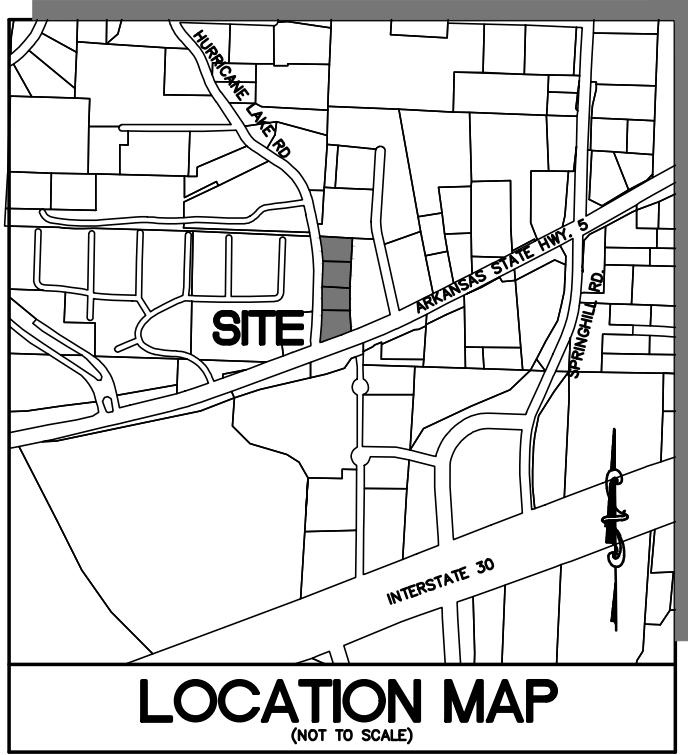


# SITE IMPROVEMENT PLANS

A TRACT OF LAND BEING PART OF THE SE 1/4 OF SECTION 20,  
TOWNSHIP 1 SOUTH, RANGE 14 WEST  
CITY OF BRYANT, SALINE COUNTY, ARKANSAS



## SHEET INDEX

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C10.1	POST-DEVELOPED DRAINAGE AREA MAP

## PERTINENT DATA

TRACT AREA:	1.99 ± AC.
CURRENT OWNER:	NEATHERY SHARON CLYDENA
SITE ADDRESS:	3205 HWY 5 N, BRYANT, AR 72019
	2320 HURRICANE LAKE RD, BRYANT, AR 72019
PARCEL ID:	840-12042-000, 840-12038-000
FEMA FLOOD MAP:	05125C0360E (REVISED JUNE 05, 2020)
EXISTING ZONING:	"C-2" - HIGHWAY COMMERCIAL
PROPOSED USE:	COMMUNITY BUSINESS - MARIJUANA DISPENSARY

## PARKING CALCS.

MINIMUM PARKING FOR C-2 DISTRICT:  
1.0 SPACES PER 300 SF  
(1,960 SF/300 SF) \* 1.0 SPACE = 6.53 OR A MINIMUM OF 7 SPACES

PARKING SPACES PROVIDED = 36 SPACES (2 ADA)

LEGEND	
	BENCH MARK
	FOUND IRON ROD
	FOUND IRON PIPE
	RIGHT OF WAY MARKER
	UTILITY POLE
	SUPPORT POLE
	UTILITY POLE WITH LIGHT
	LIGHT STANDARD
	ELECTRIC METER
	ELECTRIC MANHOLE
	ELECTRIC PEDESTAL
	ELECTRIC SPLICE BOX
	ELECTRIC BREAKER
	GAS DRIP
	GAS METER
	GAS VALVE
	TELEPHONE MANHOLE
	TELEPHONE PEDESTAL
	TELEPHONE SPLICE BOX
	CABLE TV PEDESTAL
	FIRE HYDRANT
	FIRE DEPARTMENT CONNECTION
	WATER MANHOLE
	WATER METER
	WATER VALVE
	POST INDICATOR VALVE
	CLEAN OUT
	STORM MANHOLE
	GRATED MANHOLE
	STORMWATER INLET
	GRATED STORMWATER INLET
	SANITARY MANHOLE
	TREE
	BUSH
	TRAFFIC SIGNAL
	PARKING METER
	STREET SIGN
	SPRINKLER
	MAIL BOX

ABBREVIATIONS	
C.O.	CLEANOUT
DB	DEED BOOK
E	ELECTRIC
FL	FLOWLINE
FT	FEET
FND.	FOUND
G	GAS
M.H.	MANHOLE
N/F	NOW OR FORMERLY
PB.	PLAY BOOK
PC	PAGE
P.V.C.	POLYVINYL CHLORIDE PIPE
R.B.	RADIAL BEARING
R.C.P.	REINFORCED CONCRETE PIPE
SQ.	SQUARE
T	TELEPHONE CABLE
V.C.P.	VICTORIZED CLAY PIPE
W	WATER
(85 W)	RIGHT-OF-WAY WIDTH

## GENERAL NOTES

- BOUNDARY AND TOPOGRAPHIC SURVEY BY STOCK & ASSOCIATES CONSULTING ENGINEERS, INC.
- ALL UTILITIES SHOWN HAVE BEEN LOCATED BY THE ENGINEER FROM AVAILABLE RECORDS. THEIR LOCATION SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR HAS THE RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES, PRIOR TO CONSTRUCTION, TO HAVE EXISTING UTILITIES FIELD LOCATED.
- ALL IMPROVEMENTS SHALL CONFORM TO THE CITY OF BRYANT STANDARDS AND SPECIFICATIONS.

## CONTACTS

SUMMIT UTILITIES - SHANE GIBBONS, (501) 581-9428

LINE TYPE LEGEND	
	EX CONT. M/R
	EX CONT. M/R
	TREE LINE
	FEMA ELEV.
	FEMA LIMIT
	PAVEMENT
	WALL
	GUARD RAIL
	CHAINLINK/WIRE FENCE
	WOOD/VINYL FENCE
	GAS
	UNDER GROUND ELEC.
	OVERHEAD ELEC.
	TELEPHONE LINE
	FIBER OPTIC LINE
	WATERLINE
	FLOODWAY
	SLOPE/LEEVE

### USGS BENCHMARK

BENCHMARK# R 338 ELEV=405.60 (NAVD83)  
DESCRIBED BY ARKANSAS DEPARTMENT OF  
TRANSPORTATION 2013 THE STATION IS LOCATED ABOUT  
5.9 MI (9.5 KM) EAST-SOUTHEAST OF CONRO,  
3.0 MI (4.8 KM) WEST OF ALEXANDER AND 1.8 MI (2.9  
KM) NORTH OF BRYANT.  
TO REACH FROM THE INTERSECTION OF BASELINE ROAD  
AND NORTH FRONTAGE ROAD PARALLELING I-30, GO WEST  
ON NORTH FRONTAGE ROAD FOR 7.48 MI TO THE STATION  
ON THE RIGHT, IN THE CENTER OF A HEADWALL.  
IT IS 85 FT (25.9 M) WEST OF A COMBINATION POLE AND  
20 FT (6.1 M) NORTH OF THE CENTERLINE OF NORTH  
FRONTAGE ROAD.

### DISCLAIMER

STOCK AND ASSOCIATES CONSULTING ENGINEERS, INC. AND THE UNDERSIGNED ENGINEER HAVE NO RESPONSIBILITY FOR SERVICES PROVIDED BY OTHERS TO IMPLEMENT THE IMPROVEMENTS SHOWN ON THIS PLAN AND ALL OTHER DRAWINGS WHERE THE UNDERSIGNED ENGINEER'S SEAL APPEARS. THE CONSTRUCTION MEANS AND METHODS ARE THE SOLE RESPONSIBILITY OF THE OWNER AND CONTRACTOR. STOCK AND ASSOCIATES CONSULTING ENGINEERS, INC. HAS NO RESPONSIBILITY TO VERIFY FINAL IMPROVEMENTS AS SHOWN ON THIS PLAN UNLESS SPECIFICALLY ENGAGED AND AUTHORIZED TO DO SO BY THE OWNER OR CONTRACTOR.

PREPARED BY:

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**STOCK & ASSOCIATES**  
Consulting Engineers, Inc.

SITE IMPROVEMENT PLANS FOR:

**GOOD DAY FARM - BRYANT**

3205 HIGHWAY 5 N,  
BRYANT, ARKANSAS 72019

STATE OF ARKANSAS  
A  
PROFESSIONAL  
ENGINEER  
No. 000996  
EXPIRATION DATE 12/31/25  
06/25/25  
GEORGE M. STOCK E-29116  
CIVIL ENGINEER  
CERTIFICATE OF AUTHORITY  
NUMBER: 000996

REVISIONS:

DRAWN BY:	CHECKED BY:
L.C.W.	G.M.S.
DATE:	JOB NO.
05-14-2025	2025-7775
W.S.D. P. #	BASE MAP #
S.L.C. HAT. #	HAT S.U.P. #
M.D.N.R. #	

SHEET TITLE:  
PRELIMINARY SITE  
PLAN

SHEET NO.:  
1.0



GENERAL NOTES

1. SAFETY NOTICE TO CONTRACTOR: IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
2. THE CONTRACTOR SHALL ALSO BE SOLELY RESPONSIBLE FOR THE SAFETY FOR THE GENERAL PUBLIC AND PASSERBY WITH RESPECT TO WORK ZONE AREAS, MEANS AND METHODS AND PEDESTRIAN SAFETY.
3. ALL EXCAVATIONS, WHETHER THEY ARE FOR RETAINING WALLS, UTILITY TRENCHES OR FOOTING EXCAVATIONS, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) "CONSTRUCTION STANDARDS FOR EXCAVATIONS".
4. PROPERTY LINES, EASEMENTS AND TOPOGRAPHIC SURVEY BY STOCK & ASSOCIATES CONSULTING ENGINEERS.
5. ALL UTILITIES, STRUCTURES AND UNDERGROUND FACILITIES HAVE BEEN PLOTTED FROM BEST AVAILABLE RECORDS. THEREFORE, THE RELATIONSHIP BETWEEN PROPOSED WORK AND EXISTING FACILITIES, STRUCTURES AND UTILITIES MUST BE CONSIDERED APPROXIMATE, AND IT IS THE CONTRACTORS RESPONSIBILITY TO DETERMINE THEIR LOCATION AND THE EXISTENCE OF ANY NOT SHOWN. THE CONTRACTOR HAS THE RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES, PRIOR TO CONSTRUCTION, TO HAVE EXISTING UTILITIES FIELD LOCATED, UNCOVERED AND DEPTHS VERIFIED TO AVOID CONFLICTS.
6. IT IS NOT WARRANTED THAT THESE PLANS CONTAIN COMPLETE INFORMATION REGARDING EASEMENTS, RESERVATIONS, RESTRICTIONS, RIGHT-OF-WAY, BUILDING LINES AND OTHER ENCUMBRANCES. FOR COMPLETE INFORMATION, A TITLE OPINION OR COMMITMENT FOR TITLE INSURANCE SHOULD BE OBTAINED.
7. THIS PLAN IS SUBJECT TO ALL LOCAL, STATE AND FEDERAL REGULATIONS. THERE HAS BEEN NO WETLAND DELINEATION, GEOTECHNICAL OR ENVIRONMENTAL DATA PROVIDED TO THIS ENGINEER PRIOR TO DESIGNING THIS PLAN.
8. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY CONFLICTS WITH PROPOSED IMPROVEMENTS.
9. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE HE HAS THE LATEST SET OF IMPROVEMENT PLANS. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR COORDINATING ALL PERMIT PLAN SETS AND ANY SUBSEQUENT PLAN ISSUANCES.
10. IMPROVEMENTS SHALL BE STAKED IN THE FIELD BY THE CONTRACTOR AND REVIEWED BY THE ARCHITECT AND OWNER PRIOR TO INSTALLATION. CONTRACTOR SHALL REVIEW OTHER SITE-RELATED SHEETS BY OTHER DESIGNERS (LANDSCAPING, ARCHITECT, ETC.) IN ADDITION TO CIVIL SHEETS FOR COORDINATION PURPOSES. ANY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY AND PRIOR TO ANY START OF CONSTRUCTION.
11. THE CONTRACTOR SHALL MAINTAIN A COMPLETE SET OF RECORD DRAWINGS AT THE JOB SITE AND MARK THEREON ANY CHANGES AS THE WORK PROCEEDS. THE CONTRACTOR SHALL SUBMIT COMPUTER GENERATED, LEGIBLE RECORD DRAWINGS TO THE ENGINEER PRIOR TO FINAL INSPECTION AND ACCEPTANCE.
12. ALL WORK WITHIN PUBLIC RIGHT-OF-WAY SHALL BE TO CITY OF BRYANT OR ARKANSAS HIGHWAYS AND TRANSPORTATION STANDARDS, WHERE APPLICABLE.
13. ALL MATERIALS AND METHODS OF CONSTRUCTION TO MEET THE CURRENT STANDARDS AND SPECIFICATIONS OF CITY OF BRYANT OR ARKANSAS HIGHWAYS AND TRANSPORTATION, WHERE APPLICABLE.
14. THE CONTRACTOR SHALL COORDINATE AND/OR OBTAIN ALL NECESSARY LOCAL, STATE, AND FEDERAL PERMITS RELATED TO CONSTRUCTION OF THE IMPROVEMENTS.
15. PRIOR TO BEGINNING ANY WORK, THE CONTRACTOR SHALL CONTACT THE OFFICE OF THE OWNER FOR SPECIFIC INSTRUCTIONS RELEVANT TO THE SEQUENCING OF WORK.
16. ALL WORK MUST BE PERFORMED WITHIN EXISTING OR ACQUIRED EASEMENTS. AGENCY APPROVAL OF THESE PLANS DOES NOT AUTHORIZE OR CONDONE WORK OUTSIDE OF THE EASEMENTS.
17. THE DEVELOPER OR OWNER IS ADVISED THAT UTILITY COMPANIES MAY REQUIRE COMPENSATION FOR RELOCATION OF THEIR FACILITIES WITHIN THE PUBLIC RIGHT-OF-WAY. THE DEVELOPER OR OWNER SHALL ALSO BE MADE AWARE OF EXTENSIVE DELAYS IN UTILITY COMPANY RELOCATIONS AND ADJUSTMENTS WHICH MAY OCCUR. THE DELAYS DUE TO UTILITY RELOCATION AND ADJUSTMENTS WILL NOT CONSTITUTE A CAUSE TO ALLOW OCCUPANCY PRIOR TO COMPLETION OF ROAD IMPROVEMENTS.
18. THE CONTRACTOR SHALL VERIFY PROPOSED AND COORDINATE PROPOSED SERVICES AND LOCATIONS OR RELOCATIONS WITH ALL UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN ALL UTILITY PERMITS, UNLESS SPECIFICALLY MENTIONED OTHERWISE.
19. ALL PROPOSED UTILITIES TO BE LOCATED UNDERGROUND, UNLESS STATED OTHERWISE.
20. ALL HYDRANTS, POWER POLES OR OTHER OBSTRUCTIONS SHALL HAVE A MINIMUM TWO FOOT SETBACK FROM FACE OF CURB OR EDGE OF SHOULDER OF THE ULTIMATE PAVEMENT SECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THIS REQUIREMENT, PRIOR TO CONSTRUCTION. ANY LOCATION WHICH DOES NOT MEET THIS REQUIREMENT SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION IMMEDIATELY. THE CONTRACTOR SHALL ASSUME ALL LIABILITY IF CONFLICTS ARE NOT BROUGHT TO THE ENGINEER'S ATTENTION FOR A DETERMINATION HOW TO PROCEED PRIOR TO CONSTRUCTION.
21. ALL TRAFFIC CONTROL DEVICES SHALL COMPLY WITH THE CURRENT EDITION OF THE MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND ADOT, WHERE APPLICABLE.
22. ACCESS TO PRIVATE PROPERTIES SHALL BE MAINTAINED AT ALL TIMES. EXISTING COMMERCIAL ENTRANCES MAY HAVE ACCESS RESTRICTED TO 1/2 OF THE ENTRANCE AT A TIME, UNLESS OTHERWISE APPROVED IN THIS PLAN SET.
23. NO SIDEWALK SHALL BE REMOVED WITHOUT CONFIRMING ADEQUATE PEDESTRIAN FACILITIES WILL EXIST DURING CONSTRUCTION. PROJECT NEEDS TO PROVIDE CONTINUOUS PEDESTRIAN ACCESS DURING CONSTRUCTION, UNLESS APPROVED ELSEWHERE. FOR SIDEWALK REMOVAL/REPLACEMENT VERIFY THERE IS ADEQUATE PEDESTRIAN ACCESS AROUND SITE, OR PROVIDE TEMPORARY PEDESTRIAN ACCESS.
24. IF A PEDESTRIAN DETOUR PLAN IS NOT INCLUDED IN THIS PLAN SET, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CREATING A DETOUR PLAN AND SUBMITTING SAID PLAN TO THE ENGINEER AND AGENCIES FOR REVIEW AND APPROVAL.
25. ALL SIDEWALKS, CURB RAMPS, RAMPS, ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT APPROVED "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES" (ADAAG) ALONG WITH THE GRADES, CONSTRUCTION MATERIALS, SPECIFICATIONS, AND SIGNAGE. IF ANY CONFLICT OCCURS BETWEEN THE ABOVE INFORMATION AND THE PLANS, THE ADAAG GUIDELINES SHALL TAKE PRECEDENCE, AND THE CONTRACTOR, PRIOR TO ANY CONSTRUCTION, SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL VERIFY THESE IMPROVEMENTS WITH THE ENGINEER PRIOR TO INSTALLATION.
26. THE CONTRACTOR SHALL BE MADE AWARE THAT CERTAIN EXCEPTIONS TO ADA REQUIREMENTS MAY BE APPLICABLE. UNLESS SPECIFICALLY NOTED WITHIN THIS PLAN SET, THE CONTRACTOR SHALL ASSUME THAT NO EXCEPTION WILL APPLY.
27. ALL SIDEWALKS (THICKNESS AND WIDTH) AND CURB RAMPS TO BE CONSTRUCTED IN ACCORDANCE WITH ADA, CITY OF BRYANT OR ARKANSAS HIGHWAYS AND TRANSPORTATION STANDARDS.
28. ANY DISTURBED OFF-SITE PROPERTY (I.E. BUSHES, TREES, FENCES, MAILBOXES, ETC.), WHICH MAY NOT BE LABELED, SHALL BE REPLACED IN-KIND AT THE DEVELOPER'S EXPENSE.
29. SIGNAGE SHALL BE IN ACCORDANCE WITH CITY OF BRYANT SIGN ORDINANCE(S).

STORM SEWER NOTES

- 1.) ALL CONCRETE PIPE SHALL BE REINFORCED, AND CONFORM TO A.S.T.M. DESIGNATION C76-80 CLASS UNLESS NOTED.
- 2.) ALL SEWER CONSTRUCTION AND MATERIALS TO BE IN ACCORDANCE WITH THE CITY OF BRYANT STREET, STORM DRAIN AND SANITARY SEWER SPECIFICATIONS AND STANDARDS.
- 3.) ALL TRENCHES UNDER AREAS TO BE PAVED AND UNDER EXISTING PAVING SHALL BE GRANULARLY FILLED WITH 3/4" CLEAN BACKFILL ONLY. BACKFILL SHALL BE PLACED IN ACCORDANCE WITH CITY OF BRYANT STANDARDS.
- 4.) ALL TRENCH BACKFILLS UNDER PAVEMENT WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACKFILLED. TRENCH BACKFILLS UNDER PAVED AREAS, OUTSIDE OF PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACKFILL IN LIEU OF THE EARTH BACKFILL COMPACTED TO 95 PERCENT OF THE STANDARD AASHTO T-99 COMPACTION TEST A.S.T.M. D-698.
- 5.) JETTING IS NOT AN ACCEPTABLE METHOD OF ACHIEVING BACKFILL COMPACTION. ALL BACKFILL MATERIAL SHALL BE MECHANICALLY COMPACTED TO AT LEAST 95 PERCENT OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY.
- 6.) FOR SEWER PIPE (STORM AND SANITARY) WITH A DESIGN GRADE LESS THAN ONE PERCENT (1%), VERIFICATION OF THE PIPE GRADE WILL BE REQUIRED FOR EACH INSTALLED REACH OF SEWER, PRIOR TO ANY SURFACE RESTORATION OR INSTALLATION OF ANY SURFACE IMPROVEMENTS. THE CONTRACTOR'S FIELD SUPERVISOR WILL BE REQUIRED TO PROVIDE DAILY DOCUMENTATION VERIFYING THAT THE AS-BUILT PIPE GRADE MEETS THE DESIGN GRADE THROUGH THE SUBMITTAL OF SIGNED CUT SHEETS TO THE CITY OF BRYANT INSPECTOR UPON REQUEST.
- FIELD SURVEYED VERIFICATION MUST BE MADE UNDER THE DIRECTION OF A LICENSED LAND SURVEYOR OR REGISTERED ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO REMOVE AND REPLACE ANY SEWER REACH HAVING AN AS-BUILT GRADE WHICH IS FLATTER THAN THE DESIGN GRADE BY MORE THAN 0.1%. SEWERS WITH GRADES GREATER THAN THE DESIGN SLOPE MAY BE LEFT IN PLACE, PROVIDED NO OTHER SEWER GRADE IS REDUCED BY THIS VARIANCE IN THE AS-BUILT GRADE.
- THE CITY ALSO RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO REMOVE AND REPLACE ANY SEWER (AT ANY TIME PRIOR TO CONSTRUCTION APPROVAL) FOR WHICH THE AS-BUILT GRADE DOES NOT COMPLY WITH THE GRADE TOLERANCE STATED IN THE ABOVE PARAGRAPH.
- THE SEWER CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COSTS ASSOCIATED WITH THE FIELD VERIFICATION OF THE SEWER GRADE, OR REMOVAL AND REPLACEMENT OF THE SEWER PIPE OR ASSOCIATED APPURTENANCES.
- 7.) ADJUSTMENT OF MANHOLE TO GRADE:  
IF A MANHOLE IS TO BE RAISED: MANHOLES MAY BE RAISED USING COURSES OF BRICK OR APPROVED GRADE RING(S), PROVIDED THE TOTAL ADJUSTMENT OF THE MANHOLE DOES NOT EXCEED 12-INCHES (INCLUDING THE EXISTING RINGS OR COURSES OF BRICK). FOR MANHOLES WHICH WILL EXCEED THE MAXIMUM OF 12-INCHES, THE TRANSITION SECTION OF THE STRUCTURE SHALL BE REMOVED AND THE BOTTOM SECTION RAISED USING THE SAME MATERIAL AS THE EXISTING STRUCTURE.
- IF A MANHOLE IS TO BE LOWERED:  
MANHOLES MAY BE LOWERED BY REMOVING THE TRANSITION SECTION, AND LOWERING THE EXISTING BOTTOM SECTION BY SAWCUTTING THE EXISTING CAST-IN-PLACE CONCRETE, REMOVING THE REQUIRED COURSES OF BRICK, OR REMOVING THE PRECAST RISER SECTION AS APPROPRIATE.

