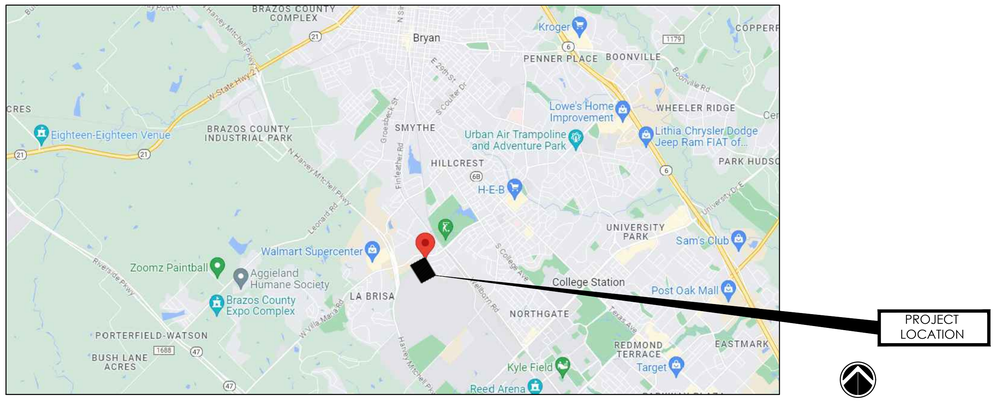
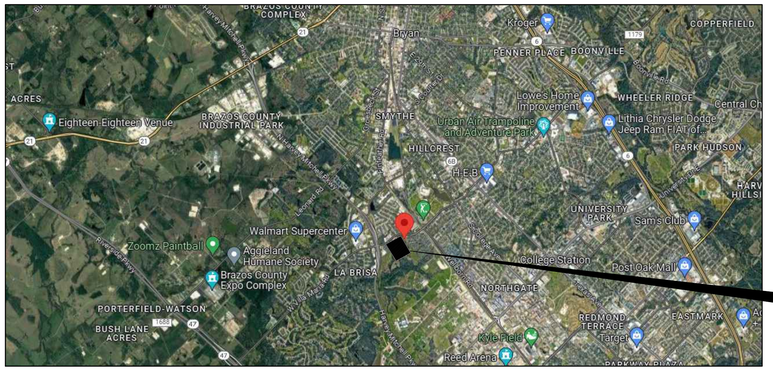
PROPOSED "CONVENIENCE STORE & GAS STATION"

LOCATED AT

1001 W VILLA MARIA RD, BRYAN, TX 77801



VICINITY MAP
N.T.S



PROJECT LOCATION
N.T.S

DEVELOPMENT AREA	
TOTAL ACREAGE	= 2.43 ACRES
PROPOSED DEVELOPMENT	= 2.43 ACRES
TYPE OF DEVELOPMENT	= 1 STORY BUILDING

FLOOD PLAN INFORMATION

F.I.R.M. NO. 48041C PANEL 0215F
EFFECTIVE DATE 04-02-2014 ZONE "X"

FLOOD INFORMATION PROVIDED HEREON IS BASED ON SCALING THE LOCATION OF THE SUBJECT TRACT ON THE FLOOD INSURANCE RATE MAPS. THE INFORMATION SHOULD BE USED TO DETERMINE FLOOD INSURANCE RATES ONLY AND IS NOT INTENDED TO IDENTIFY SPECIFIC FLOODING CONDITIONS. WE ARE NOT RESPONSIBLE FOR THE F.I.R.M.'S ACCURACY.

PROJECT DESCRIPTION

PROJECT NAME	: PROPOSED C-STORE & GAS STATION
LOCATION	: 1001 W VILLA MARIA RD, BRYAN, TX 77801
PROJECT DESCRIPTION	: A GROUND UP CONSTRUCTION OF A ONE STORY C-STORE BUILDINGS 7,136 SQ.FT

SHEET INDEX

CIVIL

ISSUE FOR:
- FOR INTER REVIEW ONLY
- BID ONLY
- PERMITS SET
- CONSTRUCTION SET ☑

REVISIONS:

NO.	DATE	DESCRIPTION

MAKMO DESIGN
86 ZENITH LANE, SUGAR LAND, TX 77498
PH # 832-231-7047 TBPE FIRM # 21236

PROPOSED C STORE & GAS STATION
LOCATED AT
1001 W VILLA MARIA RD, BRYAN, TX 77801

SEAL :

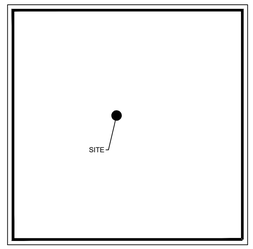
DATE: 6/18/2025

PROJECT NUMBER	23-000
SCALE	N/A
DRAWN BY	R.R
CHECKED BY	A.Z
SHEET TITLE :	

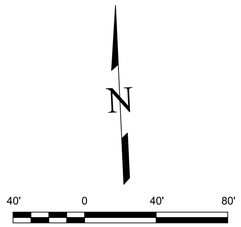
COVER SHEET

DRAWING NUMBER:

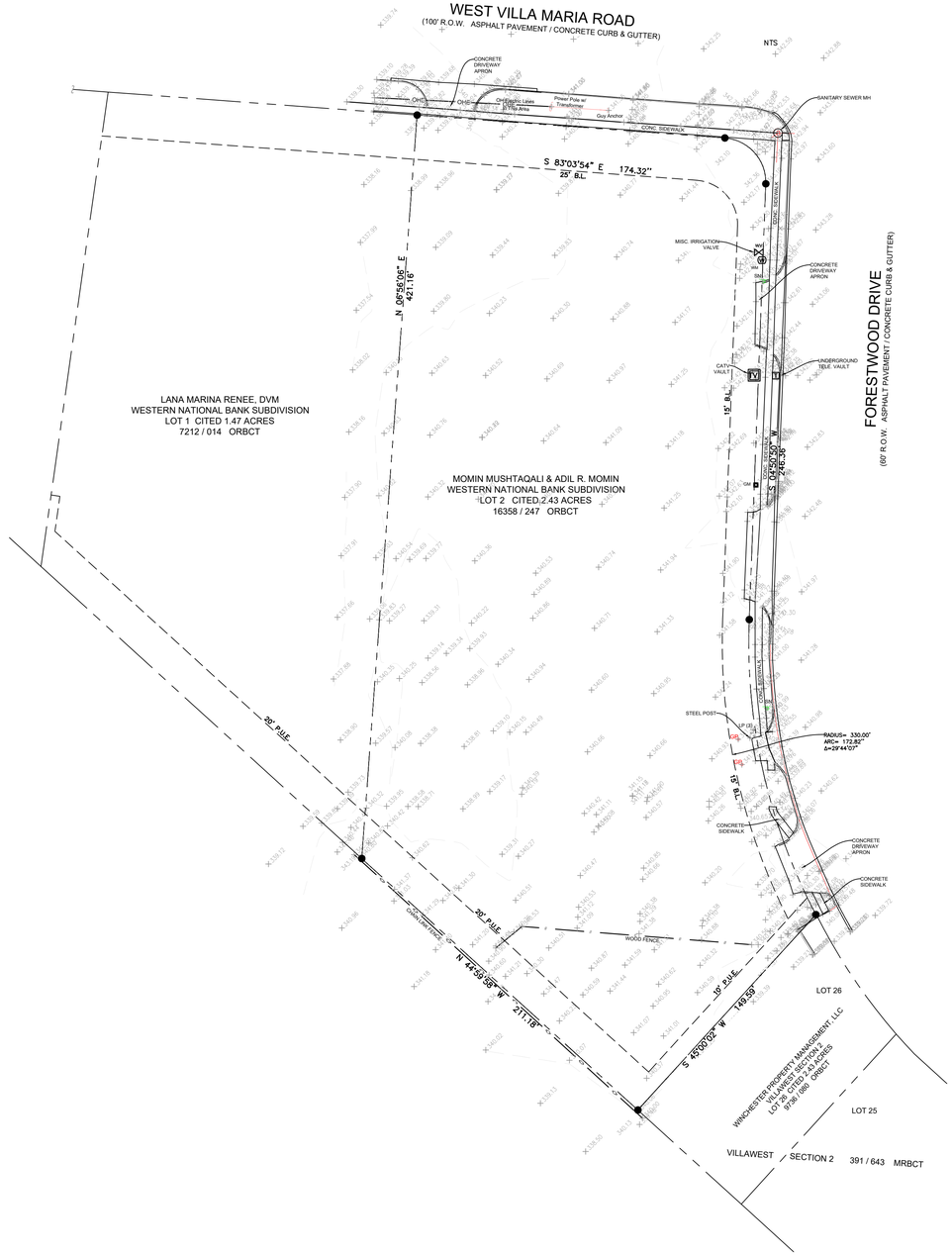
C-0.0



LOCATION MAP
NTS



SCALE: 1" = 40'



LEGEND

- (CO) = CLEANOUT
- (E) = ELECTRIC METER
- GAS = GAS VALVE
- IRRIG = IRRIGATION CONTROL VALVE
- (S) = SANITARY MANHOLE
- = UTILITY POLE
- = SIGN
- TV = CABLE TV SERVICE PEDESTAL
- T = TELEPHONE PEDESTAL
- (W) = WATER METER
- WV = WATER VALVE
- x x = WOOD FENCE
- <> = CHAINLINK FENCE
- SS = SANITARY SEWER LINE
- OHE = OVERHEAD ELECTRIC

L1 S 85°44'31" E 174.32'
PLAT CALL: S 83°03'54" E 174.32'

C1 RADIUS= 25.00'
ARC= 38.37'
Δ= 87°56'15"
PLAT CALL R= 25.00'

GENERAL SURVEY NOTES:

1. MONUMENTATION AS SHOWN.
   - ● 1/2" ROD FOUND
2. BASIS OF BEARINGS UTILIZED IS THE TEXAS STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE 5376, NAD 83. BEARINGS & DISTANCES CITED HEREON ARE SHOWN AS FOUND OR MEASURED WITH THE RECORDED OR PUBLISHED BEARINGS & DISTANCES SHOWN AS REFERENCE.
3. FIELD SURVEY COMPLETED ON NOVEMBER 11, 2022.
4. THE PHYSICAL ADDRESS FOR THE PROPERTY SHOWN HEREON IS 1101 W VILLA MARIA ROAD, BRYAN, TEXAS, 77801.
5. ALL ABOVEGROUND PHYSICAL AND VISIBLE IMPROVEMENTS ARE SHOWN HEREON INCLUDING BUT NOT LIMITED TO FENCING, CONCRETE SIDEWALKS, POWER POLES, UTILITY METER BOXES OR VAULTS, CONCRETE DRIVEWAY APRONS AND BOLLARDS POSTS. THERE EXISTS A STAND OF MIXED HARDWOOD TREES IN THE LOWER SOUTHEAST PORTION OF THE TRACT; A TREE SURVEY WAS NOT A PART OF THIS SURVEY PRODUCT THEREFORE NO TREE SPECIMENS ARE SHOWN HEREON.
6. THIS PLAT SHALL NOT BE CONSTRUED TO REPRESENT A BOUNDARY SURVEY.
7. THE OFFICIAL PLAT FOR WESTERN NATIONAL BANK SUBDIVISION IS RECORDED UNDER CLERK'S FILE NO. 1982-223459, ORBCT OR VOL. 517, PG. 707, MRBCT.
8. ABOVEGROUND VISIBLE UTILITIES SHOWN HEREON ARE THE RESULT OF EVIDENCE COLLECTED AS PART OF AN ON-THE-GROUND SURVEY ONLY. NO UTILITY MAPS WERE PROVIDED BY ANY UTILITY COMPANY OR THE CITY OF BRYAN, NOR WAS A TEXAS 811 CALLED INITIATED. SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN HEREON COMPRISE ALL FEATURES ON THE SUBJECT TRACT, EITHER IN SERVICE OR ABANDONED.
9. ACCORDING TO FEMA FLOOD INSURANCE RATE MAP PANEL NO. 48041C215F DATED APRIL 2, 2014 FOR THE CITY OF BRYAN, BRAZOS COUNTY, TEXAS, THE PROPERTY SHOWN HEREON APPEARS TO LIE WITHIN ZONE X, AN AREA OF MINIMAL FLOOD HAZARD. THIS DETERMINATION IS MADE UTILIZING PUBLISHED DIGITAL IMAGERY AND SCALING FROM AFOREMENTIONED FEMA MAP PRODUCTS; NO ELEVATION CERTIFICATE WAS PREPARED AT THE TIME OF THIS SURVEY.
10. ORBCT DENOTES OFFICIAL RECORDS OF BRAZOS COUNTY, TEXAS; P.O.B. DENOTES POINT OF BEGINNING; DRBCT DENOTES DEED RECORDS OF BRAZOS COUNTY, TEXAS; MRBCT DENOTES MAP RECORDS OF BRAZOS COUNTY, TEXAS.

SURVEYOR'S CERTIFICATION:

To: MUSHTAQALI MOMIN & ADIL R. MOMIN AND/OR THEIR ASSIGNS:

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE ON THE GROUND BY ME OR UNDER MY DIRECT SUPERVISION OF THE PROPERTY SHOWN HEREON, THERE WERE NO ABOVEGROUND VISIBLE ENCROACHMENTS OBSERVED AT THIS TIME EXCEPT AS SHOWN HEREON AND THAT THIS PLAT CORRECTLY REPRESENTS THE FACTS FOUND AT THE TIME OF SURVEY TO THE BEST OF MY KNOWLEDGE AND BELIEF, THAT THIS PLAT SUBSTANTIALLY COMPLIES WITH REQUIREMENTS FOR A TEXAS SOCIETY OF PROFESSIONAL SURVEYORS' (TSPS) CATEGORY 6 TOPOGRAPHIC SURVEY AND THAT THIS PROFESSIONAL SERVICE CONFORMS TO RULES OF PROCEDURES AND PRACTICES AS PROMULGATED BY THE TEXAS BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS.

_____
STEVEN RAY ESTES, RPLS
TEXAS REGISTRATION NO. 5631
FEBRUARY 1, 2023

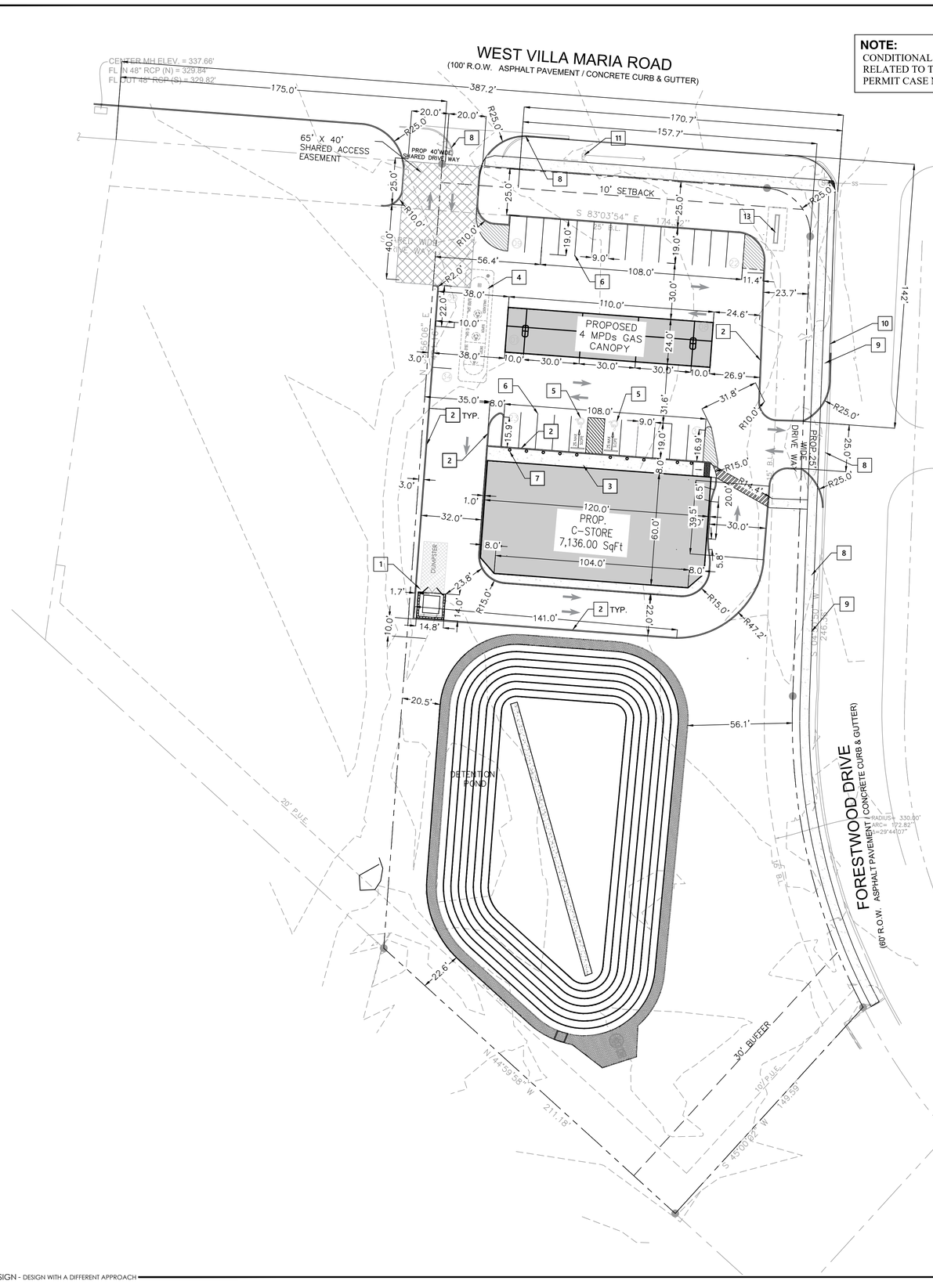
PLAT SHOWING TSPS CATEGORY 6 TOPOGRAPHIC SURVEY OF

LOT 2 OF WESTERN NATIONAL BANK SUBDIVISION
A CITED 2.429 ACRE TRACT OF LAND
SITUATED IN THE
ZENO PHILLIPS LEAGUE OR SURVEY, ABSTRACT NO. 45
BRYAN, BRAZOS COUNTY, TEXAS

KCI TECHNOLOGIES, INC.
1555 GREENS PRAIRIE ROAD WEST
COLLEGE STATION, TEXAS 77845
PHONE: 979.846.6212
KCI.COM
REGISTRATION: ENG F-2214 & SURVEYING 10042800

DATE:	FEBRUARY 1, 2023
JOB NO.	342210287
DESIGNED BY:	
DRAWN BY:	LC
CHECKED BY:	SRE

SHEET 1



NOTE:
CONDITIONAL USE PERMIT CASE NUMBER RELATED TO THIS SITE. (CONDITIONAL USE PERMIT CASE NO. CU24-000106)

1. TRASH ENCLOSURE SEE DETAIL ON SHEET C-6.0.
2. 6" CONCRETE CURB SEE DETAIL ON SHEET C-6.0.
3. CONCRETE SIDEWALK SEE DETAIL ON SHEET C-6.0.
4. PROPOSED FUEL TANK BY OTHERS.
5. FOR ADA PARKING DETAIL AND SIGN REFER DETAIL ON SHEET C-5.0.
6. NEW PAVEMENT MARKING FOR PARKING SPACES
7. INSTALL NEW BOLLARDS. SEE DETAIL ON THIS SHEET.
8. REMOVE EX CURB
9. REMOVE EX DRIVEWAY.
10. NEW 6" CONCRETE CURB PER CITY OF BRYAN.
11. EX POWER POLE TO REMAIN. PROTECT IN PLACE.
13. PYLON SIGN,THE MAXIMUM SIGN HEIGHT 8' WITH 40 SF MAX. FOOTAGE . TO BE APPROVED BY OWNER

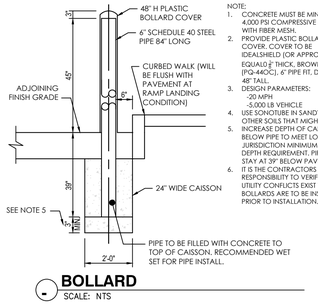
PARKING CALCULATION:-

CONVENIENCE STORE (TYPE M)	
CONVENIENT STORE: 7136.00 Sqft /250	= 29
TOTAL PARKING REQUIRED	= 29
ADA PARKING PROVIDED	= 2
PUMP SPACES PROVIDED	= 8
PARKING PROVIDED	= 26
TOTAL PARKING PROVIDED	= 36

SIGNAGE NOTE:

- SINCE THE PROPERTY IN THE WEST VILLA MARIA CORRIDOR OVERLAY DISTRICT & ZONED C-2, THE MAXIMUM SIGN HEIGHT (NO MATTER THE LOCATION) WOULD BE 8 FEET.
- THE MAXIMUM SQUARE FOOTAGE WOULD BE 40 SQ.FT.
- SIGNAGE MAY NOT BE LOCATED WITHIN AN UTILITY OR RIGHT-OF-WAY EASEMENT.

