

Location Map

General Notes:

- Underground utilities have been plotted from available information and therefore their locations shall be considered approximate only. The verification of the location of all underground utilities, either shown or not shown on these plans shall be the responsibility of the contractor, and shall be located prior to any grading or construction of the improvements.
- All trench backfills under paved areas shall be granular backfill, and shall be compacted to 90% of the maximum density as determined by the "Modified AASHTO T-180 Compaction Test," (A.S.T.M.-D-1557). All other trench backfills may be earth material (free of large clods or stones). All trench backfills shall be water jetted.
- No area shall be cleared without the permission of the Project Engineer.
- All grades shall be within 0.2 feet of those shown on the Grading Plan.
- All construction and materials used shall conform to current City of Moscow Mills standards.
- All mechanical equipment to be screened from public view.
- Proposed building will comply with current American Disability Act requirements.
- See architectural drawing for all building dimensions, service connections, details, etc.
- All utilities shown are existing unless otherwise noted. All new utilities shall be located underground.
- All dimensions are to back of curb unless otherwise noted.
- All construction methods and practices shall conform with current O.S.H.A. Standards.
- All signs on the site or any structure must have sign permits approved by the City of Moscow Mills.
- Exterior lighting shall be shielded so that artificial light intensity at the property line will not exceed 0.5 footcandles except as allowed along public Right-Of-Ways.
- All necessary utilities (public and private) will be available, functioning, and usable at the time any stage of the project or the total project is ready for occupancy.
- Developer must supply the City Construction Inspectors with soil reports prior to or during site soil testing.
- All storm sewer pipes shall be gasket o-ring type.
- All water mains, valves, fittings, hydrants and related items are to be installed in accordance with the current City of Moscow Mills guidelines and specifications.
- Forty-eight (48) hours notice shall be given to the Moscow Mills City Engineer: (636) 385-5648 before any grading operations are to begin to allow scheduling of required inspections.
- Forty-eight (48) hours notice shall be given to the Moscow Mills City Engineer: (636) 385-5648 before any storm sewer construction is to begin to allow scheduling of required inspections.
- All sidewalks, curb ramps, ramps and accessible parking spaces shall be constructed in accordance with the current approved "Americans with Disabilities Act Accessibility Guidelines" (ADAAG) along with the required grades, construction materials, specifications and signage. If any conflict accrue between the above information and the plans, the ADAAG guidelines shall take precedence and the contractor prior to any construction shall notify the Project Engineer. Ensure at least one 8' wide handicap access aisle is provided and curb ramps do not project into handicap access aisles.
- Standard Pavement design shall comply with the City of Moscow Mills specifications.

Legend

	SANITARY SEWER MANHOLE		—UGE—	BURIED ELECTRIC
	PIPELINE MARKER		—OHW—	OVERHEAD UTILITIES
	SIGN		—GAS—	BURIED GAS
	POWER POLE		— W —	BURIED WATER
	GUY WIRE		— T —	BURIED TELEPHONE
	TELEPHONE CABLE PEDESTAL		—SAN—	SANITARY SEWER
	BOLLARD		—FM—	SANITARY FORCE MAIN
	WATER WELL		TBR	TO BE REMOVED
	UTILITY BOX		UIP	USE IN PLACE
	TREE			

Grading Notes:

- All fill placed under proposed storm and sanitary sewer lines and/or paved areas including trench backfills within and off the right-of-way shall be compacted to 90 percent of maximum road density as determined by the "Modified AASHTO T-180 Compaction Test" (ASTM D-1557). All tests shall be verified by a Soils Engineer concurrent with grading and backfilling operations. All test result reports shall be faxed to the Moscow Mills City Engineer: (636) 385-5648.
 - All filled places in proposed and existing roads shall be compacted from the bottom of the fill up to 90 percent maximum density as determined by the "Modified AASHTO T-180 Compaction Test" (ASTM D-1557). Paved areas in cuts shall meet the same compaction requirements. All tests shall be verified by a Soils Engineer concurrent with grading operations.
 - All wells and/or springs which may exist on this property should be located and sealed in a manner acceptable to the City of Moscow Mills and Missouri Department of Natural Resources.
 - All trash and debris on-site, either existing or from construction, must be removed and properly disposed of off-site.
 - 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 on any storm sewer location.
 - All excavations, grading or filling shall have a finished grade not to exceed a 3:1 slope (33%) unless approved by the City of Moscow Mills.
 - Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.
 - Upon completion of storm sewers, siltation control shall be provided around all open sewer inlets and shall remain until the disturbed drainage areas have been properly stabilized.
 - Where natural vegetation is removed during grading, vegetation shall be re-established in such a density as to prevent erosion.
- When mechanized land clearing activities are completed or suspended for more than 14 days, either temporary vegetation must be established or temporary siltation control measures must be put in place with the review and approval of the City Engineer.
- When grading operations are completed or suspended for more than 14 days, permanent grass must be established at sufficient density to provide erosion control on the site. Between permanent grass seeding periods, temporary cover shall be provided according to the City Engineer's recommendation.
- Where natural vegetation is removed during grading, vegetation shall be reestablished in such a density as to prevent erosion. Permanent type grasses shall be established as soon as possible during the next seeding period after grading has been completed.
- All finished grades in excess of 33.3% slopes (3:1) shall be covered with North American Green S150 Erosion Control Blanket (or equivalent). All finished grades in excess of 20% slopes (5:1) slopes up to and including 33.3% slopes (3:1) and flat bottom ditch on site shall be covered with North American Green S75 Erosion Control Blanket (or equivalent).
- All areas shall be seeded and mulched or sodded before an occupancy permit shall be issued except that a temporary occupancy permit may be issued by the Building Department in cases of undue hardship because of unfavorable ground conditions.
- Site Sediment and Erosion Control shall comply with City of Moscow Mills Standards.
- Contractor to supply City of Moscow Mills inspector with copies of the compaction test reports. Fill, grading and compaction operations shall be performed per the City of Moscow Mills requirements or the Geotechnical Engineer's specifications, whichever is more stringent.

Grading Quantities:

1040 C.Y. CUT (INCLUDES SUBGRADE)
1690 C.Y. FILL (INCLUDES 8% SHRINKAGE)
650 C.Y. IMPORT

THE ABOVE GRADING QUANTITY IS APPROXIMATE ONLY, NOT FOR BIDDING PURPOSES. CONTRACTOR SHALL VERIFY QUANTITIES PRIOR TO CONSTRUCTION.

Grading/Sediment and Erosion Control Notes:

- The Contractor shall assume complete responsibility for controlling all siltation and erosion of the project area. The Contractor shall use whatever means necessary to control erosion and siltation including, but not limited to, staked straw bales and/or siltation fabric fences (possible methods of control are detailed in the plan). Erosion control shall commence with grading and be maintained throughout the project until acceptance of the work by the Owner and/or the City of Moscow Mills. The Contractor's responsibilities include all design and implementation as required to prevent erosion and the depositing of silt. The Owner and/or City of Moscow Mills may, at their option, direct the Contractor in his methods as deemed fit to protect property and improvements. Any depositing of silts or mud onto new or existing pavement or in new or existing storm sewers or swales shall be removed after each rain and affected areas cleaned to the satisfaction of the Owner and/or the City of Moscow Mills.
 - Perimeter siltation control shall be installed prior to any land disturbance of the site.
 - Inspection of siltation control devices shall take place once every seven days and after any one-quarter (1/4) inch or more rain event.
 - Any siltation control in need of repair shall be fixed immediately.
 - All slopes or drainage channels, once constructed to final grade, shall be seeded and mulched per specifications within seven (7) days.
 - Siltation control shall be installed immediately around each storm sewer structure once final construction of each individual structure is complete.
 - All siltation control devices shall remain in place until upslope areas have been permanently stabilized.

SCHEDULE IMPLEMENTATION

- Perimeter siltation control and construction entrance to be installed.
- Begin placing aggregate base in proposed paved areas once area has reached final grade to prevent erosion.
- Place siltation control around each storm sewer structure as it is completed.
- Immediately seed areas that are to be permanently seeded upon reaching final grade.

SILTATION CONTROL DEVICE MAINTENANCE

- Siltation control shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
- Close attention shall be paid to the repair of damaged siltation control, end runs and undercutting.
- Necessary repairs to siltation control shall be accomplished promptly.
- Sediment deposits should be removed after each rainfall. Sediment deposits shall be removed when the level of deposition reaches approximately one-half the height of the barrier.
- Any sediment deposits remaining in place after the siltation control barrier is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

VEGETATION ESTABLISHMENT
For Urban Development Sites
APPENDIX A

SEEDING RATES:

PERMANENT:

Tall Fescue — 30 lbs./ac. Smooth
Brome — 20 lbs./ac.
Combined — Fescue @ 15 lbs./ac. AND
Brome @ 10 lbs./ac.
TEMPORARY:
Wheat or Rye — 150 lbs./ac. (3.5 lbs. per 1,000 s.f.)
Oats — 120 lbs./ac. (2.75 lbs. per 1,000 s.f.)

SEEDING PERIODS:

Fescue or Brome — March 1 to June 1
August 1 to October 1
Wheat or Rye — March 15 to November 1
Oats — March 15 to September 15

MULCH RATES:

100 lbs. per 1,000 sq. ft. (4,356 lbs. per ac.)

FERTILIZER RATES:

Nitrogen 30 lbs./ac.
Phosphate 30 lbs./ac.
Potassium 30 lbs./ac.
Lime 600 lbs./ac. ENM*

* ENM = effective neutralizing material as per State evaluation of quarried rock.

Development Notes:

- AREA OF TRACT: 0.87 ACRES
- EXISTING ZONING: C-3 GENERAL COMMERCIAL DISTRICT (CITY OF MOSCOW MILLS)
- PROPOSED USE: NEW AMBULANCE DISTRICT BASE STATION
- THE REQUIRED HEIGHT AND BUILDING SETBACKS ARE AS FOLLOWS:
MINIMUM FRONT YARD: 50 FEET
MINIMUM SIDE YARD: 15 FEET
MINIMUM REAR YARD: 25 FEET
MAXIMUM BUILDING HEIGHT: 75 FEET
- PROPERTY OWNER: LINCOLN COUNTY AMBULANCE DISTRICT
1392 SOUTH THIRD STREET
TROY, MISSOURI 63379
- SITE IS SERVED BY:
CITY OF MOSCOW MILLS SANITARY (636) 356-4220
CITY OF MOSCOW MILLS WATER (636) 356-4220
CUivre RIVER ELECTRIC (800) 392-3709
AMEREN MISSOURI GAS (877) 426-3736
CENTURY LINK (800) 244-1111
LINCOLN COUNTY FIRE DISTRICT (636) 447-6655

- TO DETERMINE THE LOCATION OF FLOOD DESIGNATIONS AND BOUNDARIES, WE DETERMINED THE HORIZONTAL LOCATION OF THIS TRACT OF LAND BY SCALING THE FOLLOWING FLOOD INSURANCE RATE MAP (FIRM): CITY OF MOSCOW MILLS, LINCOLN COUNTY, MISSOURI AND INCORPORATED AREAS, MAP NUMBER 29113C0383E, WITH AN EFFECTIVE DATE OF OCTOBER 05, 2016.

COMMUNITY: CITY OF MOSCOW MILLS
NUMBER: 290546
PANEL: 0383
SUFFIX: E

BY EXPRESS REFERENCE TO THIS MAP AND ITS LEGEND, THIS TRACT OF LAND IS INDICATED TO BE WITHIN THE FOLLOWING ZONES:

- ZONE X - AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN.

THE EVALUATION PROVIDED IN THIS NOTE IS RESTRICTED TO SIMPLY INDICATING THE APPARENT HORIZONTAL LOCATION OF THE PROPERTY WITH RESPECT TO THE FEATURES DISPLAYED ON THE MAP. NO FIELD STUDY OF THE DRAINAGE CHARACTERISTICS TO WHICH THIS PROPERTY MAY BE SUBJECT TO HAS BEEN CONDUCTED AND NO REPRESENTATION CONCERNING THE INSURABILITY OF THIS PROPERTY OR THE POTENTIAL SUSCEPTIBILITY OF THIS PROPERTY TO FLOODING HAS BEEN MADE. BAX ENGINEERING MAKES NO REPRESENTATION CONCERNING THE ACCURACY OF THE ABOVE REFERENCED FIRM MAP WHICH INCLUDES A NOTE THAT "THIS MAP IS FOR USE IN ADMINISTERING THE NATIONAL FLOOD INSURANCE PROGRAM. IT DOES NOT NECESSARILY IDENTIFY ALL AREA SUBJECT TO FLOODING, PARTICULARLY FROM LOCAL DRAINAGE SOURCES OF SMALL SIZE."

THIS FLOOD ZONE DETERMINATION AND THE FLOOD ZONE LIMITS SHOWN HEREON, IF ANY, WERE MADE USING FEMA INFORMATION WHICH WAS AVAILABLE ON THE DATE THIS SURVEY WAS SIGNED AND SEALED.

- PARKING CALCULATIONS:
FIRE STATION: 1 PER EMPLOYEE ON MAX WORK SHIFT, PLUS 1 GUEST SPACE.
4 EMPLOYEES PER SHIFT WITH MAXIMUM OF 8 EMPLOYEES AT SHIFT CHANGE.
8 + 1 = 9 SPACES REQUIRED

TOTAL PARKING REQUIRED = 9 SPACES
TOTAL PARKING PROVIDED = 15 SPACES (INCLUDES 2 ACCESSIBLE SPACES)

- SITE COVERAGE CALCULATIONS:
AREA OF LOT = 37,715 SQ. FT. (0.87 ACRES)
BUILDING = 4,669 SQ. FT. = 12%
PAVEMENT = 12,911 SQ. FT. = 34%
GREEN SPACE = 20,135 SQ. FT. = 54%

- LANDSCAPE CALCULATIONS:
PARKING LANDSCAPE AREA: 10 SQ. FT. PER PARKING SPACE = 15 PARKING SPACES X 10 SQ. FT.
PARKING LANDSCAPE AREA REQUIRED = 150 SQ. FT.
PARKING LANDSCAPE AREA PROVIDED = 158 SQ. FT.

- ALL SIGNS SHALL REQUIRE A SEPARATE PERMIT BY THE CITY OF MOSCOW MILLS.

- ALL SITE LIGHTING SHOWN IS FOR PRESENTATION ONLY AND EXACT LOCATIONS WILL DEPEND UPON A LIGHTING LAYOUT BY A QUALIFIED LIGHTING CONSULTANT. PRIOR TO CONSTRUCTION SITE PLAN APPROVAL, A PHOTOMETRIC LIGHTING PLAN IN ACCORDANCE WITH THE CITY'S EXTERIOR LIGHTING STANDARDS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL.

- UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE THEIR LOCATIONS SHALL BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF THE LOCATION OF ALL UNDERGROUND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF THE IMPROVEMENTS.

- ALL NEW UTILITIES SHALL BE LOCATED UNDERGROUND.

- ALL CONSTRUCTION METHODS AND PRACTICES SHALL CONFORM WITH OSHA STANDARDS.

- ALL CONSTRUCTION AND MATERIALS USED SHALL CONFORM TO CURRENT CITY OF MOSCOW MILLS STANDARDS.

- DIFFERENTIAL RUN-OFF CALCULATIONS:
0.40 ACRES INCREASED IMPERVIOUS AREA
0.40 ACRE (3.54-1.70) = 0.74 GFS (INCREASE IN RUN-OFF)
NO DETENTION PROPOSED.

- WATER AND SANITARY MAINS SHALL BE RELOCATED PRIOR TO CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH THE CITY FOR RELOCATION.

