



THE SEAL APPEARING ON THIS
DOCUMENT WAS AUTHORIZED BY
DAVID SEPULVEDA, P.E. 84006
ON APRIL 24, 2026.

CIVIL ADDENDUM NO. 6

Date of Issuance: April 24, 2026

Project: **Alvin ISD Replacement Elementary on Mustang Road**
Alvin Independent School District

Issued by: Texas Arcadis, Inc.
P.O. Box 891209
Houston, TX 77289
281-286-6605

Texas Arcadis Inc.
Project No.: 202502

Prepared for: Prospective Proposers

PART A: NOTICE TO PROPOSERS:

1. Receipt of this Addendum shall be acknowledged on the Proposal Form. Failure to do so may subject Proposers to disqualification. Each proposer shall make necessary adjustments and submit his proposal with full knowledge of all modifications, clarification, and supplemental data included therein.
2. This Addendum forms part of the Contract Documents and shall be incorporated integrally therewith. Where provisions of the following supplemental data differ from those of previously issued documents, this Addendum shall govern.
3. The following Contract Documents have been issued to date delineating the Work (Project).

Contract Documents	April 6, 2026
Addendum 01 (Architectural)	April 13, 2026
Addendum 02 (Pre-Proposal)	April 17, 2026
Addendum 03 (Architectural)	April 20, 2026
Addendum 04 (MEPT)	April 22, 2026
Addendum 05 (Structural)	April 23, 2026

4. This Addendum consists of: Two (2) 8-1/2x11 written pages, Five (5) full-size New or Re-issued Sheets / Drawings as described in PARTS E, F and G below; as prepared by Innovative Structural Consultants. Total pages: Seven (7).

PART B: GENERAL PROJECT CLARIFICATIONS

"This section is to clarify general questions/comments regarding the project."

5. None

PART C: CHANGES TO PRIOR ADDENDUM

6. None

PART D: CHANGES TO THE PROJECT MANUAL

7. None

PART E: CHANGES TO THE DRAWINGS

8. Sheet C601 - Cover Sheet
 - a. Added Sheet 18A – City of Alvin Standard Sanitary Sewer Notes to the Index
 - b. Added Sheet 18B – City of Alvin Standard Sanitary Sewer Details to the Index
9. Sheet C607 – Baseline “B” Plan & Profile Sta 0+00 to 4+00
 - a. Contractor to remove and replace existing asphalt/gravel as required to match existing paving
10. Sheet C609 – Baseline “C” Plan & Profile Sta 0+00 to 3+40
 - a. Contractor to remove and replace existing asphalt/gravel as required to match existing paving
11. Sheet C618A – City of Alvin Standard Sanitary Sewer Notes
 - a. New sheet added to the plan set
12. Sheet C618B – City of Alvin Standard Sanitary Sewer Details
 - a. New sheet added to the plan set

PART F: RE-ISSUED SHEETS

13. Sheet C601 - Cover Sheet
14. Sheet C607 – Baseline “B” Plan & Profile Sta 0+00 to 4+00
15. Sheet C609 – Baseline “C” Plan & Profile Sta 0+00 to 3+40

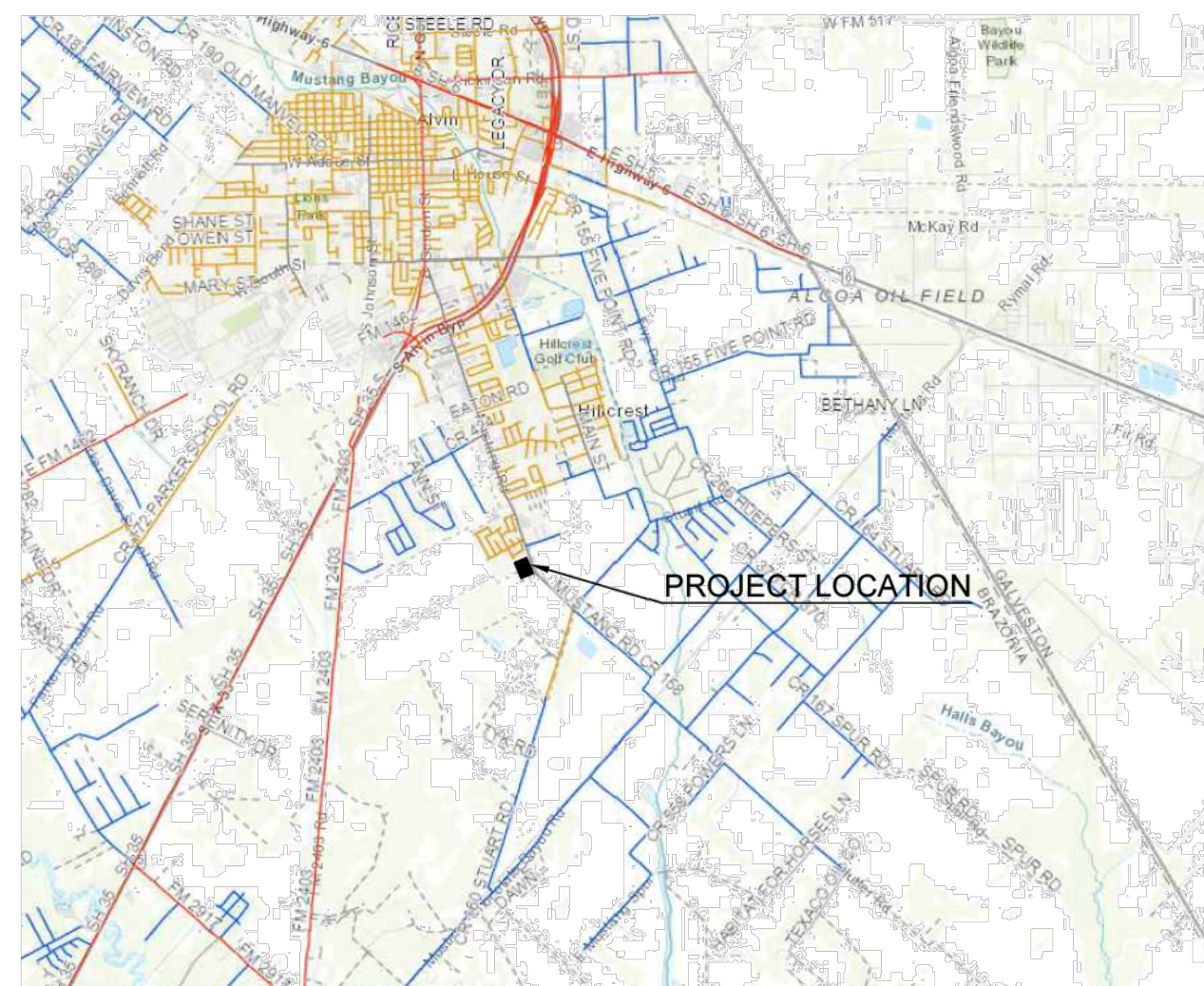
PART G: NEW ISSUED SHEETS

16. Sheet C618A – City of Alvin Standard Sanitary Sewer Notes
17. Sheet C618B – City of Alvin Standard Sanitary Sewer Details

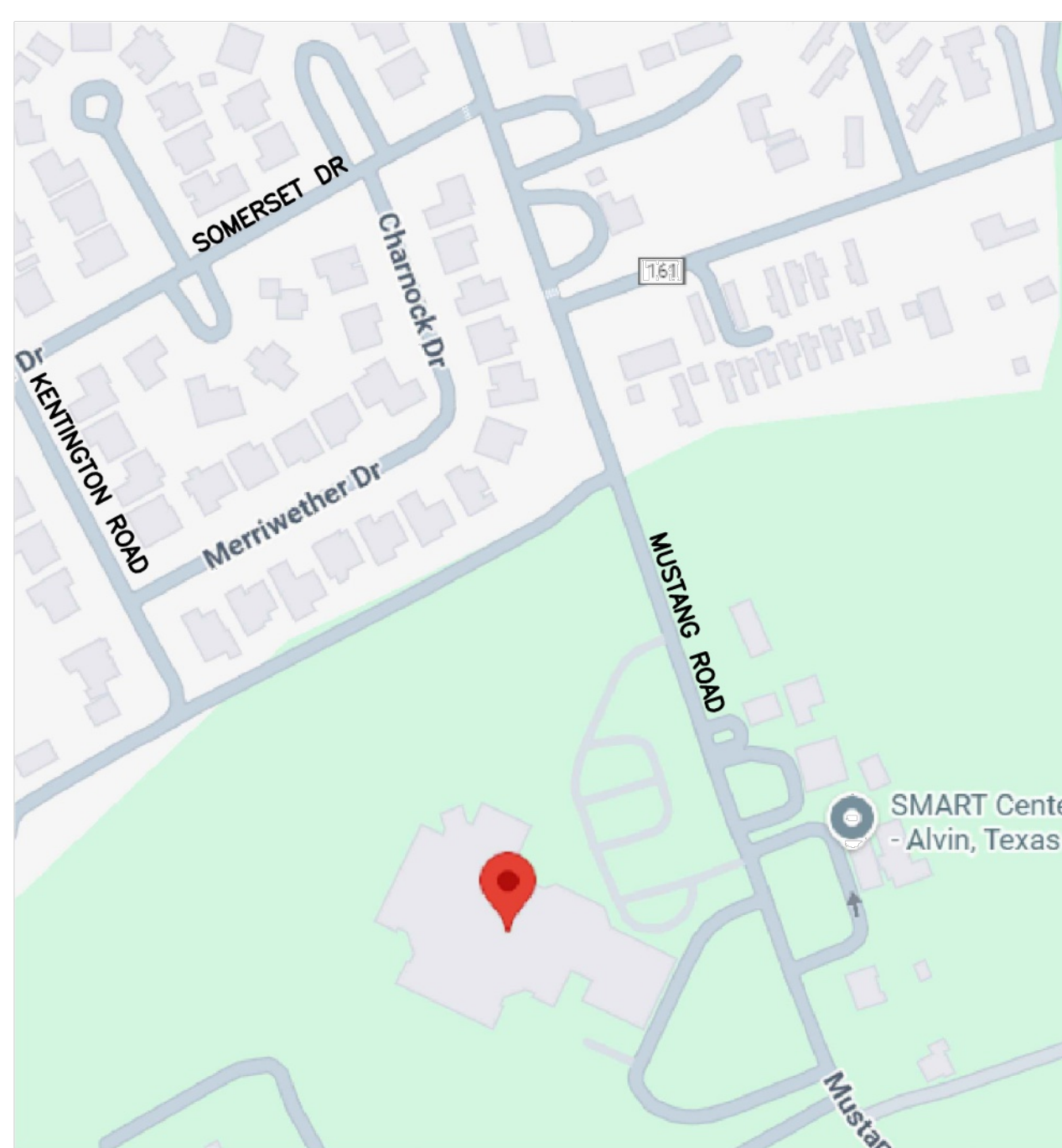
END OF ADDENDUM NO. 6

CONSTRUCTION PLANS FOR PROPOSED 8" WATER MAIN CONNECTION TO SERVE ALVIN REPLACEMENT ELEMENTARY ON MUSTANG ROAD

APRIL 24, 2026



OVERALL
NTS



VICINITY MAP
NTS

CONTRACTOR SHALL NOTIFY THE CITY OF ALVIN, ALVIN PUBLIC SERVICES, 48 HOURS BEFORE STARTING WORK ON THIS PROJECT. TELEPHONE NO. 281-388-4325

