

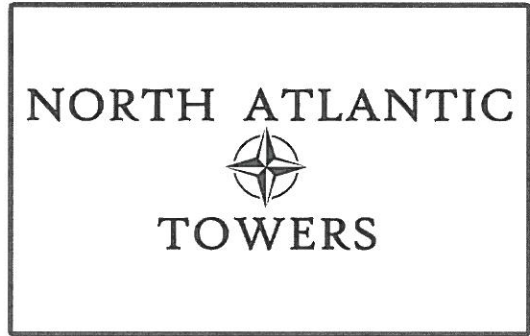
**PROJECT DESCRIPTION:**

CONSTRUCTION OF PUBLIC UTILITY/PERSONAL WIRELESS SERVICE FACILITY CONSISTING OF A MONOPOLE TOWER, INITIALLY (1) EQUIPMENT SHELTER, AND A UTILITY BACKBOARD WITHIN A FENCED COMPOUND. NO WATER OR SEWER IS REQUIRED.

**CODE COMPLIANCE:**

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING:

- 1. CT BUILDING CODE
- 2. UNIFORM BUILDING CODE
- 3. BUILDING OFFICIALS AND CODE ADMINISTRATORS (BOCA)
- 4. UNIFORM MECHANICAL CODE
- 5. ANSI/TIA/EIA-222-G
- 6. UNIFORM PLUMBING CODE
- 7. NATIONAL ELECTRICAL CODE
- 8. LOCAL BUILDING CODE
- 9. CITY/COUNTY ORDINANCES



**WOODSTOCK**  
**SITE ID: CT1182**  
**ROUTE 198**  
**WOODSTOCK, CT 06282**



**PROJECT INFORMATION**

**SITE NAME:** WOODSTOCK  
**SITE ID:** CT1182  
**SITE ADDRESS:** ROUTE 198  
 WOODSTOCK, CT 06282  
**ZONING JURISDICTION:** TBD  
**ZONING CLASSIFICATION:** TBD  
**PARCEL I.D. (M/B/L/U):** LOT 24: 5789/37/24///  
**ACCOUNT NUMBER:** LOT 24: F0132200  
**PARCEL SIZE:** LOT 24: ±128.00 ACRES  
**CONSTRUCTION AREA:** ± 92,500 SQFT (±2.12 ACRES)  
**LATITUDE:** 41° 56' 21.97" N  
**LONGITUDE:** 72° 04' 55.26" W

**PROJECT DIRECTORY**

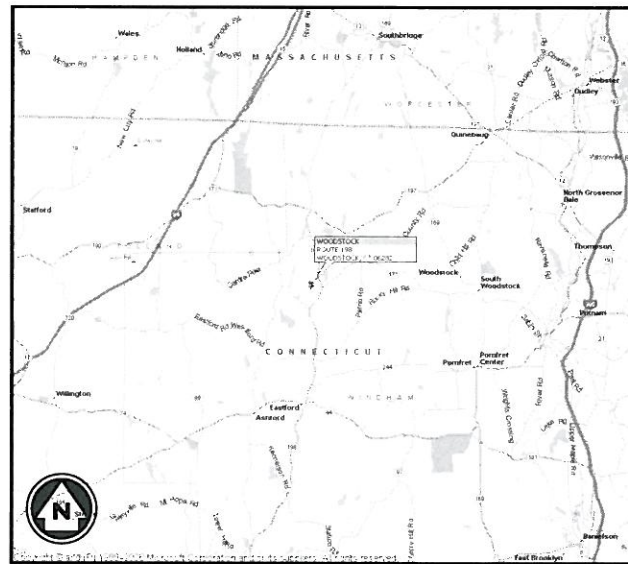
**PROPERTY OWNER:** WOODSTOCK TOWER PARTNERS, LLC  
 (860) 963-2133  
**APPLICANT:** NORTH ATLANTIC TOWERS  
 1001 3RD AVE WEST, SUITE 420  
 BRADENTON, FL 34205  
 DAN SHRIVER  
 (941) 757-5010  
**ENGINEER:** INFINIGY ENGINEERING PLLC  
 11 HERBERT DRIVE  
 LATHAM, NY 12110  
 AJ DESANTIS  
 (518) 690-0790  
**ATTORNEY:** CUDDY & FEDER LLP  
 445 HAMILTON STREET, 14TH FLOOR  
 WHITE PLAINS, NY 10601  
 LUCIA CHIOCCHIO, ESQ  
 (914) 761-1300

**POWER COMPANY:** TBD

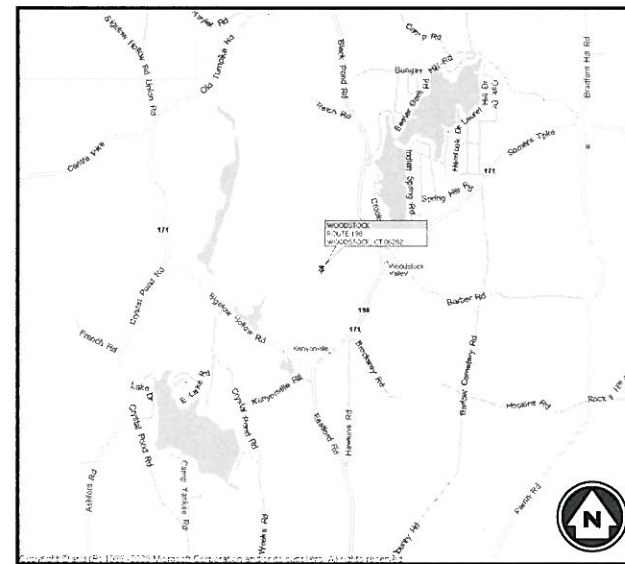
**TELCO COMPANY:** TBD

**DRAWING INDEX**

DRWG. #	TITLE	REV.#	DATE
T1	TITLE SHEET	4	8/23/12
C1	OVERALL SITE PLAN	4	8/23/12
C2	ENLARGED SITE PLAN	4	8/23/12
C3	OVERALL GRADING PLAN	4	8/23/12
C4A	ACCESS ROAD GRADING PLAN	4	8/23/12
C4B	ACCESS ROAD GRADING PLAN	4	8/23/12
C4C	ACCESS ROAD GRADING PLAN	4	8/23/12
C4D	ACCESS ROAD GRADING PLAN	4	8/23/12
C4E	ACCESS ROAD GRADING PLAN	4	8/23/12
C5	GRADING NOTES & DETAILS	4	8/23/12
C6	ELEVATION VIEW	4	8/23/12
C7	DETAILS	4	8/23/12
C8	E&SC DETAILS	4	8/23/12
C9	SWM DETAILS	4	8/23/12
C10	DETAILS	4	8/23/12
C11	SHELTER DETAILS	4	8/23/12
C12	DETAILS	4	8/23/12
E1	SITE UTILITY LAYOUT	4	8/23/12
E2	ELECTRICAL NOTES	4	8/23/12
E3	GROUNDING LAYOUT	4	8/23/12
E4	GROUNDING DETAILS	4	8/23/12



VICINITY MAP  
N.T.S.



LOCATION MAP  
N.T.S.



11 HERBERT DRIVE  
 LATHAM, NY 12110  
 OFFICE #: (518) 690-0790  
 FAX #: (518) 690-0793

PROPOSED TOWER HEIGHT: ±110' AGL  
 LATITUDE: 41° 56' 21.97" N  
 LONGITUDE: 72° 4' 55.26" W  
 ELEVATION: ±795' AGL

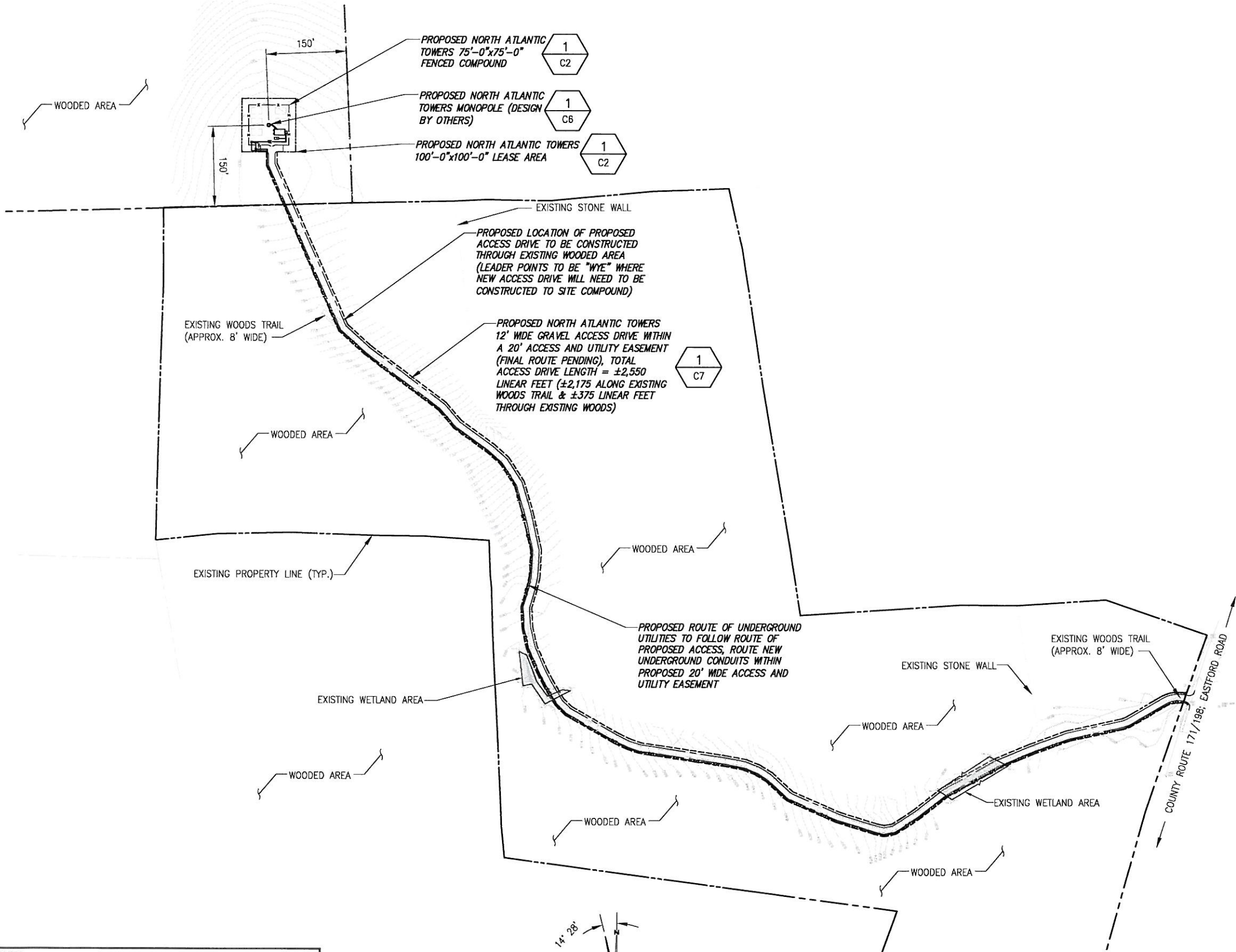
**WINDHAM COUNTY, CONNECTICUT**

**DIG ALERT:**

CALL FOR UNDERGROUND UTILITIES PRIOR TO DIGGING:  
1-800-922-4455

**EMERGENCY:**

CALL 911

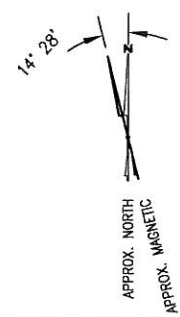


**GENERAL NOTES:**

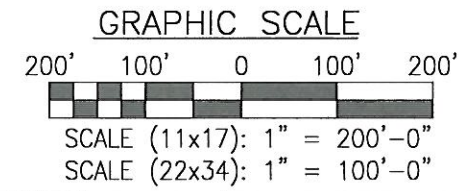
1. LOCATION OF PROPOSED ACCESS ROAD BASED ON FIELD VISIT BY INFINIGY ENGINEERING ON 1/19/2012
2. EXISTING CONDITIONS INFORMATION OBTAINED FROM LIMITED TOPOGRAPHIC FIELD SURVEY COMPLETED BY INFINIGY SURVEYING ON 1/31/2012
3. WETLAND DELINEATION COMPLETED BY INFINIGY ENGINEERING ON 1/21/2012 DURING WINTER CONDITIONS

**SITE CONSTRUCTION NOTES:**

- GRASS AND MULCH ALL DISTURBED AREAS



1 OVERALL SITE PLAN  
SCALE:



**infinigy**  
engineering

11 Herbert Drive  
Latham, NY 12110  
OFFICE: (518) 690-0790  
FAX: (518) 690-0793



No.	Submittal / Revision	App'd	Date
4	RELOCATE GENERATOR	DJS	8/23/12
3	ADD AT&T RF INFO	AJD	8/9/12
2	HEIGHT REDUCED TO 110'	AJD	7/26/12
1	REVISED ROAD ENTRANCE	SKB	6/21/12
0	ISSUED FOR REVIEW	AJD	5/31/12

Drawn: M.B. Date: 5/31/12  
Designed: A.D. Date: 5/31/12  
Checked: A.D. Date: 5/31/12

Project Number  
226-064

Project Title  
**WOODSTOCK  
CT1182**

ROUTE 198  
WOODSTOCK, CT 06281

Prepared For  
NORTH ATLANTIC TOWERS

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Drawing Scale:  
AS NOTED

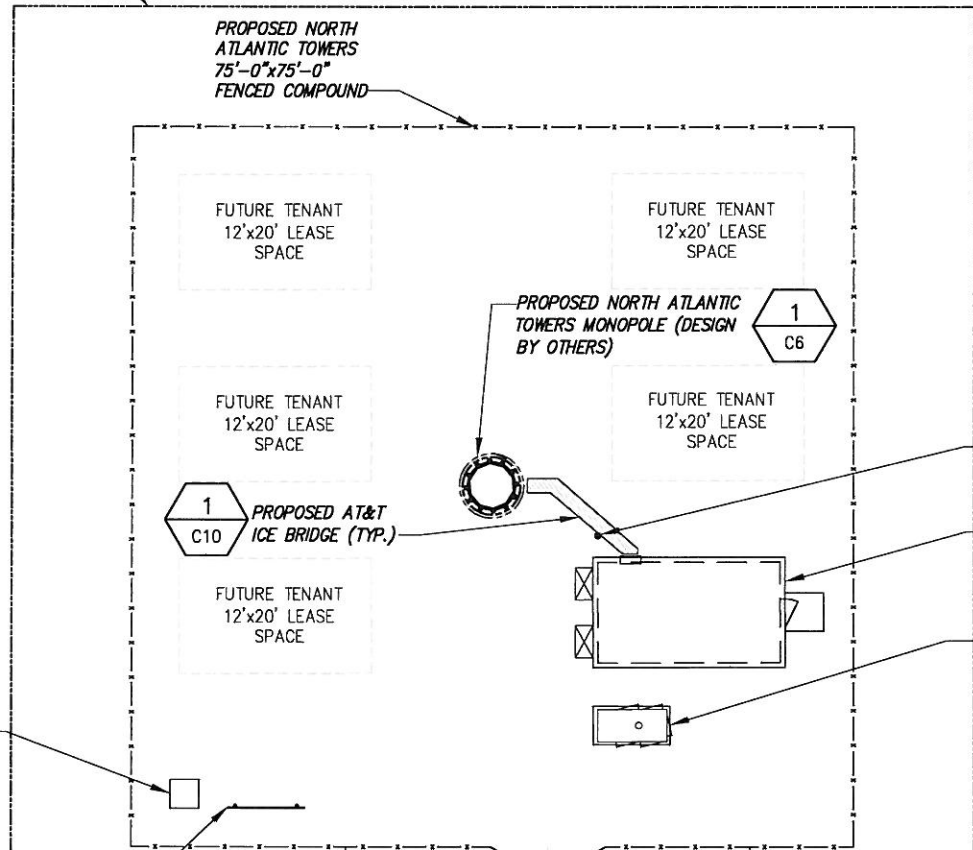
Date  
7/26/12

**CD**

Drawing Title  
**OVERALL  
SITE PLAN**

Drawing Number  
**C1**

PROPOSED NORTH ATLANTIC TOWERS 100'-0"x100'-0" LEASE AREA



PROPOSED NORTH ATLANTIC TOWERS 75'-0"x75'-0" FENCED COMPOUND

FUTURE TENANT 12'x20' LEASE SPACE

FUTURE TENANT 12'x20' LEASE SPACE

FUTURE TENANT 12'x20' LEASE SPACE

FUTURE TENANT 12'x20' LEASE SPACE

1 C10 PROPOSED AT&T ICE BRIDGE (TYP.)

FUTURE TENANT 12'x20' LEASE SPACE

PROPOSED NORTH ATLANTIC TOWERS MONOPOLE (DESIGN BY OTHERS)

PROPOSED AT&T GPS ANTENNA (TYP.)

PROPOSED AT&T 11'-6"x20'-0" EQUIPMENT SHELTER AREA INSTALLED ON CONCRETE FOUNDATION

PROPOSED AT&T 4'x8' GENERATOR AREA WITH CONCRETE FOUNDATION

PROPOSED TELEPHONE DEMARC EQUIPMENT CABINET

3 C7 PROPOSED MULTI-TENANT UTILITY BACKBOARD

PROPOSED TRANSFORMER

4 C10 PROPOSED 6"Ø BOLLARDS (TYP. OF (4))

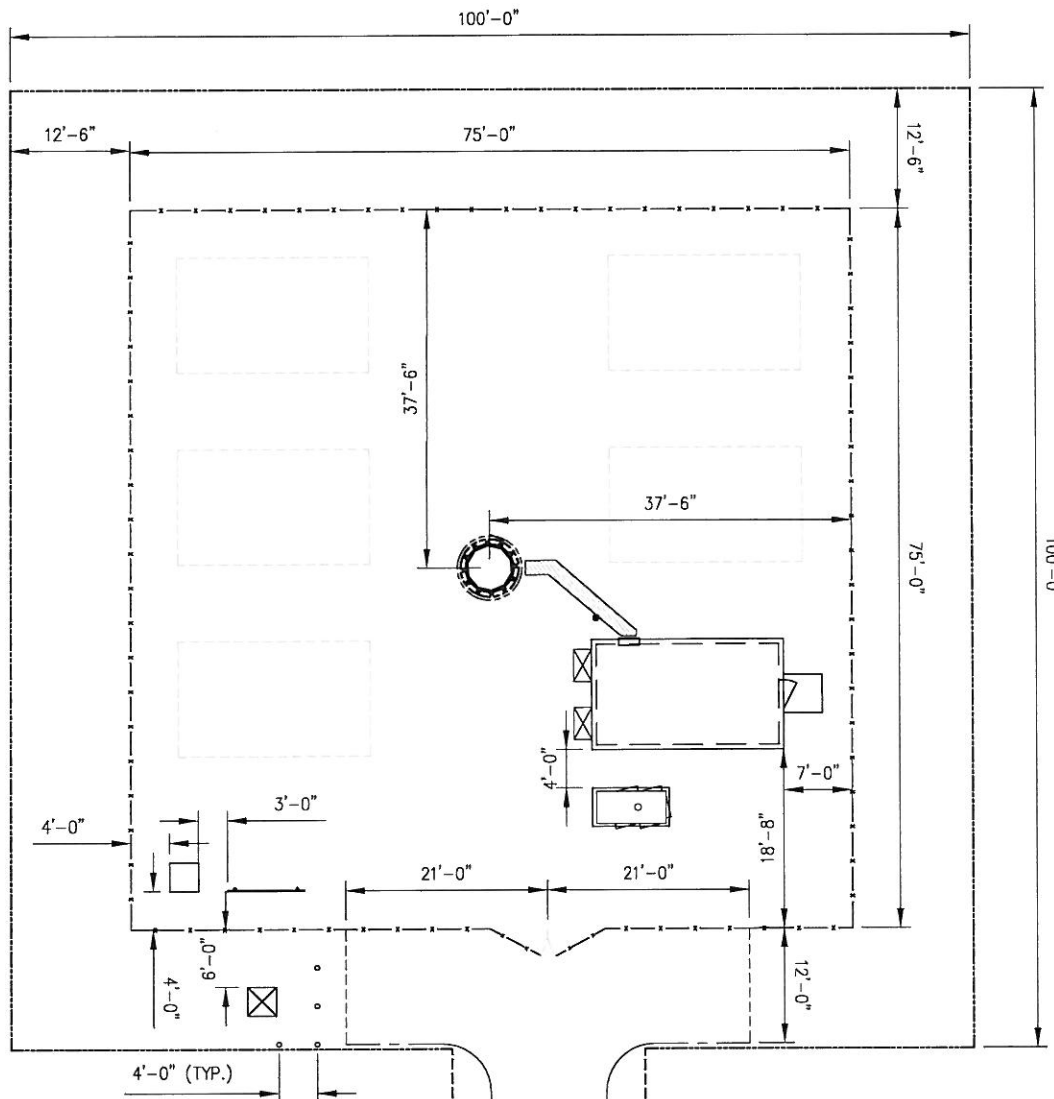
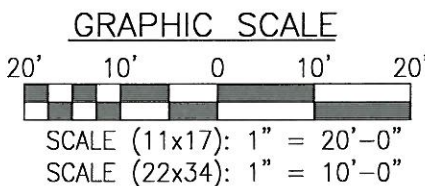
4 C7 PROPOSED 12' WIDE DOUBLE SWING GATE