Benchmarks:

REFERENCE BENCHMARK: PROJECT ELEVATIONS UTILIZE THE NAVD 88 VERTICAL DATUM AND WERE GENERATED BY GPS OBSERVATIONS USING A CELLULAR TRIMBLE R8 GNSS ROVER AND TRIMBLE TSC3 DATA COLLECTOR. REFERENCE ELEVATIONS AND ARE BASED ON THE MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION GLOBAL NAVIGATION SATELLITE REAL TIME NETWORK FOR CONTINUOUS OPERATING REFERENCE STATIONS COMMONLY REFERRED TO AS VRS, USING GEOID G18US.

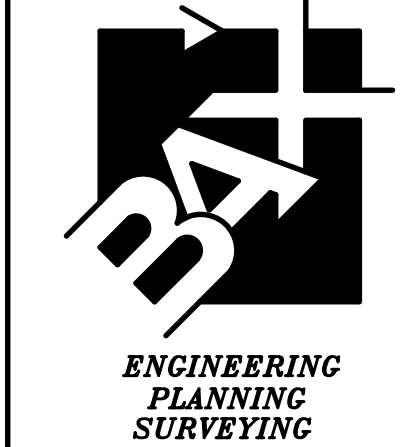
SITE BENCHMARK (NAVD 88) - IRON PIPE @ ELEVATION 496.96 NAVD88 SOUTHERN MOST CORNER OF SUBJECT PROPERTY HEREON.



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LINCOLN COUNTY AMBULANCE DISTRICT
28 WALTER COURT
MOSCOW MILLS, LINCOLN COUNTY, MO, 63362

PREPARED FOR:
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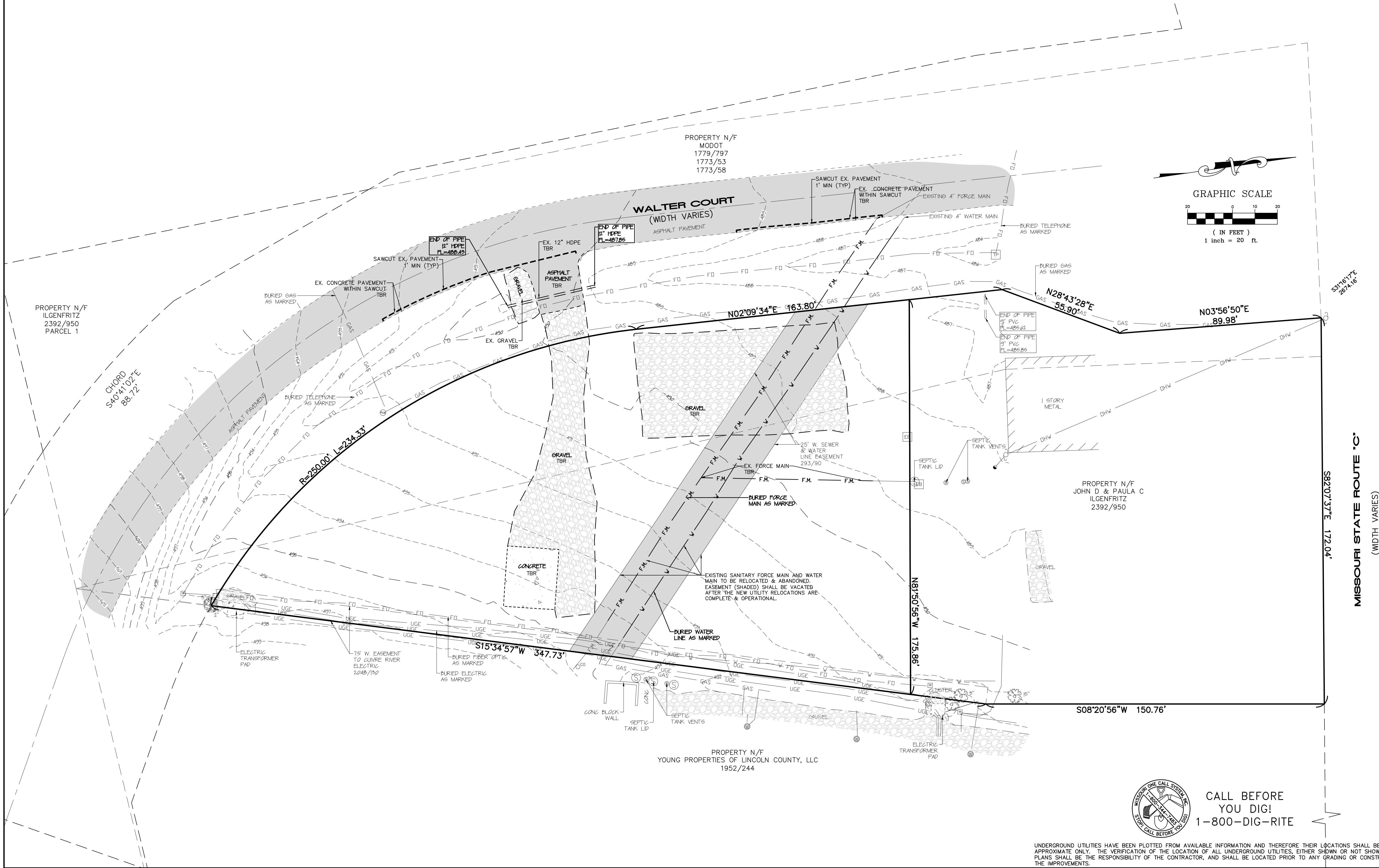
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Larry D. Walker
Civil Engineer
Engineers License No. 2007020343

11-12-21
DATE
21-18464
PROJECT NUMBER
18464 CON.DWG
FILE NAME
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DRAWN
MDS LDW
DESIGNED CHECKED

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C-1



A SET OF CONSTRUCTION PLANS FOR
LINCOLN COUNTY AMBULANCE DISTRICT
28 WALTER COURT
MOSCOW MILLS, LINCOLN COUNTY, MO, 63362

374
**ENGINEERING
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DEMOLITION
PLAN

C-2

QTY. (3) FREEMAN MAPLE

QTY. (8) BOXWOOD

QTY. (3) SNOWMOUND SPIREA

ACER X FREEMANII 'JEFFERSRED' AUTUMN BLAZE

BOXUS 'GREEN GEM'

SPIRAEA NIPPONICA 'SNOWMOUND'

MINIMUM 1-1/2" CALIPER

2 GALLON

2 GALLON

ALL SHADE TREES SHALL BE A MINIMUM CALIPER OF 1.5 INCHES MEASURED 1 FOOT ABOVE GRADE. LANDSCAPING AS DEPICTED IS SUBJECT TO FINAL DESIGN BY A QUALIFIED LANDSCAPE DESIGNER.

LEGEND:

4" CONCRETE OVER 4" ROCK

3" ASPHALT OVER 8" ROCK

8" CONCRETE OVER 4" ROCK

NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING AN ENGINEER TO DESIGN GREASE TRAP.

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WATER MAIN CONSTRUCTION NOTES
CONTRACTOR SHALL PROVIDE SLEEVES OR WATER MAIN PROTECTION IN ALL LOCATIONS WHERE WATER AND SANITARY MAINS OR SERVICES CROSS WITHOUT THE REQUIRED 18 INCHES OF SEPARATION.

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SITE PLAN

C-3

C-4

INTERNATIONAL SOCIETY OF ARBORICULTURE

DO NOT HEAVILY PRUNE THE TREE AT PLANTING. PRUNE ONLY PROXIMAL BRANCHES TO DOMINANT LEADING AND BRANCHES OF MAIN BRANCHES. PRUNING SHOULD BE DONE IN THE FALL. BRANCHES MAY BE PRUNED, HOWEVER, DO NOT REMOVE THE THINNING BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN.

STAKE TREES ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT. SEE STAKING DETAIL.

WRAP TREE TRUNKS ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT. SEE WRAPPING DETAIL.

MARK THE NORTH SIDE OF THE TREE TO THE PROPERTY AND POSE THE TREE NORTH AT THE SITE WHEN EVER POSSIBLE.

SET TOP OF ROOT BALL FLUSH TO HORIZON TO SCURRY DRAINING SOIL.

50 MM (2 IN.) MATCH. DO NOT PLACE MATCH IN CONTACT WITH TREE TRUNK. MARKING OF TREES REARS TREE FOR PLANTING.

NOTE: FOR DIMENSIONS OF PLANTING AREAS, TYPES OF SOIL AMENDMENTS, SOIL REPLACEMENT, SEE: SOIL IMPROVEMENT DETAILS.

TREE PLANTING DETAIL - B&B TREES IN ALL SOIL TYPES

NOTE: THIS DETAIL ASSUMES THAT THE PLANTING SPACE IS LARGER THAN 2400 MM (8 FT.) SQUARE, OPEN TO THE SKY, AND NOT COVERED BY ANY FINING OR GRADING.

INTERNATIONAL SOCIETY OF ARBORICULTURE

WIRE OR CABLE SIZES SHALL BE AS FOLLOWS:
TREES UP TO 40 MM (1.5 IN.) CALIPER - 14 GAUGE
TREES 40 MM (1.5 IN.) TO 75 MM (3 IN.) CALIPER - 12 GAUGE
TIGHTER WIRE OR CABLE ONLY ENOUGH TO KEEP FIRM SUPPORTING. ALLOW FOR SOME TRUNK MOVEMENT. PLASTIC HOSE SHALL BE LONG ENOUGH TO ACCOMMODATE 33MM (1.5 IN.) OF GROWTH AND BUTTER ALL BRANCHES FROM THE WIRE.
TUCK ANY LOOSE ENDS OF THE WIRE OR CABLE INTO THE WIRE WHIP SO THAT NO SHARP WIRE ENDS ARE EXPOSED.

13 MM (0.5 IN.) 33MM PLASTIC HOSE

240 x 40 MM (1.5 x 1.5 IN.) HARDWOOD STAKES OR OTHER APPROVED STATE MATERIAL

ALL STAKES SHALL BE DRIVEN OUTSIDE THE EDGE OF THE ROOT BALL.

NOTE: THE BEARING SURFACE OF THE PROTECTIVE COVERING OF THE WIRE OR CABLE AGAINST THE TREE TRUNK IS A MINIMUM OF 12 MM (0.5 IN.).

REMOVE ALL STAKING AS SOON AS THE TREE HAS GROWN SUFFICIENT ROOTS TO OVERCOME THE PROBLEM OF SWAYING. STAKES SHALL BE REMOVED NO LATER THE END OF THE FIRST GROWING SEASON AFTER PLANTING.

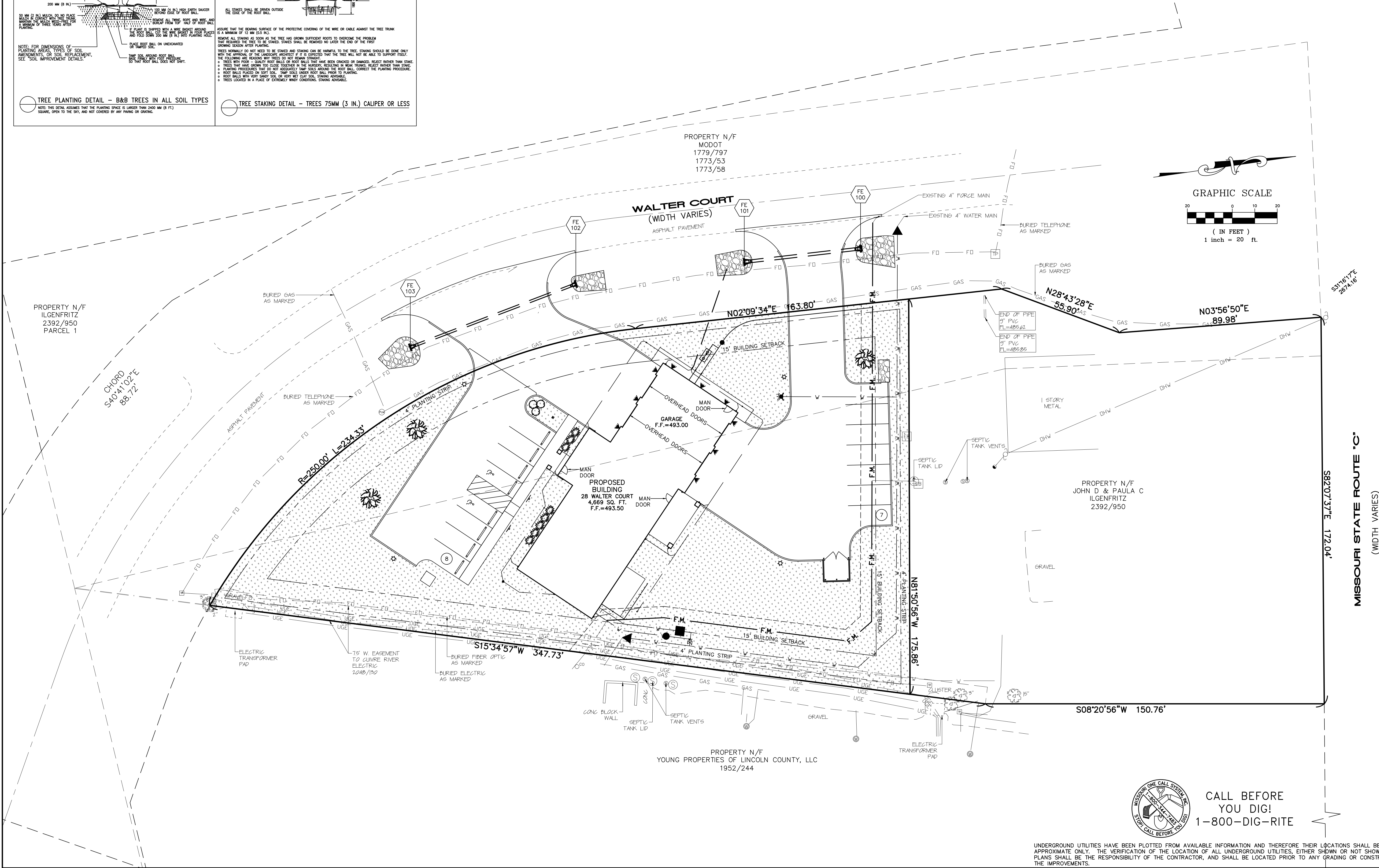
TREES NORMALLY DO NOT NEED TO BE STAKED AND STAKING CAN BE HARMFUL TO THE TREE. STAKING SHOULD BE DONE ONLY WITH THE APPROVAL OF THE LANDSCAPE ARCHITECT. IF IT IS EXPECTED THAT THE TREE WILL NOT BE ABLE TO SUPPORT ITSELF, THE FOLLOWING ARE REASONS WHY TREES DO NOT STAY STRAIGHT:
TREES WITH PAGES - CALIPER OF ROOT BALLS THAT HAVE BEEN CRACKED OR DAMAGED. SELECT RATHER THAN STAKE.
TREES THAT HAVE GROWN TOO CLOSE TOGETHER IN THE NURSERY, RESULTING IN NEAR TRUNKS. SELECT RATHER THAN STAKE.
PLANTING PROCEDURES THAT DO NOT ACCURATELY TIME SOILS AROUND THE ROOT BALL CORRECT THE PLANTING PROCEDURE.
ROOT BALLS PLACED ON SOFT SOIL. TAMP SOILS UNDER ROOT BALL PRIOR TO PLANTING.
ROOT BALLS WITH VERY SHINY SOIL OR VERY WET CLAY SOIL. STAKING ADVISABLE.
TREES LOCATED IN A PLACE OF EXTREMELY WINDY CONDITIONS. STAKING ADVISABLE.

