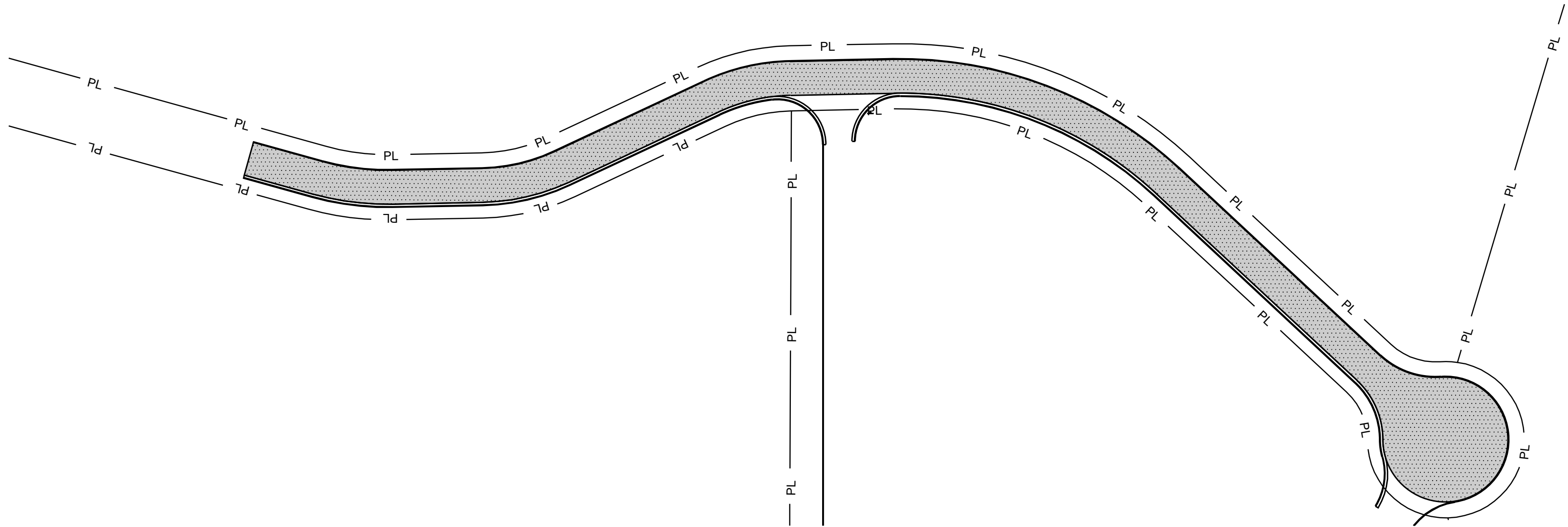


ROAD EXTENSION FOR I-40 INDUSTRIAL PARK

BYRD DRIVE
SEVIERVILLE, TN 37764



PROJECT INFORMATION:

OWNER
NAME: SEVIER COUNTY ECONOMIC DEVELOPMENT BOARD
ADDRESS: 321 COURT AVE.
SEVIERVILLE, TN 37862
PHONE: (865)-368-9011

PROPERTY DATA
ADDRESS: BYRD DRIVE
KODAK, TN 37764
MAP: 005
PARCEL ID: 065.02
ZONING: IN
VERTICAL DATUM: NAVD 88

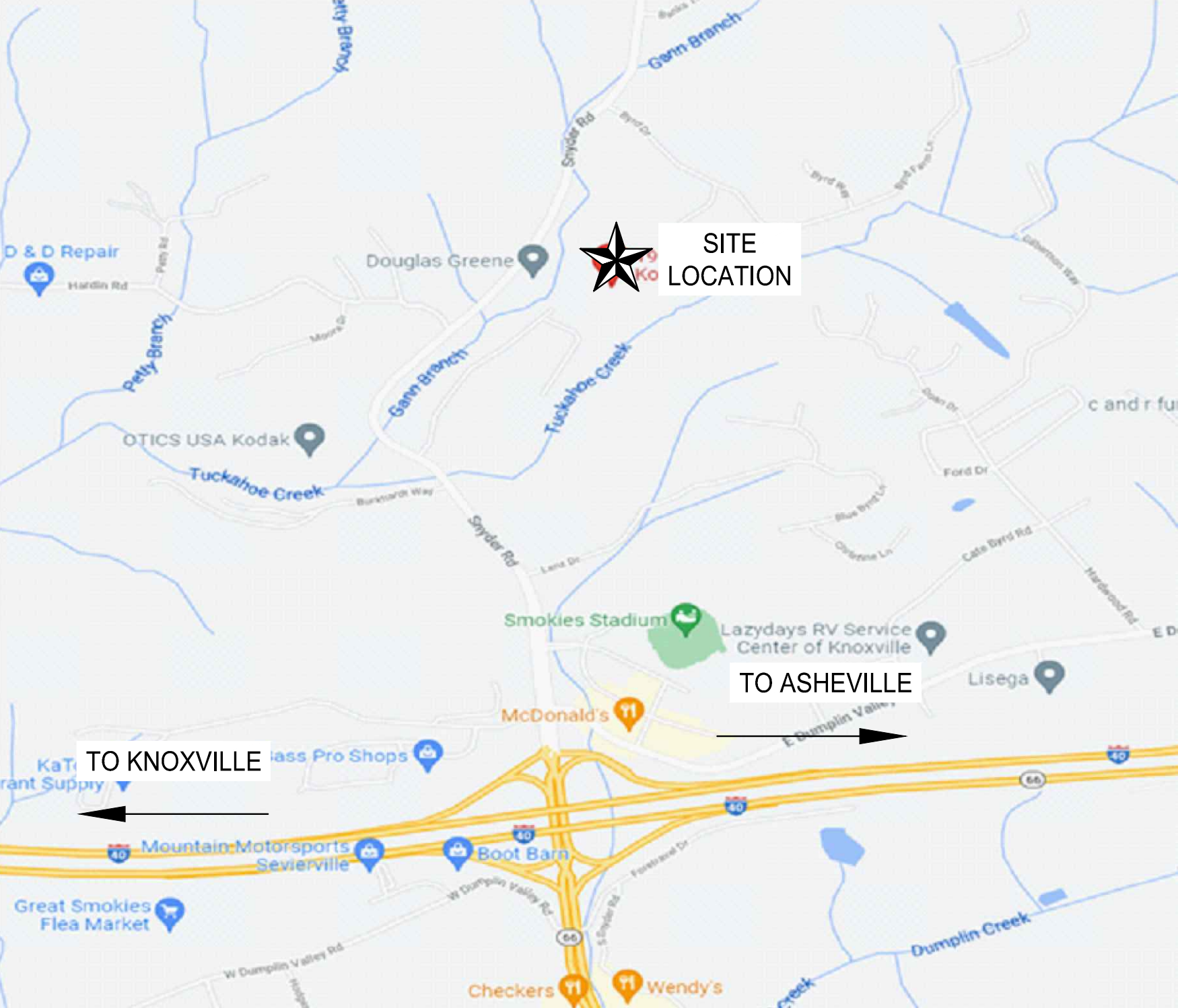
LIST OF DRAWINGS:

GENERAL
G000 COVER SHEET

CIVIL AND SITE ENGINEERING
C001 CIVIL NOTES & LEGENDS
C100 PHASE 1 EROSION PREVENTION & SEDIMENT CONTROL PLAN
C101 PHASE 2 EROSION PREVENTION & SEDIMENT CONTROL PLAN
C300 ROAD AND UTILITY PLAN
C400 SITE GRADING AND DRAINAGE PLAN
C700 CIVIL PROFILES
C800 CIVIL DETAILS
C801 CIVIL DETAILS

NUMBER OF SHEETS: 9 TOTAL

VICINITY MAP:



MBI

ENGINEER:

MBI COMPANIES INC.
299 N. WEISGARBER ROAD
KNOXVILLE, TN 37919
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CONSULTANT

SEAL:

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PROFESSIONAL'S GUIDANCE WITH RESPECT TO ANY
ERRORS, OMISSIONS, INCONSISTENCIES, AMBIGUITIES
OR CONFLICTS WHICH ARE ALLEGED.

PROJECT INFORMATION

PROJECT:

BYRD DRIVE EXTENSION
PROJECT ADDRESS:

BYRD DRIVE
SEVIERVILLE, TN 37764
PROJECT NO.: 190136.02

ACTIVE DESIGN PHASE
☐ FOR REVIEW ONLY
☐ FOR PERMITTING ONLY
☐ SCHEMATIC DESIGN
☐ DESIGN DEVELOPMENT
☒ CONSTRUCTION BIDDING
☐ CONSTRUCTION DOCUMENTS
☐ AS-BUILT RECORD SET

REVISION INFORMATION

NO.	DATE	DESCRIPTION

KEY PLAN

SHEET INFORMATION

SHEET ISSUED: 11/12/2021
DESIGNED BY: I.A.J.
DRAWN BY: I.A.J.
REVIEWED BY: C.B.T.
SHEET TITLE:

