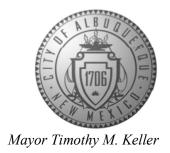
CITY OF ALBUQUERQUE

Planning Department Alan Varela, Director



May 8, 2025

Luis Noriega Tierra West LLC 5571 Midway Park Place NE Albuquerque, NM 87109

RE: Kairos Power - KPSW Project SAGUARO

5201 Hawking Drive SE Grading and Drainage Plans

Engineer's Stamp Date: 02/14/2025 Hydrology File: Q16DA5000A Case # HYDR-2025-00143

Dear Mr. Noriega:

PO Box 1293

Based upon the information provided in your submittal received 05/8/2025, the Conceptual Grading & Drainage Plan is approved for Rough Grading / Grading Permit.

Albuquerque

PRIOR TO BUILDING PERMIT:

Please submit a more detailed Grading & Drainage Plan to Hydrology for review and approval.

NM 87103

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.

www.cabq.gov

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

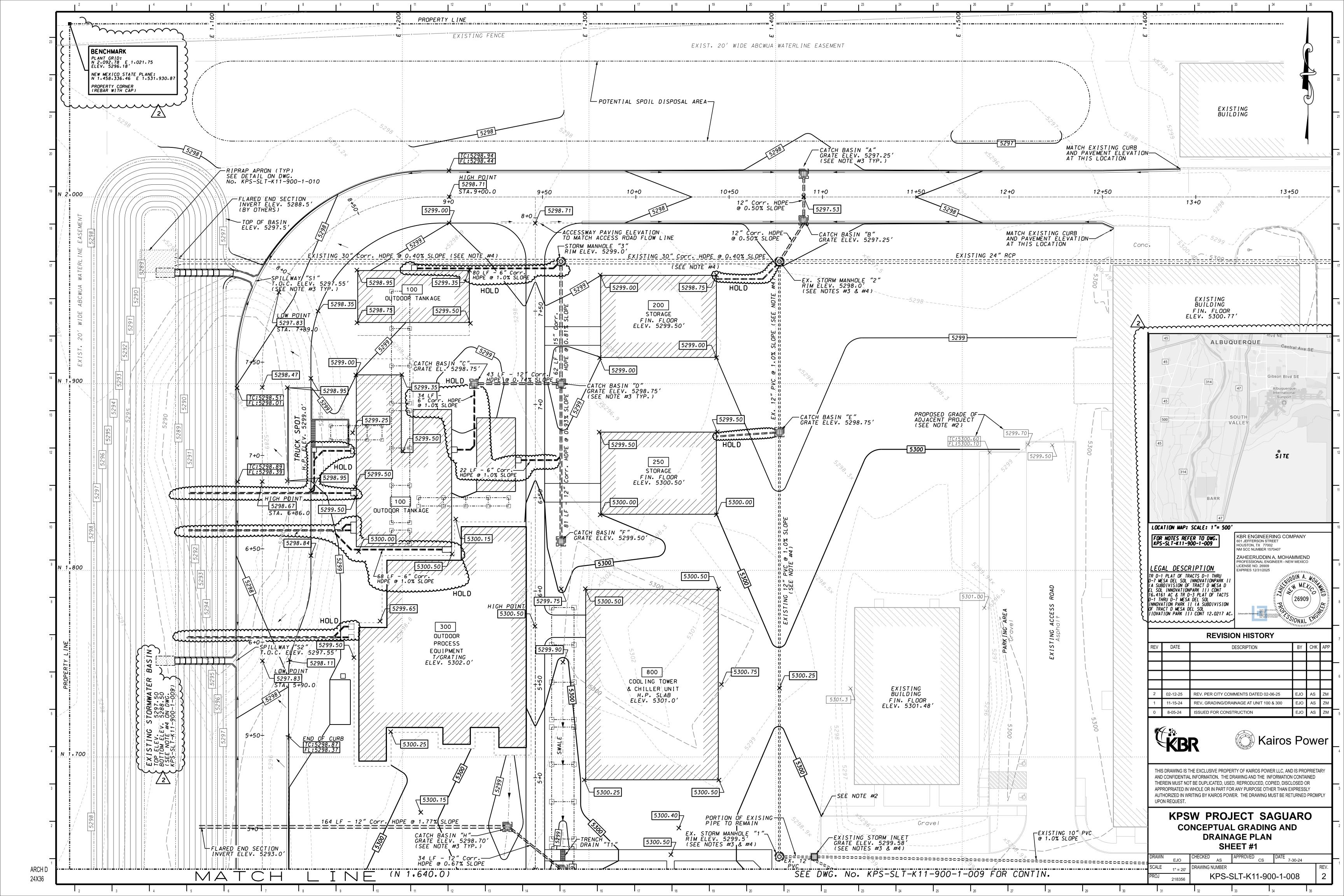
Sincerely,

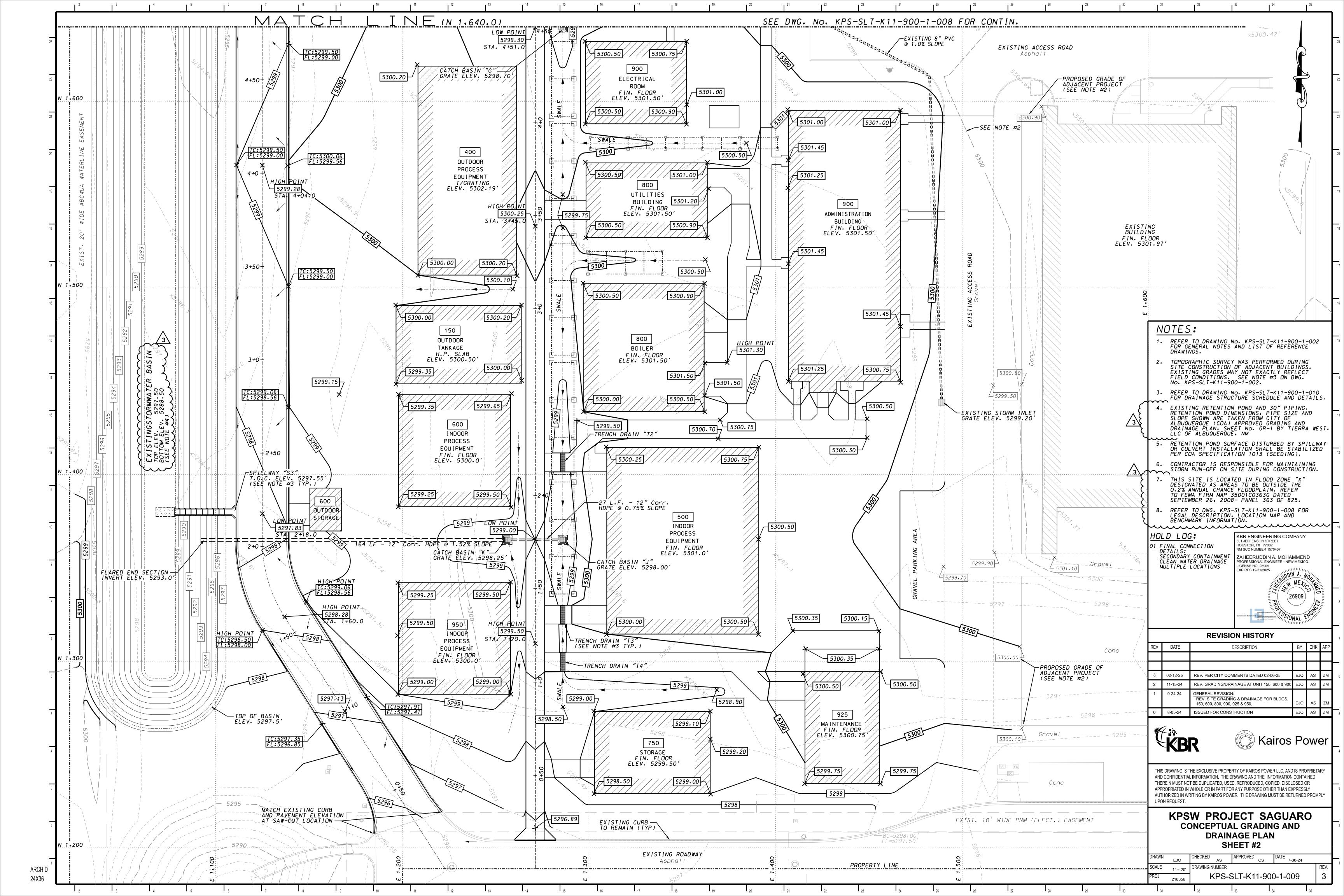
Anthony Montoya, Jr., P.E., CFM

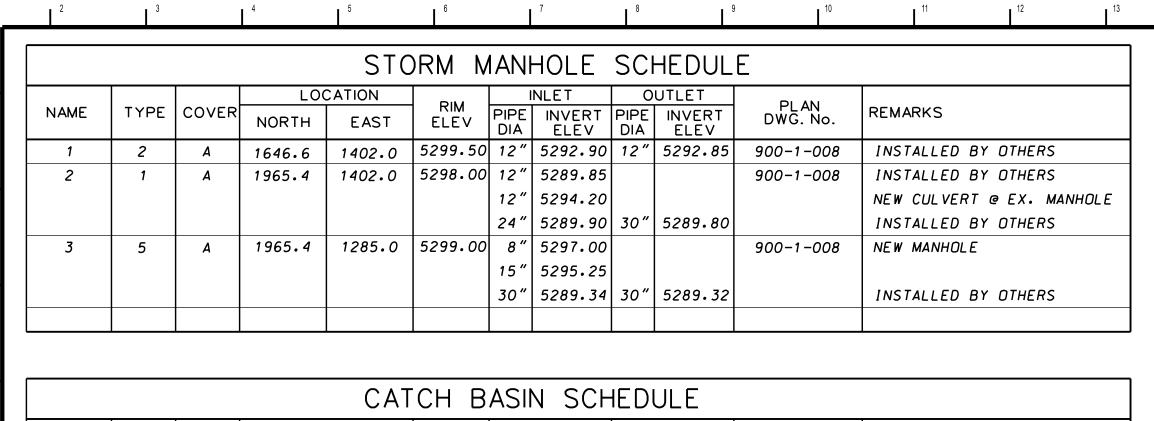
Senior Engineer, Hydrology

anth Mar

Planning Department, Development Review Services







:0						CAT	CH B	ASII	N SCH	IED!	ULE		
		NAME	TYPE	COVER	LOCATION		CDATE	INLET		OUTLET		DL AN	
					NORTH	EAST	GRATE ELEV	PIPE DIA	INVERT ELEV	PIPE DIA	INVERT ELEV	PLAN DWG. No.	REMARKS
9		Α	3	D	2012.5	1415.0	5297.25			12"	5294.75	900-1-008	
		В	3	D	1987.5	1415.0	5297.25	12"	5294.55	12"	5294.50	900-1-008	
		С	4	С	1900.0	1238.5	5298.75	6"	5296.75	12"	5296.25	900-1-008	
		D	4	С	1900.0	1285.0	5298.75	12"	5296.00			900-1-008	
18								12"	5296.00	15"	5295.75		
		Ε	4	С	1874.0	1402.0	5298.75	12"	5290.75	12"	5290.70	900-1-008	NEW STRUCTURE @ EX. CULVERT
		F	4	С	1815.5	1285.0	5299.50			12"	5297.00	900-1-008	
	کم	G	4	С	1637.5	1256.3	5298.70			12"	5296.23	900-1-009	
7	/ 2\	Н	4	С	1639.5	1286.0	5298.70	12"	5296.00	12"	5295.90	900-1-009	
	Y	mym		$\mathcal{L}_{\mathcal{C}}$	1365.0	1256.3	5298.00			12"	5295.75	900-1-009	
1		K	4	С	1365.0	1286.0	5298.25	12"	5296.00	12"	5295.50	900-1-009	
1													

