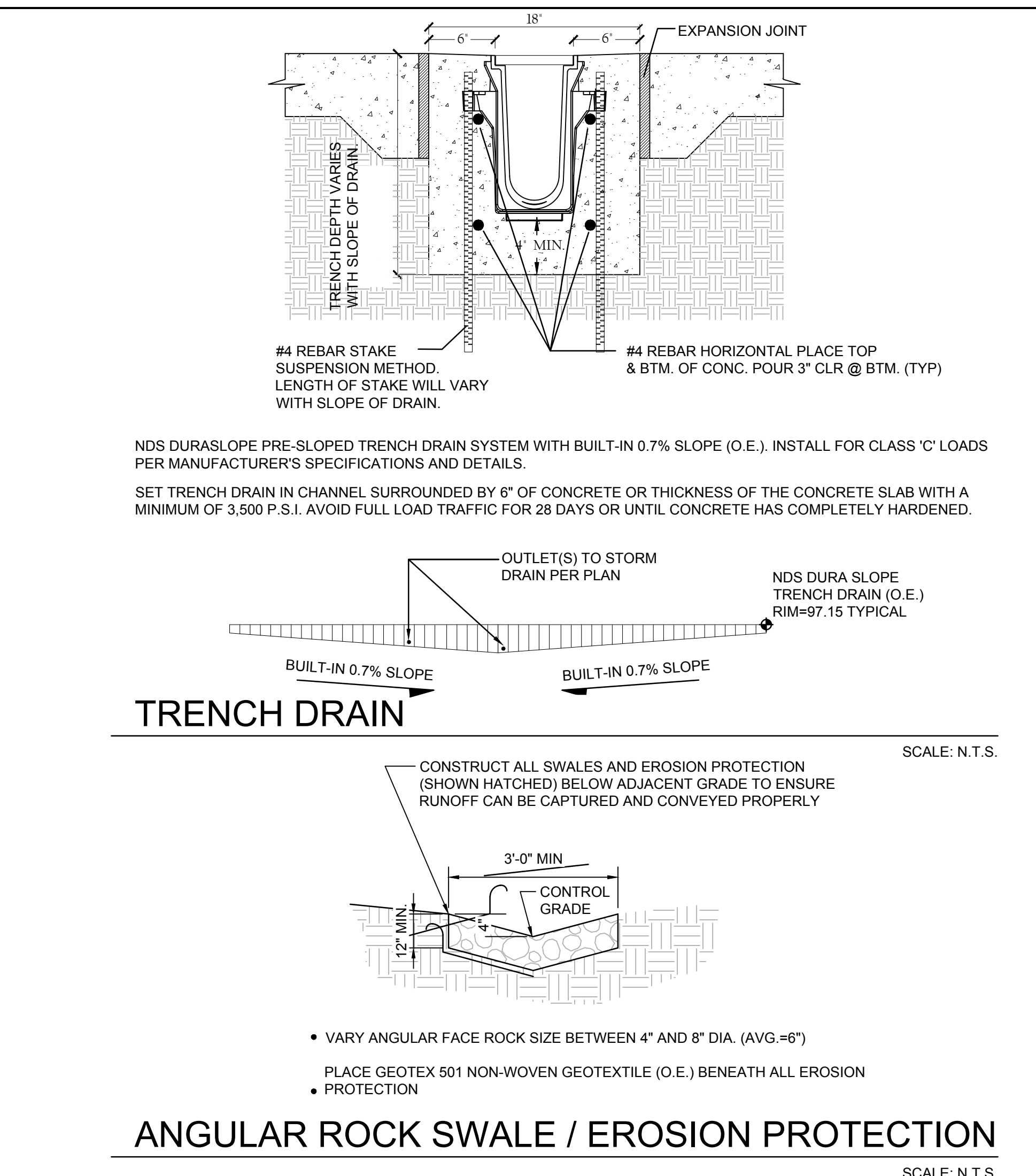
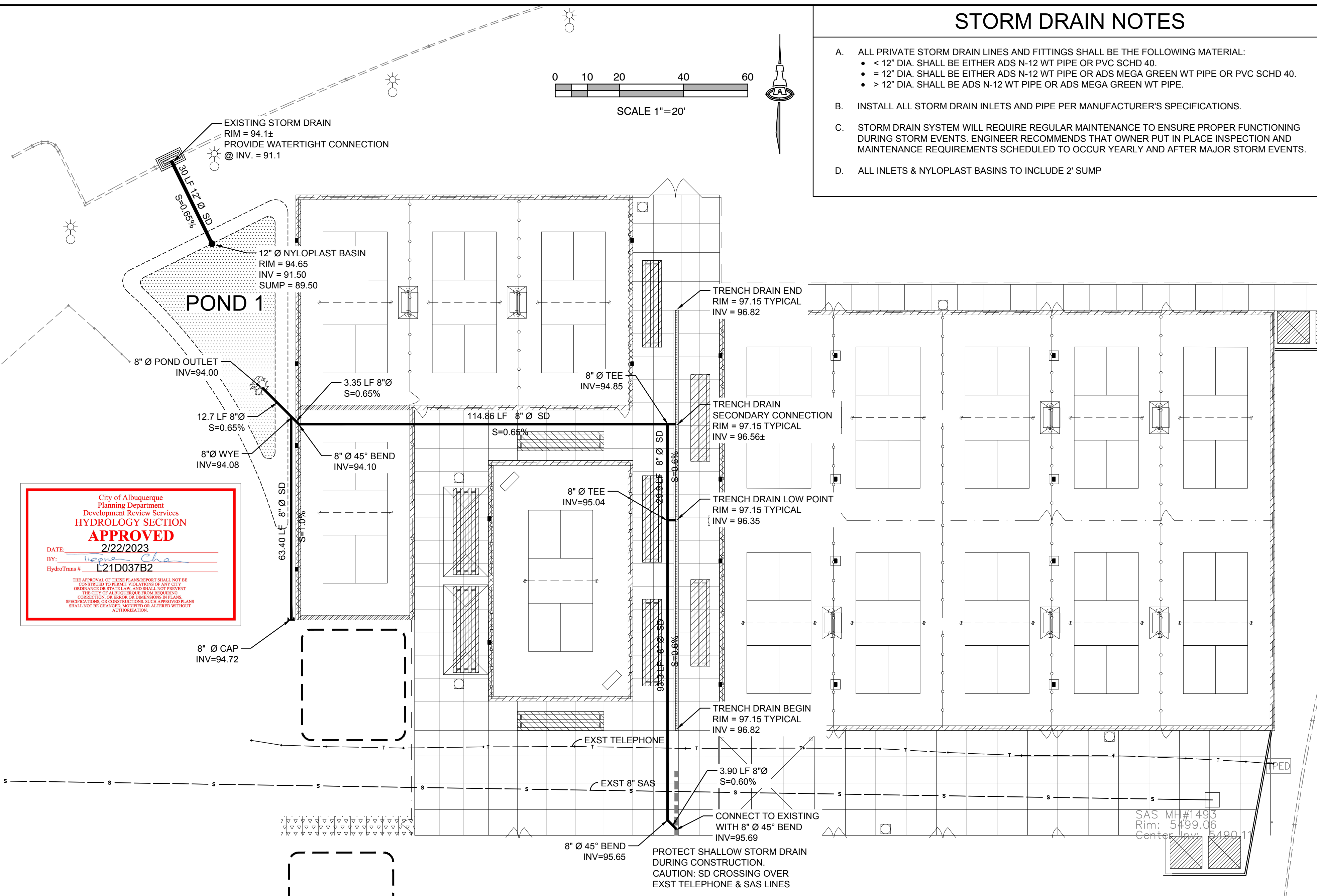
CITY OF ALBUQUERQUE
 STRATEGIC PLANNING AND DESIGN
 PARKS AND RECREATION DEPARTMENT

