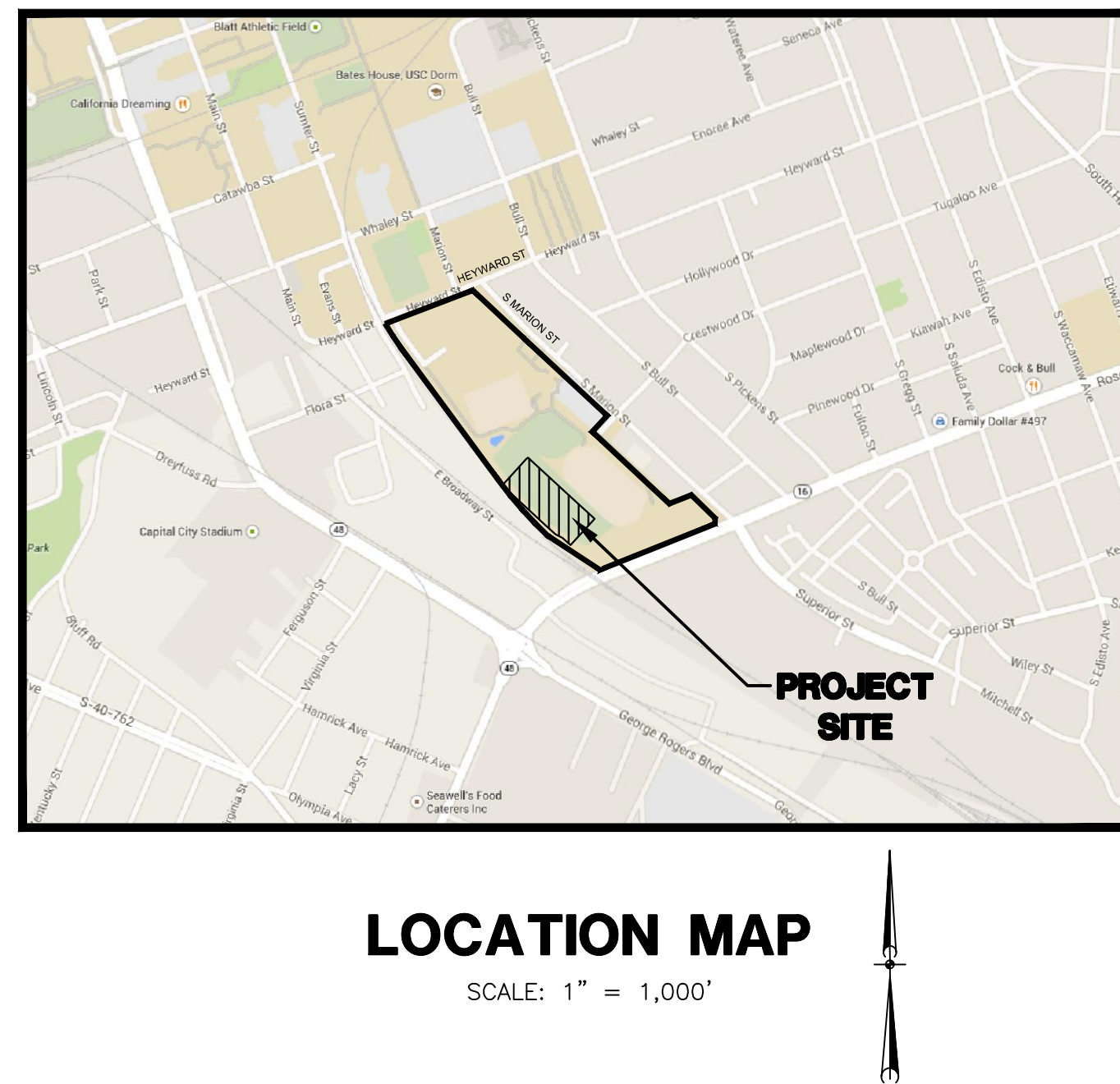
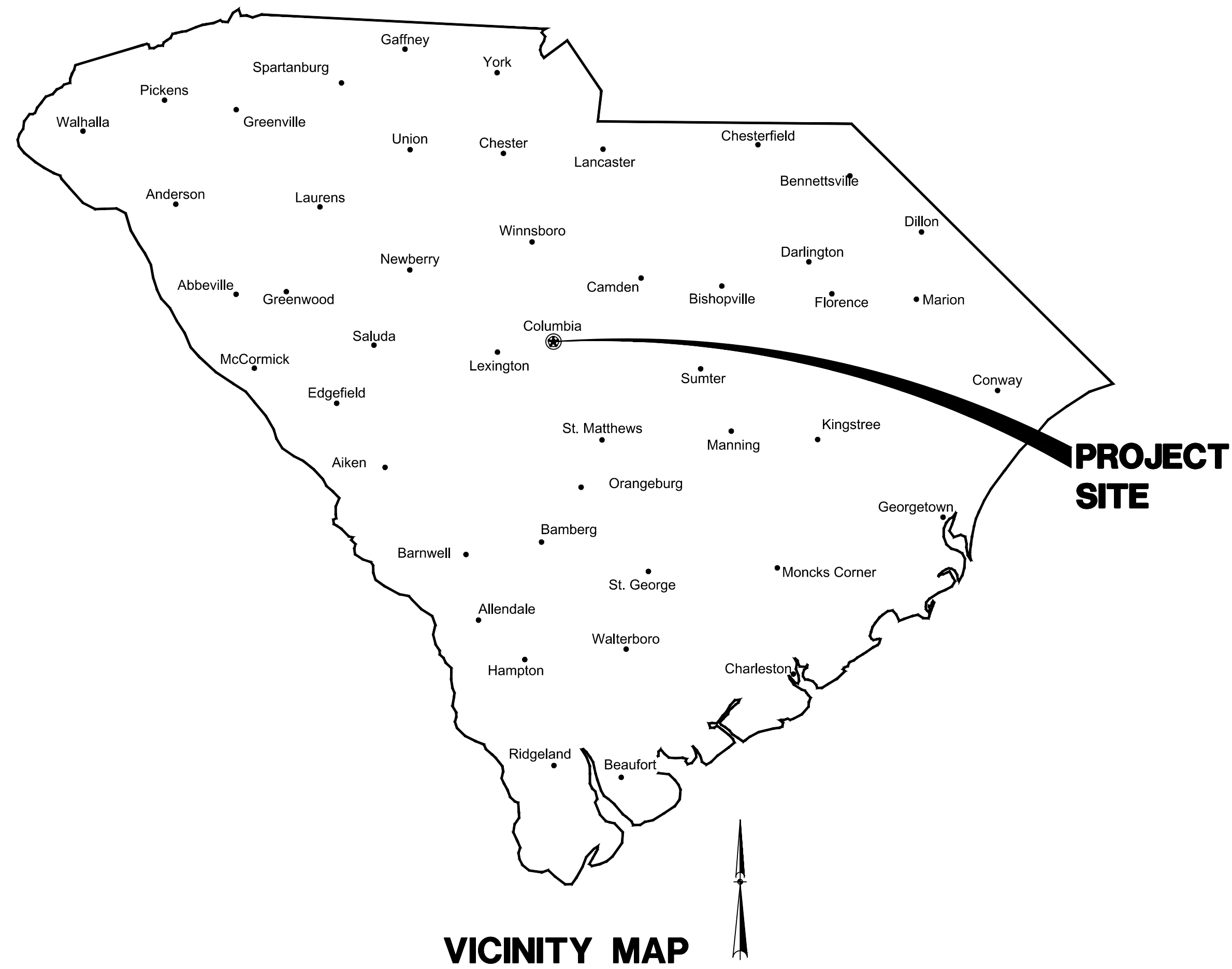


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 N:\PROJECTS\14423692\URS_PRACTICE_Soccer_Fields_DRAINAGE\DWG\SHEETS\COVER.DWG 5/4/2015 12:16:08 PM



RE-BID PRACTICE SOCCER FIELDS DRAINAGE IMPROVEMENTS

PREPARED FOR UNIVERSITY OF SOUTH CAROLINA COLUMBIA, SOUTH CAROLINA

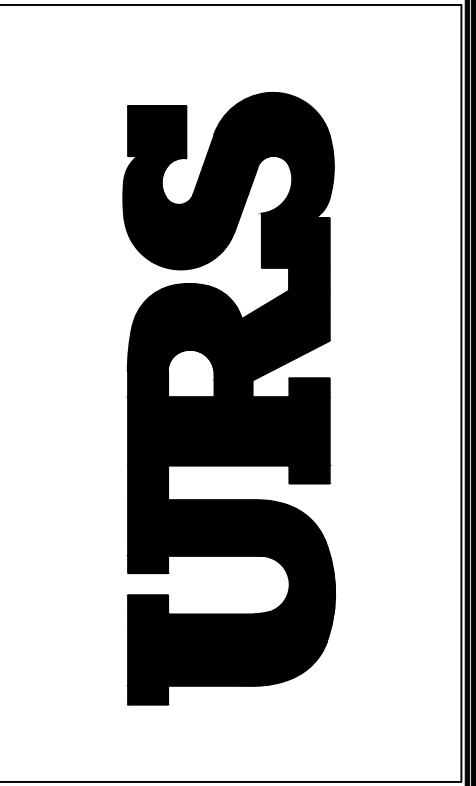
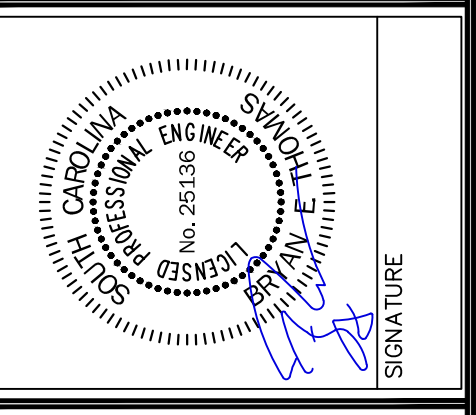
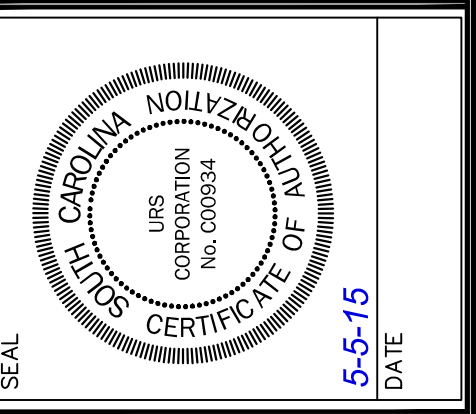
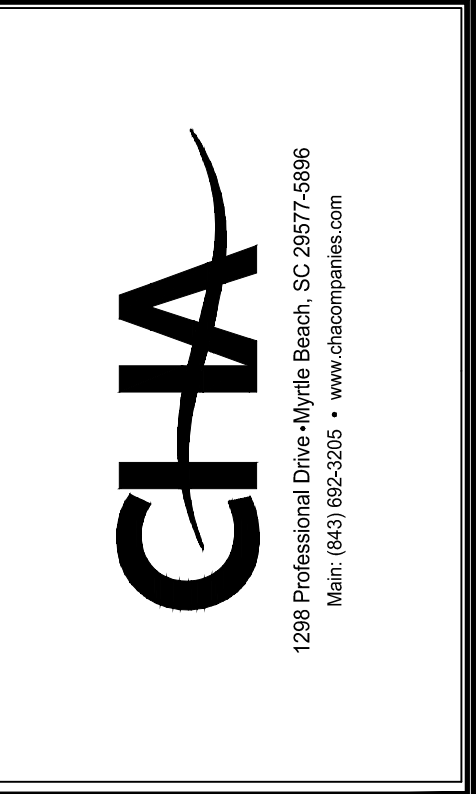


SHEET INDEX

<u>SHEET</u>	<u>SHEET No.</u>
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EXISTING CONDITIONS AND DEMOLITION PLAN	2
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REFER TO PROJECT SPECIFICATIONS FOR CONTRACTOR
 LICENSING AND FIELD CERTIFICATION REQUIREMENTS

RE-BID
STATE PROJECT NO.
H27-Z204
BID DOCUMENTS
THESE DOCUMENTS ARE FOR THE
 PURPOSE OF SOLICITATION OF BIDS AND
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MAY 5, 2015
 PROJECT NO.
 46423692
 FILE NO.
 36,374-B91

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ABBREVIATION WORD

A AGGR & APPROX ASPH AUTH AVE AVG AZ	AGGREGATE AND APPROXIMATE AREA ASPHALT AT AUTHORIZED AVENUE AVERAGE AZIMUTH
B BL BRG BM BES BET. BS BOT B/ BC BDY BRK BRDG BLDG BV BFV	BASE LINE BEARING BENCH MARK BEVELED END SECTION BETWEEN BOTH SIDES BOTTOM BOTTOM CHORD BOUNDARY BREAK BRIDGE BUILDING BALL VALVE BUTTERFLY VALVE
C CALC CB CI CAT. CEM CTR CL CG C to C CHAM CO CHAN CHK CV CHD CIR CIR CIRC CO CW CTD COL COMB. CO CONC CMP CMU COND CONN CONT CD CORP XSECT CU CC CFM CFS CU FT CU IN. CU M CU YD CUR	CALCULATE CATCH BASIN CAST-IN-PLACE CAST IRON CATALOG CEMENT CENTER CENTERLINE CENTER OF GRAVITY CENTER TO CENTER CHAMFER CHANGE ORDER CHANNEL CHECK CHECK VALVE CHORD CIRCLE CIRCULAR CLEANOUT CLOCKWISE COATED COLUMN COMBINATION COMPANY CONCRETE CORRUGATED METAL PIPE CONCRETE MASONRY UNIT CONDITION CONNECT CONTINUOUS CORD CORPORATION CROSS SECTION CUBIC CUBIC CENTIMETER CUBIC FEET PER MINUTE CUBIC FEET PER SECOND CUBIC FOOT CUBIC INCH CUBIC METER CUBIC YARD CURRENT
D DEC DEG (OR ') DEPT DSGN DET DEV DI DIAG DIA (OR Ø) DIM DISCH DIST DO DN DFTG DWG DR DI DIP	DECIMAL DEGREE DEPARTMENT DESIGN DETAIL DEVELOP DROP INLET DIAGONAL DIAMETER DIMENSION DISCHARGE DISTANCE DITTO DOWN DRAFTING DRAWING DRIVE DUCTILE IRON PIPE
E EA EF ES EW E EFF ELL ELEC ELEV ENGR EQ EQUIP. (OR EQ) EQUIV. EST EXP EJ EXT	EACH EACH FACE EACH SIDE EACH WAY EAST EFFECTIVE ELBOW ELECTRIC ELEVATION ENGINEER EQUAL EQUIPMENT EQUIVALENT ESTIMATE EXPANSION EXPANSION JOINT EXTERIOR
F FES F to F FT (OR ') FPM FPS FRP FLD FIG.	FLARED END SECTION FACE TO FACE FEET FEET PER MINUTE FEET PER SECOND FIBERGLASS REINFORCED PLASTIC FIELD FIGURE

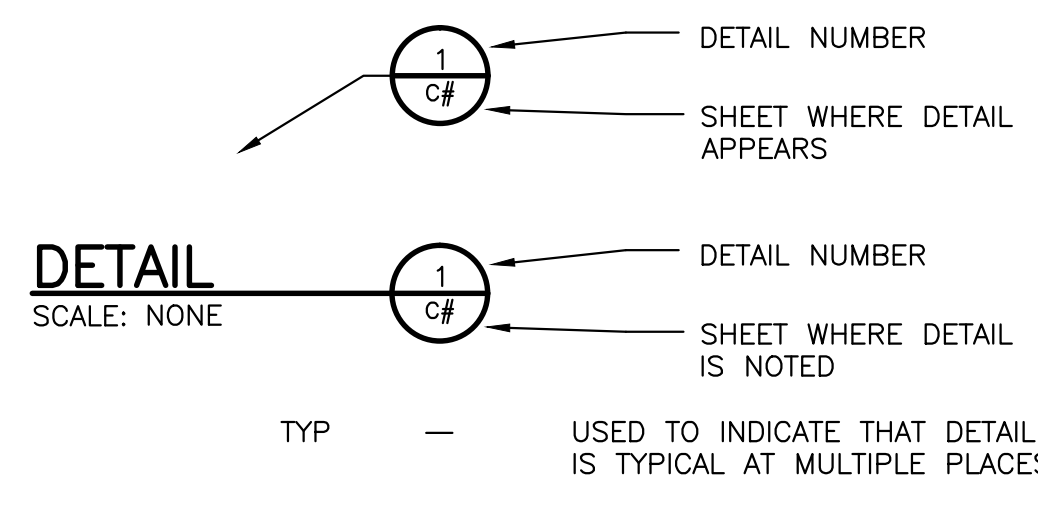
F CONT.

