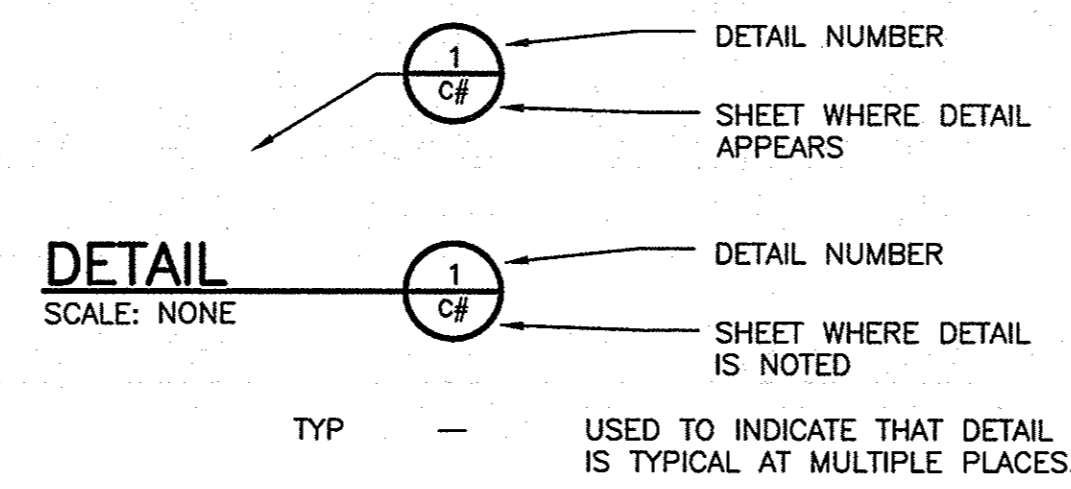


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ABBREVIATION WORD

A AGGR & APPROX A ASPH @ AUTH AVE AVG AZ	AGGREGATE AND APPROXIMATE AREA AT ASPHALT AUTHORIZED AVENUE AVERAGE AZIMUTH	F CONT. FIL FIL FIN. FF FH FLG FL FWD FDN FM FREQ FR	FILLET FILTER FINISH FINISH FLOOR FIRE HYDRANT FLANGE FLUID FORWARD FOUNDATION FORCEMAIN FREQUENCY FRONT	S SCH SL SEC (OR) SD SD SHW SIM S SQ SS STD STA SUR SY SYM SW	SCHEDULE SEA LEVEL SECTION SECTION STORM DRAIN STRAIGHT HEADWALL SIMILAR SOUTH SQUARE SANITARY SEWER STANDARD STATION SURFACE SYMBOL SIDEWALK
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 OF BOTTOM CHORD BOUNDARY BREAK BRIDGE BUILDING BALL VALVE BUTTERFLY VALVE	G GAL GALV GEN GR OL G GRD	GALLON GALVANIZE GENERAL GRADE GRADE LINE GRAVITY GROUND	I TAN. TPR THK KIP T/ TOT TYP	TANGENT TAPER THICK THOUSAND POUND TOP OF TOTAL TYPICAL
C CALC CB CIP CI CAT. CEM CTR CL CC C lo C CHAM CO CHAN CHK CV CHD CIR CIR CIRC CO CW CTD COL COMB. CO CONC CMP CMU COND CONN CONT CORD 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 CIRCUMFERENCE 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	J IN. (OR) IPS INCL IND INFO ID IF INT INV I	INCH INCHES PER SECOND INCLUDE INDUSTRIAL INFORMATION INSIDE DIAMETER INSIDE FACE INTERSECT INVERT IRON	U U UNO	UNIT UNLESS NOTED OTHERWISE
D DEC DEC (OR) DEPT DSGN DET DEV DI DIA (OR) 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 DUCTILE IRON PIPE	J JCT JB J	JUNCTION JUNCTION BOX JUNCTION	W WT W W/ Y YD YH YI YR	WEIGHT WEST WIDTH WITH YARD YARD HYDRANT YARD INLET YEAR
E EA EF ES EW E EFF ELB 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	L LAT LT L.P.	LATITUDE LEFT LOW POINT	Y YD YH YI YR	YARD YARD HYDRANT YARD INLET YEAR
F FES F to F FM FPS FRP FLD FIG.	FLARED END SECTION FACE TO FACE FEET FEET PER MINUTE FEET PER SECOND FIBERGLASS REINFORCED PLASTIC FIELD FIGURE	M MH MAN. MFR MATL MAX MECH MED MET. M MI MPH MIN MISC MOD MULT	MANHOLE MANUAL MANUFACTURE MATERIAL MAXIMUM MECHANICAL MEDIAN METAL METER MILES MILE PER HOUR MINIMUM MINUTE MISCELLANEOUS MODEL MULTIPLE	N NEG NIC NOM NOR N NTS NO. (OR #) O O/C O/S OPP ORIG OD OF OA OHP OVF	NEGATIVE NOT IN CONTRACT NEUTRAL NORMAL NORTH NOT TO SCALE NUMBER ON CENTER OFFSET OPENING OPPOSITE ORIGINAL OUTSIDE DIAMETER OUTSIDE FACE OVERALL OVERHEAD POWER OVERFLOW
P PERM PERP PL LP (OR #) FSI 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 RCP REINF REM REQ REQD REV RJ RMP 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		

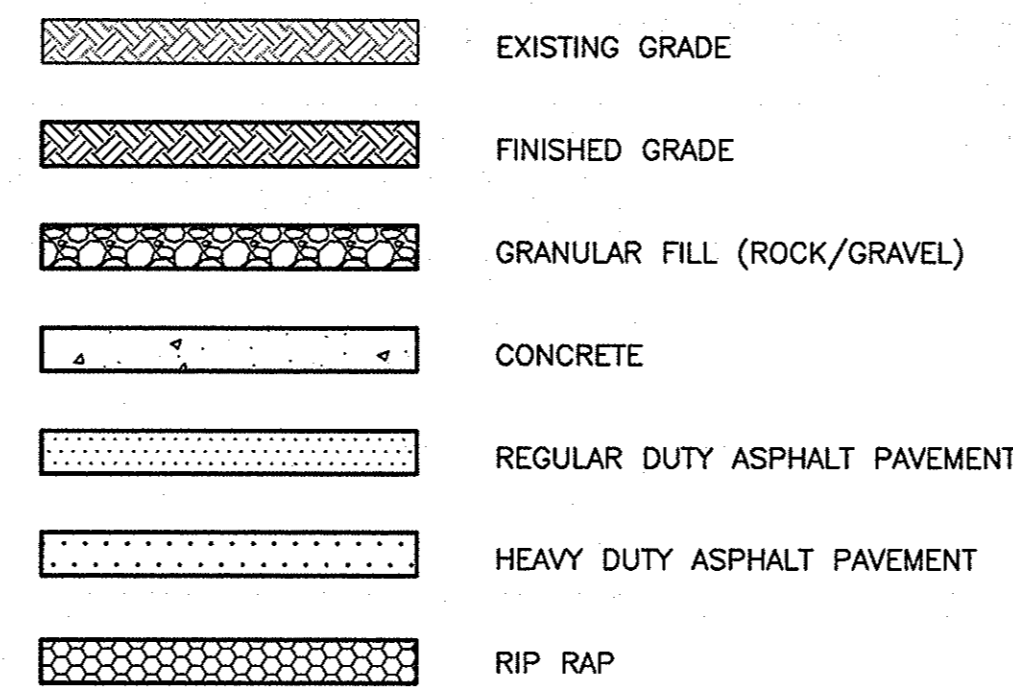
DETAIL REFERENCES



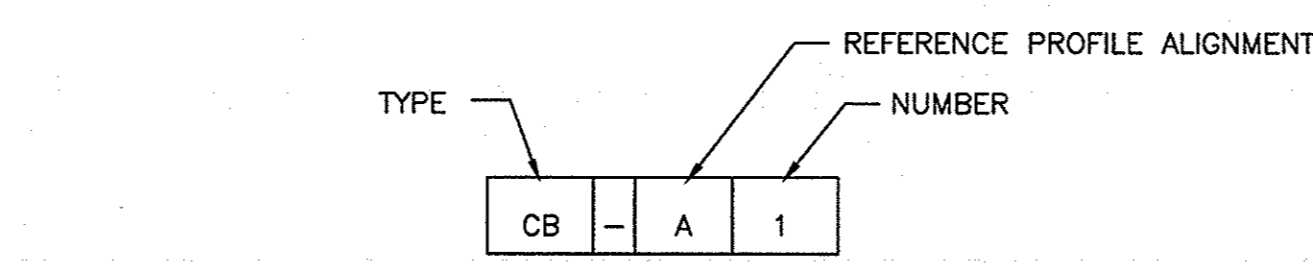
GENERAL NOTES

- REFERENCE IS MADE TO THE FOLLOWING:
- ALL ELEVATIONS SHOWN ARE BASED ON NAVD88.
 - VERIFY UTILITY LOCATIONS AND ELEVATIONS BEFORE CONSTRUCTION. IF CONDITIONS DIFFER SIGNIFICANTLY FROM THOSE SHOWN ON THE PLANS, NOTIFY THE ENGINEER IMMEDIATELY.
 - LIMITS OF DISTURBANCE = 2.70 ACRES.

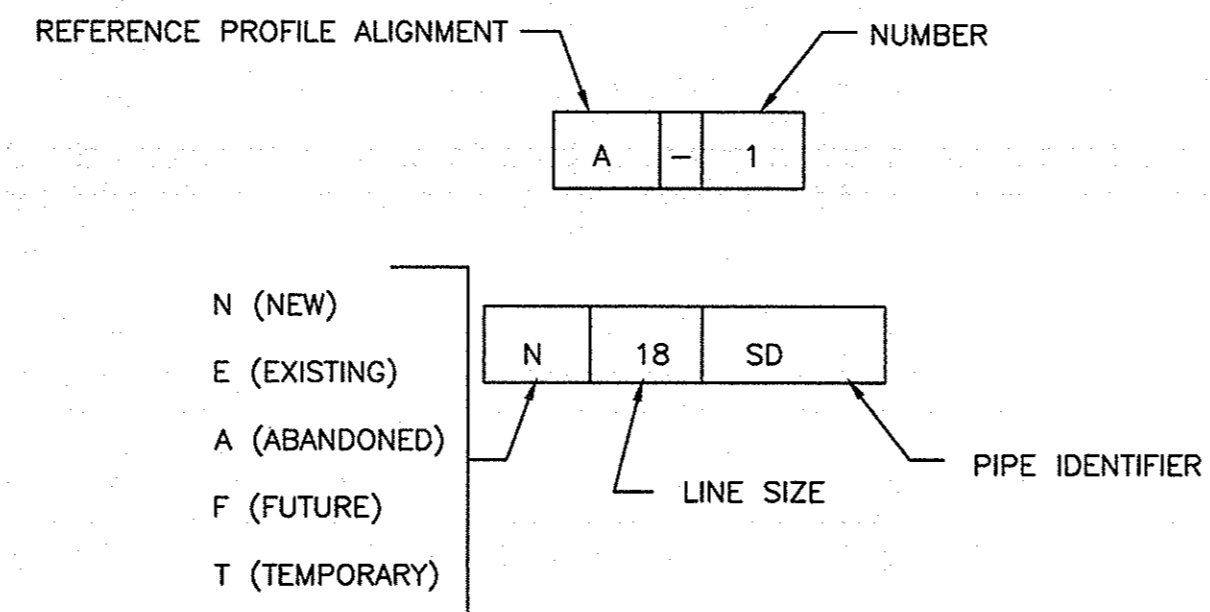
MATERIALS



STRUCTURE



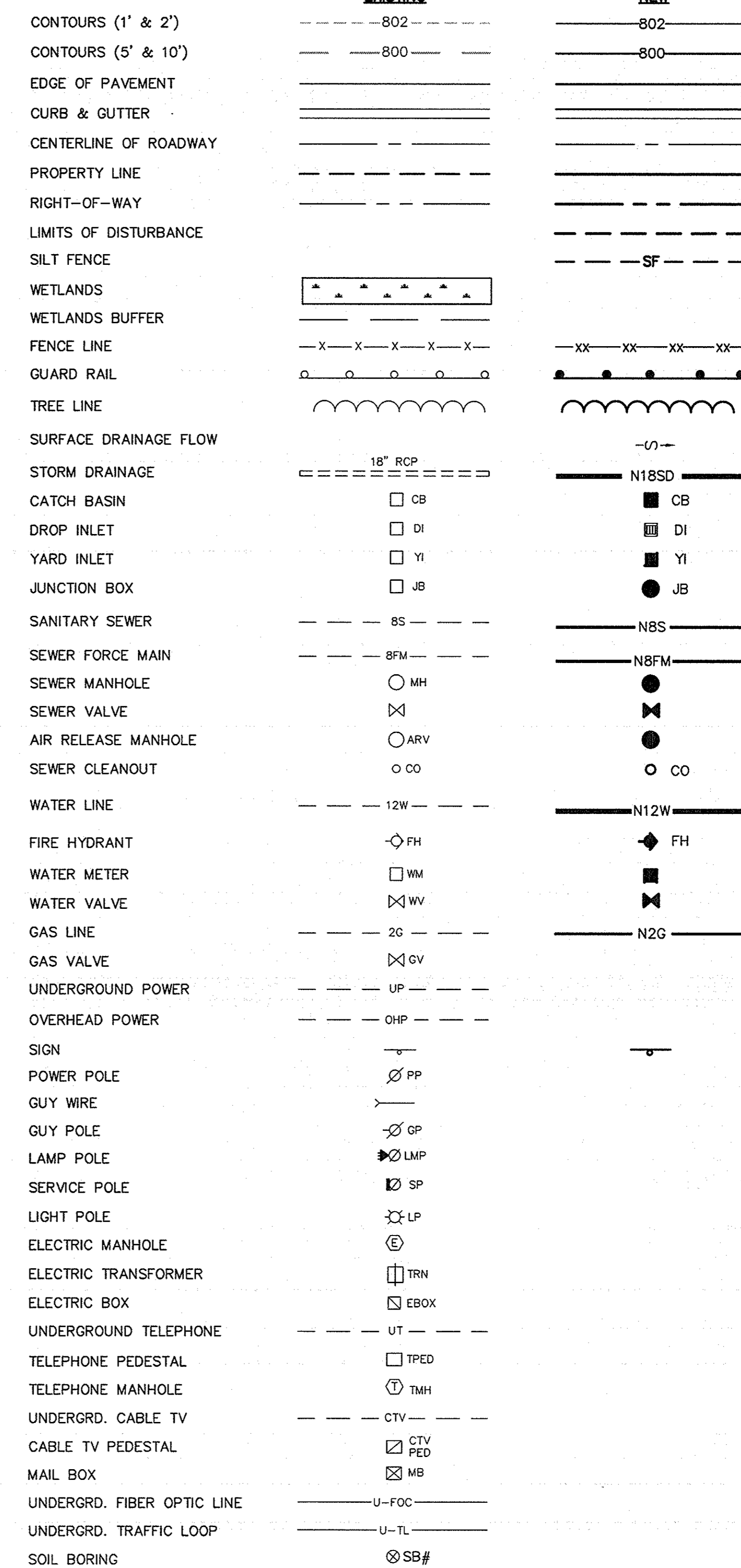
PIPING



IDENTIFIER DESCRIPTION

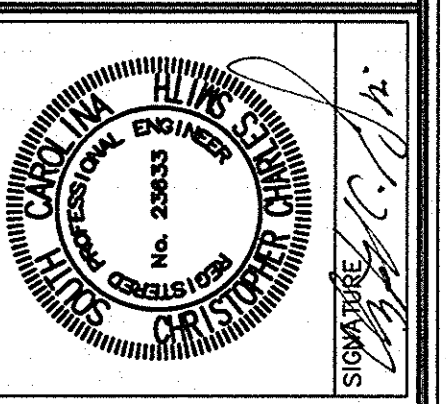
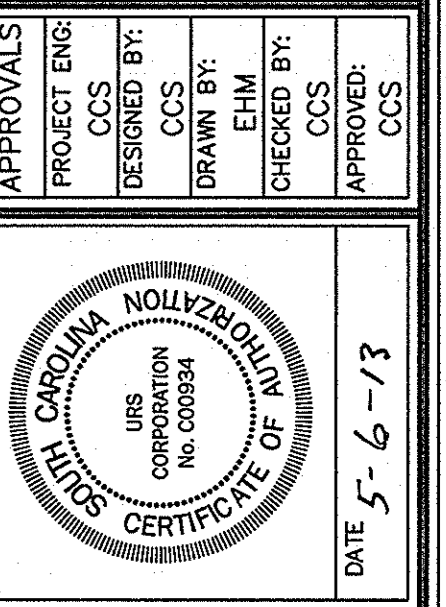
DB	DUCT BANK
DRN	DRAIN
FM	FORCEMAIN
G	GAS
SD	STORM DRAIN
S	SANITARY SEWER
W	WATER

LEGEND



REVISIONS

NO.	DESCRIPTION	DATE	BY



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GENERAL NOTES, LEGEND, SYMBOLS & ABBREVIATIONS

SHEET TITLE

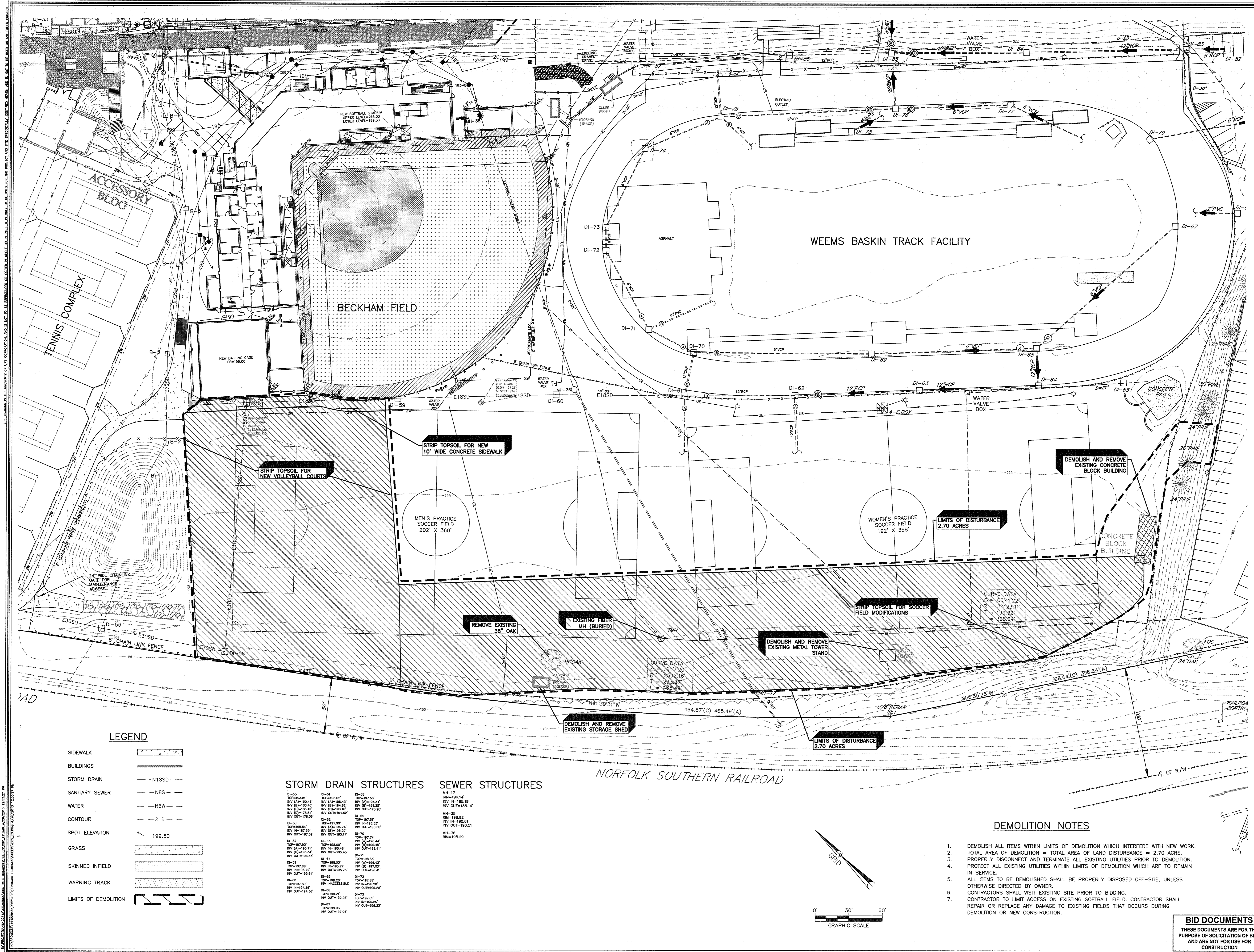
DATE: MAY 6, 2013

SCALE: 1"=30'

CONSTRUCTION DRAWINGS FOR
ATHLETIC VILLAGE SAND VOLLEYBALL COURT CONSTRUCTION
RICHLAND COUNTY, S.C.

DWG NAME	SHEET
N.B. NO.	C1
REF.	OF
PROJECT NO.	6
46422848	
FILE NO. 36,106-890	

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



NO.	REVISIONS	DATE	BY

APPROVALS

PROJECT ENG: _____
 CHECKED BY: _____
 DESIGN BY: _____
 DRAWN BY: _____
 EHM BY: _____
 CHECKED BY: _____
 APPROVED BY: _____

CAROLINA POLYTECHNIC UNIVERSITY
 PROFESSIONAL ENGINEER
 NO. 23333
 DATE: 5-6-13

CAROLINA POLYTECHNIC UNIVERSITY
 PROFESSIONAL ENGINEER
 NO. 23333
 DATE: 5-6-13

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 Columbia, South Carolina 29203
 Telephone: (803) 254-4400 Fax: (803) 771-6676
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EXISTING CONDITIONS & DEMOLITION PLAN

CONSTRUCTION DRAWINGS FOR
ATHLETIC VILLAGE SAND VOLLEYBALL COURT CONSTRUCTION
 IN THE CITY OF COLUMBIA, RICHLAND COUNTY, S.C.

DATE: MAY 6, 2013 SCALE: 1"=30'

DWG NAME: _____ SHEET: **C2**
 N.B. NO.: _____ OF: **6**
 PROJECT NO.: 46422848
 FILE NO. 36.106-B90

LEGEND

- SIDEWALK
- BUILDINGS
- STORM DRAIN - N18SD
- SANITARY SEWER - N8S
- WATER - N6W
- CONTOUR - 216
- SPOT ELEVATION - 199.50
- GRASS
- SKINNED INFELD
- WARNING TRACK
- LIMITS OF DEMOLITION

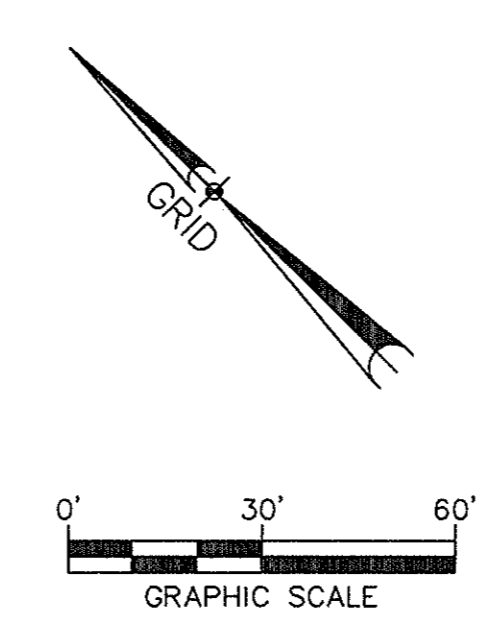
STORM DRAIN STRUCTURES SEWER STRUCTURES

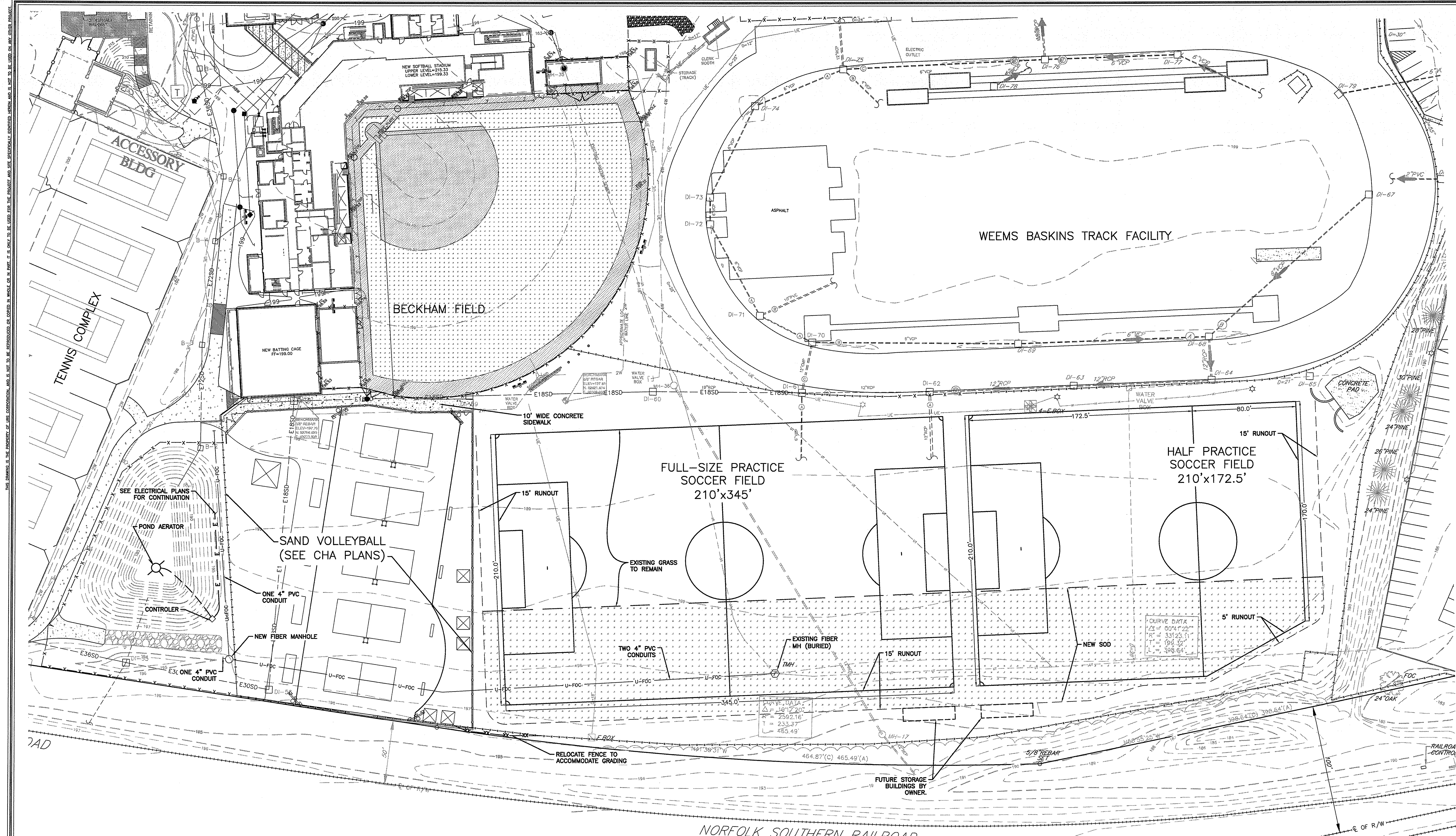
D1-55 TOP=183.81 INV (A)=185.46 INV (B)=185.46 INV (C)=185.41 INV (D)=178.51 INV OUT=178.30	D1-56 TOP=195.54 INV (A)=187.39 INV (B)=187.39 INV (C)=185.34 INV (D)=183.30	D1-57 TOP=197.63 INV (A)=195.71 INV (B)=195.34 INV (C)=183.30	D1-58 TOP=199.99 INV (A)=193.84 INV (B)=193.84 INV (C)=193.84	D1-59 TOP=199.99 INV (A)=193.84 INV (B)=193.84 INV (C)=193.84	D1-60 TOP=197.89 INV (A)=184.36 INV (B)=194.36	D1-61 TOP=198.07 INV (A)=195.45 INV (B)=195.45 INV (C)=195.45	D1-62 TOP=197.99 INV (A)=195.74 INV (B)=195.45 INV (C)=195.45	D1-63 TOP=197.83 INV (A)=195.71 INV (B)=195.45 INV (C)=195.45	D1-64 TOP=198.07 INV (A)=195.45 INV (B)=195.45 INV (C)=195.45	D1-65 TOP=197.89 INV (A)=184.36 INV (B)=194.36	D1-66 TOP=198.21 INV (A)=192.95 INV (B)=192.95 INV (C)=192.95	D1-67 TOP=198.03 INV (A)=195.23 INV (B)=195.23 INV (C)=195.23	D1-68 TOP=197.26 INV (A)=195.34 INV (B)=195.34 INV (C)=195.28	D1-69 TOP=197.91 INV (A)=195.45 INV (B)=195.45 INV (C)=195.45	D1-70 TOP=197.74 INV (A)=195.45 INV (B)=195.45 INV (C)=195.45	D1-71 TOP=198.33 INV (A)=195.45 INV (B)=195.45 INV (C)=195.45	D1-72 TOP=198.26 INV (A)=195.28 INV (B)=195.28 INV (C)=195.28	D1-73 TOP=197.87 INV (A)=195.28 INV (B)=195.28 INV (C)=195.28	D1-74 TOP=197.87 INV (A)=195.28 INV (B)=195.28 INV (C)=195.28	D1-75 TOP=197.87 INV (A)=195.28 INV (B)=195.28 INV (C)=195.28	D1-76 TOP=197.87 INV (A)=195.28 INV (B)=195.28 INV (C)=195.28	D1-77 TOP=197.87 INV (A)=195.28 INV (B)=195.28 INV (C)=195.28	D1-78 TOP=197.87 INV (A)=195.28 INV (B)=195.28 INV (C)=195.28	D1-79 TOP=197.87 INV (A)=195.28 INV (B)=195.28 INV (C)=195.28	D1-80 TOP=197.87 INV (A)=195.28 INV (B)=195.28 INV (C)=195.28	D1-81 TOP=197.26 INV (A)=195.34 INV (B)=195.34 INV (C)=195.28	D1-82 TOP=197.26 INV (A)=195.34 INV (B)=195.34 INV (C)=195.28	D1-83 TOP=197.26 INV (A)=195.34 INV (B)=195.34 INV (C)=195.28	D1-84 TOP=197.26 INV (A)=195.34 INV (B)=195.34 INV (C)=195.28	D1-85 TOP=197.26 INV (A)=195.34 INV (B)=195.34 INV (C)=195.28	D1-86 TOP=197.26 INV (A)=195.34 INV (B)=195.34 INV (C)=195.28	D1-87 TOP=197.26 INV (A)=195.34 INV (B)=195.34 INV (C)=195.28	D1-88 TOP=197.26 INV (A)=195.34 INV (B)=195.34 INV (C)=195.28	D1-89 TOP=197.26 INV (A)=195.34 INV (B)=195.34 INV (C)=195.28	D1-90 TOP=197.26 INV (A)=195.34 INV (B)=195.34 INV (C)=195.28	D1-91 TOP=197.26 INV (A)=195.34 INV (B)=195.34 INV (C)=195.28	D1-92 TOP=197.26 INV (A)=195.34 INV (B)=195.34 INV (C)=195.28	D1-93 TOP=197.26 INV (A)=195.34 INV (B)=195.34 INV (C)=195.28	D1-94 TOP=197.26 INV (A)=195.34 INV (B)=195.34 INV (C)=195.28	D1-95 TOP=197.26 INV (A)=195.34 INV (B)=195.34 INV (C)=195.28	D1-96 TOP=197.26 INV (A)=195.34 INV (B)=195.34 INV (C)=195.28	D1-97 TOP=197.26 INV (A)=195.34 INV (B)=195.34 INV (C)=195.28	D1-98 TOP=197.26 INV (A)=195.34 INV (B)=195.34 INV (C)=195.28	D1-99 TOP=197.26 INV (A)=195.34 INV (B)=195.34 INV (C)=195.28	D1-100 TOP=197.26 INV (A)=195.34 INV (B)=195.34 INV (C)=195.28
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	--

DEMOLITION NOTES

- DEMOLISH ALL ITEMS WITHIN LIMITS OF DEMOLITION WHICH INTERFERE WITH NEW WORK.
- TOTAL AREA OF DEMOLITION = TOTAL AREA OF LAND DISTURBANCE = 2.70 ACRE.
- PROPERLY DISCONNECT AND TERMINATE ALL EXISTING UTILITIES PRIOR TO DEMOLITION.
- PROTECT ALL EXISTING UTILITIES WITHIN LIMITS OF DEMOLITION WHICH ARE TO REMAIN IN SERVICE.
- ALL ITEMS TO BE DEMOLISHED SHALL BE PROPERLY DISPOSED OFF-SITE, UNLESS OTHERWISE DIRECTED BY OWNER.
- CONTRACTORS SHALL VISIT EXISTING SITE PRIOR TO BIDDING.
- CONTRACTOR TO LIMIT ACCESS ON EXISTING SOFTBALL FIELD. CONTRACTOR SHALL REPAIR OR REPLACE ANY DAMAGE TO EXISTING FIELDS THAT OCCURS DURING DEMOLITION OR NEW CONSTRUCTION.

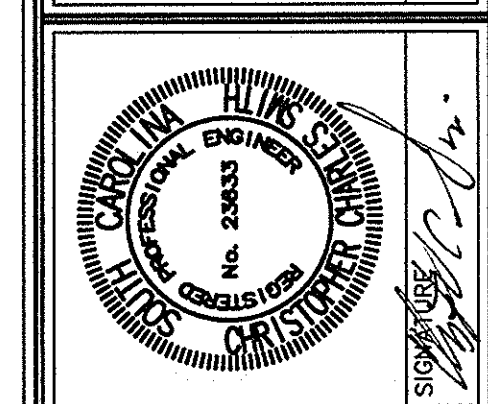
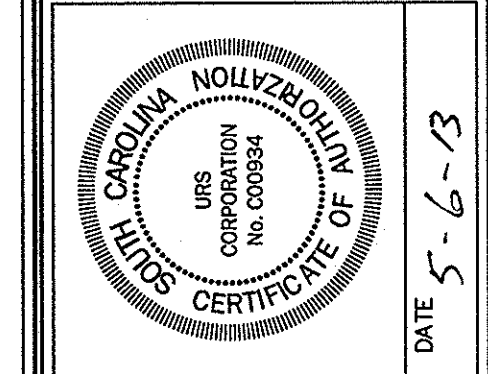
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NO.	REVISIONS	DATE	BY

APPROVALS	DESIGNED BY	CHECKED BY	APPROVED BY
PROJECT ENG.	CCS	CCS	CCS
DRAWN BY	EJM	EJM	EJM
CHECKED BY	CCS	CCS	CCS
APPROVED BY	CCS	CCS	CCS



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SITE PLAN
 SCALE: 1"=30'
 DATE: MAY 6, 2013

CONSTRUCTION DRAWINGS FOR
ATHLETIC VILLAGE SAND VOLLEYBALL COURT CONSTRUCTION
 IN THE CITY OF COLUMBIA, RICHLAND COUNTY, S.C.

