

CIVIL INDEX SHEET

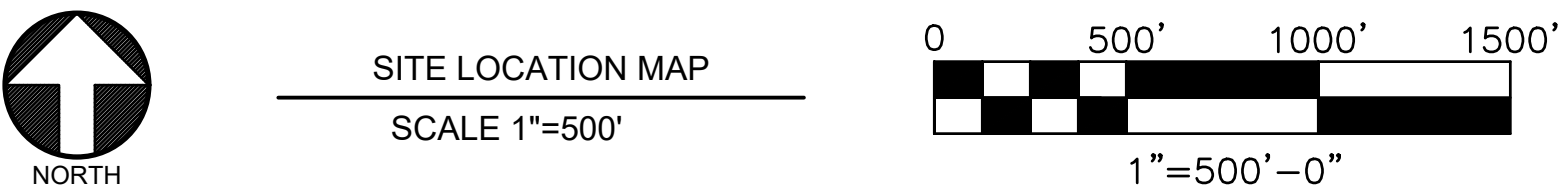
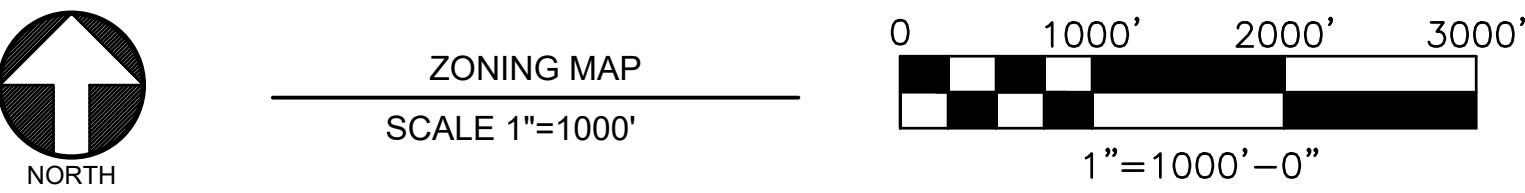
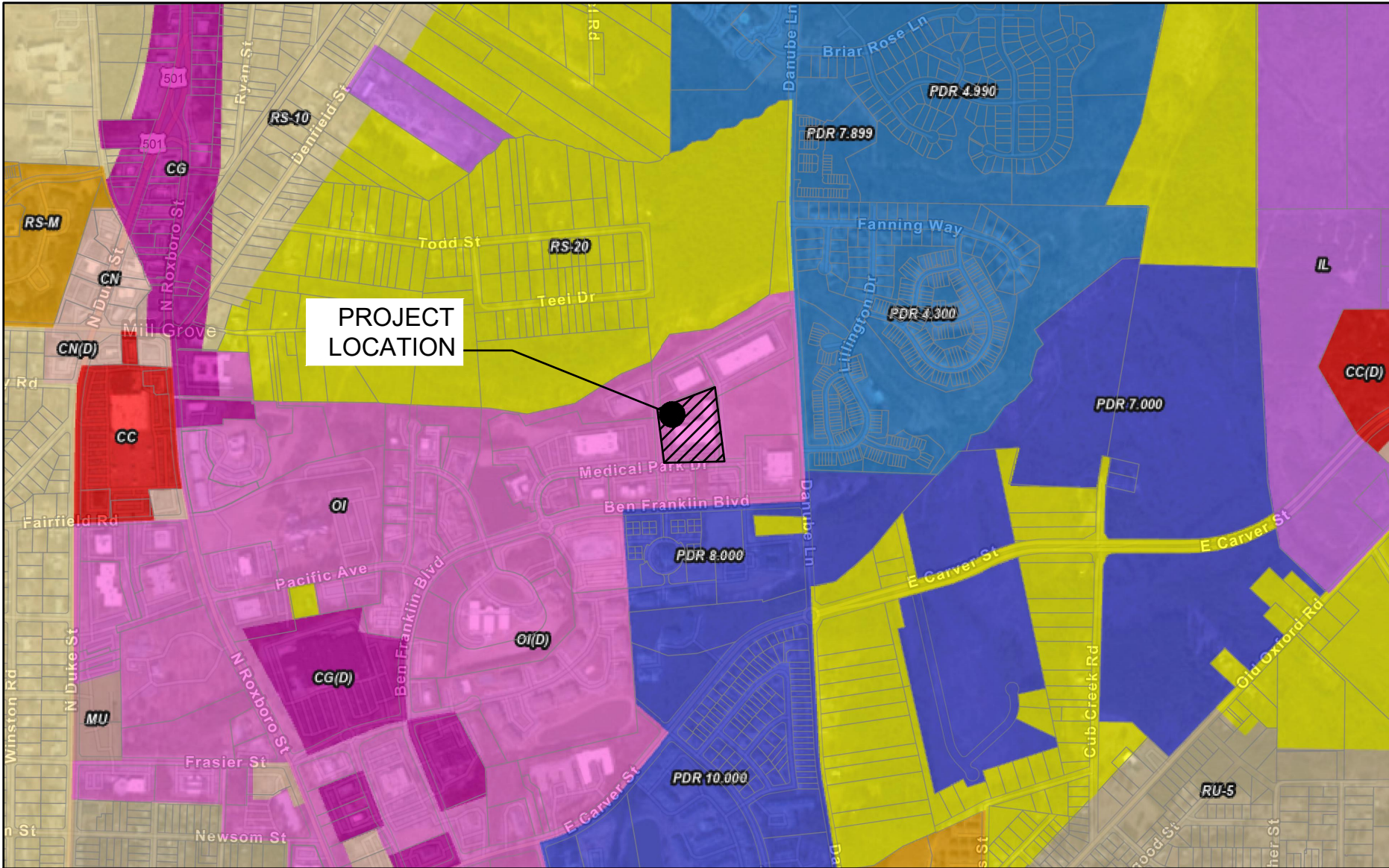
4204 ALMAC GENERATOR INSTALL  
LEVEL 2-SITE PLAN

OWNER  
ALMAC GROUP  
4238 TECHNOLOGY DRIVE  
DURHAM, NC 27704

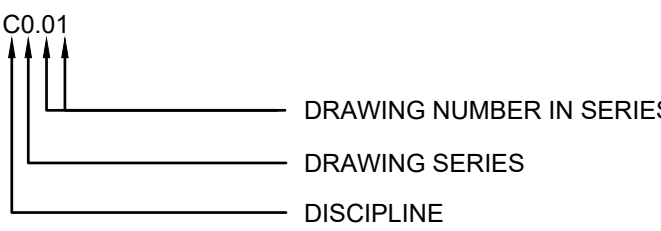
APPLICANT  
ALMAC GROUP  
4238 TECHNOLOGY DRIVE  
DURHAM, NC 27704

MEP ENGINEER:  
PRECIS ENGINEERING, INC.  
20 SOUTH MAPLE STREET, SUITE 200  
AMBLER, PA 19002

CIVIL ENGINEER:  
MAINSTAY ENGINEERING GROUP, INC.  
1750 WALTON ROAD, SUITE 200  
BLUE BELL, PA 19422



DRAWING SCHEDULE  
DRAWING NUMBER NOMENCLATURE



DRAWING NUMBER	DRAWING TITLE	ISSUE DATE	ISSUE DESCRIPTION	80% OWNER REVIEW	PERMIT ISSUE	PERMIT RE-ISSUE
C0.01	CIVIL INDEX SHEET	08-24-2022		X	X	X
C0.02	CIVIL NOTES SHEET			X	X	X
C1.01	CIVIL EXISTING FEATURES & DEMOLITION PLAN			X	X	X
C1.11	CIVIL EROSION & SEDIMENT CONTROL PLAN			X	X	X
C3.01	CIVIL SITE IMPROVEMENTS PLAN			X	X	X
C3.11	CIVIL GRADING PLAN			X	X	X
C7.01	CIVIL CONSTRUCTION & EROSION CONTROL DETAILS SHEET			X	X	X

REFERENCE DOCUMENTS					
	SITE SURVEY			X	X

NORTH CAROLINA 811 UTILITY INFORMATION

Ticket : C222301195			Op ID:	
Members:			(not available)	
CLS01 = USIC LOCATING SERVICES, INC.			CD	
COD01 = CITY OF DURHAM			(not available)	
CSR02 = WTR/SWR/STR DRAIN ONLY LOCATE TO METER			(not available)	
CVI04* = CHARTER COMMUNICATIONS			DUKE	
DPC14* = DUKE ENERGY			(not available)	
DUK02* = DUKE UNIVERSITY - TFG			(not available)	
GFI04* = GOOGLE FIBER, INC.			(not available)	
GTE03* = FRONTIER COMMUNICATIONS			(not available)	
MCI01 = VERIZON (FORMERLY MCI)			(not available)	
MCN07 = MCNC			(not available)	
PSC02 = DOMINION ENERGY			DENC	
Member	Type	Contact	Phone	
COD01	Field	PUBLIC WORKS	919-560-4326	
	Damage	1 - STEVE HARDEE	919-560-4326	
CVI04*	Field	2 - PWOC MAINTENANCE	919-560-4344	
	Damage	DISPATCH	800-778-9140	
DPC14*	Field	CAROLINAS REGIONAL OPERATIONS	855-272-2862	
	Damage	DISPATCH	800-778-9140	
DUK02*	Field	DUKE ENERGY REPRESENTATIVE	800-769-3766	
	Damage	BRIAN ARRINGTON	919-248-8407	
GFI04*	Field	Not available		
	Damage	1 - USIC	800-778-9140	
GTE03*	Field	2 - VINCE MORGANO	650-793-7350	
	Damage	1 - USIC	800-778-9140	
MCI01	Field	2 - VINCE MORGANO	650-793-7350	
	Damage	DISPATCH	800-778-9140	
PSC02	Field	FRONTIER COMMUNICATIONS	800-921-8102	
	Damage	NATIONAL FIBER SECURITY	800-289-3427x2	
	Field	PERSONNEL	800-624-9675	
	Damage	1 - DOMINION ENERGY REP	877-776-2427	
	Field	2 - DIANE WHITMAN	919-317-4595	
	Damage	1 - DOMINION ENERGY REP	877-776-2427	
	Field	2 - DOMINION CENTRAL DISPATCH	800-296-0335	



THESE DRAWINGS SHALL NOT BE UTILIZED FOR CONSTRUCTION UNLESS EXPLICITLY NOTED AS "ISSUED FOR CONSTRUCTION". THE INTENDED USE OF THESE DRAWINGS SHALL BE ONLY AS INDICATED IN THE ISSUANCE DESCRIPTION OF THE DRAWING TITLE BLOCK. MAINSTAY ENGINEERING GROUP, INC. SHALL ASSUME NO LIABILITY FOR DRAWINGS THAT ARE USED FOR ANY PURPOSE OTHER THAN INDICATED ON THESE DRAWINGS.



PROJECT TITLE  
4202 TECHNOLOGY DRIVE  
PARCEL ID: 172228 | ZONING: OFFICE/INSTITUTIONAL

REV	BY	DATE	DESCRIPTION
A	MRC	08-24-22	80% CLIENT REVIEW
B	MRC	09-09-22	PERMIT ISSUE
C	MRC	09-27-22	PERMIT RE-ISSUE



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PROJ. NO.	21488	DESIGNED BY:	MRCIOGY
SCALE:	AS NOTED	CHECKED BY:	MRCFJA
SHEET SIZE:	30x42	APPROVED BY:	DFC

DRAWING TITLE  
CIVIL INDEX SHEET

DRAWING NUMBER  
C0.01

ISSUED FOR PERMIT



GENERAL NOTES:

- DATUM = NC GRID NAD 83'.
- TOPOGRAPHIC INFORMATION SHOWN HEREON TAKEN FROM GROUND SURVEY PERFORMED BY SMITH SURVEYING SOLUTIONS, PLLC. DATE OF FIELD SURVEY = AUGUST 5, 2022.
- LOCATION OF ALL UNDERGROUND UTILITIES AS SHOWN ARE APPROXIMATE AND BASED ON VISIBLE EVIDENCE AND DRAWINGS PROVIDED TO THE SURVEYOR. ALL LOCATIONS AND SIZES ARE BASED ON UTILITY MARK-OUTS, ABOVE GROUND STRUCTURES THAT WERE VISIBLE & ACCESSIBLE IN THE FIELD, AND THE MAPS LISTED IN THE REFERENCES AVAILABLE AT THE TIME OF THE SURVEY. AVAILABLE AS-BUILT PLANS AND UTILITY MARK-OUT DOES NOT ENSURE MAPPING OF ALL UNDERGROUND UTILITIES AND STRUCTURES. BEFORE ANY EXCAVATION IS TO BEGIN, ALL UNDERGROUND UTILITIES SHOULD BE VERIFIED AS TO THEIR LOCATION, SIZE AND TYPE BY THE PROPER UTILITY COMPANIES.