FIL FLT FIN. FF FH FLG FL FLD FWD FDN FM FREQ FR	FILLET AND FINISH FLOOR FINISH FLANGE FLUID FORWARD FOUNDATION FORCEMAIN FREQUENCY FRONT
G GAL GALV GEN GR GL G GRD	GALLON GALVANIZE GENERAL GRADE GRADE LINE GRAVITY GROUND
H HDPE H.P. HOR HR HW HYD	HIGH DENSITY POLYETHYLENE HIGH POINT HORIZONTAL HOUR HEADWALL HYDRAULIC
J IN. (OR ") IPS INCL IND INFO ID IF IINT INV I	INCH INCHES PER SECOND INCLUDE INDUSTRIAL INFORMATION INSIDE DIAMETER INSIDE FACE INTERSECT INVERT IRON
J JCT JB	JUNCTION JUNCTION BOX
L LAT LT L.P.	LATITUDE LEFT LOW POINT
M MH MAN. MFR MATL MAX MECH MED MET. M MI MPH MIN MIN (OR ') MISC MOD MULT	MANHOLE MANUAL MANUFACTURE MATERIAL MAXIMUM MECHANICAL MEDIAN METAL METER MILES MINIMUM MINUTE MISCELLANEOUS MODEL MULTIPLE
N NEG NIC NOM NOR N NTS NO. (OR #)	NEGATIVE NOT IN CONTRACT NEUTRAL NORMAL NORTH NOT TO SCALE NUMBER
O O/C O/S OP'NG OPP ORIG OD OF OA OHP OVF	ON CENTER OFFSET OPENING OPPOSITE ORIGINAL OUTSIDE DIAMETER OUTSIDE FACE OVERALL OVERHEAD POWER OVERFLOW
P PERM PERP PL LB (OR #) PSI PWR PFD PREP PRESS. PCO PT PROC PROD PF PROJ	PERMANENT PERPENDICULAR PROPERTY LINE POUND POUNDS PER SQUARE INCH POWER PREFERRED PREPARE PRESSURE PRESSURE CLEANOUT PRESSURE TREATED PROCESS PRODUCTION PROFILE PROJECT
R R RR RECD REC REF REF L RCP REINF REM REQ REQD REV RJ RRMP RT RH R/W	RADIUS RAILROAD RECEIVED RECORD REFERENCE REFERENCE LINE REINFORCED CONCRETE PIPE REINFORCING REMOVE REQUIRE REQUIRED REVISION(REVISED) RESTRAINED JOINT RAILROAD MILE POST RIGHT RIGHT HAND RIGHT OF WAY

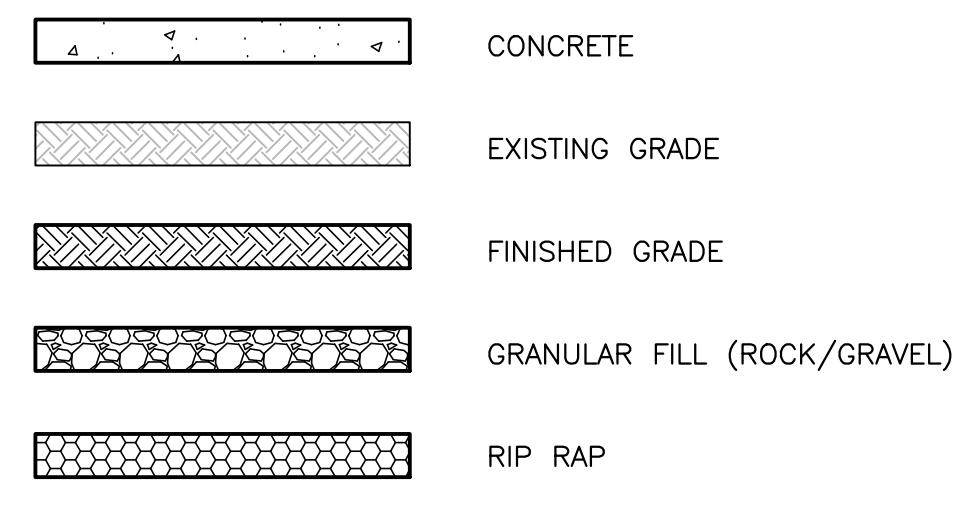
S

SCH SL SEC. (OR ") SECT SD SHW SIM S SQ SS STD STA SUR SY SYM SW	SCHEDULE SEA LEVEL SECOND SECTION STORM DRAIN STRAIGHT HEADWALL SIMILAR SOUTH SQUARE SANITARY SEWER STANDARD STATION SURFACE SQUARE YARD SYMBOL SIDEWALK
TAN. TPR THK KIP T/ TOT TYP	TANGENT TAPER THICK THOUSAND POUND TOP OF TOTAL TYPICAL
U U UNO	UNIT UNLESS NOTED OTHERWISE
V V VAR VERT VOL	VALVE VARIABLE VERTICAL VOLUME
W WT W W/ W/	WEIGHT WEST WIDTH WITH
Y YD YH YI YR	YARD YARD HYDRANT YARD INLET YEAR

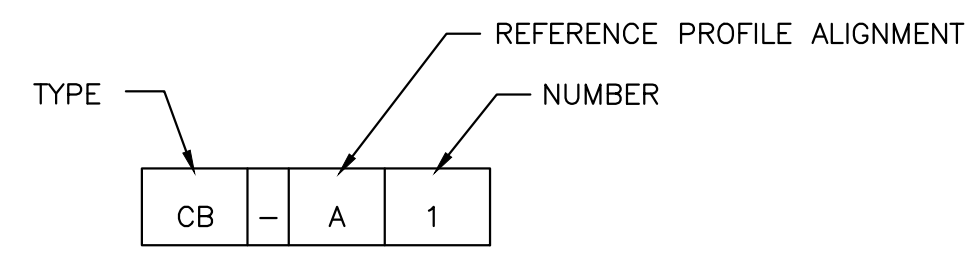
DETAIL REFERENCES



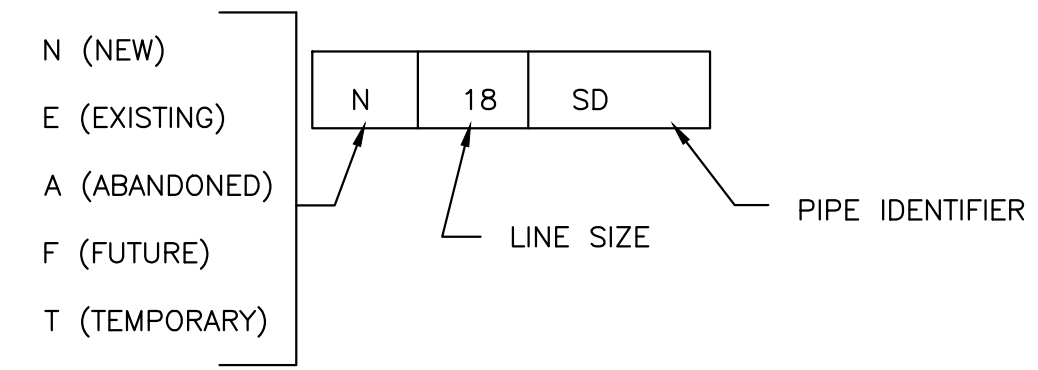
MATERIALS



STRUCTURE



PIPING



IDENTIFIER	DESCRIPTION
DB	DUCT BANK
DRN	DRAIN
FM	FORCEMAIN
G	GAS
SD	STORM DRAIN
S	SANITARY SEWER
W	WATER

GENERAL NOTES

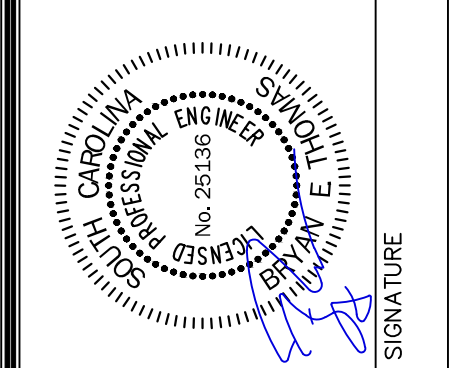
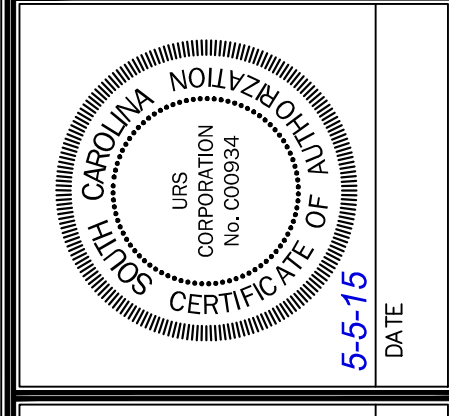
- REFERENCE IS MADE TO THE FOLLOWING:
 - BOUNDARY, TOPOGRAPHIC, & UTILITY SURVEYS PREPARED FOR THE UNIVERSITY OF SOUTH CAROLINA BY BP BARBER & ASSOCIATES, DATED MAY 16, 2007 THROUGH OCTOBER 4, 2007.
 - TOPOGRAPHIC & UTILITY SURVEY UPDATE PREPARED FOR THE UNIVERSITY OF SOUTH CAROLINA BY URS CORPORATION, DATED FEBRUARY 4, 2014.
 - SUPPLEMENTAL SURVEY PREPARED FOR THE UNIVERSITY OF SOUTH CAROLINA BY URS CORPORATION, DATED MARCH 17, 2014, REVISED OCTOBER 15, 2014.
 - CONSTRUCTION PLANS FOR THE USC PROMENADE EXTENSION PROJECT PREPARED BY URS CORPORATION, DATED JANUARY 3, 2013, WITH REVISIONS (URS PROJECT NUMBER 07578).
 - CONSTRUCTION PLANS FOR THE USC SOFTBALL STADIUM CONSTRUCTION PROJECT PREPARED BY URS CORPORATION, DATED MARCH 16, 2012, WITH REVISIONS (URS PROJECT NUMBER 46422193).
 - CONSTRUCTION PLANS FOR THE USC ATHLETIC VILLAGE SAND VOLLEYBALL COURT CONSTRUCTION PROJECT PREPARED BY URS CORPORATION, DATED MAY 30, 2013, WITH REVISIONS (URS PROJECT NUMBER 46422848).
 - CONSTRUCTION PLANS FOR THE USC OUTDOOR TRACK AND FIELD UPGRADES PREPARED BY URS CORPORATION, DATED JANUARY 14, 2015 (URS PROJECT NUMBER 46423427).
 - TOPOGRAPHIC SURVEY UPDATE PREPARED FOR THE UNIVERSITY OF SOUTH CAROLINA BY URS CORPORATION, DATED JANUARY 20, 2015.
- ALL ELEVATIONS SHOWN ARE BASED ON:
 - HORIZONTAL: SOUTH CAROLINA STATE PLANE COORDINATE NAD 83
 - VERTICAL: NAVD 88
- VERIFY ALL FIELD CONDITIONS AND THE EXACT LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO BEGINNING DEMOLITION AND CONSTRUCTION. IF CONDITIONS ARE DIFFERENT FROM THAT SHOWN ON THE PLANS, STOP WORK AND NOTIFY THE ENGINEER.
- ALL WORK FOR THE PROJECT SHALL CONFORM TO THE PROJECT SPECIFICATIONS FOUND IN THE PROJECT MANUAL (CONTRACT DOCUMENTS AND SPECIFICATIONS).
- PROMPTLY INFORM THE ENGINEER OF ANY DISCREPANCY DISCOVERED IN THESE DRAWINGS OR SPECIFICATIONS OR CONFLICT BETWEEN THE DRAWINGS OR SPECIFICATIONS.
- THESE CIVIL/SITE PLANS ARE PART OF THE OVERALL PROJECT PLAN SET. REVIEW PLANS OF ALL TRADES FOR CONSTRUCTION COORDINATION AND NOTIFY THE ENGINEER OF ANY CONFLICTS PRIOR TO BEGINNING CONSTRUCTION.

LEGEND

	EXISTING	NEW
CONTOURS (1' & 2')	---201---	---201---
CONTOURS (5' & 10')	---200---	---200---
EDGE OF PAVEMENT	=====	=====
CURB & GUTTER	=====	=====
CENTERLINE OF ROADWAY	=====	=====
PROPERTY LINE	=====	=====
RIGHT-OF-WAY	-----	-----
LIMITS OF DISTURBANCE	-----	-----
INLET PROTECTION		
TREE		
SILT FENCE	---X-X-X-X---	---X-X-X-X---
FENCE LINE	---O-O-O-O---	---X-X-X-X---
GUARD RAIL	=====	=====
TREE LINE	=====	=====
SURFACE DRAINAGE FLOW	-----	-----
STORM DRAINAGE	---18" RCP---	---N18SD---
CATCH BASIN	□ CB	■ CB
DROP INLET	□ DI	■ DI
YARD INLET	□ YI	■ YI
JUNCTION BOX	□ JB	● JB
SANITARY SEWER	---8S---	---N8S---
SEWER FORCE MAIN	---8FM---	---N8FM---
SEWER MANHOLE	○ MH	● MH
SEWER VALVE	⊗	⊗
AIR RELEASE MANHOLE	○ ARV	● ARV
SEWER CLEANOUT	○ CO	○ CO
WATER LINE	---12W---	---N12W---
FIRE HYDRANT	○ FH	◆ FH
WATER METER	□ WM	■ WM
WATER VALVE	⊗ WV	⊗ WV
GAS LINE	---2G---	---N2G---
GAS VALVE	⊗ GV	⊗ GV
UNDERGROUND ELECTRIC	---UE---	---NUE---
OVERHEAD POWER	---OHP---	---NOHP---
SIGN	○	○
POWER POLE	⊗ PP	⊗ PP
GUY WIRE	---	---
GUY POLE	⊗ GP	⊗ GP
LAMP POLE	⊗ LMP	⊗ LMP
SERVICE POLE	⊗ SP	⊗ SP
LIGHT POLE	⊗ LP	⊗ LP
ELECTRIC MANHOLE	⊗ EMH	⊗ EMH
ELECTRIC TRANSFORMER	⊗ TRN	⊗ TRN
ELECTRIC BOX	⊗ EBOX	⊗ EBOX
UNDERGROUND TELEPHONE	---UT---	---NUT---
TELEPHONE PEDESTAL	□ TPED	■ TPED
TELEPHONE MANHOLE	⊗ TMH	⊗ TMH
UNDERGRD. CABLE TV	---CTV---	---NCTV---
CABLE TV PEDESTAL	⊗ CTV PED	⊗ CTV PED
MAIL BOX	⊗ MB	⊗ MB
UNDERGRD. FIBER OPTIC LINE	---U-FOC---	---NU-FOC---

NO.	DESCRIPTION	DATE	BY

APPROVALS	PROJECT ENG.	DESIGNED BY:	DRAWN BY:	CHECKED BY:	APPROVED:
	BET	MDJ	MDJ	BET	BET



1298 Professional Drive, Myrtle Beach, SC 29577-5886
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Columbia, South Carolina 29203
Telephone (803) 254-4400 • Fax (803) 771-6676
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SHEET TITLE	GENERAL NOTES, LEGEND, SYMBOLS, & ABBREVIATIONS
DATE:	MAY 5, 2015
SCALE:	AS SHOWN

PROJECT	PRACTICE SOCCER FIELDS DRAINAGE IMPROVEMENTS PREPARED FOR THE UNIVERSITY OF SOUTH CAROLINA
CITY OF COLUMBIA	SOUTH CAROLINA