TREE STAKING DETAIL - TREES 75MM (3 IN.) CALIPER OR LESS

Landscape Legend

	QTY. (3) FREEMAN MAPLE	ACER X FREEMANII 'JEFFERSRED' AUTUMN BLAZE	MINIMUM 1-1/2" CALIPER
	QTY. (8) BOXWOOD	BOXUS 'GREEN GEM'	2 GALLON
	QTY. (3) SNOWMOUND SPIREA	SPIRAEA NIPPONICA 'SNOWMOUND'	2 GALLON
	GRASS AREA		

ALL SHADE TREES SHALL BE A MINIMUM CALIPER OF 1.5 INCHES MEASURED 1 FOOT ABOVE GRADE. LANDSCAPING AS DEPICTED IS SUBJECT TO FINAL DESIGN BY A QUALIFIED LANDSCAPE DESIGNER.



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**LANDSCAPE
PLAN**

C-5

UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE THEIR LOCATIONS SHALL BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF THE LOCATION OF ALL UNDERGROUND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF THE IMPROVEMENTS.



HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 10'

*BOTH CULVERTS SHALL BE CLASS IV RCF

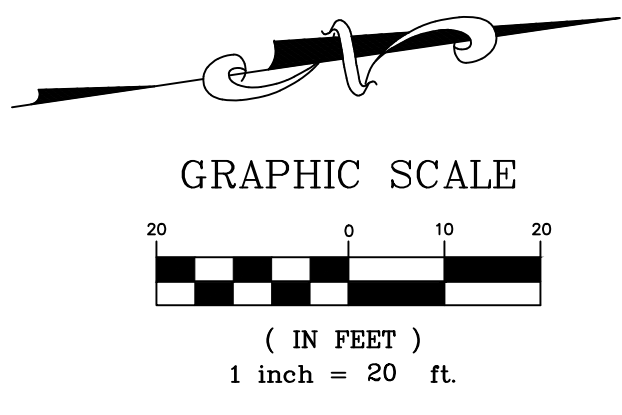
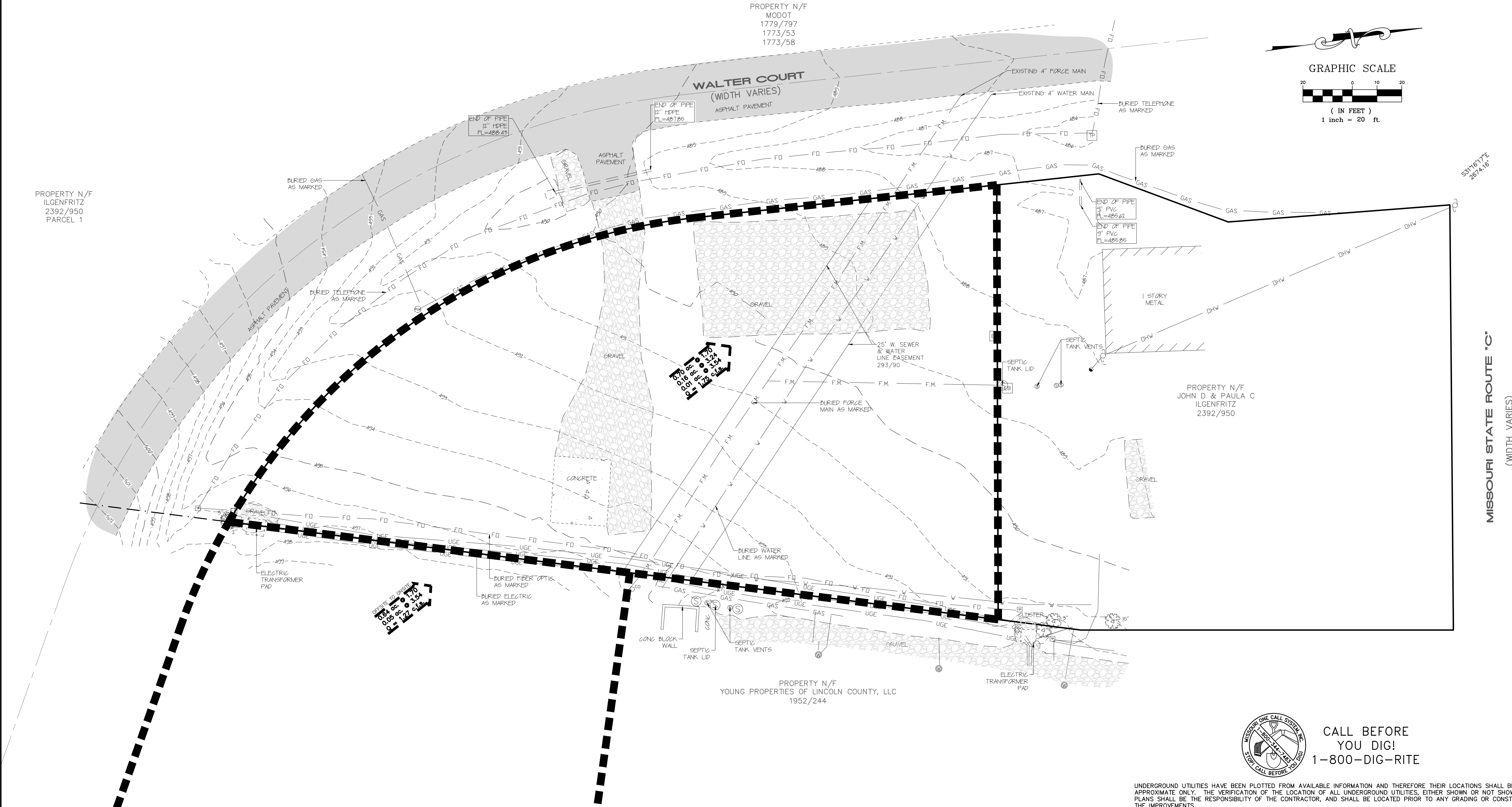
St Charles County Government Hydraulic Review Output Data											\\VAULTSERVER\FileFolders\18000\18464 - 28 Walter Court - Moscow Mills\Engineering\Hydraulics\18464.txt 2/10/2022 Calculations Under Full Flow																
Upp Str	Low Str	PL	S	Upp FL LN	Low FL LN	PS	Upp STEL	Depth HYGR	Upp HY EL	Low HY EL	Hydr Grade	FR Head	VEL	VEL Head	Junc Loss	Turn Loss	Curve Loss	STR Grade	Inl Cap	DR Area	P.I.	Q	TQ	Pipe Cap	Remarks		
1	FE103	FE102	79	12	489.00	488.21	1.00	490.00	0.62	489.38*	489.21	0.00090	0.07	1.36	0.03	0.03	0.00	0.00					1.07	1.07	3.56	ITP=489.21	
2	FE101	FE100	52	15	486.49	486.23	0.50	487.74	-0.16	487.90	487.48	0.00450	0.23	3.51	0.19	0.19	0.00	0.00					4.31	4.31	4.57	ITP=487.48	



SCALE: 1"=20'

NOTE: 6" AND 8" PVC DOWNSPOUTS SHALL BE SCHEDULE 40 PVC.

THIS SHEET IS FOR DRAINAGE PURPOSES ONLY. NOT TO BE USED FOR CONSTRUCTION.



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A SET OF CONSTRUCTION PLANS FOR

LINCOLN COUNTY AMBULANCE DISTRICT

28 WALTER COURT

MOSCOW MILLS, LINCOLN COUNTY, MO, 63362

PREPARED FOR:

LINCOLN COUNTY AMBULANCE DISTRICT

1392 SOUTH STREET

TRIO, MO, 63379

636-528-8488

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Civil Engineer
Engineers License No. 2007020343

11-12-21
DATE

21-18464
PROJECT NUMBER

18464 CON.DWG
FILE NAME

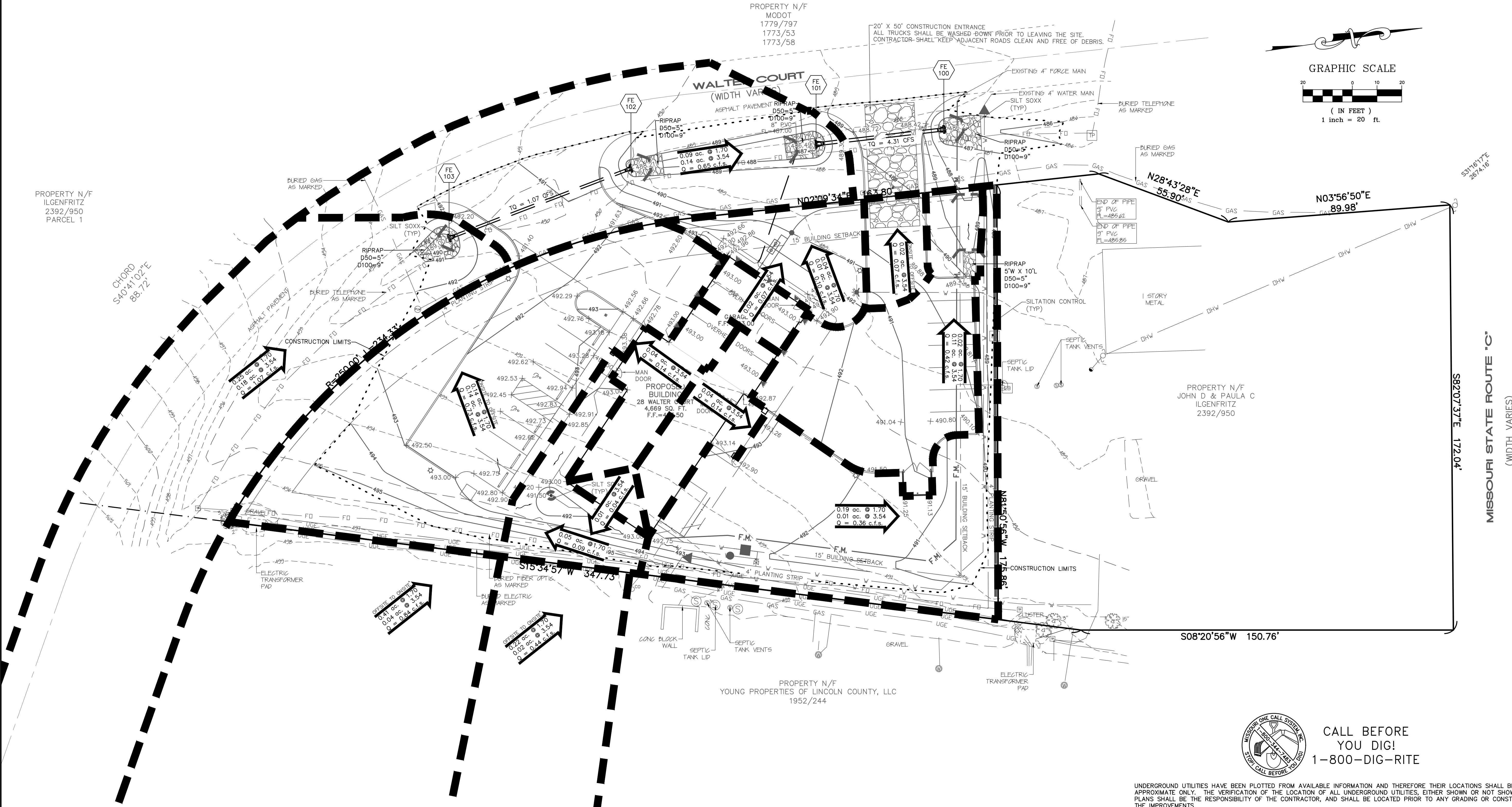
AKA
DRAWN

MDS LDW
DESIGNED CHECKED

EXISTING
DRAINAGE AREA
MAP

C-7

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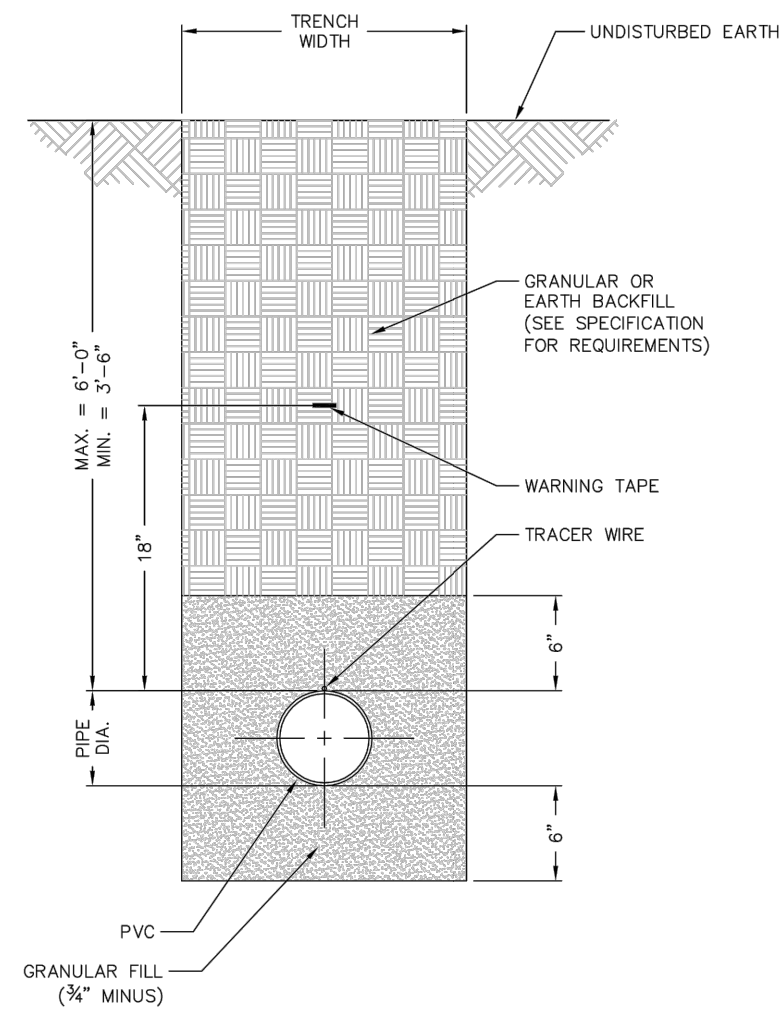
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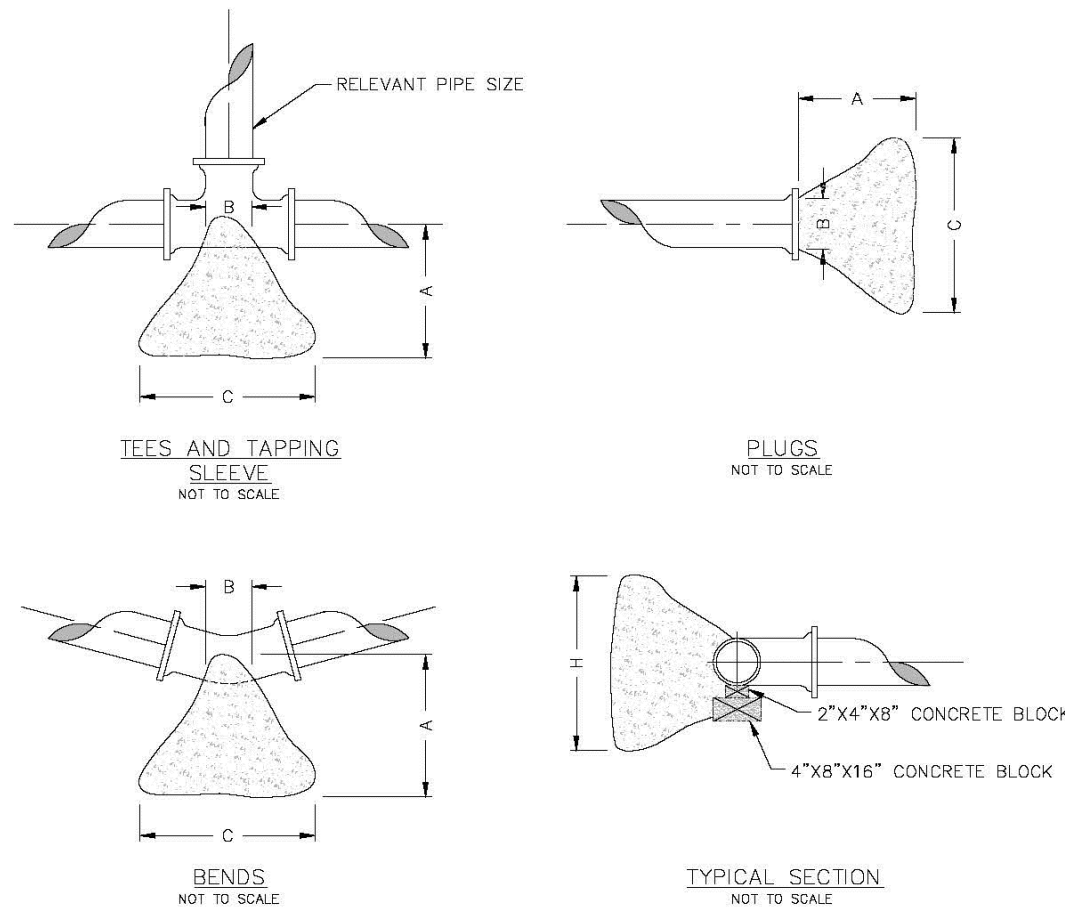
PROPOSED
DRAINAGE AREA
MAP