DWG NAME	SHEET
N.B. NO.	C3
REF.	OF
PROJECT NO.	6
46422848	
FILE NO. 36,106-890	

LEGEND

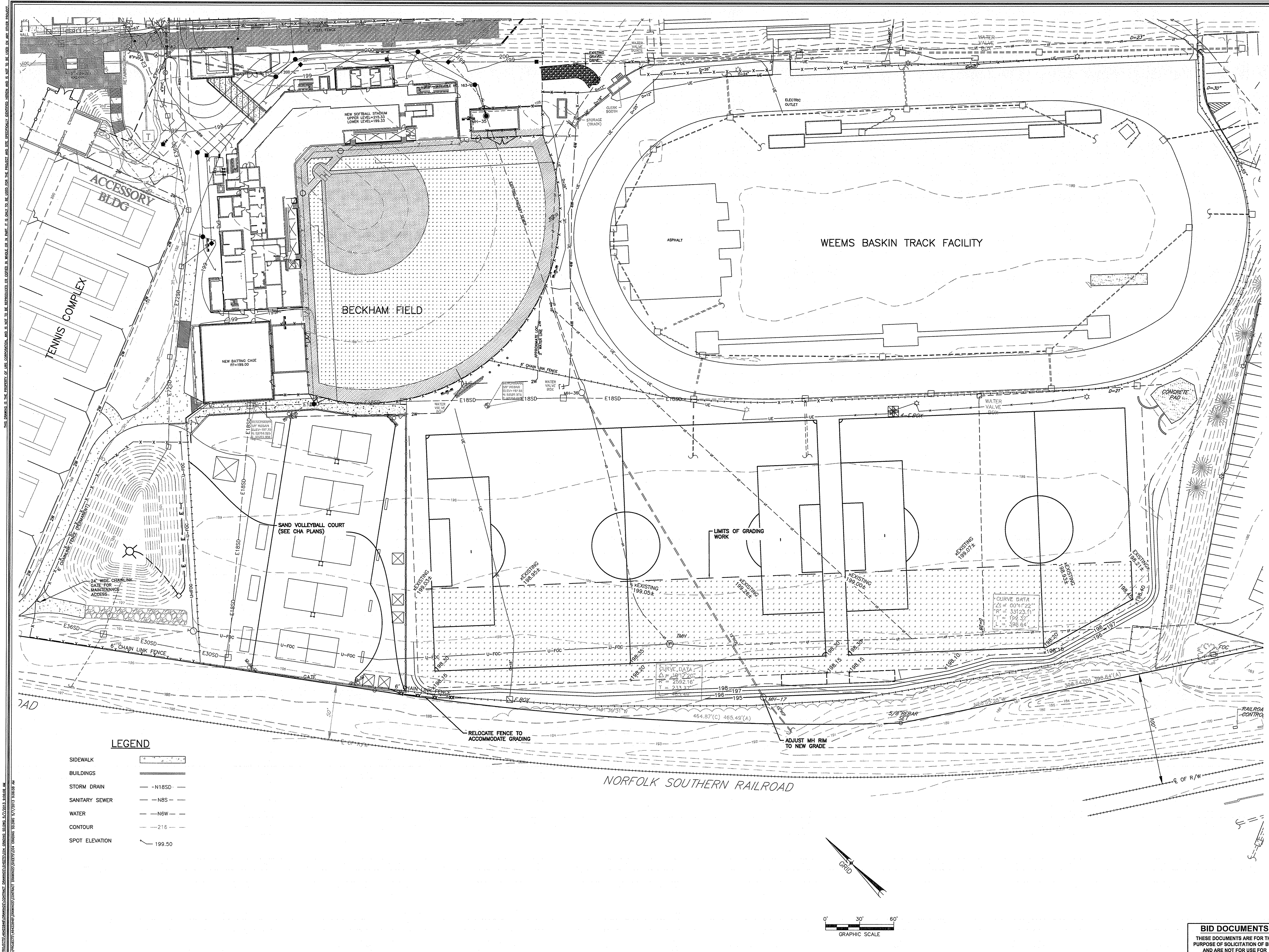
SIDEWALK	
BUILDINGS	
STORM DRAIN	-N18SD-
SANITARY SEWER	-NBS-
WATER	-NGW-
CONTOUR	-216-
SPOT ELEVATION	199.50
NEW SOD AREA	

SODDING/SEEDING NOTES

- SOD ALL AREAS WITHIN THE SOCCER FIELDS INCLUDING RUNOUT AREAS.
- TOPSOIL/SEED ALL OTHER DISTURBED AREAS.
- SODDING SEEDING IS SPECIFIED IN SECTION 02800 LANDSCAPE WORK

BID DOCUMENTS
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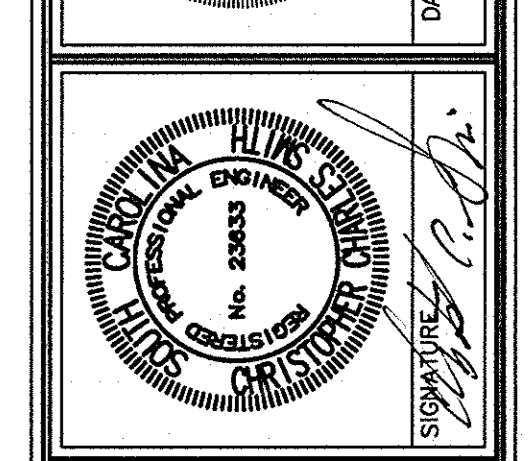
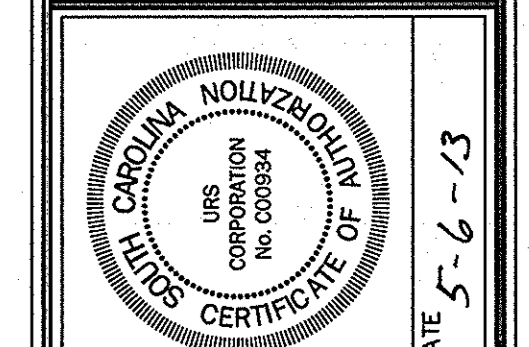
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PROJECT ENG:	CCS
DESIGN BY:	CCS
DRAWN BY:	EJM
CHECKED BY:	CCS
APPROVED BY:	CCS



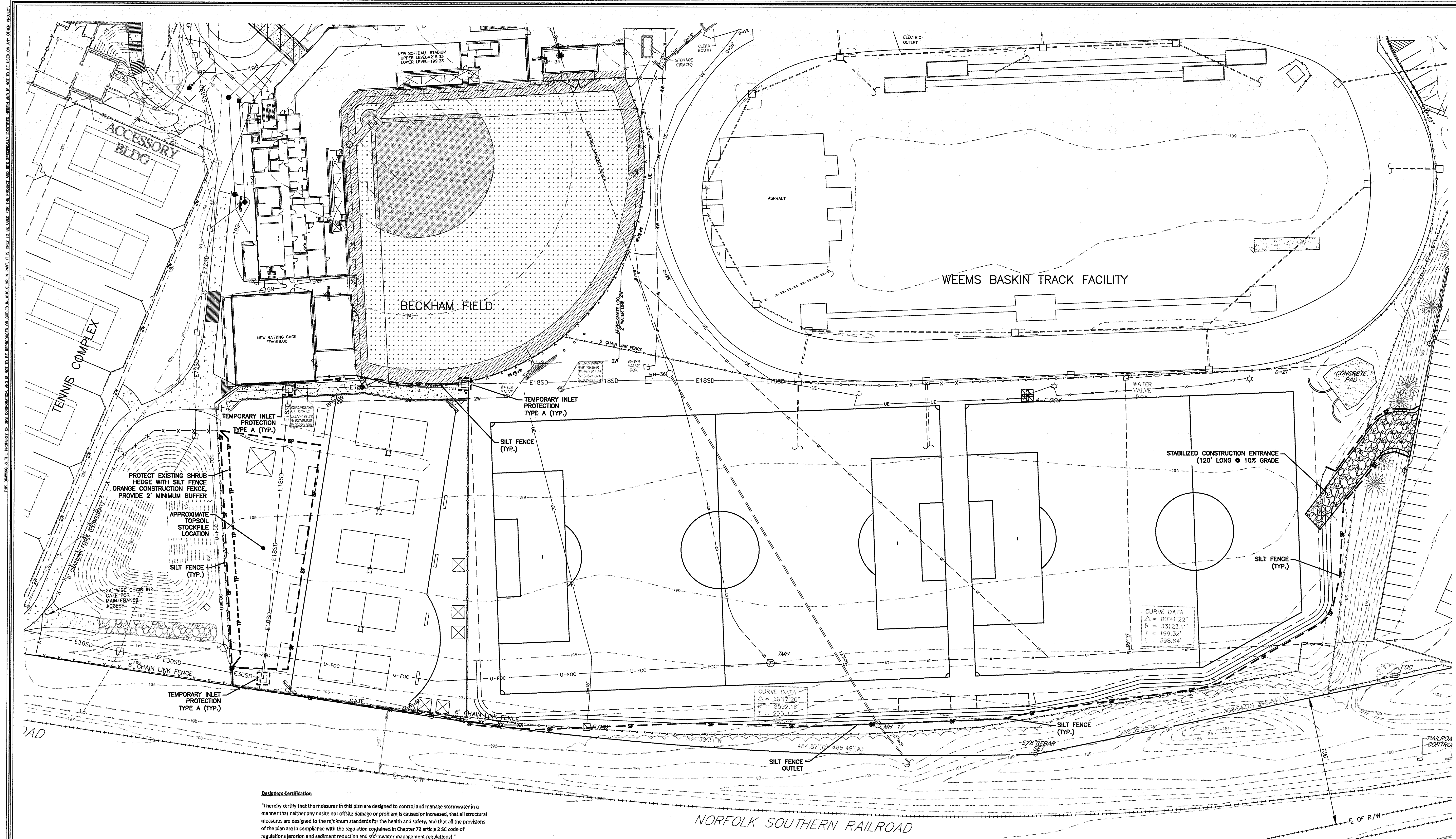
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SHEET TITLE
GRADING AND STORM DRAINAGE PLAN
 DATE: MAY 6, 2013 SCALE: 1"=30'

PROJECT
ATHLETIC VILLAGE SAND VOLLEYBALL COURT CONSTRUCTION
 IN THE CITY OF COLUMBIA RICHLAND COUNTY, S.C.

DWG NAME	SHEET
N.B. NO.	C4
REF.	OF
PROJECT NO.	6
46422848	
FILE NO. 36,106-B90	

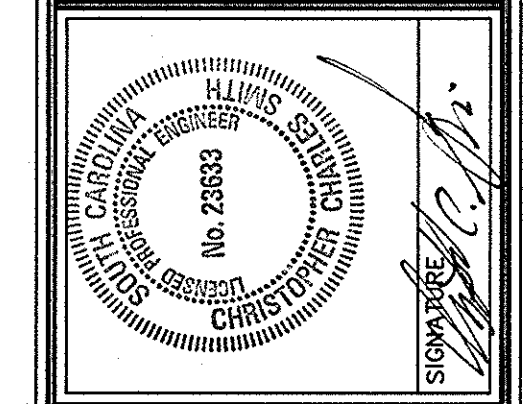
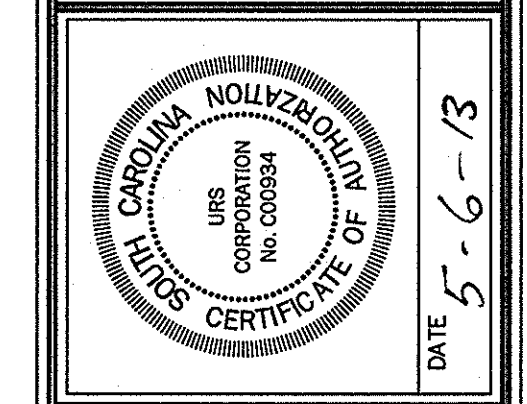
BID DOCUMENTS
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NO.	REVISIONS	DATE	BY

PROJECT ENG:	CCS
DESIGNED BY:	CCS
DRAWN BY:	EJM
CHECKED BY:	CCS
APPROVED:	CCS



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STORM WATER POLLUTION PREVENTION PLAN
 SCALE: 1"=30'

ATHLETIC VILLAGE SAND VOLLEYBALL COURT CONSTRUCTION
 IN THE CITY OF COLUMBIA, RICHLAND COUNTY, S.C.

CONSTRUCTION DRAWINGS FOR	SHEET
ATHLETIC VILLAGE SAND VOLLEYBALL COURT CONSTRUCTION	C5
OF	6

FILE NO. 36.106-890

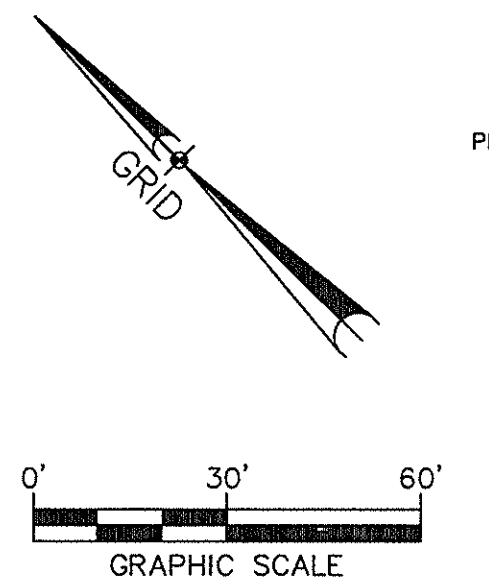
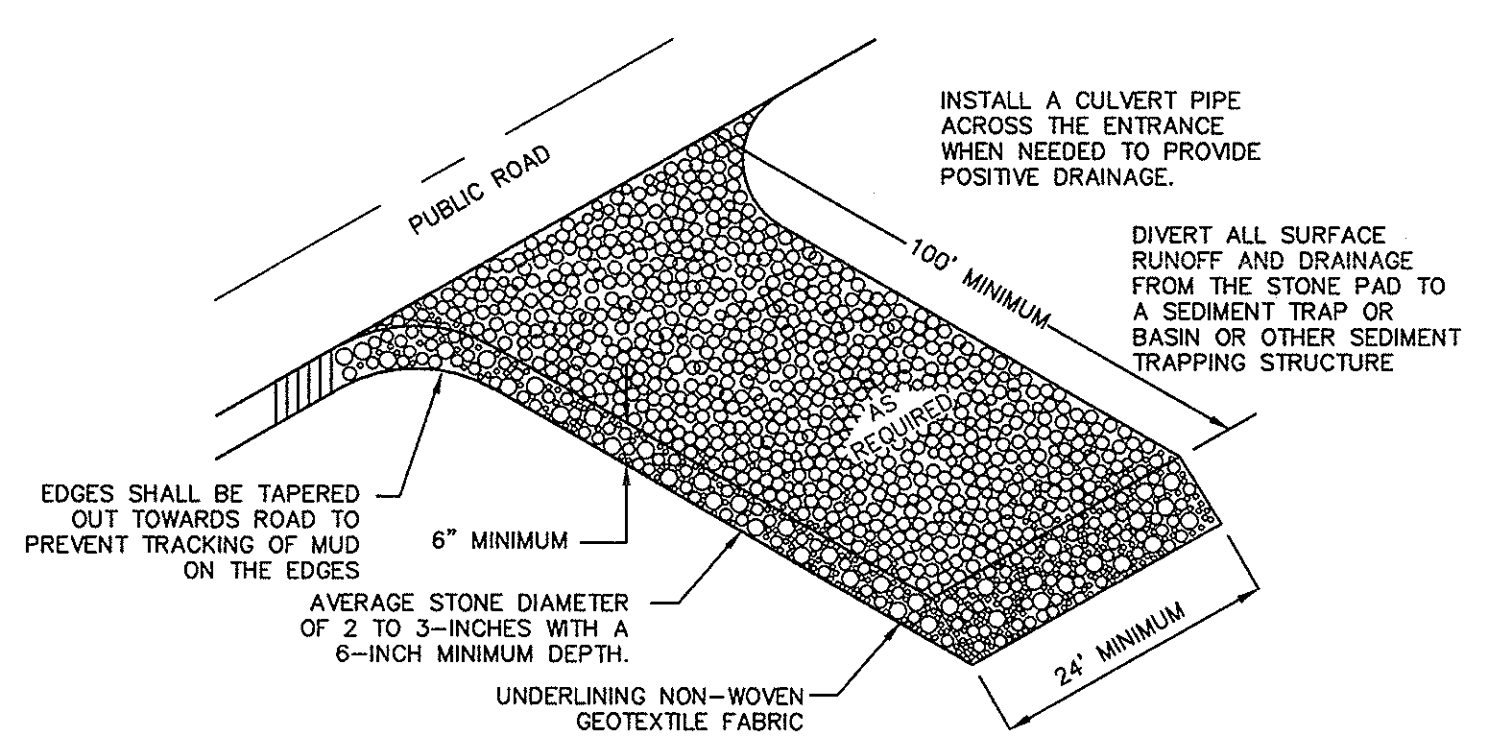
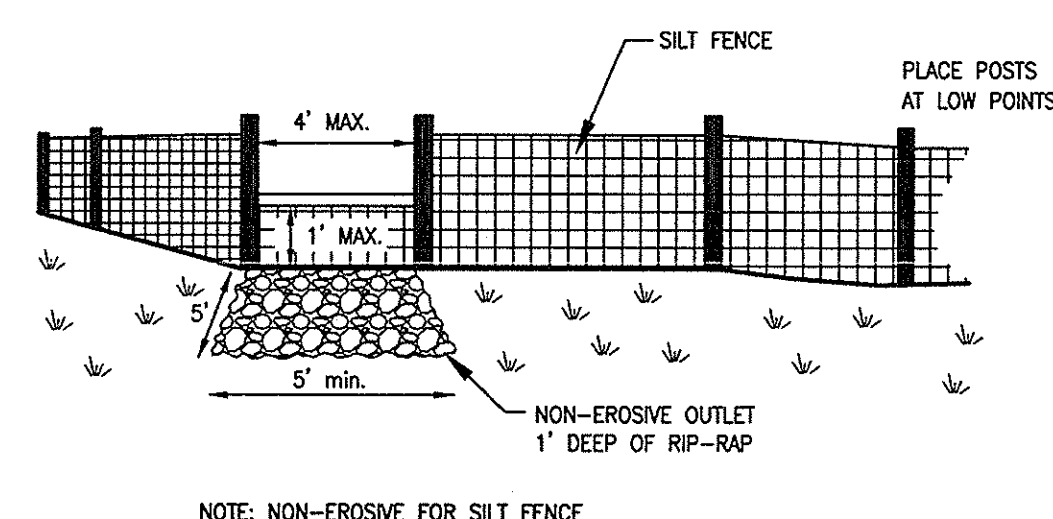
Designers Certification
 "I hereby certify that the measures in this plan are designed to control and manage stormwater in a manner that neither any onsite nor offsite damage or problem is caused or increased, that all structural measures are designed to the minimum standards for the health and safety, and that all the provisions of the plan are in compliance with the regulation contained in Chapter 72 article 2 SC code of regulations (erosion and sediment reduction and stormwater management regulations)."
 Signed: *[Signature]*
 Registered Professional Engineer
 Dated: 4-17-13

Applicant's Certification Statement
 "I (We) hereby certify that all clearing, grading, construction and/or development will be done pursuant to this plan."
 Signed: *[Signature]*
 Permit Applicant
 Dated: 4-17-2013

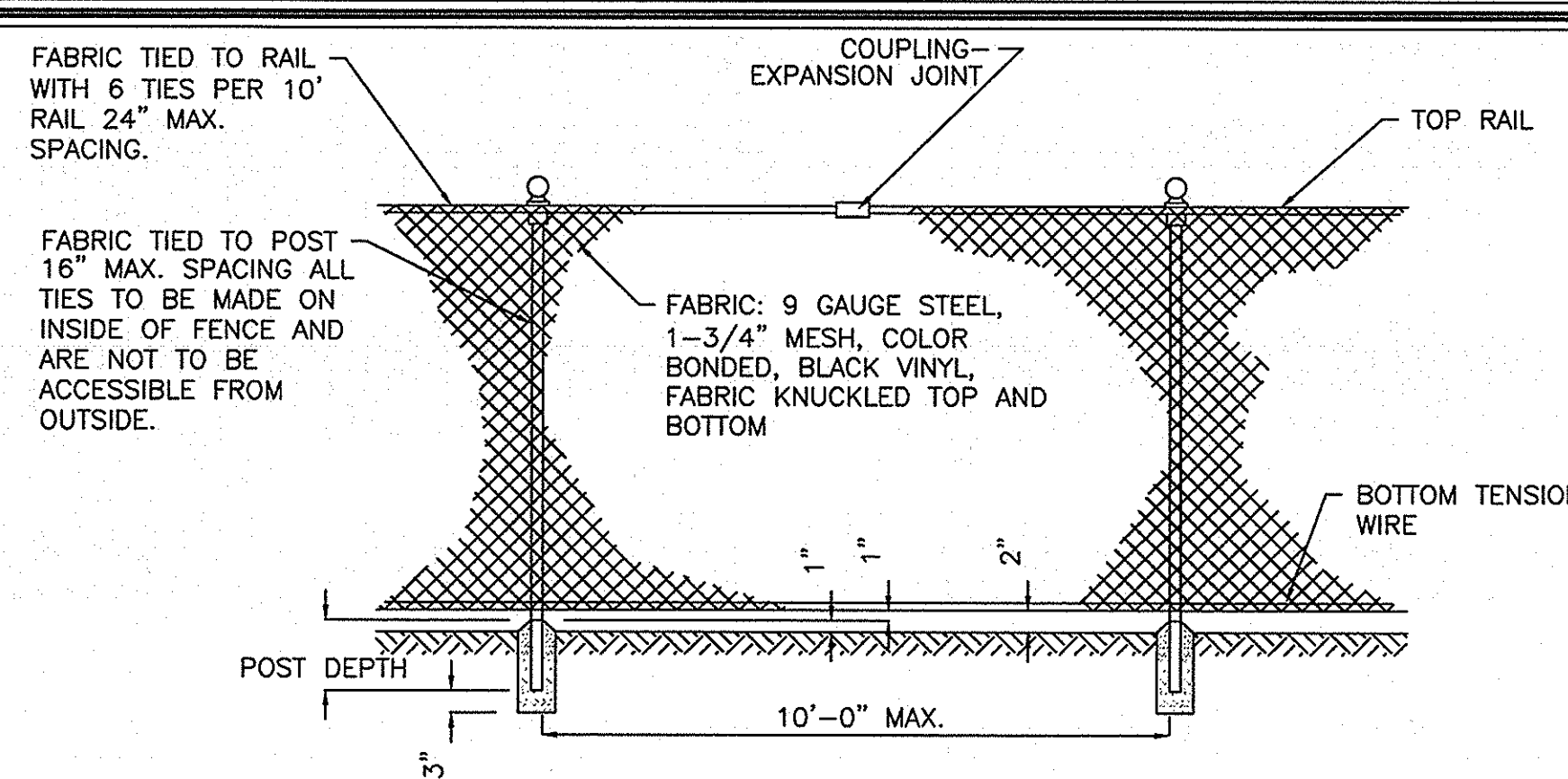
Design Certification Statement (signed by responsible party) as shown below:
 "I hereby certify that this plan is designed to meet storm drainage requirements and to contain silt on the property concerned to the maximum extent feasible. Provisions for erosion and sediment control and storm drainage are in accordance with the Columbia Sediment and Erosion Control and Storm Drainage Ordinance."
 Signed: *[Signature]*
 Registered Professional Engineer
 Dated: 4-17-13

LEGEND

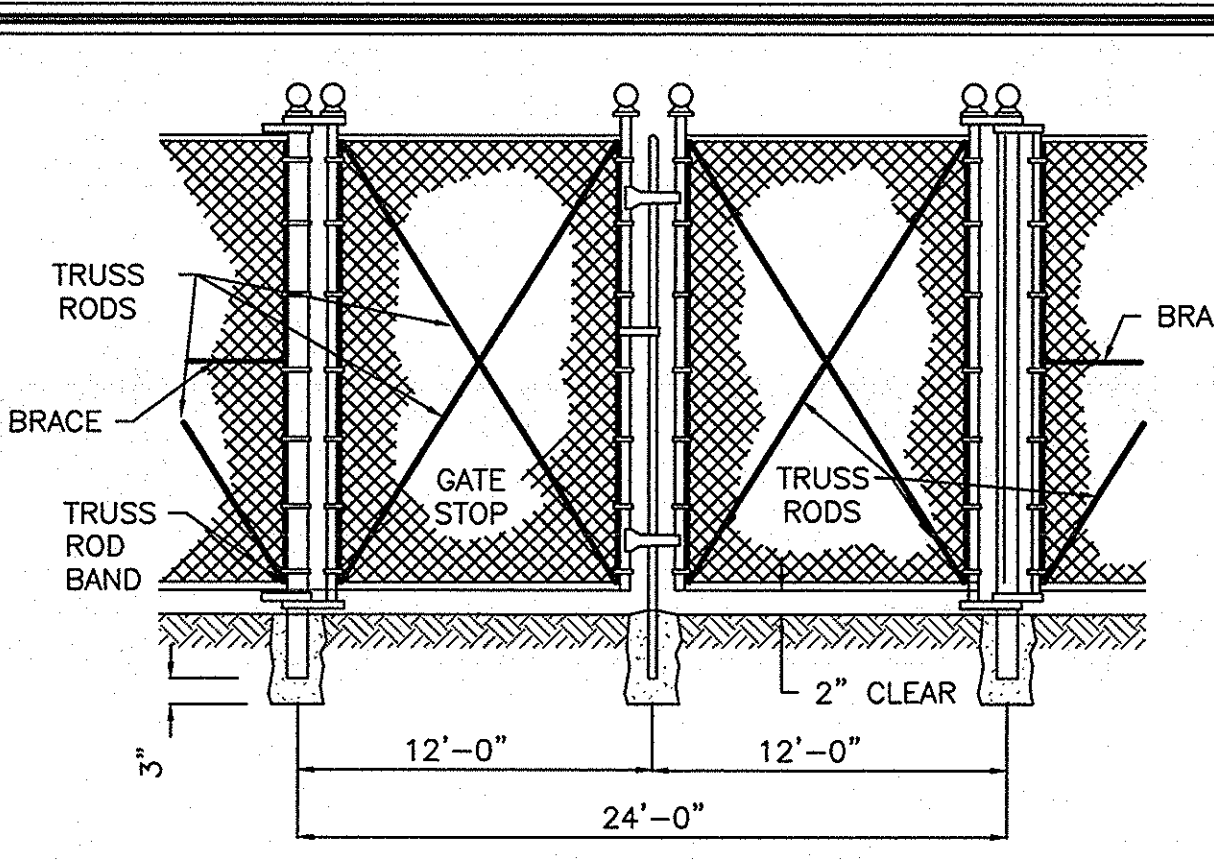
SIDEWALK	
BUILDINGS	
STORM DRAIN	-N18SD-
SANITARY SEWER	-N8S-
WATER	-N6W-
CONTOUR	-216-
SPOT ELEVATION	199.50
GRASS	
SKINNED INFIELD	
WARNING TRACK	



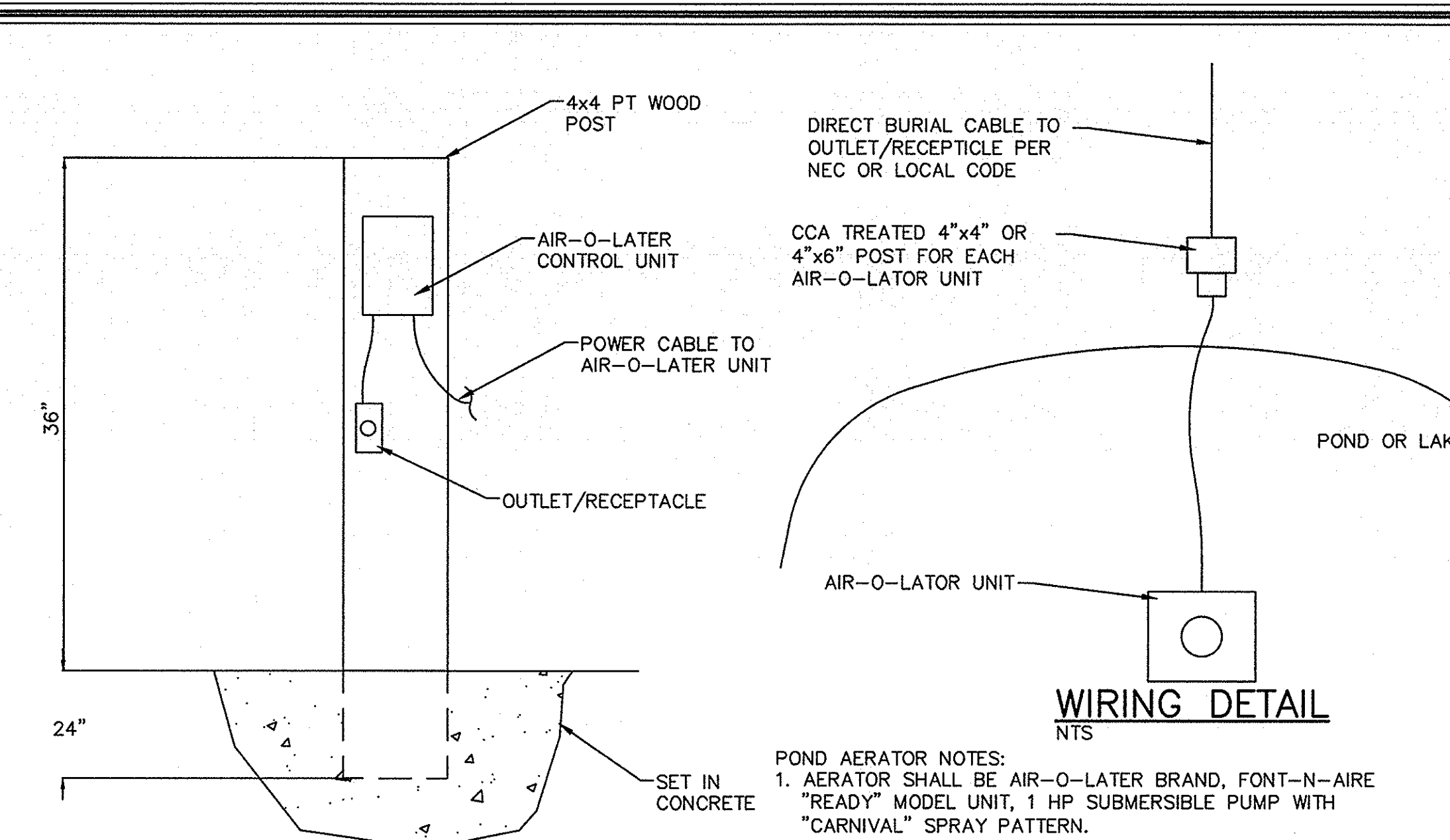
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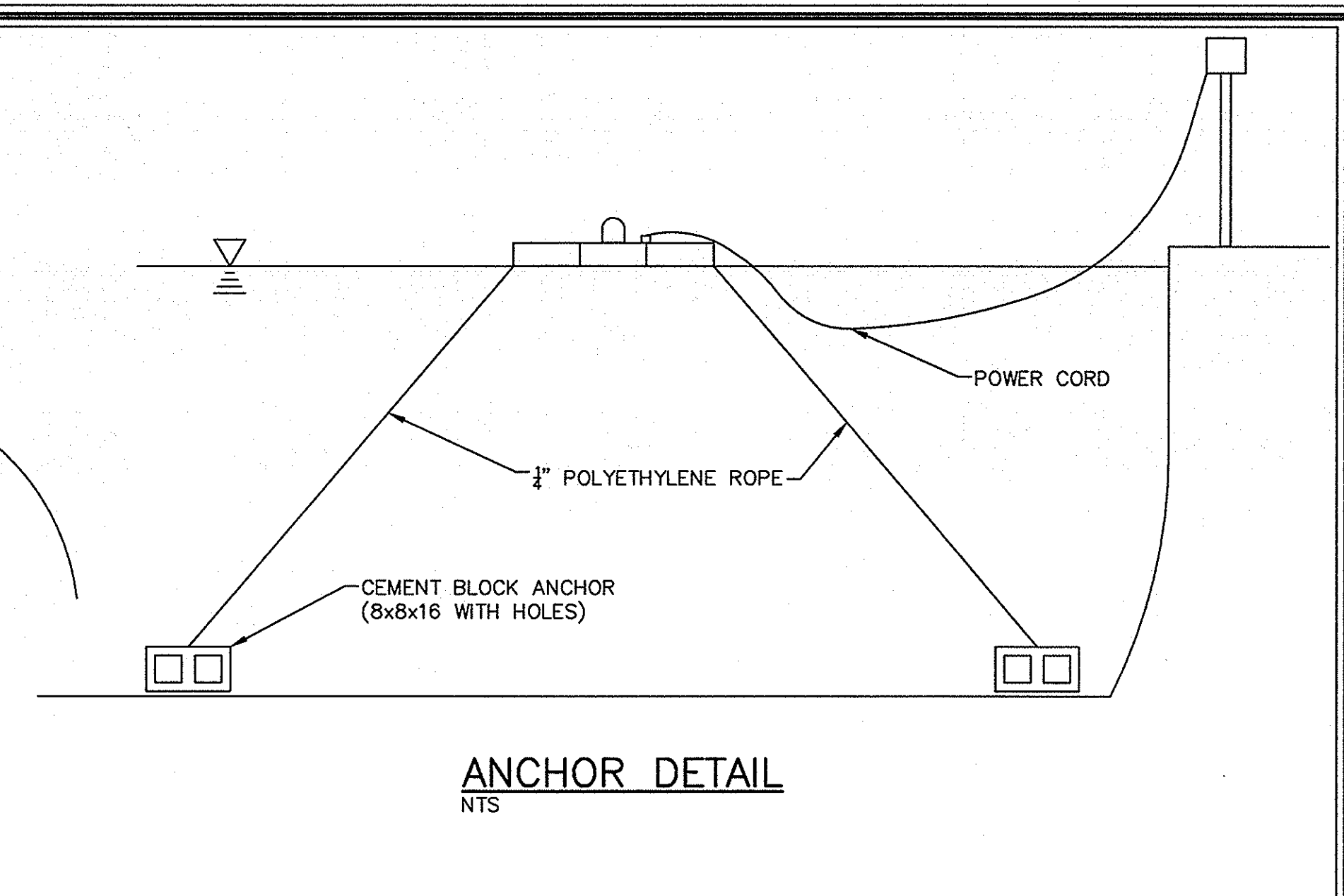
TYPICAL FENCE LINE SPAN
NOT TO SCALE
1 TYP



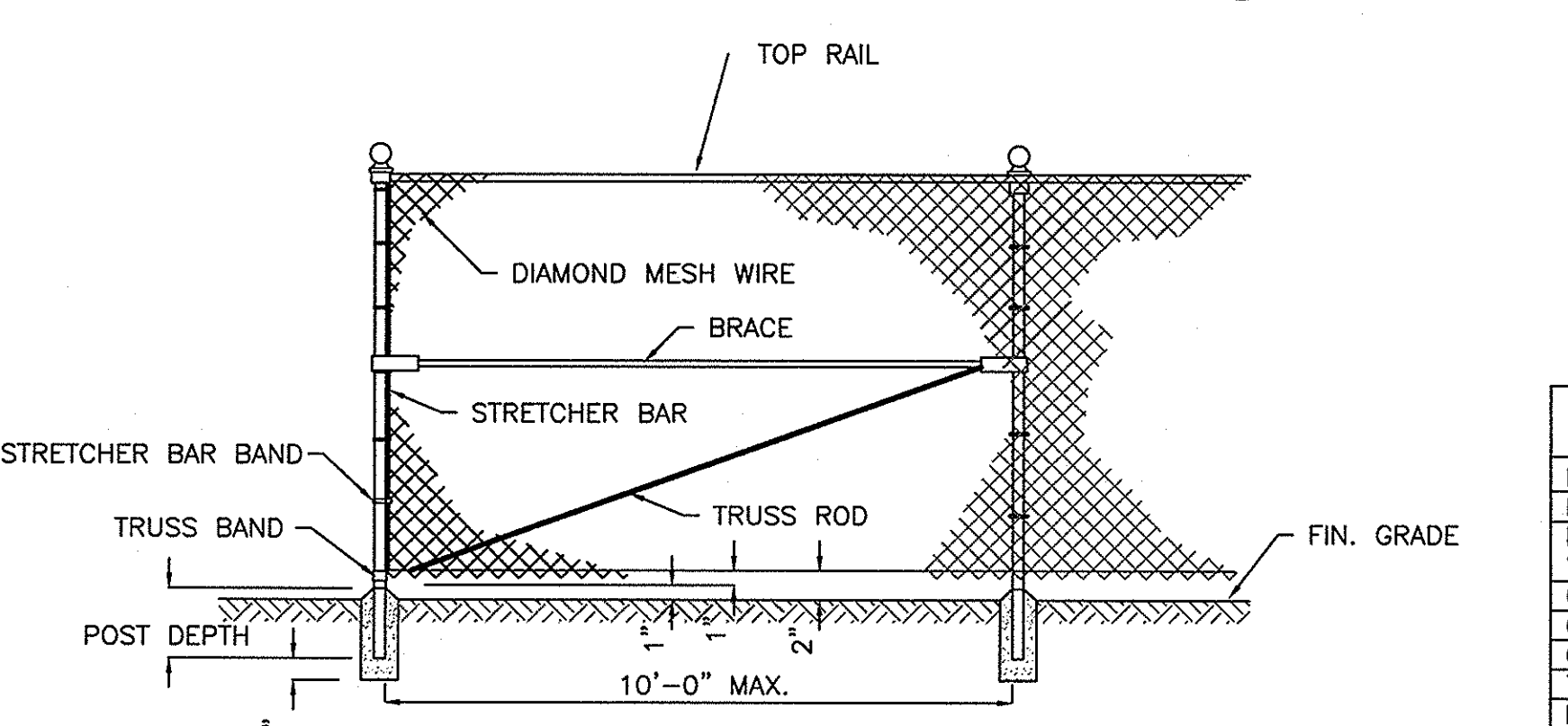
TYPICAL DOUBLE SWING DRIVE GATE
NOT TO SCALE
2 TYP



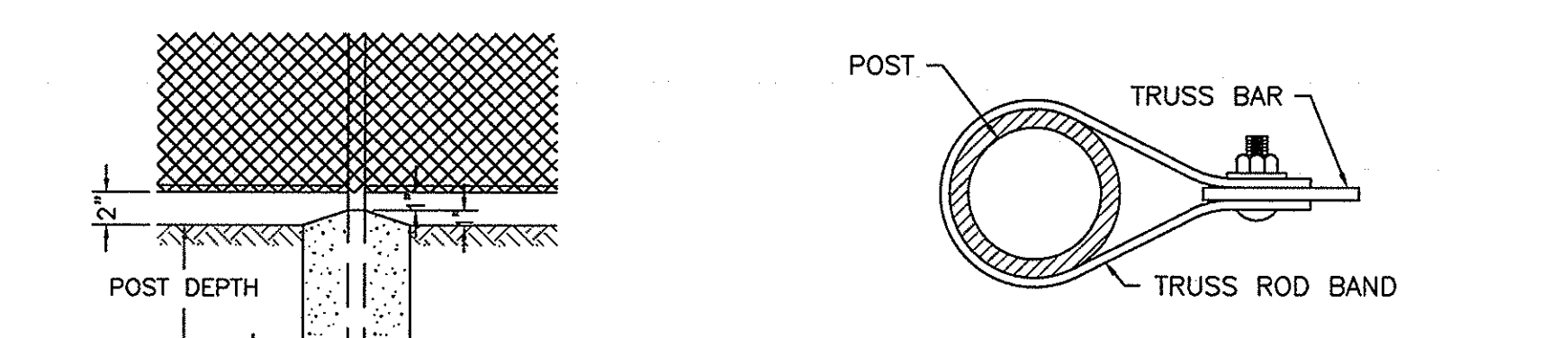
POST DETAIL
NTS



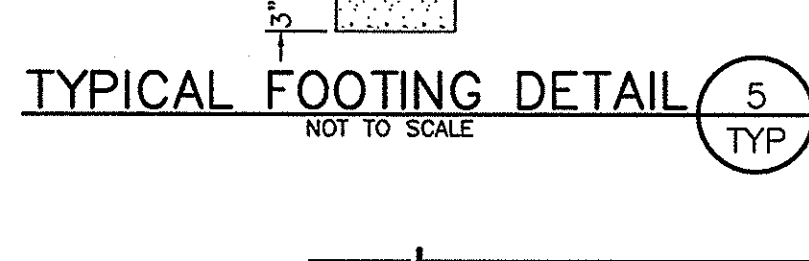
ANCHOR DETAIL
NTS



TYPICAL FENCE CORNER
NOT TO SCALE
3 TYP



TYPICAL TRUSS ROD BAND
NOT TO SCALE
6 TYP



TYPICAL FOOTING DETAIL
NOT TO SCALE
5 TYP

NAME OF PART	PIPE SIZE NOM. O.D.	POST DEPTH IN FOOTING	MINIMUM FOOTING DIMENSIONS		
			TOP DIA.	BOTTOM DIA.	FOOTING DEPTH
LINE POST	2-1/2	3'-0"	1'-2"	1'-4"	3'-3"
END AND ANGLE POST	3	3'-0"	1'-0"	1'-4"	3'-3"
DOUBLE GATE POST	4	4'-0"	1'-4"	2'-0"	4'-3"
WIDTH OVER 12' TO 26'			0'-10"	1'-2"	3'-0"
GATE PLUNGER STOP (OR CATCH)			0'-7"	0'-10"	3'-0"
GATE KEEPER					
GATE FRAME	2				
TOP RAIL	1-5/8				
BRACE	1-5/8				
BOTTOM RAIL	1-5/8				