THIS PROJECT INCLUDES WORK TO BE PERFORMED IN THE CITY OF ALVIN'S RIGHT-OF-WAY AND EASEMENTS. DRAWINGS MUST BE APPROVED AND PERMITTED PRIOR TO BEGINNING CONSTRUCTION.

DRAWING INDEX	
SHEET NO.	TITLE
1	COVER SHEET
2	GENERAL NOTES
3	CITY OF ALVIN WATER LINE NOTES
4	CITY OF ALVIN PAVING, STRIPING & SIGNAGE NOTES
5	OVERALL LAYOUT
6	BASE LINE "A" PLAN & PROFILE STA 0+00 TO 4+79
7	BASE LINE "B" PLAN & PROFILE STA 0+00 TO 4+00
8	BASE LINE "B" PLAN & PROFILE STA 4+00 TO 8+66
9	BASE LINE "C" PLAN & PROFILE STA 0+00 TO 3+40
10	BASE LINE "C" PLAN & PROFILE STA 3+40 TO 6+20
11	SWPPP
12	SWPPP DETAILS
13	TCP TYPICAL CONSTRUCTION ZONE AT A 4-WAY INTERSECTION
14	TCP TYPICAL DETOUR ROUTING WITH ONE LANE CLOSURE
15	TCP NOTES CHANNELIZING DEVICES AND BARRICADES
16	BARRICADE AND CHANNELIZING DEVICES
17	CITY OF ALVIN STANDARD WATERLINE DETAILS 1 OF 2
18	CITY OF ALVIN STANDARD WATERLINE DETAILS 2 OF 2
18A	CITY OF ALVIN STANDARD SANITARY SEWER NOTES
18B	CITY OF ALVIN STANDARD SANITARY SEWER DETAILS
19	CITY OF ALVIN STANDARD PAVING, STRIPING & SIGNAGE DETAILS

PROJECT BENCHMARK:
NGS MONUMENT PID No. AW5547 (HCCSD 56) BEING AN ALUMINUM ROD WITH PENCIL HOLE IN CASING. TO REACH THE BENCHMARK, START FROM THE INTERSECTION OF HIGHWAY 6 AND STATE HIGHWAY 35, HEAD SOUTHEAST ALONG HIGHWAY 6 FOR 1.93 MILES, TURN LEFT TO A GRAVEL DRIVEWAY ON THE NORTH SIDE OF HIGHWAY 6, STATION IS ON THE NORTH SIDE OF A FENCE IN PROPERTY. ELEVATION = 34.40' NAVD83, GEOD18

TEMPORARY BENCHMARKS:
TIM "A" - BEING A "BOX CUT" IN CONCRETE ON TOP OF A CURB INLET, LOCATED +/- 543' FROM THE CENTERLINE INTERSECTION OF COUNTY ROAD 161 AND MUSTANG ROAD. BENCHMARK IS ALSO LOCATED +/- 324' SOUTHEAST OF THE NORTH PROPERTY CORNER LOCATED ON SUBJECT TRACT. PLOTTED HEREON. ELEVATION = 29.64' NAVD83

TIM "B" - BEING A 5/8-INCH IRON ROD WITH CAP LOCATED +/- 737' FROM THE TERMINUS OF KENTINGTON DRIVE AT THE NORTHWEST CORNER OF THE SUBJECT TRACT. BENCHMARK IS ALSO LOCATED +/- 400' FROM THE SOUTHEAST PROPERTY CORNER OF THE SUBJECT TRACT. PLOTTED HEREON. ELEVATION = 30.95' NAVD83

FLOODPLAIN NOTES:
ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP No. 48050C0365 AND 48050C0366, EFFECTIVE DATE OF 12/30/2020, THE SURVEYED PROPERTY LIES WITHIN ZONE "X" (UNSHADED) AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AND ZONE "AO" SPECIAL FLOOD HAZARD AREAS SUBJECT TO FLOOD DEPTHS OF 1 TO 3 FEET USUALLY SHEET FLOW ON SLOPING TERRAIN; AVERAGE DEPTHS DETERMINED FOR AREAS OF ALLUVIAL FAN FLOODING, VELOCITIES ALSO DETERMINED.

THE FLOOD ZONE SEPARATION LINES SHOWN HEREON ARE APPROXIMATE AND BASED UPON GRAPHIC REPRESENTATION OF SUCH LINES AS PER SAID FEMA FLOOD INSURANCE RATE MAP.



S & G
ENGINEERING
CONSULTANTS, LLC
1796 AVENUE D, SUITE B
KATY, TEXAS 77493
O. 832-437-7377
T.B.P.E. FIRM # 15114



PROPOSED 8" WATER MAIN TO SERVE REPLACEMENT ELEMENTARY ON MUSTANG ROAD

PROJECT NUMBER		IBI-013-00	
NO.	REVISION	DATE	
	PROPOSAL SET	04/06/26	
	ADDENDUM 6	04/24/26	

COVER SHEET

DRAWING SCALE	SHEET NUMBER
	01 OF 19

CITY OF ALVIN DATE

APPROVAL VALID ONE YEAR FROM DATE OF SIGNATURE

CONSULTANTS
STRUCTURAL
CJG Engineers
3200 Wilcrest Drive, Suite 305
Houston, TX 77042
Tel: 713.780.3345
Fax: 713.780.3712

FOODSERVICE
Foodservice Design Professionals
594 Sawdust Road, Suite 139
Spring, TX 77380-1960
Tel: 281.350.2323
Fax: 281.350.5959

LANDSCAPE
PEA Group
16060 Dillard Drive, Suite 250
Houston, TX 77040
Tel: 844.813.2949

MEP
CMTA, INC
2201 Timberloch Place, Suite 110
The Woodlands, TX 77380
Tel: 281.419.9899

CIVIL
S&G Engineering Consultants, LLC
1796 Avenue D, Suite B
Katy, Texas 77493
Tel: 832.437.7377
TBPE No. F-15114