MEANS AND METHODS/DEMOLITION

- THE CONTRACTOR SHALL PROVIDE MEANS AND METHODS NECESSARY TO COMPLETE THE DEMOLITION SCOPE. IF NECESSARY, THE CONTRACTOR SHALL ENGAGE A MEANS AND METHODS PROFESSIONAL ENGINEER TO PROVIDE MEANS AND METHODS ENGINEERING NECESSARY TO COMPLETE THE DEMOLITION AND CONSTRUCTION INDICATED IN THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL INSPECT, ASSESS AND VERIFY THE EXISTING CONDITIONS AND EXTENT OF WORK PRIOR TO COMMENCING DEMOLITION AND CONSTRUCTION.
- THE CONTRACTOR SHALL COORDINATE WORK WITH MISCELLANEOUS TRADES.
- THE CONTRACTOR SHALL COORDINATE CUTTING, WELDING AND RIGGING REQUIREMENTS WITH THE CONSTRUCTION MANAGER AND MEANS AND METHODS PROFESSIONAL ENGINEER.
- CONSTRUCTION AND DEMOLITION WORK SHALL BE PERFORMED IN STRICT ACCORDANCE FEDERAL, STATE AND LOCAL RULES, REGULATIONS, CODES AND LAWS.
- DEMOLITION AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH OWNERS GUIDELINES AND SAFETY STANDARDS.

SITE CLEARING AND DEMOLITION NOTES

- PERFORM DEMOLITION WORK IN ACCORDANCE WITH APPLICABLE LOCAL AND STATE REGULATIONS AND WITH AMERICAN NATIONAL STANDARD SAFETY REQUIREMENTS FOR DEMOLITION.
- INSTALL EROSION AND SEDIMENTATION CONTROL MEASURES BEFORE SITE CLEARING.
- CONTRACTOR SHALL CONTACT THE STATE ONE CALL (DIAL 811) TO VERIFY UNDERGROUND UTILITY LOCATIONS AT LEAST 3 DAYS PRIOR TO EXCAVATION.
- LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP OFF UTILITIES INDICATED TO BE REMOVED.
- TRAFFIC-MINIMIZE INTERFERENCE WITH ADJOINING ROADS, STREETS, WALKS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES DURING SITE-CLEARING OPERATIONS.
- DO NOT INTERFERE WITH THE USE OF ADJACENT SITE OR BUILDING AREAS.
- MAINTAIN UNINTERRUPTED UTILITY SERVICE, TO THE EXISTING STRUCTURES TO REMAIN, AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT. COORDINATE AND NOTIFY OWNER FOR ALL REQUIRED SHUTDOWNS FOR UTILITY CONNECTION AND RELOCATION WORK.
- DEMOLISH OR REMOVE WORK IN A MANNER WHICH ALLOWS FOR THE INSTALLATION OF NEW ADJACENT WORK WITHOUT DAMAGING EDGE CONDITIONS OF EXISTING SITE ELEMENTS.
- DEMOLITION OF UTILITIES NOTED INCLUDES THE REMOVAL OF ALL PIPE, STRUCTURES, FITTINGS, VALVES, ENCASEMENTS, ETC.
- DISPOSE OF ALL UNSUITABLE MATERIAL AND DEBRIS RESULTING FROM THE WORK OFF SITE AND LEAVE AREAS CLEAN AND READY FOR NEW WORK.
- PROTECT AND MAINTAIN BENCHMARKS AND SURVEY CONTROL POINTS FROM DISTURBANCE.
- PROTECT SITE IMPROVEMENTS TO REMAIN FROM DAMAGE. RESTORE DAMAGED IMPROVEMENTS TO CONDITION EXISTING BEFORE START OF SITE CLEARING.
- PREVENT MOVEMENT, SETTLEMENT, OR DAMAGE TO ADJACENT WALKWAYS, PAVEMENT, TRAILERS, BUILDINGS, ETC. AND OTHER SITE ELEMENTS TO REMAIN.
- PROTECT REMAINING TREES AND SHRUBS FROM DAMAGE AND MAINTAIN VEGETATION. RESTORE DAMAGED VEGETATION. REPLACE DAMAGED TREES THAT CANNOT BE RESTORED TO FULL GROWTH, AS DETERMINED BY A QUALIFIED TREE EXPERT.
- DO NOT STORE MATERIALS OR EQUIPMENT OR PERMIT EXCAVATION WITHIN DRIP LINE OF EXISTING TREES.
- REMOVE OBSTRUCTIONS, TREES, SHRUBS, GRASS, AND OTHER VEGETATION TO PERMIT INSTALLATION OF NEW CONSTRUCTION. REMOVAL INCLUDES DIGGING OUT STUMPS AND OBSTRUCTIONS AND GRUBBING ROOTS.
- STRIP TOPSOIL STOCKPILE TOPSOIL THAT WILL BE REUSED IN THE WORK.
- REMOVE EXISTING ABOVE- AND BELOW-GRADE IMPROVEMENTS AS INDICATED AND AS NECESSARY TO FACILITATE NEW CONSTRUCTION.
- REMOVE SLABS, PAVING, CURBS, GUTTERS, AND AGGREGATE BASE AS INDICATED.
- IN AREAS NOT TO BE FURTHER EXCAVATED, FILL DEPRESSIONS RESULTING FROM SITE CLEARING, PLACE AND COMPACT SATISFACTORY SOIL MATERIALS IN 6-INCH THICK LAYERS TO DENSITY OF SURROUNDING ORIGINAL GROUND.
- DISPOSE OF WASTE MATERIALS, INCLUDING TRASH, DEBRIS, AND EXCESS TOPSOIL, OFF OWNER'S PROPERTY. BURNING WASTE MATERIALS ON-SITE IS NOT PERMITTED.

TEMPORARY STABILIZATION AND PERMANENT STABILIZATION:

- HAY OR STRAW MULCH MUST BE APPLIED AT 3.0 TONS PER ACRE.
- MULCH WITH MULCH CONTROL, NETTING OR EROSION CONTROL BLANKETS MUST BE INSTALLED ON ALL SLOPES 4:1 OR STEEPER.
- STRAW MULCH SHALL BE APPLIED IN LONG STRANDS, NOT CHOPPED OR FINELY BROKEN.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPs MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT CONTROL BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGARDING, RESEEDING, REMULCHING, AND RENETTING, MUST BE DONE IMMEDIATELY. IF EROSION AND SEDIMENT CONTROL BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS TO THOSE INSTALLED WILL BE REQUIRED.
- SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN LANDSCAPE AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED, OR PLACED IN TOPSOIL STOCKPILES.
- THE OPERATOR SHALL REMOVE FROM THIS SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS. THE CONTRACTOR SHALL NOT ILLEGALLY BURY, DUMP, OR DISCHARGE ANY BUILDING MATERIAL OR WASTES AT THIS SITE.
- PROVIDE EROSION CONTROL BLANKET (ECB) ON ALL SWALES AND ALL SEDIMENT BASIN AND TRAP BERMS. THE CONSERVATION DISTRICT REQUIRES THE USE OF ECB FOR SWALE STABILIZATION AND FOR SEDIMENT BASIN AND TRAPS AND BERM STABILIZATION. THE DISTRICT MAY WAIVE THIS REQUIREMENT FOR SEDIMENT BASIN AND TRAPS AND BERMS DURING SEED GERMINATION PERIODS.
- AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.

GENERAL EROSION CONTROL NOTES

- ALL WATER PUMPED OR DRAINED FROM THE WORK AREA SHALL BE DISPOSED OF IN A SUITABLE MANNER WITHOUT UNDU INTERFERENCE WITH OTHER WORK OR DAMAGE TO SURFACES AND PROPERTY.
- TOPSOIL STOCKPILE AREAS, STAGING AREAS AND DISTURBED PERVIOUS PORTIONS OF THE PROJECT AREA WHERE CONSTRUCTION ACTIVITIES TEMPORARILY CEASES FOR AT LEAST 21 DAYS SHALL BE STABILIZED WITH TEMPORARY SEED AND MULCH NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY IN THAT AREA.
- PROPOSED GRADES WHICH HAVE SLOPES EQUAL TO OR GREATER THAN 3:1 SHALL BE STABILIZED WITH AN APPROVED EROSION CONTROL FABRIC.
- SEDIMENT CONTROL FENCING SHALL BE INSTALLED AROUND THE PROJECT AREA AS DEPICTED ON THE PLANS SHEETS.
- SILT LADEN WATER OR WATER CONTAMINATED BY ACID SOIL SHALL NOT BE DISCHARGED DIRECTLY INTO STORM SEWERS, SURFACE WATERS, STREAMS OR CROSSINGS OF WETLANDS. CARE SHALL BE TAKEN NOT TO DAMAGE OR KILL VEGETATION BY EXCESSIVE WATERING OR BY SILT ACCUMULATIONS IN THE DISCHARGE AREA. SETTLEMENT BASINS SHALL BE EMPLOYED WHERE NECESSARY TO REMOVE SILT AND TREAT ACID WATER TO THE AMBIENT PH OF THE RECEIVING WATERS.
- SILTATION DEPOSITS RESULTING FROM THE DISCHARGE OF WATER FROM THE PROJECT SITE SHALL BE REMOVED TO RESTORE PROFILES AND CONDITIONS TO THAT EXISTING PRIOR TO COMMENCEMENT OF THE WORK.
- CONTRACTOR SHALL DEVOTE PARTICULAR ATTENTION TO ALL DRAINAGE FACILITIES, KEEPING THEM FULLY OPERATIVE AT ALL TIMES.
- DISTURBED AREAS AND STOCKPILED MATERIALS, WHICH WILL NOT BE RE-DISTURBED WITHIN 21 DAYS, SHALL BE STABILIZED WITHIN 14 DAYS BY USE OF MULCHING, SEEDING, GEOTEXTILE FABRIC, OR OTHER APPROVED METHODS.
- ALL SLOPES 3:1 OR GREATER AS WELL AS THOSE DESIGNATED SHALL RECEIVE EROSION CONTROL FABRIC AS SPECIFIED.
- PROVIDE INLET PROTECTION AS DETAILED AT ALL CATCH BASIN GRATES TO PREVENT THE ACCUMULATION OF SILT IN THE BASINS DURING CONSTRUCTION. CLEAN AND MAINTAIN STORM STRUCTURE SUMPS AT REGULAR INTERVALS AND AT THE COMPLETION OF CONSTRUCTION.
- CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE NCDPEP EROSION AND SEDIMENT CONTROL MANUAL.
- EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED IN ADVANCE OF ANY UPGRADE DISTURBANCE/CONSTRUCTION ACTIVITY.
- A CONSTRUCTION ENTRANCE WILL NOT BE UTILIZED AS THE EQUIPMENT NEEDED TO PERFORM THE DEMOLITION ACTIVITIES WILL REMAIN ON THE ADJACENT ASPHALT SURFACES AND PERFORM THEIR WORK FROM THOSE LOCATIONS. DUMP TRUCKS HAULING MATERIALS TO AND FROM THE CONSTRUCTION PROJECT AREA SHALL BE COVERED WITH A TARPULIN TO REDUCE DUST. ANY SEDIMENT AND DEBRIS TRACKED FROM THE WORK AREA ALONG PUBLIC ROADWAYS SHALL BE IMMEDIATELY REMOVED WITH A STREET SWEEPER OR EQUIVALENT SWEEPING METHOD. FURTHER SWEEPING OF STREETS ADJACENT TO DISTURBED AREAS SHALL BE PERFORMED PRIOR TO THE END OF EACH WORK DAY (AT A MINIMUM) WHEN TRACKING OF SEDIMENT IS OCCURRING.
- DUST SHALL BE CONTROLLED ON DISTURBED AREAS SUBJECT TO SURFACE DUST MOVEMENT AND BLOWING.
- PERIMETER CONTROLS SHALL BE INSTALLED TO CONTAIN RUNOFF ALONG THE DOWNSTREAM BOUNDARY OF THE SITE. SILT FENCE SHALL BE INSPECTED FOR UNDERMINING, DETERIORATION AND BUILDUP OF SEDIMENT. REMOVE SEDIMENT FROM SILT FENCING WHEN IT BECOMES ONE-HALF FEET DEEP OR GREATER. SILT FENCING SHALL BE INSPECTED FOR TEARS AS WELL AS THE INTEGRITY OF ATTACHMENT TO THE FENCE POSTS. POSTS SHALL BE SECURELY PLACED IN THE GROUND.
- CONSTRUCTION TRAFFIC SHALL BE LIMITED TO THE CONSTRUCTION ENTRANCE (WHEN ONE IS UTILIZED).
- SEED AND MULCH SHALL BE APPLIED IMMEDIATELY FOLLOWING THE COMPLETION OF GRADING OPERATIONS.
- SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED WEEKLY, AND FOLLOWING ANY RAIN STORM EVENT, OR AS PER THE CONTROL DETAIL DICTATES IF INSPECTIONS ARE REQUIRED. MORE FREQUENTLY, CLEAN OUT, REPAIRS, REPLACEMENT, RE-SEEDING AND RE-MULCHING MUST BE PERFORMED IMMEDIATELY.
- EXCAVATED STOCKPILES SHALL BE PROTECTED, STABILIZED AND PLACED IN A LOCATION AWAY FROM ANY STORM DRAINS AND BODIES OF WATER.
- ALL DEWATERING ACTIVITIES SHALL BE DONE IN ACCORDANCE WITH NCDPEP STANDARDS.
- ANY SPOIL MATERIALS HAULED TO AN OFFSITE LOCATION WILL NEED TO BE PERMITTED BY THE REQUIRED AGENCY WHICH MAY INCLUDE NCDPEP AND THE COUNTY CONSERVATION DISTRICT.
- ANY FILL MATERIALS HAULED ON SITE FROM AN OFFSITE LOCATION SHALL BE CLEAN FILL AS DEFINED BY NCDPEP AND THE SOIL CONSERVATION DISTRICT REQUIREMENTS.
- UNTIL SITE IS STABILIZED ALL EROSION AND SEDIMENT CONTROLS MUST BE MAINTAINED PROPERLY.
- PRIOR TO DEMOBILIZATION ALL CONSTRUCTION WASTE GENERATED DURING THE CONSTRUCTION OF THIS PROJECT SHALL BE REMOVED FROM THE SITE AND TAKEN TO A PERMITTED DISPOSAL OR RECYCLING FACILITY.
- SHOULD ANY MEASURES CONTAINED WITHIN THIS PLAN PROVE INCAPABLE OF ADEQUATELY REMOVING SEDIMENT FROM ON-SITE FLOWS PRIOR TO DISCHARGE, OR OF STABILIZING THE SURFACES INVOLVED, ADDITIONAL MEASURES MUST BE IMPLEMENTED IMMEDIATELY BY THE CONTRACTOR TO ELIMINATE ALL SUCH PROBLEMS.
- AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED TEMPORARY EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED. AREAS DISTURBED AS A RESULT OF SUCH REMOVALS SHALL BE STABILIZED. THE CRITERIA TO BE USED FOR SUCCESSFUL PERMANENT VEGETATION SHALL BE AS FOLLOWS:  
NOT LESS THAN 80% GROUND COVER PER SQUARE YARD  
NOT LESS THAN 90% GROUND COVER PER CRITICAL SQUARE YARD.
- VISUAL INSPECTION OF VEGETATION COVER WILL BE MADE 4 TO 6 WEEKS AFTER SEEDING AND GERMINATION. AREAS DEEMED TO HAVE INADEQUATE COVER SHALL BE RE-SEEDED.
- UPON COMPLETION OF DEMOLITION WORK AND ACCEPTANCE OF SITE STABILIZATION BY THE OWNER, THE RESPONSIBILITY FOR KEEPING CONTROL OF PERMANENT FACILITIES (SUCH AS SEEDING AND MULCHING) IN REPAIR WILL SHIFT FROM THE CONTRACTOR TO THE OWNER. PERMANENT CONTROL FACILITIES SHALL BE INSPECTED ON A PERIODIC BASIS (NOT TO EXCEED QUARTERLY). REPAIR OF FACILITIES AS REQUIRED SHALL BE ACCOMPLISHED WITHIN 1 WEEK.