FLOODPLAIN INFORMATION
ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) MAP NO. 48041C0215F, WITH THE EFFECTIVE DATE OF OCTOBER 16, 2014, THE PROPERTY IS LOCATED IN FLOOD ZONE " X ". AREAS DETERMINED TO BE OUTSIDE OF THE REGULATED FLOODWAY. ALL FLOODPLAIN INFORMATION NOTED IN THE PLAT REFLECTS THE STATUS PER THE FEMA FIRM MAP THAT IS EFFECTIVE AT THE TIME THAT THE PLAT IS RECORDED. FLOODPLAIN AND FLOODWAY STATUS IS SUBJECT TO CHANGE AS FEMA FIRM MAPS ARE UPDATED.



NOTE:
1. CONCRETE MUST BE MINIMUM 4,000 PSI COMPRESSIVE STRENGTH WITH FIBER MESH.
2. PROVIDE PLASTIC BOLLARD COVER. COVER TO BE IDEALSHIELD (OR APPROVED EQUALS 2" THICK, BROWN (PQ-44OC), 6" PIPE FIT, DOME TOP, 48" TALL.
3. DESIGN PARAMETERS:
   -20 MPH
   -5,000 LB VEHICLE
4. USE SONOTUBE IN SANDY OR OTHER SOILS THAT MIGHT CAVE IN.
5. INCREASE DEPTH OF CAISSON BELOW PIPE TO MEET LOCAL JURISDICTION MINIMUM FROST DEPTH REQUIREMENT. PIPE CAN STAY AT 39" BELOW PAVEMENT.
6. IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY NO UTILITY CONFLICTS EXIST WHERE BOLLARDS ARE TO BE INSTALLED, PRIOR TO INSTALLATION.

BOLLARD
SCALE: NTS

DIMENSION LAYOUT NOTES:
1. THE CONTRACTOR SHALL LAYOUT AND VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR DIRECTION AND RESOLUTION OF DISCREPANCIES PRIOR TO PROCEEDING.
2. VERIFY LOCATIONS OF ALL SITE IMPROVEMENTS INSTALLED UNDER OTHER SECTIONS. IF ANY PART OF THIS PLAN CANNOT BE FOLLOWED DUE TO SITE CONDITIONS, CONTACT THE ENGINEER FOR INSTRUCTION PRIOR TO COMMENCING WORK.
3. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE.
4. WHERE DIMENSIONS ARE CALLED AS "EQUAL", ALL REFERENCED ITEMS SHALL BE SPACED EQUALLY, MEASURED TO THEIR CENTER LINES.
5. ALL DIMENSIONS ARE PERPENDICULAR TO FACE OF BUILDING, WALL OR OTHER FIXED SITE IMPROVEMENT AND DIMENSIONS AT CURB ARE FROM BACK OF CURB UNLESS OTHERWISE NOTED.
6. INSTALL ALL INTERSECTING ELEMENTS AT 90 DEGREES TO EACH OTHER UNLESS OTHERWISE NOTED.

EXPANSION JOINTS:
PROVIDE EXPANSION JOINTS IN ALL CASES WHERE CONCRETE FLATWORK MEETS OTHER STRUCTURES SUCH AS WALLS, CURBS, STEPS & BUILDINGS OR WHERE CONCRETE ABUTS EXISTING CONCRETE PAVING, UTILITY VAULTS, JUNCTION BOXES, ETC. EXPANSION JOINTS REQUIRED AT THESE STRUCTURES MAY NOT BE SHOWN ON THESE DRAWINGS BUT ARE A CONSTRUCTION REQUIREMENT. SEE DETAILS FOR LOCATIONS THAT REQUIRE INSTALLATION OF DOWELS.

GENERAL NOTES
1. LOCATIONS OF THE EXISTING UTILITIES ARE BASED ON RECORDS FROM SAID UTILITY COMPANIES AND ARE HORIZONTALLY FIELD LOCATED ONLY. THE CONTRACTORS SHALL BE RESPONSIBLE FOR DETERMINING ACTUAL LOCATION.
2. CONTRACTOR TO UNCOVER AND MARK UTILITY LINES BEFORE CONSTRUCTION.
3. CONTRACTOR SHALL BEAR ALL RESPONSIBILITY AND COST OF REPAIR OR REPLACEMENT OF EXISTING UTILITIES, DAMAGED OR INTERRUPTED AS A RESULT OF THIS CONSTRUCTION PROJECT.
4. CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND THE OWNER OF ANY DAMAGED OR INTERRUPTED UTILITIES IMMEDIATELY.
5. ALL WATER LINES AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL WATER STANDARD PIPELINE MATERIALS AND CONSTRUCTION SPECIFICATIONS, LATEST EDITION.
6. EXISTING UTILITIES TO REMAIN ARE TO BE ADJUSTED TO MATCH PROPOSED GRADE.
7. CONTRACTOR SHALL NOTIFY PROJECT ENGINEER PRIOR TO BEGINNING WORK.
8. ALL AREAS WITHIN THE PAVED AREAS ARE TO RECEIVE A GRAVEL BASE TO PROVIDE EROSION CONTROL IF WORK IS NOT PROGRESSING IN AN ORDERLY MANNER. A RATE OF 135 TONS/ACRE IS TO BE APPLIED WITHIN TWO WEEKS OF FINAL GRADING.
9. ALL AREAS NOT WITHIN THE PAVED AREA ARE TO RECEIVE LOOSE STRAW TO PROVIDE EROSION CONTROL IF WORK IS NOT PROGRESSING IN AN ORDERLY MANNER. A RATE OF 1.5 TONS/ACRE IS TO BE APPLIED WITHIN TWO WEEKS OF FINAL GRADING.
10. AFTER NEW INLETS ARE CONSTRUCTED, INSTALL INLET PROTECTION PER DETAIL.
11. CONTRACTOR WILL CONTROL AND PREVENT OFF-SITE TRACKING OF CONSTRUCTION RUNOFF AND SEDIMENT TO ADJACENT PROPERTY AND PUBLIC ROADS.
12. CONTRACTOR IS TO PROTECT EXISTING STORM DRAINAGE SYSTEM
13. CONTRACTOR TO CONFORM TO ALL CONSTRUCTION STORM WATER AND EROSION CONTROL PERMITTING REQUIREMENTS BY "EPA PHASE II STORM WATER REGULATIONS" AS ADMINISTERED BY THE TEXAS COMMISSION OF ENVIRONMENTAL QUALITY. WHERE PERMITTING IS REQUIRED, A COPY OF THE NOTICE OF INTENT SHALL BE PROVIDED TO THE LOCAL MUNICIPAL AUTHORITY.
14. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN ACCORDANCE WITH THE TEXAS UNDERGROUND FACILITIES DAMAGE PREVENTION ACT. THIS LAW REQUIRES THAT THE CONTRACTOR MAKE A TELEPHONE CALL TO THE CITY OF BRYAN PUBLIC WORKS (979-209-5900) AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION TO ENSURE THAT ANY EXISTING UTILITIES CAN BE LOCATED.
15. CONTRACTOR TO CONSTRUCT ALL ACCESS RAMPS AND PAVING TO ADA STANDARDS. VERIFY.
16. TREES TO REMAIN ARE TO BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.
17. EXCESS EXPORTS SHALL BE STOCKPILED AT LOCATION APPROVED BY OWNER AND CONFIRMED BY ENGINEER OF RECORD.

SEE ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS

ALL DIMENSIONS ARE TO BACK OF CURB UNLESS NOTED OTHERWISE

NORTH

30 15 0 30 60
SCALE

ISSUE FOR:
FOR INTER REVIEW ONLY
BID ONLY
PERMITS SET
CONSTRUCTION SET ☑

REVISIONS:

NO.	DATE	DESCRIPTION

MAKMO DESIGN
86 ZENITH LANE, SUGAR LAND, TX 77498
PH # 832-231-7047 TBPE FIRM # 21236

PROPOSED C STORE & GAS STATION
LOCATED AT
1001 W VILLA MARIA RD, BRYAN, TX 77801

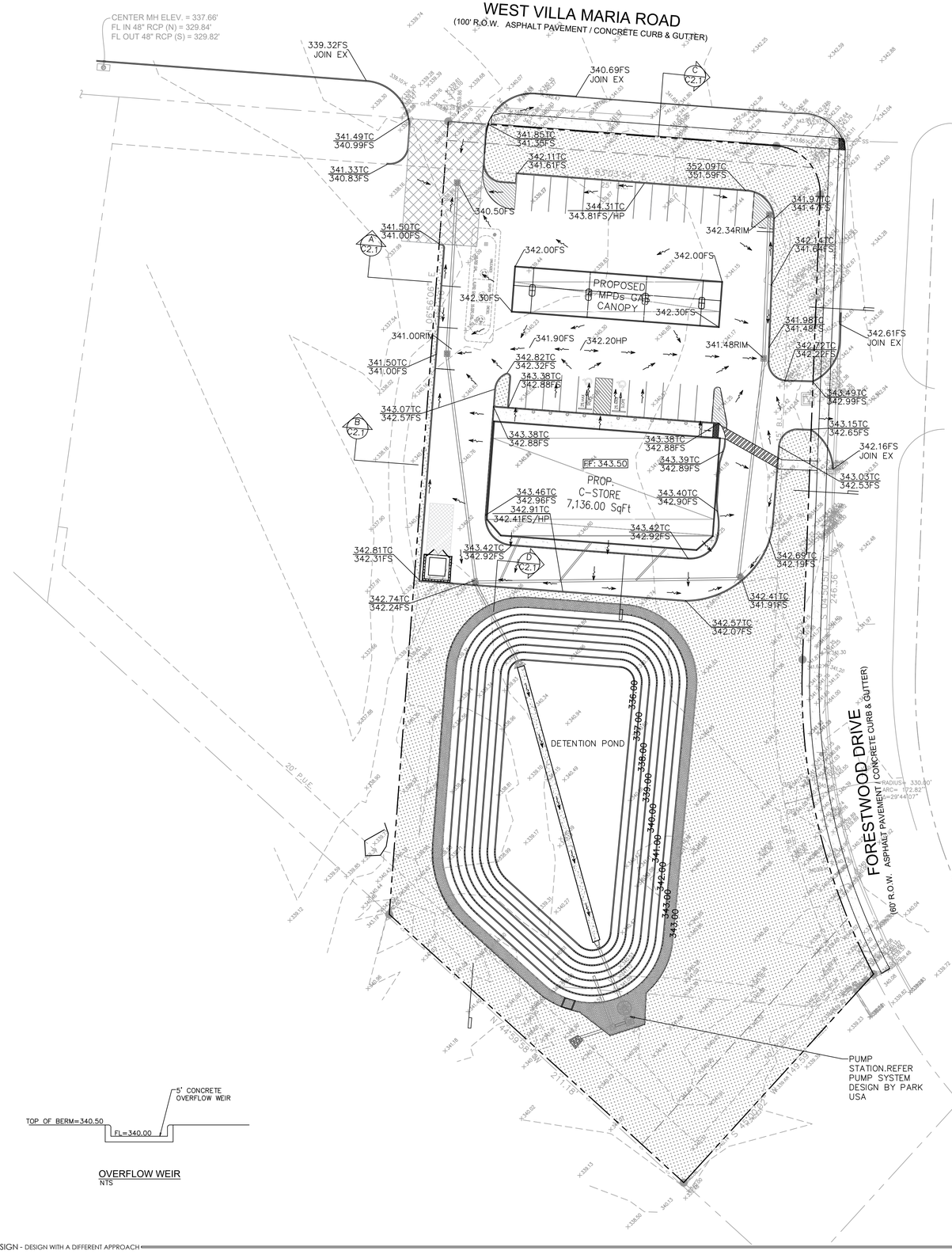
SEAL
:

DATE: 6/18/2025

PROJECT NUMBER	23-000
SCALE	1" = 30'
DRAWN BY	R:R
CHECKED BY	A.Z
SHEET TITLE	:

SITE PLAN

DRAWING NUMBER:
C-1.0



5' CONCRETE OVERFLOW WEIR

TOP OF BERM=340.50

FL=340.00

OVERFLOW WEIR
NTS

LEGEND

PROPERTY LINE

STORM DRAIN

CATCH BASIN

EX ELEVATIONS +350.25

NEW ELEVATIONS 350.00TC / 350.50FS

SLOPE ARROW

FLOODPLAIN INFORMATION
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NOTE:

A PROPERTY OWNER'S ASSOCIATION (POA) SHALL BE ESTABLISHED WITH DIRECT RESPONSIBILITY TO, AND CONTROLLED BY, THE PROPERTY OWNER(S) TO PROVIDE FOR THE OPERATION, REPAIR, AND MAINTENANCE OF THE PRIVATE STORMWATER DETENTION FACILITY AND ANY ASSOCIATED DRAINAGE IMPROVEMENTS ON-SITE. THE CITY OF BRYAN SHALL NOT BE RESPONSIBLE FOR ANY OPERATION, REPAIR, OR MAINTENANCE OF THESE FACILITIES.

GRADING PLAN NOTES

1. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASE OF THE PROJECT. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGES TO ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASE OF THE PROJECT.
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING TRAFFIC CONTROL DEVICES SUCH AS BARRICADES, WARNING SIGNS, DIRECTIONAL SIGNS, FLAGMEN AND LIGHTS TO CONTROL THE MOVEMENT OF TRAFFIC WHERE NECESSARY. PLACEMENT OF THESE DEVICES SHALL BE APPROVED BY THE OWNER PRIOR TO PLACEMENT.
3. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING THE PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
4. CONSTRUCTION REVIEW, INSPECTION, AND OBSERVATION OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED AS A REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, OR NEAR THE CONSTRUCTION SITE.
5. THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN ALL PERMITS FROM AUTHORITIES AND REGULATORY AGENCIES HAVING JURISDICTION OVER THIS SITE, AS REQUIRED, PRIOR TO BEGINNING WORK.
6. BEFORE BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL COMPLY WITH THE EROSION CONTROL PLAN AND/OR PERMIT.
7. THE CONTRACTOR SHALL FIELD VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES AND TOPOGRAPHIC FEATURES PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR VARIATIONS FROM THE PLANS.
8. TRAFFIC: MINIMIZE INTERFERENCE WITH ADJOINING ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES DURING EARTH MOVING OPERATIONS.
   a. DO NOT CLOSE OR OBSTRUCT STREETS, WALKS, OR OTHER ADJACENT OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM OWNER AND AUTHORITIES HAVING JURISDICTION.
   b. PROVIDE ALTERNATE ROUTES AROUND CLOSED OR OBSTRUCTED TRAFFIC WAYS IF REQUIRED BY OWNER OR AUTHORITIES HAVING JURISDICTION.
10. DO NOT CONDUCT WORK ON ADJOINING PROPERTY UNLESS DIRECTED BY ENGINEER
11. DO NOT COMMENCE EARTH-MOVING OPERATIONS UNTIL TEMPORARY EROSION- AND SEDIMENTATION-CONTROL MEASURES ARE IN PLACE.
12. INSTALL DETECTABLE WARNING TAPE ABOVE CONSTRUCTED UTILITIES. DETECTABLE WARNING TAPE IS DEFINED AS: ACID- AND ALKALI-RESISTANT, POLYETHYLENE FILM WARNING TAPE MANUFACTURED FOR MARKING AND IDENTIFYING UNDERGROUND UTILITIES, A MINIMUM OF 6 INCHES WIDE AND 4 MILS THICK, CONTINUOUSLY INSCRIBED WITH A DESCRIPTION OF THE UTILITY, WITH METALLIC CORE ENCASED IN A PROTECTIVE JACKET FOR CORROSION PROTECTION, DETECTABLE BY METAL DETECTOR WHEN TAPE IS BURIED UP TO 30 INCHES DEEP; COLORED AS FOLLOWS:
   a. RED: ELECTRIC.
   b. YELLOW: GAS, OIL, STEAM, AND DANGEROUS MATERIALS.
   c. ORANGE: TELEPHONE AND OTHER COMMUNICATIONS
   d. BLUE: WATER SYSTEMS.
   e. GREEN: SEWER SYSTEMS.
13. PROTECT STRUCTURES, UTILITIES, SIDEWALKS, PAVEMENTS, AND OTHER FACILITIES FROM DAMAGE CAUSED BY SETTLEMENT, LATERAL MOVEMENT, UNDERMINING, WASHOUT, AND OTHER HAZARDS CREATED BY EARTH MOVING OPERATIONS.
14. PROTECT AND MAINTAIN EROSION AND SEDIMENTATION CONTROLS DURING EARTH MOVING OPERATIONS.
15. PROTECT SUBGRADES AND FOUNDATION SOILS FROM FREEZING TEMPERATURES AND FROST. REMOVE TEMPORARY PROTECTION BEFORE PLACING SUBSEQUENT MATERIALS.
16. IF EXCAVATED MATERIALS INTENDED FOR FILL AND BACKFILL INCLUDE UNSATISFACTORY SOIL MATERIALS AND ROCK, REPLACE WITH SATISFACTORY SOIL MATERIALS.
17. EXCAVATE TO INDICATED ELEVATIONS AND DIMENSIONS WITHIN A TOLERANCE OF PLUS OR MINUS 1 INCH. IF APPLICABLE, EXTEND EXCAVATIONS A SUFFICIENT DISTANCE FROM STRUCTURES FOR PLACING AND REMOVING CONCRETE FORMWORK, FOR INSTALLING SERVICES AND OTHER CONSTRUCTION, AND FOR INSPECTIONS.
   a. EXCAVATIONS FOR FOOTINGS AND FOUNDATIONS: DO NOT DISTURB BOTTOM OF EXCAVATION. EXCAVATE BY HAND TO FINAL GRADE JUST BEFORE PLACING CONCRETE REINFORCEMENT. TRIM BOTTOMS TO REQUIRED LINES AND GRADES TO LEAVE SOLID BASE TO RECEIVE OTHER WORK.
   b. EXCAVATION FOR UNDERGROUND TANKS, BASINS, AND MECHANICAL OR ELECTRICAL UTILITY STRUCTURES: EXCAVATE TO ELEVATIONS AND DIMENSIONS INDICATED WITHIN A TOLERANCE OF PLUS OR MINUS 1 INCH. DO NOT DISTURB BOTTOM OF EXCAVATIONS INTENDED AS BEARING SURFACES.
18. EXCAVATIONS AT EDGES OF TREE- AND PLANT-PROTECTION ZONES:
   a. EXCAVATE BY HAND TO INDICATED LINES, CROSS SECTIONS, ELEVATIONS, AND SUBGRADES. USE NARROW-TINE SPADING FORKS TO COMB SOIL AND EXPOSE ROOTS. DO NOT BREAK, TEAR, OR CHOP EXPOSED ROOTS. DO NOT USE MECHANICAL EQUIPMENT THAT RIPS, TEARS, OR PULLS ROOTS.
19. GENERAL: UNIFORMLY GRADE AREAS TO A SMOOTH SURFACE, FREE OF IRREGULAR SURFACE CHANGES. COMPLY WITH COMPACTION REQUIREMENTS AND GRADE TO CROSS SECTIONS, LINES, AND ELEVATIONS INDICATED.
   a. PROVIDE A SMOOTH TRANSITION BETWEEN ADJACENT EXISTING GRADES AND NEW GRADES.
   b. CUT OUT SOFT SPOTS, FILL LOW SPOTS, AND TRIM HIGH SPOTS TO COMPLY WITH REQUIRED SURFACE TOLERANCES.
20. SITE ROUGH GRADING: SLOPE GRADES TO DIRECT WATER AWAY FROM BUILDINGS AND TO PREVENT PONDING.

ROOF DRAIN NOTE:

CONTRACTOR TO CONNECT ALL DOWNSPOUTS TO THE NEAREST UNDERGROUND STORM SEWER

CONTRACTOR TO PROVIDED CONCRETE SPLASH BLOCK FOR EACH ROOF DRAIN NOT CONNECTED DIRECTLY TO STORM SEWER PIPING.