1 C7 PROPOSED NORTH ATLANTIC TOWERS 12' WIDE GRAVEL ACCESS DRIVE WITHIN A 20' ACCESS AND UTILITY EASEMENT (FINAL ROUTE PENDING), TOTAL ACCESS DRIVE LENGTH = ±2,550 LINEAR FEET (±2,175 ALONG EXISTING WOODS TRAIL & ±375 LINEAR FEET THROUGH EXISTING WOODS)

PROPOSED NORTH ATLANTIC TOWERS GRAVEL PARKING AREA/TURN AROUND

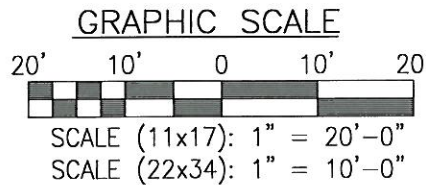
PROPOSED NORTH ATLANTIC TOWERS ACCESS AND UTILITY EASEMENT

1 ENLARGED SITE PLAN SCALE:



1/4" 28' APPROX. NORTH APPROX. MAGNETIC

2 STAKING PLAN SCALE:



- GENERAL NOTES:
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  3. WETLAND DELINEATION COMPLETED BY INFINGY ENGINEERING ON 1/21/2012 DURING WINTER CONDITIONS

- SITE CONSTRUCTION NOTES:
- GRASS AND MULCH ALL DISTURBED AREAS

infingy  
Engineering

11 Herbert Drive  
Latham, NY 12110  
OFFICE: (518) 690-0790  
FAX: (518) 690-0793



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4	RELOCATE GENERATOR	D.J.G.	8/23/12
3	ADD AT&T RF INFO	A.J.D.	8/8/12
2	HEIGHT REDUCED TO 110'	A.J.D.	7/28/12
1	REVISED ROAD ENTRANCE	S.K.B.	6/21/12
0	ISSUED FOR REVIEW	A.J.D.	5/31/12

Drawn: M.B. Date: 5/31/12  
Designed: A.J.D. Date: 5/31/12  
Checked: A.J.D. Date: 5/31/12

Project Number: 228-064

Project Title: WOODSTOCK CT1182

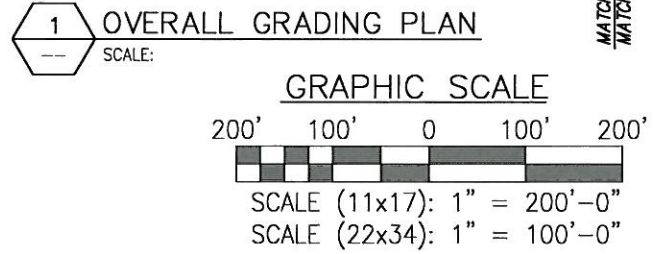
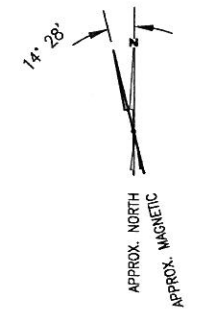
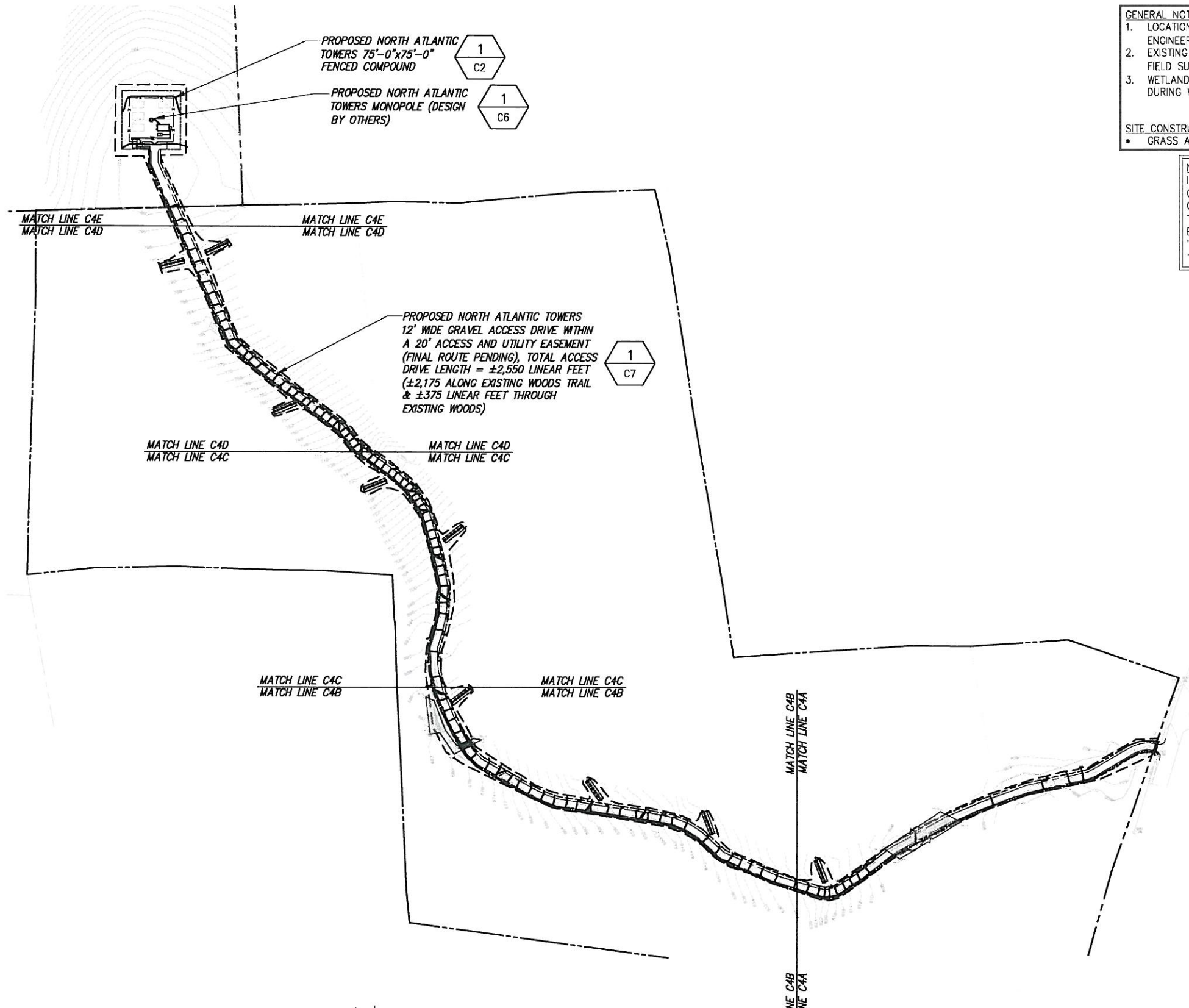
ROUTE 198 WOODSTOCK, CT 06281

Prepared For: NORTH ATLANTIC TOWERS  
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Drawing Scale: AS NOTED  
Date: 7/26/12  
**CD**

Drawing Title: ENLARGED SITE PLAN

Drawing Number: C2



**GENERAL NOTES:**

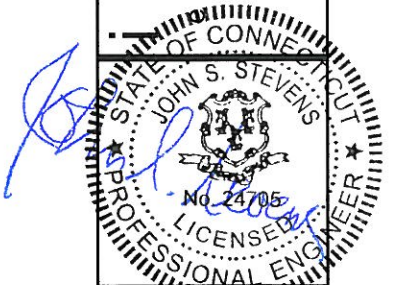
1. LOCATION OF PROPOSED ACCESS ROAD BASED ON FIELD VISIT BY INFINGY ENGINEERING ON 1/19/2012
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**SITE CONSTRUCTION NOTES:**

- GRASS AND MULCH ALL DISTURBED AREAS

**NOTE:**

INSTALL ALL DRAINAGE AND EROSION SEDIMENT CONTROL MEASURES PER "STORMWATER AND POLLUTION CONTROL PLAN - PREPARED FOR NORTH ATLANTIC TOWERS - ROUTE 171/198, WOODSTOCK, CT." BY BERKSHIRE GEO-TECHNOLOGIES AS APPROVED BY "STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION DISTRICT 11" ON JUNE 18, 2012



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4	RELOCATE GENERATOR	DJS	8/23/12
3	ADD AT&T RF INFO	AJD	8/6/12
2	HEIGHT REDUCED TO 110'	AJD	7/26/12
1	REVISED ROAD ENTRANCE	SKB	6/21/12
0	ISSUED FOR REVIEW	AJD	5/31/12

Drawn: W.B. Date: 5/31/12  
 Designed: AJD Date: 5/31/12  
 Checked: AJD Date: 5/31/12

Project Number: 228-064

Project Title:  
**WOODSTOCK  
 CT1182**  
 ROUTE 198  
 WOODSTOCK, CT 06281

Prepared For:  
 NORTH ATLANTIC TOWERS  
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Drawing Scale:  
 AS NOTED  
 Date: 7/26/12  
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Drawing Title:  
**OVERALL  
 GRADING  
 PLAN**

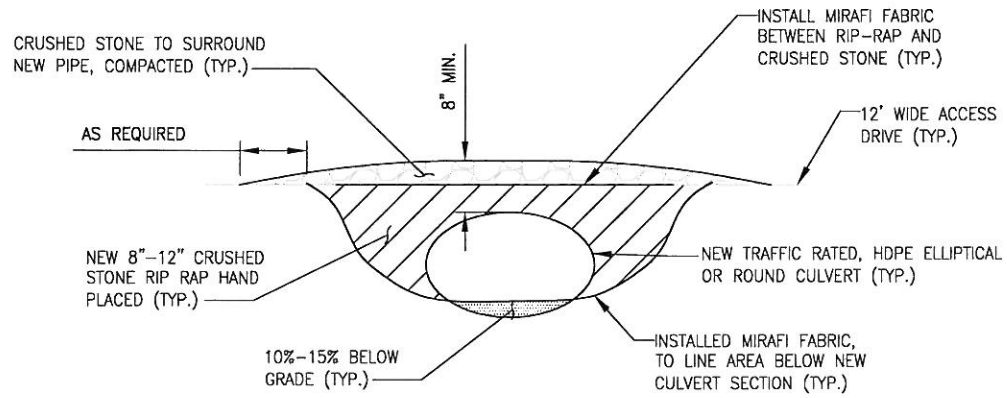
Drawing Number:  
**C3**

**infingy** engineering  
 11 Herbert Drive  
 Latham, NY 12110  
 OFFICE: (518) 690-0790  
 FAX: (518) 690-0793

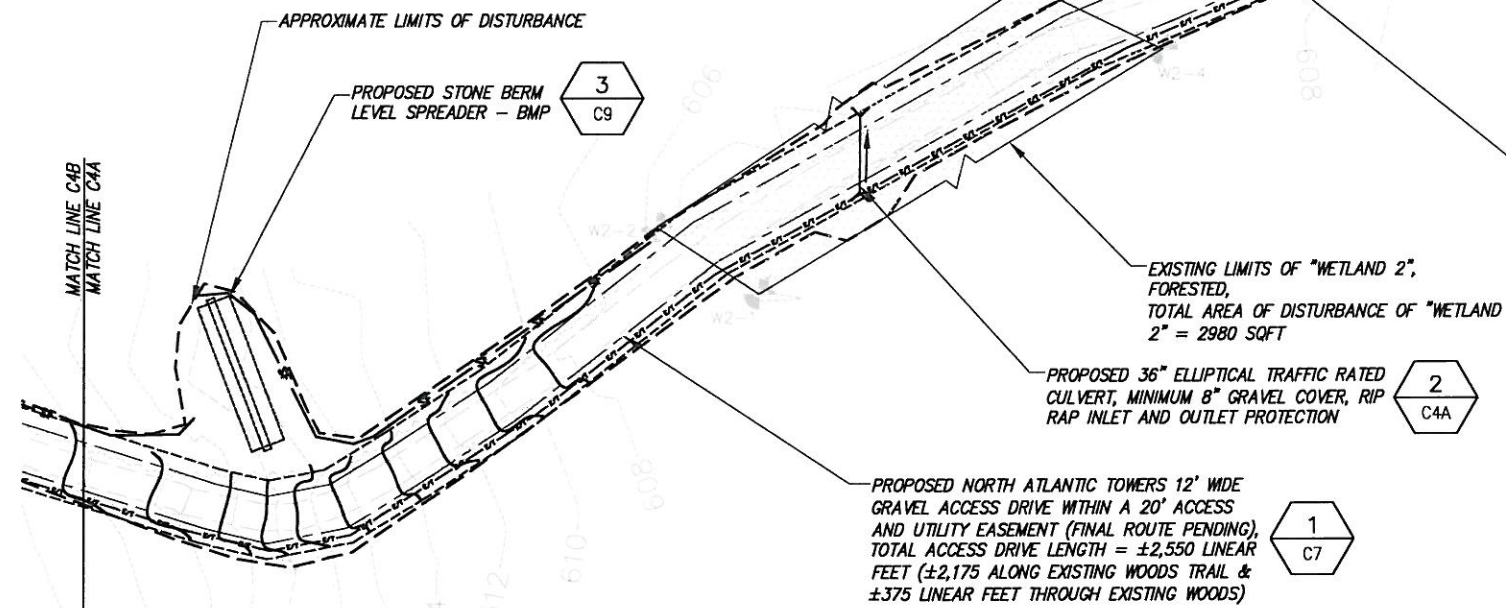
- GENERAL NOTES:**
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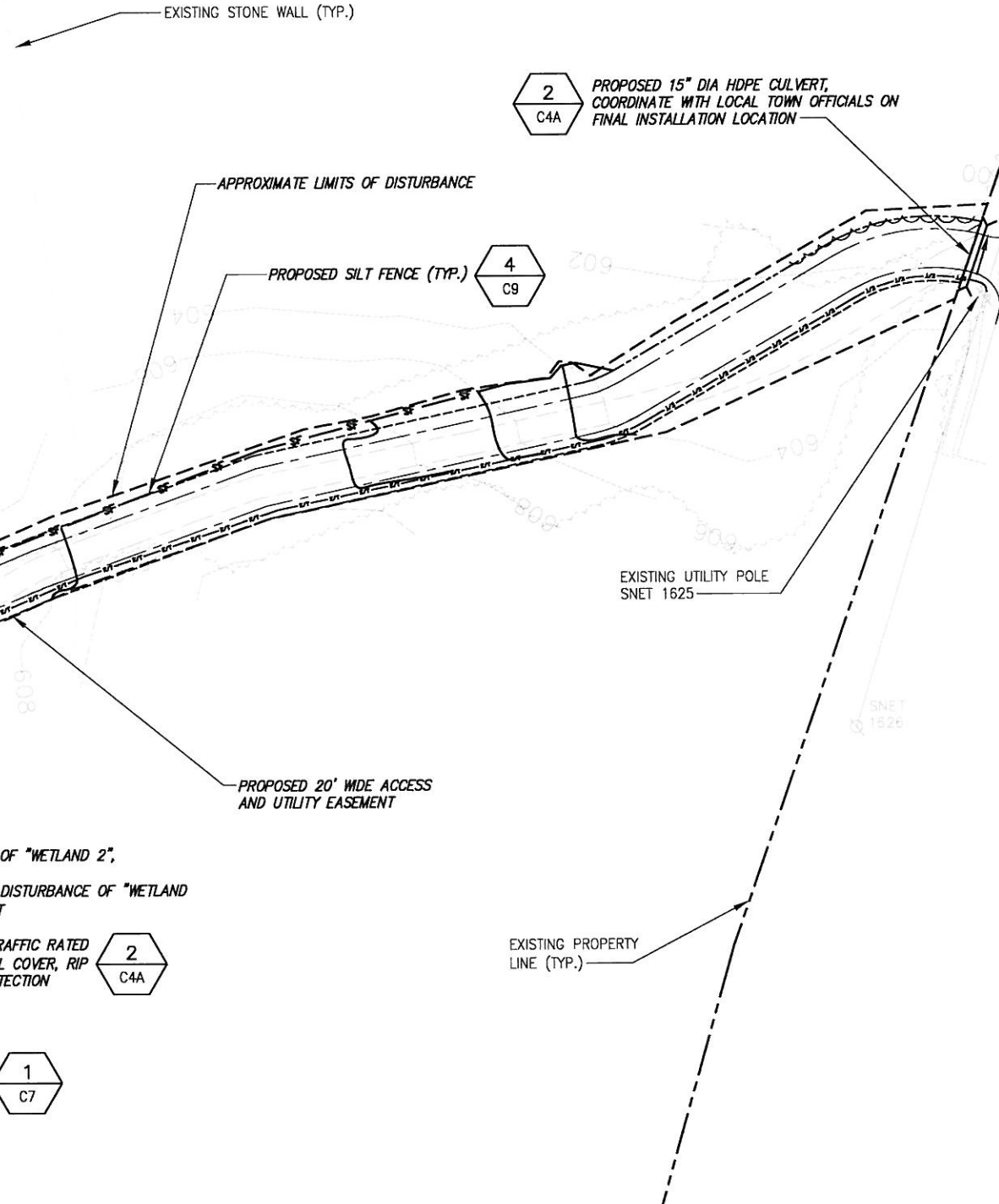
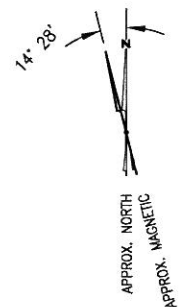
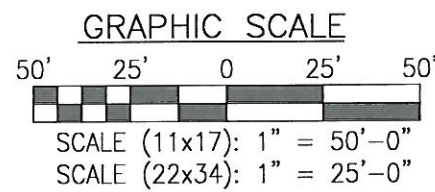
**NOTE:**  
 INSTALL ALL DRAINAGE AND EROSION SEDIMENT CONTROL MEASURES PER "STORMWATER AND POLLUTION CONTROL PLAN - PREPARED FOR NORTH ATLANTIC TOWERS - ROUTE 171/198, WOODSTOCK, CT." BY BERKSHIRE GEO-TECHNOLOGIES AS APPROVED BY "STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION DISTRICT 11" ON JUNE 18, 2012



**2** ELLIPITICAL CULVERT DETAIL CROSS-SECTIONAL VIEW  
 NOT TO SCALE



**1** SECTIONED GRADING PLAN  
 SCALE:



**2** C4A PROPOSED 15" DIA HDPE CULVERT, COORDINATE WITH LOCAL TOWN OFFICIALS ON FINAL INSTALLATION LOCATION

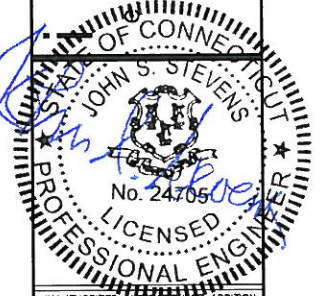
**4** C9 PROPOSED SILT FENCE (TYP.)

