

# SBA - KINGSTON 7

## RI 11716-S

**UTILITY COMPANIES:**

**POWER COMPANY:**  
 NARRAGANSETT ELECTRIC CO.  
 NATIONAL GRID  
 4145 QUAKER LANE  
 NORTH KINGSTOWN, RI 02852  
 (800) 375-7405

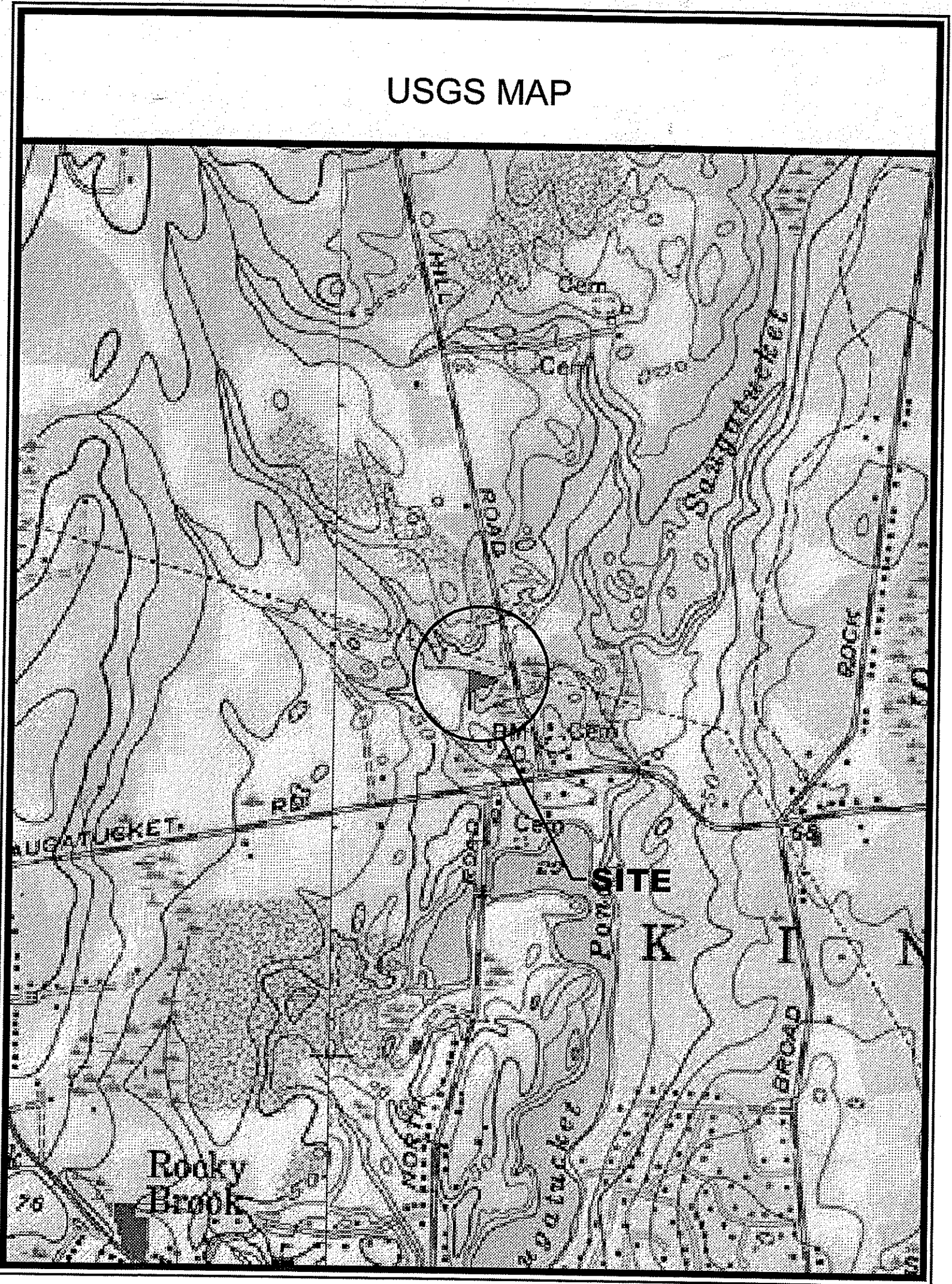
**TELEPHONE COMPANY:**  
 VERIZON  
 185 FRANKLIN STREET  
 BOSTON, MA 02107  
 (800) 941-9900

COX COMMUNICATIONS, INC.  
 1400 LAKE HEARN DRIVE  
 ATLANTA, GA 30319

**SITE DESCRIPTION:**

SBA TOWERS PROPOSES TO BUILD A TELECOMMUNICATIONS FACILITY ON THE PROPERTY LISTED BELOW. THE FACILITY CONSISTS OF A 40'x70' FENCED IN COMPOUND, A 150' MONOPOLE AND SPACE FOR MULTIPLE CARRIERS. POWER AND TELCO WILL BE ROUTED OVERHEAD TO THE PROPOSED DEMARC LOCATIONS WITHIN THE COMPOUND.

**USGS MAP**



**DIRECTIONS TO SITE:**

TAKE 1-95 SOUTH INTO RHODE ISLAND. TAKE EXIT 9 (ROUTE 4). RT 4 BECOMES RT 1 IN NORTH KINGSTOWN, RI. TAKE RIGHT ONTO RT 138 AND TAKE LEFT ONTO ROSE HILL ROAD. SITE IS LOCATED ON THE RIGHT AFTER THE GOLF COURSE.

**PROJECT SUMMARY:**

**SITE NAME:**  
 SBA - KINGSTON7

**SITE NUMBER:**  
 RI 11716-S

**PROPERTY OWNER:**  
 TIMPSON, ED & SONS INC.  
 96 ROSE HILL ROAD  
 WAKEFIELD, RI 02879

**CENTER OF PROPOSED TOWER:**  
 LATITUDE: N41° 28' 09.7" (NAD 83)  
 LONGITUDE: W71° 29' 51.2" (NAD 83)  
 ELEVATION: 50± (NAVD 88)

**CONSULTANTS:**

**ENGINEERING:**  
 AERIAL SPECTRUM, INC.  
 20 BLANCHARD RD.  
 SUITE 4  
 BURLINGTON, MA 01803

TEL. (781) 272-6200  
 FAX. (781) 272-6225

**CONTACT: EAMON T. KERNAN, P.E.**  
 e-mail ekernan@aerialspectrum.com

**SIGNATURE BLOCK**

SIGNATURE:	DATE:

**INDEX:**

- T-1 TITLE SHEET
- GN-1 GENERAL NOTES
- C-1 SITE PLAN
- C-2 COMPOUND PLAN & ELEVATION
- C-3 GRADING & EROSION CONTROL PLAN
- D-1 GRADING & EROSION CONTROL DETAILS AND NOTES
- D-2 FENCE DETAILS - 1
- D-3 FENCE DETAILS - 2
- D-4 METRO PCS STRUCTURAL DETAILS AND NOTES
- E-1 ELECTRICAL DETAILS AND NOTES
- E-2 UTILITY PLAN
- G-1 GROUNDING DIAGRAM, DETAILS AND NOTES



SBA TOWERS III, INC.  
 5900 BROKEN SOUND  
 PARKWAY, NW  
 BOCA RATON, FL 33487-2797  
 TEL: (561) 226-9523  
 FAX: (561) 226-9368

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED MAY 27 2011 FILE # 10-0213  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE  
*Nancy L. Freeman*

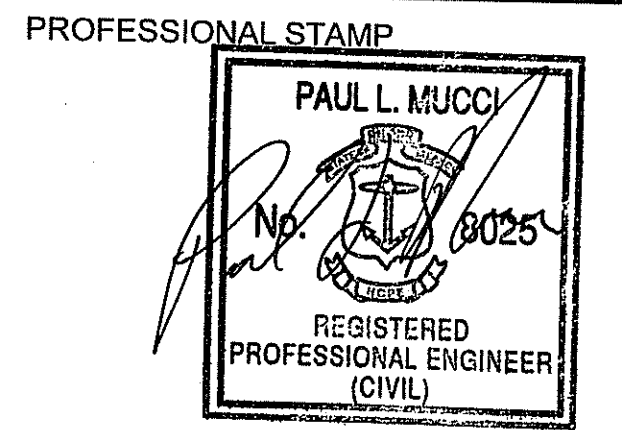


**SITE NAME:**  
 SBA - KINGSTON 7

**SITE NUMBER:**  
 RI 11716-S

**CONSTRUCTION DRAWINGS**

NO.	DATE	DESCRIPTION
4	05/04/2011	CONSTRUCTION REVISED
3	05/03/2011	CONSTRUCTION REVISED
2	04/05/2011	CONSTRUCTION REVISED
1	04/04/2011	CONSTRUCTION REVISED
0	03/17/2011	FOR CONSTRUCTION



**DRAWN BY:** BB

**CHECKED BY:** ETK

**SITE ADDRESS:**  
 96 ROSE HILL ROAD  
 SOUTH KINGSTOWN, RI

**SHEET TITLE:**  
 TITLE SHEET

**SHEET NUMBER:**  
 T-1

**SCALE:** THIS PLAN TO SCALE  
 WHEN PRINTED AT 24" x 36"

Environmental Management  
 MAY 9 2011  
 Office of Water Resources

GENERAL NOTES

- 1. ALL REFERENCES TO OWNER HEREIN SHALL BE CONSTRUED TO MEAN SBA OR IT'S DESIGNATED REPRESENTATIVE.
2. ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING THAT HE DOES HAVE SUFFICIENT EXPERIENCE AND ABILITY. THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT HE IS LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE AND/OR COUNTY IN WHICH IT IS TO BE PERFORMED.
3. UNLESS SHOWN OR NOTED OTHERWISE ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, THE FOLLOWING NOTES SHALL APPLY TO THE MATERIALS LISTED HEREIN, AND TO THE PROCEDURES TO BE USED ON THIS PROJECT.
4. ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERCEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
5. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO INSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF WHATEVER TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
6. ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR AND THE TESTING AGENCY PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND THE OWNER'S ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE CONSTRUCTION PROCEDURES.
7. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT THIS PROJECT AND RELATED WORK COMPLIES WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK.
9. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE LATEST EDITION OF THE LOCAL BUILDING CODE.
10. ALL PROPOSED CELLULAR EQUIPMENT AND FIXTURES SHALL BE FURNISHED BY OWNER FOR INSTALLATION BY THE CONTRACTOR, UNLESS SPECIFICALLY NOTED OTHERWISE HEREIN.
11. ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS WITH THE RESIDENT LEASING AGENT FOR APPROVAL.
12. RADIO EQUIPMENT INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

STRUCTURAL NOTES

- 1. DESIGN REQUIREMENTS PER LOCAL BUILDING CODE AND THE E1A/TIA-222-G STRUCTURAL STANDARDS FOR STEEL ANTENNAS TOWERS AND SUPPORTING STRUCTURES.
2. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF A.I.S.C. SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS-ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN INCLUDING THE COMMENTARY AND THE A.I.S.C. CODE OF STANDARD PRACTICE.
3. STRUCTURAL STEEL PLATES AND SHAPES SHALL CONFORM TO ASTM A36. ALL STRUCTURAL STEEL PIPES SHALL CONFORM TO ASTM A53 GRADE 8. ALL STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A500 GRADE 8. ALL STRUCTURAL STEEL COMPONENTS AND FABRICATED ASSEMBLIES SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
4. WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS) D.1.1-96. STRUCTURAL WELDING CODE-STEEL WELD ELECTRODES SHALL BE E70XX.
5. ALL COAXIAL CABLE CONNECTORS AND TRANSMITTER EQUIPMENT SHALL BE AS SPECIFIED BY THE OWNER AND IS NOT INCLUDED IN THESE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL FURNISH ALL CONNECTION HARDWARE REQUIRED TO SECURE THE CABLES. CONNECTION HARDWARE SHALL BE STAINLESS STEEL.
6. NORTH ARROW SHOWN ON PLANS REFERS TO TRUE NORTH. CONTRACTOR SHALL VERIFY NORTH AND INFORM OWNER OF ANY DISCREPANCY BEFORE STARTING CONSTRUCTION.
7. ALL CAST IN PLACE CONCRETE SHALL BE MIXED AND PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318 AND AC1 301, AND SHALL HAVE A 28 DAY MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI (U.O.N.). CONCRETE SHALL BE PLACED AGAINST UNDISTURBED SOIL UNLESS OTHERWISE NOTED. MINIMUM CONCRETE COVER SHALL BE 3 INCHES UNLESS OTHERWISE NOTED.
8. ALL REINFORCING STEEL SHALL CONFORM TO ASTM 615 GRADE 80, DEFORMED BILLET STEEL BARS. WELDED WIRE FABRIC REINFORCING SHALL CONFORM TO ASTM A185.
9. THE FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE LATEST A.I.S.C. SPECIFICATIONS.
10. ALL CONNECTIONS NOT FULLY DETAILED ON THESE PLANS SHALL BE DETAILED BY THE STEEL FABRICATOR IN ACCORDANCE WITH A.I.S.C. SPECIFICATIONS.
11. HOT-DIP GALVANIZE ITEMS SPECIFIED TO BE ZINC-COATED. AFTER FABRICATION WHERE PRACTICAL. GALVANIZING: ASTM A 123, ASTM A 153/A 153M OR ASTM A 653/A 653M, G90, AS APPLICABLE.
12. REPAIR DAMAGED SURFACES WITH GALVANIZING REPAIR METHOD AND PAINT CONFORMING TO ASTM A 780 OR BY APPLICATION OF STICK OR THICK PASTE MATERIAL SPECIFICALLY DESIGNED FOR REPAIR OF GALVANIZING. CLEAN AREAS TO BE REPAIRED, AND REMOVE SLAG FROM WELDS. HEAT SURFACES TO WHICH STICK OR PASTE MATERIAL IS APPLIED WITH A TORCH TO A TEMPERATURE SUFFICIENT TO MELT THE METALLICS. IN STICK OR PASTE, SPREAD MOLTEN MATERIAL UNIFORMLY OVER SURFACES TO BE COATED AND WIPE OFF EXCESS MATERIAL.
13. CONTRACTOR SHALL FOLLOW THE MANUFACTURER'S INSTRUCTIONS/SPECIFICATIONS IF NO INFORMATION IS CONTAINED IN THESE PLANS OR IF THE MANUFACTURER'S SPECIFICATIONS ARE STRICTER.

PERMITS

- 1. CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS FOR THIS PROJECT FROM ALL APPLICABLE GOVERNMENTAL AGENCIES. (NOT SUPPLIED BY OWNER)
2. ANY PERMITS WHICH MUST BE OBTAINED SHALL BE THE CONTRACTORS RESPONSIBILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS. (NOT SUPPLIED BY OWNER)
3. ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES AND THE LATEST APPLICABLE CODES AND STANDARDS.
4. THE CONTRACTOR SHALL NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY, OR CITY) ENGINEER 24 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.
5. CONTRACTOR RESPONSIBLE FOR CLOSING AND FILING ALL PERMITS ASSOCIATED WITH SITE.

UTILITIES

- 1. CONTRACTOR SHALL CONTACT A SUBSURFACE UTILITY LOCATOR FOR LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. LOCATION OF EXISTING SEWER, WATER LINES, GAS LINES, CONDUITS OR OTHER STRUCTURES ACROSS, UNDERNEATH, OR OTHERWISE ALONG THE LINE OF PROPOSED WORK ARE NOT NECESSARILY SHOWN ON THE PLANS, AND IF SHOWN ARE ONLY APPROXIMATELY CORRECT. CONTRACTOR ASSUMES SOLE RESPONSIBILITY FOR VERIFYING LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES (INCLUDING TEST PITS BY HAND IF NECESSARY) IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT ENGINEER IMMEDIATELY IF LOCATION OR ELEVATION IS DIFFERENT FROM THAT SHOWN ON THE PLANS, OR IF THERE APPEARS TO BE A CONFLICT.
2. CONTRACTOR SHALL COORDINATE ALL UTILITY CONNECTIONS WITH APPROPRIATE UTILITY OWNERS AND CONSTRUCTION MANAGER.
3. DAMAGE BY THE CONTRACTOR TO UTILITIES OR PROPERTY OF OTHERS, INCLUDING EXISTING PAVEMENT AND OTHER SURFACES DISTURBED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE REPAIRED TO PRE CONSTRUCTION CONDITIONS BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CLIENT. FOR GRASSED AREAS, SEED AND MULCH SHALL BE ACCEPTABLE.
4. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER THE REQUIREMENTS FOR AND LIMITS OF OVERHEAD AND/OR UNDERGROUND ELECTRICAL SERVICE.
5. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF NEW UNDERGROUND TELEPHONE SERVICE WITH THE TELEPHONE UTILITY AND THE OWNER'S REQUIREMENTS.
6. ALL UNDERGROUND UTILITIES SHALL BE INSTALLED AND TESTED SATISFACTORY PRIOR TO COMMENCING ANY PAVING OPERATIONS WHERE SUCH UTILITIES ARE WITHIN THE LIMITS OF PAVEMENT.

GRADING

- 1. THE CONTRACTOR SHALL REWORK (DRY, SCARIFY, ETC...) ALL MATERIAL NOT SUITABLE FOR SUB GRADE IN ITS PRESENT STATE. IF THE MATERIAL, AFTER REWORKING, REMAINS UNSUITABLE THEN THE CONTRACTOR SHALL UNDERCUT THIS MATERIAL AND REPLACE WITH APPROVED MATERIAL AT HIS EXPENSE. ALL SUB GRADES SHALL BE PROOF ROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK PRIOR TO PAVING. ANY SOFT MATERIAL SHALL BE REWORKED OR REPLACED.
2. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL DITCHES, PIPES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTABLE BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURES IN OPERABLE CONDITION.
3. ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE (1) YEAR FROM DATE OF ACCEPTANCE.
4. ALL DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE OWNER IMMEDIATELY IF DISCREPANCIES ARE DISCOVERED. THE CONTRACTOR SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHEN WORK IS BEING PRE FORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.

PAINTING

- 1. CONTRACTOR TO COORDINATE PAINTING REQUIREMENTS WITH OWNER.
2. PAINT COLORS SHALL BE SELECTED TO MATCH EXISTING COLORS AND TEXTURES.
3. PROVIDE THE BEST QUALITY GRADE OF COATINGS AS REGULARLY MANUFACTURED BY APPROVED PAINT MATERIAL MANUFACTURERS. MATERIALS NOT DISPLAYING THE MANUFACTURER'S IDENTIFICATION AS A STANDARD, BEST-GRADE PRODUCT WILL NOT BE ACCEPTABLE.
4. PROVIDE UNDERCOAT PAINT PRODUCED BY THE SAME MANUFACTURER AS THE FINISH COATS. USE ONLY THINNERS APPROVED BY THE PAINT MANUFACTURER AND USE ONLY WITHIN RECOMMENDED LIMITS.
5. COMPLETELY COVER TO PROVIDE AN OPAQUE, SMOOTH SURFACE OF UNIFORM FINISH, COLOR, APPEARANCE, AND COVERAGE. CLOUDINESS, SPOTTINGS, HOLIDAYS, LAPS, BRUSH MARKS, RUNS, SAGS, ROPIENESS, OR OTHER SURFACE IMPERFECTIONS WILL NOT BE ACCEPTABLE.
FERROUS METALS
SHOP PRIMED
TOUCH-UP COAT - RED OXIDE METAL PRIMER
FINISH COATS - SEMI-GLOSS-ALKYD ENAMEL

SBA CONSTRUCTION REQUIREMENTS

- 1. AWARDED CONTRACTOR WILL BE REQUIRED TO SIGN AND RETURN A COPY OF AN AWARD LETTER FOR SBA'S FILE.
2. CONTRACTOR WILL BE REQUIRED TO PROVIDE PROOF OF LICENSE TO PERFORM WORK IN JURISDICTION AT TIME OF BID AWARD.
3. CONTRACTOR WILL PROVIDE A CONSTRUCTION SCHEDULE PRIOR TO CONSTRUCTION STARTING AND WILL PROVIDE UPDATE/CHANGES (WITH EXPLANATIONS) TO THAT SCHEDULE WHEN/IF ITEMS ARE DELAYED OR PUSHED OUT.
4. CONTRACTOR WILL BE RESPONSIBLE FOR ALL CONCRETE COMPRESSIVE TESTING AND REQUIRED TO SUBMIT FINAL TEST RESULTS WITH CLOSE OUT BOOK.
5. CONTRACTOR WILL BE RESPONSIBLE TO PROVIDE SBA PROJECT MANAGERS WITH PHOTOS OF THE MAJOR CONSTRUCTION MILESTONES AS THEY OCCUR.
6. CONTRACTOR WILL BE RESPONSIBLE TO ASSIST IN COORDINATING AND OBTAINING PRIMARY POWER TO THE SITE PRIOR TO TOWER ERECTION, AS WELL AS TELCO SERVICE BEFORE PROJECT COMPLETION. (ON SITE VISITS WITH UTILITY COMPANY REPRESENTATIVES AS NECESSARY, ETC....).
7. CONTRACTOR WILL HAVE A REPRESENTATIVE ON A WEEKLY CONFERENCE CALL TO PROVIDE SBA WITH SITE SPECIFIC UPDATES. CURRENTLY, THIS CONFERENCE CALL IS HELD EACH AND EVERY THURSDAY AT 4 PM (EASTERN TIME).
8. CONTRACTOR SHOULD BE PREPARED FOR RANDOM SBA SAFETY INSPECTIONS AT ALL TIMES.
9. CONTRACTOR IS EXPECTED TO MAINTAIN PROPER WORKING CONDITIONS AND PROCEDURES PER OSHA STANDARDS AT ALL TIMES.
10. CONTRACTOR WILL BE REQUIRED TO OBTAIN THE NECESSARY ELECTRICAL PERMITS AND INSPECTIONS AS REQUIRED BY JURISDICTION.
11. CONTRACTOR IS EXPECTED TO CLOSE-OUT THE JOB SITE AS QUICKLY AS POSSIBLE (OBTAINING A CERTIFICATE OF OCCUPANCY AND GETTING SBA'S REGIONAL SITE MANAGER'S SIGN-OFF/CHECKLIST APPROVAL ON THE SITE).
12. CONTRACTOR WILL PROVIDE A COMPLETED TOWER HEIGHT VERIFICATION FORM AND TAPE DROP WITHIN 24 HOURS OF REACHING OVERALL HEIGHT.
13. CONTRACTOR WILL UTILIZE ALL OF THE SBA PROVIDED DOCUMENTATION INCLUDING BUT NOT LIMITED TO: TOWER CONSTRUCTION ACCEPTANCE CHECKLIST, CONSTRUCTION SCHEDULE, CONSTRUCTION CLOSE-OUT LIST & TOWER HEIGHT VERIFICATION.
14. CONTRACTOR IS RESPONSIBLE FOR CONCRETE COMPRESSION TESTING.
15. CONTRACTOR IS RESPONSIBLE FOR GROUND MEG TESTING.



SBA TOWERS III, INC.
5900 BROKEN SOUND PARKWAY, NW
BOCA RATON, FL 33487-2797
TEL: (561) 226-9523
FAX: (561) 226-9368



SITE NAME:

SBA - KINGSTON 7

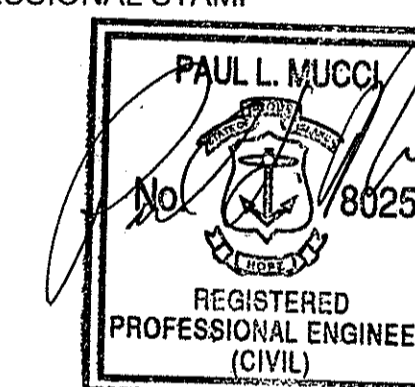
SITE NUMBER:

RI 11716-S

CONSTRUCTION DRAWINGS

Table with 3 columns: No., Date, Description. Includes entries for CONSTRUCTION REVISED and FOR CONSTRUCTION.