COVER SHEET

SHEET NO.: G000

GENERAL NOTES		EROSION CONTROL NOTES		ABBREVIATIONS		EXISTING		LEGEND		PROPOSED		AREAS & CALCULATIONS		AREAS & CALCULATIONS	
<p>1. COMPLY WITH ALL PERTINENT PROVISIONS OF THE "MANUAL OF ACCIDENT PREVENTION IN CONSTRUCTION" ISSUED BY A.G.C. OF AMERICA, INC. AND THE SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION ISSUED BY THE U.S. DEPARTMENT OF LABOR, 29 CFR 1926 OSHA.</p> <p>2. THE APPROPRIATE TRAFFIC CONTROL SIGNS AS DEFINED BY THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, F.H.W.A., 2009", SHALL BE INSTALLED AT THE INCEPTION OF CONSTRUCTION AND SHALL BE PROPERLY MAINTAINED AND/OR OPERATED DURING THE TIME SUCH SPECIAL CONDITIONS EXIST. THEY SHALL REMAIN IN PLACE ONLY AS LONG AS THEY ARE NEEDED AND SHALL BE REMOVED IMMEDIATELY AFTER NEEDED.</p> <p>3. NOTHING IN THE GENERAL NOTES OR SPECIAL PROVISIONS SHALL RELIEVE THE CONTRACTOR FROM THEIR RESPONSIBILITIES TOWARD THE SAFETY AND CONVENIENCE OF THE GENERAL PUBLIC.</p> <p>4. VERIFY THE LOCATIONS OF ALL PROPOSED ITEMS PRIOR TO COMMENCING CONSTRUCTION. NOTIFY A/E IMMEDIATELY OF ANY DISCREPANCIES BEFORE STARTING WORK. COMMENCEMENT OF CONSTRUCTION AFTER SUCH DISCOVERY SHALL BE AT THE CONTRACTOR'S RISK.</p> <p>5. ANY AREA THAT IS DISTURBED OUTSIDE THE LIMITS OF CONSTRUCTION DURING THE LIFE OF THE PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR EXPENSE.</p>		<p>1. UNLESS SHOWN OTHERWISE, ALL DISTURBED AREAS NOT ULTIMATELY RECEIVING A HARD SURFACE SHALL HAVE A MINIMUM DEPTH OF 5" OF TOPSOIL AND BE STABILIZED WITH GRASS.</p> <p>2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL APPLICABLE PERMITS AND COMPLYING WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS RELATED TO SITE GRADING, EROSION AND SEDIMENTATION CONTROL, AND STORMWATER RUNOFF.</p> <p>3. NO LAND DISTURBANCE IS PERMISSIBLE UNTIL THE CONTRACTOR HAS SUBMITTED A SIGNED NOTICE OF INTENT AND RECEIVED A NOTICE OF COVERAGE FROM THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC). COORDINATE WITH OWNER TO ENSURE THAT ALL NECESSARY PERMITS HAVE BEEN RECEIVED PRIOR TO LAND DISTURBANCE.</p> <p>4. A NOTICE WILL BE POSTED BY NEAR THE CONSTRUCTION ENTRANCE BEFORE WORK BEGINS CONTAINING: A. A COPY OF THE NOC WITH THE TRACKING NUMBER ASSIGNED BY TDEC. B. THE NAME, COMPANY NAME, TELEPHONE NUMBER, EMAIL AND ADDRESS OF THE PROJECT SITE OPERATOR INCLUDING A LOCAL CONTACT PERSON. C. A PROJECT DESCRIPTION D. THE LOCATION OF THE SWPPP ON SITE.</p> <p>5. IN PREPARATION FOR AND PRIOR TO INSTALLATION OF EROSION AND SEDIMENTATION CONTROL MEASURES, THE CONTRACTOR SHALL: A. EXAMINE THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND THE SITE EROSION AND SEDIMENTATION CONTROL DRAWINGS AT THE SITE. B. NOTIFY ENGINEER OF DEFICIENCIES OR CHANGES IN THE SWPPP OR DRAWINGS REQUIRED BY CURRENT SITE CONDITIONS. REVISIONS OF THE DOCUMENTS WILL BE MADE AS DETERMINED BY THE ENGINEER. 6. FURNISH, ERECT AND MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES IN CONFORMITY WITH THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK, FOURTH EDITION, AS PREPARED BY TDEC. SEE PLAN AND DETAILS FOR SPECIFIC EROSION AND SEDIMENTATION CONTROL MEASURES. 7. EROSION AND SEDIMENTATION CONTROL MEASURES SHOWN ON THIS PLAN ARE A MINIMUM REQUIREMENT. MAINTAIN, MODIFY AND ADD EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION AS NECESSARY TO PREVENT SEDIMENT FROM LEAVING THE SITE. 8. ENVIRONMENTAL PERMIT REQUIREMENTS: SHOW COMPLIANCE WITH ALL REQUIREMENTS OF THE GENERAL NPDES PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES CURRENTLY ADOPTED BY TDEC (GCP) AND THE PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP). PROVIDE ENGINEER AND TDEC WITH COPIES OF ALL REQUIRED PAPERWORK. PERFORM AND PROVIDE ALL MAINTENANCE, INSPECTIONS, RECORD KEEPING, AND REPORTING. 9. INSPECTIONS WILL BE PERFORMED BY PERSONNEL CERTIFIED IN THE TDEC LEVEL 1 EROSION CONTROL COURSE. PROOF OF INSPECTOR'S CERTIFICATION SHALL BE KEPT ON FILE AT THE JOBSITE ALONG WITH ALL INSPECTION REPORTS AND OTHER REQUIRED DOCUMENTS IDENTIFIED IN THE PROJECT SWPPP AND THE GCP. MAINTENANCE REPAIR NEEDS IDENTIFIED BY INSPECTIONS SHALL BE ADDRESSED WITHIN 7 DAYS OR BEFORE THE NEXT RAIN EVENT, DOCUMENT WHEN MAINTENANCE ITEMS ARE COMPLETED ON THE INSPECTION REPORT. 10. MAINTAIN A RAIN GAUGE AND RAINFALL RECORDS ON SITE AS REQUIRED BY TDEC.</p> <p>11. EROSION AND SEDIMENTATION CONTROL IMPLEMENTATION: A. STAKE THE DISTURBED AREA LIMITS AND UNDISTURBED AREAS IN THE FIELD BEFORE BEGINNING WORK. B. INSTALL CONSTRUCTION EXIT. C. TEMPORARY EROSION AND SEDIMENTATION CONTROL: PROVIDE MEASURES TO PREVENT SOIL EROSION AND DISCHARGE OF SOIL-BEARING WATER RUNOFF AND AIRBORNE DUST TO UNDISTURBED AREAS AND TO ADJACENT PROPERTIES AND WALKWAYS, ACCORDING TO THE SITE EROSION AND SEDIMENTATION CONTROL DRAWINGS AS WELL AS THE GCP AND THE SWPPP. D. BEGIN SITE GRADING. E. VERIFY THAT FLOWS OF WATER REDIRECTED FROM CONSTRUCTION AREAS OR GENERATED BY CONSTRUCTION ACTIVITY DO NOT ENTER OR CROSS TREE- OR PLANT- PROTECTION ZONES. F. INSPECT, REPAIR, AND MAINTAIN EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED. G. CLEAN, REPAIR, AND RESTORE ADJACENT PROPERTIES AND ROADS AFFECTED BY EROSION AND SEDIMENTATION FROM THE PROJECT SITE DURING THE COURSE OF THE PROJECT. OBTAIN PERMISSION AND APPROPRIATE PERMITS TO ACCESS AREAS OUTSIDE THIS SITE. H. AFTER FINAL STABILIZATION OF THE SITE, REMOVE EROSION AND SEDIMENTATION CONTROLS AND RESTORE AND STABILIZE AREAS DISTURBED DURING REMOVAL. I. STORMWATER CONTROL: COMPLY WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION. PROVIDE BARRIERS IN AND AROUND EXCAVATIONS AND SUBGRADE CONSTRUCTION TO PREVENT FLOODING BY RUNOFF OF STORMWATER FROM HEAVY RAINS. J. PROJECT MANAGER OR ENGINEER MAY DIRECT CONTRACTOR TO LIMIT SURFACE AREA OF ERODIBLE EARTH MATERIAL EXPOSED BY CLEARING AND GRUBBING, EXCAVATION, BORROW AND EMBANKMENT OPERATIONS AND MAY DIRECT CONTRACTOR TO PROVIDE IMMEDIATE PERMANENT OR TEMPORARY POLLUTION CONTROL MEASURES. K. PROVIDE PERMANENT EROSION CONTROL MEASURES AT EARLIEST PRACTICAL TIME TO MINIMIZE REQUIREMENT FOR TEMPORARY EROSION CONTROLS. PERMANENTLY SEED AND MULCH CUT SLOPES AS EXCAVATION PROCEEDS. L. MAINTAIN TEMPORARY EROSION CONTROL SYSTEMS INSTALLED BY CONTRACTOR AS DIRECTED BY PROJECT MANAGER OR ENGINEER TO CONTROL SILTATION AT ALL TIMES THROUGHOUT WORK. PROVIDE MAINTENANCE OR ADDITIONAL WORK DIRECTED BY ENGINEER WITHIN 48 HOURS OF NOTIFICATION BY ENGINEER. 12. EROSION CONTROL SHALL BE MAINTAINED UNTIL PAVING IS COMPLETED AND LAWNS HAVE BEEN ESTABLISHED. PROTECT ADJACENT PROPERTIES AND WATER RESOURCES FROM EROSION AND SEDIMENT DAMAGE THROUGHOUT THE LIFE OF THE PROJECT UNTIL A NOTICE OF TERMINATION IS FILED WITH TDEC. CONTRACTOR COORDINATE WITH THE ENGINEER AND OWNER FOR APPROVAL TO FILE A NOTICE OF TERMINATION AT THE APPROPRIATE TIME. 13. STABILIZATION MEASURES WILL BE INITIATED AS SOON AS POSSIBLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY OR PERMANENT SOIL STABILIZATION AT THE CONSTRUCTION SITE (OR PHASE OF THE PROJECT) MUST BE COMPLETED NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED NOT LATER THAN 3:1 DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED. PERMANENT STABILIZATION WITH PERENNIAL VEGETATION OR OTHER PERMANENTLY STABLE, NON-ERODING SURFACE SHALL REPLACE ANY TEMPORARY MEASURES AS SOON AS PRACTICABLE. UNPACKED GRAVEL CONTAINING FINES OR CRUSHER RUNS WILL NOT BE CONSIDERED A NON-ERODING SURFACE. 14. ALL WATER DISCHARGES FROM EXCAVATIONS AND TEMPORARY SEDIMENT PONDS SHALL BE FILTERED USING SEDIMENT CONTROLS ACCEPTABLE TO TDEC AS WELL AS THE LOCAL AUTHORITY HAVING JURISDICTION. 15. UNLESS OTHERWISE NOTED, RIP-RAP SHALL BE T.D.O.T. MACHINED CLASS A-1 WITH A MEDIAN RIP-RAP SIZE D50 OF 6", 9" THICK AND SHALL BE UNDERLAIN WITH A NON-WOVEN GEOTEXTILE FABRIC. 16. CONCRETE WASHOUT AREA SHALL BE IN CONFORMANCE WITH STANDARDS OF TDEC, AS WELL AS THE LOCAL PERMITTING AUTHORITY HAVING JURISDICTION. 17. AT THE END OF THE PROJECT, DURING FINAL SITE STABILIZATION, DEWATER TEMPORARY SEDIMENT PONDS AND TRAPS IN CONFORMANCE WITH STANDARDS OF TDEC, AS WELL AS THE LOCAL PERMITTING AUTHORITY HAVING JURISDICTION. REMOVE ALL TEMPORARY EROSION CONTROLS AT THE END OF THE PROJECT AND COORDINATE WITH OWNER TO FILE NOTICE OF TERMINATION. AT THE APPROPRIATE TIME, WITH AUTHORITY HAVING JURISDICTION, CONTRACTOR COORDINATE WITH ENGINEER AT BEGINNING OF LAND DISTURBANCE TO DETERMINE WHETHER OR NOT AN INITIAL SITE ASSESSMENT INSPECTION BY THE ENGINEER IS REQUIRED. IF REQUIRED, THE SITE ASSESSMENT INSPECTION BY THE ENGINEER MUST BE PERFORMED WITHIN 1 MONTH OF STARTING CONSTRUCTION. ALLOW ENGINEER A MINIMUM OF 1 WEEK NOTICE IN SCHEDULING SITE ASSESSMENT INSPECTIONS.</p>		<p>@ AND AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS</p> <p>AASHTO AMERICANS WITH DISABILITIES ACT</p> <p>APFD APPROXIMATE</p> <p>APPROXIMATE AMERICAN SOCIETY OF CIVIL ENGINEERS</p> <p>ASCE ASPHALT</p> <p>ASPH. AMERICAN SOCIETY FOR TESTING AND MATERIALS</p> <p>ASTM AMERICAN WATER WORKS ASSOCIATION</p> <p>AWWA</p> <p>B/C BACK OF CURB</p> <p>BLDG. BUILDING</p> <p>BLVD. BOULEVARD</p> <p>BM BENCHMARK</p> <p>B/W BOTTOM OF WALL</p> <p>Δ CURVE DELTA ANGLE</p> <p>CB CATCH BASIN</p> <p>CFS CUBIC FEET PER SECOND</p> <p>CSP CONSTRUCTION GENERAL PERMIT</p> <p>C CURB INLET</p> <p>C CENTERLINE</p> <p>CMP CORRUGATED METAL PIPE</p> <p>CMU CONCRETE MASONRY UNIT</p> <p>C.O. CLEANOUT</p> <p>CONC. CONCRETE</p> <p>CONT. CONTINUOUS</p> <p>° DEGREES</p> <p>DOB DOUBLE CATCH BASIN</p> <p>DIA. OR Ø DIAMETER</p> <p>DIP DUCTILE IRON PIPE</p> <p>DWG. DRAWING</p> <p>E EAST</p> <p>EA EACH</p> <p>E.F. EACH FACE</p> <p>EIP EXISTING IRON PIPE</p> <p>EL OR ELEV. ELEVATION</p> <p>EPA EDGE OF PAVEMENT</p> <p>ET CETERA ENVIRONMENTAL PROTECTION AGENCY</p> <p>E.W. EACH WAY</p> <p>EX. OR EXIST. EXISTING</p> <p>F/F FACE OF CURB</p> <p>FFE FINISHED FLOOR ELEVATION</p> <p>FIN. FINISHED</p> <p>FP FIRE PROTECTION</p> <p>FT. FEET</p> <p>GC GENERAL CONTRACTOR</p> <p>GI GRATE INLET</p> <p>GPM GALLONS PER MINUTE</p> <p>GV GAS VALVE</p> <p>H HORIZONTAL</p> <p>HDPE HIGH DENSITY POLYETHYLENE</p> <p>HP HIGH POINT</p> <p>HP HDPE HIGH PERFORMANCE HIGH DENSITY POLYETHYLENE</p> <p>HWY. HIGHWAY</p> <p>ID INSIDE DIAMETER OR INLINE DRAIN</p> <p>IN. (INCHES)</p> <p>INV. INVERT</p> <p>IPF IRON PIN FOUND</p> <p>JB JUNCTION BOX</p> <p>L LENGTH</p> <p>LBS. POUNDS</p> <p>LF LINEAR FEET</p> <p>MAX. MAXIMUM</p> <p>MH MANHOLE</p> <p>MIN. MINIMUM</p> <p>MUTCD MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES</p> <p>N NORTH</p> <p>N/A NOT APPLICABLE</p> <p>NFPA NATIONAL FIRE PROTECTION AGENCY</p> <p>NIC NOT IN CONTRACT</p> <p>NIP NEW IRON PIN</p> <p>NO, OR # NUMBER</p> <p>NOI NOTICE OF INTENT</p> <p>NPDES NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM</p> <p>N.T.E. NOT TO SCALE</p> <p>O.C. ON CENTER</p> <p>OSHA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION</p> <p>PIV POST INDICATOR VALVE</p> <p>PBE POINT OF BEGINNING (ALIGNMENT)</p> <p>POE POINT OF ENDING (ALIGNMENT)</p> <p>PP POWER/UTILITY POLE</p> <p>PSI POUNDS PER SQUARE INCH</p> <p>PVC POLYVINYL CHLORIDE</p> <p>PVMT PAVEMENT</p> <p>Q1 1 YEAR STORM PEAK FLOW</p> <p>Q10 10 YEAR STORM PEAK FLOW</p> <p>QLP QUALIFYING LOCAL PROGRAM</p> <p>R RADIUS</p> <p>RCP REINFORCED CONCRETE PIPE</p> <p>RD ROAD</p> <p>REF. REFERENCE</p> <p>REQ'D REQUIRED</p> <p>REV. REVISION</p> <p>R.O.W. RIGHT-OF-WAY</p> <p>S SOUTH</p> <p>SAN. SANITARY</p> <p>SCH. SCHEDULE</p> <p>SD STORM DRAIN</p> <p>SDR STANDARD DIMENSION RATIO</p> <p>SF SQUARE FEET</p> <p>SPAP SPECIAL POLLUTION ABATEMENT PERMIT</p> <p>SQ. SQUARE</p> <p>ST. STREET</p> <p>STA. STATION</p> <p>SS SANITARY SEWER</p> <p>SSFM SANITARY SEWER FORCE MAIN</p> <p>SWPPP STORM WATER POLLUTION PREVENTION PLAN</p> <p>TBM TEMPORARY BENCH MARK</p> <p>TDEC TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION</p> <p>T.D.O.T. TENNESSEE DEPARTMENT OF TRANSPORTATION</p> <p>THK. THICK</p> <p>TC TOP OF CASTING</p> <p>T/C TOP OF CURB ELEVATION</p> <p>T/P TOP OF PAVEMENT ELEVATION</p> <p>T/W TOP OF WALL</p> <p>TYP. TYPICAL</p> <p>V VERTICAL</p> <p>W WEST</p> <p>W/ WITH</p> <p>WS WATER SURFACE</p> <p>WV WATER VALVE</p> <p>W.W.F. WELDED WIRE FABRIC</p> <p>W.W.M. WELDED WIRE MESH</p> <p>YD YARD DRAIN</p>		<p>--- P/E --- EASEMENT</p> <p>--- R/W --- RIGHT-OF-WAY</p> <p>--- PL --- PROPERTY LINE</p> <p>--- 2010 --- MAJOR CONTOUR</p> <p>--- 2011 --- MINOR CONTOUR</p> <p>SS x SANITARY SEWER</p> <p>G x GAS PIPING</p> <p>W x WATER LINE</p> <p>OU x OVERHEAD UTILITIES</p> <p>UE x ELECTRIC (UNDERGROUND)</p> <p>UT x TELEPHONE/COMM.</p> <p>SD x STORM SEWER</p> <p>RD ROOF DRAINS</p> <p>F FIRE SUPPRESSION LINE</p> <p>SSFM FORCE MAIN</p> <p>SF SILT FENCE</p> <p>SSF REINFORCED SILT FENCE</p> <p>CONSTRUCTION LIMITS</p> <p>SETBACK</p> <p>EXISTING TO BE REMOVED</p> <p>DRAINAGE SWALE</p> <p>CHECK DAM</p> <p>DIVERSION DITCH</p> <p>TUBES AND WATTLES</p> <p>CURBLINE</p> <p>CURBLINE</p> <p>BUILDING</p> <p>FENCE</p> <p>VEGETATION</p> <p>SEWER MAN-HOLE</p> <p>STORM MAN-HOLE</p> <p>JUNCTION BOX</p> <p>CATCH BASIN</p> <p>CURB INLET</p> <p>THROATED INLET</p> <p>CLEAN OUT</p> <p>HEADWALL</p> <p>SPOT GRADE</p> <p>OUTFALL</p> <p>RIPRAP OUTLET PROTECTION</p> <p>TEMP. CONSTRUCTION EXIT</p> <p>INLET PROTECTION</p> <p>THRUST BLOCK</p> <p>WATER VALVE</p> <p>WATER METER</p> <p>POST INDICATOR VALVE</p> <p>FIRE HYDRANT</p> <p>FIRE DEPARTMENT CONNECTION</p> <p>IRRIGATION VALVE</p> <p>GAS VALVE</p> <p>GAS METER</p> <p>UTILITY POLE</p> <p>ELECTRICAL VAULT</p> <p>ELECTRIC METER</p> <p>ELECTRICAL BOX</p> <p>GUY WIRE</p> <p>LIGHT STANDARD</p> <p>TELEPHONE PEDESTAL</p> <p>BOLLARD</p> <p>SLOPE DRAIN</p> <p>SLOPE MATTING</p> <p>TEMPORARY STABILIZATION</p> <p>PERMANENT STABILIZATION</p> <p>CONCRETE WASHOUT</p> <p>FILTER RING</p> <p>BENCHMARK</p> <p>CONTROL POINT</p> <p>MAILBOX</p>		<p>--- C/E ---</p> <p>R/W</p> <p>PL</p> <p>2010</p> <p>2011</p> <p>SS</p> <p>G</p> <p>W</p> <p>OU</p> <p>UE</p> <p>T</p> <p>SD</p> <p>RD</p> <p>F</p> <p>SSFM</p> <p>SF</p> <p>SSF</p> <p>●</p> <p>---</p> <p>---</p> <p>---</p> <p>---</p> <p>---</p> <p>---</p> <p>---</p> <p>---</p> <p>---</p> <p>---</p> <p>---</p> <p>---</p> <p>---</p> <p>---</p> <p>---</p> <p>---</p> <p>---</p> <p>---</p> 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PHASE 1 EROSION PREVENTION & SEDIMENT CONTROL PLAN