**REPLACEMENT
ELEMENTARY SCHOOL
ON MUSTANG ROAD**
ALVIN INDEPENDENT SCHOOL DISTRICT
5000 Mustang Rd, Alvin, TX 77511

ARCADIS
TEXAS ARCADIS INC.
10205 WESTHEIMER SUITE 800
HOUSTON, TX 77042
tel 281.286.6605

PROJECT NO. 202502
DATE: 2026-04-06
DRAWN TH
CHECKED WJS

DATE ISSUE
2026-04-06 PROPOSAL SET
2026-04-24 ADDENDUM #06 A

C601

COVER SHEET

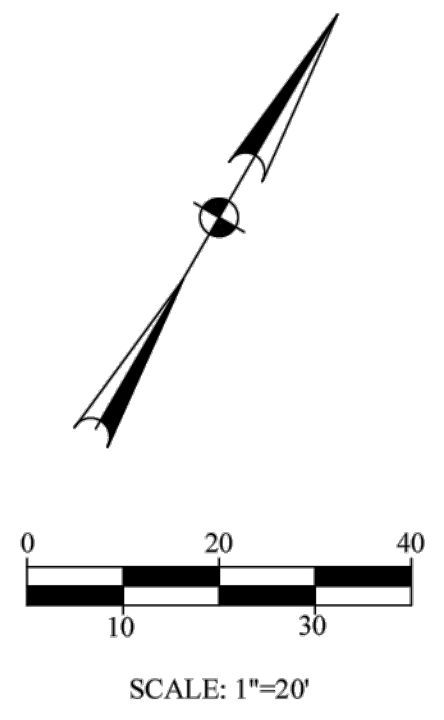
CONSULTANTS
STRUCTURAL
 C.J.G. Engineers
 3200 Wilcrest Drive, Suite 305
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CIVIL
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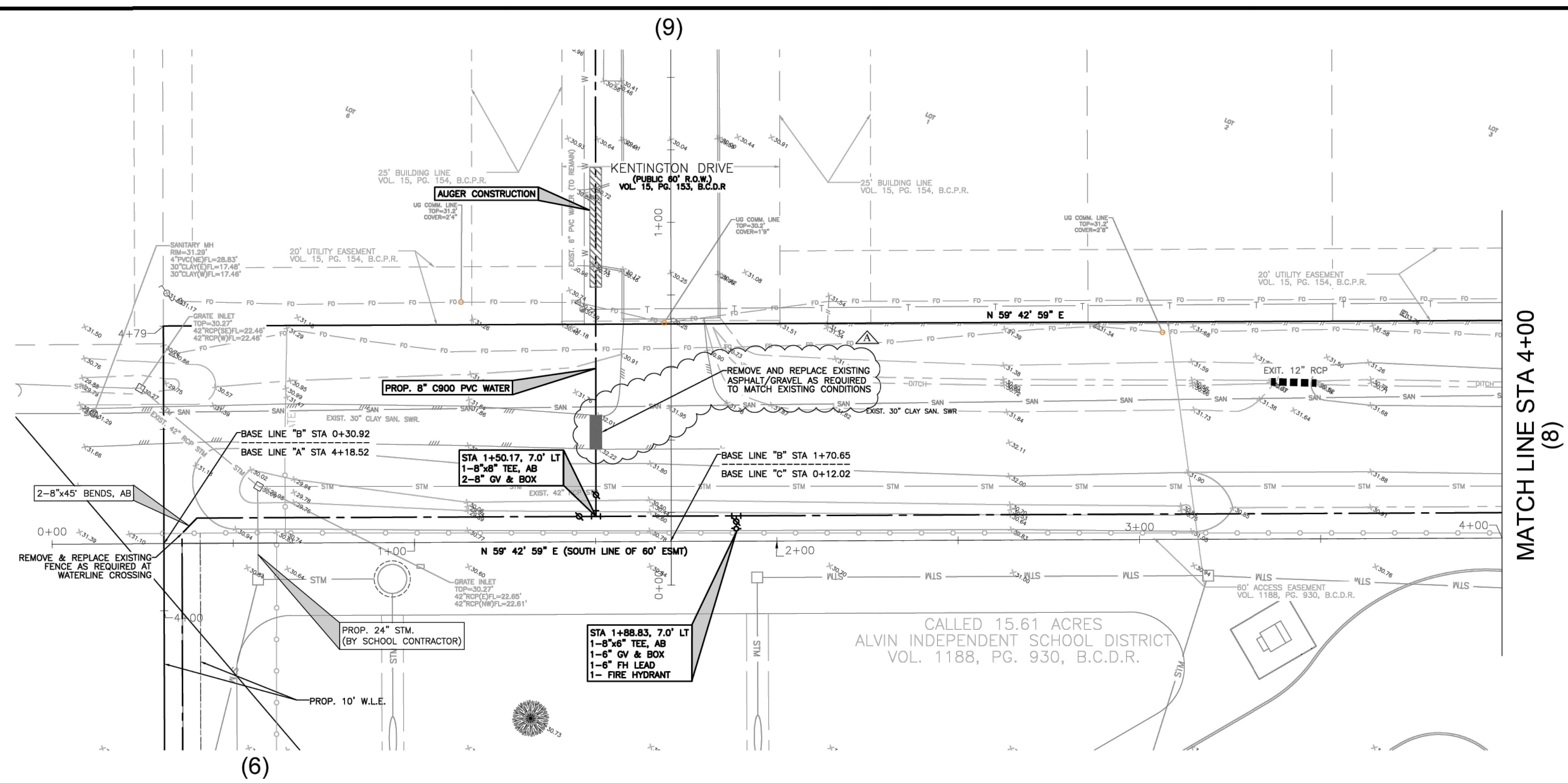
PROJECT BENCHMARK:
 NGS MONUMENT PID No. AW547 (HCCSD 56)
 BEING AN ALUMINUM ROD WITH PENCIL HOLE IN CASING, TO REACH THE BENCHMARK, START FROM THE INTERSECTION OF HIGHWAY 6 AND STATE HIGHWAY 35, HEAD SOUTHWEST ALONG HIGHWAY 6 FOR 1.93 MILES (1.8 MI), TURN LEFT TO A GRAVEL DRIVEWAY ON THE NORTH SIDE OF HIGHWAY 6, STATION IS ON THE NORTH SIDE OF A FENCE IN PROPERTY.
 ELEVATION = 34.40 NAVD83, GEOD18

TEMPORARY BENCHMARKS:
 TRIM "A" - BEING A "BOX CUT" IN CONCRETE ON TOP OF A CURB INLET, LOCATED +/- 54" FROM THE CENTERLINE INTERSECTION OF COUNTY ROAD 161 AND MUSTANG ROAD. BENCHMARK IS ALSO LOCATED +/- 324' SOUTHEAST OF THE NORTH PROPERTY CORNER LOCATED ON SUBJECT TRACT. PLOTTED HEREON.
 ELEVATION = 29.04 NAVD83

TRIM "B" - BEING A BRONCH IRON ROD WITH CAP LOCATED +/- 233' FROM THE TERMINUS OF KENTINGTON DRIVE AT THE NORTHWEST CORNER OF THE SUBJECT TRACT. BENCHMARK IS ALSO LOCATED +/- 400' FROM THE SOUTHEAST PROPERTY CORNER OF THE SUBJECT TRACT. PLOTTED HEREON.
 ELEVATION = 30.95 NAVD83

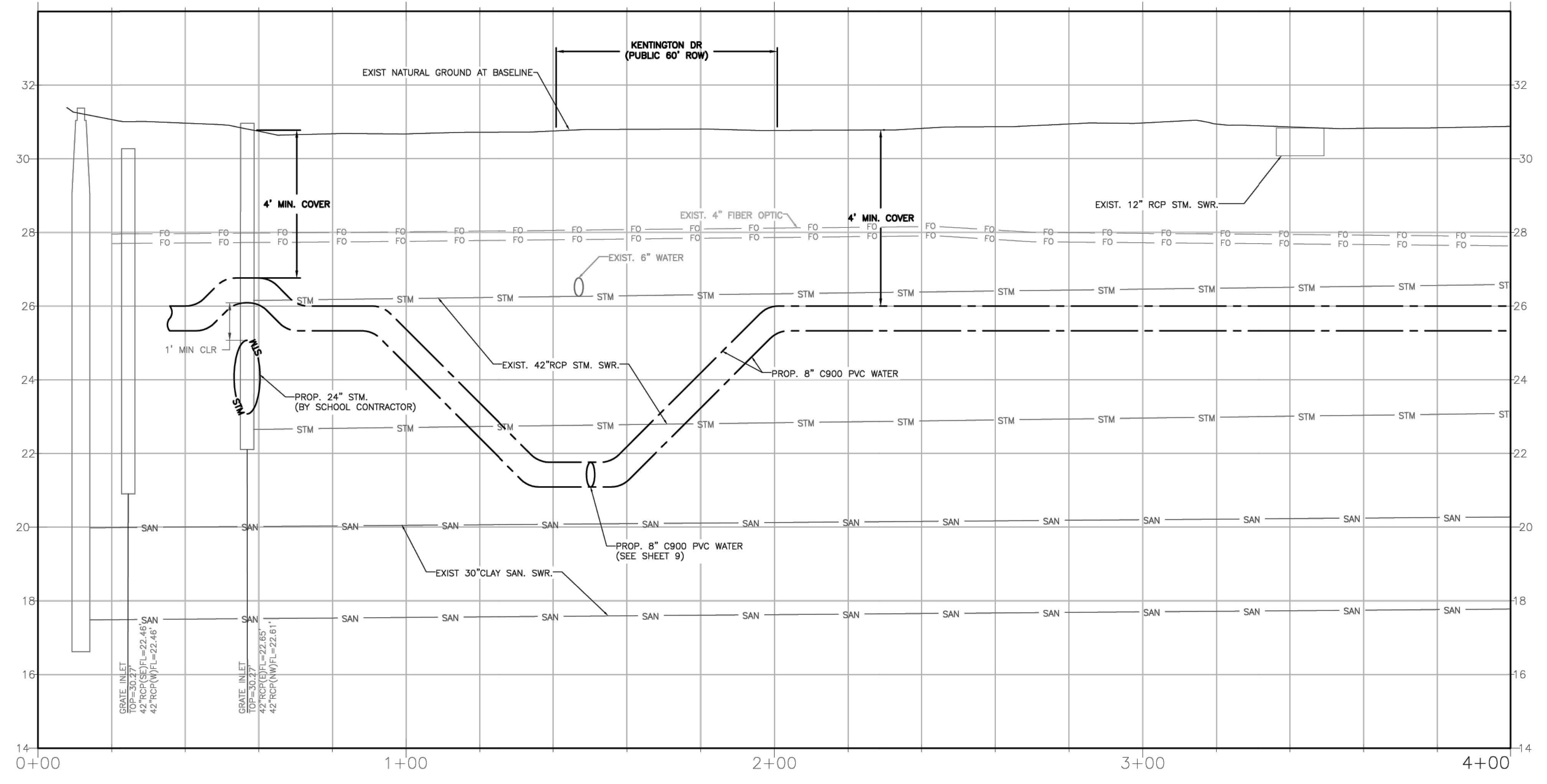
FLOODPLAIN NOTES:
 ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP No. 48030C065K AND 48030C065K, EFFECTIVE DATE OF 12/30/2020, THE SURVEYED PROPERTY LIES WITHIN ZONE "X" (UNSHARED) AREAS DETERMINED TO BE IN THE 1% ANNUAL CHANCE FLOODPLAIN AND ZONE "AO" SPECIAL FLOOD HAZARD AREAS SUBJECT TO FLOOD DEPTHS OF 1 TO 3 FEET USUALLY SHEET FLOW ON SLOPING TERRAIN; AVERAGE DEPTHS DETERMINED. FOR AREAS OF ALLUVIAL FAN FLOODING, VELOCITIES ALSO DETERMINED.

THE FLOOD ZONE SEPARATION LINES SHOWN HEREON ARE APPROXIMATE AND BASED UPON GRAPHIC REPRESENTATION OF SUCH LINES AS PER SAID FEMA FLOOD INSURANCE RATE MAP.