**MANZANO MESA PARK
 PICKLEBALL PHASE II
 GRADING & DRAINAGE PLAN**

Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
City Project No. 575199	Zone Map No. L-21	Sheet CG-101	

AS-BUILT INFORMATION		SURVEY INFORMATION		ARCHITECTURAL SEAL		REVISIONS	
CONTRACTOR	DATE	NO.	DATE	NO.	DATE	NO.	DATE
STAMPED BY	DATE	BY	DATE	BY	DATE	BY	DATE
Description: An aluminum disc stamped "8-L22 1900" located on the east side of Tramway Boulevard in the nose of the median of Central Avenue. NAVD 1988 Elevation Datum: 5668.036							
MICRO-FILM INFORMATION							

PROJECT# 575199 MANZANO MESA PARK PICKLEBALL PHASE II DATE: FEBRUARY 13TH, 2023 RECORD DRAWINGS



GENERAL NOTES

- ALL WORK DETAILED ON THESE PLANS AND PERFORMED UNDER THIS CONTRACT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT GEOTECHNICAL REPORT, WHERE APPLICABLE, CITY OF ALBUQUERQUE STANDARDS APPLY.
- THE CONTRACTOR SHALL ABIDE BY ALL STATE, LOCAL, AND FEDERAL LAWS, CODES, RULES AND REGULATIONS WHICH APPLY TO THE CONSTRUCTION OF THESE IMPROVEMENTS, INCLUDING EPA AND ADA REQUIREMENTS.
- ALL SUBGRADE, OVEREXCAVATION, BACKFILL, AND FILL SHALL BE PLACED AND / OR COMPACTED PER THE GEOTECHNICAL REPORT AND CITY OF ALBUQUERQUE SPECIFICATIONS.
- COORDINATE WORK WITH CONSTRUCTION PLAN, DEMOLITION PLAN, AND LANDSCAPE PLAN.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING OBSTRUCTIONS, AND CONDITION OF ALL EXISTING INFRASTRUCTURE PRIOR TO CONSTRUCTION. REPORT ALL DISCREPANCIES TO THE LANDSCAPE ARCHITECT AND VERIFY THE INTENT BEFORE PROCEEDING.
- CONTRACTOR SHALL OBTAIN ALL REQUIRED INSPECTIONS OF THE WORK.
- CONSTRUCTION ACTIVITY SHALL BE LIMITED TO THE PROPERTY AND/OR PROJECT LIMITS. ANY DAMAGE TO ADJACENT STRUCTURES RESULTING FROM THE CONSTRUCTION PROCESS SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL BE RESPONSIBLE FOR DOCUMENTING EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
- CONSTRUCTION EQUIPMENT SHALL NOT OBSTRUCT DRIVEWAYS. EQUIPMENT SHALL ONLY OBSTRUCT DESIGNATED TRAFFIC LANES IF APPROPRIATE BARRICADING PERMITS HAVE BEEN OBTAINED.
- THE CONTRACTOR SHALL MAINTAIN ALL BARRICADING AND CONSTRUCTION SIGNING AT ALL TIMES. THE CONTRACTOR SHALL VERIFY THE PROPER LOCATION OF ALL BARRICADING AT THE END AND BEGINNING OF EACH DAY.
- FOR ALL ACCESSIBLE ROUTES, MAXIMUM ALLOWABLE CROSS SLOPE IS 2.0% AND MAXIMUM LONGITUDINAL SLOPE WITHOUT RAMP IS 5.0%. FOLLOW ALL ADA ACCESSIBILITY GUIDELINES OR CITY CODES, WHICHEVER IS MORE STRINGENT.
- ALL TRASH, DEBRIS, & SURFACE VEGETATION SHALL BE CLEARED AND LEGALLY DISPOSED OF OFFSITE.