TABLE OF FENCE DIMENSIONS
4 TYP

NOTE: ALL POSTS AND HARDWARE TO MATCH FABRIC, COLOR AND FINISH

POND AERATOR
NOT TO SCALE
13 TYP

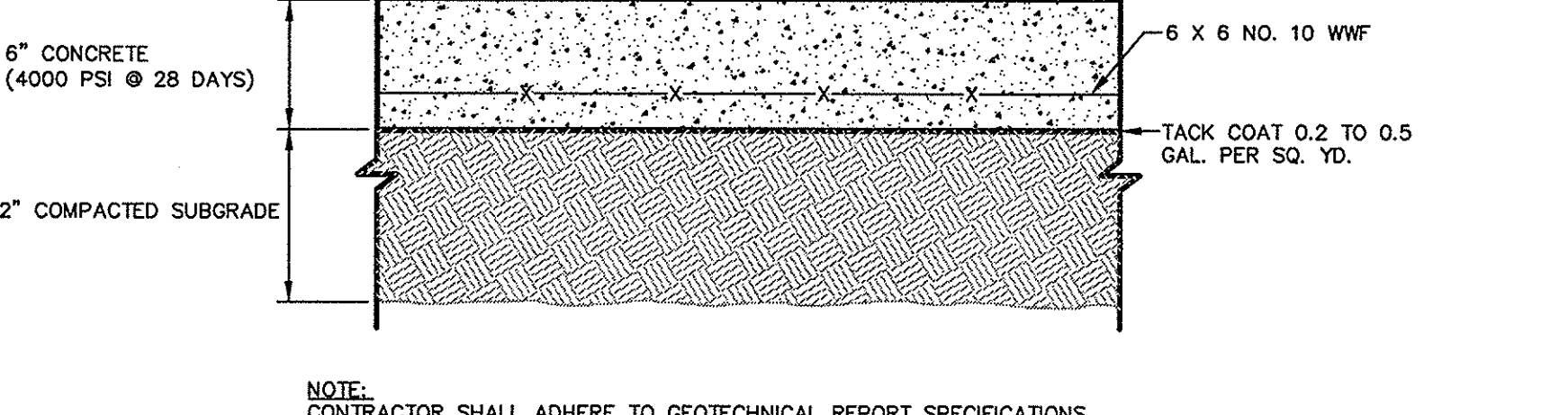
SEDIMENT AND EROSION CONTROL NOTES

- GENERAL 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 CONFORM WITH THE CITY OF COLUMBIA REGULATIONS AND SPECIFICATIONS, LATEST REVISIONS AT THE BEGINNING OF CONSTRUCTION.
 - ALL NEWLY CONSTRUCTED SLOPES WHICH ARE STEEPER THAN 2.5 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 SEED AT NO ADDITIONAL EXPENSE TO THE OWNER.
 - SCDHEC TYPE A FILTER FABRIC INLET PROTECTION OR APPROVED EQUAL SHALL BE INSTALLED FOR ALL CATCH BASINS. SCHEC TYPE E SURFACE COURSE CURB INLET FILTERS SHALL BE INSTALLED FOR ALL YARD INLETS.
- EROSION CONTROL PLAN
 - 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 THIS SHEET. 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 RESPADED ON-SITE.
 - ALL DISTURBED AREAS NOT PAVED SHALL BE GRASSED. USE TEMPORARY PLANT COVER, MULCHING, AND/OR STRUCTURES TO CONTROL RUNOFF AND PROTECT AREA SUBJECT TO EROSION DURING CONSTRUCTION.
 - ALL SEDIMENT AND EROSION CONTROLS ARE TO BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND AFTER ANY STORM EVENT OF GREATER THAN 0.5 INCHES OF PRECIPITATION DURING ANY 24-HOUR PERIOD. MAINTENANCE OF SEDIMENT TRAPPING SHALL BE PERFORMED AS NECESSARY PER THESE INSPECTIONS. DAMAGED OR INEFFECTIVE DEVICES SHALL BE REPAIRED OR REPLACED AS NECESSARY.
 - 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.
- SEEDING SCHEDULE
 - MIXTURES OF DIFFERENT TYPES OF SEED FOR THE VARIOUS SCHEDULES SHALL BE WEIGHED AND MIXED IN PROPER PROPORTIONS IN THE PRESENCE OF THE OWNER'S REPRESENTATIVES.
 - SCHEDULE NO. 1 - PLANTING DATES MAY 1 TO AUGUST 31:

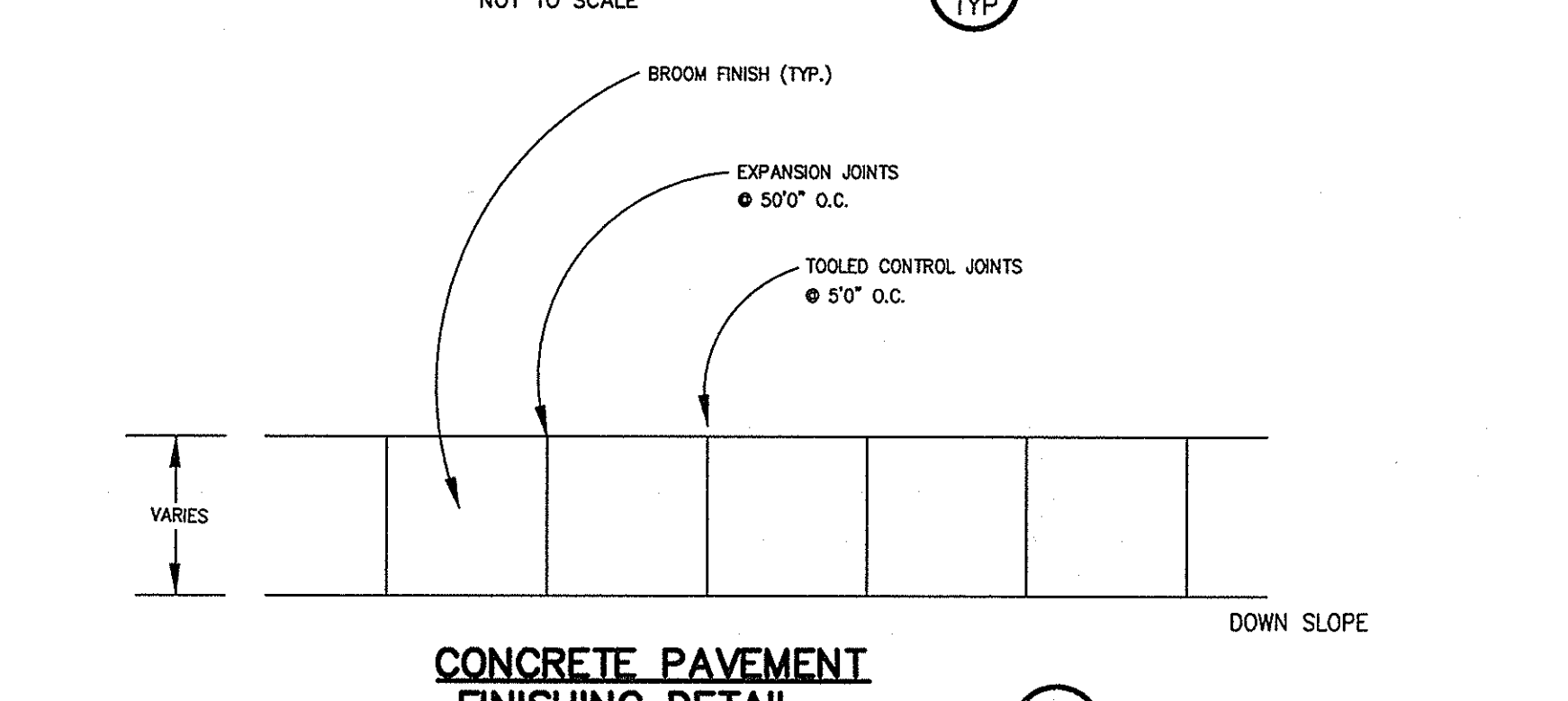
COMMON NAME OF SEED	RATE A	RATE B
BROWN TOP MILLET	1.0	2.0
COMMON BERMUDA (HULLED)	3.0	2.0
10-10-10 FERTILIZER	25.0	25.0
AGRICULTURAL LIMESTONE	75.0	75.0
 - SCHEDULE NO. 2 - PLANTING DATES SEPTEMBER 1 - APRIL 30:

COMMON NAME OF SEED	RATE A	RATE B
BROWN TOP MILLET	5.0	2.0
ANNUAL RYE GRASS	0.0	2.0
COMMON BERMUDA (HULLED)	0.0	1.5
COMMON BERMUDA (UNHULLED)	0.0	0.5
10-10-10 FERTILIZER	25.0	25.0
AGRICULTURAL LIMESTONE	75.0	75.0
 - USE RATE A POUNDS PER 1,000 SQ. FT. ON SLOPES STEEPER THAN FIVE FEET HORIZONTAL TO ONE FOOT VERTICAL IN HEIGHT AND USE RATE B POUNDS PER 1,000 SQ. FT. ON SLOPES FLATTER THAN FIVE FEET HORIZONTAL TO ONE FOOT VERTICAL.
- TEMPORARY GRASS

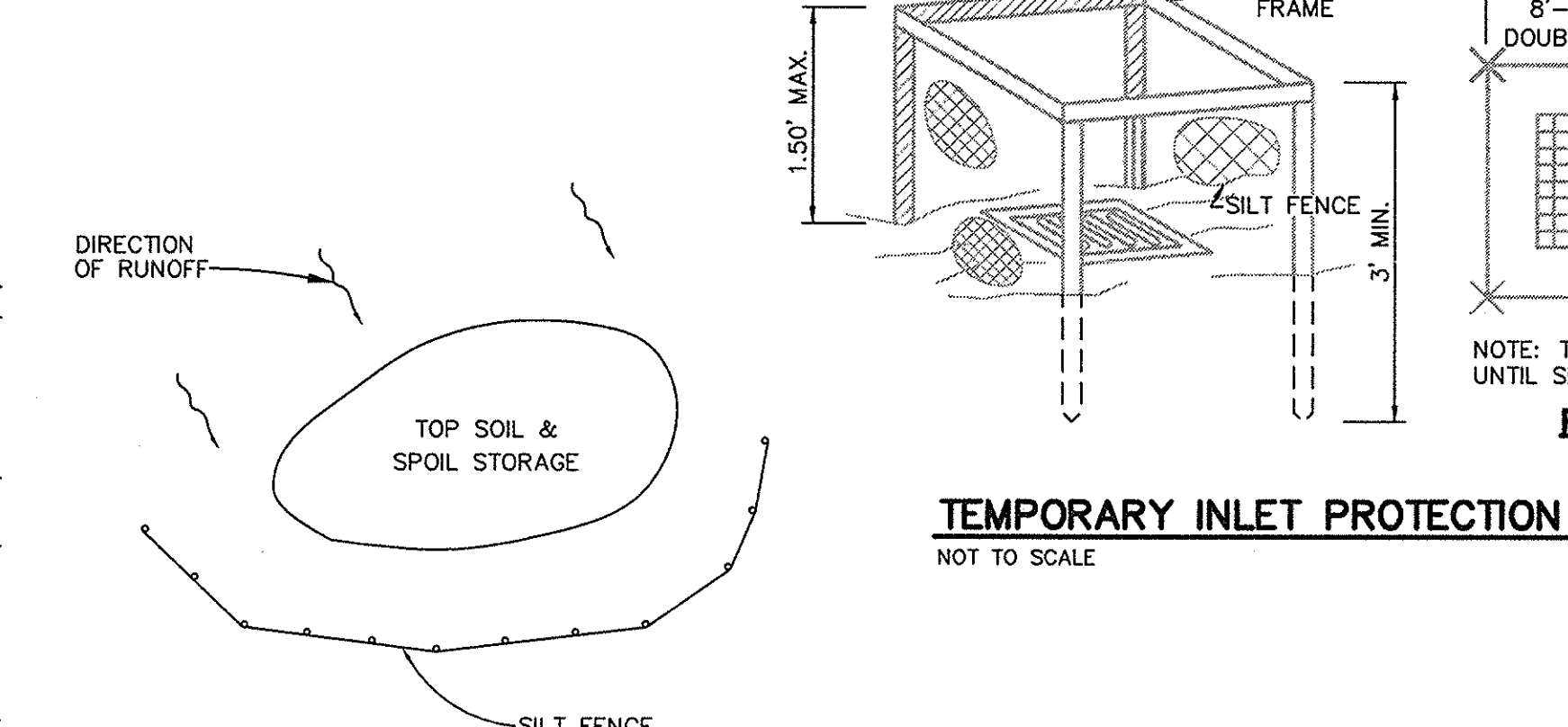
DATE	RYE (GRAIN)	MULCH STRAW	AGRICULTURAL LIMESTONE	FERTILIZER 10-10-10
JAN. 1 - APRIL 30	120 LBS/ACRE	50 LBS/ACRE	4,000 LBS/ACRE	2,000 LBS/ACRE
MAY 1 - AUG. 15	40 LBS/ACRE	4,000 LBS/ACRE	2,000 LBS/ACRE	500 LBS/ACRE
AUG. 16 - DEC. 31	120 LBS/ACRE	4,000 LBS/ACRE	2,000 LBS/ACRE	500 LBS/ACRE
- PERMANENT GRASS
 - FEBRUARY 1 - MARCH 31, AUGUST 20 - OCTOBER 25 GRASS SHALL BE PROVIDED FOR ALL DISTURBED AREAS. FERTILIZER SHALL BE COMMERCIAL TYPE 10-10-10. LIME SHALL BE AGRICULTURAL GRADE GROUND LIME, CONTAINING AT LEAST 34% MAGNESIUM CARBONATE. SEED SHALL BE BERMUDA, MINIMUM 90% PURITY AND 80% GERMINATION. AREAS TO BE GRASSED SHALL BE SCARIFIED AND CULTIVATED TO A DEPTH OF 3 INCHES, WITH ALL CLODS OR CLUMPS BROKEN UP AND FOREIGN MATERIAL AND DEBRIS REMOVED. FERTILIZER SHALL BE APPLIED AT A MINIMUM RATE OF 1,000 LBS/ACRE. LIME SHALL BE REMOVED. FERTILIZER SHALL BE APPLIED AT A MINIMUM RATE OF 3,000 LBS/ACRE. FERTILIZER AND LIME SHALL BE THOROUGHLY WORKED INTO THE SOIL, AND THE SURFACE RAKED SMOOTH BEFORE APPLYING SEED. SEED SHALL BE APPLIED AT THE MINIMUM RATE OF 130 LBS/ACRE AND RAKED IN LIGHTLY. SEEDED AREAS SHALL BE DRESSED SMOOTH, THEN MULCH (STRAW) APPLIED AT 4,000 LBS/ACRE. AREAS SHALL BE SPRAYED WITH EMULSION TO BIND SEED AND PREVENT EROSION, IMMEDIATELY AFTER SEEDING.



CONCRETE PAVEMENT FINISHING DETAIL
NOT TO SCALE
7 TYP



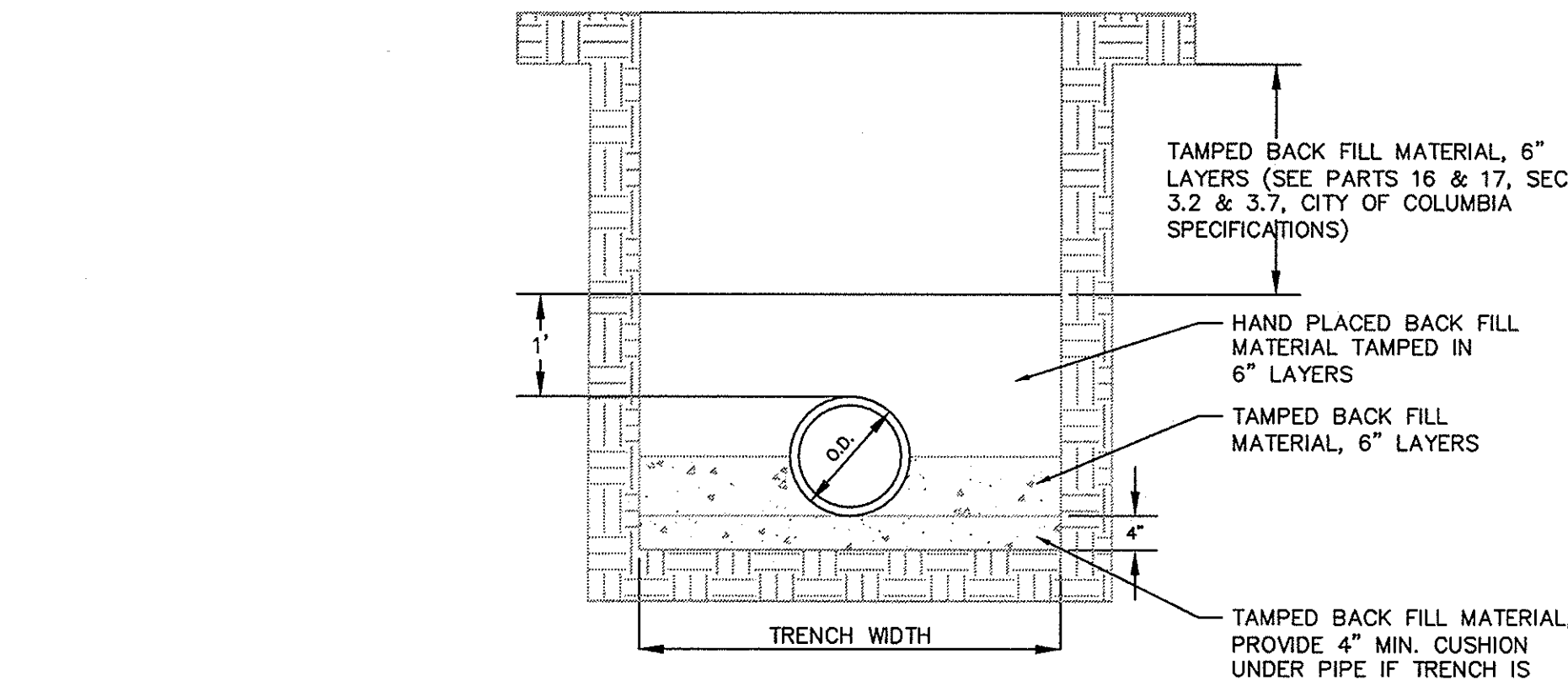
CONCRETE PAVEMENT FINISHING DETAIL
NOT TO SCALE
8 TYP



TEMPORARY INLET PROTECTION
NOT TO SCALE
10 TYP

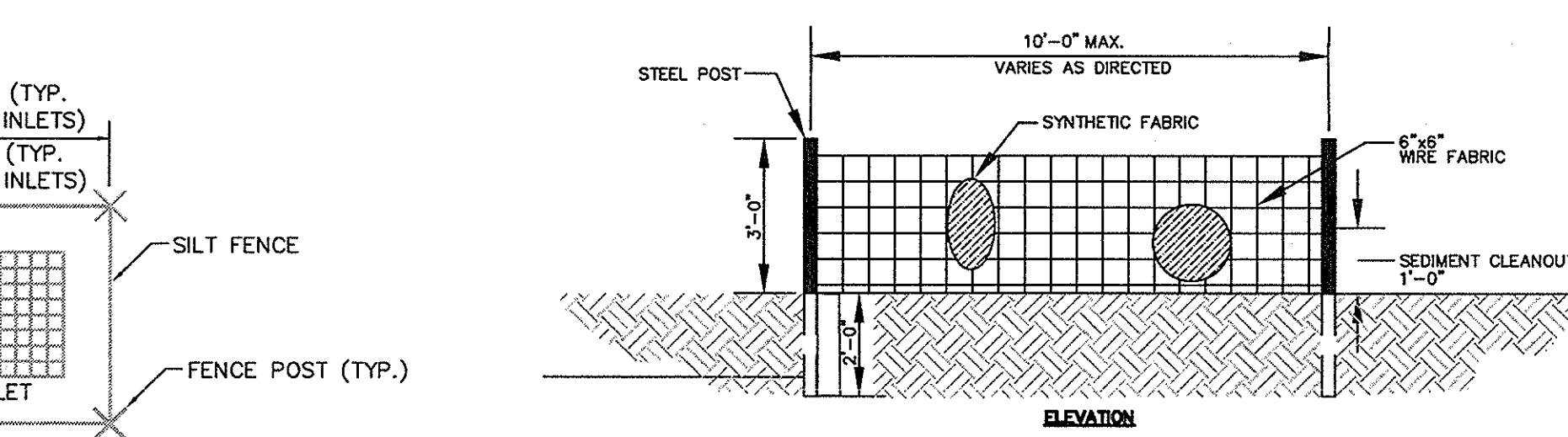


TOP SOIL & SPOIL STORAGE DETAIL
NOT TO SCALE
9 TYP



- NOTES:
- THE PIPE IS TO BE BEDDED IN COMPACTED 6" LAYERS TO THE SPRING LINE FIRST, THEN BACK FILLED WITH HAND PLACED MATERIAL COMPACTED IN 6" LAYERS TO A DEPTH OF 1' MIN. ABOVE THE PIPE. SEE SECTIONS 3.2, 3.3, AND 3.7 (PART 17) OF THE CITY OF COLUMBIA SPECIFICATIONS FOR REMAINDER OF THE BACK FILL.
 - BACK FILL MATERIAL SHALL BE COARSE SAND OR GRAVEL (ASTM 2321 CLASS 1 OR CLASS II)

STANDARD PIPE BEDDING AND BACK FILLING DETAIL FOR PVC/DIP PIPE
NOT TO SCALE
12 C4



- NOTES:
- FILTER FABRIC SHALL BE A MINIMUM 24" IN WIDTH.
 - SYNTHETIC FILTER FABRIC SHALL BE ON SCOT APPROVED MATERIALS LIST #24.
 - STEEL POSTS SHALL BE 5'-0" IN HEIGHT AND BE OF THE SELF-FASTENER STEEL TYPE.
 - CONTRACTOR SHALL PERFORM INSPECTION AND MAINTENANCE OF SILT FENCES FOLLOWING ALL SIGNIFICANT RAINFALL EVENTS, ENSURING FENCES ARE ERECT AND CLEAR, AND REPLACING ALL TORN FENCING.
 - USE TYPE 1 IN ALL OTHER CASES. USE TYPE 2 IN AREAS WHERE TRENCH CUTTING IS DIFFICULT TO EXCAVATE.
 - USE WOOD WISE WHEN WETLANDS ARE WITHIN 50' OF FENCE.

SILT FENCE WITH WIRE FABRIC
SCALE: NONE
11 TYP

WIRING DETAIL
NTS

STANDARD 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 SOIL DRAINAGE 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.
- 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 ROADWAYS 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 SCDD0000.
- 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 OUTLETS.
- 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 TREATED 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 WATER 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 BMPS (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 BMPS NEED TO BE MODIFIED OR IF ADDITIONAL BMPS 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 & ALTERNATIVE BMPS 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.

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.

SEQUENCE OF CONSTRUCTION OPERATIONS

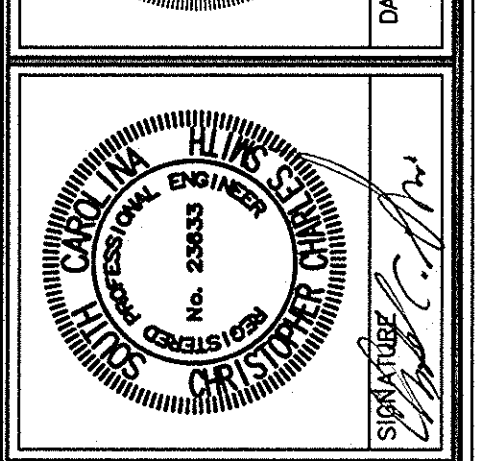
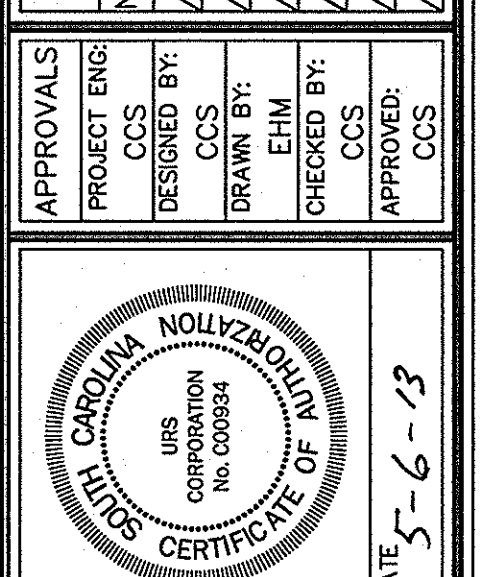
- RECEIVE NOTIFICATION OF NPDES COVERAGE FROM SCDHEC & THE CITY OF COLUMBIA, COORDINATE PRE-CONSTRUCTION MEETING ON-SITE, & NOTIFY THE CITY OF COLUMBIA OFFICE AT LEAST 48 HOURS IN ADVANCE OF LAND DISTURBING ACTIVITIES.
- INSTALL STABILIZED CONSTRUCTION ENTRANCE, SILT FENCE & PERIMETER SOIL EROSION CONTROL MEASURES OUTSIDE & INSIDE AREA TO BE DISTURBED. BEGIN PERFORMING WEEKLY SCDHEC SWPPP INSPECTIONS UNTIL SITE IS PERMANENTLY STABILIZED.
- DEMOLISH ITEMS AS NOTED & CLEAR & GRUB SITE IN THE AREAS TO BE DEVELOPED. REMOVE & DISPOSE OFF-SITE AS APPROPRIATE.
- STRIP & STOCKPILE TOPSOIL & STABILIZE STOCKPILES AS NOTED IN THE PLANS.
- PERFORM GRADING OPERATIONS ON THE SITE, INSTALLING STORM WATER MANAGEMENT DEVICES IN CONJUNCTION WITH GRADING.
- STOCKPILE UNUSED MATERIAL & STABILIZE AS NOTED IN THE PLANS.
- REAPPY TOPSOIL & INITIATE PERMANENT VEGETATIVE STABILIZATION MEASURES AS FINAL GRADE IS REACHED IN AREAS TO REMAIN UNDEVELOPED.
- CONSTRUCT REMAINDER OF PROJECT IMPROVEMENTS.
- FINAL GRADE & INSTALL PERMANENT SITE STABILIZATION MEASURES.
- MAINTAIN ALL TEMPORARY CONTROL MEASURES UNTIL THE SITE IS COMPLETELY STABILIZED.
- UPON COMPLETE STABILIZATION OF SITE, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES & SUBMIT NOTICE OF TERMINATION (NOT) TO SCDHEC (BY ENGINEER).

BID DOCUMENTS

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

NO.	REVISIONS	DESCRIPTION	DATE	BY

APPROVALS	PROJECT ENG.	DESIGN	ISSUED BY	CCS	CCS	CCS	CCS	CCS	CCS

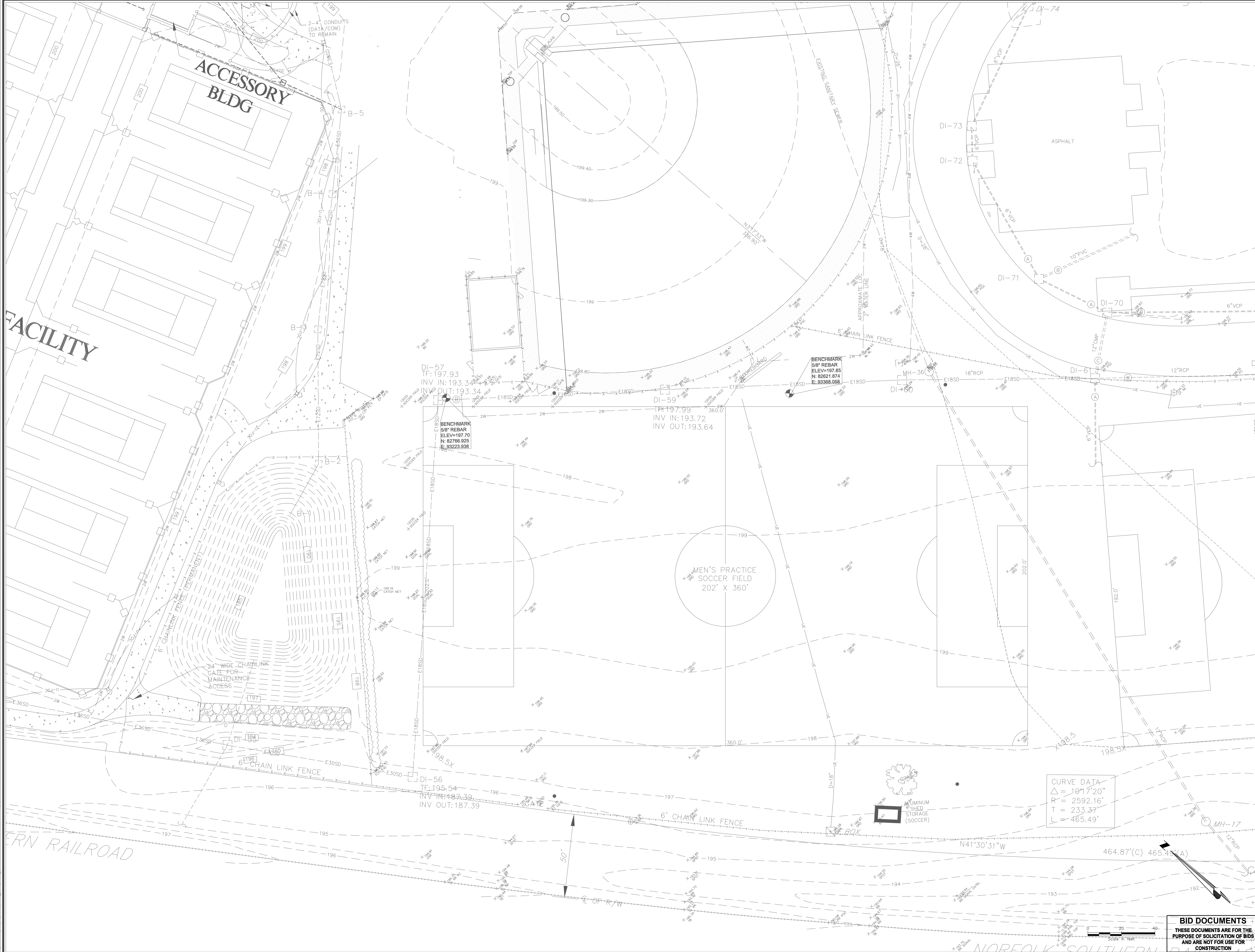


URS
101 Research Drive
Columbia, South Carolina 29203
Telephone (803) 254-4400; Fax (803) 771-6676
www.urscorp.com

SITE DETAILS
SCALE: 1"=50'
DATE: MAY 6, 2013

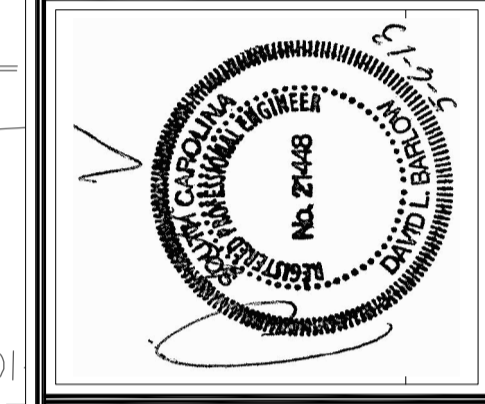
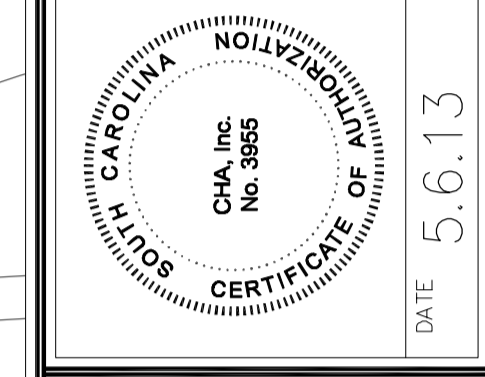
CONSTRUCTION DRAWINGS FOR	SHEET
ATHLETIC VILLAGE SAND VOLLEYBALL COURT CONSTRUCTION	C6
PROJECT NO. 46422848	6
FILE NO. 36,106-B90	

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NO.	DATE	BY	DESCRIPTION

PROJECT ENG:	JRP
DESIGNED BY:	JRP
DRAWN BY:	JRP
CHECKED BY:	JRP
APPROVED:	DUB



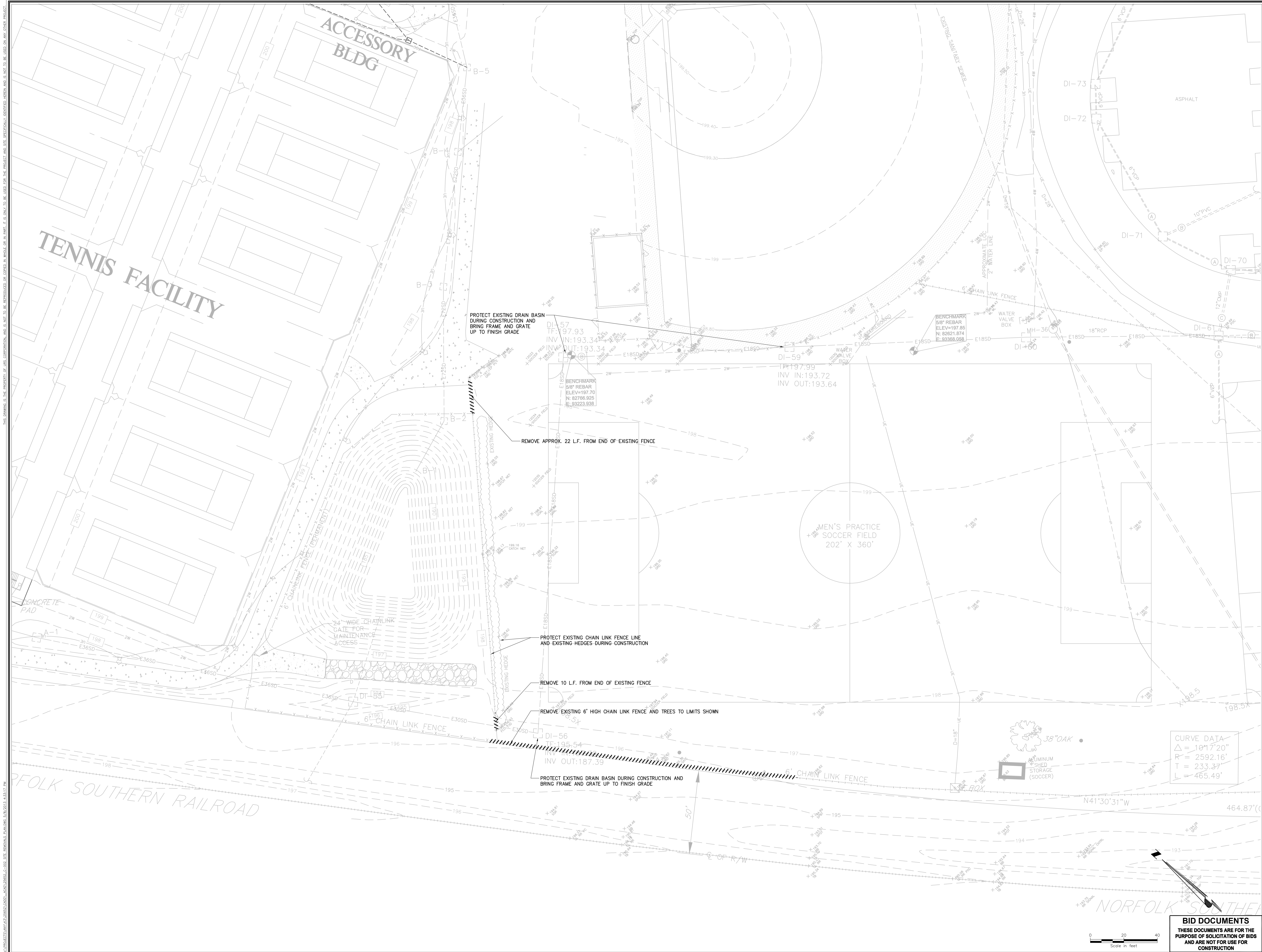
CH2M HILL
 1298 Professional Drive - Myrtle Beach, SC 29577-5886
 Mem: (843) 862-3205 - www.ch2m.com

EXISTING CONDITIONS
 PLAN - VOLLEYBALL
 DATE: MAY 6, 2013 SCALE: AS SHOWN

CONSTRUCTION DRAWINGS FOR
ATHLETIC VILLAGE SAND VOLLEYBALL COURT CONSTRUCTION
 IN THE CITY OF COLUMBIA RICHLAND COUNTY, S.C.