MATCH LINE STA 4+00 (8)

BASELINE "B"



S & G
 ENGINEERING
 CONSULTANTS, LLC
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 KATY, TEXAS 77493
 O. 832-437-7377
 T.B.P.E. FIRM # 15114



PROPOSED 8" WATER MAIN TO SERVE REPLACEMENT ELEMENTARY ON MUSTANG ROAD

PROJECT NUMBER		
NO.	REVISION	DATE
	PROPOSAL SET	04/06/26
	ADDENDUM 6	04/24/26

**BASELINE "B"
 PLAN & PROFILE
 STA 0+00 TO 0+4+00**

DRAWING SCALE: 1"=20' H, 1"=2' V
 SHEET NUMBER: 07 OF 19

**REPLACEMENT
 ELEMENTARY SCHOOL
 ON MUSTANG ROAD**
 ALVIN INDEPENDENT SCHOOL DISTRICT
 5000 Mustang Rd, Alvin, TX 77511

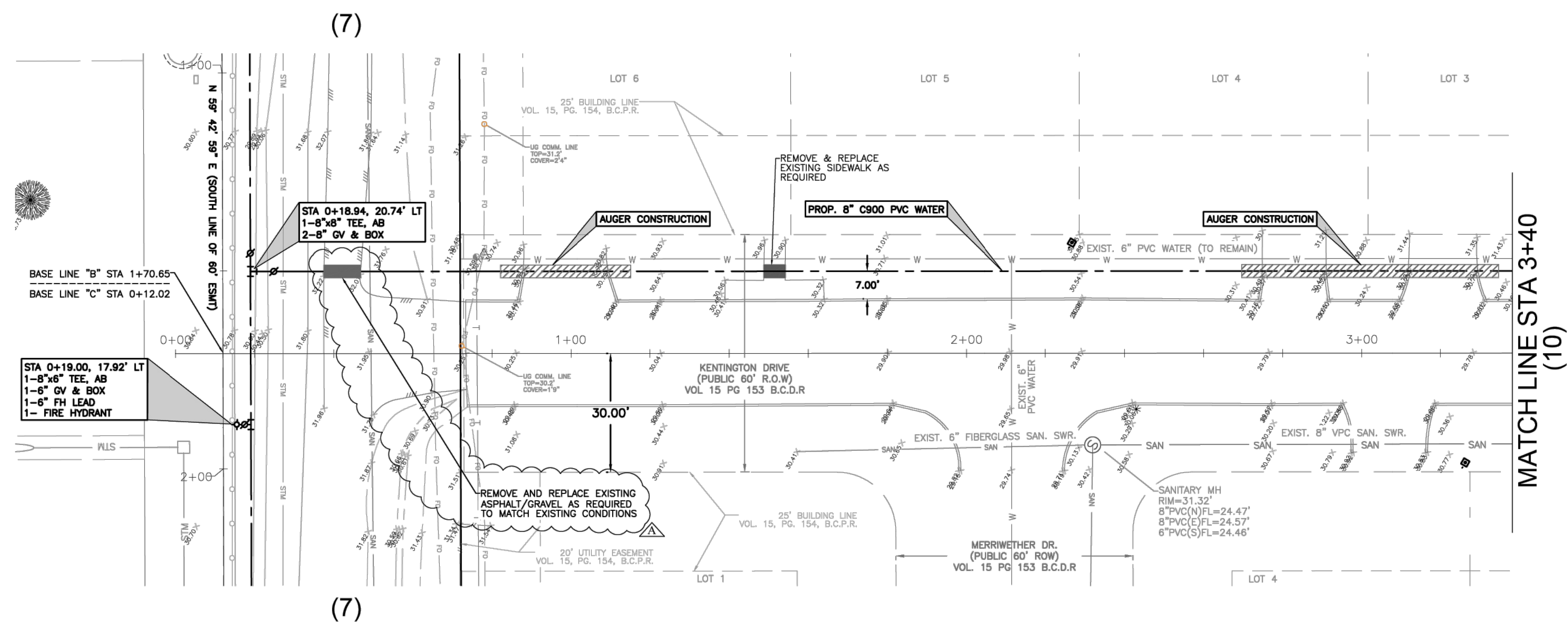
ARCADIS
 TEXAS ARCADIS INC.
 10205 WESTHEIMER SUITE 800
 HOUSTON, TX 77042
 tel 281.286.6605

DATE	ISSUE
2026-04-06	PROPOSAL SET
2026-04-24	ADDENDUM #06

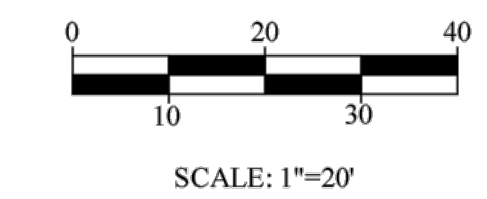
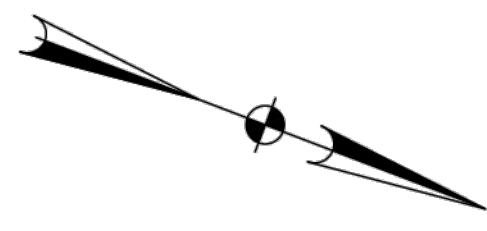
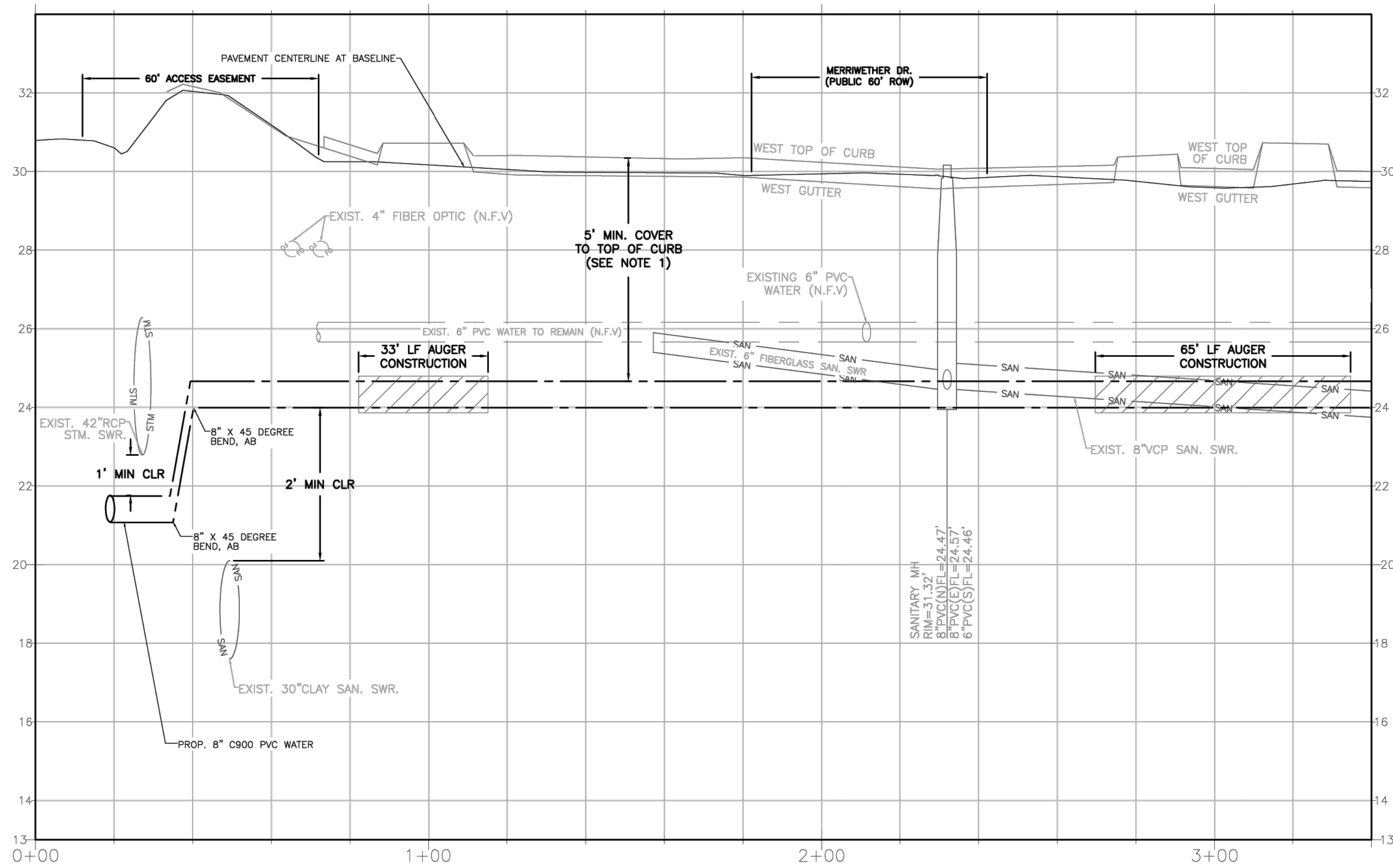
C607
 BASE LINE "B"
 PLAN & PROFILE
 STA 0+00 TO 4+00

Plot Creation: Apr 20, 2026 at 1:51:13 pm User: ISC Colombia
 Location: C:\ISC\OneDrive - Innovative Structural\Computer Desktop\LUISA\2025\Commercial\CC25-001 Alvin Water Line7 Civil\CAD\C25-001 5000 Alvin St v3.dwg

Plot Creation: Apr 22, 2026 at 8:36:05 am User: tharris
 Location: X:\Project Files\IBI Architects\IBI-013-00 Walt Disney ES\CAD\Civil\C607 IBI-013 BL -L.dwg



BASELINE "C"



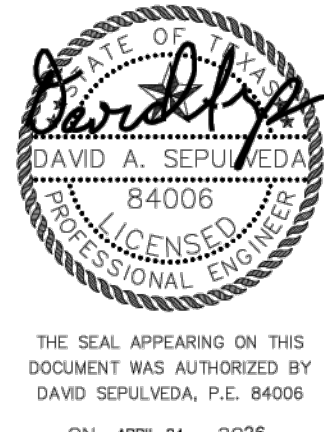
- NOTES:
- CONTRACTOR TO FIELD LOCATE ALL EXISTING SERVICE LEADS. EXISTING SERVICE LEADS TO REMAIN CONNECTED TO EXISTING 6" WATER. CONTRACTOR TO LOCATE PROPOSED 8" WATER BELOW EXISTING 6" WATER TO AVOID CONFLICT WITH RESIDENTIAL SERVICE LEADS

PROJECT BENCHMARK:
 NGS MONUMENT PID No. AW5547 (HGCS 56) REACH AN ALUMINUM ROD WITH PUNCH HOLE IN CASING TO REACH THE BENCHMARK. START FROM THE INTERSECTION OF HIGHWAY 6 AND STATE HIGHWAY 35, HEAD SOUTHEAST ALONG HIGHWAY 6 FOR 1.93 MILES, TURN LEFT TO A GRAVEL DRIVEWAY ON THE NORTH SIDE OF HIGHWAY 6, STATION IS ON THE NORTH SIDE OF A FENCE IN PROPERTY. ELEVATION = 34.07 NAVD83 GRID.