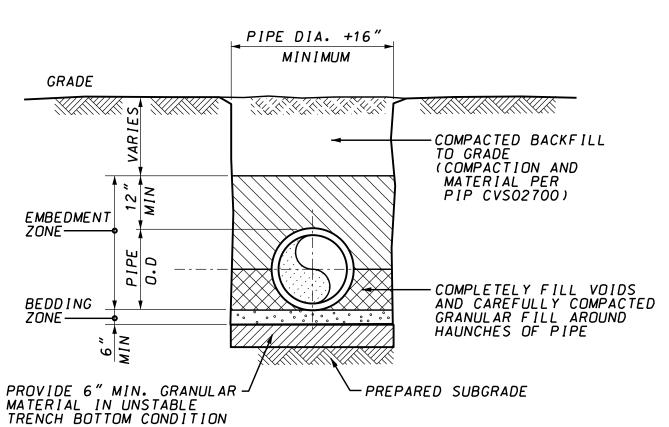
					TREN	CH DRA	IN SCHE	EDULE		
	NAME	LOC NORTH	EAST	TRENCH WIDTH	TRENCH LENGTH	GRATE ELEV	INLET INVERT ELEV	OUTLET INVERT ELEV	PLAN DWG. No.	REMARKS
	T 1	1647.3	1286.0	12"	6′	5 <i>2</i> 99.35	5298.80	5298.75	900-1-008	ADJUST LOCATION WITH
٦	my2m	1406.5	1286.0	12"	10'	5299.00	5298.50	5298.37	900-1-009	CONCRETE WALK OR DRIVE
	Т3	1325.0	1286.0	12"	10'	5299.80	5298.25	5298.20	900-1-009	
	T4	1287.3	1286.0	12"	10'	5299.35	5298.40	5298.35	900-1-009	

NOTES

- 1. REFER TO DRAWING NO. KPS-SLT-K11-900-1-002 FOR GENERAL NOTES AND LIST OF REFERENCE DRAWINGS.
- 2. PRECAST CONCRETE MANHOLE SHALL BE ROUND CONFORMING TO THE REQUIREMENTS SPECIFIED IN THE LATEST EDITION OF ASTM C478. MINIMUM INSIDE CLEAR DIMENSION SHALL BE 48 INCHES. IN ADDITION TO LATERAL LOADS DUE TO EARTH PRESSURE, MANHOLES SHALL BE DESIGNED FOR AASHTO HS20-44 TRUCK LOADING, INCLUDING IMPACT.
- PRECAST CONCRETE CATCH BASINS SHALL BE EITHER ROUND OR SQUARE, CONFORMING TO THE REQUIREMENTS SPECIFIED IN THE LATEST EDITION OF ASTM C478 OR C913, RESPECTIVELY MINIMUM INSIDE CLEAR DIMENSION SHALL BE 48 INCHES, UNLESS OTHERWISE NOTED. IN ADDITION TO LARGE ALL LOADS DUE TO EARTH PRESSURE, CATCH BASINS SHALL BE DESIGNED FOR AASHTO HS20-44 TRUCK LOADING, INCLUDING IMPACT.
- HEAVY-DUTY FRAME AND GRATE/COVER SHALL BE AS MANUFACTURED BY EAST JORDON IRON WORKS OF SMYRNA, GEORGIA OR ENGINEER APPROVED EQUAL. MANHOLE COVER AND CATCH BASIN GRATE TYPES SHALL BE AS FOLLOWS:

 - TYPE A: MODEL NO. 1020 TYPE 'A' MANHOLE SOLID COVER & FRAME FURNISHED
 WITH CAST-IN LETTERING READING "STORM"

