CITY OF ALBUQUERQUE

Richard J. Berry, Mayor

July 24, 2017

Glenn Broughton
Bohannan Huston, Inc.
7500 Jefferson St NE
Albuquerque, NM 87109

RE: Smiles for Kids Dental Office – Phase 2
Conceptual Grading and Drainage Plan
Stamp Date: 7/21/17
Hydrology File: C12D055

Dear Mr. Broughton:

Based upon the information provided in your resubmittal received 7/21/2017, the Grading and Drainage Plan is approved for Building Permit and SO-19 Permit.

Please attach a copy of this approved plan in the construction sets when submitting for a building permit. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

A separate SO-19 permit is required for construction within City ROW. A copy of this approval letter must be on hand when applying for the excavation/barricading permit. The work in the City ROW must be inspected and accepted.

If you have any questions, please contact me at 924-3995 or rbrissette@cabq.gov.

Sincerely,

Reneé C. Brissette

Reneé C. Brissette, P.E.
Senior Engineer, Hydrology
Planning Department

PO Box 1293
Albuquerque
New Mexico 87103
www.cabq.gov

Orig: Drainage File

City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: Smiles for Kids Dental Office - Phase 2 Building Permit #: _____ City Drainage #: C14/D0055

DRB#: _____ EPC#: SP-96-140 Work Order#: _____

Legal Description: Lot 10-A-1 Albuquerque West Unit 1

City Address: 9211 Eagle Ranch Road NW

Engineering Firm: Bohannan Huston, Inc Contact: Glenn Broughton

Address: 7500 Jefferson NE Albuquerque, NM 87109

Phone#: 505-823-1000 Fax#: _____ E-mail: gbroughton@bhinc.com

Owner: _____ Contact: _____

Address: _____

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

Architect: Mullen Heller Architects Contact: _____

Address: 924 Park Ave SW Albuquerque, NM 87102

Phone#: 268-4144 Fax#: _____ E-mail: doug@mullenheller.com

Other Contact: _____ Contact: _____

Address: _____

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

Check all that Apply:

DEPARTMENT:

X HYDROLOGY/ DRAINAGE

_____ TRAFFIC/ TRANSPORTATION

_____ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

_____ ENGINEER/ ARCHITECT CERTIFICATION

_____ CONCEPTUAL G & D PLAN

X GRADING PLAN

_____ DRAINAGE MASTER PLAN

_____ DRAINAGE REPORT

_____ CLOMR/LOMR

_____ TRAFFIC CIRCULATION LAYOUT (TCL)

_____ TRAFFIC IMPACT STUDY (TIS)

_____ EROSION & SEDIMENT CONTROL PLAN (ESC)

_____ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

X BUILDING PERMIT APPROVAL

_____ CERTIFICATE OF OCCUPANCY

_____ 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

X SO-19 APPROVAL

_____ PAVING PERMIT APPROVAL

_____ GRADING/ PAD CERTIFICATION

_____ WORK ORDER APPROVAL

_____ CLOMR/LOMR

_____ PRE-DESIGN MEETING

_____ OTHER (SPECIFY) _____

IS THIS A RESUBMITTAL?: _____ Yes X No

DATE SUBMITTED: 7/21/17 By: Glenn Broughton

COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: ___

PROJECT BENCHMARK
BH 17-393-03A
2.00" Aluminum Cap
Stamped "17 393 03"
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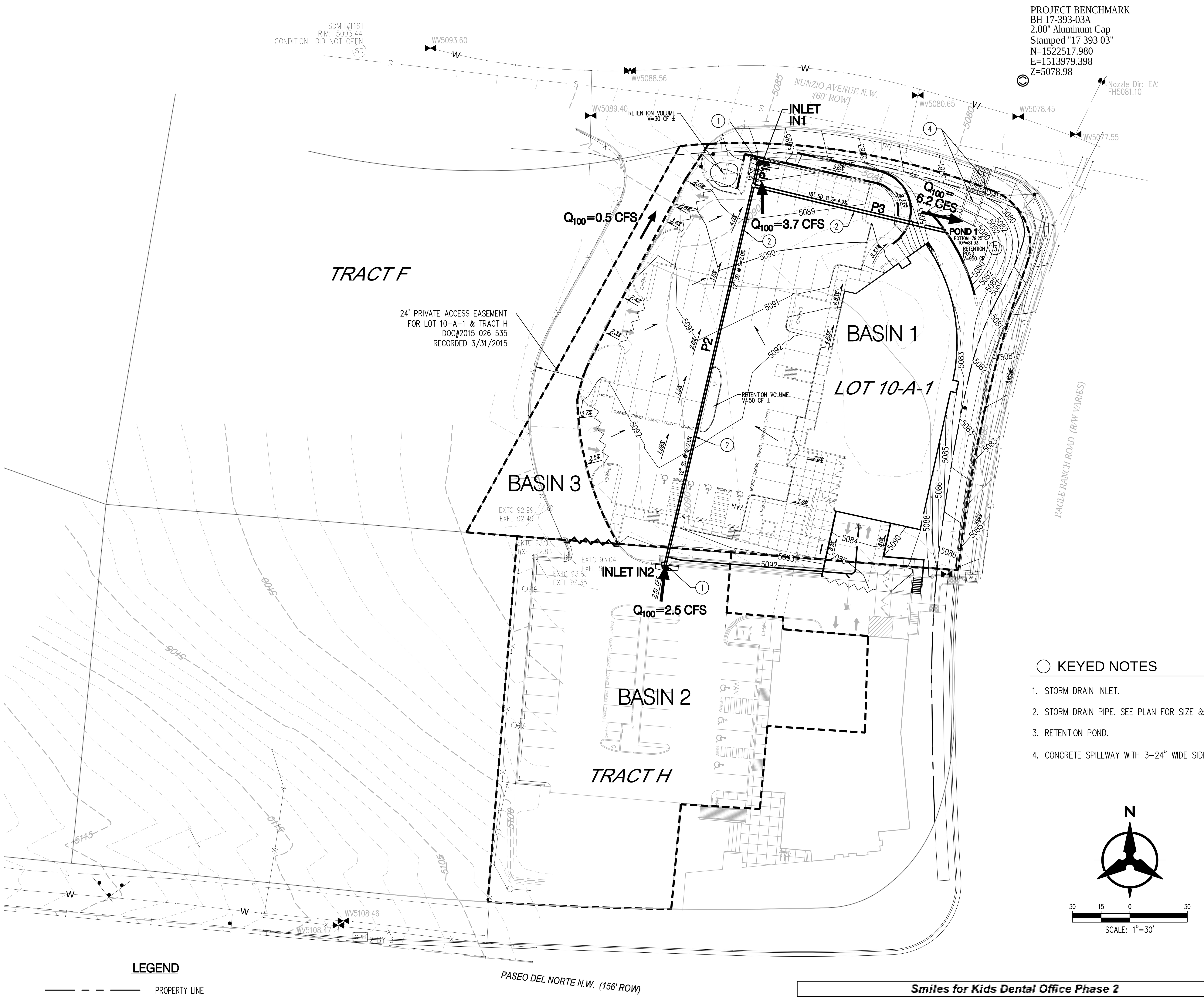
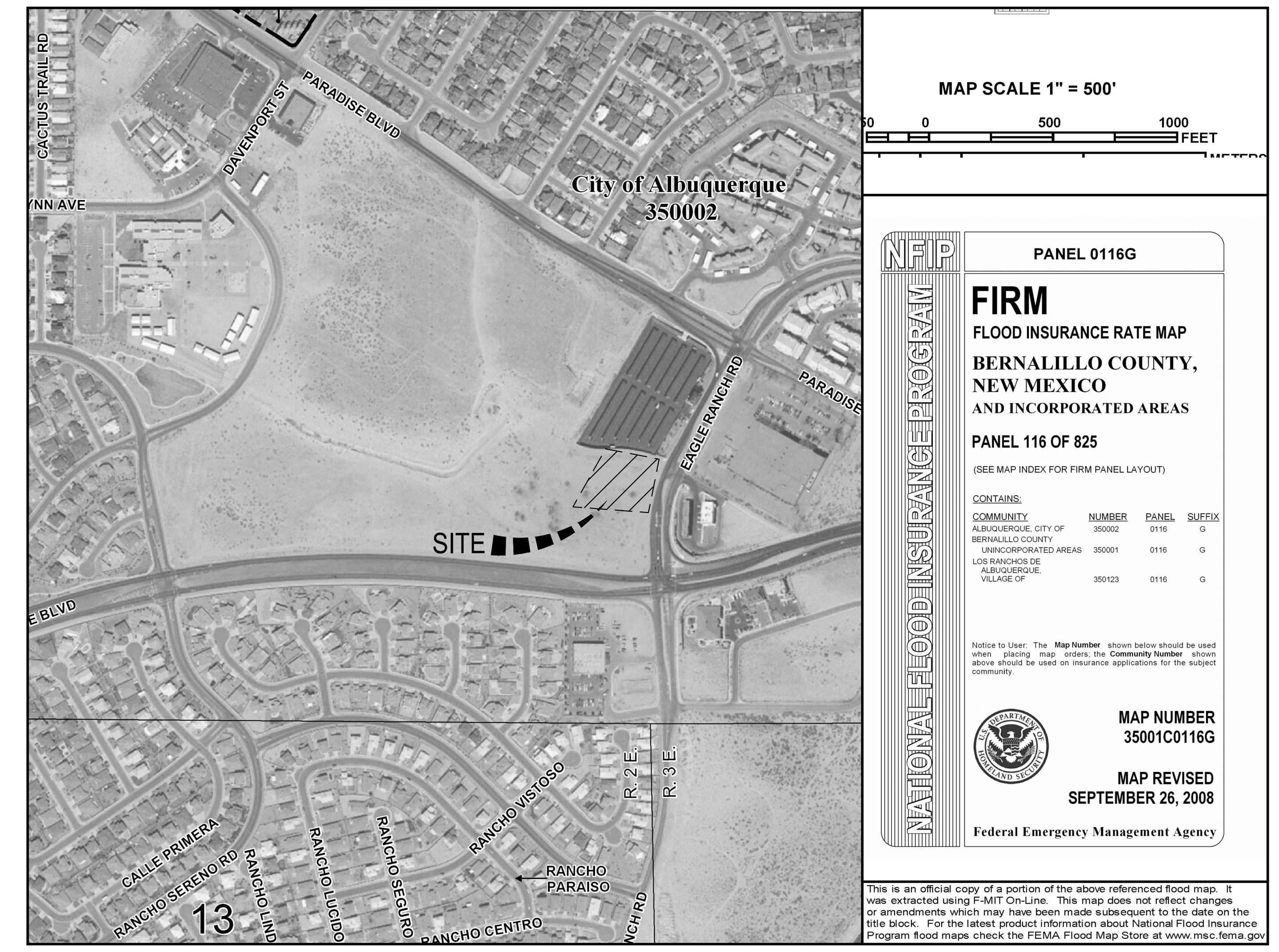
E=1513979.398
Z=5078.98