DEMOLITION NOTES

1. CONTRACTOR SHALL VISIT THE PROJECT SITE TO DETERMINE EXTENT OF DEMOLITION.
2. USE OF EXPLOSIVES OR BURNING IS NOT PERMITTED.
3. PAVEMENT AREAS, CURBS, BUILDINGS, TREES, ETC. SHALL BE REMOVED IN COMPLIANCE WITH ALL GOVERNING AGENCIES.
4. CONTRACTOR SHALL OBTAIN HAUL ROUTE APPROVAL FROM CITY OF BRYANT OR ARKANSAS DEPARTMENT OF TRANSPORTATION PRIOR TO COMMENCEMENT OF HAULING OPERATIONS, IF REQUIRED.
5. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANY PRIOR TO BEGINNING ANY WORK THAT WILL AFFECT AN EXISTING UTILITY.
6. CONTRACTOR TO COORDINATE RELOCATIONS, ABANDONMENT OR REMOVAL OF EXISTING UTILITIES WITH UTILITY COMPANIES TO AVOID INTERRUPTION OF SERVICE TO BUILDINGS OUTSIDE OF SPECIFIED PHASE OF WORK.
7. CONTRACTOR SHALL COORDINATE ALL UTILITY SERVICE INSTALLATIONS, REMOVALS, RELOCATIONS AND ABANDONMENT WITH PROPOSED IMPROVEMENTS. CONTRACTOR SHALL AVOID CONDITION WHERE NEW PAVEMENT, CURBING, SIDEWALK, ETC. WILL BE DISTURBED BY UTILITY INSTALLATION.
8. ALL EROSION CONTROL AND SILTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO DEMOLITION.
9. PROTECT EXISTING TREES AND VEGETATION INDICATED TO REMAIN SHALL BE PROTECTED AGAINST UNNECESSARY CUTTING OR SKINNING OF ROOTS, BRANCHES OR BARK, SMOTHERING OF TREES BY STOCKPILE MATERIAL, OR PARKING VEHICLES WITHIN DRIP LINE. PROTECT TREES AND VEGETATION TO REMAIN WITH TEMPORARY CONSTRUCTION FENCING, PRIOR TO SITE CLEARING OPERATIONS.
10. EXISTING PROPERTY CORNERS AND/OR SURVEY MONUMENTS DISTURBED BY CONSTRUCTION TO BE REMOVED AND REPLACED BY LICENSED SURVEYOR IN MISSOURI.
11. REMOVAL AND/OR ABANDONMENT OF EXISTING SEWERS SHALL BE IN ACCORDANCE WITH THE STANDARD CONSTRUCTION SPECIFICATIONS FOR SEWER AND DRAINAGE FACILITIES OF ADOT OR THE CITY OF BRYANT SEWER DISTRICT, WHERE APPLICABLE.
12. EXISTING SEWERS INDICATED TO BE REMOVED AND/OR ABANDONED SHALL BE SECURELY BLOCKED AT ANY POINTS OF INTAKE OR DISCHARGE (OF THE SYSTEM TO REMAIN) WITH THE BULKHEAD OR PREFORMED PLUG. IF THE SEWER IS ABANDONED, IT SHALL BE COMPLETELY FILLED WITH GROUT.
13. ANY SEWER INLETS INDICATED TO REMAIN IN PLACE BUT ARE CHOKED SHALL BE CLEANED OUT AND POSITIVE FLOW SHALL BE VERIFIED. IF INLETS ARE UNABLE TO BE REPAIRED, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.
14. EXISTING WATER METERS, HYDRANTS AND VALVES INDICATED TO REMAIN SHALL HAVE CONNECTING PIPES FIELD LOCATED AND ANY CONFLICTS WITH THE PROPOSED IMPROVEMENTS SHALL BE REPORTED TO THE ENGINEER.
15. CONSTRUCTION DEBRIS, INCLUDING BUT NOT LIMITED TO, CONDUIT, DUCTS, FITTINGS, VALVES, PIPES AND OTHER DEBRIS TO BE REMOVED, SHALL BE DISPOSED OF OFF-SITE, AND IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
16. CONTRACTOR TO PROVIDE ALL NECESSARY FENCING, BARRICADES, SIGNAGE, ETC. FOR PEDESTRIAN SAFETY DURING SITE DEMOLITION/CONSTRUCTION ACTIVITIES.
17. A PEDESTRIAN DETOUR PLAN SHALL BE IMPLEMENTED IF PUBLIC SIDEWALKS ARE TO BE CLOSED DURING CONSTRUCTION.
18. DEMOLITION LIMITS OF EXISTING SIDEWALK, CURB LINE, CURB RAMPS AND ROADWAY HAS BEEN APPROXIMATED AND SHOWN ON THE DEMOLITION SHEET(S).
19. REMOVAL OF PAVEMENT, CURB & GUTTER, SIDEWALKS, ETC. SHALL BE TO THE NEAREST EXISTING JOINT OR FULL DEPTH SAWCUT AT LIMITS OF REMOVAL.
20. SAWCUTTING, CURB AND PAVEMENT REMOVALS TO BE COORDINATED WITH INSTALLATION OF PROPOSED UTILITY MAINS AND SERVICES WITH INSTALLATION OF PROPOSED UTILITY MAINS AND SERVICES. CONTRACTOR TO CONTACT UTILITY COMPANIES TO COORDINATE PAVEMENT REMOVAL AND/OR REPLACEMENT BY UTILITY COMPANY WITH ON-SITE DEMOLITION BY CONTRACTOR.
21. EXISTING PAVEMENT SHOWN TO BE REMOVED SHALL REQUIRE BACKFILL AND PROPER COMPACTION WITH GRADES TO BE RE-ESTABLISHED TO AVOID CONDITIONS WHERE PONDING WATER OCCURS.
23. DEBRIS AND FOUNDATION MATERIAL FROM ANY EXISTING ON-SITE BUILDING OR STRUCTURE WHICH IS SCHEDULED TO BE RAZED FOR THIS DEVELOPMENT MUST BE PROPERLY DISPOSED OF OFF-SITE.
24. CONTRACTOR TO COORDINATE REMOVAL AND/OR DISCONNECTION OF EXISTING SERVICE LINES TO ANY BUILDING PRIOR TO BUILDING DEMOLITION.

SANITARY SEWER NOTES

- 1.) ALL SEWER CONSTRUCTION AND MATERIALS TO BE IN ACCORDANCE WITH THE CITY OF ST. CLAIR SPECIFICATIONS AND STANDARDS.
- 2) 6" AND 8" LATERALS CONSTRUCTED OF P.V.C.S.D. R-35 THICKWALL PIPE, A.S.T.M. D-3034.
- 3) 6" AND 8" LATERAL JOINTS TO CONFORM TO A.S.T.M. STANDARD S.D.R-35 THICKWALL COMPRESSION JOINT FOR P.V.C..
- 4) ALL MANHOLE FRAMES AND COVERS SHALL BE M.S.D. STANDARD FRAME AND COVER.
- 5) ALL LATERAL SEWER CONSTRUCTION METHODS TO CONFORM TO LATEST STANDARDS AND SPECIFICATIONS OF THE CITY OF ST. CLAIR PLUMBING CODE.
- 6) ALL TRENCHES UNDER AREAS TO BE PAVED SHALL BE GRANULARLY FILLED WITH 3/4" CLEAN ROCK BEDDING. BACKFILL SHALL BE PLACED IN ACCORDANCE WITH THE CITY OF ST. CLAIR SPECIFICATIONS AND STANDARDS.
- 7) CONTRACTOR TO START LAYING PIPE AT DOWNSTREAM MANHOLE AND WORK UPSTREAM.
- 8) CLEANOUTS SHALL BE LOCATED AT ALL HORIZONTAL AND VERTICAL CHANGES IN DIRECTION OF FLOW OF HOUSE LATERALS AND ANY SANITARY LATERAL OF 100 FEET OR LONGER.
- 9) HAUNCH CATEGORY I BEDDING PER CITY STANDARDS REQUIRED FOR PIPES IN ROCK.
- 10.) VERTICAL CLEARANCE BETWEEN SEWER AND WATER MAINS SHALL BE A MINIMUM OF 2' - 0".
- 11.) ALL TRENCH BACKFILLS UNDER PAVEMENT WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACKFILLED. TRENCH BACKFILLS UNDER PAVED AREAS, OUTSIDE OF PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACKFILL IN LIEU OF THE EARTH BACKFILL COMPACTED TO 95 PERCENT OF THE STANDARD AASHTO T-99 COMPACTION TEST A.S.T.M. D-698.
- 12) JETTING IS NOT AN ACCEPTABLE METHOD OF ACHIEVING BACKFILL COMPACTION. ALL BACKFILL MATERIAL SHALL BE MECHANICALLY COMPACTED TO AT LEAST 95 PERCENT OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY.
- 13) FOR SEWER PIPE (STORM AND SANITARY) WITH A DESIGN GRADE LESS THAN ONE PERCENT (1%), VERIFICATION OF THE PIPE GRADE WILL BE REQUIRED FOR EACH INSTALLED REACH OF SEWER, PRIOR TO ANY SURFACE RESTORATION OR INSTALLATION OF ANY SURFACE IMPROVEMENTS. THE CONTRACTOR'S FIELD SUPERVISOR WILL BE REQUIRED TO PROVIDE DAILY DOCUMENTATION VERIFYING THAT THE AS-BUILT PIPE GRADE MEETS THE DESIGN GRADE THROUGH THE SUBMITTAL OF SIGNED CUT SHEETS TO THE CITY OF ST. CLAIR INSPECTOR UPON REQUEST.
- FIELD SURVEYED VERIFICATION MUST BE MADE UNDER THE DIRECTION OF A LICENSED LAND SURVEYOR OR REGISTERED ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO REMOVE AND REPLACE ANY SEWER REACH HAVING AN AS-BUILT GRADE WHICH IS FLATTER THAN THE DESIGN GRADE BY MORE THAN 0.1%. SEWERS WITH GRADES GREATER THAN THE DESIGN SLOPE MAY BE LEFT IN PLACE, PROVIDED NO OTHER SEWER GRADE IS REDUCED BY THIS VARIANCE IN THE AS-BUILT GRADE.
- THE CITY ALSO RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO REMOVE AND REPLACE ANY SEWER (AT ANY TIME PRIOR TO CONSTRUCTION APPROVAL) FOR WHICH THE AS-BUILT GRADE DOES NOT COMPLY WITH THE GRADE TOLERANCE STATED IN THE ABOVE PARAGRAPH.
- THE SEWER CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COSTS ASSOCIATED WITH THE FIELD VERIFICATION OF THE SEWER GRADE, OR REMOVAL AND REPLACEMENT OF THE SEWER PIPE OR ASSOCIATED APPURTENANCES.
- 14.) ADJUSTMENT OF MANHOLE TO GRADE:  
IF A MANHOLE IS TO BE RAISED: MANHOLES MAY BE RAISED USING COURSES OF BRICK OR APPROVED GRADE RING(S), PROVIDED THE TOTAL ADJUSTMENT OF THE MANHOLE DOES NOT EXCEED 12-INCHES (INCLUDING THE EXISTING RINGS OR COURSES OF BRICK). FOR MANHOLES WHICH WILL EXCEED THE MAXIMUM OF 12-INCHES, THE TRANSITION SECTION OF THE STRUCTURE SHALL BE REMOVED AND THE BOTTOM SECTION RAISED USING THE SAME MATERIAL AS THE EXISTING STRUCTURE.
- IF A MANHOLE IN IS TO BE LOWERED: MANHOLES MAY BE LOWERED BY REMOVING THE TRANSITION SECTION, AND LOWERING THE EXISTING BOTTOM SECTION BY SAWCUTTING THE EXISTING CAST-IN-PLACE CONCRETE, REMOVING THE REQUIRED COURSES OF BRICK, OR REMOVING THE PRECAST RISER SECTION AS APPROPRIATE.
- 15) FOUNDATION DRAINS, IF INSTALLED, SHALL NOT CONNECT TO THE SANITARY SEWER.
- 16) EXTERNAL GREASE TRAP REQUIRED: GREASE TRAP TO BE LOCATED IN AN ACCESSIBLE LOCATION FOR CITY INSPECTION. GREASE TRAP TO PROVIDE MEANS FOR VISUAL INSPECTION FROM ABOVE FOR BOTH THE INFLUENT AND EFFLUENT SIDES.
- 17.) ALL SEWER CONSTRUCTION AND MATERIALS TO BE IN ACCORDANCE WITH THE CITY OF ST. CLAIR SPECIFICATIONS AND STANDARDS.
- 18) ALL SEWER CONSTRUCTION AND MATERIALS TO BE IN ACCORDANCE WITH THE CLEAN WATER ACT.

GRADING NOTES

1. ALL EROSION AND SILTATION CONTROL SHALL BE INSTALLED PRIOR TO STARTING CONSTRUCTION OR GRADING.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTORS TO CONSULT PROJECT GEOTECHNICAL ENGINEER(S), FOR REVIEW OF THIS PLAN PRIOR TO GRADING OPERATIONS AND FOR GRADING RECOMMENDATIONS AND FIELD TESTING.
3. PROPOSED GRADES AND CONTOURS SHOWN ARE TO FINISHED ELEVATION. CONTRACTOR TO ACCOUNT FOR ALL TOP FINISHES INCLUDING BUT NOT LIMITED TO PAVEMENT, SUB-BASES, SOD, TOPSOIL, RIP-RAP AND FIELD TOP MIXES.
4. ALL GRADING WILL UTILIZE STANDARD GRADING EQUIPMENT TO ACHIEVE THE PROPOSED GRADES SHOWN ON THIS PLAN.
5. TOP OF SEWER STRUCTURE ELEVATIONS SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD PRIOR TO FINAL INSTALLATION OF STRUCTURE TOP.
6. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR COSTS INCURRED DUE TO UNSUITABLE MATERIAL THAT MUST BE REMOVED FROM SITE.
7. NO EXCAVATION SHALL BE MADE SO CLOSE TO THE PROPERTY LINE AS TO ENDANGER ANY ADJOINING PROPERTY OF ANY PUBLIC OR PRIVATE STREET WITHOUT SUPPORTING AND PROTECTING SUCH PUBLIC OR PRIVATE STREET, PROPERTY OR UTILITY FROM SETTTLING, CRACKING OR OTHER DAMAGE.
8. ALL EXCAVATIONS, GRADING OR FILLING SHALL HAVE A FINISHED GRADE NOT TO EXCEED A 3:1 SLOPE (33%), UNLESS SPECIFICALLY APPROVED OTHERWISE.
9. EARTHWORK QUANTITIES ARE THE RESPONSIBILITY OF CONTRACTORS. THE CONTRACTOR IS RESPONSIBLE FOR HAUL-ON OR HAUL-OFF MATERIAL FROM SITE, AS MAY BE REQUIRED.
10. ALL FILLS AND BACKFILLS SHALL BE MADE OF SELECTED EARTH MATERIALS FREE FROM BROKEN MASONRY, ROCK, FROZEN EARTH, RUBBISH, ORGANIC MATERIAL AND DEBRIS, AND AS APPROVED BY THE PROJECT GEOTECHNICAL ENGINEER.
11. ALL FILLS PLACED UNDER PROPOSED STORM AND SANITARY SEWER LINES AND/OR PAVED AREAS, INCLUDING TRENCH BACKFILLS AND WITHIN AND OFF THE ROAD RIGHT-OF-WAY, SHALL BE COMPACTED TO 90% OF MAXIMUM DENSITY AS DETERMINED BY THE "MODIFIED AASHTO T-180 COMPACTION TEST" (ASTM D-1557) FOR THE ENTIRE DEPTH OF THE FILL. COMPACTED GRANULAR BACKFILL IS REQUIRED IN ALL TRENCH EXCAVATION WITHIN THE STREET RIGHT-OF-WAY AND UNDER ALL PAVED AREAS. ALL TESTS SHALL BE PERFORMED UNDER THE DIRECTION OF AND VERIFIED BY A SOILS ENGINEER CONCURRENT WITH GRADING AND BACKFILLING OPERATIONS.
12. SOFT SOILS IN THE BOTTOM AND BANKS OF ANY EXISTING OR FORMER POND SITES OR TRIBUTARIES OR ANY SEDIMENT BASINS OR TRAPS SHOULD BE REMOVED, SPREAD OUT AND PERMITTED TO DRY SUFFICIENTLY TO BE USED AS FILL. NONE OF THIS MATERIAL SHOULD BE PLACED IN PROPOSED PUBLIC RIGHT-OF-WAY LOCATIONS OR IN ANY STORM SEWER LOCATIONS.
13. THE CONTRACTOR SHALL VERIFY THAT ALL AREAS WILL DRAIN POSITIVELY AND WITHOUT PONDING PRIOR TO INSTALLATION OF IMPROVEMENTS.
14. STORMWATER TO BE DISCHARGED AT ADEQUATE NATURAL DISCHARGE POINT. SINKHOLES ARE NOT AN ADEQUATE NATURAL DISCHARGE POINTS.
15. ANY WELLS, CISTERNS AND/OR SPRINGS, WHICH MAY EXIST ON THE PROPERTY, SHOULD BE LOCATED AND SEALED IN A MANNER ACCEPTABLE TO CITY OF BRYANT AND THE ARKANSAS DEPARTMENT OF AGRICULTURE.
16. DESIGN OF SHORING FOR UTILITY TRENCHES AND/OR SEWER CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR, UNLESS OTHERWISE NOTED IN THIS SET OF PLANS.
17. TRUCKS SHALL NOT EXCEED POSTED WEIGHT LIMITS FOR ANY ROAD TRAVELED OR BRIDGES DURING HAUL OPERATIONS.
18. CONTRACTOR SHALL OBTAIN HAUL ROUTE APPROVAL FROM CITY OF BRYANT OR ARKANSAS DEPARTMENT OF TRANSPORTATION PRIOR TO COMMENCEMENT OF HAULING OPERATIONS, IF REQUIRED.
19. PROTECT EXISTING TREES AND VEGETATION INDICATED TO REMAIN SHALL BE PROTECTED AGAINST UNNECESSARY CUTTING OR SKINNING OF ROOTS, BRANCHES OR BARK, SMOTHERING OF TREES BY STOCKPILE MATERIAL, OR PARKING VEHICLES WITHIN DRIP LINE. PROTECT TREES AND VEGETATION TO REMAIN WITH TEMPORARY CONSTRUCTION FENCING, PRIOR TO SITE CLEARING OPERATIONS.
20. ALL OPEN SPACE DETENTION AREAS SHALL BE REVEGETATED WITH BERMUDA SOD.

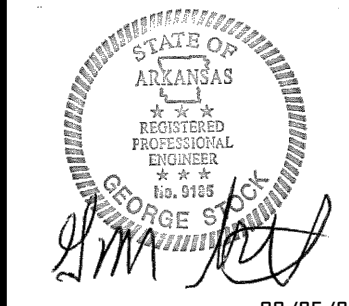
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PREPARED BY:

SITE IMPROVEMENT PLANS FOR:

GOOD DAY FARM - BRYANT

3205 HIGHWAY 5 N.  
BRYANT, ARKANSAS 72019



GEORGE M. STOOK E-29116  
CIVIL ENGINEER  
CERTIFICATE OF AUTHORITY  
NUMBER: 000996

REVISIONS:			
DRAWN BY:	LCW	CHECKED BY:	G.M.S.
DATE:	05-14-2025	JOB NO:	2025-7775
REV'D. P #		BASE MAP #	
S.L.C. H&T #		H&T S.U.P. #	
M.D.N.R. #			
SHEET TITLE			
SPECIFICATIONS			
SHEET NO.: 2.0			



DEMO LEGEND

- TBR = TO BE REMOVED  
TBA = TO BE ABANDONED  
TBR&R = TO BE REMOVED & REPLACED  
DND = DO NOT DISTURB  
UIP = USE IN PLACE  
ATG = ADJUST TO GRADE  
--- LIMITS OF DISTURBANCE



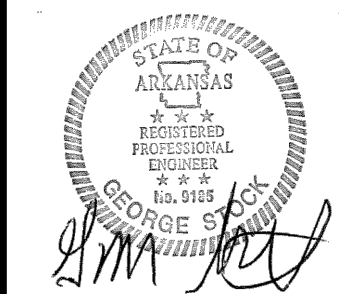
PREPARED BY:

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SITE IMPROVEMENT PLANS FOR:

**GOOD DAY FARM - BRYANT**

3205 HIGHWAY 5 N.  
BRYANT, ARKANSAS 72019



GEORGE M. STOOK E-25116  
CIVIL ENGINEER  
CERTIFICATE OF AUTHORITY  
NUMBER: 000966

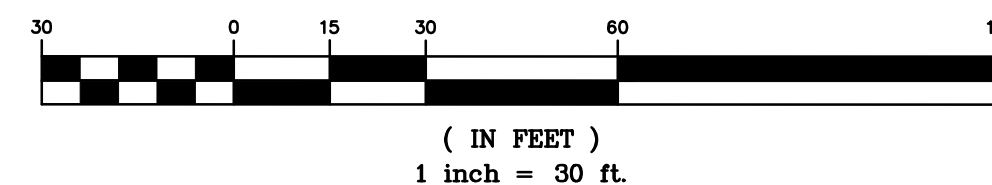
REVISIONS:

DRAWN BY:	C.M.S.	CHECKED BY:	C.M.S.
DATE:	05-14-2025	JOB NO.:	2025-7775
W.S.D. P. #		BASE MAP #	
S.L.C. HAT #		HAT S.U.P. #	
M.D.N.R. #			