RE-BID

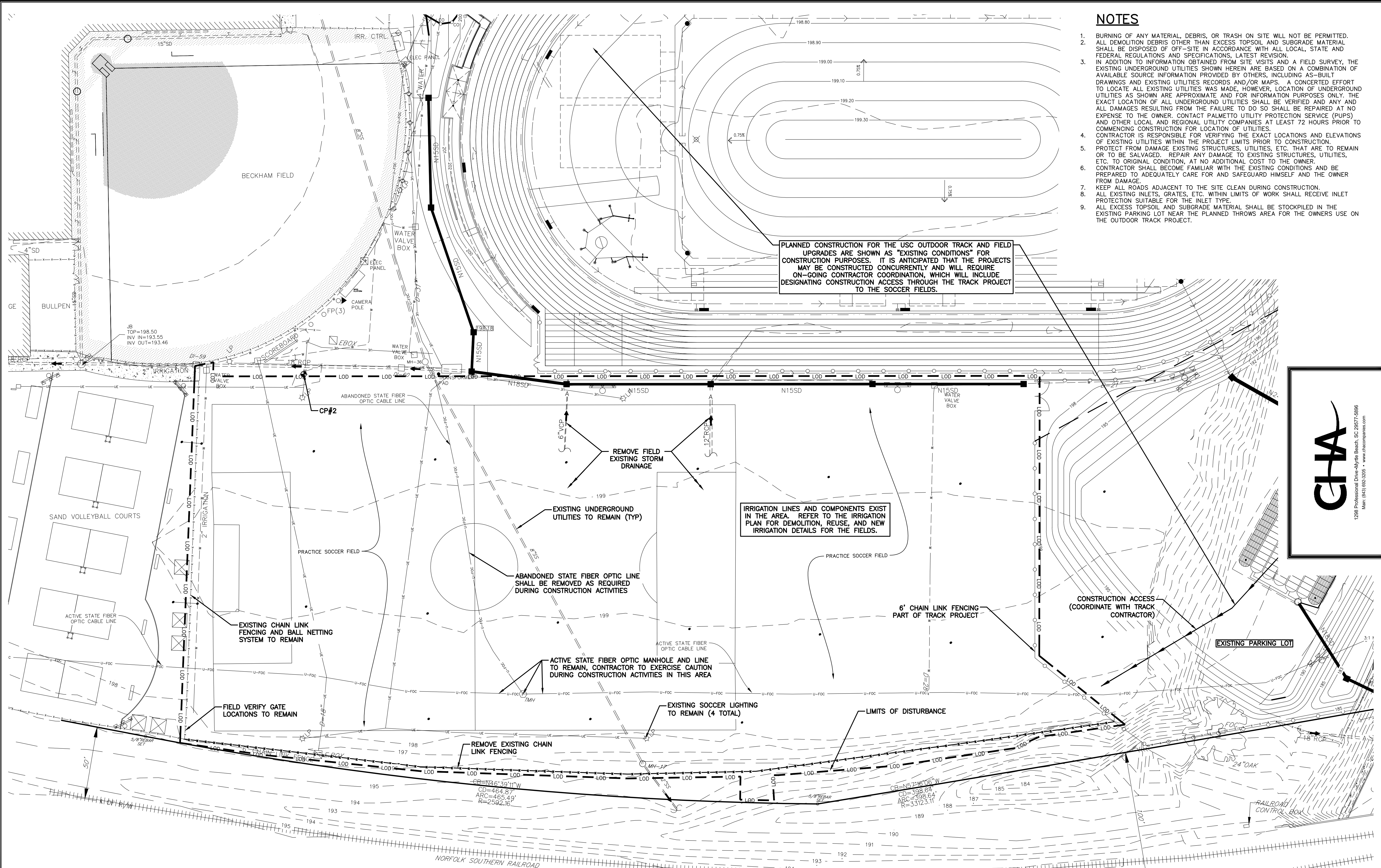
STATE PROJECT NO. H27-Z204

BID DOCUMENTS

THESE DOCUMENTS ARE FOR THE PURPOSE OF SOLICITATION OF BIDS AND ARE NOT FOR USE FOR CONSTRUCTION

.DWG NAME	S1_G	SHEET	1
N.B. NO.		OF	8
PROJECT NO.	46423692		
FILE NO.	36,374-B91		

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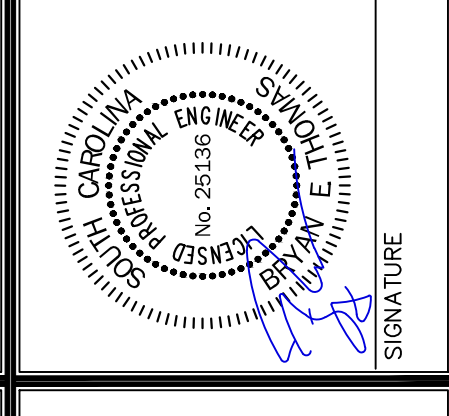
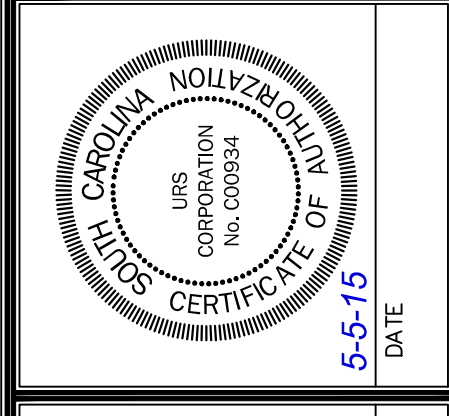


NOTES

- BURNING OF ANY MATERIAL, DEBRIS, OR TRASH ON SITE WILL NOT BE PERMITTED. ALL DEMOLITION DEBRIS OTHER THAN EXCESS TOPSOIL AND SUBGRADE MATERIAL SHALL BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS AND SPECIFICATIONS, LATEST REVISION.
- IN ADDITION TO INFORMATION OBTAINED FROM SITE VISITS AND A FIELD SURVEY, THE EXISTING UNDERGROUND UTILITIES SHOWN HEREIN ARE BASED ON A COMBINATION OF AVAILABLE SOURCE INFORMATION PROVIDED BY OTHERS, INCLUDING AS-BUILT DRAWINGS AND EXISTING UTILITIES RECORDS AND/OR MAPS. A CONCERTED EFFORT TO LOCATE ALL EXISTING UTILITIES WAS MADE, HOWEVER, LOCATION OF UNDERGROUND UTILITIES AS SHOWN ARE APPROXIMATE AND FOR INFORMATION PURPOSES ONLY. THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES SHALL BE VERIFIED AND ANY AND ALL DAMAGES RESULTING FROM THE FAILURE TO DO SO SHALL BE REPAIRED AT NO EXPENSE TO THE OWNER. CONTACT PALMETTO UTILITY PROTECTION SERVICE (PUPS) AND OTHER LOCAL AND REGIONAL UTILITY COMPANIES AT LEAST 72 HOURS PRIOR TO COMMENCING CONSTRUCTION FOR LOCATION OF UTILITIES.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES WITHIN THE PROJECT LIMITS PRIOR TO CONSTRUCTION. PROTECT FROM DAMAGE EXISTING STRUCTURES, UTILITIES, ETC. THAT ARE TO REMAIN OR TO BE SALVAGED. REPAIR ANY DAMAGE TO EXISTING STRUCTURES, UTILITIES, ETC. TO ORIGINAL CONDITION, AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL BECOME FAMILIAR WITH THE EXISTING CONDITIONS AND BE PREPARED TO ADEQUATELY CARE FOR AND SAFEGUARD HIMSELF AND THE OWNER FROM DAMAGE.
- KEEP ALL ROADS ADJACENT TO THE SITE CLEAN DURING CONSTRUCTION.
- ALL EXISTING INLETS, GRATES, ETC. WITHIN LIMITS OF WORK SHALL RECEIVE INLET PROTECTION SUITABLE FOR THE INLET TYPE.
- ALL EXCESS TOPSOIL AND SUBGRADE MATERIAL SHALL BE STOCKPILED IN THE EXISTING PARKING LOT NEAR THE PLANNED THROWS AREA FOR THE OWNERS USE ON THE OUTDOOR TRACK PROJECT.

REVISIONS	
NO.	DESCRIPTION

APPROVALS	DATE	BY
PROJECT ENG.		
BET		
DESIGNED BY:		
MDJ		
DRAWN BY:		
MDJ		
CHECKED BY:		
BET		
APPROVED:		
BET		



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EXISTING CONDITIONS AND DEMOLITION PLAN
 SHEET TITLE
 DATE: MAY 5, 2015 SCALE: 1"=30'

PRACTICE SOCCER FIELDS DRAINAGE IMPROVEMENTS
 PREPARED FOR THE UNIVERSITY OF SOUTH CAROLINA
 CITY OF COLUMBIA SOUTH CAROLINA

DWG NAME	SHEET
S2_EXDM	2
N.B. NO.	
REF.	OF
PROJECT NO.	8
46423692	
FILE NO. 36,374-891	

3 DAYS BEFORE DIGGING IN SOUTH CAROLINA

Call 811. Before you Dig.

PALMETTO UTILITY PROTECTION SERVICE, INC. (PUPS)

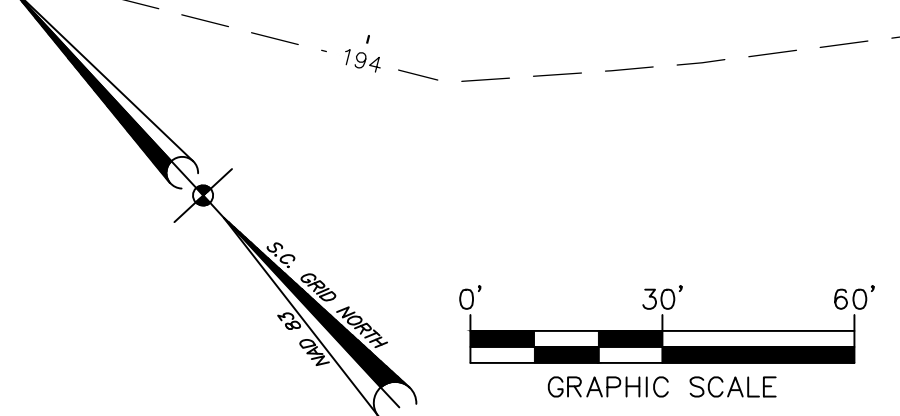
ALL UTILITIES MAY NOT BE A MEMBER OF PUPS. COORDINATE WITH LOCAL UTILITY COMPANIES FOR MARKING OF THEIR UTILITIES ALSO.

ORIGINATION OF VERTICAL DATUM:
 NGS MONUMENT - V 136 1978
 PID NO. DE1381
 ELEVATION = 188.15' (NAVD88)

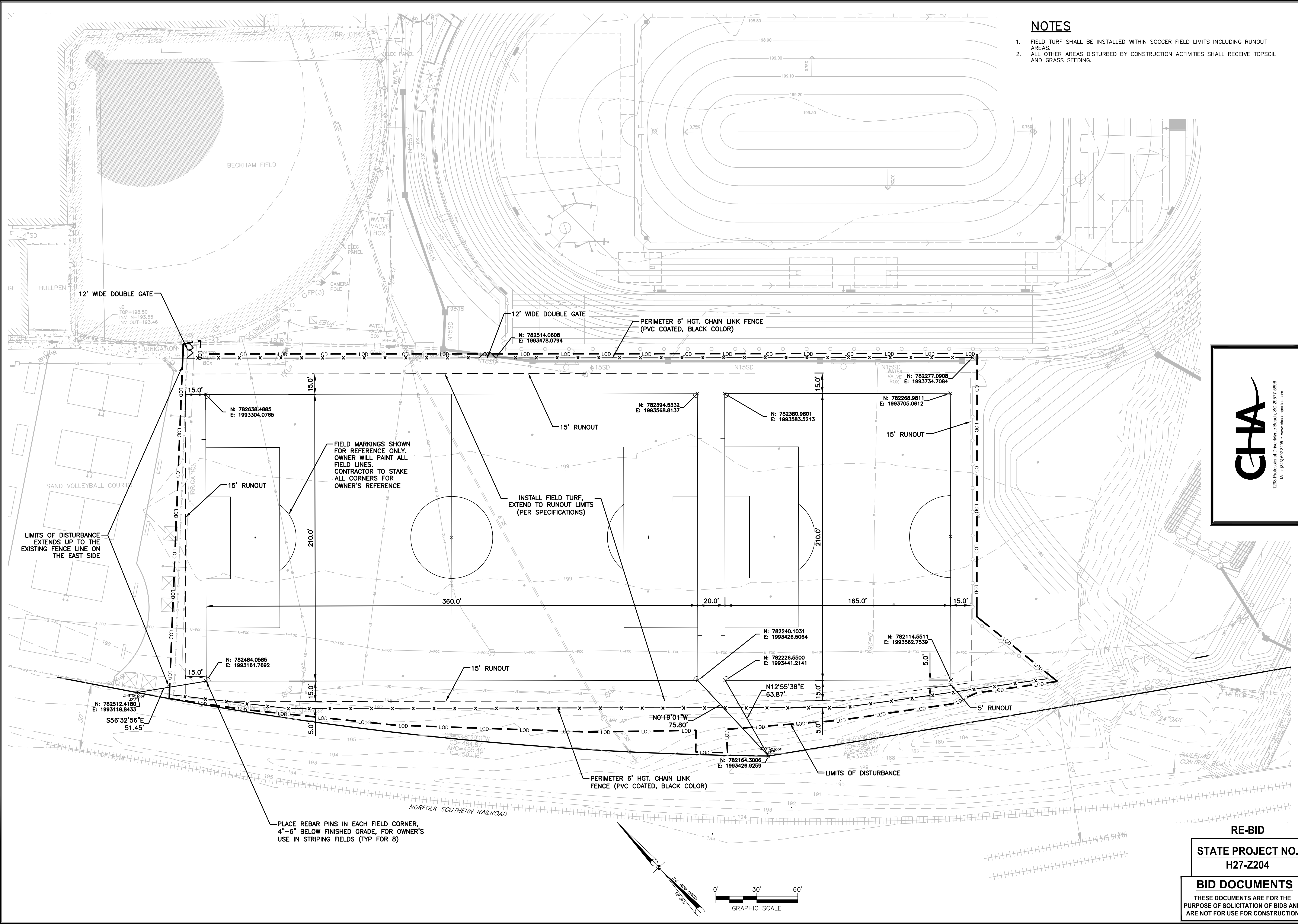
BENCHMARKS:

CP 1 - REBAR (IN PARKING LOT GRASSED ISLAND NORTH OF BECKHAM FIELD)
 ELEVATION = 213.494'
 NORTHING = 782621.8344
 EASTING = 1993645.5595

CP 2
 ELEVATION = 197.809'
 NORTHING = 782621.8344
 EASTING = 1993368.1695



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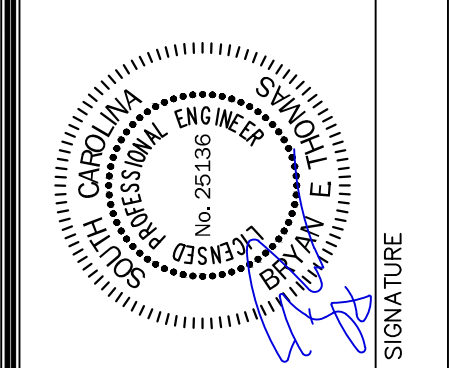
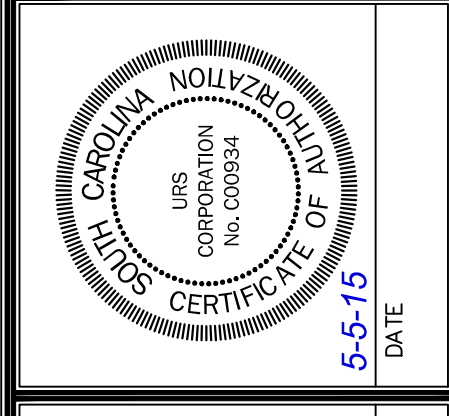


NOTES

1. FIELD TURF SHALL BE INSTALLED WITHIN SOCCER FIELD LIMITS INCLUDING RUNOUT AREAS.
2. ALL OTHER AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL RECEIVE TOPSOIL AND GRASS SEEDING.