PROFESSIONAL STAMP



DRAWN BY: BB

CHECKED BY: ETK

SITE ADDRESS:

96 ROSE HILL ROAD
SOUTH KINGSTOWN, RI

SHEET TITLE:

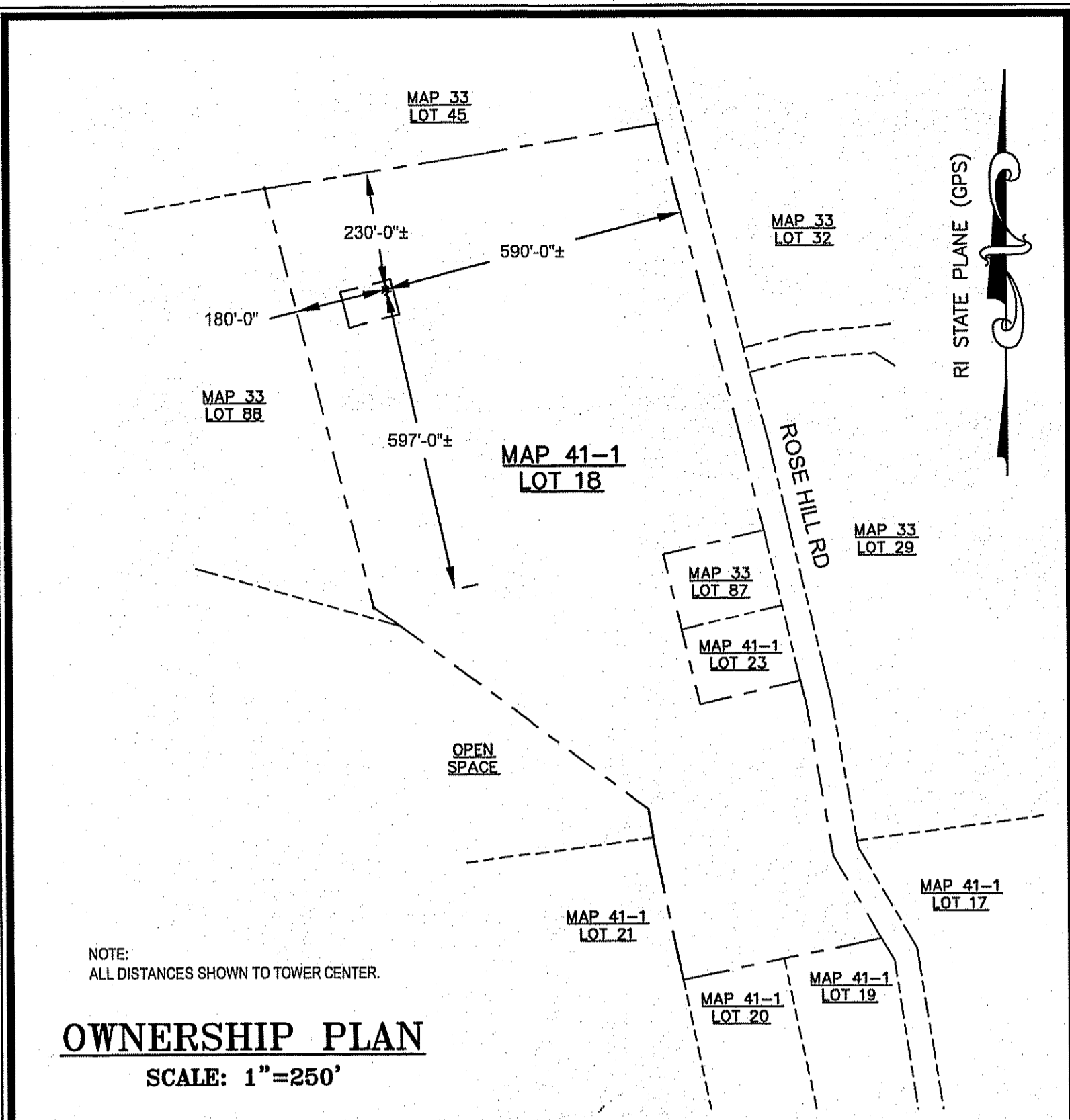
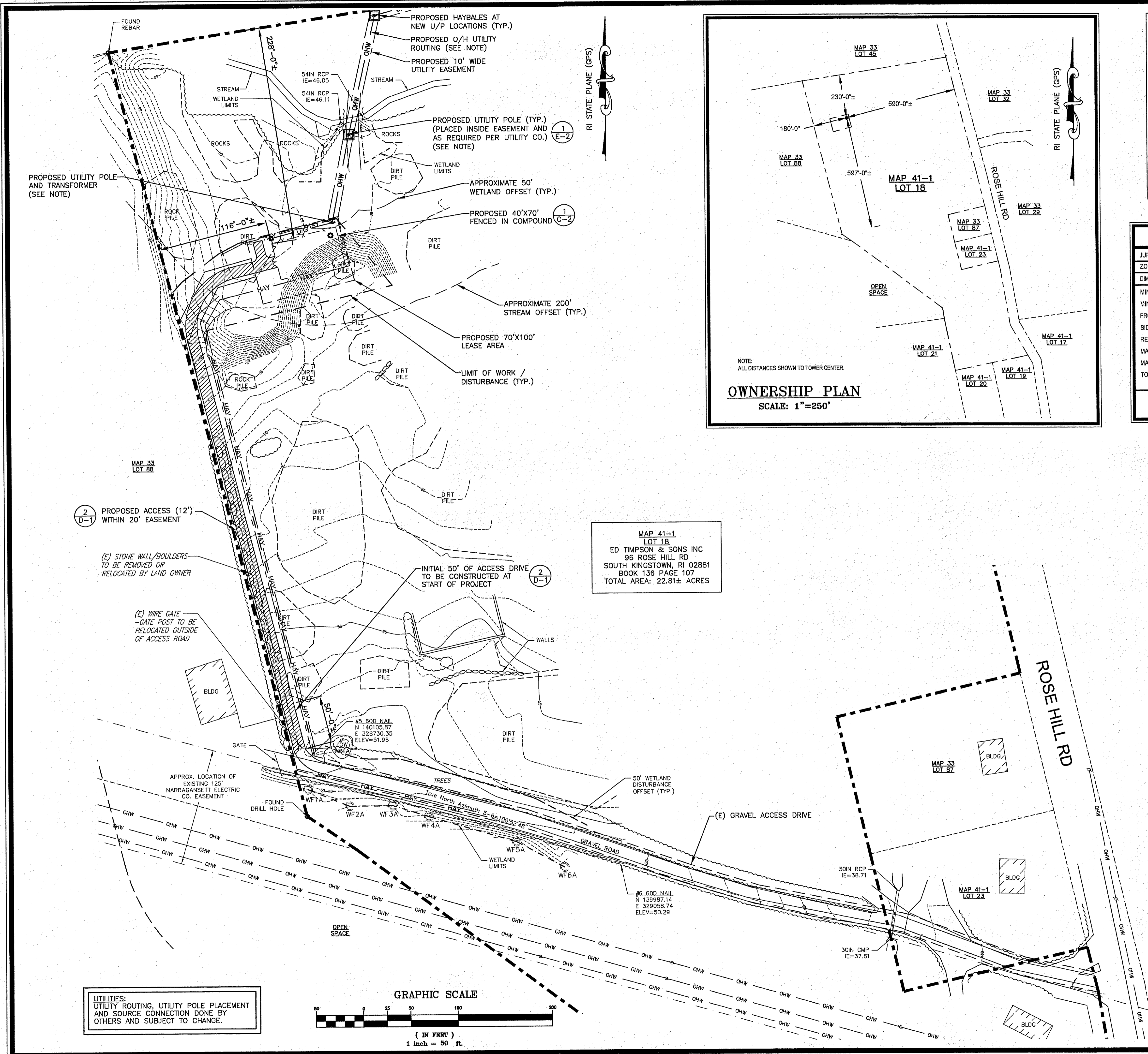
GENERAL NOTES

SHEET NUMBER:

GN-1

SCALE: THIS PLAN TO SCALE
WHEN PRINTED AT 24" x 36"

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED MAY 27 2011 FILE # 10-0213
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE



### LEGEND

- PROPERTY LINE - SUBJECT PARCEL
- PROPERTY LINE - ABUTTERS
- RIGHT OF WAY
- EASEMENT - EXISTING
- EASEMENT - PROPOSED
- LEASE AREA - PROPOSED
- LIMIT OF WORK-DISTURBANCE

### ZONING INFORMATION

JURISDICTION: TOWN OF SOUTH KINGSTOWN, RI-WASHINGTON COUNTY  
 ZONING DISTRICT TYPE: IND2-INDUSTRIAL 2

DIMENSION REQUIREMENTS:	REQUIRED	PROPOSED
MINIMUM LOT AREA:	60,000 SQ. FT.	22.8 ACRES (EX)
MINIMUM ROAD FRONTAGE:	150	>200' (EX)
FRONT YARD SETBACK:	40	590±
SIDE YARD SETBACK:	30	230±
REAR YARD SETBACK:	30	180±
MAXIMUM BUILDING HEIGHT:	40	11±
MAXIMUM LOT COVERAGE:	50%	<1%
TOWER FALL ZONE SETBACK:	1 FT PER EA. FT OF TOWER (150)	150±

(ALL MEASUREMENTS ARE IN FEET UNLESS OTHERWISE NOTED)

### SURVEY INFORMATION

- DATE OF SURVEY: MARCH 24, 2010
- SITE OWNER & ADDRESS: ED TIMPSON & SONS INC  
96 ROSE HILL RD  
SOUTH KINGSTOWN, RI 02881
- CENTER OF TOWER: LATITUDE: 41° 28' 08.7" N  
LONGITUDE: 71° 29' 51.2" W  
GROUND ELEVATION: 59
- VERTICAL DATUM: NORTH AMERICA VERTICAL DATUM OF 1988 (NAV88)  
PER GPS READINGS
- HORIZONTAL DATUM: NORTH AMERICAN DATUM OF 1983 (NAD83)  
PER GPS READINGS
- THIS PLAN IS THE RESULT OF A SURVEY FOR THE LEASE AREA, ACCESS & UTILITY EASEMENTS. IT IS NOT THE RESULT OF A FULL BOUNDARY SURVEY FOR THE PARENT TRACT. THIS INFORMATION IS THE RESULT OF A COMPILATION OF RECORD INFORMATION AND LOCATION OF AVAILABLE MONUMENTATION. SEE DEED AND PLAN REFERENCES.
- ALL UNDERGROUND UTILITY INFORMATION SHOWN HEREON WAS DETERMINED FROM SURFACE EVIDENCE. ALL UNDERGROUND UTILITIES SHOULD BE LOCATED IN THE FIELD PRIOR TO COMMENCEMENT OF ALL SITE WORK. CALL DIGSAFE AT 1-800-DIG-SAFE A MINIMUM OF 72 HOURS PRIOR TO PLANNED ACTIVITY.
- ALL ABUTTERS OF LOCUS ARE SHOWN FROM AVAILABLE ASSESSORS INFORMATION.
- WETLANDS SHOWN AS FLAGGED BY OTHERS.
- ACCORDING TO FLOOD INSURANCE RATE MAP THE TOWER ON THIS PROPERTY IS LOCATED IN AN AREA DESIGNATED AS ZONE C - "AREAS OF MINIMAL FLOODING" PER MAP NUMBER 445407 0015 D, PANEL 15 OF 35, TOWN OF SOUTH KINGSTOWN, RHODE ISLAND, WASHINGTON COUNTY, EFFECTIVE DATE: JANUARY 3, 1988.

### REFERENCES

- BEARINGS BASED ON: RHODE ISLAND STATE PLANE (GPS)
- DEED REFERENCE: BOOK 136 PAGE 107
- PLAN REFERENCE: NA

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 FILE # 10-0213  
 MAY 27 2011  
 DATED  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Environmental Management  
 MAY 9 2011  
 Office of Water Resources

### SURVEY BY

**VS LAND DATA**  
 35 Medford St, Suite 113, Somerville, MA 02143  
 P 800.856.5650 F 800.220.6214 www.vslanndata.com  
 545 Heckman Street, Phillipsburg, NJ 08865  
 P 908.387.8000 F 908.387.8001 www.vslanndata.com

**SBA**  
 SBA TOWERS III, INC.  
 5900 BROKEN SOUND  
 PARKWAY, NW  
 BOCA RATON, FL 33487-2797  
 TEL: (561) 226-9523  
 FAX: (561) 226-9368

**AERIAL SPECTRUM**  
 INCORPORATED  
 20 BLANCHARD RD., SUITE #4  
 BURLINGTON, MA 01803

SITE NAME:  
**SBA - KINGSTON 7**

SITE NUMBER:  
**RI 11716-S**

### CONSTRUCTION DRAWINGS

NO.	DATE	DESCRIPTION
4	05/04/2011	CONSTRUCTION REVISED
3	05/03/2011	CONSTRUCTION REVISED
2	04/05/2011	CONSTRUCTION REVISED
1	04/04/2011	CONSTRUCTION REVISED
0	03/17/2011	FOR CONSTRUCTION

PROFESSIONAL STAMP

**PAUL L. MUCCI**  
 No. 0025  
 REGISTERED PROFESSIONAL ENGINEER (CIVIL)

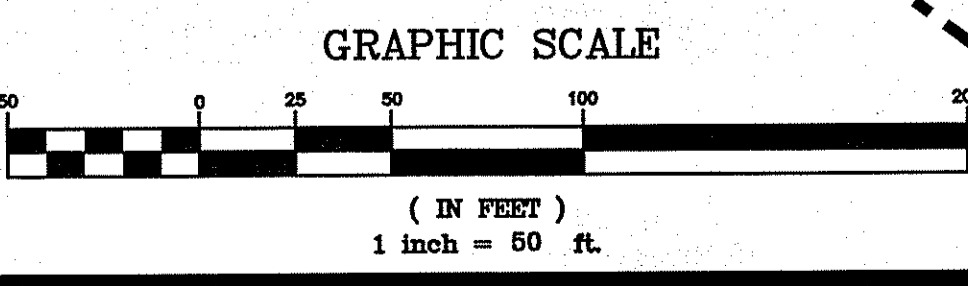
DRAWN BY: BB  
 CHECKED BY: ETK

SITE ADDRESS:  
**96 ROSE HILL ROAD  
 SOUTH KINGSTOWN, RI**

SHEET TITLE:  
**SITE PLAN**

SHEET NUMBER:  
**C-1**

SCALE: THIS PLAN TO SCALE  
 WHEN PRINTED AT 24" x 36"

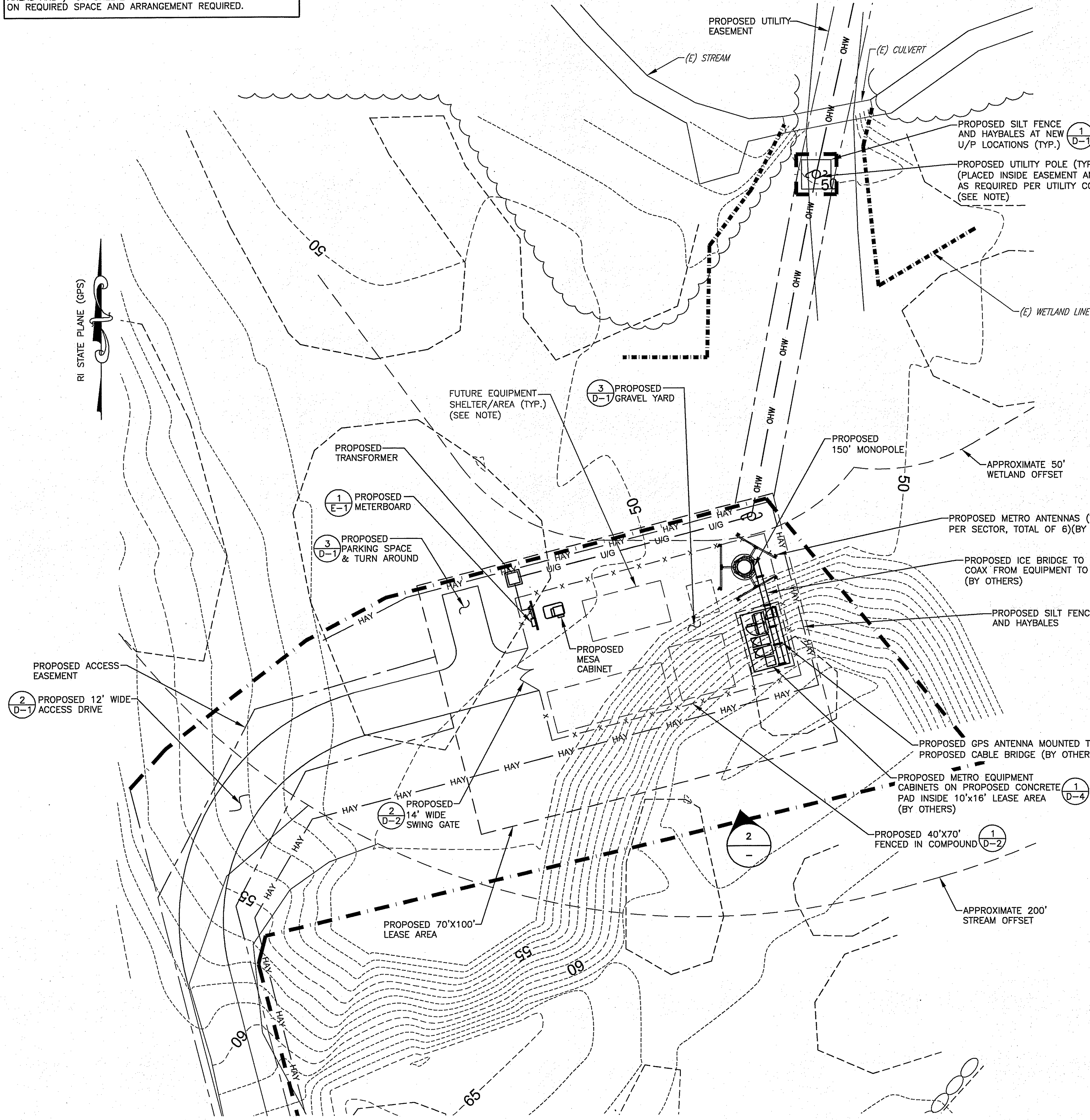


UTILITIES:  
 UTILITY ROUTING, UTILITY POLE PLACEMENT  
 AND SOURCE CONNECTION DONE BY  
 OTHERS AND SUBJECT TO CHANGE.

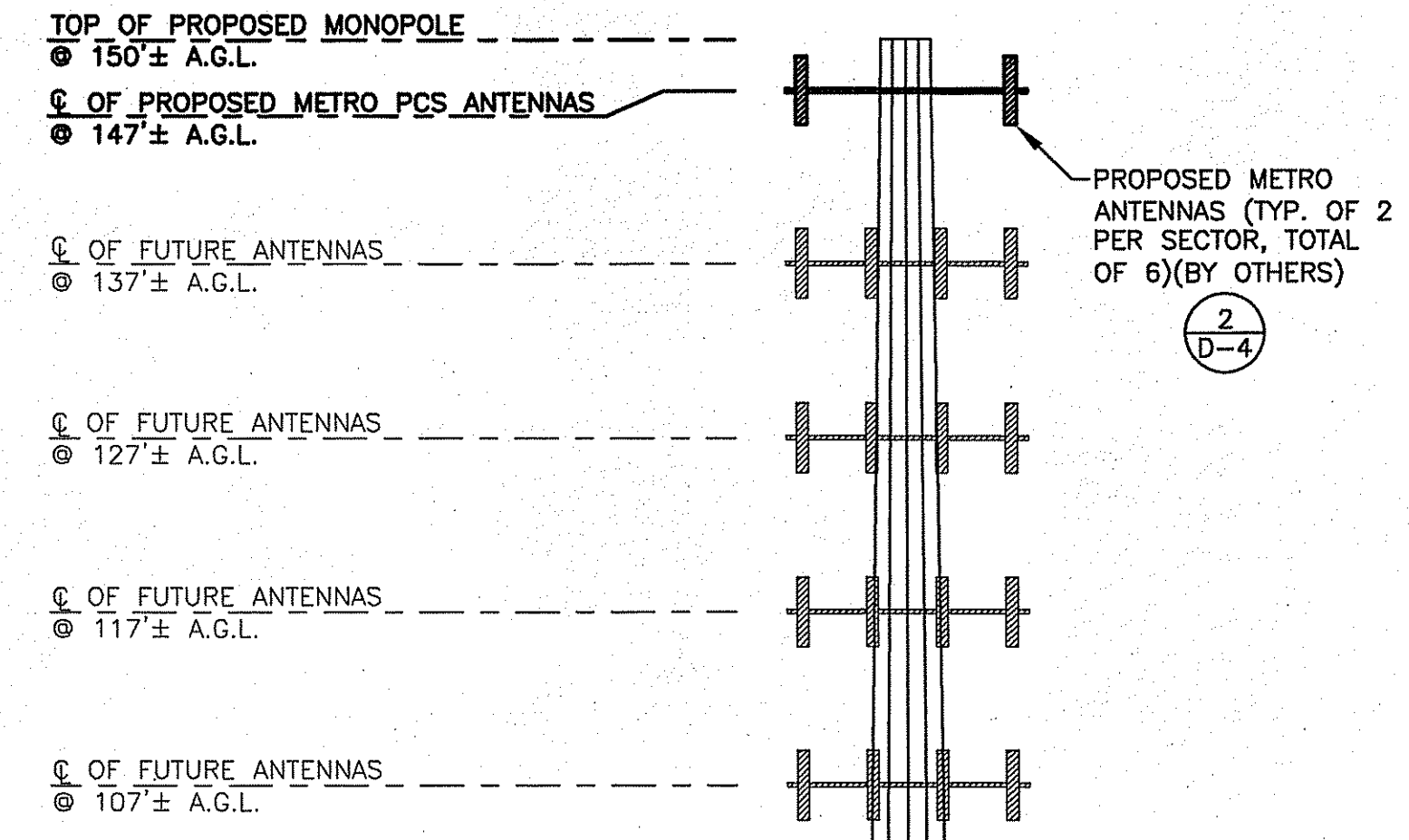
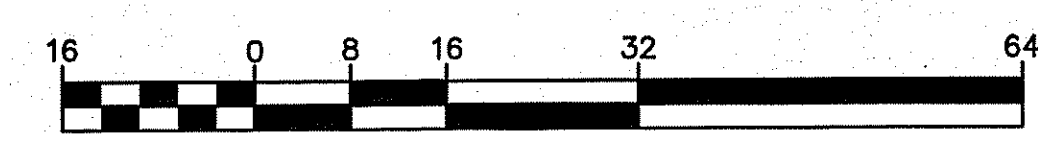
MAP 41-1  
 LOT 18  
 ED TIMPSON & SONS INC  
 96 ROSE HILL RD  
 SOUTH KINGSTOWN, RI 02881  
 BOOK 136 PAGE 107  
 TOTAL AREA: 22.81± ACRES

**UTILITIES:**  
UTILITY ROUTING, UTILITY POLE PLACEMENT AND SOURCE CONNECTION DONE BY OTHERS AND SUBJECT TO CHANGE.

**EQUIPMENT AREA NOTE:**  
THE EXACT LOCATIONS AND ARRANGEMENTS OF EQUIPMENT AREAS AND / OR SHELTERS ARE SUBJECT TO CHANGE BASED ON REQUIRED SPACE AND ARRANGEMENT REQUIRED.