**3** C9 PROPOSED STONE BERM LEVEL SPREADER - BMP

**2** C4A PROPOSED 36" ELLIPTICAL TRAFFIC RATED CULVERT, MINIMUM 8" GRAVEL COVER, RIP RAP INLET AND OUTLET PROTECTION

**1** C7 PROPOSED NORTH ATLANTIC TOWERS 12' WIDE GRAVEL ACCESS DRIVE WITHIN A 20' ACCESS AND UTILITY EASEMENT (FINAL ROUTE PENDING), TOTAL ACCESS DRIVE LENGTH = ±2,550 LINEAR FEET (±2,175 ALONG EXISTING WOODS TRAIL & ±375 LINEAR FEET THROUGH EXISTING WOODS)

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 11 Herbert Drive  
 Latham, NY 12110  
 OFFICE: (518) 690-0790  
 FAX: (518) 690-0793



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4	RELOCATE GENERATOR	DJC	8/23/12
3	ADD AT&T RF INFO	AJD	8/8/12
2	HEIGHT REDUCED TO 110'	AJD	7/26/12
1	REVISED ROAD ENTRANCE	SKB	5/21/12
0	ISSUED FOR REVIEW	AJD	5/31/12

Drawn: MJB Date: 5/31/12  
 Designed: AJD Date: 5/31/12  
 Checked: AJD Date: 5/31/12

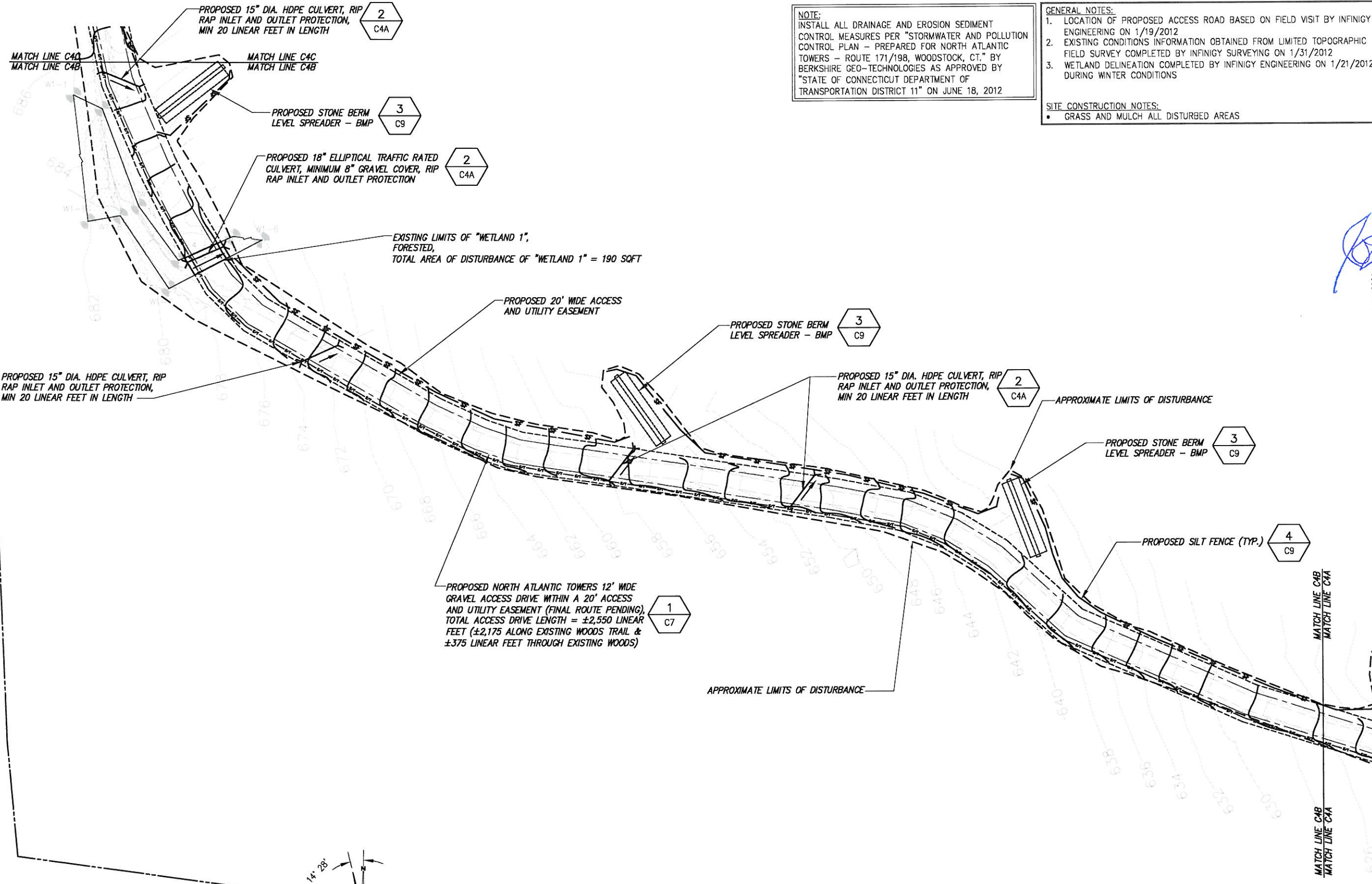
Project Number: 226-064  
 Project Title: WOODSTOCK CT1182  
 ROUTE 198 WOODSTOCK, CT 06281

Prepared For: NORTH ATLANTIC TOWERS  
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Drawing Scale: AS NOTED  
 Date: 7/26/12  
**CD**

Drawing Title: **ACCESS ROAD GRADING PLAN**

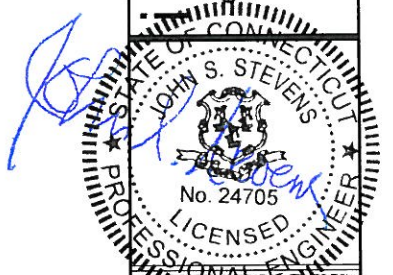
Drawing Number: **C4A**



**NOTE:**  
 INSTALL ALL DRAINAGE AND EROSION SEDIMENT CONTROL MEASURES PER "STORMWATER AND POLLUTION CONTROL PLAN - PREPARED FOR NORTH ATLANTIC TOWERS - ROUTE 171/198, WOODSTOCK, CT." BY BERKSHIRE GEO-TECHNOLOGIES AS APPROVED BY "STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION DISTRICT 11" ON JUNE 18, 2012

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**SITE CONSTRUCTION NOTES:**  
 • GRASS AND MULCH ALL DISTURBED AREAS



No.	Submit / Revision	Appr.	Date
4	RELOCATE GENERATOR	DJD	8/23/12
3	ADD AT&T RF INFO	AJD	8/8/12
2	HEIGHT REDUCED TO 110'	AJD	7/28/12
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0	ISSUED FOR REVIEW	AJD	5/31/12

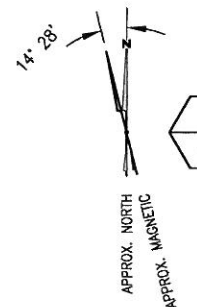
Project Number: 226-064  
 Project Title: WOODSTOCK CT1182  
 ROUTE 198 WOODSTOCK, CT 06281

Prepared For: NORTH ATLANTIC TOWERS  
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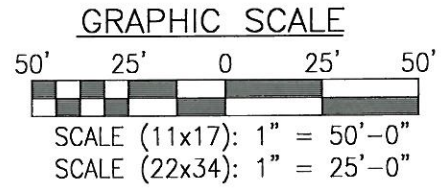
Drawing Scale: AS NOTED  
 Date: 7/26/12  
**CD**

Drawing Title: **ACCESS ROAD GRADING PLAN**

Drawing Number: **C4B**



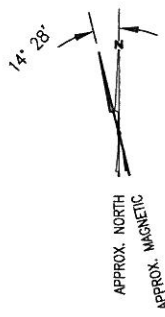
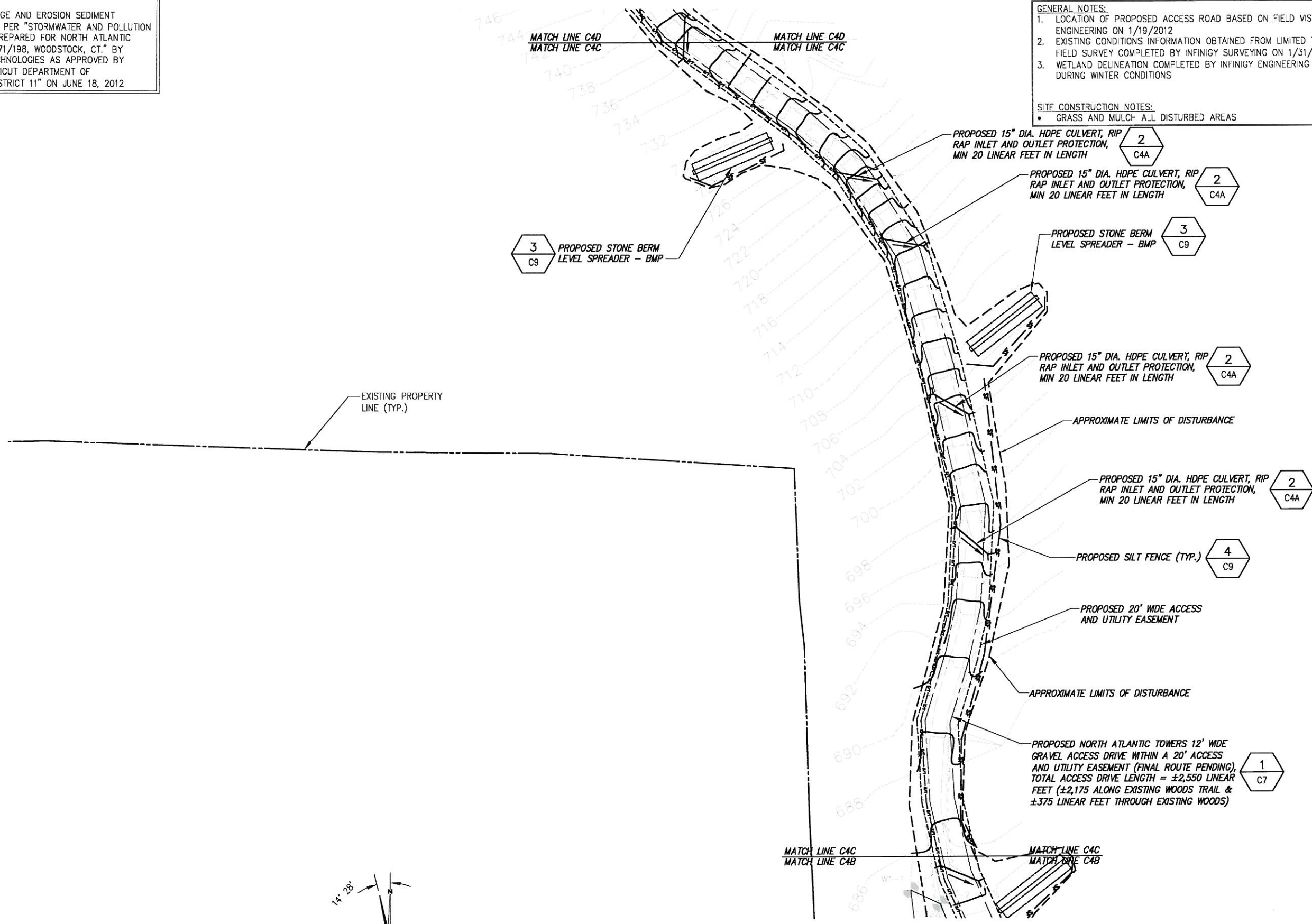
**1 SECTIONED GRADING PLAN**  
 SCALE:



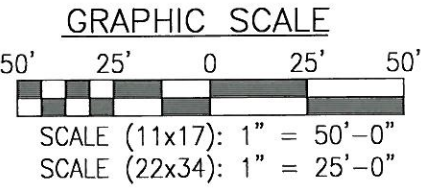
**NOTE:**  
 INSTALL ALL DRAINAGE AND EROSION SEDIMENT CONTROL MEASURES PER "STORMWATER AND POLLUTION CONTROL PLAN - PREPARED FOR NORTH ATLANTIC TOWERS - ROUTE 171/198, WOODSTOCK, CT." BY BERKSHIRE GEO-TECHNOLOGIES AS APPROVED BY "STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION DISTRICT 11" ON JUNE 18, 2012

**GENERAL NOTES:**  
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**SITE CONSTRUCTION NOTES:**  
 • GRASS AND MULCH ALL DISTURBED AREAS



**1 SECTIONED GRADING PLAN**  
 SCALE:



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No.	Submit / Revision	Appr.	Date
4	RELOCATE GENERATOR	D.J.	8/23/12
3	ADD AT&T RF INFO	A.D.	8/8/12
2	HEIGHT REDUCED TO 110'	A.D.	7/28/12
1	REVISED ROAD ENTRANCE	SKB	6/21/12
0	ISSUED FOR REVIEW	A.D.	5/31/12

Drawn: M.B. Date: 5/31/12  
 Designed: A.D. Date: 5/31/12  
 Checked: A.D. Date: 5/31/12

Project Number: 226-064  
 Project Title: WOODSTOCK CT1182  
 ROUTE 198 WOODSTOCK, CT 06281

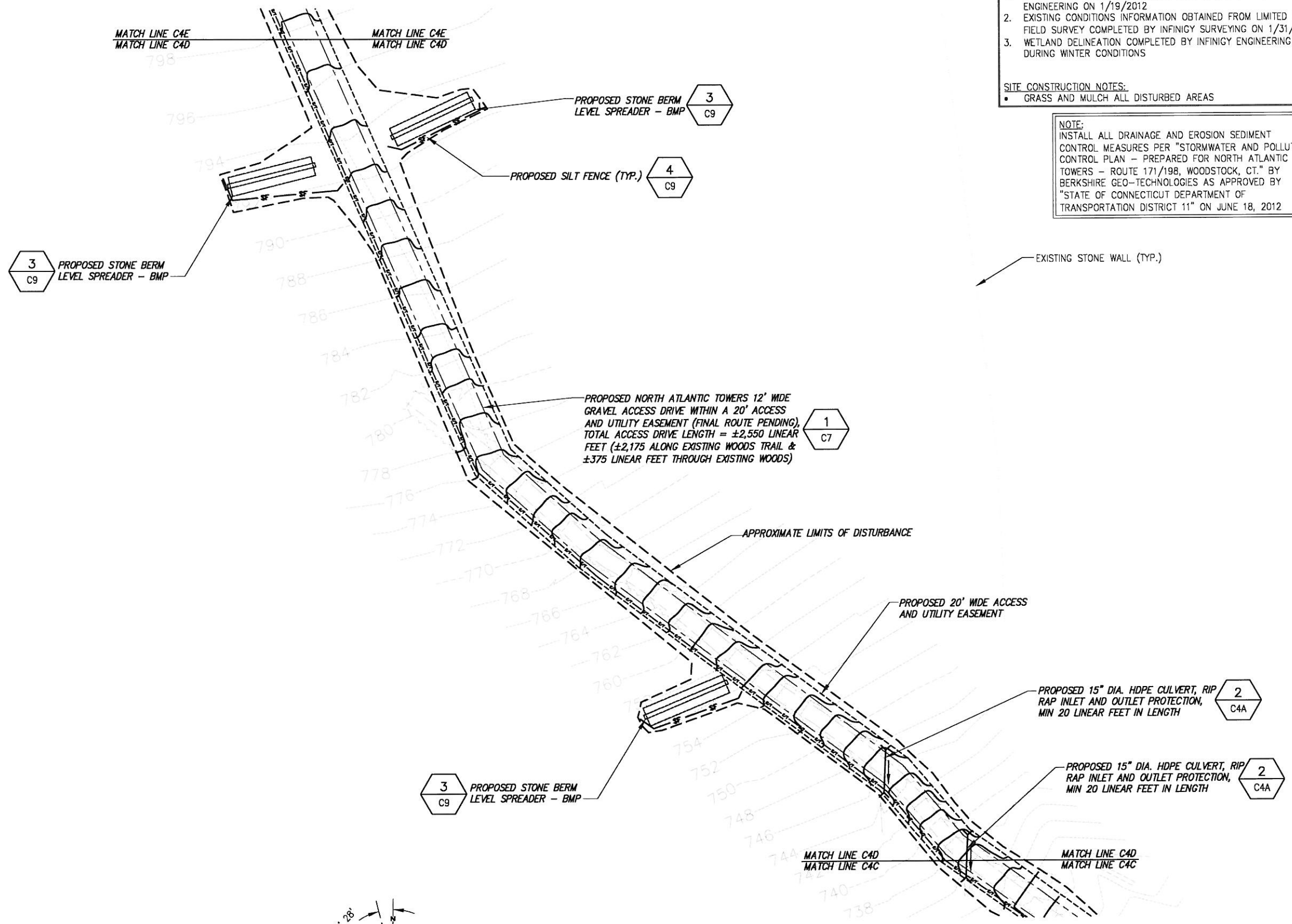
Prepared For: NORTH ATLANTIC TOWERS  
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Drawing Scale: AS NOTED  
 Date: 7/26/12  
**CD**

Drawing Title: **ACCESS ROAD GRADING PLAN**

Drawing Number: **C4C**

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 11 Herbert Drive  
 Latham, NY 12110  
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**GENERAL NOTES:**

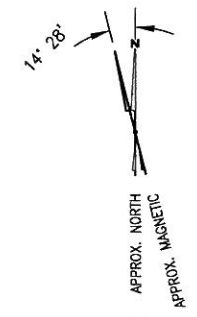
1. LOCATION OF PROPOSED ACCESS ROAD BASED ON FIELD VISIT BY INFINIGY ENGINEERING ON 1/19/2012
2. EXISTING CONDITIONS INFORMATION OBTAINED FROM LIMITED TOPOGRAPHIC FIELD SURVEY COMPLETED BY INFINIGY SURVEYING ON 1/31/2012
3. WETLAND DELINEATION COMPLETED BY INFINIGY ENGINEERING ON 1/21/2012 DURING WINTER CONDITIONS

**SITE CONSTRUCTION NOTES:**

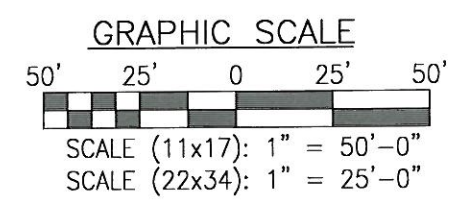
- GRASS AND MULCH ALL DISTURBED AREAS

**NOTE:**  
INSTALL ALL DRAINAGE AND EROSION SEDIMENT CONTROL MEASURES PER "STORMWATER AND POLLUTION CONTROL PLAN - PREPARED FOR NORTH ATLANTIC TOWERS - ROUTE 171/198, WOODSTOCK, CT." BY BERKSHIRE GEO-TECHNOLOGIES AS APPROVED BY "STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION DISTRICT 11" ON JUNE 18, 2012

EXISTING STONE WALL (TYP.)