DWG NAME	SHEET
N.B. NO.	A1
REF.	OF
PROJECT NO.	11
46422848	
FILE NO. 36.106-B90	

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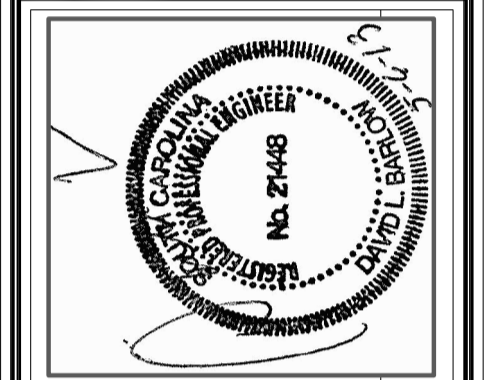


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NO.	DATE	BY	DESCRIPTION

PROJECT ENG:	JRP
DESIGNED BY:	JRP
DRAWN BY:	JRP
CHECKED BY:	JRP
APPROVED:	DUB

CH2M HILL
 PROFESSIONAL ENGINEERING
 CERTIFICATE NO. 10389
 DATE: 5.6.13



CH2M HILL
 1298 Professional Drive - Myrtle Beach, SC 29577-5886
 Mem: (843) 662-3205 - www.ch2m.com

SHEET TITLE: **SITE REMOVALS PLAN - VOLLEYBALL**
 DATE: MAY 6, 2013
 SCALE: AS SHOWN

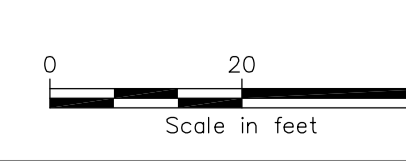
PROJECT: **ATHLETIC VILLAGE SAND VOLLEYBALL COURT CONSTRUCTION**
 IN THE CITY OF COLUMBIA, RICHLAND COUNTY, S.C.

DWG NAME:	SHEET:
N.B. NO.:	A2
REF.:	OF
PROJECT NO.:	11
46422848	
FILE NO. 36,106-B90	

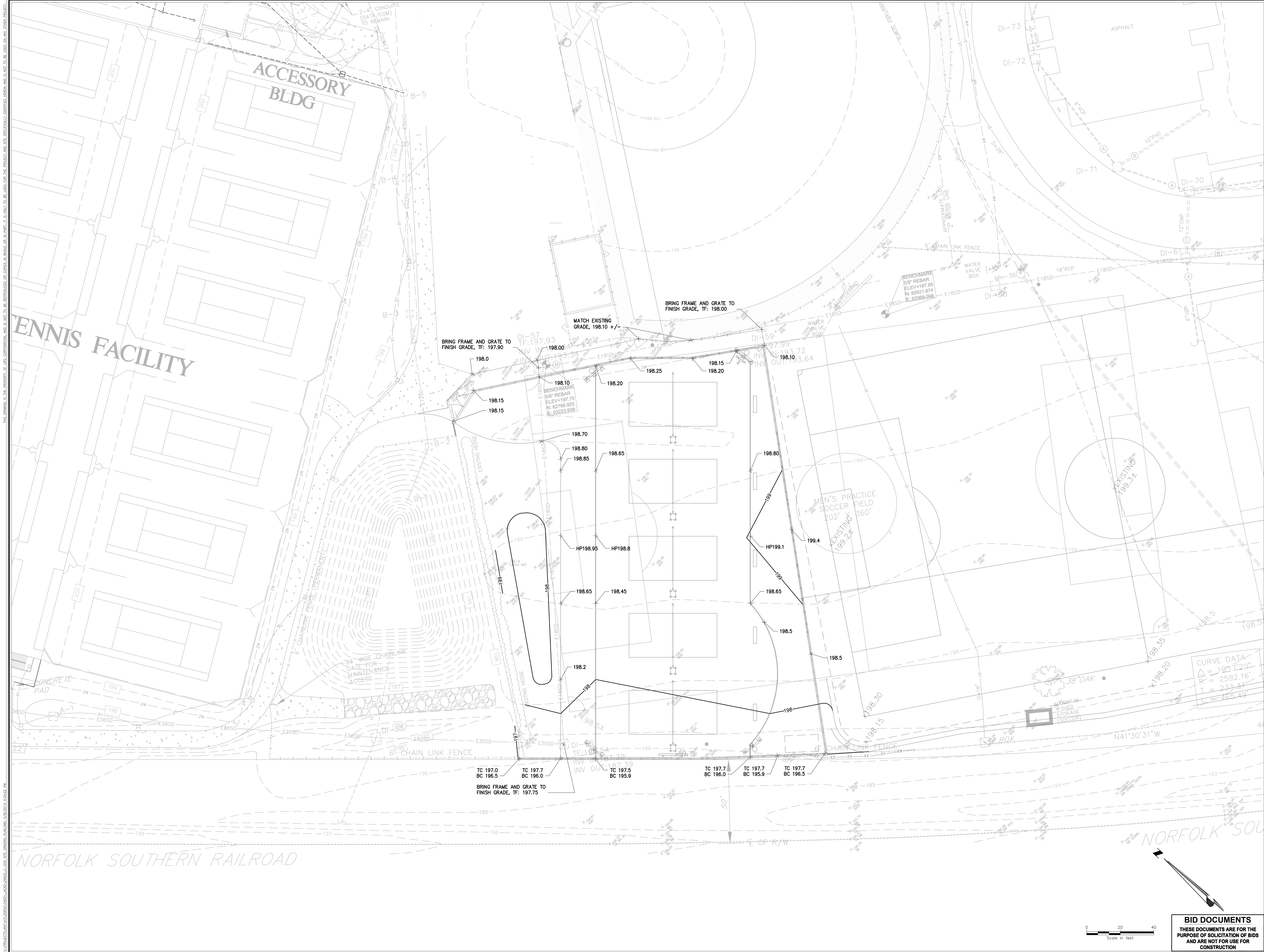
CURVE DATA

Δ	= 10°17'20"
R	= 2592.16'
T	= 233.37'
L	= 465.49'

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

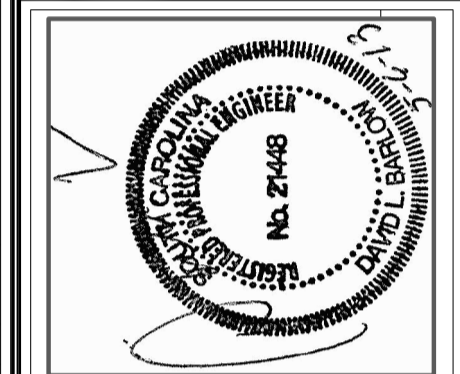
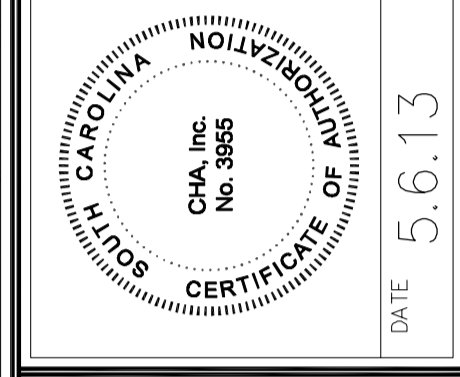


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NO.	DATE	BY	DESCRIPTION

APPROVALS	PROJECT ENG.	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED
		JRP	JRP	JRP	DUB



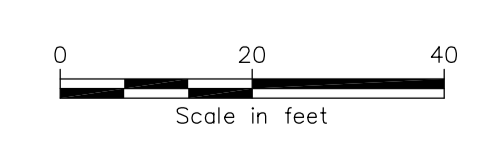
CIA
 1298 Professional Drive - Myrtle Beach, SC 29577-5886
 Mem: (843) 662-3205 - www.chacompanies.com

SITE GRADING PLAN - VOLLEYBALL
 DATE: MAY 6, 2013 SCALE: AS SHOWN

ATHLETIC VILLAGE SAND VOLLEYBALL COURT CONSTRUCTION
 IN THE CITY OF COLUMBIA RICHLAND COUNTY, S.C.

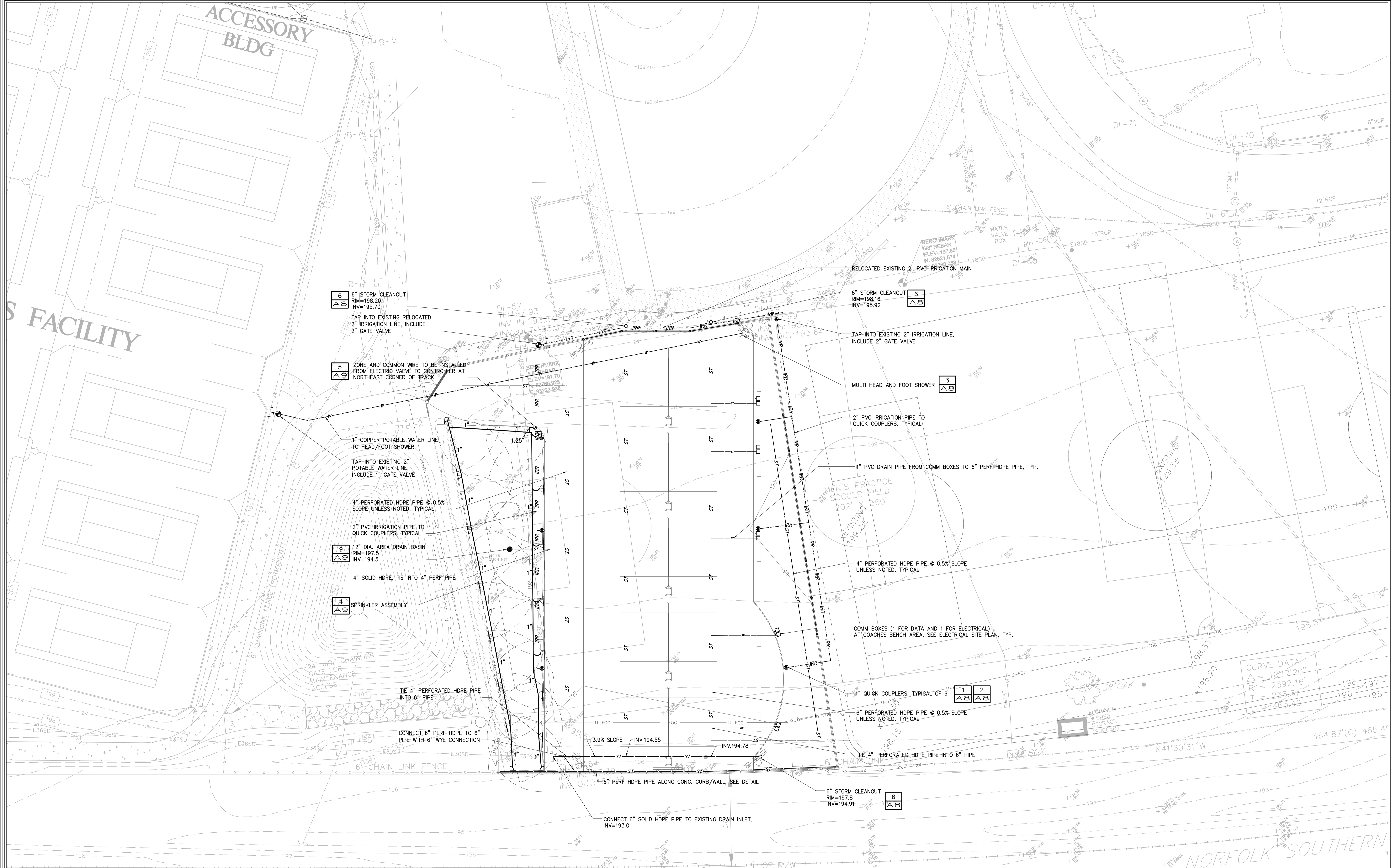
DWG NAME	SHEET
N.B. NO.	A4
REF.	OF
PROJECT NO.	11
46422848	
FILE NO. 36.106-B90	

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



CURVE DATA
 $\Delta = 103.720'$
 $R = 2592.16'$
 $T = 233.37'$
 $L = 465.49'$

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LEGEND

SYMBOL	MODEL #	DESCRIPTION	MANUF.
P.O.C.	ICV-101-AS-50	50 GPM @ 70 PS	
●	ICV-101-AS-50	1" PRESSURE REGULATED ELECTRIC VALVE	HUNTER
⬢	MP-3000-H	MP- ROTOR 1.82GPM @ 40PSI - 30' RADIUS - HALF	HUNTER
⬢	MP-3000-Q	MP- ROTOR 0.86GPM @ 40PSI - 30' RADIUS - QUARTER	HUNTER
●		1" QUICK COUPLER	
—		2" MAIN LINE - SDR-21	
---		LATERAL PIPE - SDR-21 - SIZE AS NOTED	

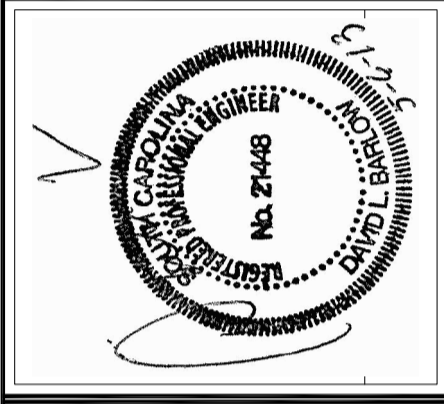
REVISIONS

NO.	DATE	BY	DESCRIPTION

APPROVALS

PROJECT ENG.	DESIGNED BY	CHECKED BY	APPROVED BY
JRP	JRP	JRP	JRP
JRP	JRP	JRP	JRP
JRP	JRP	JRP	JRP

DATE: 5.6.13



CH2M HILL

1298 Professional Drive - Myrtle Beach, SC 29577-5886
 Myrtle Beach, SC 29577-5886
 Phone: (843) 662-3005 www.ch2m.com

SITE UTILITY PLAN - VOLLEYBALL

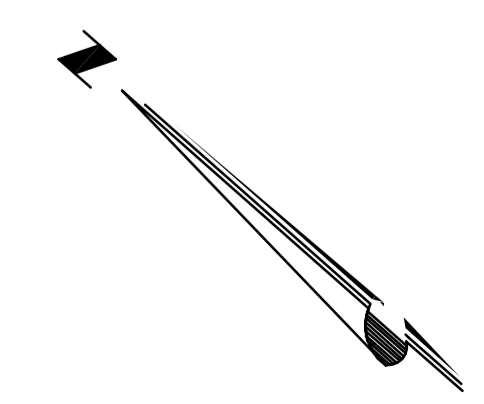
DATE: MAY 6, 2013 SCALE: AS SHOWN

CONSTRUCTION DRAWINGS FOR
ATHLETIC VILLAGE SAND VOLLEYBALL COURT CONSTRUCTION
 IN THE CITY OF COLUMBIA RICHLAND COUNTY, S.C.

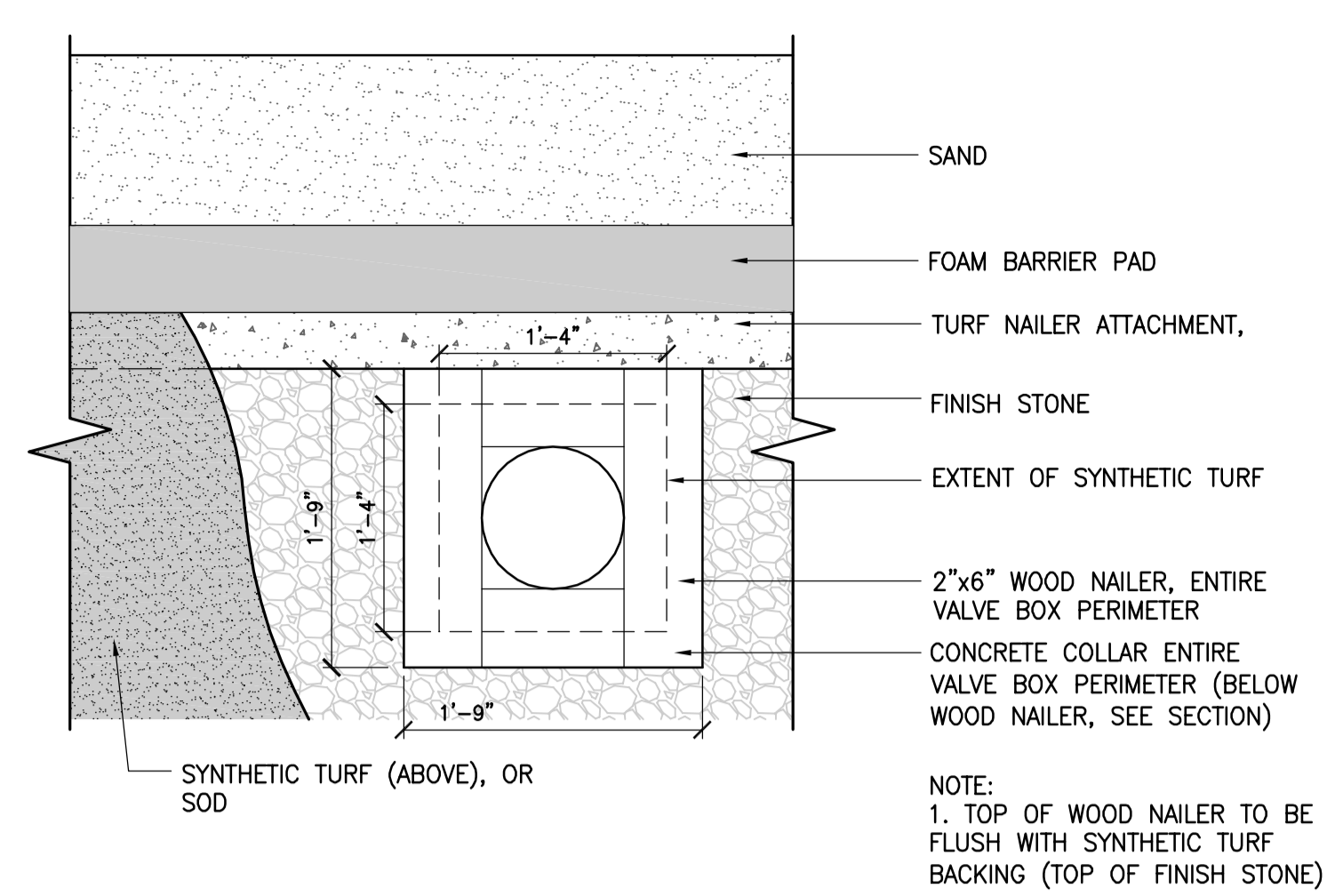
DWG NAME	SHEET
N.B. NO.	A5
PROJECT NO.	OF
46422848	11
FILE NO. 36,106-B90	



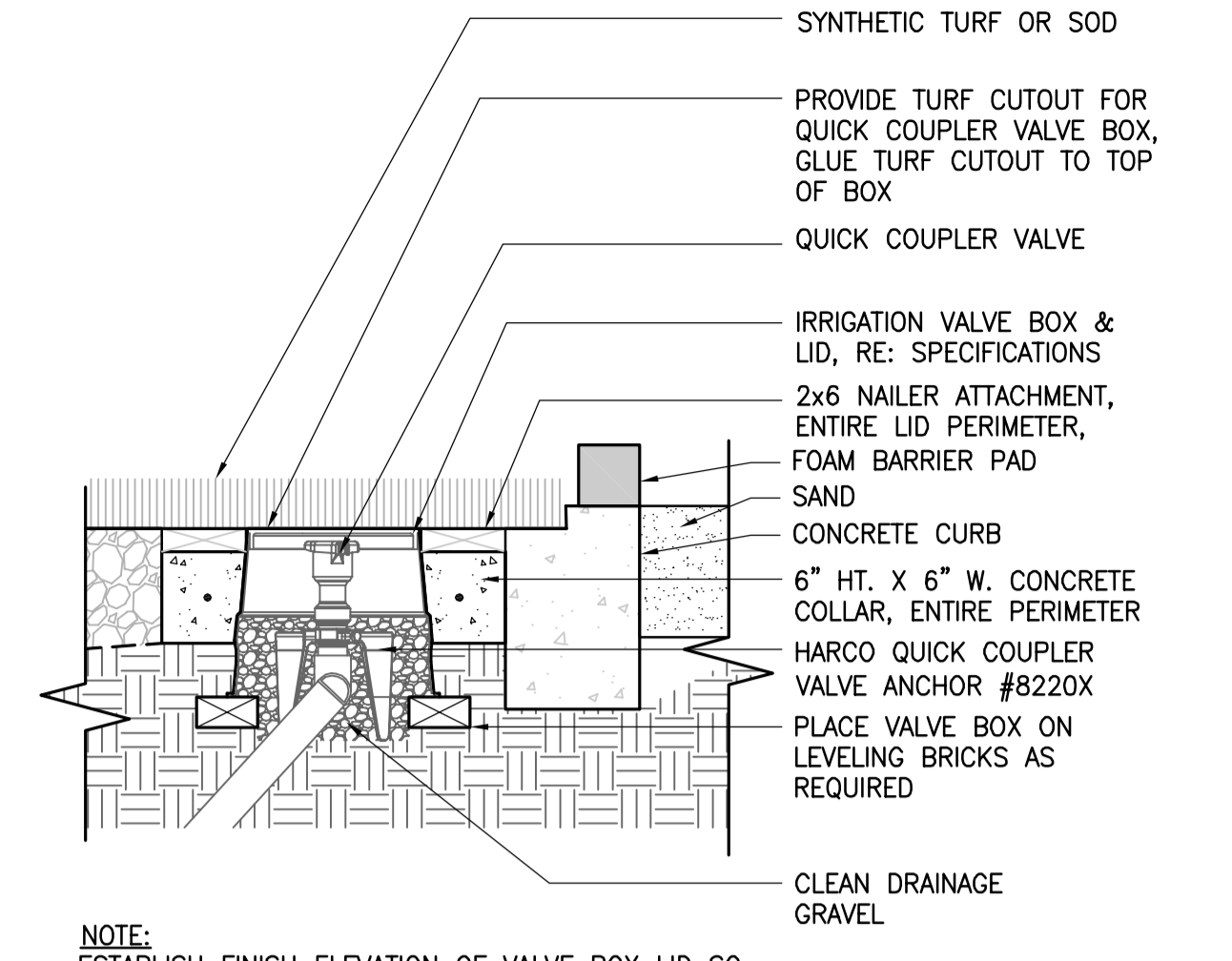
BID DOCUMENTS
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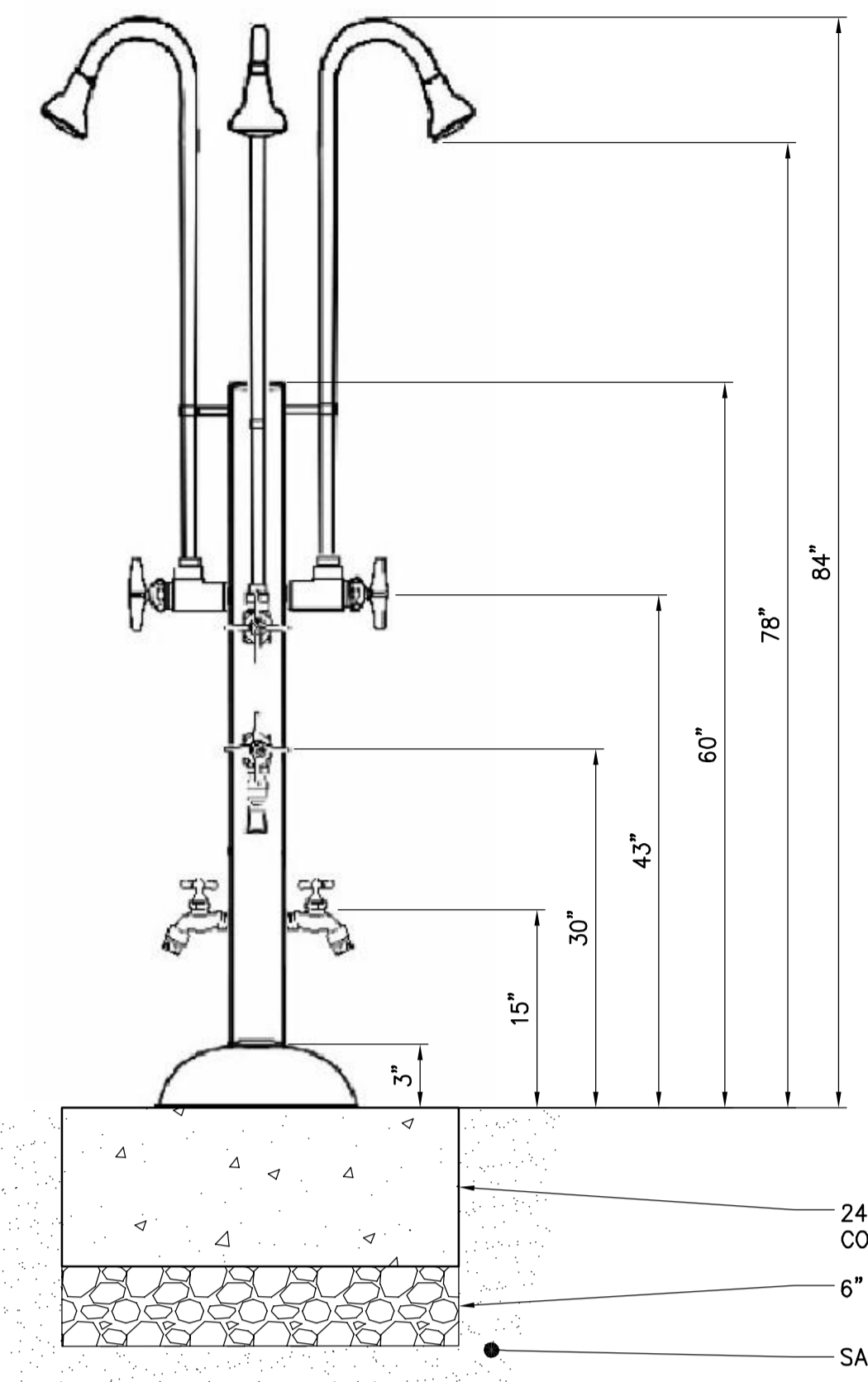
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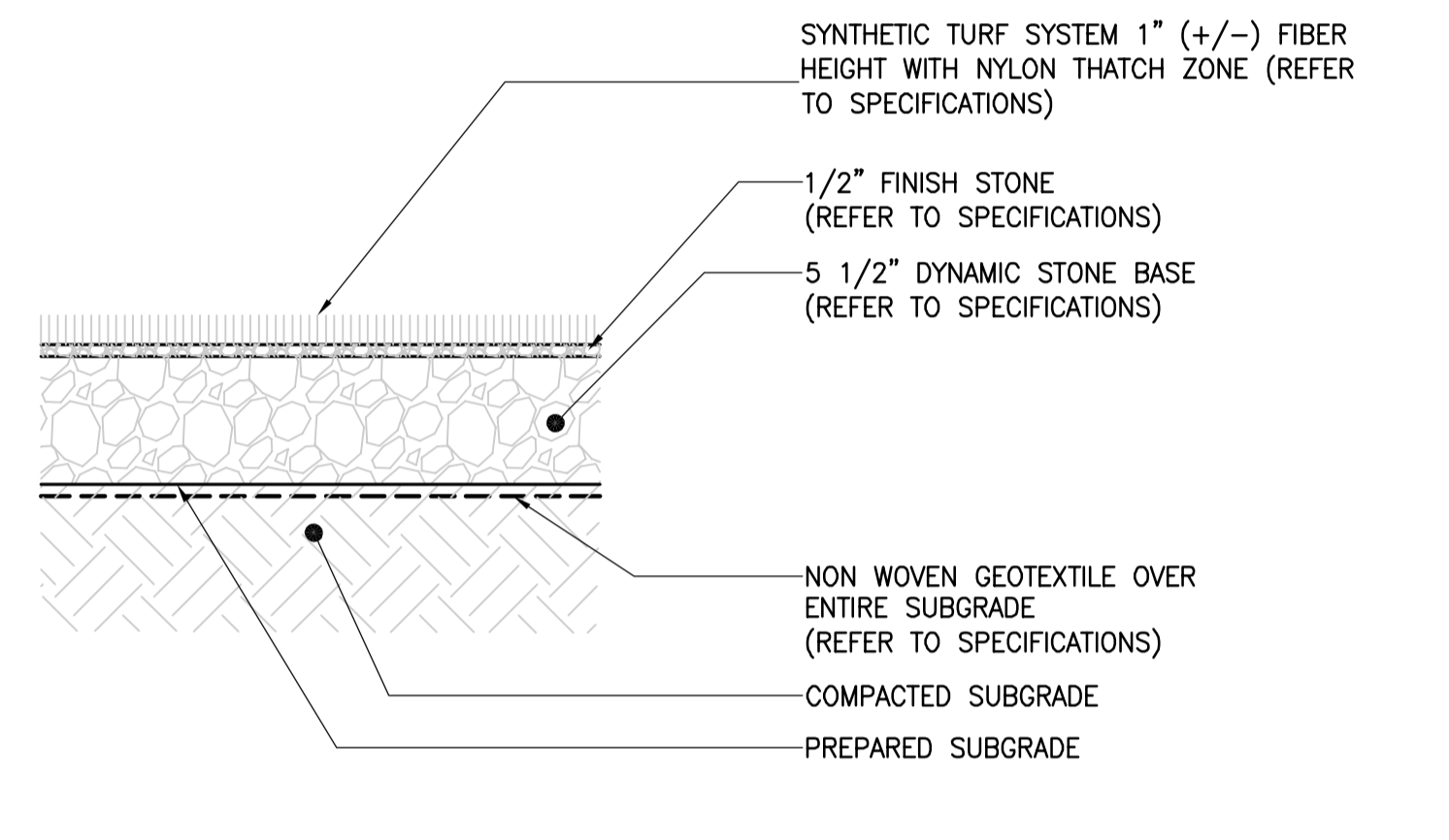
1 QUICK COUPLER - PLAN
NOT TO SCALE



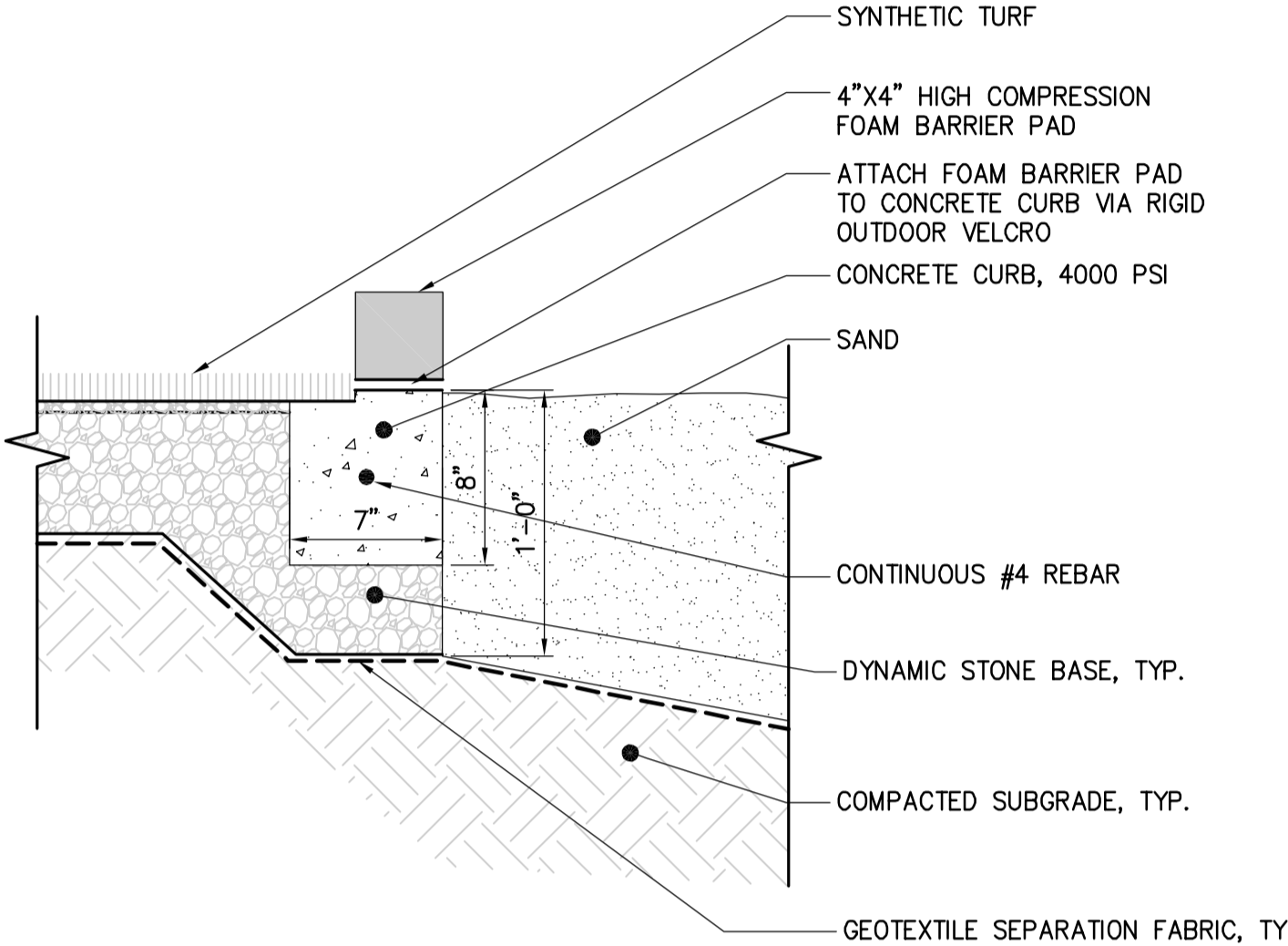
2 QUICK COUPLER - SECTION
NOT TO SCALE



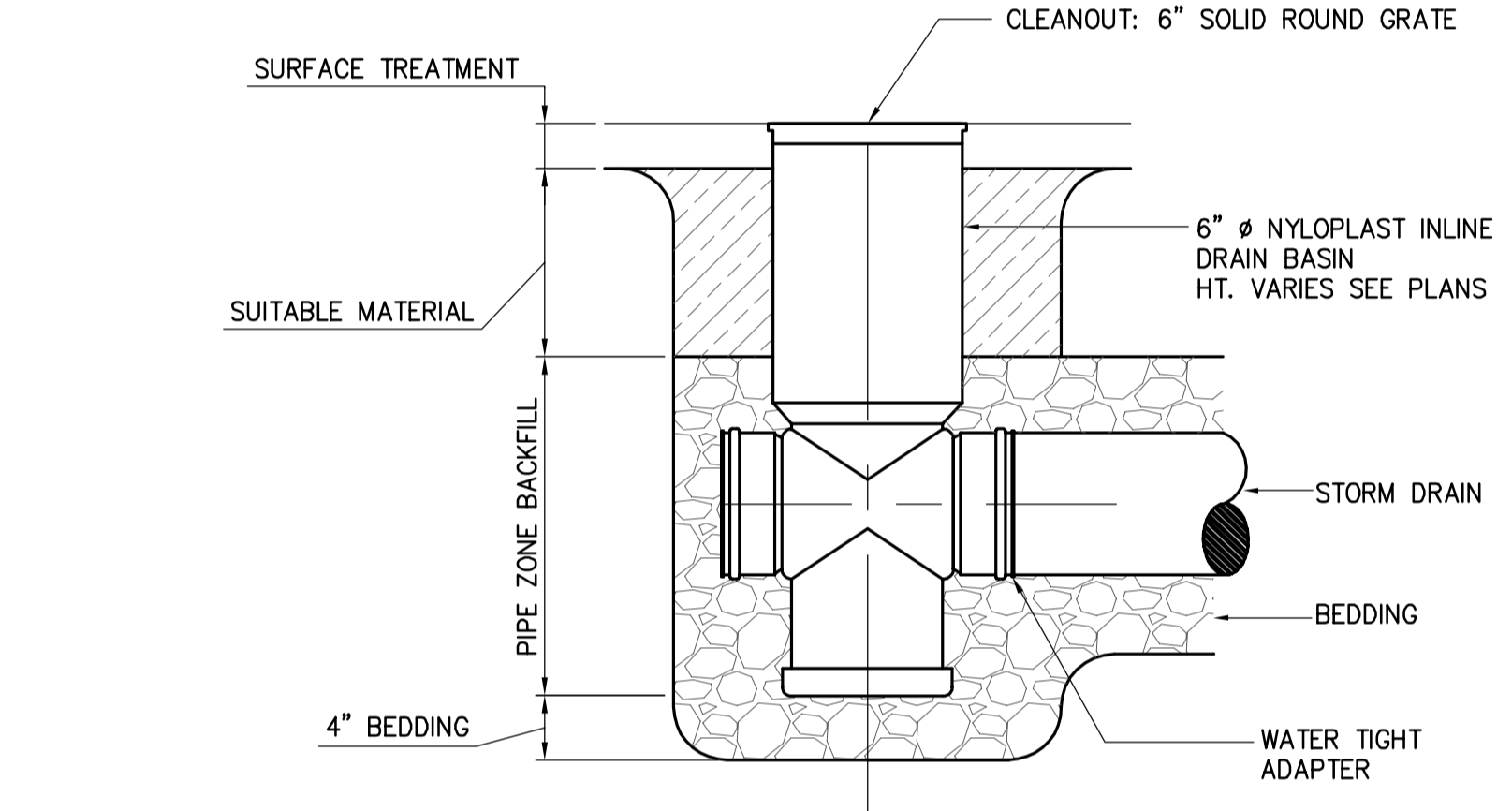
3 TRIPLE HEAD AND FOOT SHOWER
NOT TO SCALE