GENERAL SHEET NOTES

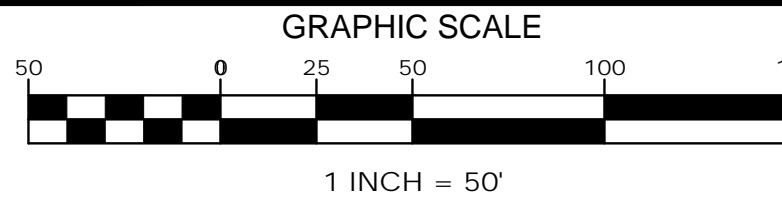
1. SEE SHEET C001 FOR CIVIL NOTES AND LEGENDS

EROSION CONTROL LEGEND

- CONSTRUCTION LIMITS
- SF SILT FENCE; SEE DETAIL 3/C800
- CONSTRUCTION ENTRANCE; SEE DETAIL 1/C800
- CW CONCRETE WASHOUT; SEE DETAIL 5/C800



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PROJECT INFORMATION

PROJECT:

BYRD DRIVE EXTENSION

PROJECT ADDRESS:

BYRD DRIVE
SEVIERVILLE, TN 37764
PROJECT NO.: 190136.02

ACTIVE DESIGN PHASE

- ☐ FOR REVIEW ONLY
- ☐ FOR PERMITTING ONLY
- ☐ SCHEMATIC DESIGN
- ☐ DESIGN DEVELOPMENT
- ☒ CONSTRUCTION BIDDING
- ☐ CONSTRUCTION DOCUMENTS
- ☐ AS-BUILT RECORD SET

REVISION INFORMATION

NO.	DATE	DESCRIPTION

KEY PLAN

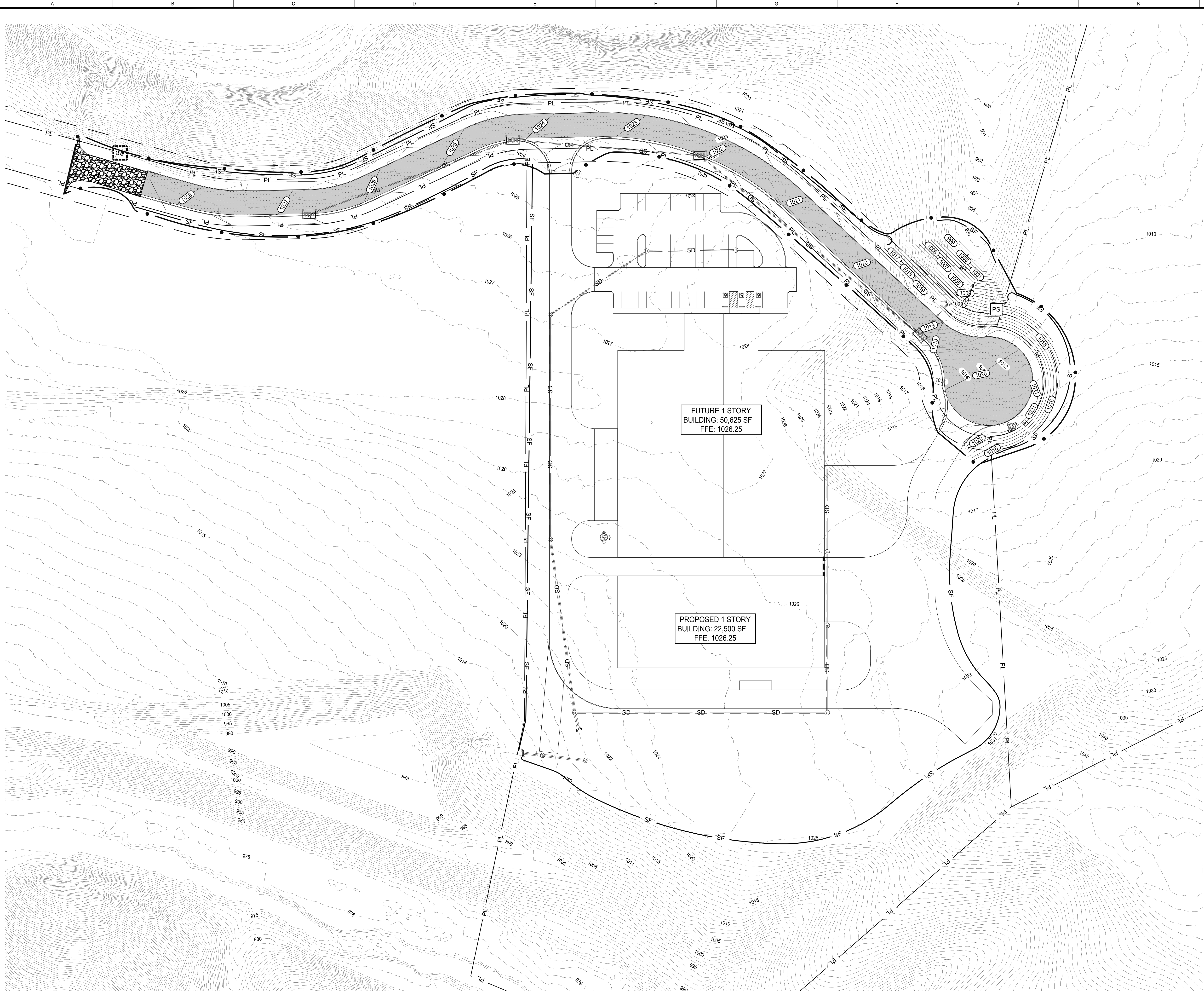
SHEET INFORMATION

SHEET ISSUED: 11/12/2021
DESIGNED BY: I.A.J.
DRAWN BY: I.A.J.
REVIEWED BY: C.B.T.
SHEET TITLE:

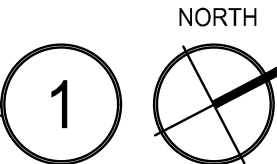
PHASE 1 EROSION PREVENTION & SEDIMENT CONTROL PLAN

SHEET NO.:

C100



PHASE 2 EROSION PREVENTION & SEDIMENT CONTROL PLAN



GENERAL SHEET NOTES:

1. SEE SHEET C001 FOR CIVIL NOTES AND LEGENDS

EROSION CONTROL LEGEND

- CONSTRUCTION LIMITS
- SF SILT FENCE; SEE DETAIL 3/C800
- CONSTRUCTION ENTRANCE; SEE DETAIL 1/C800
- INLET PROTECTION; SEE DETAIL 4/C800
- OUTFALL
- CW CONCRETE WASHOUT; SEE DETAIL 5/C800
- PS PERMANENT STABILIZATION; SEE SEED MIXTURE TABLES BELOW
- RIPRAP OUTLET PROTECTION

PERMANENT SEED MIXTURES (TDOT)

GROUPS	SEEDING DATES	GRASS SEEDS	PERCENT
A	FEBRUARY 1 TO JULY 1	KENTUCKY 31 FESCUE	80%
		KOREAN LESPEDEZA	15%
		ENGLISH RYE	5%
B	JUNE 1 TO AUGUST 15	KENTUCKY 31 FESCUE	55%
		ENGLISH RYE	20%
		KOREAN LESPEDEZA	15%
		GERMAN MILLET	10%
B1	APRIL 15 TO AUGUST 15	BERMUDAGRASS (HULLED)	70%
		ANNUAL LESPEDEZA	30%
C	AUGUST 1 TO DECEMBER 1	KENTUCKY 31 FESCUE	70%
		ENGLISH RYE	20%
		WHITE CLOVER	10%
C1	FEBRUARY 1 TO DECEMBER 1	KENTUCKY 31 FESCUE	70%
		CROWN VETCH	25%
		ENGLISH RYE	5%

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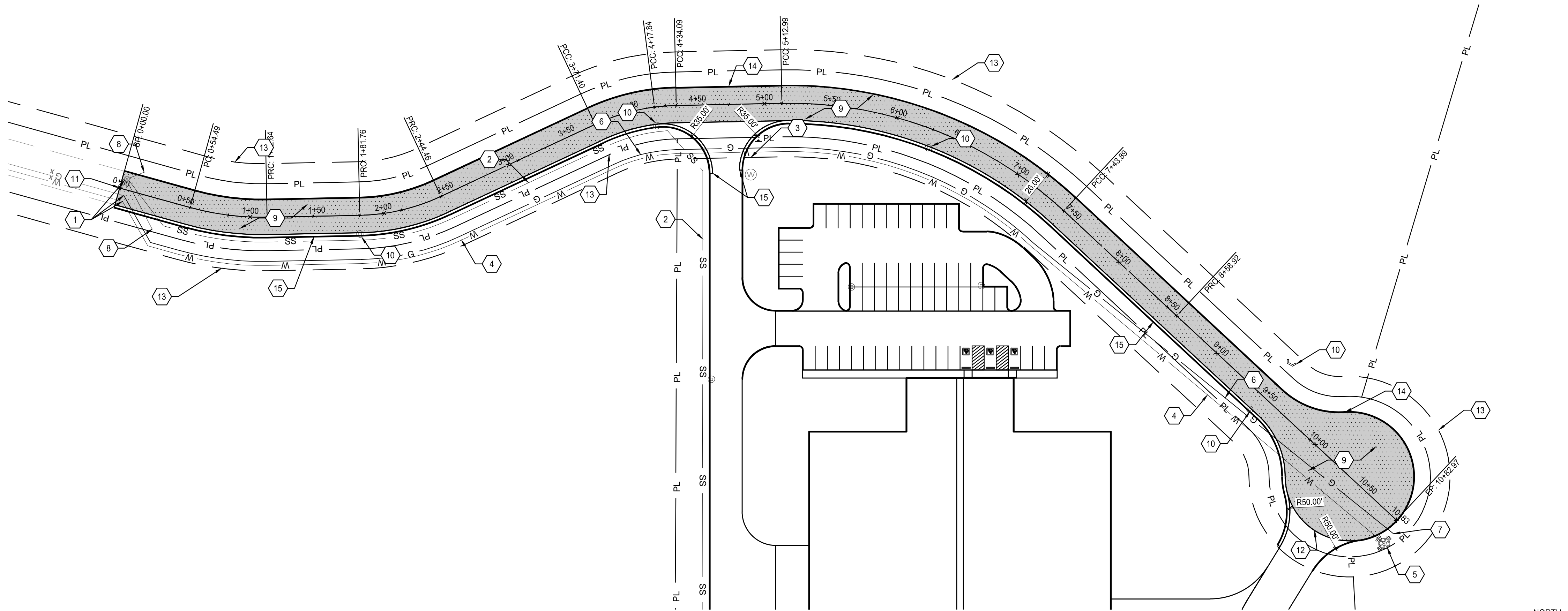
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DRAWN BY: I.A.J.
REVIEWED BY: C.B.T.
SHEET TITLE:

PHASE 2 EROSION PREVENTION & SEDIMENT CONTROL PLAN

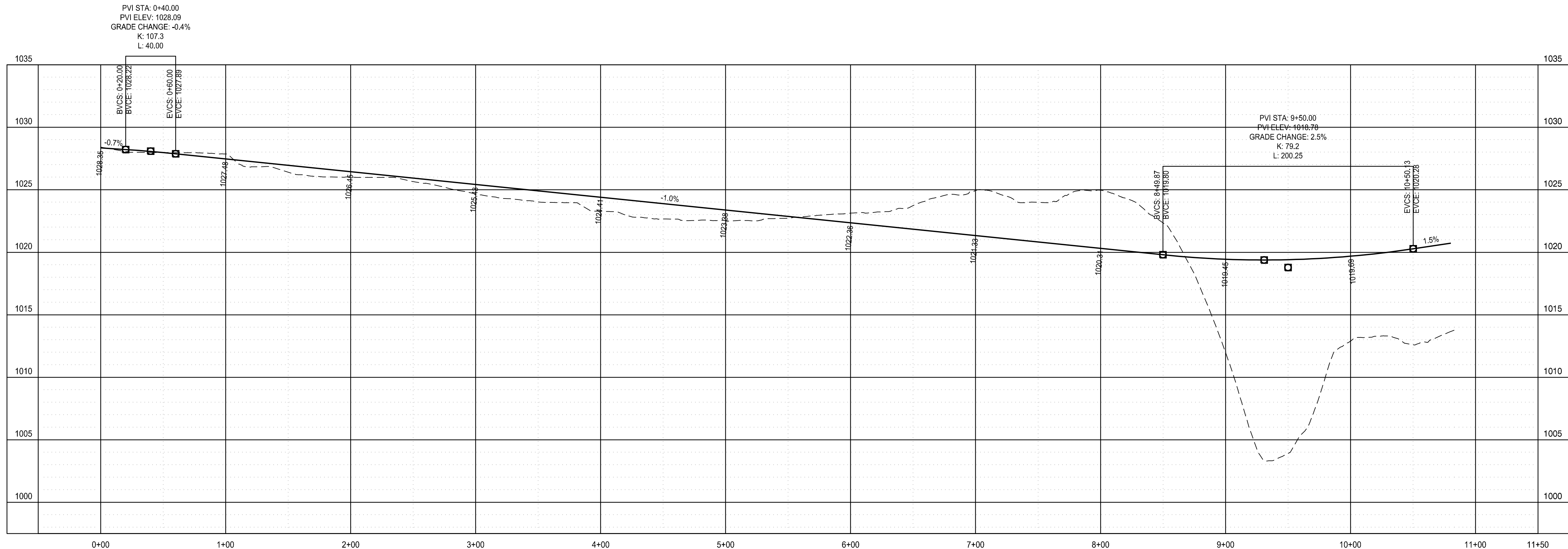
SHEET NO.:

C101



ROAD LAYOUT PLAN

SCALE: 1" = 50'-0"



ROAD PROFILE

HORIZONTAL SCALE: 1" = 50'-0" VERTICAL SCALE: 1" = 5'-0"

GENERAL SHEET NOTES:

- SEE SHEET C001 FOR CIVIL NOTES AND LEGENDS.
- COORDINATE ALL UTILITY CROSSINGS; SEE DETAIL 6/C801
- PROVIDE KOR & SEAL CONNECTORS
- FIELD LOCATE ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION; DETERMINE LOCATED, SIZE, MATERIAL & INVERTS. REPORT ANY DISCREPANCIES TO OWNER & ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION & INSTALLATION.