Texas 811

NORTH

30 15 0 30 60
SCALE

ISSUE FOR:
FOR INTER REVIEW ONLY
BID ONLY
PERMITS SET
CONSTRUCTION SET ☑

REVISIONS:

NO.	DATE	DESCRIPTION

MAKMO DESIGN
86 ZENITH LANE, SUGAR LAND, TX 77498
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PROPOSED C STORE & GAS STATION

LOCATED AT

1001 W VILLA MARIA RD, BRYAN, TX 77801

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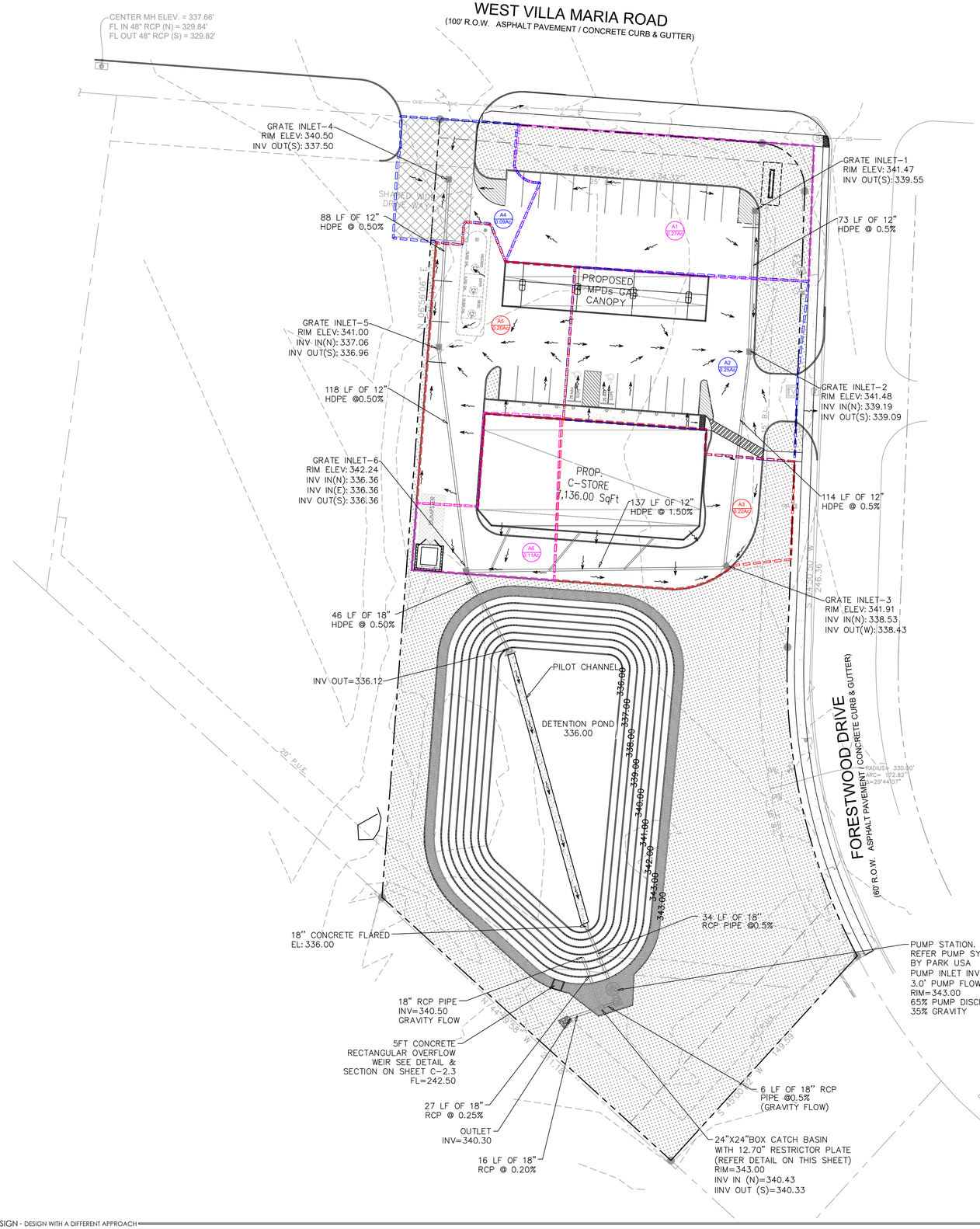
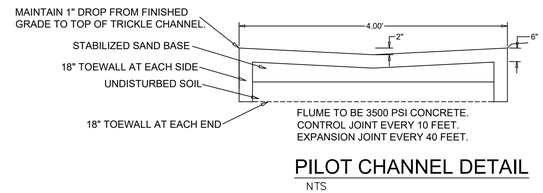
DRAWN BY	R.R
CHECKED BY	A.Z
SHEET TITLE	:

GRADING PLAN

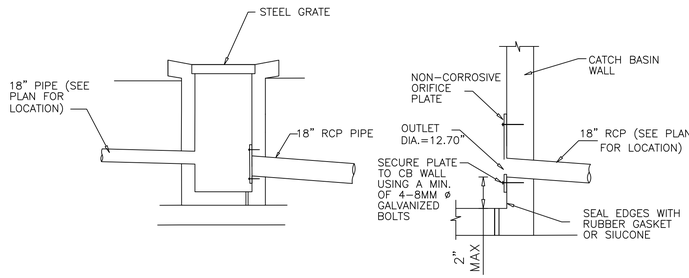
DRAWING NUMBER:

C-2.0





PILOT CHANNEL DETAIL
NTS



ORIFICE CONTROL CATCH
BASIN DETAIL

ISSUE FOR:
- FOR INTER REVIEW ONLY
- BID ONLY
- PERMITS SET
- CONSTRUCTION SET ☑

REVISIONS:

NO.	DATE	DESCRIPTION

MAKMO DESIGN
86 ZENITH LANE, SUGAR LAND, TX 77498
PH # 832-231-7047 TBPE FIRM # 21236

PROPOSED C STORE & GAS STATION
LOCATED AT
1001 W VILLA MARIA RD, BRYAN, TX 77801

SEAL
:

DATE: 6/18/2025

PROJECT NUMBER	23-000
SCALE	1" = 30'
DRAWN BY	R;R
CHECKED BY	A.Z
SHEET TITLE	:

DRAINAGE PLAN

DRAWING NUMBER:
C-2.1

PreDevelopment Condition

Drainage Area:	2.43	Ac			
Weighted C:	0.3				
Time of Concentration:					
Flow Length:	250	ft			
Overland (Max 100 ft)					
Upstream Elev:	342.62				
Downstream Elev:	340.75				1.87
Length	Slope	Mannings n	P2 (NOAA Atlas 14)		Tc (Mins)
100	0.0187	0.15	4.23		8.754179983
Shallow Concentrated					
Upstream Elev:	340.75				
Downstream Elev:	338.38				
Length	Slope	K			Tc (Mins)
150	0.0158	16.13			1.233039808
Channel Flow	Length	Slope	Mannings n	Hydraulic Radius	Tc (Mins)
	0	0.005	0.013	0.3125	0
Tc Total:					**10** Mins
Intensity2:	5.08				
Intensity10:	7.07				
Intensity25:	8.26				
Intensity100:	9.98				
Q(2):	**3.70**	**CFS**			
Q(10):	**5.15**	**CFS**			
Q(25):	**6.02**	**CFS**			
Q(100):	**7.28**	**CFS**			

Post-Development Condition

Drainage Area:	2.43	Ac			
Weighted C:	0.59				
Time of Concentration:					
Flow Length:	453	ft			
Overland (Max 100 ft)					
Upstream Elev:	342.45				
Downstream Elev:	341.94				
Length	Slope	Mannings n	P2 (NOAA Atlas 14)		Tc (Mins)
100	0.0051	0.013	4.23		2.08
Shallow Concentrated					
Upstream Elev:	0				
Downstream Elev:	0				
Length	Slope	K			Tc (Mins)
0	#DIV/0!	16.13			#DIV/0!
Channel Flow					
Upstream Elev:	222.85				
Downstream Elev:	213.9				
Length	Slope	Mannings n	Hydraulic Radius		Tc (Mins)
353	0.025354	0.013	0.3125		0.70004
Tc Total:					**3** Mins
			Use		**5.00** Mins
Intensity2:	6.37				
Intensity10:	8.84				
Intensity25:	10.30				
Intensity100:	12.40				
Q(2):	**9.13**	**CFS**			
Q(10):	**12.67**	**CFS**			
Q(25):	**14.77**	**CFS**			
Q(100):	**17.78**	**CFS**			

POST-DEV. RUNOFF COFF.

TOTAL CATCHMENT			
AREA	105,798	SQ.FT	
CONCRETE	30,850	C=	0.9
ROOF	9,776	C=	0.75
LANDSCAPE	51,555	C=	0.3
POND	13,617	C=	0.9
COM. C	**0.59**		

INLET SIZING CLACULATOR

GRATE INLET (TYPE-2)

Grate Inlets (Type A-2) are considered to function as an orifice with a discharge coefficient of 0.60. The capacity of a grate inlet is based on the following equation:

$$Q = 4.82 A_g y^{0.5}$$

where:

Q = capacity in cubic feet per second

A_g = clear opening area in square feet

y = total depth of water or head on the inlet in feet.

A= 4 sqft

y= 0.5 ft

Q= 13.6 cfs

TOTAL STORAGE REQUIED=81,446 CUFT
TOTAL STORAGE PROVIDED=1,06,076CUFT
(INCLUDING 10% EXTRA FOR SEDIMENTATION

STORM SEWER CALCULATION FORM

PROJECT: 1001 W VILLA MARIA RD, BETAN, TX 77801 — h: 86.311, d: 10.7919, e: 0.7141, C: 0.65
DATE: MAY, 2024

FOR 100YR RAINFALL FREQUENCY

AREA	MH OR INLET FROM	MH OR INLET TO	AREA INCR AC	AREA TOTAL AC	REACH FEET	T MIN	I IN/HR	"CI"	Q CFS	LINE GRADE %	LINE SIZE IN	LINE AREA SQFT	"N" VALUE	R IN	DESIGN V FPS	DESIGN Q CFS	FLOWLINE UPSTREAM	FLOWLINE DOWNSTREAM	FALL FT	FRICTION S_f	HEAD LOSS H_f	HGL UP	HGL DOWN
A1	INLET 1	INLET 2	0.27	0.27	73	5.00	**12.03**	7.8195	2.09	0.50	12	0.7857	0.011	0.25	3.80	2.99	339.55	339.19	0.36	0.002471	0.1804	338.16	337.98
A2	INLET 2	INLET 3	0.25	0.52	114	23.92	**6.86**	4.4561	2.32	0.50	12	0.7857	0.011	0.25	3.80	2.99	339.09	338.53	0.56	0.003056	0.3484	337.98	337.63
A3	INLET 3	INLET 6	0.22	0.74	137	24.49	**6.78**	4.4039	3.28	1.50	12	0.7857	0.011	0.25	6.58	5.17	338.43	336.36	2.07	0.006081	0.8331	338.46	337.63
A4	INLET 4	INLET 5	0.09	0.09	88	21.54	**7.21**	4.6872	0.42	0.50	12	0.7857	0.011	0.25	3.80	2.99	337.50	337.06	0.44	0.000101	0.0089	337.63	337.62
A5	INLET 5	INLET 6	0.20	0.29	118	23.02	**6.98**	4.5400	1.30	0.50	12	0.7857	0.011	0.25	3.80	2.99	336.96	336.36	0.60	0.000954	0.1125	337.81	337.69
A6	INLET 6	OUTFALL	0.11	1.14	46	25.24	**6.67**	4.3386	4.96	0.50	18	1.7679	0.011	0.38	4.98	8.80	336.36	336.12	0.24	0.001599	0.0735	337.69	337.62
																		TAILWATER ELEV=		337.62			

STORM SEWER CALCULATION FORM

PROJECT: 1001 W VILLA MARIA RD, BETAN, TX 77801 — h: 76.3373, d: 11.8888, e: 0.7721, C: 0.65
DATE: MAY, 2024

FOR 10YR RAINFALL FREQUENCY

AREA	MH OR INLET FROM	MH OR INLET TO	AREA INCR AC	AREA TOTAL AC	REACH FEET	T MIN	I IN/HR	"CI"	Q CFS	LINE GRADE %	LINE SIZE IN	LINE AREA SQFT	"N" VALUE	R IN	DESIGN V FPS	DESIGN Q CFS	FLOWLINE UPSTREAM	FLOWLINE DOWNSTREAM	FALL FT	FRICTION S_f	HEAD LOSS H_f	HGL UP	HGL DOWN
A1	INLET 1	INLET 2	0.27	0.27	73	22.93	**4.92**	3.2007	0.86	0.50	12	0.7857	0.011	0.25	3.80	2.99	339.55	339.19	0.36	0.000414	0.0302	336.93	336.90
A2	INLET 2	INLET 3	0.25	0.52	114	23.92	**4.82**	3.1322	1.63	0.50	12	0.7857	0.011	0.25	3.80	2.99	339.09	338.53	0.56	0.001510	0.1721	336.90	336.72
A3	INLET 3	INLET 6	0.22	0.74	137	24.49	**4.76**	3.0938	2.30	1.50	12	0.7857	0.011	0.25	6.58	5.17	338.43	336.36	2.07	0.003001	0.4112	337.14	336.72
A4	INLET 4	INLET 5	0.09	0.09	88	21.54	**5.08**	3.3025	0.30	0.50	12	0.7857	0.011	0.25	3.80	2.99	337.50	337.06	0.44	0.000050	0.0044	336.72	336.72
A5	INLET 5	INLET 6	0.20	0.29	118	23.02	**4.91**	3.1940	0.91	0.50	12	0.7857	0.011	0.25	3.80	2.99	336.96	336.36	0.60	0.000472	0.0557	336.81	336.76
A6	INLET 6	OUTFALL	0.11	1.14	46	25.24	**4.69**	3.0457	3.48	0.50	18	1.7679	0.011	0.38	4.98	8.80	336.36	336.12	0.24	0.000788	0.0362	336.76	336.72
																		TAILWATER ELEV=		336.72			

Pond Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2025 — Sunday, 05 / 4 / 2025

Pond No. 1 - Detention pond

Pond Data

Contours -User-defined contour areas. Conic method used for volume calculation. Begining Elevation = 336.00 ft

Stage / Storage Table

Stage (ft)	Elevation (ft)	Contour area (sqft)	Incr. Storage (cuft)	Total storage (cuft)
0.00	336.00	8,820	0	0
1.00	337.00	10,447	9,621	9,621
2.00	338.00	12,173	11,298	20,919
3.00	339.00	14,001	13,075	33,994
4.00	340.00	15,928	14,953	48,947
5.00	341.00	17,957	16,931	65,877
6.00	342.00	20,086	19,010	84,887
7.00	343.00	22,315	21,189	1,06,076

RESTRICTOR SIZING CALCULATIONS

Q	=	**CA *(√2gh)F**	
D	=	Q1/2/(2.25*h1/4)	
C (COEFFICIENT OF DISCHARGE)	=	0.80	
RESTRICTOR SIZING			
A = TOTAL DRAINAGE AREA	=	2.43	AC
Q1, (OUTFLOW RATE ALLOWED FOR LOW FLOW)	=	**7.28**	CFS
HEAD	=	1.67	Ft
CALCULATED RESTRICTOR SIZE	=	1.0549	Ft
	=	12.7	IN
PROVIDED RESTRICTOR SIZE	=	**12.7**	IN
ACTUAL OUTFLOW OF RESTRICTOR - 100 YR	=	7.28	CFS

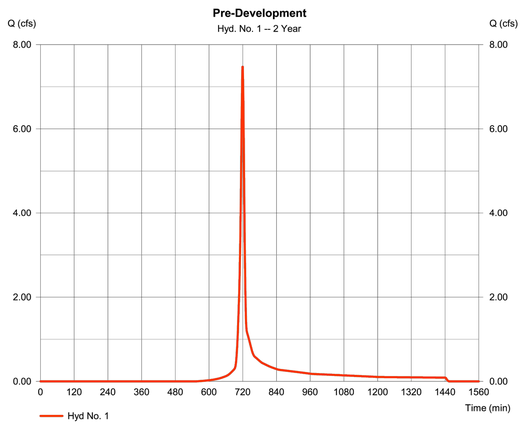
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2025 — Sunday, 05 / 4 / 2025

Hyd. No. 1

Pre-Development

Hydrograph type	= SCS Runoff	Peak discharge	= 7.472 cfs
Storm frequency	= 2 yrs	Time to peak	= 720 min
Time interval	= 1 min	Hyd. volume	= 16,905 cuft
Drainage area	= 2.430 ac	Curve number	= 76
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 10.00 min
Total precip.	= 4.23 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



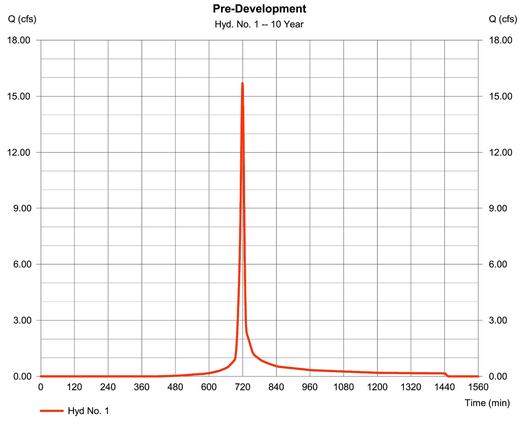
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2025 — Sunday, 05 / 4 / 2025

Hyd. No. 1

Pre-Development

Hydrograph type	= SCS Runoff	Peak discharge	= 15.70 cfs
Storm frequency	= 10 yrs	Time to peak	= 719 min
Time interval	= 1 min	Hyd. volume	= 35,831 cuft
Drainage area	= 2.430 ac	Curve number	= 76
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 10.00 min
Total precip.	= 6.78 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



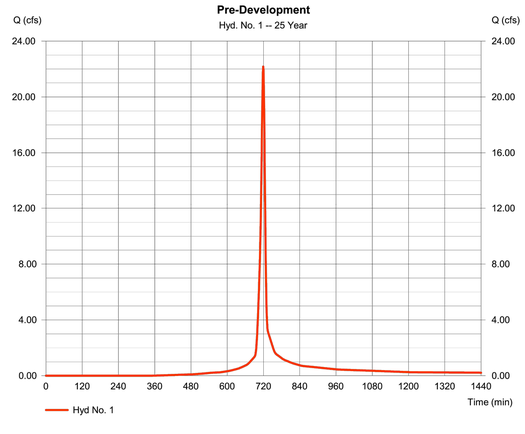
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2025 — Sunday, 05 / 4 / 2025

Hyd. No. 1

Pre-Development

Hydrograph type	= SCS Runoff	Peak discharge	= 22.17 cfs
Storm frequency	= 25 yrs	Time to peak	= 719 min
Time interval	= 1 min	Hyd. volume	= 51,313 cuft
Drainage area	= 2.430 ac	Curve number	= 76
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 10.00 min
Total precip.	= 8.72 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



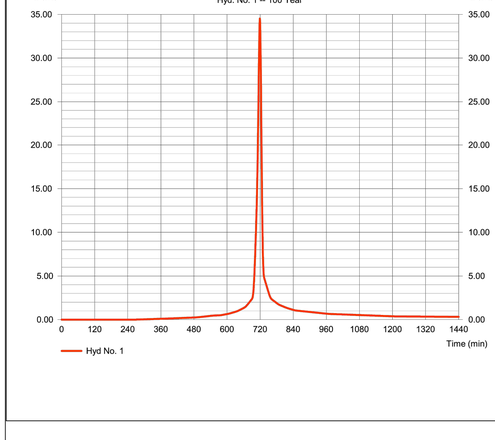
Hydrograph Report

Hydraflow Hydrographs Extension for Autodesk® Civil 3D® by Autodesk, Inc. v2025 — Sunday, 05 / 4 / 2025

Hyd. No. 1

Pre-Development

Hydrograph type	= SCS Runoff	Peak discharge	= 34.52 cfs
Storm frequency	= 100 yrs	Time to peak	= 719 min
Time interval	= 1 min	Hyd. volume	= 81,846 cuft
Drainage area	= 2.430 ac	Curve number	= 76
Basin Slope	= 0.0 %	Hydraulic length	= 0 ft
Tc method	= TR55	Time of conc. (Tc)	= 10.00 min
Total precip.	= 12.40 in	Distribution	= Type II
Storm duration	= 24 hrs	Shape factor	= 484



ISSUE FOR:
FOR INTER REVIEW ONLY
BID ONLY
PERMITS SET
CONSTRUCTION SET ☑

REVISIONS:

NO.	DATE	DESCRIPTION

MAKMO DESIGN
86 ZENITH LANE, SUGAR LAND, TX 77498
PH # 832-231-7047 TBPE FIRM # 21236

PROPOSED C STORE & GAS STATION
LOCATED AT
1001 W VILLA MARIA RD, BRYAN, TX 77801

SEAL :

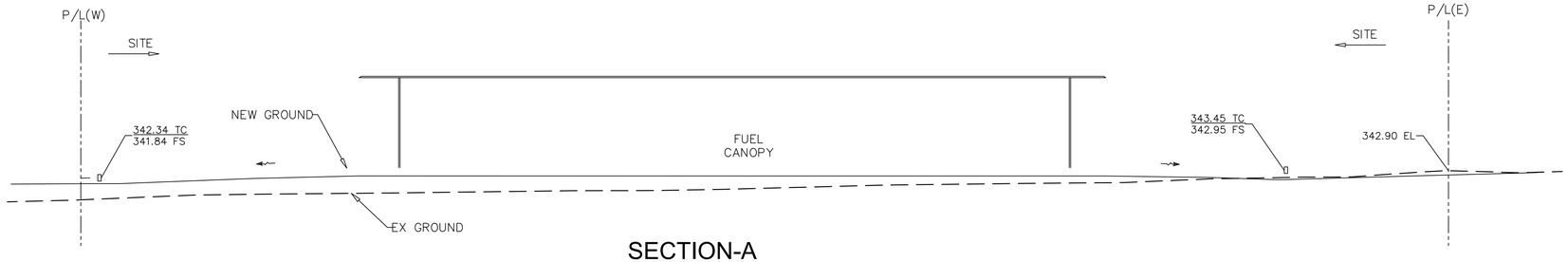
DATE: 6/18/2025

PROJECT NUMBER	23-000
SCALE	N/A
DRAWN BY	R.R
CHECKED BY	A.Z
SHEET TITLE	:

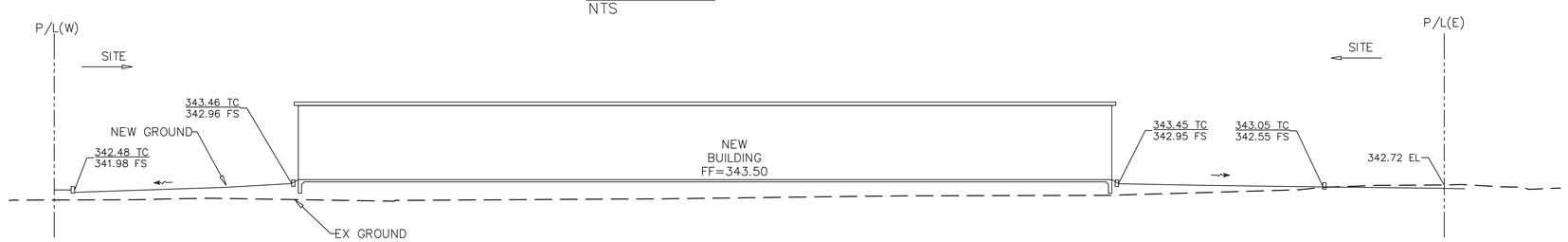
DRAINAGE CALCULATIONS

DRAWING NUMBER:

C-2.2



SECTION-A
NTS



SECTION-B
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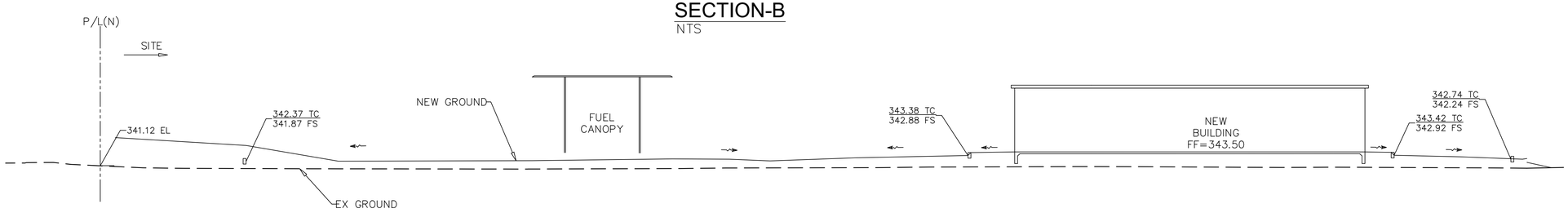

SECTION-C
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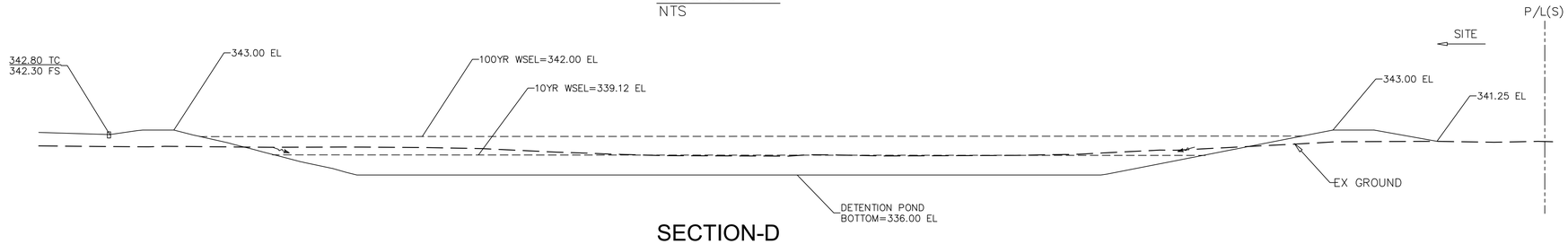

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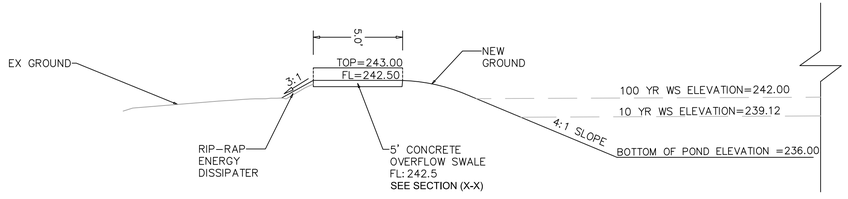
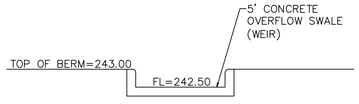


SECTION C-C
NTS



ISSUE FOR:
- FOR INTER REVIEW ONLY
- BID ONLY
- PERMITS SET
- CONSTRUCTION SET ☑

REVISIONS:

NO.	DATE	DESCRIPTION

MAKMO DESIGN
86 ZENITH LANE, SUGAR LAND, TX 77498
PH # 832-231-7047 TBPE FIRM # 21236

PROPOSED C STORE & GAS STATION
LOCATED AT
1001 W VILLA MARIA RD, BRYAN, TX 77801

SEAL
:

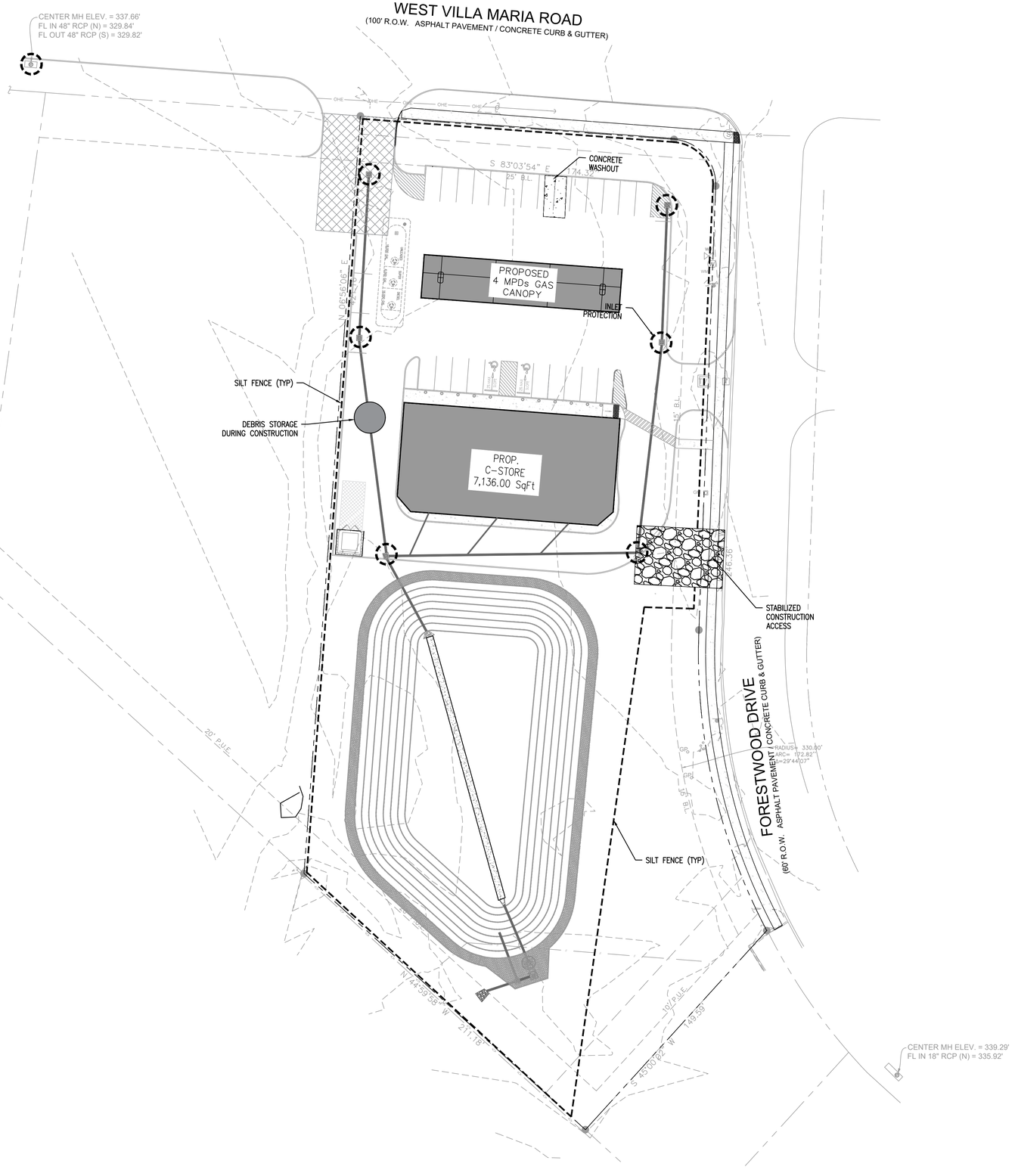
DATE: 6/18/2025

PROJECT NUMBER	23-000
SCALE	
DRAWN BY	R:R
CHECKED BY	A.Z
SHEET TITLE	:

SITE SECTIONS

DRAWING NUMBER:

C-2.3



GENERAL NOTES

1. LOCATIONS OF THE EXISTING UTILITIES ARE BASED ON RECORDS FROM SAID UTILITY COMPANIES AND ARE HORIZONTALLY FIELD LOCATED ONLY. THE CONTRACTORS SHALL BE RESPONSIBLE FOR DETERMINING ACTUAL LOCATION.
2. CONTRACTOR TO UNCOVER AND MARK UTILITY LINES BEFORE CONSTRUCTION.
3. CONTRACTOR SHALL BEAR ALL RESPONSIBILITY AND COST OF REPAIR OR REPLACEMENT OF EXISTING UTILITIES, DAMAGED OR INTERRUPTED AS A RESULT OF THIS CONSTRUCTION PROJECT.
4. CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND THE OWNER OF ANY DAMAGED OR INTERRUPTED UTILITIES IMMEDIATELY.
5. ALL WATER LINES AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL WATER STANDARD PIPELINE MATERIALS AND CONSTRUCTION SPECIFICATIONS, LATEST EDITION.
6. EXISTING UTILITIES TO REMAIN ARE TO BE ADJUSTED TO MATCH PROPOSED GRADE.
7. CONTRACTOR SHALL NOTIFY PROJECT ENGINEER PRIOR TO BEGINNING WORK.
8. ALL AREAS WITHIN THE PAVED AREAS ARE TO RECEIVE A GRAVEL BASE TO PROVIDE EROSION CONTROL IF WORK IS NOT PROGRESSING IN AN ORDERLY MANNER. A RATE OF 135 TONS/ACRE IS TO BE APPLIED WITHIN TWO WEEKS OF FINAL GRADING.
9. ALL AREAS NOT WITHIN THE PAVED AREA ARE TO RECEIVE LOOSE STRAW TO PROVIDE EROSION CONTROL IF WORK IS NOT PROGRESSING IN AN ORDERLY MANNER. A RATE OF 1.5 TONS/ACRE IS TO BE APPLIED WITHIN TWO WEEKS OF FINAL GRADING.
10. AFTER NEW INLETS ARE CONSTRUCTED, INSTALL INLET PROTECTION PER DETAIL.
11. CONTRACTOR WILL CONTROL AND PREVENT OFF-SITE TRACKING OF CONSTRUCTION RUNOFF AND SEDIMENT TO ADJACENT PROPERTY AND PUBLIC ROADS.
12. CONTRACTOR IS TO PROTECT EXISTING STORM DRAINAGE SYSTEM
13. CONTRACTOR TO CONFORM TO ALL CONSTRUCTION STORM WATER AND EROSION CONTROL PERMITTING REQUIREMENTS BY "EPA PHASE II STORM WATER REGULATIONS" AS ADMINISTERED BY THE TEXAS COMMISSION OF ENVIRONMENTAL QUALITY. WHERE PERMITTING IS REQUIRED, A COPY OF THE NOTICE OF INTENT AND CONSTRUCTION SITE NOTICE(S) SHALL BE PROVIDED TO THE LOCAL MUNICIPAL AUTHORITY. CONTRACTOR SHALL POST THE CONSTRUCTION SITE NOTICE(S) IN ACCORDANCE WITH THE TEXAS COMMISSION ON ENVIROMENTAL QUALITY REQUIREMENTS
14. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN ACCORDANCE WITH THE TEXAS UNDERGROUND FACILITIES DAMAGE PREVENTION ACT. THIS LAW REQUIRES THAT THE CONTRACTOR MAKE A TELEPHONE CALL TO THE TEXAS ONE-CALL SYSTEM AT 1-800-344-8377 (811) AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION TO ENSURE THAT ANY EXISTING UTILITIES CAN BE LOCATED.
15. CONTRACTOR TO CONSTRUCT ALL ACCESS RAMPS AND PAVING TO ADA STANDARDS. VERIFY.
16. TREES TO REMAIN ARE TO BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.
17. EXCESS EXPORTS SHALL BE STOCKPILED AT LOCATION APPROVED BY OWNER AND CONFIRMED BY ENGINEER OF RECORD.

EROSION CONTROL LEGEND

- STABILIZED CONSTRUCTION ENTRANCE
- INLET PROTECTION BARRIER (STAGE I & STAGE II)
- RIPRAP OUTLET PROTECTION
- SILT FENCE (MIN. 2' FROM BOC)
- CONCRETE WASHOUT TRUCK
- SURFACE FLOW

EROSION CONTROL NOTES

1. ALL DISTURBED UNPAVED AREAS ARE TO RECEIVE A MINIMUM OF 4-INCHES OF TOPSOIL AND 2-INCHES OF COMPOST (FOR A TOTAL OF 6-INCHES) AND SOD OR SEED (AS INDICATED). THESE AREAS SHALL BE WATERED BY THE CONTRACTOR UNTIL THE SOD OR SEED IS GROWING IN A HEALTHY MANNER. SEE LANDSCAPE PLANS FOR MORE REQUIREMENTS.
2. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASE OF THE PROJECT. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGES TO ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASE OF THE PROJECT.
3. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING TRAFFIC CONTROL DEVICES SUCH AS BARRICADES, WARNING SIGNS, DIRECTIONAL SIGNS, FLAGMEN AND LIGHTS TO CONTROL THE MOVEMENT OF TRAFFIC WHERE NECESSARY. THESE DEVICES AND THEIR PLACEMENT SHALL BE APPROVED BY THE OWNER PRIOR TO PLACEMENT.
4. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING THE PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
5. THE DUTY OF THE OWNER (OR OWNER'S REPRESENTATIVE) TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, OR NEAR THE CONSTRUCTION SITE.
6. BEFORE BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL INSTALL A TEMPORARY ROCK ENTRANCE PAD AT ALL POINTS OF VEHICLE EXIT FROM THE SITE. SAID ROCK ENTRANCE PADS SHALL BE MAINTAINED BY THE CONTRACTOR FOR THE DURATION OF THE PROJECT.
7. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE ESTABLISHED AROUND THE ENTIRE SITE PERIMETER AND IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES AND THE PROJECT DETAILS.
8. EROSION CONTROL MEASURES SHALL BE IMMEDIATELY ESTABLISHED UPON COMPLETION OF CLEARING AND GRUBBING.
9. THE INTENDED SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES IS AS FOLLOWS:
   a. INSTALL SILT FENCE AROUND THE PERIMETER OF THE SITE, AND THE ROCK CONSTRUCTION ENTRANCE(S).
   b. INSTALL SILT FENCE AND INLET PROTECTION AROUND, AND WITHIN, ALL STRUCTURES.
   c. CLEAR AND GRUB.
   d. SURFACE FEATURE REMOVALS.
   e. ROUGH GRADING OF THE SITE.
   f. STABILIZE DENUDED AREAS AND STOCKPILES.
   g. FINE GRADING OF THE SITE
   h. INSTALL TOPSOIL, COMPOST AND SEED.
   i. REMOVE ACCUMULATED SEDIMENT FROM STRUCTURES.
   j. WHEN ALL CONSTRUCTION ACTIVITIES ARE COMPLETE AND THE SITE IS STABILIZED, REMOVE SILT FENCE AND RESEED ANY AREAS DISTURBED BY THE REMOVAL WITHIN 30-DAYS OF FINAL STABILIZATION.
10. THE LOCATION OF THE AREAS NOT TO BE DISTURBED MUST BE IDENTIFIED WITH FLAGS, STAKES, SIGNS, SILT FENCE, ETC. BEFORE CONSTRUCTION BEGINS.
11. ALL STORM DRAINS AND INLETS MUST BE PROTECTED UNTIL ALL SOURCES OF POTENTIAL DISCHARGE ARE STABILIZED.
12. SOLID WASTE MUST BE DISPOSED OF PROPERLY AND COMPLY WITH THE GOVERNING AGENCY'S DISPOSAL REQUIREMENTS.
13. EXTERNAL WASHING OF CONSTRUCTION VEHICLES MUST BE LIMITED TO A DEFINED AREA OF THE SITE. THE AREA MUST BE IN A CONTAINED LOCATION WITH A LINER. WASHOUT TO BE REMOVE AND PROPERLY DISPOSED OF FOLLOWING ALL APPLICABLE REGULATIONS. UNDER NO CIRCUMSTANCES SHALL EQUIPMENT BE ALLOWED TO WASH OFF FRESH CONCRETE IN THE STREET OR IN ANY AREA WHERE THE WASHOUT MATERIAL WILL ENTER A WETLAND OR DRAINAGEWAY. CONCRETE WASHOUT WATER SHALL NOT BE DISCHARGED INTO WATER/STORM SYSTEMS.
14. NO ENGINE DEGREASING IS ALLOWED ON SITE.
15. SILT FENCE REQUIRED MAINTENANCE SHALL BE AS FOLLOWS: "WHEN SEDIMENT REACHES 1/3 THE HEIGHT OF THE SILT FENCE FABRIC. THE SEDIMENT MUST BE REMOVED WITHIN 24-HOURS. "REPAIR OR REPLACE DYSFUNCTIONAL SILT FENCE WITHIN 24-HOURS.
16. THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN ALL PERMITS FROM AUTHORITIES AND REGULATORY AGENCIES HAVING JURISDICTION OVER THIS SITE, AS REQUIRED, PRIOR TO BEGINNING WORK.
17. AFTER CONSTRUCTION BEGINS, SOIL SURFACE STABILIZATION SHALL BE APPLIED WITHIN 7-DAYS TO ALL DISTURBED AREAS THAT MAY NOT BE AT FINAL GRADE, BUT WILL REMAIN UNDISTURBED FOR PERIODS LONGER THAN AN ADDITIONAL 21 CALENDAR DAYS.
18. WITHIN 7-DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE, PERMANENT OR TEMPORARY SOIL SURFACE STABILIZATION SHALL BE APPLIED TO DISTURBED AREAS AND SOIL STOCKPILES.
19. ALL DISTURBED GROUND LEFT INACTIVE FOR 7 DAYS OR MORE MUST BE STABILIZED BY SEEDING, SODDING OR MULCHING. TYPE OF SLOPE DAYS TO STABILIZE STEEPER THAN 3:1 7 DAYS 10:1 TO 3:1 7 DAYS FLATTER THAN 10:1 7 DAYS
20. WHEN STABILIZATION MEASURES ARE STOPPED DUE TO SNOW COVER OR ARID CONDITIONS, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE. SOIL STABILIZATION MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO SURFACE ROUGHENING, TEMPORARY OR PERMANENT VEGETATION, MULCHING, SODDING, LANDSCAPING AND EROSION CONTROL BLANKETS.
21. STABILIZATION MEASURES TO BE USED SHALL BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS AND ESTIMATED DURATION OF USE.
22. EXISTING TURF OUTSIDE OF THE CONSTRUCTION LIMITS SHALL NOT BE DISTURBED. ANY TURF SHALL BE RE-ESTABLISHED.
23. ALL STREETS AND PARKING LOTS ADJACENT TO THE SITE SHALL BE CLEANED AND/OR SWEPT AT THE END OF EACH WORKING DAY.
24. WHEN STABILIZATION MEASURES ARE STOPPED DUE TO SNOW COVER, STABILIZATION MEASURES SHALL BE RE-INITIATED AS SOON AS POSSIBLE. STABILIZATION MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO: TEMPORARY OR PERMANENT VEGETATION, MULCHING, SODDING, LANDSCAPING AND EROSION CONTROL BLANKETS.
25. TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE MAINTAINED AND REPAIRED BY THE CONTRACTOR DURING THE CONSTRUCTION PHASE AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION.
26. EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN PLACE UNTIL PERMANENT REVEGETATION IS ESTABLISHED.
27. CONTRACTOR TO LOCATE A CONCRETE WASHOUT AREA ON THE PROJECT SITE PRIOR TO BEGINNING WORK.