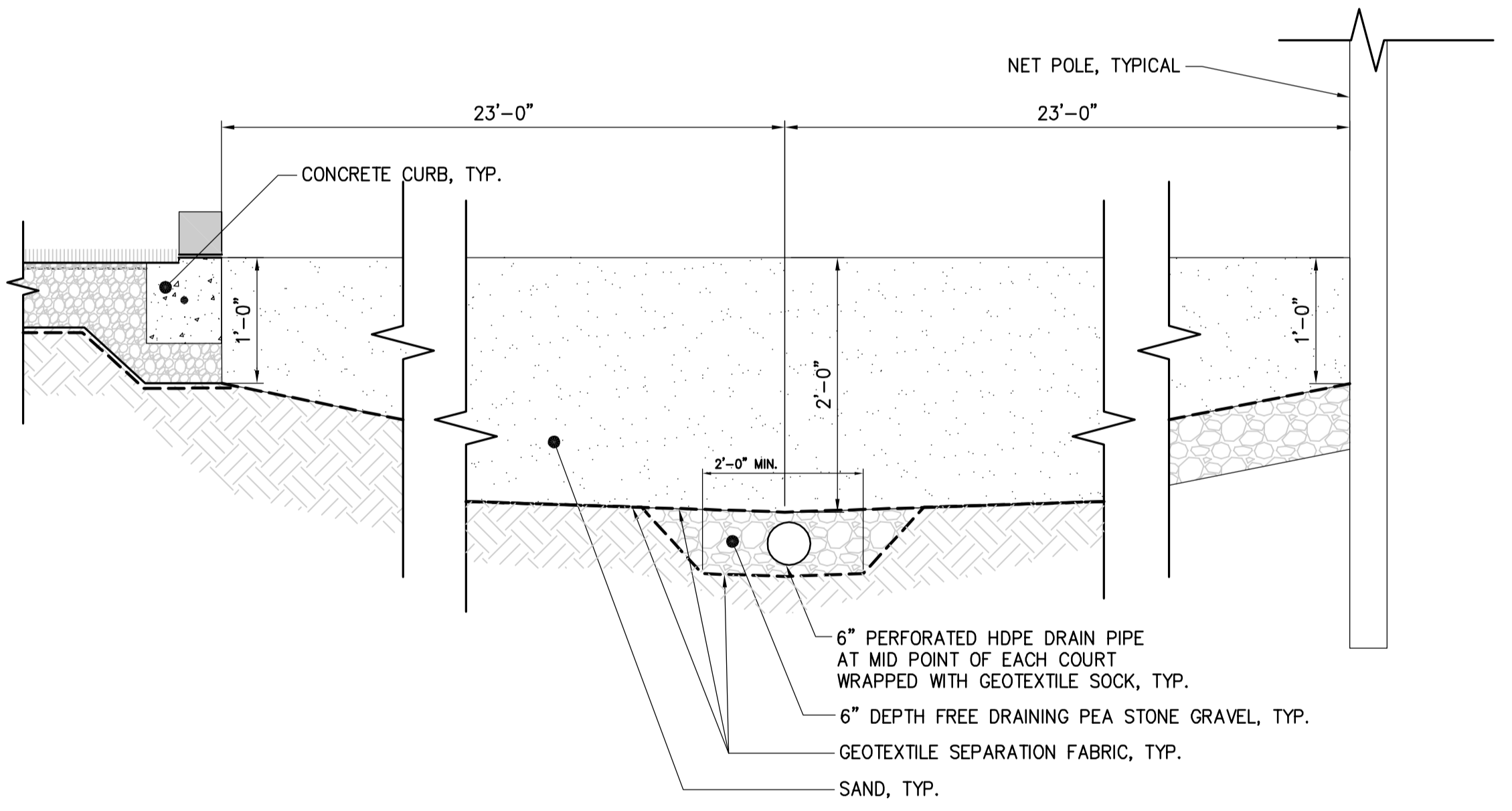
4 SYNTHETIC TURF - SECTION
1 1/2"=1'-0"



5 SYNTHETIC TURF - SAND CURB INTERFACE
1 1/2"=1'-0"

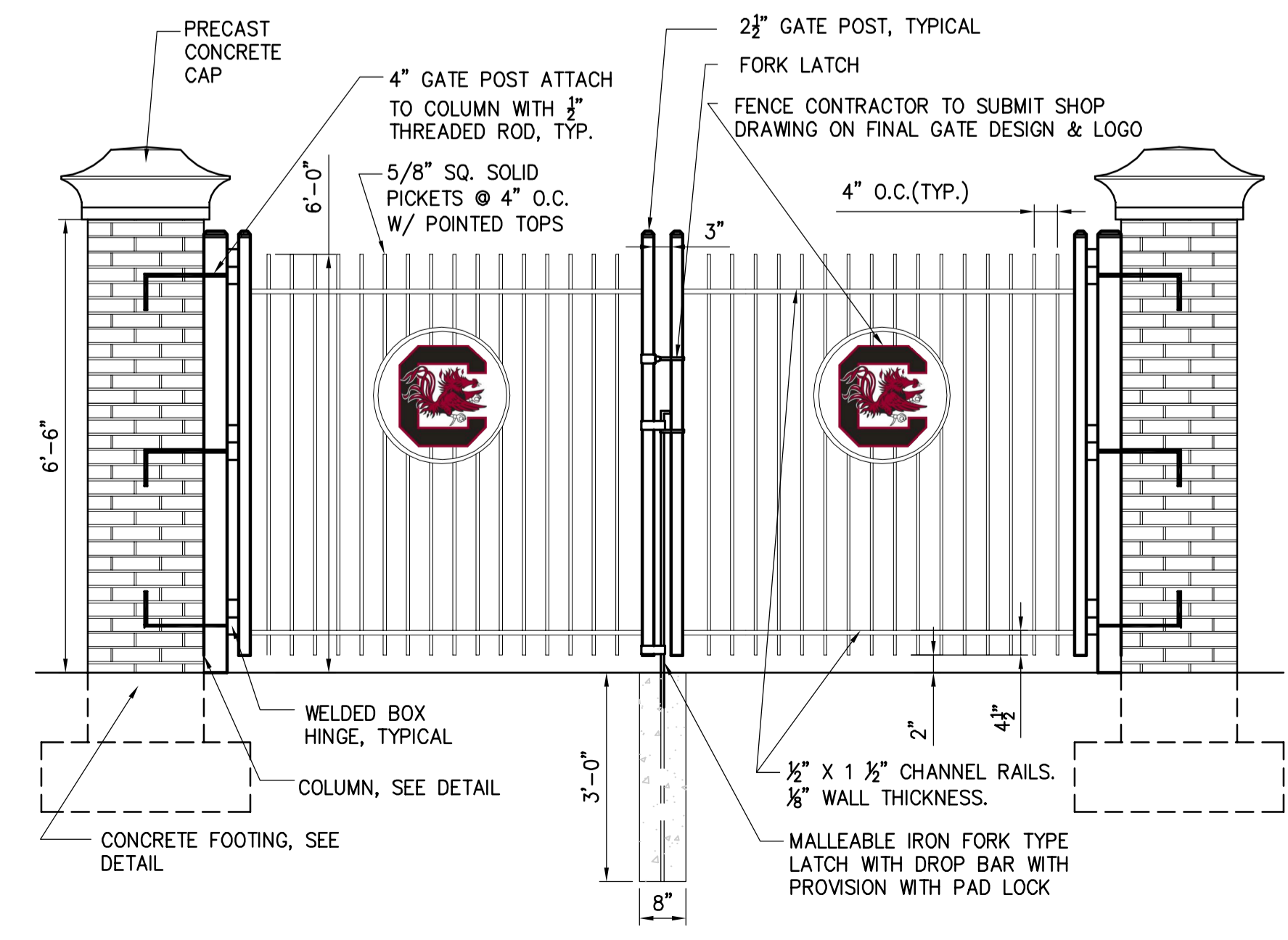


6 CLEANOUT
NTS

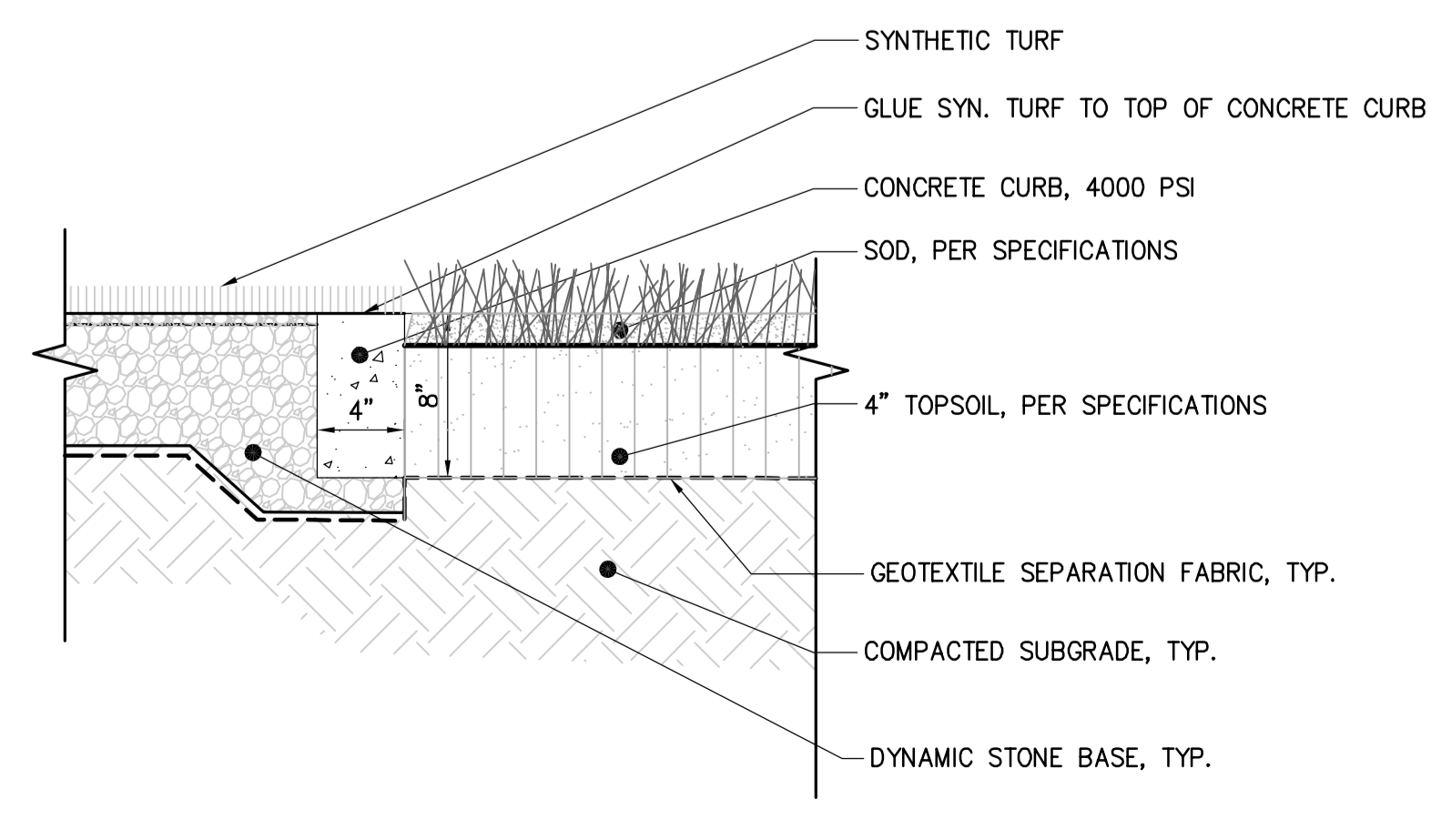


7 SAND VOLLEYBALL COURT SECTION
1 1/2"=1'-0"

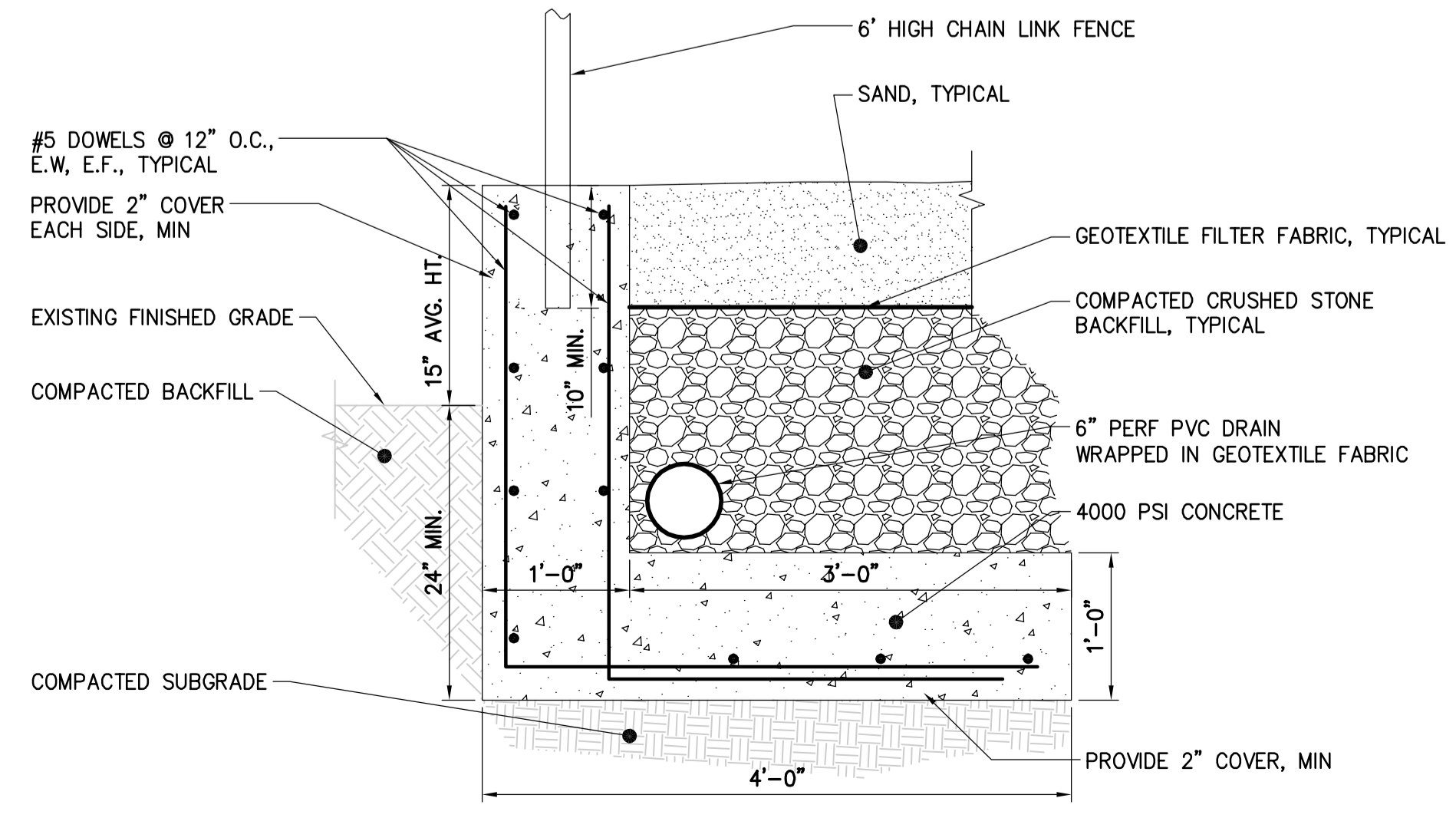
8 NOT USED
NTS



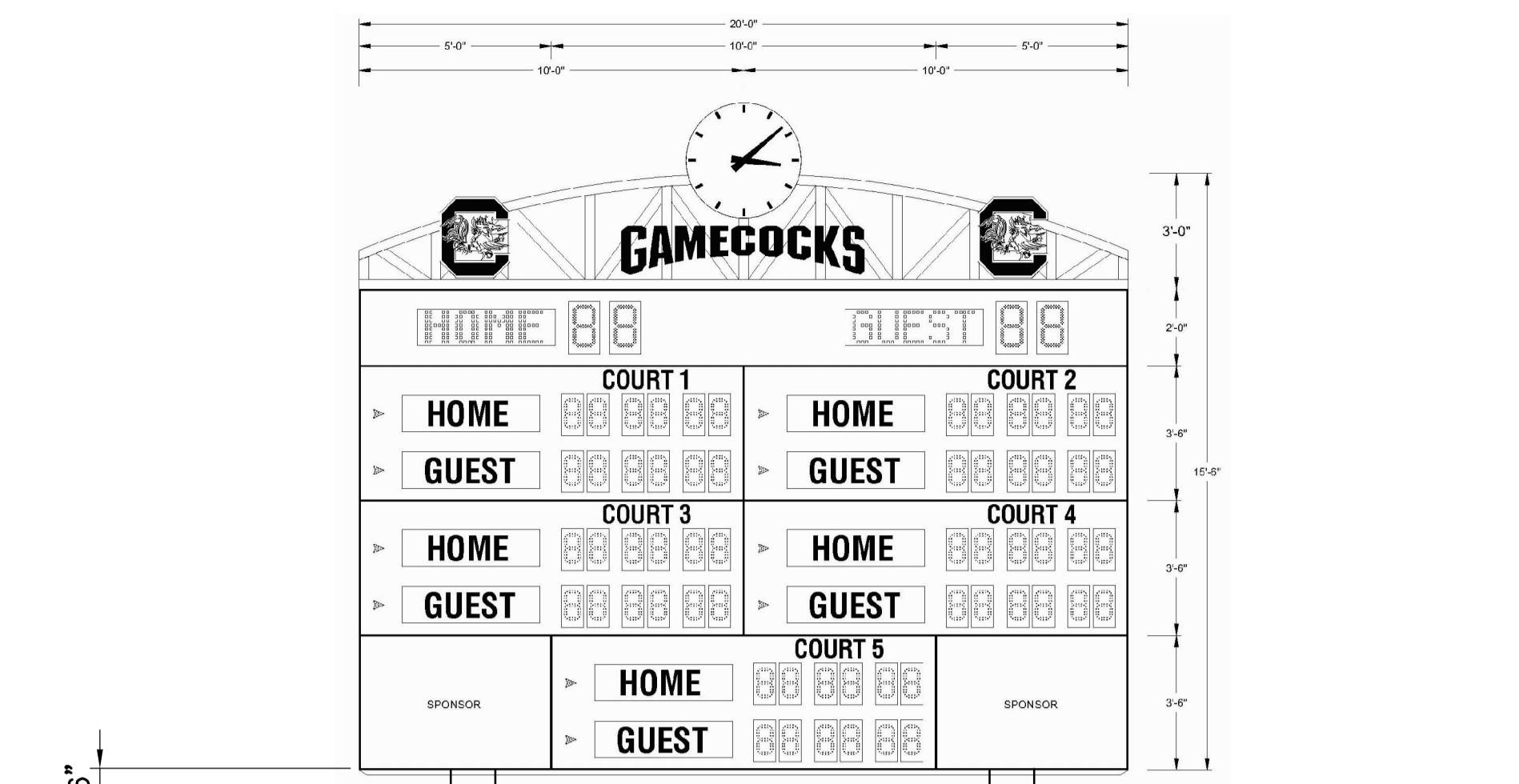
10 ENTRY GATE DETAIL
1/2"=1'-0"



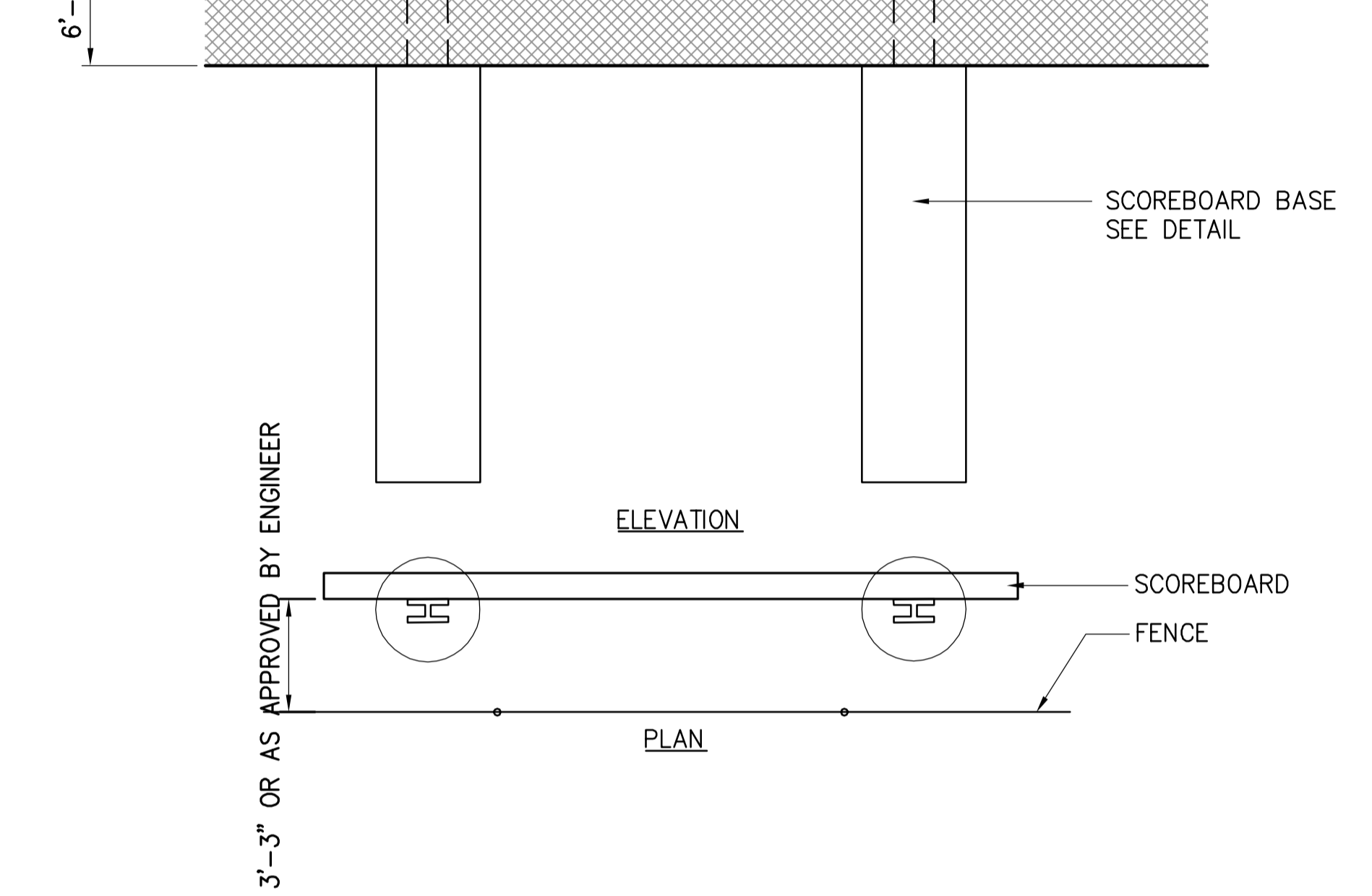
11 SYNTHETIC TURF/SOD INTERFACE
1 1/2"=1'-0"



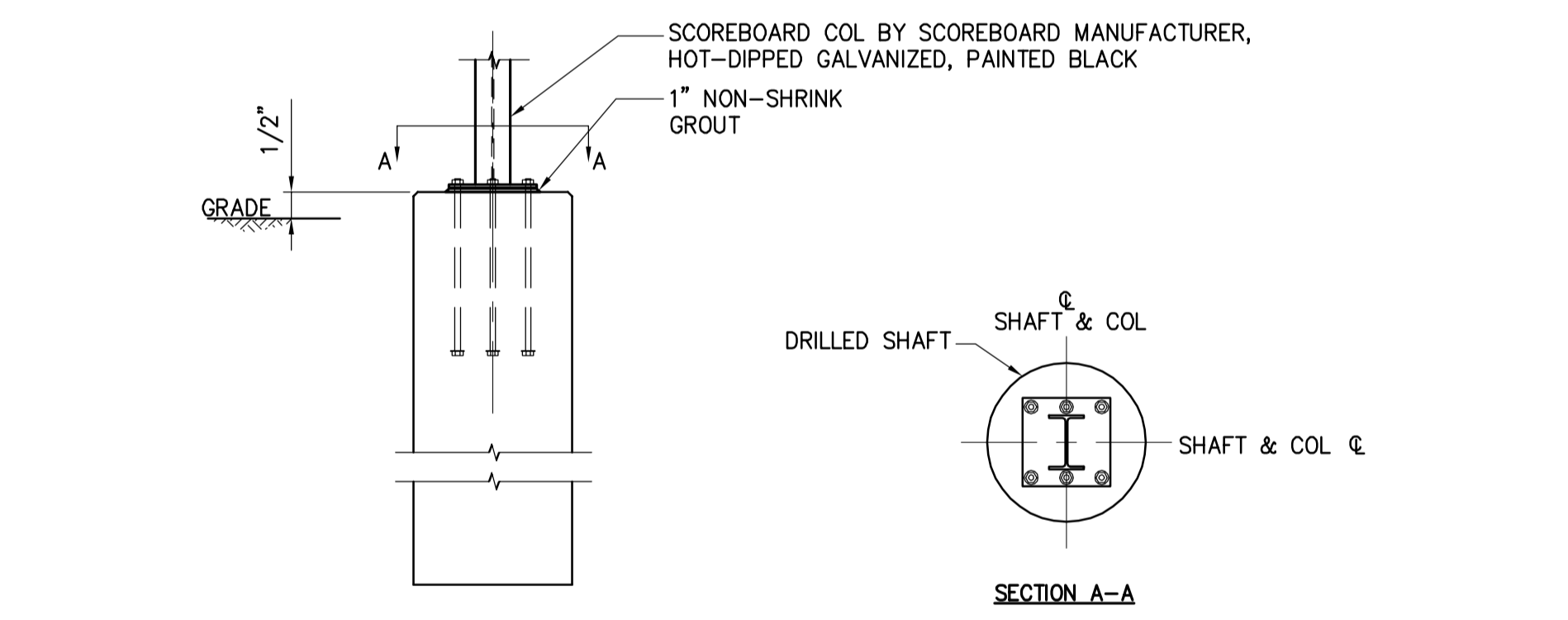
12 ELEVATED CONCRETE CURB/WALL DETAIL
1"=1'-0"



9 SCOREBOARD
NOT TO SCALE



13 SYNTHETIC TURF/CONCRETE SIDEWALK INTERFACE
1 1/2"=1'-0"

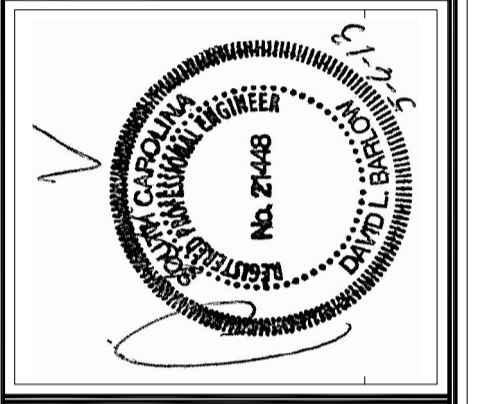
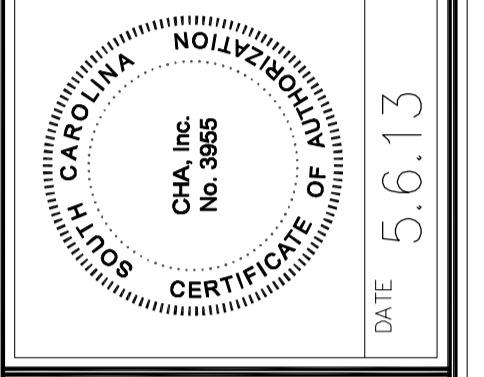


9 SCOREBOARD
NOT TO SCALE

- NOTES:**
- COORDINATE LOCATION OF PIERS WITH SITE PLAN AND SCOREBOARD MANUFACTURER.
 - COORDINATE SCOREBOARD ATTACHMENT TO COLUMNS WITH SCOREBOARD MANUFACTURER.
 - CONTRACTOR TO CONFIRM FINAL DESIGN LOADS WITH SCOREBOARD MANUFACTURER.
 - SCOREBOARD COLUMN AND DRILLED SHAFT FOUNDATION DESIGN BASED ON:
 - A. SCOREBOARD SUPPORTS REQUIRED.
 - B. SCOREBOARD SIZE.
 - C. SCOREBOARD WEIGHT.
 - D. SCOREBOARD MOUNTING HEIGHT.
 - CONTRACTOR TO PROVIDE STAMPED AND SIGNED DRAWINGS (BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF SOUTH CAROLINA) AND CALCULATIONS FOR REVIEW BY THE ENGINEER OF RECORD.
 - GALVANIZED SCOREBOARD PIERS TO BE PAINTED BLACK, TYPICAL.

NO.	DATE	BY	DESCRIPTION

APPROVALS:	PROJECT ENG:	DESIGNED BY:	CHECKED BY:	APPROVED:
		JRP	JRP	DUB



CHS
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Main: (843) 862-3205 - www.chscorporation.com

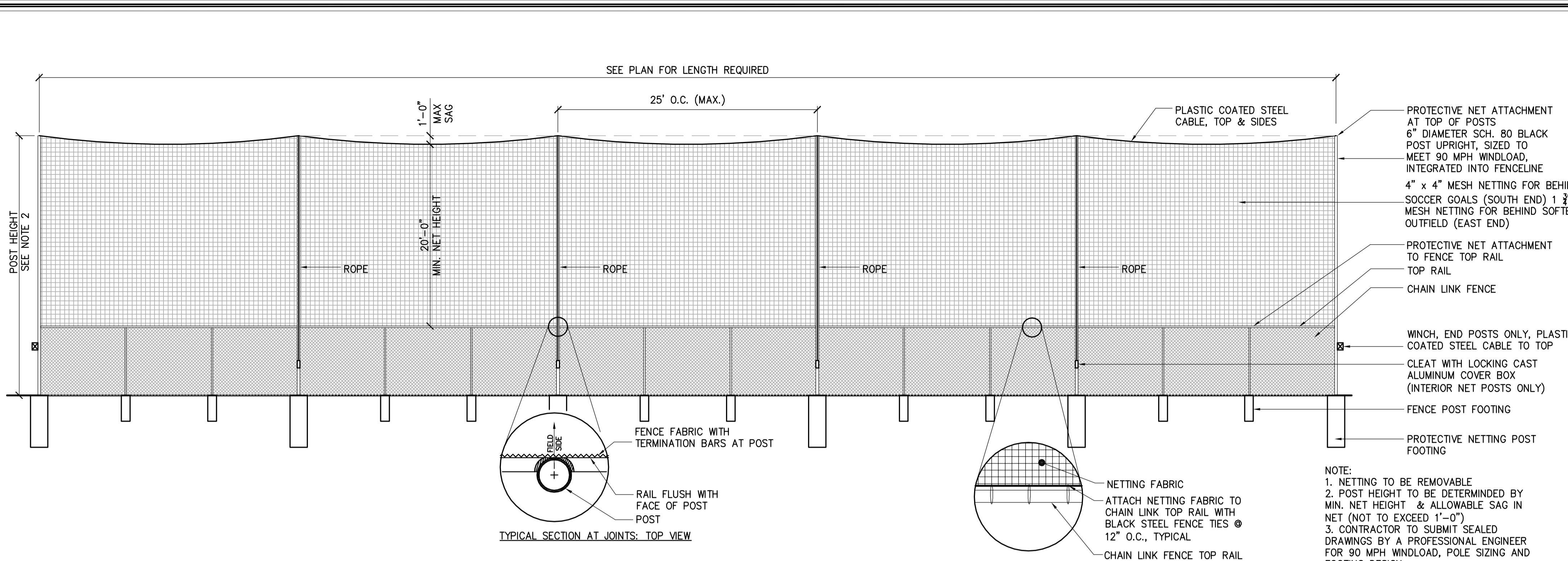
SITE DETAILS - VOLLEYBALL
DATE: MAY 6, 2013
SCALE: AS SHOWN

CONSTRUCTION DRAWINGS FOR
ATHLETIC VILLAGE SAND VOLLEYBALL COURT CONSTRUCTION
IN THE CITY OF COLUMBIA RICHLAND COUNTY, S.C.