 TYPE B: MODEL NO. 1720 CATCH BASIN INLET FRAME & TYPE 'P' CONCAVE GRATE
 TYPE C: MODEL NO. 5370 SQUARE CATCH BASIN INLET FRAME & GRATE
 TYPE D: MODEL NO. 7075 CURB INLET FRAME, TYPE 'M1' GRATE & ADJUSTABLE CURB BOX
- 5. FACE OF PIPE FLUSH OR NOT TO PROJECT MORE THAN 4" FROM FACE OF WALL ALONG CENTERLINE OF PIPE.
- 6. HEIGHT OF INTERMEDIATE RISER SECTION VARY FROM 1' TO 4'.
- 7. PIPES TO CATCH BASIN JOINTS SHALL BE COMPLETELY SEALED AS TO NOT ALLOW ANY GROUNDWATER INTRUSION.
- MANHOLE STEPS SHALL BE ORIENTED SO AS NOT TO INTERFERE WITH PIPE OPENINGS AND EXTEND TO 12" FROM BOTTOM OF THE STRUCTURE. STEPS MAY BE ELIMINATED FOR STRUCTURE WITH A DEPTH LESS THAN 32" OR LESS THAN 48" CLEAR OPENING.
- PIPE BEDDING MATERIAL SHALL BE WELL GRADED SOIL WITH NO MORE THAN 15% PASSING A NO. 200 SIEVE. MAXIMUM PARTICLE SIZE SHALL NOT EXCEED ONE INCH. EMBEDMENT AND BEDDING ZONE MATERIAL SHALL BE TYPE "SC". "SM". "SW". "SP". "GW" OR "GP" PER THE UNIFIED SOIL CLASSIFICATION SYSTEM COMPACTED TO 95% DRY DENSITY PER ASTM D1557. SOILS CLASSIFIED AS "ML". "CL". "MH". "CH" OR "OH" ARE NOT ACCEPTABLE FOR COMPACTION.
- 10. GEOTECHNICAL FABRIC BELOW RIPRAP LINING SHALL BE MIRAFI NON-WOVEN TYPE 140N OR ENGINEER APPROVED EQUAL.



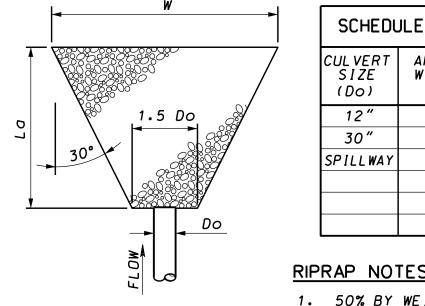
ARCH D

24X36

- 1. EMBEDMENT AND BEDDING ZONE MATERIAL SHALL BE TYPE "SC", "SM", "SW", "SP", "GW" OR "GP" PER THE UNIFIED SOIL CLASSIFICATION SYSTEM COMPACTED TO 95% DRY DENSITY PER ASTM D1557.
- 2. SOILS CLASSIFIED "ML", "CL", "MH", "CH" OR "OH" ARE NOT ACCEPTABLE FOR COMPACTION.
- 3. CITY OF ALBUQUERQUE SECTION 2200, DWG. 2240 MAY BE USED AS AN APPROVED AL TERNATIVE.

HDPE PIPE BEDDING DETAIL

NOT TO SCALE



PLAN VIEW

RIPRAP NOTES: 50% BY WEIGHT OF THE RIPRAP SHALL BE SMALLER THAN THE MEDIAN STONE SIZE. AS DESIGNATED BY d50. AND 50% BY WEIGHT SHALL BE LARGER. RIPRAP SHALL BE WELL GRADED AND THE LARGEST STONE SHALL NOT EXCEED 1.5 TIMES THE d50 SIZE.

 (d_{50})

1 "