Texas 811

NORTH

30 15 0 30 60
SCALE

ISSUE FOR:
FOR INTER REVIEW ONLY
BID ONLY
PERMITS SET
CONSTRUCTION SET ☑

REVISIONS:

NO.	DATE	DESCRIPTION

MAKMO DESIGN
86 ZENITH LANE, SUGAR LAND, TX 77498
PH # 832-231-7047 TBPE FIRM # 21236

PROPOSED C STORE & GAS STATION
LOCATED AT
1001 W VILLA MARIA RD, BRYAN, TX 77801

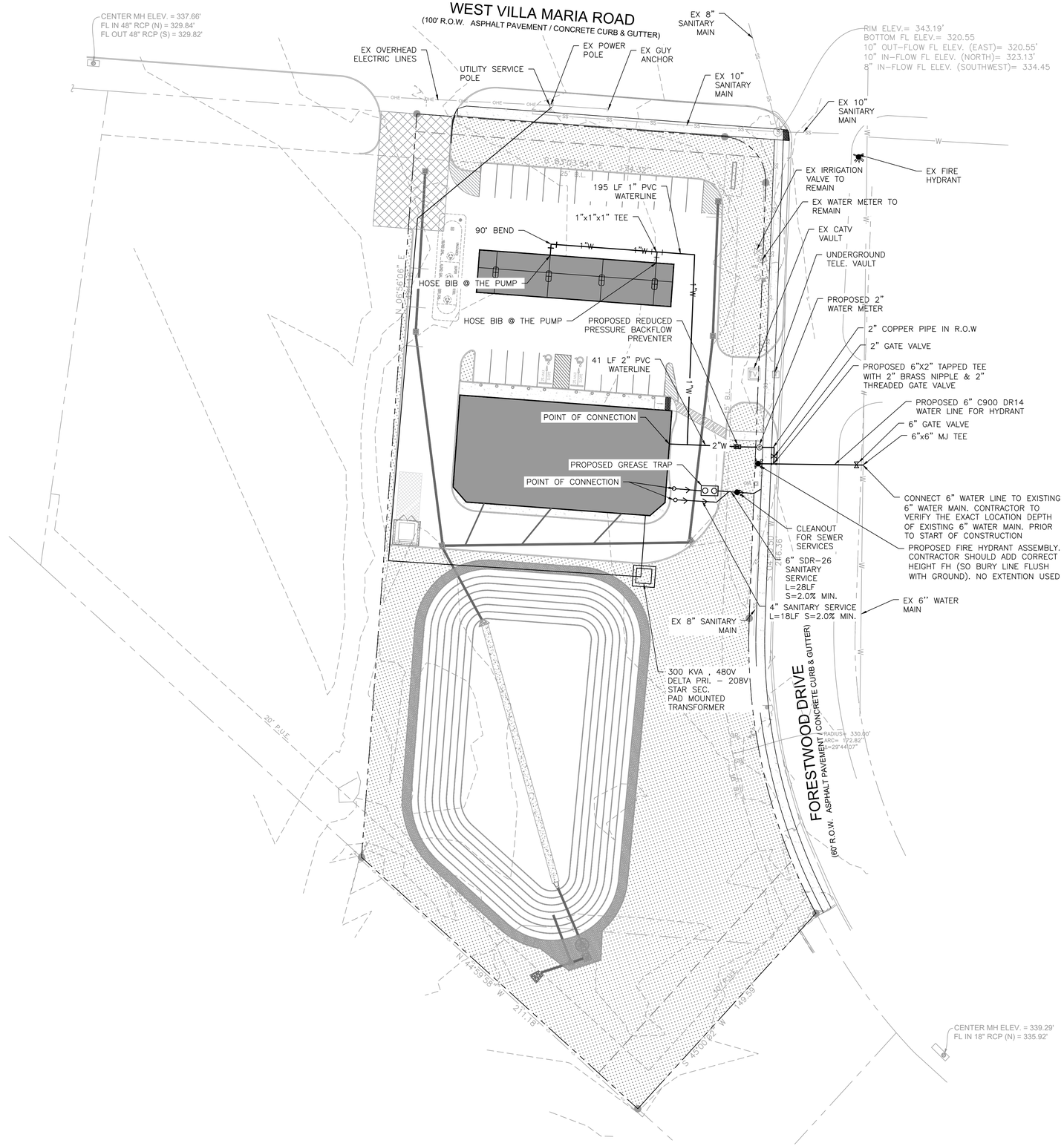
SEAL
:

DATE: 6/18/2025

PROJECT NUMBER	23–000
SCALE	1" = 30'
DRAWN BY	R.R
CHECKED BY	A.Z
SHEET TITLE	:

ESC PLAN

DRAWING NUMBER:
C-3.0



BTU-ELECTRICAL NOTES:

- WHERE ELECTRIC FACILITIES ARE INSTALLED, BTU HAS THE RIGHT TO INSTALL, OPERATE, RELOCATE, CONSTRUCT, RECONSTRUCT, ADD TO, MAINTAIN, INSPECT, PATROL, ENLARGE, REPAIR, REMOVE AND REPLACE SAID FACILITIES UPON, OVER, UNDER, AND ACROSS THE PROPERTY INCLUDED IN THE PUE, AND THE RIGHT OF INGRESS AND EGRESS ON PROPERTY ADJACENT TO THE PUE TO ACCESS ELECTRIC FACILITIES."
- CONTACT BTU LINE DESIGN AT 821-5770 120 DAYS BEFORE POWER IS NEEDED TO BEGIN THE PROCESS OF OBTAINING POWER TO THE SITE. PLEASE PROVIDE A DETAILED LOAD ANALYSIS, AS WELL AS THE SERVICE REQUIREMENTS (VOLTAGE, AMPS, SINGLE PHASE VS THREE PHASE) AT THIS TIME

GENERAL NOTES

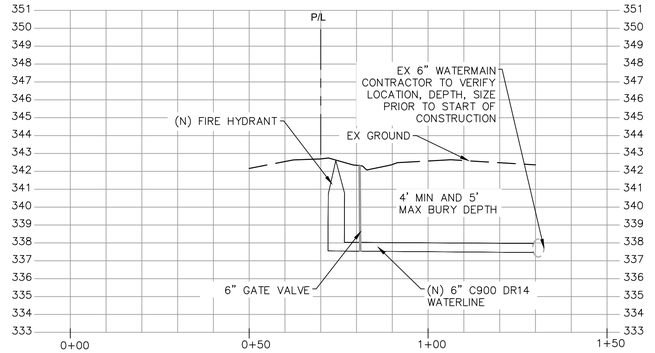
1. LOCATIONS OF THE EXISTING UTILITIES ARE BASED ON RECORDS FROM SAID UTILITY COMPANIES AND ARE HORIZONTALLY FIELD LOCATED ONLY. THE CONTRACTORS SHALL BE RESPONSIBLE FOR DETERMINING ACTUAL LOCATION.
2. CONTRACTOR TO UNCOVER AND MARK UTILITY LINES BEFORE CONSTRUCTION.
3. CONTRACTOR SHALL BEAR ALL RESPONSIBILITY AND COST OF REPAIR OR REPLACEMENT OF EXISTING UTILITIES, DAMAGED OR INTERRUPTED AS A RESULT OF THIS CONSTRUCTION PROJECT.
4. CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER AND THE OWNER OF ANY DAMAGED OR INTERRUPTED UTILITIES IMMEDIATELY.
5. ALL WATER LINES AND APPURTENANCES SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL WATER STANDARD PIPELINE MATERIALS AND CONSTRUCTION SPECIFICATIONS, LATEST EDITION.
6. EXISTING UTILITIES TO REMAIN ARE TO BE ADJUSTED TO MATCH PROPOSED GRADE.
7. CONTRACTOR SHALL NOTIFY PROJECT ENGINEER AND CITY OF BRYAN PUBLIC WORKS (979-209-5900) OPERATOR PRIOR TO BEGINNING WORK.
8. ALL AREAS WITHIN THE PAVED AREAS ARE TO RECEIVE A GRAVEL BASE TO PROVIDE EROSION CONTROL IF WORK IS NOT PROGRESSING IN AN ORDERLY MANNER. A RATE OF 135 TONS/ACRE IS TO BE APPLIED WITHIN TWO WEEKS OF FINAL GRADING.
9. ALL AREAS NOT WITHIN THE PAVED AREA ARE TO RECEIVE LOOSE STRAW TO PROVIDE EROSION CONTROL IF WORK IS NOT PROGRESSING IN AN ORDERLY MANNER. A RATE OF 1.5 TONS/ACRE IS TO BE APPLIED WITHIN TWO WEEKS OF FINAL GRADING.
10. AFTER NEW INLETS ARE CONSTRUCTED, INSTALL INLET PROTECTION PER DETAIL.
11. CONTRACTOR WILL CONTROL AND PREVENT OFF-SITE TRACKING OF CONSTRUCTION RUNOFF AND SEDIMENT TO ADJACENT PROPERTY AND PUBLIC ROADS.
12. CONTRACTOR IS TO PROTECT EXISTING STORM DRAINAGE SYSTEM
13. CONTRACTOR TO CONFORM TO ALL CONSTRUCTION STORM WATER AND EROSION CONTROL PERMITTING REQUIREMENTS BY "EPA PHASE II STORM WATER REGULATIONS" AS ADMINISTERED BY THE TEXAS COMMISSION OF ENVIRONMENTAL QUALITY. WHERE PERMITTING IS REQUIRED, A COPY OF THE NOTICE OF INTENT SHALL BE PROVIDED TO THE LOCAL MUNICIPAL AUTHORITY.
14. CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES IN ACCORDANCE WITH THE TEXAS UNDERGROUND FACILITIES DAMAGE PREVENTION ACT. THIS LAW REQUIRES THAT THE CONTRACTOR MAKE A TELEPHONE CALL TO THE CITY OF BRYAN PUBLIC WORKS (979-209-5900) AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATION TO ENSURE THAT ANY EXISTING UTILITIES CAN BE LOCATED.
15. CONTRACTOR TO CONSTRUCT ALL ACCESS RAMPS AND PAVING TO ADA STANDARDS. VERIFY.
16. TREES TO REMAIN ARE TO BE PROTECTED FROM DAMAGE DURING CONSTRUCTION.
17. EXCESS EXPORTS SHALL BE STOCKPILED AT LOCATION APPROVED BY OWNER AND CONFIRMED BY ENGINEER OF RECORD.

SEWER NOTES:

- SANITARY SEWER PIPE TO BE SDR-25 (PVC) UNLESS OTHERWISE NOTED.
- ALL SEWERS SHALL HAVE CLASS A BEDDING IN ACCORDANCE WITH CITY OF BRYAN.
- ALL SANITARY SEWERS CROSSING ABOVE OR BELOW WATERLINES WITH 6 INCHES TO 9 FEET CLEARANCE SHALL HAVE A 20' JOINT OF 150 PSI AWWA C-900 SDR-18 P.V.C. SANITARY SEWER PIPE CENTERED ON WATERLINE, EXCEPT WHERE DUCTILE IRON PIPE IS USED.
- SANITARY SEWER MANHOLE RIMS OUTSIDE OF PROPOSED PAVING WILL BE SET 3"-6" ABOVE THE SURROUNDING LEVEL FINISHED GRADE AFTER PAVING WITH SLOPED BACKFILL ADDED FOR STORM WATER DRAINAGE AWAY FROM MANHOLE RIM.
- PRIVATE SANITARY SEWERS ARE TO BE PRIVATELY OWNED, OPERATED AND MAINTAINED BY SERVICED PROPERTY OWNER.

WATER NOTES:

- WATER MAINS/METER CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF BRYAN FOR WATER MAIN CONSTRUCTION AND MATERIALS AND SPECIFICATION FOR WATER TAPS AND SERVICE. LINES 3/4" THROUGH 2", AND FOR LARGE METERS AND SPRINKLER CONNECTIONS WITH LATEST ADDENDA AND AMENDMENTS THERETO.
- 11/2" THRU 3" WATER MAIN SHALL BE SCH. 40 PVC PIPE IN PROPERTY & COPPER PIPE IN PUBLIC ROW.
- ALL WATER MAINS SHALL HAVE 6" OF BANK SAND ENVELOPE AND SHALL BE BACKFILLED TO A MINIMUM COMPACTED DEPTH OF 6" OVER THE TOP OF THE PIPE TO PROVIDE A COMPACTED ENCASEMENT.
- CONTRACTOR SHALL PROVIDE FOR A MINIMUM HORIZONTAL CLEARANCE OF 9' (NINE FEET) AND MINIMUM 2' (TWO FEET) BETWEEN OUTSIDE OF WATERLINES AND OUTSIDE EDGE OF SANITARY SEWER MANHOLES OR LINES.
- CONTRACTOR SHALL PROVIDE ADEQUATE THRUST BLOCKING TO WITHSTAND TEST PRESSURE SPECIFIED IN SPECIFICATION FOR WATER MAIN CONSTRUCTION AND MATERIALS WITH LATEST ADDENDA AND AMENDMENTS THERETO.
- ALL WATERLINES TO BE DISINFECTED IN CONFORMANCE WITH AWWA C-651
- BACKFLOW PREVENTION DEVICE MUST BE INSTALLED ON IRRIGATION WATER METER. CONTRACTOR SHALL INSTALL DEVICE APPROVED FOR USE BY CITY OF BRYAN.



WATERLINE PROFILE
SCALE: 1"=20' HORIZONTAL
1"=5' VERTICAL

NORTH

30 15 0 30 60
SCALE

ISSUE FOR:
FOR INTER REVIEW ONLY
BID ONLY
PERMITS SET
CONSTRUCTION SET ☑

REVISIONS:

NO.	DATE	DESCRIPTION

MAKMO DESIGN
86 ZENITH LANE, SUGAR LAND, TX 77498
PH # 832-231-7047 TBPE FIRM # 21236

PROPOSED C STORE & GAS STATION

LOCATED AT

1001 W VILLA MARIA RD, BRYAN, TX 77801

SEAL
:

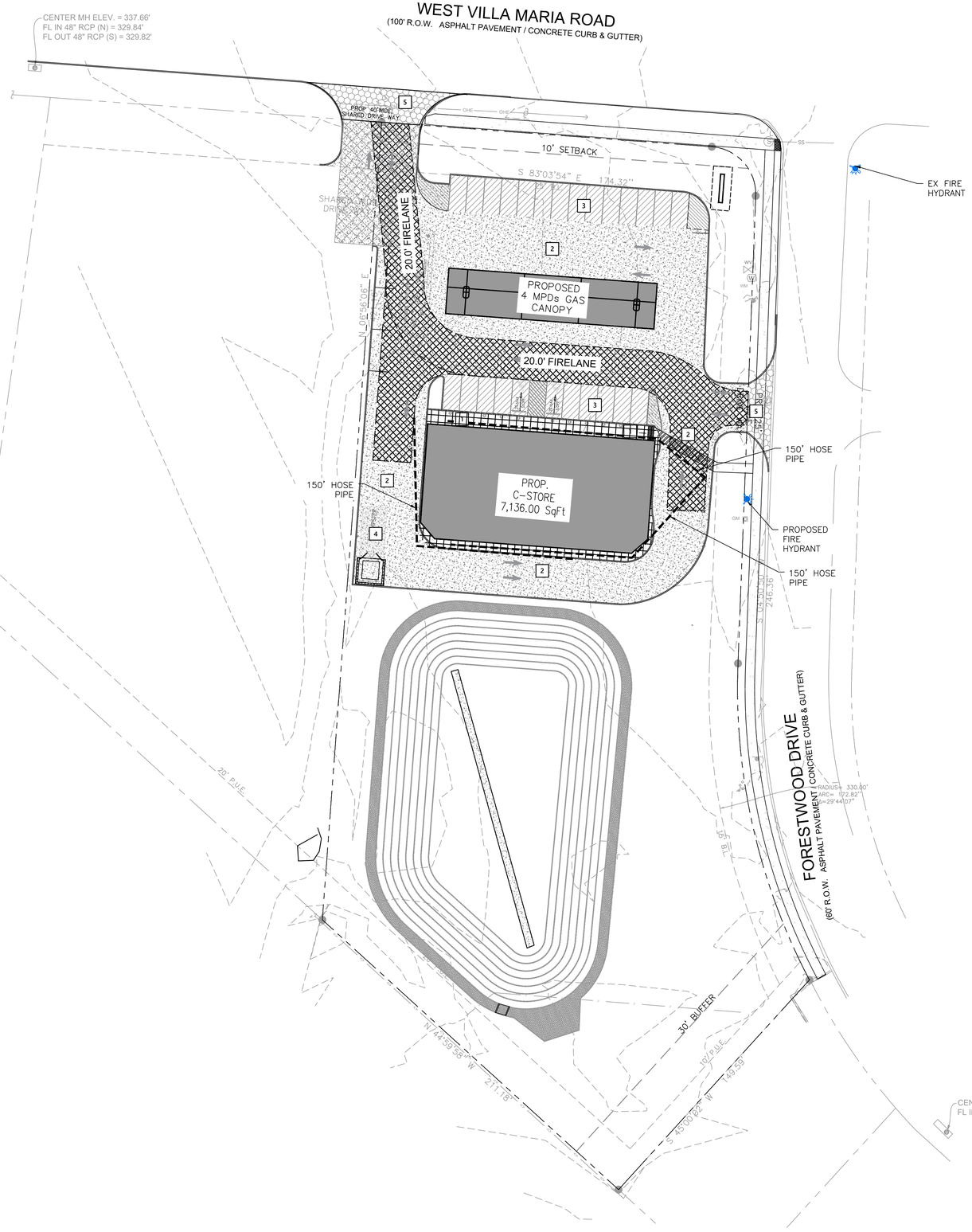
DATE: 6/18/2025

PROJECT NUMBER	23-000
SCALE	1" = 30'
DRAWN BY	R:R
CHECKED BY	A.Z
SHEET TITLE	:

UTILITY PLAN

DRAWING NUMBER:

C-4.0



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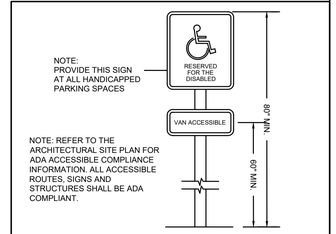
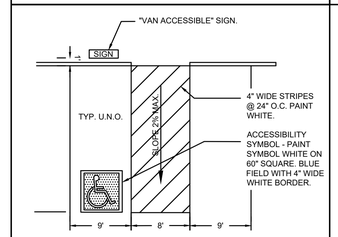


ACCESSIBLE PARKING SIGN



ACCESSIBLE PARKING DETAIL

LEGEND

1	SIDEWALK	(5" WITH #3 BARS @ 18" O.C.)
2	DRIVING PVMT	(6" WITH #4 BARS @ 18" O.C.)
3	PARKING PVMT	(6" WITH #4 BARS @ 24" O.C.)
4	DUMPSTER PAD	(7" WITH #5 BARS @ 12" O.C.)
5	CONCRETE APRON	(8" WITH #4 BARS @ 18" O.C.)

CONCRETE PAVING NOTES:

ALL CONCRETE SHALL BE IN ACCORDANCE TO THE BUILDING CODE REQUIREMENT IN THE ACI 318-95. ALL CONCRETE SHALL MEET THESE MINIMUM SPECIFICATION.

PAVING: CONCRETE STRENGTH: 3500 PSI @ 28 DAYS
SLUMP: 3-4"
MAX COARSE AGGREGATE SIZE: 1"

- FORM WORK DESIGN IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL NOT BE REMOVED UNTIL THE CONCRETE HAS GAINED SUFFICIENT STRENGTH TO CARRY ITS OWN WEIGHT PLUS APPLIED CONSTRUCTION LOADS.
- CONCRETE PLACEMENT SHALL BE ACCOMPLISHED BY DIRECT CHUTE FROM THE MIXER TRUCK, CRANE AND BUCKET OR BY PUMPING TO ITS FINAL POINT OF DEPOSIT. CONCRETE SHALL NOT BE DUG BY HAND MORE THAN 5 FEET.
- TO PREVENT EXCESS AND UNCONTROLLED CRACKING, CONTROL JOINTS SHOULD BE PROVIDED AT 12' MAX. SPACING IN EACH DIRECTION. CONTROL JOINTS MAY BE SAW CUT, METAL KEYWAY OR OF REMOVABLE STRIP TYPE. EXPANSION JOINT SHALL BE PLACED NO MORE THAN 40' MAX. EXPANSION JOINTS SHALL THEN BE FILLED WITH AN ELASTROMERIC JOINT FILLER MATERIAL. SEE PLAN FOR EXACT LOCATION OF JOINTS. FOR SIDEWALKS, PROVIDE EXPANSION JOINTS @ 20' O.C AND CONTROL JOINTS @ 5' O.C. MAX.

