

GENERAL NOTES

- EXISTING CONDITIONS AS DEPICTED ON THESE PLANS ARE GENERAL AND ILLUSTRATIVE IN NATURE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE SITE AND BE FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BIDDING ON THIS PROJECT. IF CONDITIONS ENCOUNTERED DURING EXAMINATION ARE SIGNIFICANTLY DIFFERENT FROM THOSE SHOWN, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.
- EXISTING SITE INFORMATION / TOPOGRAPHIC SURVEY WAS PREPARED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC., DATED 03/30/2023.
- THE CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF ALL EXISTING UTILITIES (INCLUDING THOSE LABELED PER RECORD DATA) PRIOR TO THE BEGINNING OF CONSTRUCTION OR EARTH MOVING OPERATIONS. INFORM ENGINEER OF ANY CONFLICTS DETRIMENTAL TO THE DESIGN INTENT.
- 48 HOURS BEFORE DIGGING IS TO COMMENCE, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING AGENCIES: TENNESSEE 811, AND ALL OTHER AGENCIES THAT MAY HAVE UNDERGROUND UTILITIES INVOLVING THIS PROJECT.
- THE CONTRACTOR AND SUBCONTRACTORS SHALL BE RESPONSIBLE FOR COMPLYING WITH APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS, TOGETHER WITH EXERCISING PRECAUTIONS AT ALL TIMES FOR THE PROTECTION OF PERSONS (INCLUDING EMPLOYEES) AND PROPERTY. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SUBCONTRACTORS TO INITIATE, MAINTAIN AND SUPERVISE ALL SAFETY REQUIREMENTS, PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
- THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER AND OWNER'S REPRESENTATIVE FOR ANY AND ALL INJURIES AND/OR DAMAGES TO PERSONNEL, EQUIPMENT AND/OR EXISTING FACILITIES OCCURRING IN THE COURSE OF THE DEMOLITION AND CONSTRUCTION DESCRIBED IN THE PLANS AND SPECIFICATIONS.
- CONTRACTOR SHALL OBTAIN A PERMIT FOR ALL CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH LOCAL, STATE, & FEDERAL REGULATIONS.
- THE CONTRACTOR SHALL COMPLY WITH ALL LOCAL CODES, OBTAIN ALL APPLICABLE PERMITS, AND PAY ALL REQUIRED FEES PRIOR TO BEGINNING WORK.
- ANY WORK PERFORMED IN THE LOCAL RIGHT OF WAYS SHALL BE IN ACCORDANCE WITH THE APPLICABLE LOCAL REQUIREMENTS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE NECESSARY PERMITS FOR THE WORK, SCHEDULE NECESSARY INSPECTIONS, AND PROVIDE THE NECESSARY TRAFFIC CONTROL MEASURES AND DEVICES, ETC., FOR WORK PERFORMED IN THE RIGHT OF WAYS.
- THE CONTRACTOR IS TO PERFORM ALL INSPECTIONS AS REQUIRED BY THE TENNESSEE EPA FOR THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND FURNISH OWNERS REPRESENTATIVE WITH WRITTEN REPORTS. OWNER WILL OBTAIN NPDES PERMIT.
- CONTRACTOR SHALL IMPLEMENT ALL SOIL AND EROSION CONTROL, PRACTICES REQUIRED BY THE CITY OF KNOXVILLE AND THE TENNESSEE EPA.
- ALL GROUND SURFACE AREAS THAT HAVE BEEN EXPOSED OR LEFT BARE AS A RESULT OF CONSTRUCTION AND ARE TO FINAL GRADE AND ARE TO REMAIN SO, SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL IN ACCORDANCE WITH SPECIFICATIONS. IF NO SPECIFICATIONS ARE SUPPLIED, USE TDEC SPECIFICATIONS.
- ITEM NUMBERS REFER TO THE TENNESSEE DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, AND ALL CONSTRUCTION WORK SHALL BE DONE ACCORDING TO SAID SPECIFICATIONS, AND IN ACCORDANCE WITH APPLICABLE STANDARDS OF THE CITY OF KNOXVILLE. WHEN IN CONFLICT, THE CITY OF KNOXVILLE REQUIREMENTS SHALL PREVAIL.
- ALL WORK PERFORMED BY THE CONTRACTOR SHALL CONFORM TO THE LATEST REGULATIONS OF THE AMERICANS WITH DISABILITIES ACT.
- THE CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.
- BEFORE INSTALLATION OF STORM OR SANITARY SEWER, OR OTHER UTILITY, THE CONTRACTOR SHALL VERIFY ALL CROSSINGS, BY EXCAVATION WHERE NECESSARY, AND INFORM THE OWNER AND THE ENGINEER OF ANY CONFLICTS. THE ENGINEER WILL BE HELD HARMLESS IN THE EVENT HE IS NOT NOTIFIED OF DESIGN CONFLICTS PRIOR TO CONSTRUCTION.
- ADJUST/RECONSTRUCT ALL EXISTING CASTINGS, CLEANOUTS, ETC. WITHIN PROJECT AREA TO GRADE AS REQUIRED.
- CONTRACTOR TO REMOVE & REPLACE PAVEMENT AS SPECIFIED.

DEMOLITION NOTES

- ALL EXISTING ABOVE AND BELOW GROUND STRUCTURES WITHIN THE LIMITS OF CONSTRUCTION SHALL BE REMOVED UNLESS NOTED OTHERWISE WITHIN THIS CONSTRUCTION SET AND/OR PROJECT SPECIFICATIONS. THIS INCLUDES FOUNDATION SLABS, WALLS AND FOOTINGS, CAVITIES LEFT BY STRUCTURE REMOVAL SHALL BE BACKFILLED WITH SATISFACTORY MATERIALS AND COMPACTED TO THE GEOTECHNICAL ENGINEER'S RECOMMENDATION.
- CLEARING LIMITS SHALL BE PHYSICALLY MARKED IN THE FIELD BY THE CONTRACTOR.
- NO TREES SHALL BE REMOVED, NOR VEGETATION DISTURBED BEYOND THE LIMITS OF CONSTRUCTION WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE OWNER'S REPRESENTATIVE.
- TREE PROTECTION FENCING SHALL BE IN ACCORDANCE WITH THE CITY OF KNOXVILLE STANDARDS - OR - IN ACCORDANCE WITH THE DETAILED DRAWINGS. DO NOT OPERATE OR STORE EQUIPMENT, NOR HANDLE OR STORE MATERIALS WITHIN THE DRIP LINES OF THE TREES SHOWN TO REMAIN.
- PROTECTION OF EXISTING TREES AND VEGETATION: PROTECT EXISTING TREES AND OTHER VEGETATION INDICATED TO REMAIN IN PLACE AGAINST UNNECESSARY CUTTING, BREAKING OR SKINNING OF ROOTS, SKINNING OR BRUISING OF BARK, SMOTHERING OF TREES BY STOCKPILING CONSTRUCTION MATERIALS OR EXCAVATED MATERIALS WITHIN DRIP LINE, EXCESS FOOT OR VEHICULAR TRAFFIC, OR PARKING OF VEHICLES WITHIN DRIP LINE. PROVIDE TEMPORARY GUARDS TO PROTECT TREES AND VEGETATION TO BE LEFT STANDING.
- ALL DEMOLITION WASTE AND CONSTRUCTION DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE DESIGNATED AND SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF OFFSITE IN A STATE APPROVED WASTE SITE AND IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. REPAIR DAMAGE ACCORDING TO THE APPROPRIATE UTILITY COMPANY STANDARDS AND AT THE CONTRACTOR'S EXPENSE.
- ALL UTILITY DISCONNECTION, REMOVAL, RELOCATION, CUTTING, CAPPING AND/OR ABANDONMENT SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY / AGENCY. UTILITY CONTACTS ARE LISTED ON THE COVER SHEET.
- THE BURNING OF CLEARED MATERIAL AND DEBRIS SHALL NOT BE ALLOWED UNLESS CONTRACTOR OBTAINS PRIOR WRITTEN AUTHORIZATION FROM THE LOCAL AUTHORITIES.
- EROSION & SEDIMENT CONTROL MEASURES AROUND AREAS OF DEMOLITION SHALL BE PROPERLY INSTALLED AND FUNCTION PROPERLY PRIOR TO INITIALIZATION OF DEMOLITION ACTIVITIES.
- ASBESTOS OR HAZARDOUS MATERIALS ARE NOT EXPECTED, IF FOUND ON SITE, SUCH MATERIALS SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIALS CONTRACTOR. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY IF HAZARDOUS MATERIALS ARE ENCOUNTERED.
- CONTRACTOR SHALL ADHERE TO ALL LOCAL, STATE, FEDERAL AND OSHA REGULATIONS DURING ALL DEMOLITION ACTIVITIES.
- CONTRACTOR SHALL PROTECT ALL CORNER PINS, MONUMENTS, PROPERTY CORNERS AND BENCHMARKS DURING DEMOLITION ACTIVITIES. IF DISTURBED, CONTRACTOR SHALL HAVE DISTURBED ITEMS RESET BY A LICENSED SURVEYOR AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES, STRUCTURES, AND FEATURES TO REMAIN. ANY ITEMS TO REMAIN THAT HAVE BEEN DISTURBED OR DAMAGED AS A RESULT OF CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL PROVIDE AND MAINTAIN TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH STATE DEPARTMENT OF TRANSPORTATION REGULATIONS AND AS REQUIRED BY LOCAL AGENCIES WHEN WORKING IN AND/OR ALONG STREETS, ROADS, HIGHWAYS, ETC. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN APPROVAL AND COORDINATE WITH LOCAL AND/OR STATE AGENCIES REGARDING THE NEED, EXTENT AND LIMITATIONS ASSOCIATED WITH INSTALLING AND MAINTAINING TRAFFIC CONTROL MEASURES.
- PROVIDE NEAT, STRAIGHT, FULL DEPTH, SAW CUTS OF EXISTING PAVEMENT WHERE INDICATED ALONG LIMITS OF PAVEMENT DEMOLITION.
- ALL UTILITY AND STRUCTURE REMOVAL, RELOCATION, CUTTING, CAPPING AND/OR ABANDONMENT SHALL BE COORDINATED AND PROPERLY DOCUMENTED BY A CERTIFIED PROFESSIONAL, WHEN APPLICABLE, WITH THE APPROPRIATE UTILITY COMPANY, MUNICIPALITY AND/OR AGENCY. DEMOLITION OF REGULATED ITEMS MAY INCLUDE, BUT ARE NOT LIMITED TO WELLS, ASBESTOS, UNDER GROUND STORAGE TANKS, SEPTIC TANKS AND ELECTRIC TRANSFORMERS. DEMOLITION CONTRACTOR SHALL REFER TO ANY ENVIRONMENTAL STUDIES FOR DEMOLITION RECOMMENDATIONS AND GUIDANCE. AVAILABLE ENVIRONMENTAL STUDIES MAY INCLUDE, BUT ARE NOT LIMITED TO PHASE I ESA, PHASE II, WETLAND AND STREAM DELINEATION AND ASBESTOS SURVEY. ALL APPLICABLE ENVIRONMENTAL STUDIES SHALL BE MADE AVAILABLE UPON REQUEST.
- ALL PAVEMENT, BASE COURSES, SIDEWALKS, CURBS, BUILDINGS, FOUNDATIONS, ETC., WITHIN THE AREA TO BE DEMOLISHED SHALL BE REMOVED TO FULL DEPTH. EXISTING BASE COURSE MATERIALS MAY BE WORKED INTO THE NEW PAVEMENT OR BUILDING SUBGRADE IF THE GRADATION, CONSISTENCY, COMPACTION, SUBGRADE CONDITION, ETC., ARE IN ACCORDANCE WITH THE SPECIFICATIONS AND RECOMMENDATIONS OF THE REPORT OF GEOTECHNICAL INVESTIGATION. BASE COURSE MATERIALS SHALL NOT BE WORKED INTO THE SUBGRADE AREAS TO RECEIVE LANDSCAPING.
- THE CONTRACTOR SHALL USE SUITABLE METHODS TO CONTROL DUST AND DIRT CAUSED BY THE DEMOLITION ACTIVITIES.

GRADING NOTES

- ALL PROPOSED GRADES SHOWN ARE FINAL GRADES, TOP OF GROUND LEVEL OR TOP OF PAVEMENT, OR GRATE ELEVATION AT THE DRAWDOWN POINT, UNLESS INDICATED OTHERWISE.
- REFER TO AND FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT BY GEOSERVICES, LLC, TITLED REPORT OF GEOTECHNICAL INVESTIGATION FOR THE WESTERN HEIGHTS PHASE I INFRASTRUCTURE PROJECT, 1800 VERMONT AVENUE MULTI-FAMILY DEVELOPMENT AND DATED APRIL 18, 2023. THE CONTRACTOR SHALL ENGAGE A GEOTECHNICAL ENGINEER TO MONITOR EARTHWORK ACTIVITIES AND ADHERE TO THEIR RECOMMENDATIONS DURING CONSTRUCTION.
- ALL ELEVATIONS SHOWN ARE FINISHED GRADE ELEVATIONS.
- CONTRACTOR SHALL STRICTLY ADHERE TO THE EROSION & SEDIMENT CONTROL PLAN PREPARED FOR THIS PROJECT.
- EARTHWORK SHALL INCLUDE CLEARING AND GRUBBING, STRIPPING AND STOCKPILING TOPSOIL, MASS GRADING, EXCAVATION, FILLING, UNDER CUT AND REPLACEMENT, IF REQUIRED, AND COMPACTION.
- CONTRACTOR TO REFILL UNDERCUT AREAS WITH SUITABLE MATERIAL AND COMPACT AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
- PLACE TOPSOIL OVER THE SUBGRADE OF UNPAVED, DISTURBED AREAS TO A DEPTH INDICATED ON THE LANDSCAPE PLANS (6" MINIMUM).
- PAVEMENT SLOPES ACROSS ACCESSIBLE PARKING STALLS AND ADJOINING ACCESS AISLES SHALL BE MAXIMUM 2% AND SHALL CONFORM TO THE LATEST REGULATIONS OF THE AMERICANS WITH DISABILITIES ACT.
- ALL SLOPES IN NON-PAVED AREAS SHALL BE 2:1 (HORIZONTAL/VERTICAL) MAXIMUM UNLESS NOTED OTHERWISE.
- ALL AREAS NOT PAVED SHALL BE STABILIZED IN ACCORDANCE WITH THE EROSION & SEDIMENT CONTROL PLAN, UNLESS NOTED OTHERWISE.
- COMPACTED FILLS ARE TO BE MADE TO A MINIMUM OF THREE FEET ABOVE THE CROWN OF ANY PROPOSED SEWER PRIOR TO CUTTING OF TRENCHES FOR PLACEMENT OF SAID SEWERS. ALL FILLS SHALL BE CONTROLLED, COMPACTED, AND INSPECTED BY AN APPROVED TESTING LABORATORY OR AN INSPECTOR FROM THE APPROPRIATE GOVERNMENTAL AGENCY.
- ALL EXCESS SOIL MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR UNLESS OTHERWISE DESIGNATED. SHALL BE REMOVED BY THE CONTRACTOR AND DISPOSED OF OFFSITE AT NO ADDITIONAL COST TO THE OWNER IN ACCORDANCE WITH ALL LOCAL AND STATE CODES AND PERMIT REQUIREMENTS.
- THE CONTRACTOR IS RESPONSIBLE FOR BALANCING THE SITE EARTHWORK BY IMPORTING OR EXPORTING AS NECESSARY TO ACHIEVE DESIGN GRADES AND SPECIFICATIONS.
- TOPSOIL VOLUMES ESTIMATED AS PART OF THIS PROJECT ASSUME THAT A MINIMUM OF 12 INCHES OF SOIL AND TOPSOIL WILL BE STRIPPED FROM THE SITE. THE ACTUAL VOLUME WILL BE BASED ON EQUIPMENT USED AND THE CONTRACTOR'S MEANS AND METHODS. CEC AND THE OWNER ARE NOT RESPONSIBLE FOR THE CONTRACTOR'S INTERPRETATION OF TOPSOIL THICKNESS AND RESULTING INCREASED VOLUMES. NO ADDITIONAL COSTS WILL BE PAID TO THE CONTRACTOR FOR AN INCREASE IN THE VOLUME OF TOPSOIL STRIPPED AND STOCKPILED.

STORM DRAINAGE NOTES

- DISTANCES SHOWN ON PIPING ARE HORIZONTAL DISTANCES FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE INSTALLATION, INSPECTION, TESTING AND FINAL ACCEPTANCE OF ALL NEW STORMWATER MANAGEMENT FACILITIES CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH ALL APPLICABLE REGULATING AGENCIES CONCERNING INSTALLATION, INSPECTION AND APPROVAL OF THE STORM DRAINAGE SYSTEM CONSTRUCTION.
- ALL STORMWATER MANAGEMENT FACILITIES, INCLUDING COLLECTION AND CONVEYANCE STRUCTURES SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES AND REGULATIONS.
- ALL PROPOSED STORM SEWERS, SURFACE OR OTHER DRAINAGE FACILITIES ARE TO BE PRIVATE AND MAINTAINED BY THE OWNER.
- ALL STORM STRUCTURES ARE TENNESSEE DOT TYPES UNLESS OTHERWISE INDICATED.
- ALL CATCH BASINS AND MANHOLES WITH A DEPTH GREATER THAN 4' SHALL BE PROVIDED WITH STEPS. STEPS SHALL MEET THE REQUIREMENTS OF TDOT SPECIFICATIONS.
- STORM PIPE MATERIAL OPTIONS ARE AS INDICATED IN THE DRAINAGE PLAN.
- FOR CONSTRUCTION DETAILS SEE C800 SHEETS.
- ALL PIPES UNDER PAVEMENT SHALL BE BACKFILLED TO TOP OF SUBGRADE WITH CRUSHED STONE.
- STONE BEDDING AND BACKFILL SHALL BE DONE IN STRICT COMPLIANCE WITH MANUFACTURER'S RECOMMENDATIONS.