- PROPOSED SPOT AND CONTOUR ELEVATIONS SHOWN REPRESENT TOP OF FINISH MATERIAL (I.E. TOP OF CONCRETE, TOP OF CONCRETE BUILDING PAD, TOP OF PAVEMENT MATERIAL, TOP OF LANDSCAPING MATERIAL, ETC.). CONTRACTOR SHALL GRADE, COMPACT SUBGRADE AND DETERMINE EARTHWORK ESTIMATES BASED ON ELEVATIONS SHOWN MINUS FINISH MATERIAL THICKNESSES.
- MAXIMUM UNPROTECTED SLOPES SHALL BE 6:1.
- EXISTING UTILITY LINES ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND MAY BE INCOMPLETE OR OBSOLETE. SUCH LINES MAY OR MAY NOT EXIST WHERE SHOWN OR NOT SHOWN. CONTRACTOR SHALL CONTACT NM-811 FOR UTILITY LINE SPOTS TWO WORKING DAYS PRIOR TO CONDUCTING SITE FIELD WORK. CONTRACTOR SHALL FIELD VERIFY AND LOCATE ALL UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. 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. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF NECESSARY DRY UTILITY ADJUSTMENTS.
- A CURRENT STORMWATER CONTROL PERMIT, INCLUDING AN EROSION SEDIMENT CONTROL PLAN (E.S.C.) FOR EROSION AND SEDIMENT CONTROL IS REQUIRED FOR ALL CONSTRUCTION, DEMOLITION CLEARING, AND GRADING OPERATIONS THAT DISTURB THE SOIL ON ONE ACRE OR MORE OF LAND. OWNER WILL COORDINATE.
- POST-CONSTRUCTION MAINTENANCE FOR STORMWATER FACILITIES WILL BE THE RESPONSIBILITY OF THE FACILITIES OWNER.
- STORMWATER CONTROL MEASURES SHOWN ON THIS PLAN ARE REQUIRED TO PROVIDE MANAGEMENT OF 'FIRST FLUSH' (DEFINED AS THE 90TH PERCENTILE STORM EVENT OR 0.42" OF STORMWATER WHICH DISCHARGES DIRECTLY TO A PUBLIC STORM DRAINAGE SYSTEM).
- ADJUST ANY RIMS OF EXISTING UTILITY FEATURES AS NECESSARY TO MATCH NEW GRADES. UTILITIES IN PAVED AREAS SHALL BE HS-25 TRAFFIC RATED.
- PAVING AND ROADWAY GRADES SHALL BE ±0.1' FROM PLAN ELEVATIONS.
- WHERE GRADES BETWEEN NEW AND EXISTING ARE SHOWN AS 'MATCH' OR '±', TRANSITIONS SHALL BE SMOOTH.
- ALL EROSION PROTECTION TO BE FRACTURED FACE ROCK (F.F. ROCK) DEFINED AS 6" AVG. DIA. (4" TO 8") ANGULAR FACED ROCK PLACED OVER GEOTEX 501 NON-WOVEN GEOTEXTILE (O.E.).
- CONTRACTOR SHALL COMPLY WITH LOCAL REGULATIONS FOR RESEEDING OF DISTURBED AREAS. RESEEDING INSPECTION IS NOT INCLUDED AS PART OF ENGINEER'S CERTIFICATION OF SUBSTANTIAL COMPLIANCE.
- ENGINEER RECOMMENDS THAT OWNER MAINTAIN EROSION PROTECTION ELEMENTS. ENGINEER RECOMMENDS THAT OWNER INSPECT SITE YEARLY AND AFTER EACH RAINFALL TO IDENTIFY NEW AREAS OF EROSION AND INSTALL ADDITIONAL EROSION PROTECTION AS NEEDED BASED ON ACTUAL OCCURRENCES.
- MEASURES REQUIRED FOR EROSION AND SEDIMENT CONTROL SHALL BE INCIDENTAL TO THE PROJECT COST.