REVISIONS	
NO.	DESCRIPTION

APPROVALS	PROJECT ENG.	DATE	BY
BET	DESIGNED BY:		
MDJ	DRAWN BY:		
MDJ	CHECKED BY:		
BET	APPROVED:		
BET			



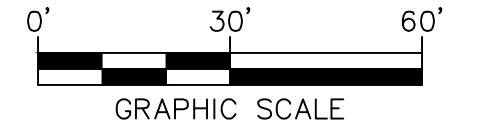
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 www.URS Corp.com

SITE PLAN
 SHEET TITLE
 DATE: MAY 5, 2015 SCALE: 1"=30'

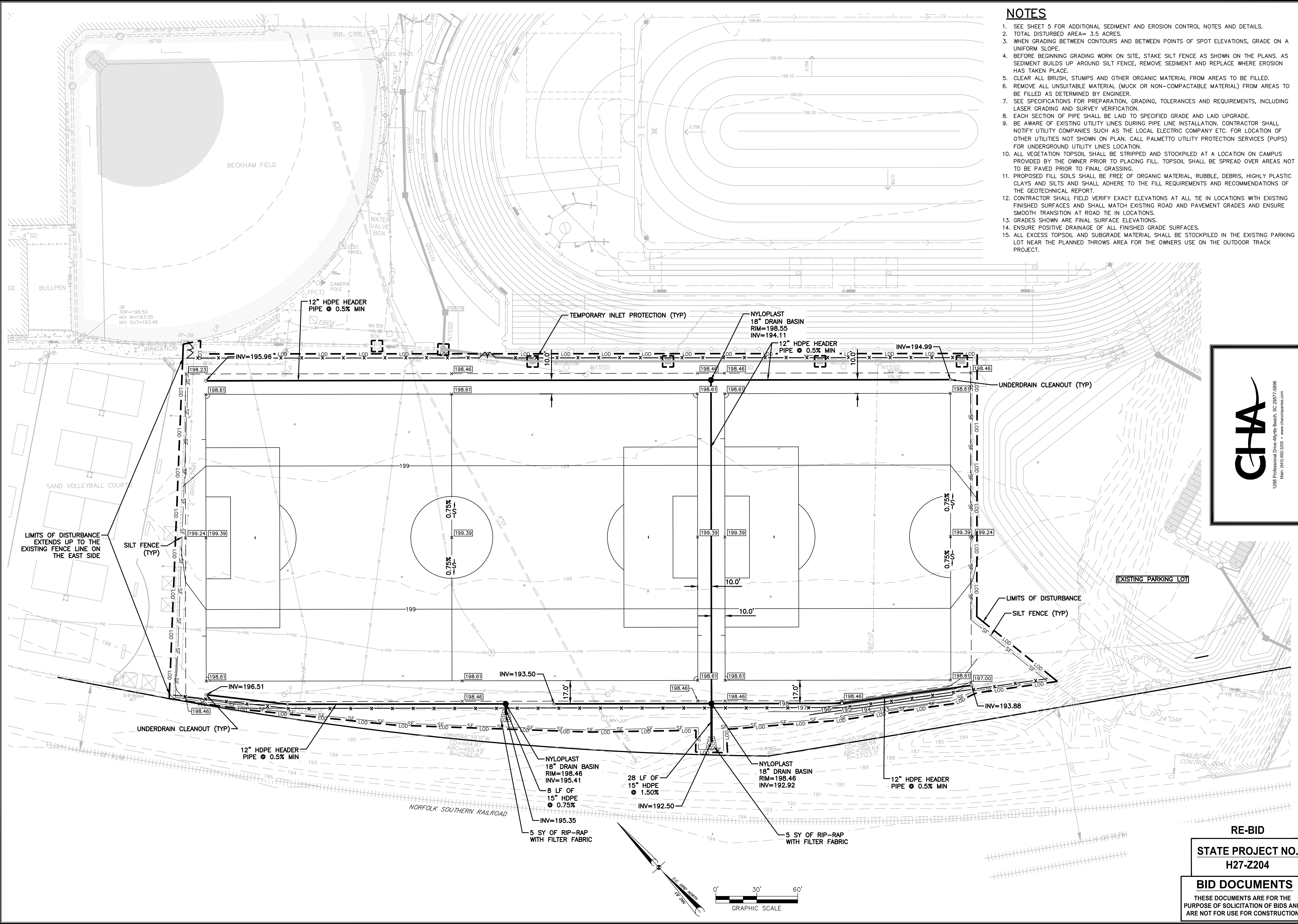
PROJECT: PRACTICE SOCCER FIELDS
 DRAINAGE IMPROVEMENTS
 PREPARED FOR: THE UNIVERSITY OF SOUTH CAROLINA
 CITY OF COLUMBIA SOUTH CAROLINA

.DWG NAME	S3_SITE	SHEET	3
N.B. NO.		OF	8
PROJECT NO.	46423692	FILE NO.	36,374-B91

RE-BID
STATE PROJECT NO. H27-Z204
BID DOCUMENTS
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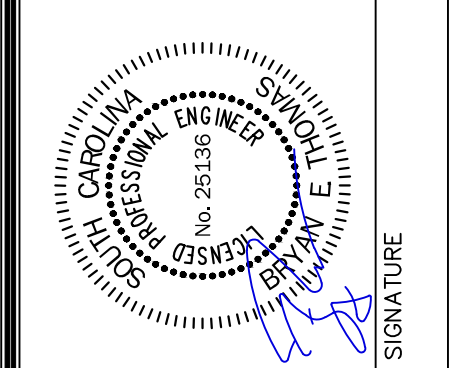
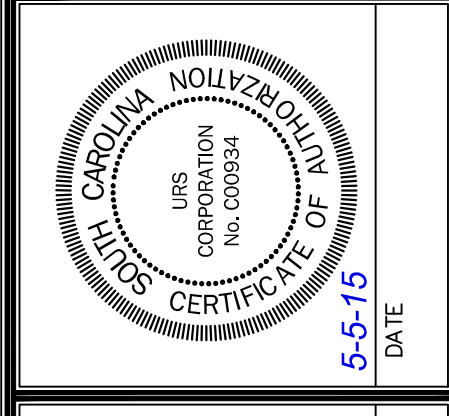
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- ### NOTES
- SEE SHEET 5 FOR ADDITIONAL SEDIMENT AND EROSION CONTROL NOTES AND DETAILS.
 - TOTAL DISTURBED AREA= 3.5 ACRES.
 - WHEN GRADING BETWEEN CONTOURS AND BETWEEN POINTS OF SPOT ELEVATIONS, GRADE ON A UNIFORM SLOPE.
 - BEFORE BEGINNING GRADING WORK ON SITE, STAKE SILT FENCE AS SHOWN ON THE PLANS. AS SEDIMENT BUILDS UP AROUND SILT FENCE, REMOVE SEDIMENT AND REPLACE WHERE EROSION HAS TAKEN PLACE.
 - CLEAR ALL BRUSH, STUMPS AND OTHER ORGANIC MATERIAL FROM AREAS TO BE FILLED.
 - REMOVE ALL UNSUITABLE MATERIAL (MUCK OR NON-COMPACTABLE MATERIAL) FROM AREAS TO BE FILLED AS DETERMINED BY ENGINEER.
 - SEE SPECIFICATIONS FOR PREPARATION, GRADING, TOLERANCES AND REQUIREMENTS, INCLUDING LASER GRADING AND SURVEY VERIFICATION.
 - EACH SECTION OF PIPE SHALL BE LAID TO SPECIFIED GRADE AND LAID UPGRADE.
 - BE AWARE OF EXISTING UTILITY LINES DURING PIPE LINE INSTALLATION. CONTRACTOR SHALL NOTIFY UTILITY COMPANIES SUCH AS THE LOCAL ELECTRIC COMPANY ETC. FOR LOCATION OF OTHER UTILITIES NOT SHOWN ON PLAN. CALL PALMETTO UTILITY PROTECTION SERVICES (PUPS) FOR UNDERGROUND UTILITY LINES LOCATION.
 - ALL VEGETATION TOPSOIL SHALL BE STRIPPED AND STOCKPILED AT A LOCATION ON CAMPUS PROVIDED BY THE OWNER PRIOR TO PLACING FILL. TOPSOIL SHALL BE SPREAD OVER AREAS NOT TO BE PAVED PRIOR TO FINAL GRASSING.
 - PROPOSED FILL SOILS SHALL BE FREE OF ORGANIC MATERIAL, RUBBLE, DEBRIS, HIGHLY PLASTIC CLAYS AND SILTS AND SHALL ADHERE TO THE FILL REQUIREMENTS AND RECOMMENDATIONS OF THE GEOTECHNICAL REPORT.
 - CONTRACTOR SHALL FIELD VERIFY EXACT ELEVATIONS AT ALL TIE IN LOCATIONS WITH EXISTING FINISHED SURFACES AND SHALL MATCH EXISTING ROAD AND PAVEMENT GRADES AND ENSURE SMOOTH TRANSITION AT ROAD TIE IN LOCATIONS.
 - GRADES SHOWN ARE FINAL SURFACE ELEVATIONS.
 - ENSURE POSITIVE DRAINAGE OF ALL FINISHED GRADE SURFACES.
 - ALL EXCESS TOPSOIL AND SUBGRADE MATERIAL SHALL BE STOCKPILED IN THE EXISTING PARKING LOT NEAR THE PLANNED THROWS AREA FOR THE OWNERS USE ON THE OUTDOOR TRACK PROJECT.

REVISIONS	
NO.	DESCRIPTION

APPROVALS	
PROJECT ENG. BET	DATE
DESIGNED BY: MDJ	BY
DRAWN BY: MDJ	DATE
CHECKED BY: BET	
APPROVED: BET	



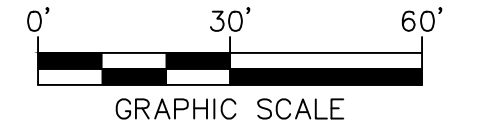
URS
 101 Research Drive
 Columbia, South Carolina 29203
 Telephone (803) 254-4400 : Fax (803) 771-6676
 www.URSCorp.com

SHEET TITLE
GRADING, STORM DRAINAGE AND EROSION CONTROL PLAN
 DATE: MAY 5, 2015 SCALE: 1"=30'

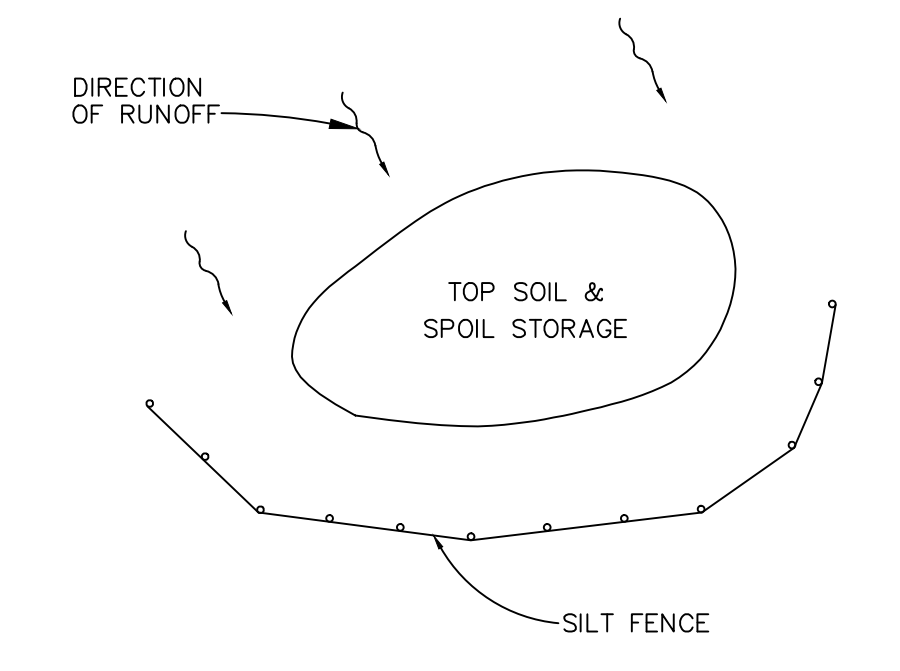
PROJECT
PRACTICE SOCCER FIELDS DRAINAGE IMPROVEMENTS
 PREPARED FOR
THE UNIVERSITY OF SOUTH CAROLINA
 CITY OF COLUMBIA SOUTH CAROLINA

RE-BID
STATE PROJECT NO. H27-2204
BID DOCUMENTS
 THESE DOCUMENTS ARE FOR THE PURPOSE OF SOLICITATION OF BIDS AND ARE NOT FOR USE FOR CONSTRUCTION

DWG NAME S4_GRSD	SHEET 4
N.B. NO.	OF 8
PROJECT NO. 46423692	FILE NO. 36,374-B91



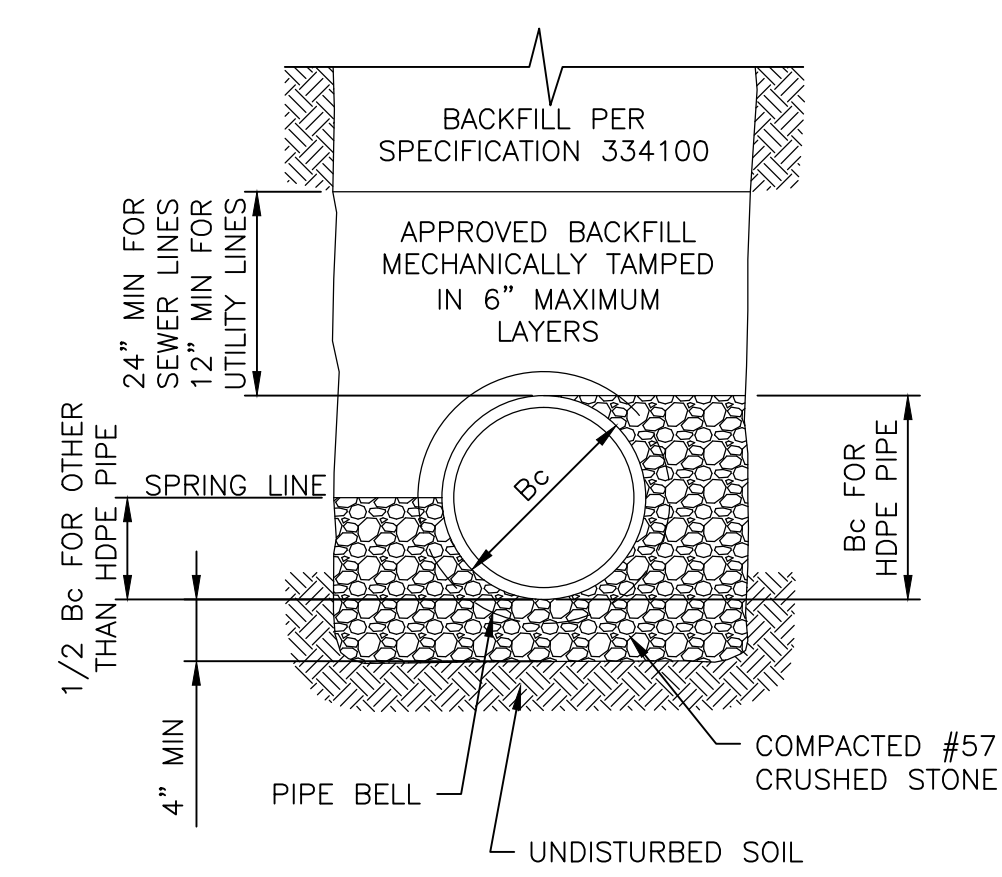
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TOP SOIL & SPOIL STORAGE

DETAIL
SCALE: NONE

1
TYP



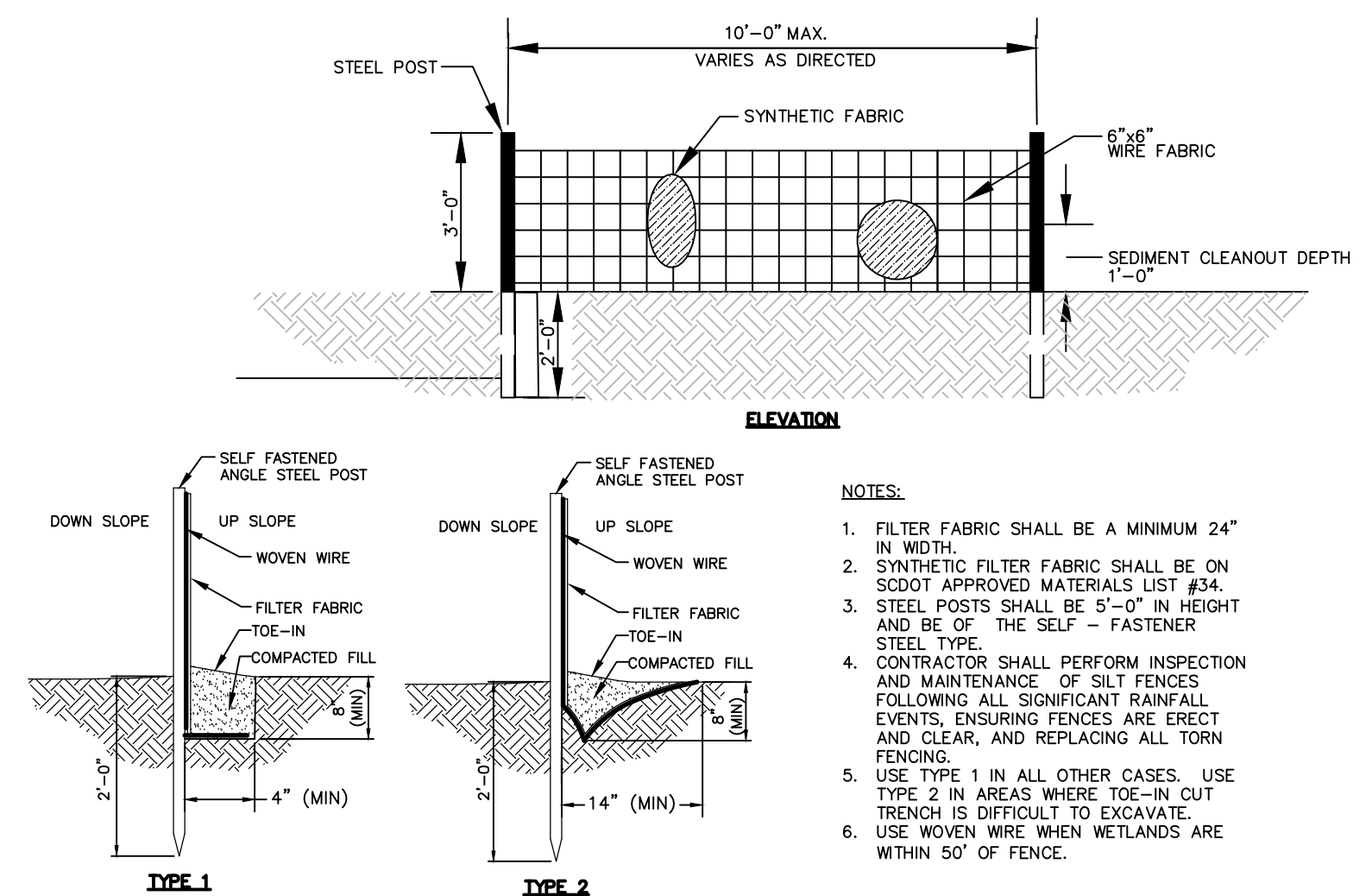
NOTES:
1. 1/4 Bc HAND SHAPED BOTTOM - SHAPE BELL HOLES FOR USE IN DRY EARTH TRENCHES ONLY. APPLICABLE TO BOTH EARTH AND ROCK TRENCHES.