**COMPOUND PLAN**  
SCALE: 1/8"=1'-0"



PROPOSED 150' MONOPOLE WITH GALVANIZED STEEL FINISH (LIGHT GRAY IN COLOR)

**SOUTHEAST ELEVATION**  
SCALE: 1"=10'-0"



SBA TOWERS III, INC.  
5900 BROKEN SOUND PARKWAY, NW  
BOCA RATON, FL 33487-2797  
TEL: (561) 226-9523  
FAX: (561) 226-9368



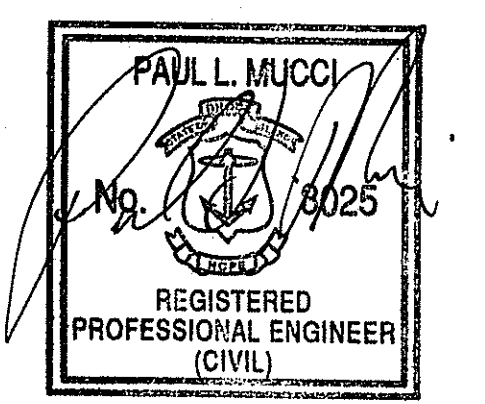
SITE NAME:  
**SBA - KINGSTON 7**

SITE NUMBER:  
**RI 11716-S**

**CONSTRUCTION DRAWINGS**

NO.	DATE	DESCRIPTION
4	05/04/2011	CONSTRUCTION REVISED
3	05/03/2011	CONSTRUCTION REVISED
2	04/05/2011	CONSTRUCTION REVISED
1	04/04/2011	CONSTRUCTION REVISED
0	03/17/2011	FOR CONSTRUCTION

**PROFESSIONAL STAMP**



DRAWN BY: BB

CHECKED BY: ETK

SITE ADDRESS:  
**96 ROSE HILL ROAD  
SOUTH KINGSTOWN, RI**

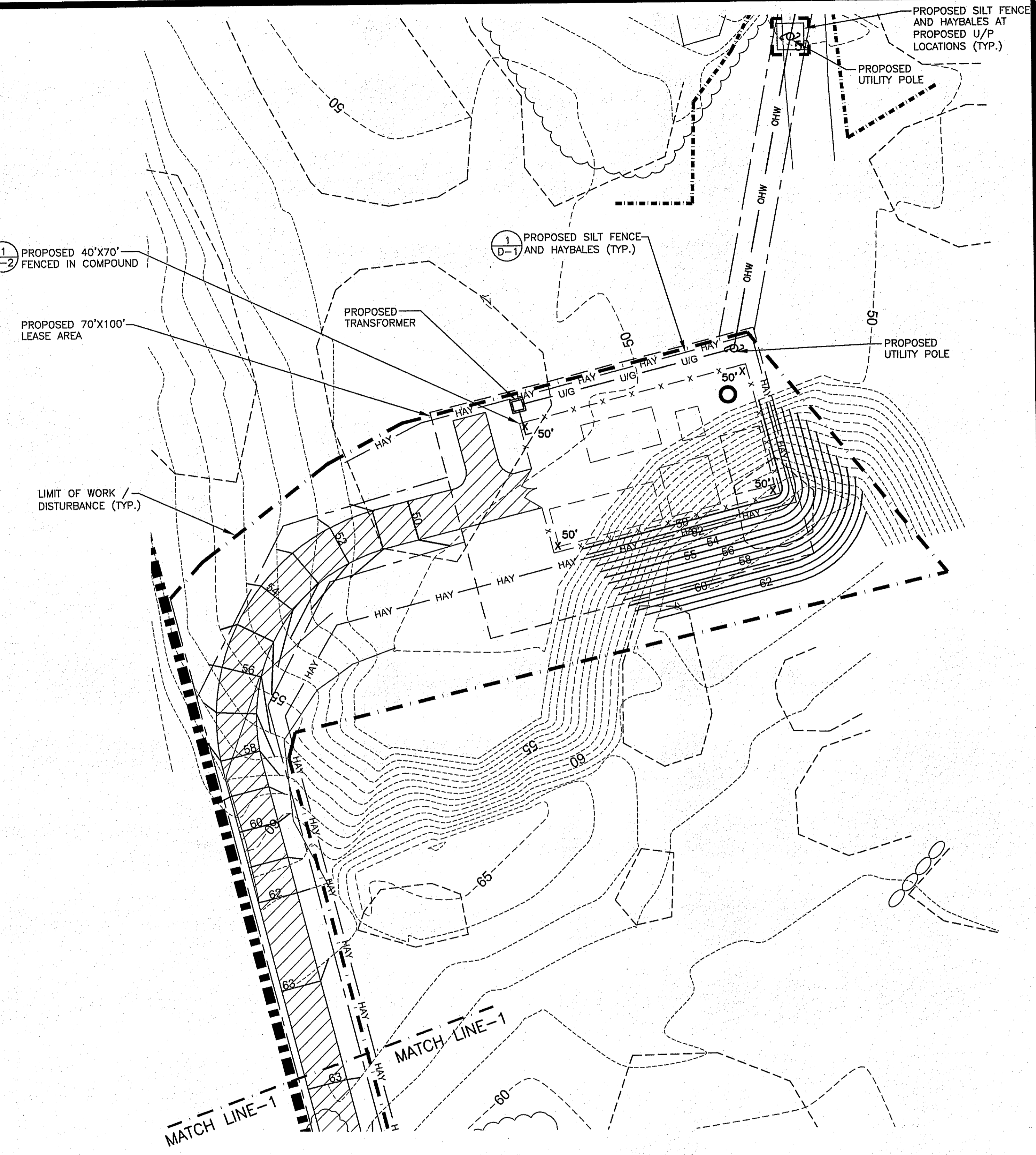
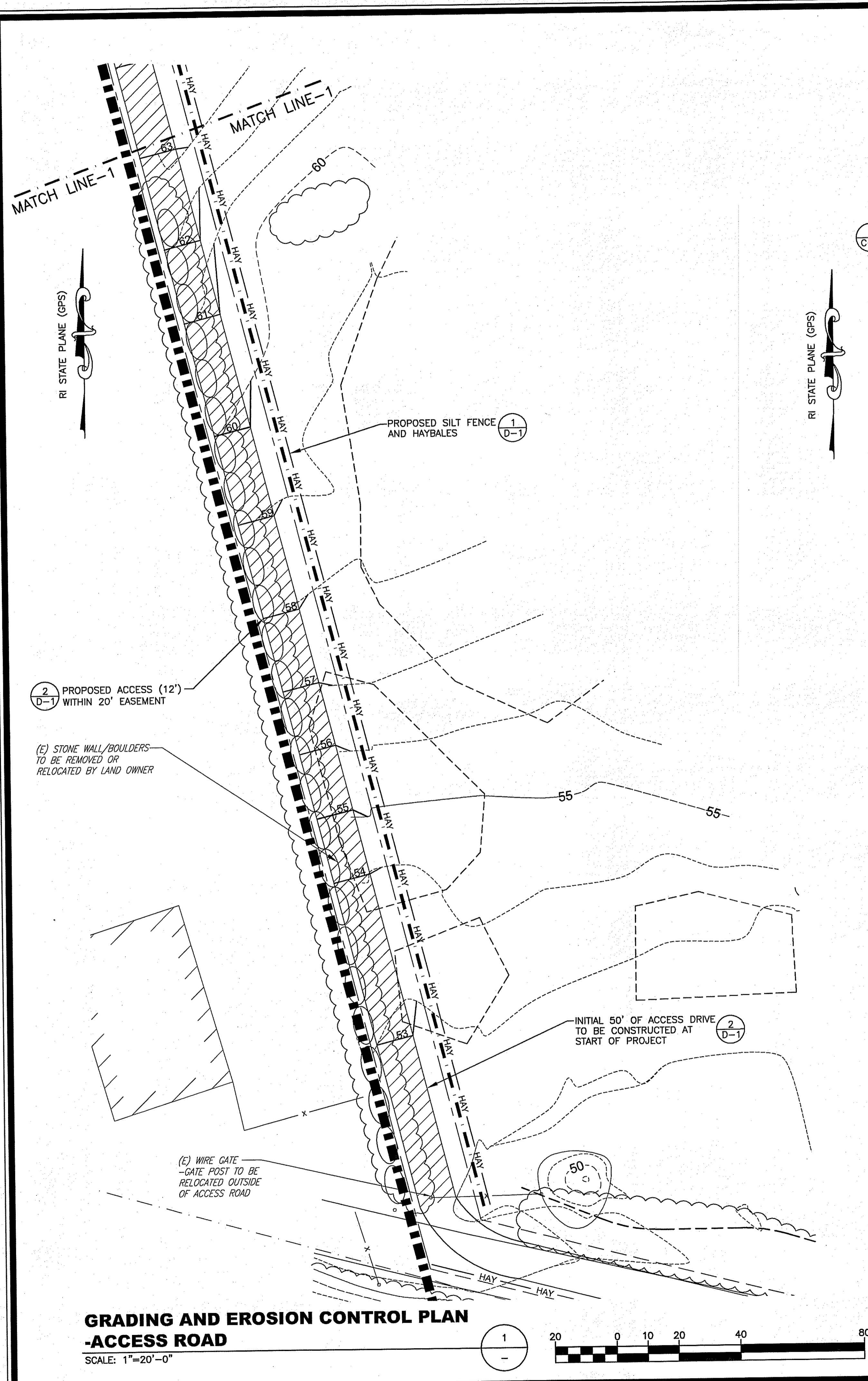
SHEET TITLE:  
**COMPOUND PLAN & ELEVATION**

SHEET NUMBER:  
**C-2**

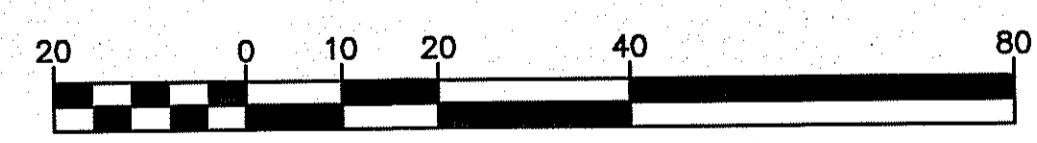
SCALE: THIS PLAN TO SCALE WHEN PRINTED AT 24" x 36"

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED MAY 27 2011 FILE # 10-0213  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE  
*Nancy C. Felma*

Environmental Management  
MAY 9 2011  
Office of Water Resources



**GRADING AND EROSION CONTROL PLAN -COMPOUND PLAN**  
SCALE: 1"=20'-0"



**GRADING NOTES**  
THE GRADING SHOWN IS TO BE CONSIDERED A GUIDELINE FOR WHAT HAS TO BE DONE TO THE SITE. THE EXISTING SITE IS A GRAVEL/DIRT CONSTRUCTION BUSINESS WITH TOPOGRAPHY BEING ADJUSTED DAILY. EXISTING GRADES FOR THE ACCESS DRIVE TO BE FOLLOWED AS POSSIBLE.

**UTILITIES:**  
UTILITY ROUTING, UTILITY POLE PLACEMENT AND SOURCE CONNECTION DONE BY OTHERS AND SUBJECT TO CHANGE.

Environmental Management  
MAY - 9 2011  
Office of Water Resources  
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED MAY 27 2011 FILE # 10-0213  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

**SBA**  
SBA TOWERS III, INC.  
5900 BROKEN SOUND  
PARKWAY, NW  
BOCA RATON, FL 33487-2797  
TEL: (561) 226-9523  
FAX: (561) 226-9368

**AERIAL SPECTRUM**  
INCORPORATED  
20 BLANCHARD RD., SUITE #4  
BURLINGTON, MA 01803

SITE NAME:  
**SBA - KINGSTON 7**

SITE NUMBER:  
**RI 11716-S**

**CONSTRUCTION DRAWINGS**

4	05/04/2011	CONSTRUCTION REVISED
3	05/03/2011	CONSTRUCTION REVISED
2	04/05/2011	CONSTRUCTION REVISED
1	04/04/2011	CONSTRUCTION REVISED
0	03/17/2011	FOR CONSTRUCTION

PROFESSIONAL STAMP  
**PAUL L. MUCCI**  
No. 8025  
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

DRAWN BY: BB

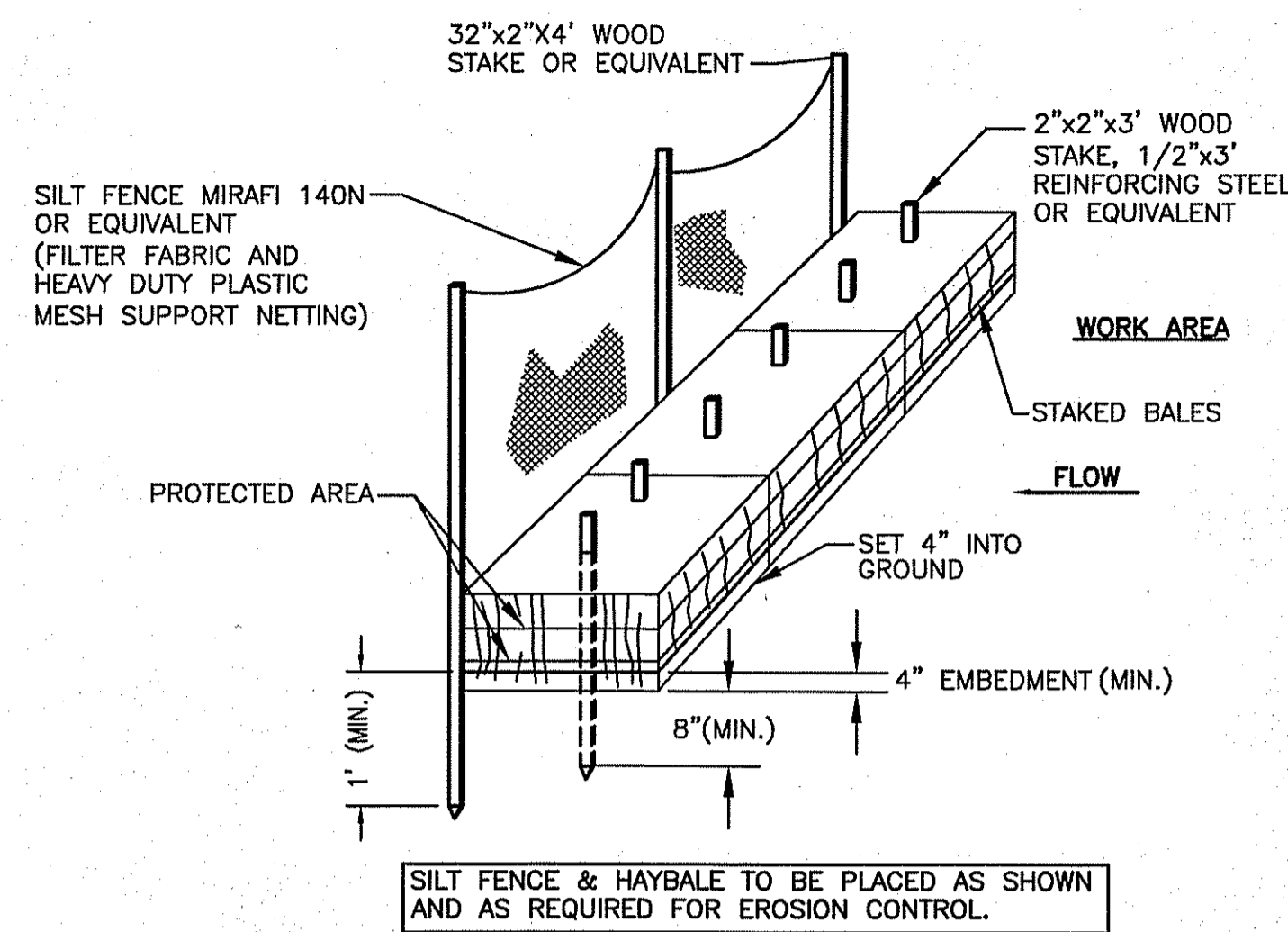
CHECKED BY: ETK

SITE ADDRESS:  
**96 ROSE HILL ROAD  
SOUTH KINGSTOWN, RI**

SHEET TITLE:  
**GRADING AND EROSION CONTROL PLAN**

SHEET NUMBER:  
**C-3**

SCALE: THIS PLAN TO SCALE  
WHEN PRINTED AT 24" x 36"



**HAYBALE NOTES:**

**MAINTENANCE**

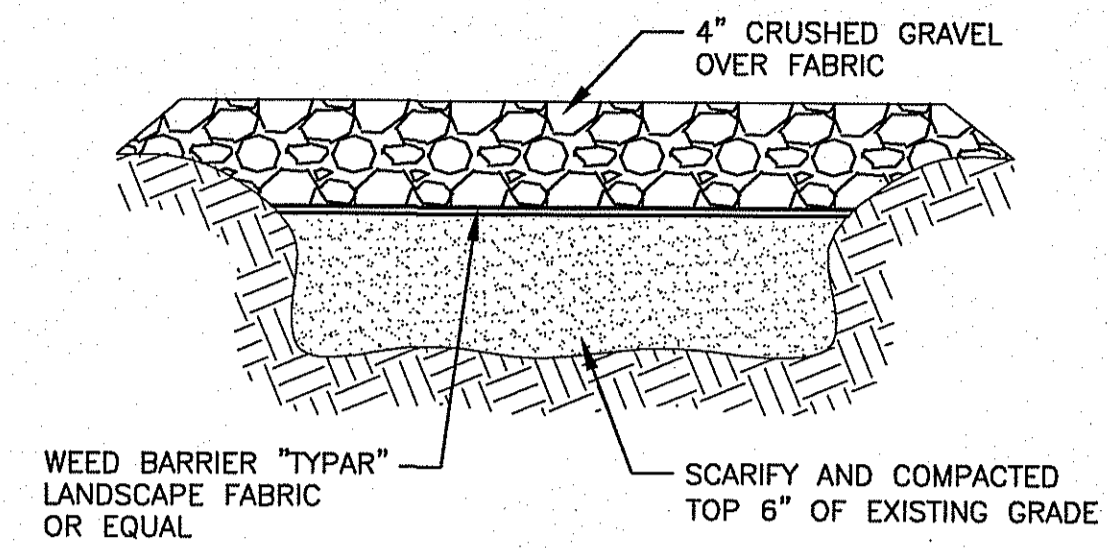
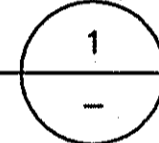
1. STRAW OR HAY BALE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
2. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, UNDERCUTTING BENEATH THE BALES, AND FLOW AROUND THE END OF THE BALES.
3. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROPERLY.
4. SEDIMENT DEPOSITS SHOULD BE CHECKED AFTER EACH RAINFALL. THE DEPOSITS SHOULD BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF OF THE HEIGHT OF THE HAYBALE.
5. SEDIMENT DEPOSITS LEFT IN PLACE AFTER THE BARRIER HAS BEEN DISMANTLED SHALL BE GRADED TO CONFORM WITH THE EXISTING TOPOGRAPHY AND VEGETATED USING APPROPRIATE VEGETATIVE BEST MANAGEMENT PRACTICES (BMP).

**CONSTRUCTION SPECIFICATIONS:**

1. BALES SHALL BE REPLACED IN A ROW WITH THE ENDS TIGHTLY JOINED.
2. EACH BALE SHALL BE EMBEDDED IN THE GROUND A MIN. OF 4 IN.
3. BALES SHALL BE ANCHORED IN PLACE BY AT LEAST TWO STAKES DRIVEN THROUGH THE BALE. THE STAKES SHALL BE DRIVEN AT LEAST 8" INTO THE GROUND.
4. BARRIERS SHALL BE INSPECTED AFTER EVERY RAINFALL AND PROMPTLY REPAIRED OR REPLACED AS NECESSARY.
5. BALES SHALL BE REMOVED WHEN NO LONGER NEEDED. SEDIMENTS SHALL BE COLLECTED AND DISPOSED PROPERLY.

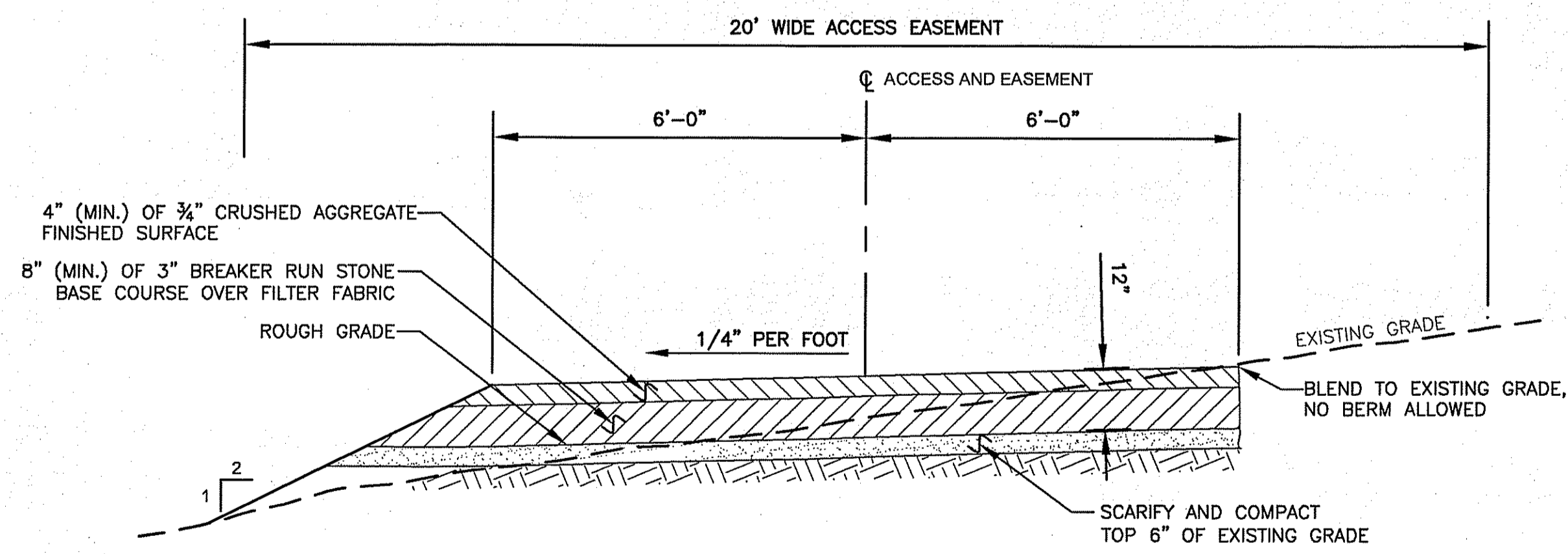
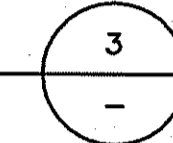
**SILT FENCE / HAYBALE DETAIL**

NO SCALE



**GRAVEL YARD DETAIL**

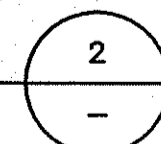
SCALE: N.T.S.



**GRADING NOTE:**  
THE FINAL GRADE OF THE ACCESS ROAD WILL MATCH EXISTING WHERE POSSIBLE.

**GRAVEL ACCESS ROAD DETAIL (12' WIDE)**

SCALE 1/2"=1'-0"



**SOIL STABILIZATION AND PLANTING PROGRAM:**

1. THE COMPOUND IS LOCATED ON AN EXISTING GRAVEL/DIRT CONSTRUCTION YARD, NO LANDSCAPING OTHER THAN THE REQUIRED GRADING IS PROPOSED.

**EROSION CONTROL PROGRAM:**

1. PRIOR TO START OF CONSTRUCTION, HAYBALES, SILT FENCES AND ALL OTHER SPECIFIED EROSION CONTROL FENCES SHALL BE IN PLACE.
2. CRITICAL AREAS SUCH AS WETLAND AREAS, SLOPES AND STREAMS SHALL BE PROTECTED AS PER PLAN AND, IN THE PRESENCE OF WETLANDS, THE CONDITIONS OF THE ASSENT ORDER SHALL BE ADHERED TO.
3. THE CONTRACTOR SHALL BE REQUIRED TO ESTABLISH AND FULLY MAINTAIN ALL REQUIRED EROSION AND SEDIMENTATION CONTROLS.

**SEDIMENTATION CONTROL PROGRAM:**

1. ALL EXPOSED SLOPES, INCLUDING STOCKPILES OF MATERIAL, SHALL RECEIVE TEMPORARY SEDIMENTATION AND EROSION CONTROLS. THIS WILL INCLUDE LOAMING AND SEEDING, MULCHING, HAYMATS, ETC. TO STABILIZE THE AREA.
2. ALL DRAINAGE STRUCTURES SHALL BE SURROUNDED BY HAYBALES TO PREVENT INFILTRATION OF SEDIMENTS.
3. SHOULD SEDIMENTS ENTER A CRITICAL AREA (WETLAND, BUFFER ZONE, ABUTTING PROPERTY) THE CONTRACTOR SHALL IMMEDIATELY CLEAN AND RESTORE THE EFFECTED AREA.