FEMA FIRM MAP # 35001C0116G

LEGAL DESCRIPTION: LOT 10-A-1 ALBUQUERQUE WEST UNIT 1.

INTRODUCTION:

THE PROJECT IS LOCATED ON THE SOUTHWEST CORNER AT THE INTERSECTION OF NUNZIO AVE NW AND EAGLE RANCH RD. THE PURPOSE OF THIS SUBMITTAL IS TO PROVIDE A DRAINAGE MANAGEMENT PLAN FOR THE DEVELOPMENT OF SMILES FOR KIDS DENTIST OFFICE PHASE 2 AND REQUEST BUILDING PERMIT APPROVAL.

EXISTING CONDITIONS:

LOT 10-A-1 OF ALBUQUERQUE WEST UNIT 1 IS A 1.06 ACRE SITE THAT IS CURRENTLY UNDEVELOPED. THE SITE SLOPES TO THE NORTH / NORTHEAST WHERE THE RUNOFF FREE DISCHARGES INTO EAGLE RANCH RD AND NUNZIO AVE. THIS SITE IS NOT WITHIN A DEFINED FLOOD ZONE AS SHOWN ON FIRM MAP NUMBER 35001C0116G (THIS SHEET).

BASED ON THE DRAINAGE STUDY FOR PROPOSED TRACT 2B DETENTION POND (NORTH COORS DMP REVISION PREPARED BY SMITH ENGINEERING, 2003) (AMAFCA #353.04.05), THE ALLOWABLE PEAK DISCHARGE FROM THE SITE IS APPROXIMATELY 4.09 CFS/AC.

METHODOLOGY:

THE HYDROLOGIC ANALYSIS PROVIDED WITH THIS DRAINAGE MANAGEMENT PLAN HAS BEEN PREPARED IN ACCORDANCE WITH SECTION 22.2 OF THE DPM. THE SITE IS LOCATED WEST OF THE RIO GRANDE WITHIN PRECIPITATION ZONE 1. LAND TREATMENT PERCENTAGES WERE CALCULATED BASED ON THE ACTUAL CONDITIONS IN EACH ONSITE BASIN AND ARE SUMMARIZED IN THE "PROPOSED BASIN DATA TABLE" (THIS SHEET).