REMARKS

BY OTHERS

2. RIPRAP APRON THICKNESS SHALL EQUAL 3 TIMES THE d₅₀ STONE SIZE.

RIPRAP APRON DETAIL NOT TO SCALE

APRON

LENGTH

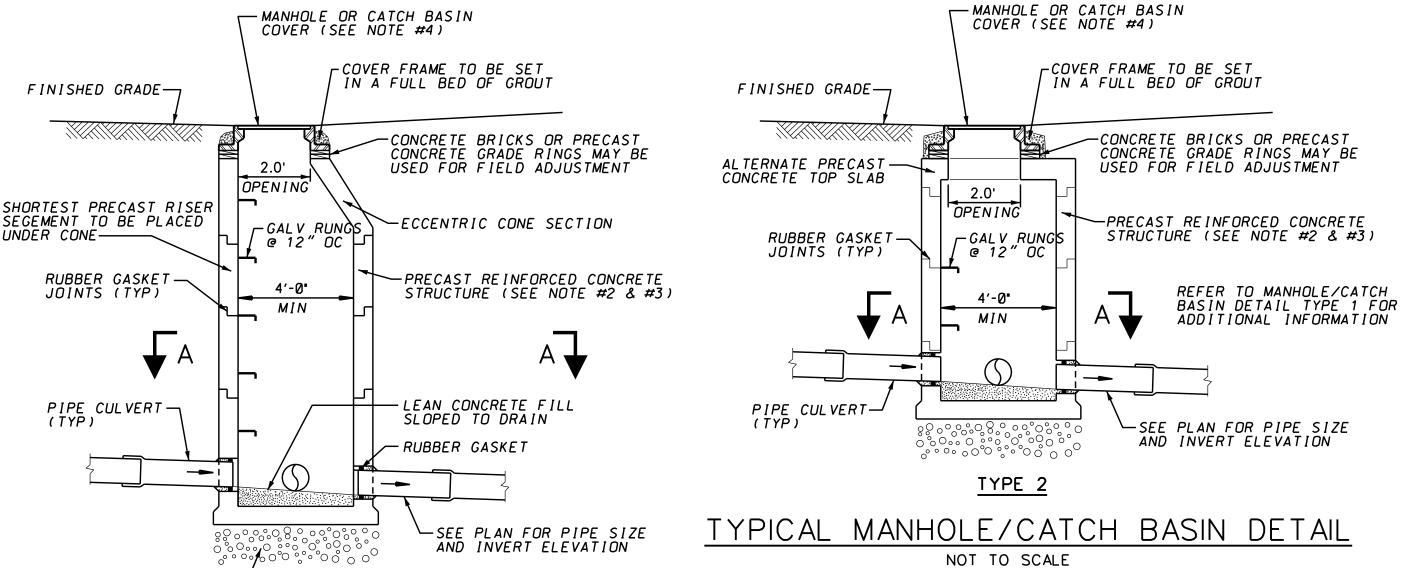
(La)

20'

10'

WIDTH

30"



TYPICAL MANHOLE/CATCH BASIN DETAIL NOT TO SCALE

TYPE 1

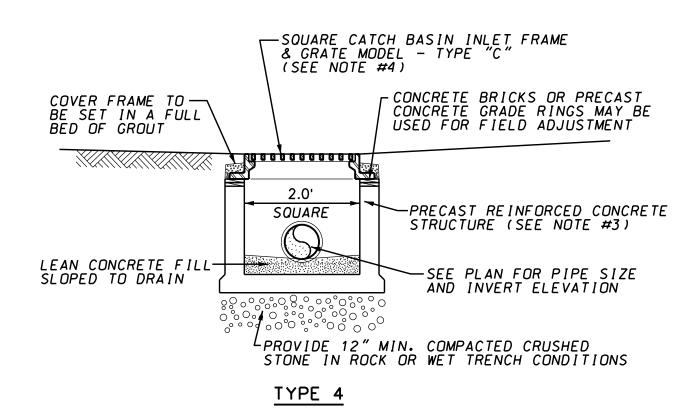
-PROVIDE 12" MIN. COMPACTED CRUSHED STONE IN ROCK OR WET TRENCH CONDITIONS

FINISHED GRADE-

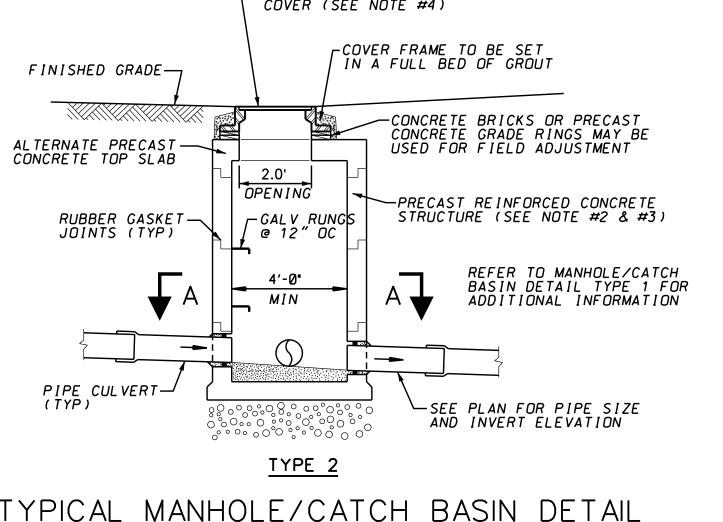
RUBBER GASKE JOINTS (TYP)