EROSION AND SEDIMENT CONTROL NOTES

- A SPECIFIC INDIVIDUAL SHALL BE DESIGNATED TO BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROLS ON PROJECT SITE. THIS INDIVIDUAL MUST HAVE COMPLETED THE "FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL" COURSE OR AN EQUIVALENT COURSE.
- REFER TO THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK FOR DESIGN CRITERIA AND GUIDELINES FOR EROSION CONTROL MEASURES.
- CLEARING AND GRUBBING MUST BE HELD TO THE MINIMUM NECESSARY FOR GRADING AND EQUIPMENT OPERATION.
- CONSTRUCTION MUST BE SEQUENCED TO MINIMIZE THE EXPOSURE TIME OF CLEARED SURFACE AREA.
- CONSTRUCTION STAGING AND PHASING IS CRITICAL TO REDUCING SEDIMENT RUNOFF FROM SITE.
- EROSION CONTROL MEASURES MUST BE IN PLACE AND FUNCTIONAL BEFORE EARTH MOVING OPERATIONS BEGIN, AND MUST BE PROPERLY CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
- ALL EROSION CONTROL MEASURES SHALL BE CHECKED TWICE WEEKLY AND AFTER EACH RAINFALL. CHECK DAILY DURING PROLONGED RAINFALL.
- CONSTRUCTION DEBRIS MUST BE KEPT FROM ENTERING THE STORM MANAGEMENT SYSTEM.
- STOCKPILED SOIL SHALL BE PROTECTED AND LOCATED FAR ENOUGH FROM STREAMS AND DRAINAGEWAYS SO THAT RUNOFF CANNOT CARRY SEDIMENT DOWNSTREAM.
- VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED MORE THAN 10 CALENDAR DAYS PRIOR TO GRADING.
- TEMPORARY SOIL STABILIZATION WITH APPROPRIATE ANNUAL VEGETATION IS REQUIRED WHEN GRADING OPERATIONS ARE TEMPORARILY HALTED FOR OVER 14 DAYS AND ON SOIL STOCKPILES.
- PERMANENT SOIL STABILIZATION WITH PERENNIAL VEGETATION IS REQUIRED WHEN GRADING OPERATIONS ARE COMPLETE AND/OR CONSTRUCTION OPERATIONS WILL NOT IMPACT THE DISTURBED AREA. CONTRACTOR SHALL INSPECT THE SITE PERIODICALLY TO REPAIR AND RE-ESTABLISH VEGETATION TO DAMAGED AREAS.
- STAKED AND ENTRENCHED SILT FENCE MUST BE INSTALLED ALONG THE BASE OF ALL FILLS AND CUTS, ON THE DOWNHILL SIDES OF STOCKPILED SOIL, AND ALONG STREAM BANKS IN CLEARED AREAS TO PREVENT EROSION INTO STREAMS. SILT FENCE MAY BE REMOVED AT THE BEGINNING OF THE WORK DAY, BUT MUST BE REPLACED AT THE END OF THE WORK DAY OR PRIOR TO FORECASTING RAIN EVENTS.
- WHERE APPROPRIATE, SURFACE WATER FLOWING TOWARD CONSTRUCTION AREA SHALL BE DIVERTED AROUND THE CONSTRUCTION AREA USING DIKES, TO REDUCE EROSION POTENTIAL.
- ALL ROCK SHALL BE CLEAN, HARD ROCK CONTAINING NO SAND, DUST, OR ORGANIC MATERIAL.
- CONTRACTOR SHALL MAINTAIN SILT FENCES AND OTHER EROSION CONTROL DEVICES FOR THE DURATION OF THE PROJECT, TO ENSURE EFFECTIVENESS, UNTIL ACCEPTED BY THE OWNER. AT NO ADDITIONAL EXPENSE TO THE OWNER, IF CONSTRUCTION ACTIVITIES CEASE DUE TO WEATHER RELATED CAUSES, THEN THE CONTRACTOR WILL ENSURE THAT THE SITE IS PROPERLY STABILIZED AND ALL EROSION CONTROL DEVICES ARE MAINTAINED AND FUNCTIONAL DURING THOSE PERIODS OF INACTIVITY.
- CONSTRUCTION EXIT - CONTRACTOR SHALL INSTALL TEMPORARY CONSTRUCTION EXIT PRIOR TO ANY EARTHWORK OPERATIONS. CONSTRUCTION EXIT SHALL BE LOCATED AS SHOWN. CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD TO PUBLIC RIGHTS-OF-WAYS. ALL MATERIAL SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES OR SITE ONTO ADJACENT ROADWAYS SHALL BE REMOVED IMMEDIATELY FROM THE ROADWAY.
- CONTRACTOR IS RESPONSIBLE FOR CLEANING OUT AND PROPER DISPOSAL OF ALL DEBRIS WITHIN THE STORM DRAINAGE STRUCTURES, INCLUDING SILT FROM FLUMES, PIPES, ECT., PRIOR TO COMPLETION OF THE PROJECT.
- MEASURES SHOWN FOR SEDIMENT AND EROSION CONTROL REPRESENT THE MINIMUM ANTICIPATED. ADDITIONAL PROTECTION SHALL BE PROVIDED AS NECESSARY THAT WILL PREVENT SEDIMENT FROM LEAVING THE SITE DUE TO UNFORESEEN CONDITIONS OR ACCIDENTS.
- THE GRADING CONTRACTOR AND BUILDING CONTRACTOR WILL REFRAIN FROM DOING ANY WORK OUTSIDE OF THE DELINEATED LIMITS OF DISTURBANCE.
- ROADS SHALL BE STABILIZED BY APPLYING STONE ONCE SUBGRADE ELEVATION IS ACHIEVED.
- ALL SILT FENCE IS TO BE TYPE A EXCEPT WHERE SPECIFIED DIFFERENTLY.
- EROSION CONTROL MATTING TO BE JUTE MESH(OR APPROVED EQUAL) AND INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

REVISION RECORD

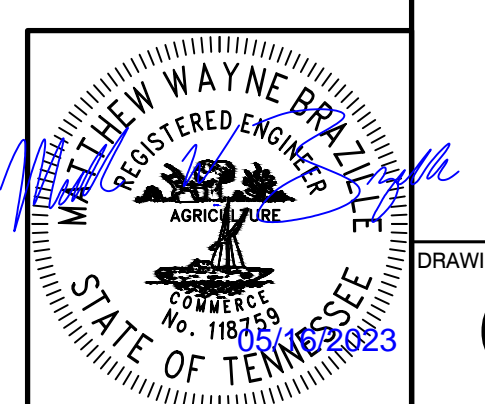
NO. DATE DESCRIPTION

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 Ph: 865.977.9997 - Fax: 865.977.9919
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KNOXVILLE COMMUNITY DEVELOPMENT CORPORATION (KDCD)
WESTERN HEIGHTS PHASE I INFRASTRUCTURE
 1800 VERMONT AVE
 KNOXVILLE TN, 37921

GENERAL NOTES

DATE: APRIL 2023 DRAWN BY: LBP, JRB
 DWG SCALE: AS SHOWN CHECKED BY: MWB
 PROJECT NO: 395-023
 APPROVED BY: GHP



DRAWING NO. **C001**



LEGEND

	EXISTING PROPERTY LINE
	EXISTING EASEMENT
	EXISTING RIGHT-OF-WAY
	EXISTING INDEX (MAJOR) CONTOUR
	EXISTING INTERMEDIATE (MINOR) CONTOUR
	EXISTING FENCE LINE
	EXISTING ROADWAY CENTERLINE
	EXISTING CURB
	EXISTING EDGE OF PAVEMENT
	EXISTING ASPHALT PAVEMENT
	EXISTING STORM PIPE
	EXISTING WATER LINE
	EXISTING SANITARY SEWER LINE
	EXISTING GAS LINE
	EXISTING OVERHEAD ELECTRIC LINE
	EXISTING OVERHEAD WIRE
	EXISTING WATER LINE
	EXISTING STORM STRUCTURE
	EXISTING LIGHT POLE
	EXISTING POWER POLE
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY CLEANOUT
	EXISTING WATER METER
	EXISTING FIRE HYDRANT
	EXISTING WATER BOX
	PAVEMENT TO BE REMOVED FULL DEPTH
	STRUCTURE TO BE REMOVED
	LINEAR OBJECT TO BE REMOVED
	OBJECT TO BE REMOVED

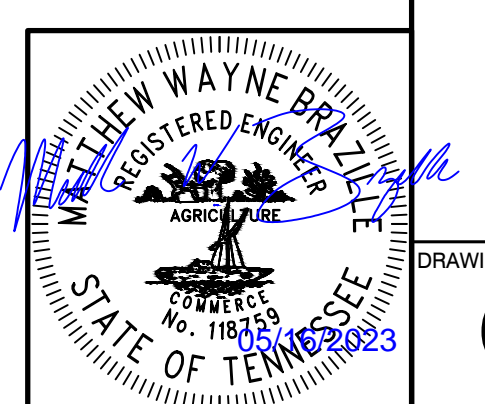
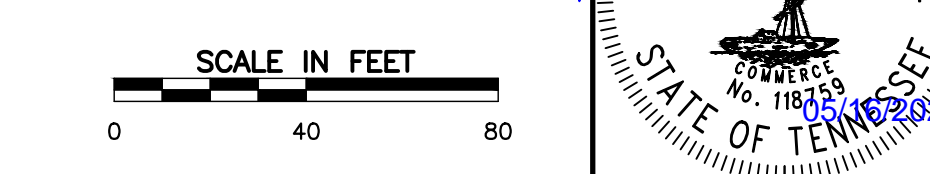
PROPERTY INFORMATION

ZONING:	RN-4 (GENERAL RESIDENTIAL NEIGHBORHOOD ZONING DISTRICT)
DISTRICT:	6
WARD:	20
BLOCK NUMBER(S):	20062, 20042
CONTROL MAP:	94
PARCEL:	1, 12
PARCEL ID:	0948B001, 0944E012

PROPERTY NOTES

TOTAL LOT AREA:	7.851 ACRES
MAXIMUM IMPERVIOUS COVERAGE :	60%

- NOTES**
- EXISTING PROPERTY DATA IS A TOPOGRAPHIC SURVEY COMPLETED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC. DATED 03/20/2023. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL GRADES IN THE FIELD PRIOR TO THE START OF CONSTRUCTION AND NOTIFYING THE ENGINEER OF ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THESE PLANS.
 - SEE SHEET C001 FOR GENERAL NOTES
 - THE PROPERTY DESCRIBED ON THIS SURVEY IS WITHIN ZONE X OF THE FLOOD INSURANCE RATE MAP IDENTIFIED IN COMMUNITY PANEL NO 4709302276 BEARING AN EFFECTIVE DATE OF 6/5/2013.
 - CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THE PROJECT.
 - LOCATIONS FOR UNDERGROUND GAS & WATER ARE APPROXIMATE AND BASED ON KUB GIS MAPS PROVIDED.
 - ABANDONMENT OF EXISTING UTILITY LINES:
 - CUT ALL PIPES ON THE OUTSIDE OF THE MANHOLE, AND PLUG WITH BRICK AND MORTAR.
 - BRICK AND MORTAR ALL PIPE OPENINGS INSIDE THE MANHOLE INCLUDING DROP CONNECTIONS AND LATERALS.
 - REMOVE THE MANHOLE RING, LID, AND GRADE RINGS. DISPOSAL OF ALL MANHOLE MATERIALS SHALL BE AT THE DISCRETION OF THE OWNER. PRECAST CONES AND RISERS SHALL ALSO BE REMOVED IF THEY ARE EXPOSED.
 - MANHOLES SHALL BE FILL WITH BACKFILL MATERIAL AS SPECIFIED IN SECTION 02321, UNCLASSIFIED EXCAVATION AND BACKFILLING FOR UTILITIES.
 - PIPES TO BE ABANDONED THAT ENTER AN EXISTING MANHOLE TO REMAIN SHALL BE CUT ON THE OUTSIDE OF THE MANHOLE AND THE INLETS SHALL BE PLUGGED WITH BRICK AND MORTAR TO ENSURE A WATERTIGHT STRUCTURE.
 - ABANDONED PIPE 12 INCHES AND LARGER SHALL BE FILLED WITH FLOWABLE FILL IF NOT COMPLETELY REMOVED FROM THE GROUND.
 - ABANDONED PIPE UNDERNEATH EXISTING/PROPOSED BUILDINGS SHALL BE FILLED WITH FLOWABLE FILL IF NOT COMPLETELY REMOVED FROM THE GROUND.
 - CONTRACTOR MUST OBTAIN A TRAFFIC CONTROL PERMIT FROM THE CITY OF KNOXVILLE DIVISION OF TRAFFIC ENGINEERING (865-216-6136) PRIOR TO THE START OF ANY SITE WORK.
 - ABANDONMENT AND/OR REMOVAL OF ALL STORMWATER INFRASTRUCTURE SHALL COMPLY WITH THE CITY OF KNOXVILLE'S ABANDONMENT GUIDELINES.
 - CONTRACTOR SHALL CONTACT THE CITY OF KNOXVILLE DEPARTMENT OF ENGINEERING AT 865-215-2148 PRIOR TO REMOVING OR ABANDONING ANY STORMWATER PIPES.
 - ALL STORMWATER PIPES AND STRUCTURES SHALL BE COMPLETELY REMOVED UNLESS INDICATED OTHERWISE ON THE PLANS.
 - ANY STORMWATER STRUCTURES TO REMAIN IN PLACE THAT WERE TIED TO A REMOVED PIPE MUST BE REPAIRED PER CITY OF KNOXVILLE OR TROT STANDARDS. A FORMAL INSPECTION BY CITY OF KNOXVILLE ENGINEERING STAFF OR A THIRD PARTY PROFESSIONAL ENGINEER OF THE REPAIR IS REQUIRED BEFORE BACKFILLING THE AREA.



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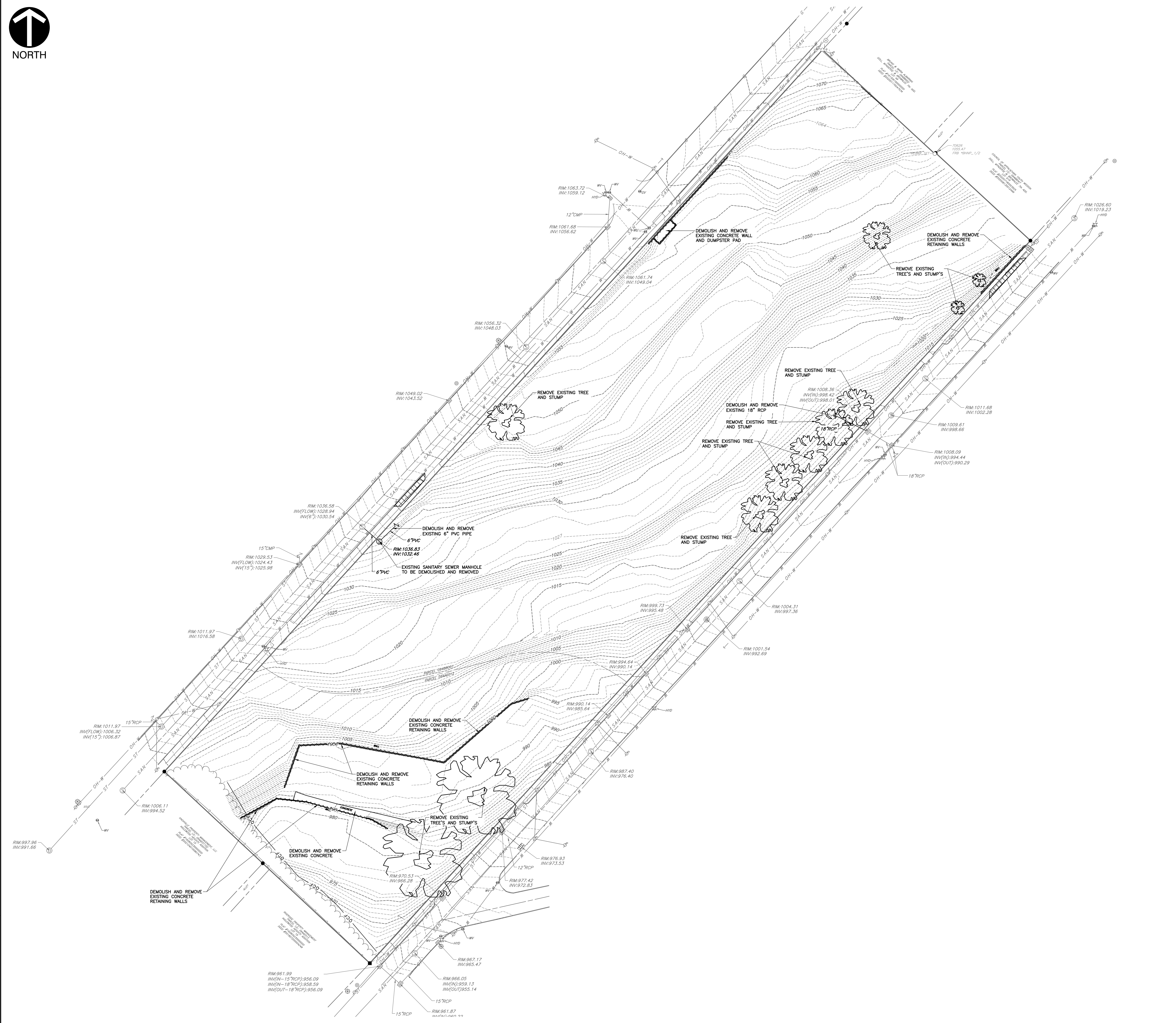
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WESTERN HEIGHTS PHASE I INFRASTRUCTURE
 1800 VERMONT AVE
 KNOXVILLE TN, 37921

EXISTING CONDITIONS AND DEMOLITION PLAN

DATE:	APRIL 2023	DRAWN BY:	LBP, JRB	PROJECT NO.:	395-022
DWG SCALE:	AS SHOWN	CHECKED BY:	MWB	APPROVED BY:	GHP
DRAWING NO. C100					



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LEGEND	
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	EXISTING EDGE OF PAVEMENT
	EXISTING ASPHALT PAVEMENT
	EXISTING STORM PIPE
	EXISTING WATER LINE
	EXISTING SANITARY SEWER LINE
	EXISTING GAS LINE
	EXISTING OVERHEAD ELECTRIC LINE
	EXISTING OVERHEAD WIRE
	EXISTING SANITARY SEWER LINE
	EXISTING WATER LINE
	EXISTING STORM STRUCTURE
	EXISTING LIGHT POLE
	EXISTING POWER POLE
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY CLEANOUT
	EXISTING WATER METER
	EXISTING FIRE HYDRANT
	EXISTING WATER BOX
	PROPOSED INDEX (MAJOR) CONTOUR
	PROPOSED INTERMEDIATE (MINOR) CONTOUR
	PROPOSED STORM PIPE
	PROPOSED CURB INLET
	PROPOSED STORM MANHOLE
	PROPOSED LIMITS OF DETENTION POND
	PROPOSED FLOW PATTERN

SHEET KEY

DESCRIPTION	DETAIL
(A) CURB INLET	401 C800
(B) STORM MANHOLE	402 C800
(C) PIPE TRENCH BEDDING & BACKFILL	403 C800
(D) CONCRETE HEADWALL	404 C800
(E) RIP RAP APRON	405 C800
(F) DETENTION BASIN FOREBAY POOL	406 C800
(G) FOREBAY ROCK DAM	407 C800
(H) ANTI-SEEP COLLAR	408 C800

PROPERTY INFORMATION

ZONING:	RM-4 (GENERAL RESIDENTIAL NEIGHBORHOOD ZONING DISTRICT)
DISTRICT:	6
WARD:	20
BLOCK NUMBER(S):	20062, 20042
CONTROL MAP:	94
PARCEL:	1, 12
PARCEL ID:	094BB001, 094AE012