SHEET TITLE:  
**EXISTING  
CONDITIONS AND  
DEMOLITION PLAN**

SHEET NO.:  
**C3.0**

GRAPHIC SCALE

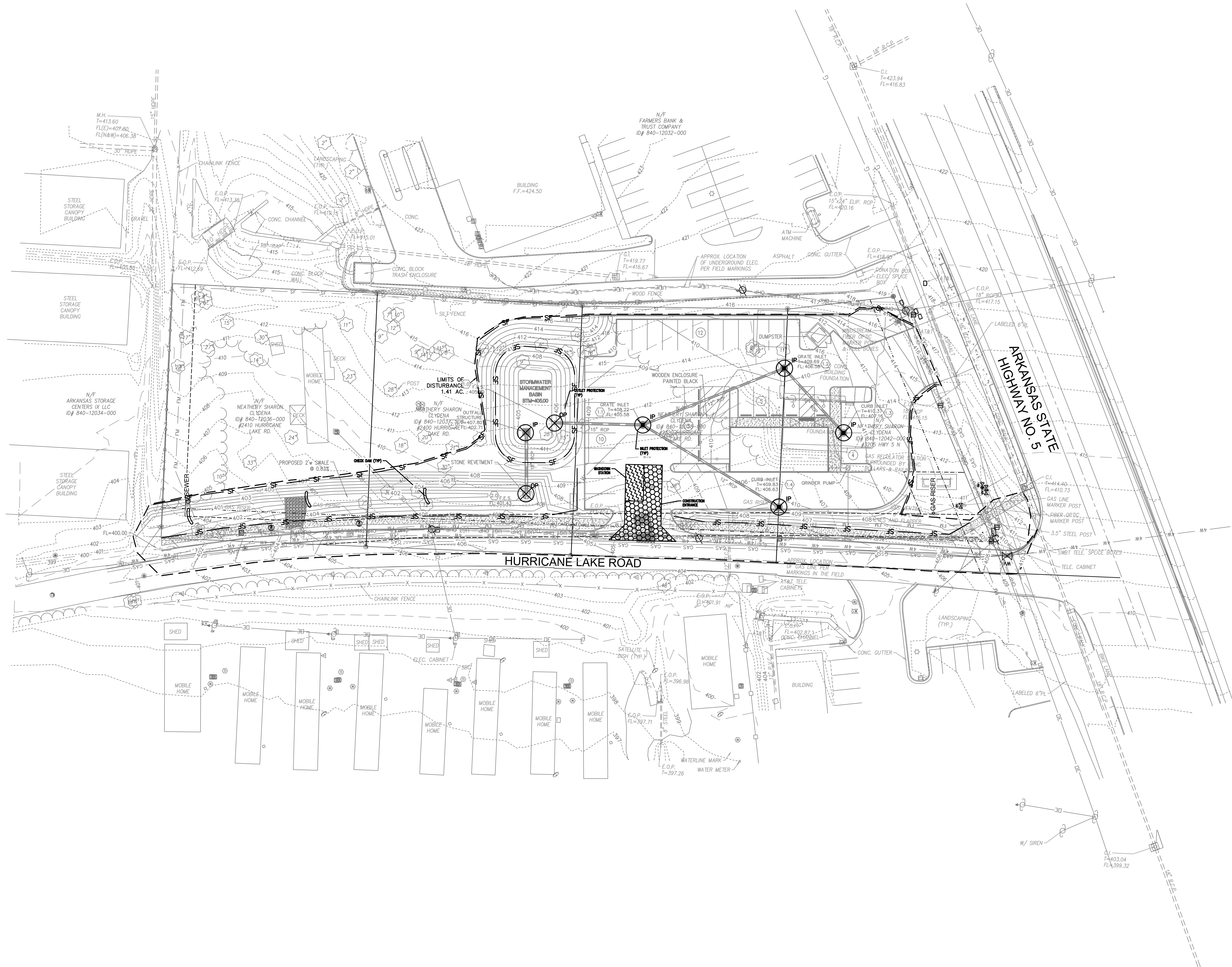




TOTAL AREA DISTURBED:  
141 AC±

### SWPPP LEGEND

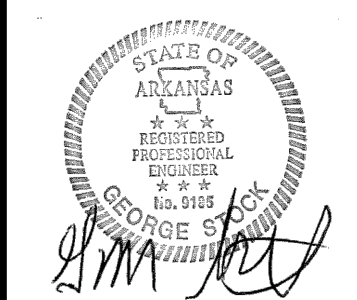
- INLET PROTECTION
- OUTLET PROTECTION
- CONSTRUCTION ENTRANCE
- WASHDOWN STATION
- SILTATION FENCE
- DISTURBED LIMITS
- CHECK DAM



PREPARED BY:

## GOOD DAY FARM - BRYANT

3205 HIGHWAY 5 N.  
BRYANT, ARKANSAS 72019



GEORGE M. STOOK E-29116  
CIVIL ENGINEER  
CERTIFICATE OF AUTHORITY  
NUMBER: 000996

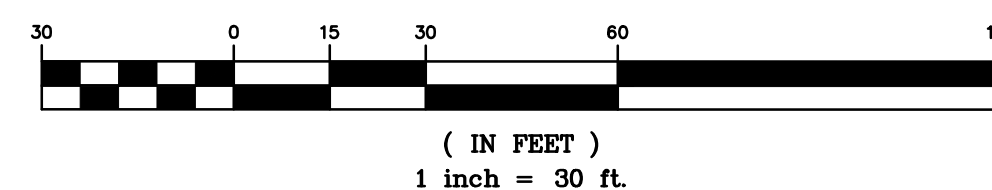
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DATE:	05-14-2025
JOB NO.:	2025-7775
W.S.D. P. #	BASE MAP #
S.L.C. HAT #	HAT S.U.P. #
M.D.N.R. #	

SHEET TITLE:  
STORMWATER  
POLLUTION  
PREVENTION PLAN

SHEET NO.:  
C4.0

GRAPHIC SCALE



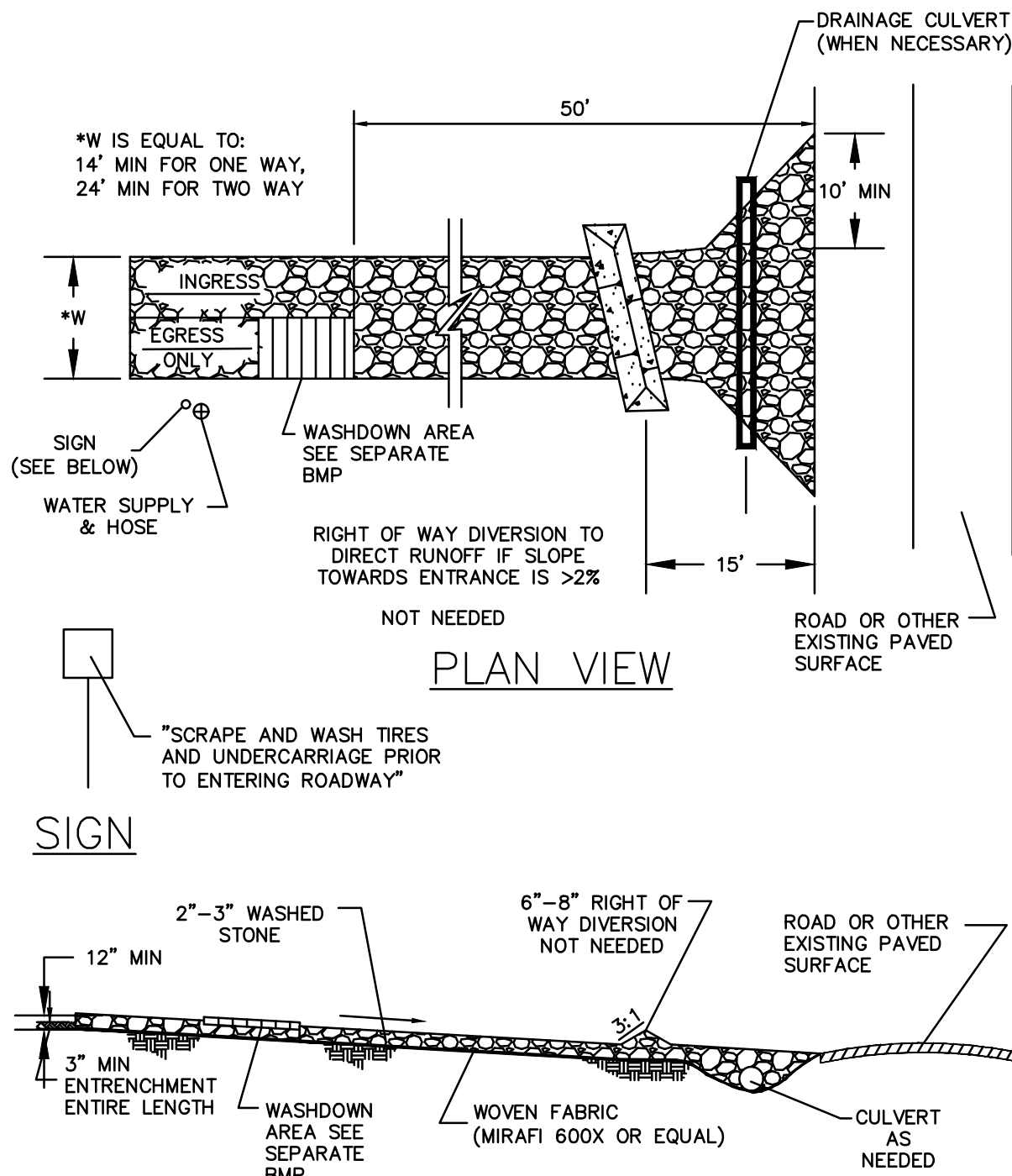
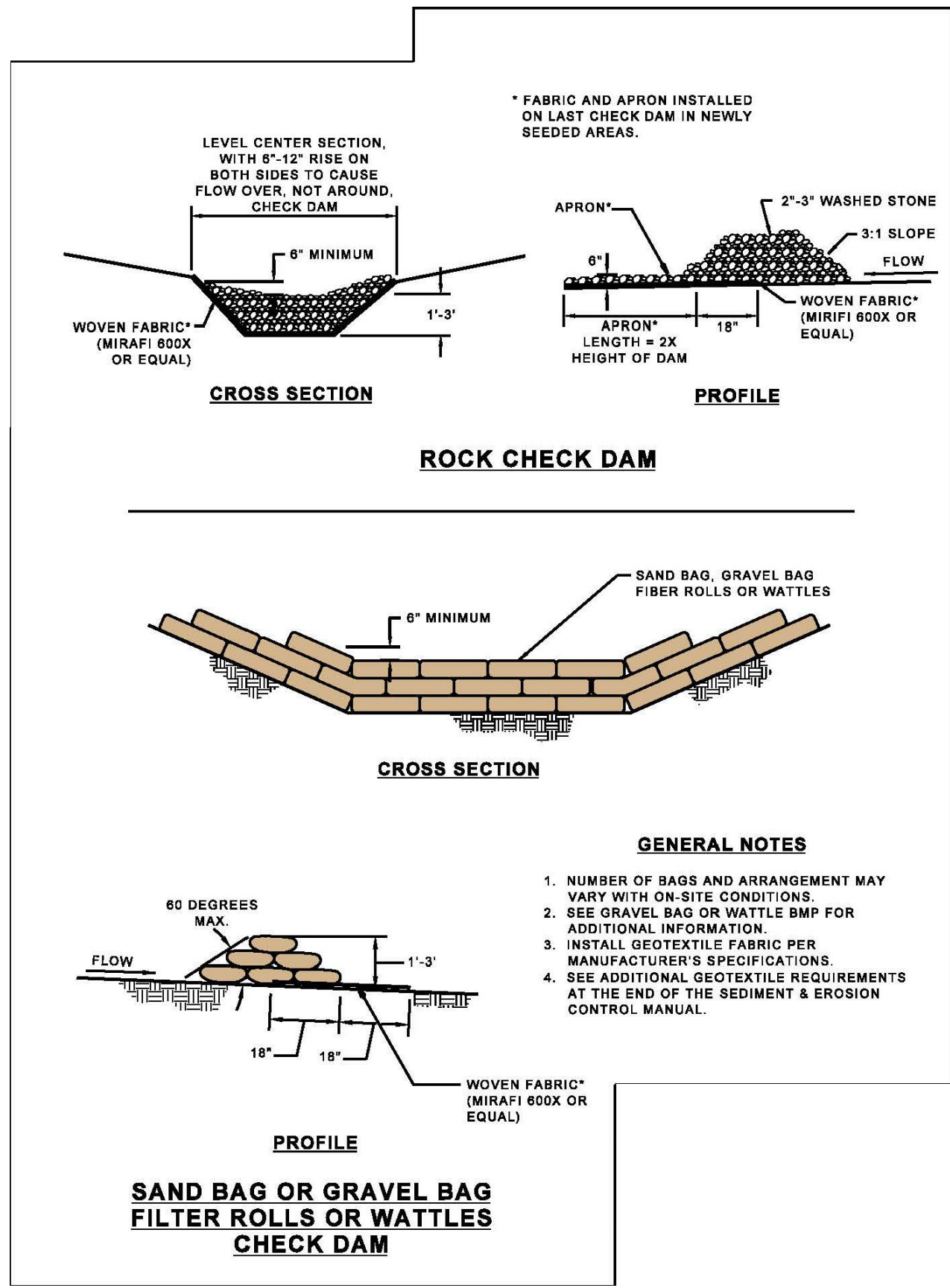


STORM WATER POLLUTION PREVENTION PLAN NOTES

- IT IS THE RESPONSIBILITY OF ALL CONTRACTORS TO CONTACT UTILITY COMPANIES AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION ON OR RELATIVE TO THIS PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE OR ARRANGE FOR THE RELOCATION OF ANY UTILITIES AFFECTED BY THE PROJECT CONSTRUCTION.
- CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO PROTECT THE ADJOINING PROPERTIES FROM THE DELETERIOUS EFFECTS OF EROSION UNTIL PROJECT COMPLETION AND ACCEPTANCE.
- SOIL SHALL BE COMPACTED IN ACCORDANCE WITH THE CITY OF BRYANT AND SALINE COUNTY STANDARD SPECIFICATIONS FOR STREET CONSTRUCTION.
- 6" OF TOPSOIL SHALL BE STRIPPED UNDER ALL FILL AREAS.
- FIBER ROLLS AND WATTLES SHALL BE USED AS INLET PROTECTION FOR INLETS WITHIN PARKING LOTS AND ALONG ROADWAYS.
- EROSION AND SILTATION CONTROL SHALL BE INSTALLED AND BE MAINTAINED THROUGHOUT THE PROJECT UNTIL ACCEPTANCE OF THE WORK BY THE VA AND ADEQUATE VEGETATIVE GROWTH INSURES NO FURTHER EROSION OF THE SOIL.
- AT LEAST ONCE EVERY WEEK AND AFTER EVERY RAINFALL EVENT OF 0.25 INCHES OR MORE, EROSION AND SILTATION CONTROL DEVICES SHALL BE INSPECTED BY THE CONTRACTOR FOR DAMAGE AND AMOUNT OF SEDIMENTATION ACCUMULATED AND CORRECTIVE ACTIONS TAKEN.
- TEMPORARY SILTATION CONTROL MEASURES (STRUCTURAL) SHALL BE MAINTAINED UNTIL VEGETATIVE COVER IS ESTABLISHED AT A SUFFICIENT DENSITY TO PROVIDE EROSION CONTROL ON THE SITE.
- WHERE NATURAL VEGETATION IS REMOVED DURING GRADING, VEGETATION SHALL BE REESTABLISHED IN SUCH A DENSITY AS TO PREVENT EROSION.
- WHEN GRADING OPERATIONS ARE COMPLETED OR SUSPENDED FOR MORE THAN 5 DAYS IN ANY AREA, THE DISTURBED AREA SHALL BE SEEDED OR OTHERWISE STABILIZED TO SIGNIFICANTLY REDUCE THE ERODING OF THE SOIL. PROTECTIVE MEASURES MAY INCLUDE A COMBINATION OF SEEDING, SODDING, MULCHING OR OTHER SUITABLE MEANS TO PROTECT THE GROUND SURFACE FROM EROSION.
- IF CUT AND FILL OPERATIONS OCCUR DURING A SEASON NOT FAVORABLE FOR IMMEDIATE ESTABLISHMENT OF PERMANENT GROUND COVER, A FAST GERMINATING ANNUAL SUCH AS RYE GRASSES SHALL BE UTILIZED TO RETARD EROSION, IF EROSION CONTROL DEVICES HAVE NOT BEEN ESTABLISHED.
- ALL FINISHED GRADES (AREAS NOT TO BE DISTURBED BY FUTURE IMPROVEMENT) IN EXCESS OF 20% SLOPES (5:1) SHALL BE MULCHED AND TACKED AT THE RATE OF 100 POUNDS PER 1,000 SQUARE FEET WHEN SEEDED.
- STORM WATER PIPES, OUTLETS AND CHANNELS SHALL BE PROTECTED BY SILT BARRIERS AND KEPT FREE OF WASTE AND SILT AT ALL TIMES PRIOR TO FINAL SURFACE STABILIZATION AND/OR PAVING.
- SEDIMENT BUILD-UP REMOVED DURING ROUTINE BMP MAINTENANCE SHALL REMAIN ON-SITE. SEDIMENT SHALL BE RELOCATED TO WITHIN THE STOCKPILE AREA OR TO A LEVEL AREA (1% MAX.) ABSENT OF CONCENTRATED FLOWS. LEVEL OUT SEDIMENT AND ALLOW TO DRY.
- THE SILTATION CONTROL NOTES, IMPLEMENTATION SCHEDULE, AND SILTATION CONTROL DETAILS, ALONG WITH THE SILTATION CONTROL PLANS INCLUDED ON SHEET C4.1 CONSTITUTE THE STORMWATER POLLUTION PREVENTION PLAN AND IS INFORMATIONAL IN NATURE. THE CONTRACTOR IS REQUIRED TO CREATE A PROJECT SPECIFIC EROSION CONTROL PLAN AND UPDATE IT THROUGHOUT CONSTRUCTION.

SILTATION IMPLEMENTATION SCHEDULE

- INSTALL PERIMETER SILTATION CONTROL AND CONSTRUCTION ENTRANCE.
- DEMO EXISTING PARKING LOT AND BEGIN PLACING AGGREGATE BASE IN PAVEMENT AREAS ONCE AREA HAS REACHED FINAL GRADE TO PREVENT EROSION.
- PLACE SILT FENCE AROUND EACH STORM SEWER INLET AS IT IS CONSTRUCTED.
- IMMEDIATELY SOD GRADED AREAS UPON REACHING FINAL GRADE THAT ARE TO BE PERMANENTLY TURFED.



CONSTRUCTION ENTRANCE/WASHDOWN/PARKING AREA - PROFILE

N.T.S.  
(SEE SHEET C4.0 FOR LOCATION)

CONSTRUCTION ENTRANCE:

INSTALLATION/CONSTRUCTION PROCEDURES:

- GRADE AND COMPACT AREA OF CONSTRUCTION ENTRANCE
- INSTALL CULVERT UNDER ENTRANCE IF NEEDED TO MAINTAIN POSITIVE DRAINAGE
- PLACE FABRIC AND COVER WITH AGGREGATE, FORMING DIVERSION ACROSS ENTRANCE IF NEEDED TO DIRECT RUNOFF AWAY FROM ROADWAY
- SEE WASHDOWN STATION BMP FOR ADDITIONAL STEPS

OPERATIONS & MAINTENANCE PROCEDURES:

- IMMEDIATELY REMOVE ANY MUD OR DEBRIS TRACKED ONTO PAVED SURFACES
- REMOVE SEDIMENT AND CLOUDS OF DIRT FROM CONSTRUCTION ENTRANCE CONTINUOUSLY
- REPLACE ROCK IF NECESSARY TO MAINTAIN CLEAN SURFACE
- REPAIR SETTLED AREAS

SITE CONDITIONS FOR REMOVAL:

REMOVE WHEN VEHICLES AND EQUIPMENT WILL NO LONGER ACCESS UNPAVED AREAS

WASHDOWN: INSTALLATION/CONSTRUCTION PROCEDURES:

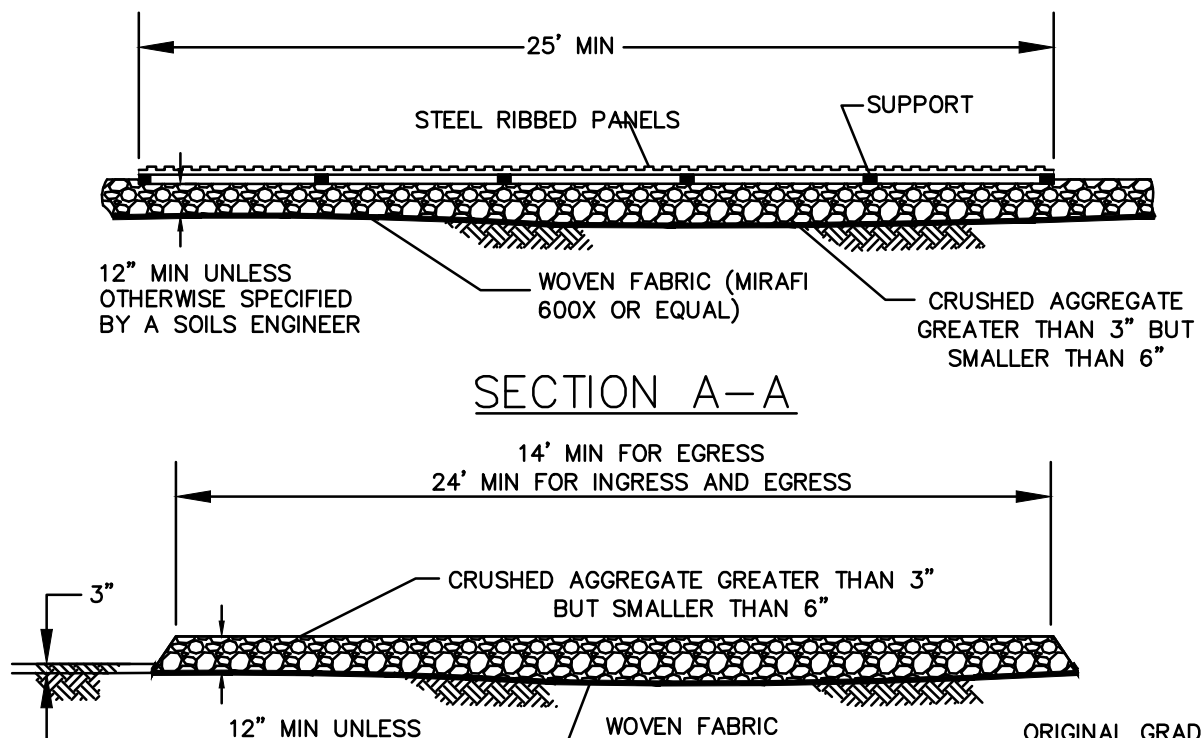
- GRADE AND COMPACT AREA FOR DRAINAGE UNDER WASHDOWN PAD
- INSTALL STEEL-RIBBED PLATE ON FRAME OR OTHER SUPPORT TO ALLOW A 2" DRAIN SPACE
- GRADE AND VEGETATE DOWNSTREAM BMP (V-DITCH SHOWN ON DETAIL)
- INSTALL WATER SUPPLY AND HOSE
- POST SIGN IN ADVANCE OF STATION INDICATING THAT ALL EXITING VEHICLES AND EQUIPMENT MUST USE STATION PRIOR TO EXITING SITE

OPERATIONS & MAINTENANCE PROCEDURES:

- REMOVE SEDIMENT DAILY
- REPAIR SETTLED AREAS
- REPLACE ROCK IF NECESSARY TO MAINTAIN CLEAN SURFACE

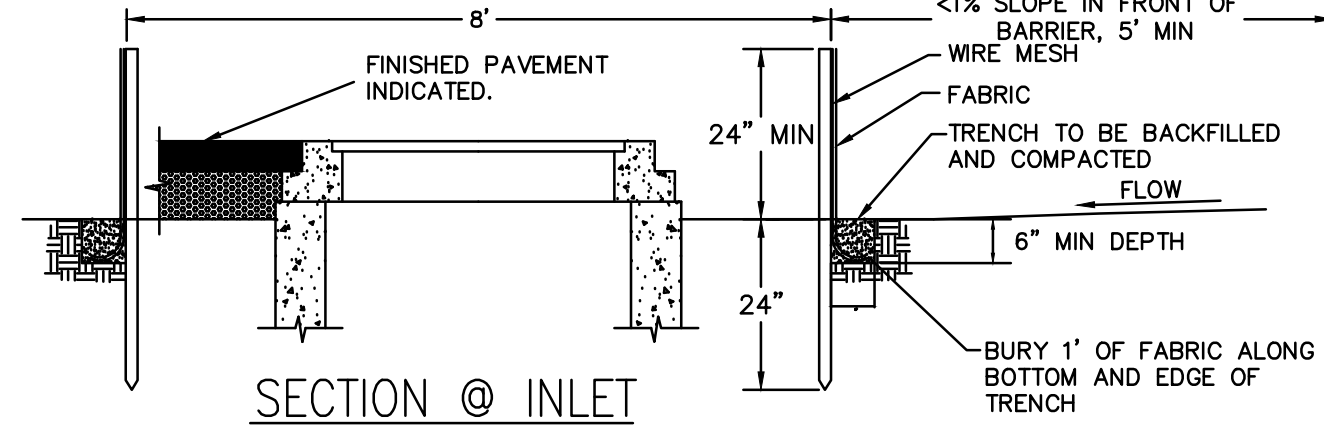
SITE CONDITIONS FOR REMOVAL:

REMOVE WHEN VEHICLES AND EQUIPMENT WILL NO LONGER ACCESS UNPAVED AREAS.