PAVING METHODS:

- 5" CONCRETE PAVING REINFORCED WITH #3 BARS @ 18" O.C.E.W. OVER 6" SUBGRADE WITH ABOUT 6% LINE-FLY ASH BY DRY UNIT WEIGHT STABILIZED. (SIDEWALK/WALK WAYS)
- 6" CONCRETE PAVING REINFORCED WITH #4 BARS @ 24" O.C.E.W. OVER 6" SUBGRADE WITH ABOUT 6% LINE-FLY ASH BY DRY UNIT WEIGHT STABILIZED. (PARKING AREA)
- 6" CONCRETE PAVING REINFORCED WITH #4 BARS @ 18" O.C.E.W. OVER 6" SUBGRADE WITH ABOUT 6% LINE-FLY ASH BY DRY UNIT WEIGHT STABILIZED. (DRIVING ISLE).
- 7" CONCRETE PAVING REINFORCED WITH #5 BARS @ 12" O.C.E.W. OVER 9" SUBGRADE WITH ABOUT 6% LINE-FLY ASH BY DRY UNIT WEIGHT STABILIZED. (DUMPSTER LOCATION)
- 8" CONCRETE PAVING REINFORCED WITH #4 BARS @ 18" O.C.E.W. OVER 8" LIME STABILIZED SUBGRADE, 60' MAX HEADER SPACING, MIN 16" LAP SPLICE (CONCRETE DRIVEWAY APRON)
- 8" BLACK BASE, 8" STABILIZED LIME SUBGRADE, 2.5-3" TYPE D

REINFORCING STEEL NOTES:

- REINFORCING BARS SHALL CONFORM TO ASTM A-615, GRADE 60. BARS SHOULD BE NEW, CLEAN AND FREE OF DIRT, RUST OR OIL.
- DETAILING AND FABRICATION OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE MANUAL OF STANDARD PRACTICE, ACI-315-80, UNLESS SHOWN OTHERWISE CONTINUOUS BARS 30 BAR DIAMETERS AT SPLICES, 12" MIN.
- REINFORCING BARS MAY NOT BE WELDED WITHOUT THE APPROVAL OF THE CIVIL ENGINEER.
- PROVIDE NECESSARY TIES AND BAR SUPPORTS AS REQUIRED BY THE MANUAL OF STANDARD PRACTICE, ACI 315-80, CHAPTER-3. BRICK, ROCK OR MASONRY BLOCKS ARE NOT ACCEPTABLE SUPPORTS. CHAIRS AND BOLSTERS FOR DIRECTLY OVER EARTH, POLY SHEETS SHALL BE EQUIPPED WITH BOTTOM BEARING PLATES.
- CONCRETE COVERAGE FOR THE REINFORCING STEEL SHALL COMPLY WITH THE ACI 318-95 CODE, ARTICLE 7.7.1, EXCEPT WHERE STATED SPECIFICALLY OTHERWISE.

SITE PREPARATION NOTES:

- THE CONTRACTOR SHALL FOLLOW THE GUIDELINES SET FORTH WITHIN THE GEOTECHNICAL REPORT FOR SITE PREPARATION AND PAVING AND IS ADVISED TO GET IT SUPERVISED AND/OR INSPECTED WITH THE GEOTECHNICAL FIRM AS REQUIRED. THE MINIMUM SITE COMPACTION UNDER PAVING AND OVER UTILITIES SHALL BE 95% OR HIGHER ON PROCTOR WITH FILL PLACED IN 8" LIFTS. SUBGRADE MUST BE LIME STABILIZED AND REQUIRE 7% HYDRATED LIME BY DRY UNIT WEIGHT. THE STABILIZED CLAYS SHOULD BE COMPACTED TO A MINIMUM OF 95% OF MAXIMUM DENSITY IN A MOISTURE CONTENT RANGE OF -1% TO +4% OF THE SOIL/LIME MIXTURE'S OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-698.

Texas 811

NORTH

30 15 0 30 60
SCALE

ISSUE FOR:

FOR INTER REVIEW ONLY	
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REVISIONS:

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MAKMO DESIGN
86 ZENITH LANE, SUGAR LAND, TX 77498
PH # 832-231-7047 TBPE FIRM # 21236

PROPOSED C STORE & GAS STATION

LOCATED AT

1001 W VILLA MARIA RD, BRYAN, TX 77801

SEAL
:

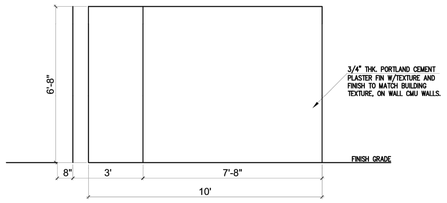
DATE: 6/18/2025

PROJECT NUMBER	23-000
SCALE	1" = 30'
DRAWN BY	R:R
CHECKED BY	A.Z
SHEET TITLE :	

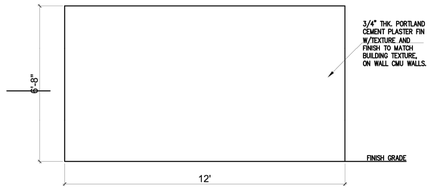
PAVING PLAN

DRAWING NUMBER:

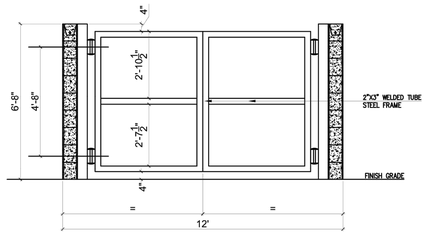
C-5.0



5 TRASH ENCLOSURE SIDEELEV.
Scale:1/2"=1'-0"



4 TRASH ENCLOSURE REAR ELEV.
Scale:1/2"=1'-0"



3 TRASH ENCLOSURE SECTION
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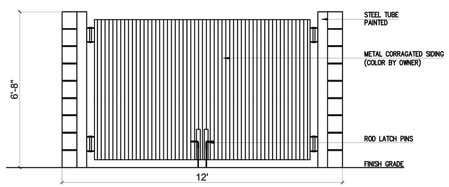
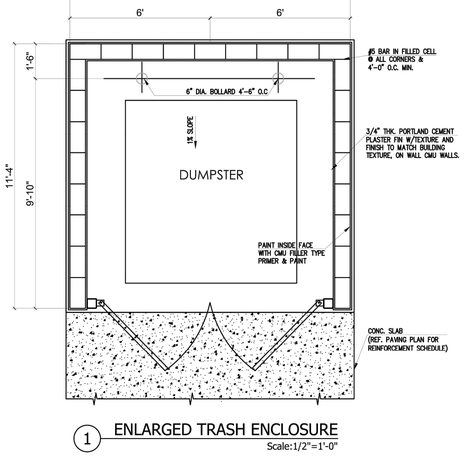
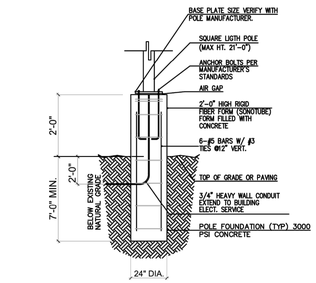


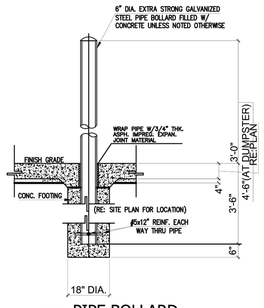
2 TRASH ENCLOSURE ELEVATION
Scale:1/2"=1'-0"



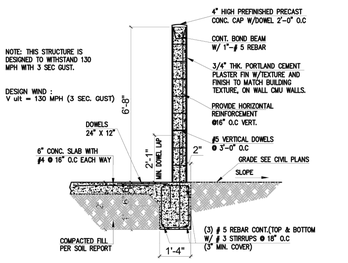
1 ENLARGED TRASH ENCLOSURE
Scale:1/2"=1'-0"



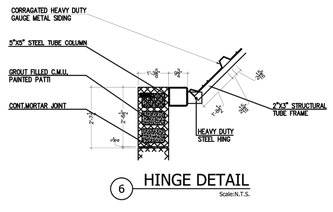
9 LIGHT POLE DETAIL
Scale:1/2"=1'-0"



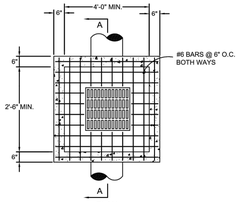
8 PIPE BOLLARD
Scale:1/2"=1'-0"



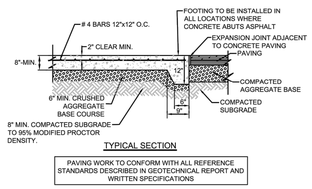
7 ENCLOSURE WALL SECTION
Scale:1/2"=1'-0"



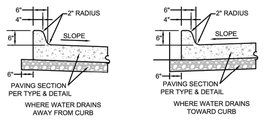
6 HINGE DETAIL
Scale:N.T.S.



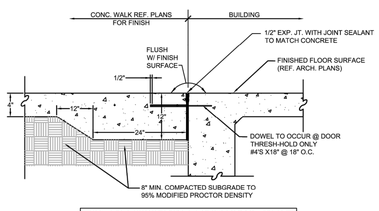
13 GRATE INLET SQUARE BOX
N.T.S.



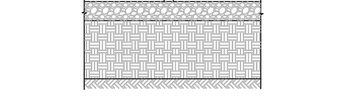
12 CONCRETE PAD FOR DUMPSTERS
N.T.S.



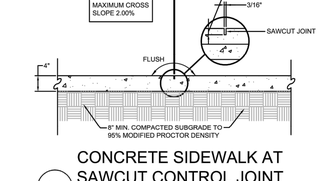
11 INTEGRAL CONCRETE CURB
NTS



10 CONCRETE SIDEWALK AT BUILDING
SECTION N.T.S.



18 TURNDOWN CURB AT SIDEWALK
N.T.S.

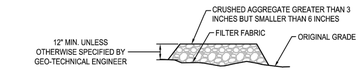


EXPANSION JOINT AT CONCRETE PAVING
17 N.T.S.

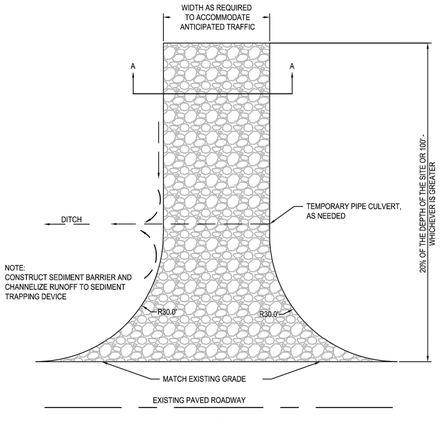
CONTRACTION JOINT AT CONCRETE PAVING
16 N.T.S.

CONSTRUCTION/KEYED JOINT AT CONCRETE PAVING
15 N.T.S. USE FOR CONTROL JOINT IF CONST. JOINT REQUIRED

14 CONCRETE SIDEWALK AT SAWCUT CONTROL JOINT
SECTION N.T.S.

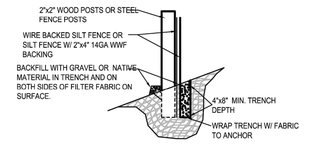


SECTION A-A



PLAN VIEW

20 CONSTRUCTION ACCESS
N.T.S.



19 WIRE BACKED SILT FENCE
NTS

ISSUE FOR:
- FOR INTER REVIEW ONLY
- BID ONLY
- PERMITS SET
- CONSTRUCTION SET ☑

REVISIONS:

NO.	DATE	DESCRIPTION

MAKMO DESIGN
86 ZENITH LANE, SUGAR LAND, TX 77498
PH # 832-231-7047 TBPE FIRM # 21236

PROPOSED C STORE & GAS STATION
LOCATED AT
1001 W VILLA MARIA RD, BRYAN, TX 77801

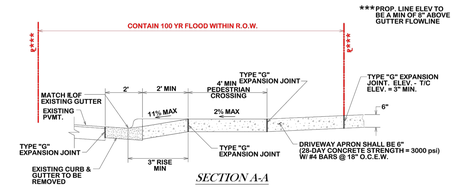
SEAL
:

DATE: 6/18/2025

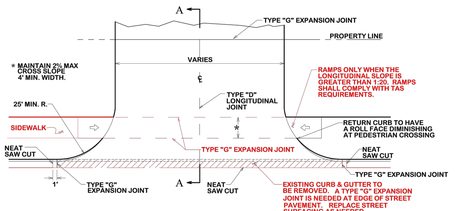
PROJECT NUMBER	23-000
SCALE	
DRAWN BY	R:R
CHECKED BY	A:Z
SHEET TITLE	:

SITE DETAILS

DRAWING NUMBER:
C-6.0



SECTION A-A



CITY OF BRYAN
The Good Life, Texas Style.

COMMERCIAL DRIVEWAY

DATE	B/CS UNIFIED STANDARD DETAIL	DETAIL NO.
FEB. 2021		ST2-03

CITY OF COLLEGE STATION

GENERAL NOTES:

ALL AREAS WHERE EXISTING VEGETATION AND GRASS COVER HAVE BEEN BARED BY CONSTRUCTION SHALL BE ADEQUATELY BLOCK SODDED OR HYDROMULCHED AND WATERED UNTIL GROWTH IS ESTABLISHED. IN DEVELOPED AREAS WHERE GRASS IS PRESENT, BLOCK SOD WILL BE REQUIRED. BARED AREAS SHALL BE SEEDED OR SODDED WITHIN 14 CALENDAR DAYS OF LAST DISTURBANCE.

APPROVED EROSION CONTROL MEASURES MUST BE INSTALLED DURING THE ENTIRE TIME THAT EARTH HAS BEEN BARED BY CONSTRUCTION AND SHALL STAY IN PLACE UNTIL ACCEPTABLE VEGETATIVE GROWTH IS ESTABLISHED AFTER CONSTRUCTION IS COMPLETE AND THEN REMOVED BY CONTRACTOR.

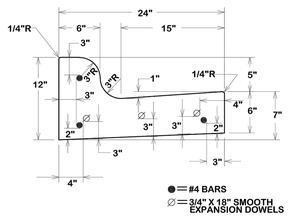
ALL EROSION CONTROL MEASURES SHOULD BE CLEANED OF SILT AFTER EVERY RAIN.

ALL TRAFFIC SIGNALS AND APPURTENANCES, AND ALL PAVEMENT MARKINGS AND MARKERS SHALL BE IN ACCORDANCE WITH TXDOT STANDARDS

REFER TO SPEC 31 17 23.23 (PAVEMENT MARKINGS) FOR ADDITIONAL LOCAL REQUIREMENTS.

NOTE:
TYPE "G" EXPANSION JOINTS IN CURB & GUTTER SHALL BE SPACED AT A MAXIMUM DISTANCE OF 40' APART AND AT ALL RADIUS POINTS, P.T.'S AND P.C.'S. TYPE "B" CONTRACTION JOINTS IN CURB & GUTTER SHALL BE SPACED AT A MAXIMUM DISTANCE OF 10' APART.

28-DAY CONCRETE STRENGTH=3500 psi.



●= #4 BARS
∅= 3/4" X 18" SMOOTH EXPANSION DOWELS

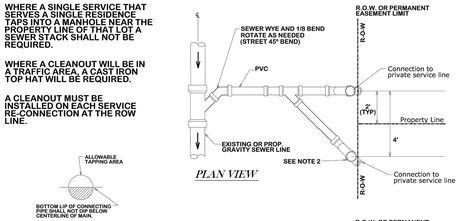
CITY OF BRYAN
The Good Life, Texas Style.

TYPICAL COMBINED CURBS & GUTTER SECTION

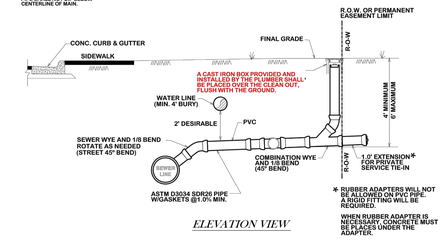
DATE	B/CS UNIFIED STANDARD DETAIL	DETAIL NO.
FEB. 2021		ST1-01

CITY OF COLLEGE STATION

NOTE:
1. ALL MATERIAL SHALL BE ASTM D3034 SDR26 W/ GASKETS
2. SERVICE SHALL BE AS SHALLOW AS POSSIBLE AND STILL SERVICE LOT
3. WHERE A SINGLE SERVICE THAT SERVES A SINGLE RESIDENCE TAPS INTO A MANHOLE NEAR THE PROPERTY LINE OF THAT LOT A SEWER STACK SHALL NOT BE REQUIRED.
4. WHERE A CLEANOUT WILL BE IN A TRAFFIC AREA, A CAST IRON TOP HAT WILL BE REQUIRED.
4. A CLEANOUT MUST BE INSTALLED ON EACH SERVICE RE-CONNECTION AT THE ROW LINE.



PLAN VIEW



ELEVATION VIEW

PLUMBER CONNECTION OR CIP RECONSTRUCTION

CITY OF BRYAN
The Good Life, Texas Style.

STANDARD SEWER SERVICE RE-CONNECTION

DATE	B/CS UNIFIED STANDARD DETAIL	DETAIL NO.
APR 2024		S6-01

CITY OF COLLEGE STATION

Ⓐ SELECT MATERIAL
MATERIAL EXCAVATED FROM THE DITCH, (WHICH IS FREE OF ROCKS, LUMPS, CLODS, OR DEBRIS LARGER THAN TWO (2) INCHES IN THE LARGEST DIMENSION) COMPACTED TO A MINIMUM OF 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698 (STANDARD) AT A MOISTURE CONTENT WITHIN OPTIMUM TO + 4% OF OPTIMUM UNDER NON-STRUCTURAL AREAS (ie...YARDS, PASTURES, EASEMENTS) AND TO A MINIMUM OF 98% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D698 (STANDARD) AT A MOISTURE CONTENT WITHIN OPTIMUM TO +4% OF OPTIMUM UNDER NEW STREET AREAS AND STREETS TO BE RECONSTRUCTED.

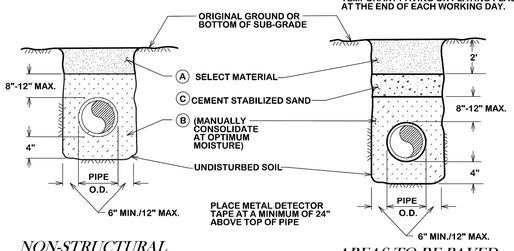
Ⓑ GRANULAR MATERIAL
MATERIAL SHALL BE BANK RUN RIVER SAND WHICH IS FREE OF DETRIMENTAL QUANTITIES OF CLAY, DEBRIS, OR ORGANIC MATERIAL AND WHICH, WHEN TESTED BY STANDARD LABORATORY METHODS, MEET THE FOLLOWING REQUIREMENTS:

MAXIMUM LIQUID LIMIT	45
MAXIMUM PLASTICITY INDEX	15
MAXIMUM PERCENT PASSING NO. 200 SIEVE	35
MINIMUM PERCENT PASSING 3/4" SIEVE	100

THE MATERIAL SHALL BE FREE FLOWING AND WHEN WET, SHALL NOT ADHERE TO FORM A BALL WHEN PRESSED IN THE HAND.

Ⓒ CEMENT STABILIZED SAND

NOTES:
1. *FOR BEDDING AND TRENCHING WITHIN ALL EXISTING PAVED AREAS SEE DETAILS FOR OPEN CUT STREETS (Details ST4-00, ST4-01, ST4-02). THIS NOTE DOES NOT APPLY TO STREETS BEING RECONSTRUCTED.*
2. *EVERY 100 FEET PROVIDE A WATER STOP BLOCK COMPOSED OF CEMENT SAND OR NATIVE MATERIAL DEPENDING ON EMBEDMENT. BLOCK SHALL BE 6 FEET IN LENGTH. NO BEDDING SAND IN THIS AREA.*
3. ALL BEDDING & INSTALLATION OF PVC PIPE SHALL BE IN ACCORDANCE WITH ANSI/AWWA STANDARDS FOR PVC PIPE.
4. ALL BEDDING & INSTALLATION OF DUCTILE IRON PIPE SHALL BE IN ACCORDANCE WITH ANSI/AWWA C150/A21.50
5. COMPACTION SHALL BE ATTAINED BY MECHANICAL TAMPING.
6. RELATIVE COMPACTION SHALL BE TESTED IN THE PRESENCE OF THE CITY ENGINEER.
7. DUST RESULTING FROM THE CONTRACTOR'S PERFORMANCE OF THE WORK, EITHER INSIDE OR OUTSIDE THE RIGHT-OF-WAY, SHALL BE CONTROLLED BY THE CONTRACTOR.
8. ALL TRENCHES SHALL BE BACK FILLED AND TEMPORARY PAVING OR PLATING PLACED AT THE END OF EACH WORKING DAY.



NON-STRUCTURAL AREAS

AREAS TO BE PAVED OR STREETS TO BE RECONSTRUCTED

CITY OF BRYAN
The Good Life, Texas Style.

BEDDING AND TRENCH FOR DI PIPE & PVC PIPE WITHIN NON-STRUCTURAL OR NEW PAVED AREAS

DATE	B/CS UNIFIED STANDARD DETAIL	DETAIL NO.
AUG. 2012		W4-02

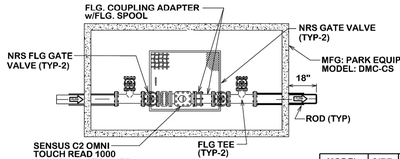
CITY OF COLLEGE STATION

SPECIAL CONDITIONS
1. METER REGISTER SHALL BE NO DEEPER THAN 12 INCHES BELOW FINISHED GRADE.
2. FLOOR OF VAULT WILL BE A MINIMUM OF 6 INCHES FROM BOTTOM OF ANY PIPING APPARATUS OR METER WITHIN THE VAULT.
3. REINFORCED CONCRETE VAULT BASE (FLOOR) SHALL BE CONSTRUCTED USING A STANDARD FIVE SACK CONCRETE MIX AND REINFORCING COMPRISED OF #3 REBAR ON 12 INCH CENTERS WITH A MINIMUM BASE THICKNESS OF 6 INCHES.
4. SET SCREW RETAINER GLANDS SHALL BE INSTALLED AT EACH FITTING ON MECHANICAL JOINT PIPE.
5. VALVES SHALL MEET THE CITY SPECIFICATIONS FOR VALVES.
6. THERE SHALL BE NO PIPING UNDER THE FLOOR OF THE VAULT.