UTILITY CONTACTS

WATER SHADY GROVE UTILITY DISTRICT 830 HIGHWAY 139 DANDRIDGE, TN 37725 865-397-3790	SEWER CITY OF SEVIERVILLE 2295 MCCROSKEY ISLAND RD. SEVIERVILLE, TN 37876 865-453-5522
GAS SEVIER COUNTY UTILITY DISTRICT 420 ROBERT HENDERSON RD. SEVIERVILLE, TN 37862 865-453-3272	ELECTRIC SEVIER COUNTY ELECTRIC SYSTEM 315 E. MAIN ST. SEVIERVILLE, TN 37862 865-453-2887

UTILITY LEGEND

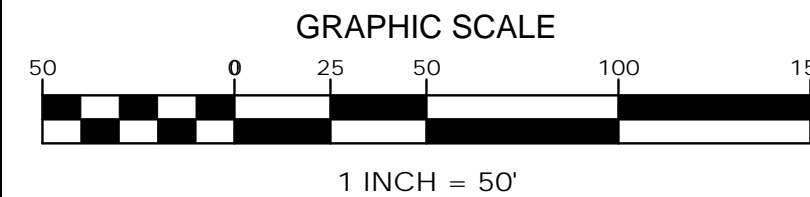
- PIPE TEE; SEE DETAIL 6/C801
- WATER METER BY LOCAL UTILITY
- FIRE HYDRANT; SEE DETAIL 4/C801

SHEET KEYED NOTES

- FIELD LOCATE AND CONNECT TO EXISTING PER LOCAL UTILITY REQUIREMENTS.
- 1 1/2" PVC FORCEMAIN; TO BE INSTALLED BY PARKER TRUTEC SITE CONTRACTOR
- 2" POTABLE WATER (PVC CLASS 200); SEE DETAIL 7/C801
- 12" DUCTILE IRON WATER MAIN; SEE DETAIL 7/C801
- BLOW-OFF VALVE; PER LOCAL UTILITY STANDARDS
- 8" GAS LINE; BY LOCAL UTILITY
- 8" GAS LINE END CAP; BY LOCAL UTILITY
- 8" SANITARY SEWER STUB-OUT FOR FUTURE DEVELOPMENT; MINIMUM SLOPE 1%
- HEAVY DUTY ASPHALT PAVING; SEE DETAIL 6/C800
- STORM DRAINAGE STRUCTURE; SEE SHEET C400 FOR DETAILS
- PROVIDE SMOOTH TRANSITION TO EXISTING SURFACE
- HEAVY DUTY ASPHALT & CONCRETE TRANSITION; SEE DETAIL 6/C800
- 15' UTILITY EASEMENT
- CONCRETE CURB; SEE DETAIL 7/C800
- CONCRETE CURB AND GUTTER; SEE DETAIL 2/C800
- NEW ROAD; SEE DETAIL 8/C800



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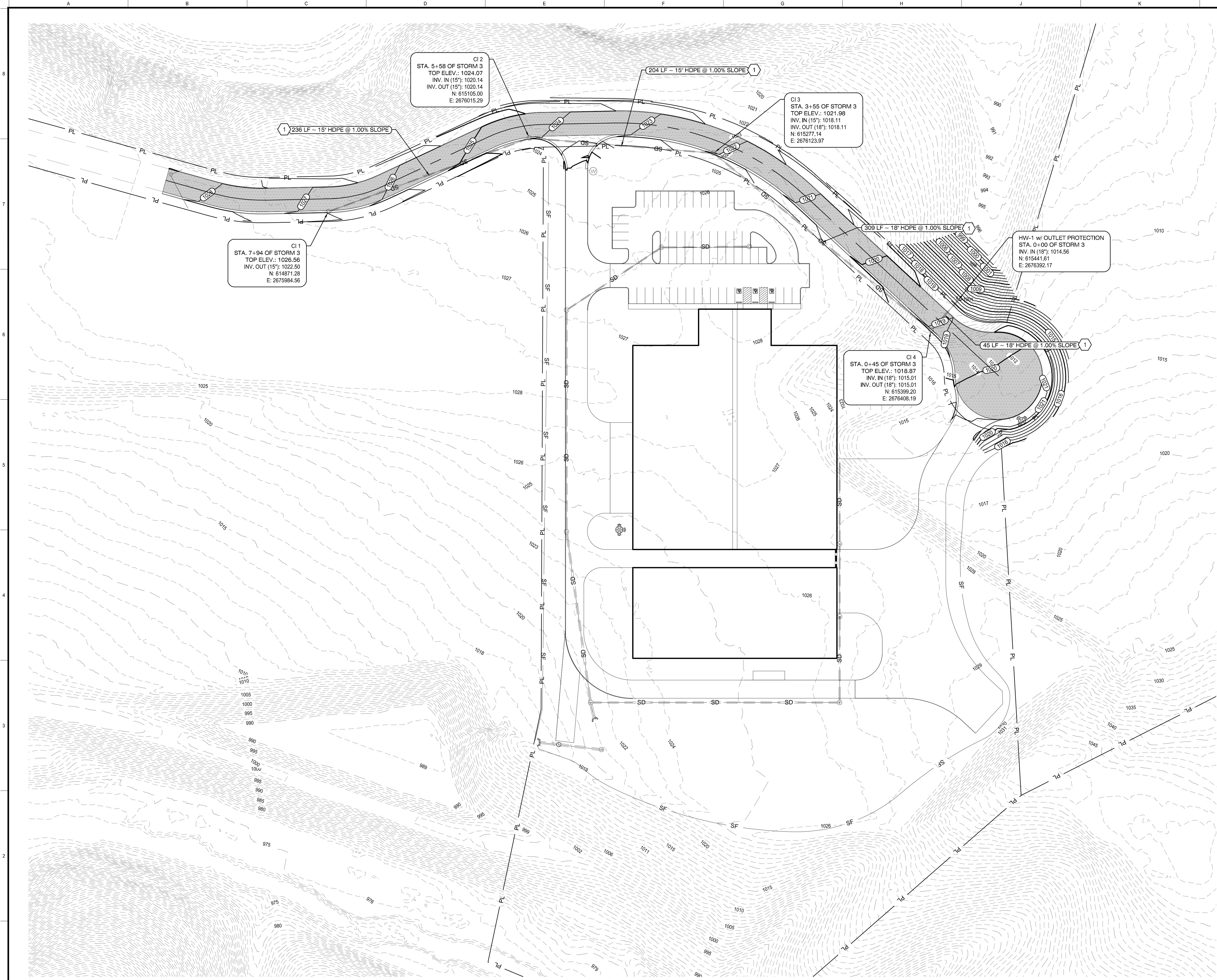
SHEET INFORMATION

SHEET ISSUED: 11/12/2021
DESIGNED BY: I.A.J.
DRAWN BY: I.A.J.
REVIEWED BY: C.B.T.
SHEET TITLE:

SITE LAYOUT PLAN

SHEET NO.:

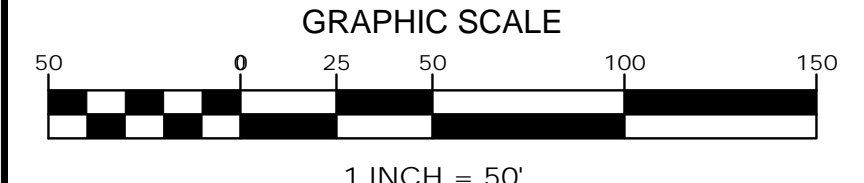
C300



SITE GRADING AND DRAINAGE PLAN



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GENERAL SHEET NOTES

1. SEE SHEET C001 FOR CIVIL NOTES AND LEGENDS

DRAINAGE LEGEND

- CI-CURB INLET; SEE DETAIL 2/C801
- HW-HEADWALL

DRAINAGE KEYED NOTES

- 1 STORM SEWER DRAINAGE PIPE & UTILITY TRENCH; SEE DETAIL 1/C801



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PROJECT NO.: 190136.02

ACTIVE DESIGN PHASE

- ☐ FOR REVIEW ONLY
- ☐ FOR PERMITTING ONLY
- ☐ SCHEMATIC DESIGN
- ☐ DESIGN DEVELOPMENT
- ☒ CONSTRUCTION BIDDING
- ☐ CONSTRUCTION DOCUMENTS
- ☐ AS-BUILT RECORD SET

REVISION INFORMATION

NO.	DATE	DESCRIPTION

KEY PLAN

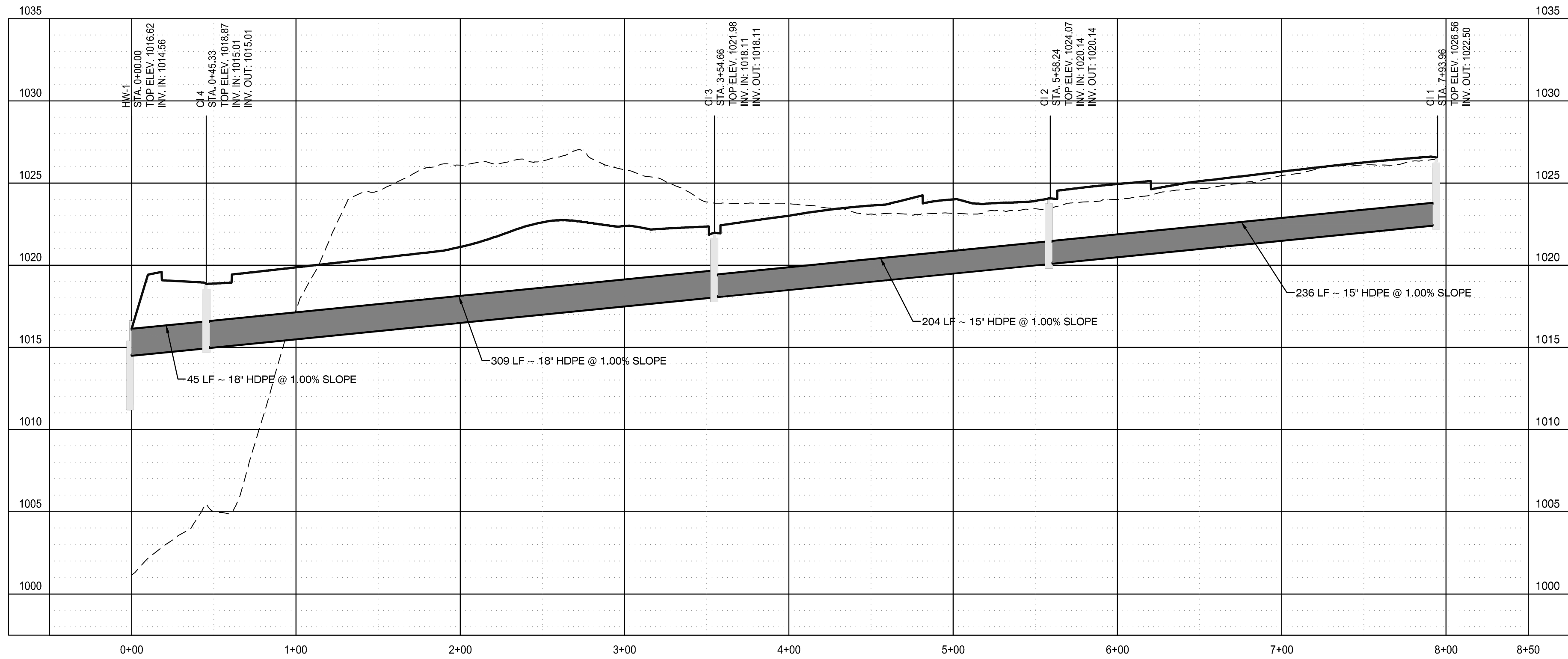
SHEET INFORMATION

SHEET ISSUED: 11/12/2021
DESIGNED BY: I.A.J.
DRAWN BY: I.A.J.
REVIEWED BY: C.B.T.
SHEET TITLE:

SITE GRADING AND DRAINAGE PLAN

SHEET NO.:

C400



STORM LINE 3

SCALE: H: 1" = 50'-0" V: 1" = 5'-0"

1

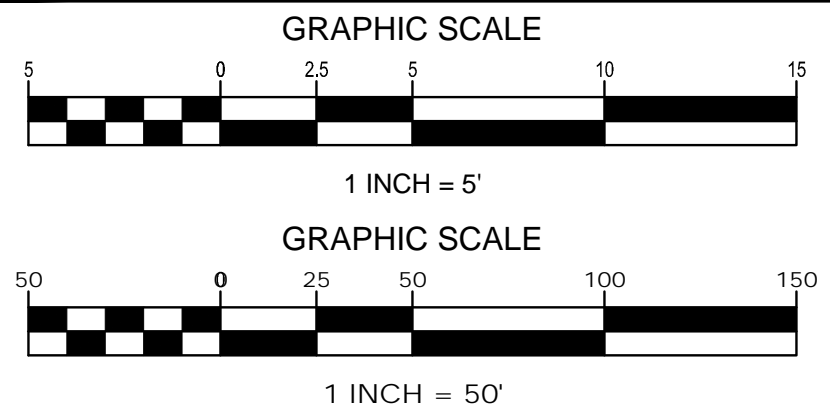
GENERAL SHEET NOTES

1. SEE SHEET C001 FOR CIVIL NOTES AND LEGENDS.

PROFILE LEGEND



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PROJECT INFORMATION

PROJECT:

BYRD DRIVE EXTENSION

PROJECT ADDRESS:

BYRD DRIVE
SEVIERVILLE, TN 37764
PROJECT NO.: 190136.02

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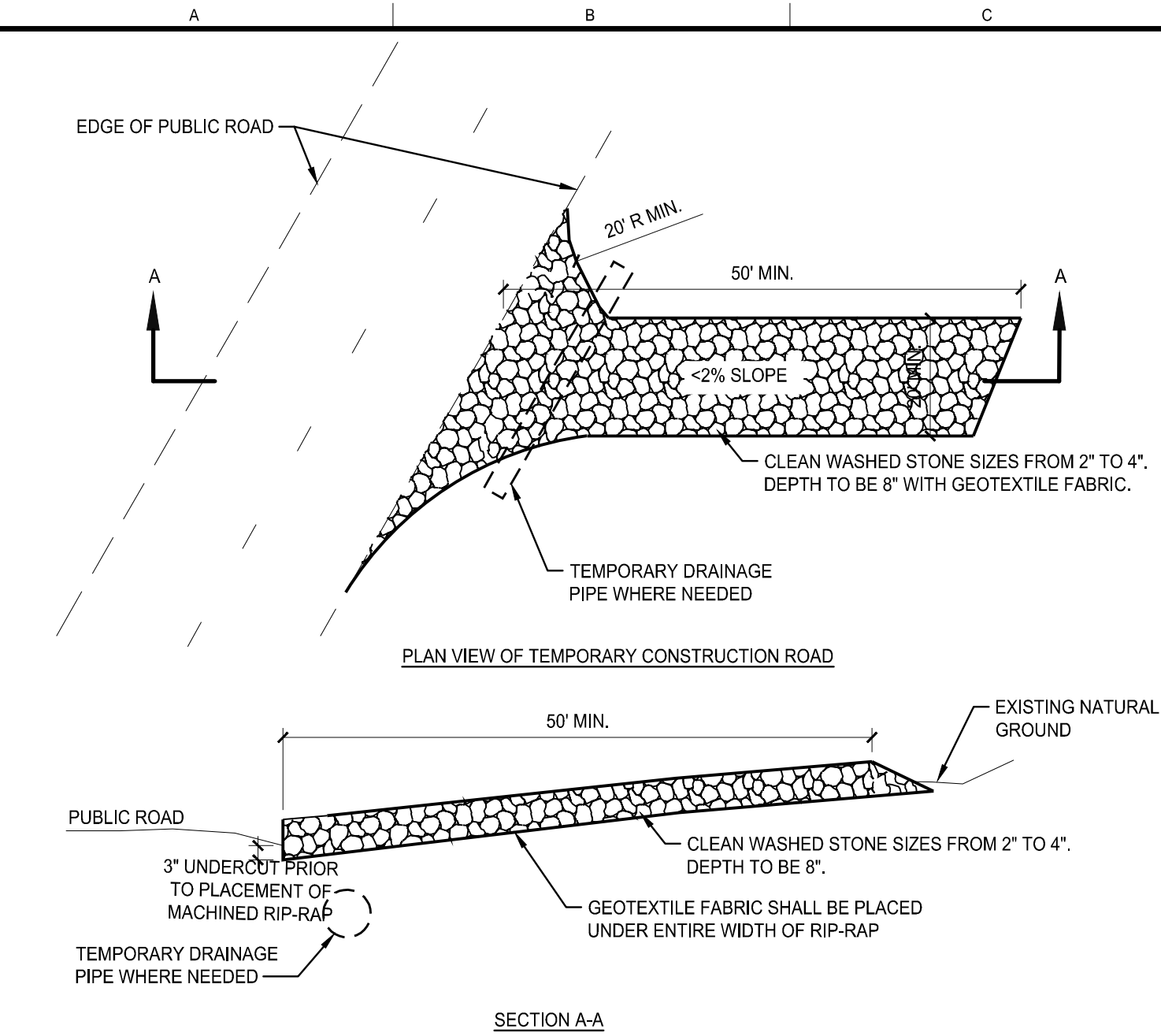
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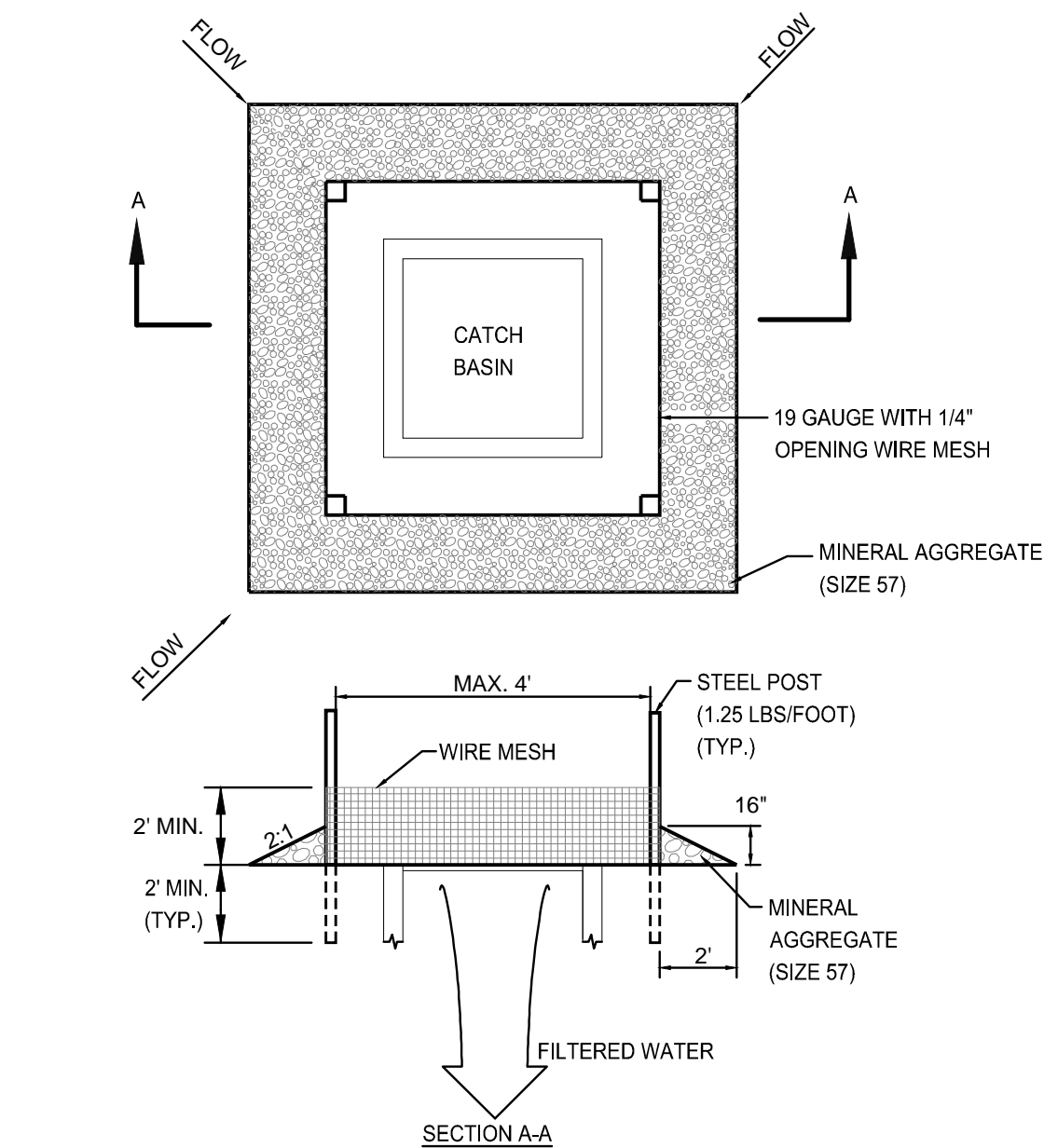
CIVIL PROFILES

SHEET NO.:

C700

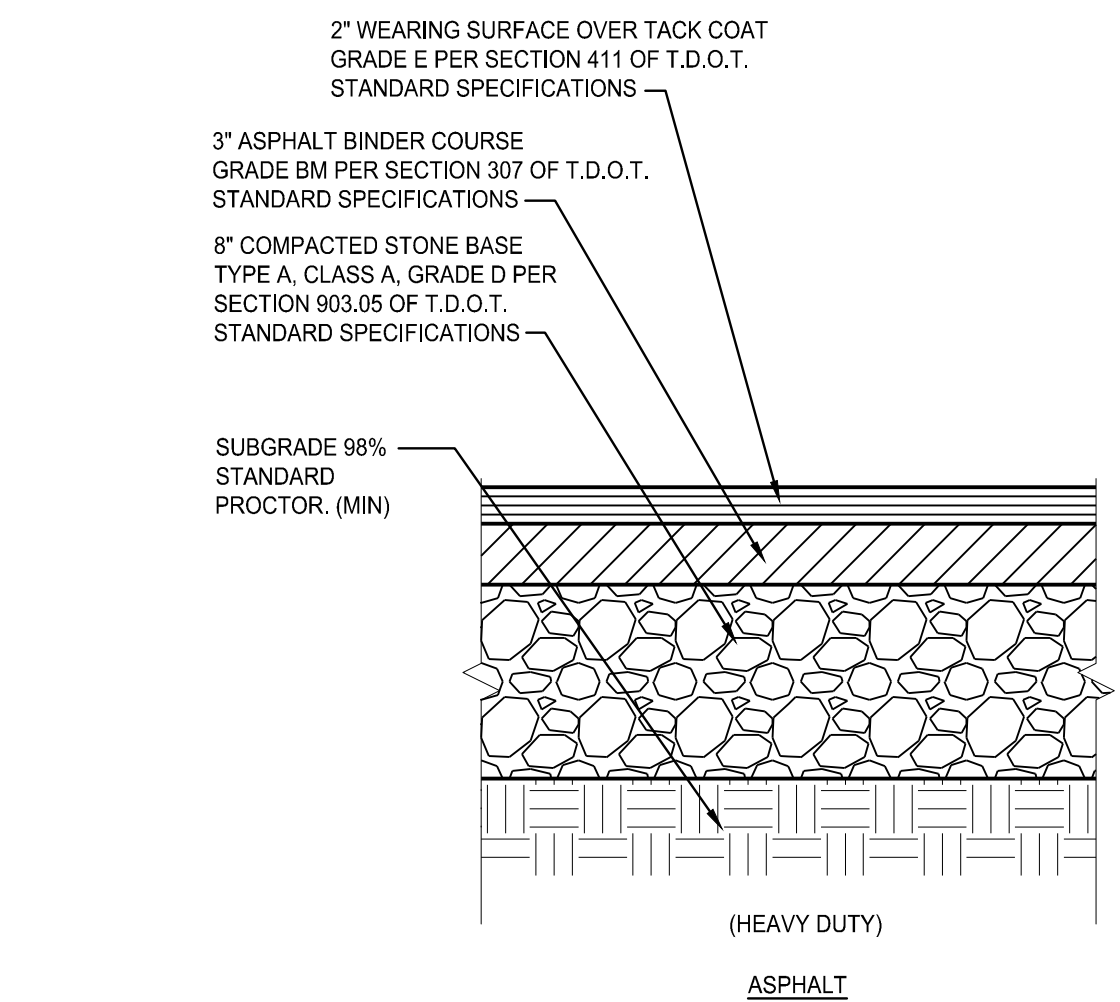


CONSTRUCTION EXIT



HARDWARE CLOTH AND GRAVEL INLET PROTECTION

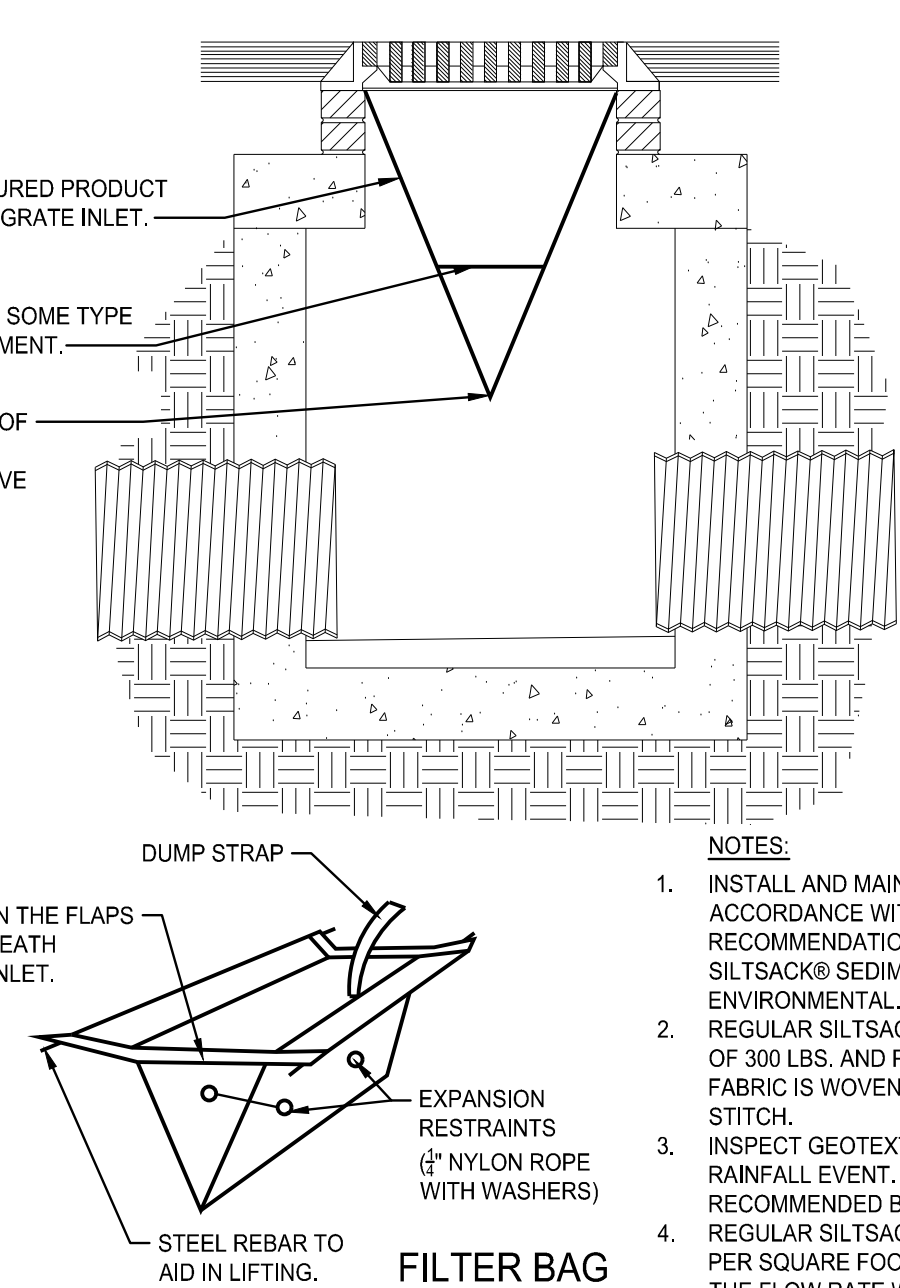
INLET PROTECTION



PAVING SECTIONS

6

CURB WITH GUTTER

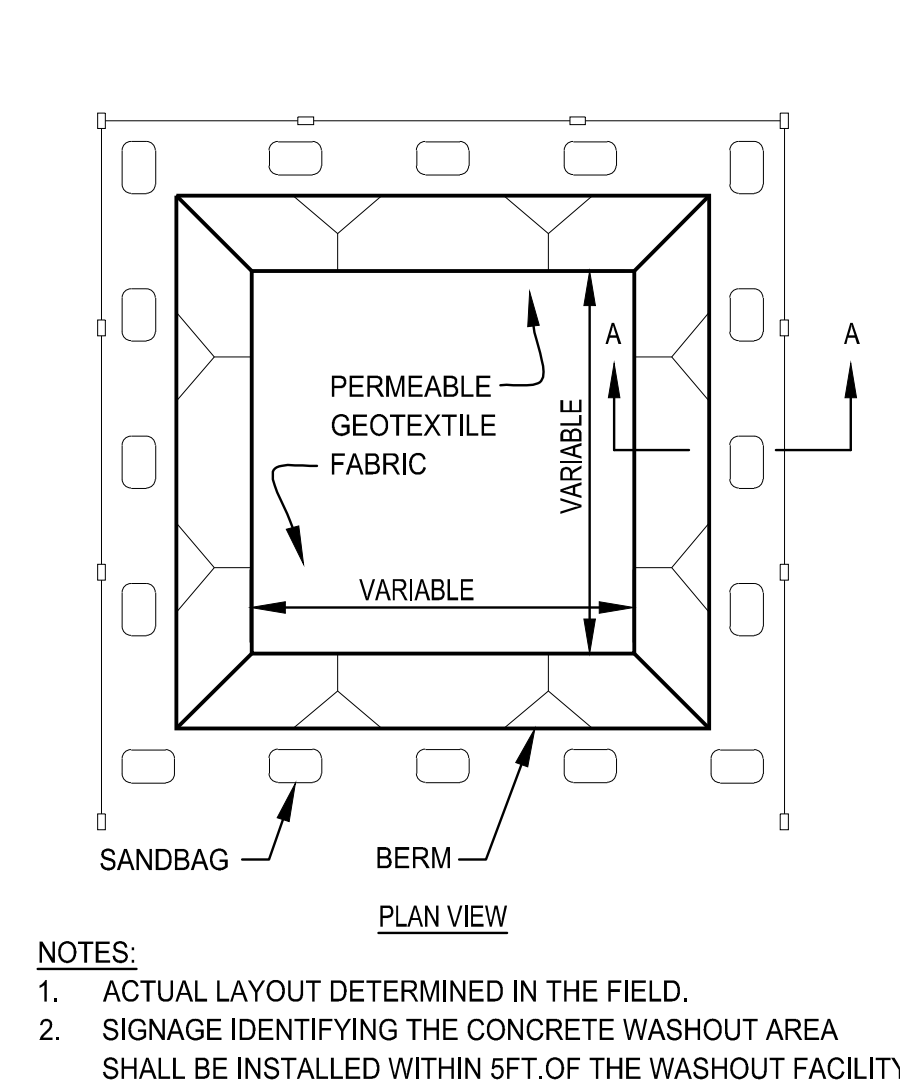


FILTER BAG

CONCRETE CURB

7

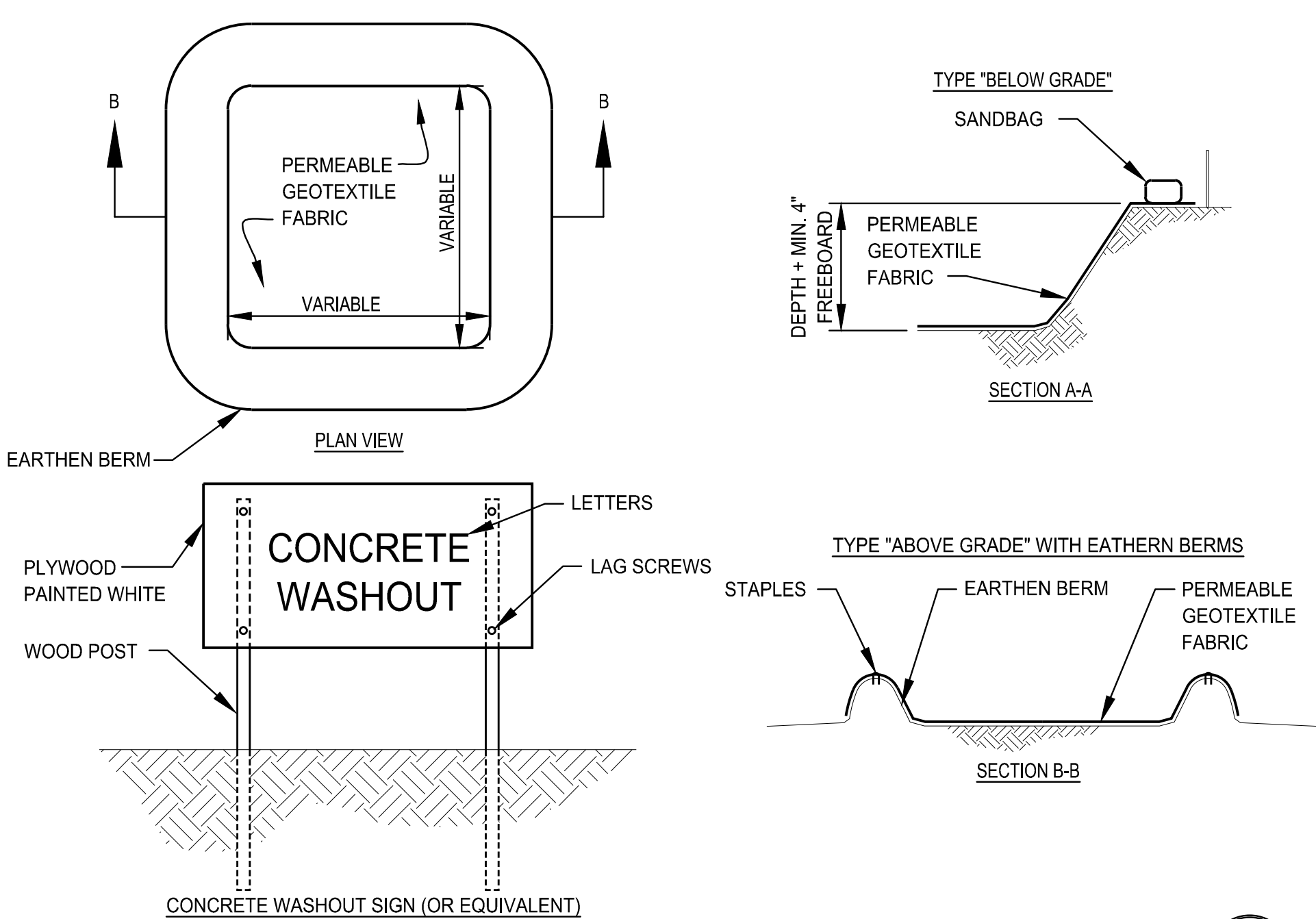
SILT FENCE



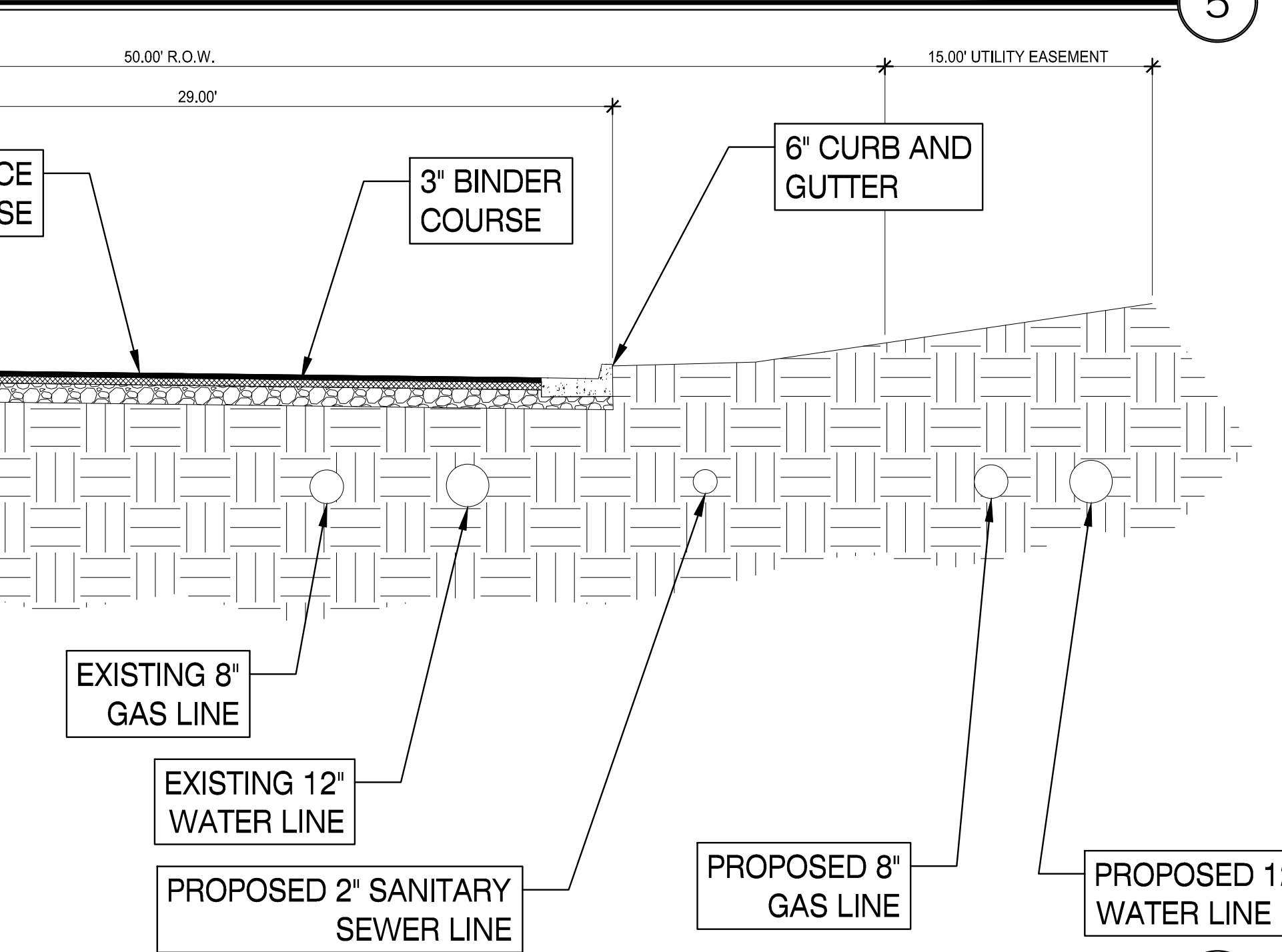
CONCRETE WASHOUT

ROAD SECTION

8



CONCRETE WASHOUT SIGN (OR EQUIVALENT)



ROAD SECTION

8

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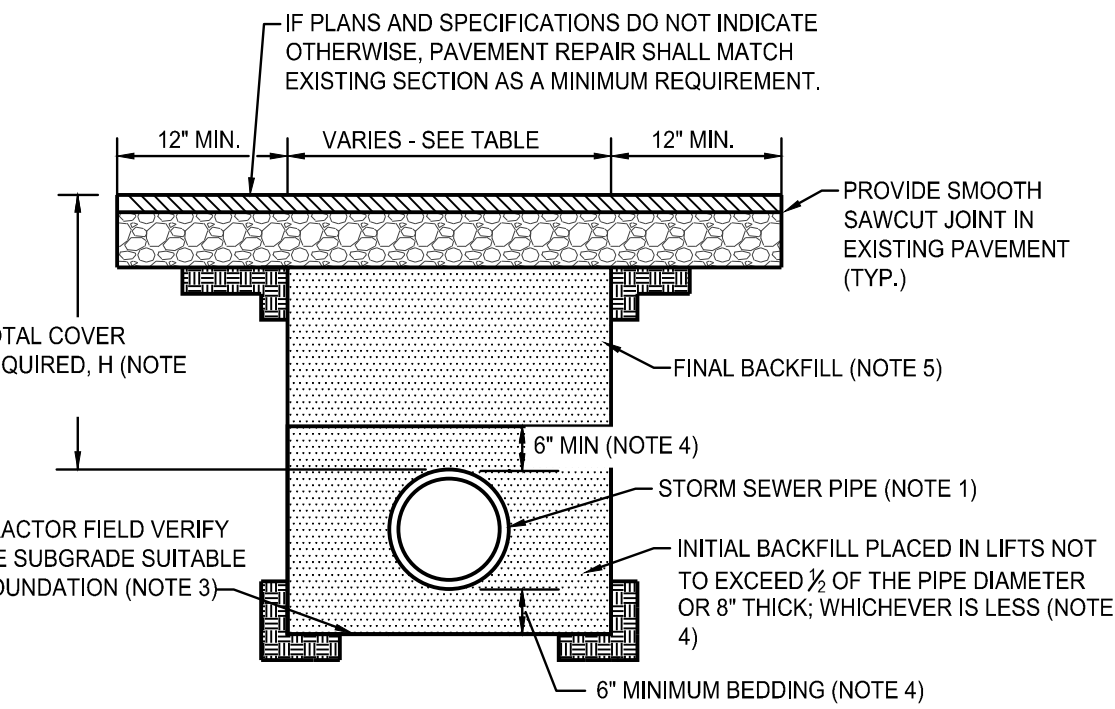
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CIVIL DETAILS

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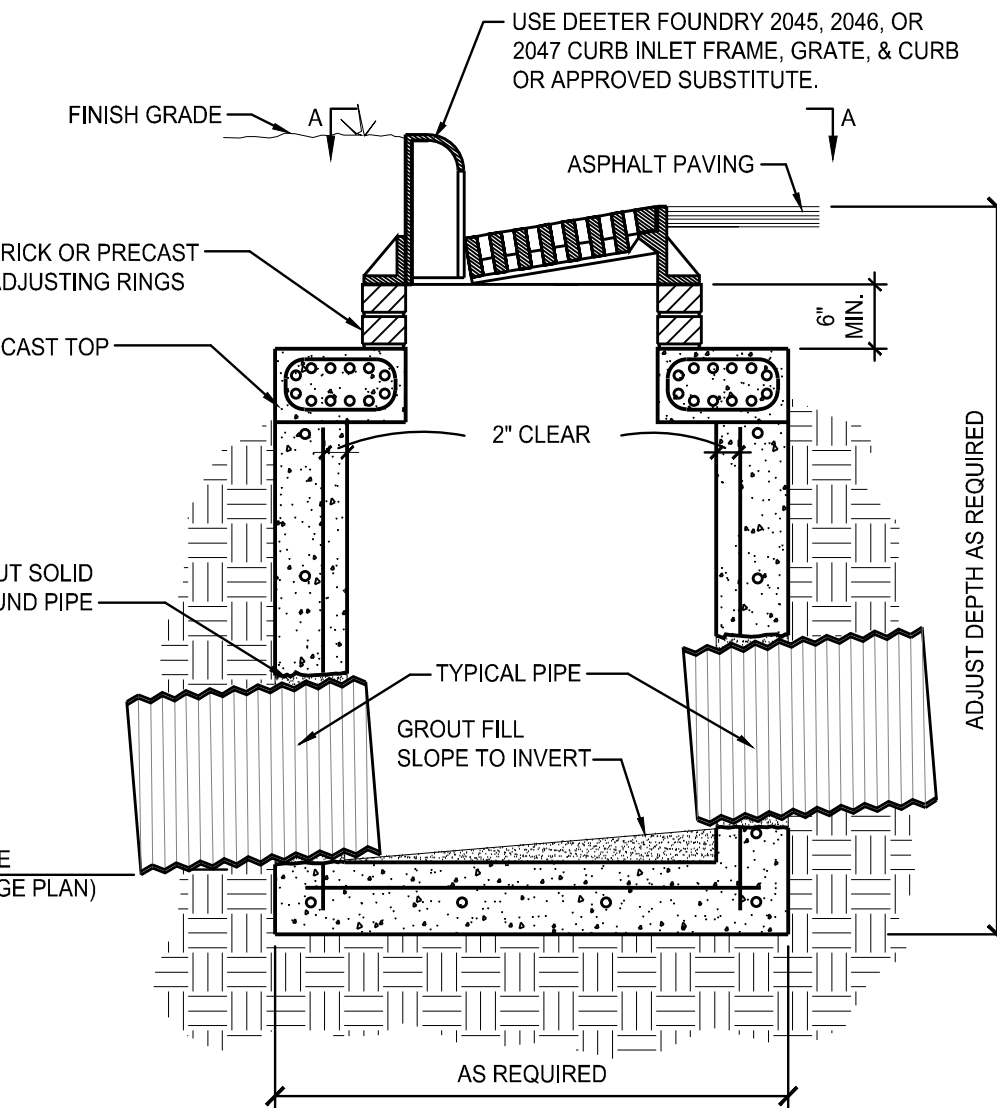


STORM SEWER TRENCH

- ALL HDPE PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, LATEST ED., AND ALL CMP SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM A 798, LATEST ED.
- THIS DETAIL ADDRESSES A TRENCH TYPE INSTALLATION, FOR EMBANKMENT OR OTHER INSTALLATIONS, FOR CMP SEE AASHTO SECTION 27, FOR HDPE SEE AASHTO SECTION 30. THIS DETAIL DOES NOT ADDRESS OSHA TRENCH SAFETY REQUIREMENTS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MEET ALL HEALTH AND SAFETY ISSUES REGARDING TRENCH SAFETY.
- WHERE THE TRENCH BOTTOM IS UNSUITABLE FOR FOUNDATION IN THE OPINION OF THE PROJECT GEOTECHNICAL ENGINEER, THE CONTRACTOR SHALL STABILIZE THE TRENCH BOTTOM ACCORDING TO THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER.
- BEDDING AND INITIAL BACKFILL TO 6" ABOVE THE CROWN OF THE PIPE SHALL BE #57 CRUSHED STONE. ELIMINATE VOIDS BY KNIFING UNDER AND AROUND PIPE WITH SHOVEL OR OTHER MEANS AT THE DISCRETION OF THE CONTRACTOR.
- FINAL BACKFILL FOR ALL PIPES LOCATED IN PAVED AREAS SHALL BE COMPACTED #57 CRUSHED STONE MEETING THE REQUIREMENTS OF THE TENNESSEE STATE DEPARTMENT OF TRANSPORTATION. FOR GRASS OR LANDSCAPED AREAS, PROVIDE #57 CRUSHED STONE INITIAL BACKFILL TO 6" ABOVE CROWN OF PIPE AND COVER GRAVEL WITH A NONWOVEN GEOTEXTILE TO PREVENT MIGRATION OF FINES. FINAL BACKFILL TO SURFACE SHALL BE SOIL FREE OF FOREIGN DEBRIS. SOIL BACKFILL SHALL BE PLACED IN 8" LOOSE LIFTS AND BE COMPACTED TO 90% STANDARD DENSITY PER AASHTO T-99 OR PER PROJECT SPECIFICATIONS, WHICHEVER IS MORE STRINGENT. TOP 6" SHALL BE TOPSOIL FROM SITE STRIPPING OPERATIONS LOOSELY PLACED.
- MINIMUM COVER, H, IS 24" UP TO 48" DIAMETER PIPE, H IS 36" FOR 54" TO 60" DIAMETER PIPE. H IS MEASURED FROM TOP OF PIPE TO TOP OF FLEXIBLE PAVEMENT OR GROUND SURFACE IN GRASS OR LANDSCAPE AREAS WHERE APPLICABLE. FOR RCP AND CONCRETE PIPE, H IS 12" MINIMUM.