TYPE 2- HDPE PIPE

CLASS "B" BEDDING

DETAIL
SCALE: NONE

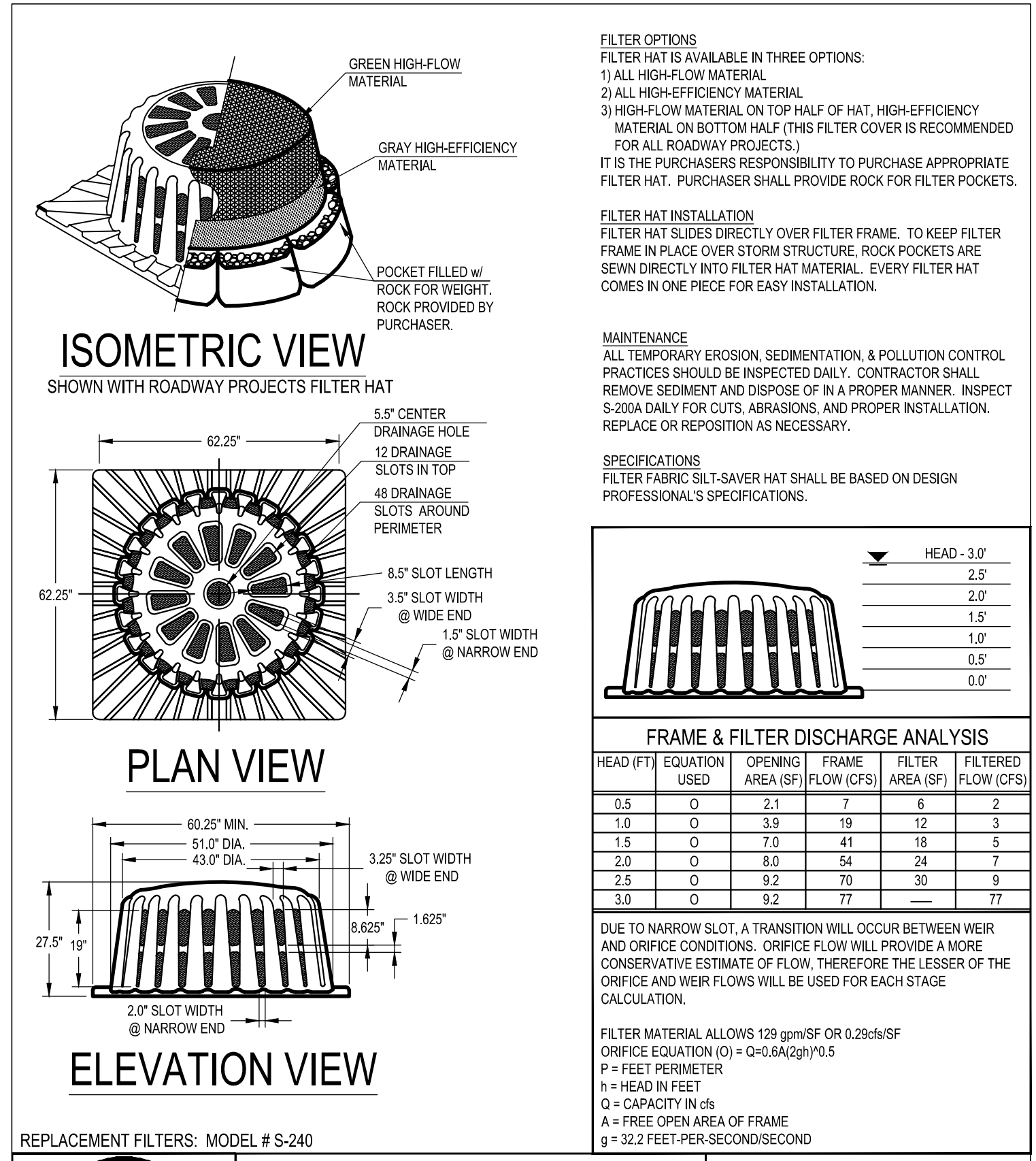
2
TYP



SILT FENCE WITH WIRE FABRIC

DETAIL
SCALE: NONE

3
TYP



REPLACEMENT FILTERS- MODEL # S-240

SQUARE FRAME & FILTER ASSEMBLY
Model # S-200A
LAST UPDATED: APRIL 2010

FRAME MATERIAL: BLACK 0.25" HMWPE
FILTER FABRIC MATERIAL: REFER TO SPEC
SCALE: NOT TO SCALE

SEDIMENT AND EROSION CONTROL NOTES

- SEE EROSION CONTROL PLAN SHEETS FOR ADDITIONAL NOTES.
- ALL ELEVATIONS ARE BASED ON MEAN SEA LEVEL DATUM.
- CONTRACTOR SHALL, FOR ALL GRASSED AREAS, BE RESPONSIBLE FOR REPLACING ERODED SOIL AND GRASS SEED UNTIL AN APPROVED STAND OF GRASS IS ESTABLISHED.
- CONTRACTOR SHALL, BEFORE BEGINNING GRADING WORK ON SITE, STAKE SILT FENCE AND INSTALL ALL PERIMETER CONTROLS AS SHOWN ON THIS PLAN.
- CONTRACTOR SHALL BE AWARE OF EXISTING UTILITY LINES DURING PIPE LINE INSTALLATION. CONTRACTOR SHALL NOTIFY UTILITY COMPANIES SUCH AS THE LOCAL ELECTRIC COMPANY, AT&T, ETC. FOR LOCATION OF OTHER UTILITIES NOT SHOWN ON PLAN. CALL PALMETTO UTILITIES PROTECTION SERVICES (888-721-7877) FOR UNDERGROUND UTILITY LINES LOCATION. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
- PROMPTLY INFORM THE ENGINEER OF ANY ERROR OR DISCREPANCIES DISCOVERED IN THE DRAWINGS OR SPECIFICATIONS OR CONFLICTS BETWEEN THE DRAWING AND SPECIFICATIONS IN ORDER FOR CORRECTIONS TO BE MADE.
- ALL WORK AND MATERIALS MUST CONFIRM WITH CITY OF COLUMBIA AND SCDHEC REGULATIONS AND SPECIFICATIONS, LATEST REVISIONS AT THE BEGINNING OF CONSTRUCTION.
- ALL NEWLY CONSTRUCTED SLOPES WHICH ARE STEEPER THAN 3 TO 1 MUST BE STABILIZED BY INSTALLATION OF EROSION CONTROL MATTING. OTHER AREAS SUCH AS CHANNEL BOTTOMS, CHANNEL SIDESLOPES, AND SLOPES NEAR SENSITIVE WETLAND AREAS MAY ALSO REQUIRE EROSION CONTROL MATTING WHERE SHOWN ON PLANS. USE NORTH AMERICAN GREEN S150 OR APPROVED EQUAL. EQUAL PRODUCTS MUST BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
- PROVIDE A TEMPORARY STONE SPLASH PAD AT ALL FIRE HYDRANTS OR OTHER POINTS OF DISCHARGE DURING TESTING OF THE WATER DISTRIBUTION SYSTEM.
- PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES AS MAY BE REQUIRED TO CONTROL SOIL EROSION DURING OFF SITE UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION.
- ALL AREAS WHICH ARE DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE SEEDED AT NO ADDITIONAL EXPENSE TO THE OWNER.
- INSTALL PERMANENT VEGETATIVE COVER AND THE LONG-TERM EROSION PROTECTION MEASURES OR STRUCTURES AS SOON AS PRACTICAL IN THE DEVELOPMENT PROCESS.
- PROVIDE FOR HANDLING OF THE INCREASED RUNOFF CAUSED BY CHANGED SOIL AND SURFACE CONDITIONS. USE EFFECTIVE MEANS TO CONSERVE EXISTING ON-SITE SOIL INCLUDING THE USE OF DIVERSION DITCHES, GRASSED WATERWAYS AND STORM SEWERS.
- PLACE SILT FENCE BARRIERS AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. SILT BARRIERS SHALL BE MAINTAINED IN PLACE AND IN GOOD CONDITION UNTIL GROUND COVER IS ESTABLISHED. SILT FENCE SHALL BE CLEANED OR REPLACED WHEN SILT ACCUMULATION REACHES 1/3 THE HEIGHT OF THE FENCE. SEDIMENT SHALL BE RESPAID ONSITE.
- ALL DISTURBED AREAS NOT PAVED SHALL BE GRASSED OR LANDSCAPED. USE TEMPORARY PLANT COVER, MULCHING, AND/OR STRUCTURES TO CONTROL RUNOFF AND PROTECT AREA SUBJECT TO EROSION DURING CONSTRUCTION.
- ADDITIONAL EROSION CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION TO CONTROL EROSION AND/OR OFF SITE SEDIMENTATION. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE STABILITY OF ALL GRADED AND/OR CLEARED AREAS UNTIL PERMANENT GROUND COVER IS ESTABLISHED. ANY AREAS DAMAGED BY EROSION SHALL BE REPAIRED TO ITS ORIGINAL CONDITION AND PROTECTED FROM FURTHER EROSION AT NO ADDITIONAL COST TO THE OWNER.
- ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETED AND THE SITE STABILIZED.
- STORMWATER DISCHARGES ASSOCIATED WITH THE CONSTRUCTION ACTIVITIES WILL DISCHARGE TO ROCKY BRANCH CREEK IN THE SALUDA RIVER BASIN.
- TYPE A INLET PROTECTION SHALL BE PLACED ON ALL EXISTING INLETS.

SEQUENCE OF CONSTRUCTION ACTIVITIES:

- PHASE I - INITIAL LAND DISTURBANCE PHASE**
- RECEIVE NOTIFICATION OF NPDES COVERAGE FROM SCDHEC AND LAND DISTURBANCE APPROVAL FROM CITY OF COLUMBIA USA.
 - COORDINATE PRE-CONSTRUCTION MEETING ON-SITE WITH OWNER, CONTRACTOR AND CITY OF COLUMBIA STORMWATER MANAGEMENT STAFF.
 - NOTIFY SCDHEC EOC OFFICE (COLUMBIA OFFICE) AND CITY OF COLUMBIA UTILITIES AND ENGINEERING STAFF AT LEAST 48 HOURS IN ADVANCE OF LAND DISTURBING ACTIVITIES.
 - VERIFY INSTALLATION OF STABILIZED CONSTRUCTION ENTRANCE BY THE TRACK CONTRACTOR. INSTALL SILT FENCE, RAIN GAUGE, AND PERIMETER SOIL EROSION CONTROL MEASURES.
 - BEGIN PERFORMING WEEKLY SCDHEC SWPPP INSPECTIONS UNTIL SITE IS PERMANENTLY STABILIZED.
 - CLEAR AND GRUB SITE IN AREAS TO BE DEVELOPED. REMOVE AND DISPOSE OF ITEMS OFFSITE AS APPROPRIATE.
- PHASE II - CONSTRUCTION/STABILIZATION PHASE**
- STRIP AND STOCKPILE TOPSOIL AND STABILIZE STOCKPILES AS NOTED IN THE SPECIFICATIONS, PLANS AND DETAILS.
 - PERFORM GRADING OPERATIONS ON THE SITE.
 - INSTALL STORM DRAINAGE STRUCTURES AND OTHER IMPROVEMENTS IN CONJUNCTION WITH GRADING OPERATIONS.
 - INSTALL EROSION CONTROL DEVICES AS REQUIRED OR NEEDED AS SITE IS EXTENDED TO FINISHED GRADE.
 - STOCKPILE UNUSED MATERIAL AND STABILIZE AS NOTED IN THE PLANS AS CONSTRUCTION PROGRESSES.
 - MAINTAIN THE EROSION CONTROLS AS NECESSARY.
 - PERFORM FINAL GRADING OPERATIONS ON THE SITE, INSTALLING EROSION CONTROL MATTING, MULCHING, RIP RAP, AND OTHER DEVICES AS FINAL GRADING IS REACHED.
 - REAPPLY TOPSOIL AND INITIATE VEGETATIVE STABILIZATION MEASURES AS FINAL GRADING IS REACHED.
 - INSPECT AND MAINTAIN ALL SEDIMENT AND EROSION CONTROLS UNTIL SITE IS FULLY STABILIZED.
 - UPON COMPLETE STABILIZATION OF SITE, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND REMOVE SEDIMENT BUILDUP IN THE STORMWATER CONVEYANCE SYSTEM.
 - CONTRACTOR TO PROVIDE A COMPLETE AS-BUILT SURVEY OF ALL STORM DRAINAGE INFRASTRUCTURE INCLUDING PROFILES AND SOCCER FIELD SURVEY SHOWING FINAL GRADES. AS-BUILT SURVEY TO INCLUDE FINAL CONTOURS, GRADES AND SHOULD INCLUDE ELEVATIONS AND DIMENSIONS OF ALL PIPES, DRAINAGE STRUCTURES AND OUTLET STRUCTURES. SURVEY TO BE COMPLETED AND STAMPED BY A LICENSED LAND SURVEYOR. SUBMIT TO ENGINEER FOR APPROVAL.
 - SUBMIT NOTICE OF TERMINATION (NOT) TO CITY OF COLUMBIA AS APPROPRIATE (BY ENGINEER).

14 DAY STABILIZATION CLAUSE

ALL DISTURBED AREAS WHICH ARE TO BE LEFT IDLE FOR A PERIOD OF 14 DAYS OR LONGER ARE TO RECEIVE TEMPORARY VEGETATION OR MULCH.

EROSION CONTROL MAINTENANCE SCHEDULE

ALL SEDIMENT AND EROSION CONTROLS ARE TO BE INSPECTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS. CONTRACTOR TO DOCUMENT WITH SCDHEC APPROVED INSPECTION REPORTS AND LOGGED IN THE PROJECT SWPPP.

GRASSING NOTES

- GRASSING NOTES**
- SEED THESE AREAS IMMEDIATELY UPON COMPLETION OF GRADING OR CONSTRUCTION AND CLEAN-UP OPERATIONS.
 - SLOPES GREATER THAN FOUR HORIZONTAL TO ONE VERTICAL.
 - UTILITY RIGHTS-OF-WAY ADJACENT TO STREAM BANKS.
 - AREAS READY FOR PLANTING BETWEEN AUGUST 16 AND FEBRUARY 28 SHALL BE PLANTED WITH A TEMPORARY COVER OF SCHEDULE NO. 2. AT THE ACCEPTABLE SEASONS FOR PLANTING SCHEDULE NO. 1, THE TURF SHALL BE DESTROYED BY REWORKING THE SOIL, AND SCHEDULE NO. 1 SEEDING ESTABLISHED AS SPECIFIED HEREIN.

USE RATE A LBS. PER 1000 SQ. FT. ON SLOPES OVER 5' HORIZONTAL TO 1' VERTICAL IN HEIGHT AND USE RATE B LBS. PER 1000 SQ. FT. ON SLOPES LESS THAN 5' HORIZONTAL TO 1' VERTICAL.
 - SEE GRASSING SPECIFICATIONS (SECTION 02930) FOR ADDITIONAL REQUIREMENTS.