C-8



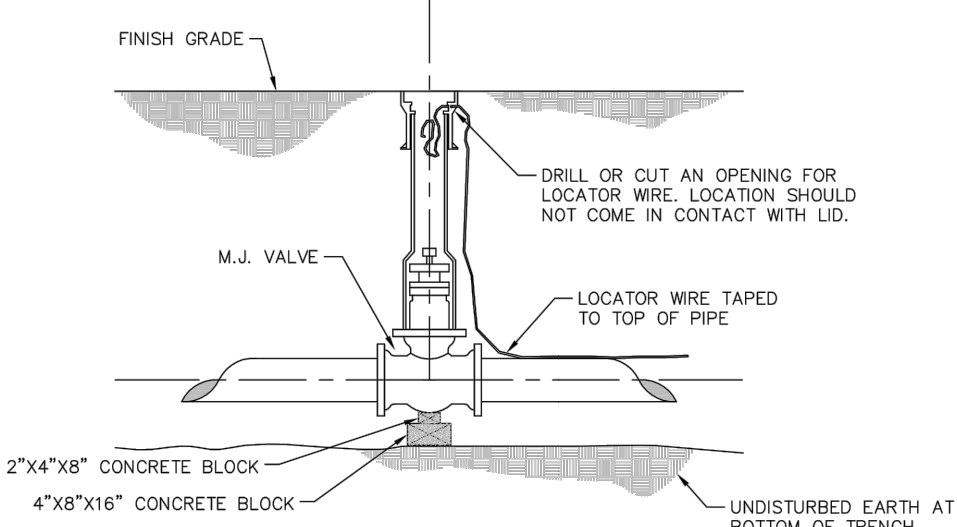
NOTES
1) SEE SPECIFICATIONS FOR ADDITIONAL DETAILS FOR BEDDING AND BACKFILL.

TYPICAL TRENCH SECTION FOR PVC PIPE
NOT TO SCALE
DETAIL "A"
PAGE 1 OF 2

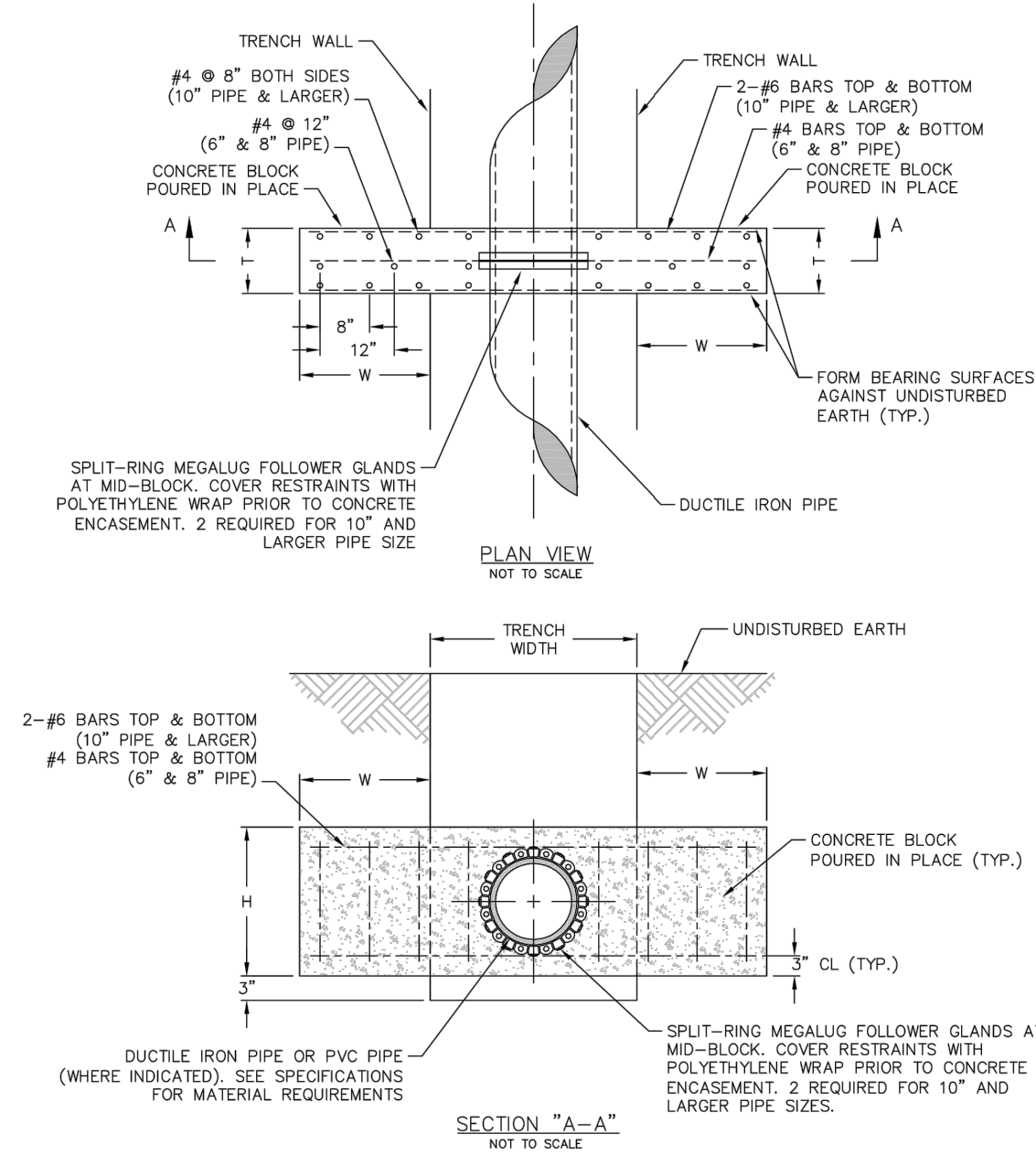


PIPE DIA.	ALL FTGS.		TEE PLUG TAPPING		90 DEGREE BEND		45 DEGREE BEND		22-1/2 BEND		11-1/4 BEND	
	A	B	C	H	C	H	C	H	C	H	C	H
4	14	4	24	12	26	15	18	12	12	12	12	12
6	16	6	36	18	36	24	30	18	24	12	12	12
8	20	8	36	30	42	36	36	24	24	18	18	12
10	20	10	48	36	66	36	36	36	28	24	18	18
12	24	12	68	36	82	42	52	36	40	24	28	18

NOTE
FOR FITTINGS LARGER THAN 12", SPECIAL RESTRAINT DESIGNS ARE REQUIRED.
HORIZONTAL THRUST BLOCKING
DETAIL "C"



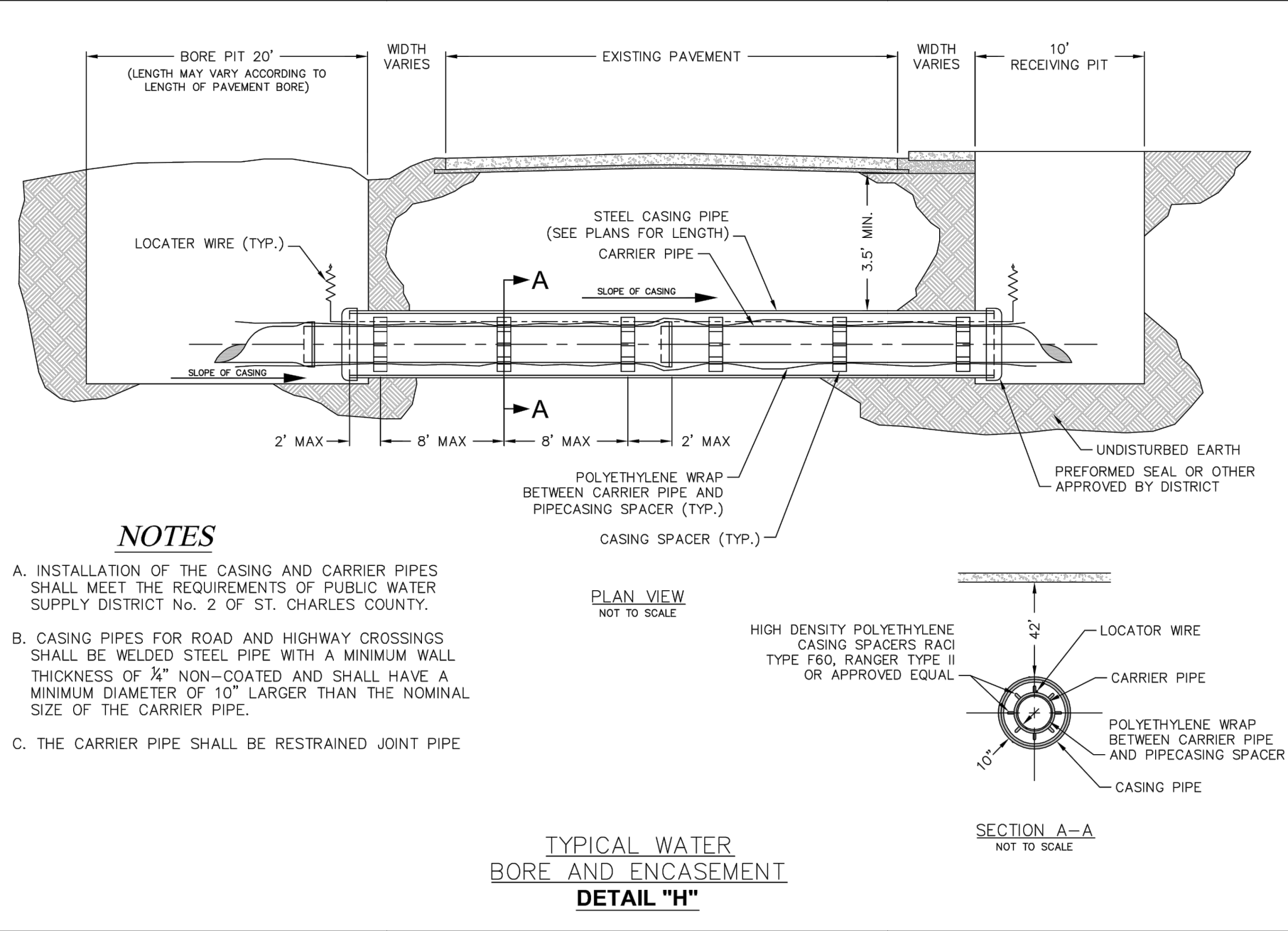
GATE VALVE DETAIL
NOT TO SCALE
DETAIL "D"



NOTES
1) CONSTRUCT CROSS BLOCKS AT A MINIMUM OF 15' FROM CONNECTION POINT AND 5' FROM THE BELL END OF PIPE.
2) CROSS BLOCKS SHALL BE PRE-POURED PRIOR TO SHUTDOWN AND CONNECTIONS.

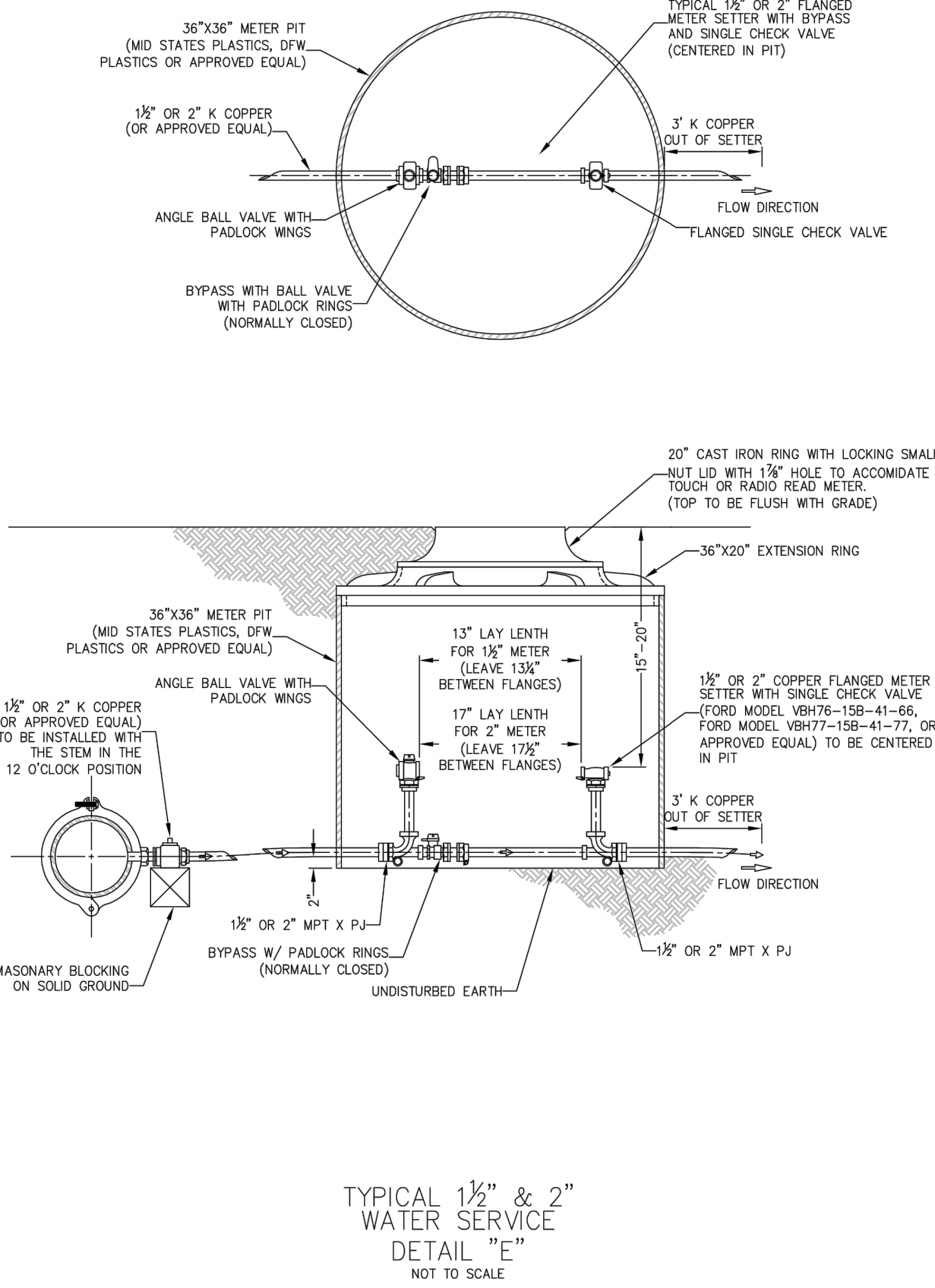
CROSS BLOCK DIMENSIONS			
PIPE DIA. "D"	WIDTH "W"	HEIGHT "H"	THICKNESS "T"
4	12	12	12
6	24	24	12
8	24	24	12
10	30	30	16
12	36	36	18