SECTION B-B  
WASHDOWN

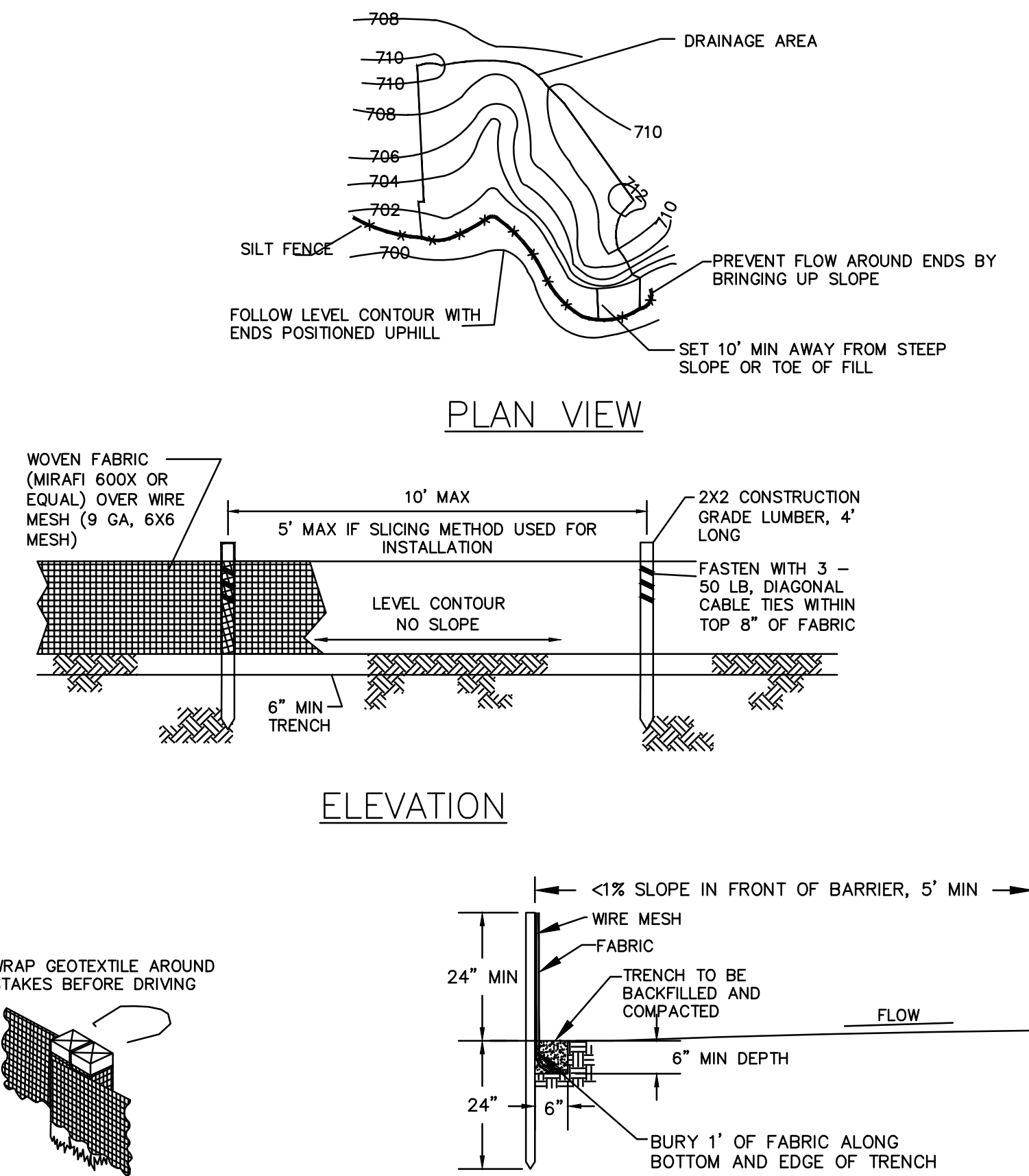
N.T.S.  
(SEE SHEET C4.0 FOR LOCATION)



NOTE: FIBER ROLLS OR WATTLES MAY BE USED AT INLETS IN LIEU OF SILT FENCE AS CONTRACTORS OPTION.

INLET PROTECTION

N.T.S.  
(SEE SHEET C4.0 FOR LOCATIONS)



JOINING SECTIONS  
OF SILT FENCE

SECTION

NOTE: IF FABRIC IS INSTALLED BY EQUIPMENT DESIGNED TO SLICE INTO THE GROUND, THE TRENCH IS NOT NEEDED

SILT FENCE

N.T.S.  
(SEE SHEET C4.0 FOR LOCATION)

SILT FENCE: INSTALLATION/CONSTRUCTION PROCEDURES:

- DRIVE POST FOR FENCE LINE.
- DIG TRENCH TO REQUIRED DIMENSIONS IN FRONT OF POSTS FOR FABRIC BURIAL.
- ATTACH WIRE MESH TO POSTS.
- ATTACH FABRIC TO POSTS, ALLOWING REQUIRED LENGTH BELOW GROUND LEVEL TO RUN FABRIC ALONG BOTTOM OF TRENCH.
- BACKFILL AND COMPACT SOIL IN TRENCH TO PROTECT AND ANCHOR FABRIC.

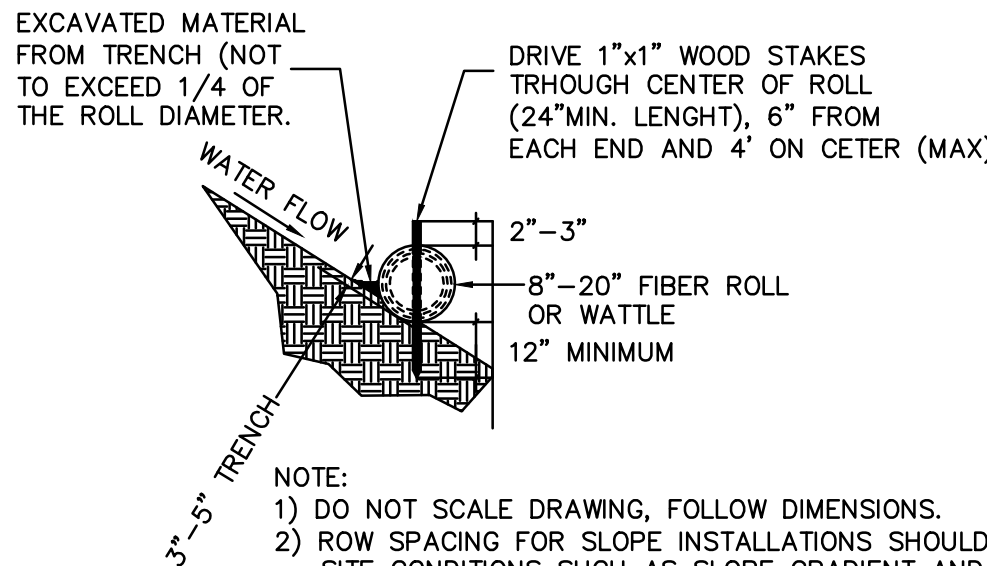
ALTERNATE CONSTRUCTION - INSTALL FENCE BY SLICING IT INTO GROUND WITH SPECIALIZED EQUIPMENT. INSTALL POSTS AT REDUCED SPACING INDICATED ON DETAIL.

O&M PROCEDURES:

- INSPECT ONCE A WEEK AND AFTER EVERY STORM.
- REMOVE SEDIMENT BUILDUP DEEPER THAN 1/2 THE FENCE HEIGHT OR 12" DEPTH, WHICHEVER IS LESS.
- REPLACE TORN OR CLOGGED FABRIC. REPAIR LOOSE FABRIC.
- REPAIR UNSTABLE OR BROKEN POSTS.
- STABILIZE ANY AREAS SUSCEPTIBLE TO UNDERMINING.
- EXTEND FENCE OR ADD ADDITIONAL ROW(S) FENCE IF NECESSARY TO PROVIDE ADEQUATE PROTECTION.
- SILT THAT HAS MIGRATED PAST SILT FENCE INTO UNWANTED AREAS OF THE FACILITY OR OFFSITE THROUGH TORN OR LOOSE FABRIC SHALL BE REMOVED AND THE AFFECTED AREAS SHALL BE RESTORED IMMEDIATELY AT THE COST OF THE CONTRACTOR.

SITE CONDITIONS FOR REMOVAL:

AFTER PERMANENT VEGETATION OF SLOPE IS ESTABLISHED. REMOVE FENCE, REGRADE TRENCH AREA AND VEGETATE.



- NOTE:
- DO NOT SCALE DRAWING, FOLLOW DIMENSIONS.
  - ROW SPACING FOR SLOPE INSTALLATIONS SHOULD BE DETERMINED BY SITE CONDITIONS SUCH AS SLOPE GRADIENT AND SOIL TYPE.
  - NETTING, FILTER SOCK OR OUTER COVER OF ROLLS MUST BE CONSTRUCTED OF PHOTODEGRADABLE OR BIODEGRADABLE MATERIAL.
  - FIBER ROLLS AND WATTLES SHALL CONTAIN STRAW, FLAX, COCONUT FIBER (COIR), RICE STRAW OR ASPEN EXCELSIOR, IN A TIGHT TUBULAR ROLL, SPECIFICALLY DESIGNED FOR REMOVAL OF SOLIDS FROM STORM WATER RUNOFF. FILL MATERIAL MUST BE BIODEGRADABLE AND CONTAIN NO CHEMICAL ADDITIVES.
  - FIBER ROLLS OR WATTLES MAY BE WEIGHTED FOR USE AROUND STREET INLETS (INTERNAL ROLL WEIGHT OR PLACING A WEIGHT, SUCH AS A CONCRETE BLOCK, ON THE DOWNSTREAM SIDE OF THE ROLL).
  - FOLLOW THE ROLL MANUFACTURERS INSTRUCTIONS AND RECOMMENDATIONS FOR THE SIZING, INSTALLATION AND MAINTENANCE OF ALL FIBER ROLLS OR WATTLES.

FIBER ROLLS AND WATTLES

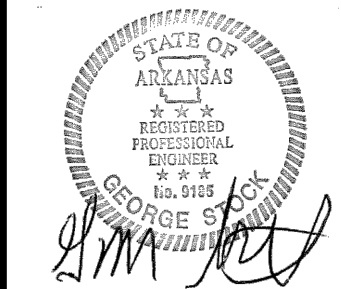
(SEE SHEET C4.0 FOR LOCATION)

PREPARED BY:

STOCK & ASSOCIATES  
Consulting Engineers, Inc.

SITE IMPROVEMENT PLANS FOR:

GOOD DAY FARM - BRYANT  
3205 HIGHWAY 5 N.  
BRYANT, ARKANSAS 72019



GEORGE M. STOOK E-25116  
CIVIL ENGINEER  
CERTIFICATE OF AUTHORITY  
NUMBER: 000996

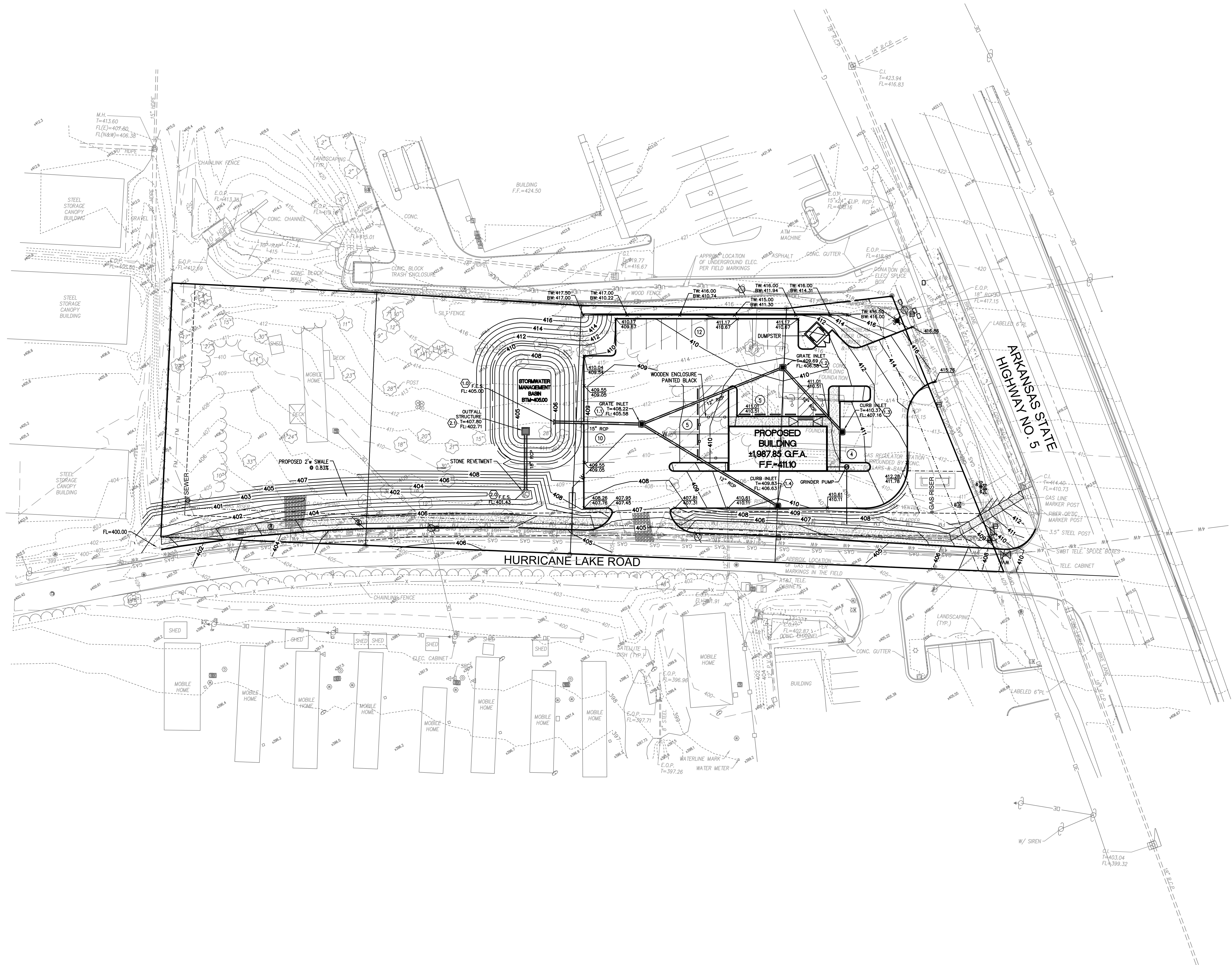
REVISIONS:

DRAWN BY: L.C.W.	CHECKED BY: G.M.S.
DATE: 05-14-2025	JOB NO. 2025-7775
DESIGNER: P.F.	BASE MAP: P.F.
S.L.C. HAT: P.F.	HAT S.U.P.: P.F.
M.D.N.R.: P.F.	

SHEET TITLE:  
STORMWATER  
POLLUTION  
PROTECTION PLAN  
DETAILS

SHEET NO.:  
4.1





SITE IMPROVEMENT PLANS FOR:  
**GOOD DAY FARM - BRYANT**  
3205 HIGHWAY 5 N.  
BRYANT, ARKANSAS 72019

06/25/25  
GEORGE M. STOOK E-29116  
CIVIL ENGINEER  
CERTIFICATE OF AUTHORITY  
NUMBER: 000996

REVISIONS:

DRAWN BY:	C.M.S.
CHECKED BY:	C.M.S.
DATE:	05-14-2025
JOB NO:	2025-7775
W.S.D. P. #	BASE MAP #
S.L.C. HAT #	HAT S.U.P. #
M.D.N.R. #	

SHEET TITLE:

SITE GRADING PLAN

SHEET NO.:

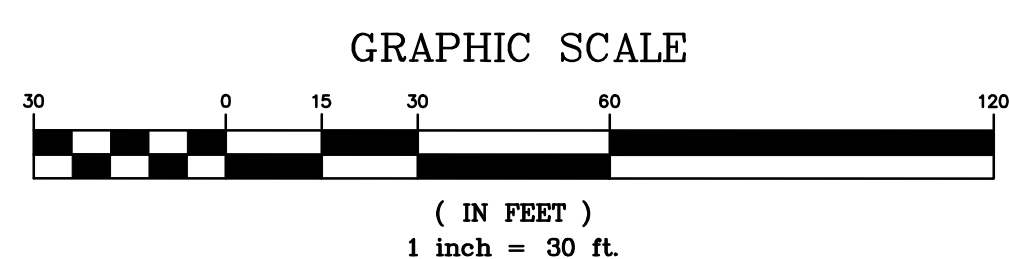
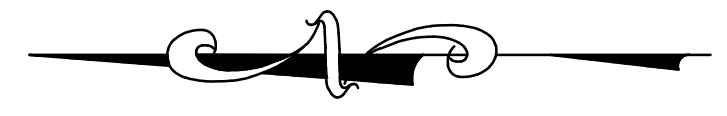
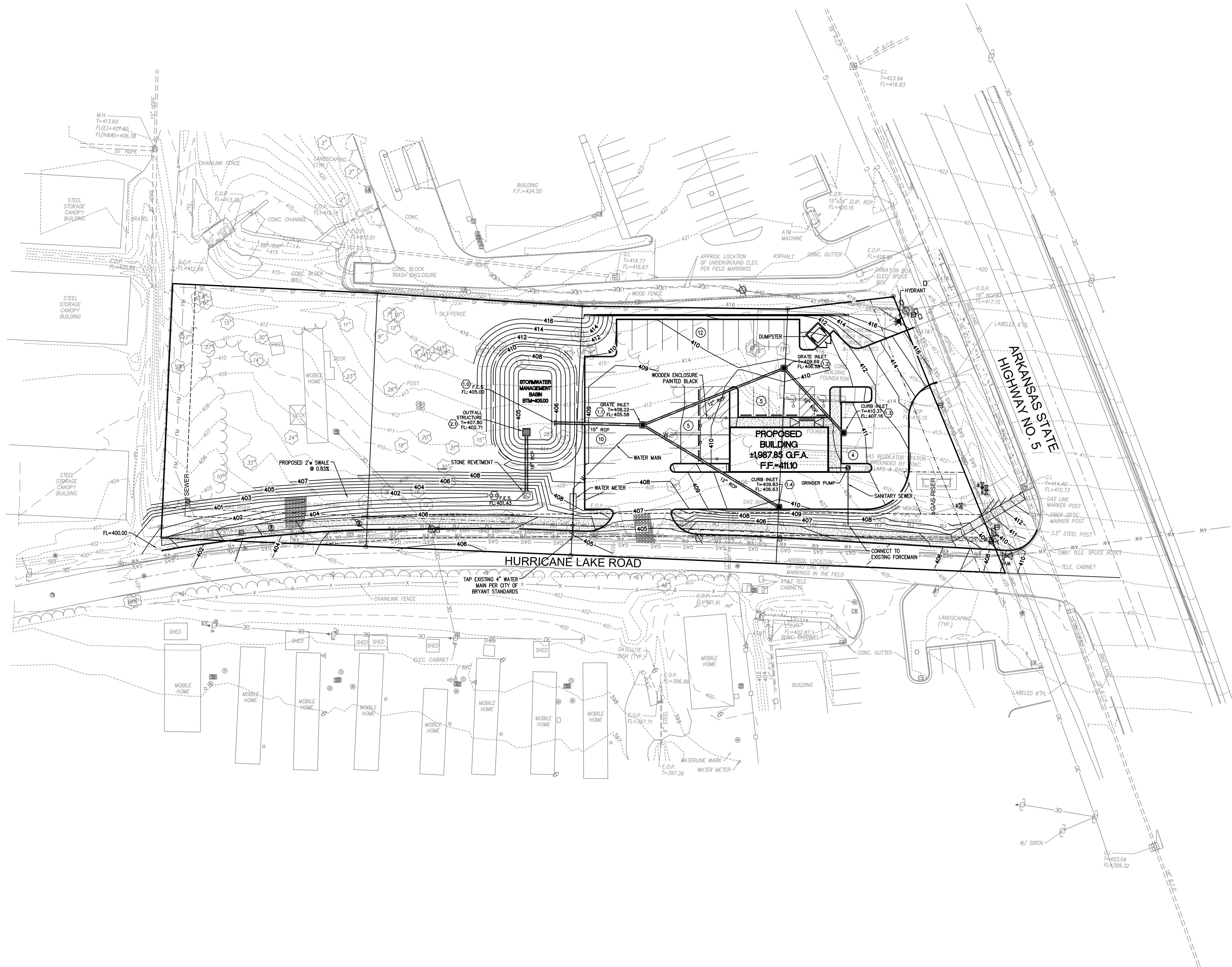
C5.0

GRAPHIC SCALE



( IN FEET )  
1 inch = 30 ft.