**GENERAL NOTES:**

1. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO OBTAIN ANY AND ALL PERMITS REQUIRED BY THE STATE AND MUNICIPALITY IN WHICH WORK IS BEING PERFORMED PRIOR TO THE START OF ANY WORK.
2. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO DOCUMENT EXISTING CONDITIONS OF SURROUNDING PROPERTIES AND TO MAINTAIN THE INTEGRITY OF THE SAME. ANY DAMAGE TO AND THE COST OF REPAIR OF UTILITIES, ROADWAYS, STRUCTURES AND SURROUNDING PROPERTY SHALL BE FULLY BORNE BY THE CONTRACTOR.
3. ALL WORKMANSHIP AND MATERIALS SHALL MEET OR EXCEED THE LATEST STANDARDS OF THE MUNICIPALITY, AND THE LATEST STATE STANDARDS AND SPECIFICATIONS PUBLISHED FOR ROAD AND BRIDGE CONSTRUCTION.
4. CONTACT DIG SAFE AND UTILITY COMPANIES FOR EXACT ON-SITE LOCATION OF EXISTING UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL OBTAIN REQUIRED INSPECTION SCHEDULE OF THE MUNICIPALITY, UTILITY COMPANIES AND ALL OTHER REQUIRED PARTIES AND SHALL STRICTLY ADHERE TO THOSE REQUIREMENTS.
6. ALL CONTRACTORS SHALL ADHERE TO ALL CONDITIONS OF CONSTRUCTION APPROVALS AND SHALL KEEP A COPY OF ALL APPROVALS ON-SITE DURING CONSTRUCTION. CONTRACTOR SHALL READ ALL APPROVALS PRIOR TO START OF CONSTRUCTION AND SHALL CLARIFY ANY QUESTIONS BEFOREHAND.



SBA TOWERS III, INC.  
5900 BROKEN SOUND  
PARKWAY, NW  
BOCA RATON, FL 33487-2797  
TEL: (561) 226-9523  
FAX: (561) 226-9368



AERIAL  
SPECTRUM  
INCORPORATED  
20 BLANCHARD RD., SUITE #4  
BURLINGTON, MA 01803

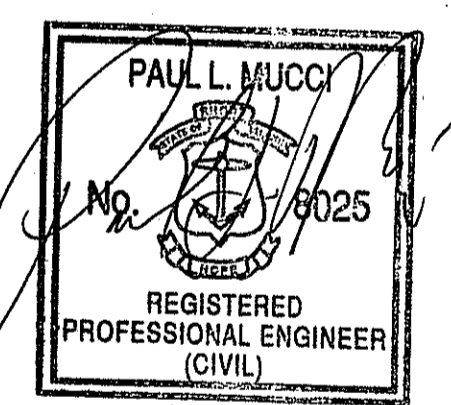
SITE NAME:  
**SBA - KINGSTON 7**

SITE NUMBER:  
**RI 11716-S**

**CONSTRUCTION DRAWINGS**

NO.	DATE	DESCRIPTION
4	05/04/2011	CONSTRUCTION REVISED
3	05/03/2011	CONSTRUCTION REVISED
2	04/05/2011	CONSTRUCTION REVISED
1	04/04/2011	CONSTRUCTION REVISED
0	03/17/2011	FOR CONSTRUCTION

**PROFESSIONAL STAMP**



DRAWN BY: BB

CHECKED BY: ETK

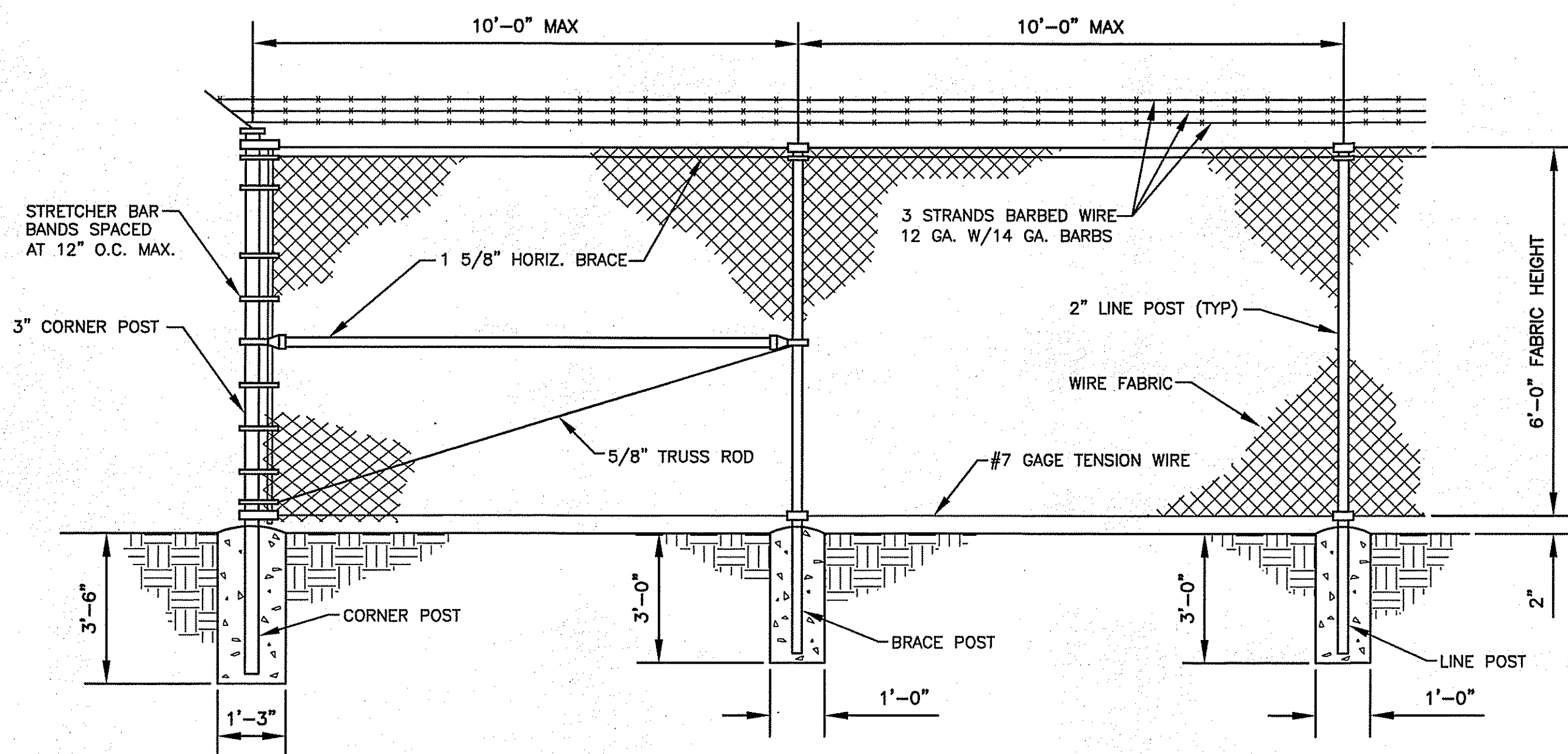
SITE ADDRESS:  
**96 ROSE HILL ROAD  
SOUTH KINGSTOWN, RI**

SHEET TITLE:  
**GRADING AND  
EROSION CONTROL  
DETAILS AND NOTES**

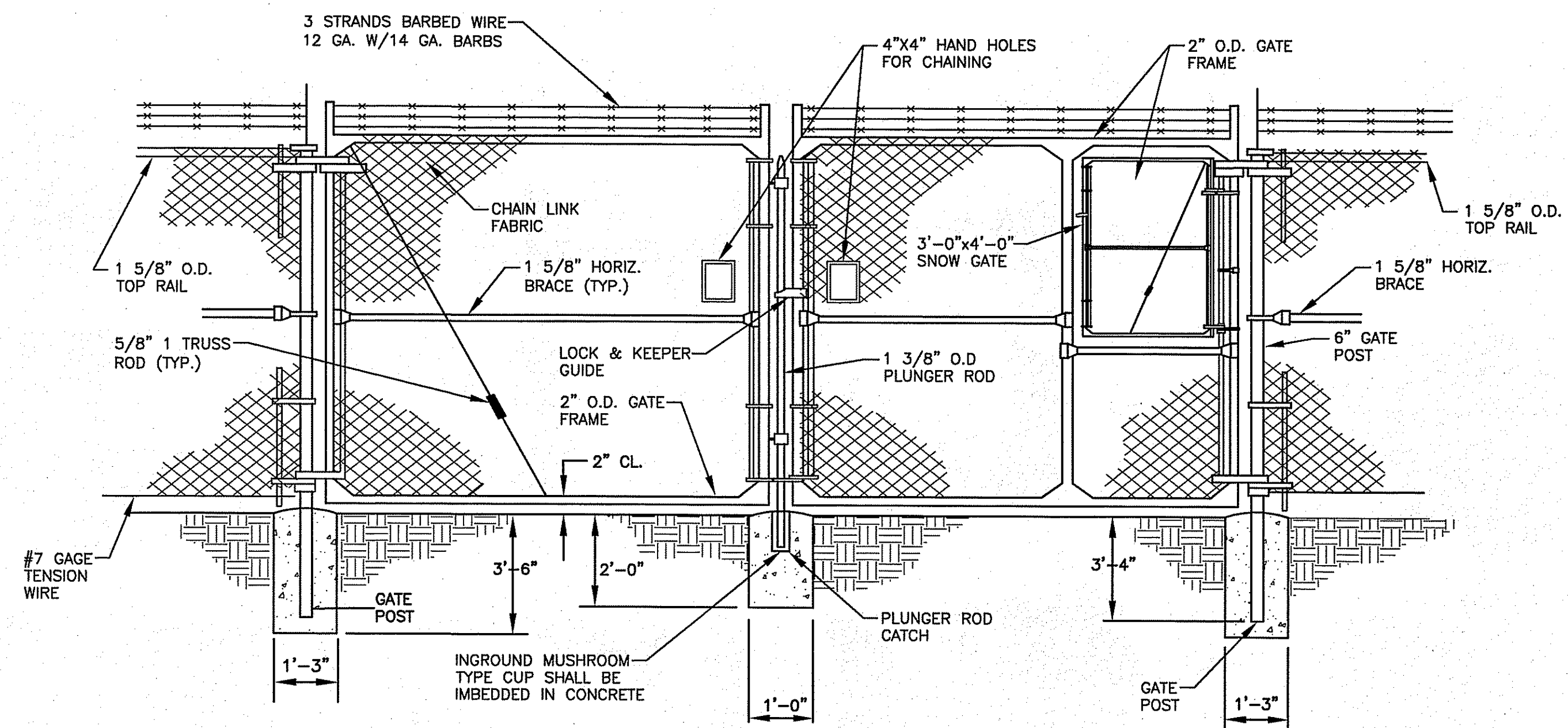
SHEET NUMBER:  
**D-1**

SCALE: THIS PLAN TO SCALE  
WHEN PRINTED AT 24" x 36"

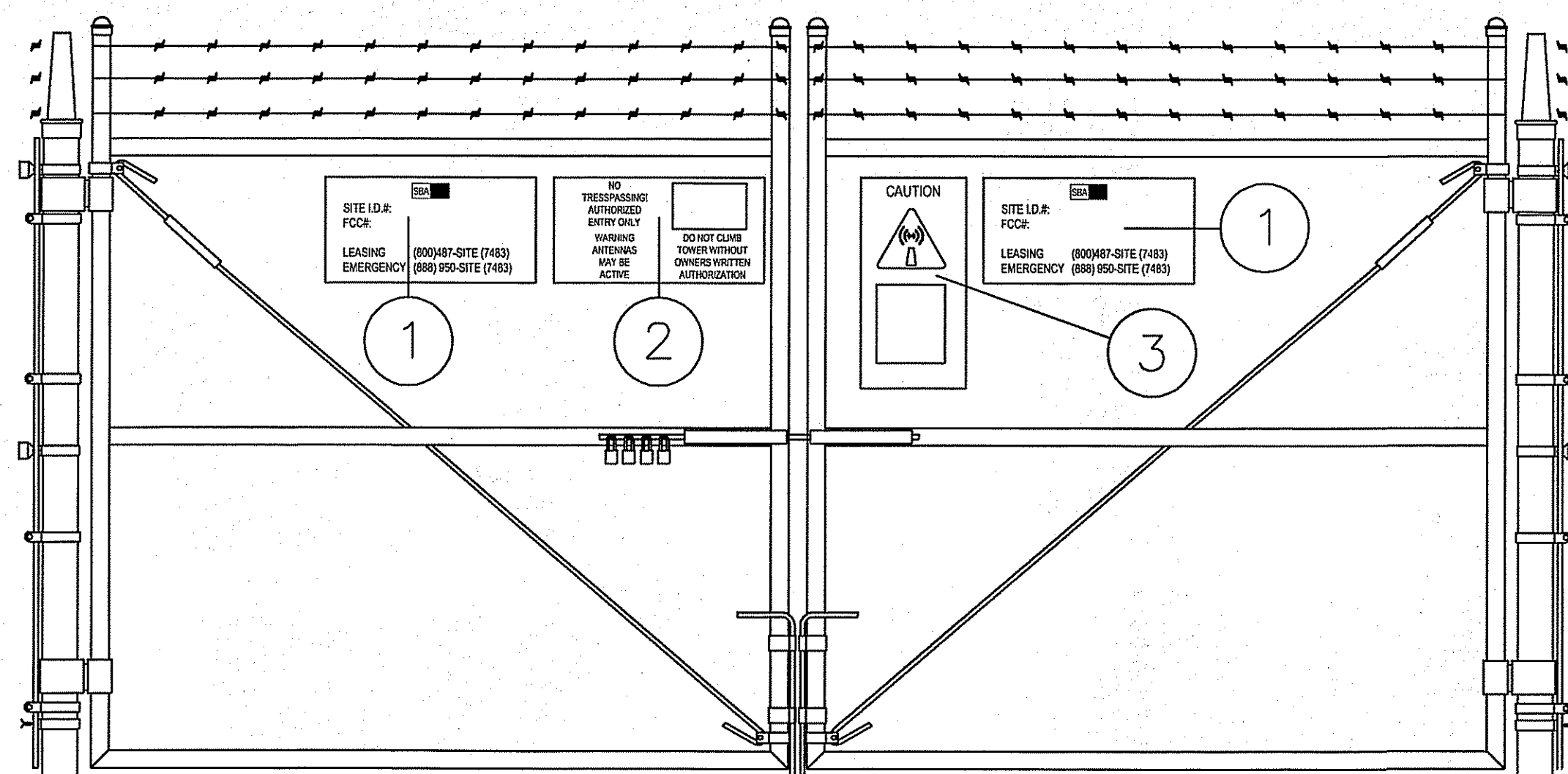
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED MAY 27 2011 FILE # 10-0213  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE  
*Nancy L. Freeman*



**TYPICAL FENCE DETAIL**  
NO SCALE



**DOUBLE-SWING 14' GATE**  
NO SCALE



- ① 12" x 24" SBA SITE INFORMATION SIGN.
- ② 12" x 24" NO TRESPASSING SIGN.
- ③ 12" x 24" RF CAUTION SIGN.
- ④ 18" x 12" KEEP GATE CLOSED SIGN.

**SIGNAGE DETAIL**  
NO SCALE

**CHAIN LINK FENCE (CLF) NOTES:**

1. CHAIN LINK FABRIC, POSTS, RAILS, TRUSS RODS, TENSION WIRES, TIE WIRES, STRETCHER BARS, GATES, FITTINGS AND HARDWARE SHALL MEET THE REQUIREMENTS OF AASHTO W 181.
2. ALL FENCE INSTALLATIONS PER ASTM F-567 AND SWING GATE INSTALLATION PER ASTM F-900.
3. GATE POST, CORNER, TERMINAL, LINE OR PULL POST SHALL BE RIGID GALVANIZED STEEL (RSG), SCHEDULE 40 PER ASTM-F1083. MAXIMUM DISTANCE BETWEEN VERTICAL POSTS SHALL BE 10'.
4. THE GATE FRAME, TOP RAIL AND BRACING SHALL BE 1 1/2" DIA. SCHEDULE 40 PIPE PER ASTM-F1083.
5. FENCE WIRE FABRIC SHALL BE GALVANIZED, 9 GAUGE CORE WIRE SIZE 2" MESH CONFORMING TO ASTM-A392.
6. TIE WIRE SHALL BE A MINIMUM 9 GAUGE STEEL AT POSTS AND RAILS. A SINGLE RAP OF FABRIC TIE AND AT TENSION WIRE BY HOG RINGS SPACED AT A MAXIMUM OF 24" INTERVALS.
7. TENSION WIRE SHALL BE GALVANIZED 7 GAUGE STEEL.
8. BARBED WIRE SHALL BE 1' IN HEIGHT UNLESS SHOWN OTHERWISE.
9. PLEASE REFER TO LOCAL ORDINANCE FOR BARBED WIRE REQUIREMENTS. IF BARBED WIRE IS NOT STIPULATED IN LOCAL ORDINANCE, IT SHALL BE DOUBLE STRANDED 12 1/2" O.D. TWISTED WIRE TO MATCH 12 GAUGE FABRIC. BARBS SHALL BE 4 POINT SPACED APPROXIMATELY 5" O.C.
10. GATE LATCH SHALL CONSIST OF A 1 3/8" O.D. PLUNGER ROD W/ MUSHROOM TYPE CATCH AND LOCK.
11. LOCK AND KEY SHALL BE CONSISTENT FOR ALL SITES AND AS APPROVED BY CONSTRUCTION MANAGER.
12. CONCRETE FOR POST BASES SHALL BE 3000 PSI AT 28 DAY STRENGTH.



SBA TOWERS III, INC.  
5900 BROKEN SOUND  
PARKWAY, NW  
BOCA RATON, FL 33487-2797  
TEL: (561) 226-9523  
FAX: (561) 226-9368



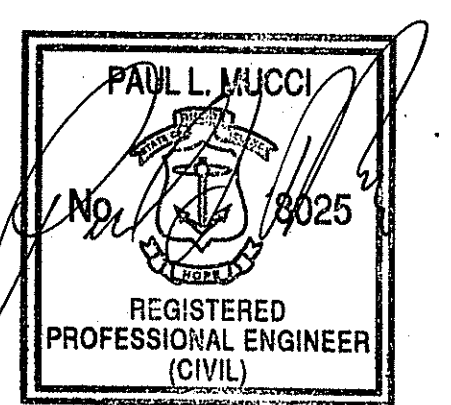
SITE NAME:  
**SBA - KINGSTON 7**

SITE NUMBER:  
**RI 11716-S**

**CONSTRUCTION DRAWINGS**

NO.	DATE	DESCRIPTION
4	05/04/2011	CONSTRUCTION REVISED
3	05/03/2011	CONSTRUCTION REVISED
2	04/05/2011	CONSTRUCTION REVISED
1	04/04/2011	CONSTRUCTION REVISED
0	03/17/2011	FOR CONSTRUCTION

**PROFESSIONAL STAMP**



DRAWN BY: BB

CHECKED BY: ETK

SITE ADDRESS:  
**96 ROSE HILL ROAD  
SOUTH KINGSTOWN, RI**

SHEET TITLE:  
**FENCE DETAILS - 1**

SHEET NUMBER:  
**D-2**

SCALE: THIS PLAN TO SCALE  
WHEN PRINTED AT 24" x 36"

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED MAY 21 2011 FILE # 10-0213  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE  
*Nancy L. Freeman*



SBA TOWERS III, INC.  
5900 BROKEN SOUND  
PARKWAY, NW  
BOCA RATON, FL 33487-2797  
TEL: (561) 226-9523  
FAX: (561) 226-9368



20 BLANCHARD RD., SUITE #4  
BURLINGTON, MA 01803

SITE NAME:

SBA - KINGSTON 7

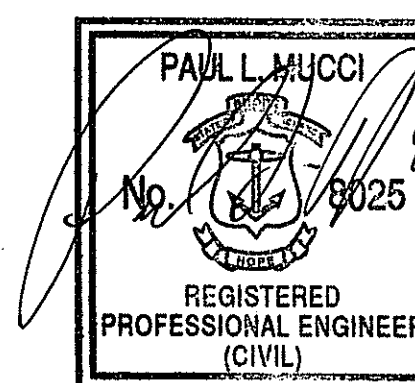
SITE NUMBER:

RI 11716-S

CONSTRUCTION DRAWINGS

4	05/04/2011	CONSTRUCTION REVISED
3	05/03/2011	CONSTRUCTION REVISED
2	04/05/2011	CONSTRUCTION REVISED
1	04/04/2011	CONSTRUCTION REVISED
0	03/17/2011	FOR CONSTRUCTION

PROFESSIONAL STAMP



DRAWN BY: BB

CHECKED BY: ETK

SITE ADDRESS:

96 ROSE HILL ROAD  
SOUTH KINGSTOWN, RI

SHEET TITLE:

FENCE DETAILS - 2

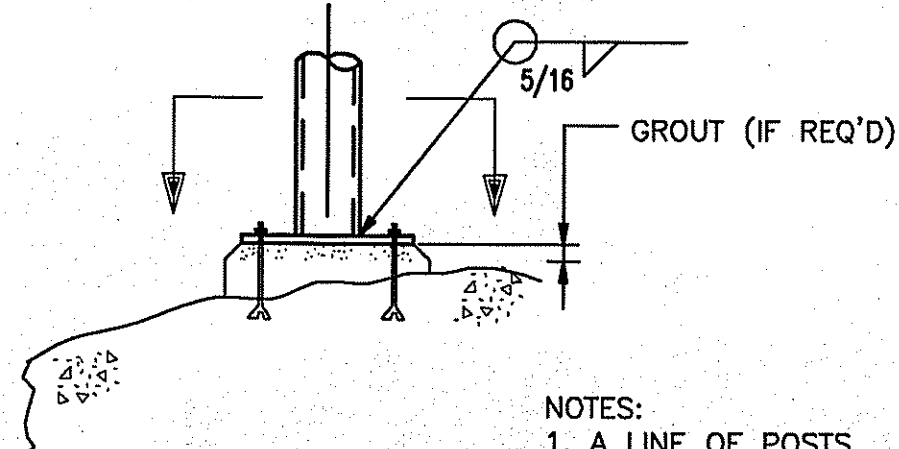
SHEET NUMBER:

D-3

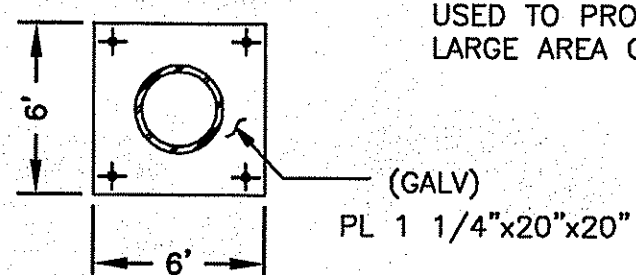
SCALE: THIS PLAN TO SCALE  
WHEN PRINTED AT 24" x 36"

4-5/8" GALV HILTI  
KWIK BOLT II OR  
EQUIV WITH MIN 3"  
EMBEDMENT  
(BOLT HOLES = 7/8")

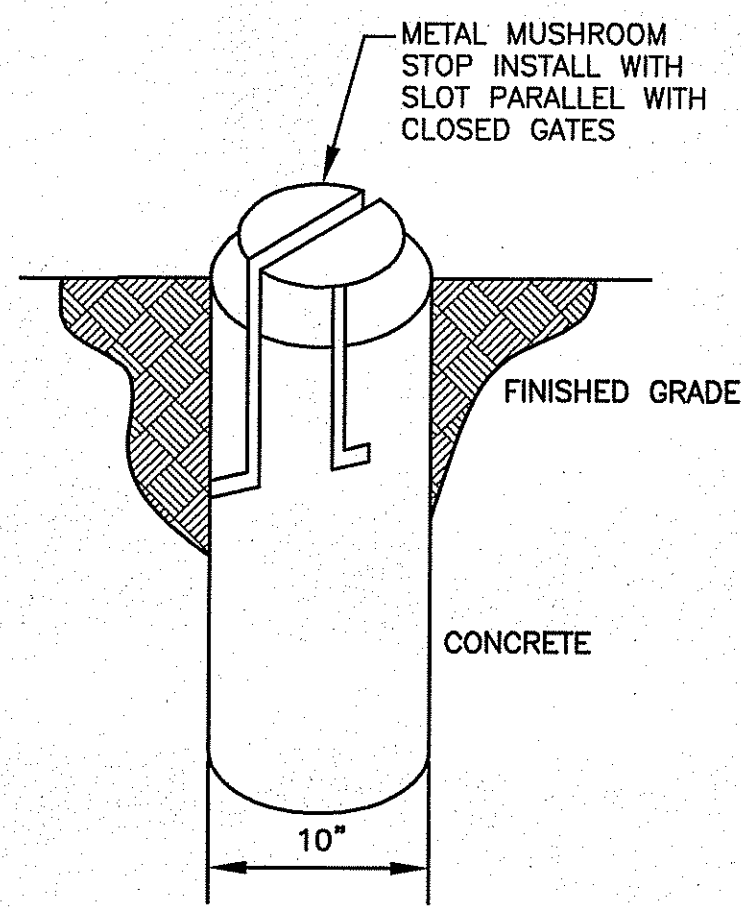
FENCE NOTES:  
1. IF SOLID ROCK IS ENCOUNTERED  
SEE DETAIL BELOW



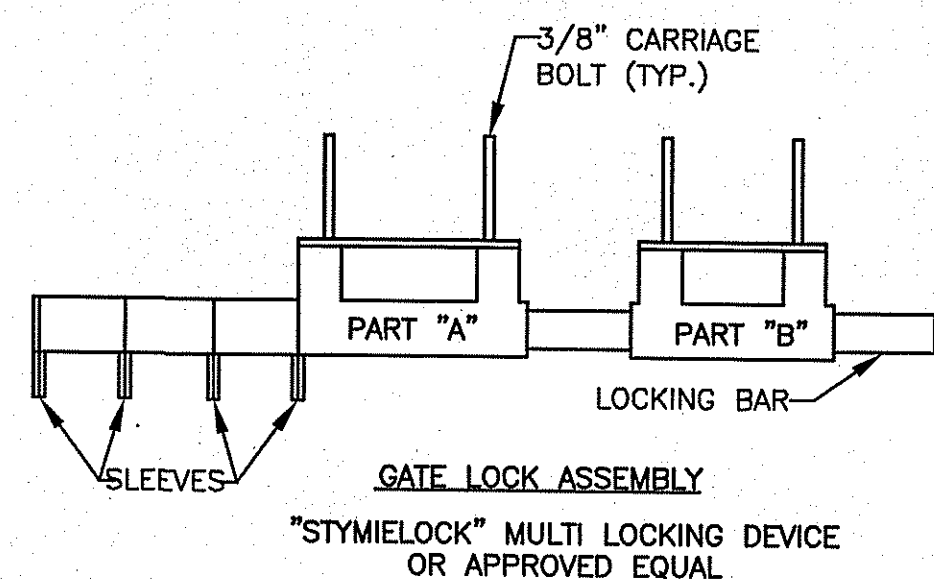
NOTES:  
1. A LINE OF POSTS  
SPACED AT 10'-0" O.C.  
USED TO PROTECT A  
LARGE AREA OR OBJECT.