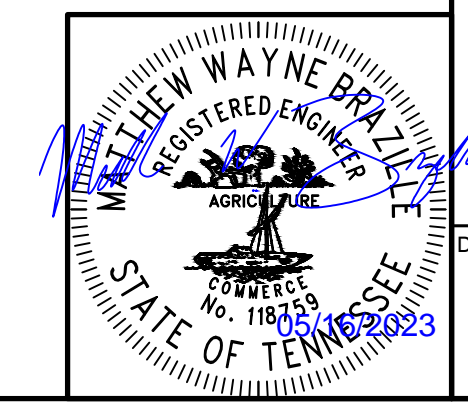
PROPERTY NOTES

TOTAL LOT AREA: 7.851 ACRES
 MAXIMUM IMPERVIOUS COVERAGE: 60%

NOTES

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SCALE IN FEET
 0 40 80



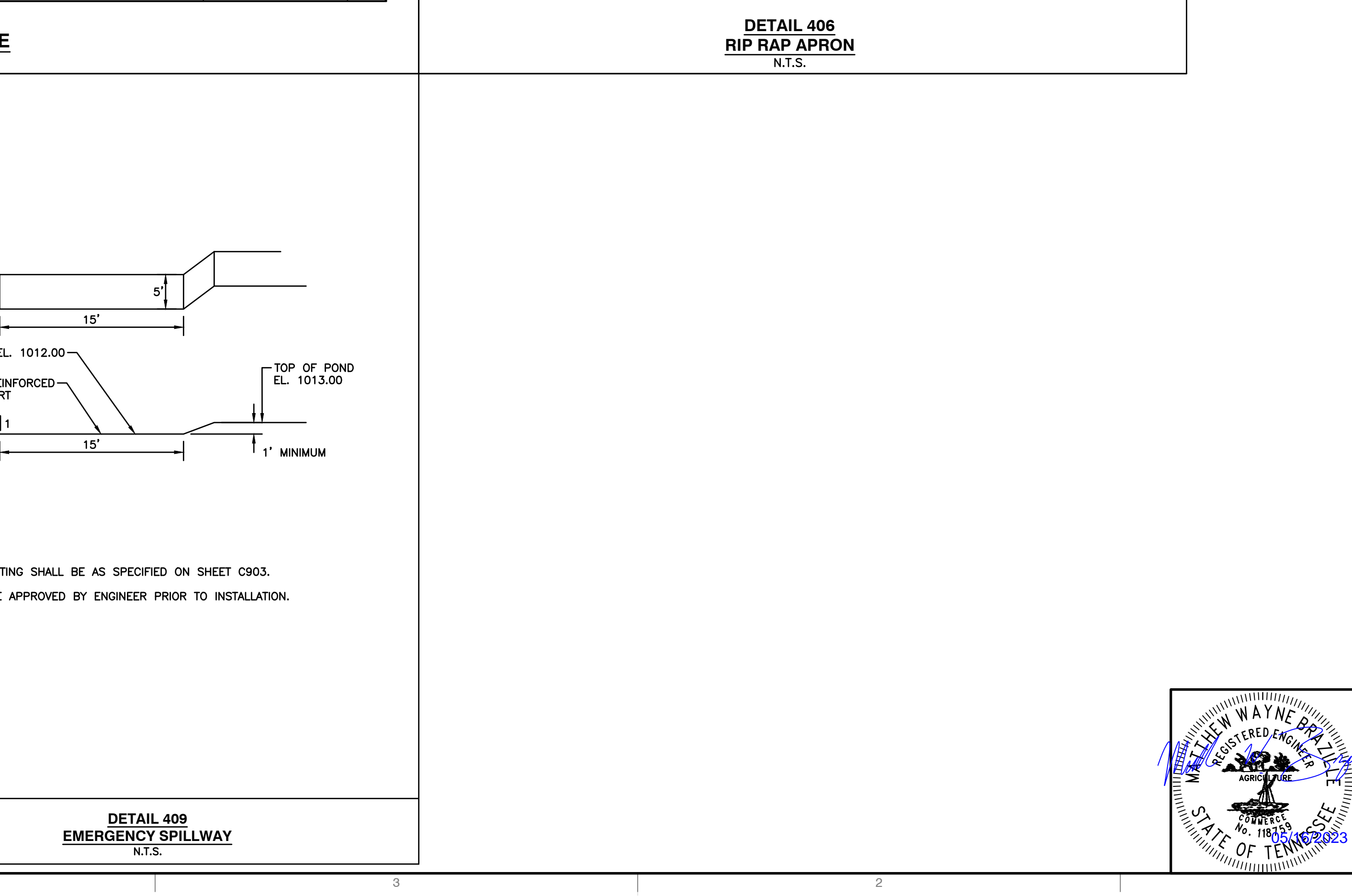
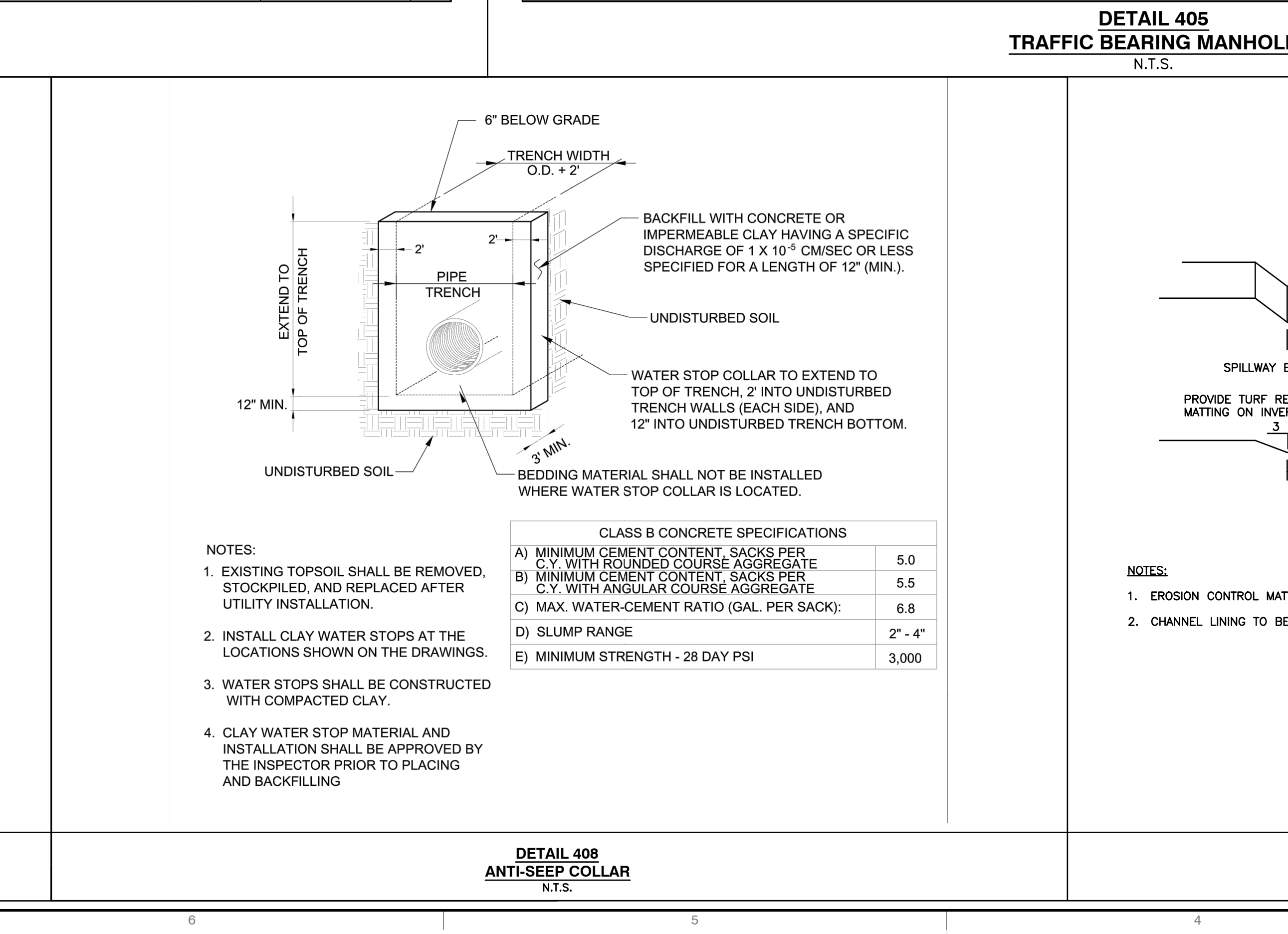
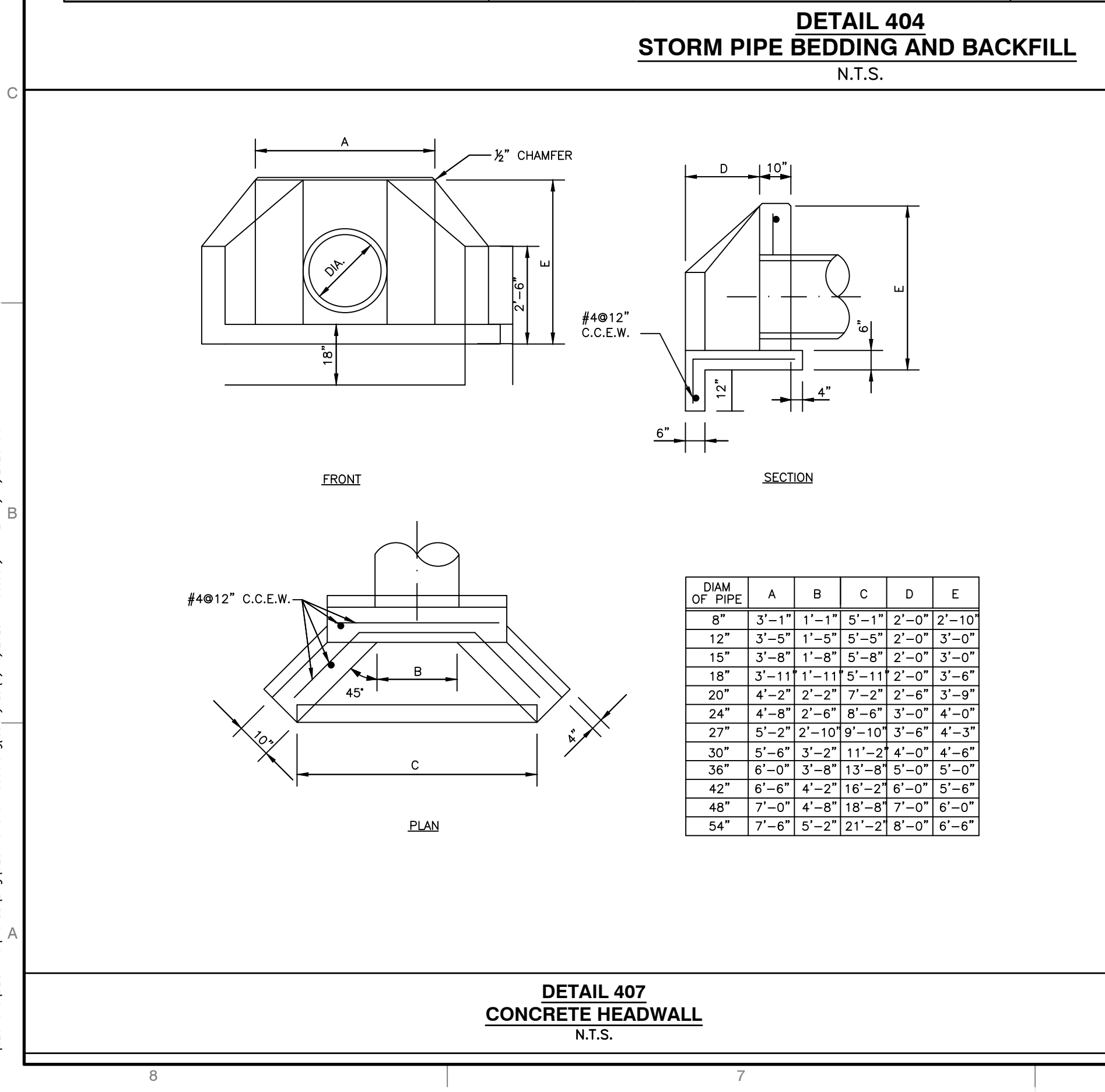
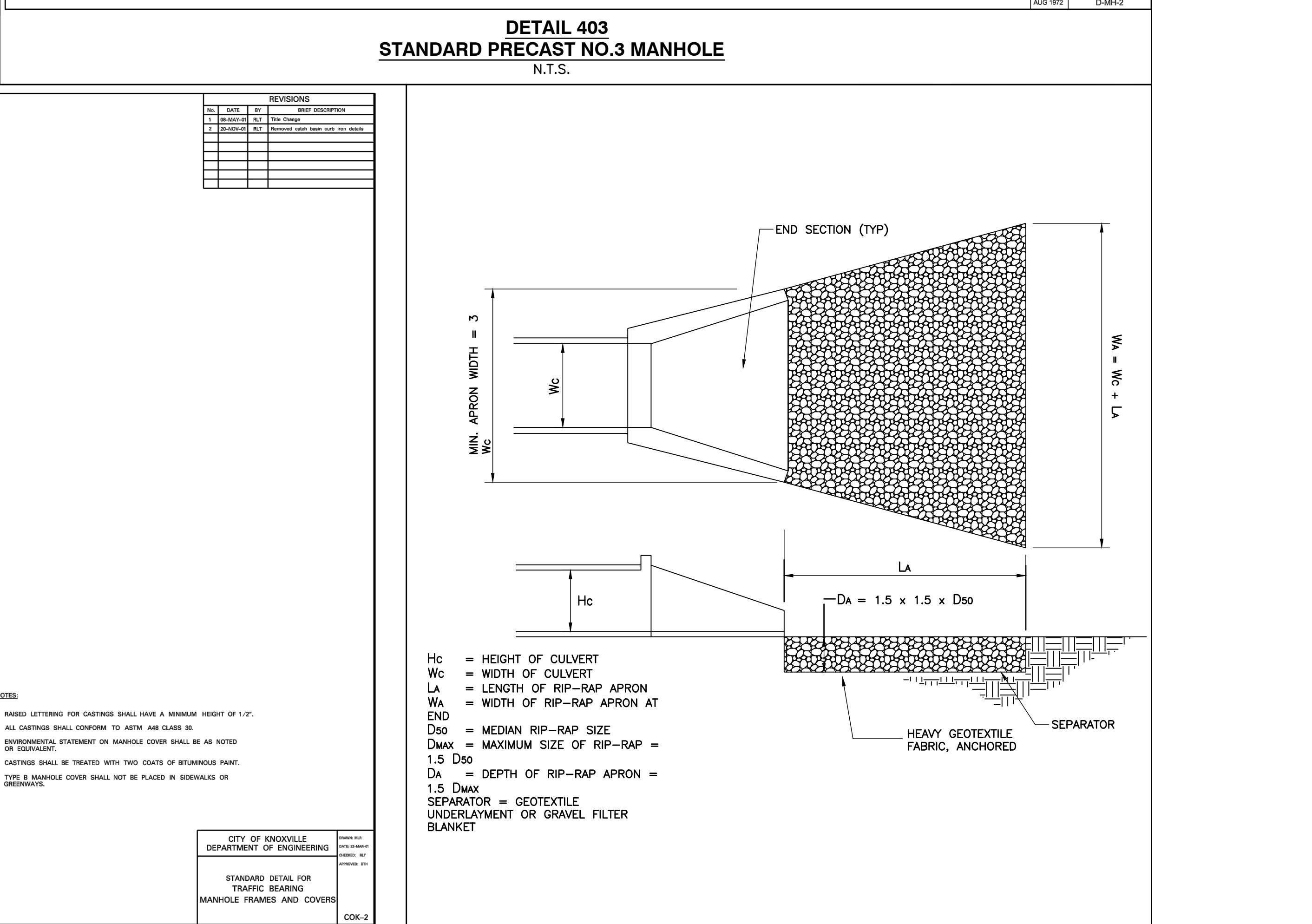
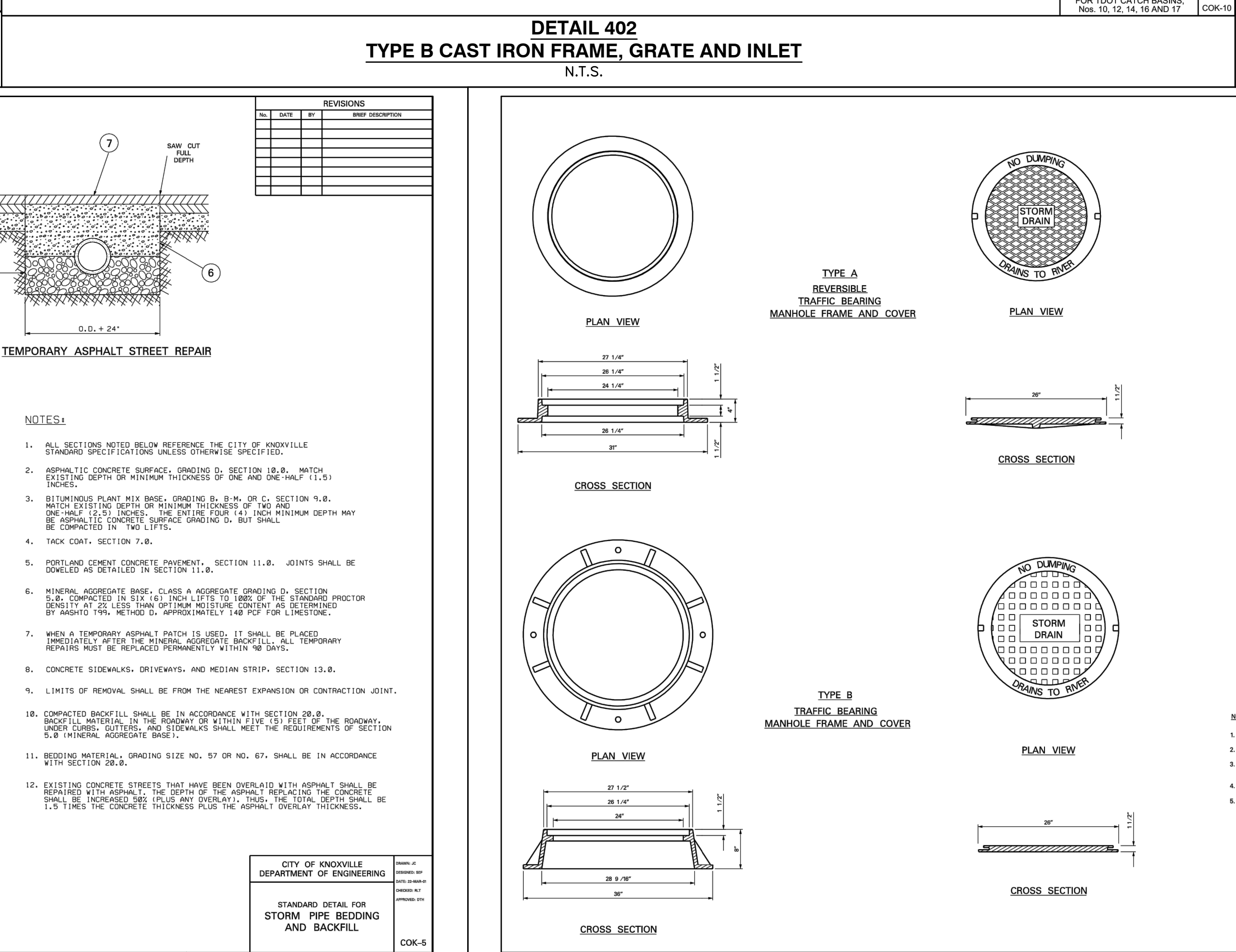
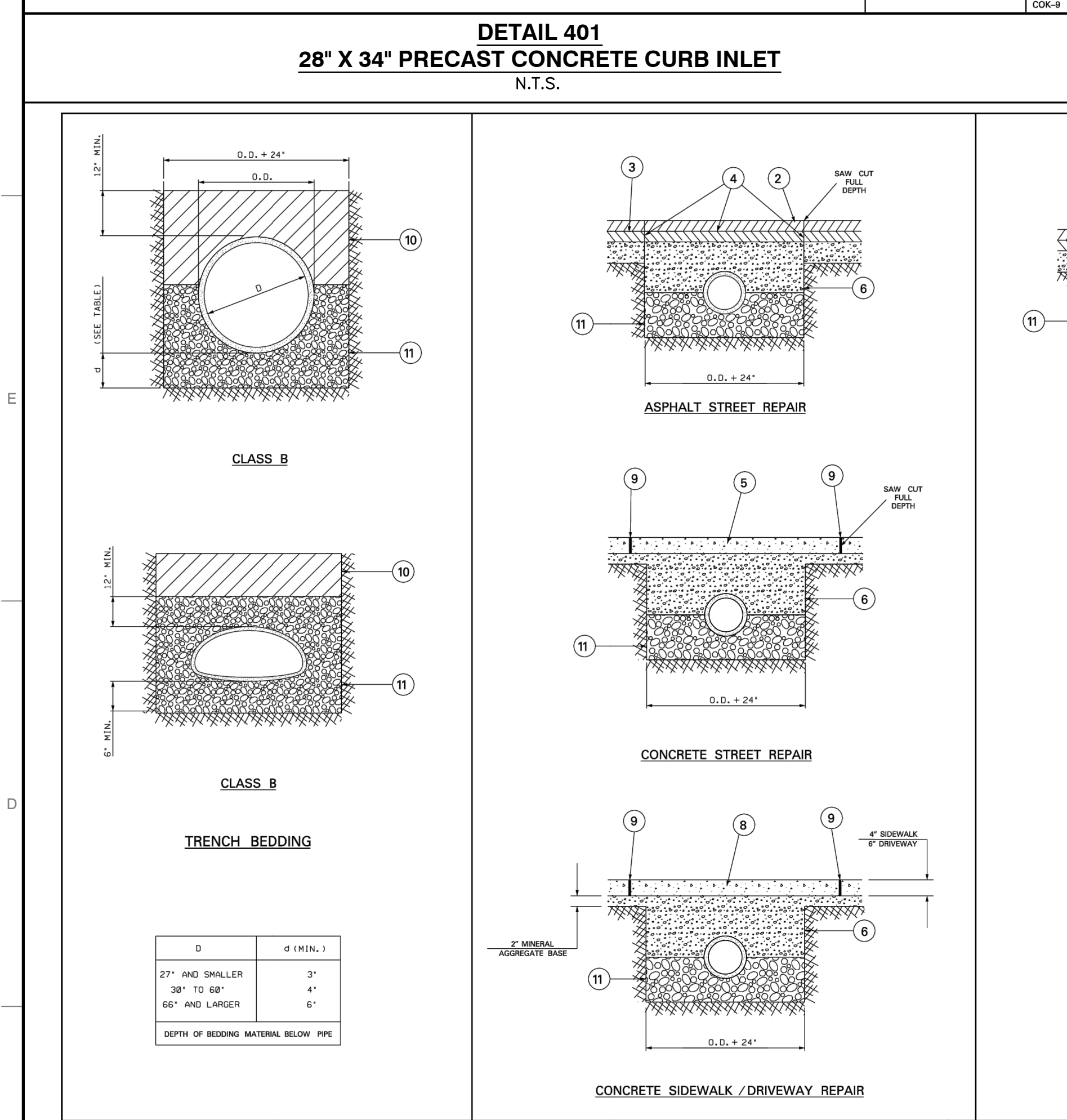
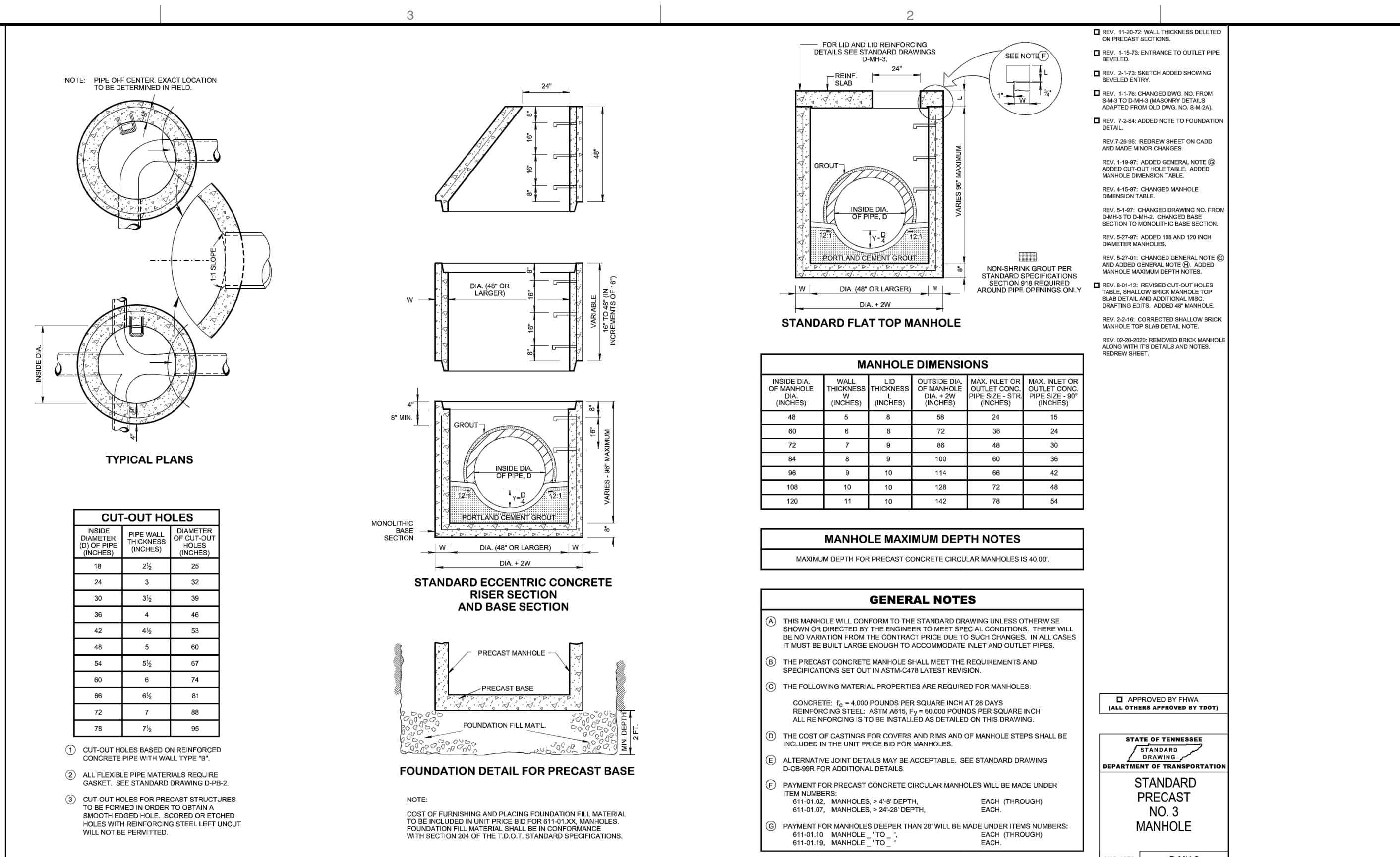
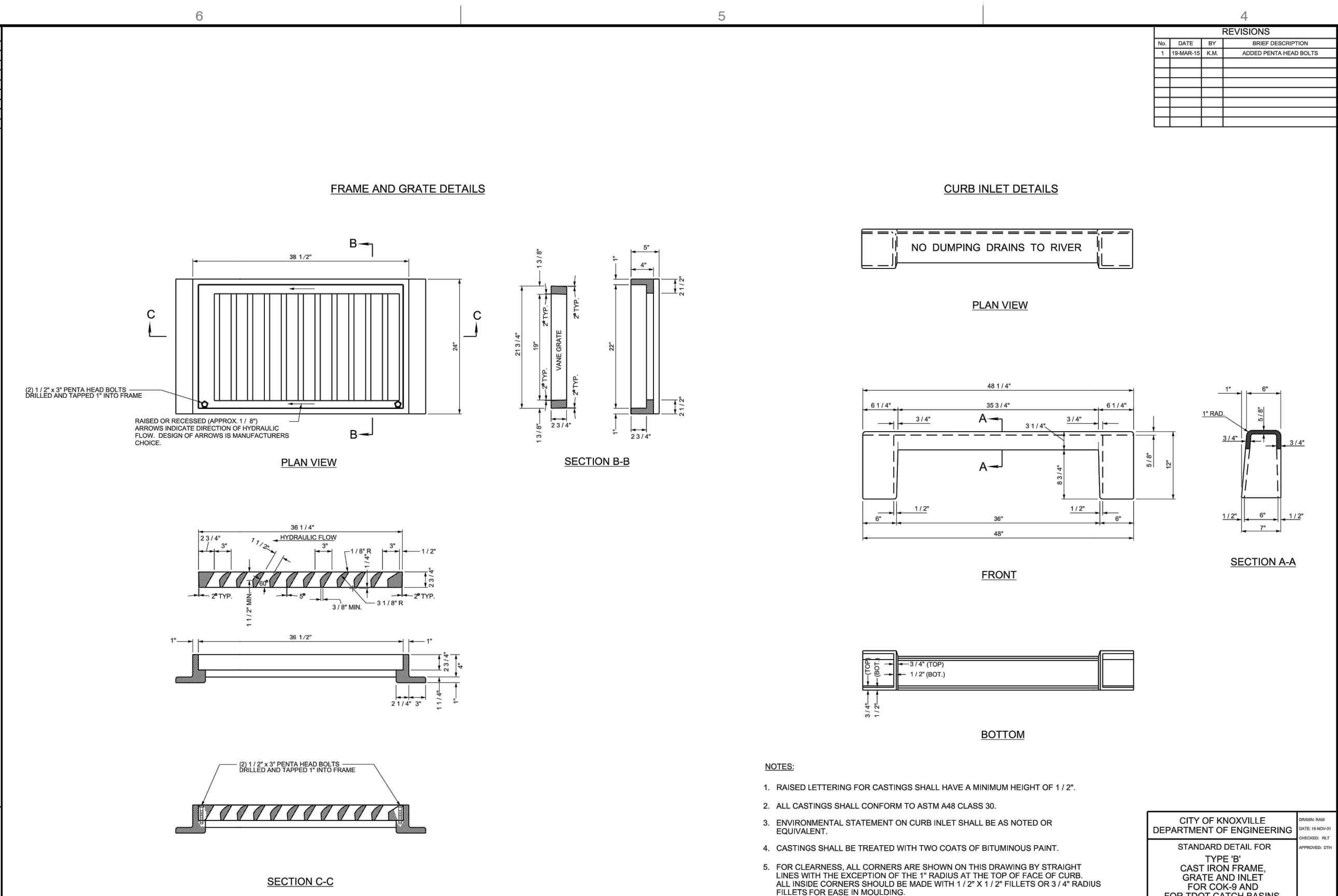
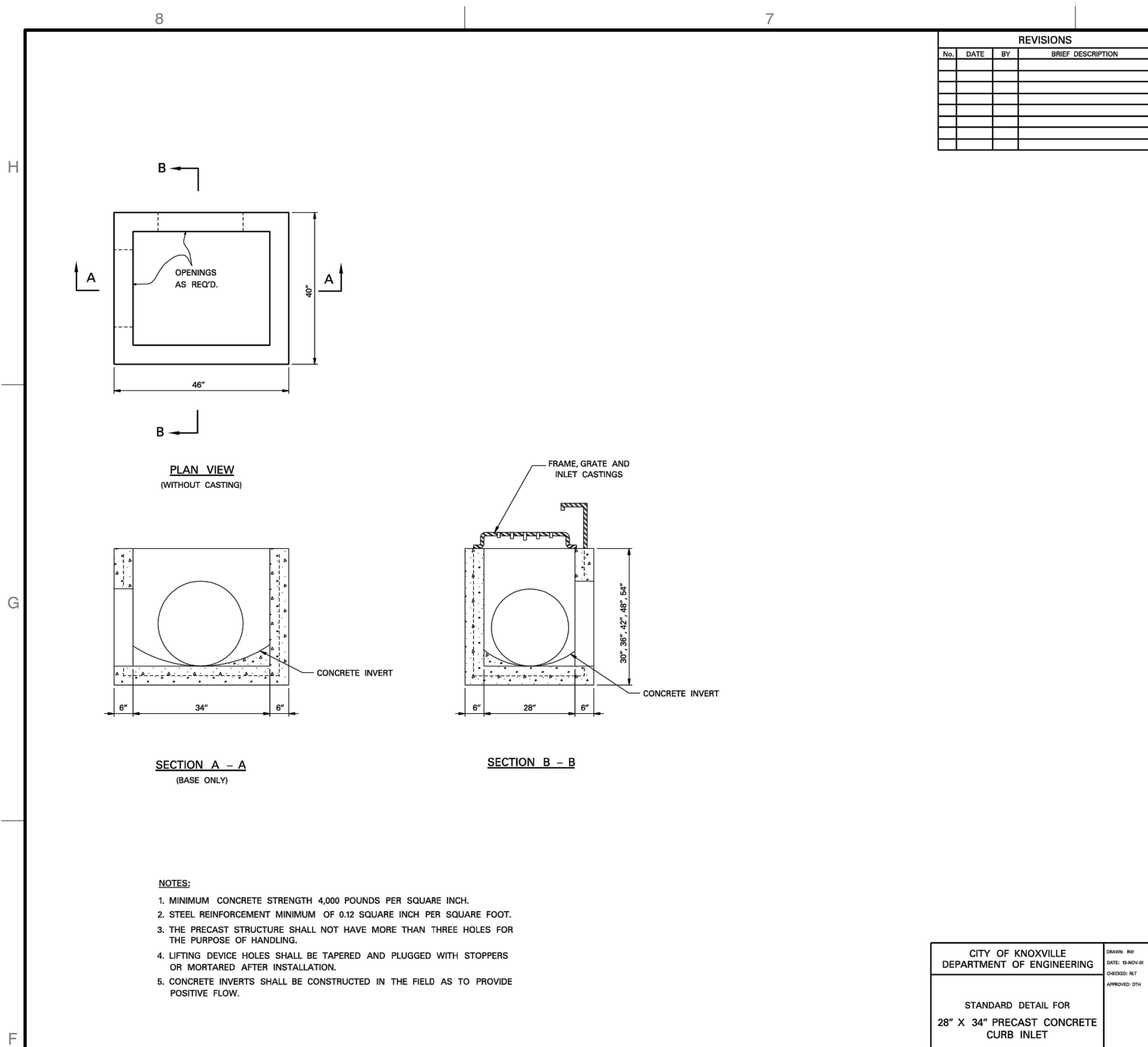
Civil & Environmental Consultants, Inc.
 2706 Cherokee Farm Way - Suite 101 - Knoxville, TN 37920
 Ph: 865.977.9997 - Fax: 865.977.9919

