

CITY OF ALBUQUERQUE

Planning Department
Alan Varela, Director



Mayor Timothy M. Keller

September 15, 2025

John Stapleton, PE
Community Design Solutions
9384 Valley View Dr. NW
Albuquerque, NM 87114

RE: Petrogl Kiddie Academy
99999 Paseo Del Norte – SW Corner of PDN and Kimmick Dr NW
Grading and Drainage Plans
Engineer's Stamp Date: 08/05/2025
Hydrology File: C11D004A
Case # HYDR-2025-00281

Dear Mr. Stapleton:

Based upon the information provided in your submittal received 08/21/2025, the Grading & Drainage Plan is approved for Building Permit and Grading Permit. 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

PRIOR TO CERTIFICATE OF OCCUPANCY:

Albuquerque

1. Engineer's Certification, per the DPM Part 6-14 (F): *Engineer's Certification Checklist For Non-Subdivision* is required.
2. Please provide the executed paper Drainage Covenant (latest revision) printed on one-side only with Exhibit A and a check for **\$25.00** made out to "**Bernalillo County**" for the stormwater quality ponds per Article 6-15(C) of the DPM to Hydrology for review at Plaza de Sol. The Covenant and Exhibit will also need to be uploaded to ABQ-PLAN.

NM 87103

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, 924-3420) 14 days prior to any earth disturbance.

If you have any questions, please contact me at 505-924-3314 or amontoya@cabq.gov.

Sincerely,

Anthony Montoya, Jr., P.E., C.F.M.
Senior Engineer, Hydrology
Planning Department, Development Review Services

City of Albuquerque
 Planning Department
 Development Review Services
HYDROLOGY SECTION
APPROVED
 DATE: 9/15/2025
 BY: [Signature]
 HydroTrans # C11D004A
 THE APPROVAL OF THESE PLANS/REPORTS SHALL NOT BE CONSTRUED TO
 PUNISH VIOLATIONS OF ANY CITY ORDINANCE OR STATE LAW, AND
 SHALL NOT PREVENT THE CITY OF ALBUQUERQUE FROM REQUESTING
 CORRECTIONS FOR ERRORS OR OMISSIONS IN PLANS, SPECIFICATIONS,
 OR CONSTRUCTION DOCUMENTS. SUCH APPROVED PLANS/REPORTS SHALL
 NOT BE CHANGED, MODIFIED OR ALTERED WITHOUT AUTHORIZATION.
 THE APPROVAL OF THESE PLANS/REPORTS SHALL EXPIRE TWO (2)
 YEARS AFTER THE APPROVAL DATE IF NO BUILDING PERMIT HAS BEEN
 FILED FOR THE DEVELOPMENT.

KEYED NOTES

- 1 INSTALL 6" WIDE 1' DEEP SWALE PER DETAIL ON SHEET C-500
- 2 INSTALL ADA COMPLIANT HANDRAIL. COORDINATE WITH ARCHITECTS IN THE REGION BETWEEN THE ARROWHEADS
- 3 INSTALL EXTENDED SIDEWALK PER DETAIL ON SHEET C-500
- 4 INSTALL 12" WIDE (INTERIOR WIDTH) SINGLE SIDEWALK CULVERT CITY OF ALBUQUERQUE STANDARD DETAIL 2236
- 5 INSTALL CONCRETE RUNDOWN PER DETAIL ON SHEET C-500. BURY BOTTOM OF RUNDOWN 1FT INTO POND BOTTOM.
- 6 INSTALL 6" DIAMETER BROKEN ROCK 12" DEEP.
- 7 INSTALL ROAD WITH 1.5% TYPICAL CROSS SLOPE
- 8 INSTALL 18" WIDE (INTERIOR WIDTH) SINGLE SIDEWALK CULVERT CITY OF ALBUQUERQUE STANDARD DETAIL 2236
- 9 CONNECT TO CURB RETURNS. DESIGN OF CURB RETURNS ARE BY SEPARATE WORK ORDER PLANS.
- 10 INSTALL 4" DIAMETER BROKEN ROCK 8" DEEP.

Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
EW Kiddie Academy	1.000	1.000	108568.84 Sq. Ft.	3266.48 Cu. Yd.	2880.40 Cu. Yd.	386.08 Cu. Yd.<Cut>
Totals			108568.84 Sq. Ft.	3266.48 Cu. Yd.	2880.40 Cu. Yd.	386.08 Cu. Yd.<Cut>

- FINAL EARTHWORK NUMBERS ARE ADJUSTED BY SUBTRACTING THE TOTAL IMPERVIOUS AREA (32000 SQ. FT.) TIMES AN AVERAGE DEPTH OF 4IN (PER GEOTECH RECOMMENDATION) TO ACCOUNT FOR ASPHALT AND CONCRETE VOLUME IN FINAL FILL VOLUME.
 - OVER EXCAVATION SHRINK IS ACCOUNTED FOR USING AN AVERAGE DEPTH OF 2.9 FT.
 - **FINAL NET EARTHWORK AFTER ADJUSTMENT = 34 CU. YD. OF FILL**
 - STOCKPILE EXCESS CUT ON ADJACENT LOT TO THE EAST

SITE CIVIL LEGEND:

- PROPERTY BOUNDARY
- 5272 — PROPOSED MAJOR CONTOUR
- - - 5272 - - - PROPOSED MINOR CONTOUR
- - - 5272 - - - EXISTING MAJOR CONTOUR
- - - 5272 - - - EXISTING MINOR CONTOUR
- ▬▬▬ LIMITS OF DISTURBANCE
- → → FLOWLINE
- ~ ~ ~ GRADE BREAK / HIGH POINT
- ▨▨▨ EXTENTS OF RIPRAP
- - - - - EXTENDED SIDEWALK