RCP AND CONCRETE	
PIPE DIA (IN)	MINIMUM WIDTH (IN)
12	22
15	26
18	31
24	40
30	50
36	59
42	68
48	78
54	87
60	98

ALUMINIZED CMP, HDPE AND PVC	
PIPE DIA (IN)	MINIMUM WIDTH (IN)
4	21
6	23
8	26
10	28
12	30
15	34
18	39
24	48
30	56
36	64
42	72
48	80
54	88
60	96



CURB INLET

DUMP NO WASTE

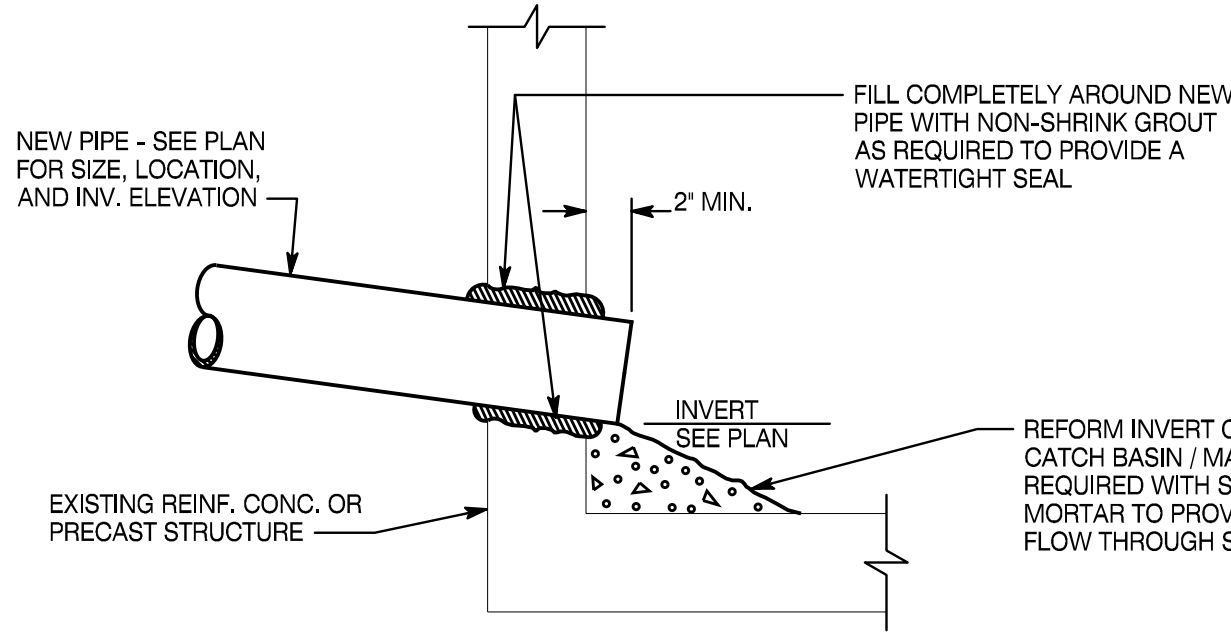
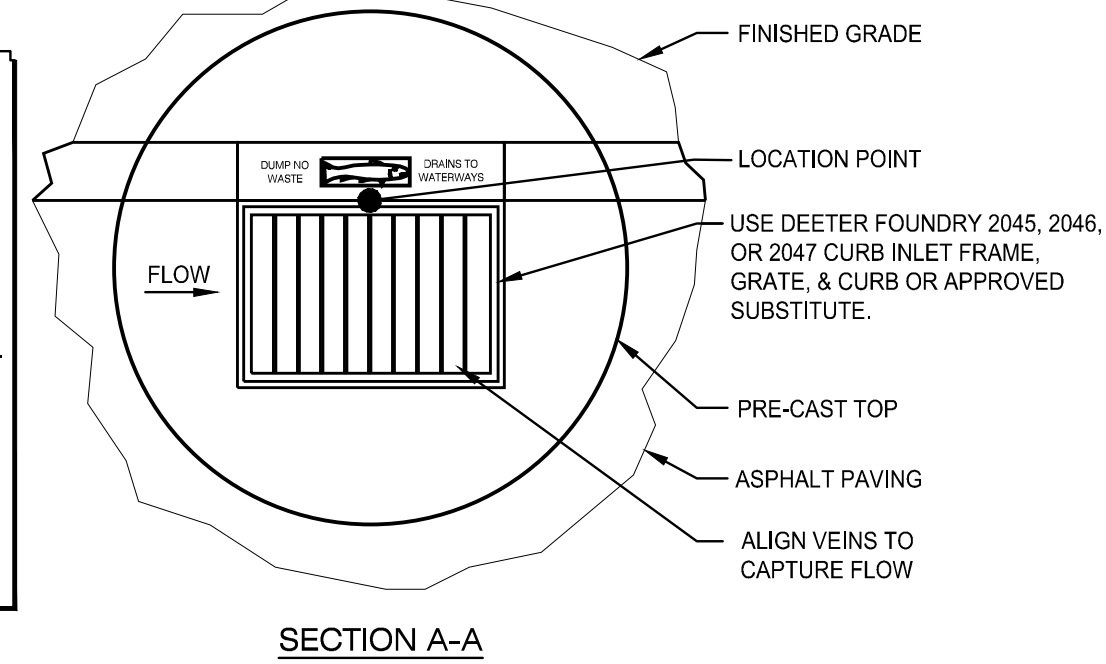


DRAINS TO WATERWAYS

ENVIRONMENTAL MESSAGE

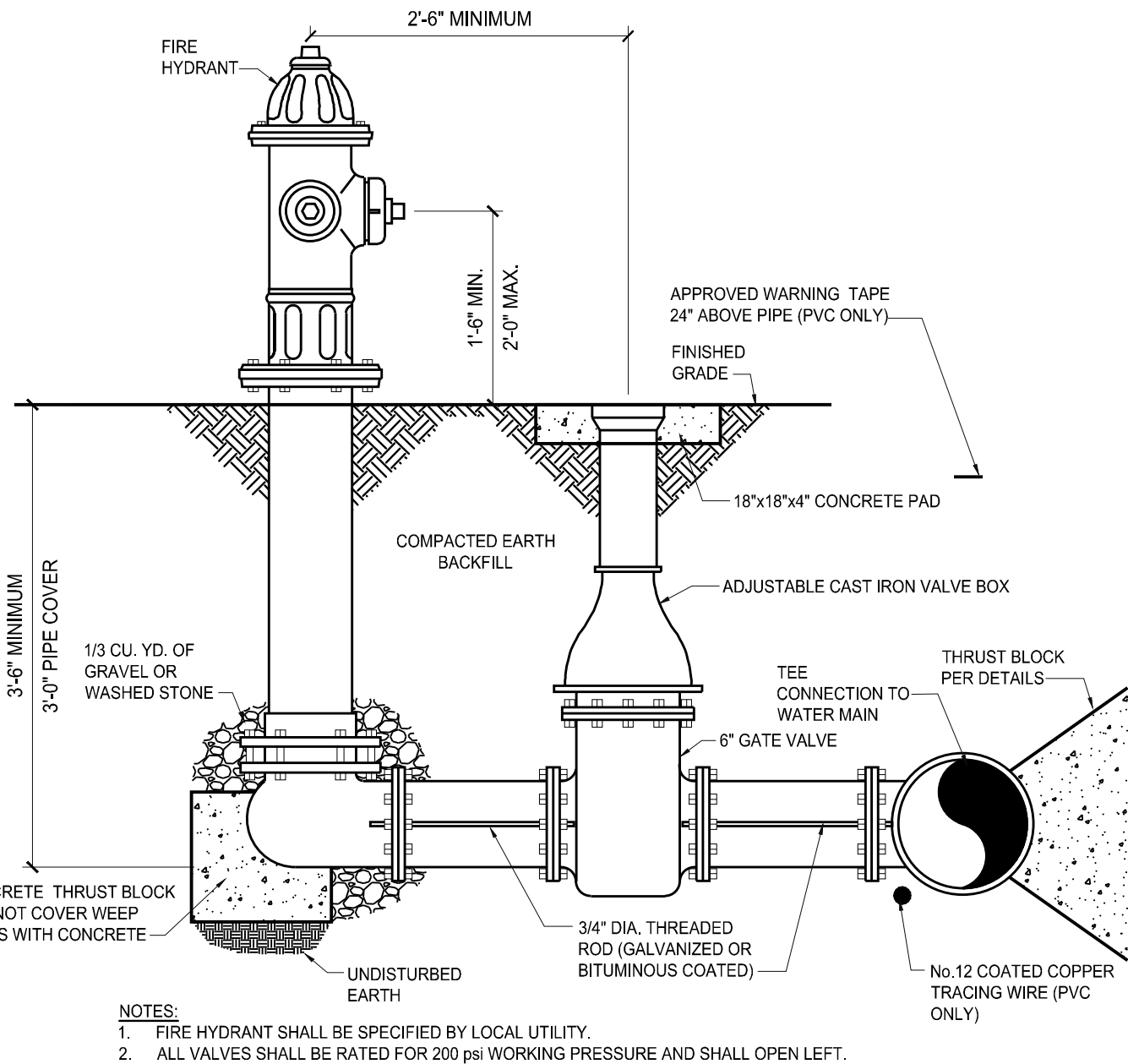
* SYMBOL SHALL BE PERMANENTLY CAST INTO GRATE

- NOTES
- PRECAST SQUARE OR ROUND CATCHBASINS ARE ACCEPTABLE. CATCHBASINS SHALL MEET T.D.O.T. REQUIREMENTS. PRECAST VENDER SELECT STRUCTURE BEST SUITED FOR PIPE CONFIGURATION AND DEPTH.
 - PROVIDE ADJUSTING RINGS OR BRICK COURSES BELOW GRATE TO ALLOW FOR FINAL ADJUSTMENT AS SHOWN.
 - SLOPE GRATE TO MATCH SLOPE.
 - KNOCK OUT HOLE IN ADJUSTING RING OR BRICK COURSE TO ALLOW SITE DRAINAGE UNTIL FINAL PAVEMENT IS COMPLETE. PATCH HOLE WITH GROUT BEFORE PAVING.
 - SEE STORM DRAINAGE PLAN FOR TYPE AND SIZING OF PIPES AND INVERT ELEVATIONS.
 - CLEAN CATCH BASIN OF ALL CONSTRUCTION DEBRIS AND SILT AT COMPLETION OF SITE WORK.
 - UNLESS OTHERWISE NOTED, PROVIDE A PRECAST T.D.O.T NO. 12 CATCH BASIN WITH TYPE B CAST IRON FRAME, GRATE AND NON-MOUNTABLE INLET.