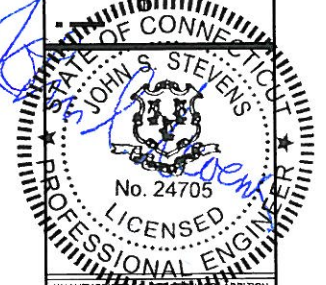


1 SECTIONED GRADING PLAN  
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2	HEIGHT REDUCED TO 110'	AJD	7/26/12
1	REVISED ROAD ENTRANCE	SKB	6/21/12
0	ISSUED FOR REVIEW	AJD	5/31/12
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Project Number  
226-064

Project Title  
**WOODSTOCK CT1182**  
ROUTE 198  
WOODSTOCK, CT 06281

Prepared For  
**NORTH ATLANTIC TOWERS**

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Drawing Title  
**ACCESS ROAD GRADING PLAN**

Drawing Number  
**C4D**



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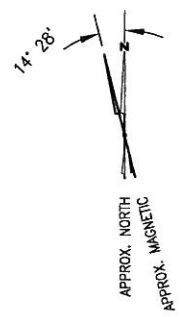
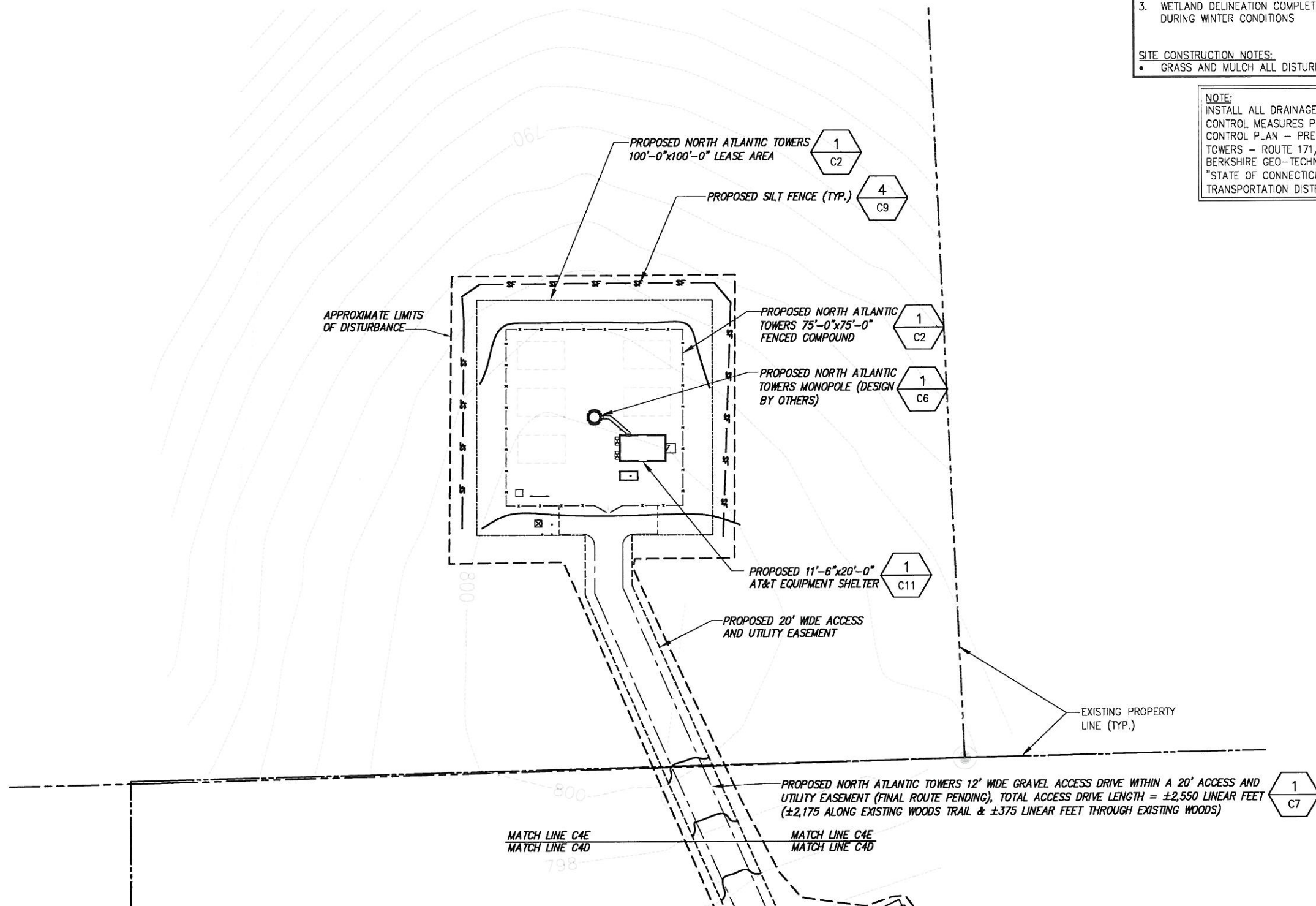
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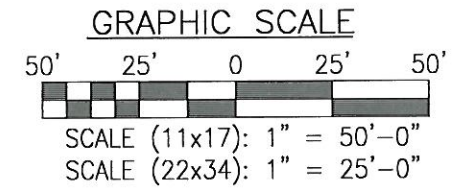
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1 SECTIONED GRADING PLAN   
 SCALE:



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STATE OF CONNECTICUT  
 JOHN STEVENS  
 No. 24705  
 LICENSED PROFESSIONAL ENGINEER

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**GRADING & EXCAVATING NOTES:**

- ALL EXCAVATIONS ON WHICH CONCRETE IS TO BE PLACED SHALL BE SUBSTANTIALLY HORIZONTAL ON UNDISTURBED AND UNFROZEN SOIL AND BE FREE FROM LOOSE MATERIAL AND EXCESS GROUNDWATER. DEWATERING FOR EXCESS GROUNDWATER SHALL BE PROVIDED IF REQUIRED.
- CONCRETE FOUNDATIONS SHALL NOT BE PLACED ON ORGANIC MATERIAL. IF SOUND SOIL IS NOT REACHED AT THE DESIGNATED EXCAVATION DEPTH, THE UNSATISFACTORY SOIL SHALL BE EXCAVATED TO ITS FULL DEPTH AND EITHER BE REPLACED WITH MECHANICALLY COMPACTED GRANULAR MATERIAL OR THE EXCAVATION BE FILLED WITH CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE FOUNDATION.
- ANY EXCAVATION OVER THE REQUIRED DEPTH SHALL BE FILLED WITH EITHER MECHANICALLY COMPACTED GRANULAR MATERIAL OR CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE FOUNDATION. CRUSHED STONE MAY BE USED TO STABILIZE THE BOTTOM OF THE EXCAVATION. STONE, IF USED, SHALL NOT BE USED AS COMPILING CONCRETE THICKNESS.
- AFTER COMPLETION OF THE FOUNDATION AND OTHER CONSTRUCTION BELOW GRADE, AND BEFORE BACKFILLING, ALL EXCAVATIONS SHALL BE CLEAN OF UNSUITABLE MATERIAL SUCH AS VEGETATION, TRASH, DEBRIS, AND SO FORTH.
- USE APPROVED MATERIALS CONSISTING OF EARTH, LOAM, SANDY CLAY, SAND  
-BE FREE FROM CLODS OR STONES OVER 2-1/2" MAXIMUM DIMENSIONS  
-BE PLACED IN 6" LAYERS AND COMPACTED TO 95% STANDARD PROCTOR EXCEPT IN GRASSED/LANDSCAPED AREAS, WHERE 90% STANDARD PROCTOR
- REMOVE ALL VEGETATION, TOPSOIL, DEBRIS, WET AND UNSATISFACTORY SOIL MATERIALS, OBSTRUCTIONS, AND DELETERIOUS MATERIALS FROM GROUND SURFACE PRIOR TO PLACING FILLS. PLOW, STRIP, OR BREAK UP SLOPED SURFACES STEEPER THAN THAN 1 VERTICAL TO 4 HORIZONTAL SO FILL MATERIAL WILL BOND WITH EXISTING SURFACE. WHEN SUBGRADE OR EXISTING GROUND SURFACE TO RECEIVE FILL HAS A DENSITY LESS THAN THAT REQUIRED FOR FILL, BREAK UP GROUND SURFACE TO DEPTH REQUIRED, PULVERIZE, MOISTURE-CONDITION OR AERATE SOIL AND RECOMPACT TO REQUIRED DENSITY.
- PROTECT EXISTING GRAVEL SURFACING AND SUBGRADE IN AREAS WHERE EQUIPMENT LOADS WILL OPERATE. USE PLANKING OR OTHER SUITABLE MATERIALS DESIGNED TO SPREAD EQUIPMENT LOADS. REPAIR DAMAGE TO EXISTING GRAVEL SURFACING OR SUBGRADE WHERE SUCH DAMAGE IS DUE TO THE CONTRACTOR'S OPERATIONS. DAMAGED GRAVEL SURFACING SHALL BE RESTORED TO MATCH THE ADJACENT UNDAMAGED GRAVEL SURFACING AND SHALL BE OF THE SAME THICKNESS.
- REPLACE EXISTING GRAVEL SURFACING ON AREAS FROM WHICH GRAVEL SURFACING IS REMOVED DURING CONSTRUCTION OPERATIONS. GRAVEL SURFACING SHALL BE REPLACED TO MATCH EXISTING ADJACENT GRAVEL SURFACING AND SHALL BE OF THE SAME THICKNESS. SURFACES OF GRAVEL SURFACING SHALL BE FREE FROM CORRUGATIONS AND WAVES. EXISTING GRAVEL SURFACING MAY BE EXCAVATED SEPARATELY AND REUSED IF INJURIOUS AMOUNTS OF EARTH, ORGANIC MATTER, OR OTHER DELETERIOUS MATERIALS ARE REMOVED PRIOR TO REUSE. FURNISH ALL ADDITIONAL GRAVEL RESURFACING MATERIAL AS REQUIRED. BEFORE GRAVEL SURFACING IS REPLACED, SUBGRADE SHALL BE GRADED TO CONFORM TO REQUIRED SUBGRADE ELEVATIONS, AND LOOSE OR DISTURBED MATERIALS SHALL BE THOROUGHLY COMPACTED. DEPRESSIONS IN THE SUBGRADE SHALL BE FILLED AND COMPACTED WITH APPROVED SELECTED MATERIAL. GRAVEL SURFACING MATERIAL MAY BE USED FOR FILLING DEPRESSIONS IN THE SUBGRADE, SUBJECT TO ENGINEER'S APPROVAL.
- DAMAGE TO EXISTING STRUCTURES AND UTILITIES RESULTING FROM CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED/REPLACED TO OWNER'S SATISFACTION AT CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULE WITH PROPERTY OWNER SO AS TO AVOID INTERRUPTIONS TO PROPERTY OWNER'S OPERATIONS.
- ENSURE POSITIVE DRAINAGE DURING AND AFTER COMPLETION OF CONSTRUCTION.
- ALL CUT AND FILL SLOPES SHALL BE MAXIMUM 2 HORIZONTAL TO 1 VERTICAL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING SITE VEHICLE TRAFFIC AS TO NOT ALLOW VEHICLES LEAVING THE SITE TO TRACK MUD ONTO PUBLIC STREETS. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING PUBLIC STREETS DUE TO MUDDY VEHICLES LEAVING THE SITE.

MULCH APPLICATION RATES				
MATERIAL	RATE / ACRE	DEPTH	COVERAGE	ANCHORING
HAY/STRAW	90-100 BALES	4" (WINTER)	90% SURFACE	*HYDROMULCH
WOOD CHIPS	10-20 TONS	2" TO 6"	90% SURFACE	NOT NEEDED
COMPOST	150-450 CYDS	2" TO 4"	100% SURFACE	NOT NEEDED
HYDROMULCH	2,000 LBS	1/4" TO 1/2"	100% SURFACE	**TACKIFIER

**NOTES:**  
 \* HYDROMULCH ANCHORING HAY/STRAW MUST BE APPLIED AT 80 - 100 LBS PER ACRE  
 \*\* ADD TACKIFIER PER MANUFACTURER RECOMMENDATIONS IF NOT INCLUDED IN HYDROMULCH

**GENERAL EROSION & SEDIMENT CONTROL NOTES:**

- THE SOIL EROSION AND SEDIMENT CONTROL MEASURES AND DETAILS AS SHOWN HEREIN AND STIPULATED WITHIN STATE STANDARDS SHALL BE FOLLOWED AND INSTALLED IN A MANNER SO AS TO MINIMIZE SEDIMENT LEAVING THE SITE.
- PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, THE LIMITS OF LAND DISTURBANCE SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS.
- EROSION CONTROL DEVICES SHALL BE INSTALLED BEFORE GROUND DISTURBANCE OCCURS. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
- THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
- CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED. CONTRACTOR SHALL CLEAN OUT ALL SEDIMENT PONDS WHEN REQUIRED BY THE ENGINEER OR THE LOCAL JURISDICTION INSPECTOR. CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
- THE CONTRACTOR SHALL REMOVE ACCUMULATED SILT WHEN THE SILT IS WITHIN 12" OF THE TOP OF THE SILT FENCE.
- FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB SITE UNTIL SUCH MEASURES ARE CORRECTED.
- SILT BARRIERS TO BE PLACED AT DOWNSTREAM TOE OF ALL CUT AND FILL SLOPES.
- ALL CUT AND FILL SLOPES MUST BE SURFACED ROUGHENED AND VEGETATED WITHIN SEVEN (7) DAYS OF THEIR CONSTRUCTION.
- CONTRACTOR SHALL REMOVE ALL EROSION & SEDIMENT CONTROL MEASURES AFTER COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER.
- THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND-DISTURBING ACTIVITIES.

**STONE BERM LEVEL SPREADER NOTES**

**LEVEL SPREADER DIMENSIONS:**  
 LEVEL SPREADER TROUGH MINIMUM DIMENSIONS = 30' LENGTH, 4' WIDTH, 2' HEIGHT

**LEVEL SPREADER SEQUENCING:**

- LEVEL SPREADERS TO BE CONSTRUCTED IMMEDIATELY AFTER CLEARING/GRUBBING FOR THE ROADWAY AND PRIOR TO INITIATION OF ANY LAND GRADING ACTIVITIES
- LEVEL SPREADERS TO FUNCTION AS SEDIMENT DEVICES PRIOR TO INSTALLATION OF GRAVEL ROAD, AFTER WHICH THEY MUST BE CLEANED OF ACCUMULATED SEDIMENT AND RESTORED TO THEIR ORIGINAL DESIGN VOLUMES THEN IMMEDIATELY STABILIZED

**OPERATION AND MAINTENANCE REQUIREMENTS:**

- STORAGE AREA OF LEVEL SPREADERS TO BE INSPECTED ON AN BI-ANNUAL BASIS
- ACCUMULATED SEDIMENTS TO BE REMOVED TO RESTORE ORIGINAL DESIGN DIMENSION
- DISPOSAL OF SEDIMENTS MUST BE IN AN AREA AWAY FOR CONCENTRATED FLOWS
- DISTURBED SOILS MUST BE IMMEDIATELY STABILIZED WITH GRASS SEED AND MULCH

**PROTECTED FORESTED BUFFER NOTES**

**OPERATION AND MAINTENANCE:**

- REMOVAL OF VEGETATION IN FORESTED BUFFERS BELOW LEVEL SPREADERS IS TO BE PROHIBITED FOR THE DURATION OF THE CURRENT AND FUTURE LEASE PERIODS
- BUFFER AREAS ARE TO BE INSPECTED ANNUALLY FOR EVIDENCE OF CHANNELIZATION OR SOIL EROSION BY RUNOFF ORIGINATING FROM THE LEVEL SPREADERS AND FOR REMOVAL OF VEGETATION IN THE DESIGNATED BUFFER AREAS ON THE SITE PLANS

VEGETATIVE SCHEDULE				
	SPECIES	RATE/1000 S.F.	DATE	
TALL FESCUE GRASS		1.0#	APRIL 1 - OCTOBER 15	
SERICEA LESPEDEZA SEED BEARING HAY WITH OVERSEEDING WEEPING LOVEGRASS		140# 0.2#	OCTOBER 1 - MARCH 15 MARCH 15 - MAY 1	
FERTILIZER MIX				
APPLICATION	N, #/ACRE	P <sub>2</sub> O <sub>5</sub> , #/ACRE	K <sub>2</sub> O, #/ACRE	N, TOP DRESSING
1st	60 - 90	120 - 180	120 - 180	50
2nd	60	120	120	-

**NOTE:**  
 - GRASS AND MULCH ALL DISTURBED AREAS WITHIN SEVEN(7) DAYS OF FINAL GRADING

**HYDRAULIC SEEDING EQUIPMENT**

WHEN HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS USED, NO GRADING AND SHAPING OR SEEDBED PREPARATION WILL BE REQUIRED. THE FERTILIZER, SEED AND WOOD CELLULOSE FIBER MULCH WILL BE MIXED WITH WATER AND APPLIED IN A SLURRY. ALL SLURRY INGREDIENTS MUST BE COMBINED TO FORM A HOMOGENEOUS MIXTURE, AND SPREAD UNIFORMLY OVER THE AREA WITHIN ONE HOUR AFTER MIXTURE IS MADE. STRAW OR HAY MULCH AND ASPHALT EMULSION WILL BE APPLIED WITH BLOWER-TYPE MULCH SPREADING EQUIPMENT WITHIN 24 HOURS AFTER SEEDING, THE MULCH WILL BE SPREAD UNIFORMLY OVER THE AREA, LEAVING ABOUT 25 PERCENT OF THE GROUND SURFACE EXPOSED.

**CONVENTIONAL SEEDING EQUIPMENT**

GRADE, SHAPE AND SMOOTH WHERE NEEDED TO PROVIDE FOR SAFE EQUIPMENT OPERATION AT SEEDING TIME AND FOR MAINTENANCE PURPOSES. THE LIME AND FERTILIZER IN DRY FORM WILL BE SPREAD UNIFORMLY OVER THE AREA IMMEDIATELY BEFORE SEEDBED PREPARATION. A SEEDBED WILL BE PREPARED BY SCARIFYING TO A DEPTH OF 1 TO 4 INCHES AS DETERMINED ON SITE. THE SEEDBED MUST BE WELL PULVERIZED, SMOOTHED AND FIRMED. SEEDING WILL BE DONE WITH CULTIPACKER-SEEDER, DRILL, ROTARY SEEDER OR OTHER MECHANICAL OR HAND SEEDER. SEED WILL BE DISTRIBUTED UNIFORMLY OVER A FRESHLY PREPARED SEEDBED AND COVERED LIGHTLY. WITHIN 24 HOURS AFTER SEEDING, STRAW OR HAY MULCH WILL BE SPREAD UNIFORMLY OVER THE AREA, LEAVING ABOUT 25 PERCENT OF THE GROUND SURFACE EXPOSED. MULCH WILL BE SPREAD WITH BLOWER-TYPE MULCH EQUIPMENT OR BY HAND AND ANCHORED IMMEDIATELY AFTER IT IS SPREAD. A DISK HARROW WITH THE DISK SET STRAIGHT OR A SPECIAL PACKER DISK MAY BE USED TO PRESS THE MULCH INTO THE SOIL.

**PROJECTS WITH CT CONSTRUCTION STORMWATER GENERAL PERMIT COVERAGE**

**CONSTRUCTION SEQUENCE/EROSION CONTROL NOTES**

ALL PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO INITIATING EARTH MOVING OPERATIONS. ALL SWALES SHALL BE INSTALLED EARLY IN THE CONSTRUCTION SEQUENCE (BEFORE ROUGH GRADING). ALL DITCHES, LEVEL SPREADERS, AND SWALES SHALL BE STABILIZED PRIOR TO RECEIVING RUNOFF. ALL ROADS AND PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE. ALL CUT OR FILL SLOPES SHALL BE SEEDED/LOAMED WITHIN 24 HOURS OF ACHIEVING FINISHED GRADE. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EVERY 0.5" OF RAINFALL.

**LIMITS ON SIZE OF ALLOWABLE DISTURBED AREA:**

THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY ONE TIME BEFORE PREVIOUSLY DISTURBED AREAS HAVE BEEN STABILIZED.

**DEFINITION OF STABLE:**

AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:

- BASE COURSE OF GRAVEL HAS BEEN INSTALLED IN AREAS TO BE PAVED OR TO BE GRAVEL ROADS.
- A MINIMUM OF 85 PERCENT VEGETATED GROWTH HAS BEEN ESTABLISHED AND MAINTAINED.
- A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH STONE OR RIPRAP HAS BEEN INSTALLED.
- OR, ROLLED EROSION CONTROL PRODUCTS (RECPs) HAVE BEEN PROPERLY INSTALLED.

**TIME LIMIT OF EXPOSED SOIL:**

ALL AREAS IN THE PROPOSED PROJECT SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.

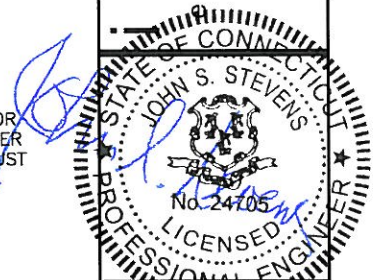
**STANDARD WINTER NOTES (WHEN APPLICABLE):**

ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.

ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.

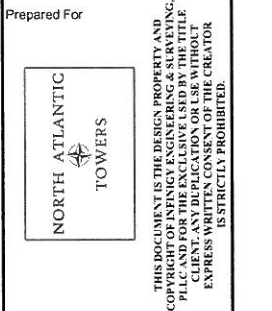
AFTER NOVEMBER 15, INCOMPLETE ROADWAYS, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL.

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 WOODSTOCK, CT 06281



Drawing Scale: AS NOTED  
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**CD**

Drawing Title: **GRADING NOTES & DETAILS**

Drawing Number: **C5**

STRUCTURAL ANALYSIS NOT COMPLETED AT TIME OF ISSUANCE OF THESE DRAWINGS. THE STRUCTURAL ANALYSIS MUST BE COMPLETED PRIOR TO CONSTRUCTION.

PROPOSED ANTENNA RAD CENTER IS PRELIMINARY AND IS SUBJECT TO CHANGE WITH FINAL RF CONFIGURATION BY RF ENGINEER.

PROPOSED AT&T 3" FLEXIBLE NON METALLIC CONDUIT WITH (1) DC POWER CABLE AND (1) FIBER OPTIC CABLE. SUPPORT USING HOISTING GRIPS. DC CABLE P/N WR-VG86ST-BRD OR APPROVED EQUAL. FIBER CABLE P/N FB-L98B-002-XXX OR APPROVED EQUAL.