STORM DRAIN KEYED NOTES

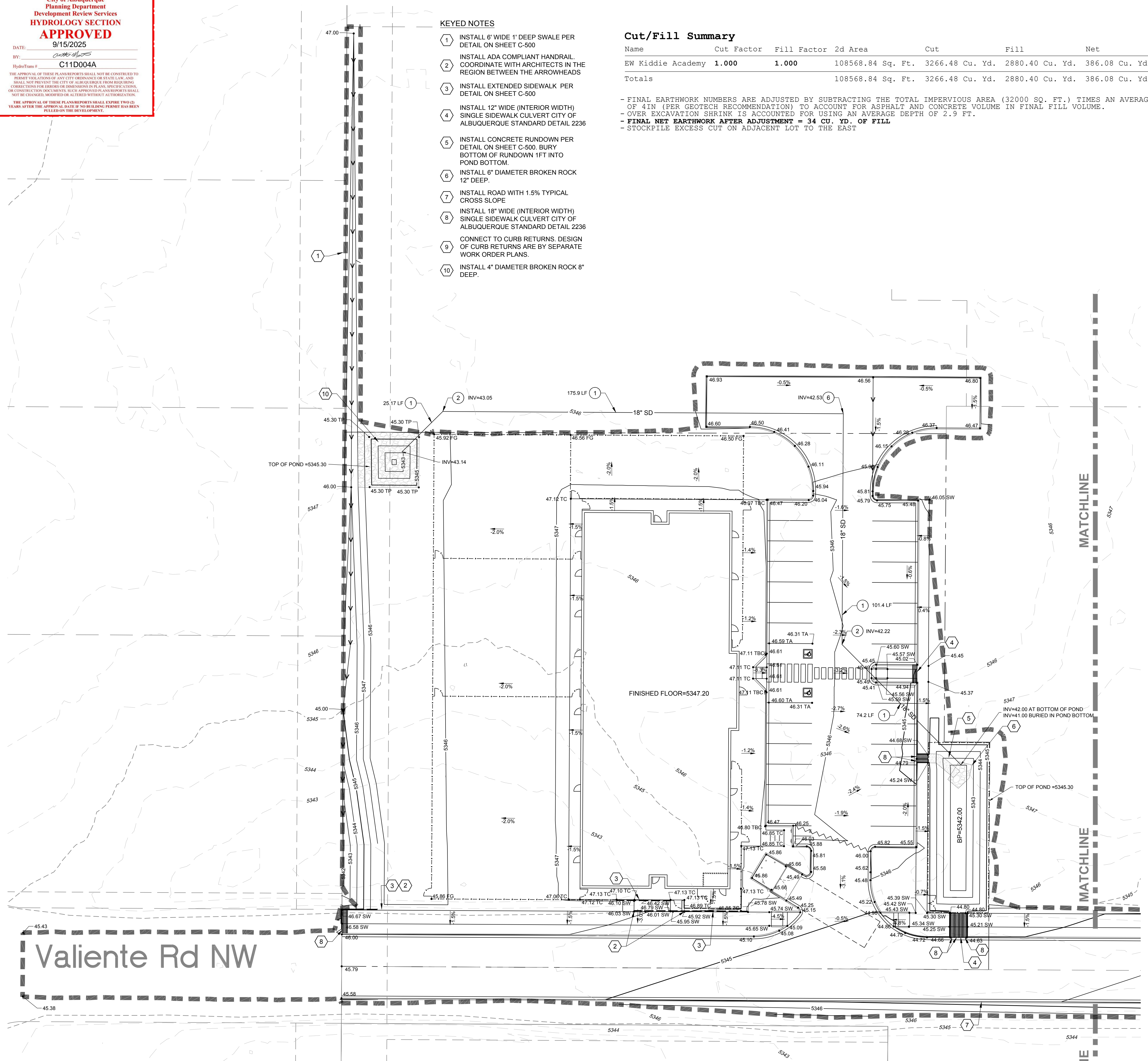
- 1 INSTALL 18" SMOOTH INTERIOR WALL HDPE PIPE, PVC PIPE, OR SIMILAR
- 2 INSTALL 18" 45° BEND
- 3 INSTALL STORM INLET TYPE DOUBLE A DOUBLE WING PER CITY OF ALBUQUERQUE STANDARD DETAIL 2201C
- 4 INSTALL 24" HDPE SMOOTH INTERIOR WALL STORM DRAIN PIPE
- 5 NOT IN USE
- 6 INSTALL 18" 90° BEND

SPOT ELEVATION SYMBOLS

- 20.00 FLOWLINE
- 20.00 EG TOP OF EXISTING GROUND
- 20.00 FG TOP OF FINISHED GROUND
- 20.00 TC TOP OF CONCRETE
- 20.00 EX FL EXISTING FLOWLINE
- 20.00 TBC TOP BACK OF CURB
- 20.00 TA TOP OF APSHALT
- 20.00 SW SIDEWALK
- 20.00 BP BOTTOM OF POND

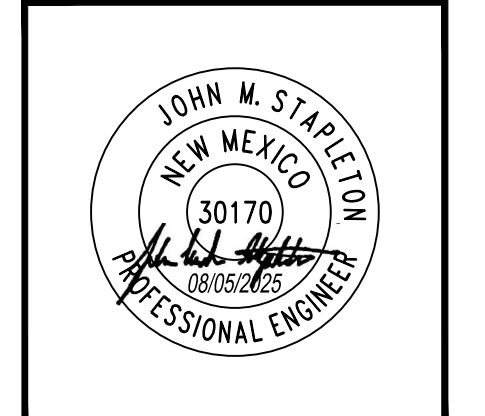
GRADING GENERAL NOTES

1. INSTALL PAVEMENT, HANDICAP RAMPS, CURB AND GUTTER, SIDEWALK AND ALL OTHER FEATURES WITHOUT DETAILS ON THIS SHEET PER ARCHITECTURAL PLANS.
2. CONTRACTOR SHALL FIELD VERIFY SIZE'S AND LOCATION AND ELEVATION OF ALL EXISTING DRY AND WET UTILITIES PRIOR TO ANY CONSTRUCTION AND NOTIFY ENGINEER OF ANY ISSUES. UTILITY RELOCATION MAY BE REQUIRED
3. GRADES SHOWN ARE FINAL SURFACE GRADES AFTER COMPLETION OF SURFACE IMPROVEMENTS AND PLACEMENTS OF TOPSOIL.
4. GRADE ADJACENT AREAS AT SITE PERIMETER SHALL MATCH GRADE OF ADJACENT PARCELS.
5. PROVIDE TEMPORARY GRADING FEATURES SUCH AS BERMS, SWALES, SUMPS, AND BASINS TO MANAGE INTERIM STORM WATER RUNOFF DURING CONSTRUCTION PROCESS. STORM WATER RUNOFF LEAVING THE SITE SHALL MEET ALL FEDERAL, STATE AND LOCAL QUALITY REQUIREMENTS.
6. REFER TO GEOTECHNICAL EVALUATIONS REPORT BY GEO-TEST DATED 06/13/2022.
7. COMPOSITE SLOPE IN HANDICAP PARKING SHALL NOT EXCEED 2% IN ANY DIRECTION.
8. CROSS SLOPE ON ADA CROSSWALKS SHALL NOT EXCEED 2%. LONGITUDINAL SLOPE SHALL NOT EXCEED 5%.
9. LONGITUDINAL SLOPE ON CURB RAMP SHALL NOT EXCEED 8.33%. CROSS SLOPE SHALL NOT EXCEED 2%.
10. COMPOSITE SLOPE ON RAMP LANDINGS SHALL NOT EXCEED 2%.
11. CROSS SLOPES ON SIDEWALKS SHALL NOT EXCEED 2%. LONGITUDINAL SLOPES ON ONSITE SIDEWALKS SHALL NOT EXCEED 5%.
12. SLOPE LABELS SHOW APPROXIMATE SLOPES ONLY. WHERE SLOPE LABELS AND SPOT ELEVATION LABELS CONFLICT, SPOT ELEVATION LABELS SHALL GOVERN AND THE SURVEYOR RESPONSIBLE FOR CONSTRUCTION STAKING SHALL CONTACT THE ENGINEER.
13. INSTALL PAVING PER PAVEMENT SECTIONS IN GEOTECHNICAL REPORT.
14. LONGITUDINAL SLOPES ON SIDEWALKS ADJACENT TO PUBLIC ROADS SHALL NOT EXCEED THE SLOPE OF THE PUBLIC ROAD.
15. WHERE THIS PLAN IS SILENT REGARDING SURFACE TREATMENT, REFER TO THE LANDSCAPING PLAN. DISTURBED AREAS WITHOUT SURFACE IMPROVEMENTS SPECIFIED IN THE LANDSCAPING OR GRADING PLAN SHALL BE RESEED WITH A NATIVE SEEDING MIX. IF THE LANDSCAPING AND GRADING PLAN CONFLICT REGARDING SURFACE TREATMENTS, THE GRADING PLAN SHALL GOVERN.
16. WHERE A PROPOSED RETAINING WALL IS LOCATED ALONG A PROPERTY BOUNDARY WITH AN ADJACENT PROPERTY THAT IS NOT OWNED BY THE DEVELOPER, THEN THE CONTRACTOR SHALL OBTAIN PERMISSION FROM THAT PROPERTY OWNER PRIOR TO INSTALLING A RETAINING WALL FOOTING THAT ENCLOSES INTO THE ADJACENT PROPERTY. IF PERMISSION IS NOT OBTAINED, AN L-SHAPED FOOTING SHALL BE USED TO AVOID FOOTING ENCROACHMENT INTO THE ADJACENT PROPERTY.