PROPOSED CONDITIONS:

THIS DRAINAGE MANAGEMENT PLAN WAS DEVELOPED BASED ON A FULLY DEVELOPED SITE. IT WAS DETERMINED THAT THE MAXIMUM ALLOWABLE PEAK DISCHARGE FROM THE SITE IS APPROXIMATELY 4.09 CFS/AC (AS MENTIONED ABOVE). THIS DMP INCLUDES OFFSITE DRAINAGE FROM TRACT H OF FOUNTAIN HILLS PLAZA. TRACT H IS CURRENTLY DEVELOPED WITH A SMILES FOR KIDS DENTAL CLINIC. THE DRAINAGE MANAGEMENT PLAN FOR THIS DEVELOPMENT ALLOWS FREE DISCHARGE TO EAGLE RANCH ROAD. THE EXISTING SMILES FOR KIDS DEVELOPMENT INCLUDED PARKING BELOW THE BUILDING. THE ACCESS RAMP TO THE GARAGE IS ON THE NORTH SIDE OF THE SITE. WITH THE DEVELOPMENT OF LOT 10-A-1 THE EXISTING RAMP WILL BE SHARED TO PROVIDE ACCESS TO PARKING BELOW THE NEW DENTAL CLINIC BUILDING. THE NEW ACCESS RAMP REQUIRES THAT A PORTION OF THE DRAINAGE FROM TRACT H (NOTED AS BASIN B1, C12/D054) BE DIVERTED NORTH AND CONVEYED THROUGH LOT 10-A-1 VIA A STORM DRAIN.

THE DEVELOPMENT OF TRACT H REQUIRED THE CONSTRUCTION OF AN ACCESS ROAD. THIS IS A SHARED ACCESS FOR TRACT F, G AND H OF FOUNTAIN HILLS AND LOT 10-A-1. A WATER BLOCK WAS CONSTRUCTED AT THE NORTH PROPERTY LINE OF TRACT H TO CONVEY DRAINAGE EAST TO EAGLE RANCH.

THE ULTIMATE OUTFALL LOCATION FOR TRACT H AND LOT 10-A-1 WILL BE NUNZIO AVE NEAR THE INTERSECTION WITH EAGLE RANCH ROAD. THE STORM DRAIN WILL OUTFALL INTO A SMALL RETENTION POND SIZED TO MEET THE FIRST FLUSH VOLUME REQUIREMENTS FOR LOT 10-A-1. A SPILLWAY WILL BE INCORPORATED INTO THE POND DESIGN TO ALLOW RUNOFF BEYOND THE "FIRST FLUSH" STORM TO FREE DISCHARGE INTO NUNZIO AVE. TOTAL PEAK DISCHARGE INTO NUNZIO AVE IS APPROXIMATELY 6.2 CFS FROM THE TWO TRACTS DESCRIBED IN THIS DMP.

RETENTION AREAS WITHIN LOT 10-A-1 WILL BE INCORPORATED INTO THE LANDSCAPE AREAS WHERE POSSIBLE. THE FIRST FLUSH CALCULATIONS FOR THE OVERALL DEVELOPMENT AREA ARE BELOW. SEE "FIRST FLUSH CALCULATIONS" (THIS SHEET)

CONCLUSION:

THE PEAK DISCHARGE FROM THE SITE IS 3.7 CFS WHICH IS LESS THAN THE ALLOWABLE PEAK DISCHARGE RATE, THEREFORE WE ARE IN CONFORMANCE WITH CITY OF ALBUQUERQUE HYDROLOGY REQUIREMENTS AND REQUEST BUILDING PERMIT APPROVAL.

KEYED NOTES

1. STORM DRAIN INLET.
2. STORM DRAIN PIPE. SEE PLAN FOR SIZE & SLOPE.
3. RETENTION POND.
4. CONCRETE SPILLWAY WITH 3-24" WIDE SIDEWALK CULVERTS.

N

SCALE: 1"=30'

LEGEND

- PROPERTY LINE
- 5301 — EXISTING CONTOURS
- 65.23 — PROPOSED SPOT ELEVATION
  TC=TOP OF CURB, FL=FLOW LINE
  TW=TOP OF WALL, BW=BOTTOM OF WALL
  EX=EXISTING, TG=TOP OF GRADE
- S=2.0% — PROPOSED DIRECTION OF FLOW
- WATER BLOCK
- PROPOSED RETAINING WALL
- 5305 — PROPOSED INDEX CONTOURS
- PROPOSED INTER CONTOURS
- PROPOSED CURB & GUTTER
- EASEMENT
- SD — PROPOSED STORM DRAIN LINE

Smiles for Kids Dental Office Phase 2
STORM DRAIN PIPE TABLE

PIPE #	Contributing Basins & Pipes	Size in.	Slope	Capacity* cfs	ACTUAL FLOW cfs	PIPE LENGTH ft	INVERT IN	INVERT OUT
STORM DRAIN PIPE								
P1	BASIN 1	12	2.00%	5.0	3.7	10.0	5084.80	5084.60
P2	BASIN 2	12	2.00%	5.0	2.5	200.0	5088.60	5084.60
P3	BASINS 1 & 2	15	4.87%	23.2	6.2	104.5	5084.60	5079.50