CALCULATIONS / STORMWATER QUALITY

THE PROPOSED CONSTRUCTION CONSISTS OF TWO MAIN DRAINAGE BASINS: BASIN 1 (NORTH) AND BASIN 2 (SOUTH).

POND #1		
Contour	Area	Volume
94.7	1590	
94.0	1284	934 CF
93.0	750	1017 CF
POND VOLUME =		1951 CF

BASIN 1 WILL DRAIN WEST TO THE PROPOSED SWO POND. BASED ON 0.42" PER SF, THE REQUIRED STORMWATER QUALITY RETENTION POND VOLUME = 1,600 CF (BASIN 1). PROVIDED STORMWATER QUALITY RETENTION POND VOLUME = 1,951 CF (EXCESS FOR FUTURE PHASES).

BASIN 2 WILL DRAIN, ALONG WITH THE SOUTH PICKLEBALL COURTS, TO THE EXISTING SWO POND CONSTRUCTED AS PART OF PHASE 1. REQUIRED = 312 CF. EXCESS 1,067 CF VOLUME WAS PROVIDED FOR PHASE 1 TO ACCOMMODATE ADDITIONAL IMPERVIOUS AREA.

CALCULATIONS: 2425 Manzano Mesa Pickleball Courts : 2/16/2023
 Based on City of Albuquerque DMP, Article 6-2 Hydrology dated June 26, 2020

100-YEAR, 6-HOUR CALCULATIONS

AREA OF SITE: 75220 SF = 1.73 ACRE

HISTORIC FLOWS:		DEVELOPED FLOWS:		EXCESS PRECIP:	
Treatment SF	%	Treatment SF	%	Zone	3
Area A = 0	0%	Area A = 0	0%	Ea =	0.67
Area B = 37610	50%	Area B = 20309	27%	Eb =	0.86
Area C = 37610	50%	Area C = 0	0%	Ec =	1.09
Area D = 0	0%	Area D = 54911	73%	Ed =	2.58
Total Area = 75220	100%	Total Area = 75220	100%		

On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)
 Weighted E = $\frac{EaAa + EbAb + EcAc + EdAd}{Aa + Ab + Ac + Ad}$

Historic E = 0.98 in. | Developed E = 2.12 in.

On-Site Volume of Runoff: V360 = $E^*A / 12$
 Historic V360 = 6112 CF | Developed V360 = 13261 CF

On-Site Peak Discharge Rate: $Qp = QpAa + QpAb + QpAc + QpAd / 43,560$
 For Precipitation Zone 3
 QpA = 1.84 | QpC = 3.17
 QpB = 2.49 | QpD = 4.49
 Historic Qp = 4.9 CFS | Developed Qp = 6.8 CFS

BASIN NO. 1

Area of basin flows = 65300 SF = 1.50 Ac

Sub-basin Weighted Excess Precipitation: 2.06 in.

Sub-basin Volume of Runoff: 11232 CF

Sub-basin Peak Discharge Rate: 5.8 cfs

BASIN NO. 2

Area of basin flows = 9920 SF = 0.22 Ac

Sub-basin Weighted Excess Precipitation: 2.41 in.

Sub-basin Volume of Runoff: 1991 CF

Sub-basin Peak Discharge Rate: 1.0 cfs

Isaacson & Artman, Inc.
 Civil Engineering Consultants

128 Monroe Street NE
 Albuquerque, NM 87108
 505-268-8828 | www.isacivil.com

MRWM
 LANDSCAPE ARCHITECTS
 Horrow Reardon Wilkinson Miller, Ltd.
 mrwmll.com | 505 268 2266

CITY OF ALBUQUERQUE
 STRATEGIC PLANNING AND DESIGN
 PARKS AND RECREATION DEPARTMENT

MANZANO MESA PARK
 PICKLEBALL PHASE II
 CIVIL NOTES AND DETAILS

Design Review Committee | City Engineer Approval

City Project No. 575199 | Zone Map No. L-21 | Sheet CG-501

AS-BUILT INFORMATION

CONTRACTOR	DATE
INSPECTOR'S ACCEPTANCE BY	DATE
DRAWINGS VERIFICATION BY	DATE
DRAWINGS BY	DATE
MICRO-FILM INFORMATION	DATE

BENCH MARKS

Description: An aluminum disc stamped "8-122 1980" located on the east side of Tramway Boulevard in the nose of the median of Central Avenue. NAVD 1988 Elevation Datum: 5666.036

SURVEY INFORMATION

FIELD NOTES	DATE
NO.	BY

ARCHITECTURAL SEAL

NEW MEXICO
 17831
 02-20-2023

REVISIONS

NO.	DATE	REMARKS	BY

DESIGNED BY: BJB | DATE: 01/24/23
 DRAWN BY: BJB | DATE: 01/24/23
 CHECKED BY: ANW | DATE: 01/24/23

RECORD DRAWINGS

PROJECT# 575199 | DATE: FEBRUARY 13TH, 2023
 MANZANO MESA PARK PICKLEBALL PHASE II