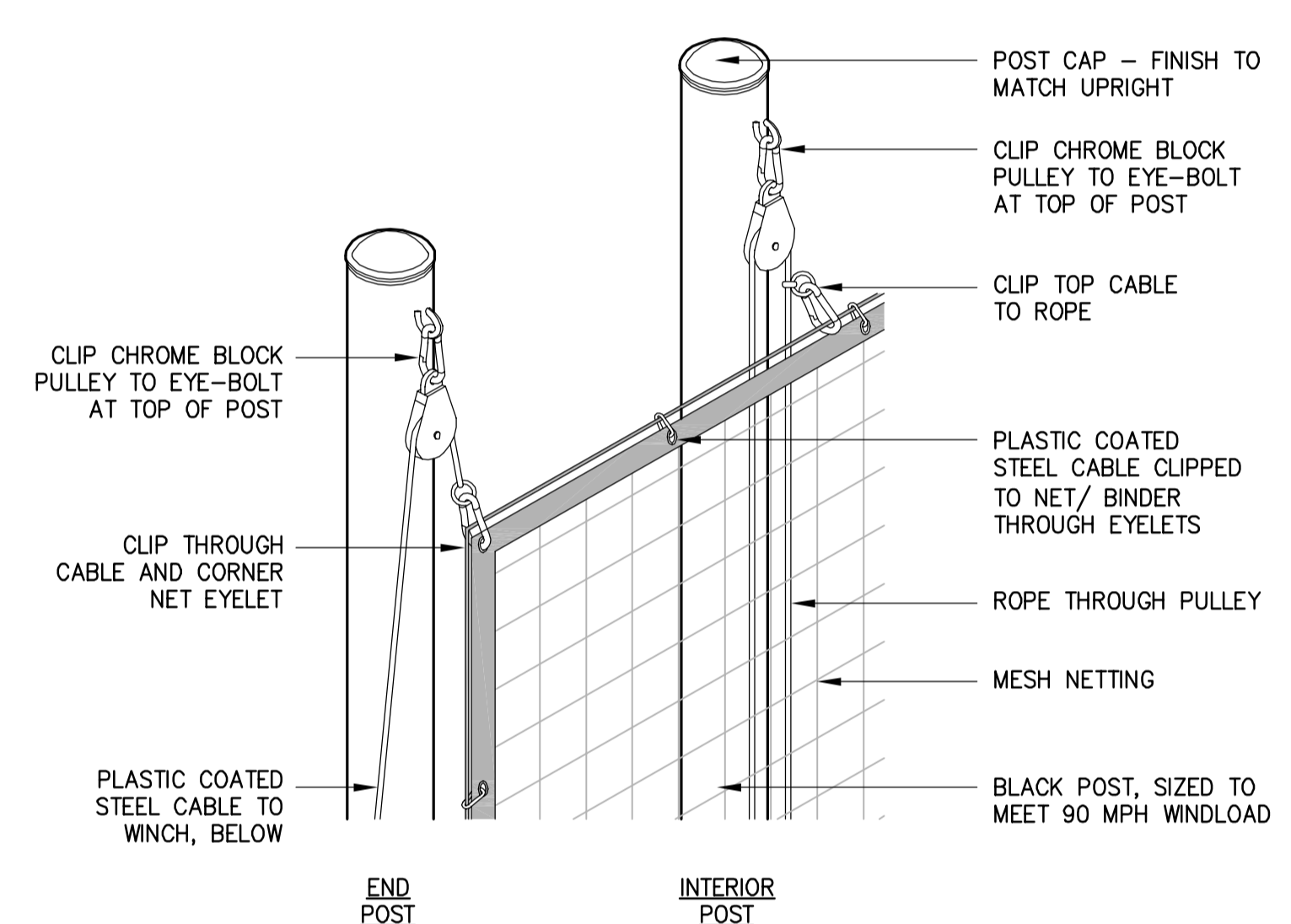
DWG. NAME:	SHEET
N.B. NO.	A6
REF.	OF
PROJECT NO.	11
46422848	
FILE NO. 36.106-B90	

BID DOCUMENTS
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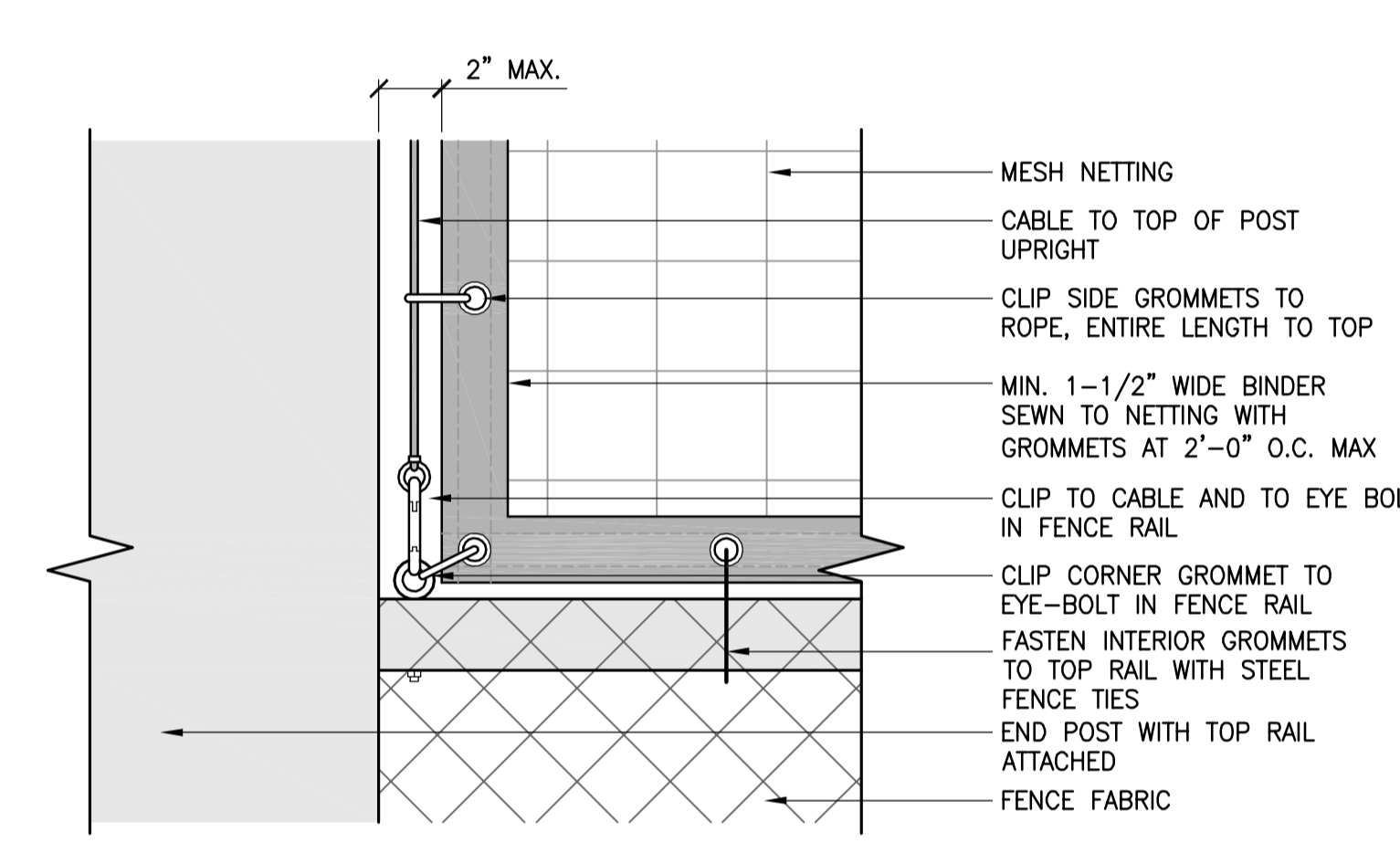
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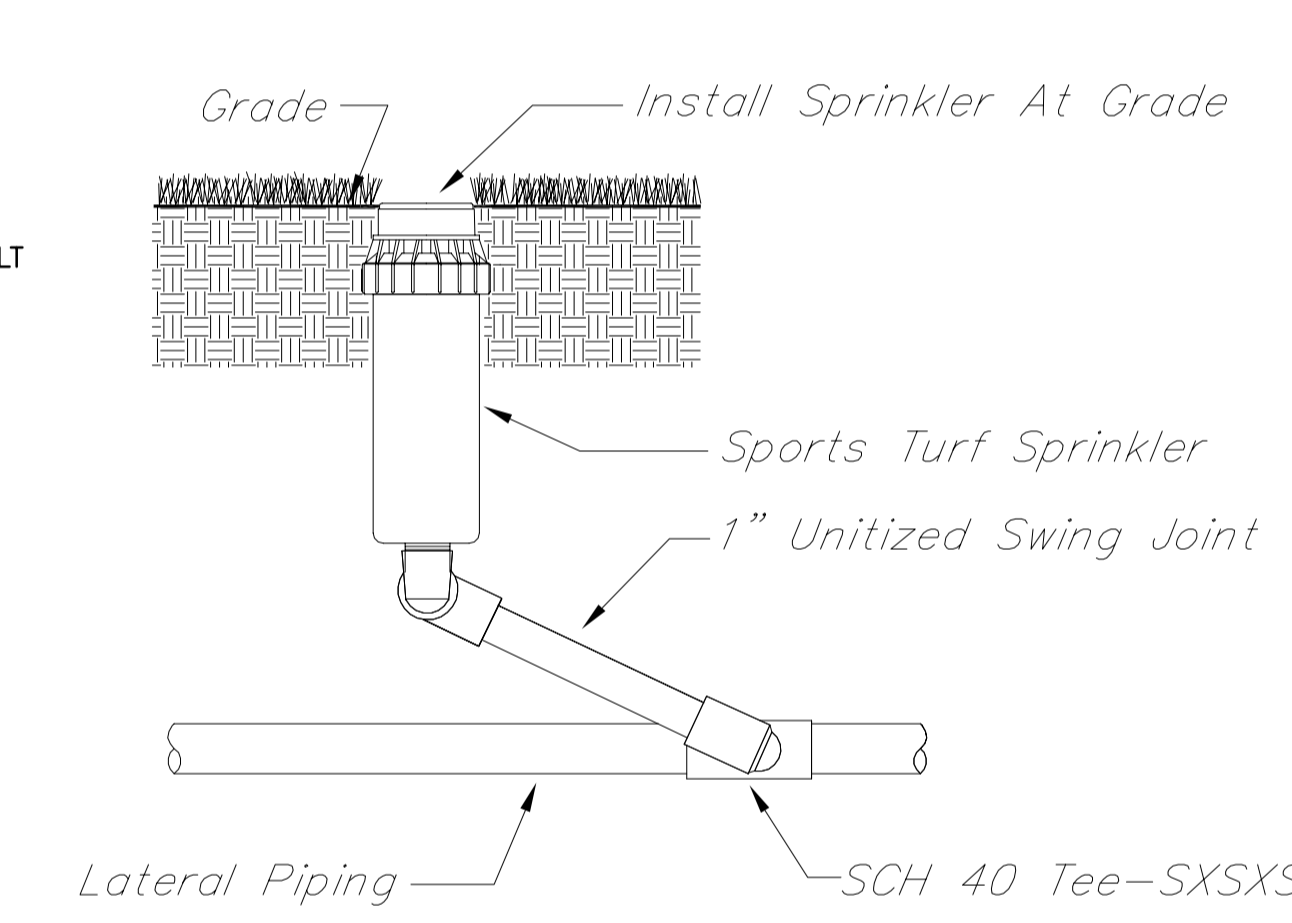
1 BALL NETTING SYSTEM
NOT TO SCALE



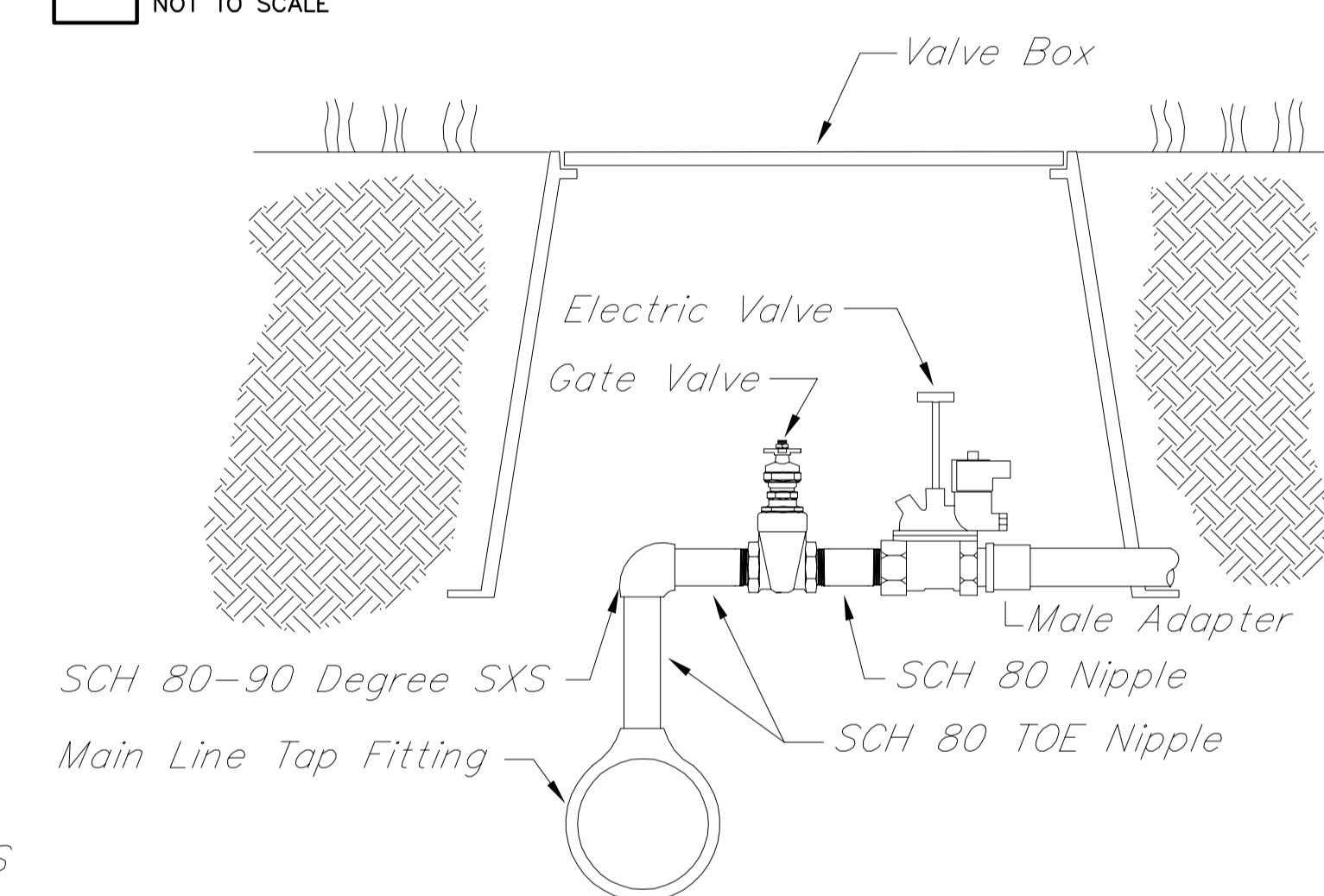
3 BALL NETTING SYSTEM ATTACHMENT DETAILS
NOT TO SCALE



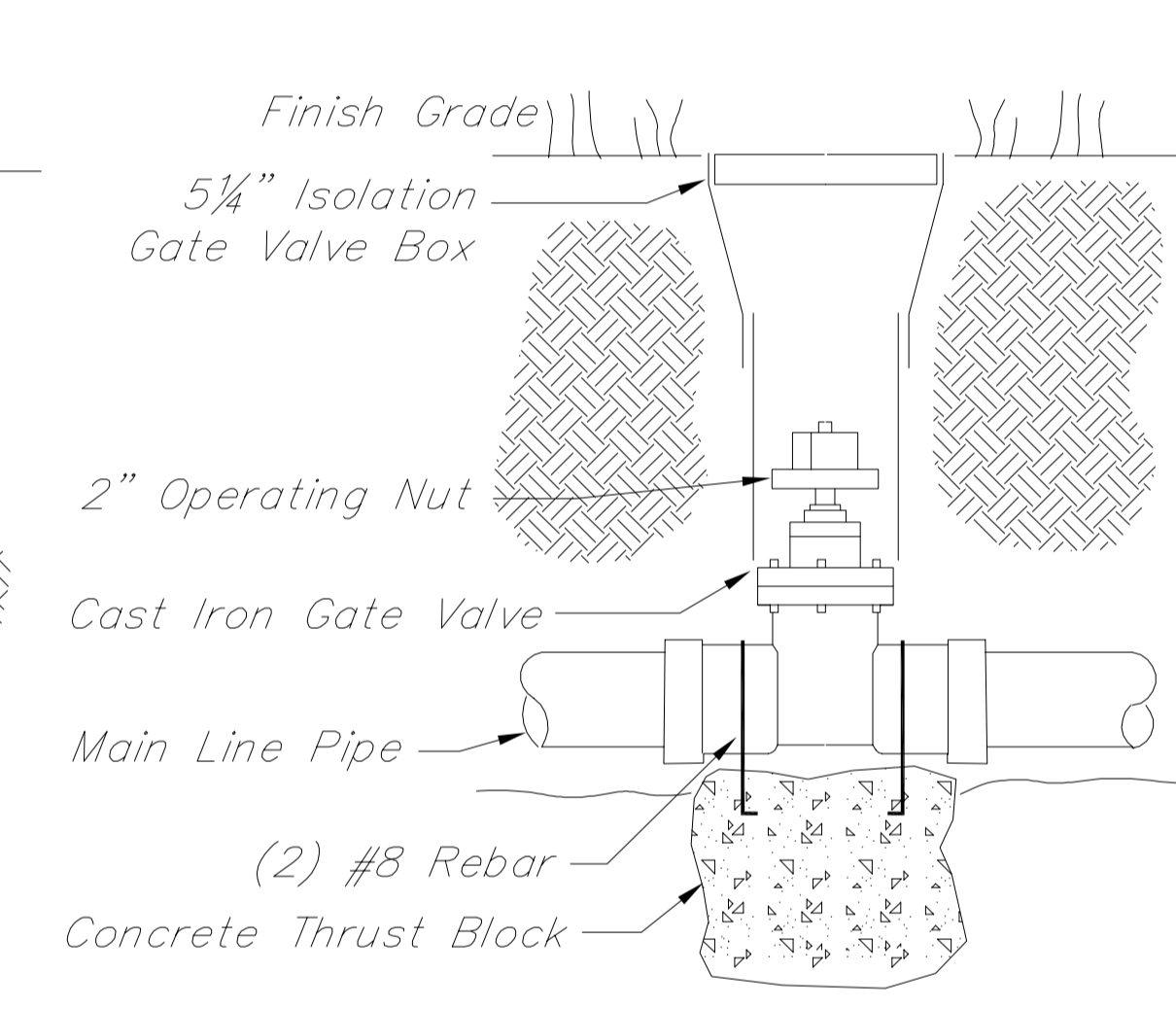
2 BALL NETTING SYSTEM POST DETAILS
NOT TO SCALE



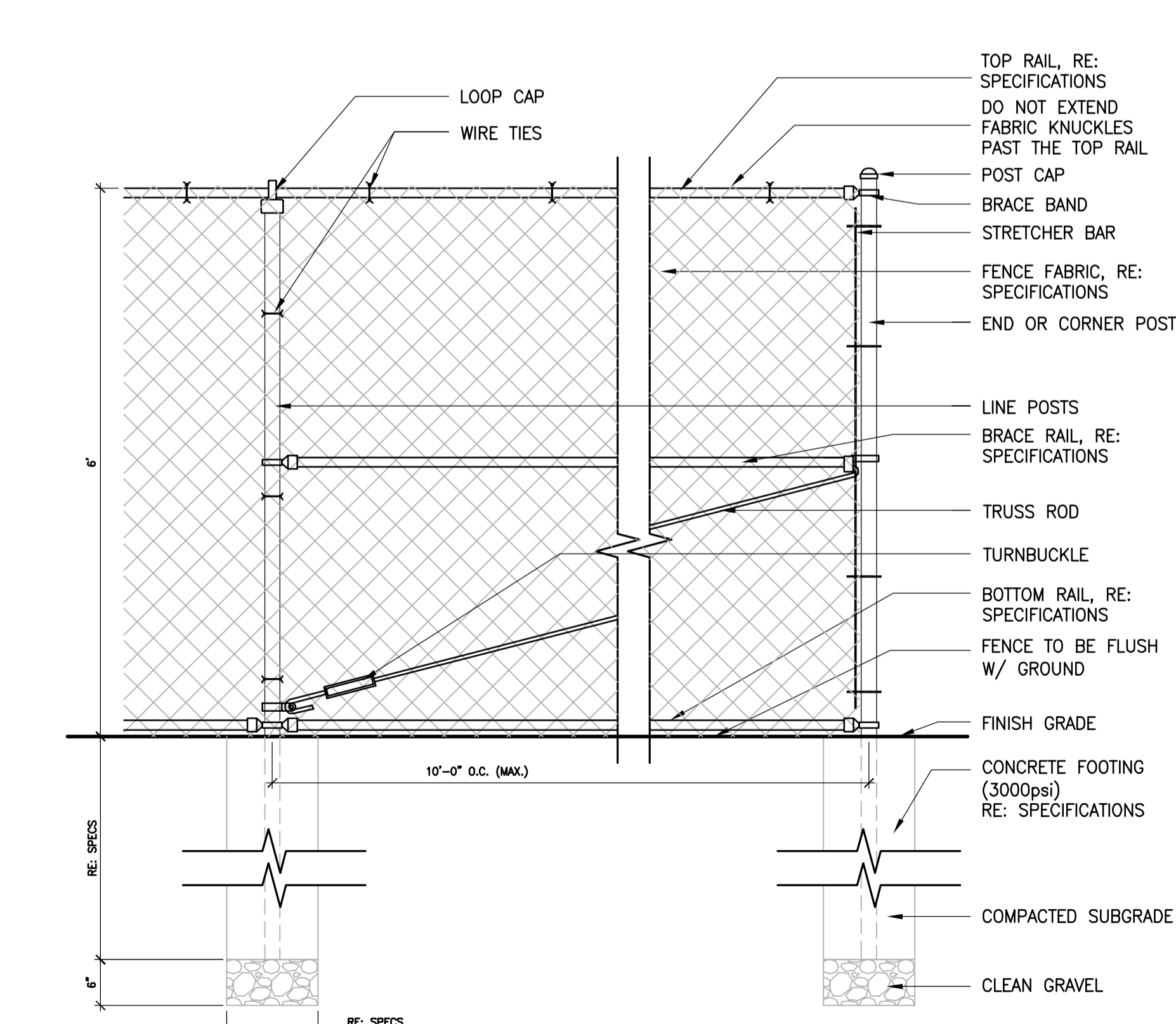
4 SPRINKLER ASSEMBLY
NOT TO SCALE



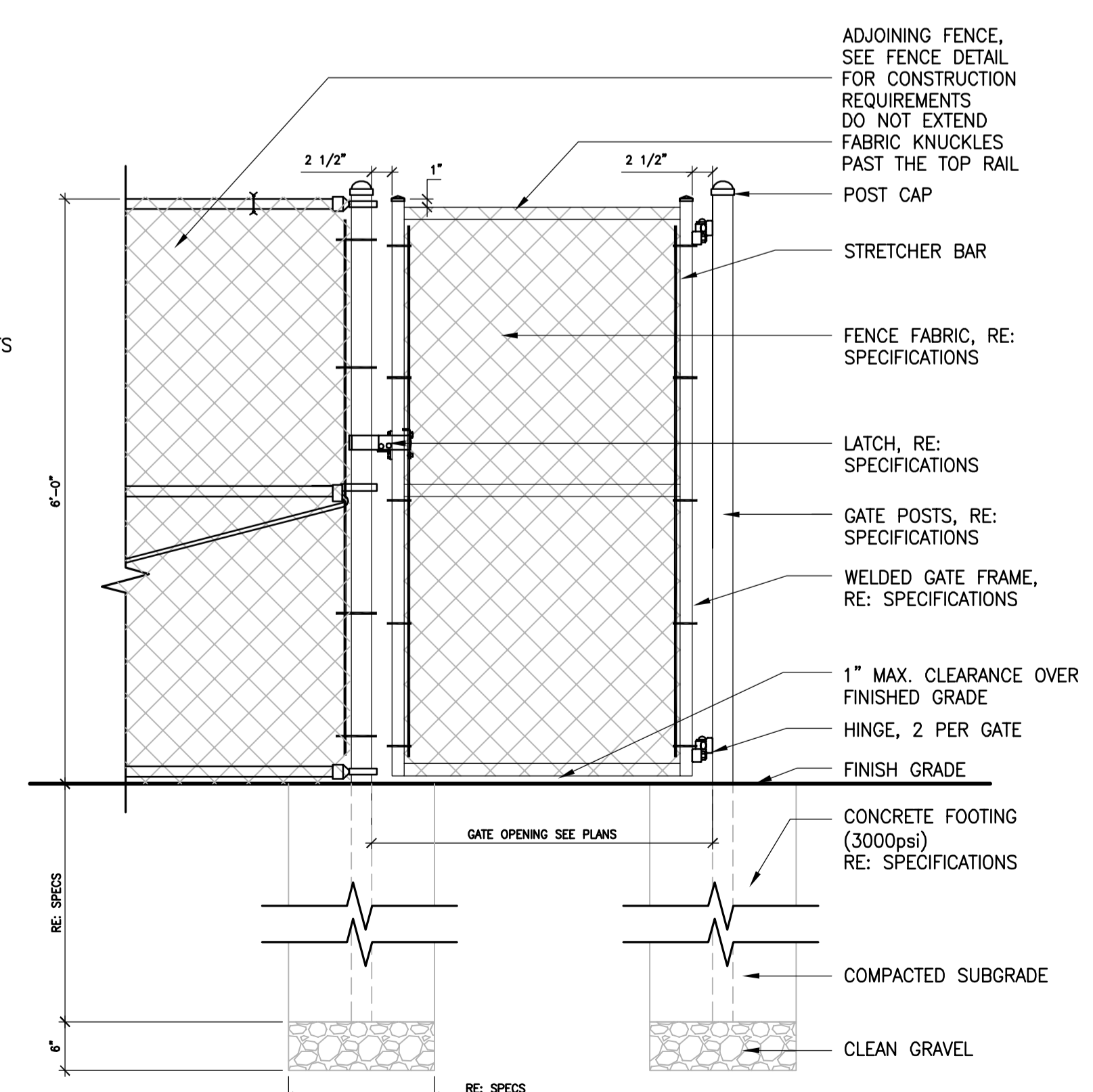
5 ELECTRIC VALVE ASSEMBLY
NOT TO SCALE



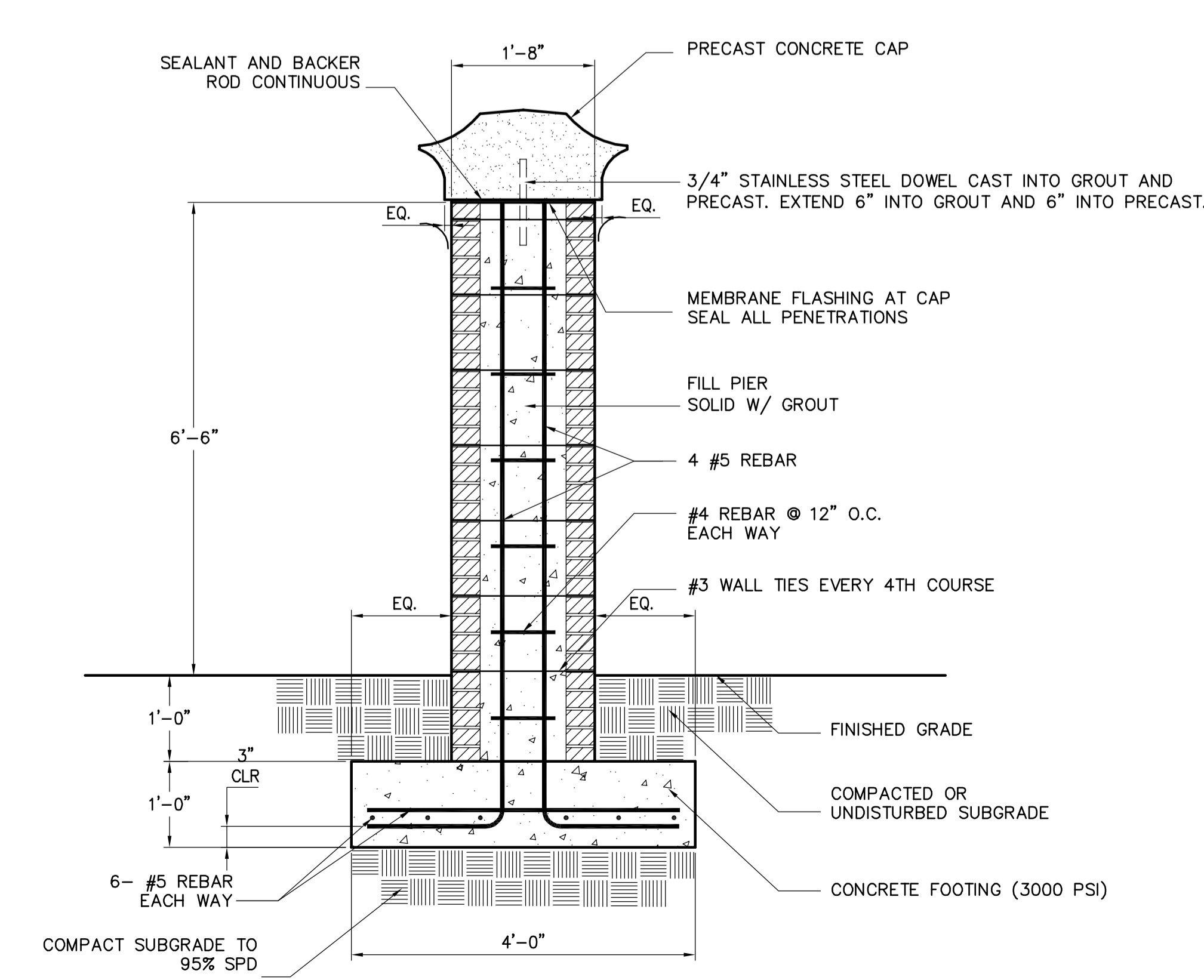
6 CAST IRON GATE VALVE
NOT TO SCALE



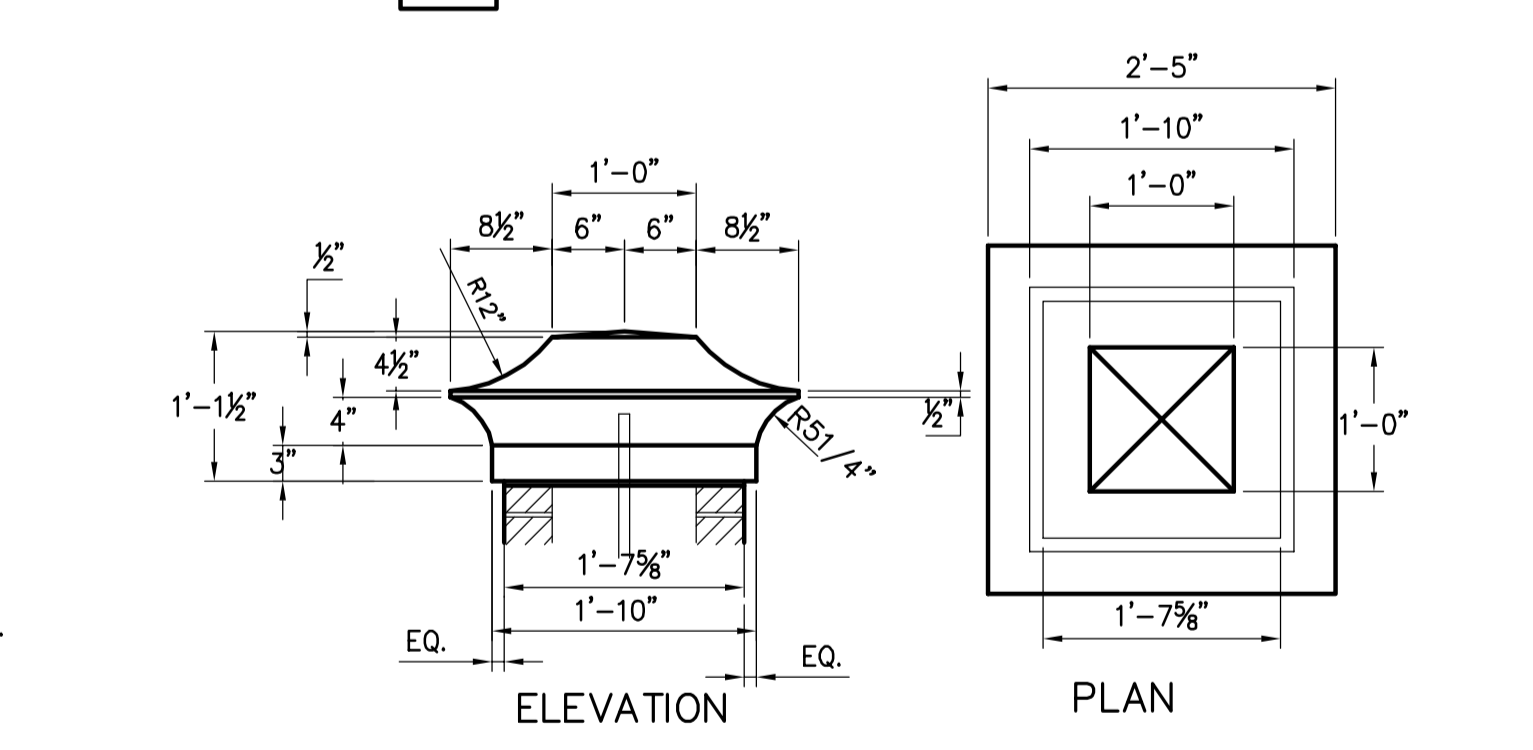
7 6' HIGH CHAIN LINK FENCE AND GATES
NOT TO SCALE



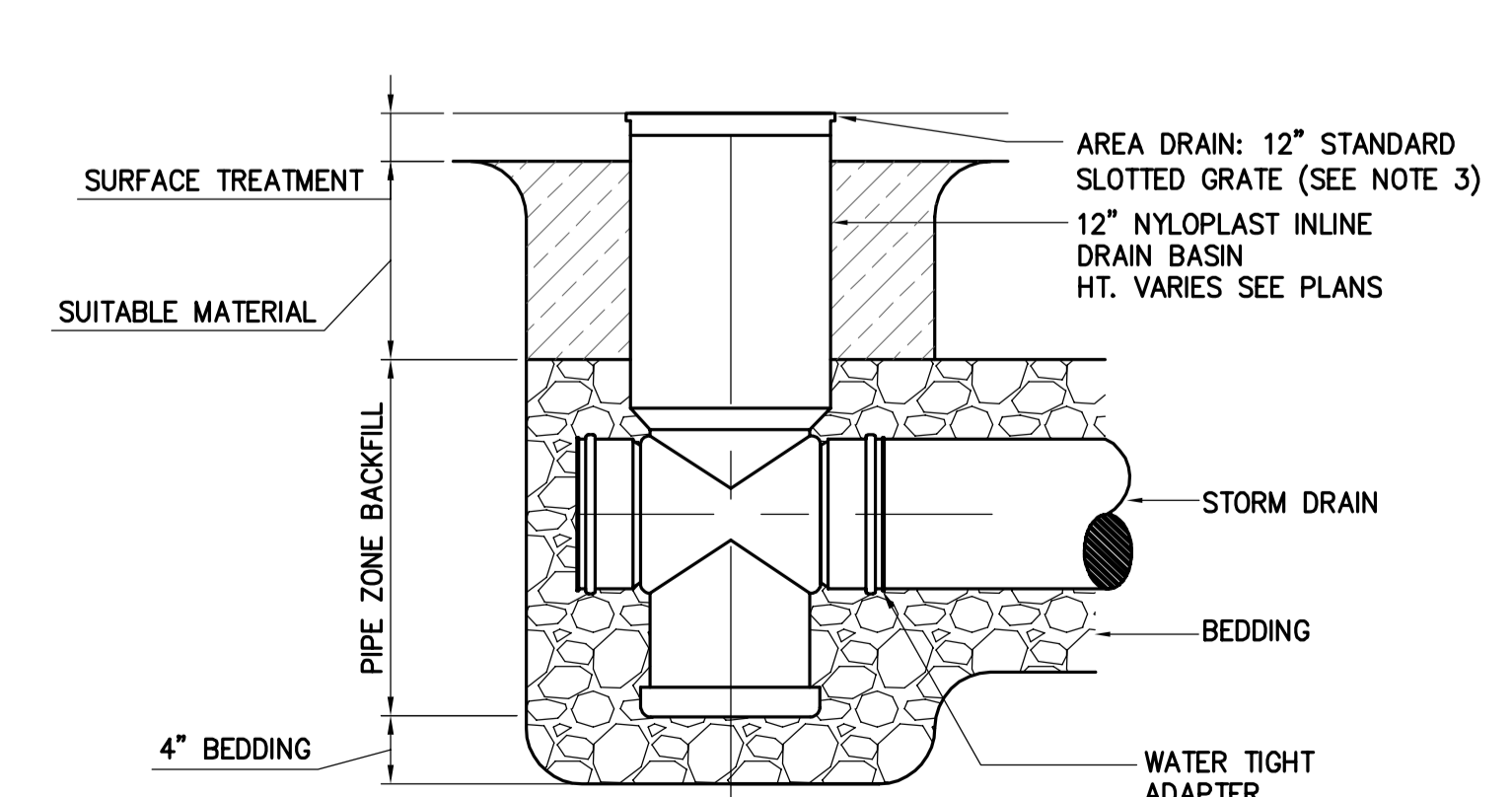
8 COLUMN AT ENTRY GATE DETAILS
3/4\"/>



9 AREA DRAIN DETAIL
NOT TO SCALE



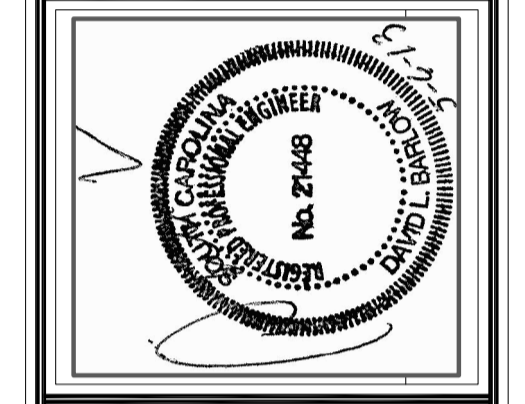
8 PRECAST CONCRETE CAP



9 SAND VOLLEYBALL COURT CONSTRUCTION

NO.	DATE	BY	DESCRIPTION

APPROVALS	PROJECT ENG.	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED
		JRP	JRP	JRP	DUB



ATHLETIC VILLAGE SAND VOLLEYBALL COURT CONSTRUCTION
RICHLAND COUNTY, S.C.
DATE: MAY 6, 2013
SCALE: AS SHOWN

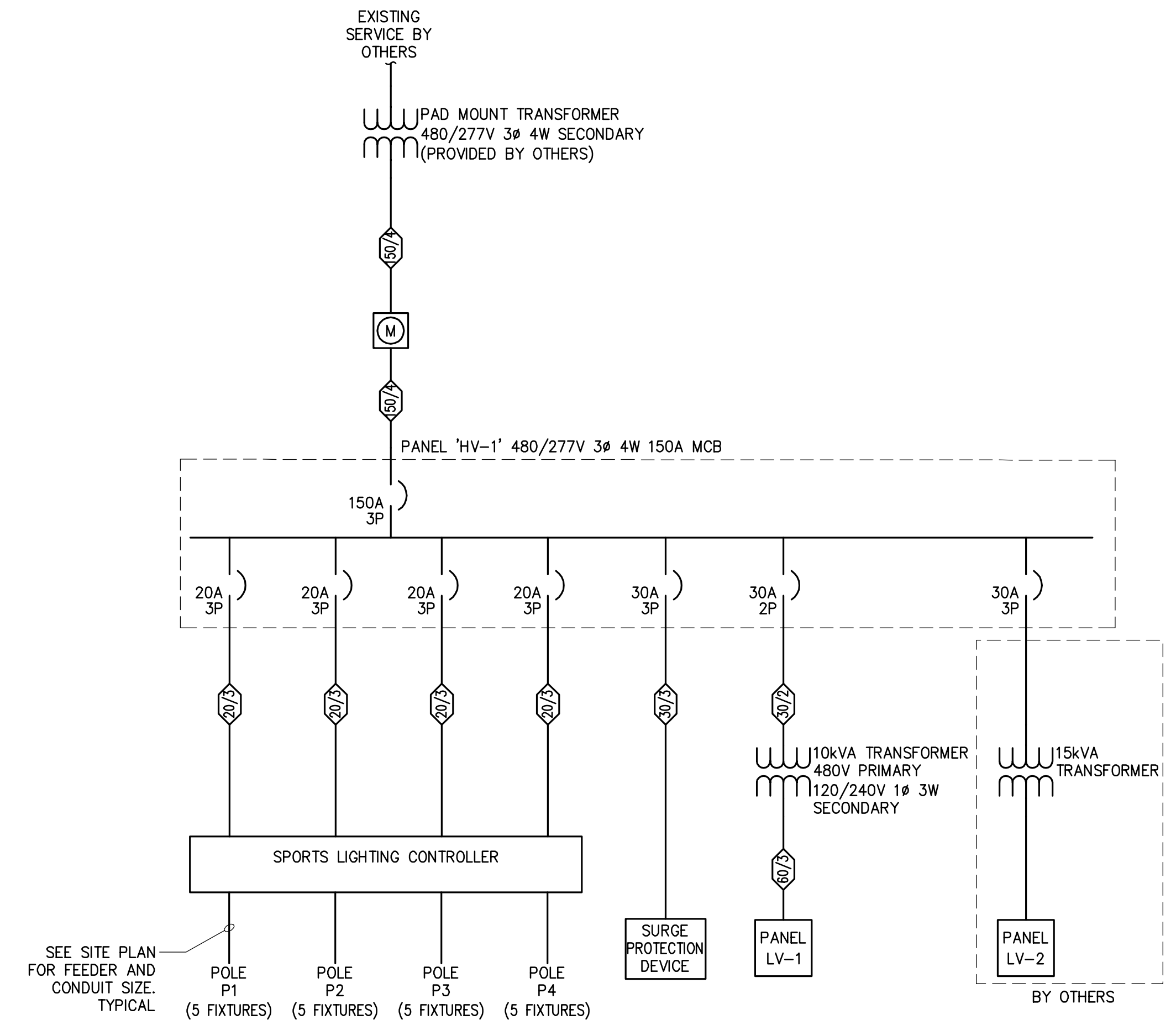
CONSTRUCTION DRAWINGS FOR	SHEET
ATHLETIC VILLAGE SAND VOLLEYBALL COURT CONSTRUCTION	A7
PROJECT NO. 46422848	OF 11
FILE NO. 36.106-B90	