CAPACITY IS BASED ON GRAVITY FLOW, USING MANNING'S EQUATION WITH n=0.013

SIDEWALK CULVERT CAPACITY TABLE

WEIR #	Contributing Basins & Flows	Required Flow	Weir Height (FT)	Weir Length (FT)	Weir Capacity*
SDWK-1	BASIN 1 & 2	6.20	0.67	6.00	9.00
Weir Coefficient = 2.65 - *					

Smiles for Kids Dental Office Phase 2
INLET TABLE

INLET #	CONTRIBUTING BASIN	INLET TYPE	TOP OF GRATE	ACTUAL FLOW	AVAIL HEAD FT	CAPACITY	CAPACITY WITH 50% CLOGGING	Grate Classification
IN1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
IN2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Smiles for Kids Dental Office Phase 2
Proposed Ultimate Development Conditions Basin Data Table

This table is based on the DPM Section 22.2, Zone: 1

Basin ID	Area (SQ. FT)	Area (AC.)	Land Treatment Percentages A	B	C	D	$Q_{(100yr)}$ (cfs/ac.)	$Q_{(100yr-6hr)}$ (CFS)	WT E (inches)	$V_{(100yr-6hr)}$ (CF)	$V_{(100yr-10day)}$ CF
Proposed											
1	41083	0.94	0.0%	0.0%	28.0%	72.0%	3.95	3.7	1.70	5805	9429
2	26589	0.61	0.0%	0.0%	17.0%	83.0%	4.12	2.5	1.80	3996	6699
3	5209	0.12	0.0%	0.0%	27.0%	73.0%	3.97	0.5	1.71	740	1206
TOTAL	72881	1.67						6.7			17334

"FIRST FLUSH" CALCULATIONS

Basin ID	Impervious Area (SF)	Precipitation Depth (IN)	Required Volume (CF)	Volume Provided (CF)
1	29580	0.34	838	1030
2	*N/A		N/A	N/A
3	3803	0.34	108	0
TOTAL	*Tract H Previously Developed		946	1030

P:\20170393\CDP\Plans\General\20170393 Proposed DMP.dwg
Fri, 21-Jul-2017 - 8:37:am, Plotted by: BORTEGA

Bohannan Huston
www.bhinc.com 800.877.5332

revision | by | date | rev 5 4 3 2 1

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Albuquerque 87102
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505 268 4244 [f]