KNOXVILLE COMMUNITY DEVELOPMENT CORPORATION (KDCD)
WESTERN HEIGHTS PHASE 1 INFRASTRUCTURE
1800 VERMONT AVE
KNOXVILLE TN, 37921

SITE DRAINAGE PLAN
 DATE: APRIL 2023
 DRAWN BY: LBP, JWB
 DWG SCALE: AS SHOWN
 CHECKED BY: JWB
 PROJECT NO: 395-022
 APPROVED BY: GHP

DRAWING NO. **C400**

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REVISION RECORD

NO.	DATE	DESCRIPTION

APPROVED BY: [Signature]

STANDARD PRECAST NO. 3 MANHOLE

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.
2704 Cherokee Farm Way - Suite 101 - Knoxville, TN 37920
Ph: 865.977.9997 - Fax: 865.977.9919
www.cedric.com

KNOXVILLE COMMUNITY DEVELOPMENT CORPORATION (KDCD)
WESTERN HEIGHTS PHASE 1 INFRASTRUCTURE
1800 VERMONT AVE
KNOXVILLE TN, 37921

CONSTRUCTION DETAILS

APRIL 2023 DRAWN BY: LBP, JRB
AS SHOWN CHECKED BY: MMB
PROJECT NO: 395-022
APPROVED BY: GHP

STATE OF TENNESSEE
REGISTERED ENGINEER
M. W. WAYNE B. B. J. C. E.
AGRICULTURE

C800



LEGEND

	EXISTING PROPERTY LINE
	EXISTING EASEMENT
	EXISTING RIGHT-OF-WAY
	EXISTING INDEX (MAJOR) CONTOUR
	EXISTING INTERMEDIATE (MINOR) CONTOUR
	EXISTING FENCE LINE
	EXISTING ROADWAY CENTERLINE
	EXISTING CURB
	EXISTING EDGE OF PAVEMENT
	EXISTING ASPHALT PAVEMENT
	EXISTING STORM PIPE
	EXISTING WATER LINE
	EXISTING SANITARY SEWER LINE
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	EXISTING STORM STRUCTURE
	EXISTING LIGHT POLE
	EXISTING POWER POLE
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY CLEANOUT
	EXISTING WATER METER
	EXISTING FIRE HYDRANT
	EXISTING WATER BOX
	PROPOSED LIMITS OF DISTURBANCE
	PROPOSED FILTER SOCK
	PROPOSED SILT FENCE
	PROPOSED INLET PROTECTION
	PROPOSED CONSTRUCTION EXIT
	PROPOSED CHECK DAM
	PROPOSED EROSION CONTROL BLANKET
	PROPOSED EROSION CONTROL MATTING

SHEET KEY

DESCRIPTION	DETAIL
A LIMITS OF DISTURBANCE (±6.88 AC.)	
B CONSTRUCTION EXIT	902 C903
C SILT FENCE	900 C903
D CONCRETE WASHOUT	905 C903
E INLET PROTECTION	903 C903
F FILTER SOCK	901 C903
G DIVERSION SWALE	912 C904
H ROCK CHECK DAM	913 C904
I EROSION CONTROL BLANKET	906 C903
J TEMPORARY STABILIZATION	904 C903

PROPERTY INFORMATION

ZONING: RN-4 (GENERAL RESIDENTIAL NEIGHBORHOOD ZONING DISTRICT)
DISTRICT: 6
WARD: 20
BLOCK NUMBER(S): 20062, 20042
CONTROL MAP: 94
PARCEL: 1, 12
PARCEL ID: 094BB001, 094AE012