EXCAVATION AND BACKFILL NOTES

- PRIOR TO EXCAVATION, THE CONTRACTOR SHALL CONTACT THE NORTH CAROLINA ONE CALL SYSTEM TO FIELD VERIFY ALL LOCATIONS OF UNDERGROUND UTILITIES. ALL UTILITIES AND UTILITY LOCATIONS SHOWN ARE APPROXIMATE AND BASED ON THE BEST AVAILABLE INFORMATION. DIAL 811 FOR ACCESS TO ALL ONE CALL AGENCIES.
- THE CONTRACTOR SHALL ENGAGE THE SERVICES OF A PROFESSIONAL GEOTECHNICAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA. ALL BACKFILLING OPERATIONS AND TESTING SHALL BE MONITORED BY THE GEOTECHNICAL ENGINEER.
- THE CONTRACTOR SHALL PROVIDE LABORATORY COMPACTION TESTS FOR ALL BEDDING AND BACKFILL MATERIAL. EXCAVATION SPOILS MAY BE USED AS BACKFILL IF PROVEN TO BE SUITABLE WITH RESPECT TO COMPOSITION AND COMPACTION REQUIREMENTS.
- ALL BEDDING AND BACKFILL MATERIAL SHALL BE PLACED IN 6" LOOSE LIFTS AND COMPACTED BY MECHANICAL MEANS TO 95% MAXIMUM UNIT WEIGHT IN ACCORDANCE WITH ASTM D 1557.
- THE CONTRACTOR SHALL ENGAGE THE SERVICES OF A QUALIFIED TESTING AGENCY TO TEST COMPACTION OF BACKFILL MATERIAL IN ACCORDANCE WITH ASTM D 1556, D 2167, D 2922 AND D 2937 AS APPLICABLE. PERFORM TESTS AT THE FOLLOWING LOCATIONS AND FREQUENCIES:  
A. PAVED AND BUILDING SLAB AREAS: AT SUBGRADE AND AT EACH COMPACTED FILL AND BACKFILL LAYER, AT LEAST ONE TEST FOR EACH 1,000 SQ FT OF AREA, BUT IN NO CASE FEWER THAN THREE TESTS.
- THE CONTRACTOR SHALL REMOVE AND REPLACE MATERIAL THAT FAILS TO MEET COMPACTION TEST CRITERIA.
- THE CONTRACTOR SHALL ENGAGE THE SERVICES OF A UNDERGROUND UTILITY LOCATION SERVICE TO SURVEY THE ENTIRE PROJECT AREA PRIOR TO EXCAVATION TO DETERMINE ANY UNFORESEEN CONFLICTS WITH EXISTING UTILITIES. ANY CONFLICTS ENCOUNTERED SHOULD BE REPORTED TO THE ENGINEER FOR REVIEW.
- ANY TRENCH, EXCAVATION OR UNDERGROUND STRUCTURE THAT IS TO BE LEFT UNCOVERED FOR MORE THAN 8 HOURS SHALL BE PROTECTED WITH BARRICADES IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) OR OSHA STANDARDS.

DURHAM COUNTY, NC GENERAL APPROVED EROSION & SEDIMENT CONTROL NOTES:

- MORE THAN 12,000 SQ. FT. IS DISTURBED A LAND-DISTURBING PERMIT WILL BE REQUIRED PRIOR TO THE COMMENCEMENT OF ANY LAND-DISTURBING ACTIVITIES.
- ORE THAN 20,000 SQ. FT. IS DISTURBED, A SEDIMENTATION AND EROSION CONTROL PLAN MUST BE SUBMITTED AND APPROVED PRIOR TO THE ISSUANCE OF A LAND-DISTURBANCE PERMIT.
- E PROTECTION IS REQUIRED BY THE CITY/COUNTY PLANNING DEPARTMENT. TREE PROTECTION CERTIFICATION MUST BE SUBMITTED TO THE DURHAM COUNTY EROSION CONTROL DIVISION, AND TREE PROTECTION INSPECTION COMPLETED PRIOR TO LAND-DISTURBANCE PERMIT ISSUANCE.
- AN OFFSITE SPOIL OR BORROW SITE IS UTILIZED, THE DISTURBED AREA MUST BE INCLUDED IN THE LAND-DISTURBANCE PLAN AND PERMIT UNLESS ALREADY PERMITTED. IF THE DISTURBED AREA EXCEEDS FIVE ACRES, AN IMPROVEMENT SECURITY WILL BE REQUIRED PRIOR TO LAND-DISTURBING PERMIT ISSUANCE.

GRADING CONSTRUCTION NOTES

- PROPOSED GRADES SHALL BE THE SAME AS EXISTING GRADES UNLESS OTHERWISE INDICATED.
- PREPARE FINISHED SUBGRADES AND SURFACES PER EARTHWORK, SEEDING, STABILIZATION, PAVING AND OTHER APPLICABLE NOTES & DETAILS.
- HANDICAP RAMPS SHALL BE PROVIDED AT ALL SIDEWALK INTERSECTIONS AT DRIVEWAYS, PARKING AREAS, ETC., AND SHALL COMPLY WITH A.D.A. REQUIREMENTS.
- NO DRIVEWAY/CURB APRON SLOPE SHALL BE GREATER THAN 12:1 (48%)
- NO PARKING LOT SLOPE SHALL BE GREATER THAN 17:1 (49%)
- NO YARD SLOPE SHALL BE GREATER THAN 5:1 (20%) OR PER THE MAXIMUM PERMITTED GRADE PERMITTED BY MUNICIPAL STANDARDS
- SIDEWALK SLOPE/CROSS-SLOPES, ADA RAMP REQUIREMENTS AND CURB REVEALS SHALL BE AS SHOWN ON THE APPLICABLE DETAILS.
- MINIMUM SLOPE FOR ALL FINISHED PAVEMENTS SHALL BE 0.05 FT/FT (2%). ALL LOW SPOTS TO OCCUR OFFSITE OR AT AN EXISTING DRAINAGE STRUCTURE.

SITE CONCRETE NOTES

- CONCRETE WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE ACI BUILDING CODE (ACI 318), THE ACI DETAILING MANUAL (ACI 315), AND THE SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 301).
- CONCRETE SHALL BE READY MIX WITH A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS.
- CONCRETE EXPOSED TO FREEZE-THAW CYCLES (WEATHER) SHALL CONTAIN AN AIR-ENTRAINING ADMIXTURE TO PRODUCE AN AIR-ENTRAINMENT OF 5%-7%, OMIT AIR-ENTRAINMENT FOR CONCRETE TO RECEIVE A TROWELED FINISH.
- CONCRETE MIX DESIGNS AND ASSOCIATED PRODUCT DATA, IN ACCORDANCE WITH ACI 301, SHALL BE SUBMITTED FOR REVIEW PRIOR TO PLACEMENT. SUBMITTAL SHALL INCLUDE COMPRESSIVE STRENGTH TEST RESULTS, MIX PROPORTIONS AND PRODUCT DATA. PRODUCT DATA SHALL INCLUDE CEMENT MILL TEST CERTIFICATE, AGGREGATE GRADATION RESULTS, AND ADMIXTURE MANUFACTURER DATA SHEETS.
- REINFORCING STEEL SHALL BE MANUFACTURED FROM HIGH STRENGTH BILLET STEEL CONFORMING TO ASTM A615, GRADE 60. WELDED WIRE FABRIC SHALL COMPLY WITH ASTM A1064 (FORMERLY ASTM A185).
- LAP BARS A MINIMUM 48 DIAMETERS. LAP WELDED WIRE FABRIC A MINIMUM OF 6 INCHES.
- REINFORCING SHOP DRAWINGS, IN CONFORMANCE WITH ACI 315 AND ACI SP-66, INCLUDING BAR AND WELDED WIRE FABRIC REINFORCING SHALL BE SUBMITTED FOR REVIEW PRIOR TO PLACEMENT.
- CONSTRUCTION JOINTS IN SLABS SHALL BE AT MID-SPAN AND KEY-JOINTED WITH REINFORCING CONTINUOUS ACROSS JOINT.
- CONCRETE CONTRACTOR SHALL COORDINATE EXTERIOR CONCRETE FINISHES WITH CONCRETE SPECIFICATIONS.
- SEE SPECIFICATION SECTION 03300 - CAST-IN-PLACE CONCRETE FOR ADDITIONAL INFORMATION.

SEEDING NOTES:

- EXCAVATE OR SCARIFY AREAS SUBJECT TO COMPACTION BY CONSTRUCTION ACTIVITIES, FINISH GRADE AND RAKE ALL AREAS TO BE TOPSOIL/SEEDED. REMOVE ALL DEBRIS, STONES AND CLODS LARGER THAN 1" TO A DEPTH OF SIX (6") INCHES. THE CONTRACTOR WILL BE RESPONSIBLE FOR REMOVING FROM THE SITE ALL DEBRIS AND STONES. AT THE SOLE DISCRETION OF THE OWNER, THE CONTRACTOR MAY DISPOSE OF STONE AND NATURAL DEBRIS ON SITE.
- TOPSOIL SHALL BE PLACED TO A MINIMUM OF 4 INCHES IN THICKNESS AND PROPERLY PREPARED FOR SEEDING. ALL AREAS TO BE SEEDED SHALL BE REASONABLY FREE FROM WEEDS TALLER THAN 3 INCHES.
- GRASS AREAS ARE TO BE SEEDED AND MULCHED IMMEDIATELY FOLLOWING EARTH MOVING PROCEDURES. SEEDING SHALL BE ACCOMPLISHED AS WEATHER PERMITS. HAY OR STRAW MULCH MUST BE APPLIED AT AFTER SEEDING.
- ESTABLISH PERMANENT SEEDING AS SOON AS POSSIBLE AFTER FINAL GRADING IS COMPLETE. ESTABLISHED GRASS AREA SHALL BE TURF GRASS AT A HEIGHT OF 6 INCHES CONSISTING OF A MINIMUM OF 100 PLANTS PER SQUARE FOOT THROUGHOUT THE SEEDED AREAS. WHEN TURF GRASS HAS ATTAINED THIS HEIGHT, IT SHALL BE MOWED TO A HEIGHT OF 3 INCHES.
- GRASS SEED: ALL SEED SHALL BE FRESH, NEW CROP SEED SHALL BE LABELED IN ACCORDANCE WITH THE U.S. DEPARTMENT OF AGRICULTURE'S RULES AND REGULATIONS UNDER THE FEDERAL SEED ACT IN EFFECT ON THE DATE OF INVITATION FOR BIDS. ALL SEED SHALL BE FURNISHED IN SCALED STANDARD CONTAINERS, BEARING THE WARRANTY OF THE SUPPLIER AND CERTIFYING THE KIND, PERCENT BY WEIGHT, PURITY, GERMINATION AND WEED SEED. SPREAD AT A RATE OF 175 POUNDS PER ACRE MINIMUM.

GRASS SEED PERCENTAGE TABLE

LAWN SEED MIX (PENNDOT FORMULA B): (FOR DRY-MOIST, WELL DRAINED SOILS & FULL SUN-PARTIAL SHADE)			
NAME	PROPORTION	MIN LIVE	MINIMUM %
	BY WEIGHT	% PURITY	% GERMINATION
PERENNIAL RYEGRASS (LOLIUM PERENNE)	50%	97%	80%
	20%	98%	90%
	30%	98%	85%

\*MULTIPLE VARIETIES, NO ONE TO EXCEED 25% OF PROPORTIONED MIXTURE.