CROSS BLOCK
DETAIL "E"

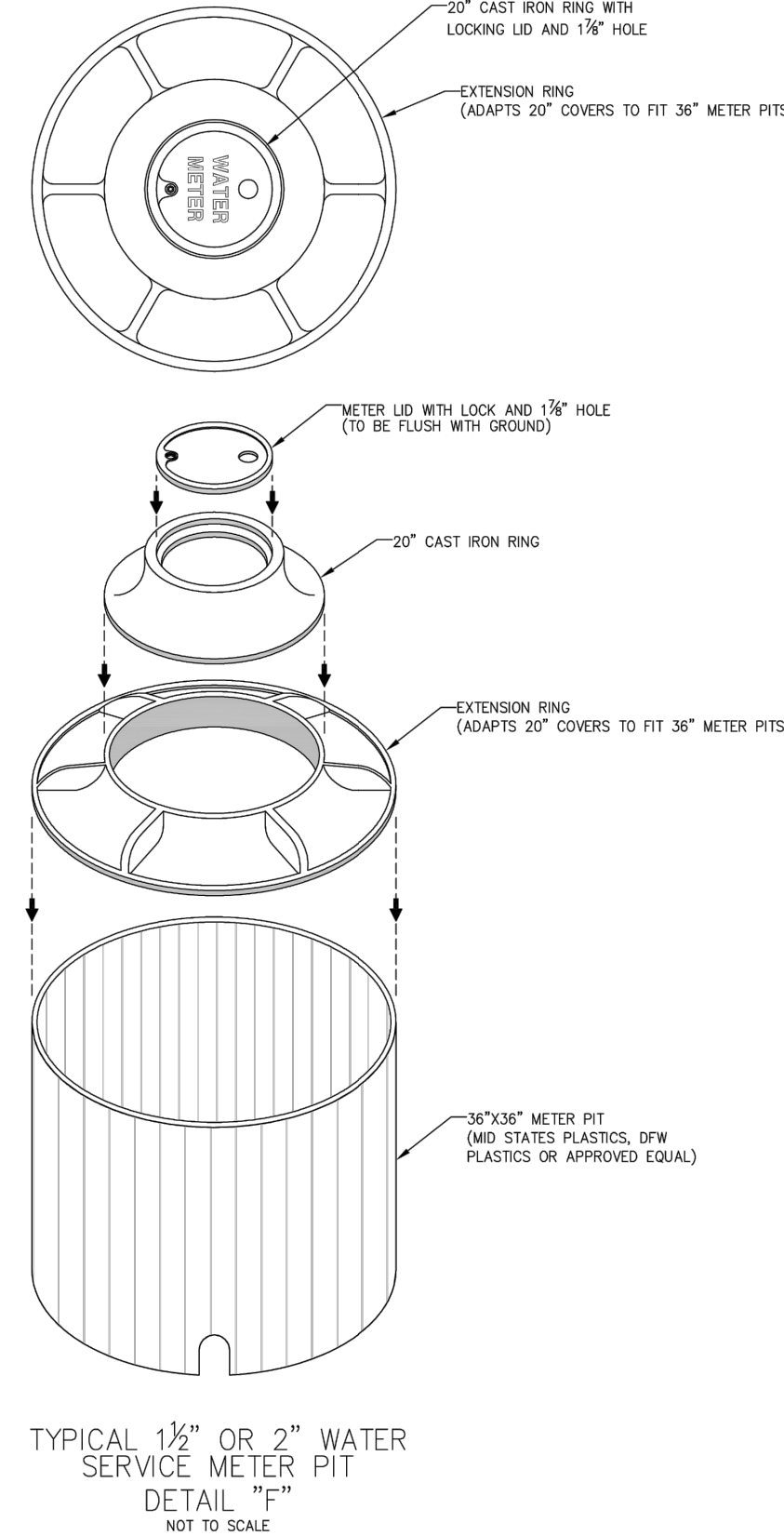


NOTES
A. INSTALLATION OF THE CASING AND CARRIER PIPES SHALL MEET THE REQUIREMENTS OF PUBLIC WATER SUPPLY DISTRICT No. 2 OF ST. CHARLES COUNTY.
B. CASING PIPES FOR ROAD AND HIGHWAY CROSSINGS SHALL BE WELDED STEEL PIPE WITH A MINIMUM WALL THICKNESS OF 1/4\"/>

TYPICAL WATER BORE AND ENCASEMENT
DETAIL "H"

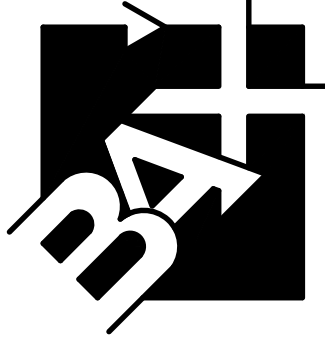


TYPICAL 1 1/2\"/>



TYPICAL 1 1/2\"/>

A SET OF CONSTRUCTION PLANS FOR
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28 WALTER COURT
MOSCOW MILLS, LINCOLN COUNTY, MO, 63362



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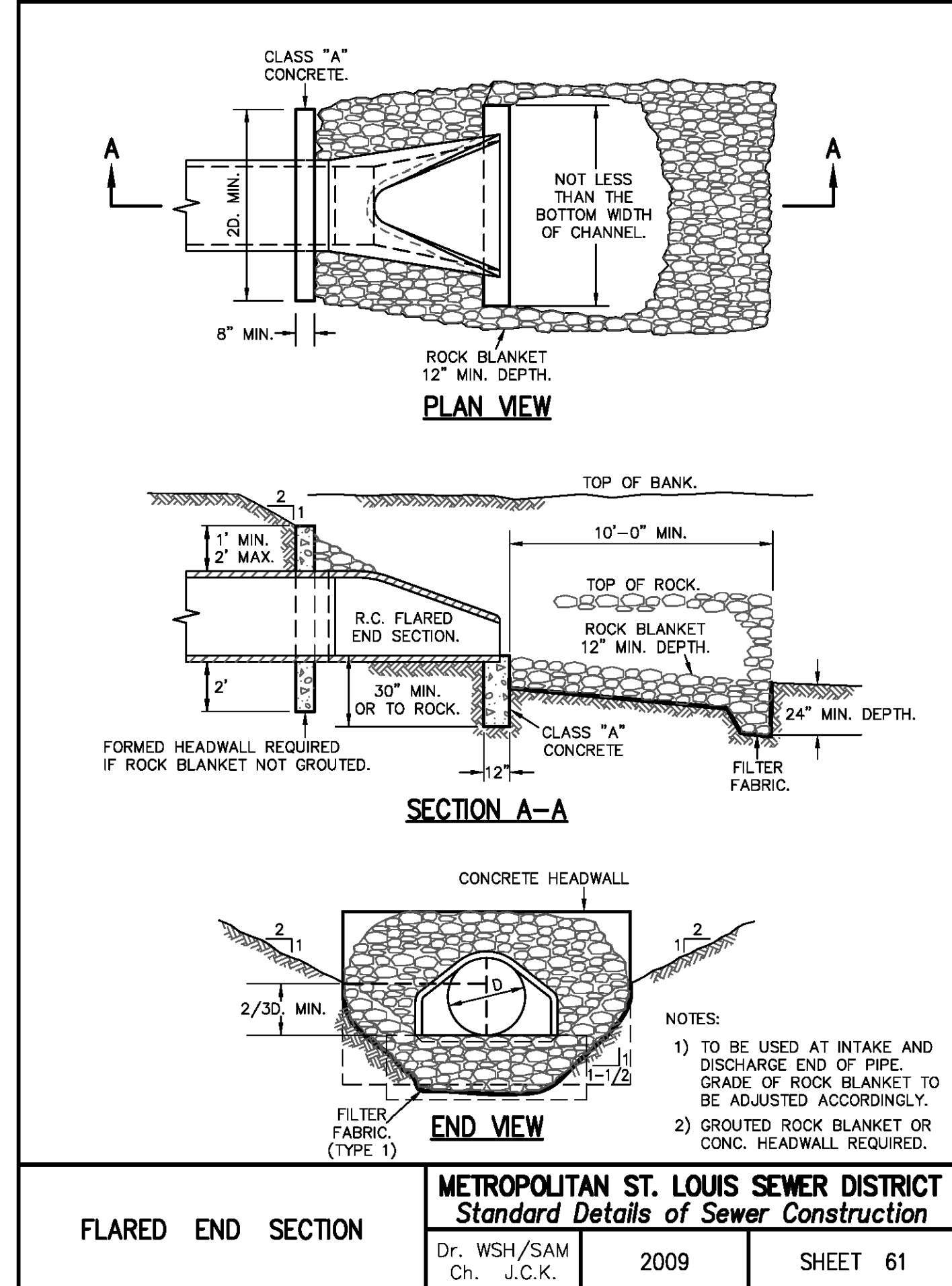
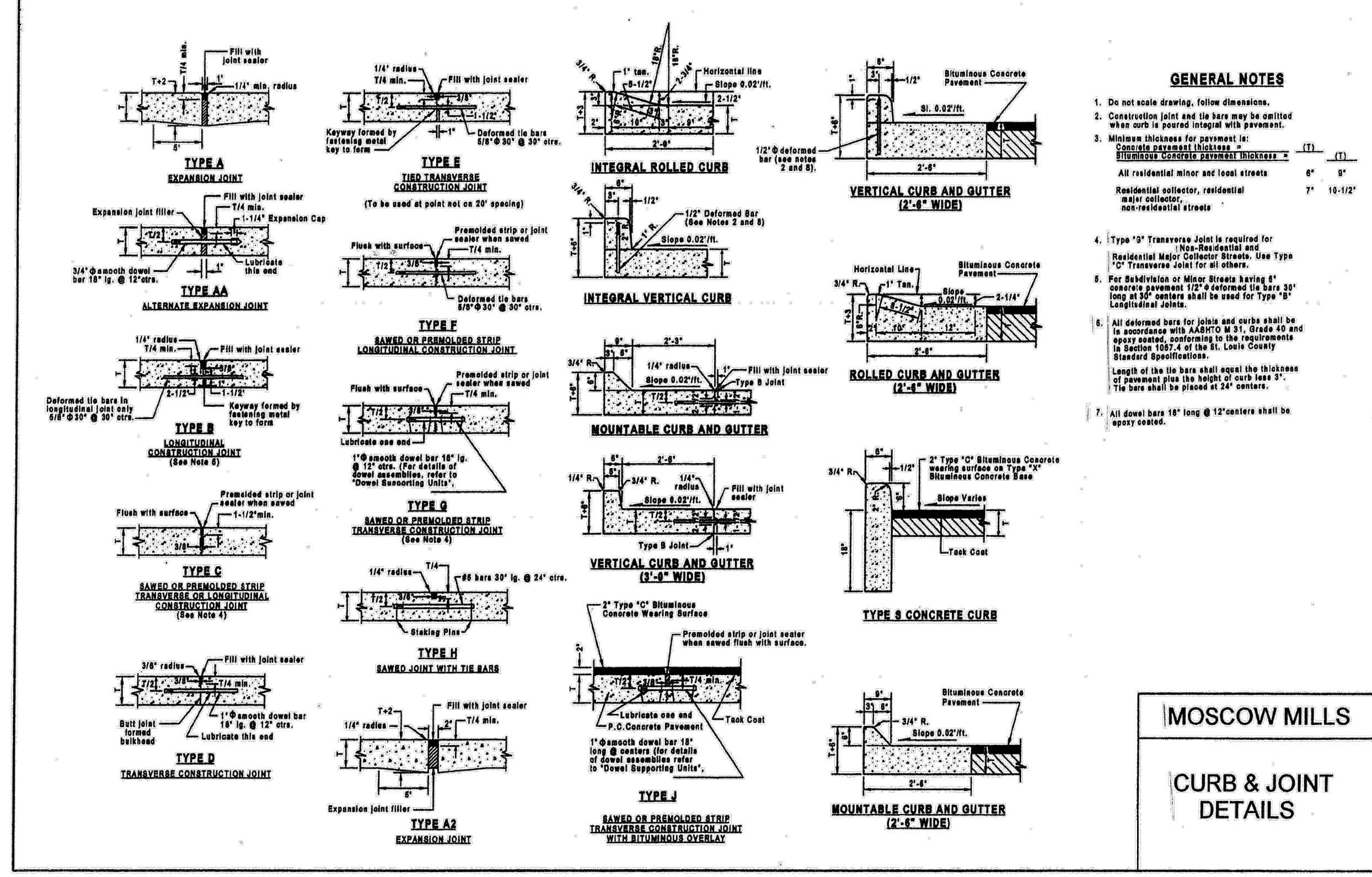
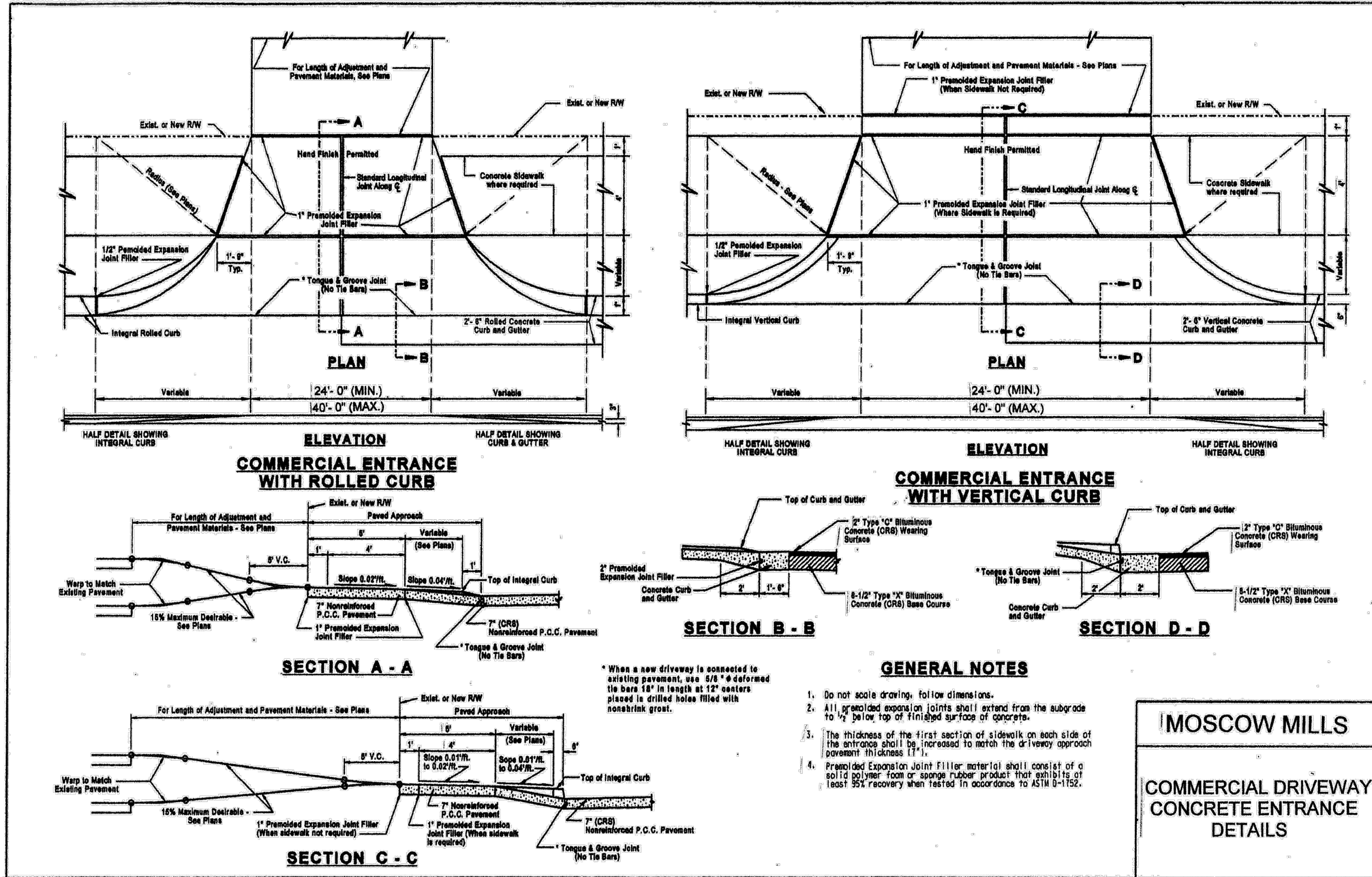
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Civil Engineer
Engineers License No. 2007020343