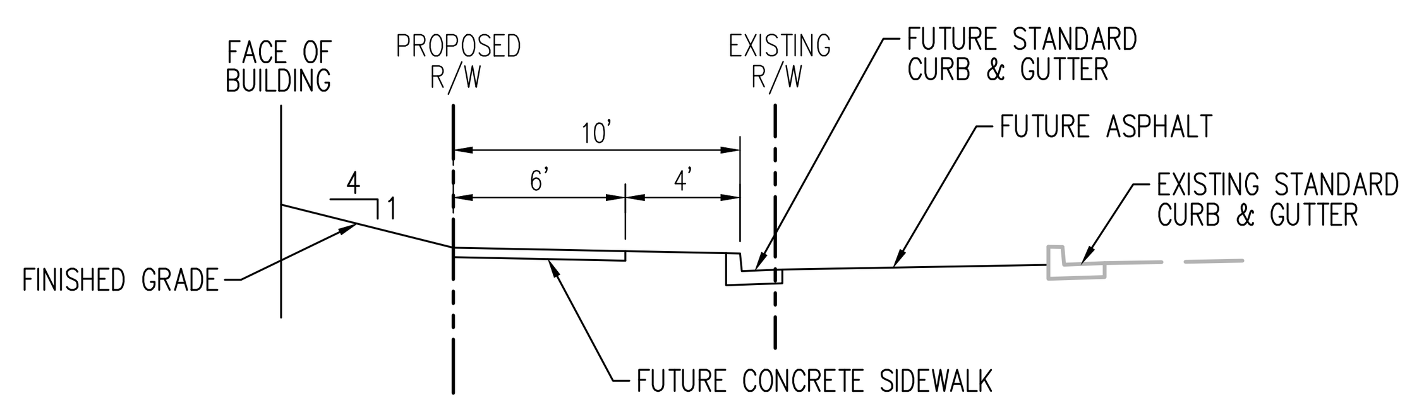
GLENN S. BROUGHTON
NEW MEXICO
14171
7-21-17
REGISTERED PROFESSIONAL ENGINEER

job number 17-04
drawn by AO/BO
project manager GSB
date 07-21-2017

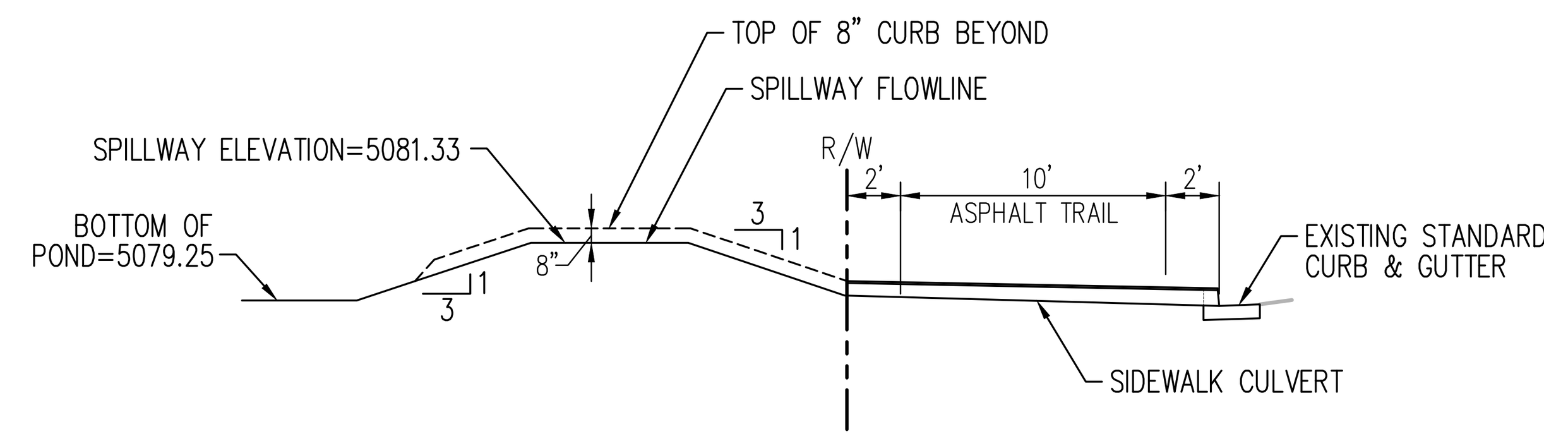
project title
Smiles for Kids Dental Office PHASE 2
9211 Eagle Ranch Road, NW.
Albuquerque, New Mexico 87114