SEEDING SEASON: MARCH 15 TO JUNE 1 OR AUGUST 1 TO OCTOBER 15.

- INOCULATING LEGUMES: INOCULATE LEGUMINOUS SEED, SUCH AS CROWNVEATCH AND BIRDSFOOT TREFOL, WITH PROPER CULTURES, ACCORDING TO THE MANUFACTURERS DIRECTIONS. PROTECT INOCULATED SEED FROM PROLONGED EXPOSURE TO SUNLIGHT BEFORE SOWING. REINOCULATE SEED NOT SOWN WITHIN 24 HOURS. IF USING HYDRAULIC SEEDERS, USE INOCULANT FOUR TIMES THE MANUFACTURER'S RECOMMENDED RATE. IF INOCULATED SEED IS HELD IN A SLURRY WITH FERTILIZERS FOR MORE THAN 1 HOUR, REINOCULATE OR APPLY LEGUMES SEPARATELY.
- TEMPORARY GRASS SEED: TEMPORARY GRASS SEED SHALL BE ANNUAL RYEGRASS (LOLIUM MULTIFLORUM) HAVING A MINIMUM PERCENT PURITY OF 98% AND A MINIMUM GERMINATION OF 90%.
- LIMESTONE: LIMESTONE SHALL BE APPLIED AT A RATE OF 800 POUNDS PER 1000 SQUARE YARDS DURING OR PRECEDING SEEDING. ALL LIMESTONE SHALL BE AGRICULTURAL LIMESTONE CONFORMING TO THE REQUIREMENTS OF THE AGRICULTURAL LIMING MATERIALS ACT OF 1978, P.L. 15, NO. 9, AS AMENDED.
- FERTILIZER: FERTILIZER SHALL BE APPLIED AT A RATE OF 320 POUNDS PER ACRE DURING OR PRECEDING SEEDING. WHEN THE GRASS SEEDING GROWTH HAS ATTAINED A HEIGHT OF 6 INCHES, THE SPECIFIED AREAS DESIGNATED HEREIN SHALL BE MOWED TO A HEIGHT 3 INCHES. FOLLOWING MOWING, ALL SEEDED GRASS AREAS SHALL RECEIVE A UNIFORM APPLICATION OF FERTILIZER HYDRAULICALLY PLACED AT A RATE OF 320 POUNDS PER ACRE. FERTILIZER SHALL BE COMMERCIAL GRADE GRANULAR 10-20-20 FERTILIZER. THE FERTILIZER SHALL BE DELIVERED TO THE SITE IN NEW, CLEAN, SEALED CONTAINERS WHICH BEAR A LABEL FULLY DESCRIBING THE CONTENTS, THE CHEMICAL ANALYSIS OF EACH NUTRIENT, THE FERTILIZER GRADE, THE NET BULK, THE BRAND AND THE NAME AND ADDRESS OF THE MANUFACTURER. THE FERTILIZER AND LABELS SHALL CONFORM TO ALL EXISTING STATE AND FEDERAL REGULATIONS.
- MULCH: THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SUITABLE MULCH TO PROTECT THE NEWLY SEEDED AREAS FROM THE AFFECTS OF DRYING, FROST OR OTHER ADVERSE WEATHER CONDITIONS PRIOR TO GERMINATION. ALL MULCH SHALL BE HAY WHICH IS FREE OF WEEDS AND SEEDS, NOT MOLLY OR ROTTEN, AND SHALL BE APPLIED IMMEDIATELY TO ALL SEEDED AREAS AT A RATE OF 1,200 POUNDS PER 1,000 SQ YARDS (5.0 TONS PER ACRE).
- ANCHORING: MULCH SHALL BE ANCHORED USING LIGHTWEIGHT FIBER OR PAPER NETS, TO BE STAPLED OVER MULCH ACCORDING TO MANUFACTURERS SPECIFICATIONS.
- GUARANTEE: ALL LAWN AREAS SHALL BE GUARANTEED UNTIL THE PROJECT IS ACCEPTED BY THE OWNER. THE LAWN MUST BE IN A VIGOROUS, HEALTHY CONDITION AT THE END OF THE GUARANTEE PERIOD. ANY AREAS OF THE LAWN NOT IN EXCELLENT CONDITION WILL BE OVER-SEEDED BY THE CONTRACTOR WITH THE SPECIFIED SEED MIX.

SEQUENCE OF CONSTRUCTION

- OBTAIN PLAN APPROVAL AND OTHER APPLICABLE PERMITS.
- FLAG THE WORK LIMITS AND MARK AREAS FOR PROTECTION.
- HOLD PRECONSTRUCTION CONFERENCE AT LEAST ONE WEEK PRIOR TO STARTING CONSTRUCTION.
- CLEARING AND GRUBBING AS NECESSARY FOR THE INSTALLATION OF PERIMETER CONTROLS. CONSTRUCTION AND STABILIZATION OF PERIMETER CONTROLS.
- REMAINING CLEARING AND GRUBBING WITHIN INSTALLED PERIMETER CONTROLS.
- ROAD GRADING.
- GRADING FOR THE REMAINDER OF THE SITE.
- UTILITY INSTALLATION AND CONNECTIONS TO EXISTING STRUCTURE.
- CONSTRUCTION OF BUILDINGS, ROADS AND OTHER CONSTRUCTION.
- FINAL GRADING, LANDSCAPING AND STABILIZATION.
- ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE INSPECTED WEEKLY AND AFTER RAINFALL EVENTS. NEEDED REPAIRS WILL BE MADE IMMEDIATELY.
- AFTER SITE IS STABILIZED, REMOVE ALL TEMPORARY MEASURES AND INSTALL PERMANENT VEGETATION ON THE DISTURBED AREAS.

UNIT MASONRY:

THE INDEPENDENT TESTING AND INSPECTION AGENCY SHALL PERFORM INSPECTIONS AND TESTING OF MASONRY AND MASONRY REBAR PER THE FOLLOWING MINIMUM REQUIREMENTS:

- INSPECT REINFORCEMENT PLACEMENT AND GROUTING FOR COMPLIANCE WITH THE CONTRACT DOCUMENTS AND ENGINEER REVIEWED SUBMITTAL DRAWINGS.
- TEST ONE MASONRY UNIT ACCORDING TO ASTM C140 FOR EACH SIZE AND STRENGTH OF CMU INDICATED. TEST THREE SAMPLES FROM MATERIALS DELIVERED TO THE SITE.
- TEST MORTAR MIX COMPRESSIVE STRENGTH ACCORDING TO ASTM C780 FOR EACH TYPE OF MORTAR INDICATED. PREPARE FOUR (4) SAMPLES AND TEST TWO (2) AT 7 DAYS AND TWO (2) AT 28 DAYS.
- TEST GROUT COMPRESSIVE STRENGTH ACCORDING TO ASTM C1019 FOR EACH STRENGTH OF GROUT INDICATED. PREPARE FOUR SAMPLES AND TEST TWO (2) AT 7 DAYS AND TWO (2) AT 28 DAYS.



NC TICKET NO.: C222301195



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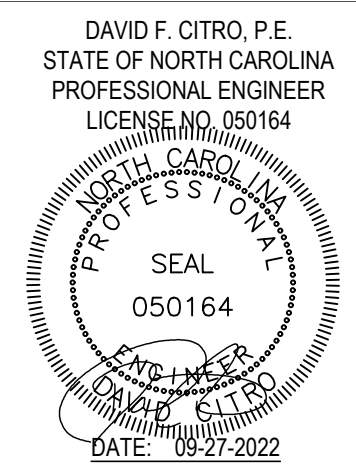


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PROJECT TITLE  
**4202 TECHNOLOGY DRIVE**  
PARCEL ID: 172228 | ZONING: OFFICE/INSTITUTIONAL

REV	BY	DATE	DESCRIPTION
A	MRC	09-29-22	PERMIT ISSUE
B	MRC	09-27-22	PERMIT RE-ISSUE

LICENSEE



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PROJ. NO. 21488  
SCALE: AS NOTED  
SHEET SIZE: 30x42  
DESIGNED BY: MRC/OGY  
CHECKED BY: MRC/PJA  
APPROVED BY: DFC

DRAWING TITLE

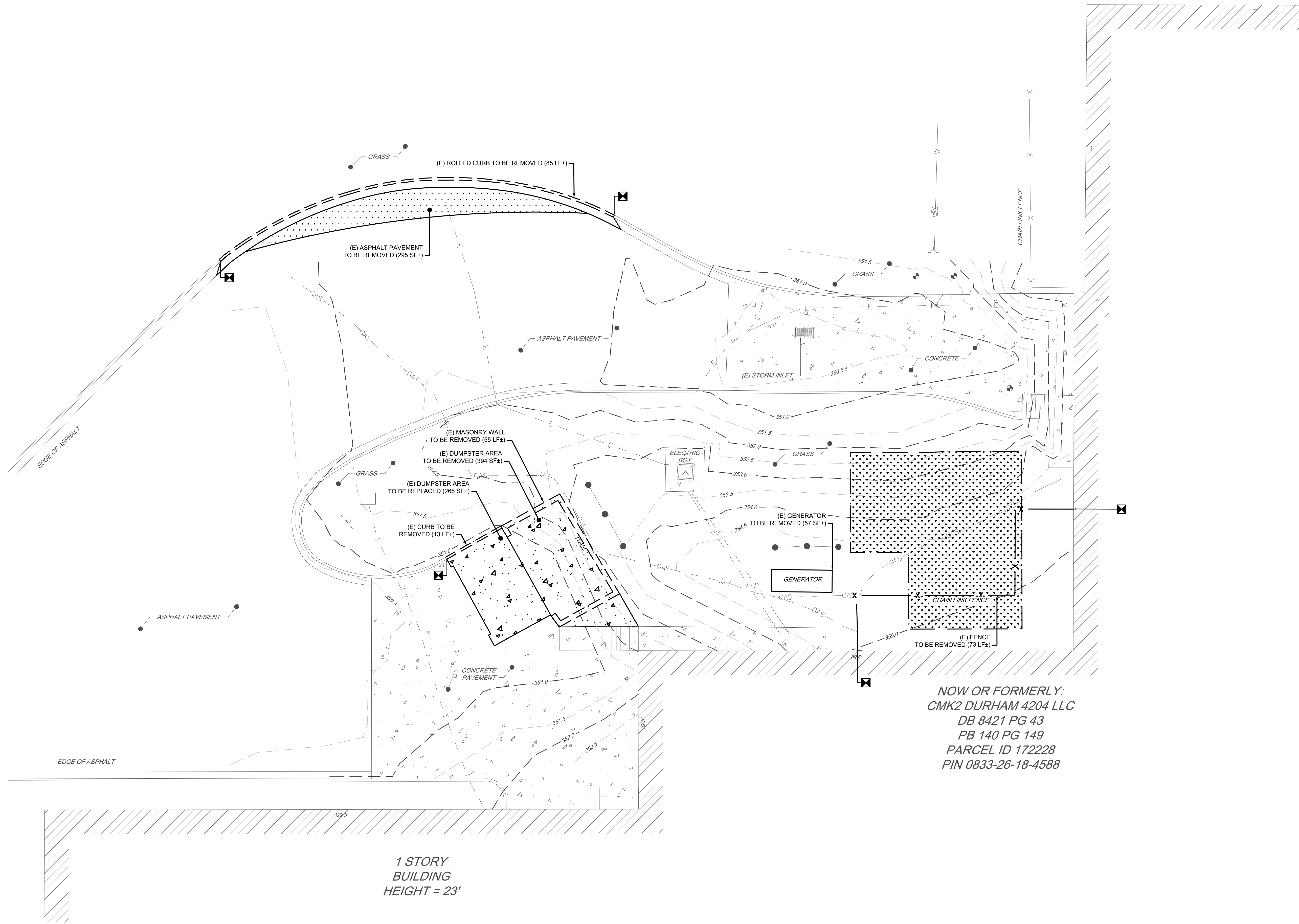
DRAWING NUMBER

CIVIL NOTES SHEET

C0.02

ISSUED FOR PERMIT





- EXISTING FEATURES LEGEND**
- PROPERTY LINE
  - PROPERTY ADJOINER
  - RIGHT OF WAY
  - BUILDING SETBACK LINE
  - MAJOR CONTOUR
  - MINOR CONTOUR
  - BUILDING
  - FENCE
  - SIGN
  - WALL
  - FIRE HYDRANT
  - UG ELECTRIC
  - UG GAS
  - UG TELECOMMUNICATIONS
  - UG-WATER LINE
  - BOLLARD
- DEMOLITION LEGEND**
- CURB
  - WALL
  - FENCE
  - LIMITS OF DEMOLITION
  - ASPHALT PAVEMENT
  - LAWN
  - CONCRETE



NC TICKET NO.: C222301195

**Mainstay**  
ENGINEERING GROUP, INC.  
CIVIL & STRUCTURAL ENGINEERS  
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C	MRC	09-27-22	PERMIT RE-ISSUE

LICENSEE  
DAVID F. CITRO, P.E.  
STATE OF NORTH CAROLINA  
PROFESSIONAL ENGINEER  
LICENSE NO. 050164  
SEAL  
DATE: 09-27-2022