REV	DATE	BY	REVISION

MODULUS ARCHITECTS & LAND USE PLANNING
 8220 SAN PEDRO DRIVE NE, SUITE 520
 ALBUQUERQUE, NEW MEXICO 87113
 PHONE (505) 338-1499



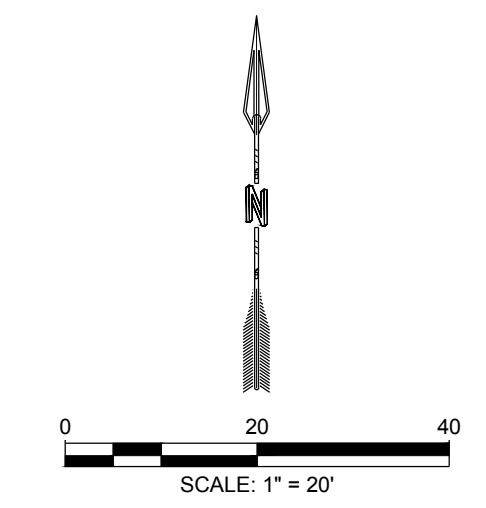
PROJECT TITLE: PETROGLYPH KIDDIE ACADEMY
 PASEO DEL NORTE & KIMPECK DRIVE NW
 ALBUQUERQUE, NEW MEXICO 87114

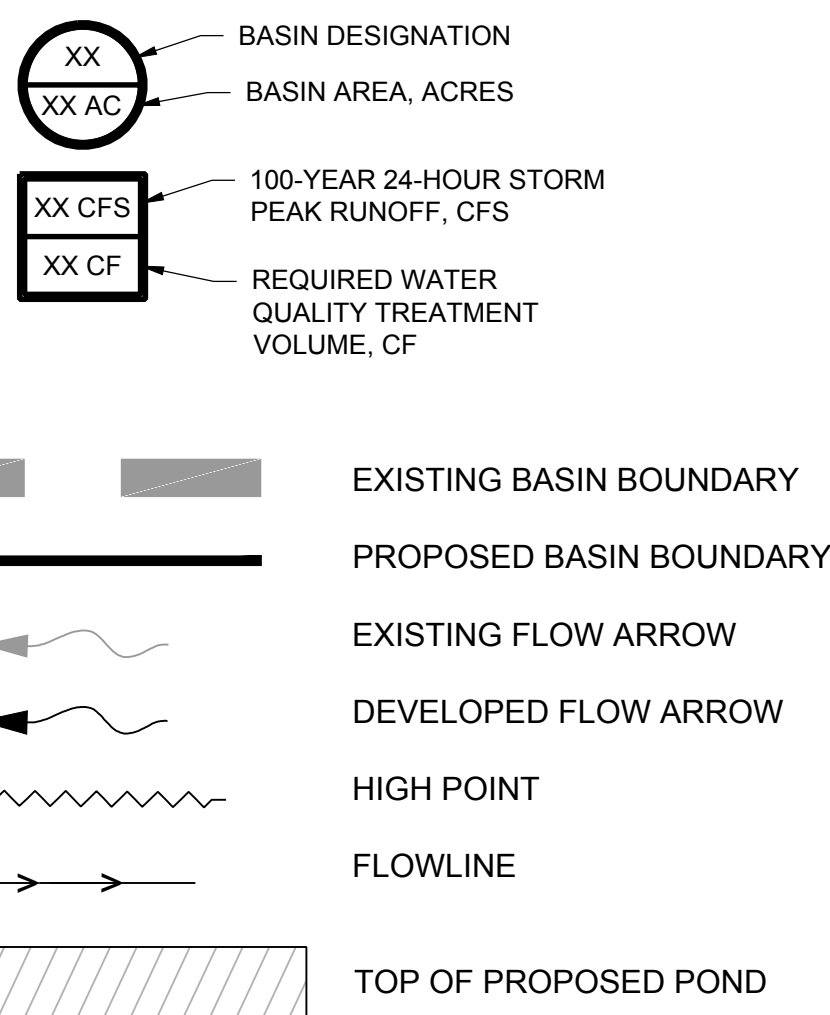
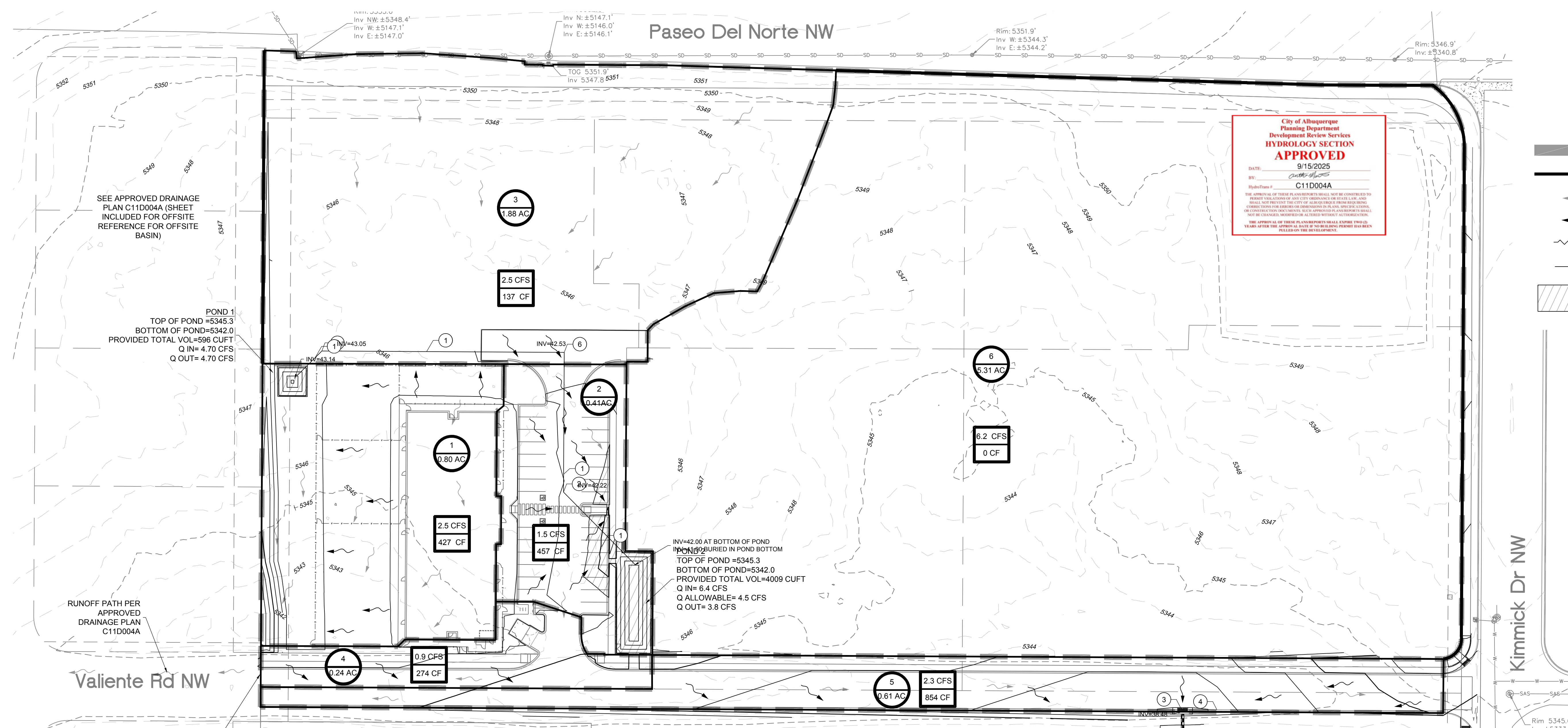
PROJECT MANAGER: STEPHEN DUNBAR, AIA
JOB NO.: ...
DRAWN BY: CD5