PROPOSED POWERWAVE ANTENNA MODEL P65-16-XLH-RR (TYP. OF 3) PER SECTOR, (9) ANTENNAS TOTAL

PROPOSED AT&T T-FRAME ANTENNA MOUNT (TYP. OF 3)

PROPOSED ERICSSON TOWER MOUNTED AMPLIFIERS, MODEL UMTS-RRUW (TYP. OF 4) PER SECTOR, (12) TOTAL, MOUNTED PER MANUFACTURER AND STRUCTURAL ANALYSIS (BY OTHERS) RECOMMENDATIONS

PROPOSED ERICSSON TOWER MOUNTED AMPLIFIERS, MODEL RRUS-11 (TYP. OF 2) PER SECTOR, (6) TOTAL, MOUNTED PER MANUFACTURER AND STRUCTURAL ANALYSIS (BY OTHERS) RECOMMENDATIONS

PROPOSED AT&T PANEL ANTENNAS (TYP. OF 4) PER SECTOR (3) SECTORS TOTAL

FUTURE CARRIER PANEL ANTENNAS (TYP.)

PROPOSED NORTH ATLANTIC TOWERS MONOPOLE (DESIGN BY OTHERS)

PROPOSED AT&T 4'x8' GENERATOR AREA

PROPOSED ICE BRIDGE (TYP.)

PROPOSED AT&T 12'x20' EQUIPMENT SHELTER

PROPOSED NORTH ATLANTIC TOWERS 75'-0"x75'-0" FENCED COMPOUND

EXISTING NORTH ATLANTIC TOWERS MONOPOLE

PROPOSED ERICSSON TOWER MOUNTED AMPLIFIERS, MODEL UMTS-RRUW (TYP. OF 4) PER SECTOR, (12) TOTAL, MOUNTED PER MANUFACTURER AND STRUCTURAL ANALYSIS (BY OTHERS) RECOMMENDATIONS

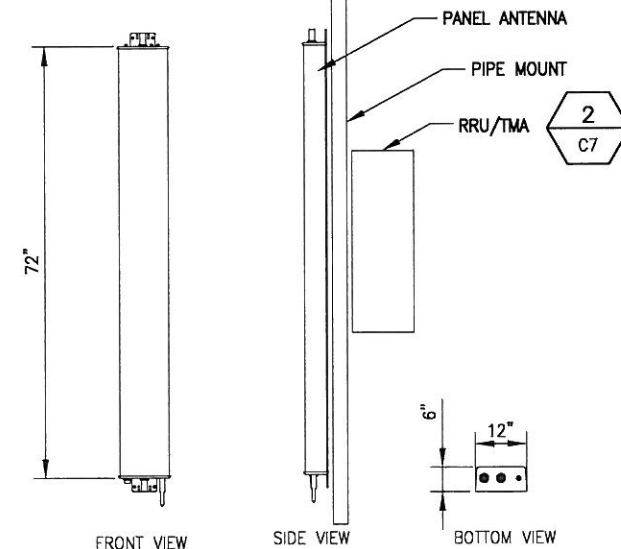
PROPOSED ANTENNA MOUNTING FRAME, (1ST MOUNT)

PROPOSED STAND-OFF MOUNT

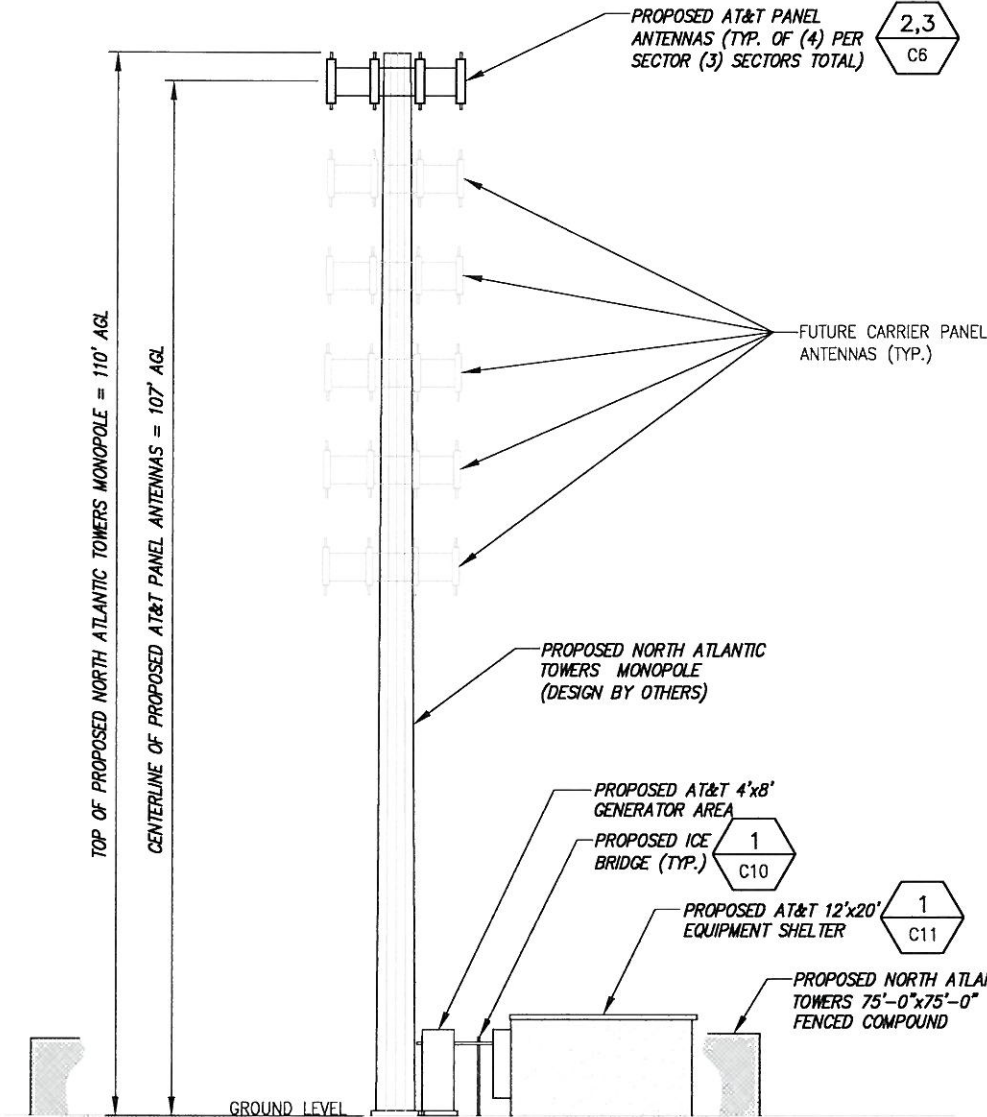
PROPOSED SITE PRO 3-SECTOR UNIVERSAL RINGMOUNT, (2ND MOUNT)

PROPOSED MOUNTING PIPE

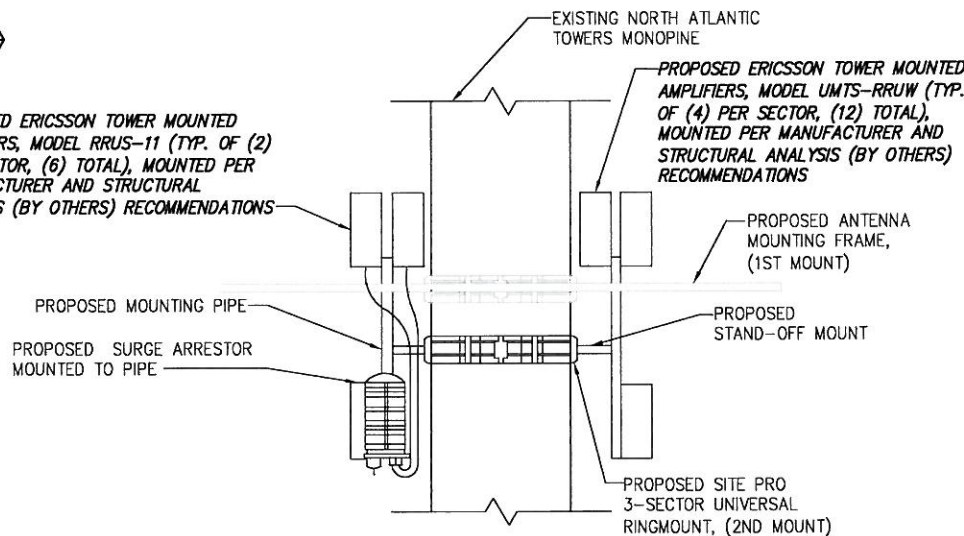
PROPOSED SURGE ARRESTOR MOUNTED TO PIPE



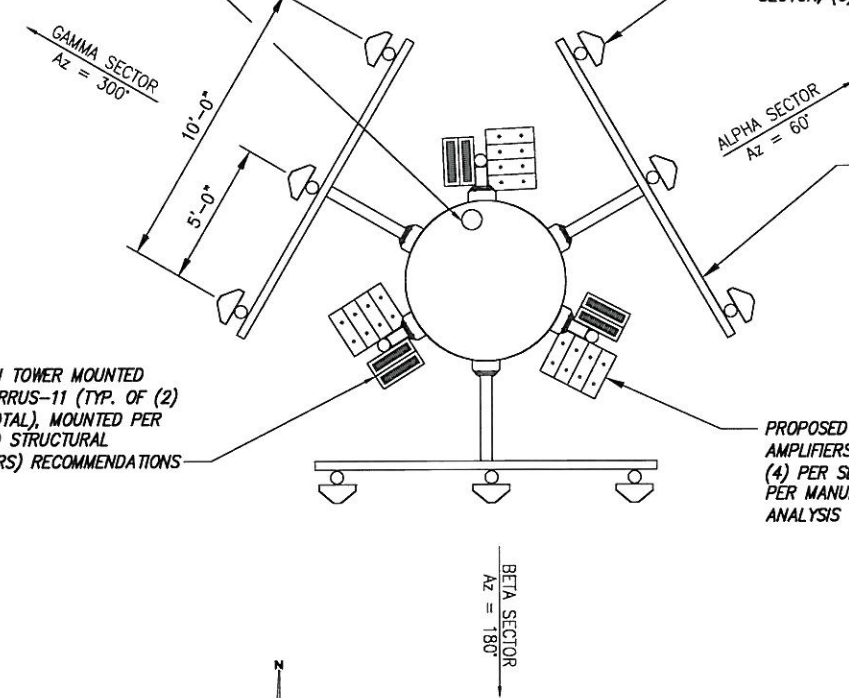
3 ANTENNA SPECIFICATIONS (AT&T) NOT TO SCALE



1 TOWER ELEVATION NOT TO SCALE



4 RRH & SURGE ARRESTOR MOUNT DETAIL NOT TO SCALE



2 ANTENNA ORIENTATION NOT TO SCALE

- GENERAL NOTES:
1. LOCATION OF PROPOSED ACCESS ROAD BASED ON FIELD VISIT BY INFINIGY ENGINEERING ON 1/19/2012
  2. EXISTING CONDITIONS INFORMATION OBTAINED FROM LIMITED TOPOGRAPHIC FIELD SURVEY COMPLETED BY INFINIGY SURVEYING ON 1/31/2012
  3. WETLAND DELINEATION COMPLETED BY INFINIGY ENGINEERING ON 1/21/2012 DURING WINTER CONDITIONS

- SITE CONSTRUCTION NOTES:
- GRASS AND MULCH ALL DISTURBED AREAS

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 FAX: (518) 690-0793

JOHN STEVENS  
 No. 24705  
 LICENSED PROFESSIONAL ENGINEER

4	RELOCATE GENERATOR	DJO	8/23/12
3	ADD AT&T RF INFO	AJD	8/9/12
2	HEIGHT REDUCED TO 110'	AJD	7/28/12
1	REVISED ROAD ENTRANCE	SKB	8/21/12
0	ISSUED FOR REVIEW	AJD	5/31/12

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Drawn: MJB Date: 5/31/12  
 Designed: AJD Date: 5/31/12  
 Checked: AJD Date: 5/31/12

Project Number: 226-064  
 Project Title: WOODSTOCK CT1182  
 ROUTE 198 WOODSTOCK, CT 06281