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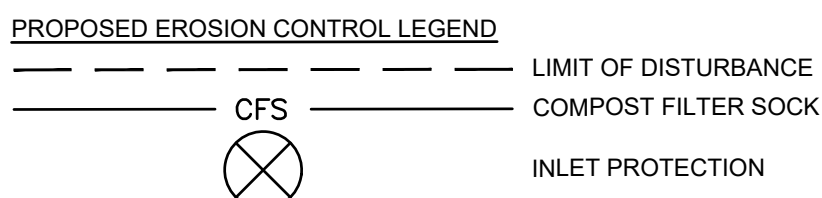
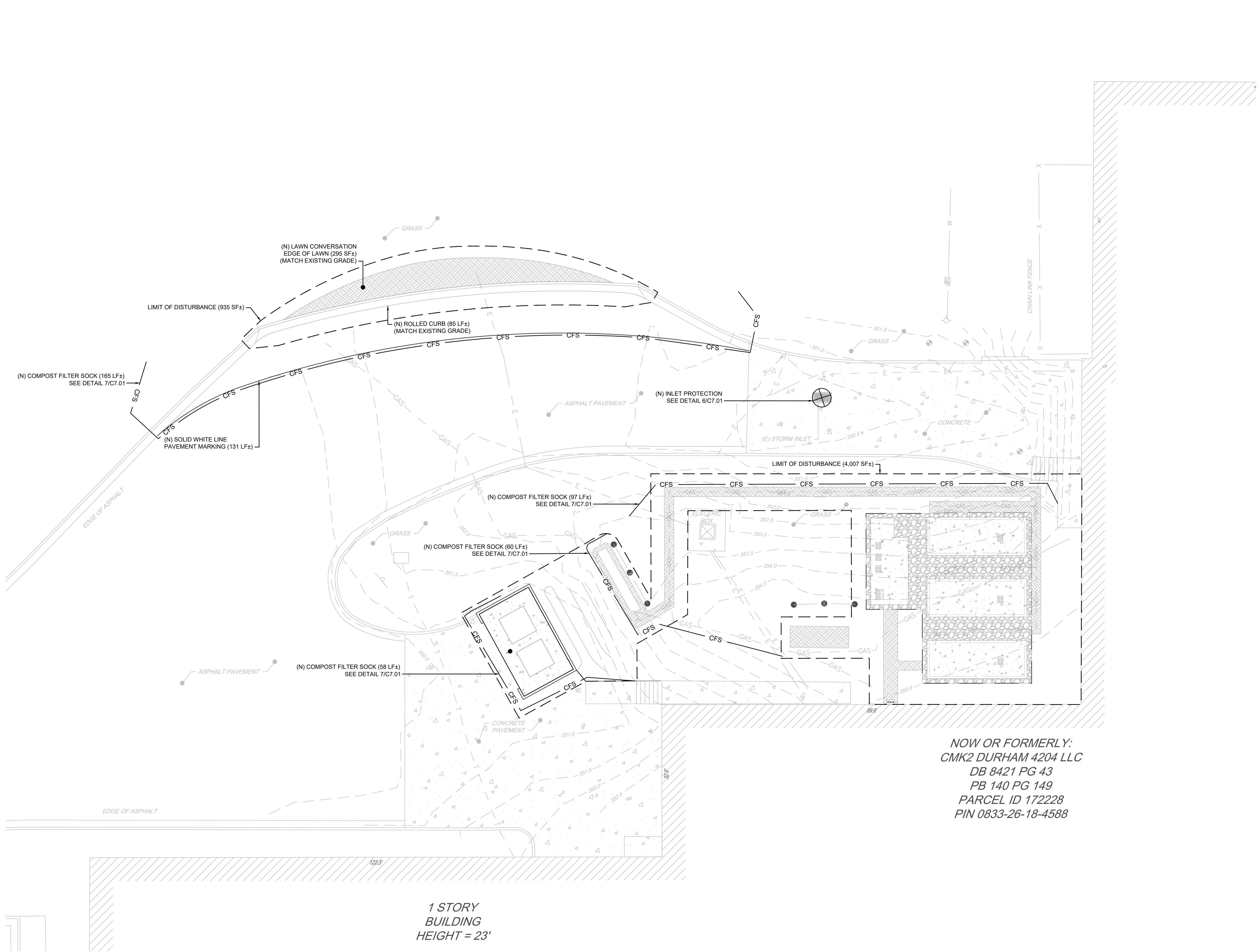
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SHEET SIZE:	30x42	APPROVED BY:	DFC

DRAWING TITLE  
**CIVIL EXISTING  
FEATURES &  
DEMOLITION PLAN**

DRAWING NUMBER  
**C1.01**

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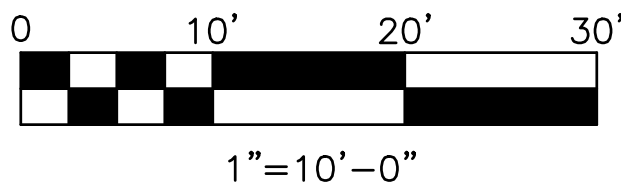
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DRAWING TITLE  
**CIVIL EROSION & SEDIMENT CONTROL PLAN**

DRAWING NUMBER  
**C1.11**

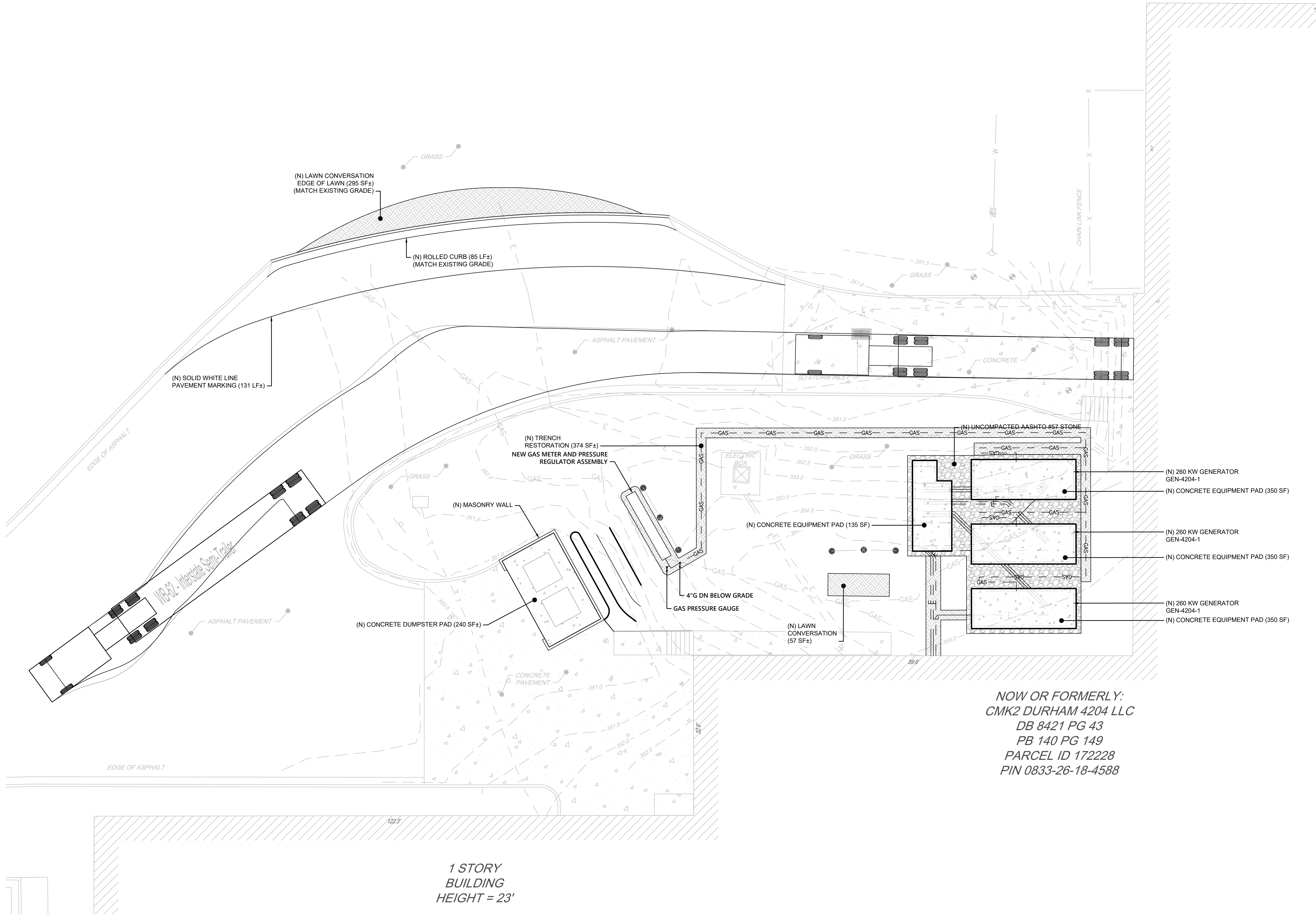
**CIVIL EROSION & SEDIMENT CONTROL PLAN**  
SCALE: 1" = 10'-0"



TOTAL LIMIT OF DISTURBANCE:  
4,942 SF± (0.113 Ac.)

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PROPOSED FEATURES LEGEND		CONCRETE
	CONCRETE EQUIPMENT SLAB	
	ELECTRIC UTILITY	
	UNDERGROUND GAS	
	CURB	
	LAWN CONVERSION	
	STONE	
	WALL	

IMPERVIOUS AREAS:	
CONCRETE EQUIPMENT PAD	350 SF
CONCRETE EQUIPMENT PAD	350 SF
CONCRETE EQUIPMENT PAD	350 SF
CONCRETE EQUIPMENT PAD	135 SF
	1,185 SF
GENERATOR (TBR) LAWN CONVERSION	54 SF
DUMPSTER AREA (TBR) LAWN CONVERSION	394 SF
ASPHALT PAVEMENT (TBR) LAWN CONVERSION	295 SF
	743 SF
NET ADDITIONAL IMPERVIOUS	442 SF

- DETAIL REFERENCE:
- (N) CONCRETE EQUIPMENT PAD SEE 1/C7.01
  - (N) UNCOMPACTED AASHTO #57 STONE SEE 2/C7.01
  - (N) LAWN SEE DETAIL 3/C7.01
  - (N) ROLLED CURB SEE DETAIL 5/C7.01
  - (N) CONCRETE DUMPSTER PAD SEE DETAIL 9/C7.01
  - (N) MASONRY WALL SEE DETAIL 10/C7.01



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PROJECT TITLE  
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B	MRC	09-09-22	PERMIT ISSUE
C	MRC	09-27-22	PERMIT RE-ISSUE

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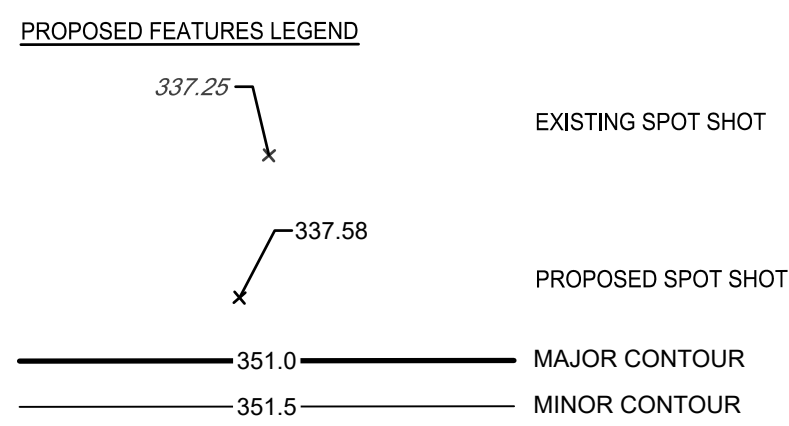
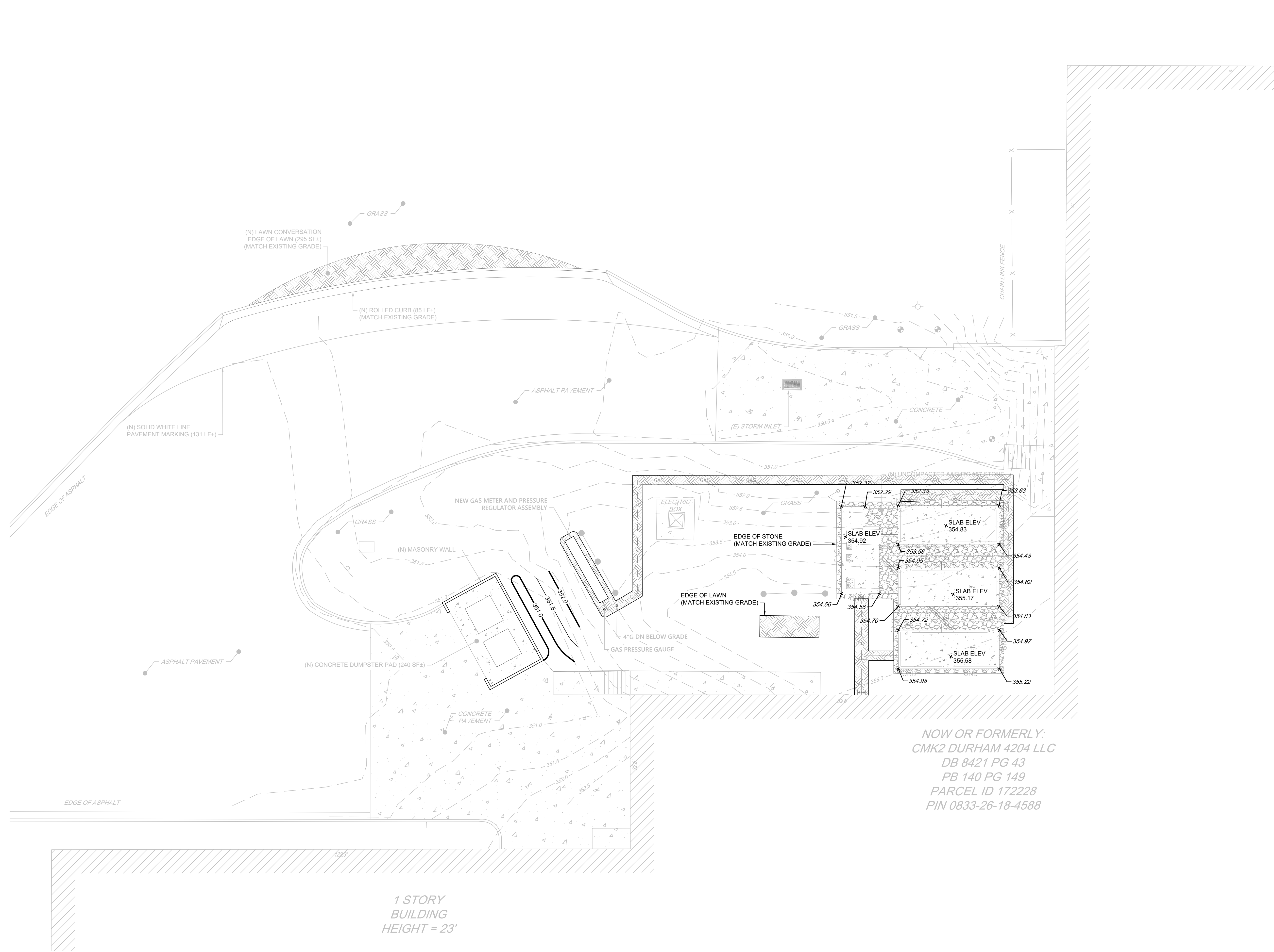
**CIVIL SITE IMPROVEMENTS PLAN**