SITE IMPROVEMENT PLANS FOR:  
**GOOD DAY FARM - BRYANT**  
3205 HIGHWAY 5 N.  
BRYANT, ARKANSAS 72019

06/25/25  
GEORGE M. STOOK E-25116  
CIVIL ENGINEER  
CERTIFICATE OF AUTHORITY  
NUMBER: 000996

REVISIONS:

DRAWN BY:	C.M.S.
CHECKED BY:	C.M.S.
DATE:	JOB NO.
05-14-2025	2025-7775
M.S.D. P. #	BASE MAP #
S.L.C. HAT #	HAT S.U.P. #
M.D.N.R. #	

SHEET TITLE:  
**SITE UTILITY PLAN**

SHEET NO.:  
**C6.0**

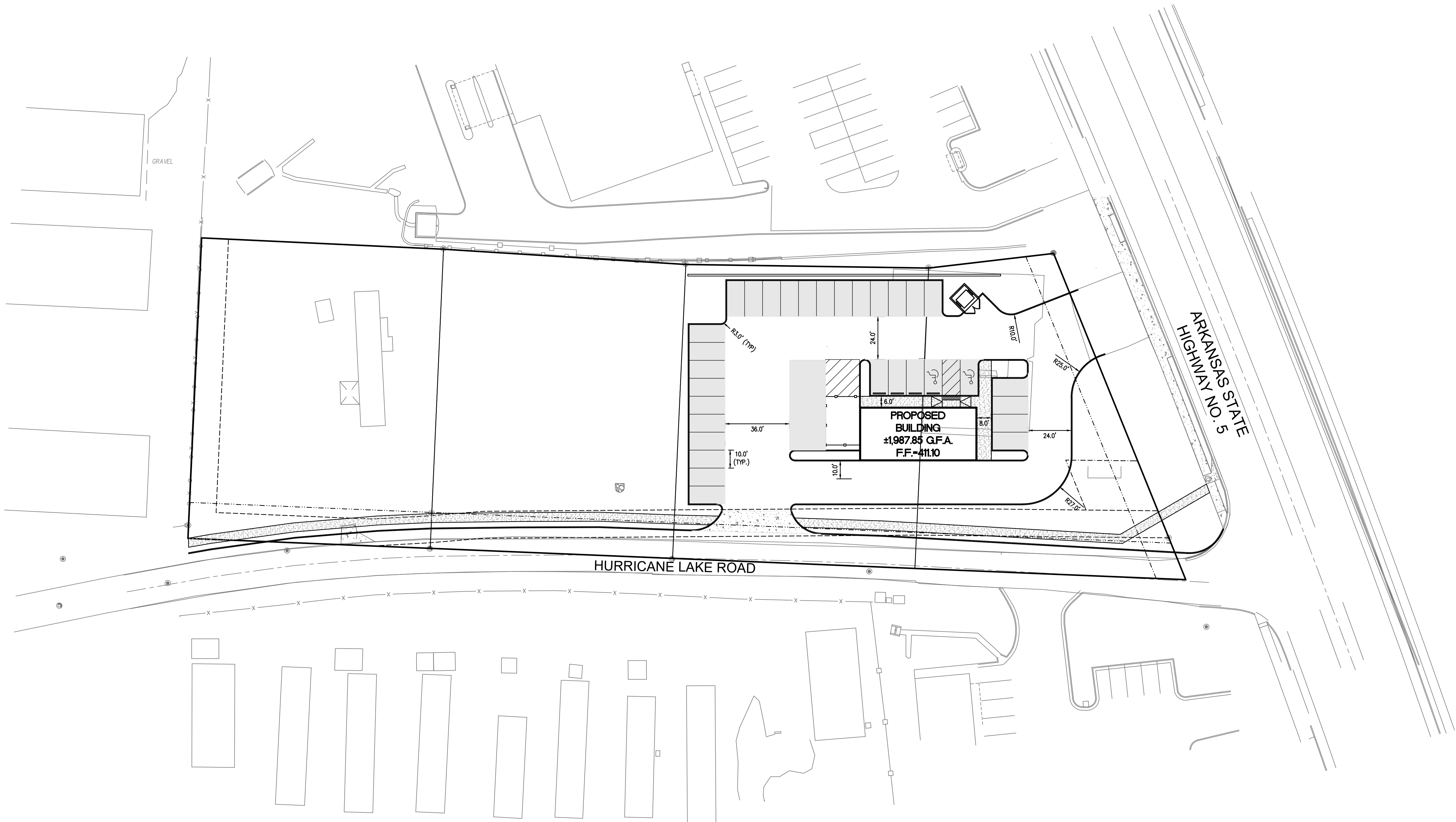


SHEET NOTES

1. ALL PROPOSED WORK WITHIN ENSION DRIVE RIGHT OF WAY SHALL BE IN ACCORDANCE WITH KANSAS CITY STANDARDS & SPECIFICATIONS, UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS SHOWN HEREON ARE FROM FACE OF CURB, UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL CONSTRUCT A FULL DEPTH SAW CUT AND PROVIDE A SMOOTH TRANSITION WHERE EXISTING PAVEMENT MEETS NEW PAVEMENT. SAW CUT SHALL BE TO NEAREST JOINT. SAWCUT MUST BE MADE PRIOR TO EXCAVATION. BASE ROCK MUST BE MECHANICALLY COMPACTED. PAVEMENT MUST BE REPLACED IN LIKE AND KIND.
4. IT IS THE CONTRACTORS RESPONSIBILITY TO HIRE A THIRD PARTY TESTING AGENCY FOR THE PLACEMENT AND SUBGRADE TESTING OF THE PROPOSED PAVEMENT.
5. REFER TO SHEET C10.0 FOR PAVEMENT SECTIONS, JOINT AND SIDEWALK DETAILS.

PAVEMENT LEGEND

- LIGHT DUTY ASPHALT - PARKING AREAS
- HEAVY DUTY ASPHALT - DRIVE AISLES
- HEAVY DUTY CONCRETE - ENTRANCE
- CONCRETE SIDEWALK PAVING



PREPARED BY:  
**STOCK & ASSOCIATES**  
Consulting Engineers, Inc.  
757 Charterfield Business Parkway  
St. Louis, MO 63005 PH: (636) 530-9000 FAX: (636) 530-9001  
e-mail: gennet@stockassoc.com Web: www.stockassoc.com

SITE IMPROVEMENT PLANS FOR:  
**GOOD DAY FARM - BRYANT**  
3205 HIGHWAY 5 N.  
BRYANT, ARKANSAS 72019

STATE OF ARKANSAS  
Professional Engineer  
George M. Stook  
E-25116  
06/25/25  
GEORGE M. STOOK  
CIVIL ENGINEER  
CERTIFICATE OF AUTHORITY  
NUMBER: 000996

REVISIONS:

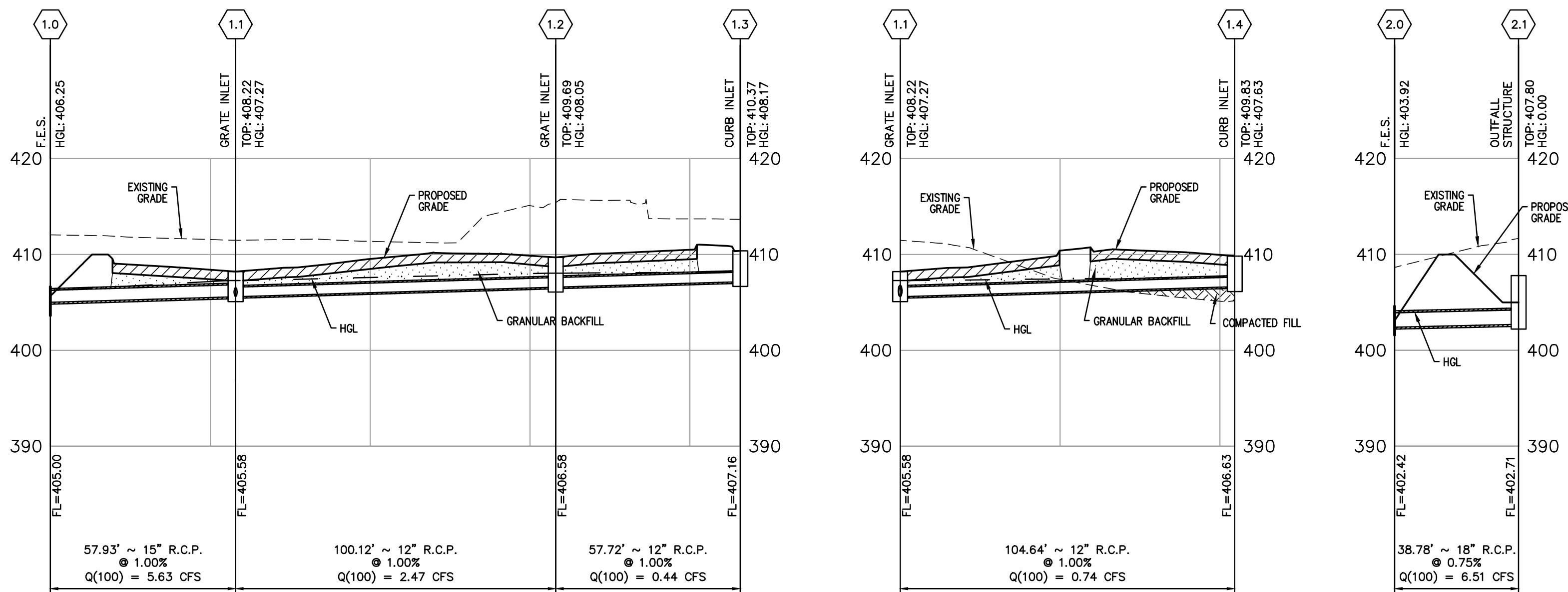
DRAWN BY: L.C.W.	CHECKED BY: G.M.S.
DATE: 05-14-2025	JOB NO. 2025-7775
M.S.D. P. #	BASE MAP #
S.L.C. HAT #	HAT S.U.P. #
M.D.N.R. #	

SHEET TITLE:

GEOMETRIC PLAN

SHEET NO.:  
C7.0





LINETYPE LEGEND	
EXISTING GRADE	---
PROPOSED GRADE	---
HYDRAULIC GRADE	---
PROPOSED PAVEMENT	---
GRANULAR BACKFILL	---
COMPACTED FILL	---

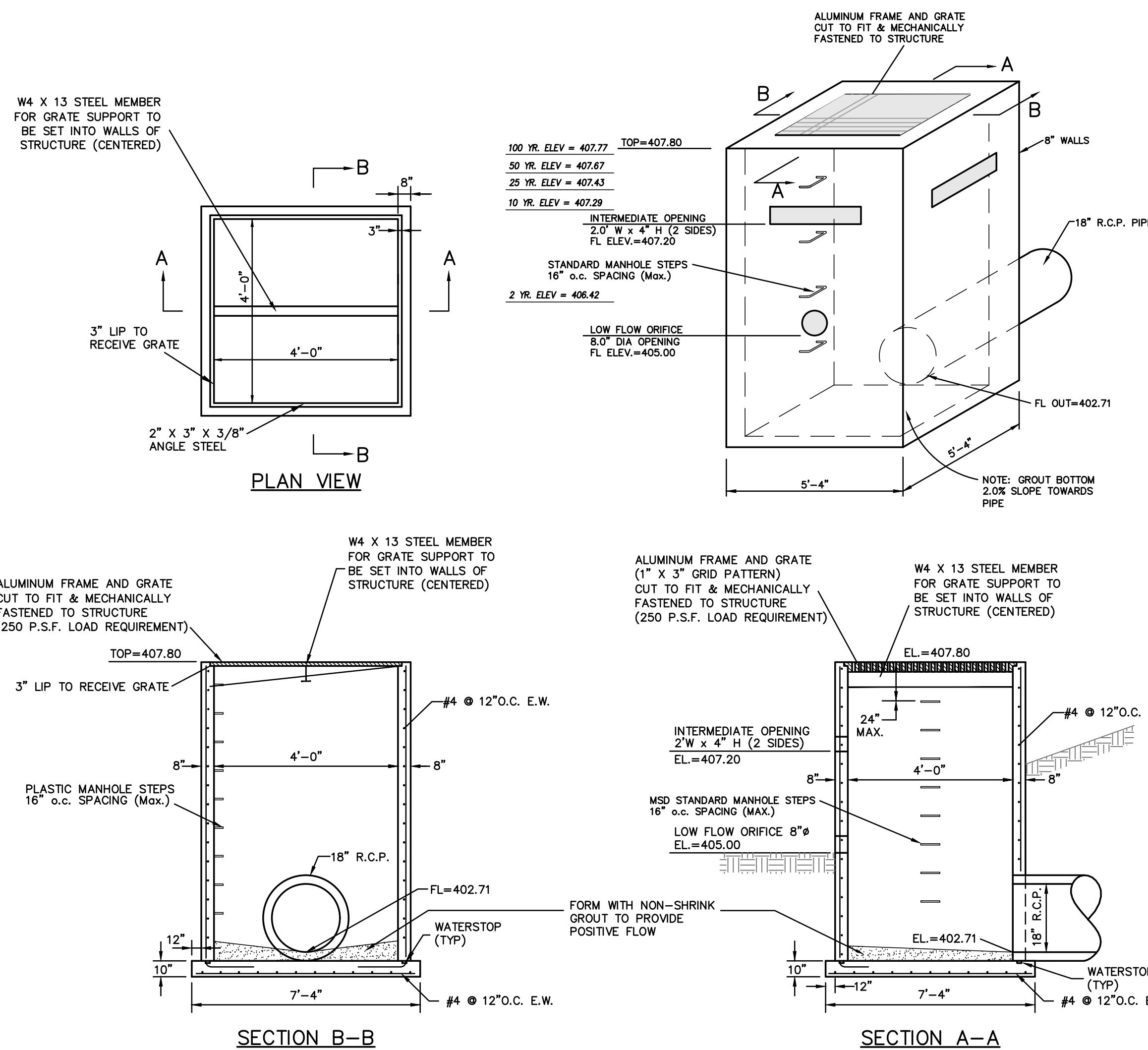
### STORM SEWER PROFILES

HORIZONTAL SCALE: 1"=30'  
VERTICAL SCALE: 1"=10'

Project name: <b>GDF - BRYANT</b>				Calculated By: <b>L.C.W.</b>				100-year Pipe Hydraulics														Revisions:																									
Project number: <b>2024-7775</b>				Checked By: <b>G.M.S.</b>				Bend Coefficients:																																							
Project Location: <b>BRYANT, AR</b>				Date: <b>5/21/2025</b>				$S^0 = 0.06$ $20^0 = 0.24$ $35^0 = 0.4$ $50^0 = 0.50$ $65^0 = 0.57$ $80^0 = 0.65$ $10^0 = 0.11$ $20^0 = 0.30$ $40^0 = 0.43$ $55^0 = 0.52$ $70^0 = 0.60$ $85^0 = 0.67$ $10^0 = 0.18$ $20^0 = 0.35$ $40^0 = 0.47$ $60^0 = 0.55$ $75^0 = 0.62$ $90^0 = 0.70$																																							
		LINE		FLOW LINE ELEVATIONS																HEAD LOSS																											
Structure Number	Upper structure	Lower structure	Upper structure	Lower structure	Length (ft)	Flowline Grade ft/ft	Pipe Size (in.)	Full Flow Cap. (cfs)	Total (Q) (cfs)	Mean Full Flow Vel(V) (ft/s)	Bend Coef.	Curve Coef.	Head (ft)	QV <sub>100</sub> (ft <sup>3</sup> /s)	Pipe Coef. (n)	H <sub>f</sub> (ft)	Junction (ft)	Bend (ft)	Curve (ft)	Total H <sub>loss</sub>	Upper F.L. + Dia.	Lower H.L. + H <sub>f</sub>	Lower H.L.	Structure Upper H.L. + H <sub>f</sub>	Top/Sill Structure Elevation	Free Board	Structure Number	Remarks	Velocity Manning's Formula (ft/s)																		
2.1	2.1	2.0	402.71	402.42	38.78	0.0075	18	9.12	6.51	3.68	0.00	0.00	0.21	1.37	0.013	0.15	0.00	0.00	0.00	0.00	404.21	404.07	403.92	404.21	408.00	3.79	2.1	Outfall Structure	5.16																		
2.0	2.0		402.42																																												
1.4	1.4	1.1	406.63	405.58	34.64	0.0100	12	3.57	0.74	0.94	0.00	0.00	0.01	0.01	0.013	0.01	0.00	0.00	0.00	0.00	407.63	407.29	407.27	407.63	409.83	2.20	1.4	Curb Inlet	4.55																		
1.1	1.1		405.58																																												
1.3	1.3	1.2	407.16	406.58	57.72	0.0100	12	3.57	0.44	0.56	0.00	0.00	0.00	0.00	0.013	0.01	0.01	0.00	0.00	0.01	408.16	408.06	408.05	408.17	410.37	2.20	1.3	Curb Inlet	4.55																		
1.2	1.2	1.1	406.58	405.58	100.12	0.0100	12	3.57	2.47	3.14	0.60	0.00	0.15	0.38	0.013	0.48	0.20	0.09	0.00	0.30	407.58	407.75	407.27	408.05	409.69	1.64	1.2	Gate Inlet	4.55																		
1.1	1.1	1.0	405.58	405.00	57.93	0.0100	15	6.48	5.63	4.59	0.30	0.00	0.33	1.84	0.013	0.44	0.35	0.10	0.00	0.44	406.83	406.69	406.25	407.27	408.22	0.95	1.1	Gate Inlet	5.28																		
1.0	1.0		405.00																																												
MEAN FULL FLOW VELOCITY: $V = Q_{avg}/A_{avg}$				FRICTION LOSS (H <sub>f</sub> ): $H_f = 2.87 n^2 (L V^2/d^{4.75})$				JUNCTION LOSSES (JUNC.): $J = [Q_{avg} V_{h_{avg}} - \sum (Q_i V_{h_i})] \times 1.33 / Q_{avg}$				BEND LOSSES (BEND): $B = (V^2) \times \text{ANGLE COEFFICIENT}$				CURVE LOSS= $V_h \times \text{CURVE COEFFICIENT}$				Note: 1. IF MORE THAN ONE INCOMING LINE, CALC. EACH BEND LOSS AND ADD TOGETHER.																											
VELOCITY HEAD: $V_h = V^2/2g$																																															
Note(s):																																															

### 100-YEAR PIPE HYDRAULICS

- OUTFALL STRUCTURE NOTES:**
- CONTROL STRUCTURE TO BE REINFORCED CONCRETE. WALL THICKNESS IS 8" w/ TWO (2) ROWS OF #4 STEEL.
  - OUTFALL STRUCTURE SHALL BE PRE-CAST OR CAST-IN-PLACE.
  - CONTRACTOR SHALL PROVIDE A HIGH LEVEL OF CARE WHEN PLACING & COMPACTING "CLAY" SOILS AROUND OUTFALL STRUCTURE & PIPING. THE GEOTECHNICAL ENGINEER SHALL BE PRESENT TO CONFIRM THE "LEVEL OF PLACEMENT".
  - ENGINEER APPROVED SHOP DRAWINGS MUST BE SUBMITTED TO MSD FOR REVIEW PRIOR TO THE CONSTRUCTION OF THIS STRUCTURE. MSD CONTACT: BRIAN DUNN (314) 768-6387.

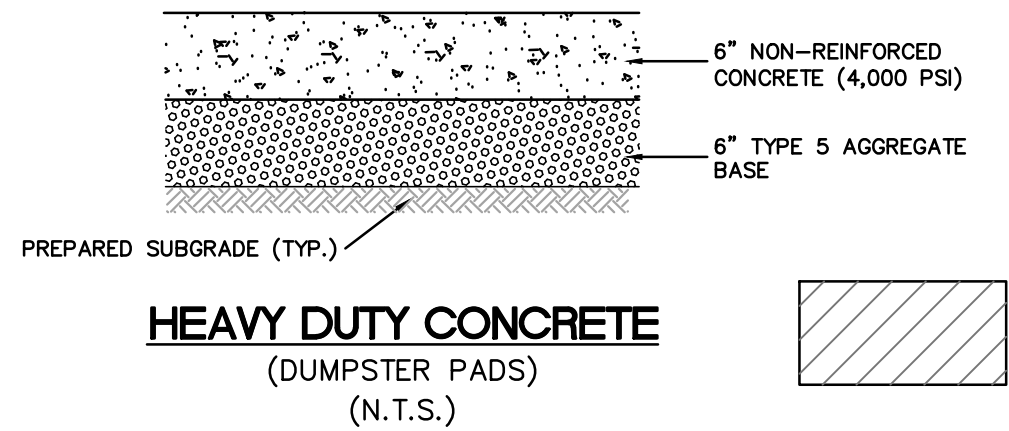
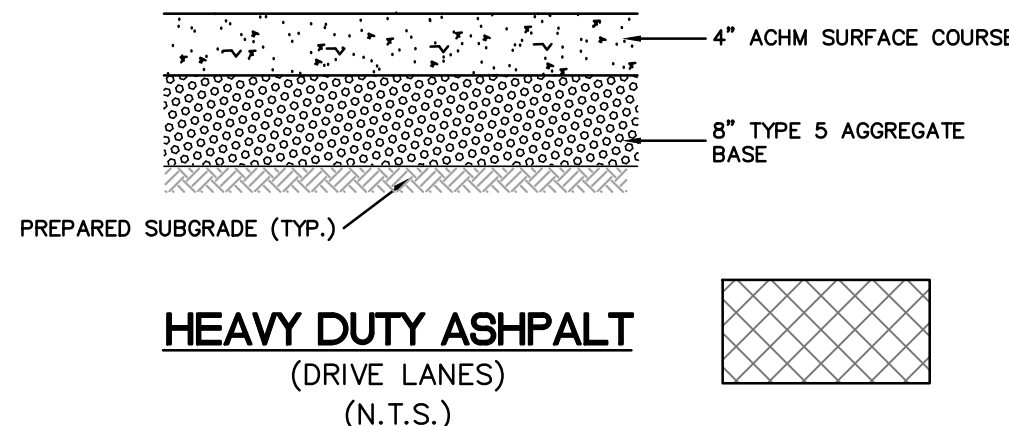
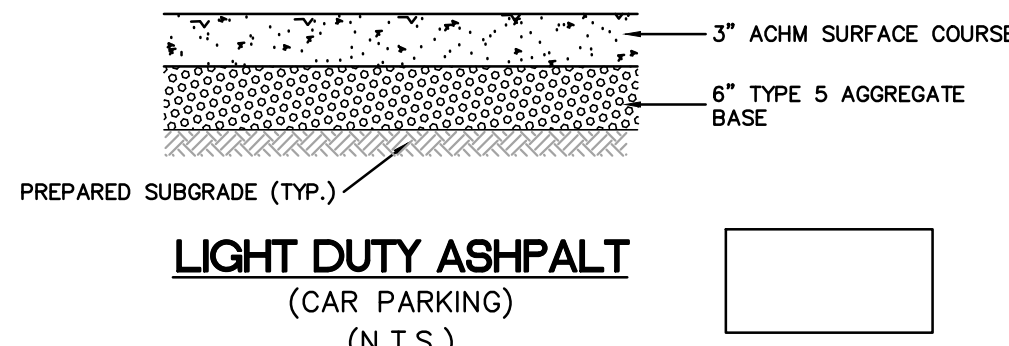


**OUTFALL STRUCTURE #21**  
(N.T.S.)

**UTILITY CONFLICT NOTE:**  
CONTRACTOR SHALL NOTIFY THIS ENGINEER IMMEDIATELY OF ANY POTENTIAL UNDERGROUND UTILITY CONFLICT AT TIME OF EXCAVATION.