GRASSING SCHEDULES:
GRASSING SCHEDULE NO. 1 - PLANTING DATES MARCH 1 TO AUGUST 15:

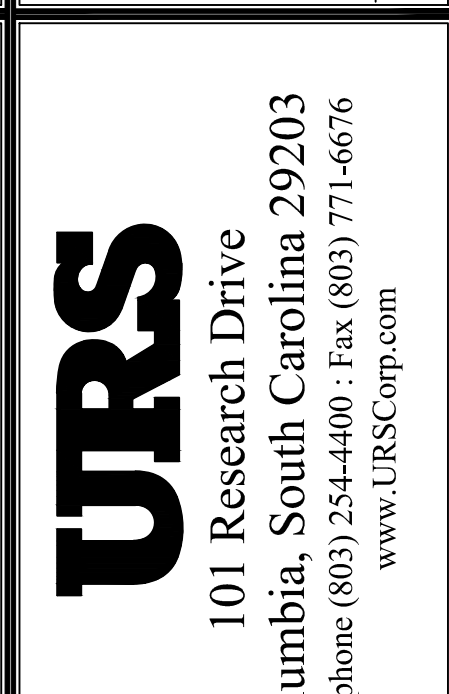
COMMON NAME OF SEED	RATE A	RATE B
RYE GRAIN	1	1
COMMON BERMUDA (HULLED)	0	1.5
SERICEA LESPEDEZA (CLAY SOILS)	1	0
WEEPING LOVE GRASS (SANDY SOILS)	1	0
CENTPEDEE	0.5	0.5
FERTILIZER	18-25	18-25

GRASSING SCHEDULE NO. 2 - PLANTING DATES AUGUST 16 - FEBRUARY 28:

COMMON NAME OF SEED	RATE A	RATE B
RYE GRAIN	0	1
COMMON BERMUDA (HULLED)	0	1.5
BROWN TOP MILLET	5	0
COMMON BERMUDA (UNHULLED)	0	2.0
FERTILIZER	18-25	18-25

STANDARD SCDHEC NOTES

- IF NECESSARY, SLOPES, WHICH EXCEED EIGHT (8) VERTICAL FEET SHOULD BE STABILIZED WITH SYNTHETIC OR VEGETATIVE MATS, IN ADDITION TO HYDROSEEDING. IT MAY BE NECESSARY TO INSTALL TEMPORARY SLOPE DRAINS DURING CONSTRUCTION. TEMPORARY BERMS MAY BE NEEDED UNTIL THE SLOPE IS BROUGHT TO GRADE.
- STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER WORK HAS CEASED, EXCEPT AS STATED BELOW.
 - WHERE STABILIZATION BY THE 14TH DAY IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE.
 - WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, & EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.
- ALL SEDIMENT & EROSION CONTROL DEVICES SHALL BE INSPECTED ONCE EVERY CALENDAR WEEK. IF PERIODIC INSPECTION OR OTHER INFORMATION INDICATES THAT A BMP HAS BEEN INAPPROPRIATELY OR INCORRECTLY INSTALLED, THE PERMITTEE MUST ADDRESS THE NECESSARY REPLACEMENT OR MODIFICATION REQUIRED TO CORRECT THE BMP WITHIN 48 HOURS OF IDENTIFICATION.
- PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL, COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE ANY SEDIMENTS BEFORE BEING PUMPED BACK INTO ANY WATERS OF THE STATE.
- ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES & ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED. THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO PAVED ROADWAY(S) FROM CONSTRUCTION AREAS & THE GENERATION OF DUST. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS MAY BE REQUIRED.
- RESIDENTIAL SUBDIVISIONS REQUIRE EROSION CONTROL FEATURES FOR INFRASTRUCTURE AS WELL AS FOR INDIVIDUAL LOT CONSTRUCTION. INDIVIDUAL PROPERTY OWNERS SHALL FOLLOW THESE PLANS DURING CONSTRUCTION OR OBTAIN APPROVAL OF AN INDIVIDUAL PLAN IN ACCORDANCE WITH S.C. REG. 72-300 ET. SEQ. AND SCR100000.
- TEMPORARY DIVERSION BERMS AND/OR DITCHES WILL BE PROVIDED AS NEEDED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT-LADEN WATER TO APPROPRIATE TRAPS OR STABLE OULETS.
- ALL WATERS OF THE STATE (WOS), INCLUDING WETLANDS, ARE TO BE FLAGGED OR OTHERWISE CLEARLY MARKED IN THE FIELD. A DOUBLE ROW OF SILT FENCE IS TO BE INSTALLED IN ALL AREAS WHERE A 50-FOOT BUFFER CAN'T BE MAINTAINED BETWEEN THE DISTURBED AREA AND ALL WOS. A 10-FOOT BUFFER SHOULD BE MAINTAINED BETWEEN THE LAST ROW OF SILT FENCE AND ALL WOS.
- LITTER, CONSTRUCTION DEBRIS, OILS, FUELS, & BUILDING PRODUCTS WITH SIGNIFICANT POTENTIAL FOR IMPACT (SUCH AS STOCKPILES OF FRESHLY STORED LUMBER) & CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORM WATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORM WATER DISCHARGES.
- A COPY OF THE SWPPP, INSPECTION RECORDS & RAINFALL DATA MUST BE RETAINED AT THE CONSTRUCTION SITE OR A NEARBY LOCATION EASILY ACCESSIBLE DURING NORMAL BUSINESS HOURS, FROM THE DATE OF COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO THE DATE THAT FINAL STABILIZATION IS REACHED.
- INITIATE STABILIZATION MEASURES ON ANY EXPOSED STEEP SLOPE (3H:1V OR GREATER) WHERE LAND-DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED, & WILL NOT RESUME FOR A PERIOD OF 7 CALENDAR DAYS.
- MINIMIZE SOIL COMPACTION &, UNLESS INFEASIBLE, PRESERVE TOPSOIL.
- MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT & VEHICLE WASHING, WHEEL WASH WATER & OTHER WASH WATERS. WASH WATERS MUST BE TREATED IN A SEDIMENT BASIN OR ALTERNATIVE CONTROL THAT PROVIDES EQUIVALENT OR BETTER TREATMENT PRIOR TO DISCHARGE.
- MINIMIZE THE DISCHARGE OF POLLUTANTS FROM DEWATERING OF TRENCHES & EXCAVATED AREAS. THESE DISCHARGES ARE TO BE ROUTED THROUGH APPROPRIATE BMP'S (SEDIMENT BASIN, FILTER BAG, ETC.)
- THE FOLLOWING DISCHARGES FROM SITES ARE PROHIBITED:
 - WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MANAGED BY APPROPRIATE CONTROL;
 - WASTEWATER FROM WASHOUT/CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS & OTHER CONSTRUCTION MATERIALS;
 - FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE & EQUIPMENT OPERATION & MAINTENANCE;
 - SOAPS OR SOLVENTS USED IN VEHICLE & EQUIPMENT WASHING
- AFTER CONSTRUCTION ACTIVITIES BEGIN, INSPECTIONS MUST BE CONDUCTED AT A MINIMUM OF AT LEAST ONCE EVERY CALENDAR WEEK & MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.
- IF EXISTING BMP'S NEED TO BE MODIFIED OR IF ADDITIONAL BMP'S ARE NECESSARY TO COMPLY WITH THE REQUIREMENTS OF THIS PERMIT AND/OR SC'S WATER QUALITY STANDARDS, IMPLEMENTATION MUST BE COMPLETED BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE. IF IMPLEMENTATION IS IMPRACTICABLE, THE SITUATION MUST BE DOCUMENTED IN THE SWPPP AND ALTERNATIVE BMP'S MUST BE IMPLEMENTED AS SOON AS REASONABLY POSSIBLE.
- A PRE-CONSTRUCTION CONFERENCE MUST BE HELD FOR EACH CONSTRUCTION SITE WITH AN APPROVED ON-SITE SWPPP PRIOR TO THE IMPLEMENTATION OF CONSTRUCTION ACTIVITIES. FOR NON-LINEAR PROJECTS THAT DISTURB 10 ACRES OR MORE THIS CONFERENCE MUST BE HELD ON-SITE UNLESS THE DEPARTMENT HAS APPROVED OTHERWISE.
- CONTRACTORS ARE REQUIRED TO HAVE RAIN GAUGES AT THE CONSTRUCTION SITE AND THE RAIN TOTALS DOCUMENTED FOR REVIEW BY CITY OF COLUMBIA AND SCDHEC.

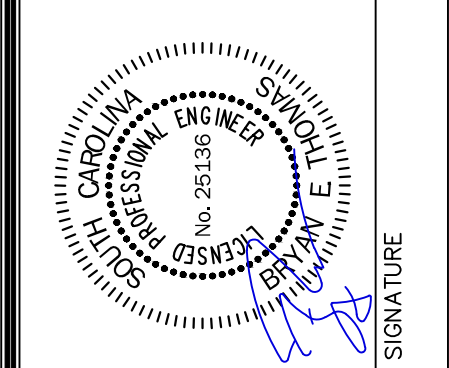
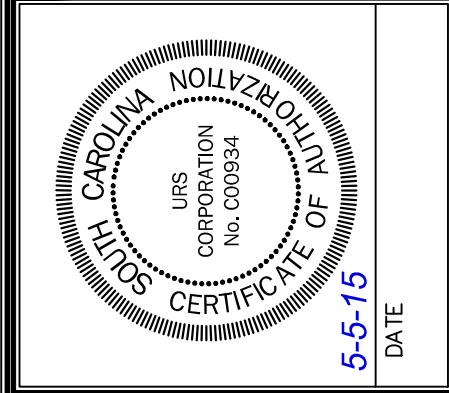


REVISIONS

NO.	DESCRIPTION	DATE	BY

APPROVALS

PROJECT ENG.	BET	DESIGNED BY:	MDJ	DRAWN BY:	MDJ	CHECKED BY:	BET	APPROVED:	BET



DETAILS

SHEET TITLE: PRACTICE SOCCER FIELDS DRAINAGE IMPROVEMENTS PREPARED FOR THE UNIVERSITY OF SOUTH CAROLINA SOUTH CAROLINA CITY OF COLUMBIA

DATE: MAY 5, 2015 SCALE: AS SHOWN

RE-BID

STATE PROJECT NO. H27-Z204

BID DOCUMENTS

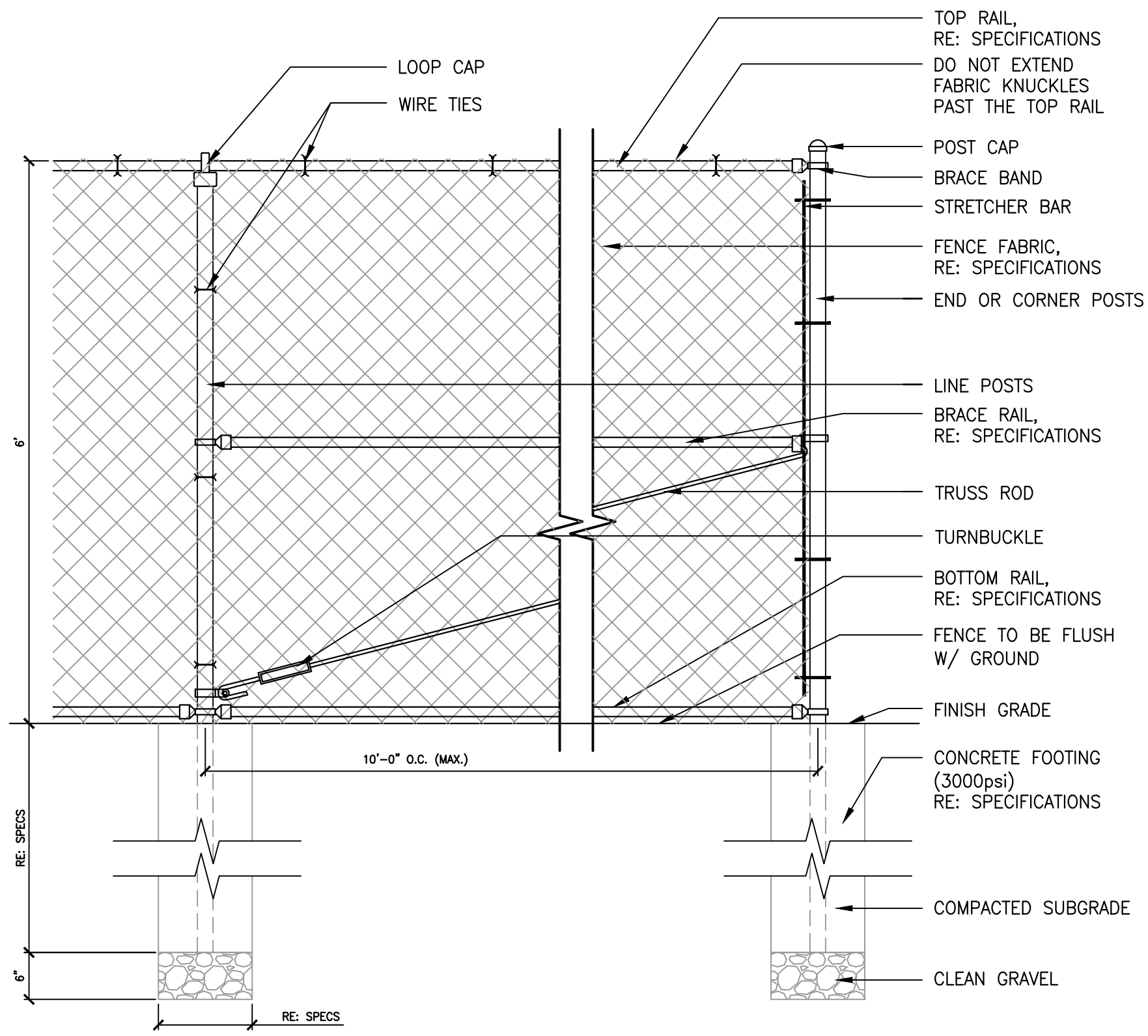
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DWG NAME	S5-S7 DETS	SHEET
N.B. NO.		5
REF.		OF
PROJECT NO.	46423692	8

FILE NO. 36,374-891

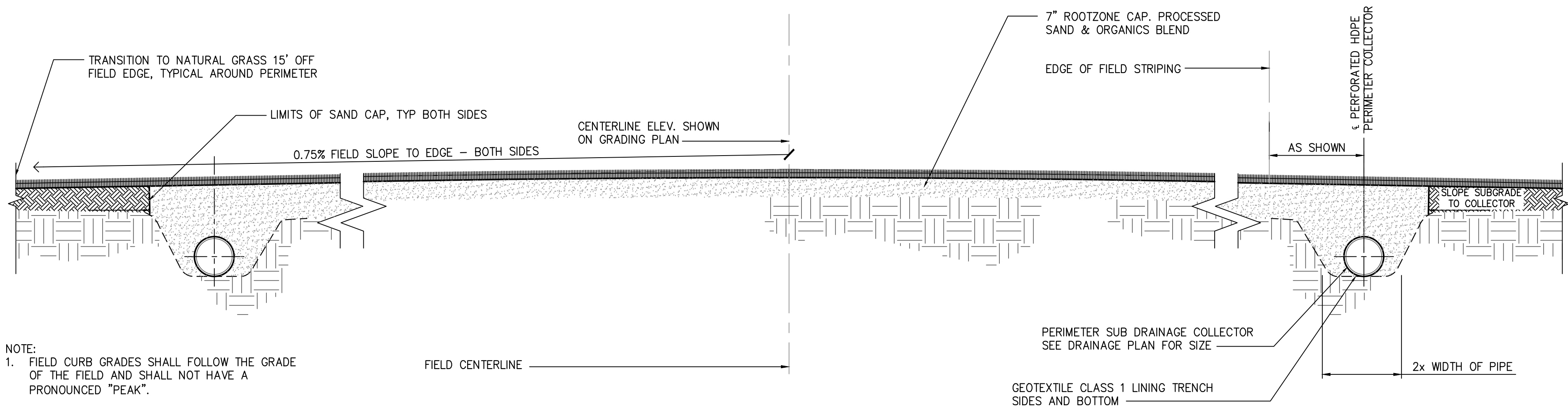
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- NOTES:
1. SEE SPECIFICATIONS FOR POST AND RAIL SIZING.
 2. ALL POST FOOTINGS SHALL BE PER SPECIFICATIONS.
 3. SEE SPECIFICATIONS FOR FENCE FINISH REQUIREMENTS.
 4. HOLD DOWN TOP OF FOOTING BELOW WALK (TYP.).

1 CHAIN LINK FENCE DETAIL
3/4"=1'-0"




- NOTE:
1. FIELD CURB GRADES SHALL FOLLOW THE GRADE OF THE FIELD AND SHALL NOT HAVE A PRONOUNCED "PEAK".