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FILE NAME
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WATER
DETAILS

C-9

ENGINEER SEAL DOES NOT APPLY TO PWSD #2 DETAILS



ENGINEER SEAL DOES NOT APPLY TO CITY OF MOSCOW MILLS AND MSD DETAILS

A SET OF CONSTRUCTION PLANS FOR
LINCOLN COUNTY AMBULANCE DISTRICT
28 WALTER COURT
MOSCOW MILLS, LINCOLN COUNTY, MO, 63362

PREPARED FOR:
LINCOLN COUNTY AMBULANCE DISTRICT
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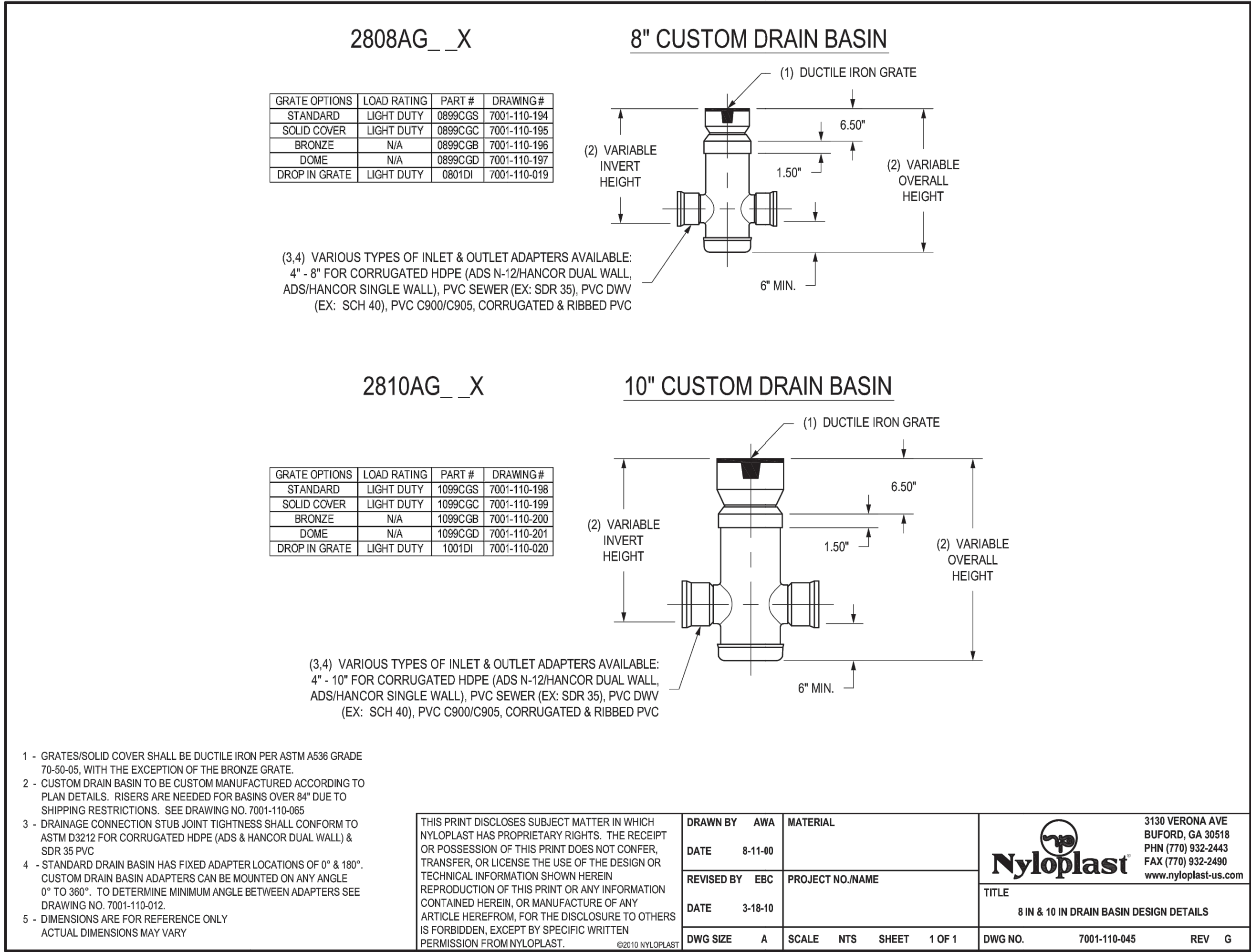
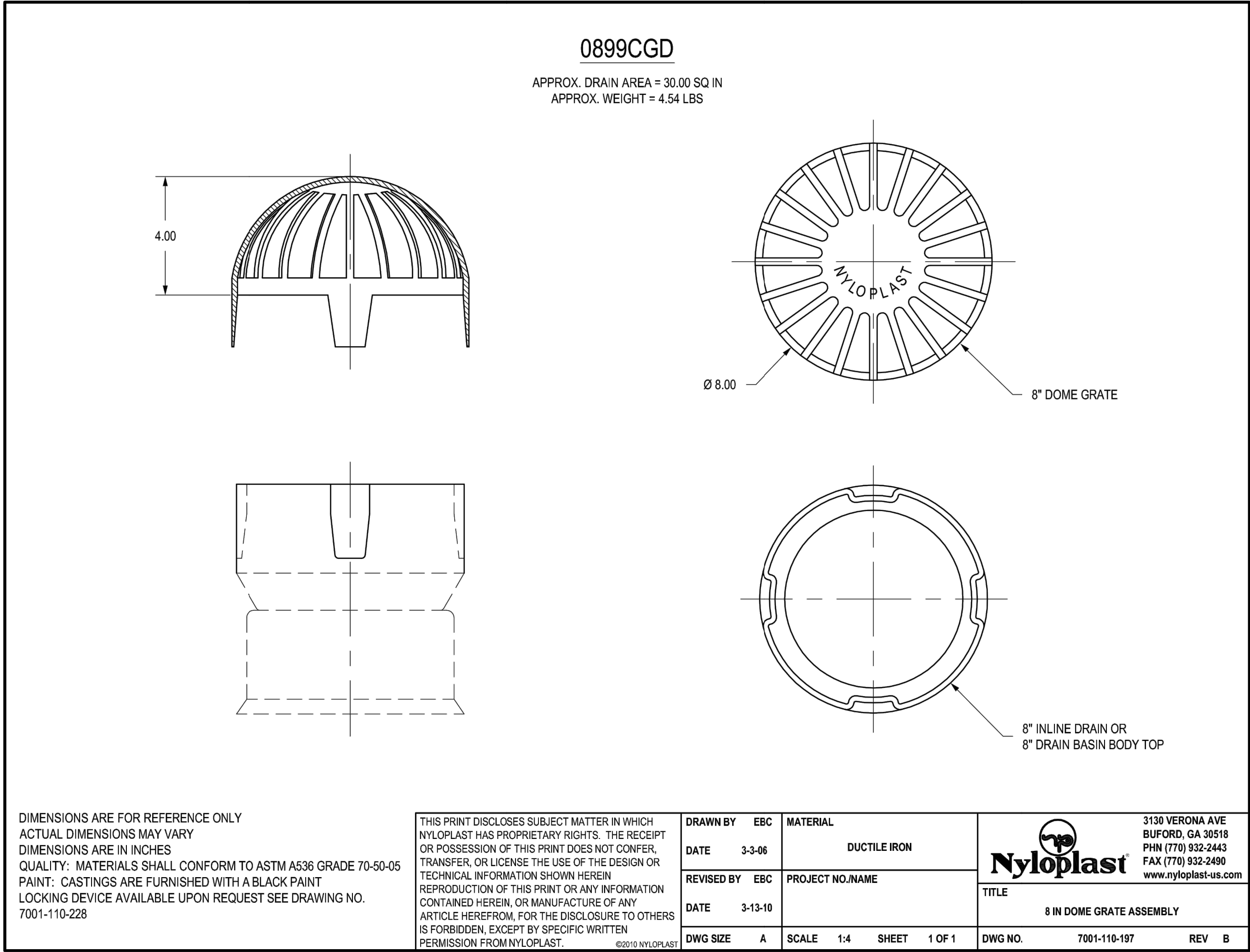
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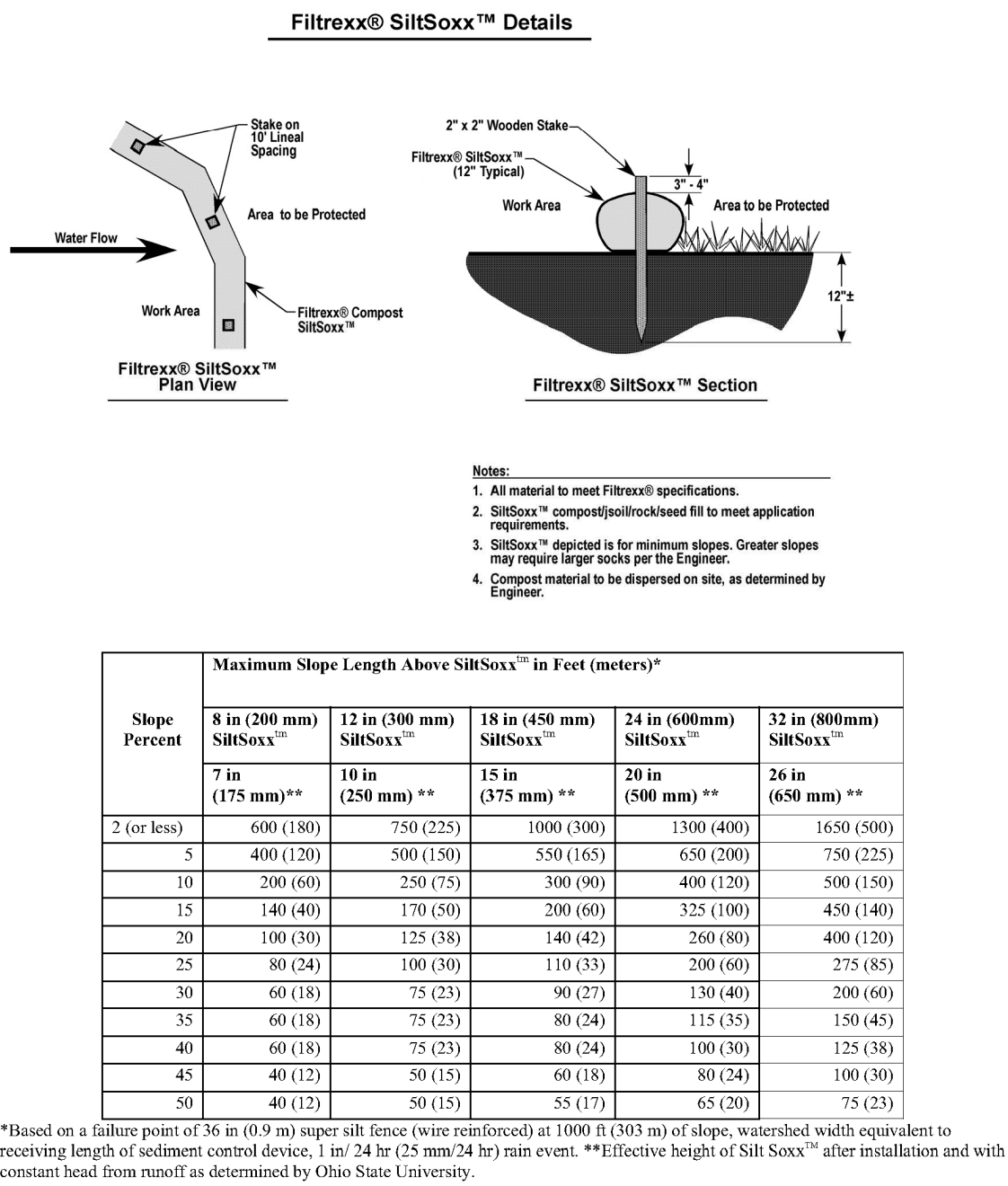
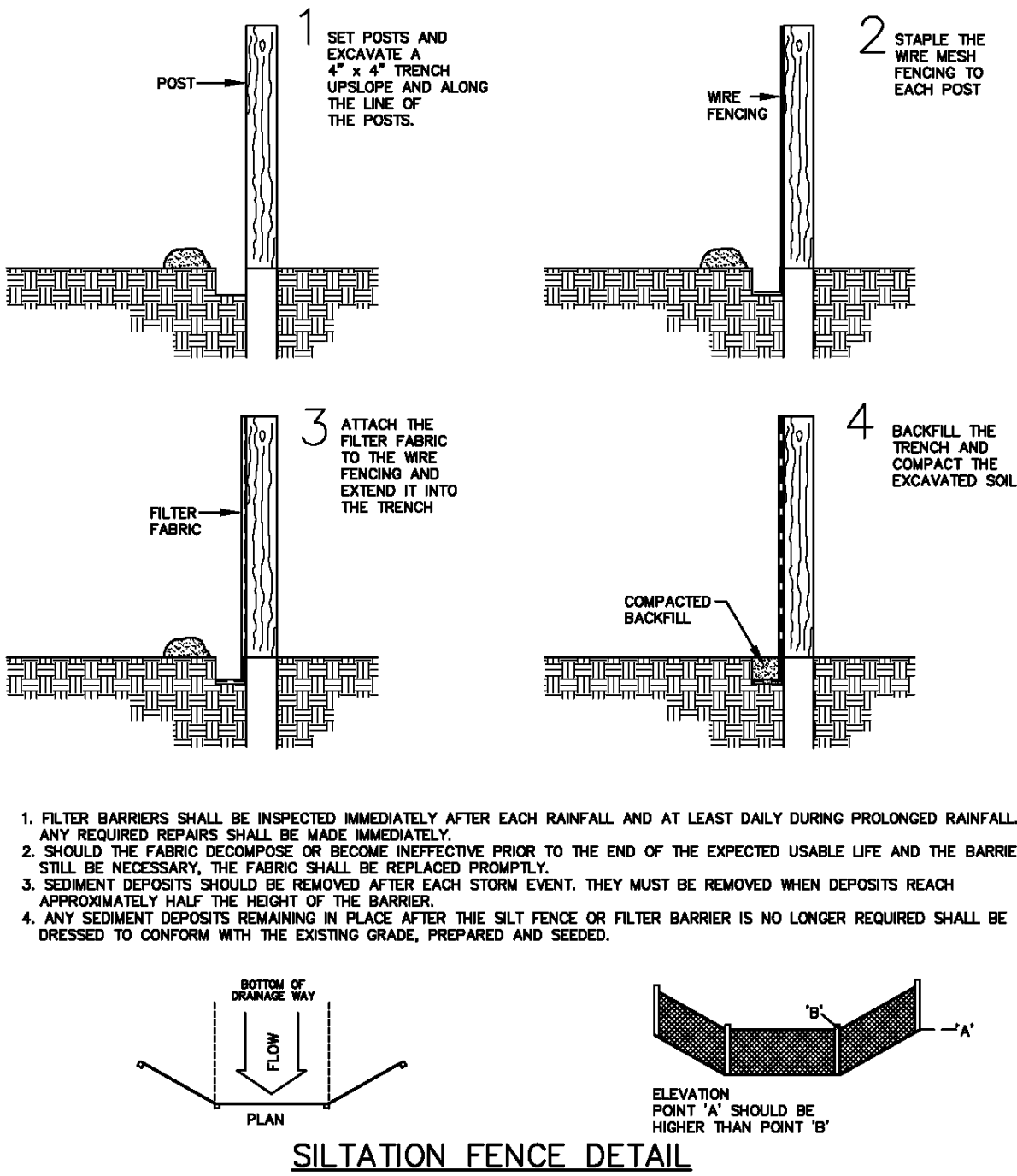
CONSTRUCTION
DETAILS