ALL DETAILS SHOWN ON THESE PLANS ARE FOR THE CONVENIENCE OF THE CONTRACTOR. THE DETAILS ARE TO BE VERIFIED PER BRYANT'S STANDARD CONSTRUCTION SPECIFICATIONS. ALL METHODS, MEANS AND MATERIALS SHALL CONFORM TO BRYANT'S CURRENT STANDARD CONSTRUCTION SPECIFICATIONS.

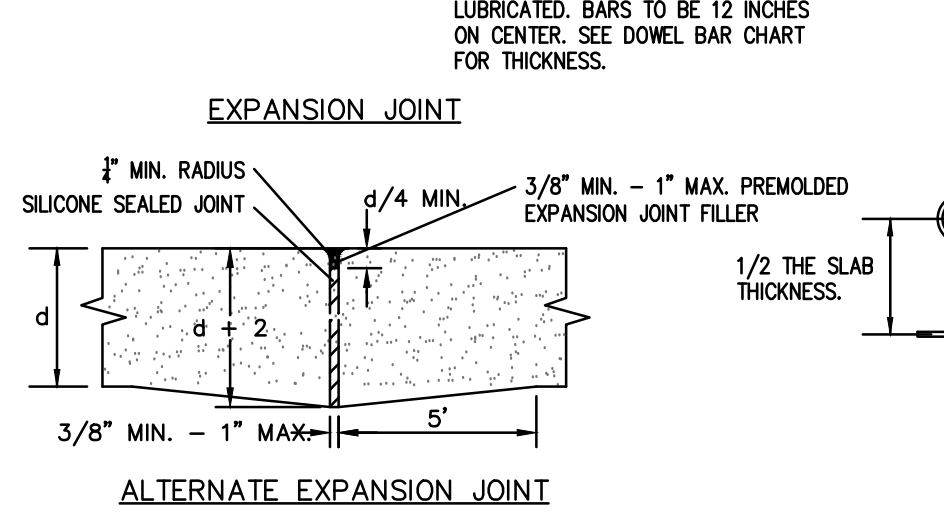
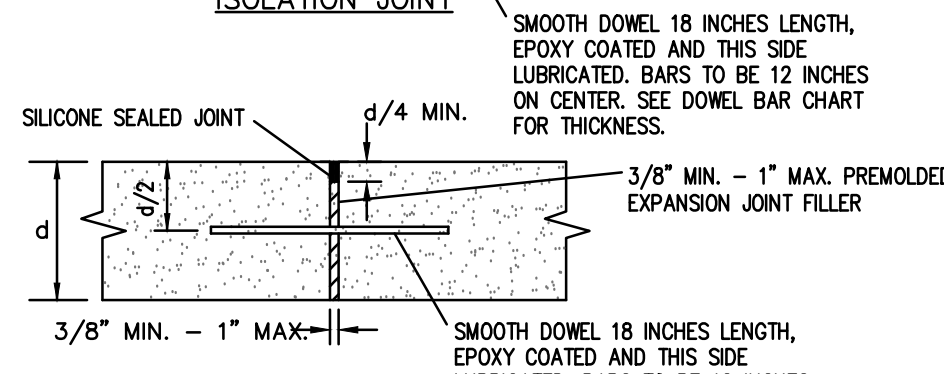
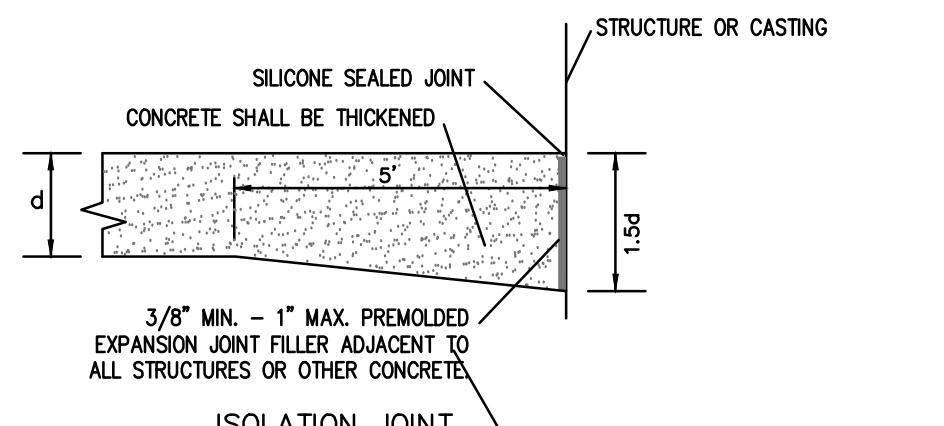
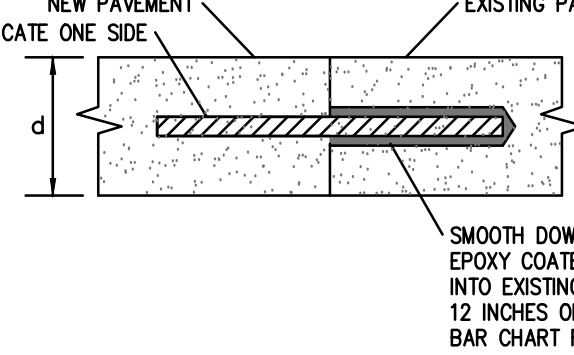
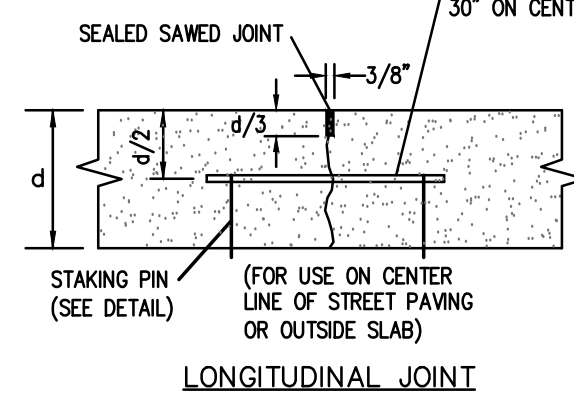
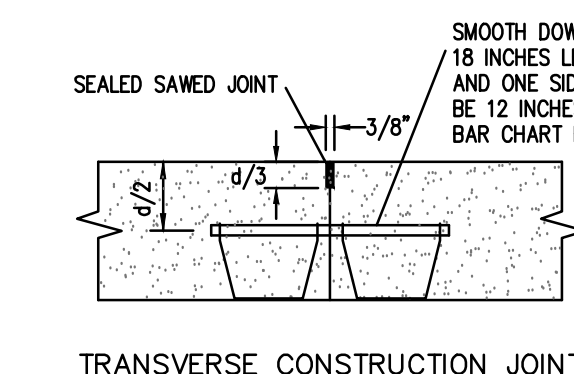
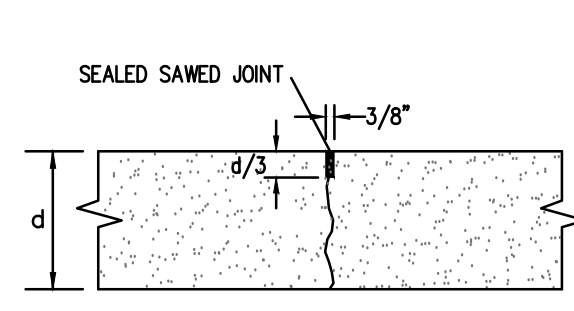




PAVEMENT DETAILS ARE SUBJECT TO GEOTECHNICAL ENGINEER, OWNER AND CONTRACTOR VERIFICATION AND APPROVAL PRIOR TO CONSTRUCTION

#### PAVEMENT NOTES:

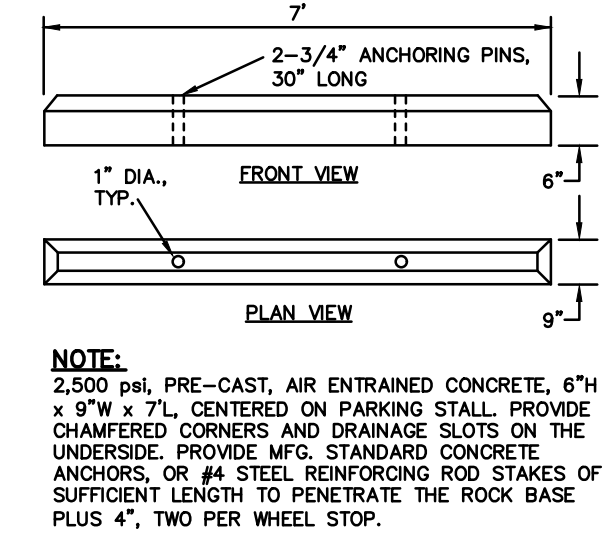
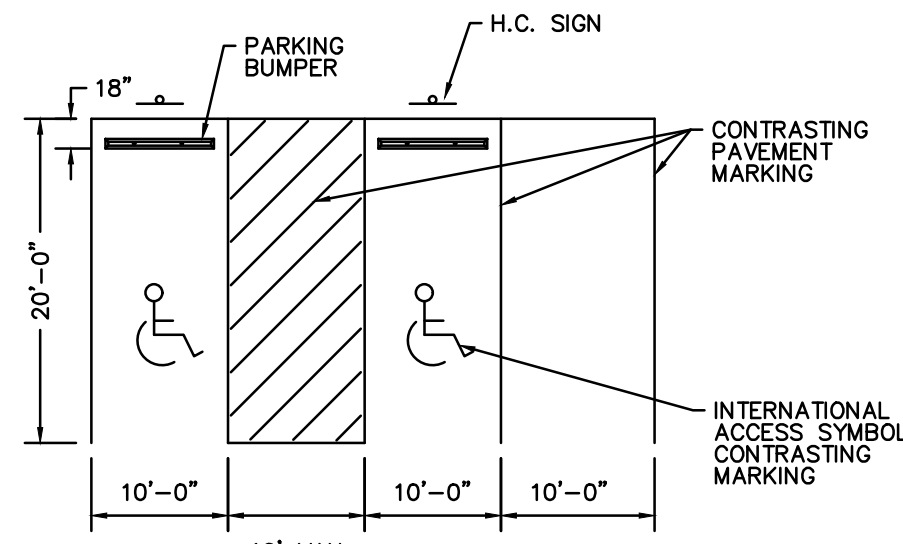
- ALL MEANS AND METHODS OF CONCRETE AND ASPHALT CONCRETE SHALL BE IN ACCORDANCE WITH THE CITY OF BRYANT STANDARD CONSTRUCTION SPECIFICATIONS AND A.C.I. 308R-01. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN CURRENT EDITIONS PRIOR TO CONSTRUCTION.
- ALL PAVEMENT SECTIONS AND DETAILS ARE SUBJECT TO GEOTECHNICAL ENGINEER AND OWNER REVIEW AND APPROVAL PRIOR TO SUBMISSION OF SHOP DRAWINGS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO APPLY THE RECOMMENDATIONS SUPPLIED IN THE GEOTECHNICAL ENGINEERING REPORT.
- ALL EXPOSED CONCRETE EDGES TO BE CHAMFERED.
- ALL CONCRETE SHALL BE 4,000 PSI, 28-DAY STRENGTH, AIR ENTRAINMENT IN THE RANGE OF 6% TO 8% MAXIMUM SLUMP OF 4 INCH +/- 1 INCH IS ACCEPTABLE.
- PAVEMENT SECTIONS WITHIN THE PUBLIC RIGHT-OF-WAY TO BE REVIEWED AND APPROVED BY THE CITY OF KANSAS CITY.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO HIRE A THIRD PARTY TESTING AGENCY FOR THE PLACEMENT AND SUBGRADE TESTING OF THE PROPOSED PAVEMENT.



PAVEMENT THICKNESS	DIAMETER	LENGTH
7 INCHES	1 INCH	18 INCHES
8 INCHES	1 INCH	18 INCHES
9 INCHES	1-1/4 INCHES	18 INCHES
10 INCHES	1-1/4 INCHES	18 INCHES
11 INCHES or <	1-1/2 INCHES	18 INCHES

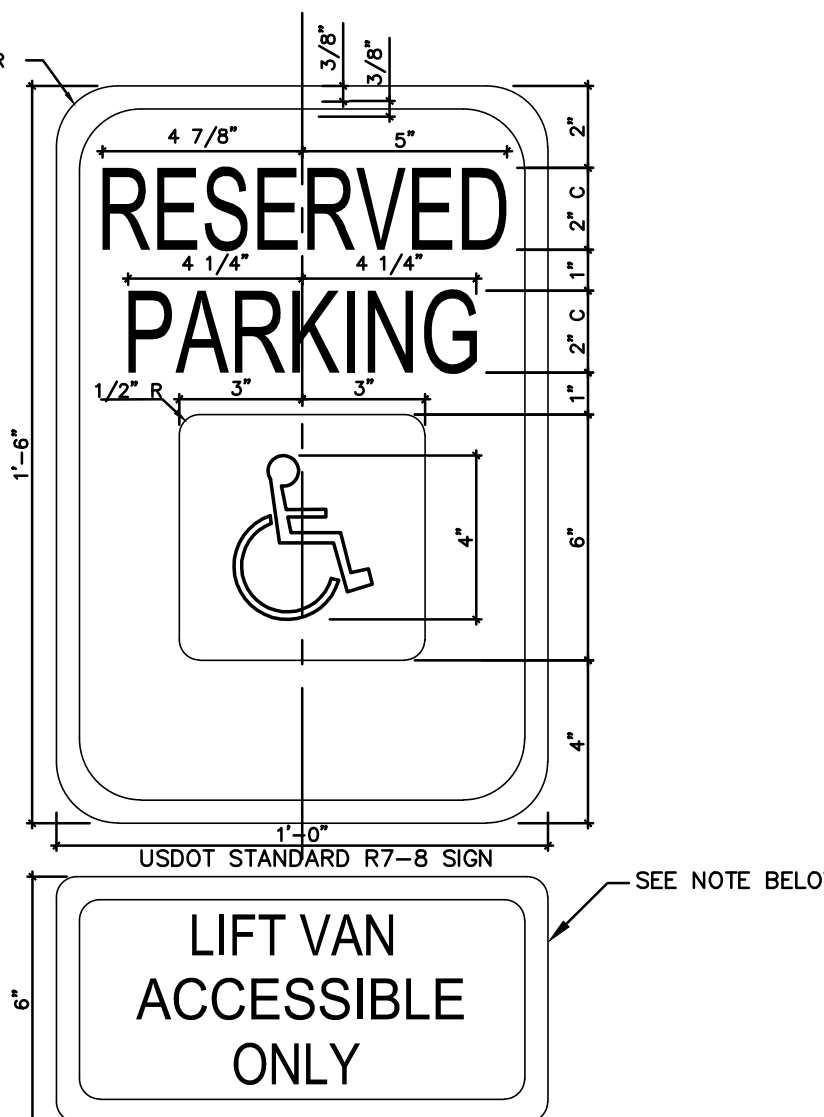
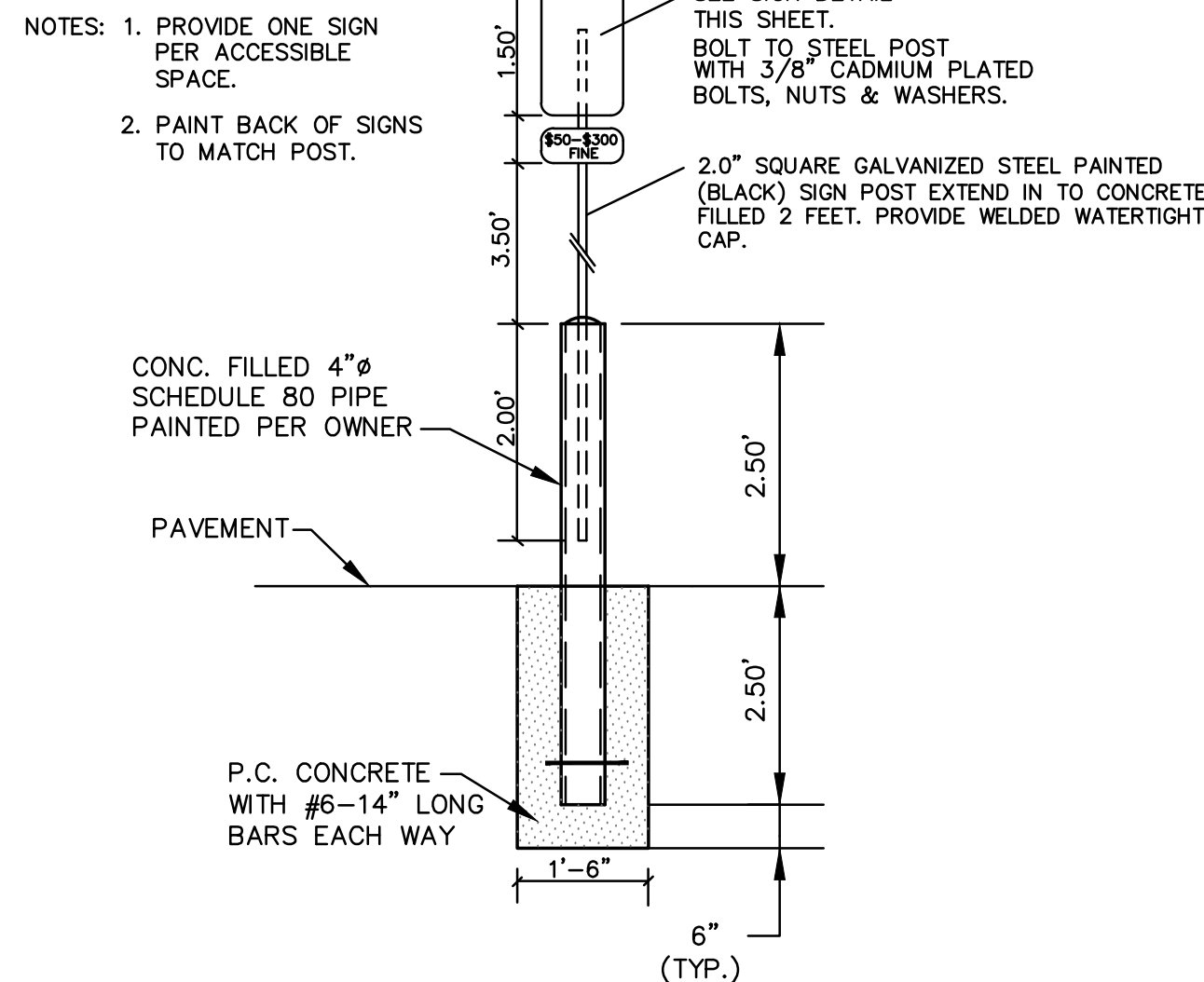
#### JOINT DETAILS (N.T.S.)

- PAVEMENT MARKING PAINT:**
- LATEX, WATERBORNE EMULSION, LEAD AND CHROMATE FREE, READY MIXED, COMPLYING WITH F.S. TT-P-1952, WITH DRYING TIME OF LESS THAN 3 MINUTES.
  - WHITE FOR TYPICAL PARKING STALLS, BLUE FOR HANDICAP STALLS. VERIFY WITH OWNER.