DRAWING NUMBER

**C3.01**

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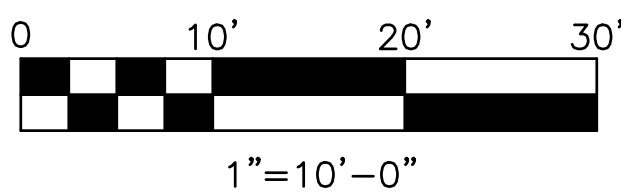




NOW OR FORMERLY:  
CMK2 DURHAM 4204 LLC  
DB 8421 PG 43  
PB 140 PG 149  
PARCEL ID 172228  
PIN 0833-26-18-4588

1 STORY  
BUILDING  
HEIGHT = 23'

A  
C3.11  
CIVIL  
GRADING PLAN  
SCALE: 1" = 10'-0"



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NC TICKET NO.: C222301195

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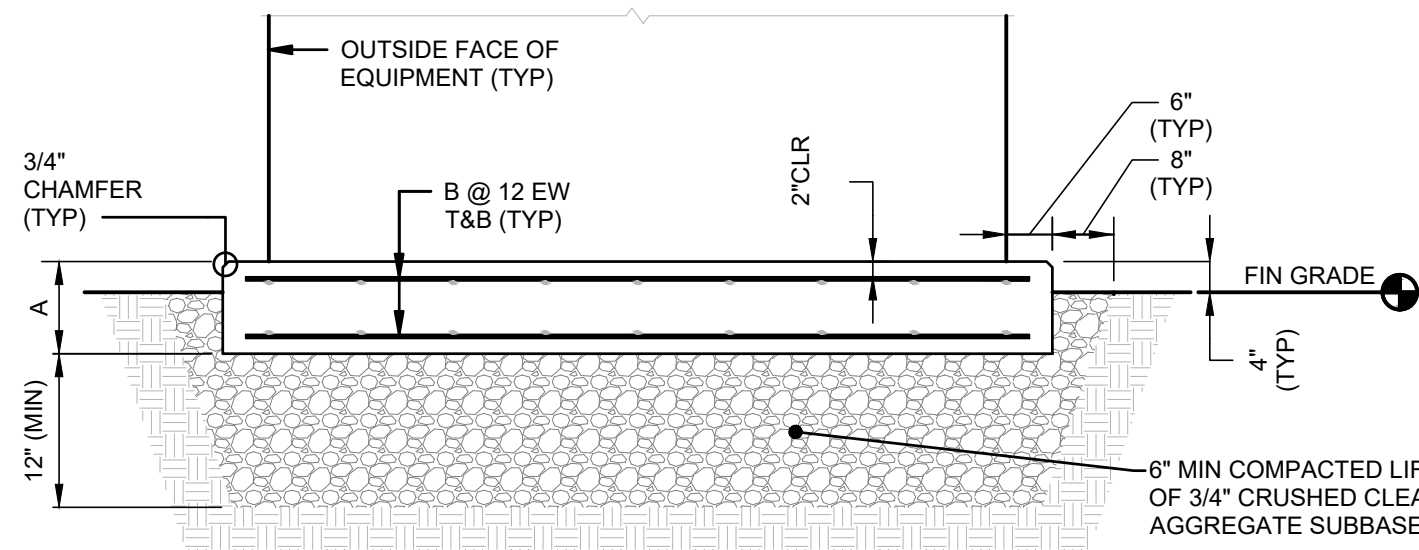
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CIVIL GRADING PLAN

DRAWING NUMBER

C3.11

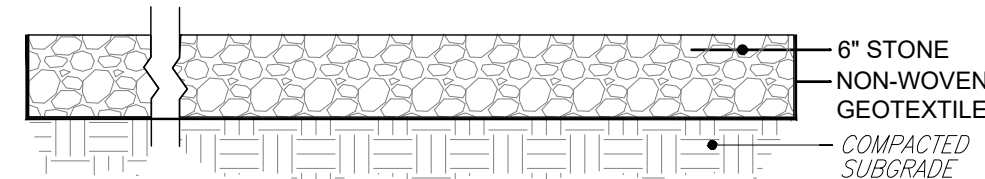




- NOTES:
1. COORDINATE SIZE AND LOCATION OF EQUIPMENT PAD WITH RELATED TRADES.
  2. COORDINATE ANCHORAGE DETAIL REQUIREMENTS WITH EQUIPMENT MANUFACTURER.
  3. SUBSOIL BELOW PAD TO BE PREPARED AS REQUIRED TO SUSTAIN A MINIMUM ALLOWABLE BEARING PRESSURE OF 1,500 PSF.
  4. REFER TO CONCRETE APRON DETAIL FOR CONTROL JOINT SPACING.
  5. COORDINATE BOX OUT LOCATIONS IN PADS) ACCORDING TO MFR REQUIREMENTS. REFER TO REINFORCED PAD OPENING DETAIL.
  6. DIMENSION "A" - 12"
  7. REINFORCEMENT SIZE "B" - #4

TYPICAL DETAIL  
EXTERIOR EQUIPMENT PAD

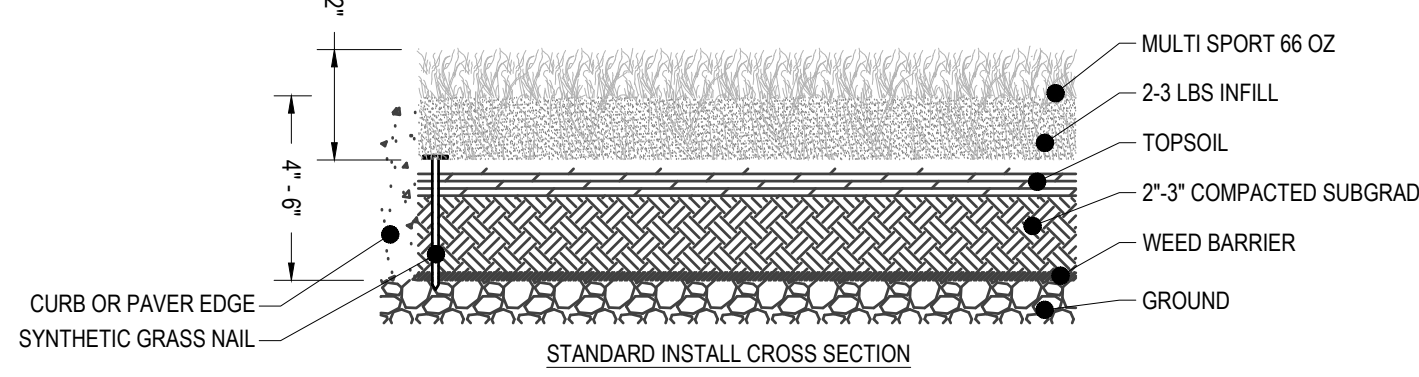
SCALE: NTS



- NOTES:
1. AASHTO 57 AGGREGATE SHALL BE WASHED AND FREE OF FINES.

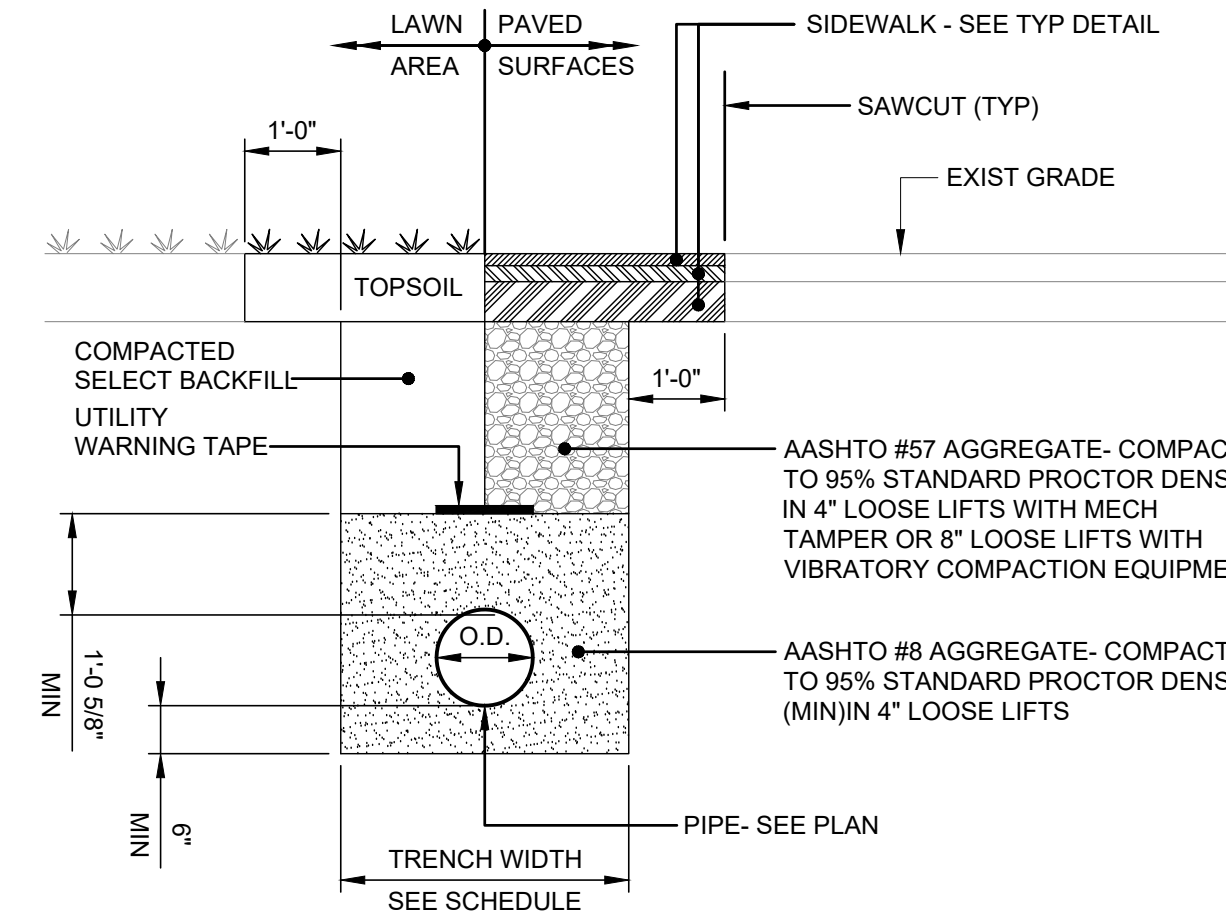
TYPICAL DETAIL  
UNCOMPACTED AASHTO 57 STONE

SCALE: NTS



TYPICAL DETAIL  
LAWN CONVERSION

SCALE: NTS

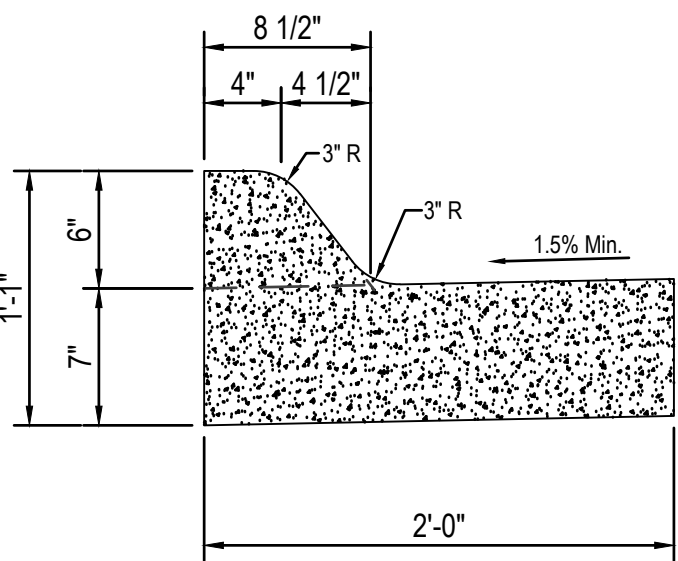


- NOTES:
1. EXPOSED VERTICAL AND HORIZONTAL SURFACES, IN PAVED AREAS, SHALL BE PREPARED AS PER STATE DOT SPECIFICATIONS.
  2. LAWN AREAS SHALL BE SEEDDED IN ACCORDANCE WITH THE GENERAL NOTES.
  3. GRADE BOTTOM OF PIPE TRENCH, AND NOTCH UNDER PIPE BELL. PROVIDE SOLID BEARING FOR ENTIRE BODY OF PIPE.