sheet title
DRAINAGE MANAGEMENT PLAN

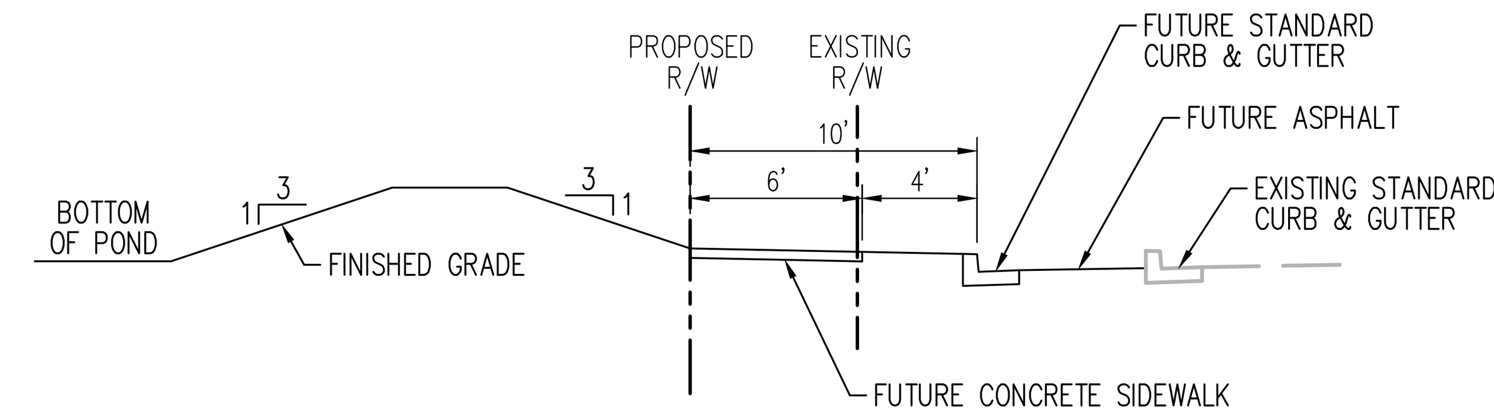
sheet-
C001



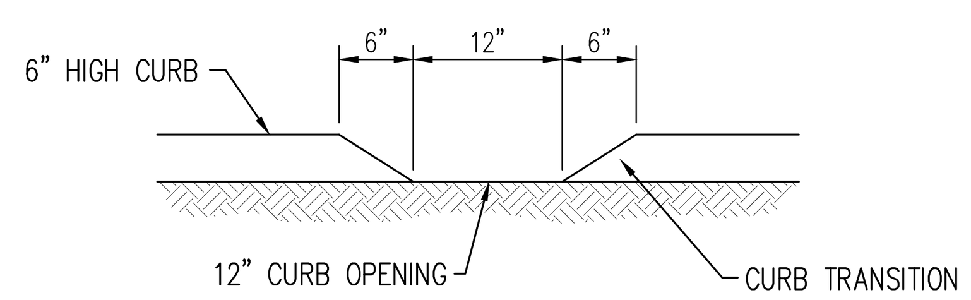
EAGLE RANCH ROAD - SECTION A
NTS



NUNZIO AVE - SECTION B
NTS



EAGLE RANCH ROAD - SECTION C
NTS



(1) **CURB OPENING**
NTS

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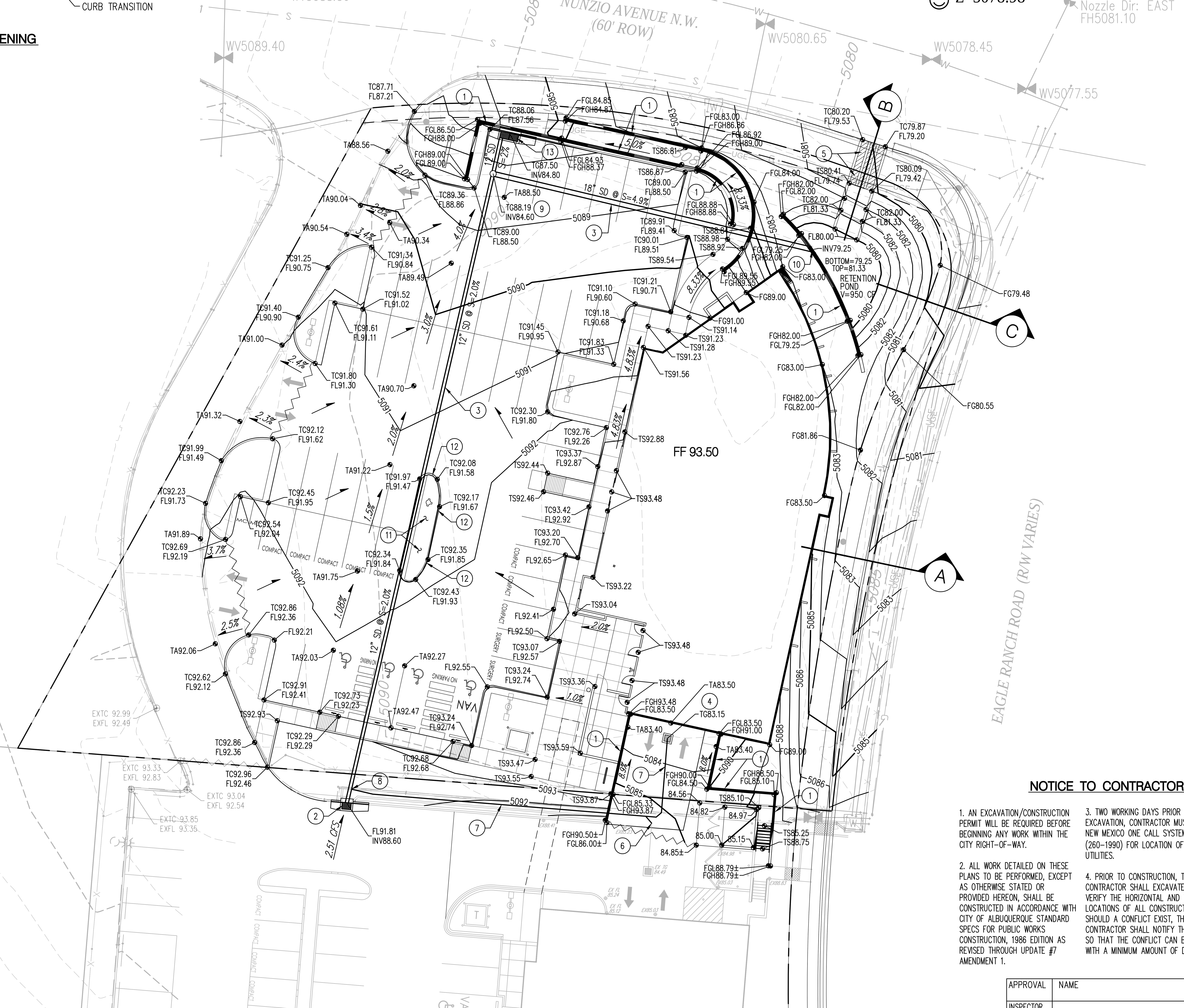