PROPERTY NOTES

TOTAL LOT AREA: 7.851 ACRES
MAXIMUM IMPERVIOUS COVERAGE : 60%

- NOTES**
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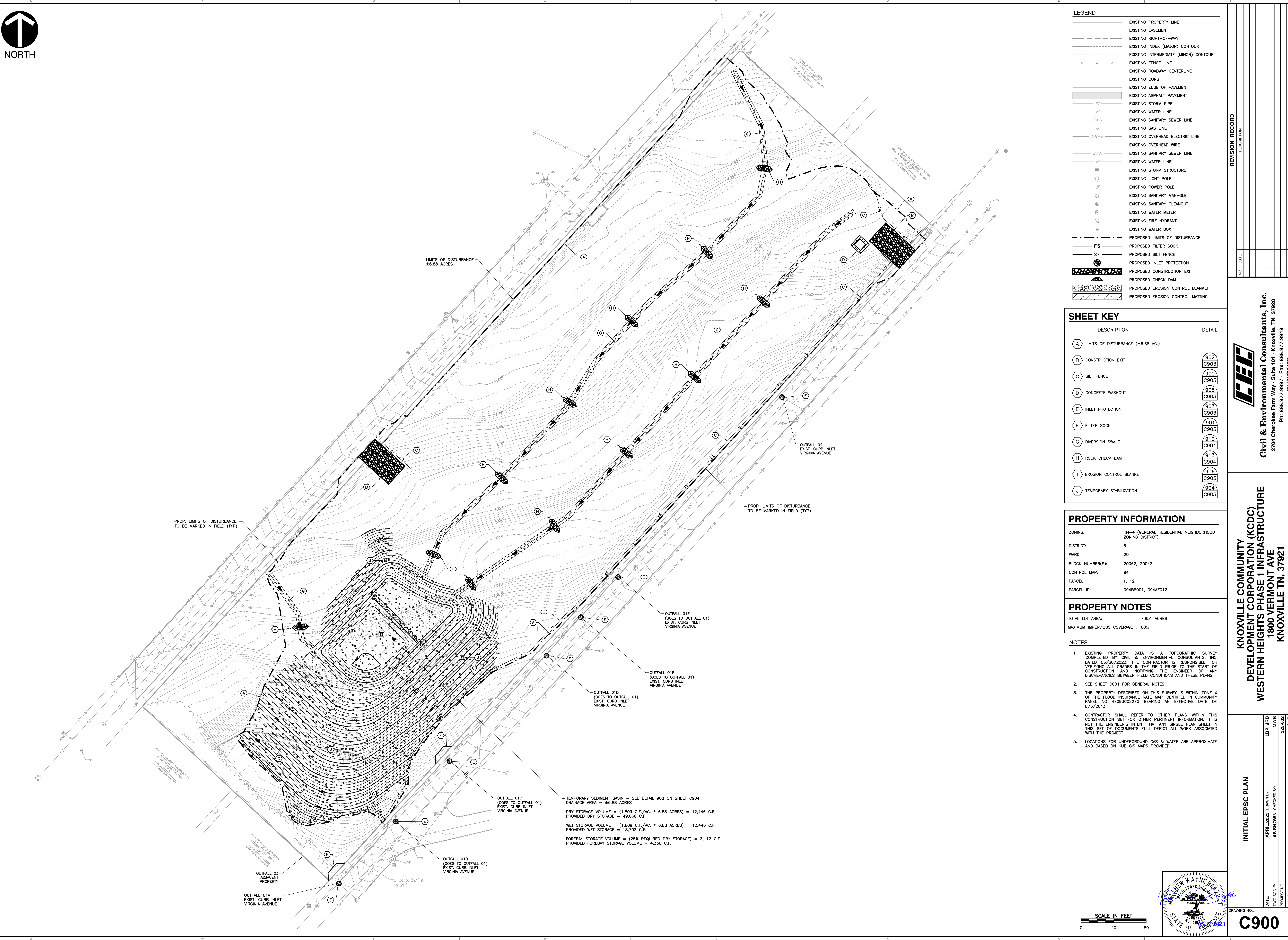
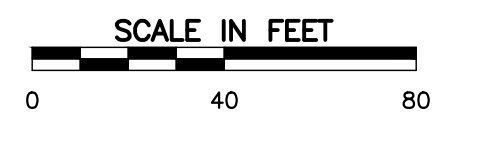
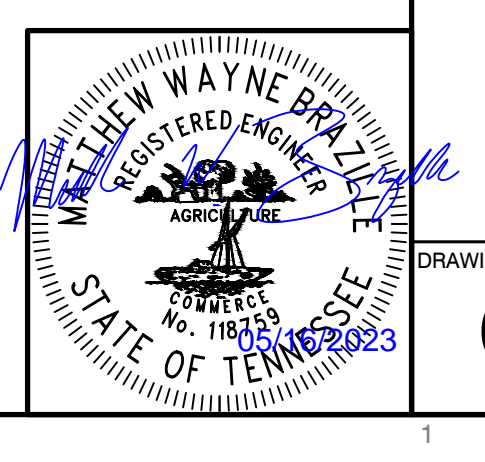
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www.candec.com

KNOXVILLE COMMUNITY DEVELOPMENT CORPORATION (KDCDC)
WESTERN HEIGHTS PHASE 1 INFRASTRUCTURE
1800 VERMONT AVE
KNOXVILLE TN, 37921

INITIAL EPSC PLAN

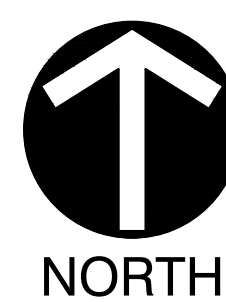
DATE: APRIL 2023
DRAWN BY: LBP, JRB
DWG SCALE: AS SHOWN
CHECKED BY: MMB
PROJECT NO: 395-022
APPROVED BY: GHP

DRAWING NO.: **C900**

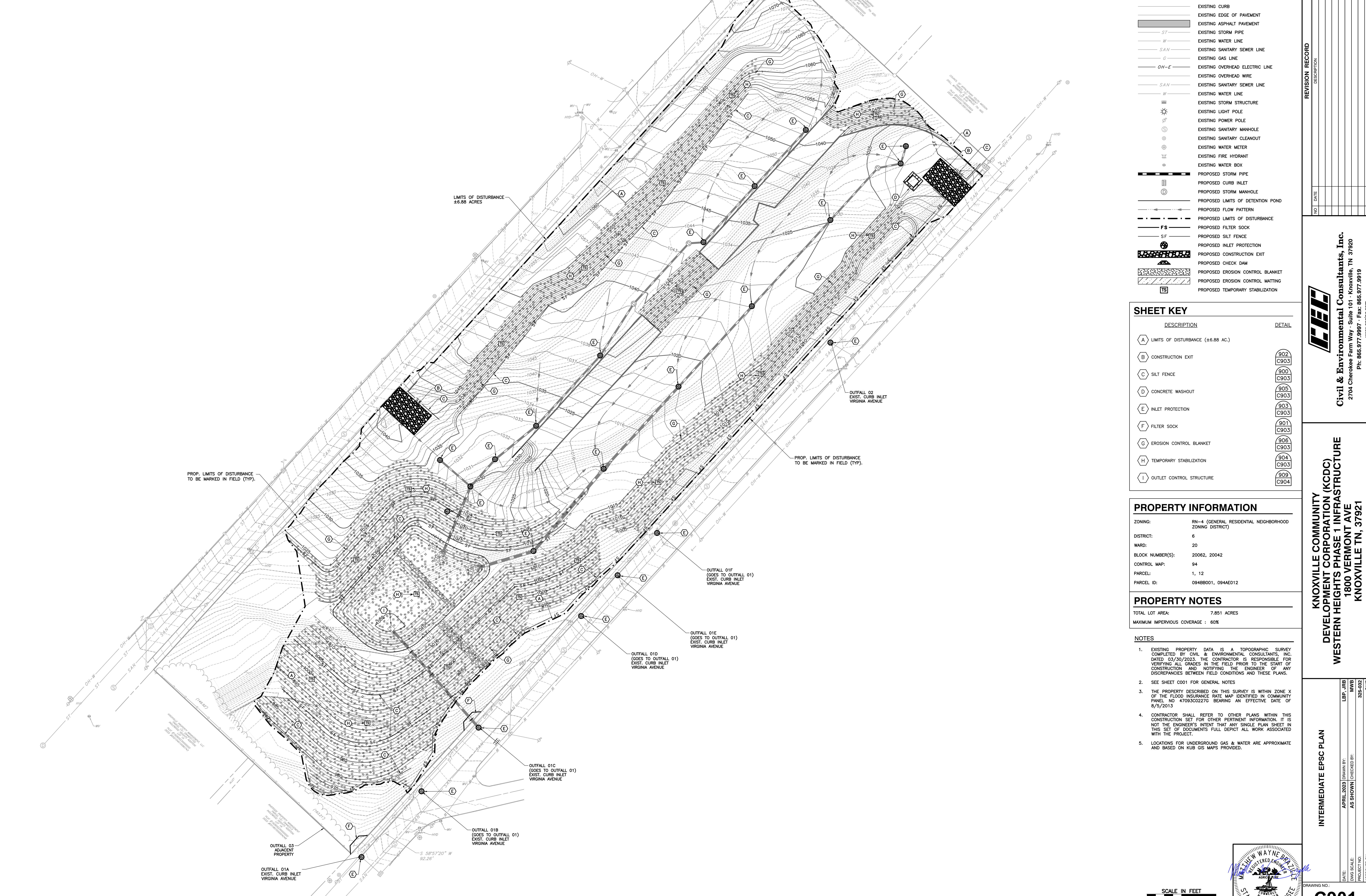


TEMPORARY SEDIMENT BASIN - SEE DETAIL 908 ON SHEET C904
DRAINAGE AREA = ±6.88 ACRES
DRY STORAGE VOLUME = (1,809 C.F./AC. * 6.88 ACRES) = 12,446 C.F.
PROVIDED DRY STORAGE = 49,088 C.F.
WET STORAGE VOLUME = (1,809 C.F./AC. * 6.88 ACRES) = 12,446 C.F.
PROVIDED WET STORAGE = 18,702 C.F.
FOREBAY STORAGE VOLUME = (25% REQUIRED DRY STORAGE) = 3,112 C.F.
PROVIDED FOREBAY STORAGE VOLUME = 4,350 C.F.

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NORTH



LEGEND

(Symbol)	EXISTING PROPERTY LINE
(Symbol)	EXISTING EASEMENT
(Symbol)	EXISTING RIGHT-OF-WAY
(Symbol)	EXISTING INDEX (MAJOR) CONTOUR
(Symbol)	EXISTING INTERMEDIATE (MINOR) CONTOUR
(Symbol)	EXISTING FENCE LINE
(Symbol)	EXISTING ROADWAY CENTERLINE
(Symbol)	EXISTING CURB
(Symbol)	EXISTING EDGE OF PAVEMENT
(Symbol)	EXISTING ASPHALT PAVEMENT
(Symbol)	EXISTING STORM PIPE
(Symbol)	EXISTING WATER LINE
(Symbol)	EXISTING SANITARY SEWER LINE
(Symbol)	EXISTING GAS LINE
(Symbol)	EXISTING OVERHEAD ELECTRIC LINE
(Symbol)	EXISTING OVERHEAD WIRE
(Symbol)	EXISTING SANITARY SEWER LINE
(Symbol)	EXISTING WATER LINE
(Symbol)	EXISTING STORM STRUCTURE
(Symbol)	EXISTING LIGHT POLE
(Symbol)	EXISTING POWER POLE
(Symbol)	EXISTING SANITARY MANHOLE
(Symbol)	EXISTING SANITARY CLEANOUT
(Symbol)	EXISTING WATER METER
(Symbol)	EXISTING FIRE HYDRANT
(Symbol)	EXISTING WATER BOX
(Symbol)	PROPOSED STORM PIPE
(Symbol)	PROPOSED CURB INLET
(Symbol)	PROPOSED STORM MANHOLE
(Symbol)	PROPOSED LIMITS OF DETENTION POND
(Symbol)	PROPOSED FLOW PATTERN
(Symbol)	PROPOSED LIMITS OF DISTURBANCE
(Symbol)	PROPOSED FILTER SOCK
(Symbol)	PROPOSED SILT FENCE
(Symbol)	PROPOSED INLET PROTECTION
(Symbol)	PROPOSED CONSTRUCTION EXIT
(Symbol)	PROPOSED CHECK DAM
(Symbol)	PROPOSED EROSION CONTROL BLANKET
(Symbol)	PROPOSED EROSION CONTROL MATTING
(Symbol)	PROPOSED TEMPORARY STABILIZATION

SHEET KEY

DESCRIPTION	DETAIL
(A) LIMITS OF DISTURBANCE (±6.88 AC.)	902 C903
(B) CONSTRUCTION EXIT	900 C903
(C) SILT FENCE	905 C903
(D) CONCRETE WASHOUT	906 C903
(E) INLET PROTECTION	901 C903
(F) FILTER SOCK	904 C903
(G) EROSION CONTROL BLANKET	909 C904
(H) TEMPORARY STABILIZATION	908 C904
(I) OUTLET CONTROL STRUCTURE	907 C904

PROPERTY INFORMATION

ZONING:	RN-4 (GENERAL RESIDENTIAL NEIGHBORHOOD ZONING DISTRICT)
DISTRICT:	6
WARD:	20
BLOCK NUMBER(S):	20062, 20042
CONTROL MAP:	94
PARCEL:	1, 12
PARCEL ID:	094B001, 094E012

PROPERTY NOTES

TOTAL LOT AREA:	7.851 ACRES
MAXIMUM IMPERVIOUS COVERAGE :	60%

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REVISION RECORD

NO	DATE	DESCRIPTION

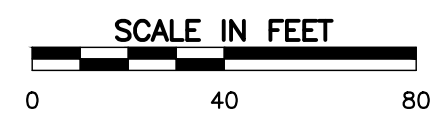
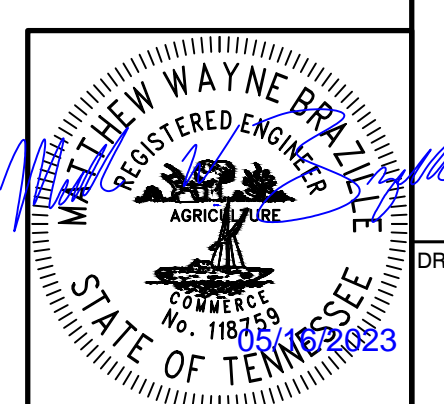
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 2704 Cherokee Farm Way - Suite 101 - Knoxville, TN 37920
 Ph: 865.977.9997 - Fax: 865.977.9919
 www.cecinc.com

KNOXVILLE COMMUNITY DEVELOPMENT CORPORATION (KDCD) WESTERN HEIGHTS PHASE 1 INFRASTRUCTURE 1800 VERMONT AVE KNOXVILLE TN, 37921

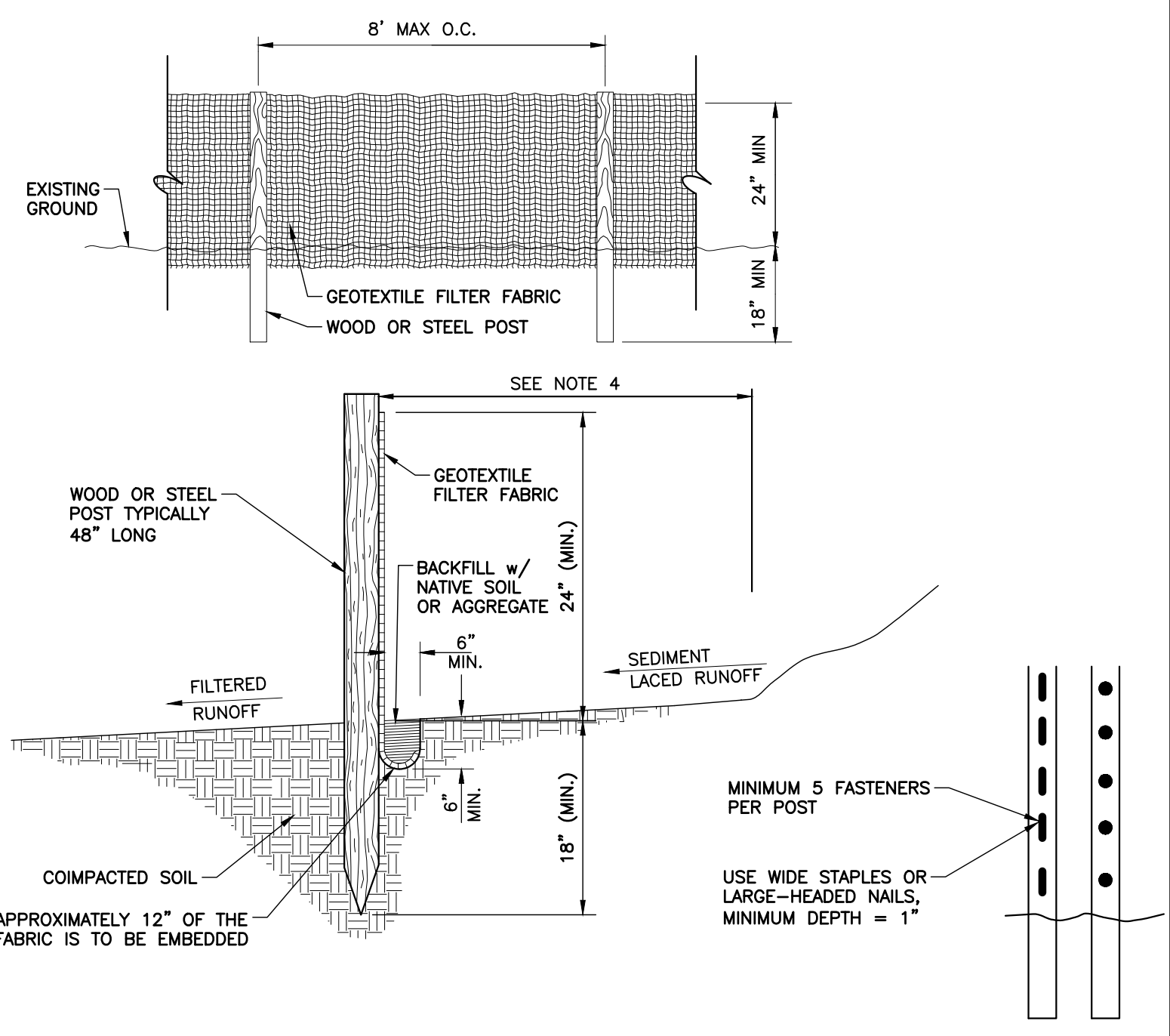
INTERMEDIATE EPSC PLAN

DATE: APRIL 2023 DRAWN BY: LBP, JRB MVB
 DWG SCALE: AS SHOWN CHECKED BY: 395-022
 PROJECT NO: 395-022
 APPROVED BY: GHP

DRAWING NO. **C901**



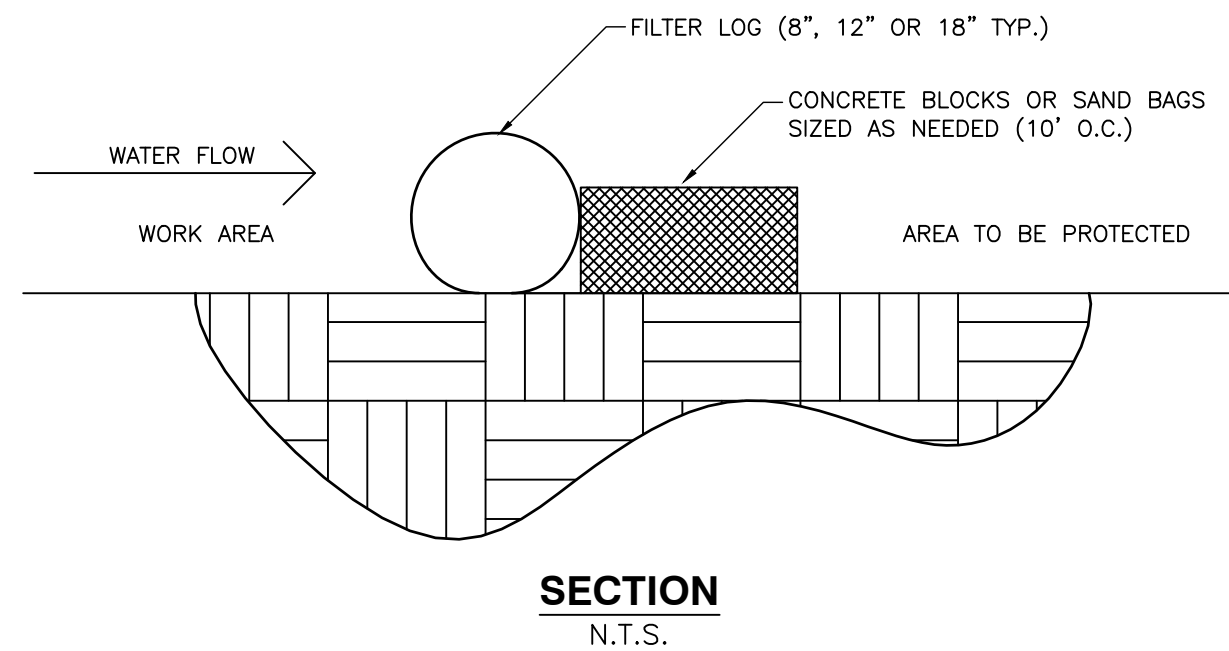
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**DETAIL 900
SILT FENCE**
N.T.S.