TRENCH WIDTH SCHEDULE												
NPS	3"	4"	6"	8"	10"	12"	18"	20"	24"	30"	36"	48"
WIDTH	3'-4"	3'-4"	3'-8"	3'-8"	4'-0"	4'-0"	4'-8"	4'-8"	5'-4"	6'-8"	6'-2"	7'-2"

TYPICAL DETAIL  
TRENCH RESTORATION

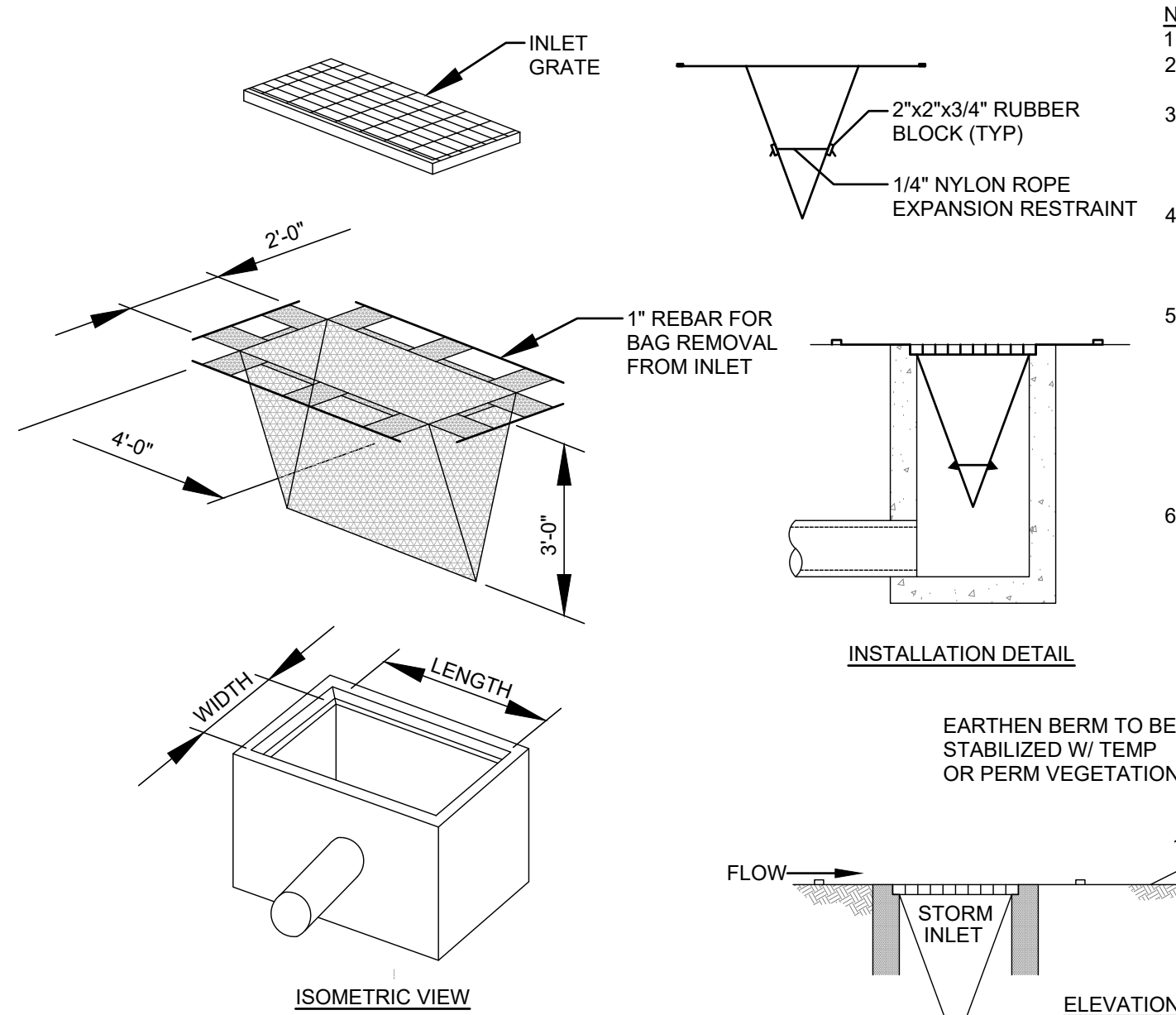
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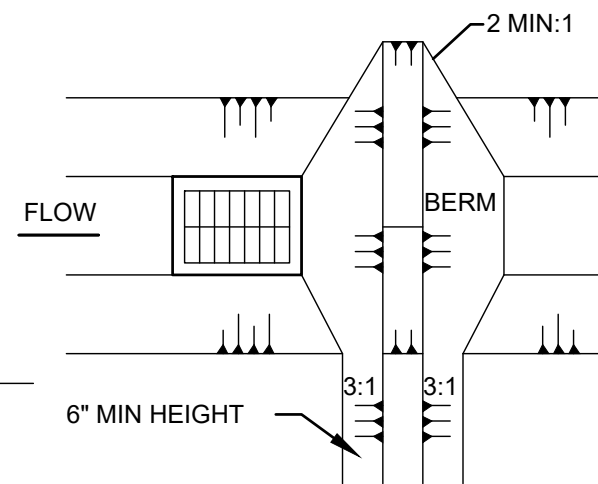
- NOTES:
1. NEW CURB AND GUTTER TO MATCH EXISTING CURB AND GUTTER.

TYPICAL DETAIL  
ROLLED CONCRETE CURB

SCALE: NTS

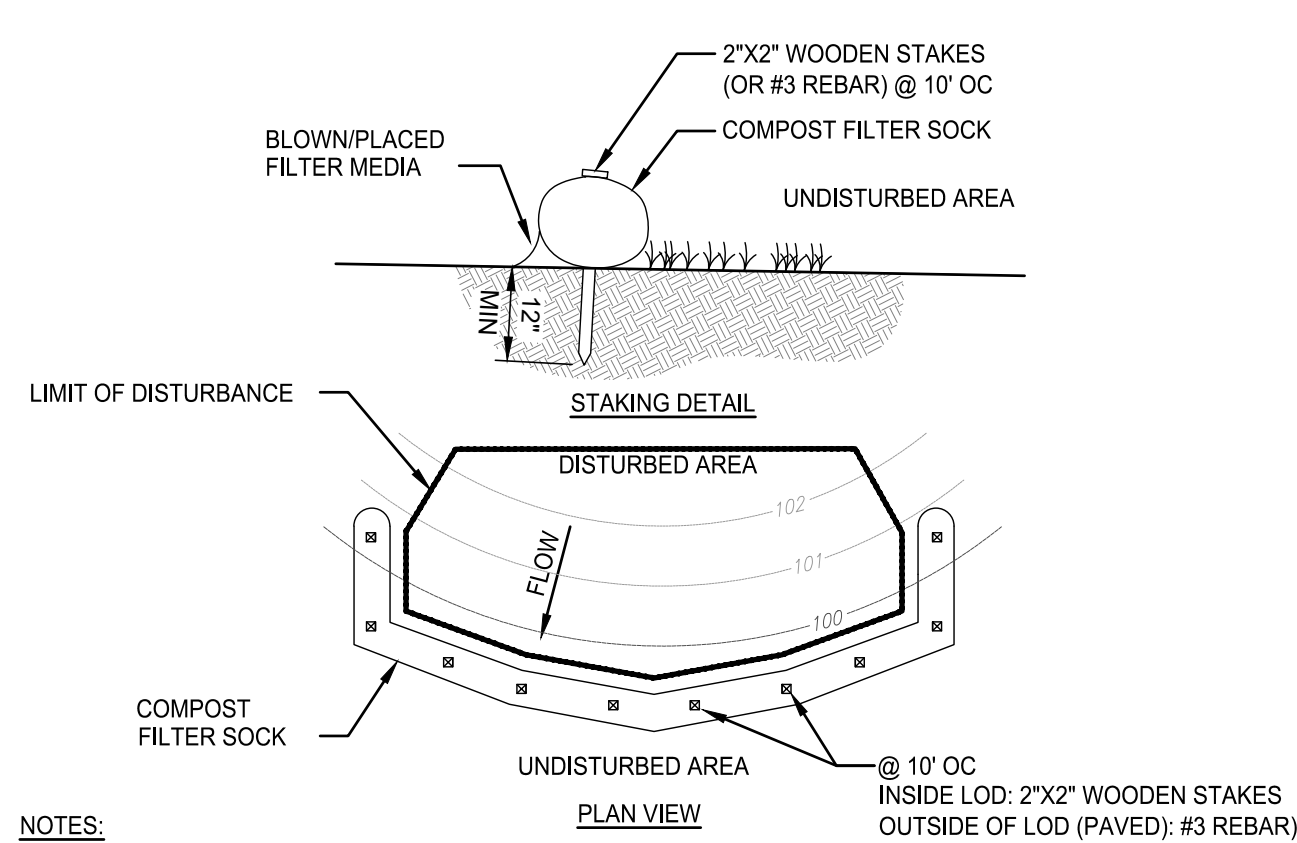


- NOTES:
1. MAXIMUM DRAINAGE AREA = 1/2 ACRE.
  2. INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS REQUIRED FOR ALL INSTALLATIONS.
  3. ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.
  4. AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING NO 40 SIEVE.
  5. INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED FILTER BAGS ACCORDING TO THE E&S PLAN NOTES.
  6. DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.



TYPICAL DETAIL  
INLET PROTECTION

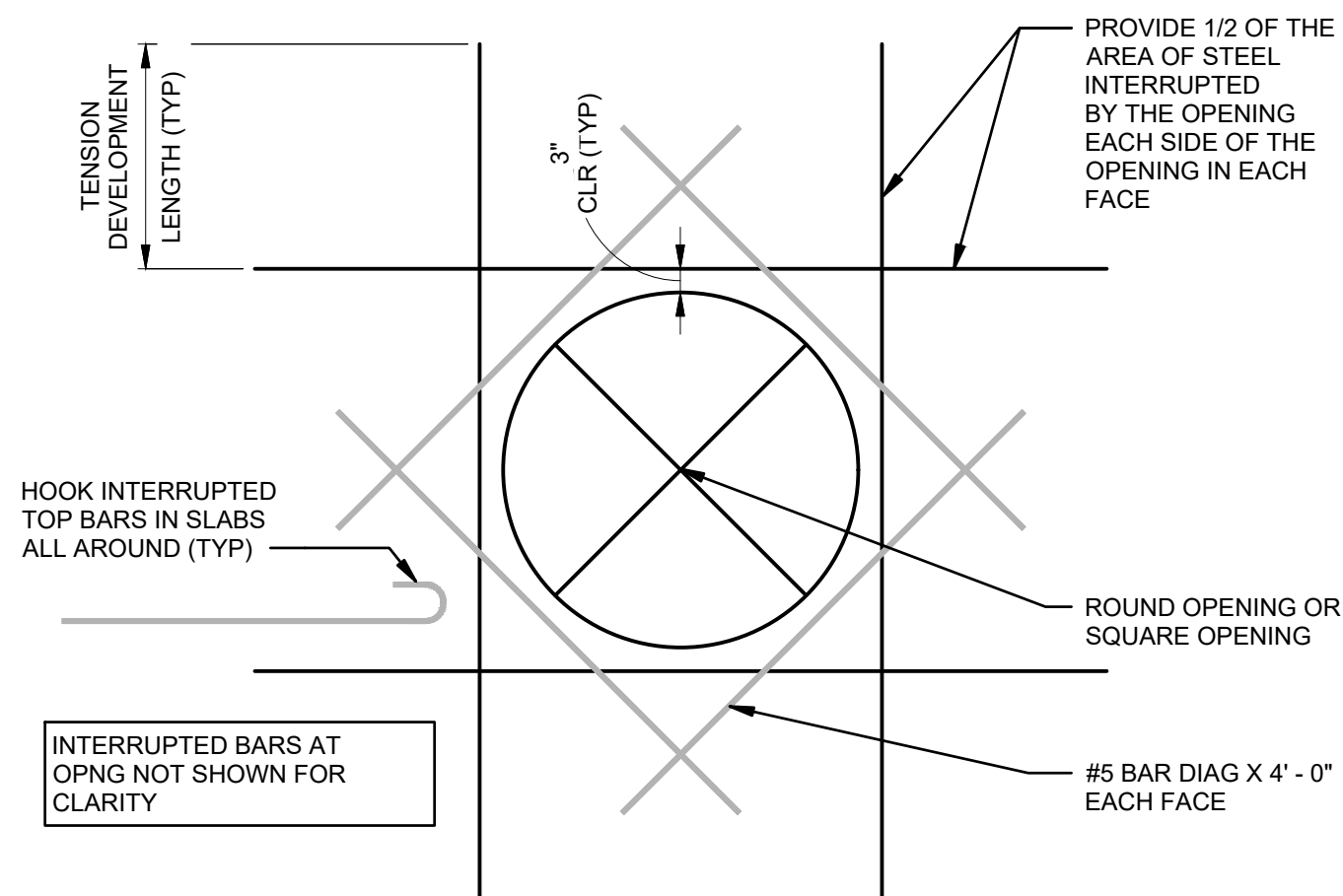
SCALE: NTS



- NOTES:
1. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
  2. TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
  3. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SOCK AND DISPOSED IN A MANNER DESCRIBED ELSEWHERE IN THE PLAN.
  4. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
  5. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS. PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.
  6. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