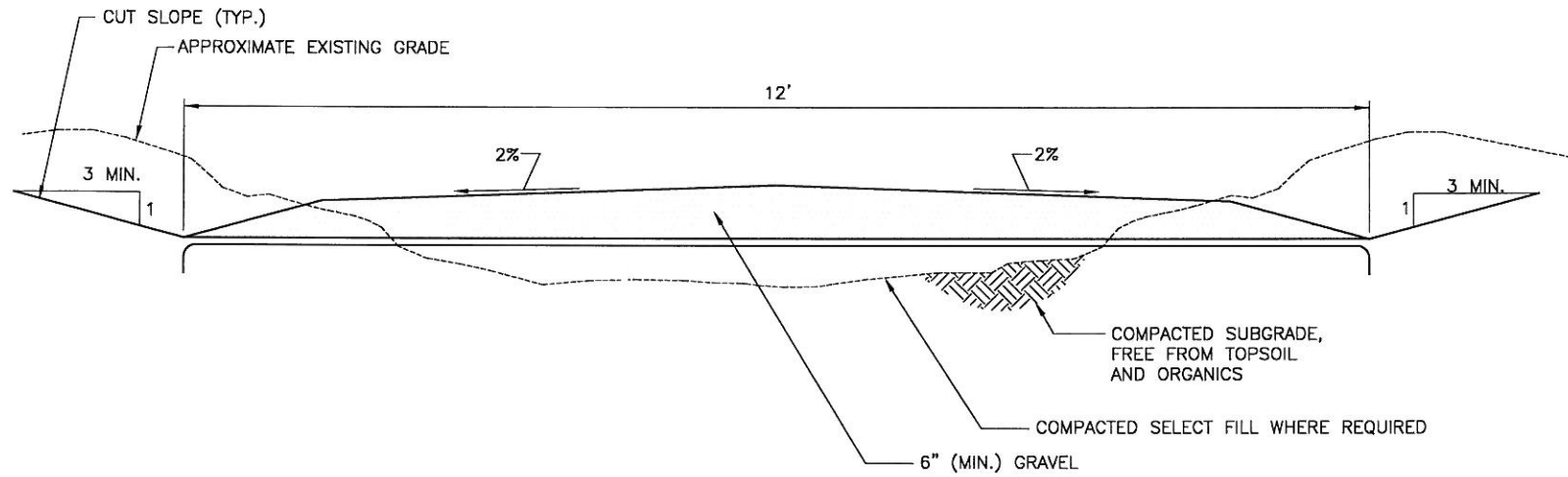
Prepared For: NORTH ATLANTIC TOWERS

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**CD**

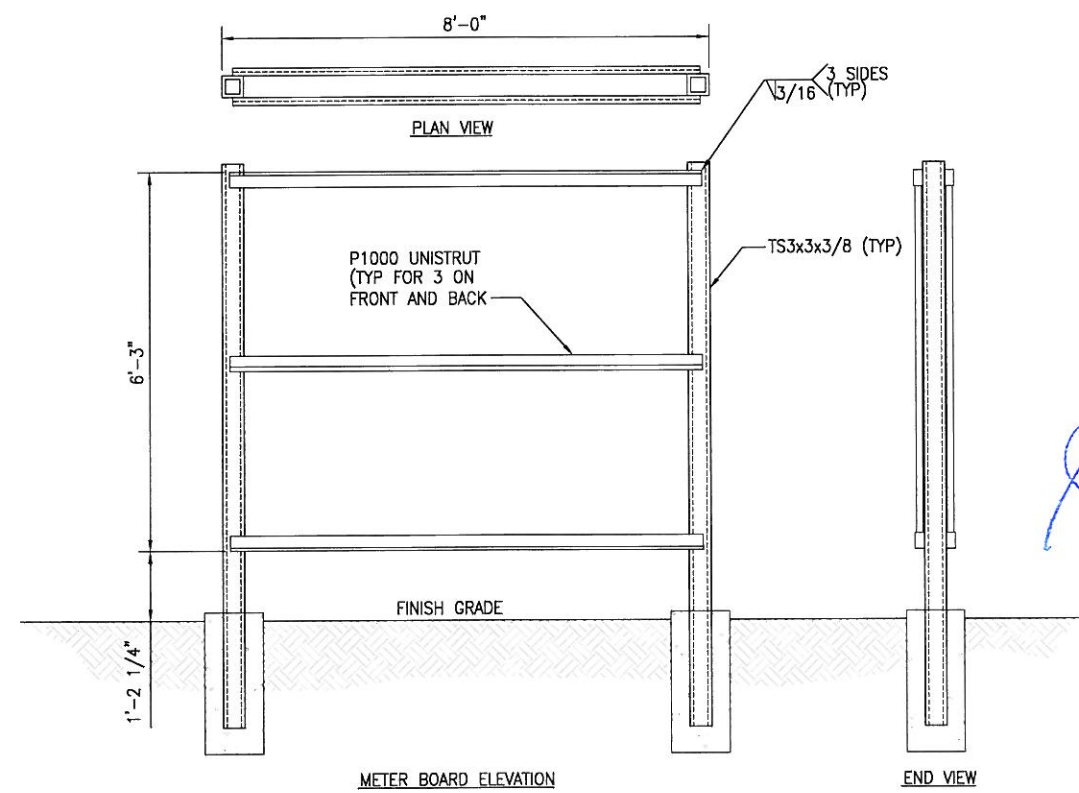
Drawing Title: **ELEVATION VIEW**

Drawing Number: **C6**

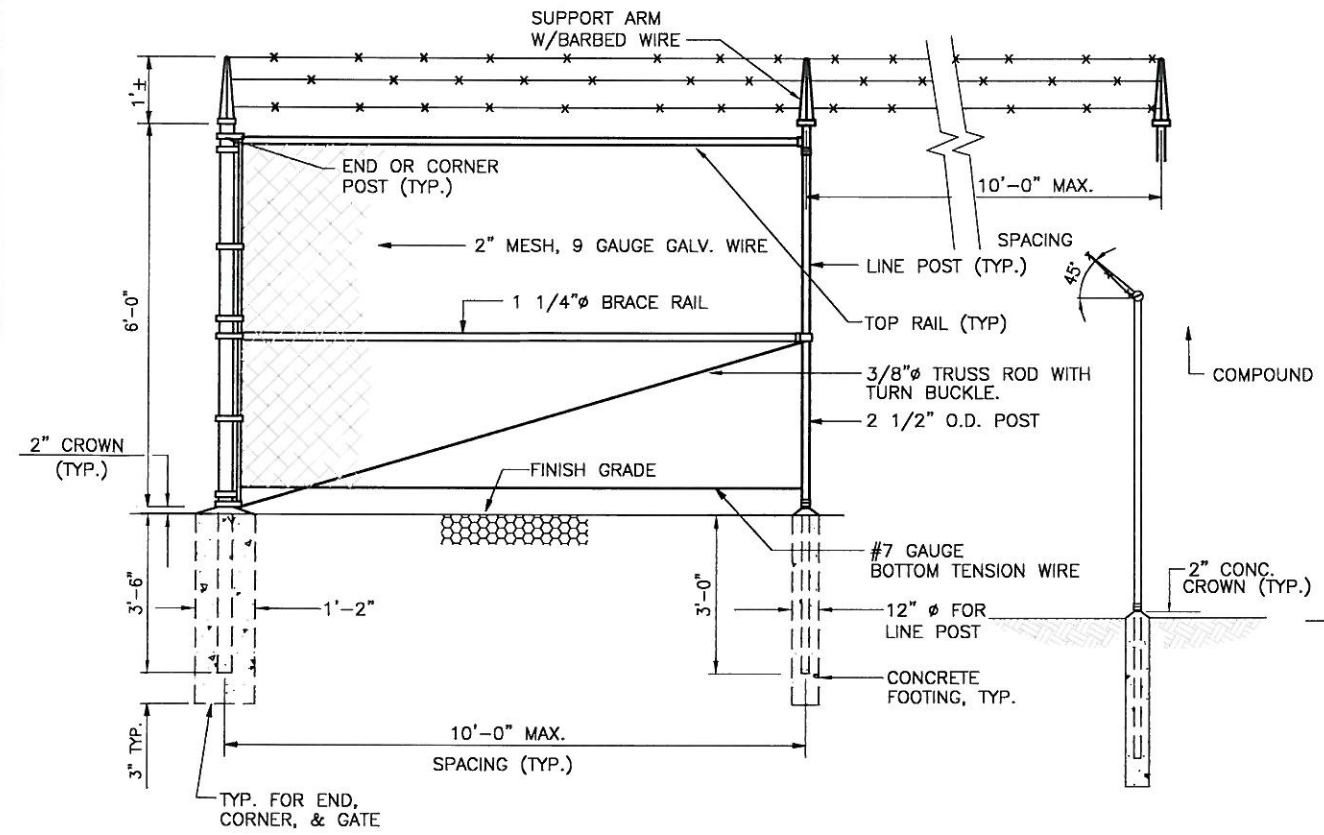
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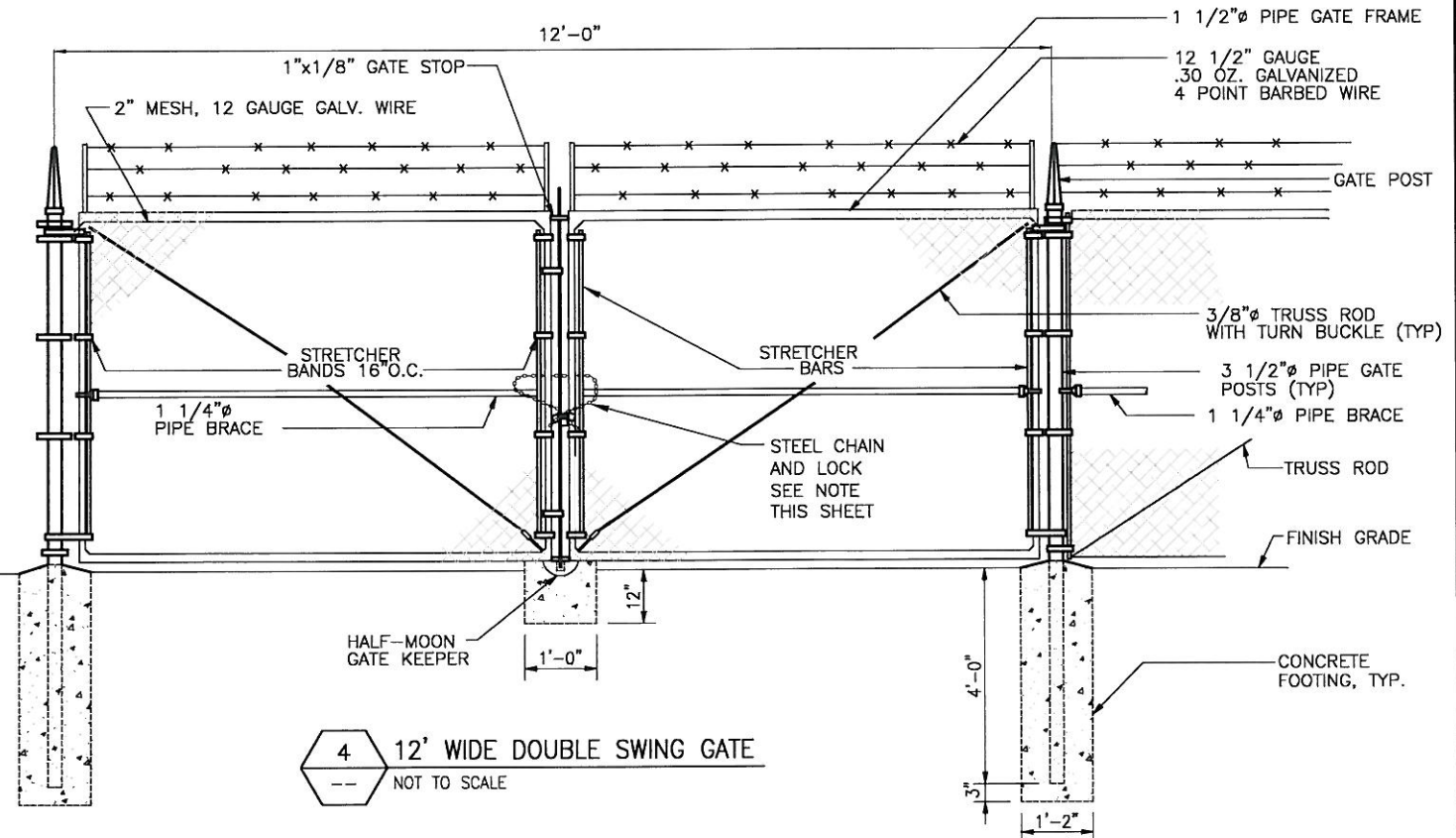
1 DRIVEWAY SECTION - CROWNED  
-- NOT TO SCALE



3 8'-0" WIDE METER BOARD FABRICATION DETAIL  
-- NOT TO SCALE

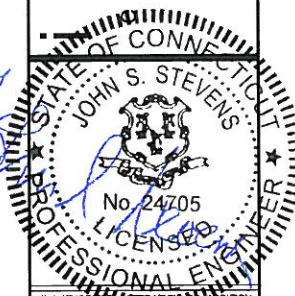


2 CHAIN LINK FENCE DETAIL (ELEVATION)  
-- NOT TO SCALE



4 12' WIDE DOUBLE SWING GATE  
-- NOT TO SCALE

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2	HEIGHT REDUCED TO 110'	A.J.D.	7/28/12
1	REVISED ROAD ENTRANCE	SKB	6/21/12
0	ISSUED FOR REVIEW	A.J.D.	5/31/12

Drawn: M.B. Date: 5/31/12  
Designed: A.J.D. Date: 5/31/12  
Checked: A.J.D. Date: 5/31/12

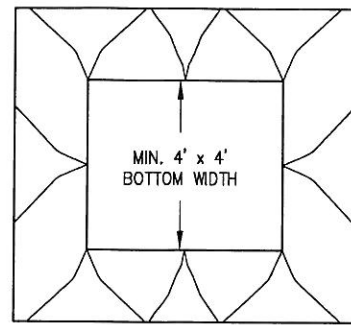
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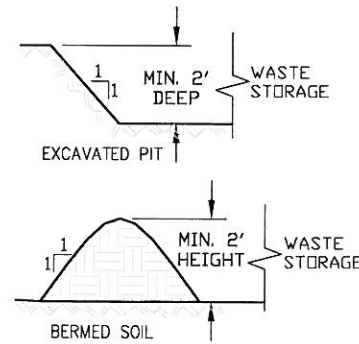
Drawing Scale: AS NOTED  
Date: 7/26/12  
**CD**

Drawing Title: **DETAILS**

Drawing Number: **C7**



PLAN VIEW  
NOT TO SCALE

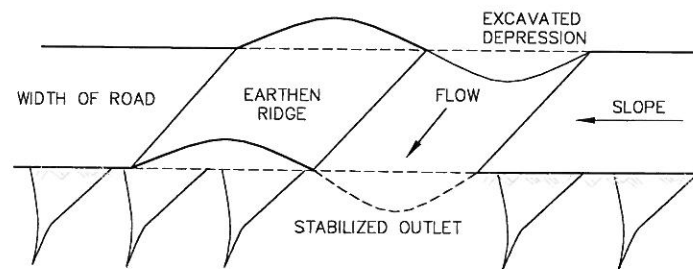


PROFILE VIEWS  
NOT TO SCALE

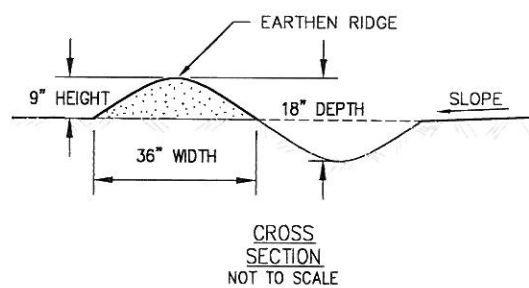
**CONSTRUCTION SPECIFICATIONS**

1. LOCATE CONTAINMENT PIT ON RELATIVELY LEVEL GROUND
2. DO NOT LOCATE WITHIN 100 FT OF WETLANDS OR STREAMS
3. CLEAN OUT ACCUMULATED WASTE WHEN PIT IS 50% FULL
4. CONTAINMENT AREA MAY BE CREATED BY BERMED UP SOIL

**1 WASTE CONTAINMENT AREA**  
NOT TO SCALE



ISOMETRIC VIEW  
NOT TO SCALE



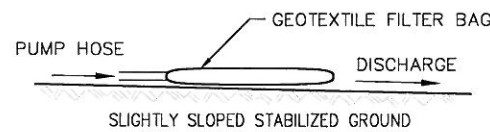
CROSS SECTION  
NOT TO SCALE

WATER BAR SPACING	
% SLOPE	SPACING
2	250'
5	135'
10	80'
15	60'
20	45'
30	35'

**CONSTRUCTION SPECIFICATIONS**

1. INSTALL WATER BARS AS SOON AS THE RIGHT OF WAY IS CLEARED AND GRUBBED.
2. PLACE MATERIAL FROM THE DIP ONTO THE RIDGE BEFORE CONSTRUCTING ROAD BED. TRACK THE RIDGE SEVERAL TIMES TO COMPACT IT TO THE DESIGN CROSS SECTION.
3. WATER BAR SHALL EXTEND ACROSS ENTIRE ROADWAY WIDTH AT DESIGN SPACING.
4. OUTLET SHALL BE LOCATED ON AN UNDISTURBED AREA WITH EXISTING VEGETATION, ADJUSTED SPACING TO USE THE MOST STABLE OUTLET AREAS. OUTLET PROTECTION MUST BE PROVIDED WHEN EXISTING VEGETATED AREAS ARE NOT SUFFICIENTLY STABLE.
5. CROSSING WITH HEAVY VEHICLE USE SHALL BE STABILIZED WITH A 6" GRAVEL LAYER. EXPOSED AREAS OF THE WATER BAR SHALL BE IMMEDIATELY SEEDED AND MULCHED.
6. PERIODICALLY INSPECT WATER BARS FOR EROSION DAMAGE AND SEDIMENT BUILDUP. OBSERVE OUTLET AREAS AND MAKE REPAIRS AS NEEDED TO RESTORE OPERATION.

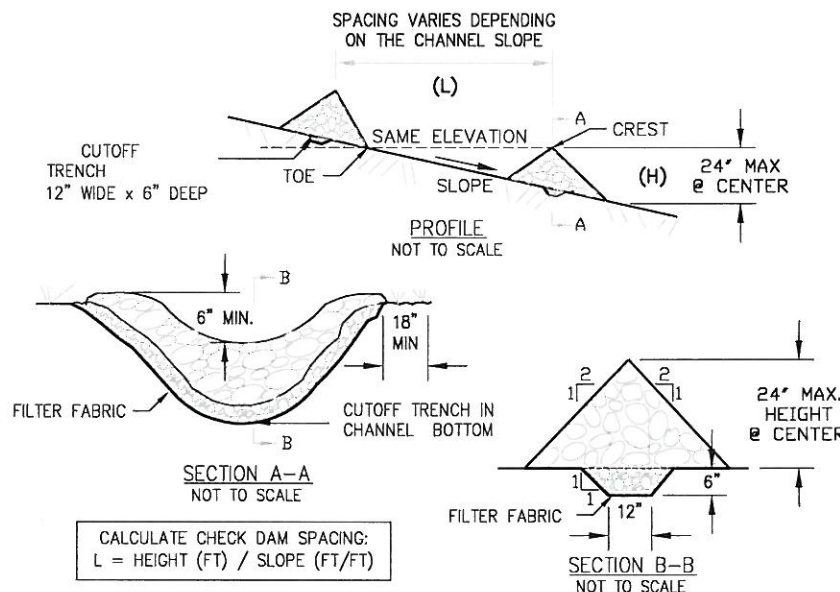
**4 WATER BAR DETAIL**  
NOT TO SCALE



**CONSTRUCTION SPECIFICATIONS**

1. INSTALL AT DISCHARGE HOSE END WHENEVER DEWATERING
2. DO NOT LOCATE WITHIN 100 FT OF WETLANDS OR STREAMS
3. CLEAN OUT ACCUMULATED SEDIMENT WHEN FABRIC CLOGS
4. MAY USE CONTAINMENT AREA AS AN ALTERNATIVE METHOD

**2 DEWATERING DETAIL**  
NOT TO SCALE

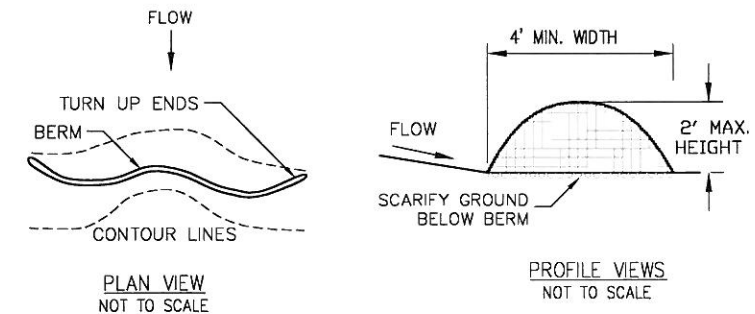


**CONSTRUCTION SPECIFICATIONS**

1. STONE WILL BE PLACED ON A FILTER FABRIC LAYER IN THE TRENCH TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE EROSION AND SEDIMENT CONTROL PLAN.
2. SET SPACING OF CHECK DAMS TO ALIGN THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 18 INCHES BEYOND THE DITCH SIDE SLOPES TO PREVENT CUTTING AROUND THE DAM. ENSURE CREST IS 6" LOWER THAN SIDES.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH A STONE SPLASH PAD OR EXTEND THE FILTER FABRIC LAYER.
5. ENSURE THAT CHANNEL APPURTENANCES (i.e. CULVERTS OR CATCH BASINS) BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
6. MAINTENANCE - REMOVE ACCUMULATED SEDIMENT FROM BEHIND CHECK DAMS, REPAIR ANY SIDE SLOPES THAT HAVE ERODED, AND REPLACE ANY OF THE DISPLACED STONE.

MAXIMUM DRAINAGE AREA LESS THAN 1 ACRE.

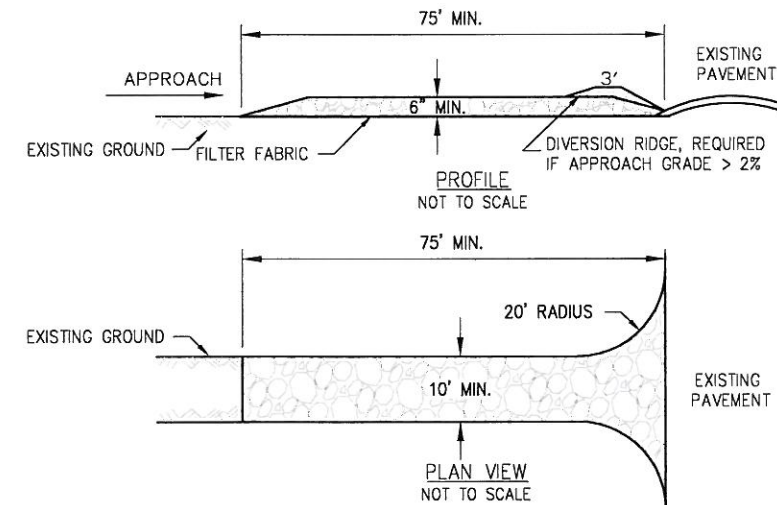
**5 STONE CHECK DAMS**  
NOT TO SCALE



**CONSTRUCTION SPECIFICATIONS**

1. INSTALL EROSION CONTROL BERMS ON THE CONTOUR TO POND RUNOFF
2. BERMS MAY BE USED AS AN ALTERNATIVE TO PERIMETER SILT FENCE
3. USE RESTRICTED TO AREAS OF SHEET FLOW, DO NOT USE IN SWALES
4. REMOVE SEDIMENTS WHEN STORAGE CAPACITY IS REDUCED BY 50%
5. BERMS CONSIST OF 50% ORGANIC MATERIAL AND 50% TOPSOIL MIX
6. LOOSELY PLACE MATERIAL TO ALLOW FILTRATION, DO NOT COMPACT
7. COMPOST MAY BE UTILIZED INSTEAD OF AN ONSITE MATERIAL MIXTURE

**3 EROSION CONTROL MIX BERM**  
NOT TO SCALE



**CONSTRUCTION SPECIFICATIONS**

1. STONE SIZE - USE 3" CRUSHED STONE, OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 75 FEET (EXCEPT IF MOUNTABLE BERM IS INSTALLED)
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TEN (10) FOOT MINIMUM, BUT NOT LESS THAN FULL ENTRANCE WIDTH.
5. FILTER FABRIC - PLACED OVER ENTIRE AREA PRIOR TO PLACING OF STONE LAYER
6. DIVERSION RIDGE - REQUIRED IF APPROACH GRADE EXCEEDS 2% (MIN 6" HIGH)
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY (ROW). SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. AND PROPERLY DISPOSED ON THE PROJECT SITE.
8. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO ROADS.
9. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH CRUSHED STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR BASIN.
10. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

**6 STABILIZED CONSTRUCTION ENTRANCE**  
NOT TO SCALE

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LICENSED PROFESSIONAL ENGINEER

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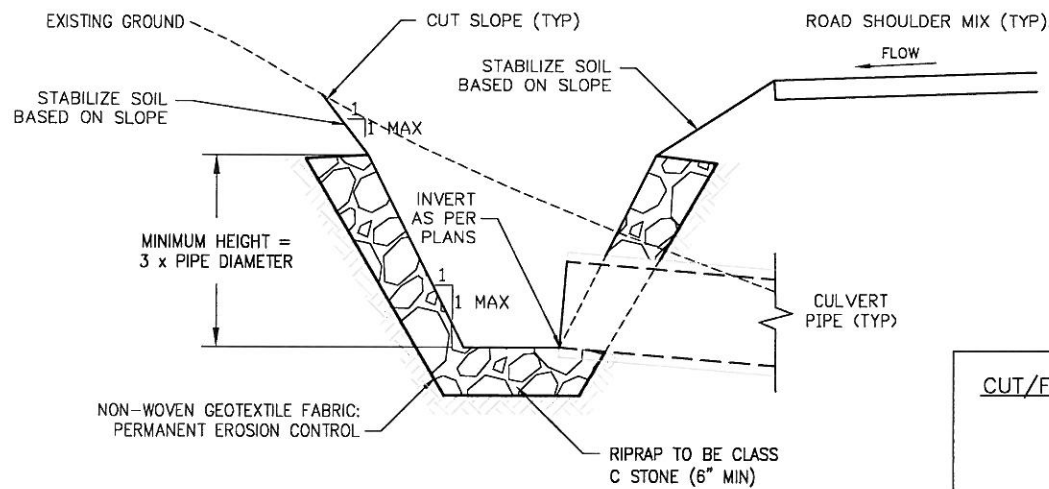
Drawn: MJB Date: 5/31/12  
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Project Title: WOODSTOCK CT1182  
ROUTE 198 WOODSTOCK, CT 06281

Prepared For: NORTH ATLANTIC TOWERS

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Drawing Number: C8



CROSS SECTION  
NOT TO SCALE

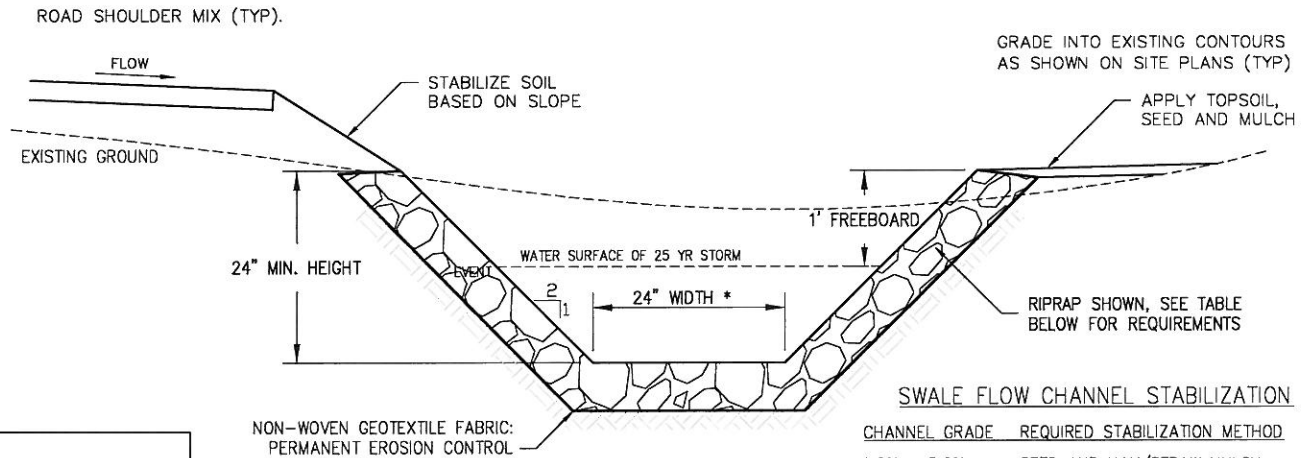
1 CULVERT INLET PROTECTION  
NOT TO SCALE