2 SOCCER FIELD CROSS SECTION
1/2"=1'-0"



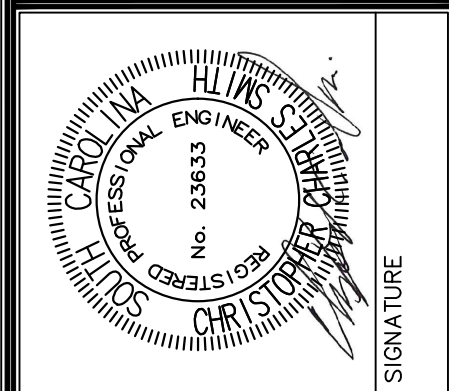
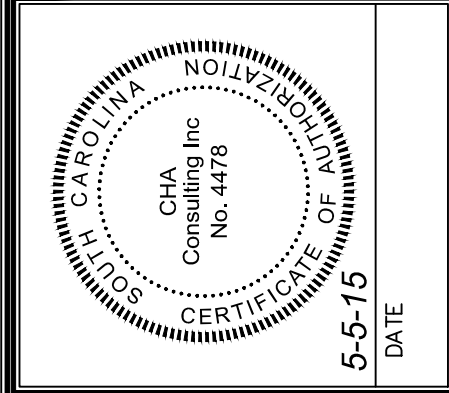
1298 Professional Drive, Myrtle Beach, SC 29577-5886
Main: (843) 882-2026 • www.chacorporation.com



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www.URSCorp.com

REVISIONS		
NO.	DESCRIPTION	DATE

PROJECT ENG. BY: BET	DESIGNED BY: MDJ	DRAWN BY: MDJ	CHECKED BY: BET	APPROVED BY: BET
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SHEET TITLE		SCALE: AS SHOWN
DETAILS		DATE: MAY 5, 2015

PROJECT	PRACTICE SOCCER FIELDS DRAINAGE IMPROVEMENTS
PREPARED FOR	THE UNIVERSITY OF SOUTH CAROLINA
CITY OF COLUMBIA	SOUTH CAROLINA

RE-BID

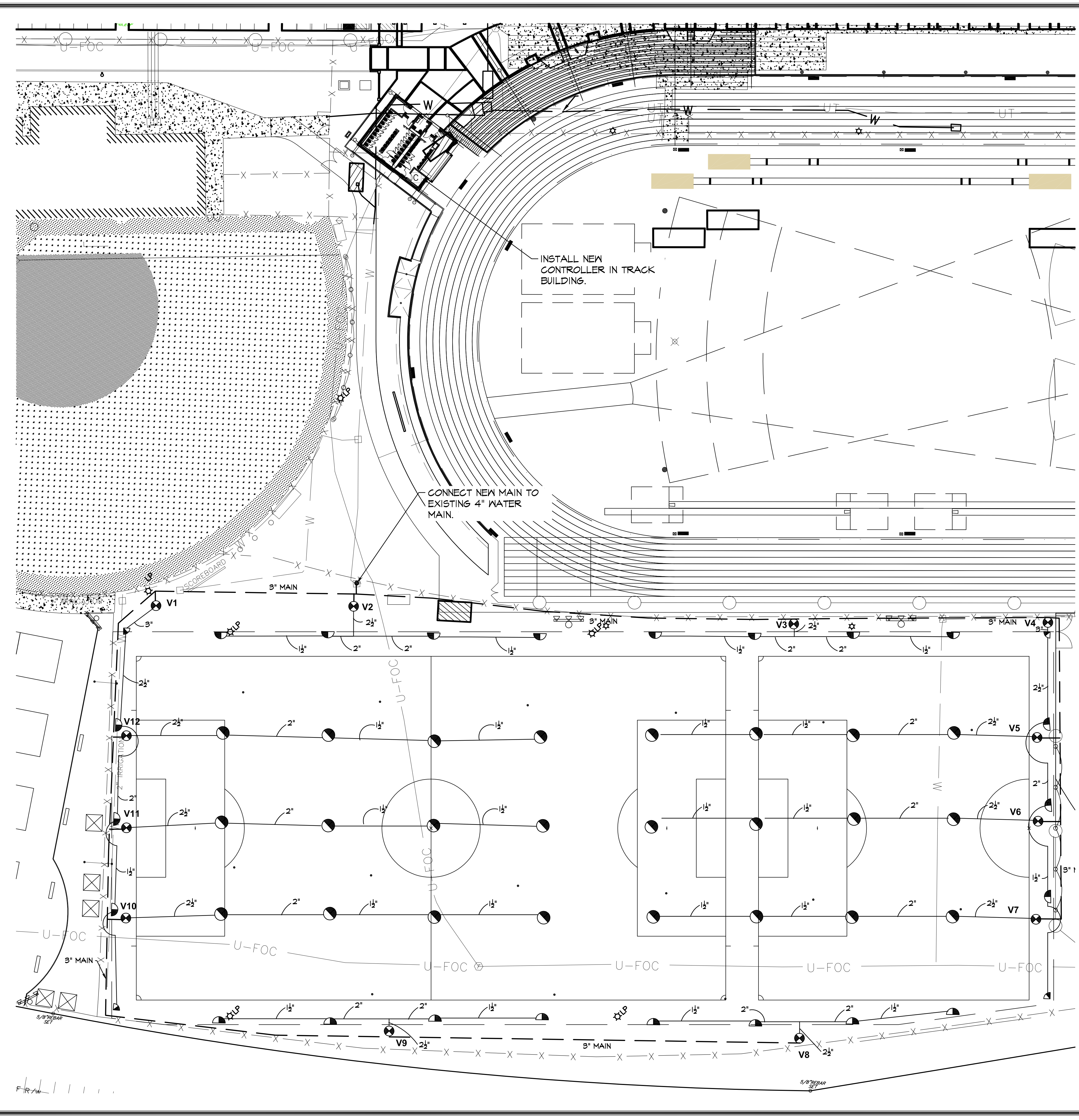
STATE PROJECT NO. H27-2204

BID DOCUMENTS

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.DWG NAME	SS-S7_DET	SHEET	6
N.B. NO.		OF	8
PROJECT NO.	46423692	FILE NO.	36,374-B91

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 URS CORPORATION, 101 RESEARCH DRIVE, COLUMBIA, SOUTH CAROLINA 29203, PHONE (803) 771-6676, FAX (803) 771-6676, WWW.URSCORP.COM
 DATE: MAY 5, 2015, TIME: 11:30 AM



IRRIGATION LEGEND

- POINT OF CONNECTION
- Ⓢ RAINBIRD ESP-LXME CONTROLLER
- ⊗ RAINBIRD P6A-100 SERIES ELECTRIC VALVE
- ⊙ RAINBIRD 8005 SERIES POP-UP ROTOR HEAD
- ⊙ NOZ. #16
- 3" MAINLINE
- CLASS 160 OR 200 PVC PIPING
SIZE AS NOTED

VALVE SCHEDULE

VALVE	SIZE	TYPE	GPM
V1	2"	8005	66.00
V2	2"	8005	66.00
V3	2"	8005	66.00
V4	2"	8005	66.00
V5	2"	8005	66.00
V6	2"	8005	66.00
V7	2"	8005	66.00
V8	2"	8005	66.00
V9	2"	8005	66.00
V10	2"	8005	66.00
V11	2"	8005	66.00
V12	2"	8005	66.00

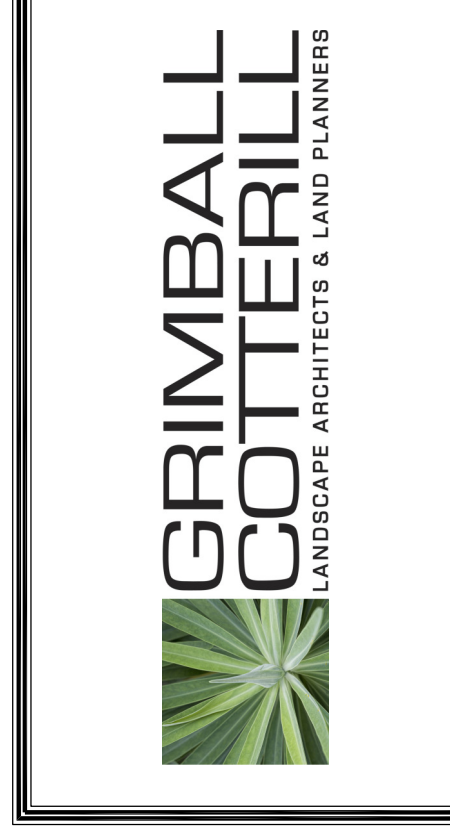
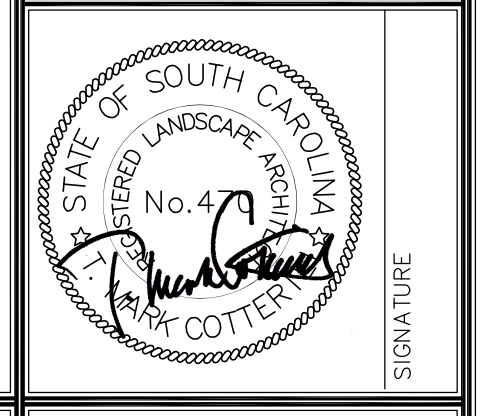
IRRIGATION NOTES

1. ALL IRRIGATION TO BE AS SPECIFIED OR APPROVED EQUAL.
2. SYSTEM DESIGNED TO RUN AT 66 GPM WITH 10 PSI.
3. CONTRACTOR TO COORDINATE WITH OWNER CONCERNING IRRIGATION POINT OF CONNECTION PRIOR TO COMMENCEMENT OF WORK SO AS NOT TO DELAY COMPLETION OF IRRIGATION.
4. CONTRACTOR SHALL PERFORM PRESSURE AND FLOW TESTS AT PROPOSED POINT OF CONNECTION PRIOR TO INSTALLATION TO VERIFY THAT ADEQUATE DESIGN CRITERIA IS PRESENT.
5. ADJUSTMENT OF SPRINKLER HEADS AND LATERAL LINES WILL BE NECESSARY IN THE FIELD.
6. SPRAY HEAD SYMBOLS AND IRRIGATION PIPING LAYOUT PROVIDED FOR GENERAL LOCATIONS IN THE FIELD ONLY. SYMBOLS DO NOT NECESSARILY PORTRAY AN ACCURATE QUANTITY. THE DESIGN INTENT IS TO PROVIDE 100% HEAD TO HEAD COVERAGE. IF THIS CANNOT BE ACHIEVED, NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY.

NO.	DESCRIPTION	DATE	BY

APPROVALS	PROJECT ENG. BY: BET	DESIGNED BY: MDJ	DRAWN BY: MDJ	CHECKED BY: BET	APPROVED BY: BET
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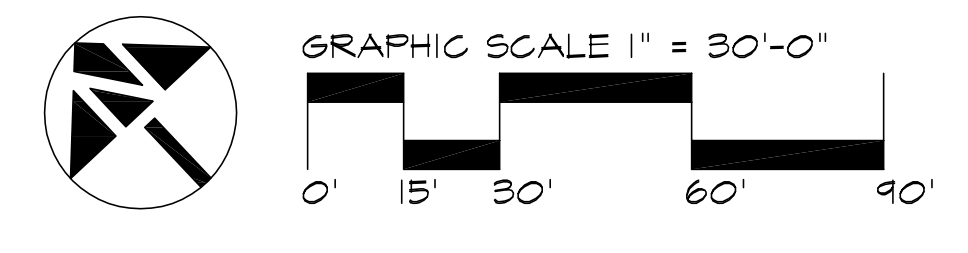
URS
 101 Research Drive
 Columbia, South Carolina 29203
 Telephone (803) 254-4400 ; Fax (803) 771-6676
 www.URSCorp.com

SHEET TITLE
IRRIGATION PLAN
 DATE: **MAY 5, 2015** SCALE:

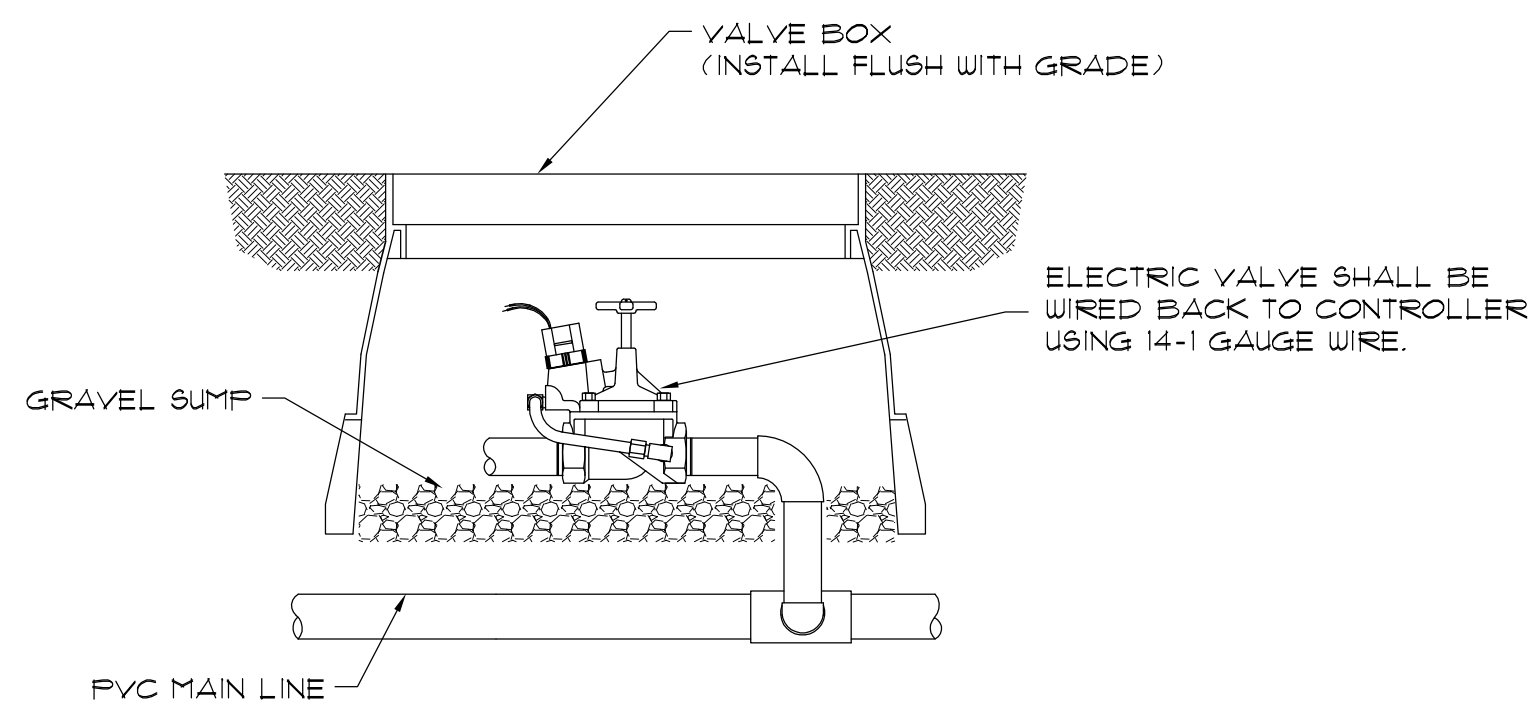
PROJECT
 PRACTICE SOCCER FIELDS
 DRAINAGE IMPROVEMENTS
 PREPARED FOR
 THE UNIVERSITY OF
 SOUTH CAROLINA
 CITY OF COLUMBIA SOUTH CAROLINA