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

LIGHTING FIXTURE SCHEDULE								
SYMBOL	TAG	DESCRIPTION	MOUNTING	LAMP(S)	BALLAST(S) [INPUT WATTS]	VOLTS	MANUFACTURER & CATALOG NUMBER	COMMENTS
	P1-P4	SPORT LIGHTING	POLE 60'-0"	(5) METAL HALIDE	1500W	480	MUSCO-GENERATION GREEN BASIS OF DESIGN	

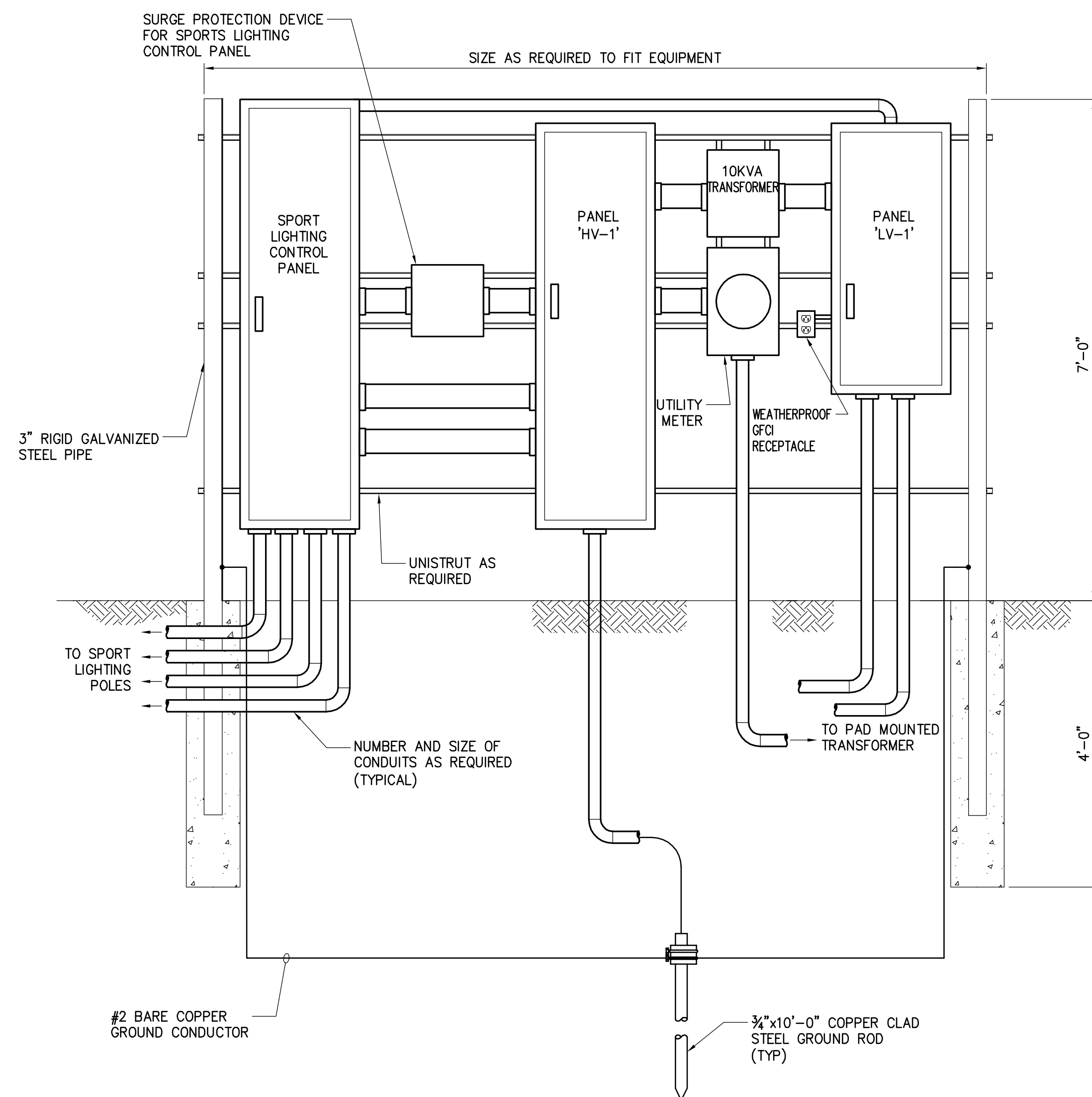
LOCATION: BACKBOARD		PANEL ID: HV-1		VOLTS, PHASE, WIRE: 480/277V, 3ø, 4W		
MOUNTING: SURFACE				MAINS: 150A MCB		
SOURCE: UTILITY				SHORT CIRCUIT RATING: 65 KAIC		
CKT	LOAD DESCRIPTION	CB AMPS/ POLE	CONN LOAD KVA	CB AMPS/ POLE	LOAD DESCRIPTION	CKT
1						2
3	SPORT LIGHTING POLE P1	20/3	11.3	11.3	SPORT LIGHTING POLE P2	4
5						6
7						8
9	SPORT LIGHTING POLE P3	20/3	11.3	11.3	SPORT LIGHTING POLE P4	10
11						12
13						14
15	SURGE PROTECTION	30/3		10	PANEL LV-1	16
17						18
19				15	PANEL LV-2	20
21						22
23						24
25						26
27						28
29						30
31						32
33						34
35						36
37	SPARE	20/1		20/1	SPARE	38
39	SPARE	20/1		20/1	SPARE	40
41	SPARE	20/1		20/1	SPARE	42
NOTES: NEMA 3R SERVICE RATED			22.60		47.60	
			TOTAL KVA		70.20	

LOCATION: BACKBOARD		PANEL ID: LV-1		VOLTS, PHASE, WIRE: 240/120V, 1ø, 3W		
MOUNTING: SURFACE				MAINS: 60A MCB		
SOURCE: UTILITY				SHORT CIRCUIT RATING: 65 KAIC		
CKT	LOAD DESCRIPTION	CB AMPS/ POLE	CONN LOAD KVA	CB AMPS/ POLE	LOAD DESCRIPTION	CKT
1						2
3	SCOREBOARD	20/2	1.9	20/1	SPARE	4
5	SPORT LIGHTING CONTROL CIRCUIT	20/1	.1	.18	RECEPTACLE IN COMBOX*	6
7	RECEPTACLE AT BACKBOARD #1	20/1	.18	.18	RECEPTACLE IN COMBOX*	8
9				.18	RECEPTACLE IN COMBOX*	10
11				.18	RECEPTACLE IN COMBOX*	12
13				.18	RECEPTACLE IN COMBOX*	14
15				.36	DOUBLE DUPLEX RECEPTACLE AT ELECTRICAL ENCLOSURE	16
17				.36	DOUBLE DUPLEX RECEPTACLE AT ELECTRICAL ENCLOSURE	18
NOTES: NEMA 3R *GFCI CIRCUIT BREAKER			2.18		1.62	
			TOTAL KVA		3.80	

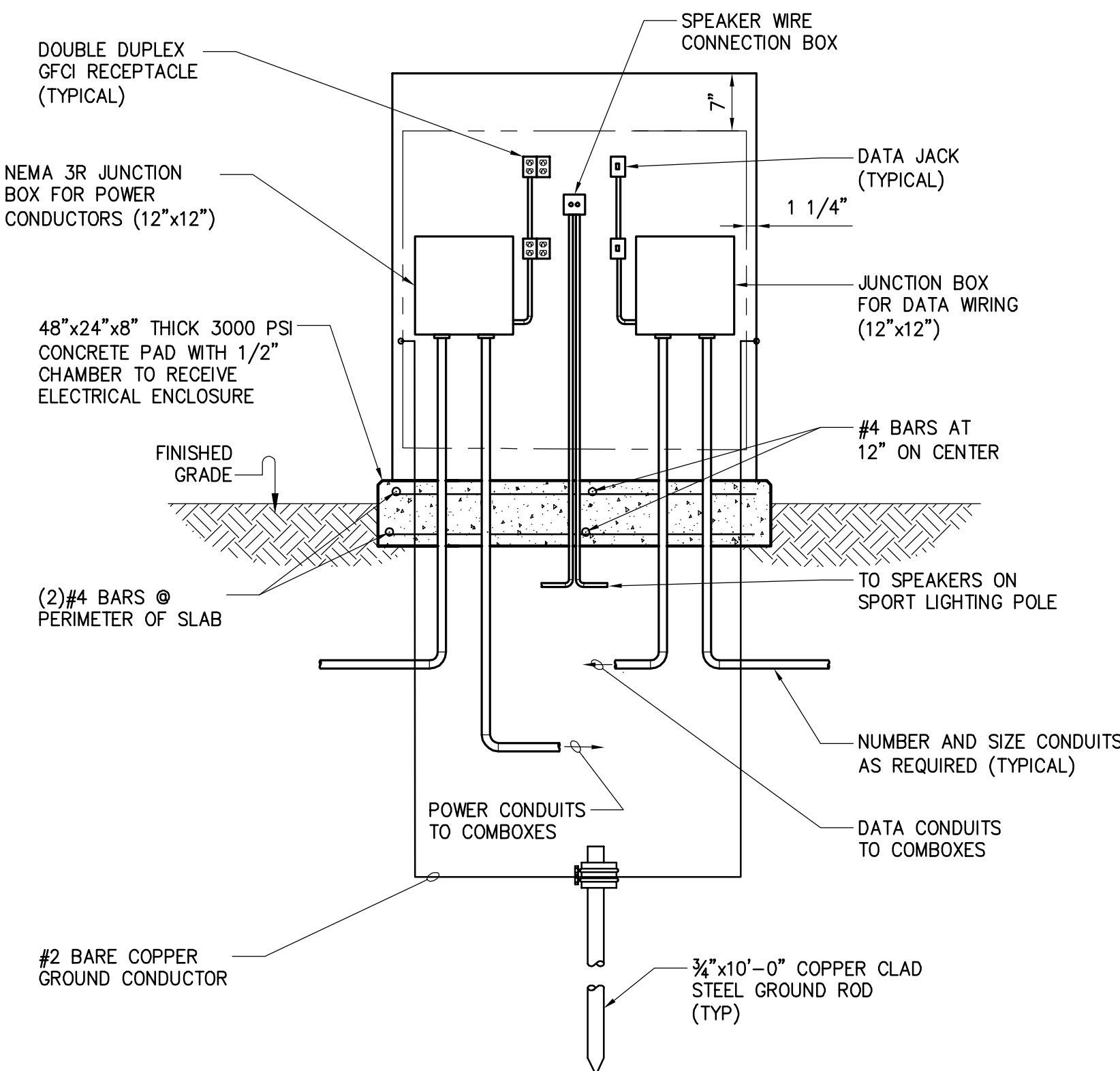


ONE LINE DIAGRAM
NOT TO SCALE

FEEDER SCHEDULE		
FDR. No.	DESCRIPTION	NOTES
20/3	(3)#12, (1)#12G IN 3/4" C	
30/3	(2)#10, (1)#10G IN 3/4" C	
30/3	(3)#10, (1)#10G IN 3/4" C	
60/3	(3)#4, (1)#10G IN 1 1/2" C	
50/3	(3)#1/0, (1)#1/0 & (1)#6G IN 2" C	



1 ELECTRICAL BACKBOARD #1 DETAIL
A10 NOT TO SCALE



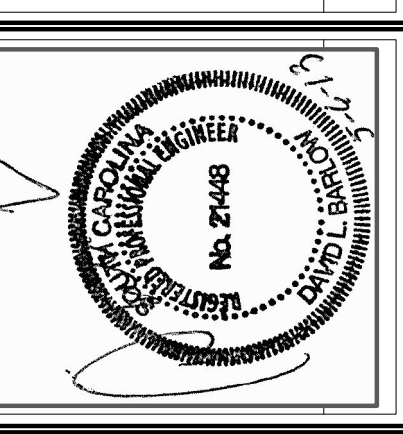
2 ELECTRICAL ENCLOSURE DETAIL
A10 NOT TO SCALE

- NOTES
- NEMA 3R, DOUBLE DOOR, LOCKING ENCLOSURE, 48" HIGH, 36" WIDE AND 15" DEEP. APX. TECHNOLOGIES INC CATALOG NUMBER TCDD483615 OR APPROVED EQUAL.
 - ALL EXPOSED EQUIPMENT SHALL BE GROUNDING.
 - SEE SITE PLAN FOR CONDUIT ROUTING.

NO.	DATE	BY	DESCRIPTION

APPROVALS:	PROJECT ENG:	DESIGNED BY:	DRAWN BY:	CHECKED BY:	APPROVED:
		JJD	JK	YK	DLB

DATE: 5.6.13



CHA

1298 Professional Drive - Myrtle Beach, SC 29577-5896
Main: (843) 662-3205 - www.chacompanies.com

ELECTRICAL ONE LINE DIAGRAM, SCHEDULES AND DETAILS - VOLLEYBALL

DATE: MAY 6, 2013 SCALE: AS SHOWN

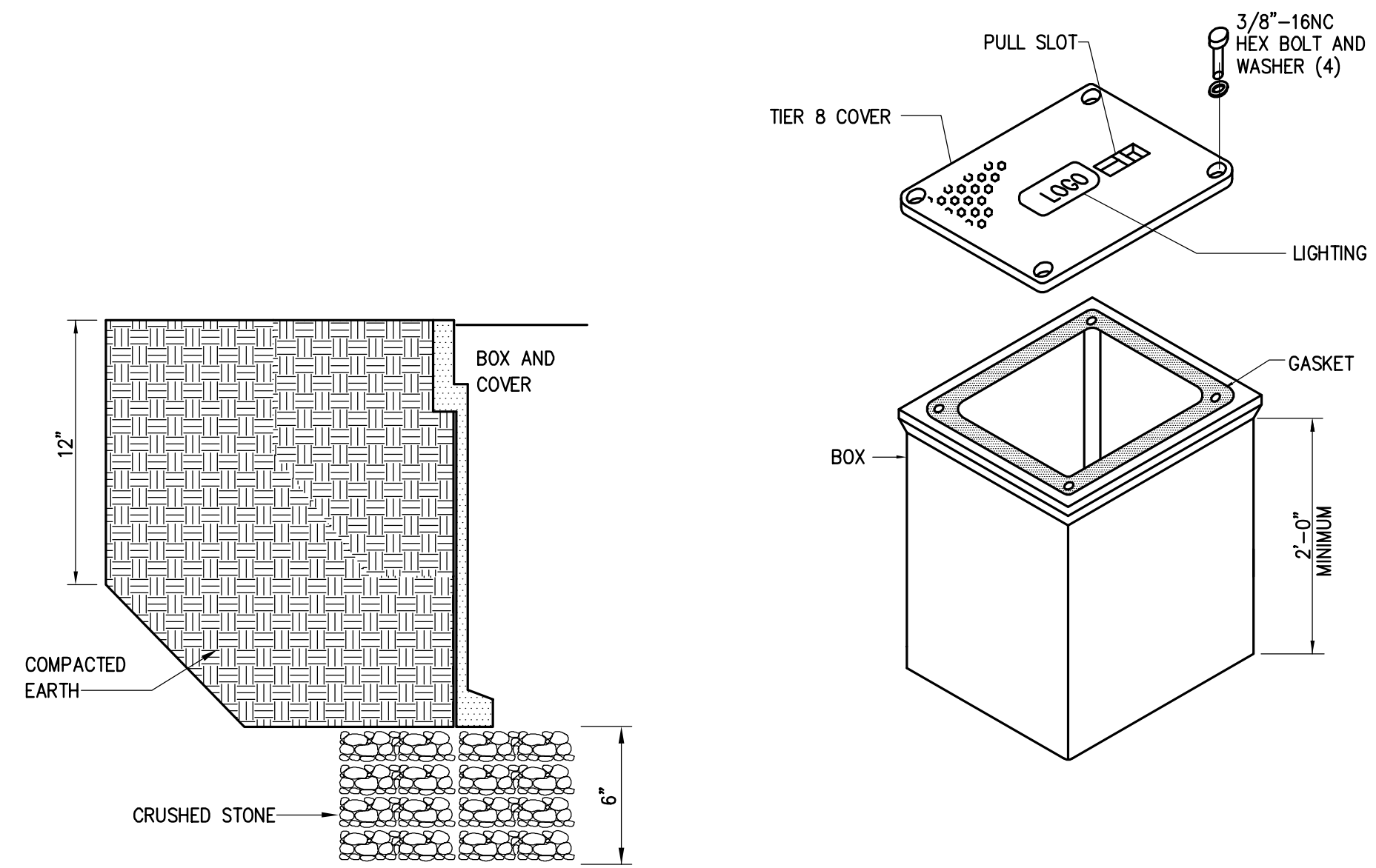
CONSTRUCTION DRAWINGS FOR ATHLETIC VILLAGE SAND VOLLEYBALL COURT CONSTRUCTION

IN THE CITY OF COLUMBIA RICHLAND COUNTY, S.C.

DWG. NAME:	SHEET:
N.B. NO.:	A10
REF.:	OF
PROJECT NO. 46422848	11
FILE NO. 36,106-B90	

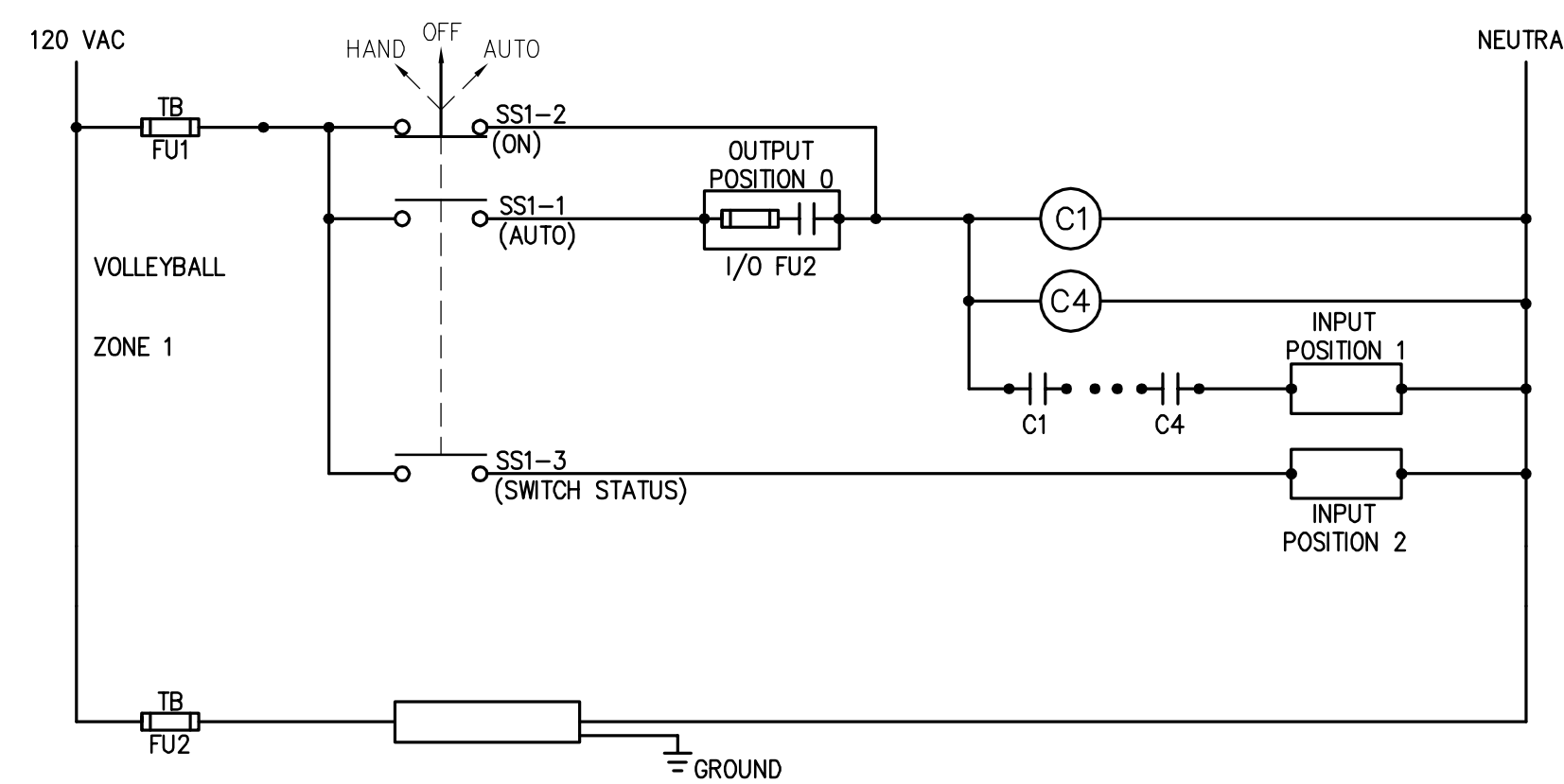
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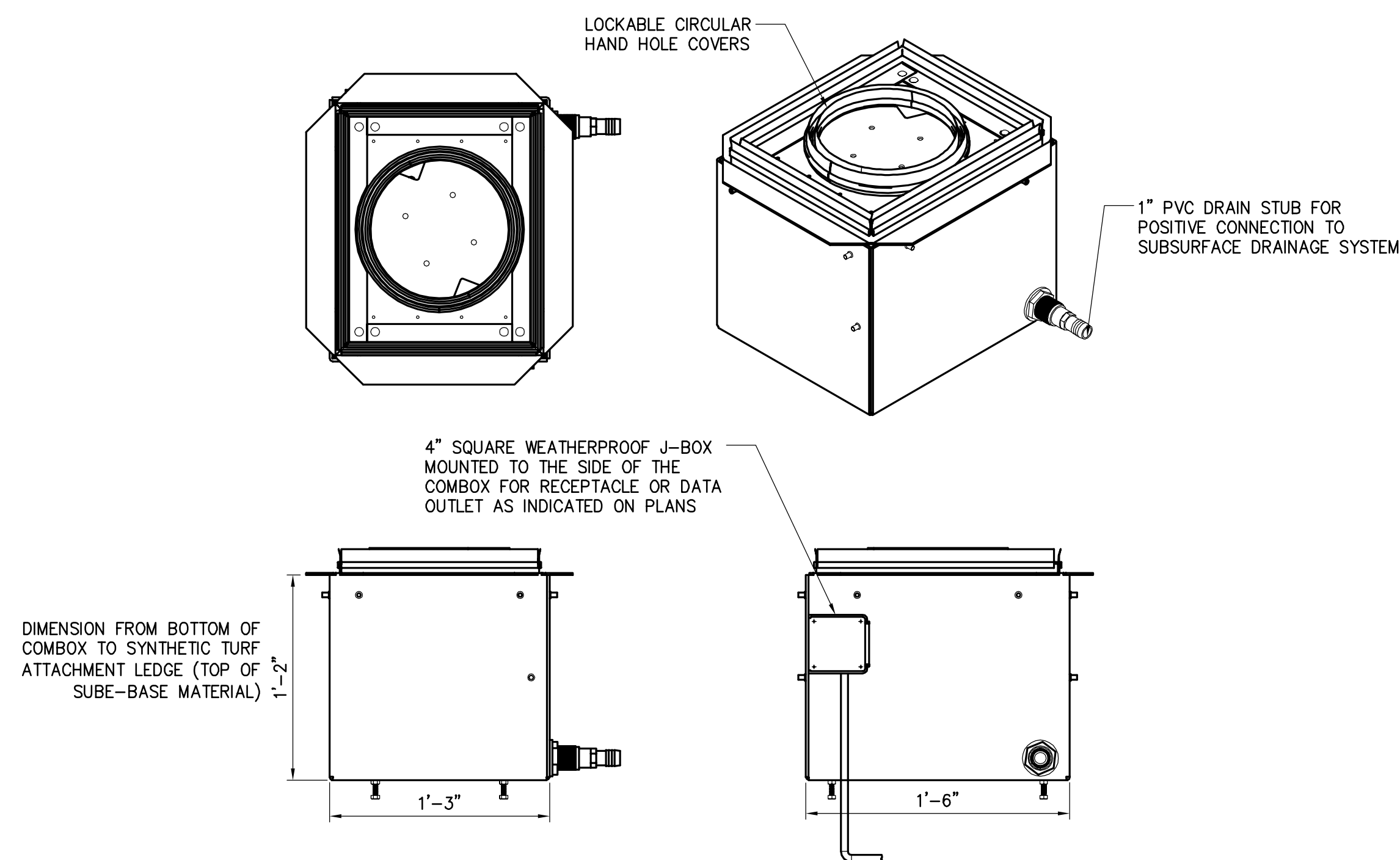
- NOTES**
1. SIZE HANDHOLE AT EACH LOCATION PER NEC. MINIMUM SIZE SHALL BE 18" x 18" x 24".
 2. ALL CONDUITS SHALL BE PROVIDED WITH A PULL ROPE.
 3. REPLACE EXISTING SURFACE CONDITIONS IN KIND TO INCLUDE, BUT NOT LIMITED TO: CONCRETE, CRUSHED STONE, SELECT GRAVEL, ASPHALT CONCRETE, TOPSOIL AND GRASS.
 4. CONDUITS SHALL STUB UP INTO HANDHOLE FROM BOTTOM.
 5. SEAL CONDUITS WATERTIGHT AFTER WIRING HAS BEEN INSTALLED.

1 HANDHOLE-DETAIL
A11 SCALE: NOT TO SCALE



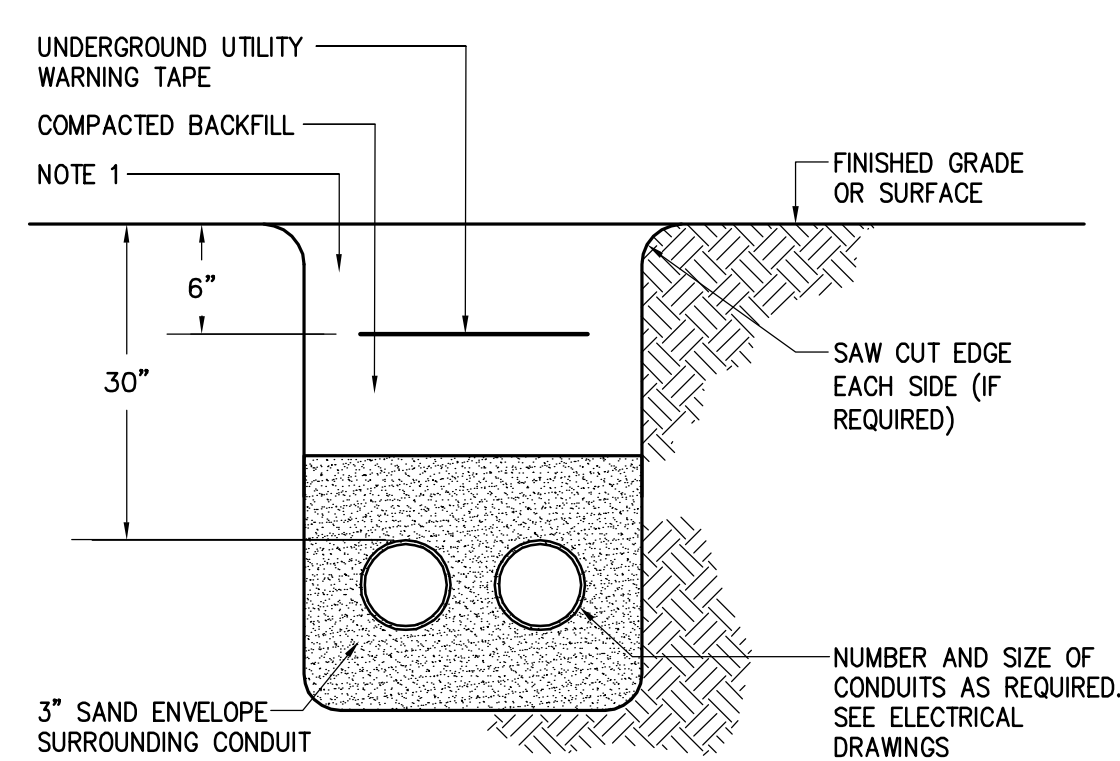
SPORTS LIGHTING CONTROL SCHEMATIC FOR CONTROL PANEL
SCALE: NOT TO SCALE

SPORTS LIGHTING ZONE SCHEDULE					
ZONE	SELECTOR SWITCH	ZONE DESCRIPTION	CIRCUIT DESCRIPTION	POLE ID	CONT ID
ZONE 1	1	VOLLEYBALL	P1-P4	C1-C4	



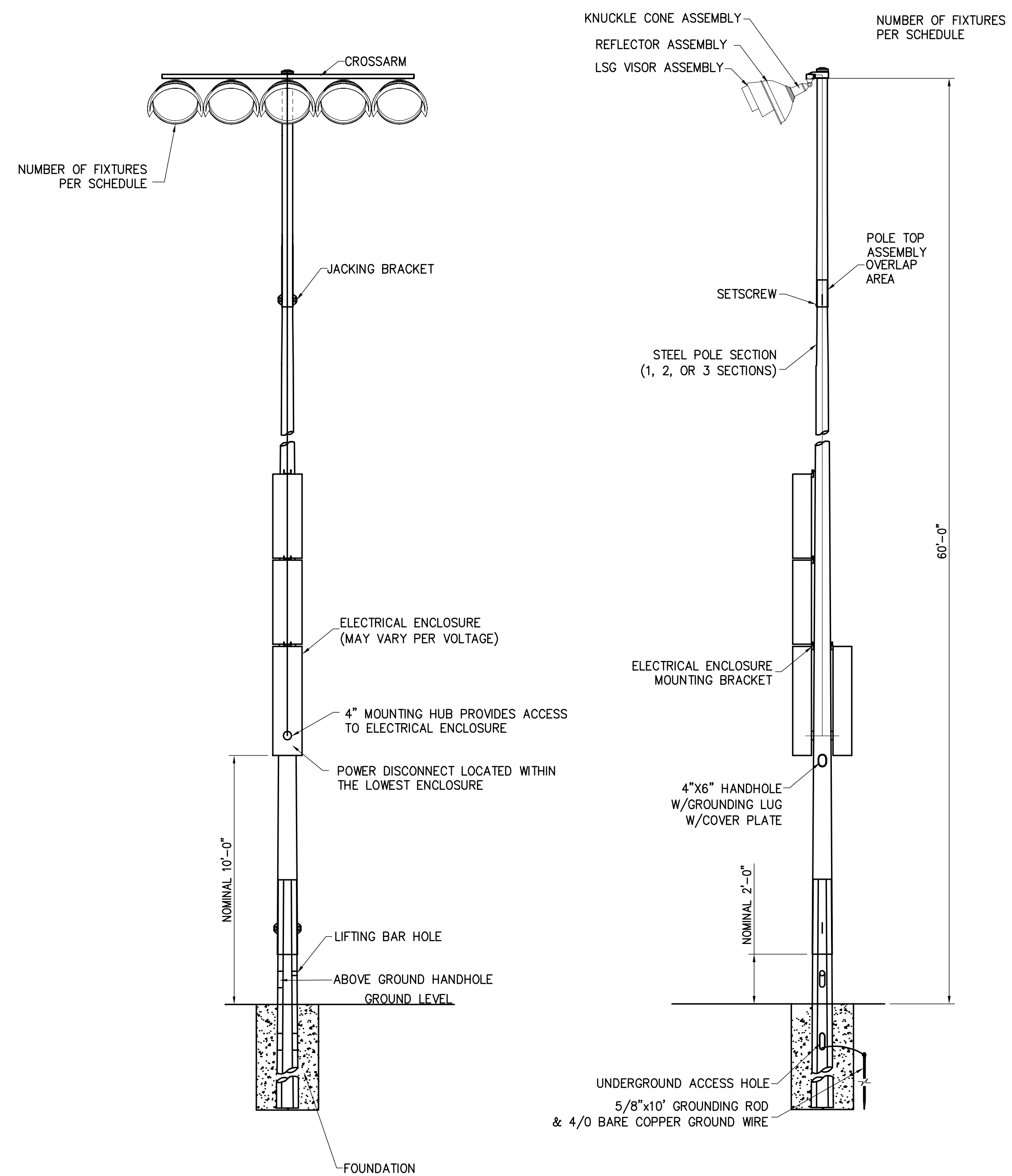
- NOTE:**
1. 3500.5 COMBOX BY SPORTFIELD SPECIALTICS INC.

4 ELECTRICAL COMBOX DETAIL
A11 NOT TO SCALE



- NOTE**
1. REPLACE EXISTING SURFACE CONDITIONS IN KIND TO INCLUDE, BUT NOT LIMITED TO: CONCRETE, CRUSHED STONE, SELECT GRAVEL, ASPHALT, TOPSOIL AND GRASS.

2 UNDERGROUND CONDUIT
A11 SCALE: NOT TO SCALE



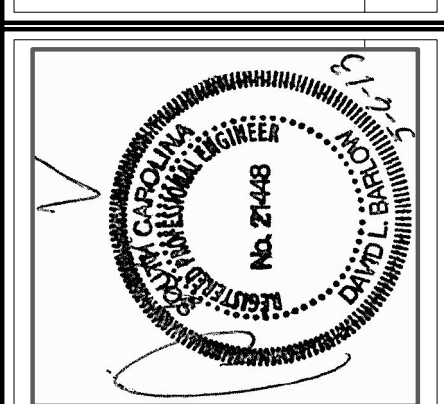
NOTES:

1. PROVIDE PRE-CONSTRUCTED WIRE HARNESS FOR LIGHTING FIXTURE WIRING WITH KELLUM GRIPS AND QUICK CONNECT PLUGS FOR EASE OF CONNECTION IN THE FIELD. (HARNESSES WRAPPED IN MYLAR CASING AND A PROTECTIVE SLEEVE FOR ABRASION RESISTANCE.)
2. ALL STEEL CROSSARMS AND POLES SHALL BE HOT DIPPED GALVANIZED.
3. ALL ELECTRICAL ENCLOSURES SHALL BE POWDER COATED ALUMINUM.
4. ALL THREADED FASTENERS, HINGES, AND LATCHES SHALL BE STAINLESS STEEL.
5. PROVIDE POLE TOP ASSEMBLY W/ FACTORY WIRING AND AIMING (COMPLETE WELDED ASSEMBLY).
6. PROVIDE JACKING BRACKET FOR EASY USE OF "COME-A-LONGS" FOR INSTALLATION.
7. PROVIDE BASE INSTALLATION WEDGES, ONE OFFSET INSTALLATION LEVEL, AND ONE INSTALLATION LIFTING ROD.
8. ALL EXPOSED HARDWARE SHALL BE TAMPER RESISTANT.

3 SPORT LIGHTING-DETAIL
A11 SCALE: NOT TO SCALE

NO.	REVISIONS	DESCRIPTION	DATE	BY

APPROVALS	PROJECT ENG	DESIGNED BY	CHECKED BY	APPROVED BY
	JJD	JJD	YK	D.LB



CHS
1298 Professional Drive - Myrtle Beach, SC 29577-5886
Main: (843) 662-3205 - www.chscorporation.com

ELECTRICAL
DETAILS-VOLLEYBALL
SCALE: AS SHOWN

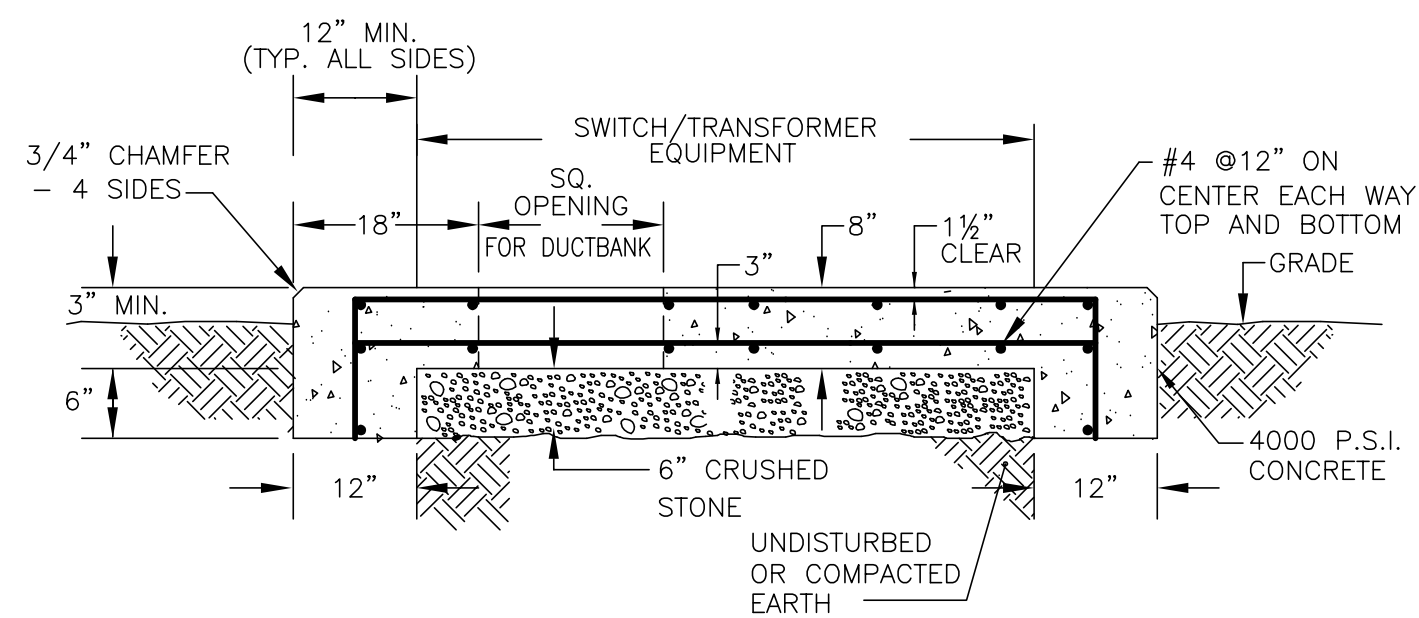
CONSTRUCTION DRAWINGS FOR
ATHLETIC VILLAGE SAND VOLLEYBALL COURT CONSTRUCTION
IN THE CITY OF COLUMBIA RICHLAND COUNTY, S.C.