**CUT/FILL SLOPE STABILIZATION REQUIREMENTS:**

- 3:1 (H:V) - SEED AND MULCH
- 2:1 (H:V) - SEED AND RECP
- 1:1 (H:V) - 6" RIPRAP or TRM

**MATERIAL SPECIFICATIONS**

- RECP (ROLLED EROSION CONTROL PRODUCT) TO BE TEMPORARY SLOPE STABILIZATION TYPE A
- RIPRAP TO BE CLASS C STONE ABOVE A LAYER OF NON-WOVEN GEOTEXTILE (APPLICATION 4: PERMANENT EROSION CONTROL)
- TRM (TURF REINFORCING MAT) TO BE PERMANENT CHANNEL STABILIZATION TYPE A



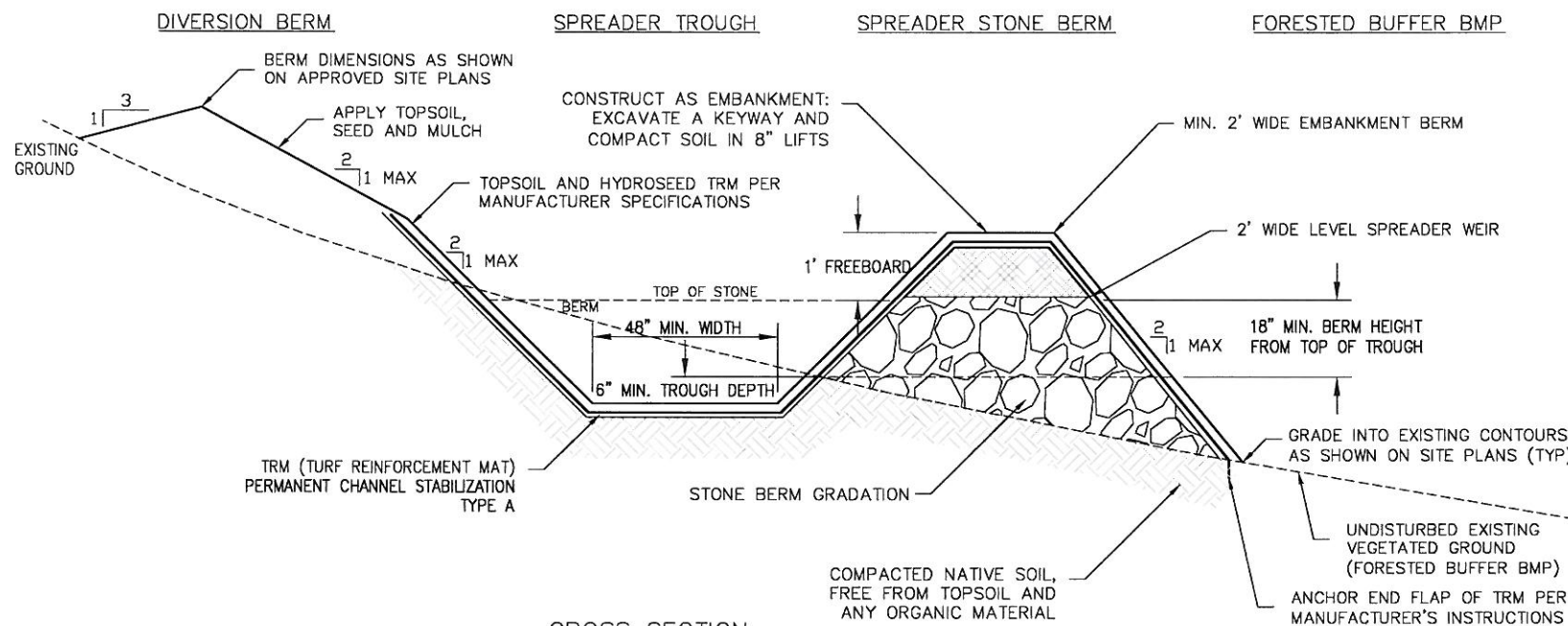
CROSS SECTION  
NOT TO SCALE

2 RIP RAP SWALE  
NOT TO SCALE

**SWALE FLOW CHANNEL STABILIZATION**

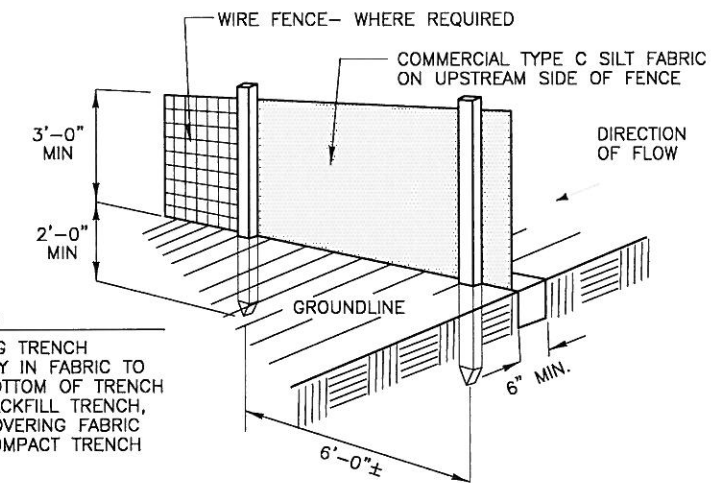
CHANNEL GRADE	REQUIRED STABILIZATION METHOD
1.0% - 5.0%	SEED AND HAY/STRAW MULCH
5.0% - 12.0%	SEED AND ROLLED EROSION CONTROL MAT
12.0% - 20.0%	6" CLASS C STONE ABOVE A LAYER OF NON-WOVEN GEOTEXTILE

\* SEE GRADING PLAN FOR LOCATIONS OF SWALES AND ADDITIONAL DIMENSIONS WITH ELEVATIONS



CROSS SECTION  
NOT TO SCALE

3 LEVEL SPREADER DETAIL  
NOT TO SCALE



**NOTE:**

1. DIG TRENCH
2. LAY IN FABRIC TO BOTTOM OF TRENCH
3. BACKFILL TRENCH, COVERING FABRIC
4. COMPACT TRENCH

**CONSTRUCTION NOTES FOR FABRICATED SILT FENCE**

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS: STEEL EITHER T OR U TYPE.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE: WOVEN WIRE, 14 GA. 6" MAX. MESH OPENING. AS DIRECTED BY BANKS CO.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH: FILTER X, MIRAFI 100X' STABILINKA T140N OR APPROVED EQUAL.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULDGES" DEVELOP IN THE SILT FENCE. PREFABRICATED UNIT: GEOFAB, ENVIROFENCE OR APPROVED EQUAL.
5. ALL SILT FENCE MATERIALS MUST BE LISTED ON THE CURRENT STATES. D.O.T. QUALIFIED PRODUCTS LIST #36.

4 SILT FENCE DETAIL  
NOT TO SCALE

**REFERENCES:**

SEE TABLE 3A ON SHEET Z5 FOR LEVEL SPREADER DIMENSIONS.

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Checked: A.J.D. Date: 5/31/12

Project Number: 226-064

Project Title:

**WOODSTOCK  
CT1182**

ROUTE 198  
WOODSTOCK, CT 06281

Prepared For:



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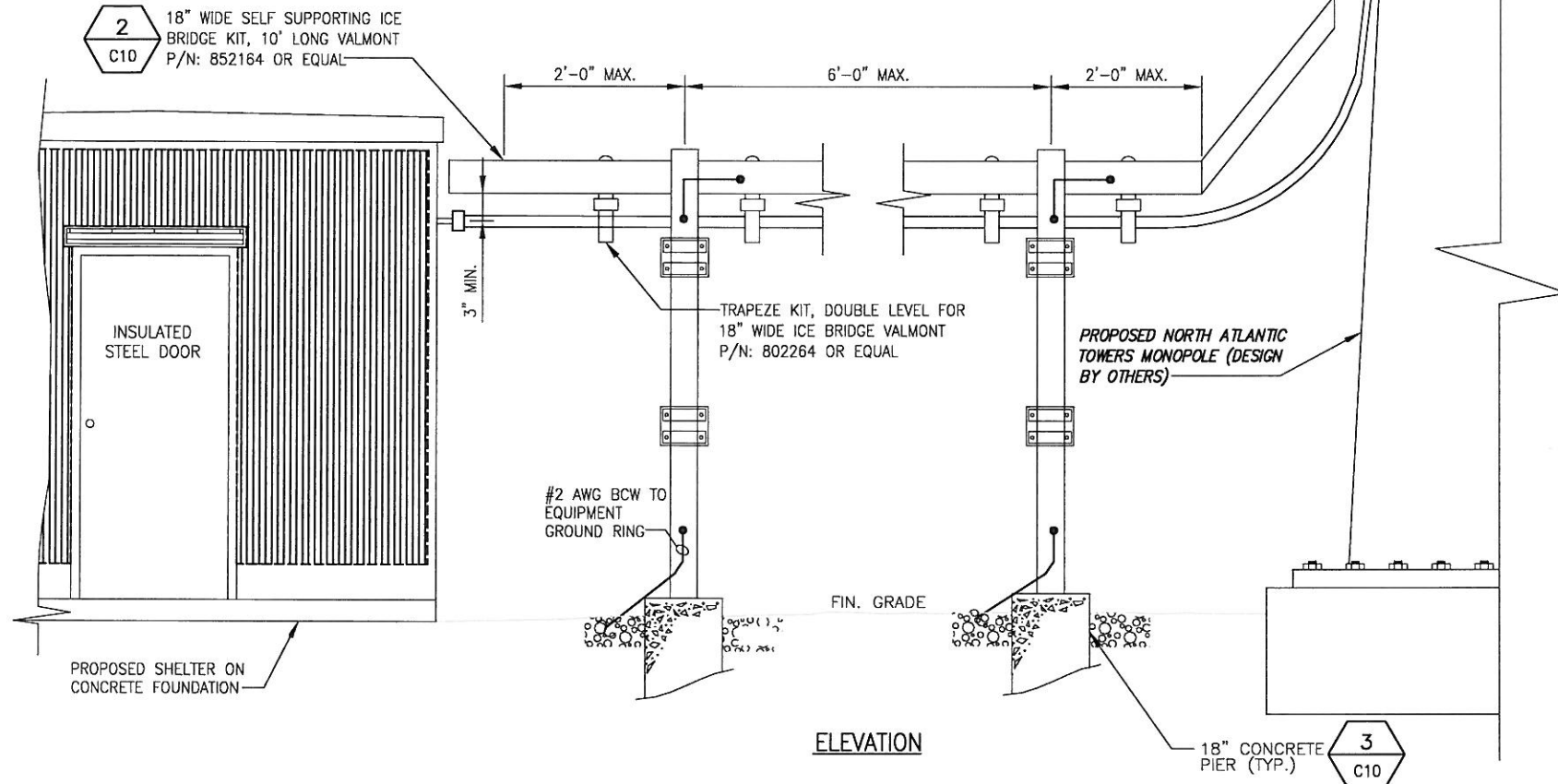
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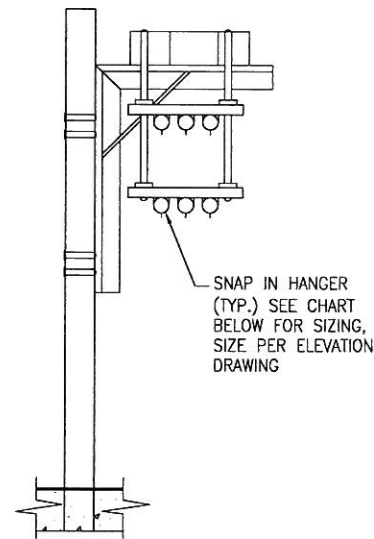
**SWM  
DETAILS**

Drawing Number:

**C9**



ELEVATION



SECTION

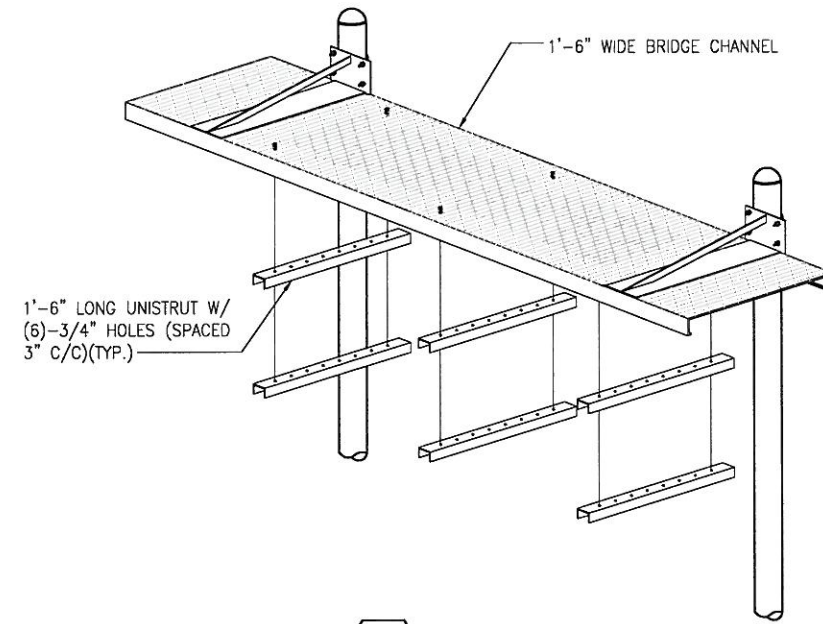
**NOTES:**

1. WHEN USING VALMONT COMPONENTS AS SHOWN IN STANDARD DETAILS, MAXIMUM ALLOWABLE SPAN BETWEEN SUPPORTS ON A CONTINUOUS SINGLE SECTION OF BRIDGE CHANNEL SHALL BE 19 FEET FOR 20 FEET BRIDGE CHANNEL, OR 9 FEET FOR 10 FEET BRIDGE CHANNEL.
2. WHEN USING VALMONT COMPONENTS FOR SPLICING BRIDGE CHANNEL SECTIONS, THE SPLICE SHOULD BE PROVIDED AT THE SUPPORT, IF POSSIBLE, OR AT A MAXIMUM OF 2 FEET FROM THE SUPPORT.
3. WHEN USING VALMONT COMPONENTS, SUPPORT SHOULD BE PROVIDED AS CLOSE AS POSSIBLE TO THE ENDS OF ICE BRIDGES, WITH A MAXIMUM CANTILEVER DISTANCE OF 2 FEET FROM THE SUPPORT TO THE FREE END OF THE ICE BRIDGE.
4. CUT BRIDGE CHANNEL SECTIONS SHOULD HAVE RAW EDGES TREATED WITH A MATERIAL TO RESTORE THE EDGES TO THE ORIGINAL CHANNEL, OR EQUIVALENT, FINISH.
5. ICE BRIDGES MAY BE CONSTRUCTED WITH COMPONENTS FROM MANUFACTURERS OTHER THAN PIROD, PROVIDED THE MANUFACTURER'S INSTALLATION GUIDELINES ARE FOLLOWED.
6. DEVIATIONS FROM STANDARDS FOR COMPONENT INSTALLATIONS ARE PERMITTED WITH THE RESPECTIVE MANUFACTURER'S APPROVAL.
7. ATTACH FLANGED END OF SUPPORT POST TO CONCRETE PAD USING 4 - 3/8" DIA. HILT-HY 150 ADHESIVE ANCHORS. PROVIDE MINIMUM OF 4 1/2" EMBEDMENT.
8. DEVIATIONS FROM ICE BRIDGE FOUNDATIONS SHOWN ON SITE SPECIFIC DRAWINGS OR STANDARD DETAILS REQUIRE ENGINEERING APPROVAL.

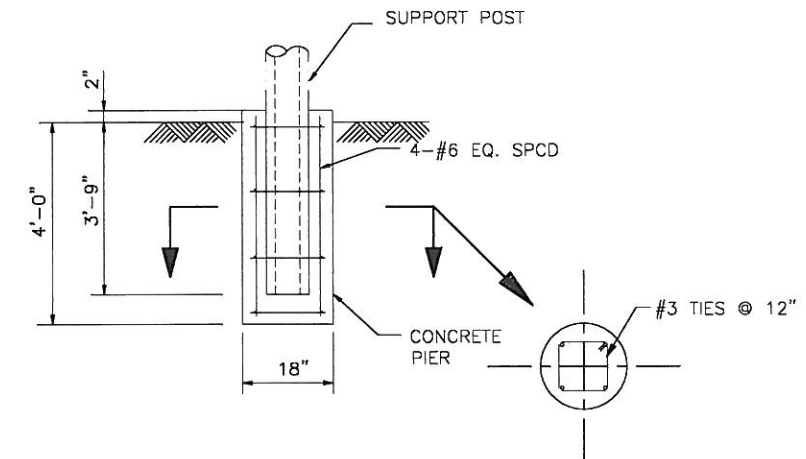
1 ICE BRIDGE DETAIL  
NOT TO SCALE

**SNAP IN HANGER SIZING CHART**

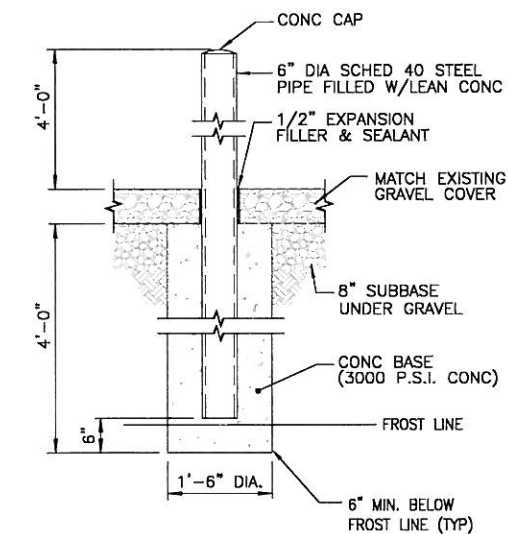
SIZE	ANDREW P/N
7/8"	436807
1-5/8"	439849