TEMPORARY BENCHMARKS:
 TBM "A" - BEING A "BOX CUT" IN CONCRETE ON TOP OF A CURB INLET, LOCATED +/- 54' FROM THE CENTERLINE INTERSECTION OF COUNTY ROAD 161 AND MUSTANG ROAD. BENCHMARK IS ALSO LOCATED +/- 234' SOUTHWEST OF THE NORTH PROPERTY CORNER, LOCATED ON SUBJECT TRACT, PLOTTED HEREON. ELEVATION = 29.64 NAVD83
 TBM "B" - BEING A 5/8-INCH IRON ROD WITH CAP LOCATED +/- 737' FROM THE TERMINUS OF KENTINGTON DRIVE AT THE NORTHWEST CORNER OF THE SUBJECT TRACT. BENCHMARK IS ALSO LOCATED +/- 400' FROM THE SOUTHWEST PROPERTY CORNER OF THE SUBJECT TRACT, PLOTTED HEREON. ELEVATION = 30.95 NAVD83

FLOODPLAIN NOTES:
 ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP No. 48050C045K AND 48050C046K, EFFECTIVE DATE OF 12/29/2020, THE SURVEYED PROPERTY LIES WITHIN ZONE "X" (UNSHARED), AREAS DETERMINED TO BE IN THE 0.2% ANNUAL CHANCE FLOODPLAIN AND ZONE "AO", SPECIAL FLOOD HAZARD AREAS SUBJECT TO FLOOD DEPTHS OF 1 TO 3 FEET (USUALLY) SHEET FLOW ON SLOPING TERRAIN; AVERAGE DEPTHS DETERMINED FOR AREAS OF ALLUVIAL FAN FLOODING, VELOCITIES ALSO DETERMINED.

THE FLOOD ZONE SEPARATION LINES SHOWN HEREON ARE APPROXIMATE AND BASED UPON GRAPHIC REPRESENTATION OF SUCH LINES AS PER SAID FEMA FLOOD INSURANCE RATE MAP.



PROPOSED 8" WATER MAIN TO SERVE REPLACEMENT ELEMENTARY ON MUSTANG ROAD

NO.	REVISION	DATE
	PROPOSAL SET	04/06/26
	ADDENDUM 6	04/24/26

BASELINE "C" PLAN & PROFILE STA 0+00 TO 3+40

DRAWING SCALE: 1"=20' H, 1"=2' V
 SHEET NUMBER: 09 OF 19

CONSULTANTS
STRUCTURAL
 C/J Engineers
 3200 Wilcrest Drive, Suite 305
 Houston, TX 77042
 Tel: 713.780.3345
 Fax: 713.780.3712

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 Spring, TX 77380-1960
 Tel: 281.350.2323
 Fax: 281.350.5959

LANDSCAPE
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 Tel: 281.419.9899

CIVIL
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 1796 Avenue D, Suite B
 Katy, Texas 77493
 Tel: 832.437.7377
 TBPE No. F-15114

REPLACEMENT ELEMENTARY SCHOOL ON MUSTANG ROAD
 ALVIN INDEPENDENT SCHOOL DISTRICT
 5000 Mustang Rd., Alvin, TX 77511

ARCADIS
 TEXAS ARCADIS INC.
 10205 WESTHEIMER SUITE 800
 HOUSTON, TX 77042
 tel 281.286.6605

PROJECT NO.	202502
DATE:	2026-04-06
DRAWN	TH
CHECKED	WJS
DATE	ISSUE
2026-04-06	PROPOSAL SET
2026-04-24	ADDENDUM #06
	A

C609
 BASE LINE "C" PLAN & PROFILE STA 0+00 TO 3+40

CONSULTANTS
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 ALVIN INDEPENDENT SCHOOL DISTRICT**
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 10205 WESTHEIMER SUITE 800
 HOUSTON, TX 77042
 tel 281.286.6605

PROJECT NO. 202502
 DATE: 2026-04-06
 DRAWN TH
 CHECKED WJS

DATE ISSUE
 2026-04-06 PROPOSAL SET
 2026-04-24 ADDENDUM #06 A

C618a
 CITY OF ALVIN
 STANDARD
 SANITARY SEWER
 NOTES

PROJECT BENCHMARK:
 NGS MONUMENT PID No. AW5547 (HGCSD 56)
 BEING AN ALUMINUM ROD WITH PENCIL HOLE IN CASING. TO REACH THE BENCHMARK, START FROM THE INTERSECTION OF HIGHWAY 6 AND STATE HIGHWAY 35, HEAD SOUTHEAST ALONG HIGHWAY 6 FOR 1.93 MILES (1.1 KM), TURN LEFT TO A GRAVEL DRIVEWAY ON THE NORTH SIDE OF HIGHWAY 6, STATION IS ON THE NORTH SIDE OF A FENCE IN PROPERTY.
 ELEVATION = 34.40 NAVD83, GEOD18

TEMPORARY BENCHMARKS:
 TIM "A" - BEING A "BOX CUT" IN CONCRETE ON TOP OF A CURB INLET, LOCATED +/- 54" FROM THE CENTERLINE INTERSECTION OF COUNTY ROAD 161 AND MUSTANG ROAD. BENCHMARK IS ALSO LOCATED +/- 40" FROM THE SOUTHEAST PROPERTY CORNER OF THE SUBJECT TRACT, PLOTTED HEREON.
 ELEVATION = 29.64 NAVD83

TIM "B" - BEING A 5/8" INCH IRON ROD WITH CAP LOCATED +/- 73" FROM THE TERMINUS OF KENTINGTON DRIVE AT THE NORTHWEST CORNER OF THE SUBJECT TRACT. BENCHMARK IS ALSO LOCATED +/- 40" FROM THE SOUTHEAST PROPERTY CORNER OF THE SUBJECT TRACT, PLOTTED HEREON.
 ELEVATION = 30.95 NAVD83

FLOODPLAIN NOTES:
 ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP No. 48050C0365K AND 48050C0365K, EFFECTIVE DATE OF 12/30/2020, THE SURVEYED PROPERTY LIES WITHIN ZONE "X" (UNSHADED) AREAS DETERMINED TO BE OUTSIDE THE 1% ANNUAL CHANCE FLOODPLAIN AND ZONE "AO" SPECIAL FLOOD HAZARD AREAS SUBJECT TO FLOOD DEPTHS OF 1 TO 3 FEET USUALLY SHEET FLOW ON SLOPING TERRAIN; AVERAGE DEPTHS DETERMINED. FOR AREAS OF ALLUVIAL FAN FLOODING, VELOCITIES ALSO DETERMINED.

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 T.B.P.E. FIRM # 15114



PROPOSED 8" WATER MAIN TO SERVE REPLACEMENT ELEMENTARY ON MUSTANG ROAD

PROJECT NUMBER		IBI-013-00	
NO.	REVISION	DATE	
	PROPOSAL SET	04/06/26	
	ADDENDUM 6	04/24/26	

**CITY OF ALVIN
 STANDARD SANITARY
 SEWER NOTES**

DRAWING SCALE: N/A
 SHEET NUMBER: 18A OF 19

LOW PRESSURE AIR TESTING TIME TABLE

PIPE DIA (IN)	MIN. TIME (MIN:SEC)	LENGTH FOR MIN. TIME (FT.)	TIME FOR LONGER LENGTH (SEC)	TIME ALLOWED FOR PRESSURE LOSS FROM 3.5 PSIG TO 2.5 PSIG											
				SPECIFICATION TIME FOR LENGTH (L) SHOWN (MIN:SEC)											
				100 FT.	150 FT.	200 FT.	250 FT.	300 FT.	350 FT.	400 FT.	450 FT.	500 FT.	550 FT.	600 FT.	
6	5:40	398	0.8548	5:40	5:40	5:40	5:40	5:40	5:40	5:42	6:25	7:07	7:50	8:33	
8	7:33	298	1.5196	7:33	7:33	7:33	7:33	7:36	8:52	10:08	11:24	12:40	13:36	15:12	
10	9:27	239	2.3743	9:27	9:27	9:27	9:54	11:52	13:51	15:50	17:48	19:47	21:46	23:45	
12	11:20	199	3.4190	11:20	11:20	11:20	14:15	17:06	19:57	22:48	25:39	28:30	31:20	34:11	
15	14:10	159	5.3423	14:10	14:10	17:48	22:16	26:43	31:10	35:37	40:04	44:31	48:58	53:25	
18	17:00	133	7.6928	17:00	19:14	25:39	32:03	38:28	44:52	51:17	57:42	64:06	70:31	76:56	
21	19:50	114	10.4708	19:50	26:11	34:54	43:38	52:21	61:05	69:48	78:32	87:15	95:59	104:42	
24	22:40	99	13.6762	22:48	34:11	45:35	56:59	68:23	79:47	91:10	102:34	113:58	125:22	136:46	
27	25:30	88	17.3089	28:51	43:16	57:42	72:07	86:33	100:58	115:24	129:49	144:14	158:40	173:05	
30	28:20	80	21.3690	35:37	53:37	71:14	89:02	106:51	124:39	142:28	160:16	178:05	195:53	213:41	
33	31:10	72	25.8565	43:06	64:38	86:11	107:44	129:17	150:50	172:23	193:55	215:28	237:01	258:34	

VACUUM TESTING TIME TABLE

DEPTH IN FEET	TIME IN SECONDS BY PIPE DIAMETER		
	48"	60"	72"
4	10	13	16
8	20	26	32
12	30	39	48
16	40	52	64
20	50	65	80
24	60	78	96
*	5	6.5	8.0

* ADD T TIMES FOR EACH ADDITIONAL 2 FEET OF DEPTH
 (THE VALUES ABOVE HAVE BEEN EXTRAPOLATED FROM ASTM C 92-85)

SANITARY SEWER GENERAL NOTES

- ALL FORCE SEWER MAINS SHALL BE C905.
- ALL GRAVITY SEWER MAINS SHALL BE SDR26 (ALL DEPTHS).
- ALL MANHOLE RINGS SHALL BE SEALED WITH ADEKA SEAL P201.
- ALL FORCE SEWER MAINS SHALL BE BEDDED AND BACKFILLED WITH BANK SAND.
- ALL GRAVITY SEWER MAINS SHALL BE BEDDED AND BACKFILLED WITH 1-1/2 SACK PER TON STABILIZED SAND.
- ALL GRAVITY SEWER MAINS SHALL BE VISUALLY RECORDED AND A DIGITAL FORMAT COPY GIVEN TO THE CITY OF ALVIN. THE HIGH PRESSURE WATER (JET-ROD) CANNOT BE OPERATING DURING RECORDING.
- ALL SANITARY SEWER SERVICE LINES SHALL HAVE A SEWER CLEAN-OUT AT THE RIGHT-OF-WAY LINE, ON THE CORRECT SIDE OF THE PROPERTY LINE.
- ALL SANITARY SEWER MANHOLE COVERS MUST READ "SANITARY" AND "CITY OF ALVIN"
- ALL NEW SANITARY SEWER LINES SHALL NOT BE INSTALLED CLOSER THAN 9 FEET TO AN EXISTING WATER LINE.