C-10

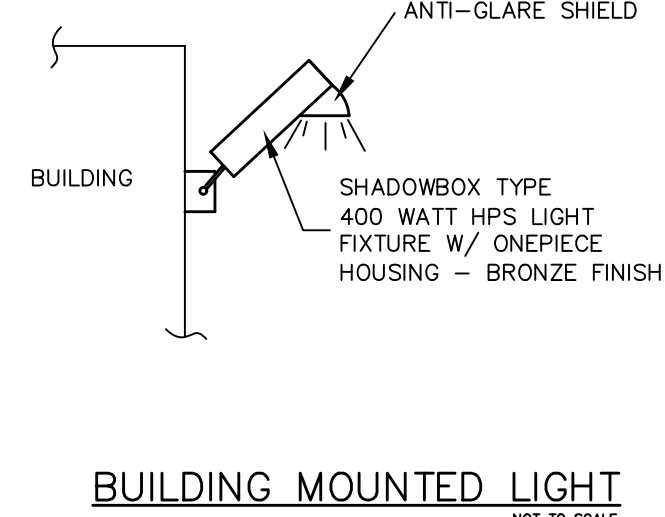
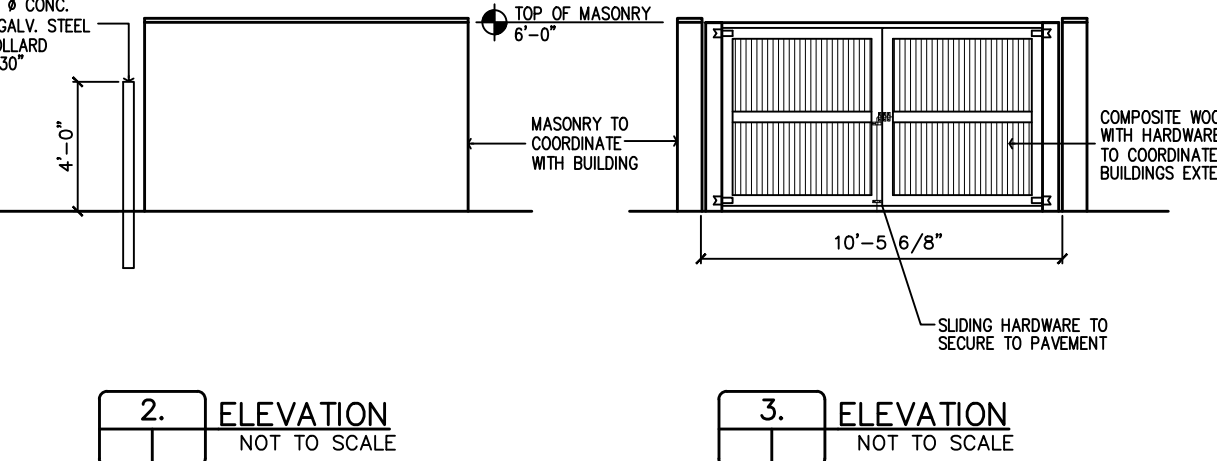
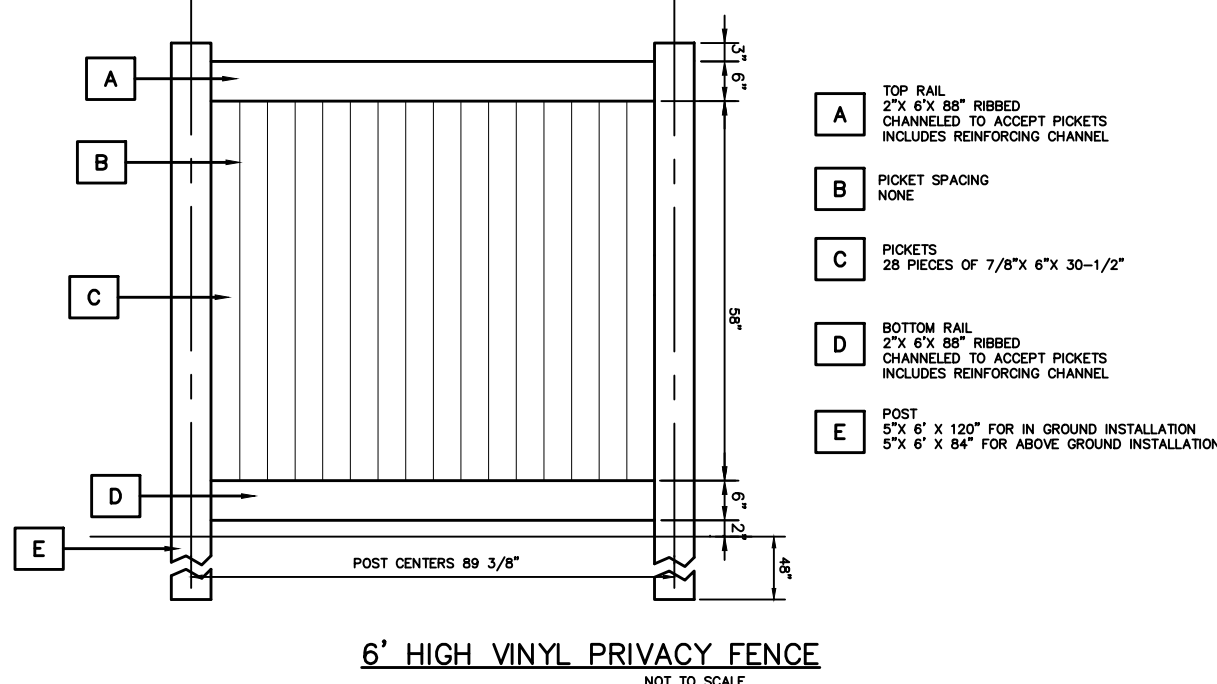
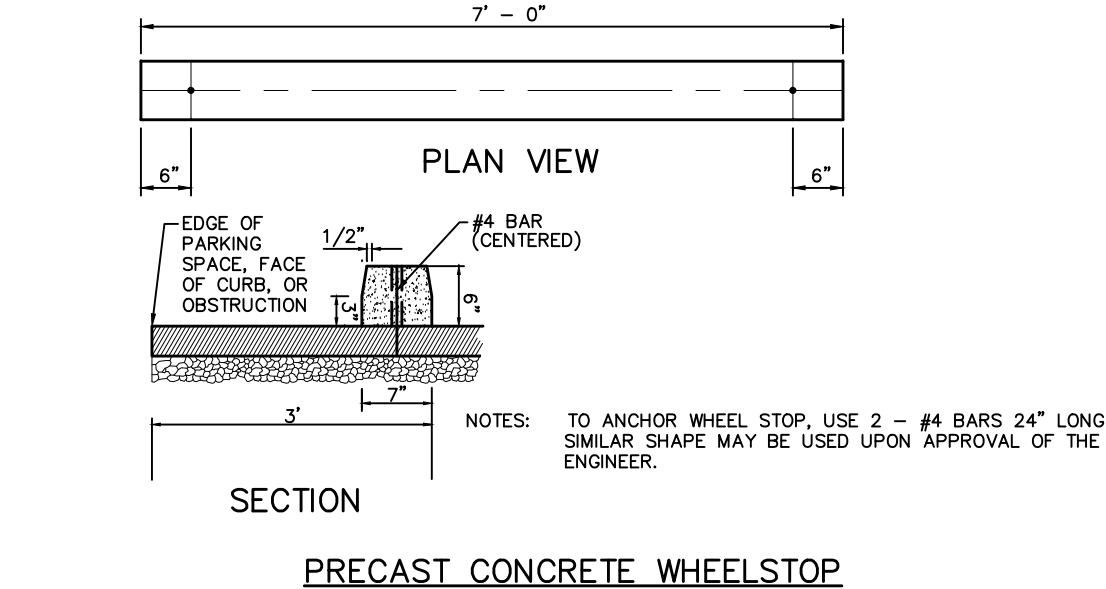
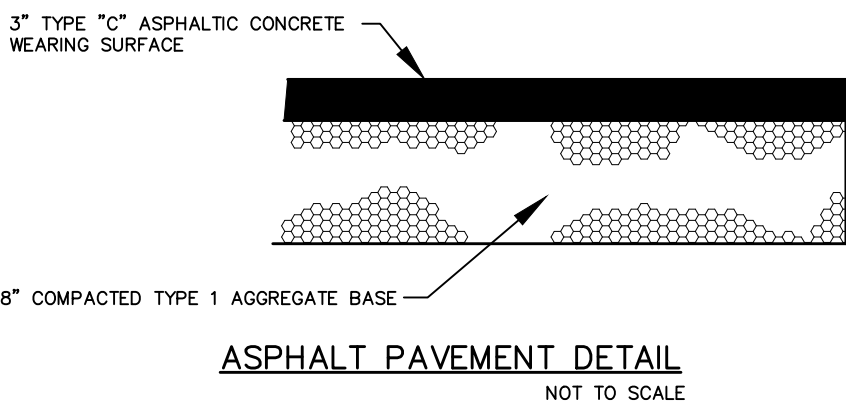
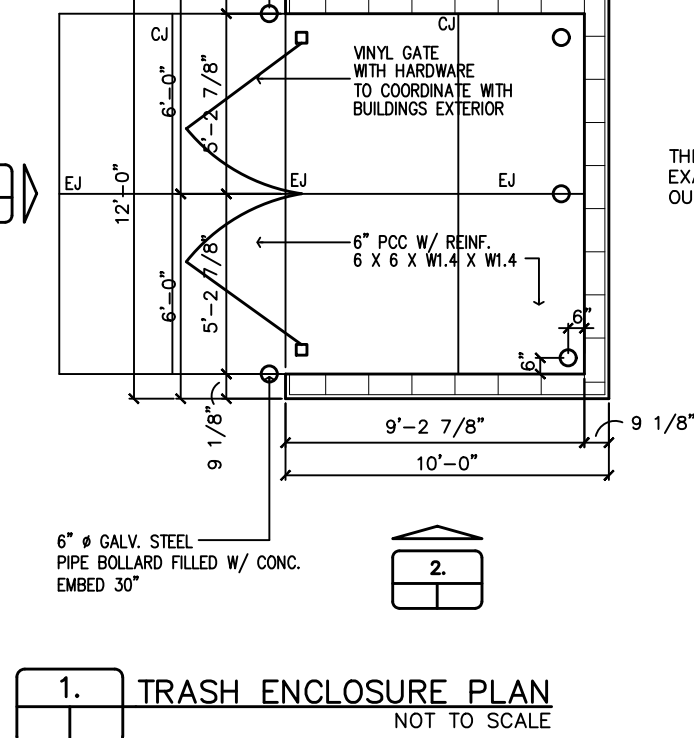
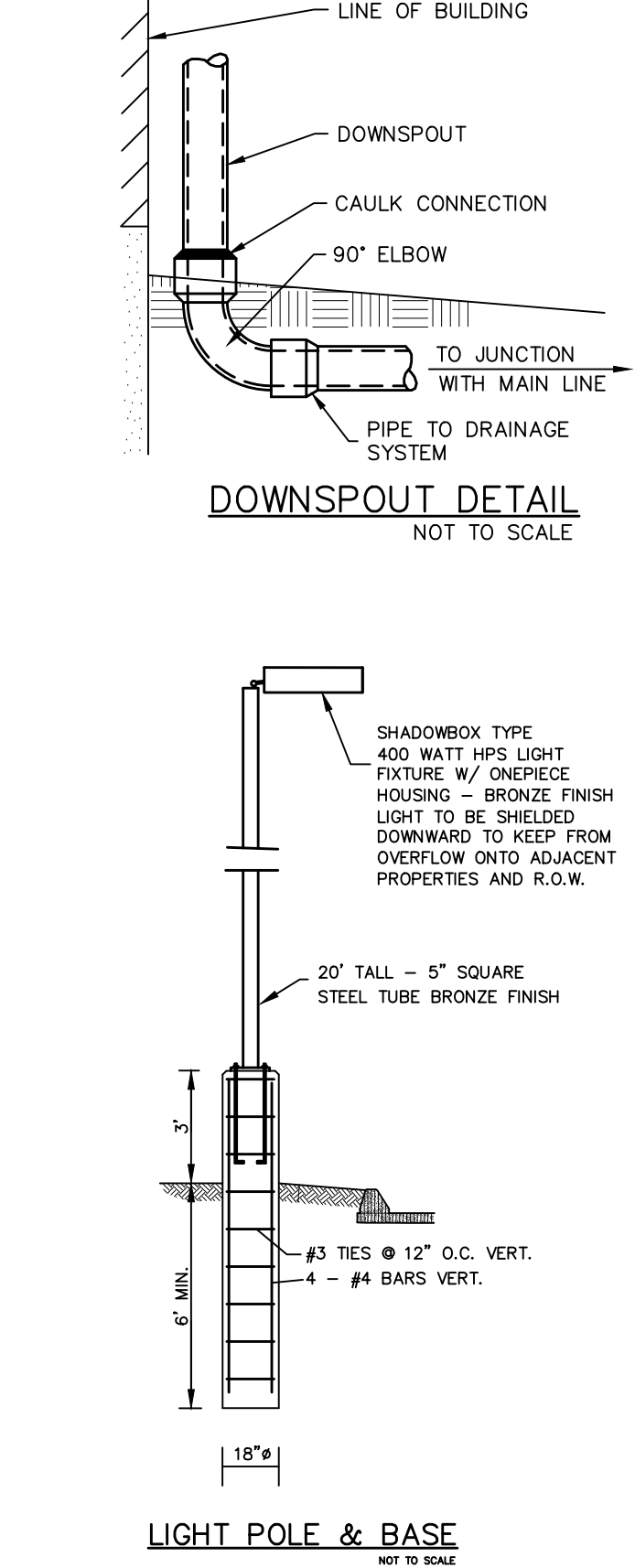
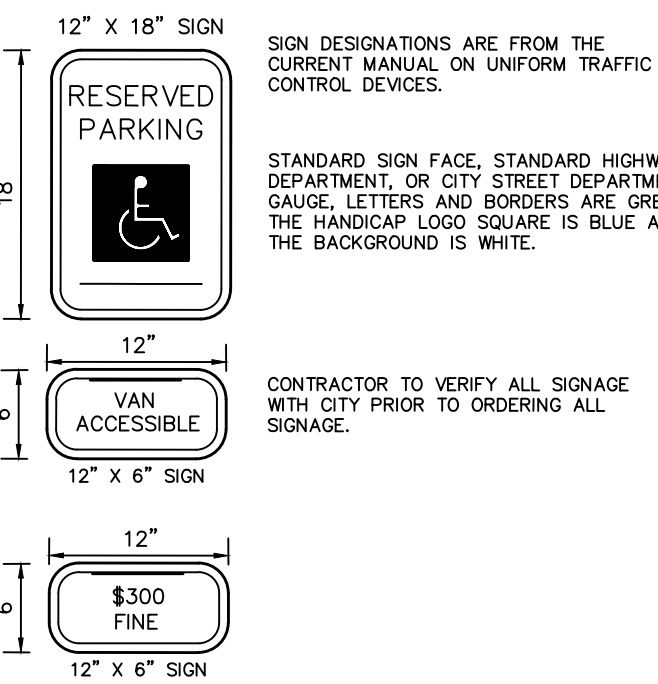
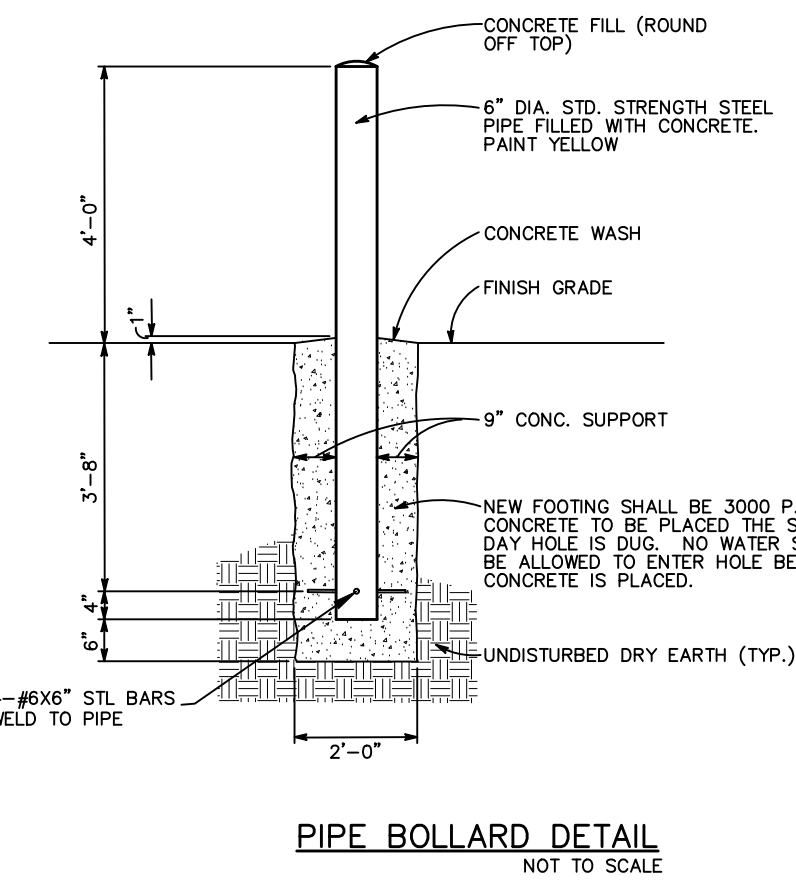
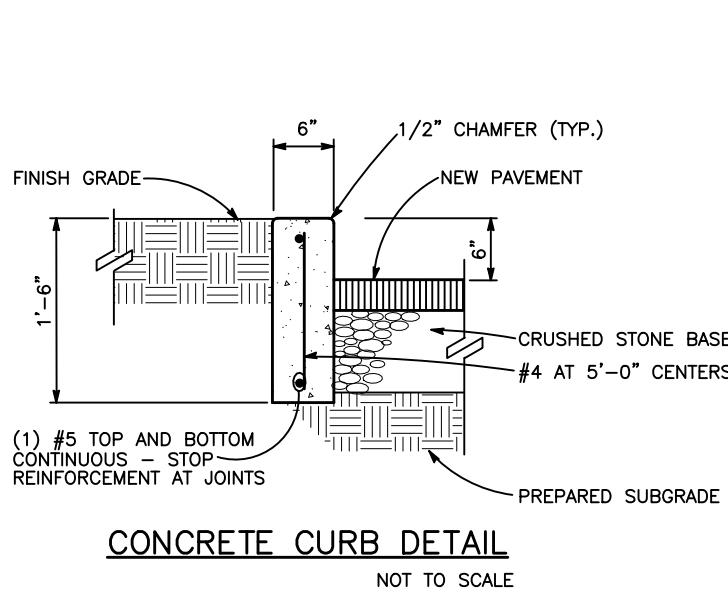
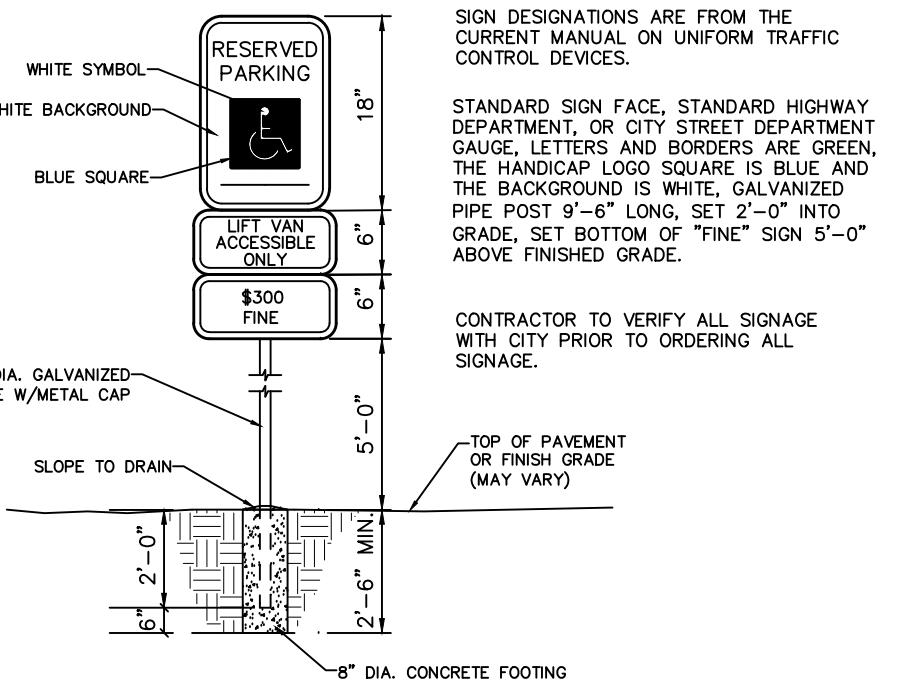
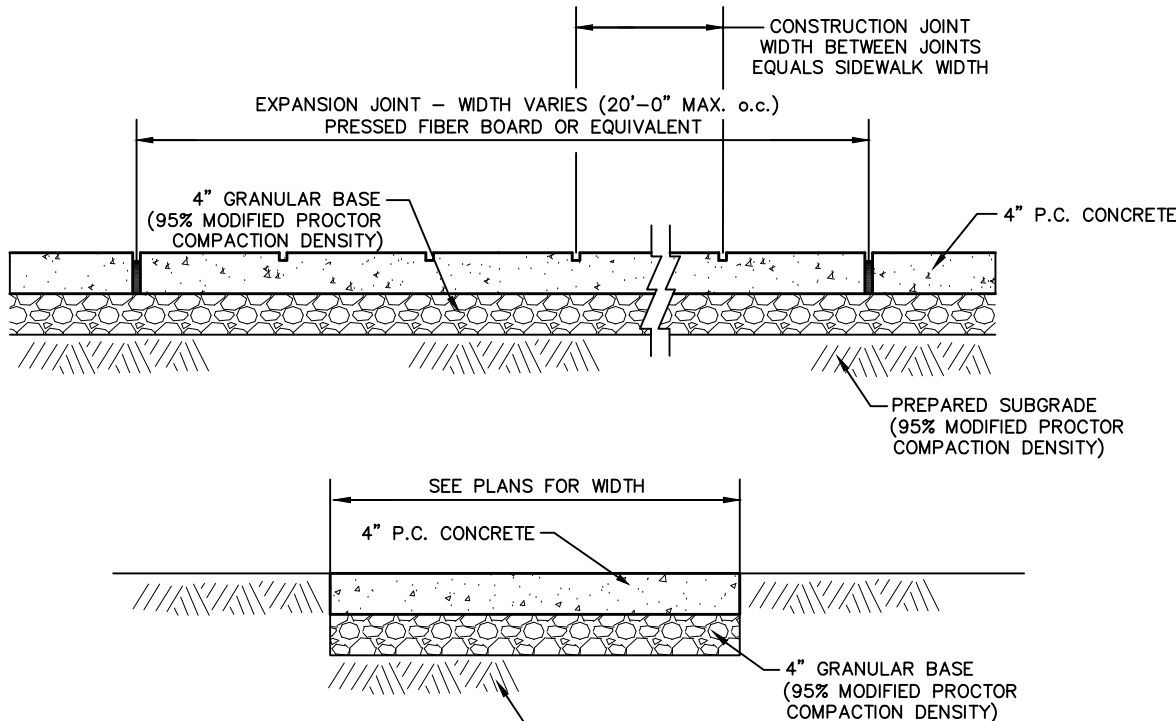
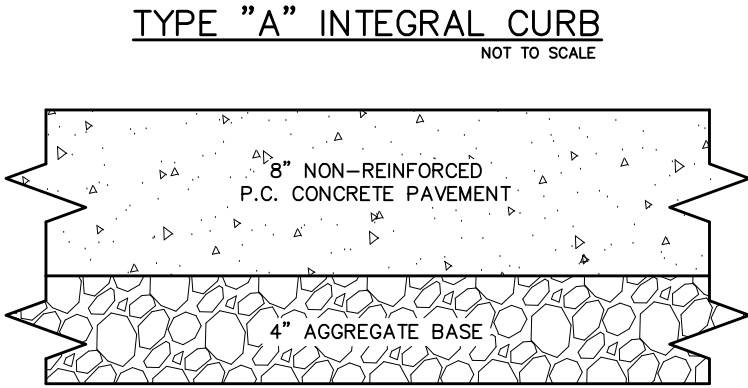
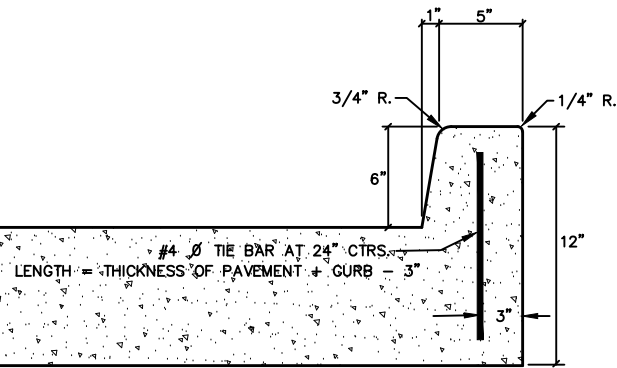


ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
INSIDE DIAMETER OF PIPE (INCHES)	"W" PAYLINE WIDTH OF TRENCH (INCHES)	"W" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES CU. FT. PER FT.	INSIDE DIMENSIONS OF PIPE (INCHES)	"W" PAYLINE WIDTH OF TRENCH (INCHES)	"W" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES CU. FT. PER FT.
4	30	2.50	3.28				
6	30	2.50	3.59				
8	30	2.50	3.87				
10	30	2.50	4.09				
12	30	2.50	4.25				
15	36	3.00	5.55				
18	36	3.00	5.77				
21	39	3.25	6.61	14 x 23	41	3.42	5.94
24	42	3.50	7.39	19 x 30	49	4.08	7.68
27	45	3.75	8.18	22 x 34	53	4.42	8.61
30	49	4.08	9.30	24 x 38	58	4.83	9.70
33	53	4.42	10.53	27 x 42	62	5.17	10.71
36	56	4.67	11.43	29 x 45	66	5.50	11.72
39	DISCONTINUED			32 x 49	71	5.92	13.14
42	63	5.25	13.38	34 x 53	75	6.25	14.05
48	70	5.83	15.67	36 x 60	83	6.92	16.18
54	77	6.42	18.15	43 x 68	92	7.67	18.81
60	84	7.00	20.73	48 x 76	101	8.42	21.59
66	91	7.58	23.45	53 x 83	109	9.08	24.35
72	98	8.17	26.37	58 x 91	118	9.83	27.45
78	105	8.75	29.39	63 x 98	126	10.50	30.50
84	112	9.33	32.57	68 x 106	135	11.25	33.91
90	119	9.92	35.90	72 x 113	143	11.92	36.99
96	126	10.50	39.37	77 x 121	152	12.67	40.69
102	133	11.08	42.99	82 x 128	160	13.33	44.45
108	140	11.67	46.75	87 x 136	168	14.00	47.79
114	147	12.25	50.66	92 x 143	176	14.67	51.70
120	154	12.83	54.72	97 x 151	185	15.42	56.01
126	161	13.42	58.92				
132	168	14.00	63.27	106 x 166	202	16.83	64.48
144	182	15.17	72.40	116 x 180	218	18.17	73.59

TABLE 1 PAYLINE WIDTHS OF TRENCH AND PAY-QUANTITIES OF CONCRETE	METROPOLITAN ST. LOUIS SEWER DISTRICT Standard Details of Sewer Construction
Dr. B.E.B. Ch. J.C.K.	2009
	SHEET 1



Material and Performance Specification S75 Erosion Control Blanket			
Description	Index Property	Test Method	Typical
The short-term single net erosion control blanket shall be a machine-produced mat of 100% agricultural straw with a functional longevity of up to 12 months. (NOTE: functional longevity may vary depending upon climatic conditions, soil, geographical location, and elevation). The blanket shall be of consistent thickness with the straw evenly distributed over the entire area of the mat. The blanket shall be covered on the top side with a lightweight photodegradable polypropylene netting having an approximate 0.50 x 0.50 (1.27 x 1.27 cm) mesh. The blanket shall be sewn together on 1.50 inch (3.81 cm) centers with degradable thread. The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2.5 inches [5-12.5 cm] from the edge) as an overlap guide for adjacent mats.	Thickness	ASTM D4525	0.37 in (9.4 mm)
	Resiliency	ECTC Guidelines	78.8%
	Water Absorbency	ASTM D1117	426%
	Mass/Unit Area	ASTM D475	11.97 oz/yd ² (407 g/m ²)
	Swell	ECTC Guidelines	15%
	Smolder Resistance	ECTC Guidelines	Yes
	Stiffness	ASTM D1388	6.31 oz-in
	Light Penetration	ECTC Guidelines	7.3%
	Tensile Strength - MD	ASTM D6818	130.8 lb/yd (1.94 kN/m)
	Elongation - MD	ASTM D6818	24.4%
	Tensile Strength - TD	ASTM D6818	85.2 lb/yd (1.26 kN/m)
	Elongation - TD	ASTM D6818	26.8%



ENGINEER SEAL DOES NOT APPLY TO FLITREXX, MSD AND TENSAR DETAILS

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