NOTES:

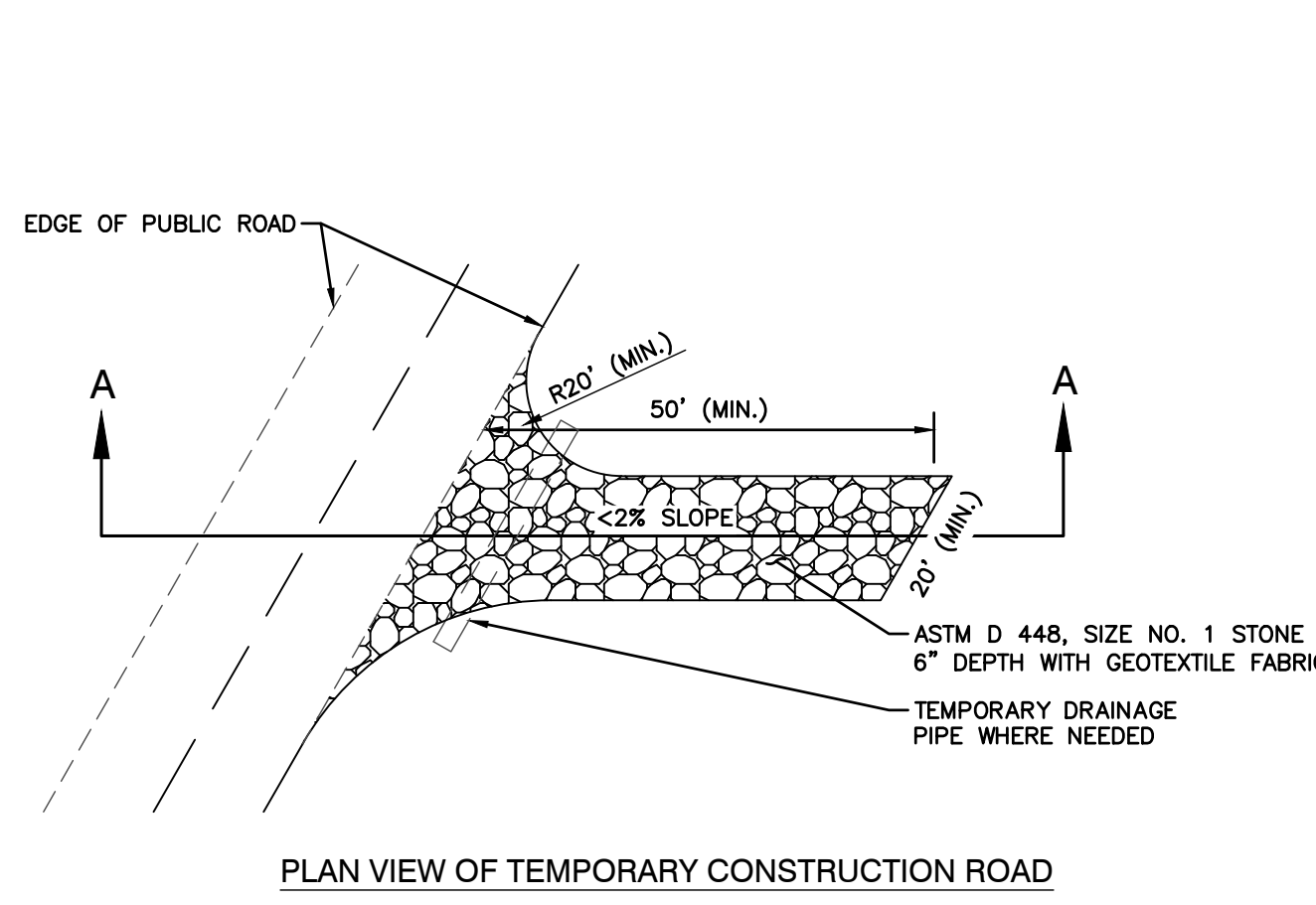
1. FILTER CLOTH SHALL MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATION FOR GEOTEXTILES AASHTO DESIGNATION: M288, SEDIMENT CONTROL, SELF SUPPORTED.
2. WOOD POSTS ARE TYPICALLY 2"x2" OAK AND OTHER HARD WOODS. A LARGER POST IS NECESSARY FOR SOFT WOODS (4"x4").
3. FASTENERS FOR WOOD POSTS SHOULD BE EITHER WIRE STAPLES OR NAILS. THERE SHALL BE A MINIMUM OF 5 FASTENERS FOR EACH WOOD POST. USE MINIMUM SIZE 17-GAUGE STAPLES WITH A MINIMUM EMBEDDED LENGTH OF 1 INCH INTO THE WOOD AND A MINIMUM WIDTH OF 3/4 INCH ACROSS. TYPICAL NAIL SIZE IS 1 INCH LONG WITH OVERSIZED NAIL HEAD. FABRIC SHALL NOT BE ATTACHED TO EXISTING TREES.
4. PLACE SILT FENCE AT LEAST 5 TO 7 FEET AWAY FROM STEEP OR LONG SLOPES TO IMPOUND STORMWATER RUNOFF.



**DETAIL 901
FILTER SOCK**
N.T.S.

NOTES:

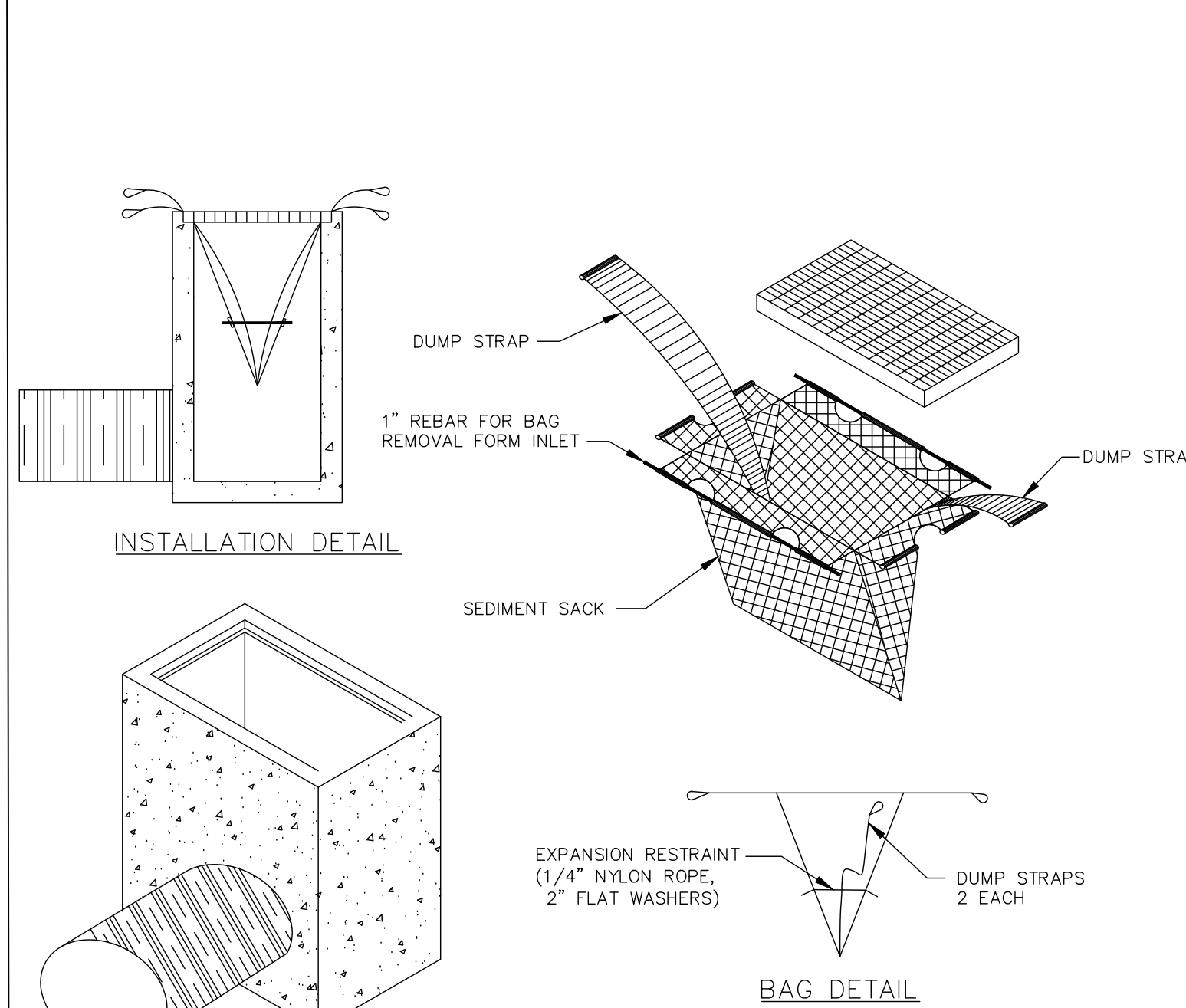
1. ALL MATERIALS TO MEET TENNESSEE DEPARTMENT OF ENVIRONMENT SPECIFICATIONS
2. FILTER MEDIA TO BE DISPERSED ON SITE AS DETERMINED BY ENGINEER



**DETAIL 902
CONSTRUCTION EXIT**
N.T.S.

NOTES:

1. BAGS SHOULD BE CLEANED OUT AFTER EVERY RAIN EVENT AND/OR AS NEEDED.



**DETAIL 903
INELT PROTECTION DETAIL**
N.T.S.

NOTES:

1. BAGS SHOULD BE CLEANED OUT AFTER EVERY RAIN EVENT AND/OR AS NEEDED.

PERMANENT SEEDING MIXTURES

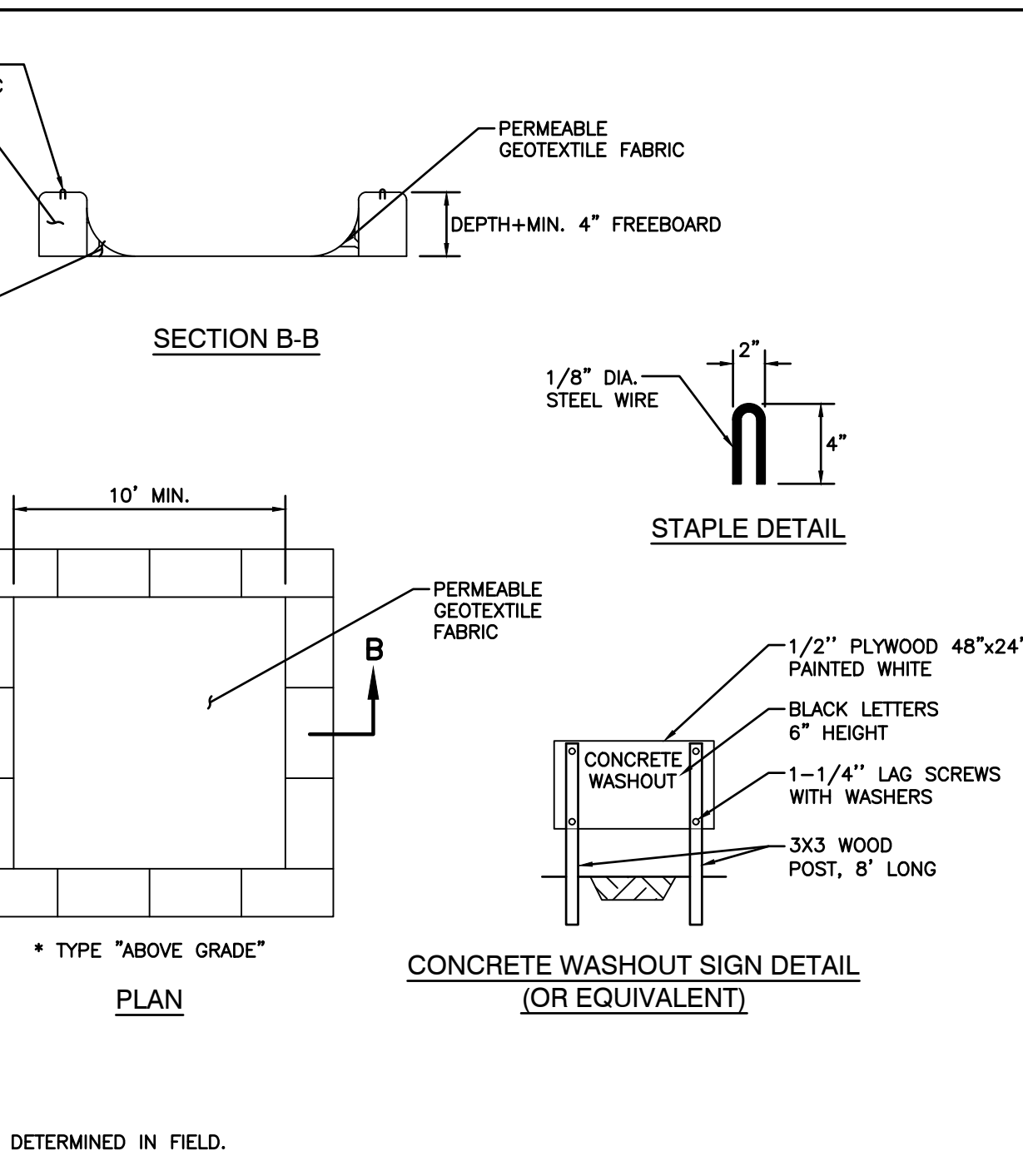
SEEDING DATES	GRASS SEED	PERCENTAGES
FEBRUARY 1 TO JULY 1	KENTUCKY 31 FESCUE	88%
	ENGLISH RYE	12%
JUNE 1 TO AUGUST 15	KENTUCKY 31 FESCUE	60%
	ENGLISH RYE	25%
AUGUST 1 TO DECEMBER 1	GERMAN MILLET	15%
	KENTUCKY 31 FESCUE	70%
DECEMBER 1 TO FEBRUARY 1	ENGLISH RYE	20%
	WHITE CLOVER	10%
DECEMBER 1 TO FEBRUARY 1	KENTUCKY 31 FESCUE	83%
	ENGLISH RYE	17%

SOURCE: TDOT STANDARDS SPECIFICATIONS

TEMPORARY SEEDING MIXTURES

SEEDING DATES	GRASS SEED	PERCENTAGES
JANUARY 1 TO MAY 1	ITALIAN RYE	50%
	SUMMER OATS	50%
MAY 1 TO JULY 15	SUDAN-SORGHUM	100%
	STARR MILLET	100%
JULY 15 TO JANUARY 1	BALBOA RYE	67%
	ITALIAN RYE	33%

SOURCE: TDOT STANDARDS SPECIFICATIONS

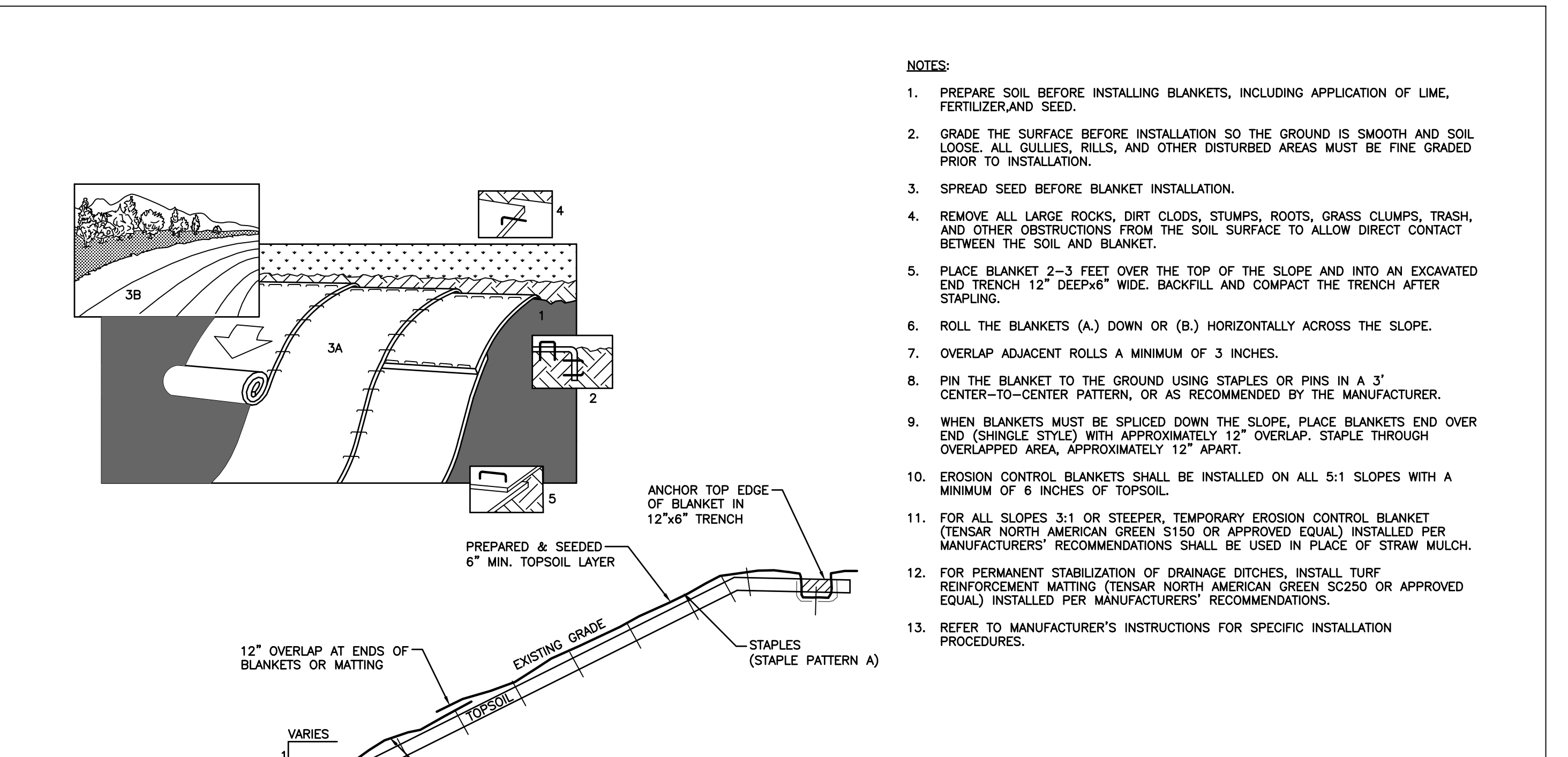


**DETAIL 904
SEEDING SCHEDULE**
N.T.S.

**DETAIL 905
CONCRETE WASHOUT FACILITY**
N.T.S.

NOTES:

1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 5 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.