LOW PRESSURE AIR TESTING

LOW PRESSURE AIR TESTING SHALL BE PERFORMED ON ALL GRAVITY SEWER MAINS.

MINIMUM REQUIREMENT FOR EQUIPMENT IS AS FOLLOWS:

- CONTROL PANEL
- LOW PRESSURE AIR SUPPLY CONNECTED TO CONTROL PANEL
- PNEUMATIC PLUGS OF ACCEPTABLE SIZE FOR DIAMETER OF PIPE TO BE TESTED; CAPABLE OF WITHSTANDING INTERNAL TEST PRESSURE WITHOUT LEAKING OR REQUIRING EXTERNAL BRACING
- AIR HOSES FROM CONTROL PANEL TO:
 - AIR SUPPLY
 - PNEUMATIC PLUGS
 - SEALED LINE FOR PRESSURING
 - SEALED LINE FOR MONITORING INTERNAL PRESSURE

TESTING PNEUMATIC PLUGS:

PLACE PLUG IN EACH END OF LENGTH OF PIPE ON THE GROUND. PRESSURIZE PLUGS TO 25 PSIG; THEN PRESSURIZE PIPE TO 5 PSIG. PLUGS ARE ACCEPTABLE IF THEY REMAIN IN PLACE AGAINST THE TEST PRESSURE WITHOUT THE USE OF EXTERNAL AIDS OR BRACING.

VISUAL INSPECTION

A VISUAL INSPECTION SHALL BE PERFORMED ON ALL GRAVITY SEWER MAINS.

- CHECK PIPE ALIGNMENT VISUALLY BY FLASHING A LIGHT BETWEEN STRUCTURES. VERIFY THAT ALIGNMENT IS TRUE AND NO PIPES ARE MISPLACED. IN CASE OF MISALIGNMENT OR DAMAGED PIPE, REMOVE AND RE-LAY OR REPLACE PIPE SEGMENT.

MANDREL/DEFLECTION TESTING

MANDREL/DEFLECTION TESTING SHALL BE PERFORMED ON ALL GRAVITY SEWER MAINS.

- PERFORM DEFLECTION TESTING ON FLEXIBLE AND SEMI-RIGID PIPE TO CONFIRM PIPE HAS NO MORE THAN 5 PERCENT DEFLECTION.
- MANDREL TESTING SHALL CONFORM TO ASTM D 3034.
- PERFORM MANDREL TESTING NO SOONER THAN 30 DAYS AFTER BACKFILLING OF LINE SEGMENT BUT PRIOR TO FINAL ACCEPTANCE TESTING OF THE LINE SEGMENT.
- PULL THE APPROVED MANDREL BY HAND THROUGH THE SEWER SECTIONS. REPLACE ANY SECTION OF SEWER NOT PASSING THE MANDREL. MANDREL TESTING IS NOT REQUIRED FOR STUBS.
- RE-TEST REPAIRED OR REPLACED SEWER SECTIONS.

LEAKAGE TESTING FOR MANHOLES

VACUUM TESTING SHALL BE PERFORMED ON ALL SANITARY SEWER MANHOLES

- INSTALL VACUUM TESTER HEAD ASSEMBLY AT TOP ACCESS POINT OF MANHOLE AND ADJUST FOR PROPER SEAL ON STRAIGHT TOP SECTION OF MANHOLE STRUCTURE. FOLLOWING THE MANUFACTURER'S SAFETY INSTRUCTIONS AND SAFETY PRECAUTIONS, INFLATE SEALING ELEMENT TO THE RECOMMENDED MAXIMUM INFLATION PRESSURE; DO NOT OVER-INFLATE.
- EVACUATE MANHOLE WITH VACUUM PUMP TO 10 INCHES MERCURY (Hg), DISCONNECT PUMP AND MONITOR VACUUM FOR THE TIME PERIOD SPECIFIED IN THE VACUUM TEST TIME TABLE.
- IF THE DROP IN VACUUM EXCEEDS 1 INCH Hg OVER THE SPECIFIED TIME PERIOD, LOCATE LEAKS, COMPLETE NECESSARY REPAIRS AND REPEAT TESTING PROCEDURE UNTIL SATISFACTORY RESULTS ARE OBTAINED.

BM:

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NO.	REVISION	BY	CHK	APP	DATE