**SOLID ROCK FOOTING DETAIL** 1  
NO SCALE



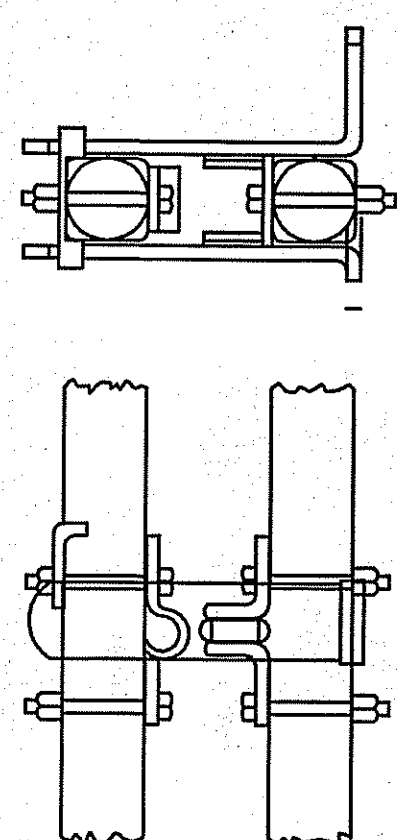
**MUSHROOM STOP** 2  
NO SCALE



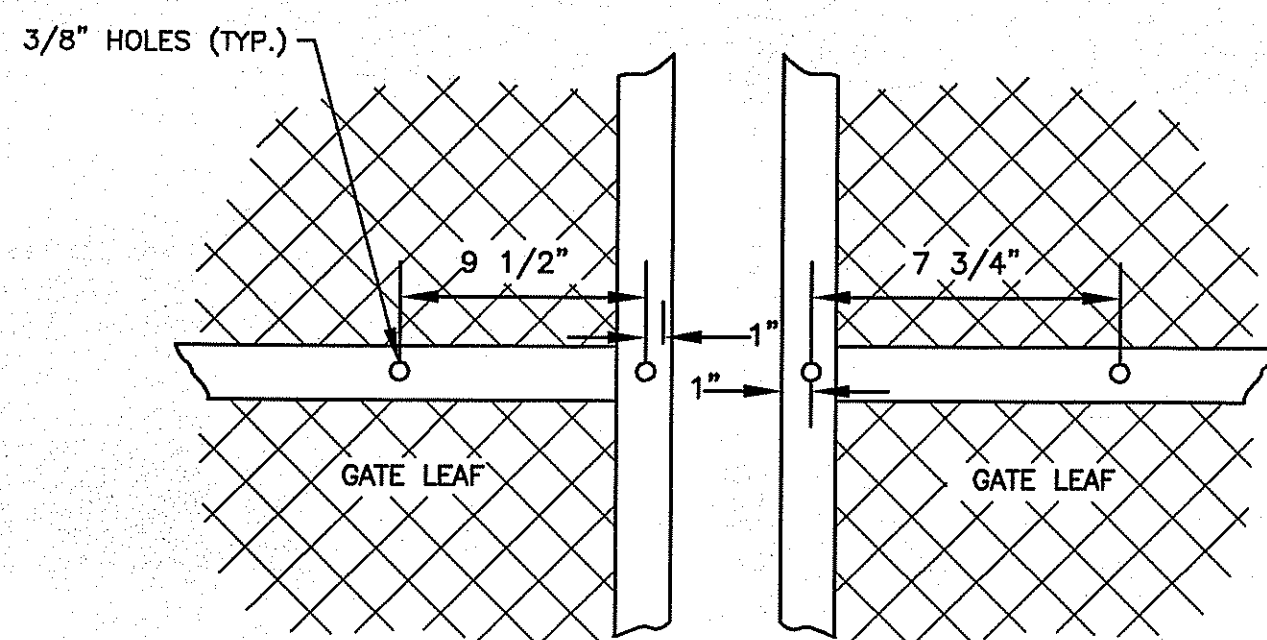
**GATE LOCK ASSEMBLY DETAIL** 3  
NO SCALE

STYMILOCK INSTALLATION

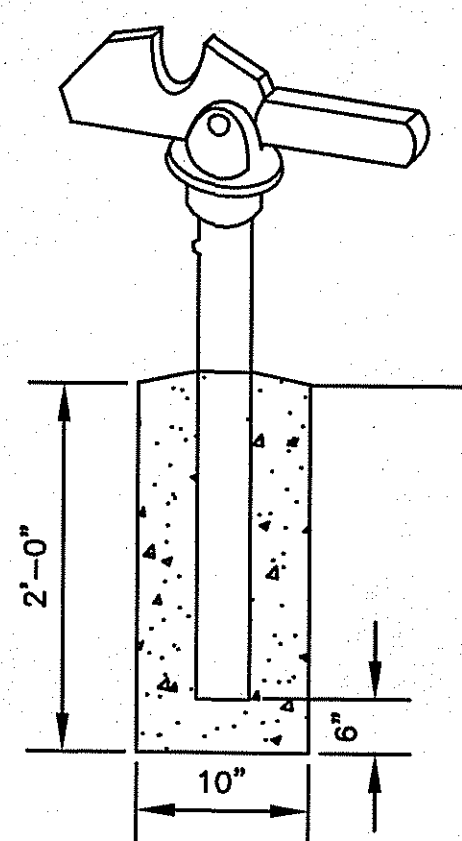
1. DRILL 3/8" HOLES IN THE GATE LEAF USING THE GATE DIMENSIONS PROVIDED.
2. SLIDE THE CARRIAGE BOLTS IN THE SLOTS ON THE BACK OF PART "B" AND PUSH THE BOLTS THROUGH THE HOLES DRILLED IN THE GATE LEAF. PUT THE NUT AND THE LOCKNUT ON AND TIGHTEN AND CUT THE EXCESS BOLT OFF. DO THE SAME WITH PART "A".
3. ADD THE NUMBER OF SLEEVES NEEDED FOR THE NUMBER OF LOCKS AND SLIDE THE LOCKING BAR INTO PLACE THROUGH BOTH PART "A" AND PART "B". NOW INSTALL THE LOCKS.
4. IF THE GATE HAS NO CENTER BAR IN THE GATE LEAF YOU MAY NEED TO MOUNT THE STYMILOCK VERTICALLY USING THE SAME DIMENSIONS GIVEN ON THE GATE FACE.
5. VERTICAL APPLICATION MAY ALSO BE USED ON SLIDING GATES WITH MULTIPLE LOCKS.



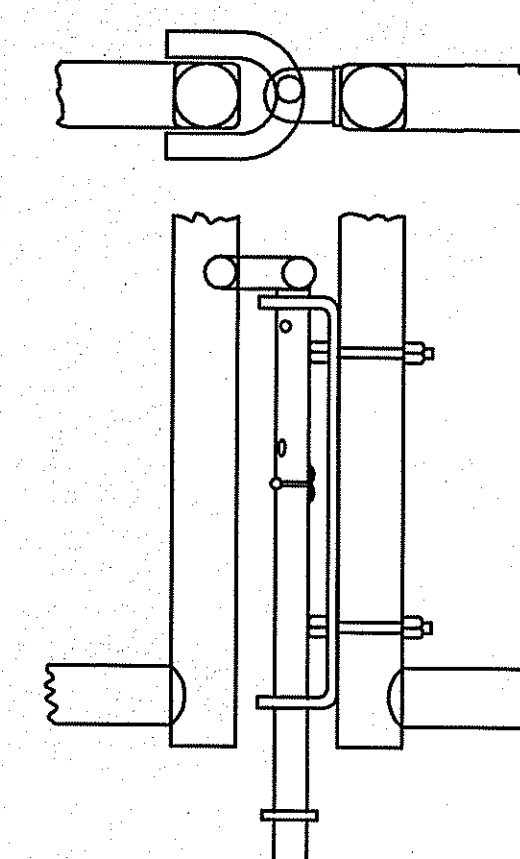
**LATCH ASSEMBLY** 4  
NO SCALE



**STYMILOCK DETAIL** 5  
NO SCALE



**GATE KEEPER** 6  
NO SCALE

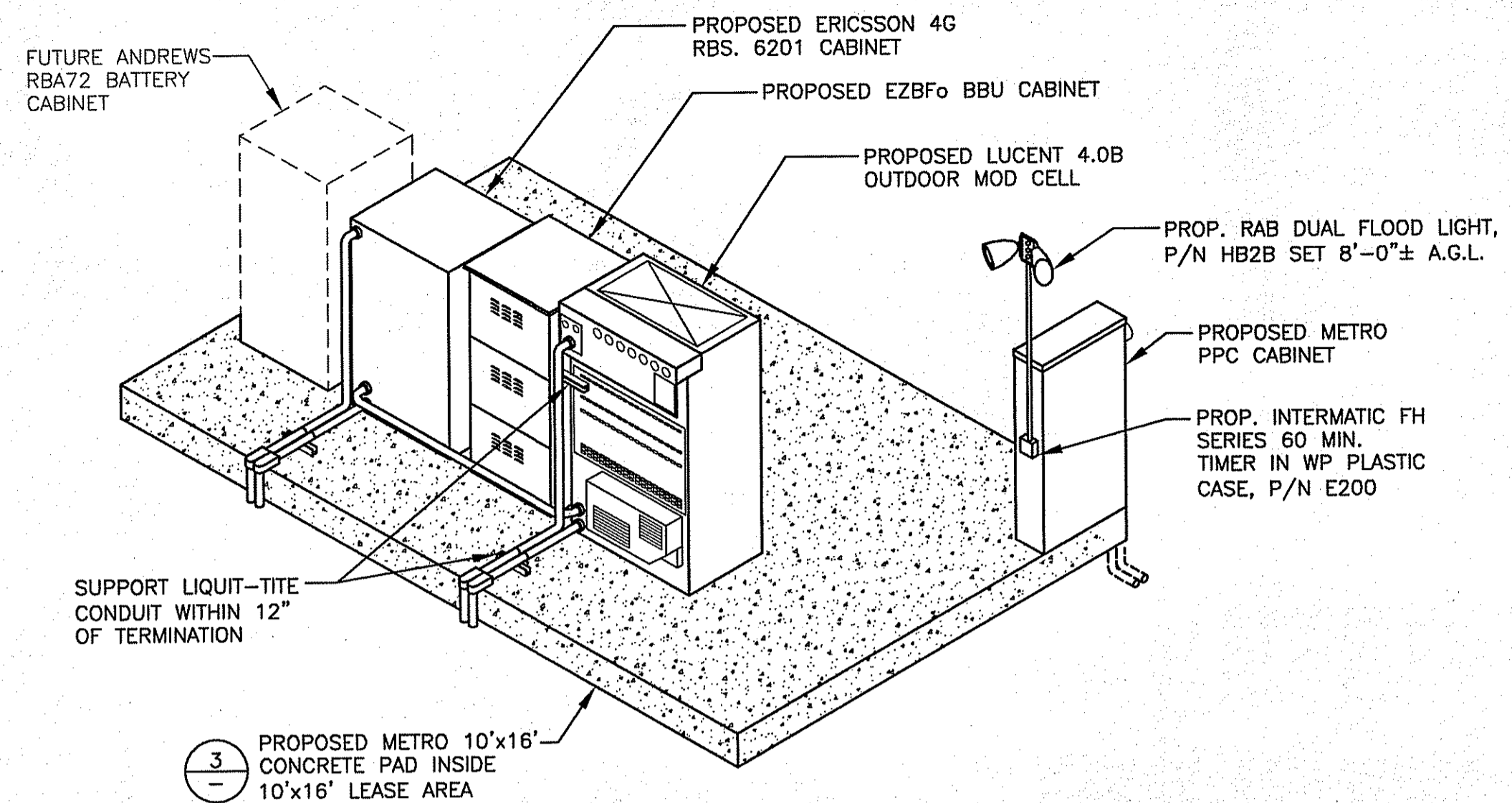


**DROP ROD ASSEMBLY** 7  
NO SCALE

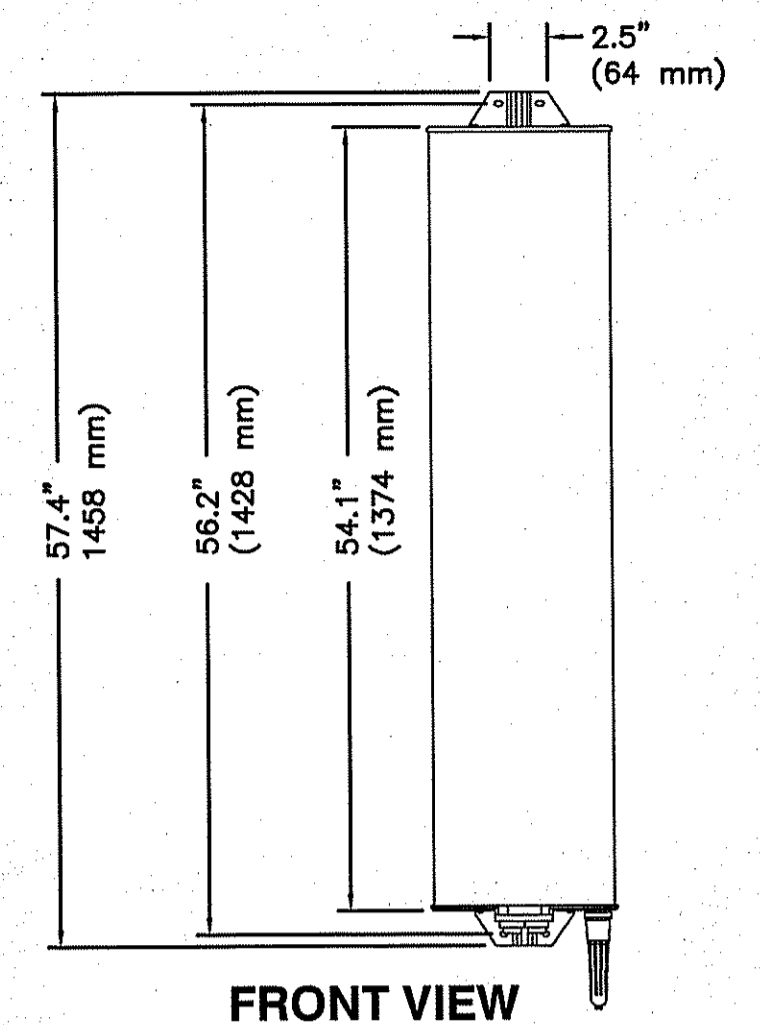
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED MAY 27 2011 FILE # 12-0213  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

Environmental Management  
MAY - 9 2011  
Office of Water Resources

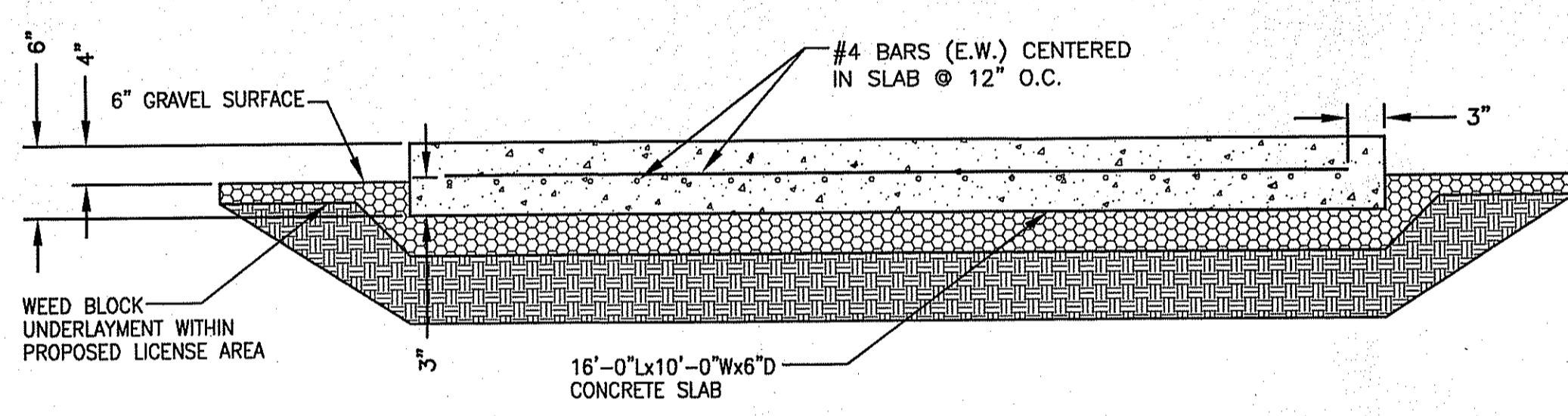
*Nancy Felina*



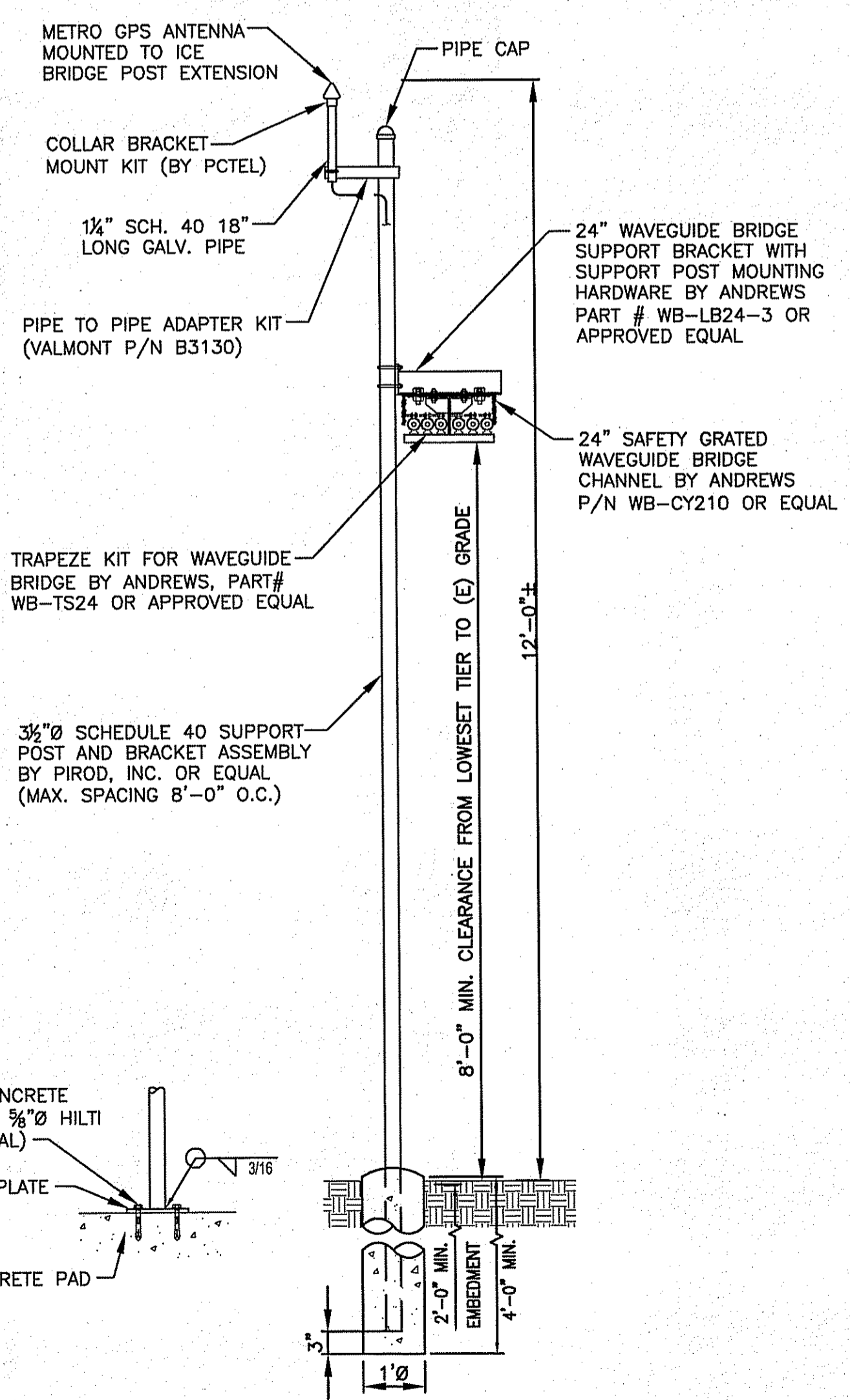
**EQUIPMENT DETAIL - METROPCS (BY OTHERS)**  
SCALE: N.T.S.