**DETAIL 906
EROSION CONTROL BLANKET/MATTING**
N.T.S.

NOTES:

1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER AND SEED.
2. GRADE THE SURFACE BEFORE INSTALLATION SO THE GROUND IS SMOOTH AND SOIL LOOSE. ALL GULLIES, RILLS, AND OTHER DISTURBED AREAS MUST BE FINE GRADED PRIOR TO INSTALLATION.
3. SPREAD SEED BEFORE BLANKET INSTALLATION.
4. REMOVE ALL LARGE ROCKS, DIRT CLODS, STUMPS, ROOTS, GRASS CLUMPS, TRASH, AND OTHER OBSTRUCTIONS FROM THE SOIL SURFACE TO ALLOW DIRECT CONTACT BETWEEN THE SOIL AND BLANKET.
5. PLACE BLANKET 2-3 FEET OVER THE TOP OF THE SLOPE AND INTO AN EXCAVATED END TRENCH 12" DEEP* WIDE. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
6. ROLL THE BLANKETS (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE.
7. OVERLAP ADJACENT ROLLS A MINIMUM OF 3 INCHES.
8. PIN THE BLANKET TO THE GROUND USING STAPLES OR PINS IN A 3' CENTER-TO-CENTER PATTERN, OR AS RECOMMENDED BY THE MANUFACTURER.
9. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 12" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.
10. EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL 5:1 SLOPES WITH A MINIMUM OF 6 INCHES OF TOPSOIL.
11. FOR ALL SLOPES 3:1 OR STEEPER, TEMPORARY EROSION CONTROL BLANKET (TENSAR NORTH AMERICAN GREEN S150 OR APPROVED EQUAL) INSTALLED PER MANUFACTURER'S RECOMMENDATIONS SHALL BE USED IN PLACE OF STRAW MULCH.
12. FOR PERMANENT STABILIZATION OF DRAINAGE DITCHES, INSTALL TURF REINFORCEMENT MATTING (TENSAR NORTH AMERICAN GREEN SC500 OR APPROVED EQUAL) INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
13. REFER TO MANUFACTURER'S INSTRUCTIONS FOR SPECIFIC INSTALLATION PROCEDURES.

EROSION AND SEDIMENT CONTROL NOTES:

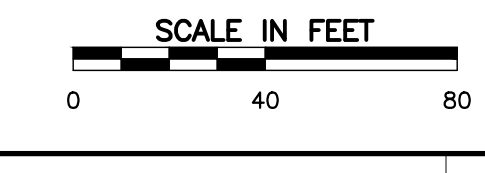
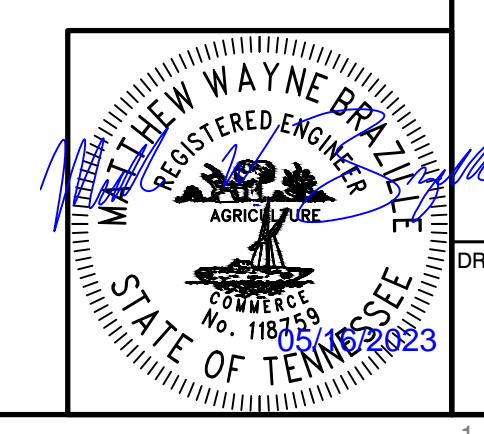
1. A SPECIFIC INDIVIDUAL SHALL BE DESIGNATED TO BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROLS ON PROJECT SITE. THIS INDIVIDUAL MUST HAVE COMPLETED THE "FUNDAMENTALS OF EROSION PREVENTION AND SEDIMENT CONTROL" COURSE OR AN EQUIVALENT COURSE.
2. REFER TO THE TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK FOR DESIGN CRITERIA AND GUIDELINES FOR EROSION CONTROL MEASURES.
3. CLEARING AND GRUBBING MUST BE HELD TO THE MINIMUM NECESSARY FOR GRADING AND EQUIPMENT OPERATION.
4. CONSTRUCTION MUST BE SEQUENCED TO MINIMIZE THE EXPOSURE TIME OF CLEARED SURFACE AREA.
5. CONSTRUCTION STAGING AND PHASING IS CRITICAL TO REDUCING SEDIMENT RUNOFF FROM SITE.
6. EROSION CONTROL MEASURES MUST BE IN PLACE AND FUNCTIONAL BEFORE EARTH MOVING OPERATIONS BEGIN, AND MUST BE PROPERLY CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
7. ALL EROSION CONTROL MEASURES SHALL BE CHECKED DURING WEEKLY AND AFTER EACH RAINFALL. CHECK DAILY DURING PROLONGED RAINFALL.
8. CONSTRUCTION DEBRIS MUST BE KEPT FROM ENTERING THE STORM MANAGEMENT SYSTEM.
9. STOCKPILED SOIL SHALL BE PROTECTED AND LOCATED FAR ENOUGH FROM STREAMS AND DRAINAGEWAYS SO THAT RUNOFF CANNOT CARRY SEDIMENT DOWNSTREAM.
10. VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED MORE THAN 10 CALENDAR DAYS PRIOR TO GRADING.
11. TEMPORARY SOIL STABILIZATION WITH APPROPRIATE ANNUAL VEGETATION IS REQUIRED WHEN GRADING OPERATIONS ARE TEMPORARILY HALTED FOR OVER 14 DAYS AND ON SOIL STOCKPILES.
12. PERMANENT SOIL STABILIZATION WITH PERENNIAL VEGETATION IS REQUIRED WHEN GRADING OPERATIONS ARE COMPLETE AND/OR CONSTRUCTION OPERATIONS WILL NOT IMPACT THE DISTURBED AREA. CONTRACTOR SHALL INSPECT THE SITE PERIODICALLY TO REPAIR AND RE-ESTABLISH VEGETATION TO DAMAGED AREAS.
13. STAKED AND ENTRENCHED SILT FENCE MUST BE INSTALLED ALONG THE BASE OF ALL FILLS AND CUTS, ON THE DOWNHILL SIDES OF STOCKPILED SOIL AND ALONG STREAM BANKS IN CLEARED AREAS TO PREVENT EROSION INTO STREAMS. SILT FENCE MAY BE REMOVED AT THE BEGINNING OF THE WORK DAY, BUT MUST BE REPLACED AT THE END OF THE WORK DAY OR PRIOR TO FORECASTING RAIN EVENTS.
14. WHERE APPROPRIATE, SURFACE WATER FLOWING TOWARD CONSTRUCTION AREA SHALL BE DIVERTED AROUND THE CONSTRUCTION AREA USING DIKES, TO REDUCE EROSION POTENTIAL.
15. ALL ROCK SHALL BE CLEAN, HARD ROCK CONTAINING NO SAND, DUST, OR ORGANIC MATERIAL.
16. CONTRACTOR SHALL MAINTAIN SILT FENCES AND OTHER EROSION CONTROL DEVICES FOR THE DURATION OF THE PROJECT, TO ENSURE EFFECTIVENESS, UNTIL ACCEPTED BY THE OWNER, AT NO ADDITIONAL EXPENSE TO THE OWNER. IF CONSTRUCTION ACTIVITIES CEASE DUE TO WEATHER RELATED CAUSES, THEN THE CONTRACTOR WILL ENSURE THAT THE SITE IS PROPERLY STABILIZED AND ALL EROSION CONTROL DEVICES ARE MAINTAINED AND FUNCTIONAL DURING THOSE PERIODS OF INACTIVITY.
17. CONSTRUCTION EXIT - CONTRACTOR SHALL INSTALL TEMPORARY CONSTRUCTION EXIT PRIOR TO ANY EARTHWORK OPERATIONS. CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD TO PUBLIC RIGHTS-OF-WAYS. ALL MATERIAL SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES OR SITE ONTO ADJACENT ROADWAYS SHALL BE REMOVED IMMEDIATELY FROM THE ROADWAY.
18. CONTRACTOR IS RESPONSIBLE FOR CLEANING OUT AND PROPER DISPOSAL OF ALL DEBRIS WITHIN THE STORM DRAINAGE STRUCTURES, INCLUDING SILT FROM FLUMES, PIPES, ECT., PRIOR TO COMPLETION OF THE PROJECT.
19. MEASURES SHOWN FOR SEDIMENT AND EROSION CONTROL REPRESENT THE MINIMUM ANTICIPATED. ADDITIONAL PROTECTION SHALL BE PROVIDED AS NECESSARY THAT WILL PREVENT SEDIMENT FROM LEAVING THE SITE DUE TO UNFORESEEN CONDITIONS OR ACCIDENTS.
20. THE GRADING CONTRACTOR AND BUILDING CONTRACTOR WILL REFRAIN FROM DOING ANY WORK OUTSIDE OF THE DELINEATED LIMITS OF DISTURBANCE.
21. ROADS SHALL BE STABILIZED BY APPLYING STONE ONCE SUBGRADE ELEVATION IS ACHIEVED.
22. ALL SILT FENCE IS TO BE TYPE A EXCEPT WHERE SPECIFIED DIFFERENTLY.
23. EROSION CONTROL MATTING TO BE JUTE MESH (OR APPROVED EQUAL) AND INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
24. SPILLS TO BE REPORTED PER KNOX COUNTY SPILL REPORTING GUIDELINES.

Civil & Environmental Consultants, Inc.
2704 Cherokee Farm Way - Suite 101 - Knoxville, TN 37920
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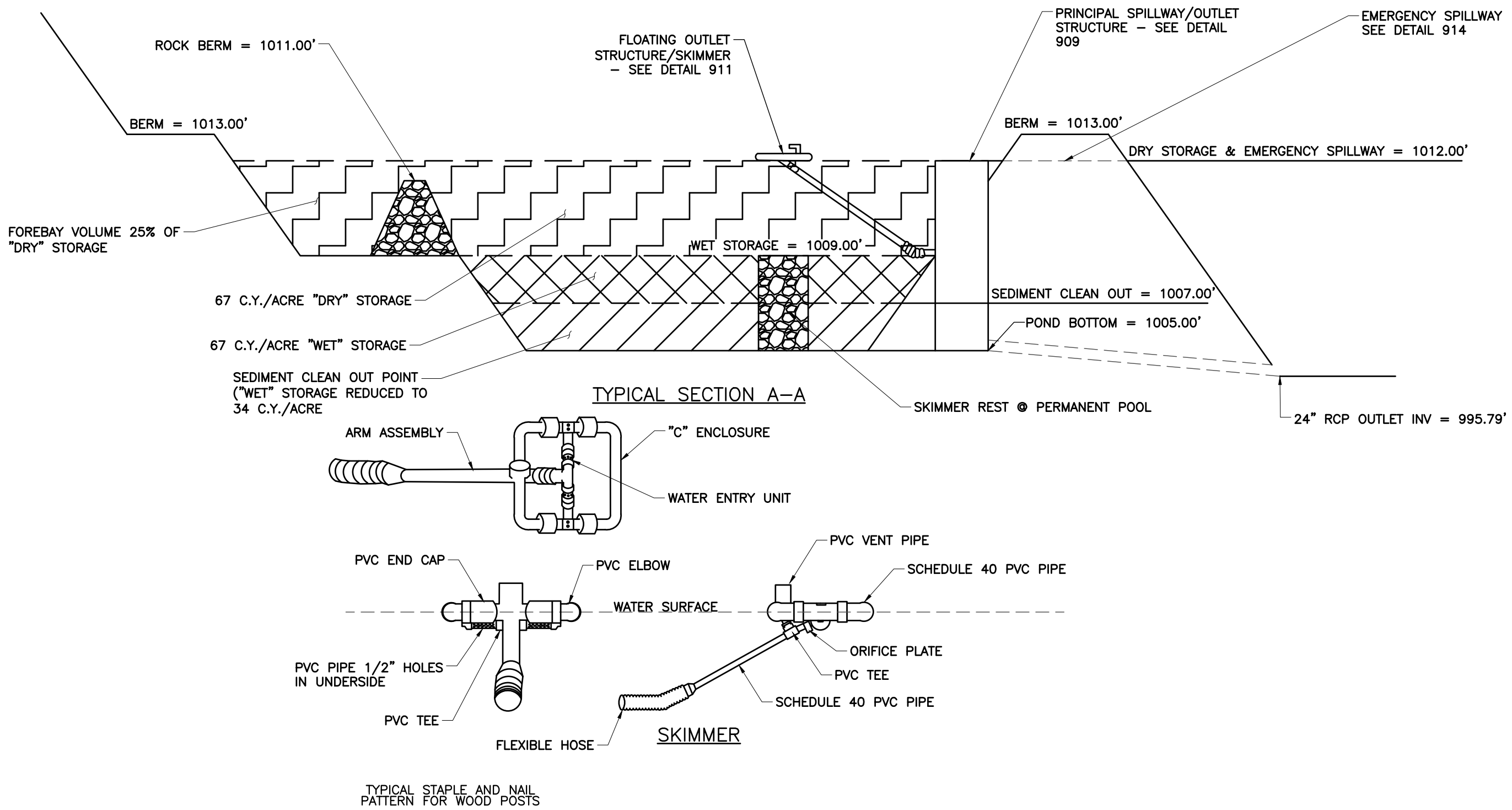
**KNOXVILLE COMMUNITY DEVELOPMENT CORPORATION (KDCG)
WESTERN HEIGHTS PHASE 1 INFRASTRUCTURE
1800 VERMONT AVE
KNOXVILLE TN, 37921**

EPSC DETAILS SHEET 1 OF 2

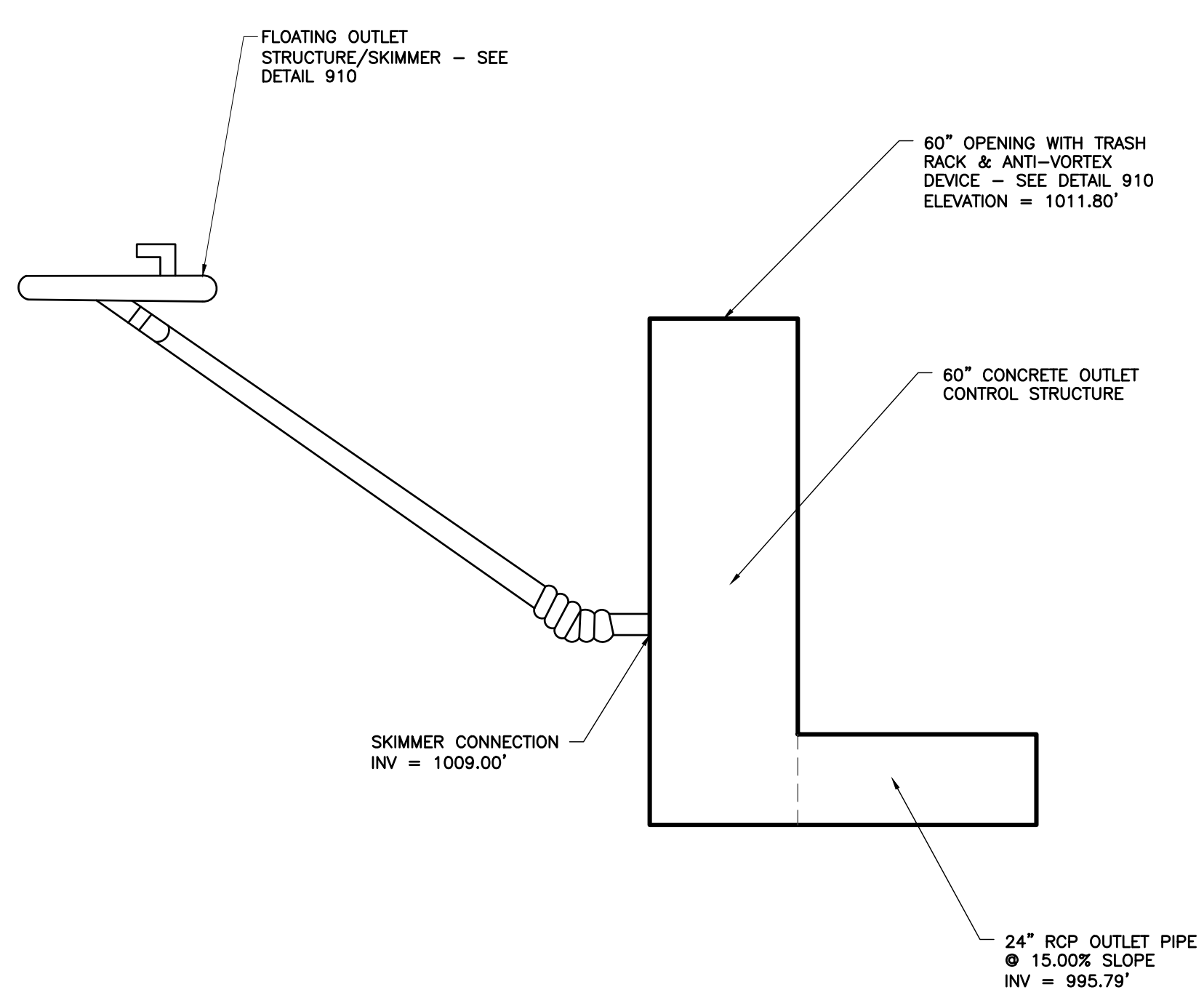
DATE: APRIL 2023
DRAWN BY: LBP, JWB
AS SHOWN
CHECKED BY: MWB
395-022
APPROVED BY: GHP