CITY OF ALVIN
 STANDARD CONSTRUCTION DETAILS

SANITARY SEWER NOTES

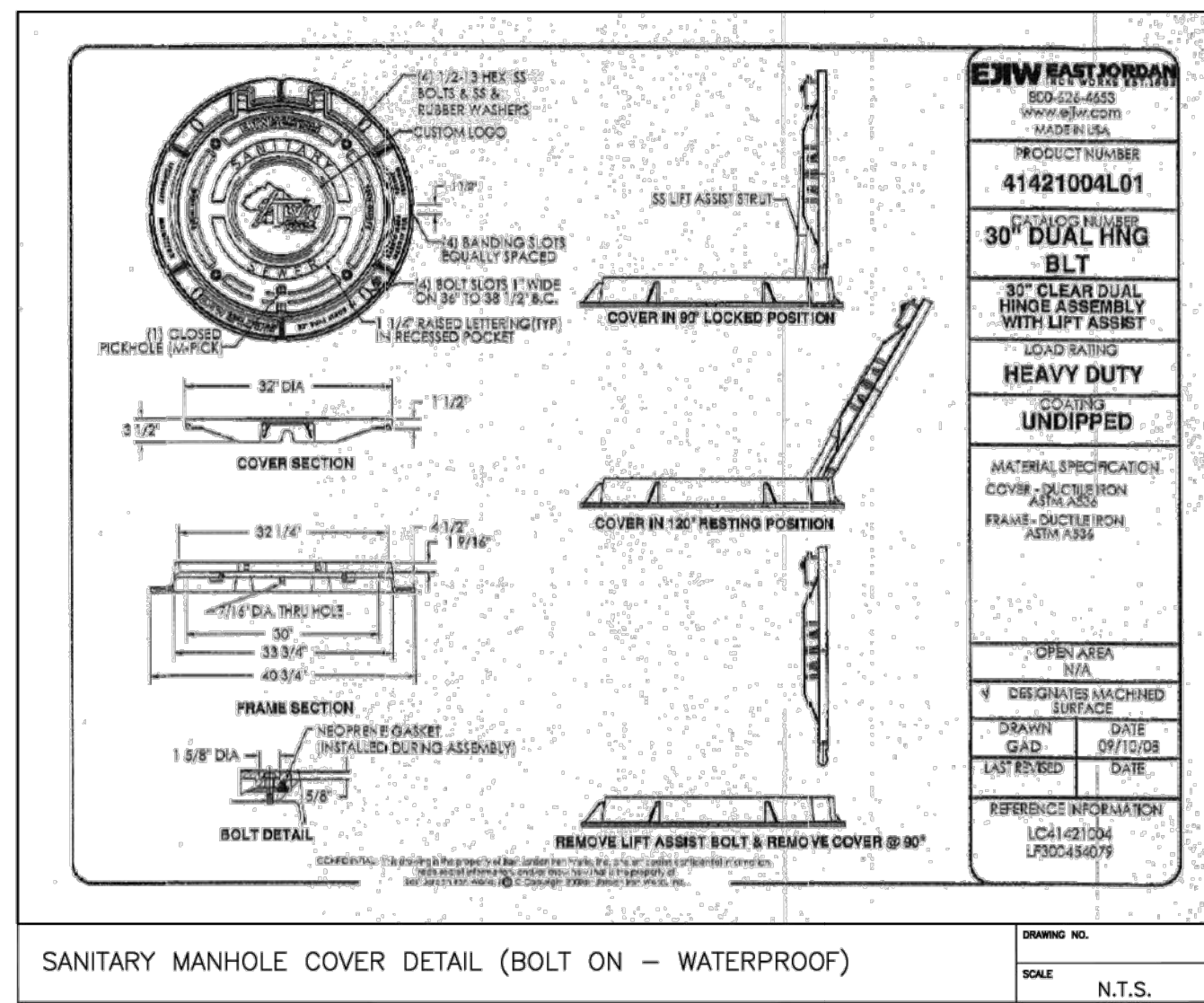
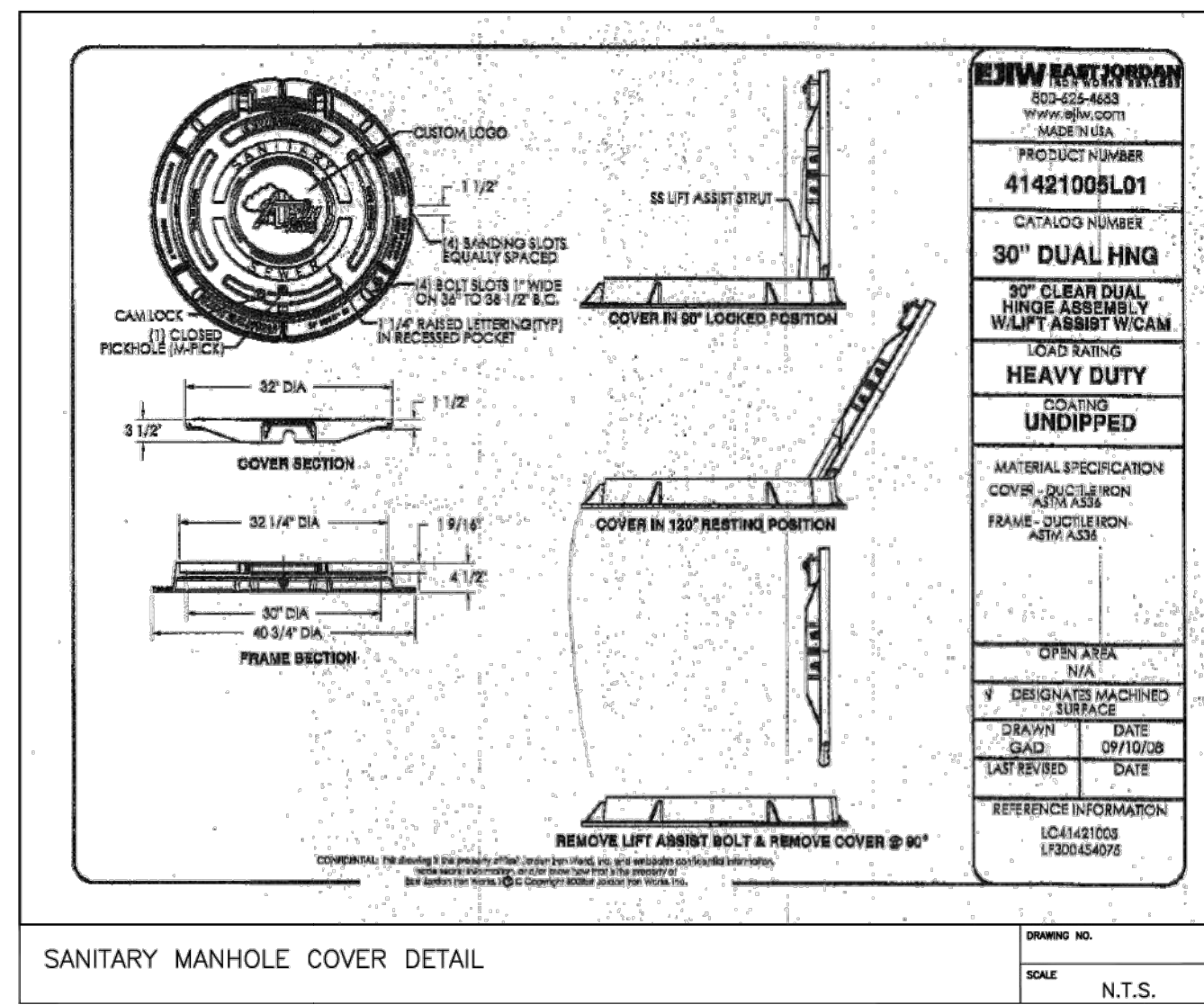
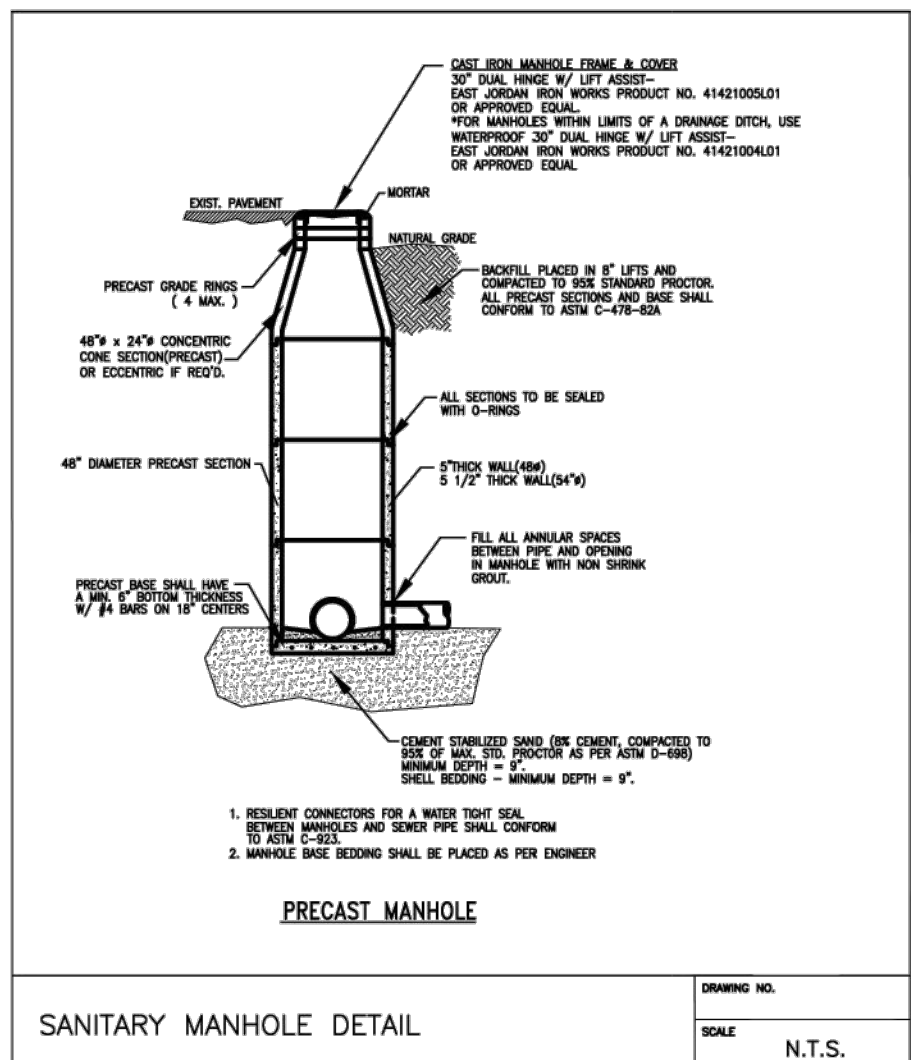
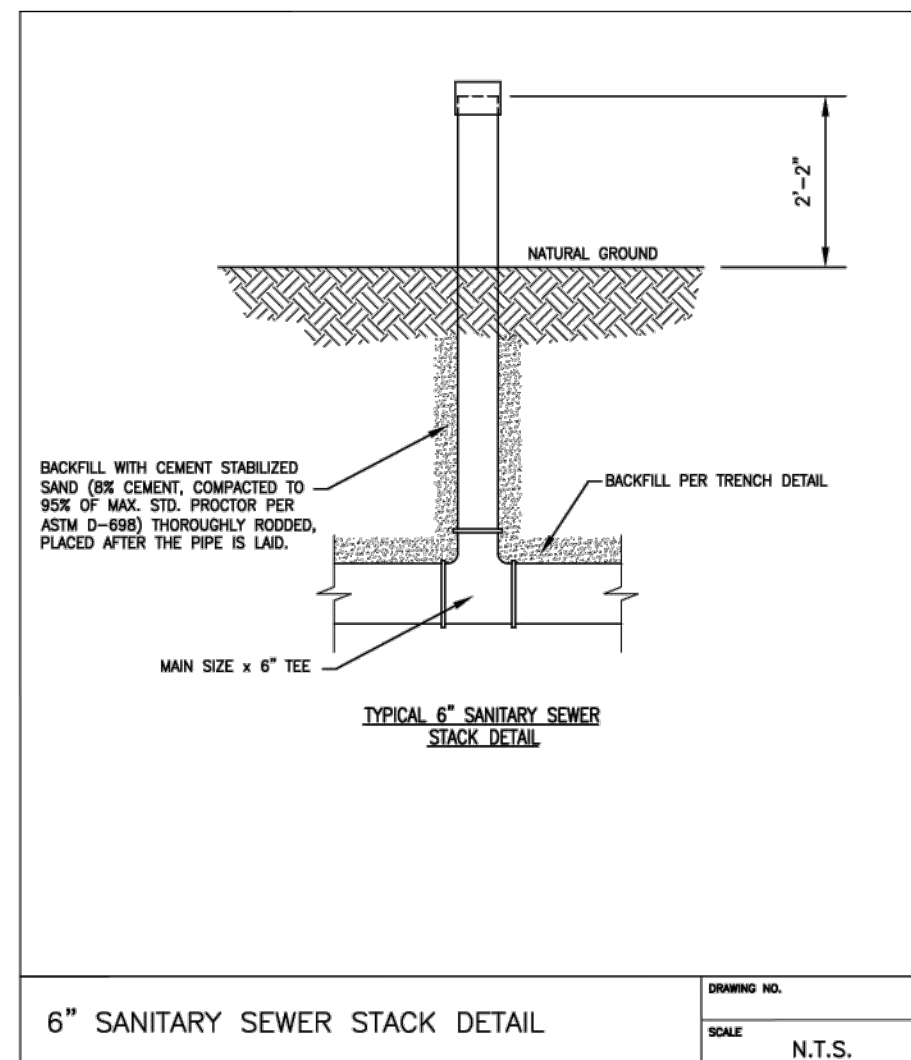
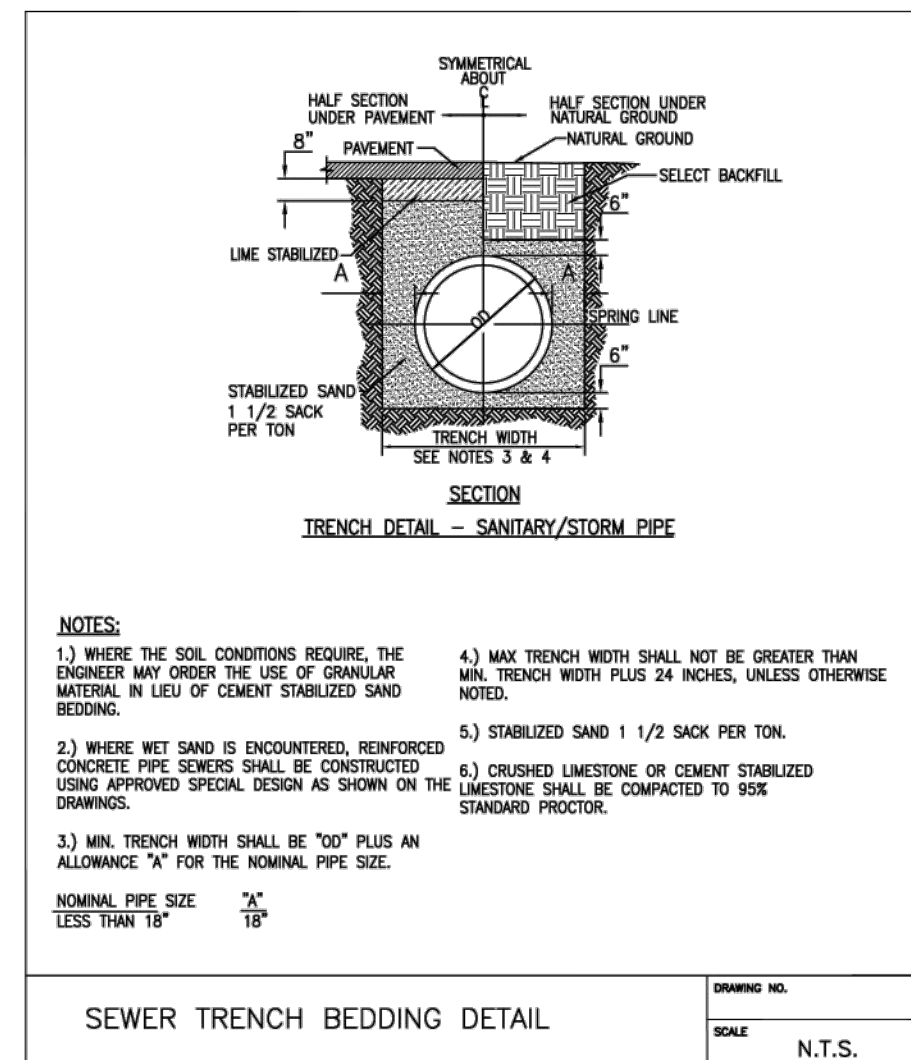
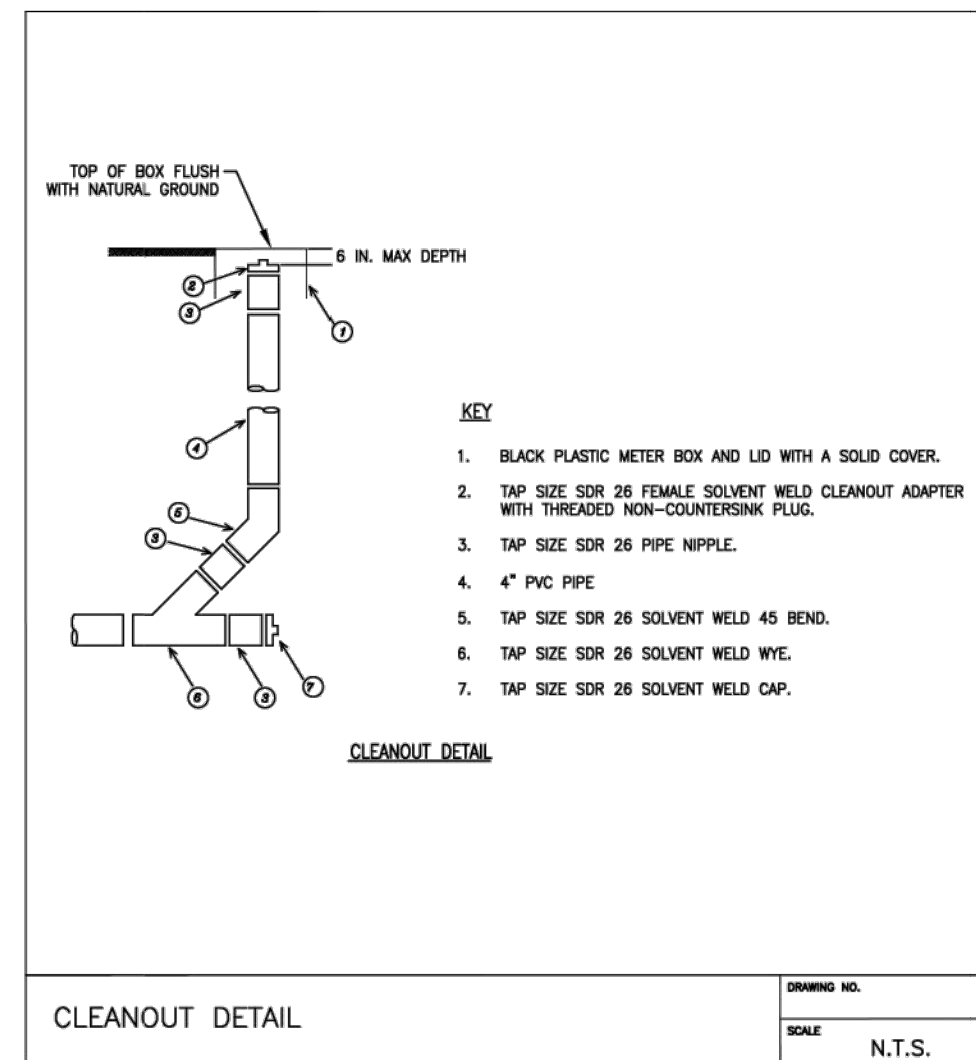
BID NO. SCALE: NTS
 DRWN BY: ARH DATE: 2-2019 SHEET 4 OF 8