ZONE ATLAS PAGE: C-12

GRADING KEYNOTES

1. PROPOSED RETAINING WALL, SEE STRUCTURAL PLANS.
2. CONSTRUCT TYPE 'C' SINGLE GRATE STORM DRAIN INLET PER COA STD DWG 2205.
3. INSTALL STORM DRAIN LINE, SEE PLAN FOR SIZE & SLOPE.
4. INSTALL STORM WATER SUMP PUMP, SEE MECHANICAL PLANS FOR DETAILS.
5. CONSTRUCT CONCRETE SPILLWAY WITH 3-24" WIDE SIDEWALK CULVERTS PER COA STD DWG 2236.
6. EXISTING SUMP PUMP DISCHARGE LINE. CONNECT TO NEW SUMP PUMP DISCHARGE LINE.
7. INSTALL 2" SUMP PUMP DISCHARGE LINE.
8. CONNECT SUMP PUMP DISCHARGE LINE TO PROPOSED STORM DRAIN.
9. INSTALL NYLOPLAST DRAIN BASIN OR APPROVED EQUAL WITH TRAFFIC RATED SOLID COVER.
10. DAYLIGHT STORM DRAIN THROUGH RETAINING WALL.
11. DEPRESSED LANDSCAPE / WATER HARVESTING AREA.
12. CONSTRUCT CURB OPENING FOR DRAINAGE, SEE DETAIL 1 THIS SHEET.
13. INSTALL TYPE 'C' DOUBLE GRATE STORM DRAIN INLET PER COA STD DWG 2205.

GRADING LEGEND

- PROJECT LIMITS OF GRADING
- 5025 — EXISTING INDEX CONTOUR
- 5024 — EXISTING INTERMEDIATE CONTOUR
- 25.25 — EXISTING GROUND SPOT ELEVATION
- 5025 — PROPOSED INDEX CONTOUR
- 5024 — PROPOSED INTERMEDIATE CONTOUR
- 26.75 — PROPOSED FINISHED GRADE SPOT ELEVATION
  TC=TOP OF CURB,
  FL=FLOW LINE,
  FG=FINISHED GRADE
  TS=TOP OF SIDEWALK
  TG=TOP OF GRATE,
  FGH=FINISH GROUND HIGH,
  FGL=FINISH GROUND LOW
  EXFL=EXISTING FLOW LINE
  EXTC=EXISTING TOP OF CURB
- 2.0% — DIRECTION OF FLOW
- WATER BLOCK/GRADE BREAK
- PROPOSED STORM DRAIN LINE
- PROPOSED STORM DRAIN INLET
- PROPOSED RETAINING WALL

NOTICE TO CONTRACTORS (SO 19)

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN THE CITY RIGHT-OF-WAY.

2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE STANDARD SPECS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THROUGH UPDATE #7 AMENDMENT 1.

3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (260-1990) FOR LOCATION OF EXISTING UTILITIES.

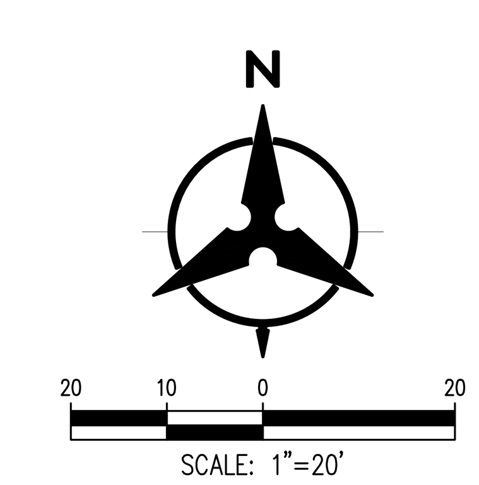
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.

5. BACKFILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.

6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.

7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

APPROVAL	NAME	DATE
INSPECTOR		



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rev	date	by	revision
5			
4			
3			
2			
1			

GLENN S. BROUGHTON
NEW MEXICO
14171
7-21-17
REGISTERED PROFESSIONAL ENGINEER

job number	17-04
drawn by	AO/BO
project manager	GSB
date	07-21-2017

project title
Smiles for Kids Dental Office PHASE 2
9211 Eagle Ranch Road, NW.
Albuquerque, New Mexico 87114

sheet title
Grading & Drainage Plan

sheet-
C100

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Fri, 21-Jul-2017 - 8:37:am, Plotted by: BORTEGA