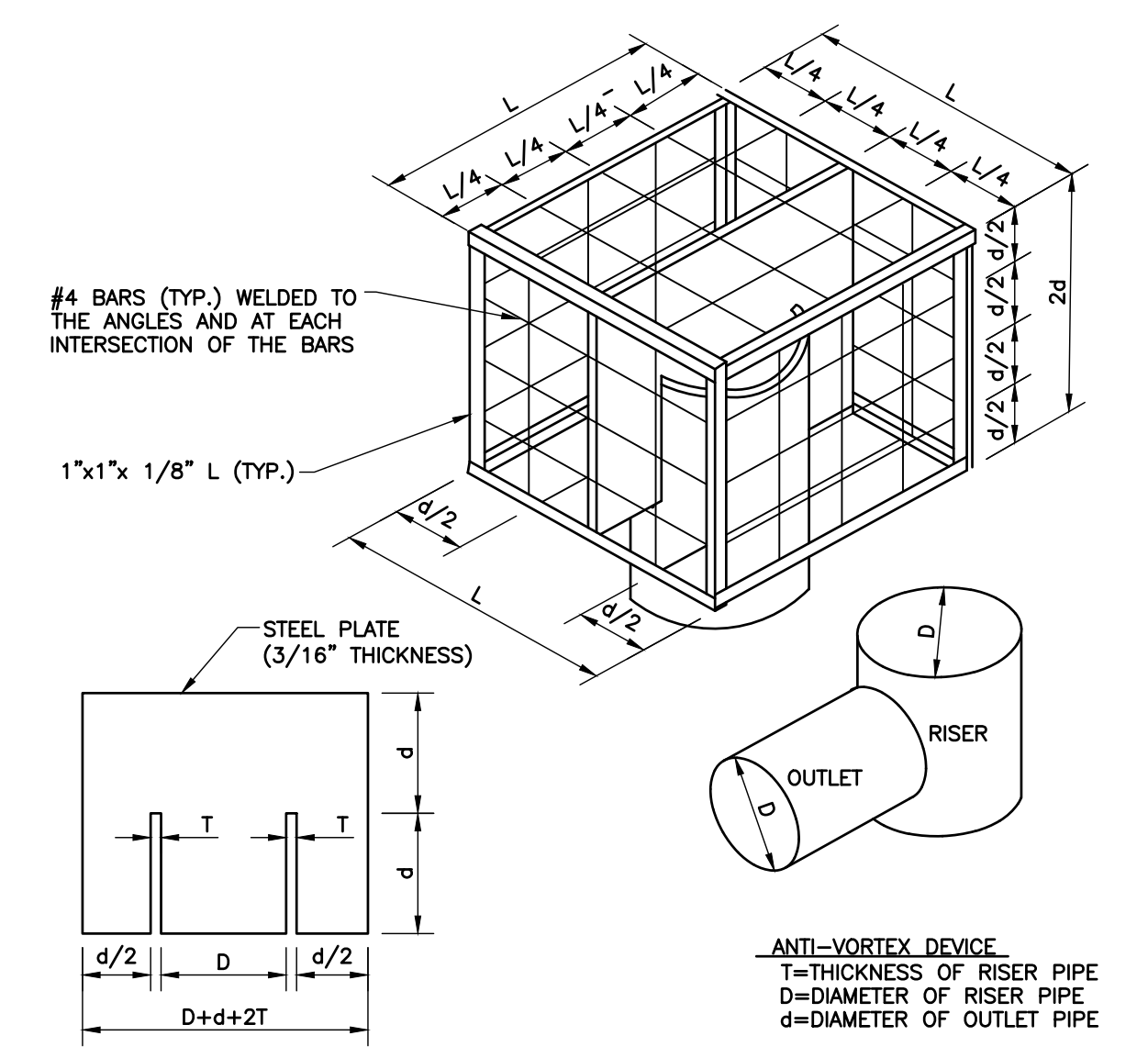
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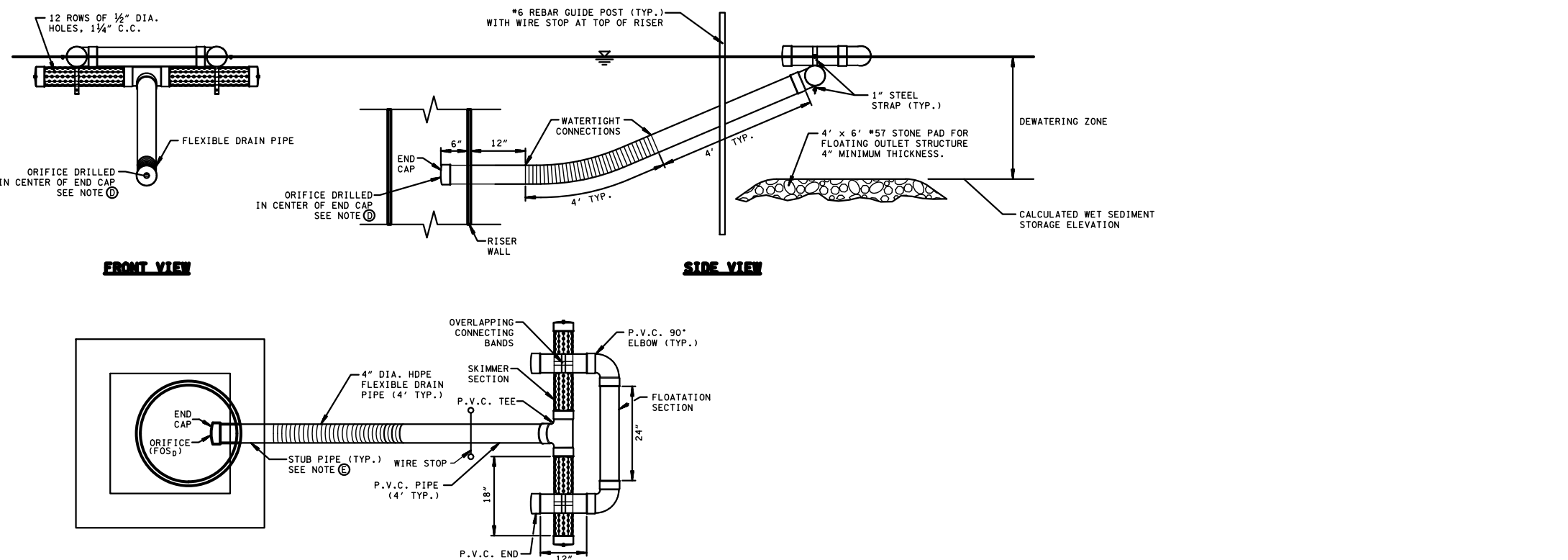
DETAIL 908
SEDIMENT BASIN AND SKIMMER
N.T.S.



DETAIL 909
PRINCIPAL SPILLWAY/OUTLET STRUCTURE
N.T.S.



DETAIL 910
TRASH RACK AND ANTI-VORTEX DEVICE
N.T.S.



FLOATING OUTLET STRUCTURE GENERAL NOTES

- ALL P.V.C. PIPES ARE TO BE 4" I.D. SCHEDULE 40.
- ALL JOISTS OF THE FLOORING SYSTEM SHALL BE INSTALLED TO INSURE AN UNIFORM ALIGNMENT. CONNECTIONS TO JOISTS SHALL BE MADE PRIOR TO INSTALLATION. JOISTS OF THE FLOORING SYSTEM SHALL BE WATER TIGHT.
- 4" HOPE FLEXIBLE DRAIN PIPE IS TO BE ATTACHED TO THE BASIN OUTLET STRUCTURE WITH WATER TIGHT CONNECTIONS.
- ORIFICE IS TO BE SIZED ACCORDING TO STORAGE VOLUME AND TO SLOWLY RELEASE WATER. THE BASIN OPERATING TIME SHOULD BE NO LESS THAN 18 HOURS.
- FOR COMPACTED MEDIA FILTER, 2" HOLES SHALL BE SPACED AS STAPLE PATTERN AND TO BE SPACED TO PREVENT MEDIA FROM ESCAPING. 2" HOLES SHALL BE SPACED AS P.V.C. PIPE JOINTS TO PREVENT MEDIA FROM ESCAPING. 2" HOLES SHALL BE SPACED AS P.V.C. PIPE JOINTS TO PREVENT MEDIA FROM ESCAPING. 2" HOLES SHALL BE SPACED AS P.V.C. PIPE JOINTS TO PREVENT MEDIA FROM ESCAPING.
- MINIMUM: 1" DIA. *18"

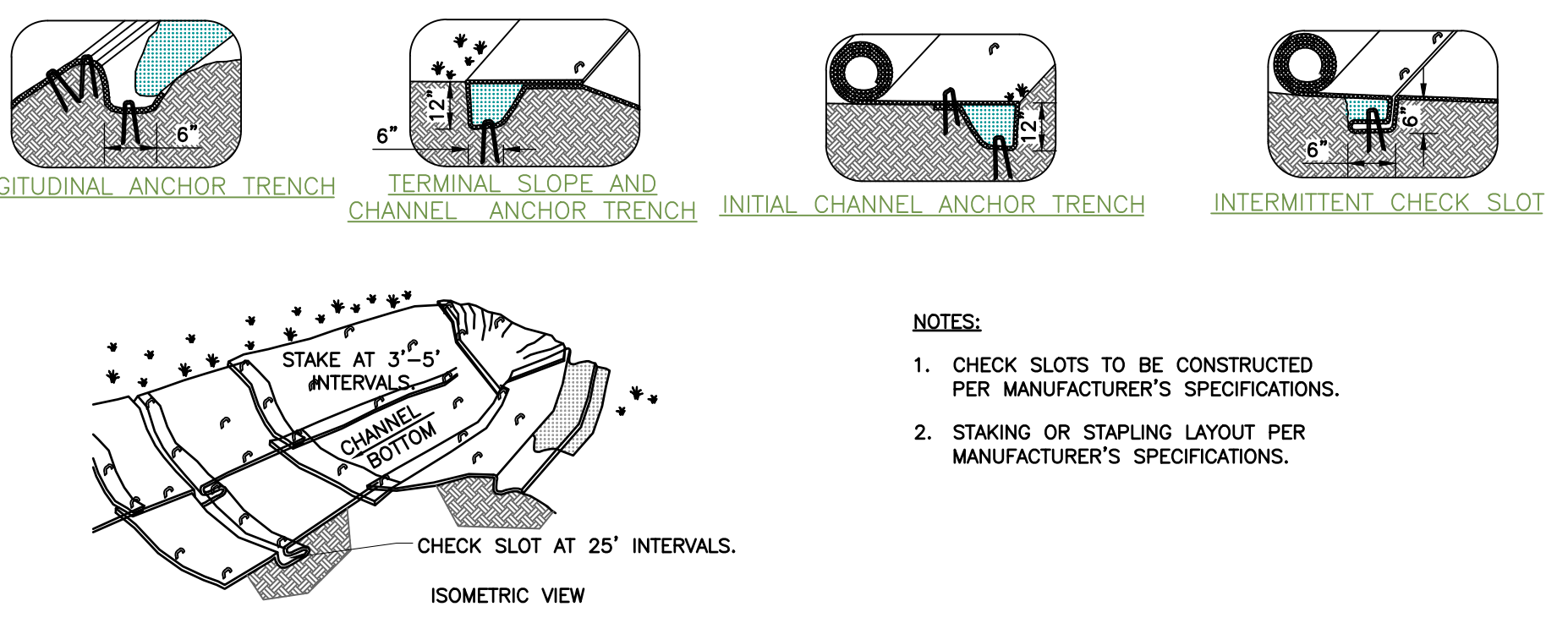
ORIFICE SELECTION TABLE

ORIFICE SIZE (IN)	DISCHARGE Q (CFS)	OPERATING TIME (HOURS)
1.5"	0.081	18
2.0"	0.162	18
2.5"	0.243	18
3.0"	0.324	18
3.5"	0.405	18
4.0"	0.486	18

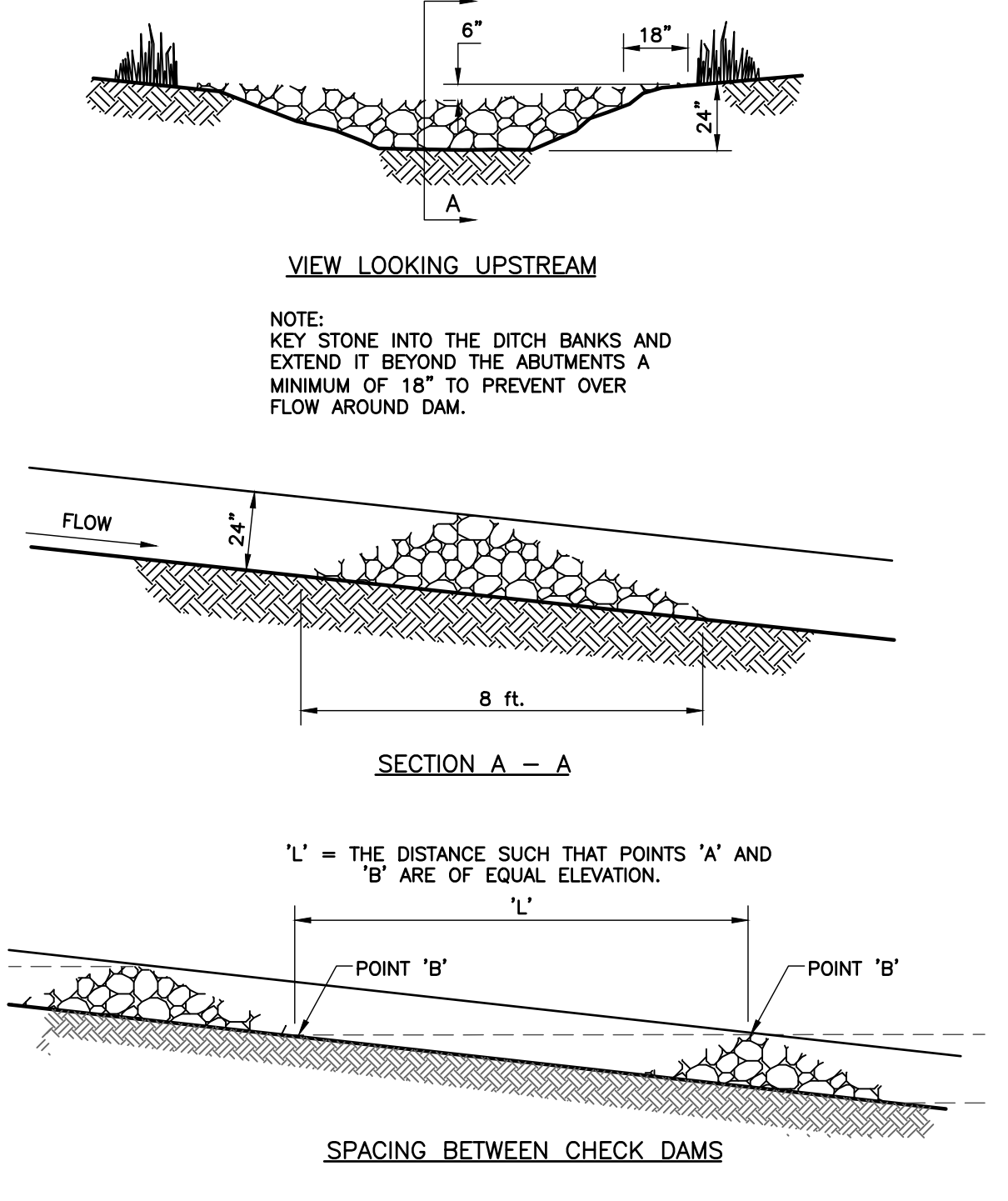
PROCEDURE FOR ORIFICE SELECTION

- Determine the size and shape of the orifice. Calculate the volume of water to be stored from the bottom of the orifice to the top of the spillway.
- Make for Q_{min} and Q_{max} based on the volume of the orifice.
- Select an orifice size (from table) that has a corresponding discharge between Q_{min} and Q_{max} .

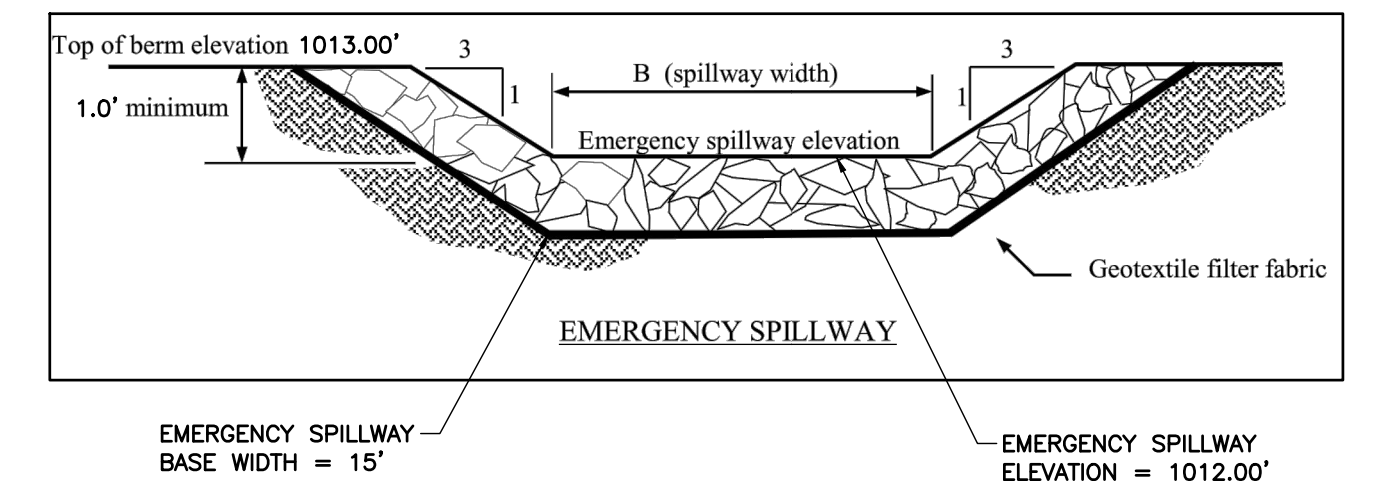
DETAIL 911
FLOATING OUTLET STRUCTURE/SKIMMER
N.T.S.



DETAIL 912
DIVERSION SWALE
N.T.S.



DETAIL 913
ROCK CHECK DAM
N.T.S.



DETAIL 914
EMERGENCY SPILLWAY
N.T.S.

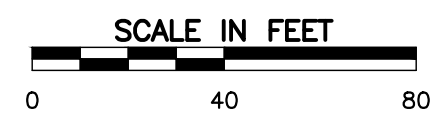
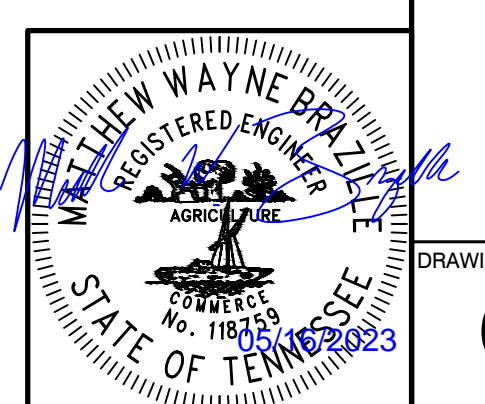
REVISION RECORD

NO.	DATE	DESCRIPTION

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EPSC DETAILS SHEET 2 OF 2
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DRAWING NO.: **C904**

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