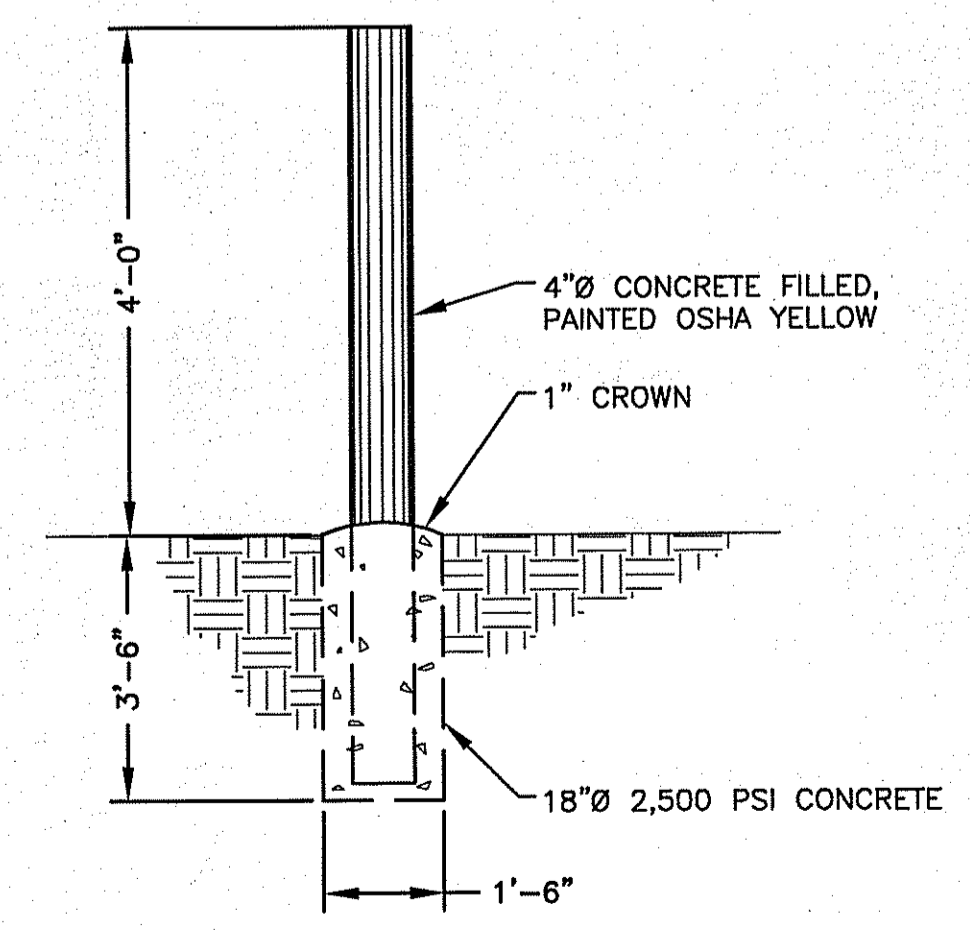
**ANTENNA DETAIL - METROPCS (BY OTHERS)**  
SCALE: N.T.S.



**CONCRETE EQUIPMENT PAD - METROPCS (BY OTHERS)**  
SCALE: N.T.S.



**SECTION AT CABLE BRIDGE - METROPCS (BY OTHERS)**  
SCALE: 3/4"=1'-0"



**BOLLARD DETAIL**  
NO SCALE

- STRUCTURAL NOTES:**
- DESIGN REQUIREMENTS ARE PER STATE BUILDING CODE AND APPLICABLE SUPPLEMENTS, ANSI/ASCE7, EIA/TIA-222-G STRUCTURAL STANDARDS FOR STEEL ANTENNA SUPPORTING STRUCTURES.
  - CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE CONSTRUCTION MANAGER.
  - DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
  - STRUCTURAL AND MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36 STRUCTURAL STEEL UNLESS OTHERWISE INDICATED.
  - STEEL PIPE SHALL CONFORM TO ASTM A500 "COLD-FORMED WELDED & SEAMLESS CARBON STEEL STRUCTURAL TUBING", GRADE A, OR ASTM A53 PIPE STEEL BLACK AND HOT-DIPPED ZINC-COATED WELDED AND SEAMLESS TYPE E OR S, GRADE B. PIPE SIZES INDICATED ARE NOMINAL. ACTUAL OUTSIDE DIAMETER IS LARGER.
  - STRUCTURAL CONNECTION BOLTS SHALL BE HIGH STRENGTH BOLTS (BEARING TYPE) CONFORM TO ASTM A325 "HIGH STRENGTH BOLTS FOR STRUCTURAL JOINTS, INCLUDING SUITABLE NUTS AND PLAIN HARDENED WASHERS". ALL BOLTS SHALL BE 5/8" DIA. UON.
  - ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS OTHERWISE NOTED.
  - ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS OTHERWISE NOTED.
  - FIELD WELDS, DRILL HOLES, SAW CUTS AND ALL DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED WITH AN ORGANIC ZINC REPAIR PAINT COMPLYING WITH REQUIREMENTS OF ASTM A780. GALVANIZING REPAIR PAINT SHALL HAVE 65 PERCENT ZINC BY WEIGHT, ZIRP BY DUNCAN GALVANIZING, GALVA BRIGHT PREMIUM BY CROWN OR EQUAL. THICKNESS OF APPLIED GALVANIZING REPAIR PAINT SHALL BE NOT LESS THAN 4 COATS (ALLOW TIME TO DRY BETWEEN COATS) WITH A RESULTING COATING THICKNESS REQUIRED BY ASTM A123 OR A153 AS APPLICABLE.
  - CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS, AND FOR METHODS USED IN CORRECTING WELDING. ALL WELDERS AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURES". ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND D.I. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION.
  - INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NON-CONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE CONSTRUCTION MANAGER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE CONSTRUCTION MANAGER APPROVAL.
  - UNISTRUTS SHALL BE FORMED STEEL CHANNEL STRUT FRAMING AS MANUFACTURED BY UNISTRUT CORP, WAYNE, MI OR EQUAL. STRUT MEMBERS SHALL BE 1 5/8"x1 5/8"x12GA, UNLESS OTHERWISE NOTED, AND SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
  - EPOXY ANCHOR ASSEMBLY SHALL CONSIST OF 1/2" DIAMETER STAINLESS STEEL ANCHOR ROD WITH NUTS & WASHERS, AN INTERNALLY THREADED INSERT, A SCREEN TUBE AND A EPOXY ADHESIVE. THE ANCHORING SYSTEM SHALL BE THE HILTI-HIT HY-20 AND OR HY-150 SYSTEMS (AS SPECIFIED AN DWG.) OR ENGINEERS APPROVED EQUAL WITH 4-1/4" MIN. EMBEDMENT DEPTH.
  - EXPANSION BOLTS SHALL CONFORM TO FEDERAL SPECIFICATION FF-S-325, GROUP II, TYPE 4, CLASS 1, HILTI KWIK BOLT II OR APPROVED EQUAL. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MINIMUM EMBEDMENT SHALL BE THREE AND ONE HALF (3 1/2) INCHES.
  - GRAVEL SUB BASE AND CONCRETE SHALL BE PLACED AGAINST UNDISTURBED SOIL.
  - CONCRETE FOR FENCE AND ICE BRIDGE SUPPORT SHALL BE 3000 PSI AIR ENTRAINED (4%-6%) NORMAL WEIGHT CONCRETE.
  - ALL CAST IN PLACE CONCRETE SHALL BE MIXED AND PLACED IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318 AND ACI 301.
  - THE FOLLOWING MINIMUM CONCRETE COVER OVER REINFORCING STEEL SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:  
CONCRETE CAST AGAINST EARTH ... 3 INCHES.  
CONCRETE EXPOSED TO EARTH OR WATER  
#6 AND LARGER .....2 INCHES  
#5 AND SMALLER .....1 1/2 INCHES
  - ALL EXPOSED EDGES SHALL BE PROVIDED WITH A 3/4"x3/4" CHAMFER UNLESS NOTED OTHERWISE.
  - LUMBER SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION AND THE NATIONAL FOREST PRODUCTS ASSOCIATION'S NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION. ALL LUMBER SHALL BE PRESSURE TREATED AND SHALL BE STRUCTURAL GRADE NO. 2 OR BETTER.
  - WHERE ROOF PENETRATIONS ARE REQUIRED, THE CONTRACTOR SHALL CONTACT AND COORDINATE RELATED WORK WITH THE PROPERTY OWNER AND THE EXISTING ROOF INSTALLER. WORK SHALL BE PERFORMED IN SUCH A MANNER AS TO NOT VOID THE EXISTING ROOF WARRANTY.



SBA TOWERS III, INC.  
5900 BROKEN SOUND  
PARKWAY, NW  
BOCA RATON, FL 33487-2797  
TEL: (561) 226-9523  
FAX: (561) 226-9368



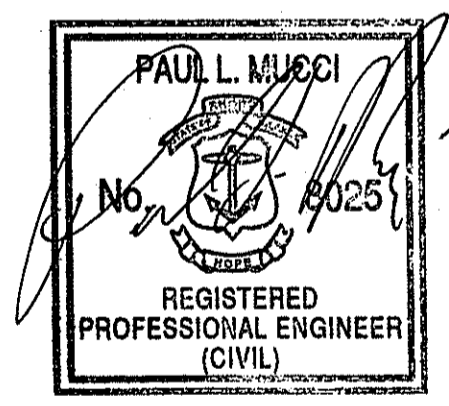
SITE NAME:  
**SBA - KINGSTON 7**

SITE NUMBER:  
**RI 11716-S**

**CONSTRUCTION DRAWINGS**

NO.	DATE	DESCRIPTION
4	05/04/2011	CONSTRUCTION REVISED
3	05/03/2011	CONSTRUCTION REVISED
2	04/05/2011	CONSTRUCTION REVISED
1	04/04/2011	CONSTRUCTION REVISED
0	03/17/2011	FOR CONSTRUCTION

**PROFESSIONAL STAMP**



DRAWN BY: BB

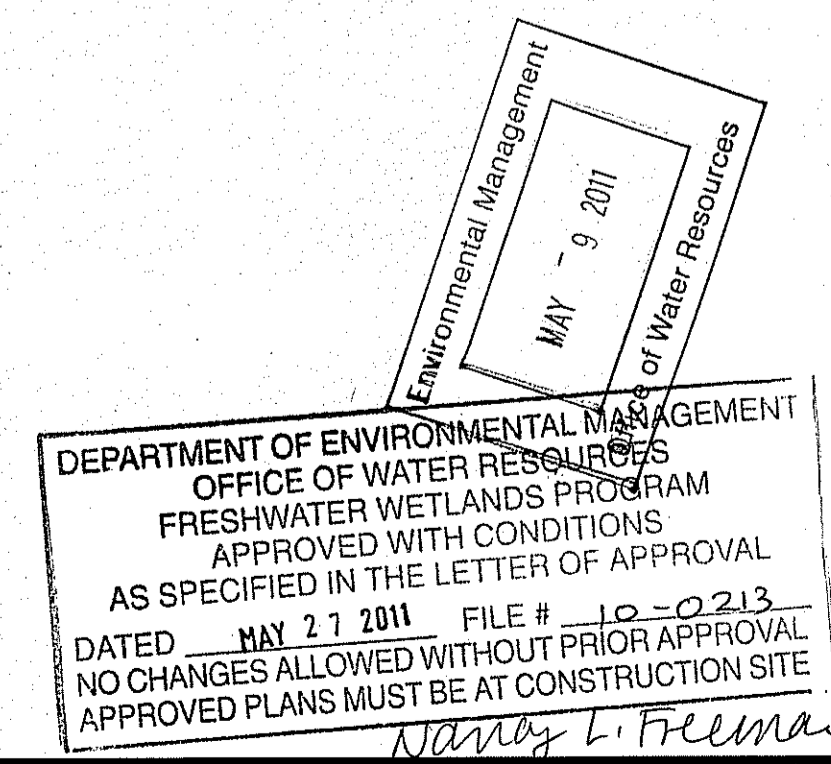
CHECKED BY: ETK

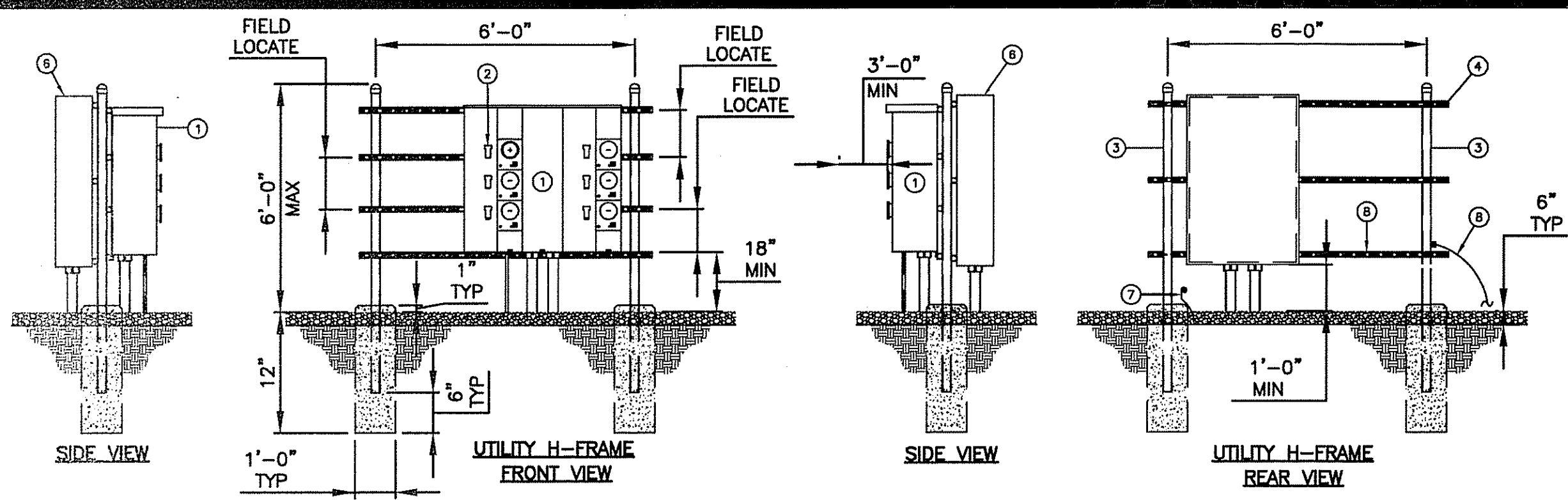
SITE ADDRESS:  
**96 ROSE HILL ROAD  
SOUTH KINGSTOWN, RI**

SHEET TITLE:  
**METRO PCS  
STRUCTURAL NOTES  
AND DETAILS**

SHEET NUMBER:  
**D-4**

SCALE: THIS PLAN TO SCALE  
WHEN PRINTED AT 24" x 36"

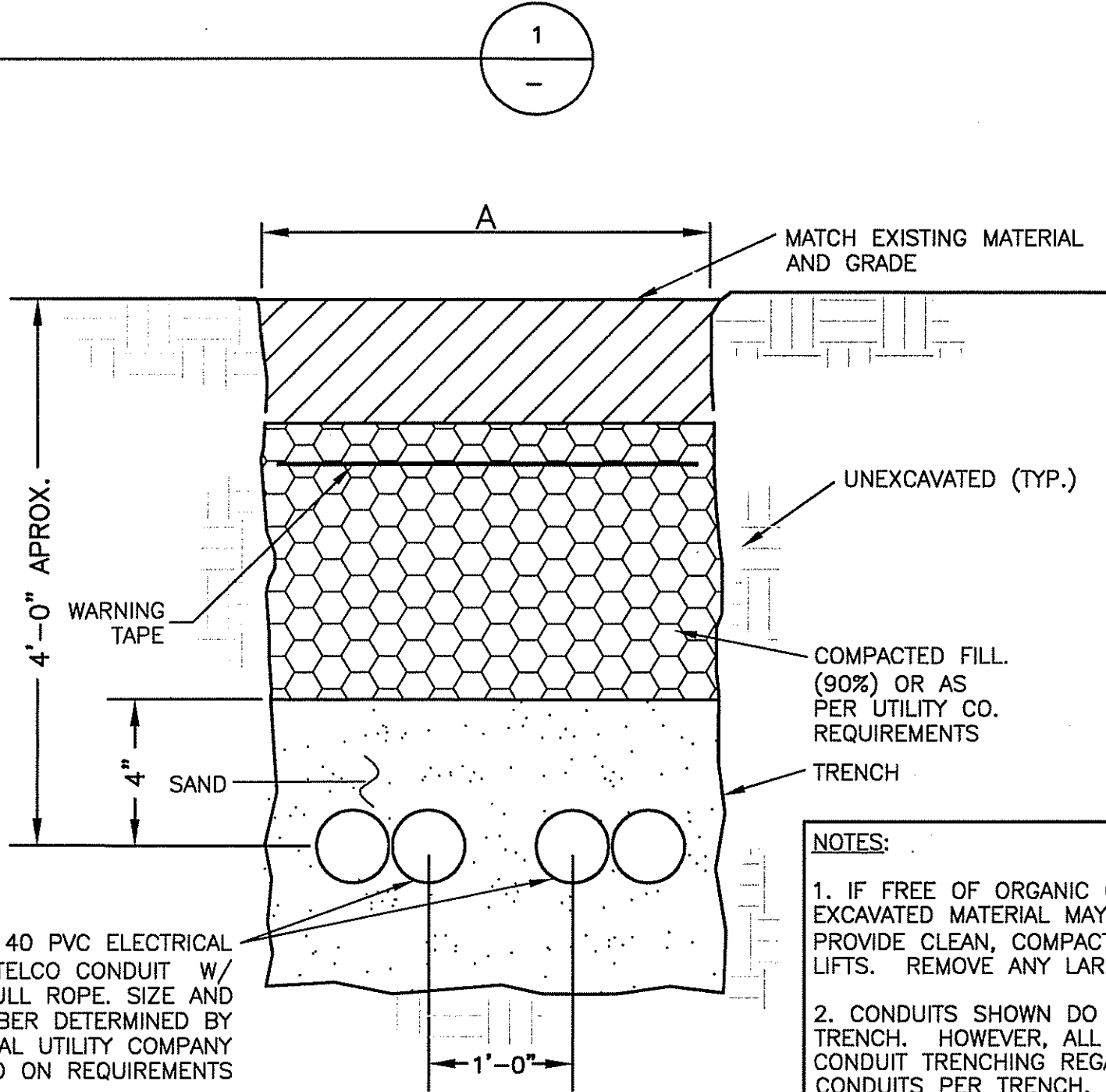




**BALLOON REFERENCE NOTES:**

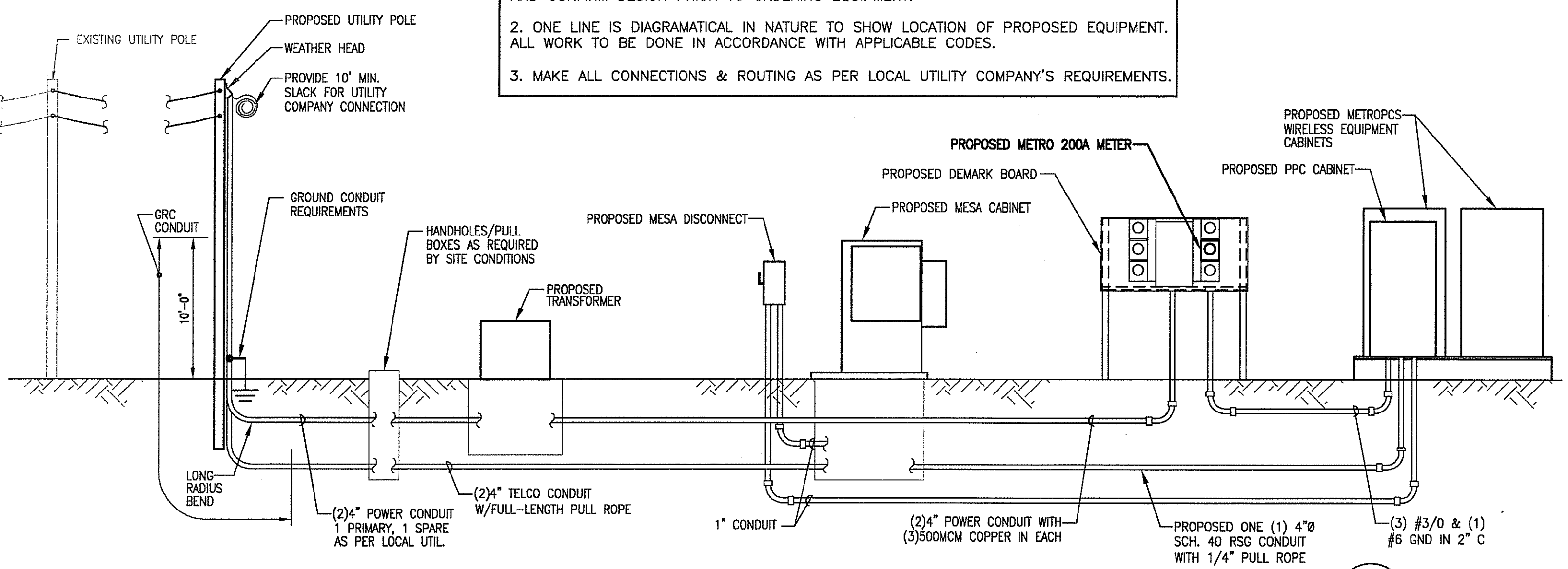
- ① BOCA, 120/240V, 1 PHASE, 3 WIRE, 6 POSITION METERING CENTER (200A MAX CIRCUIT BREAKER) (PART# EZM1800b, OR EQUAL)
- ② 125A TENANT SERVICE DISCONNECT (PART# EZML13225, OR EQUAL)
- ③ 3" NOMINAL GALVANIZED STEEL PIPE WITH PIPE CAP
- ④ HORIZONTAL SUPPORT MEMBER (UNISTRUT P1000, OR APPROVED EQUAL)
- ⑤ CONTRACTOR TO MAINTAIN 3'-0" MINIMUM CLEARANCE FROM METERING CENTER TO NEAREST OBSTRUCTION
- ⑥ SINGLE DOOR TELCO ENCLOSURE (HOFFMAN CATALOG "CSD483612, OR APPROVED EQUAL)
- ⑦ 6" #6 GROUND WIRE COILED AT POST. CONNECT TO GROUNDING SYSTEM
- ⑧ #2 AWG BARE SOLID TINNED COPPER WIRE ROUTED TO GROUNDING SYSTEM (TYP. EACH LEG)

**MULTI-CARRIER H-FRAME UTILITY RACK**  
NO SCALE



**TRENCH DETAIL-ELEC/TELCO**  
NO SCALE

- ELECTRICAL NOTES:**
- ELECTRICAL CONTRACTOR TO COORDINATE CONNECTION WITH LOCAL UTILITY COMPANY AND CONFIRM DESIGN PRIOR TO ORDERING EQUIPMENT.
  - ONE LINE IS DIAGRAMMATICAL IN NATURE TO SHOW LOCATION OF PROPOSED EQUIPMENT. ALL WORK TO BE DONE IN ACCORDANCE WITH APPLICABLE CODES.
  - MAKE ALL CONNECTIONS & ROUTING AS PER LOCAL UTILITY COMPANY'S REQUIREMENTS.



**POWER RISER DIAGRAM**  
SCALE: N.T.S.

**RISE NOTES:**

- GENERAL**
- PROPOSED RISER CONDUITS SHALL EXTEND APPROXIMATELY 10 FT. ABOVE EXISTING GROUND AND SEALED WATER-TIGHT.
- ELECTRICAL**
- THE LOCATION SHOWN FOR THE RISER POLE, CONNECTION TO EXISTING UTILITIES, AND INCOMING POWER AND TELEPHONE SERVICES IS FOR CONCEPT ONLY. THE CONTRACTOR SHALL COORDINATE THE ACTUAL RISER POLE LOCATION WITH THE CONSTRUCTION MANAGER AND UTILITY COMPANIES.
  - THE CONTRACTOR IS RESPONSIBLE FOR MAKING ARRANGEMENTS WITH UTILITY COMPANIES WITH RESPECT TO THE INSTALLATION AND CONNECTION OF THE INCOMING POWER AND TELEPHONE SERVICES.
  - THE INSTALLATION OF THE POWER CONNECTION SHALL BE INSPECTED BY THE LOCAL APPROVING AUTHORITY AND A CERTIFICATE OF SAID INSPECTION SHALL BE FURNISHED TO THE CONSTRUCTION MANAGER WHO WILL FORWARD A COPY TO THE UTILITY COMPANY.
  - COORDINATE METER SOCKET REQUIREMENTS WITH CONSTRUCTION MANAGER AND POWER COMPANY.
- TELCO**
- THE CONTRACTOR SHALL INSTALL THE TELCO CONDUIT AS SHOWN ON THE DRAWINGS AND WILL INCLUDE A 1/4" PULL ROPE BETWEEN DEMARK AND EQUIPMENT SHELTER.
  - THE CONTRACTOR SHALL INSTALL 18" DEEP x 24" WIDE x 36" LONG PRECAST CONCRETE HANDHOLE PULLBOXES WITH PRECAST COVER (OR APPROVED EQUAL) FOR UNDERGROUND CONDUIT RUNS AT LOCATIONS INDICATED IN DRAWINGS AND AS REQUIRED BY THE TELEPHONE COMPANY OR AT LOCATIONS OF NO MORE THAN 200' APART ON STRAIGHT RUNS AND AT CONDUIT RUN BENDS OF 90 DEGREES OR MORE.