TYPICAL DETAIL  
COMPOST FILTER SOCK

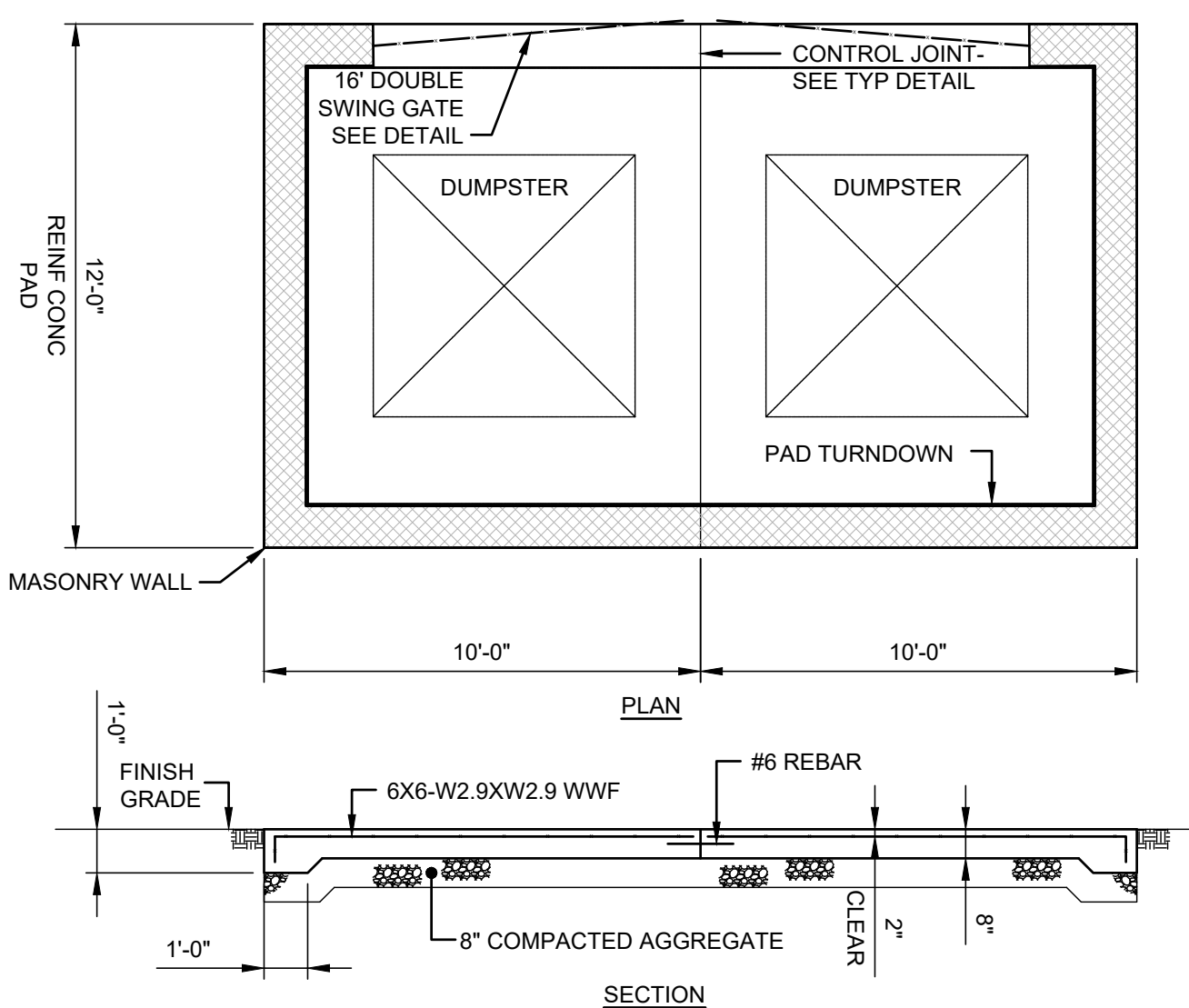
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- NOTES:
1. THIS DETAIL APPLIES FOR CAST IN PLACE SLABS ON GRADE, WALLS AND SLABS ON METAL DECK.
  2. ADDITIONAL REINFORCING SHOWN IS REQUIRED FOR OPENINGS GREATER THAN 6 INCHES IN DIAMETER OR 6 INCHES SQUARE BUT LESS THAN OR EQUAL TO 12 INCHES IN DIAMETER OR 12 INCHES SQUARE.

TYPICAL DETAIL  
REINFORCED PAD OPENING

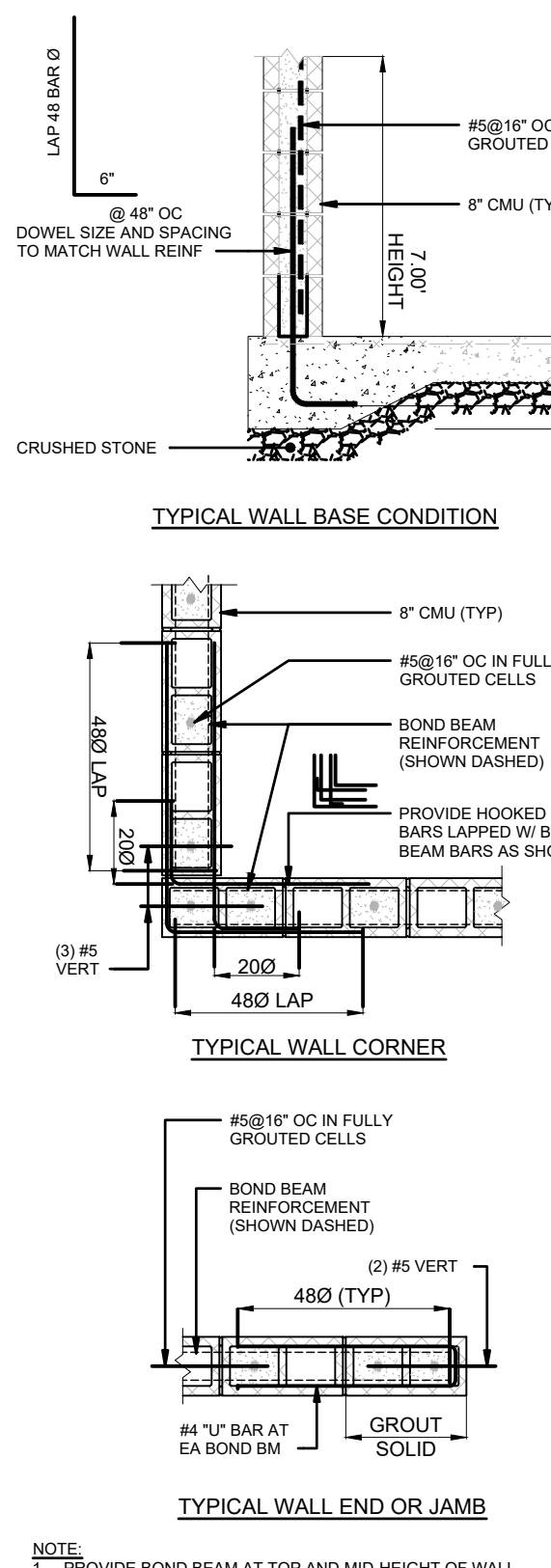
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- NOTES:
1. CONCRETE SHALL BE READY MIX WITH A 28 DAY COMPRESSIVE STRENGTH OF 4500 PSI (MIN) AND 6% 1 1/4\"/>

TYPICAL DETAIL  
DUMPSTER PAD

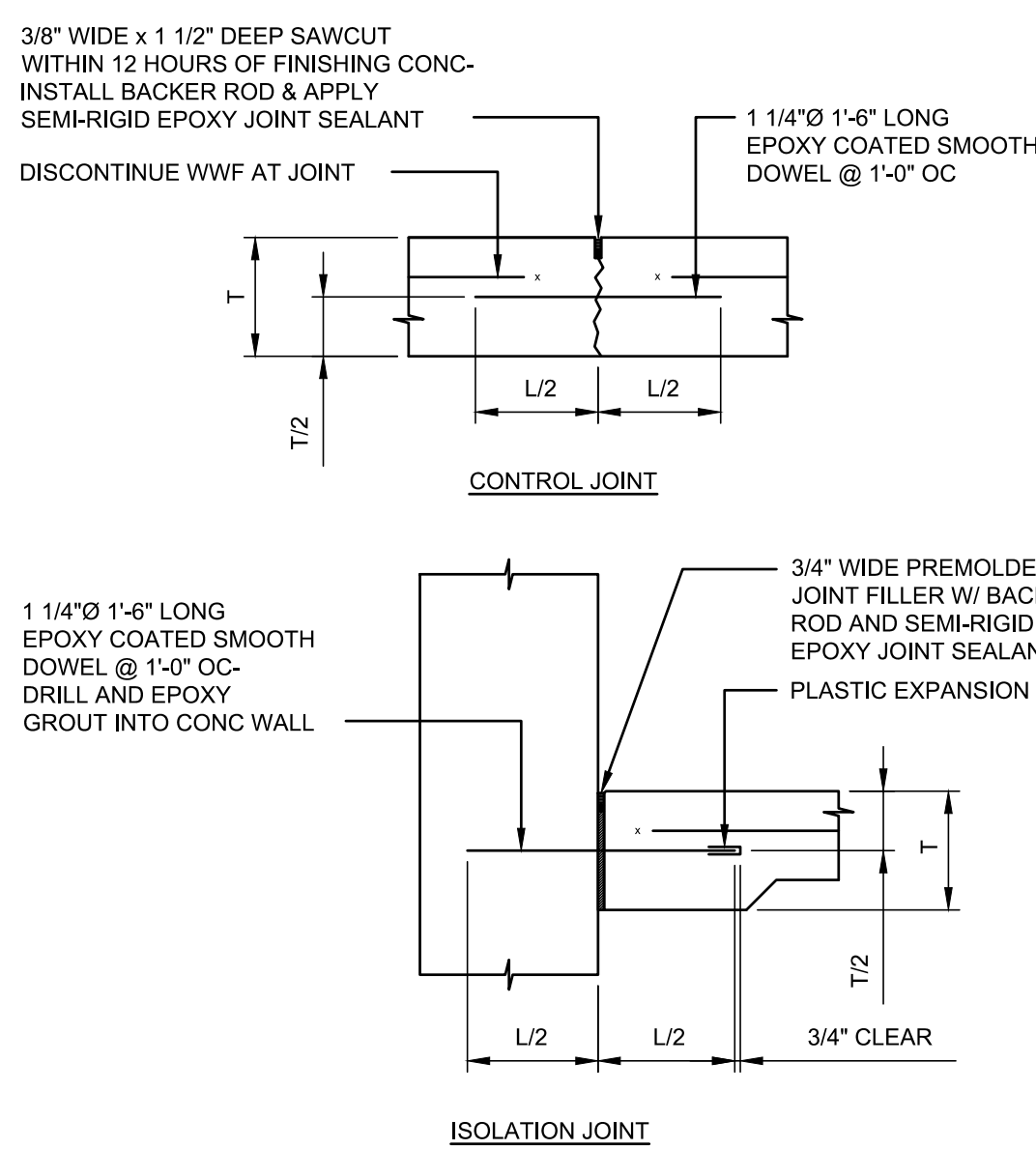
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NOTE: PROVIDE BOND BEAM AT TOP AND MID-HEIGHT OF WALL.

TYPICAL DETAIL  
MASONRY WALL

SCALE: NTS



TYPICAL DETAIL  
CONTROL JOINT

SCALE: NTS



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PROJECT TITLE  
4202 TECHNOLOGY DRIVE  
PARCEL ID: 172228 | ZONING: OFFICE/INSTITUTIONAL

REV	BY	DATE	PERMIT ISSUE	DESCRIPTION
A	MRC	09-09-22	PERMIT ISSUE	
B	MRC	09-27-22	PERMIT RE-ISSUE	



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PROJ. NO.	21488	DESIGNED BY:	MRC/OGY
SCALE:	AS NOTED	CHECKED BY:	MRC/PJA
SHEET SIZE:	30x42	APPROVED BY:	DFC

DRAWING TITLE  
**CIVIL CONSTRUCTION  
& EROSION CONTROL  
DETAILS SHEET**

DRAWING NUMBER  
**C7.01**

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