DATE: 05/19/2025
SCALE: AS NOTED

SHEET NO.: ...
DATE: ...
BY: ...
REVISION: ...

GRADING PLAN 1





- STORM DRAIN KEYED NOTES**
- INSTALL 18" SMOOTH INTERIOR WALL HDPE PIPE, PVC PIPE, OR SIMILAR
 - INSTALL 18" 45° BEND
 - INSTALL STORM INLET TYPE DOUBLE A DOUBLE WING PER CITY OF ALBUQUERQUE STANDARD DETAIL 2201C
 - INSTALL 24" HDPE SMOOTH INTERIOR WALL STORM DRAIN PIPE
 - NOT IN USE
 - INSTALL 18" 90° BEND

24" STORM DRAIN AT 1.00%

Circular Channel

Input

Flow	17 cfs
Slope	0.01 ft/ft
Manning's n	0.013
Diameter	24 in

Output

Depth	1.294 ft
Flow Area	2.15 sf
Velocity	7.91 fps
Velocity Head	0.971 ft
Top Width	1.91 ft
Froude Number	1.31
Critical Depth	1.486 ft
Critical Slope	0.00694 ft/ft

HYDROLOGY CALCULATIONS

AHYMO INPUT: HISTORIC CONDITIONS

Subbasin	Area (ac)	Treatment Type Area (ac)				Treatment Type Area (%)			
		A	B	C	D	A	B	C	D
EX1	0.80	0.80	0.00	0.00	0.00	100%	0%	0%	0%
EX2	0.41	0.41	0.00	0.00	0.00	100%	0%	0%	0%
EX3	1.88	1.88	0.00	0.00	0.00	100%	0%	0%	0%
EX4	0.24	0.00	0.00	0.24	0.00	0%	0%	100%	0%
EX5	0.61	0.00	0.00	0.61	0.00	0%	0%	100%	0%
EX6	5.31	5.31	0.00	0.00	0.00	100%	0%	0%	0%

AHYMO OUTPUT: HISTORIC CONDITIONS

Subbasin	A (ac)	Q (cfs)	V (acft)	Q/A (cfs/ac)
EX1	0.80	0.9	0.026	1.2
EX2	0.41	0.5	0.013	1.2
EX3	1.88	2.2	0.061	1.2
EX4	0.24	0.7	0.018	2.8
EX5	0.61	1.6	0.045	2.7
EX6	5.31	6.2	0.171	1.2

DRAINAGE NARRATIVE

BACKGROUND
THIS DRAINAGE PLAN CONFORMS TO THE APPROVED PASEO & KIMMICK DRAINAGE PLAN (RESPEC, 2022) WITH HYDROTRANS# C11D004A. THIS PREVIOUSLY APPROVED DRAINAGE PLAN HAS BEEN INCLUDED FOR REFERENCE.

METHODOLOGY
HYDROLOGY CALCULATIONS FOR THE SITE ARE PERFORMED IN ACCORDANCE WITH THE ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM) ARTICLE 6.2 USING AHYMO TO CALCULATE PEAK FLOW RATES, AND ROUTE THE PROPOSED HYDROGRAPH THROUGH THE PROPOSED DETENTION PONDS TO ENSURE THAT THE PROPOSED PEAK RUNOFF IS LESS THAN THE EXISTING PEAK RUNOFF. THE REQUIRED WATER QUALITY VOLUME WAS CALCULATED BY MULTIPLYING THE IMPERVIOUS AREA BY THE FIRST FLUSH RUNOFF VALUE OF 0.42" FOR NEW DEVELOPMENT. ALL HYDROLOGIC AND HYDRAULIC CALCULATIONS CAN BE FOUND ON THIS SHEET.