**ELECTRICAL AND TELEPHONE GENERAL NOTES:**

- FOR GENERAL NOTES SEE SHEET GN-1.
- FOLLOWING COMPLETION OF WORK, PROVIDE OWNER WITH AS-BUILT DRAWINGS SHOWING TELEPHONE AND ELECTRIC LOCATIONS.
- WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE.
- CABINETS ARE PRE-WIRED AND TESTED AT FACTORY. COORDINATE WITH UTILITY AND LOCAL ELECTRICAL INSPECTOR FOR FINAL POWER CONNECTION.
- INSTALL AND WIRE 200 AMP, 120/240 V, 3W, SINGLE PHASE METER BASE. WIRE TO DISCONNECT. UTILITY WILL SUPPLY METER. COORDINATE WITH UTILITY FOR METER TYPE AND INTERCONNECTION.
- ALL EXISTING UNDERGROUND LINES ON SITE TO BE LOCATED PRIOR TO CONSTRUCTION.
- SEAL ALL SERVICE ENTRANCES INTO CABINETS FOLLOWING INSTALLATION.

**CONDUIT NOTES:**

- ALL ABOVE GROUND CONDUIT TO BE SCHED. 80 RSG CONDUIT
- ALL 90° CONDUIT BENDS TO BE SCHED. 80 RSG CONDUIT
- CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITY CONNECTIONS. IF EXISTING UTILITY CONDITIONS VARY GREATLY, CONTRACT CONSTRUCTION MANAGER AND/OR ENGINEER.

**UTILITY INSTALLATION AND CONNECTION NOTES:**

- GENERAL**
- CONTRACTOR IS TO COMPLY WITH AND COORDINATE ALL REQUIREMENTS WITH THE LOCAL UTILITY COMPANIES.
  - THE CONTRACTOR IS TO FIELD VERIFY ALL EXISTING UTILITY LOCATIONS AND CONNECTIONS. IF EXISTING UTILITY LOCATIONS AND CONDITIONS VARY GREATLY, CONTRACTOR MUST CONTACT THE OWNER AND ENGINEER IMMEDIATELY.
  - CONTRACTOR SHALL PROVIDE EQUIPMENT WITH HIGHER FAULT CURRENT RATINGS AS NEEDED TO MATCH UTILITY COMPANY AVAILABLE FAULT CURRENT.

**RACEWAY SYSTEMS AND CONDUITS**

- ALL ABOVE GRADE CONDUIT AND ALL CONDUIT ELBOWS SHALL BE SCHEDULE 80 RIGID GALVANIZED STEEL (RSG) UNLESS OTHERWISE NOTED.
- ALL BELOW GRADE CONDUITS SHALL BE SCHEDULE 40 PVC UNLESS OTHERWISE NOTED.
- CONDUIT BURIAL DEPTH SHALL BE 4 FEET UNLESS OTHERWISE NOTED.
- CONDUIT TRENCH BACKFILL MATERIAL SHALL CONSIST OF CLEAN SAND UNLESS OTHERWISE NOTED.

**HOLES, SLEEVES AND OPENINGS**

- RESTORE ALL SURFACES DAMAGED TO MATCH SURROUNDING SURFACES WHERE HOLES, SLEEVES AND OPENINGS ARE REQUIRED.
- CORE, DRILL AND OPENING SIZES FOR ALL CONDUIT PENETRATIONS ARE SO THAT THE ANNULAR SPACE BETWEEN THE CONDUIT AND CORRESPONDING OPENING IS NOT LESS THAN 1/4" AND NOT MORE THAN 1".
- PROVIDE SLEEVES IN ROUGH OPENINGS. SLEEVE SIZES ARE TO BE SUCH THAT THE ANNULAR SPACE BETWEEN THE CONDUIT AND CORRESPONDING OPENING IS NOT LESS THAN 1/4" AND NOT MORE THAN 1". PATCH AROUND SLEEVE TO MATCH EXISTING SURFACE.

**HANGARS AND SUPPORTS**

- ALL HANGAR SUPPORT, FASTENERS AND HARDWARE SHALL BE ZINC COATED OR EQUIVALENT CORROSION RESISTANT BY TREATMENT OR INHERENT MATERIAL PROPERTY AND SHALL BE MANUFACTURED PRODUCTS DESIGNED FOR THE APPLICATION. PRODUCTS FOR OUTDOOR USE SHALL BE HOT DIPPED GALVANIZED.
- USE HANGERS, BRACKETS, ANGLES, STRAPS, RISER SUPPORTS, CLAMPS, U-CHANNELS, THREADED RODS, ETC., AS INDICATED OR REQUIRED.
- RIGIDLY INSTALL, SUPPORT AND SECURE ALL MATERIALS, RACEWAYS, CONDUITS, AND EQUIPMENT TO BUILDING STRUCTURES USING HANGERS, BRACKETS, ANGLES, STRAPS, SUPPORTS, CLAMPS, U-CHANNELS, THREADED RODS, ETC., FOR THE MATERIALS AND LOADS SUPPORTED.
- DO NOT CUT, DRILL OR WELD TO ANY STRUCTURAL MEMBER, UNLESS OTHERWISE NOTED OR APPROVED BY THE ENGINEER.
- ONE-HOLE STRAPS SHALL NOT BE USED FOR CONDUITS LARGER THAN 3/4".

**CONDUCTORS**

- USE 98% CONDUCTIVITY COPPER WITH TYPE XHHW-2, 600 VOLT, COLOR CODED INSULATION.
- USE SOLID CONDUCTORS FOR WIRE UP TO AND INCLUDING # 8 AWG. USE STRANDED CONDUCTORS FOR WIRE LARGER THAN #8.
- USE PRESSURE-TYPE INSULATED TWIST-ON CONNECTORS FOR #10 AWG AND SMALLER SOLDERLESS MECHANICAL TERMINAL LUGS FOR #8 AWG AND LESS.

**CUTTING AND PATCHING**

- PROVIDE ALL CUTTING, DRILLING, CORING, FITTING AND PATCHING NECESSARY TO COMPLETE THE WORK.
- REPAIR AND/OR PATCH ANY AND ALL DAMAGE TO AREAS CUT, DRILLED OR CORED USING SKILLED TRADESPEOPLE FOR CORRESPONDING WORK.



SBA TOWERS III, INC.  
5900 BROKEN SOUND  
PARKWAY, NW  
BOCA RATON, FL 33487-2797  
TEL: (561) 226-9523  
FAX: (561) 226-9368



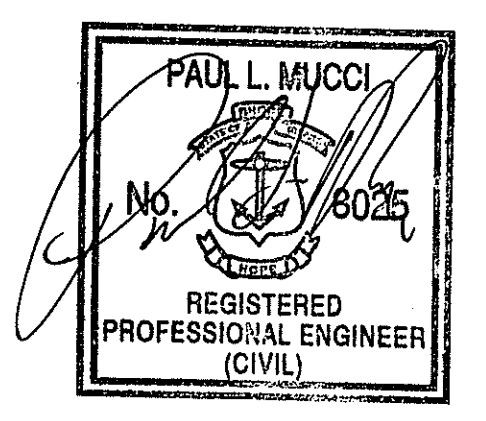
SITE NAME:  
**SBA - KINGSTON 7**

SITE NUMBER:  
**RI 11716-S**

**CONSTRUCTION DRAWINGS**

NO.	DATE	DESCRIPTION
4	05/04/2011	CONSTRUCTION REVISED
3	05/03/2011	CONSTRUCTION REVISED
2	04/05/2011	CONSTRUCTION REVISED
1	04/04/2011	CONSTRUCTION REVISED
0	03/17/2011	FOR CONSTRUCTION

**PROFESSIONAL STAMP**



DRAWN BY: BB

CHECKED BY: ETK

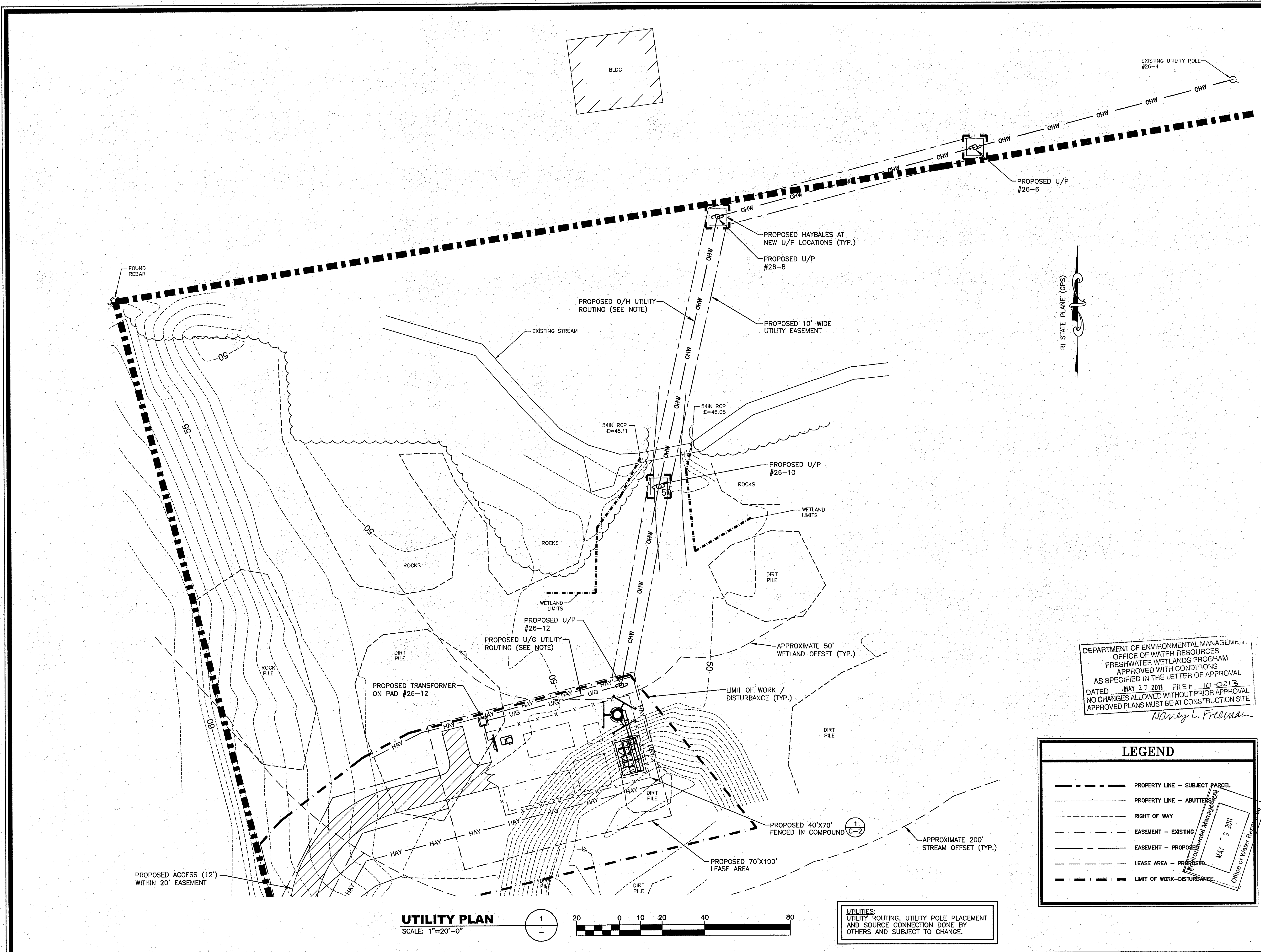
SITE ADDRESS:  
**96 ROSE HILL ROAD  
SOUTH KINGSTOWN, RI**

**ELECTRICAL DETAILS  
AND NOTES**

SHEET NUMBER:  
**E-1**

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF WATER RESOURCES  
FRESHWATER WETLANDS PROGRAM  
APPROVED WITH CONDITIONS  
AS SPECIFIED IN THE LETTER OF APPROVAL  
DATED MAY 27 2011 FILE # 10-0213  
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
APPROVED PLANS MUST BE AT CONSTRUCTION SITE  
Nancy L. F...

THIS PLAN TO SCALE  
WHEN PRINTED AT 24" x 36"



**SBA** 

SBA TOWERS III, INC.  
 5900 BROKEN SOUND  
 PARKWAY, NW  
 BOCA RATON, FL 33487-2797  
 TEL: (561) 226-9523  
 FAX: (561) 226-9368

  
**AERIAL SPECTRUM**  
 INCORPORATED  
 20 BLANCHARD RD., SUITE #4  
 BURLINGTON, MA 01803

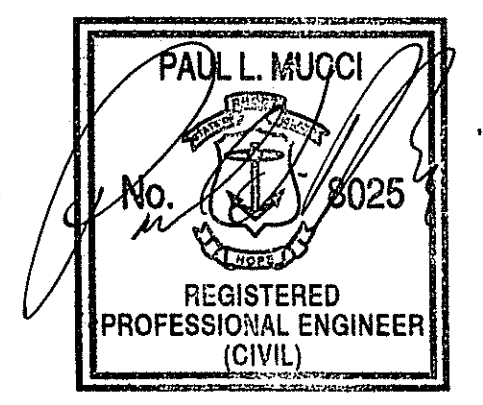
SITE NAME:  
**SBA - KINGSTON 7**

SITE NUMBER:  
**RI 11716-S**

**CONSTRUCTION DRAWINGS**

NO.	DATE	DESCRIPTION
4	05/04/2011	CONSTRUCTION REVISED
3	05/03/2011	CONSTRUCTION REVISED
2	04/05/2011	CONSTRUCTION REVISED
1	04/04/2011	CONSTRUCTION REVISED
0	03/17/2011	FOR CONSTRUCTION

**PROFESSIONAL STAMP**



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
 OFFICE OF WATER RESOURCES  
 FRESHWATER WETLANDS PROGRAM  
 APPROVED WITH CONDITIONS  
 AS SPECIFIED IN THE LETTER OF APPROVAL  
 DATED MAY 21 2011 FILE # 10-0213  
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL  
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE  
*Nancy L. Freeman*

DRAWN BY: BB

CHECKED BY: ETK

SITE ADDRESS:  
**96 ROSE HILL ROAD  
 SOUTH KINGSTOWN, RI**

SHEET TITLE:

**UTILITY PLAN**

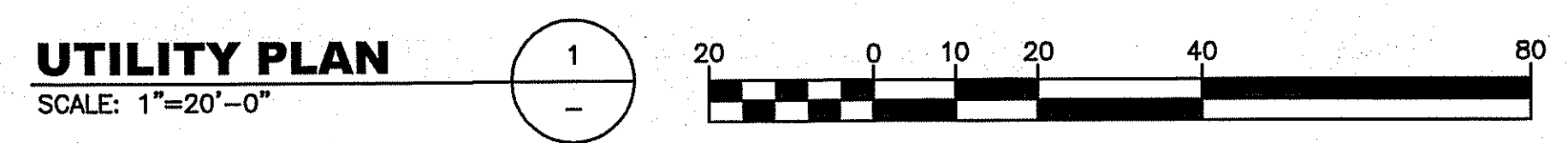
SHEET NUMBER:

**E-2**

SCALE: THIS PLAN TO SCALE  
 WHEN PRINTED AT 24" x 36"

**LEGEND**

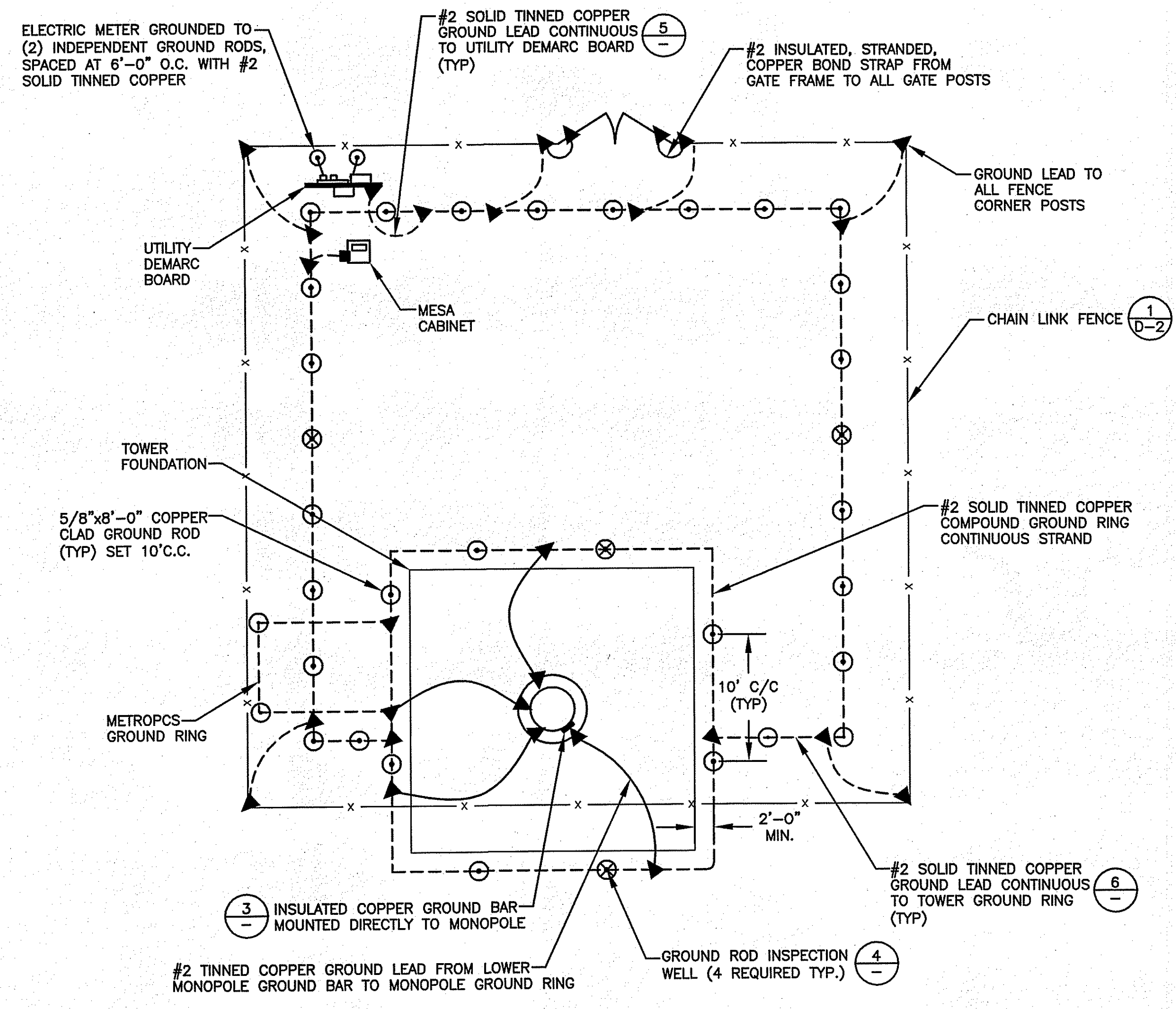
	PROPERTY LINE - SUBJECT PARCEL
	PROPERTY LINE - ABUTTING
	RIGHT OF WAY
	EASEMENT - EXISTING
	EASEMENT - PROPOSED
	LEASE AREA - PROPOSED
	LIMIT OF WORK-DISTURBANCE



UTILITIES:  
 UTILITY ROUTING, UTILITY POLE PLACEMENT  
 AND SOURCE CONNECTION DONE BY  
 OTHERS AND SUBJECT TO CHANGE.