DWG. NAME	SHEET
N.B. NO.	A11
REF.	OF
PROJECT NO.	11
46422848	

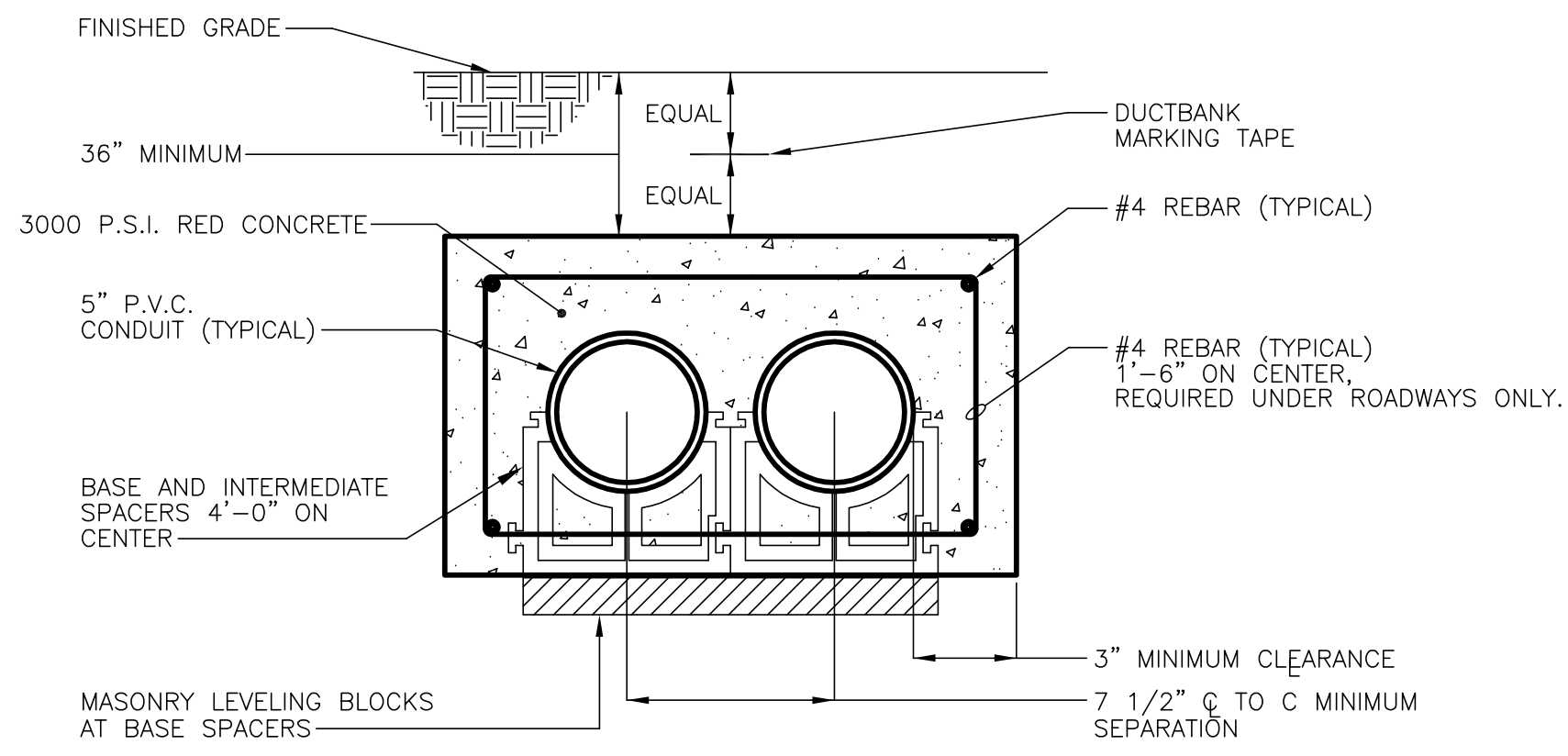
BID DOCUMENTS
THESE DOCUMENTS ARE FOR THE PURPOSE OF SOLICITATION OF BIDS AND ARE NOT FOR USE FOR CONSTRUCTION

FILE NO. 36,106-B90

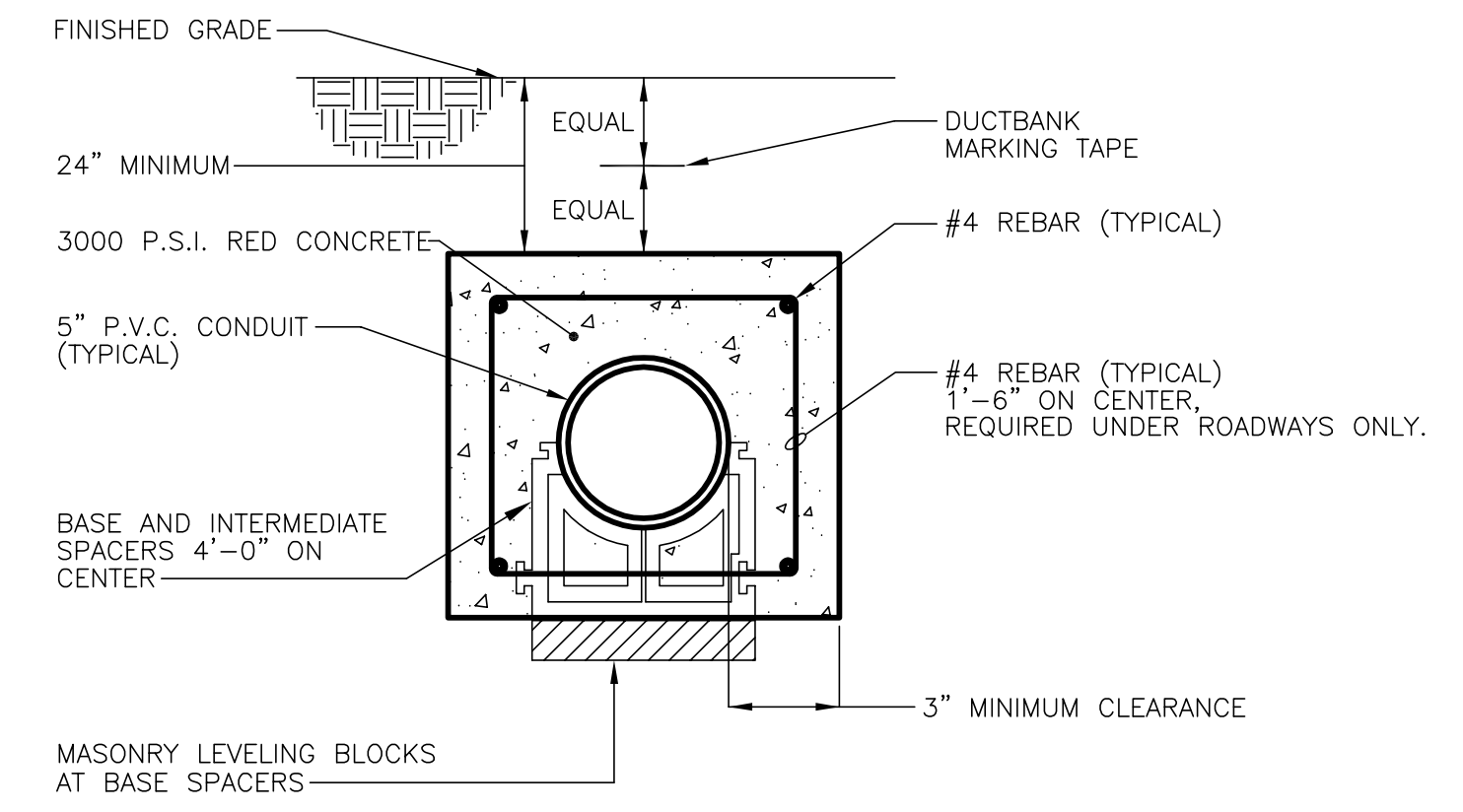
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NOTES:
1. CONTRACTOR SHALL VERIFY PAD DIMENSIONS WITH EQUIPMENT PRIOR TO CONSTRUCTION OF PAD.



NOTE: REBAR REQUIRED UNDER ROADWAYS ONLY



NOTE: REBAR REQUIRED UNDER ROADWAYS ONLY

DETAIL - SWITCH/TRANSFORMER EQUIPMENT PAD

SCALE: NONE 1

DETAIL - 2-WAY DUCTBANK

SCALE: NONE 2

DETAIL - 1-WAY DUCTBANK

SCALE: NONE 3

PANEL NO.: HSOCCER		CLIENT: USC	
USAGE: DISTRIBUTION		MOUNTING: SURFACE	
LOCATION: OUTDOORS		PANEL TYPE: BRANCH	
PHASES: 3		ENGINEER: BAC	
L-L VOLTS: 480		RMF PROJECT NO.: 312164.A0	
L-G VOLTS: 277			
BUS AMPS: 400		NEMA 3R	
AIC RATING: 65,000			
MAIN CB AMPS: 400			

PANEL NOTES:
PROVIDE GROUND BUS
PROVIDE FULL SIZE NEUTRAL BUS UNLESS NOTED OTHERWISE
* - INDICATES C.B. EQUIPPED WITH "LOCK-ON" DEVICE
** - INDICATES C.B. IS GFI TYPE 30 mA
ST - INDICATES C.B. EQUIPPED WITH SHUNT TRIP DEVICE

CND SIZE	GND. SIZE	PHASE/NEUT. SIZE	CKT. AMPS	LOAD DESCRIPTION	CB BKR. RATING (AMPS)/POLES	CIRCUIT NUMBER A B C	CB BKR. RATING (AMPS)/POLES	LOAD DESCRIPTION	CKT. AMPS	PHASE/NEUT. SIZE	GND. SIZE	CND SIZE
SEE SHEET E1	18.05	13	HEAD POLE	30/1	1 A 2	30/1	13	HEAD POLE	18.05	SEE SHEET E1		
SEE SHEET E1	18.05	13	HEAD POLE	30/1	3 B 4	30/1	13	HEAD POLE	18.05	SEE SHEET E1		
SEE SHEET E1	18.05	13	HEAD POLE	30/1	5 C 6	30/1	13	HEAD POLE	18.05	SEE SHEET E1		
SEE SHEET E1	18.05	13	HEAD POLE	30/1	7 A 8	30/1	13	HEAD POLE	18.05	SEE SHEET E1		
SEE SHEET E1	10.83	13	HEAD POLE	30/1	9 B 10	30/1	13	HEAD POLE	10.83	SEE SHEET E1		
SEE SHEET E1	18.05	11	HEAD POLE	30/1	11 C 12	30/1	11	HEAD POLE	18.05	SEE SHEET E1		
SEE SHEET E1	18.05	11	HEAD POLE	30/1	13 A 14	30/1	11	HEAD POLE	18.05	SEE SHEET E1		
SEE SHEET E1	18.05	11	HEAD POLE	30/1	15 B 16	30/1	11	HEAD POLE	18.05	SEE SHEET E1		
SEE SHEET E1	11.91	11	HEAD POLE	30/1	17 C 18	30/1	11	HEAD POLE	11.91	SEE SHEET E1		
SEE SHEET E1	18.05	8	HEAD POLE	30/1	19 A 20	30/1	8	HEAD POLE	18.05	SEE SHEET E1		
SEE SHEET E1	18.05	8	HEAD POLE	30/1	21 B 22	30/1	8	HEAD POLE	18.05	SEE SHEET E1		
SEE SHEET E1	15.52	8	HEAD POLE	30/1	23 C 24	30/1	8	HEAD POLE	15.52	SEE SHEET E1		
	0.00		SPACE		25 A 26			SPACE	0.00			
	0.00		SPACE		27 B 28			SPACE	0.00			
	0.00		SPACE		29 C 30			SPACE	0.00			
1"	#10	#10			31 A 32			SPACE	0.00			
					33 B 34			SPACE	0.00			
					35 C 36			SPACE	0.00			
					37 A 38			SPACE	14.43			
					39 B 40			SPACE	10.83			
					41 C 42			SPACE	9.02			

LOADS	CONNECTED (KVA)	DIVERSITY FACTOR %	DEMAND (KVA)
LIGHTING	111.20	100%	111.20
HVAC COOLING*	0.00	100%	0.00
HVAC HEATING*	0.00	100%	0.00
MOTORS	0.00	100%	0.00
KITCHEN EQUIPMENT	0.00	100%	0.00
RECEPTACLES (1st 10 KVA)	9.50	100%	9.50
RECEPTACLES (>10 KVA)	0.00	50%	0.00
MISCELLANEOUS	0.00	100%	0.00

* LOAD VALUES HAVE BEEN ADJUSTED TO REFLECT WORST CASE LOADING FOR EQUIPMENT WITH BOTH COOLING AND HEATING SYSTEMS.

PHASE LOADING			
PHASE	CONNECTED (KVA)	DEMAND (KVA)	DEMAND (AMPS)
A	44.00	44.00	156.84
B	39.00	39.00	140.79
C	37.70	37.70	136.10
A,B,C TOTALS	120.70	120.70	443.73

PANEL NO.: LSOCCER		CLIENT: USC	
USAGE: RECEPTACLE		MOUNTING: SURFACE	
LOCATION: OUTDOORS		PANEL TYPE: RECEPTACLE	
PHASES: 3		ENGINEER: BAC	
L-L VOLTS: 208		RMF PROJECT NO.: 312164.A0	
L-G VOLTS: 120			
BUS AMPS: 100		NEMA 3R	
AIC RATING: 10,000			
MAIN CB AMPS: 100			

PANEL NOTES:
PROVIDE GROUND BUS
PROVIDE FULL SIZE NEUTRAL BUS UNLESS NOTED OTHERWISE
* - INDICATES C.B. EQUIPPED WITH "LOCK-ON" DEVICE
** - INDICATES C.B. IS GFI TYPE 30 mA
ST - INDICATES C.B. EQUIPPED WITH SHUNT TRIP DEVICE

CND SIZE	GND. SIZE	PHASE/NEUT. SIZE	CKT. AMPS	LOAD DESCRIPTION	CB BKR. RATING (AMPS)/POLES	CIRCUIT NUMBER A B C	CB BKR. RATING (AMPS)/POLES	LOAD DESCRIPTION	CKT. AMPS	PHASE/NEUT. SIZE	GND. SIZE	CND SIZE
1"	#10	#10	8.33	RECEPTACLE	20/1	1 A 2	20/1	RECEPTACLE	8.33	#6	#6	1"
1"	#10	#10	8.33	RECEPTACLE	20/1	3 B 4	20/1	RECEPTACLE	8.33	#6	#6	1"
1"	#10	#10	8.33	RECEPTACLE	20/1	5 C 6	20/1	RECEPTACLE	8.33	#6	#6	1"
1"	#10	#10	8.33	RECEPTACLE	20/1	7 A 8	20/1	RECEPTACLE	8.33	#6	#6	1"
1"	#10	#10	8.33	RECEPTACLE	20/1	9 B 10	20/1	SPARE	0.00			
3/4"	#12	#12	4.17	CONTACTOR	20/1	11 C 12	20/1	SPARE	0.00			
			0.00	SPACE	20/1	13 A 14		SPACE	0.00			
			0.00	SPACE		15 B 16		SPACE	0.00			
			0.00	SPACE		17 C 18		SPACE	0.00			
			0.00	SPACE		19 A 20		SPACE	0.00			
			0.00	SPACE		21 B 22		SPACE	0.00			
			0.00	SPACE		23 C 24		SPACE	0.00			
			0.00	SPACE		25 A 26		SPACE	0.00			
			0.00	SPACE		27 B 28		SPACE	0.00			
			0.00	SPACE		29 C 30		SPACE	0.00			
			0.00	SPACE		31 A 32		SPACE	0.00			
			0.00	SPACE		33 B 34		SPACE	0.00			
			0.00	SPACE		35 C 36		SPACE	0.00			
			0.00	SPACE		37 A 38		SPACE	0.00			
			0.00	SPACE		39 B 40		SPACE	0.00			
			0.00	SPACE		41 C 42		SPACE	0.00			

LOADS	CONNECTED (KVA)	DIVERSITY FACTOR %	DEMAND (KVA)
LIGHTING	0.00	100%	0.00
HVAC COOLING*	0.00	100%	0.00
HVAC HEATING*	0.00	100%	0.00
MOTORS	0.00	100%	0.00
KITCHEN EQUIPMENT	0.00	100%	0.00
RECEPTACLES (1st 10 KVA)	9.50	100%	9.50
RECEPTACLES (>10 KVA)	0.00	50%	0.00
MISCELLANEOUS	0.00	100%	0.00

* LOAD VALUES HAVE BEEN ADJUSTED TO REFLECT WORST CASE LOADING FOR EQUIPMENT WITH BOTH COOLING AND HEATING SYSTEMS.

PHASE LOADING			
PHASE	CONNECTED (KVA)	DEMAND (KVA)	DEMAND (AMPS)
A	4.00	4.00	13.33
B	3.00	3.00	25.00
C	2.50	2.50	20.83
A,B,C TOTALS	9.50	9.50	26.37

PANEL NO.: LV-2		CLIENT: USC	
USAGE: RECEPTACLE		MOUNTING: SURFACE	
LOCATION: OUTDOORS		PANEL TYPE: RECEPTACLE	
PHASES: 3		ENGINEER: BAC	
L-L VOLTS: 208		RMF PROJECT NO.: 312164.A0	
L-G VOLTS: 120			
BUS AMPS: 100		NEMA 3R	
AIC RATING: 10,000			
MAIN CB AMPS: 100			

PANEL NOTES:
PROVIDE GROUND BUS
PROVIDE FULL SIZE NEUTRAL BUS UNLESS NOTED OTHERWISE
* - INDICATES C.B. EQUIPPED WITH "LOCK-ON" DEVICE
** - INDICATES C.B. IS GFI TYPE 30 mA
ST - INDICATES C.B. EQUIPPED WITH SHUNT TRIP DEVICE

CND SIZE	GND. SIZE	PHASE/NEUT. SIZE	CKT. AMPS	LOAD DESCRIPTION	CB BKR. RATING (AMPS)/POLES	CIRCUIT NUMBER A B C	CB BKR. RATING (AMPS)/POLES	LOAD DESCRIPTION	CKT. AMPS	PHASE/NEUT. SIZE	GND. SIZE	CND SIZE
			0.00	SPARE	20/1	1 A 2	20/2	AERATOR	10.00	#12	#12	3/4"
			0.00	SPARE	20/1	3 B 4	4		10.00			
			0.00	SPARE	20/1	5 C 6	20/1	RECEPT-AERATOR	8.33	#12	#12	3/4"
			0.00	SPARE	20/1	7 A 8	20/1	SPARE	0.00			
			0.00	SPARE	20/1	9 B 10	20/1	SPARE	0.00			
			0.00	SPARE	20/1	11 C 12	20/1	SPARE	0.00			

LOADS	CONNECTED (KVA)	DIVERSITY FACTOR %	DEMAND (KVA)
LIGHTING	0.00	100%	0.00
HVAC COOLING*	0.00	100%	0.00
HVAC HEATING*	0.00	100%	0.00
MOTORS	3.40	100%	3.40
KITCHEN EQUIPMENT	0.00	100%	0.00
RECEPTACLES (1st 10 KVA)	0.00	100%	0.00
RECEPTACLES (>10 KVA)	0.00	50%	0.00
MISCELLANEOUS	0.00	100%	0.00

* LOAD VALUES HAVE BEEN ADJUSTED TO REFLECT WORST CASE LOADING FOR EQUIPMENT WITH BOTH COOLING AND HEATING SYSTEMS.

PHASE LOADING			
PHASE	CONNECTED (KVA)	DEMAND (KVA)	DEMAND (AMPS)
A	1.20	1.20	10.00
B	1.20	1.20	10.00
C	1.00	1.00	8.33
A,B,C TOTALS	3.40	3.40	9.44

POWER SYMBOLS

SYMBOL **DESCRIPTIONS** **MH (UON)**

NON-FUSED DISCONNECT SWITCH, 30A, 3P (UNLESS OTHERWISE NOTED)

PANELBOARD

DISTRIBUTION PANELBOARD

TRANSFORMER

CIRCUIT CONCEALED IN WALLS OR CEILING SPACE. CONDUCTORS SHALL BE MINIMUM 2#12 AWG AND 1#12 AWG GROUND IN 3/4" CONDUIT, (UNLESS OTHERWISE NOTED)

RACEWAY CONCEALED IN SLAB OR BELOW GRADE. BRANCH CIRCUIT HOMERUN TO PANELBOARD. QUANTITY OF CIRCUITS INDICATED BY ARROWS NUMBER OF CONDUCTORS SHALL BE MINIMUM 4#12 AWG AND 1#12 AWG GROUND IN 3/4" CONDUIT, (UNLESS OTHERWISE NOTED)

RACEWAY RUN EXPOSED. CONDUCTORS SHALL BE MINIMUM 2#12 AWG AND 1#12 AWG IN 3/4" CONDUIT, (UNLESS OTHERWISE NOTED)

DOUBLE DUPLEX RECEPTACLE

CIRCUIT DESIGNATIONS

SYMBOL **DESCRIPTIONS** **MH (UON)**

LIGHTING

FIXTURE TYPE

*CIRCUIT DESIGNATION

SWITCH DESIGNATION

POWER

*CIRCUIT DESIGNATION

* SEE NOTES FOR PANEL DESIGNATIONS FOR EACH AREA.

ELECTRICAL DRAWING PRESENTATION

SYMBOL **DESCRIPTIONS**

REVISION NUMBER 2

DRAWING NOTE NUMBER 2

EQUIPMENT TAG NUMBER - REFER TO EQUIPMENT SCHEDULE

SECTION/ELEVATION IDENTIFICATION

PART PLAN AND DETAIL IDENTIFICATION

EXISTING LINE TYPE

NEW ELECTRICAL WORK LINE TYPE

FUTURE ELECTRICAL WORK LINE TYPE

DEMOLITION LINE TYPE ON DEMOLITION DRAWINGS

EQUIPMENT DESIGNATIONS

DESIGNATION	DESCRIPTIONS
SWGR	SWITCHGEAR
SWBD	SWITCHBOARD
PNL	PANELBOARD
MCC	MOTOR CONTROL CENTER
XFMR	TRANSFORMER
CND	CONDUIT

LIGHTING SYMBOLS

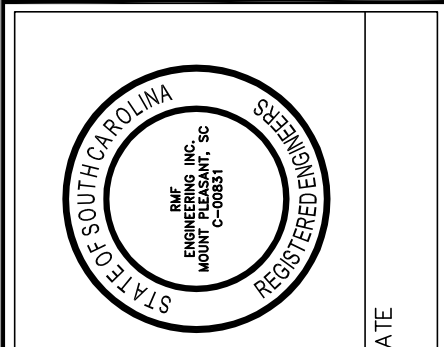
SYMBOL **DESCRIPTIONS** **MH (UON)**

POLE MOUNTED LIGHTING FIXTURE- SINGLE, POLE TOP

GENERAL NOTES:
1. THIS IS A STANDARD SYMBOL LIST. SOME SYMBOLS MAY NOT APPEAR ON THE ACCOMPANYING DRAWINGS.
2. REFER TO SPECIFICATIONS FOR DETAILED REQUIREMENTS.

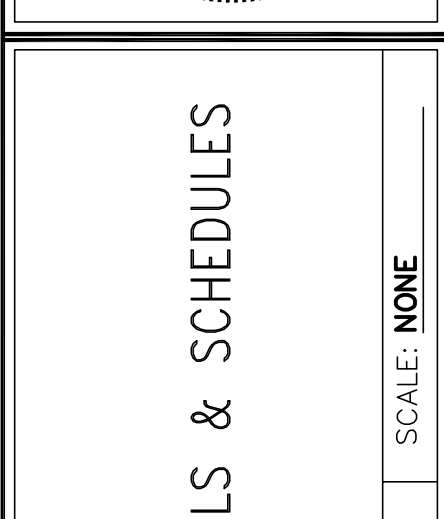
NO.	DATE	BY	DESCRIPTION

PROJECT ENG:	BAC
DESIGNED BY:	DWH
DRAWN BY:	DWH
CHECKED BY:	BAC
APP'D BY:	BAC



SIGNATURE: _____ DATE: _____

RMF ENGINEERING, INC.
194 SEVEN FARMS DRIVE
SUITE G
CHARLESTON, SC 29492
PHONE: 843-971-9639
FAX: 843-971-9641
www.rmfi.com
RMF #312164.A0



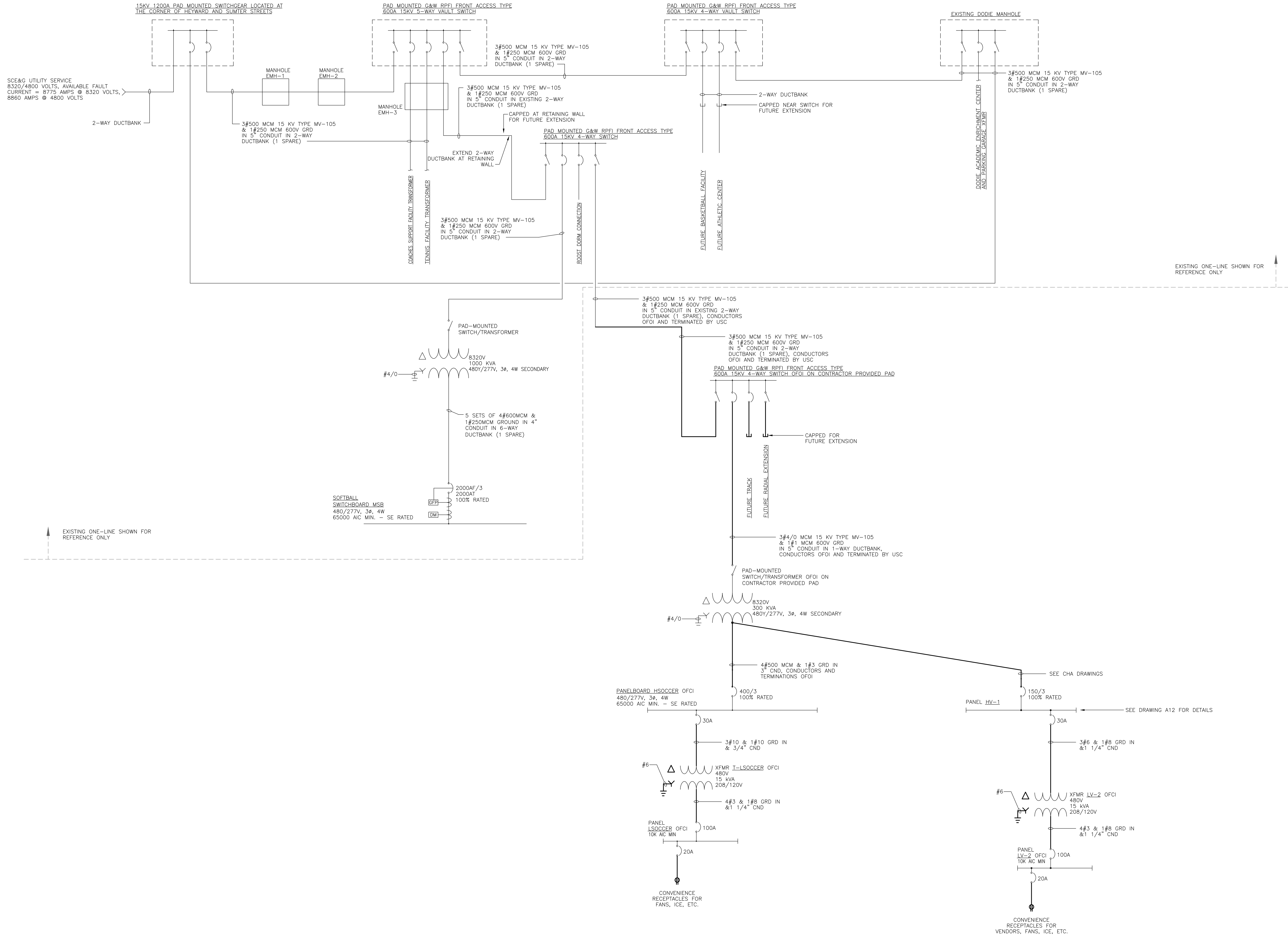
ELECTRICAL DETAILS & SCHEDULES

CONSTRUCTION DRAWINGS FOR
ATHLETIC VILLAGE
SAND VOLLEYBALL COURT
CONSTRUCTION
IN THE CITY OF COLUMBIA
RICHLAND COUNTY, S.C.

DWG. NAME	E2	SHEET	E2
N.B. NO.		OF	3
PROJECT NO.	46422848	FILE NO.	36,106-B90

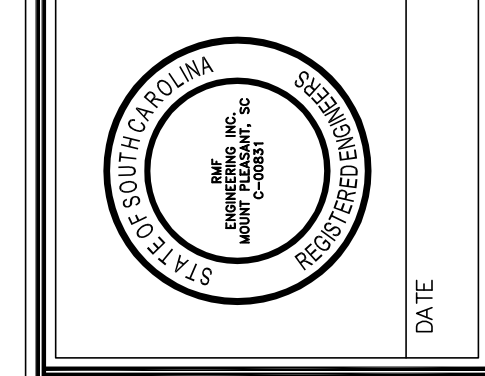
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NO.	DATE	BY	DESCRIPTION

APPROVALS	PROJECT ENG.	DESIGNED BY:	BAC
		DRAWN BY:	DWH
		CHECKED BY:	BAC
		APP'D BY:	BAC



SIGNATURE

RMF ENGINEERING, INC.
194 SEVEN FARMS DRIVE
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CHARLESTON, SC 29492
PHONE: 843-971-9639
FAX: 843-971-9641
www.rmf.com
RMF #312164.A0

ELECTRICAL SINGLE LINE DIAGRAM

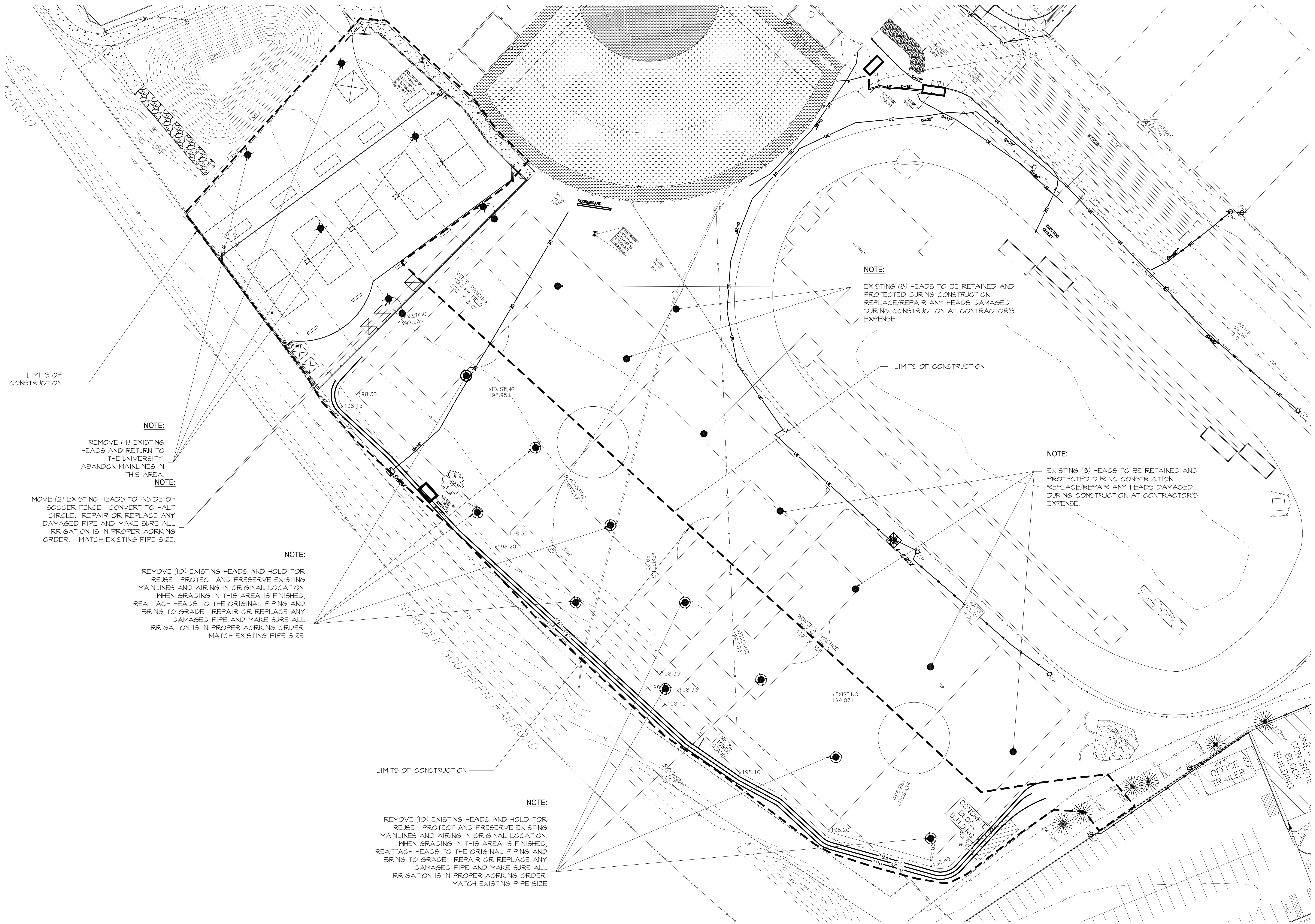
DATE: **MAY 6, 2013** SCALE: **NONE**

CONSTRUCTION DRAWINGS FOR
ATHLETIC VILLAGE SAND VOLLEYBALL COURT CONSTRUCTION
IN THE CITY OF COLUMBIA RICHLAND COUNTY, S.C.

DWG. NAME	E3	SHEET	E3
N.B. NO.		OF	3
PROJECT NO.	46422848	FILE NO.	36,106-B90

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NOTE:
REMOVE (4) EXISTING HEADS AND RETURN TO THE UNIVERSITY. ABANDON MAINLINES IN THIS AREA.

NOTE:
MOVE (2) EXISTING HEADS TO INSIDE OF SOCCER FENCE. CONVERT TO HALF CIRCLE. REPAIR OR REPLACE ANY DAMAGED PIPE AND MAKE SURE ALL IRRIGATION IS IN PROPER WORKING ORDER. MATCH EXISTING PIPE SIZE.

NOTE:
REMOVE (10) EXISTING HEADS AND HOLD FOR REUSE. PROTECT AND PRESERVE EXISTING MAINLINES AND WIRING IN ORIGINAL LOCATION. WHEN GRADING IN THIS AREA IS FINISHED, REATTACH HEADS TO THE ORIGINAL PIPING AND BRING TO GRADE. REPAIR OR REPLACE ANY DAMAGED PIPE AND MAKE SURE ALL IRRIGATION IS IN PROPER WORKING ORDER. MATCH EXISTING PIPE SIZE.

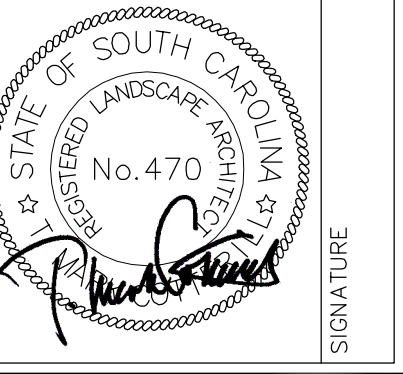
NOTE:
REMOVE (10) EXISTING HEADS AND HOLD FOR REUSE. PROTECT AND PRESERVE EXISTING MAINLINES AND WIRING IN ORIGINAL LOCATION. WHEN GRADING IN THIS AREA IS FINISHED, REATTACH HEADS TO THE ORIGINAL PIPING AND BRING TO GRADE. REPAIR OR REPLACE ANY DAMAGED PIPE AND MAKE SURE ALL IRRIGATION IS IN PROPER WORKING ORDER. MATCH EXISTING PIPE SIZE.

NOTE:
EXISTING (8) HEADS TO BE RETAINED AND PROTECTED DURING CONSTRUCTION. REPLACE/REPAIR ANY HEADS DAMAGED DURING CONSTRUCTION AT CONTRACTOR'S EXPENSE.

NOTE:
EXISTING (8) HEADS TO BE RETAINED AND PROTECTED DURING CONSTRUCTION. REPLACE/REPAIR ANY HEADS DAMAGED DURING CONSTRUCTION AT CONTRACTOR'S EXPENSE.

NO.	DESCRIPTION	DATE	BY

PROJECT ENG. DESIGNED BY: CCS	DATE
DRAWN BY: SJC	
CHECKED BY: CCS	
APPROVED BY: CCS	



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

IRRIGATION PLAN
SHEET TITLE
DATE: MAY 6, 2013
SCALE: 1"=30'

ATHLETIC VILLAGE SAND VOLLEYBALL COURT CONSTRUCTION
CONSTRUCTION DRAWINGS FOR
PROJECT
IN THE CITY OF COLUMBIA, RICHLAND COUNTY, S.C.

DWG NAME	SHEET
N.B. NO.	1-1
REF.	OF
PROJECT NO. 46-422848	
FILE NO. 36,106-B90	

GRIMBALL & ASSOCIATES
COTTERILL
LANDSCAPE ARCHITECTS & LAND PLANNERS

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