EXISTING CONDITIONS
THE SITE IS CURRENTLY UNDEVELOPED. THE EXISTING SITE TERRAIN GENERALLY SHEET DRAINS FROM NORTH TO SOUTH AT VARYING SLOPES BETWEEN 1%-4%. THERE IS NO DESIGNATED 100-YEAR FLOODPLAIN SHOWN ON THE PROPERTIES. RUNOFF GENERATED BY THE SITE IS COLLECTED IN AN EXISTING PILL BOX MANHOLE JUST NORTH OF ROSA PARKS RD NW AND ENTERS THE EXISTING STORM DRAIN IN ROSA PARKS ROAD.

PROPOSED CONDITIONS
THE PROPOSED DEVELOPMENT IS CONSTRUCTING VALIENTE DRIVE, WHICH COLLECTS THE ONSITE RUNOFF NORTH OF VALIENTE AND CONVEYS THE RUNOFF IN A PROPOSED STORM SEWER WHICH DISCHARGES INTO A TEMPORARY POND SOUTH OF VALIENTE. UPON DEVELOPMENT OF THE PROPERTY SOUTH OF VALIENTE, THE TEMPORARY POND MAY BE REMOVED AND THE STORM SEWER EXTENDED TO CONNECT TO THE EXISTING STORM SEWER IN ROSA PARKS ROAD, IN ACCORDANCE WITH THE PREVIOUSLY APPROVED DRAINAGE PLAN. THE PROPOSED DEVELOPMENT PROVIDES ONSITE DETENTION PONDING TO REDUCE THE DEVELOPED RUNOFF TO THE HISTORIC RATE. WATER QUALITY RETENTION PONDING IS ALSO PROVIDED ONSITE.

RUNOFF FROM THE OFFSITE DRAINAGE BASIN TO THE WEST IS INTERCEPTED VIA A SWALE ON THE PROPERTY LINE, WHICH CONVEYS THE RUNOFF TO THE EXISTING SUMP NORTH OF VALIENTE RD. THIS DRAINAGE PATTERN MATCHES THE EXISTING DRAINAGE PATTERN AND THE DRAINAGE PATTERN IN THE PREVIOUSLY APPROVED DRAINAGE PLAN. ONCE THE SUMP FILLS WITH WATER, THE RUNOFF DISCHARGES INTO VALIENTE RD WHICH IS THE CURRENT DRAINAGE PATTERN IN THE EXISTING CONDITION. MOST OR ALL OF THE RUNOFF IN THE OFFSITE BASIN IS ANTICIPATED TO BE INTERCEPTED BY CALLE PLATA RD NW WHEN DEVELOPMENT OCCURS IN THE UPSTREAM BASIN AND CALLE PLATA RD IS CONSTRUCTED, BUT IN THE INTERIM, THE PROPOSED SWALE PROTECTS THE PROPOSED DEVELOPMENT FROM RUNOFF FROM THE OFFSITE BASIN.

AHYMO INPUT: PROPOSED CONDITIONS

Subbasin	Area (ac)	Treatment Type Area (ac)				Treatment Type Area (%)			
		A	B	C	D	A	B	C	D
DEV1	0.80	0.00	0.00	0.52	0.28	0%	0%	65%	35%
DEV2	0.41	0.00	0.00	0.11	0.30	0%	0%	27%	73%
DEV3	1.88	1.79	0.00	0.00	0.09	95%	0%	0%	5%
DEV4	0.24	0.00	0.00	0.06	0.18	0%	0%	25%	75%
DEV5	0.61	0.00	0.00	0.05	0.56	0%	0%	8%	92%

AHYMO OUTPUT: PROPOSED CONDITIONS

Subbasin	A (ac)	Q (cfs)	V (acft)	Q/A (cfs/ac)
DEV1	0.80	2.5	0.091	3.1
DEV2	0.41	1.5	0.065	3.6
DEV3	1.88	2.5	0.075	1.3
DEV4	0.24	0.9	0.039	3.7
DEV5	0.61	2.3	0.109	3.8

Pond 1

Pond Elev.	Area (Sq. Ft.)	Vol (Cu. Ft.)	Cum. (Cu. Ft.)	Cum. (Ac. Ft.)
5342.0	4	0	0	0.000
5343.0	65	35	35	0.001
5344.0	198	132	166	0.004
5344.8	356	222	388	0.009
5344.9	379	37	424	0.010
5345.0	403	39	463	0.011
5345.1	428	42	505	0.012
5345.2	453	44	549	0.013
5345.3	479	47	596	0.014

Pond 2

Pond Elev.	Area (Sq. Ft.)	Vol (Cu. Ft.)	Cum. (Cu. Ft.)	Cum. (Ac. Ft.)
5342.0	384	0	0	0.000
5343.0	793	589	589	0.014
5344.0	1274	1034	1622	0.037
5344.8	1763	1215	2837	0.065
5344.9	1896	183	3020	0.069
5345.0	2127	201	3221	0.074
5345.1	2407	227	3448	0.079
5345.2	2772	259	3707	0.085
5345.3	3270	302	4009	0.092

Weir Flow Calcs: Pond 2 Spillway

$Q_w = 2.7P(h)^{1.5}$
 $P = \text{Perimeter (ft)}$ = 5.50
 $h = \text{Head (ft)}$ = 0.5
 $2.7 = \text{coefficient of discharge}$
 $Q_w = \text{Capacity (cfs)}$ = 5.3

Pond Elev.	Hydraulic Head (ft)	Capacity (cfs)
5344.8	0.00	0.0
5344.9	0.10	0.5
5345.0	0.20	1.3
5345.1	0.30	2.4
5345.2	0.40	3.8
5345.3	0.50	5.3

18" STORM DRAIN AT 0.30%

Circular Channel

Input

Flow	6.03 cfs
Slope	0.003 ft/ft
Manning's n	0.013
Diameter	18 in

Output

Depth	1.307 ft
Flow Area	1.63 sf
Velocity	3.69 fps
Velocity Head	0.212 ft
Top Width	1.00 ft
Froude Number	0.510
Critical Depth	0.949 ft
Critical Slope	0.00624 ft/ft

Orifice Flow Calcs: 18" Pipe

$Q_o = 6A\sqrt{2gh}$	
$Q_o = \text{Open area of grate (sq. ft)}$	1.767
$g = 32.2 \text{ (ft/s}^2\text{)}$	32.2
$h = \text{Head (ft)}$	2.30
$Q_o = \text{Capacity (cfs)}$	12.9