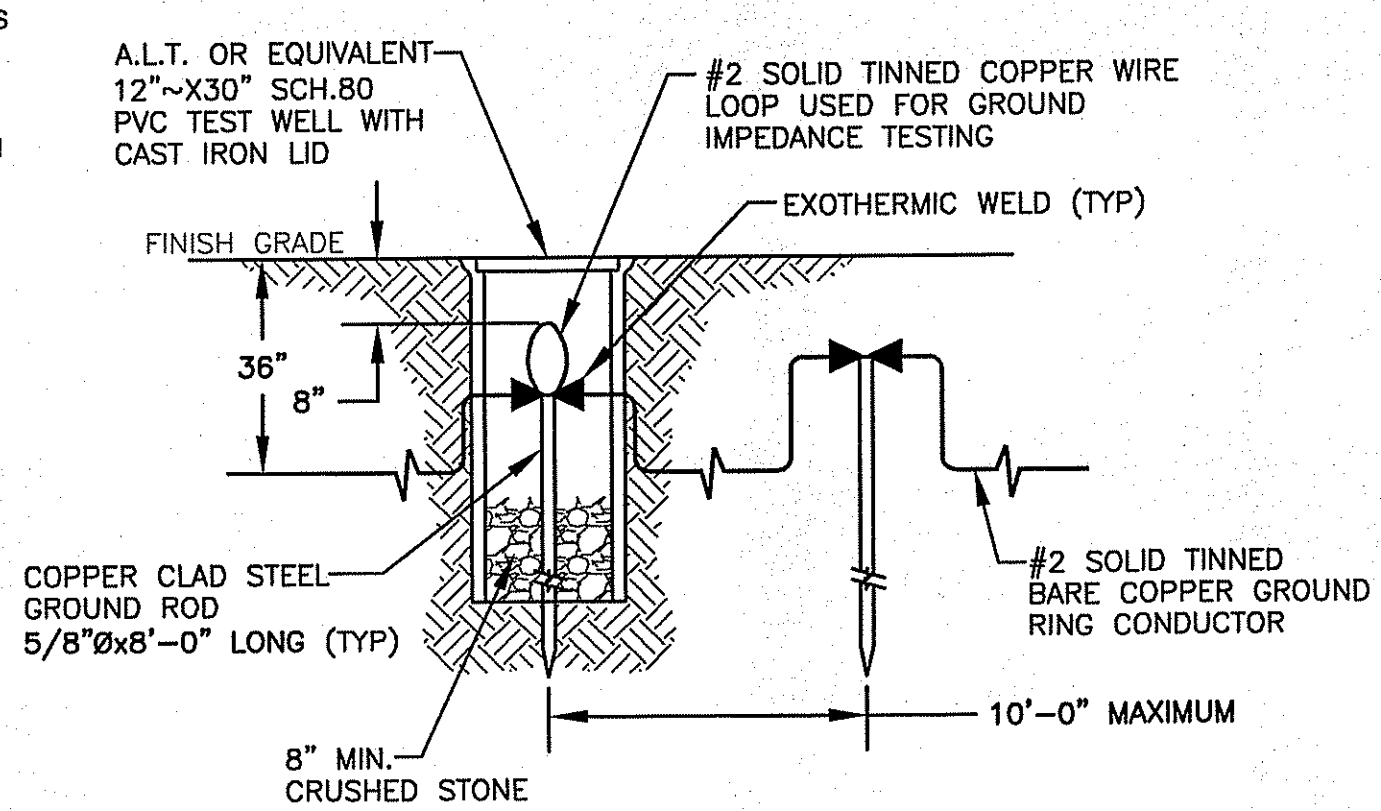
**GENERAL GROUNDING NOTES**

- CONTRACTOR SHALL HAND-DIG IN AREAS AROUND EXISTING UTILITIES.
- ALL UNDERGROUND (BELOW GRADE) GROUNDING CONNECTIONS SHALL BE EXOTHERMICALLY WELDED (CAD WELDED). THESE CONNECTIONS INCLUDE ALL CABLE TO GROUND ROD, GROUND ROD SPLICES, CABLE TO CABLE SPLICES, TEES, CROSS CONNECTIONS, LIGHTNING PROTECTION SYSTEMS, ETC..
- GRIND OFF GALVANIZING IN AREAS TO BE EXOTHERMICALLY WELDED. COLD-GALVANIZE AFFECTED AREAS AFTER CAD WELD IS COMPLETE.
- FOR CAD WELD CONNECTIONS ABOVE GRADE, CONNECTION IS TO BE 6" ABOVE GRADE OR FOUNDATION, WHICHEVER IS HIGHER.
- ALL ABOVE GRADE OR INTERIOR GROUNDING AND BONDING CONDUCTORS SHALL BE RECONNECTED BY TWO-HOLE GRIMP COMPRESSION TYPE MECHANICAL CONNECTIONS UNLESS OTHERWISE NOTED.
- AC SERVICE ELECTRICAL GROUND SHALL BE A MINIMUM #2 AWG SOLID TINNED COPPER WIRE OR AS REQUIRED BY THE NEC. ELECTRICAL SERVICE GROUND WIRE SHALL BE RUN CONTINUOUS.
- ALL GROUND RODS SHALL BE 5/8" DIAMETER BY 10 FT. IN LENGTH COPPER CLAD STEEL BY HARGER, T&B, ERICO OR APPROVED EQUAL.
- GROUND RODS SHALL BE DRIVEN FULL LENGTH VERTICAL IN UNDISTURBED EARTH AND SHALL BE A MINIMUM OF 12" BELOW GRADE. IF LEDGE IS ENCOUNTERED INSTALL GROUND ROD AT AN ANGLE EXCEPT FOR ELECTRICAL METER GROUND ROD.
- ALL GROUND RODS SHALL BE SPACED 10 FT. MAXIMUM UNLESS OTHERWISE NOTED.
- ALL GROUND BARS SHALL BE 1/4" THICK BARE COPPER PLATE AND OF SIZE AS REQUESTED.
- ALL GROUND CABLES SHALL BE STANDARD TINNED COPPER AND OF SIZE INDICATED ON THE DRAWINGS. IF NOT INDICATED ON THE DRAWINGS, SIZES ARE AS FOLLOWS:
  - A. BURIED GROUND RING- 20 AWG STRANDED
  - B. GROUNDING OF ANTENNA CABLES- #6 AWG STRANDED
  - C. INDOOR HALO RING- #2 AWG STRANDED GREEN INSULATED
  - D. OUTDOOR EQUIPMENT GROUNDS- #2 AWG SOLID
  - E. COPPER WIRE- OUTDOOR SYSTEM GROUND- 20 AWG SOLID OR 4/0 AWG STRANDED.
- CONDUCTOR BENDS SHALL HAVE A MINIMUM BEND RADIUS OF 8" AND BE A MINIMUM OF 24 INCHES FROM ANY FOUNDATION UNLESS OTHERWISE NOTED.
- GROUND RING TO GROUND RING CONNECTIONS ARE TO BE CAD WELDED ONLY. LUGS, CLAMPS OR OTHER MECHANICAL CONNECTIONS IS PROHIBITED.
- GROUND FENCE AND GATES AS INDICATED ON THE DRAWINGS.
- GROUND EACH FENCE POST CORNER AND GATE POSTS.
- GROUND CONNECTIONS OF FENCE POSTS ARE TO BE CAD WELDED ONLY OR PER MANUFACTURER RECOMMENDATIONS.
- THE FOLLOWING GROUND TESTING METHODS MAY BE USED:
  - A. THE BIDDLE GROUND OHM METER METHOD
  - B. THE METHOD OF USING TWO AUXILIARY GROUND RODS AS DESCRIBED IN I.E.E.E. STD. #81-1983, PART 1. THIS METHOD REQUIRES THE USE OF A.C. TEST CURRENT. THE AUXILIARY TEST RODS MUST HAVE SUFFICIENT DISTANCE FROM THE TEST ROD SO THAT THE REGIONS IN WHICH THEIR RESISTANCE IS LOCALIZED AND DO NOT OVERLAP.
  - C. OTHER APPROVED METHODS.
- THE CONTRACTOR SHALL SUBMIT A GROUNDING RESISTANCE TEST REPORT TO THE OWNER.
- AFTER THE EXTERNAL GROUND RINGS ARE CONNECTED BUT BEFORE THE EQUIPMENT CABINET IS PERMANENTLY INSTALLED, A "MEGGER" CHECK OF THE GROUND SYSTEM SHOULD BE PERFORMED.
- TESTING SHALL BE PERFORMED BY THE CONTRACTOR AND TWO SETS OF TEST REPORTS ARE TO BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.
- A TEST REPORT SHOWING RESISTANCE (OHMS) WITH AUXILIARY POTENTIAL ELECTRODES AT 9" AND 10" INTERVALS, UNTIL THE AVERAGE RESISTANCE STARTS INCREASING, MUST BE PROVIDED.
- 10-15 PHOTOS MUST BE TAKEN TO PROVE THE ENTIRE SITE GROUNDING SYSTEM BEFORE BACK FILLING OR NOTIFY THE OWNER NO LESS THAN 48 HRS. IN ADVANCE OF BACKFILL.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.

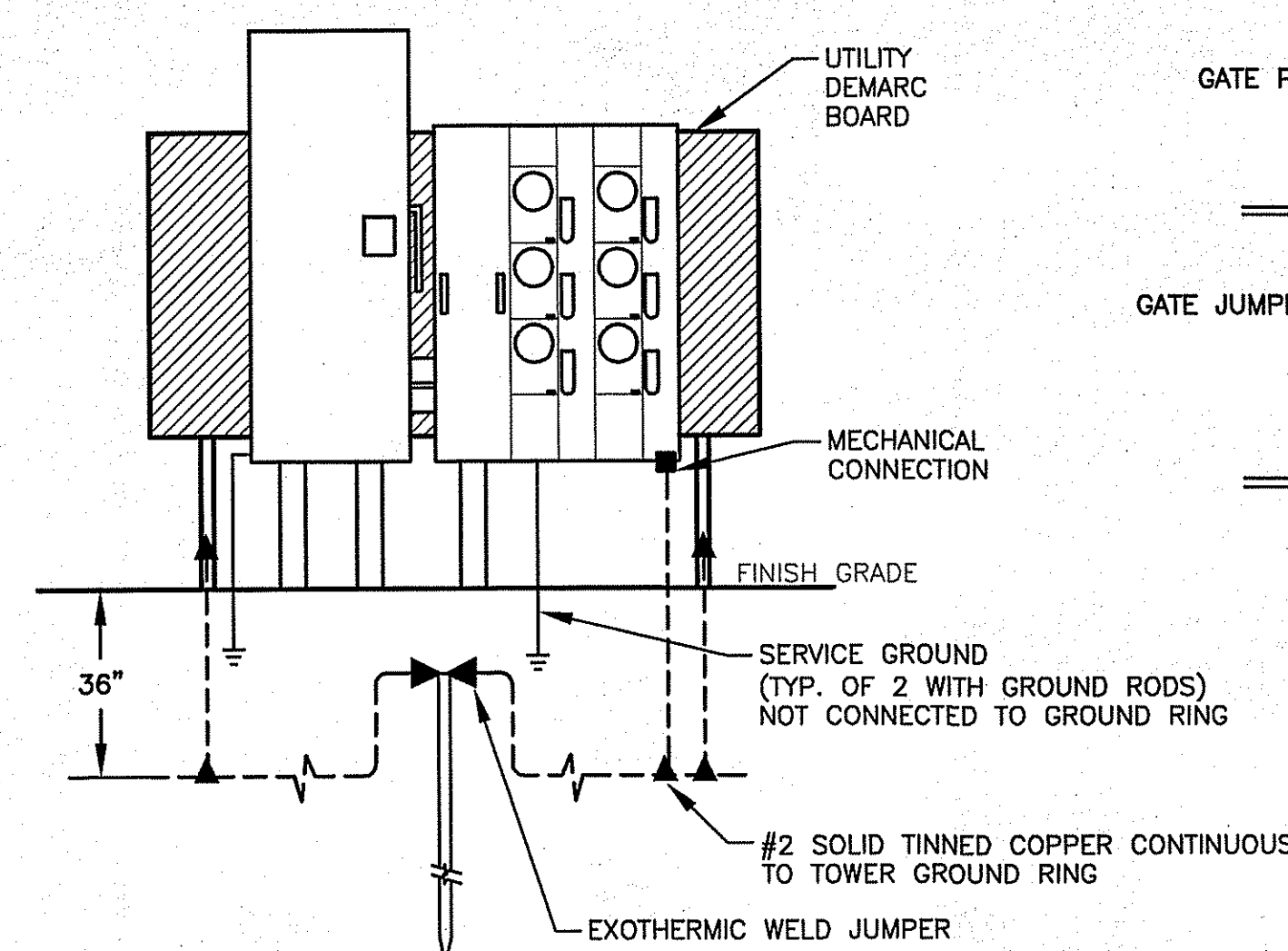


- NOTES:**
- ALL GROUND LEADS EXTENDING FROM BELOW GRADE SHALL EXTEND A MINIMUM OF 6" ABOVE GRADE FOR TESTING
  - ALL GROUND LEADS EXTENDING BELOW GRADE TO BE ENCASED IN 3/4" CARFLEX OR 3/4" RIGID CONDUIT W/ THE CONDUIT BEING BURIED A MIN. OF 24" BELOW GRADE.
  - PRIOR TO FINAL COMPACTION, CONTRACTOR SHALL TEST GROUND SYSTEM TO VERIFY 5 OHM OR LESS CRITERIA IS ACHIEVED. CONTRACTOR SHALL SUPPLEMENT GROUND SYSTEM AS NEEDED. FINAL TEST RESULTS SHALL BE DOCUMENTED AND PROVIDED TO OWNER.
  - CHEM-ROD TO BE UTILIZED IN EVENT OF SHALLOW BEDROCK, OVERLYING SHALLOW FOUNDATION WHERE CONVENTIONAL RODS CANNOT BE INSTALLED, WHERE GROUND SYSTEM NEEDS TO BE SUPPLEMENTED TO ACHIEVE 5 OHMS OR LESS RESISTANCE.
- GROUNDING SCHEDULE:**
- ▲ CADWELD CONNECTION (EXOTHERMIC)
  - MECHANICAL BURNDY CONNECTION
  - GROUND ROD (5/8"x8" LONG COPPER CLAD SPACED 10' O.C.)
  - ⊗ GROUND ROD WITH INSPECTION WELL

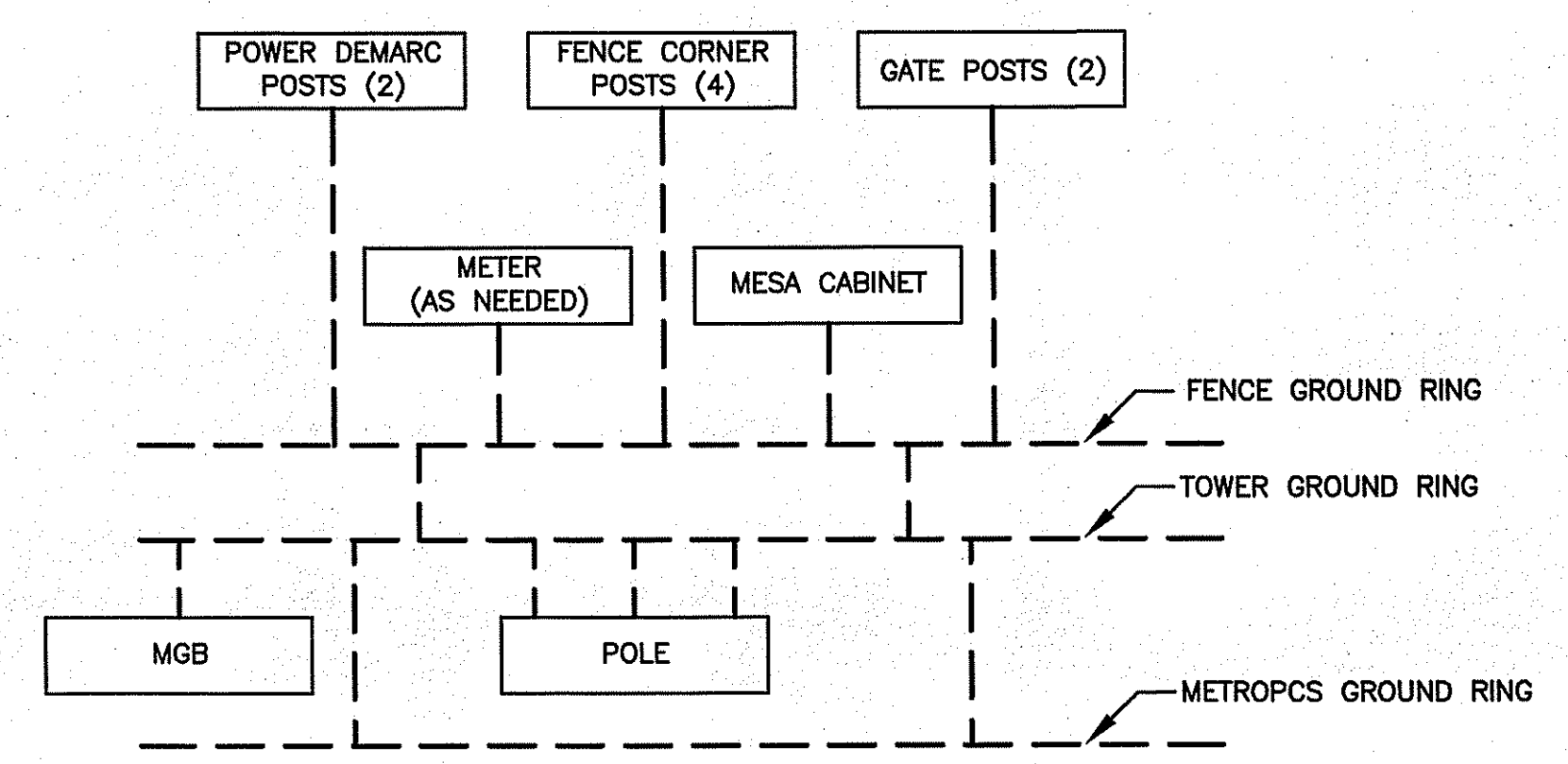
**GROUND SCHEMATIC DIAGRAM**  
NO SCALE



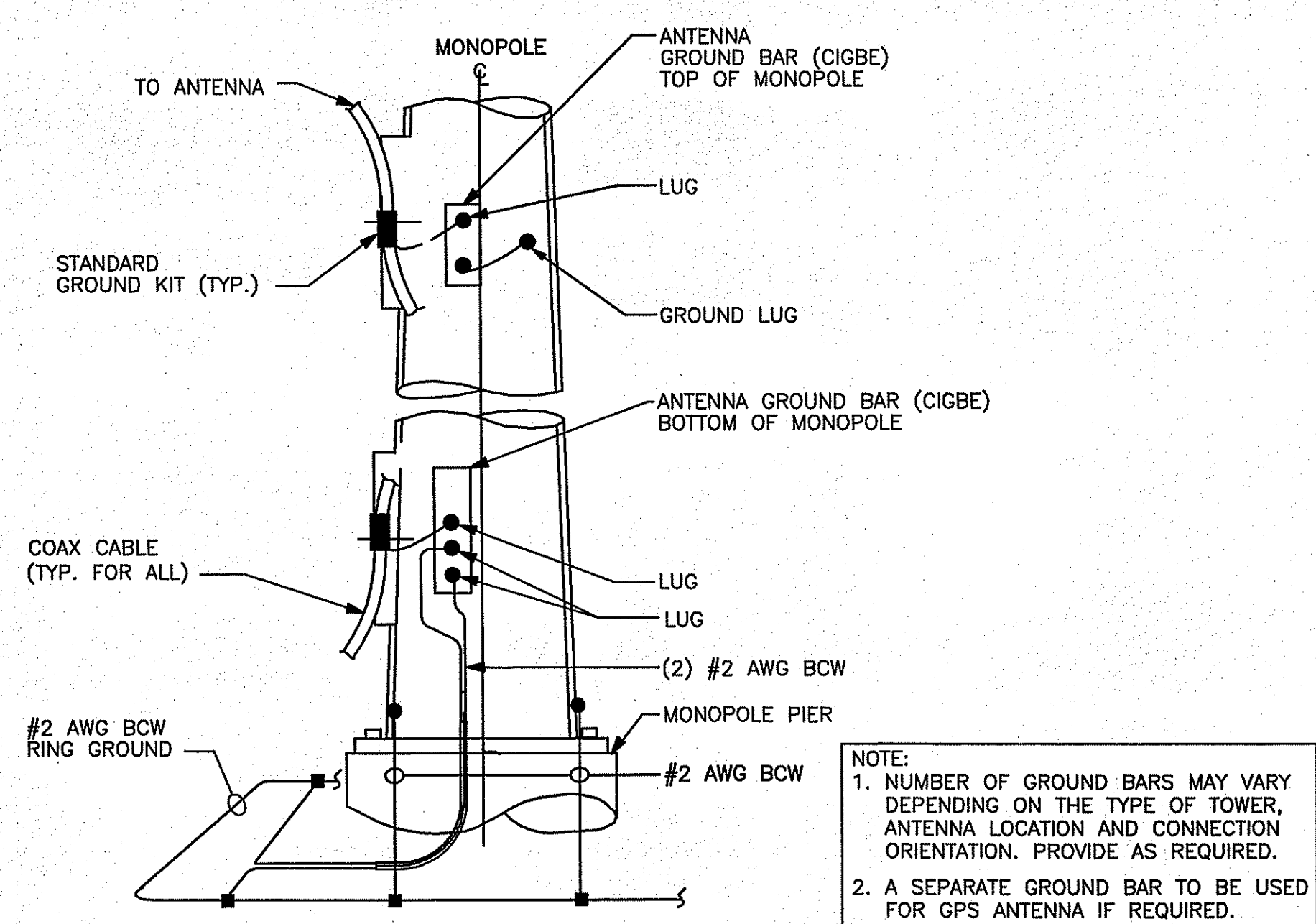
**GROUND BOX AND ROD DETAIL**  
NO SCALE



**METER SOCKET GROUNDING**  
NO SCALE

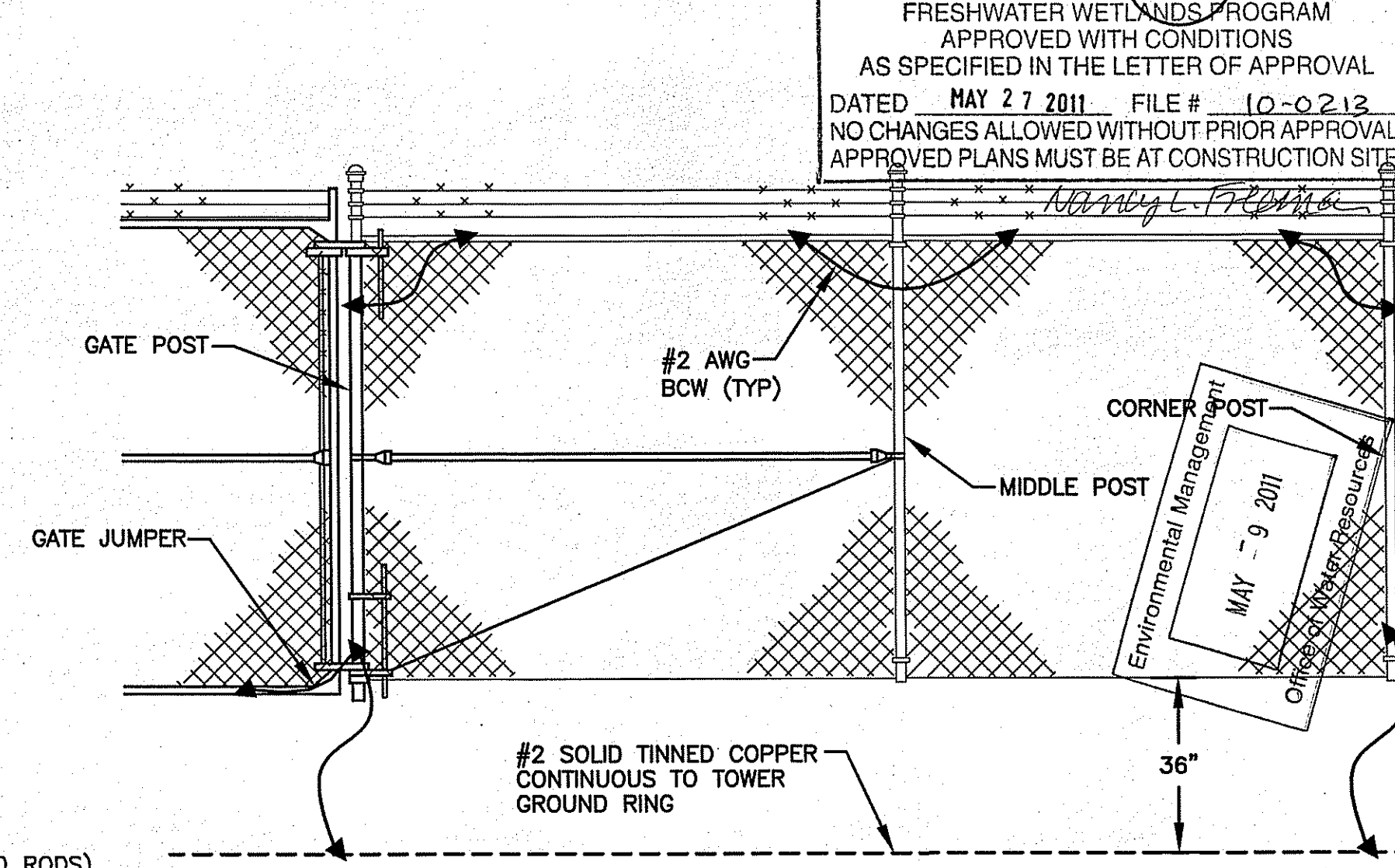


**GROUNDING PLAN SCHEMATIC**  
NO SCALE



- NOTE:**
- NUMBER OF GROUND BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATION AND CONNECTION ORIENTATION. PROVIDE AS REQUIRED.
  - A SEPARATE GROUND BAR TO BE USED FOR GPS ANTENNA IF REQUIRED.

**ANTENNA MOUNTING GROUNDING MONOPOLE**  
SCALE: N.T.S.



- FENCE & GATE GROUNDING NOTES**
- GATE JUMPER SHALL BE #4/0 AWG WELDING CABLE OR FLEXIBLE COPPER BRAID TYPE B WITH SLEEVES ON EACH END DESIGNED FOR EXOTHERMIC WELDING.
  - GATE JUMPER SHALL BE INSTALLED SO THAT IT WILL NOT BE SUBJECTED TO DAMAGE OR STRAIN WHEN GATE IS FULLY OPEN IN EITHER DIRECTION.

**FENCE & GATE GROUNDING**  
NO SCALE

**SBA**  
SBA TOWERS III, INC.  
5900 BROKEN SOUND  
PARKWAY, NW  
BOCA RATON, FL 33487-2797  
TEL: (561) 226-9523  
FAX: (561) 226-9368

**AERIAL SPECTRUM**  
INCORPORATED  
20 BLANCHARD RD., SUITE #4  
BURLINGTON, MA 01803

SITE NAME:  
**SBA - KINGSTON 7**

SITE NUMBER:  
**RI 11716-S**

**CONSTRUCTION DRAWINGS**

NO.	DATE	DESCRIPTION
4	05/04/2011	CONSTRUCTION REVISED
3	05/03/2011	CONSTRUCTION REVISED
2	04/05/2011	CONSTRUCTION REVISED
1	04/04/2011	CONSTRUCTION REVISED
0	03/17/2011	FOR CONSTRUCTION

PROFESSIONAL STAMP  
PAUL L. MUCCI  
No. 8025  
REGISTERED PROFESSIONAL ENGINEER (CIVIL)

DRAWN BY: BB  
CHECKED BY: ETK  
SITE ADDRESS:  
**96 ROSE HILL ROAD  
SOUTH KINGSTOWN, RI**

SHEET TITLE:  
**GROUNDING DIAGRAM,  
DETAILS AND NOTES**

SHEET NUMBER:  
**G-1**

SCALE: THIS PLAN TO SCALE  
WHEN PRINTED AT 24" x 36"