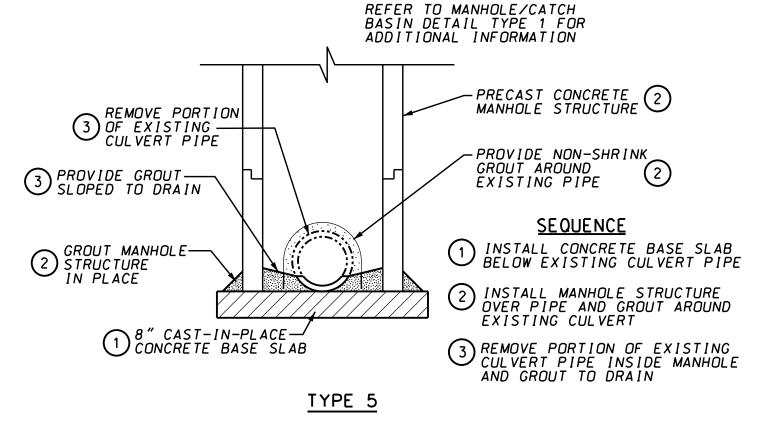
PIPE CULVERT -(TYP)

UNDER CONE-

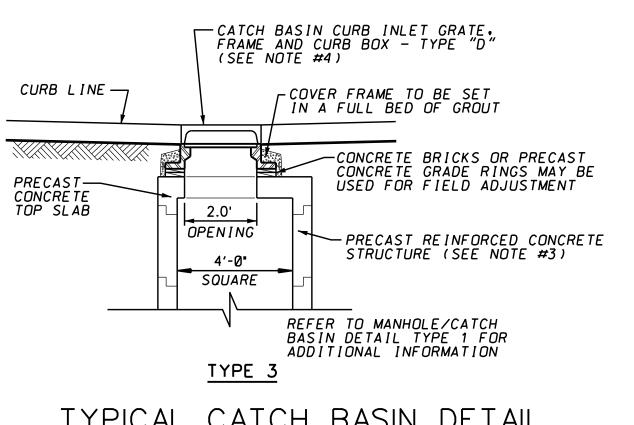


TYPICAL CATCH BASIN DETAIL NOT TO SCALE

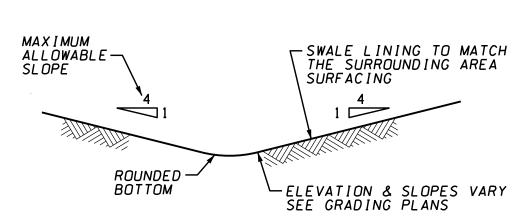




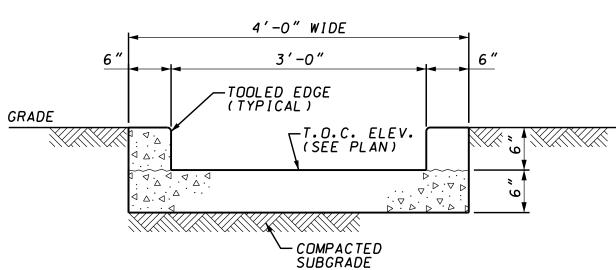
MANHOLE DETAIL NOT TO SCALE



CATCH BASIN DETAIL NOT TO SCALE



DRAINAGE SWALE DETAIL NOT TO SCALE



- 1. REFER TO GRADING PLANS KPS-SLT-K11-900-1-008 AND KPS-SLT-K11-900-1-009 FOR LOCATION AND ELEVATIONS.
- 2. CONCRETE SHALL BE MINIMUM 3.000 psi STRENGTH AT 28 DAYS.
- 3. SPLAY UPSTREAM END 7'-0" WIDE AND MERGE INTO ROADWAY CURBING.