WATER QUALITY

Subbasin	Imp. A (ac)	WQ Depth (in)	Required WQ Vol (cu ft)
DEV1	0.3	0.42	427
DEV2	0.3	0.42	457
DEV3	0.1	0.42	137
DEV4	0.2	0.42	274
DEV5	0.6	0.42	854
Total Required WQ Vol (cu ft)			2150
Total Provided WQ Vol (cu ft)			3224

ALLOWABLE DISCHARGE

Subbasin	A (ac)	Q (cfs)	V (acft)	Q/A (cfs/ac)
EX1,2,3,4	3.1	4.27	0.118	1.4

ROUTED DISCHARGE

Subbasin	A (ac)	Q (cfs)	V (acft)	Q/A (cfs/ac)
DEV1,2,3	3.1	3.79	0.231	1.2

National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS

- Without Base Flood Elevation (BFE)
- With BFE or Depth (Zone AE, AH, VE, AO)
- Regulatory Floodway
- 0.2% Annual Chance Flood Hazard: Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile (Zone X)
- Future Conditions 1% Annual Chance Flood Hazard (Zone X)
- Area with Reduced Flood Risk due to Levee. See Notes. (Zone S)
- Area with Flood Risk due to Levee (Zone D)

OTHER AREAS OF FLOOD HAZARD

- Area of Minimal Flood Hazard (Zone X)
- Effective LOMs
- Area of Undetermined Flood Hazard (Zone O)

OTHER AREAS

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

GENERAL STRUCTURES

- Cross Sections with 1% Annual Chance
- Coastal Transient
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transient Baseline
- Profile Baseline
- Hydrographic Feature

OTHER FEATURES

- Digital Data Available
- No Digital Data Available
- Unmapped

MAP PANELS

- Digital Data Available
- No Digital Data Available
- Unmapped

This map complies with FEMA's standards for the use of digital flood maps if it is not as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL services provided by FEMA. This map was updated on 7/15/2025 at 8:44 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRMS panel number, and FIRMS effective date. Map images for unapproved and unlicensed areas cannot be used for regulatory purposes.

MODULUS ARCHITECTS & LAND USE PLANNING

8220 SAN PEDRO DRIVE NE, SUITE 520
ALBUQUERQUE, NEW MEXICO 87113
PHONE (505) 338-1499

JOHN M. STAPLETON
NEW MEXICO
30170
PROFESSIONAL ENGINEER

PROJECT TITLE
PETROGLYPH KIDDIE ACADEMY
PASEO DEL NORTE & KIMMICK DRIVE NW
ALBUQUERQUE, NEW MEXICO 87114

PROJECT MANAGER
STEPHEN DUNBAR, AIA

DRAWN BY:
CD5

JOB NO.:
..

SHEET TITLE
DRAINAGE PLAN

DATE
05/19/2025

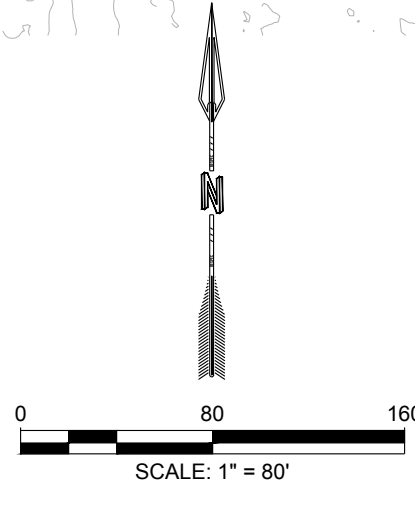
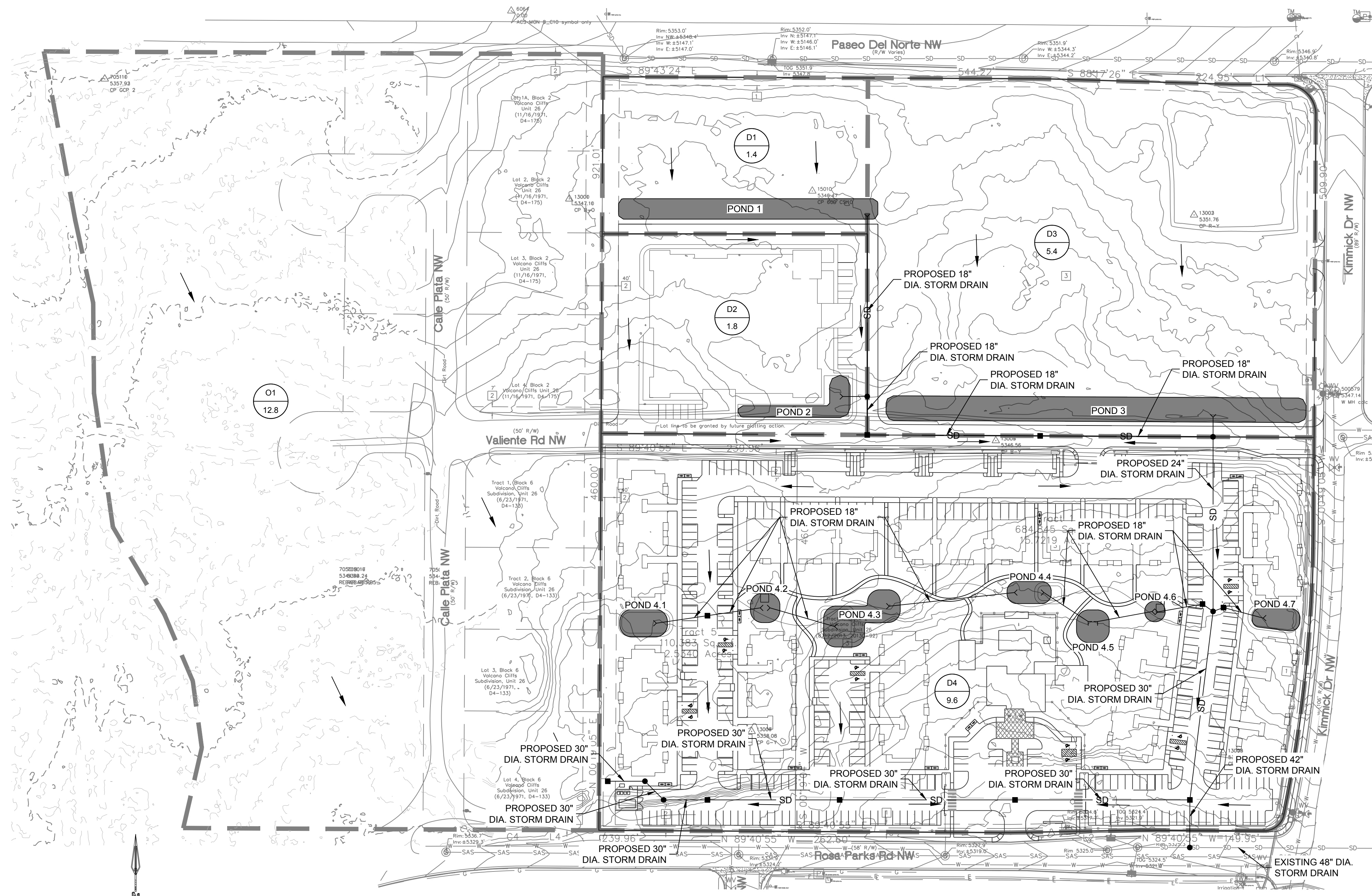
SCALE
AS NOTED