DWG NAME	SHEET
N.B. NO.	7
REF.	OF
PROJECT NO.	8
48423692	
FILE NO. 36,374-B91	

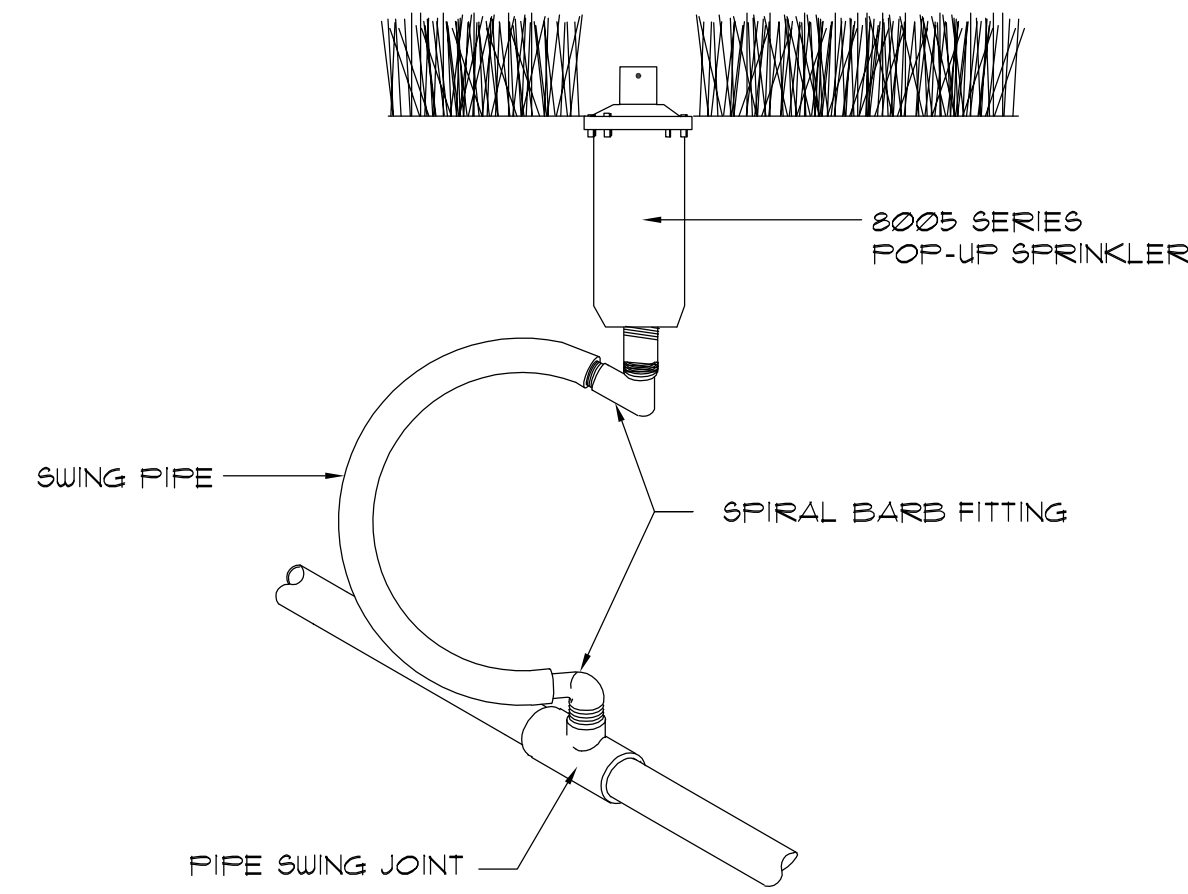
STATE PROJECT NO. H27-Z204
BID DOCUMENTS
 THESE DOCUMENTS ARE FOR THE PURPOSE OF SOLICITATION OF BIDS AND ARE NOT FOR USE FOR CONSTRUCTION



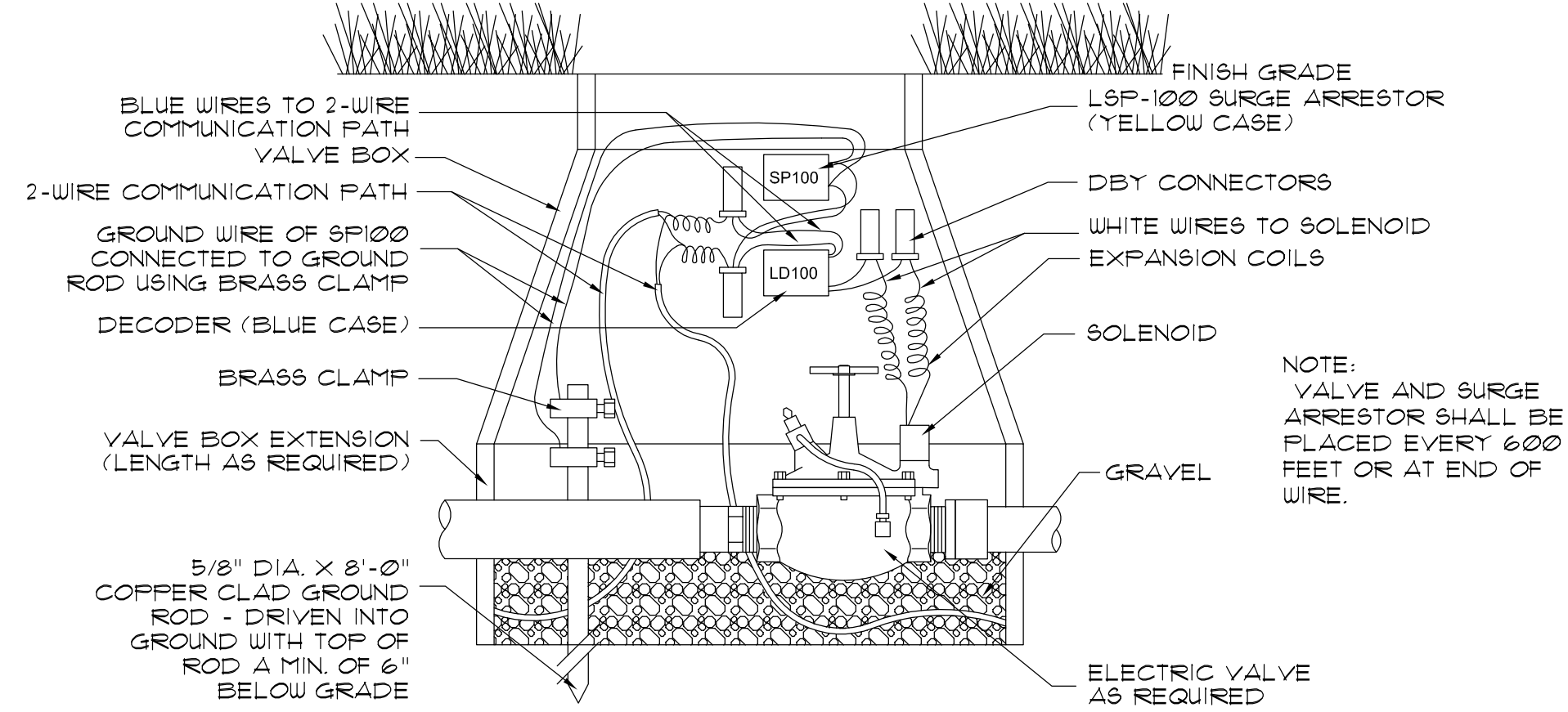
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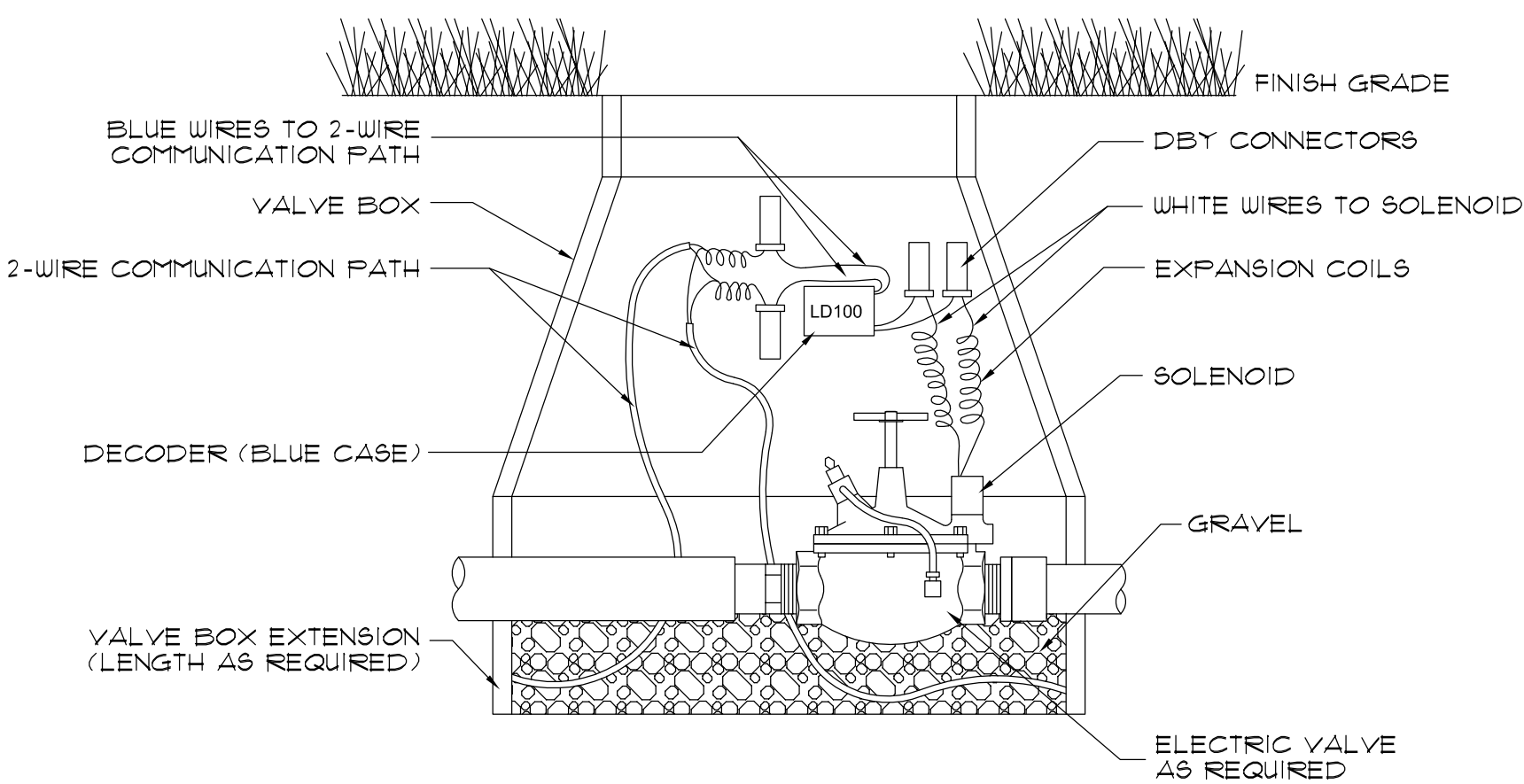
A
1-2 SECTION
ELECTRIC VALVE
NOT TO SCALE



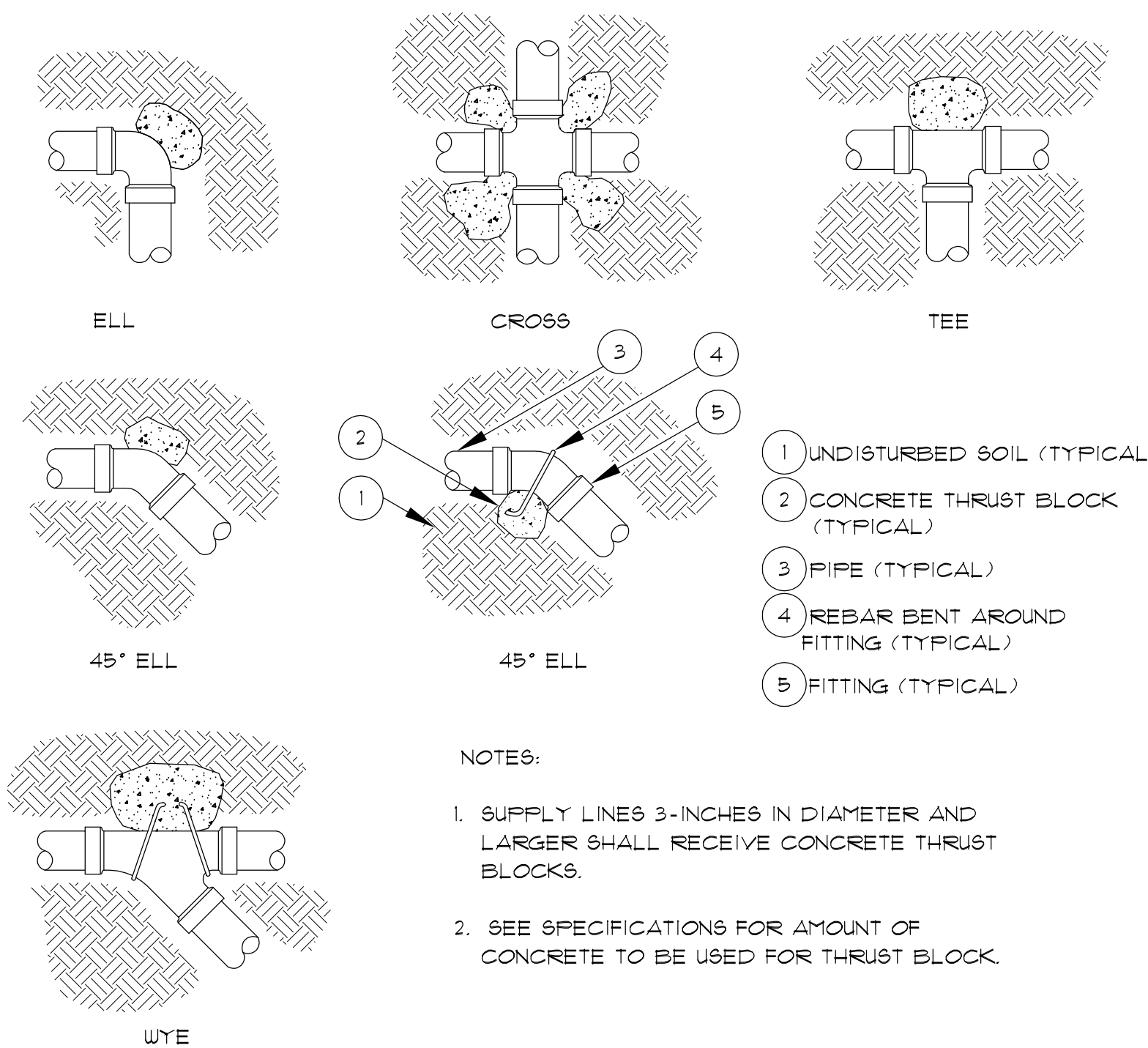
B
1-2 SECTION
POP-UP ROTOR SPRINKLER
NOT TO SCALE



H
1-2 SECTION
TWO-WIRE VALVE, DECODER & SURGE ARRESTOR
NOT TO SCALE



I
1-2 SECTION
TWO-WIRE VALVE AND DECODER
NOT TO SCALE



C
1-8 PLAN
THRUST BLOCK FOR IRRIGATION PIPE 3\"/>

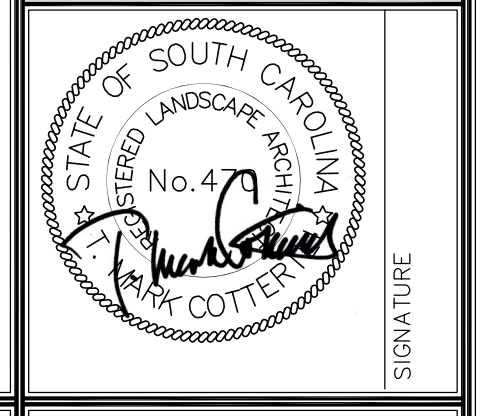
IRRIGATION NOTES

- ALL PLASTIC PIPE FITTINGS TO BE MINIMUM SCHEDULE 40 PVC.
- ALL MAIN LINES TO BE SCHEDULE 40 PVC OR SCHEDULE 200 PVC.
- ALL LATERAL LINES TO BE SCHEDULE 200 PVC OR SCHEDULE 160 PVC.
- COORDINATE WITH GENERAL CONTRACTOR FOR INSTALLATION OF SCHEDULE 40 PVC PIPE UNDER PAVED SURFACES AS NOTED ON THE DRAWINGS TO BE UTILIZED FOR IRRIGATION SLEEVING. THE LOCATION OF SLEEVING IS MARKED ON THE IRRIGATION PLAN. DEVIATIONS MAY OCCUR DURING CONSTRUCTION.
- TRENCHES FOR PVC PIPE MAINLINES SHALL BE EXCAVATED TO SUFFICIENT DEPTH OF 18\"/>

NO.	DESCRIPTION	DATE	BY

PROJECT ENG. BY: BET	DESIGNED BY: MDJ	DRAWN BY: MDJ	CHECKED BY: BET	APPROVED BY: BET
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GRIMBALL COTTERILL
LANDSCAPE ARCHITECTS & LAND PLANNERS

URS
101 Research Drive
Columbia, South Carolina 29203
Telephone (803) 254-4400 : Fax (803) 771-6676
www.URSCorp.com

IRRIGATION DETAILS

SHEET TITLE

DATE: **MAY 5, 2015** SCALE:

PROJECT: PRACTICE SOCCER FIELDS DRAINAGE IMPROVEMENTS
PREPARED FOR: THE UNIVERSITY OF SOUTH CAROLINA
CITY OF COLUMBIA SOUTH CAROLINA

STATE PROJECT NO. **H27-Z204**

BID DOCUMENTS
THESE DOCUMENTS ARE FOR THE PURPOSE OF SOLICITATION OF BIDS AND ARE NOT FOR USE FOR CONSTRUCTION

DWG NAME	SHEET
N.B. NO.	8
REF.	OF
PROJECT NO. 48423692	8
FILE NO. 36,374-B91	