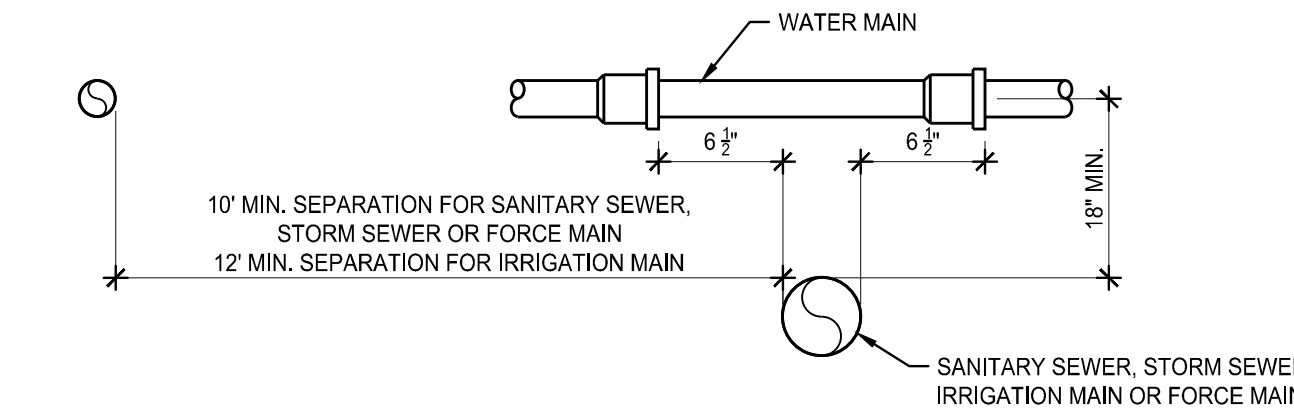


EXISTING MANHOLE CONNECTION

FIRE HYDRANT

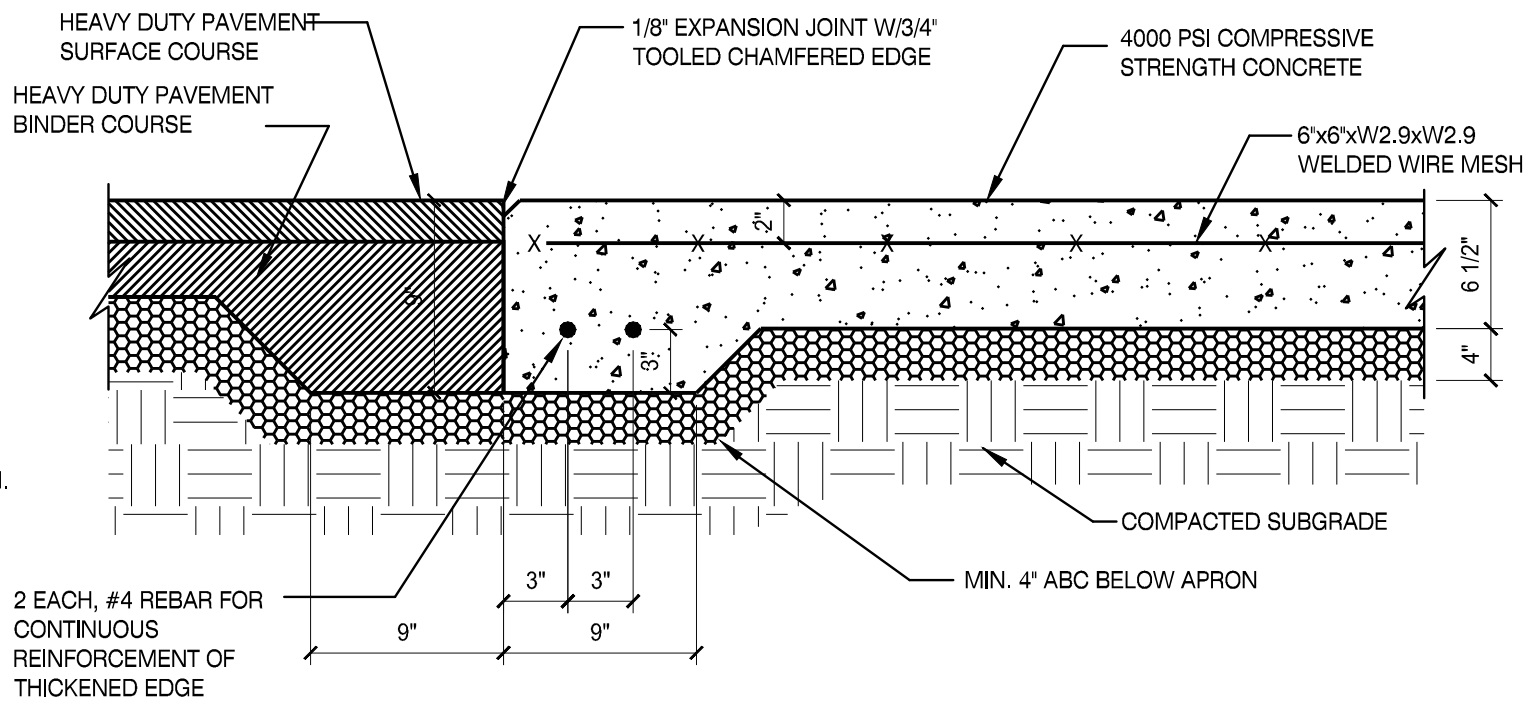


- NOTES:
- FIRE HYDRANT SHALL BE SPECIFIED BY LOCAL UTILITY.
 - ALL VALVES SHALL BE RATED FOR 200 psi WORKING PRESSURE AND SHALL OPEN LEFT.



- WATER MAINS SHALL BE SEPARATED FROM STORM SEWER, SANITARY SEWER, NON-POTABLE IRRIGATION MAINS, AND FORCE MAINS BY A MINIMUM CLEAR VERTICAL DISTANCE OF 18" MEASURED BETWEEN THE BOTTOM OF THE UPPER PIPE AND THE TOP OF THE LOWER PIPE. THE 18" MINIMUM VERTICAL SEPARATION DISTANCE DOES NOT APPLY TO SEPARATION OF SEWER LATERALS AND POTABLE WATER MAIN PIPELINE INSTALLATIONS. ALSO, WATER MAINS SHALL BE SEPARATED FROM STORM SEWER, SANITARY SEWER AND FORCE MAINS BY 10" AND FROM IRRIGATION MAINS BY 12" MEASURED HORIZONTALLY BETWEEN OUTSIDE OF PIPES.
- ALL CROSSINGS WITH VERTICAL CLEARANCE LESS THAN 18" SHALL REQUIRE SUBMISSION AND APPROVAL OF A DEVIATION. IF A DEVIATION IS SUBMITTED, THE FOLLOWING MINIMUM STIPULATIONS APPLY: THE CROSSING SHALL BE MADE USING THICKNESS CLASS 200 AWWA C-900 DR14, PVC (CLASS 235 AWWA C-905, DR 18, PVC FOR PIPES GREATER THAN 12" IN DIAMETER) OR DUCTILE IRON, PRESSURE CLASS 250 PIPE FOR A HORIZONTAL DISTANCE OF 10' ON EACH SIDE OF THE CROSSING. WATER MAIN CONCRETE ENCASEMENT SHALL ONLY BE MADE AFTER WRITTEN APPROVAL OF THE WATER DIRECTOR OR HIS DESIGNEE.
- 18" CLEAR DISTANCE SHALL NOT BE REDUCED IN CASES WHERE WATER CROSSES UNDER SEWER LINE.
- WATER MAINS, SANITARY SEWER, STORM SEWER, AND NON-POTABLE IRRIGATION MAINS SHALL BE IN SEPARATE TRENCHES.
- WATER MAINS CROSSING ANY TYPE OF SANITARY SEWER, INCLUDING FORCE MAIN, OR STORM SEWER SHALL HAVE THE ONE FULL LENGTH OF WATER MAIN CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THAT THE WATER JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST 3' FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER.
- 10" STONE SHALL BE UTILIZED FOR SEPARATION BETWEEN GRAVITY SANITARY SEWER LINES AND STORMWATER LINES.

PIPE SEPARATION



HEAVY DUTY ASPHALT & CONCRETE TRANSITION

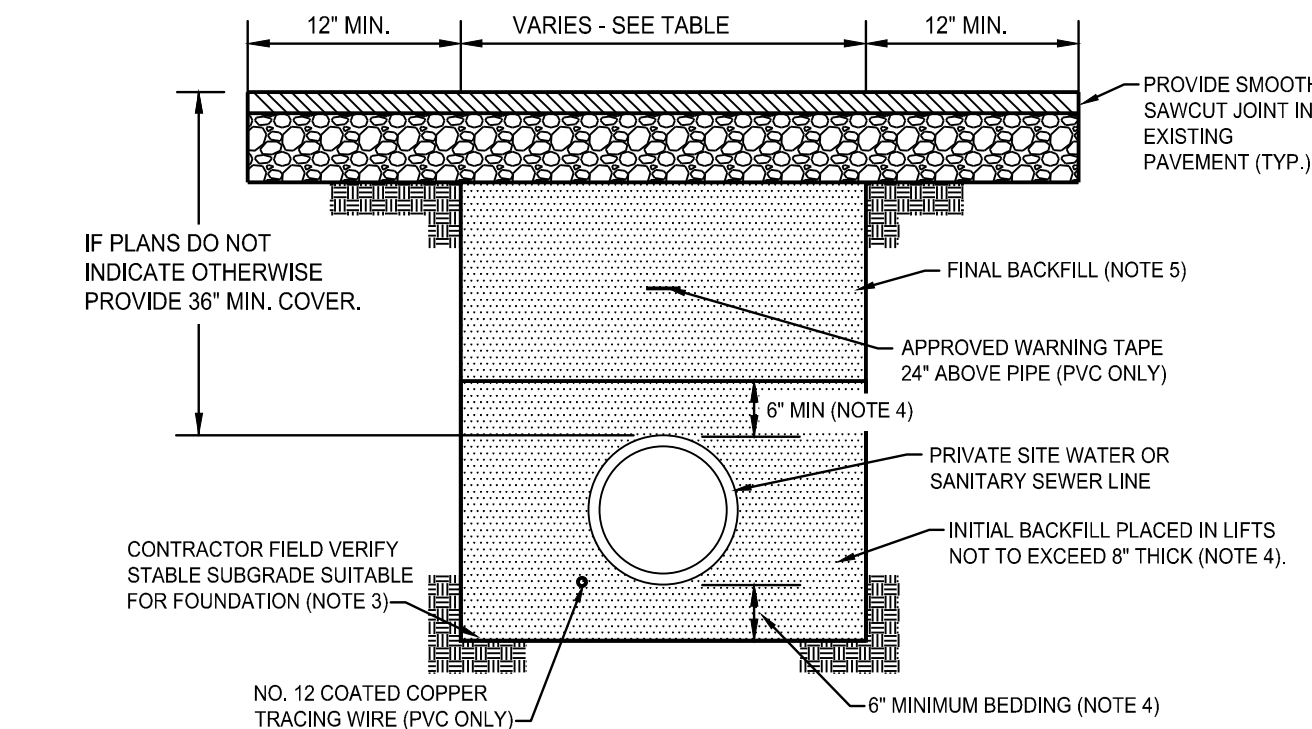
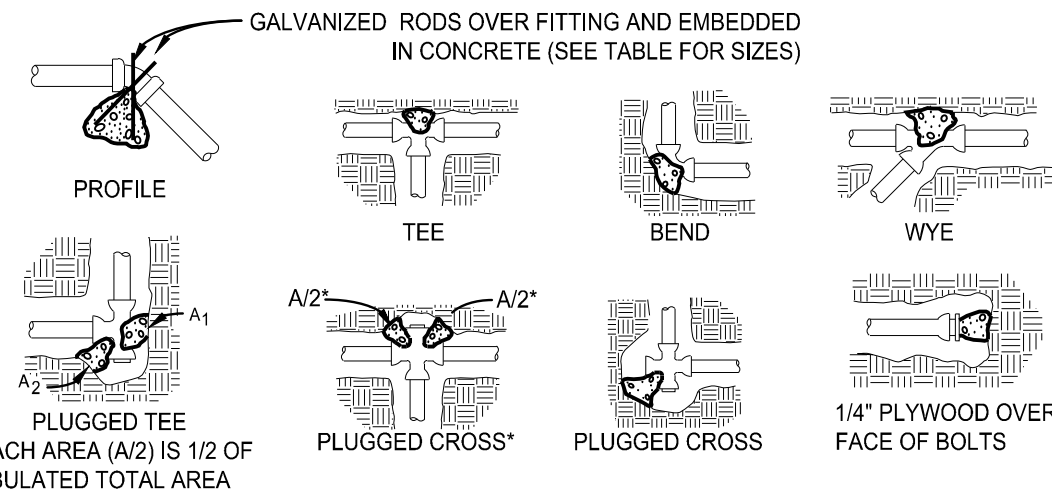
NOTES:

- KEEP CONCRETE CLEAR OF JOINT AND JOINT ACCESSORIES.
- CONCRETE THRUST BLOCKING SHALL BE POURED AGAINST UNDISTURBED EARTH.
- REQUIRED VOLUMES OR BEARING AREAS AT FITTINGS SHALL BE AS INDICATED BELOW, ADJUSTED, IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE SOIL BEARING STRESS(ES) STATED IN THE SPECIFICATIONS.
- THRUST BLOCK VOLUMES FOR VERTICAL BENDS HAVING UPWARD RESULTANT THRUSTS ARE BASED ON TEST PRESSURE OF 150 PSIG AND THE WEIGHT OF CONCRETE = 4050 LBS/CU YD. TO COMPUTE VOLUMES FOR DIFFERENT TEST PRESSURES, USE THE FOLLOWING EQUATION: VOLUME = (TEST PRESS./150) x (TABLE VALUE).
- BEARING AREAS FOR HORIZONTAL BEND THRUST BLOCKS ARE BASED ON TEST PRESSURE OF 150 PSIG AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 LBS/SQ FT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, MULTIPLY TABLE VALUES BY THE FACTOR (13.33)/(P/PS), WHERE:

 P_b = ACTUAL TEST PRESSURE, PSIG
 S_b = ACTUAL SOIL BEARING PRESSURE, PSF.

- THRUST BLOCKS FOR VERTICAL BENDS HAVING DOWNWARD RESULTANT THRUSTS SHALL BE THE SAME AS FOR HORIZONTAL BENDS.
- BEARING AREAS, VOLUMES, AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER THIS STANDARD.
- BEARING AREA OF THRUST BLOCK SHALL NOT BE LESS THAN 1.0 SQ FT.
- VERTICAL BENDS THAT REQUIRE A THRUST BLOCK VOLUME EXCEEDING 5 CUBIC YARDS REQUIRE SPECIAL BLOCKING DETAILS. SEE PLANS FOR VOLUMES SHOWN TO LEFT OF SOLID LINE IN TABLE.
- TEST PRESSURES ARE SHOWN IN THE PIPING SCHEDULE.
- ALLOWABLE SOIL BEARING STRESS IS 2000 LBS/SQ FT.

BEARING AREA OF THRUST BLOCKS IN SQ. FT. (HORIZONTAL BENDS)							VOLUME OF THRUST BLOCK IN CUBIC YARDS (VERTICAL BENDS)			
FITTING SIZE	TEE, WYE, PLUG, OR CAP	90° BEND PLUGGED CROSS	TEE PLUGGED RUN		BEND ANGLE		FITTING SIZE	BEND ANGLE		
			A 1	A 2	45°	22 1/2°		45°	22 1/2°	11 1/4°
			4	6	8	10		4	6	8
4	1.0	1.4	1.9	1.4	1.0	-	4	1.1	0.4	0.2
6	2.1	3.0	4.3	3.0	1.6	1.0	6	2.7	1.0	0.4
8	3.8	5.3	7.6	5.4	2.9	1.5	8	4.0	1.5	0.6
10	5.9	8.4	11.8	8.4	4.6	2.4	10	6.0	2.3	0.9
12	8.5	12.0	17.0	12.0	6.6	3.4	12	8.5	3.2	1.3
14	11.5	16.3	23.0	16.3	8.9	4.6	14	11.5	4.3	1.8
16	15.0	21.3	30.0	21.3	11.6	6.0	16	14.8	5.6	2.3
18	19.0	27.0	38.0	27.0	14.6	7.6	FITTING SIZE ROD SIZE EMBEDMENT 12" AND LESS #6 30" 14"-16" #8 36"			
20	23.5	33.3	47.0	33.3	18.1	9.4				
24	34.0	48.0	68.0	48.0	26.2	13.6				



WATER AND SEWER TRENCH

- NOTES:
- ALL PRIVATE SITE UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODE, LOCAL UTILITY REQUIREMENTS, AND THE LOCAL AGENCY HAVING JURISDICTION OVER BUILDING CONSTRUCTION.
 - THIS DETAIL ADDRESSES A TRENCH TYPE INSTALLATION. THIS DETAIL DOES NOT ADDRESS OSHA TRENCH SAFETY REQUIREMENTS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO MEET ALL HEALTH AND SAFETY ISSUES REGARDING TRENCH SAFETY.
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 - IF PLANS AND SPECIFICATIONS DO NOT INDICATE OTHERWISE, PAVEMENT REPAIR SHALL MATCH EXISTING SECTION AS A MINIMUM REQUIREMENT.

MINIMUM TRENCH WIDTHS	
PIPE DIA. (IN.)	MIN. WIDTH (IN.)
< 4	18
4	21
6	23
8	26

THRUST BLOCK

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ENGINEER

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