DATE
05/19/2025

NO.
C-103

NAME: N:\Projects\W0262-Aleem Hasham\W0262-01 Hasham Paseo & Kimnick3_DWG_Sheets\W0262-01 Drainage.dwg PLOT DATE: Sep 08, 2022 3:51pm

- LEGEND:**
- XX BASIN DESIGNATION
 - XX BASIN AREA, ACRES
 - SUB-BASIN BOUNDARY
 - SD PROPOSED STORM DRAIN
 - PROPOSED DROP INLET
 - PROPOSED STORM DRAIN MH
 - PROPOSED FLOW ARROW
 - PROPOSED POND



City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
APPROVED

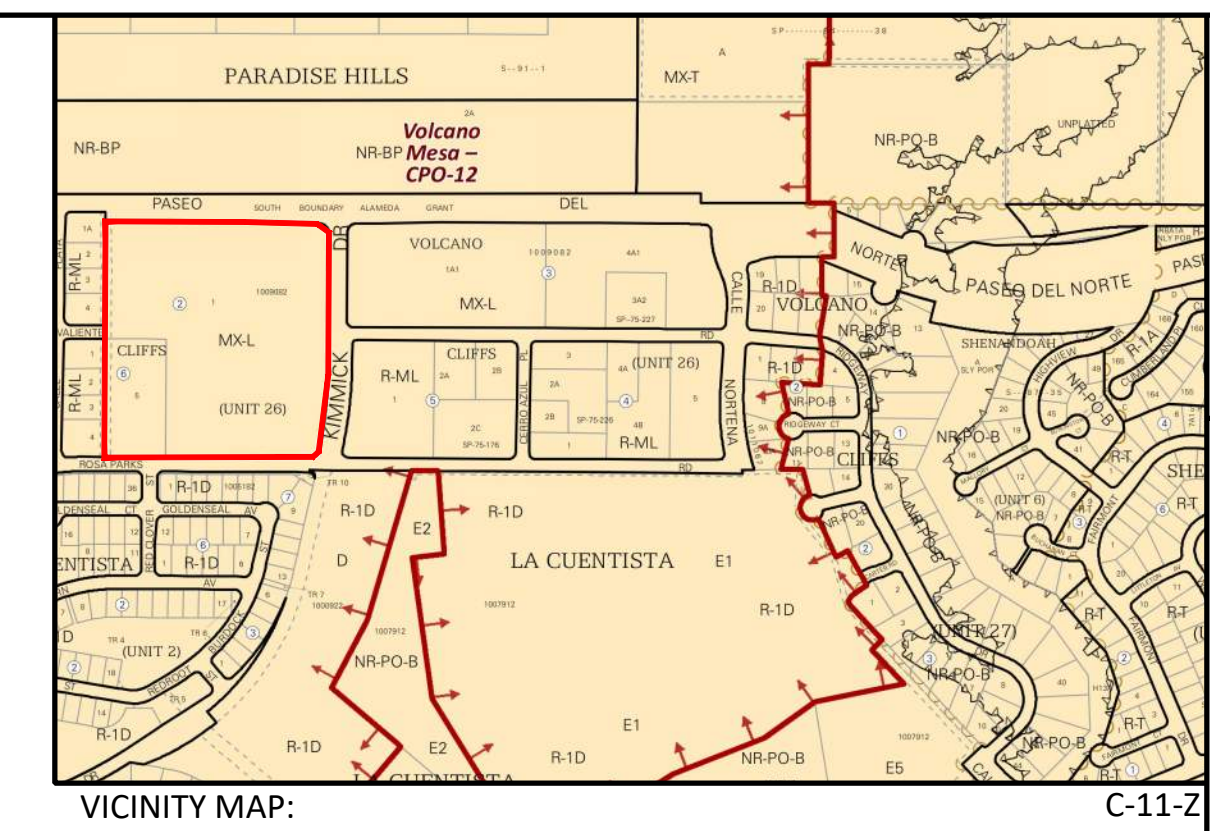
DATE: 9/15/2025
BY: *[Signature]*
HydroTeam # C11D004A

THE APPROVAL OF THESE PLANS AND REPORTS SHALL NOT BE CONSIDERED TO BE A GUARANTEE OF ACCURACY OR A WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR VERIFYING THE ACCURACY OF ALL INFORMATION PROVIDED HEREON. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR VERIFYING THE ACCURACY OF ALL INFORMATION PROVIDED HEREON. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND FOR VERIFYING THE ACCURACY OF ALL INFORMATION PROVIDED HEREON.

City of Albuquerque
Planning Department
Development Review Services
HYDROLOGY SECTION
PRELIMINARY APPROVED

DATE: 09/09/22
BY: *[Signature]*
HydroTeam # C11D004A

THESE PLANS AND/OR REPORT ARE CONFIDENTIAL ONLY. MORE INFORMATION MAY BE NEEDED IN THEM AND SUBMITTED TO HYDROLOGY FOR BUILDING PERMIT APPROVAL.



BACKGROUND

TRACT 1, BLOCK 2 AND TRACT 5, BLOCK 6, VOLCANO CLIFFS SUBDIVISION, UNIT 26 CONTAINS APPROXIMATELY 18.2 ACRES IN THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO. THE PROPERTY IS BOUNDED BY PASEO DEL NORTE TO THE NORTH, KIMNICK DRIVE TO THE EAST, ROSA PARKS ROAD TO THE SOUTH, AND RESIDENTIAL LOTS TO THE WEST. SEE VICINITY MAP ABOVE. THE PROPOSED DEVELOPMENT IS MIXED USE CONTAINING APARTMENTS, SELF-STORAGE, AND FUTURE COMMERCIAL. THE SAD 228 DRAINAGE REPORT COMPLETED BY WILSON & COMPANY IN JANUARY 2012 RESTRICTS THE DISCHARGE FROM THE PROJECT SITE TO THE HISTORIC RATE. WILSON & COMPANY SUBSEQUENTLY COMPLETED A CONCEPTUAL GRADING AND DRAINAGE PLAN THAT WAS APPROVED IN JULY 2017.