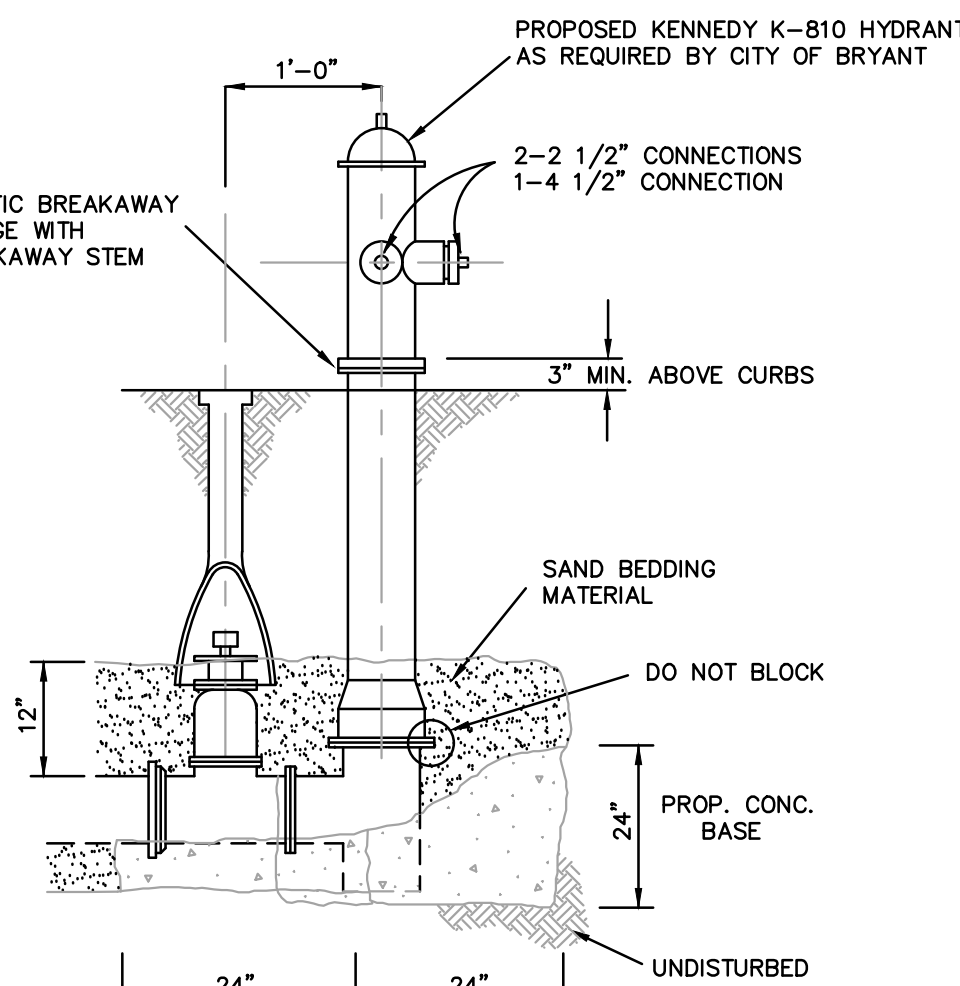
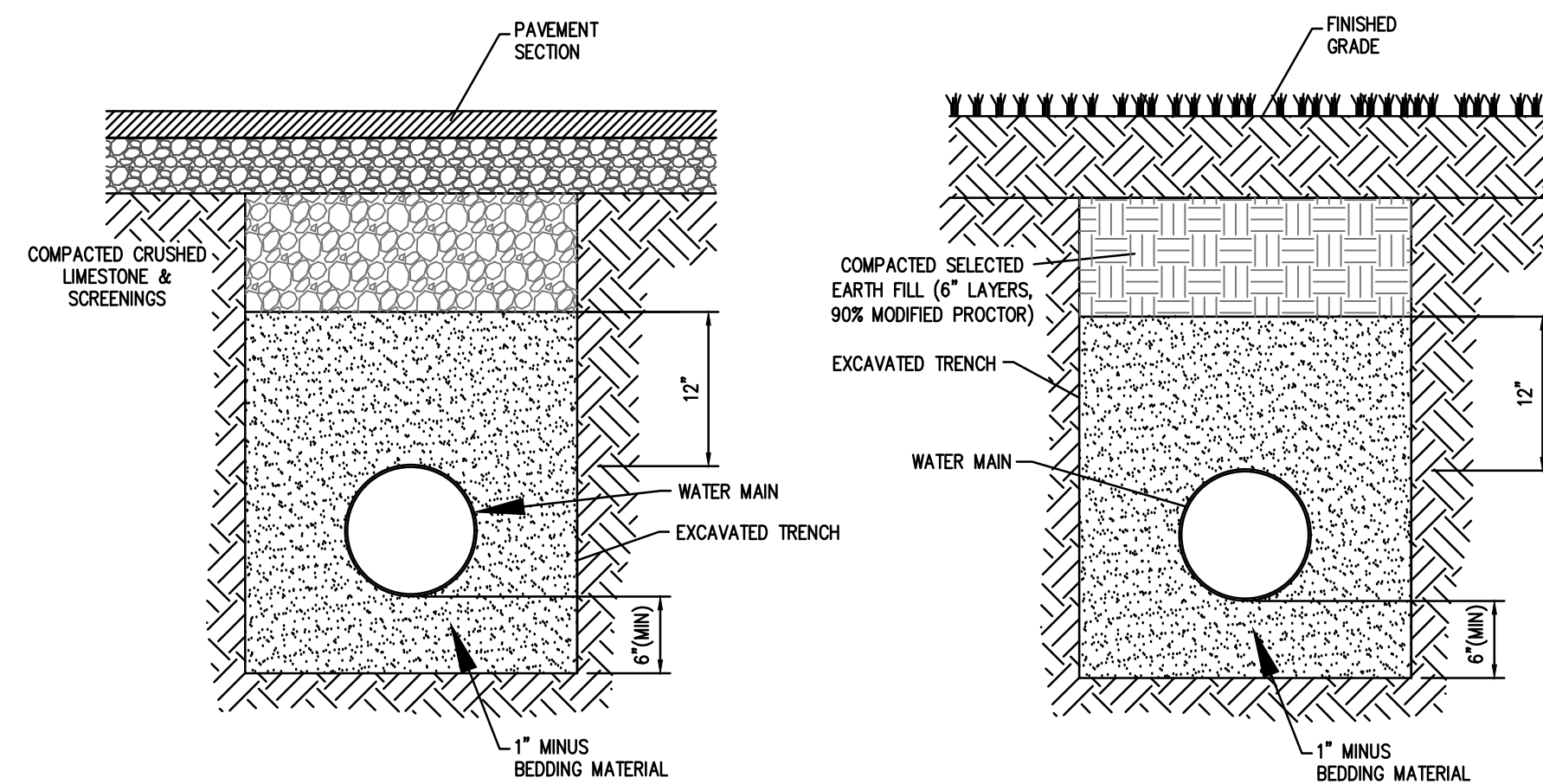
#### CONCRETE CURB AND GUTTER DETAIL (N.T.S.)

#### OPTIONAL INTEGRAL SIDEWALK/CURB DETAIL (N.T.S.)



NOTE (R7-8 SIGN): THIS IS A STANDARD SIGN AND MAY BE ORDERED FROM ANY TRAFFIC SIGN SUPPLIER BY NUMBER. THE SIGN MUST BE SUPPLEMENTED WITH A "LIFT VAN ACCESSIBLE ONLY" SIGN AS APPLICABLE AND/OR AMOUNT OF THE FINE FOR ILLEGALLY PARKING IN THE RESERVED SPACE(S) A MUNICIPALITY MAY IMPOSE. CONFORM WITH LOCAL REGULATIONS.

#### WATER SERVICE PIPE BEDDING DETAIL (N.T.S.)

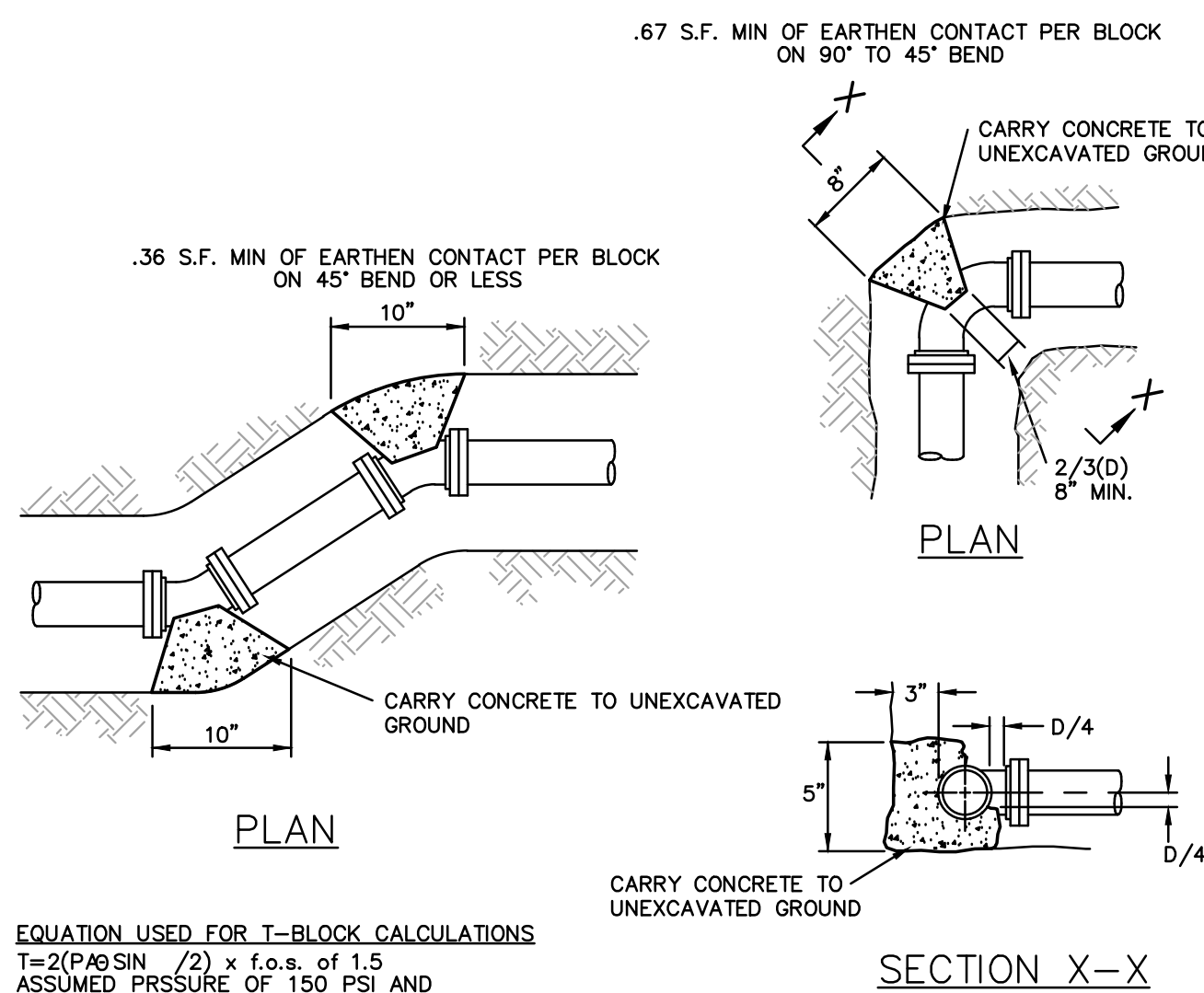
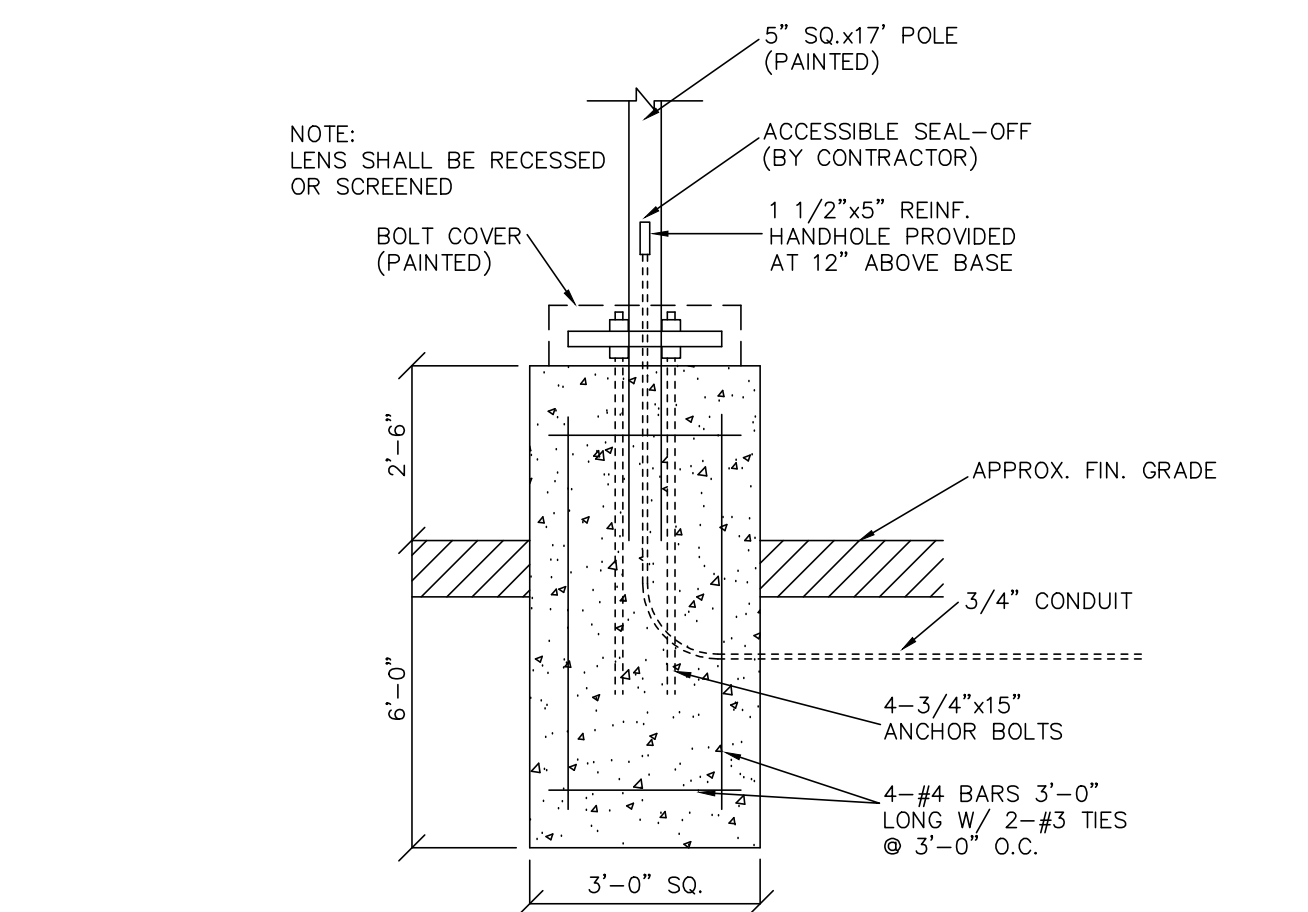


A = CONTACT BEARING AREA OF BLOCK WITH EARTH IN SQUARE FEET

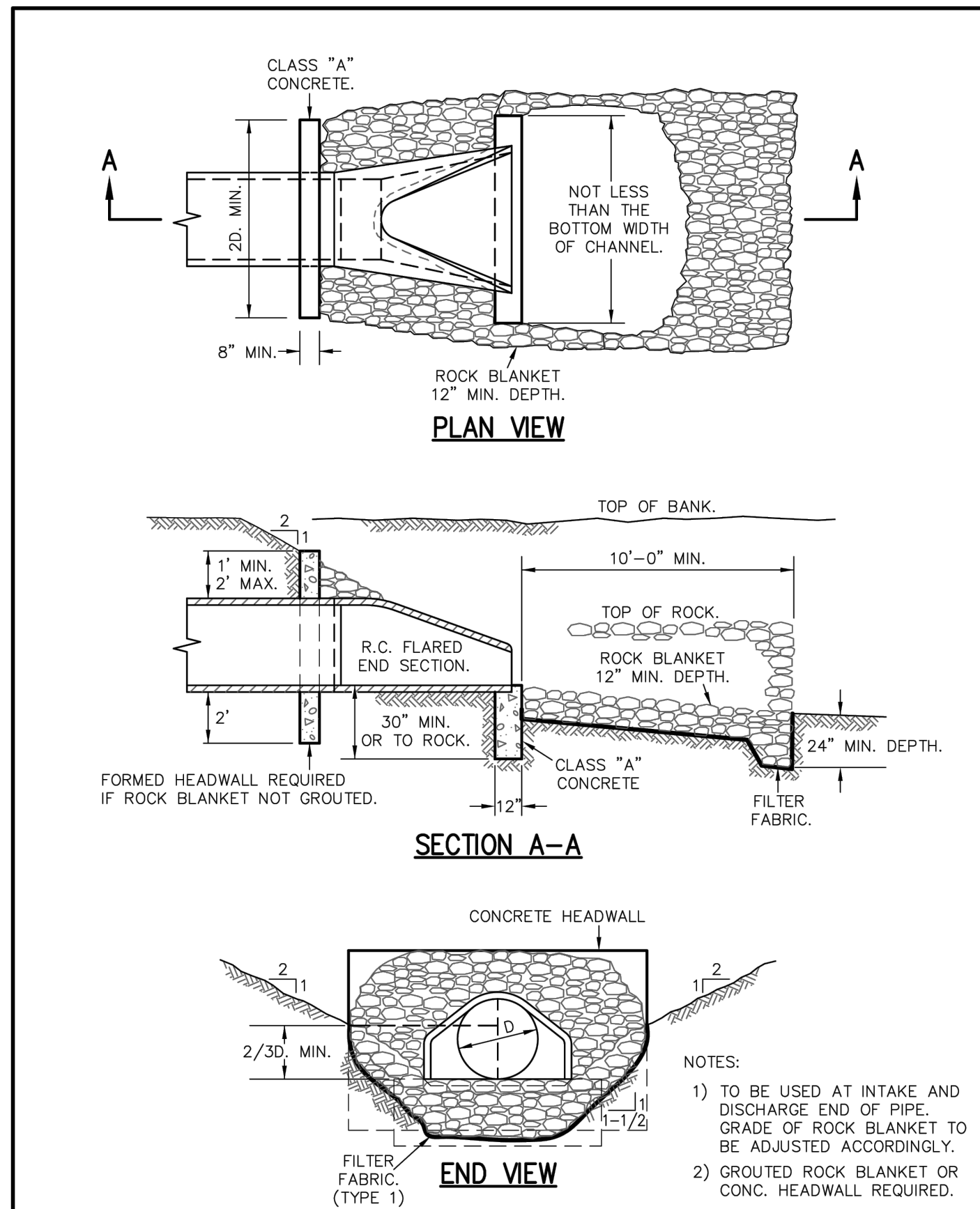
PIPE DIA. IN.	PLUG	45° WYE	TEE CONNECTION	UP TO 22.5°	UP TO 45°	UP TO 90°
	A (SQ. FT.)	A (SQ. FT.)	A (SQ. FT.)	A (SQ. FT.)	A (SQ. FT.)	A (SQ. FT.)
6" and smaller	0.5	1.4	2.6	1.8	2.2	2.0
6"	1.5	3.0	6.0	4.0	4.5	4.5
8"	2.5	5.0	9.5	6.5	9.5	8.0
10"	4.1	8.0	13.0	9.5	12.5	12.5
12"	5.5	11.5	19.0	13.5	16.0	16.0
16"	9.0	18.0	33.0	23.0	27.0	32.0
20"	14.0	28.0	51.0	36.0	42.0	50.5

- NOTES:**
- BEARING AREAS ARE BASED ON UNDISTURBED SOIL WITH A BEARING CAPACITY OF 1,000 POUNDS PER SQUARE FOOT. FOR A LESSER SOIL BEARING CAPACITY THESE AREAS SHALL BE INCREASED ACCORDINGLY.
  - ALL CONCRETE THRUST BLOCKS SHALL BE 3000 P.S.I. CONCRETE.
  - THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED EARTH.
  - NO JOINT SHALL BE COVERED WITH CONCRETE.
  - JOINTS THAT LOCATED AGAINST THRUST BLOCKS ARE TO BE WRAPPED IN A CLOTH MATERIAL.
  - APPROVED MECHANICAL JOINT RESTRAINTS ARE REQUIRED AT ALL VERTICAL BENDS AND MAY BE USED IN LIEU OF THRUST BLOCKS AT HORIZONTAL BENDS AT THE OPTION OF THE ENGINEER, AT NO ADDITIONAL COST TO THE OWNER.

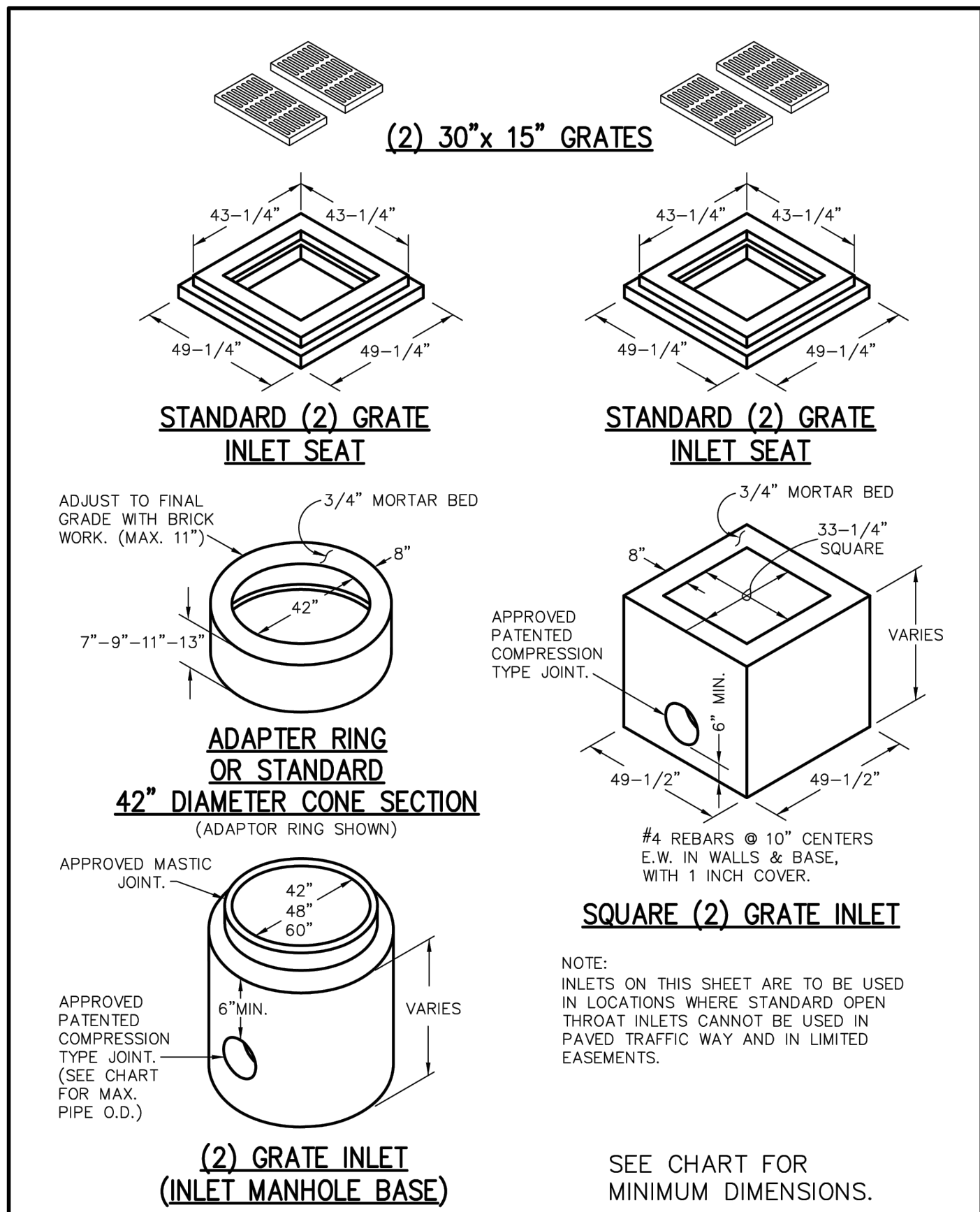
#### THRUST BLOCK DETAIL (N.T.S.)