APPROVED 3" OR LARGER COMPOUND METERS, VAULTS & MATERIALS

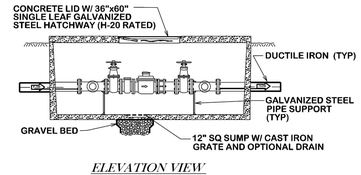
APPROVED - METERS	SENSUS SRH (U. S. GALLONS)
APPROVED - VAULTS	PARK DMC-BR PRE-CAST CONCRETE VAULT W/ ADEQUATE ACCESS AND VAULT DIMENSIONS FOR METER SELECTED
APPROVED - MATERIALS	DUCTILE IRON PIPE WITH MECHANICAL JOINT. SET SCREW RETAINER GLANDS WILL BE BASED ON ALL M.J. FITTINGS.

ANY DEVIATIONS FROM THE ABOVE SPECIAL CONDITIONS OR APPROVED METERS, VAULTS OR MATERIALS MUST BE SUBMITTED TO THE DIVISION MANAGER, WATER SERVICES, 72 HOURS PRIOR TO ANTICIPATED DEVIATION.



PLAN VIEW

MODEL	SIZE	L1	W1	H1	WEIGHT LBS
DMC-CS3	3"	8'-8"	5'-0"	4'-6"	12,000
DMC-CS4	4"	8'-8"	5'-0"	4'-6"	12,000
DMC-CS6	6"	11'-0"	6'-0"	4'-9"	12,000



ELEVATION VIEW

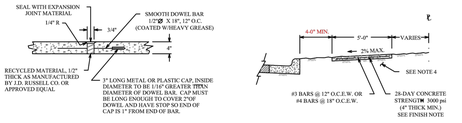
CITY OF BRYAN
The Good Life, Texas Style.

CITY OF COLLEGE STATION METER VAULT ASSEMBLY

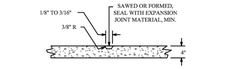
DATE	B/CS UNIFIED STANDARD DETAIL	DETAIL NO.
AUG. 2012		W5-00

CITY OF COLLEGE STATION

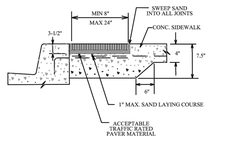
NOTES:
1. SIDEWALK PLACEMENT SHALL BE IN ACCORDANCE WITH B/CS UNIFIED DESIGN GUIDELINES.
2. FINISH: LIGHT BROOM FINISH. JOINTS TO BE TOOLED 1" DEEP AT AN INTERVAL EQUAL TO THE SIDEWALK WIDTH. EXPANSION JOINTS @ 40' O.C.,CONTRACTION JOINTS @ 4' O.C.
3. DOWEL IN AND TIE TO ANY CONCRETE STRUCTURE ADJACENT TO SIDEWALK (DRIVEWAY, INLET BOX, CURB, JUNCTION BOX, ETC.) WITH #3 x 12" BARS @ 12" O.C. OR #4 x 12" BARS @ 18" O.C.
4. COMPACTION: COMPACTED SUBGRADE MATERIAL COMPACTED TO A DENSITY AT LEAST 98% OF MAXIMUM DRY DENSITY AS DETERMINED BY PROCTOR COMPACTION TEST ASTM D698 (STANDARD) AND SHALL BE 0-4% WET OF THE OPTIMUM MOISTURE CONTENT
5. A MINIMUM CLEAR PEDESTRIAN WIDTH AS DEFINED BY TAS AND ADA SHALL BE PROVIDED FOR ENTIRE LENGTH OF SIDEWALK.



SIDEWALK EXPANSION & CONSTRUCTION JOINT



SIDEWALK CONTRACTION JOINT



SIDEWALK PAVER SECTION

ALONG LOCAL STREETS

ALONG MINOR COLLECTORS AND LARGER

ALONG MINOR COLLECTORS AND LARGER

CITY OF BRYAN
The Good Life, Texas Style.

CONCRETE SIDEWALK

DATE	B/CS UNIFIED STANDARD DETAIL	DETAIL NO.
DECEMBER 2020		SW1-02

CITY OF COLLEGE STATION

ISSUE FOR:
FOR INTER REVIEW ONLY
BID ONLY
PERMITS SET
CONSTRUCTION SET ☑

REVISIONS:

NO.	DATE	DESCRIPTION

MAKMO DESIGN
86 ZENITH LANE, SUGAR LAND, TX 77498
PH # 832-231-7047 TBPE FIRM # 21236

PROPOSED C STORE & GAS STATION

LOCATED AT

1001 W VILLA MARIA RD, BRYAN, TX 77801

SEAL
:

DATE: 6/18/2025

PROJECT NUMBER	23-000
SCALE	
DRAWN BY	R:R
CHECKED BY	A.Z
SHEET TITLE	:

CONSTRUCTION DETAILS

DRAWING NUMBER:
C-6.1

NOTE:

TEMPORARY DEVICES AROUND STORMS DRAINS ARE USED TO DETAIN AND/OR FILTER SEDIMENT-LADEN RUNOFF. THE PROTECTION ALLOWS SEDIMENT TO SETTLE PRIOR TO DISCHARGE INTO A STORM DRAIN INLET OR CATCH BASIN.

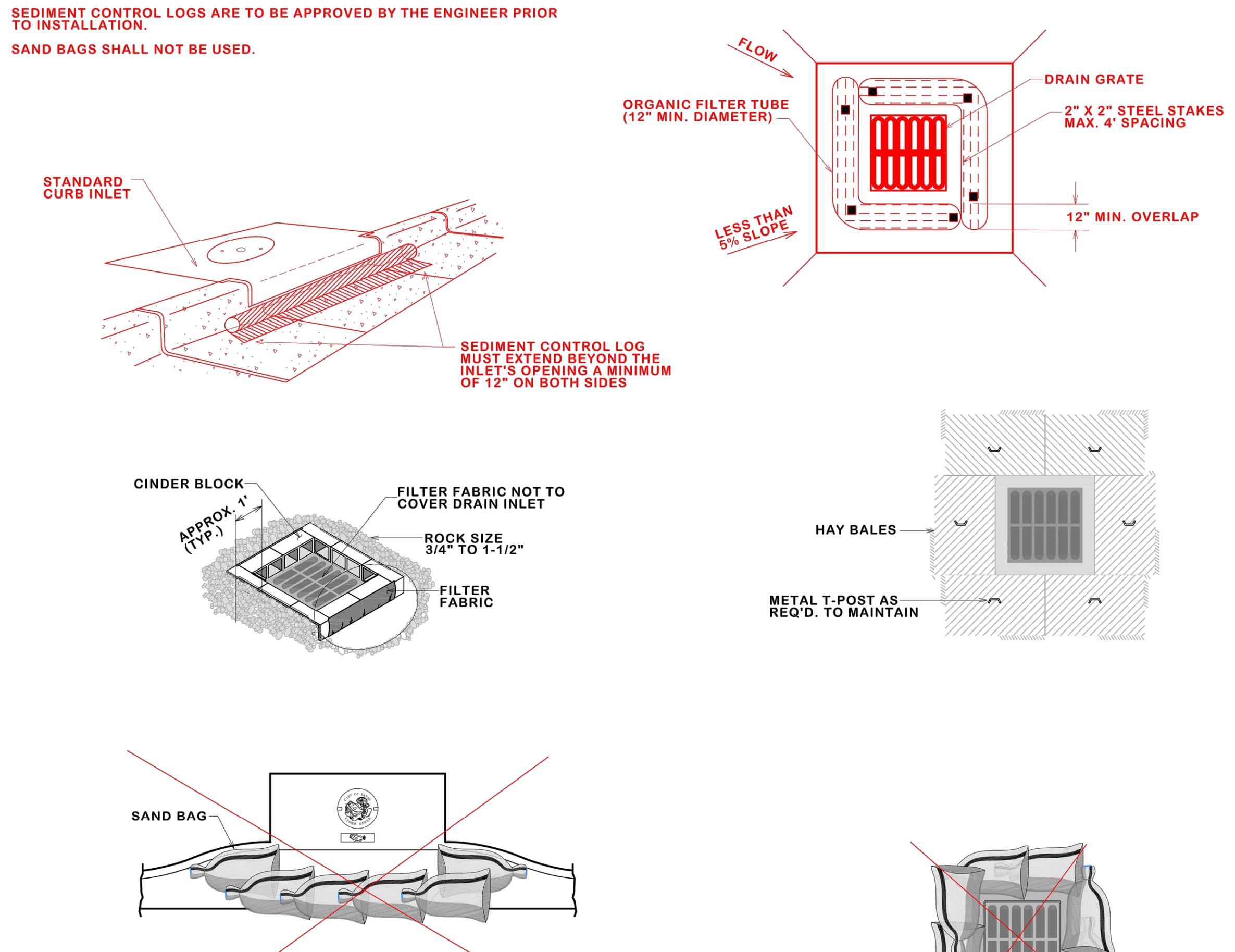
SEDIMENT CONTROL LOGS ARE TO BE USED ON EXISTING CURB INLETS WHICH ARE LOCATED ADJACENT TO OCCUPIED TRAVEL LANES WITHIN THE DISTURBED LIMITS OF A PROJECT AS SHOWN ON THE PLANS.

SEDIMENT CONTROL LOGS ARE TO BE INSTALLED AND MAINTAINED PER THE MANUFACTURER'S INSTRUCTIONS AND PROPERLY WEIGHTED IN ORDER TO REMAIN SECURELY IN PLACE. INSTALLATION MUST MEET THE CONSTRUCTION INSPECTOR'S APPROVAL.

SEDIMENT CONTROL LOGS ARE TO BE CONSTRUCTED OF WOOD FIBERS, SYNTHETIC FIBERS OR OTHER SUITABLE MATERIAL SUFFICIENT TO RETAIN ITS SHAPE AND ENCASED IN A UV STABILIZED FILTERING MEDIA OF SUFFICIENT STRENGTH TO RETAIN SEDIMENT.

SEDIMENT CONTROL LOGS ARE TO BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.

SAND BAGS SHALL NOT BE USED.



TEMPORARY DEVICES AROUND STORMS DRAINS ARE USED TO DETAIN AND/OR FILTER SEDIMENT-LADEN RUNOFF. THE PROTECTION ALLOWS SEDIMENT TO SETTLE PRIOR TO DISCHARGE INTO A STORM DRAIN INLET OR CATCH BASIN.

SAND BAGS SHALL BE UV RESISTANT AND MUST NOT DEGRADE DUE TO ATMOSPHERIC CONDITIONS.

SAND BAGS SHALL BE REPLACED UPON FIRST SIGN OF DETERIORATION.

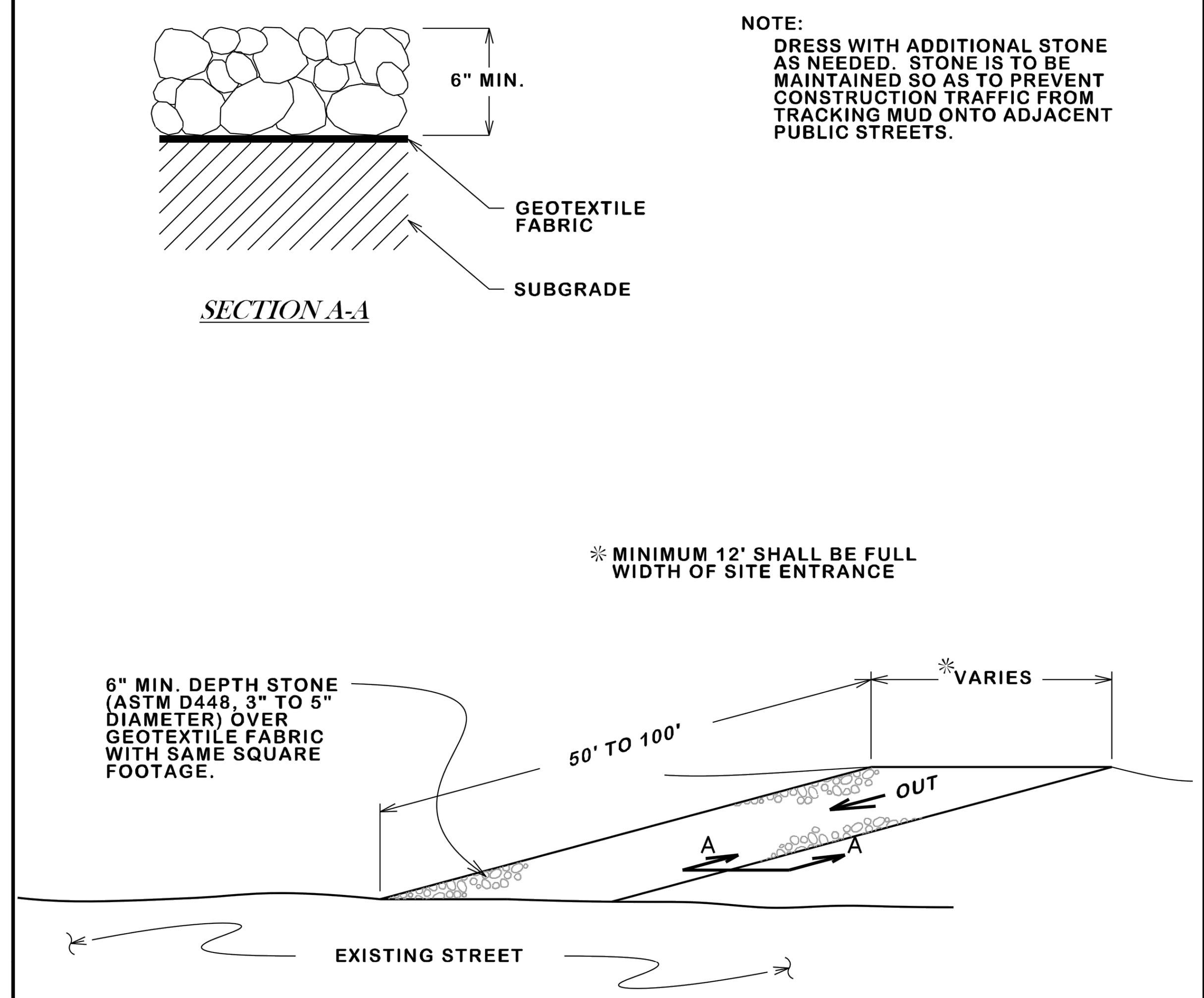
CITY OF BRYAN — The Good Life, Texas Style.

STORM DRAIN INLET PROTECTION

DATE		DETAIL NO.
DECEMBER 2020	B/CS UNIFIED STANDARD DETAIL	SWPP1-00

CITY OF COLLEGE STATION

NOTE:
DRESS WITH ADDITIONAL STONE AS NEEDED. STONE IS TO BE MAINTAINED SO AS TO PREVENT CONSTRUCTION TRAFFIC FROM TRACKING MUD ONTO ADJACENT PUBLIC STREETS.

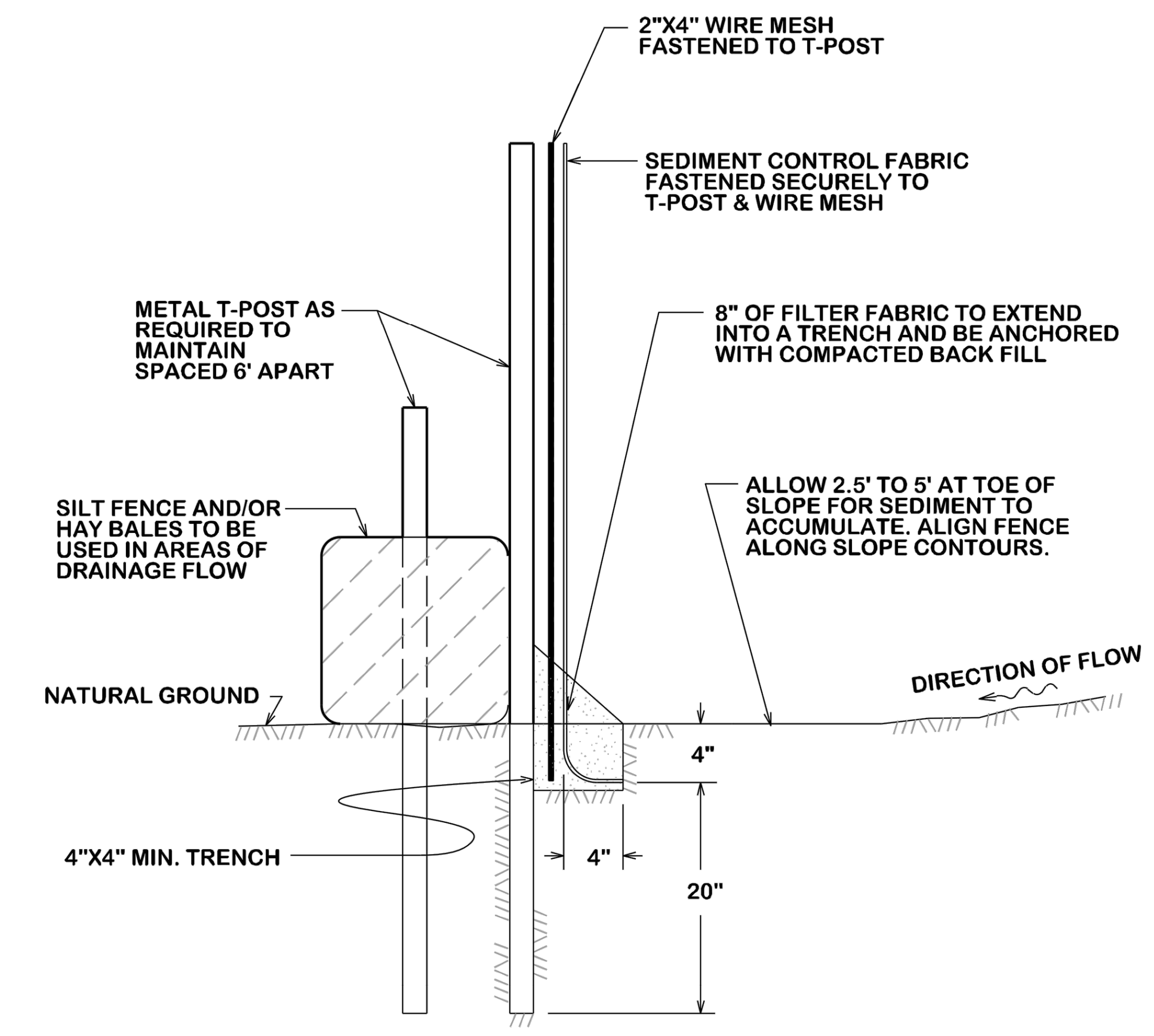


CITY OF BRYAN — The Good Life, Texas Style.

CONSTRUCTION EXIT SLIT CONTROL

DATE		DETAIL NO.
AUG. 2012	B/CS UNIFIED STANDARD DETAIL	SWPP1-02

CITY OF COLLEGE STATION



CITY OF BRYAN — The Good Life, Texas Style.

SILT FENCE ASSEMBLY

DATE		DETAIL NO.
AUG. 2012	B/CS UNIFIED STANDARD DETAIL	SWPP1-03

CITY OF COLLEGE STATION

NOTE:

POST A SIGN READING "CONCRETE WASH OUT PIT" NEXT TO THE PIT.

VERBALLY INSTRUCT THE CONCRETE TRUCK DRIVERS WHERE THE PIT IS AND TO WASH OUT THEIR TRUCKS IN THE PIT AND NO WHERE ELSE.

NO WASHING OUT OF CONCRETE TRUCKS OR WASHING OF SWEEPINGS FROM EXPOSED AGGREGATE CONCRETE INTO STORM DRAINS, OPEN DITCHES, STREETS, OR STREAMS IS ALLOWED.

EXCESS CONCRETE IS NOT ALLOWED TO BE DUMPED ON-SITE, EXCEPT IN DESIGNATED TEMPORARY CONCRETE WASHOUT PIT AREAS.

ON-SITE TEMPORARY CONCRETE WASHOUT AREAS WILL BE LOCATED AT LEAST 50 FEET FROM STORM DRAINS, OPEN DITCHES, OR WATER BODIES AS DETERMINED IN THE FIELD.