METHODOLOGY

HYDROLOGY CALCULATIONS FOR THE SITE ARE PERFORMED IN ACCORDANCE WITH THE ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM) ARTICLE 6.2 USING THE RATIONAL METHOD TO CALCULATE PEAK FLOW RATES TO ENSURE ALL FLOW PATHS ARE SUFFICIENT TO CARRY FLOWS. THE REQUIRED WATER QUALITY VOLUME WAS CALCULATED BY MULTIPLYING THE IMPERVIOUS AREA BY THE FIRST FLUSH RUNOFF VALUE OF 0.42" FOR NEW DEVELOPMENT. ALL HYDROLOGIC AND HYDRAULIC CALCULATIONS CAN BE FOUND ON THIS SHEET.

EXISTING CONDITIONS

THE SITE IS CURRENTLY UNDEVELOPED. THE EXISTING SITE TERRAIN GENERALLY SHEET DRAINS FROM NORTH TO SOUTH AT VARYING SLOPES BETWEEN 1%-4%. THERE IS NO DESIGNATED 100-YEAR FLOODPLAIN SHOWN ON THE PROPERTIES. RUNOFF GENERATED BY THE SITE IS COLLECTED IN AN EXISTING PILL BOX MANHOLE NEAR THE SOUTHWEST CORNER OF THE SITE AND ENTERS THE EXISTING STORM DRAIN IN ROSA PARKS ROAD.

DEVELOPED CONDITIONS

THE DRAINAGE INTENTION OF THE DEVELOPED CONDITIONS IS TO ADHERE TO THE FOREMENTIONED DRAINAGE STUDIES COMPLETED BY WILSON & COMPANY AND REDUCE THE DEVELOPED FLOW RATES TO THE HISTORIC RATE. EACH LOT MAY DEVELOP INDEPENDENTLY OF THE OTHER LOTS. THE FINAL LOT DEVELOPMENT PLANS WILL ADDRESS THE DETAILS OF THE GRADING AND DRAINAGE WITHIN THE LIMITS OF THIS MASTER PLAN. THE SITE HAS BEEN SPLIT INTO 5 SUB-BASINS AND ARE DESCRIBED BELOW.

SUB-BASIN O1 CONTAINS 12.8 ACRES. THIS OFFSITE SUB-BASIN LOCATED WEST OF THE SUBJECT SITE ENTERS SUB-BASIN D4 IN THE EXISTING CONDITION AND WILL BE ACCOMMODATED BY SUB-BASIN D4. RUNOFF WILL BE COLLECTED BY A DROP INLET LOCATED AT THE SOUTHEAST CORNER OF SUB-BASIN D4. THESE OFFSITE FLOWS WILL BE ROUTED ALONG THE SOUTHERN PORTION OF SUB-BASIN D4 IN A PRIVATE STORM DRAIN UNTIL REACHING ITS ULTIMATE OUTFALL INTO THE EXISTING ROSA PARKS STORM DRAIN NEAR THE SOUTHEAST CORNER OF SUB-BASIN D4.

SUB-BASIN D1 CONTAINS 1.4 ACRES AND WILL BE DEVELOPED IN THE FUTURE AS A COMMERCIAL USE. UNTIL SUCH TIME THIS SUB-BASIN DEVELOPS, FLOWS GENERATED BY THE SUB-BASIN WILL BE COLLECTED IN POND 1 ALONG THE SOUTHERN PORTION OF THE SUB-BASIN. A PRIVATE STORM DRAIN WILL BE STUBBED INTO THE POND TO ROUTE FLOWS ULTIMATELY TO THE ROSA PARKS EXISTING STORM DRAIN.

SUB-BASIN D2 CONTAINS 1.8 ACRES AND WILL BE A SELF-STORAGE DEVELOPMENT. RUNOFF WILL BE COLLECTED IN POND 2 AT THE SOUTHEAST CORNER OF THE SUB-BASIN. POND 2 IS INTENDED TO SERVE AS BOTH STORM WATER QUALITY VOLUME AS WELL AS FLOW REDUCTION TO THE HISTORICAL RATE. RUNOFF WILL THEN BE ROUTED INTO A PRIVATE STORM DRAIN THAT ULTIMATELY OUTFALLS TO THE ROSA PARKS EXISTING STORM DRAIN.

SUB-BASIN D3 CONTAINS 5.4 ACRES AND WILL DEVELOPED IN THE FUTURE AS A COMMERCIAL USE. UNTIL SUCH TIME THIS SUB-BASIN DEVELOPS, FLOWS GENERATED BY THE SUB-BASIN WILL BE COLLECTED IN POND 3 ALONG THE SOUTHERN PORTION OF THE SUB-BASIN. A PRIVATE STORM DRAIN WILL BE STUBBED INTO THE POND TO ROUTE FLOWS ULTIMATELY TO THE ROSA PARKS EXISTING STORM DRAIN.

SUB-BASIN D4 CONTAINS 9.6 ACRES AND WILL BE AN APARTMENT DEVELOPMENT. RUNOFF WILL BE COLLECTED IN A SERIES OF PONDS (4.1 THROUGH 4.7) ALONG THE CENTER OF THE SUB-BASIN IN THE WEST-EAST DIRECTION. THESE PONDS ARE INTENDED TO SERVE AS BOTH STORM WATER QUALITY VOLUME FOR THE NORTH HALF OF THE APARTMENT SITE AS WELL AS FLOW REDUCTION TO THE HISTORICAL RATE. RUNOFF WILL THEN BE ROUTED INTO A PRIVATE STORM DRAIN THAT ULTIMATELY OUTFALLS TO THE ROSA PARKS EXISTING STORM DRAIN. THE PRIVATE STORM DRAIN ALONG THE SOUTHERN PORTION OF THE SUB-BASIN WILL SERVE TWO PURPOSES. THE FIRST IS TO CONVEY NOT ONLY THE FLOWS GENERATED BY THE APARTMENTS, BUT ALSO THE OFFSITE FLOWS FROM SUB-BASIN O1. THE SECOND IS TO SERVE AS STORM WATER QUALITY VOLUME FOR THE SOUTHERN HALF OF THE APARTMENT SITE.

THE MAIN TRUNK LINE IN THE PRIVATE STORM DRAIN EASEMENT ON THE PLAT WILL REQUIRE THE NECESSARY PRIVATE DRAINAGE DOCUMENTATION SHOWING THE MAINTENANCE RESPONSIBILITY.

DESIGNED	JS	REVISION
DRAWN	JS	
CHECKED	JS	
DATE	9.08.2022	
PROVISIONAL NOT FOR CONSTRUCTION 9/2022		
PROJECT NAME: PASEO & KIMNICK		
SHEET TITLE: CONCEPT DRAINAGE PLAN		
DRB SITE PLAN		
SHEET NUMBER: C-100		