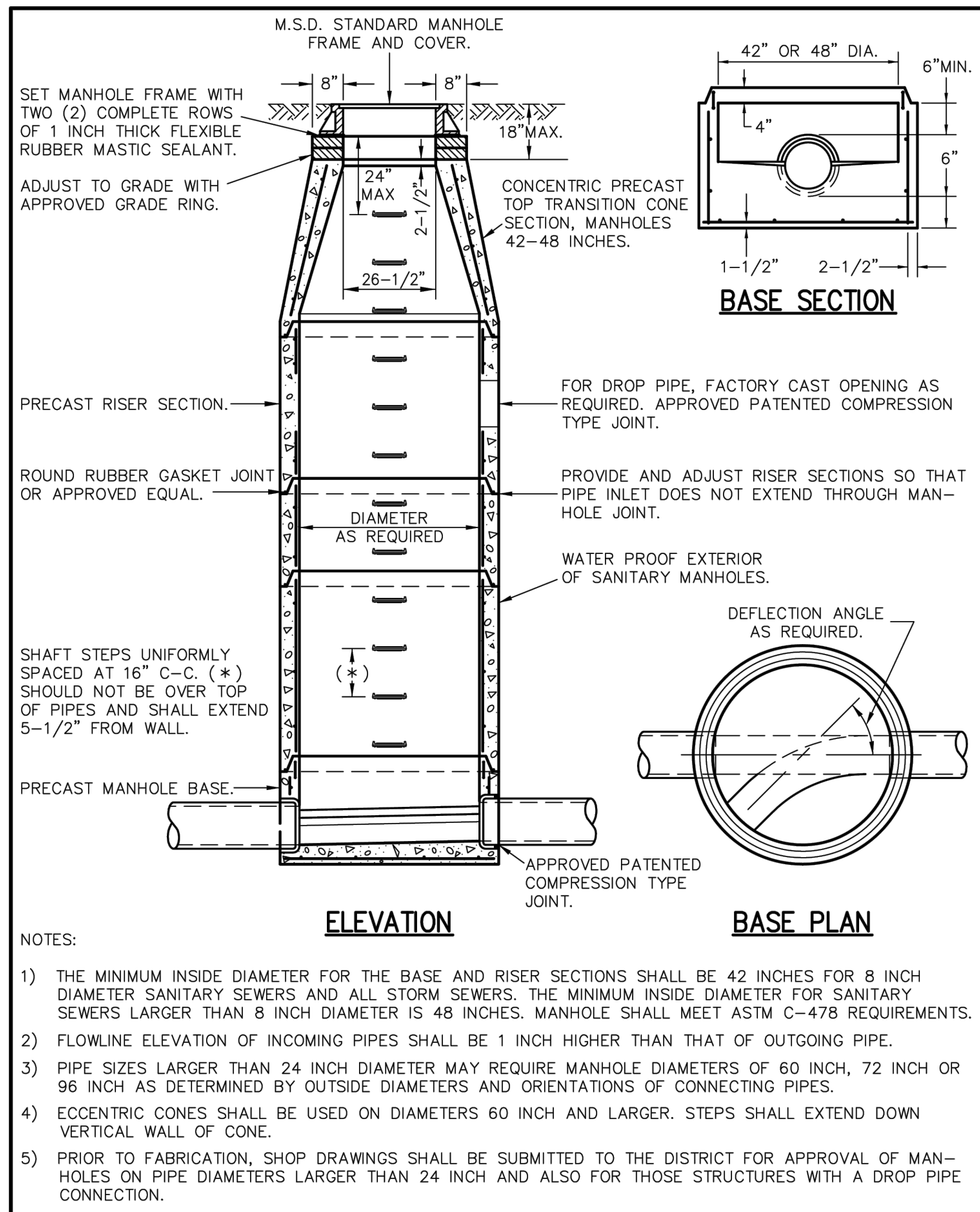




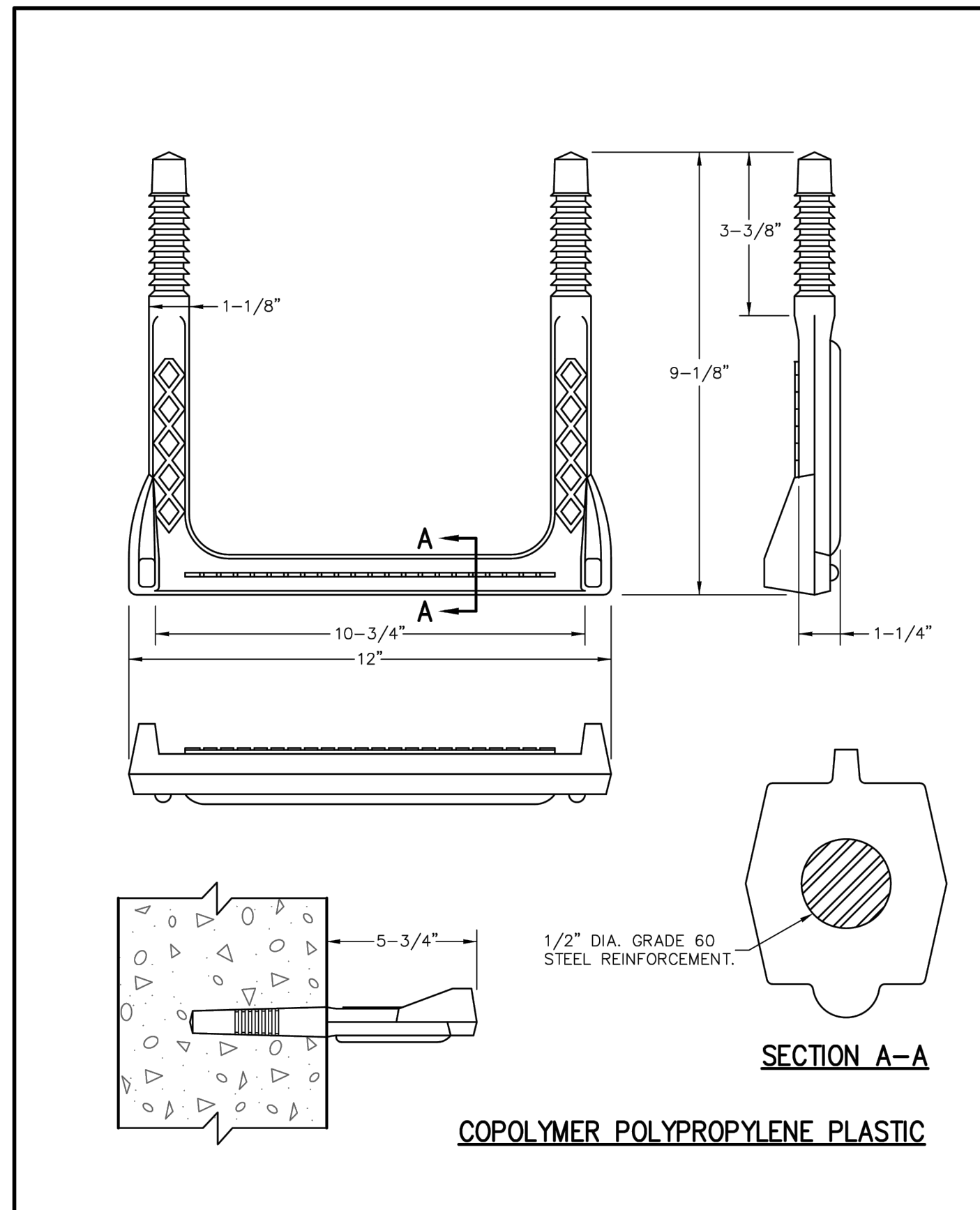
**FLARED END SECTION**  
(N.T.S.)



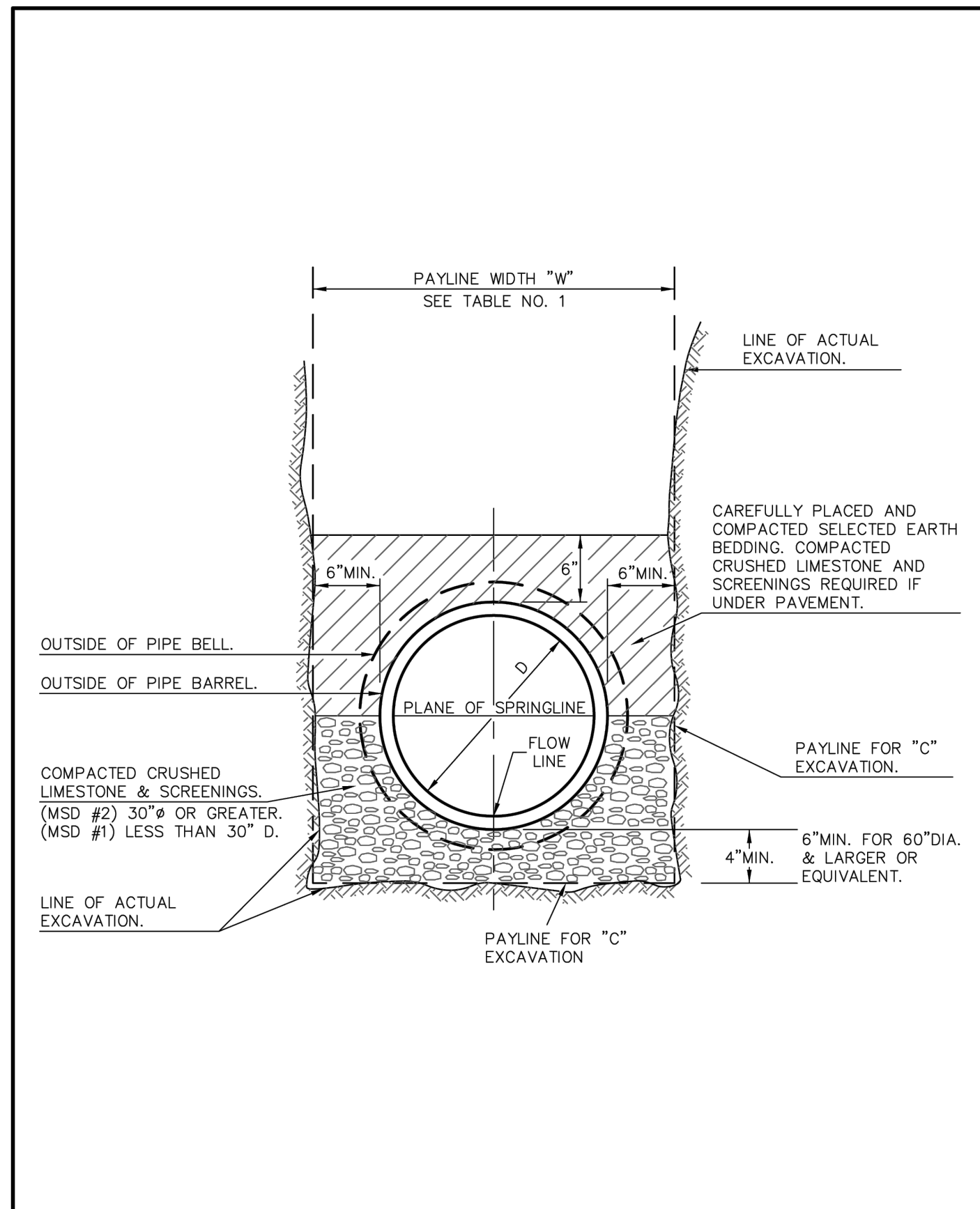
**2-GRATE INLETS PRECAST CONCRETE**  
(N.T.S.)



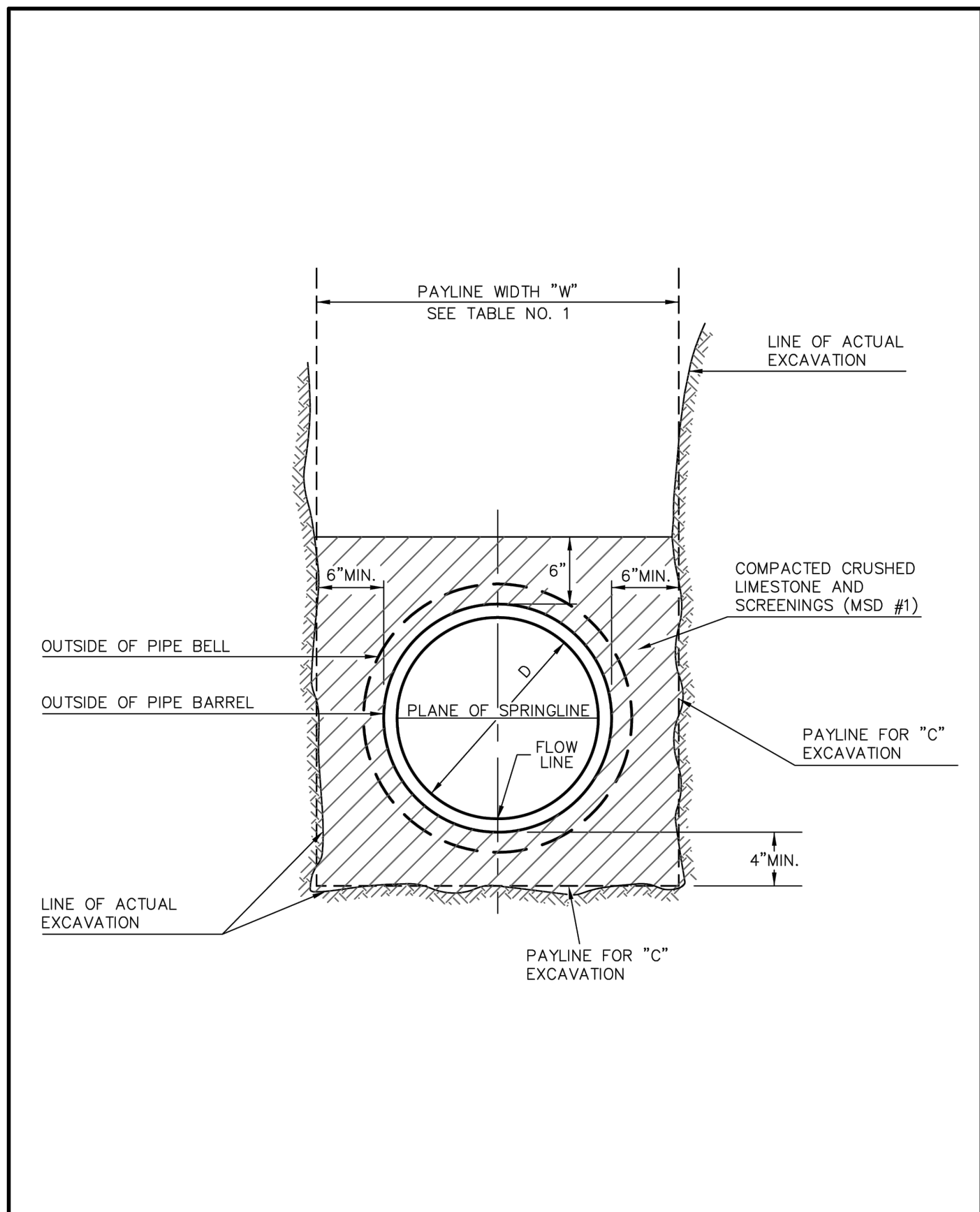
**PRECAST CONCRETE MANHOLE**  
(N.T.S.)



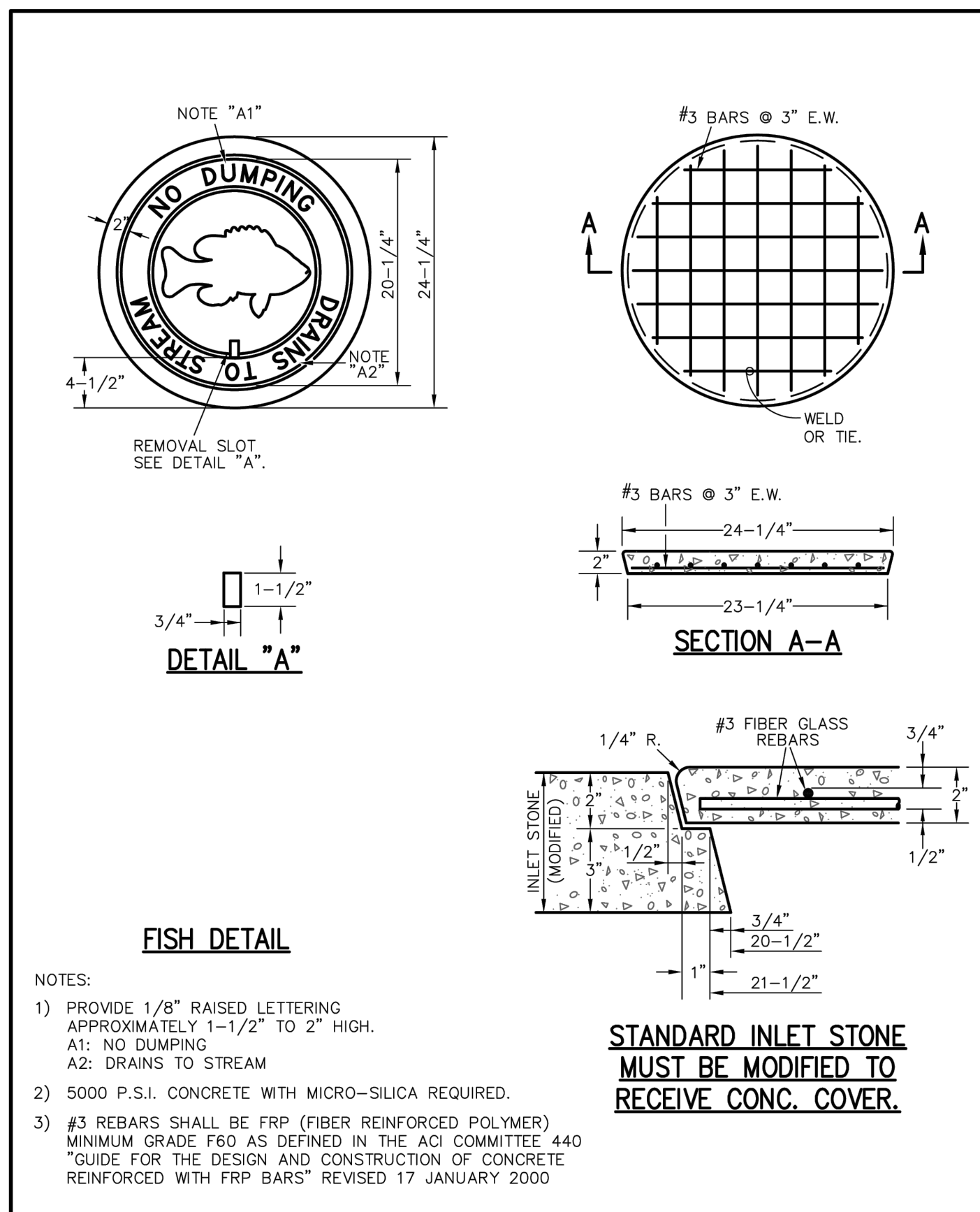
**MANHOLE STEP FOR PRECAST AND CAST-IN-PLACE MANHOLE**  
(N.T.S.)



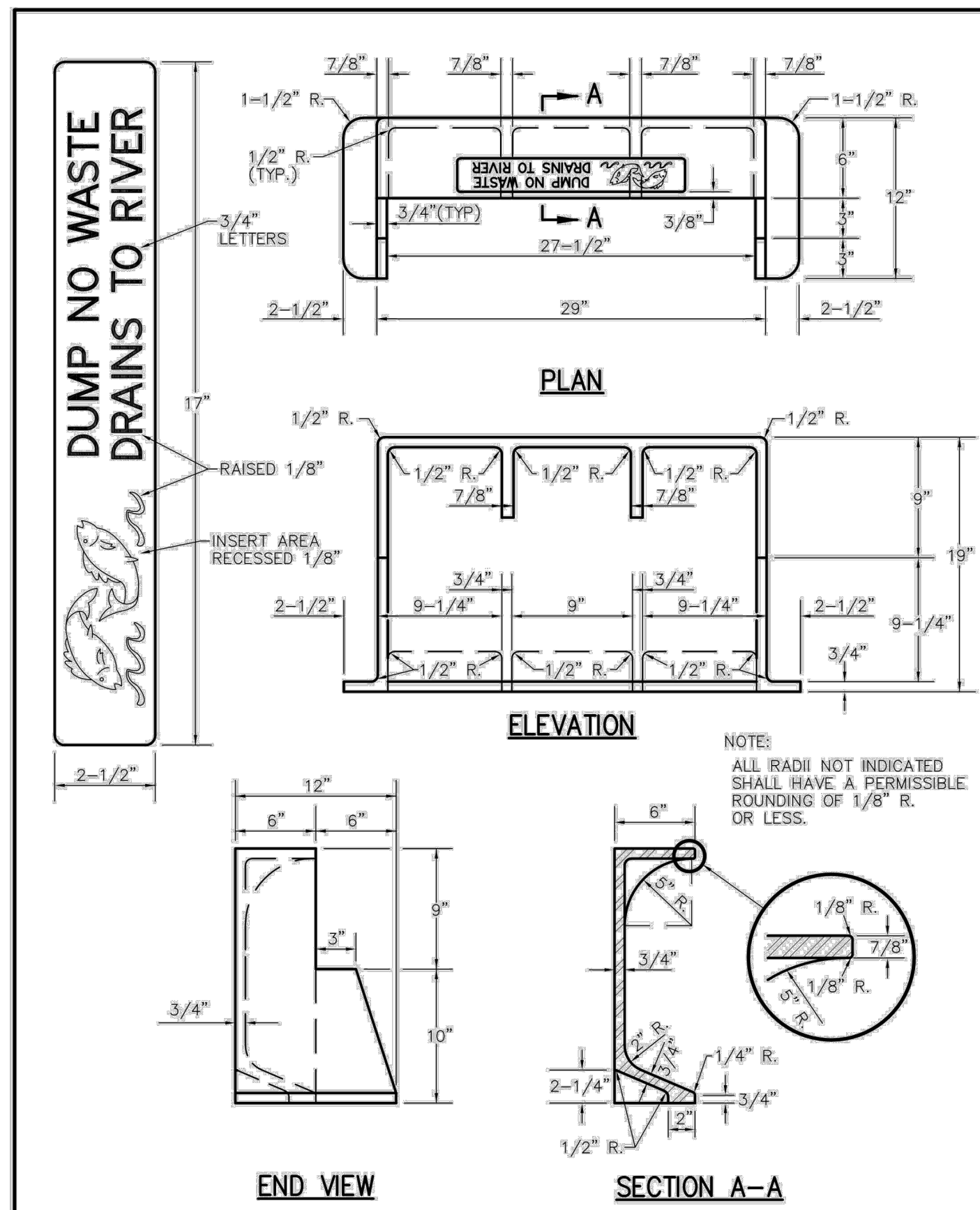
**PIPE BEDDING CLASS "C" (MODIFIED FOR REINFORCED CONCRETE PIPE)**  
(N.T.S.)



**PIPE BEDDING CLASS "C" (FOR ALL 6" TO 18" PIPE EXCEPT REINFORCED CONCRETE PIPE)**  
(N.T.S.)



**PRECAST CONCRETE INLET COVER AND STONE**  
(N.T.S.)



**CAST IRON SIDE INTAKE UNIT FOR GRATED INLETS - 249 LBS**  
(N.T.S.)

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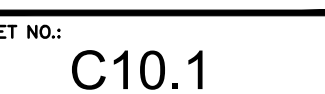




## 2024-7775

Peak Discharge - Post-Developed Conditions		
Design Storm (Year)	Allowable Discharge (cfs)	Post-Developed Discharge (cfs)
2	2.53	1.81
10	4.61	3.73
25	5.77	5.83
50	7.22	6.44
100	7.75	6.92

**AY FARM -**  
3205 HIGHWAY 5 N,  
BRYANT, ARKANSAS 72019



( IN FEET )  
1 inch = 30 ft.