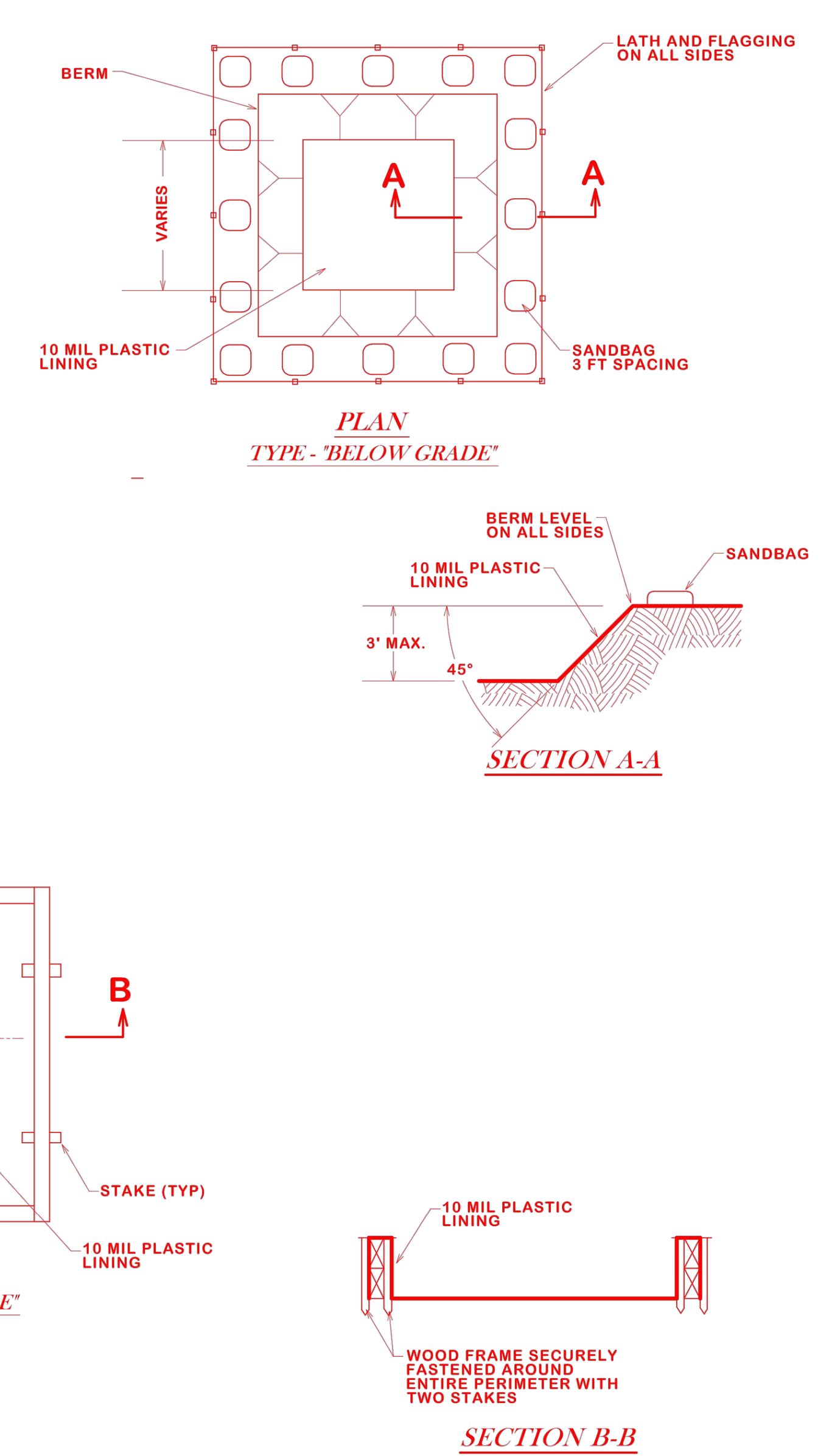
TEMPORARY CONCRETE WASHOUT FACILITIES WILL BE CONSTRUCTED AND MAINTAINED IN SUFFICIENT QUANTITY AND SIZE TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS.

WASHOUT FACILITIES WILL BE CLEANED OUT OR REPLACED ONCE THE WASHOUT IS 75% FULL.

PLASTIC LINING MATERIAL WIL BE MINIMUM OF 10 MIL POLYETHYLENE SHEETING AND WILL BE FREE OF HOLES, TEARS, OR OTHER DEFECTS.

WHEN WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR WORK, THE HARDENED CONCRETE WILL BE REMOVED AND DISPOSED OF OFFSITE. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES WILL BE REMOVED FROM THE SITE AND DISPOSED OF. BELOW GRADE PITS SHALL BE BE FILLED WITH CLEAN FILL MATERIAL AND COMPACTED TO IN-SITU CONDITIONS, OR AS DIRECTED BY THE PROJECT SPECIFICATIONS.

CONSTRUCT ENTRY ROAD AND BOTTOM OF WASHOUT AREA TO SUPPORT EXPECTED LOADINGS FROM TRUCK EQUIPMENT.



CITY OF BRYAN — The Good Life, Texas Style.

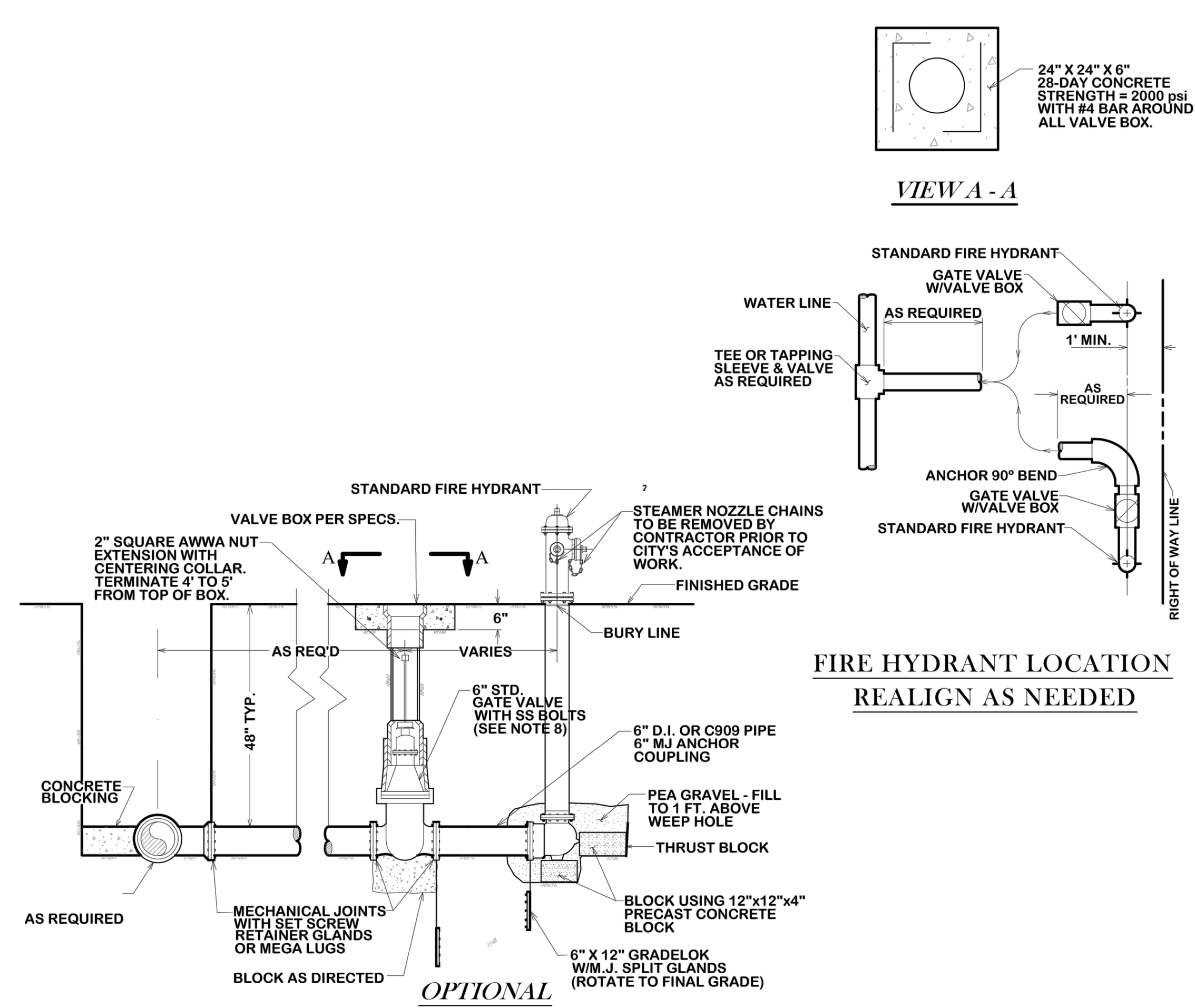
CONCRETE WASHOUT

DATE		DETAIL NO.
DECEMBER 2020	B/CS UNIFIED STANDARD DETAIL	SWPP1-04

CITY OF COLLEGE STATION

GENERAL NOTES:

1. FINELY DIVIDED EARTH FREE OF ROCK, LUMPS AND CLODS EXCEEDING 6" SHALL BE PLACED BY HAND, AND COMPACTED AROUND THE CAST IRON PIPE TO A DEPTH OF 12" OVER THE TOP OF THE PIPE BEFORE BACKFILL IS BEGUN BY ANY MECHANICAL EQUIPMENT.
2. ALL CONCRETE BLOCKING SHALL BE - 28 DAY CONCRETE STRENGTH = 2000psi.
3. ALL THRUST BLOCKING SHALL PROVIDE A MINIMUM OF 2 SQUARE FEET OF BEARING AREA OF CONCRETE ON UNDISTURBED SOIL, OR AS DIRECTED BY THE ENGINEER.
4. WATER MAINS WILL NOT BE FULLY PRESSURIZED UNTIL CONCRETE HAS REACHED 7 DAY STRENGTH.
5. ALL PIPE WILL BE LAID SO AS THE ENTIRE BARRELL WILL HAVE FULL BEARING ON THE FINE GRADED TRENCH BOTTOM. BELL HOLES SHALL BE CUT FOR EACH BELL AND FIRE HYDRANT.
6. ALL FITTING SHALL BE MECHANICL JOINTS UNLESS OTHERWISE DIRECTED.
7. HYDRANTS SHALL BE LOCATED NO CLOSER THAN 3 FEET MEASURED FROM THE BACK OF CURB TO THE FACE OF THE STEAMER ON THE FIRE HYDRANT AND NO FURTHER THAN 15 FEET FROM BACK OF CURB
8. IF MAIN VALVE IS WITHIN 50 FEET OF FIRE HYDRANT THEN ASSEMBLY VALVE MAY BE OMITTED ON A DEAD END HYDRANT LEAD WITH NO ADDITIONAL CONNECTIONS.
9. HEIGHT OF FIRE HYDRANT MEASURED FROM THE STEAMER NOZZLE SHALL BE 18 TO 24 INCHES ABOVE NEAREST FINAL GRADE.
10. FIRE HYDRANTS SHALL COME EQUIPPED WITH STORZ QUARTER TURN PUMPER CONNECTIONS THAT ARE AN INTEGRAL PART OF THE FIRE HYDRANT, AND MUST BE FURNISHED BY THE MANUFACTURER, STORZ ADAPTERS WILL NOT BE ACCEPTED.



CITY OF BRYAN — The Good Life, Texas Style.

STANDARD FIRE HYDRANT ASSEMBLY

DATE		DETAIL NO.
APR 2024	B/CS UNIFIED STANDARD DETAIL	W1-02

CITY OF COLLEGE STATION

ISSUE FOR:
- FOR INTER REVIEW ONLY
- BID ONLY
- PERMITS SET
- CONSTRUCTION SET ✓

REVISIONS:

NO.	DATE	DESCRIPTION

MAKMO DESIGN
86 ZENITH LANE, SUGAR LAND, TX 77498
PH # 832-231-7047 TBPE FIRM # 21236

PROPOSED C STORE & GAS STATION
LOCATED AT
1001 W VILLA MARIA RD, BRYAN, TX 77801

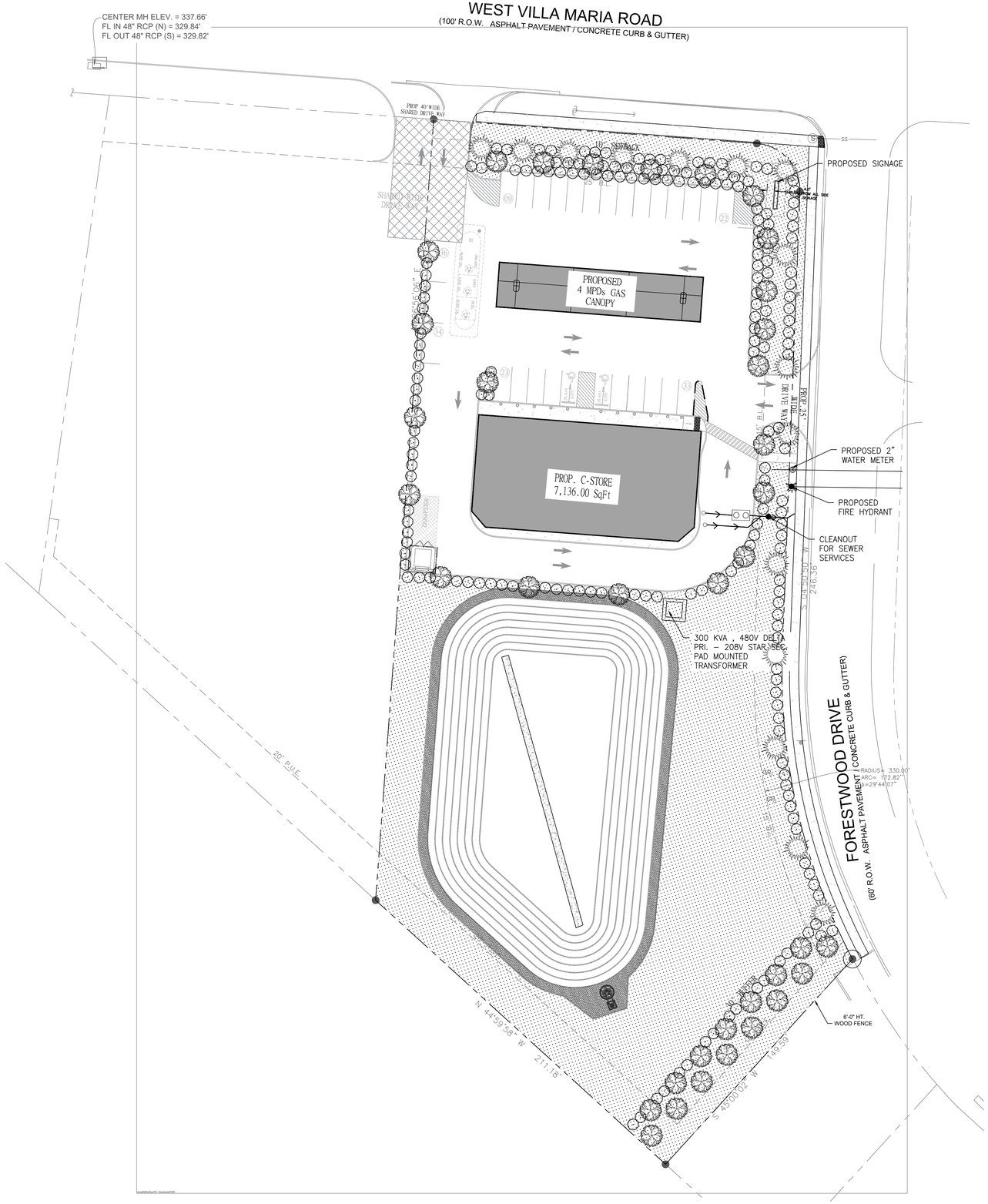
SEAL :

DATE: 6/18/2025

PROJECT NUMBER	23-000
SCALE	
DRAWN BY	R.R
CHECKED BY	A.Z
SHEET TITLE :	

SWPPP DETAILS

DRAWING NUMBER:
C-6.2



LANDSCAPING

SYMBOL	SIZE	OFFICIAL NAME	#	SF VALUE	TOTAL
	2" CALIPER	LIVE OAK QUERCUS VIRGINIANA CANOPY TREE	33	200	6,600
	2" CALIPER	DYNAMITE CREPE MYRTLE LAGERSTROEMIA INDICA DYNAMITE) NON-CANOPY TREE	14	150	2,100
	5 GAL. 2'-0" o.c.	KNOCK-OUT ROSE (ROSE RADRAZZ) SHRUB	140	10	1,400

NOTE:

1. LANDSCAPING USED TO SCREEN PARKING LOTS MUST BE DENSE SHRUBBERY HAVING YEAR-ROUND FOLIAGE.
2. THE LANDSCAPING SCREENING SHALL FOLLOWS THE PATTERN REQUIRED IN THE ORDINANCE.

LANDSCAPE ANALYSIS:

1 -CONSTRUCTION ACTIVITIES;

PARKING & PAVEMENT = 33,490 SF
BUILDINGS = 7,136 SF
NET TOTAL = 40,626 SF

2- REQUIREMENTS;

BUILDING , PARKING , & PAVEMENT
40,626 SF @ 17% = 6,906 SF
NET TOTAL = 6,906 SF

NOT LESS THAN 50% OF REQUIRED AREA SHALL BE TREES—3,453 SF REQ'D; 5,700 PROVIDED

NOT LESS THAN 50% OF TREE PLANTED SHALL BE CANOPY; 1,727 SF REQ'D; 3400 PROVIDED

3 - PROVIDED ;

CANOPY TRESS
18 @ 200 SF = 3600 SF

NON-CANOPY TRESS
14 @ 150 SF = 2100 SF

SHRUB 140 @ 10 SF = 1,400 SF

NET TOTAL = 7,100 SF

TOTAL AREA REQUIRED: 6,906 SF
LANDSCAPED AREA PROVIDED: 7,100 SF

4- BUFFER REDUCTION LANDSCAPING REQUIREMENT
FOR THE REDUCED BUFFER AREA, THIS LANDSCAPING SHOULD BE COUNTED SEPARATELY FROM THE GENERAL17% REQUIREMENT.

BUFFER LANDSCAPING CALCULATION:

BUFFER AREA: 20 FT X 150 FT = 3,000 SF
CANOPY TREES FOR BUFFER: 1 TREE PER 200 SF
REQUIRED CANOPY TREES: 3,000 SF / 200 SF PER TREE = 15 CANOPY TREES

NOTE :
AUTOMATIC IRRIGATION IS REQUIRED FOR THIS PROJECT
ALL PARKING ISLANDS MUST HAVE A CANOPY TREE.

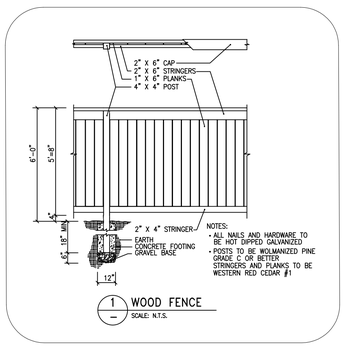
LANDSCAPING CALCULATIONS:

A. STREET TREES:
Length of property line in lineal feet as measured along all sides of the property fronting on a public street(s).
174.32/30 = 5.81 Street trees require on WEST VILLA MARIA ROAD
246.36/30 = 8.21 Street trees require on FORESTWOOD DRIVE
(Staff may create an artificial lot)

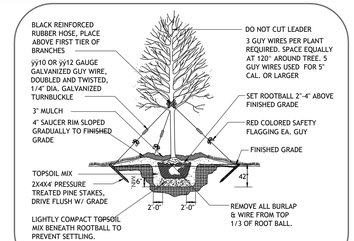
B. PARKING LOT TREES:
Number of new parking stalls to be constructed 30/10 =3.0 Parking lot trees required.

C. TOTAL TREE REQUIREMENT:
A. + B. = 17 total number of street and parking lot trees required.
D. SHRUBS: (Are required for new or the expanded portion of parking lots)
Total number of Street trees required, from A above 14 x 10 =140 shrubs.

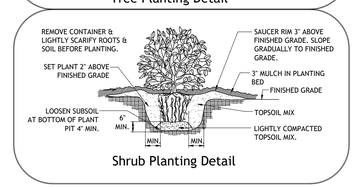
E. LANDSCAPE BUFFER:
6' high screening fence, or 15' wide evergreen planting strip along the total length of property line adjacent to existing single-family residential, or limit of expansion adjacent to existing single-family residential
(Site plan must show land use on all side of the property)



1 WOOD FENCE
SCALE: N.T.S.



Tree Planting Detail



Shrub Planting Detail

Texas 811

NORTH

30 15 0 30 60
SCALE

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CONSTRUCTION SET ☑

REVISIONS:

NO.	DATE	DESCRIPTION

MAKMO DESIGN
86 ZENITH LANE, SUGAR LAND, TX 77498
PH # 832-231-7047 TBPE FIRM # 21236

PROPOSED C STORE & GAS STATION

LOCATED AT

1001 W VILLA MARIA RD, BRYAN, TX 77801

SEAL :

DATE: 3/29/2024

PROJECT NUMBER	:	23-000
SCALE	:	1" = 30'
DRAWN BY	:	R.R
CHECKED BY	:	A.Z
SHEET TITLE	:	

LANDSCAPE PLAN

DRAWING NUMBER:
L-100