TYPICAL SPILLWAY DETAIL

NOT TO SCALE

KBR ENGINEERING COMPANY

ZAHEERUDDIN A. MOHAMMEND

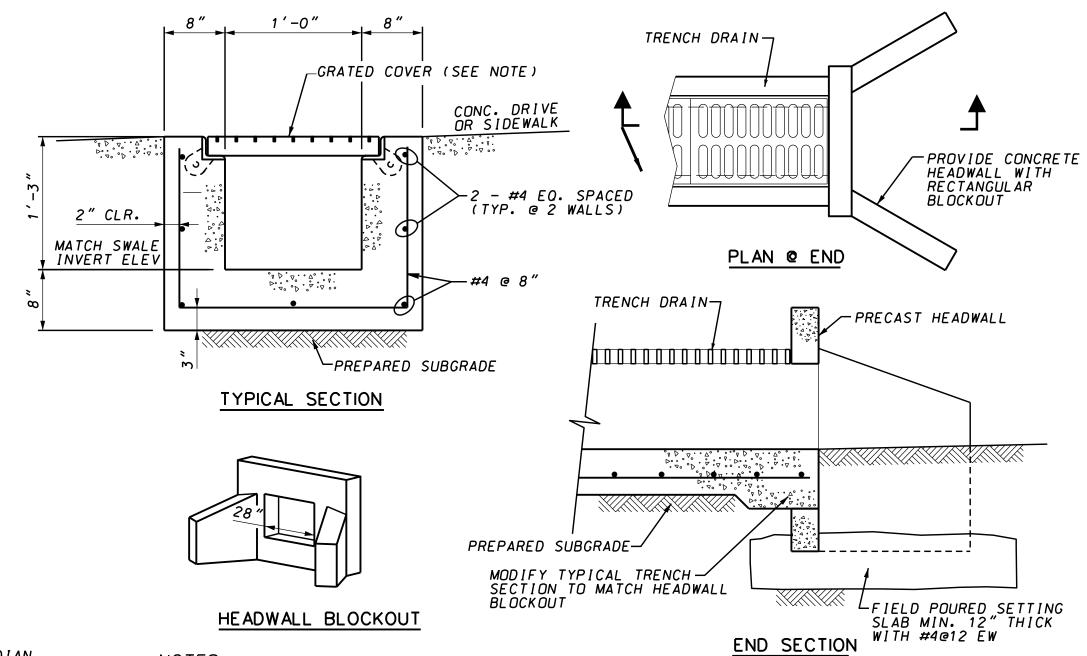
MEXICO

(26909)

601 JEFFERSON STREET HOUSTON, TX 77002

LICENSE NO. 26909 EXPIRES 12/31/2025

NM SCC NUMBER 1570407



GRATED COVER TO BE HEAVY-DUTY TRENCH FRAME & GRATE MODEL NO V-7312 AS MANUFACTURED BY EAST JORDON IRON WORKS OF SMYRNA, GEORGIA OR ENGINEER APPROVED EQUAL.

- 2. REINFORCED CONCRETE SHALL MEET ALL APPLICABLE REQUIREMENTS OF ACI 318. COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 4.000 psi (MINIMUM) AT 28 DAYS. REINFORCING STEEL SHALL CONFORM TO ASTM A615. GRADE 60.
- 3. A PREFORMED, MANUFACTURED TRENCH SYSTEM IS AN ACCEPTABLE ALTERNATIVE WITH ENGINEER'S

REV				
REV		REVISION HISTORY		
	DATE	DESCRIPTION	BY	CHK
0	44.45.04	DEL/ CATOLI DACINI IOU A LIU AND TRENGLI IT 4	510	
2	9-24-24	REV. CATCH BASIN "G" & H" AND TRENCH "T-1" REV. SCHEDULES	EJO EJO	AS AS
0	8-05-24	ISSUED FOR CONSTRUCTION	EJO	AS
AND	CONFIDENTIA	THE EXCLUSIVE PROPERTY OF KAIROS POWER LLC, AN AL INFORMATION. THE DRAWING AND THE INFORMATION	N CONTA	INED
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TRENCH DRAIN DETAIL

NOT TO SCALE