SEAL

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Plot Creation: Apr 22, 2026 at 8:46:49 am User: tharris Location: X:\Project Files\IBI Architects\IBI-013-000 Walt Disney ES\CAD\Civil\C618a IBI-013 COA DT1a.dwg



BM:					
NO.	REVISION	BY	CHK	APP	DATE

CITY OF ALVIN
STANDARD CONSTRUCTION DETAILS

SANITARY SEWER DETAILS

BID NO. SCALE: NTS
DRWN BY: ARH DATE: 2-2019 SHEET 5 OF 8

PROJECT BENCHMARK:
 NGS MONUMENT PID No. AW5547 (HCCSD 56) BEING AN ALUMINUM ROD WITH PUNCH HOLE IN CASING, TO REACH THE BENCHMARK, START FROM THE INTERSECTION OF HIGHWAY 6 AND STATE HIGHWAY 35, HEAD SOUTHEAST ALONG HIGHWAY 6 FOR 1.93 MILES (1.1 KM), TURN LEFT TO A GRAVEL DRIVEWAY ON THE NORTH SIDE OF HIGHWAY 6, STATION IS ON THE NORTH SIDE OF A FENCE IN PROPERTY. ELEVATION = 34.40 NAVD83, GEOD18

TEMPORARY BENCHMARKS:
 TRM "A" - BEING A "BOX CUT" IN CONCRETE ON TOP OF A CURB INLET, LOCATED +/- 54" FROM THE CENTERLINE INTERSECTION OF COUNTY ROAD 161 AND MUSTANG ROAD. BENCHMARK IS ALSO LOCATED +/- 324' SOUTHEAST OF THE NORTH PROPERTY CORNER LOCATED ON SUBJECT TRACT. PLOTTED HEREON. ELEVATION = 29.04 NAVD83

TRM "B" - BEING A 5/8 INCH IRON ROD WITH CAP LOCATED +/- 233' FROM THE TERMINUS OF KENTINGTON DRIVE AT THE NORTHWEST LINE OF THE SUBJECT TRACT. BENCHMARK IS ALSO LOCATED +/- 400' FROM THE SOUTHEAST PROPERTY CORNER OF THE SUBJECT TRACT. PLOTTED HEREON. ELEVATION = 30.95 NAVD83

FLOODPLAIN NOTES:
 ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP No. 48050106K AND 48050106K, EFFECTIVE DATE OF 12/30/2020, THE SURVEYED PROPERTY LIES WITHIN ZONE "X" (UNSHADDED) AREAS DETERMINED TO BE OUTSIDE THE 1% ANNUAL CHANCE FLOODPLAIN AND ZONE "AO" SPECIAL FLOOD HAZARD AREAS SUBJECT TO FLOOD DEPTHS OF 1 TO 3 FEET USUALLY SHEET FLOW ON SLOPING TERRAIN; AVERAGE DEPTHS DETERMINED. FOR AREAS OF ALLUVIAL FAN FLOODING, VELOCITIES ALSO DETERMINED.

THE FLOOD ZONE SEPARATION LINES SHOWN HEREON ARE APPROXIMATE AND BASED UPON GRAPHIC REPRESENTATION OF SUCH LINES AS PER SAID FEMA FLOOD INSURANCE RATE MAP.

ISC
 INNOVATIVE STRUCTURAL CONSULTANTS, LLC
 T.B.P.E REG. #F-22024

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THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY DAVID SEPULVEDA, P.E. 84008 ON APRIL 24, 2026

PROPOSED 8" WATER MAIN TO SERVE REPLACEMENT ELEMENTARY ON MUSTANG ROAD

PROJECT NUMBER IBI-013-00		
NO.	REVISION	DATE

CITY OF ALVIN
 SANITARY SEWER DETAILS

DRAWING SCALE	SHEET NUMBER
N/A	18B OF 19

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 TBPE No. F-15114

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ARCADIS
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 HOUSTON, TX 77042
 tel 281.286.6605

PROJECT NO.	DATE:	DRAWN:	CHECKED:
202502	2026-04-06	TH	WJS

DATE	ISSUE
2026-04-06	PROPOSAL SET
2026-04-24	ADDENDUM #06

C618b
 CITY OF ALVIN
 STANDARD
 SANITARY SEWER
 DETAILS