2 ISOMETRIC ICE BRIDGE  
NOT TO SCALE



3 SUPPORT POST FOOTING  
NOT TO SCALE



4 BOLLARD DETAIL  
NOT TO SCALE

**infingy** engineering

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STATE OF CONNECTICUT  
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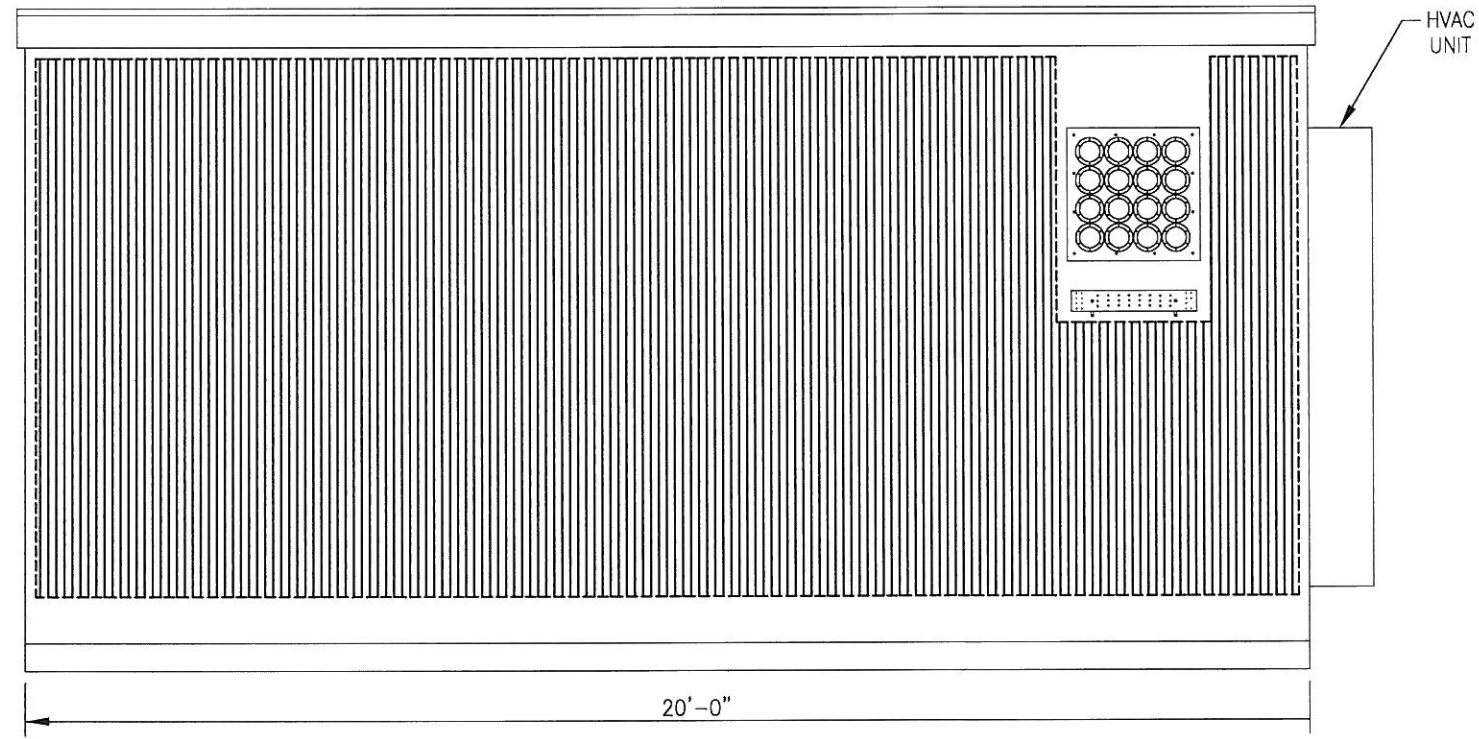
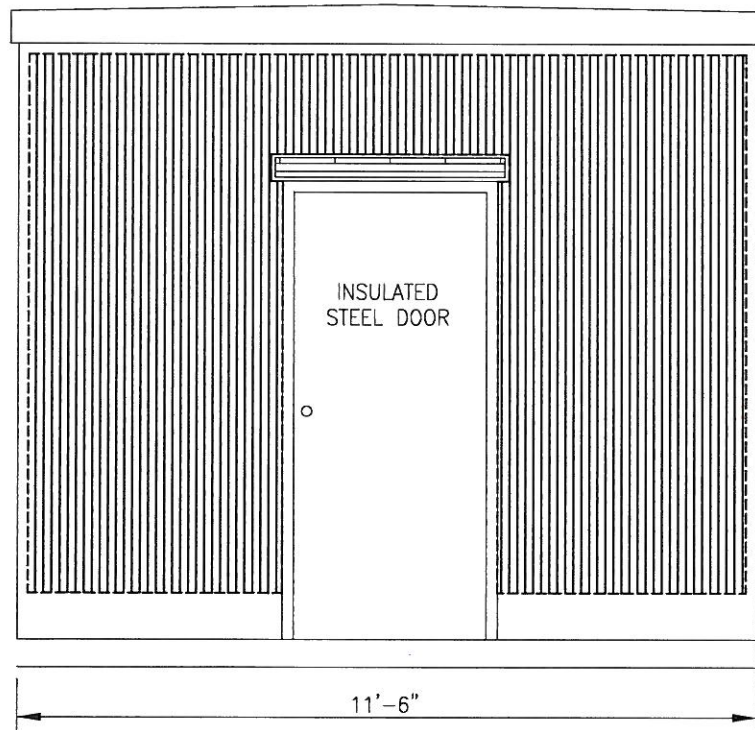
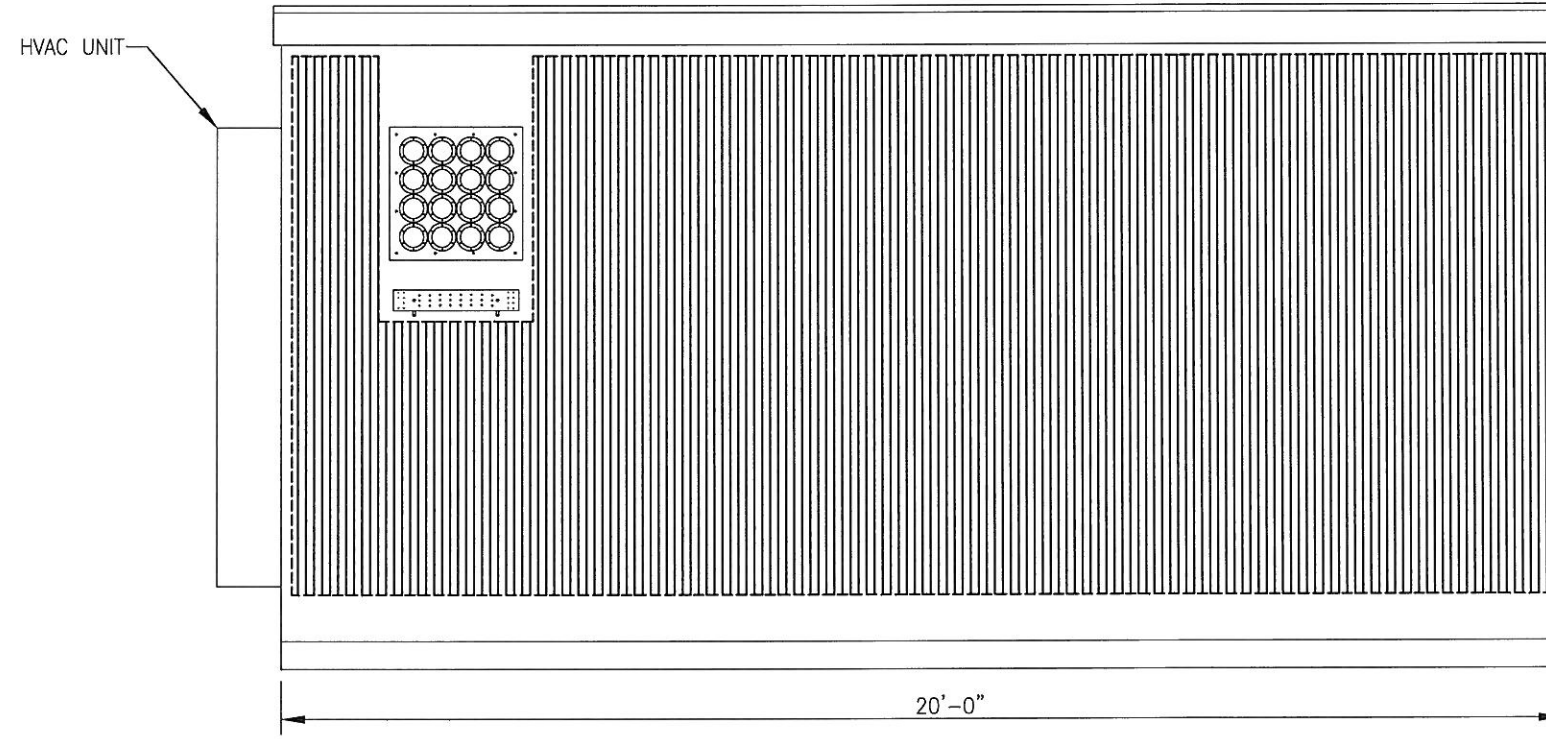
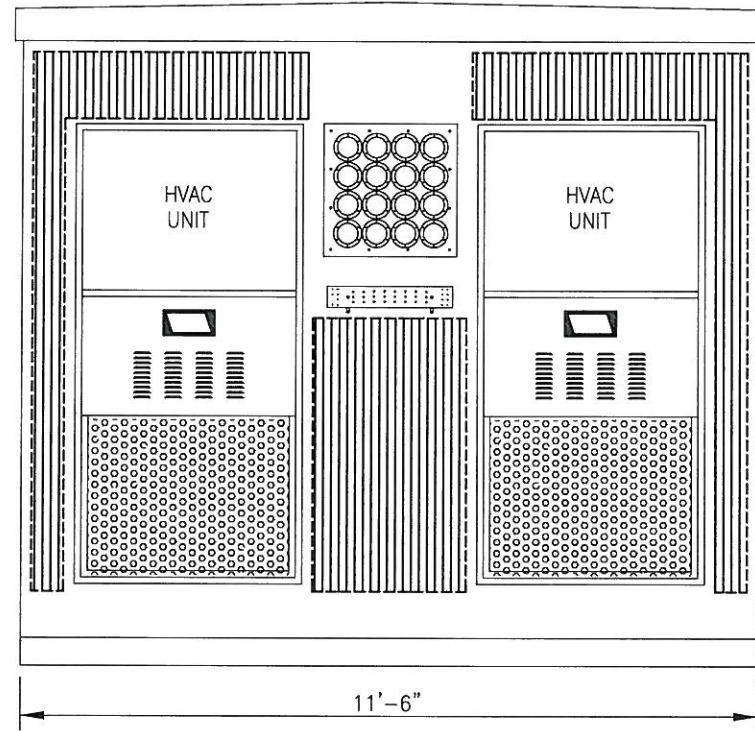
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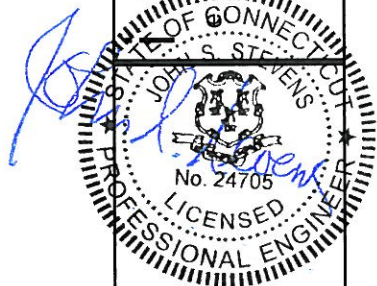
Drawing Number: C10



NOTE: THE SHELTER SHOWN IS OF A TYPICAL LAYOUT ONLY. CONTRACTOR TO REFER TO FINAL MANUFACTURER'S SHELTER DESIGN DRAWINGS FOR EXACT DIMENSIONS, EQUIPMENT LOCATIONS AND CONDUIT PENETRATIONS, ETC., PRIOR TO CONSTRUCTION.

1 TYPICAL EQUIPMENT BUILDING  
 -- NOT TO SCALE

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0	ISSUED FOR REVIEW	AJD	5/31/12

Drawn MJB Date 5/31/12  
 Designed AJD Date 5/31/12  
 Checked AJD Date 5/31/12

Project Number 226-064

Project Title  
**WOODSTOCK CT1182**  
 ROUTE 198  
 WOODSTOCK, CT 06281

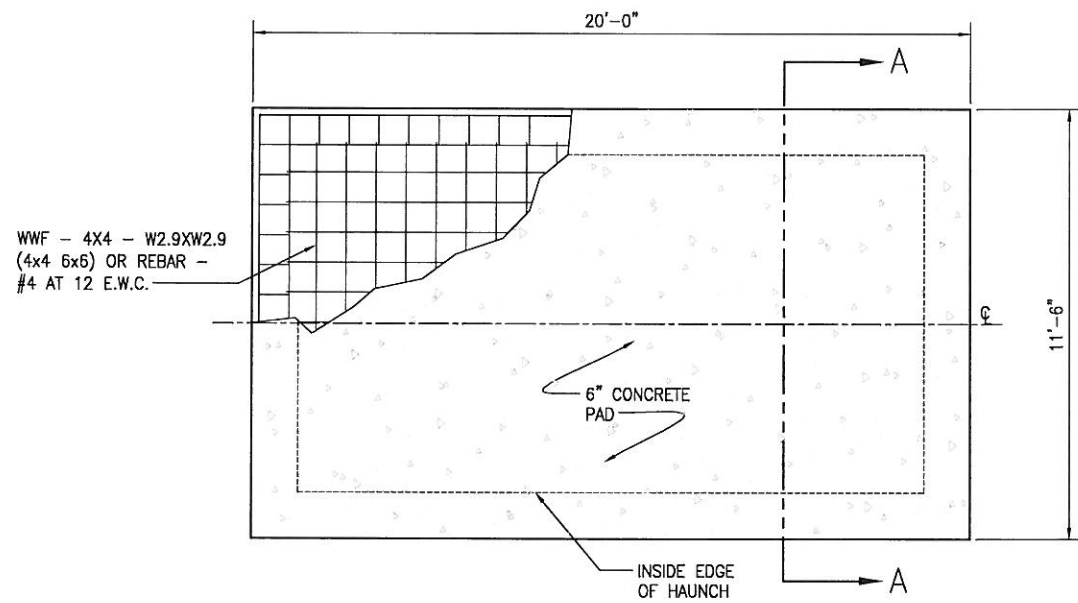
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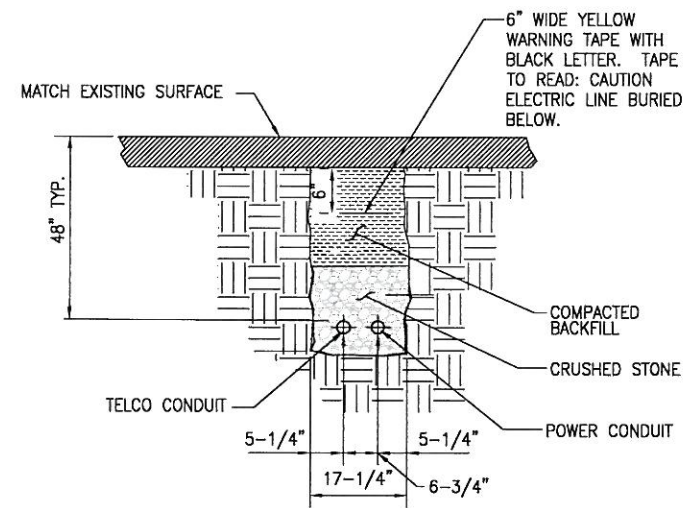
Drawing Title  
**SHELTER DETAILS**

Drawing Number  
**C11**



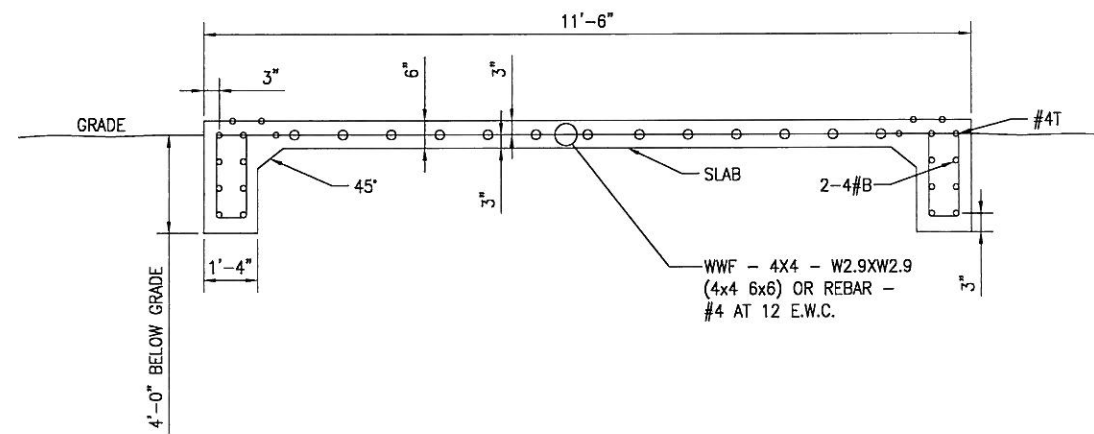


**1 SHELTER FOUNDATION PLAN**  
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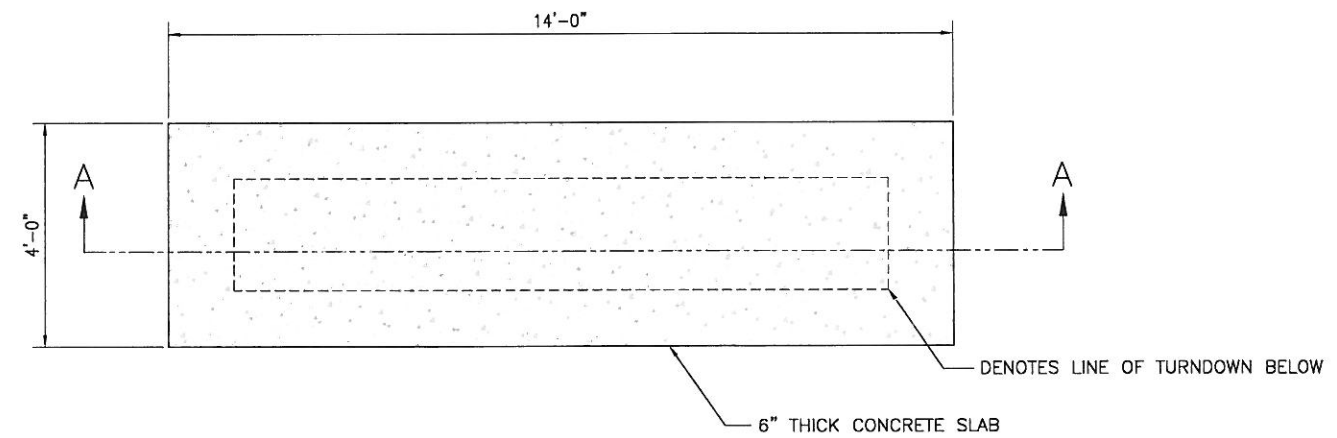


- NOTE:**
1. NUMBER AND SIZE OF CONDUITS MAY VARY. REFER TO CONSTRUCTION DRAWINGS FOR CONDUIT SIZE AND LOCATION. CONFIRM DIMENSIONS SHOWN WITH UTILITY COMPANY.
  2. CONTRACTOR TO VERIFY IN FIELD THE LOCATION, SIZE, TYPE, AND DEPTH OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO DIGGING THE SERVICE TRENCH. PROVIDE A MINIMUM OF 18" CLEARANCE BETWEEN PROPOSED UTILITIES AND EXISTING UTILITIES IN THE CASE OF UTILITY LINE CROSSINGS.

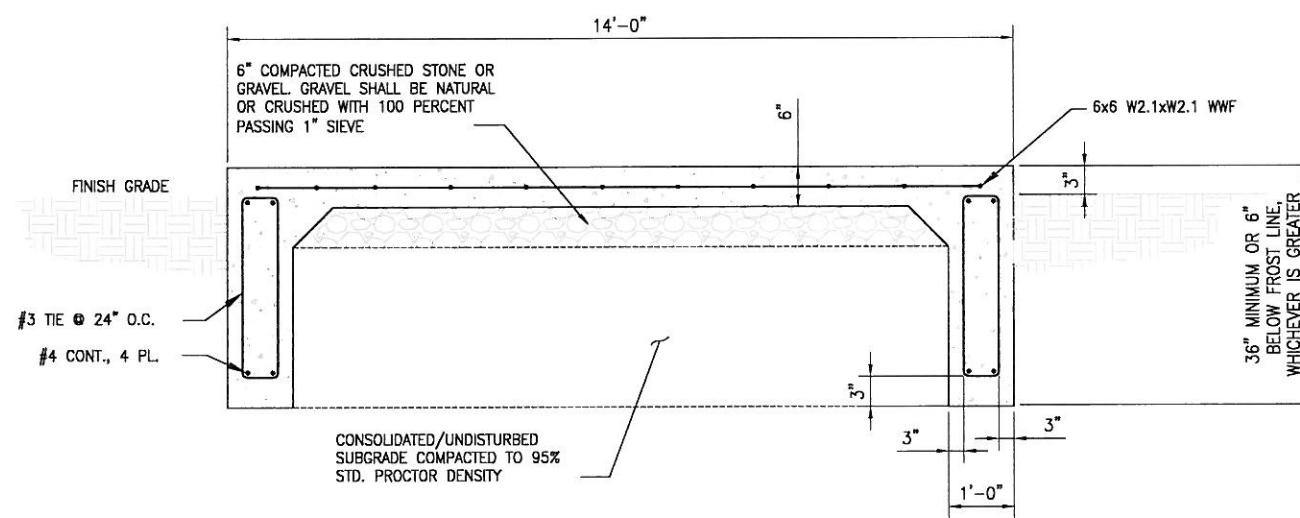
**2 CONDUIT TRENCH DETAIL**  
--- NOT TO SCALE



**SECTION A-A**



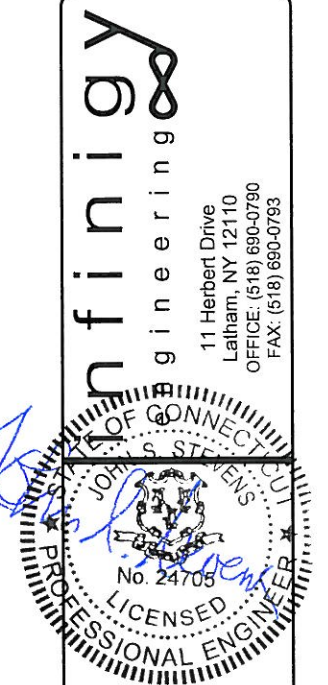
**PLAN VIEW**



**SECTION A-A**

- NOTES:**
1. ALL MATERIALS FURNISHED BY CONTRACTOR UNLESS OTHERWISE NOTED
  2. EXISTING SOILS BENEATH FOUNDATION SHALL HAVE A MINIMUM NET ALLOWABLE BEARING PRESSURE OF 2000 PSF.
  3. GENERATOR INFORMATION TO BE PROVIDED PRIOR TO CONSTRUCTION.

**3 TYPICAL GENERATOR PAD DETAIL**  
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Drawn: M.B. Date: 5/31/12  
Designed: A.D. Date: 5/31/12  
Checked: A.D. Date: 5/31/12

Project Number: 226-064

Project Title: **WOODSTOCK CT1182**

ROUTE 198  
WOODSTOCK, CT 06281

Prepared For: **NORTH ATLANTIC TOWERS**

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Drawing Title: **DETAILS**

Drawing Number: **C12**

**CODED DRAWING NOTES:**

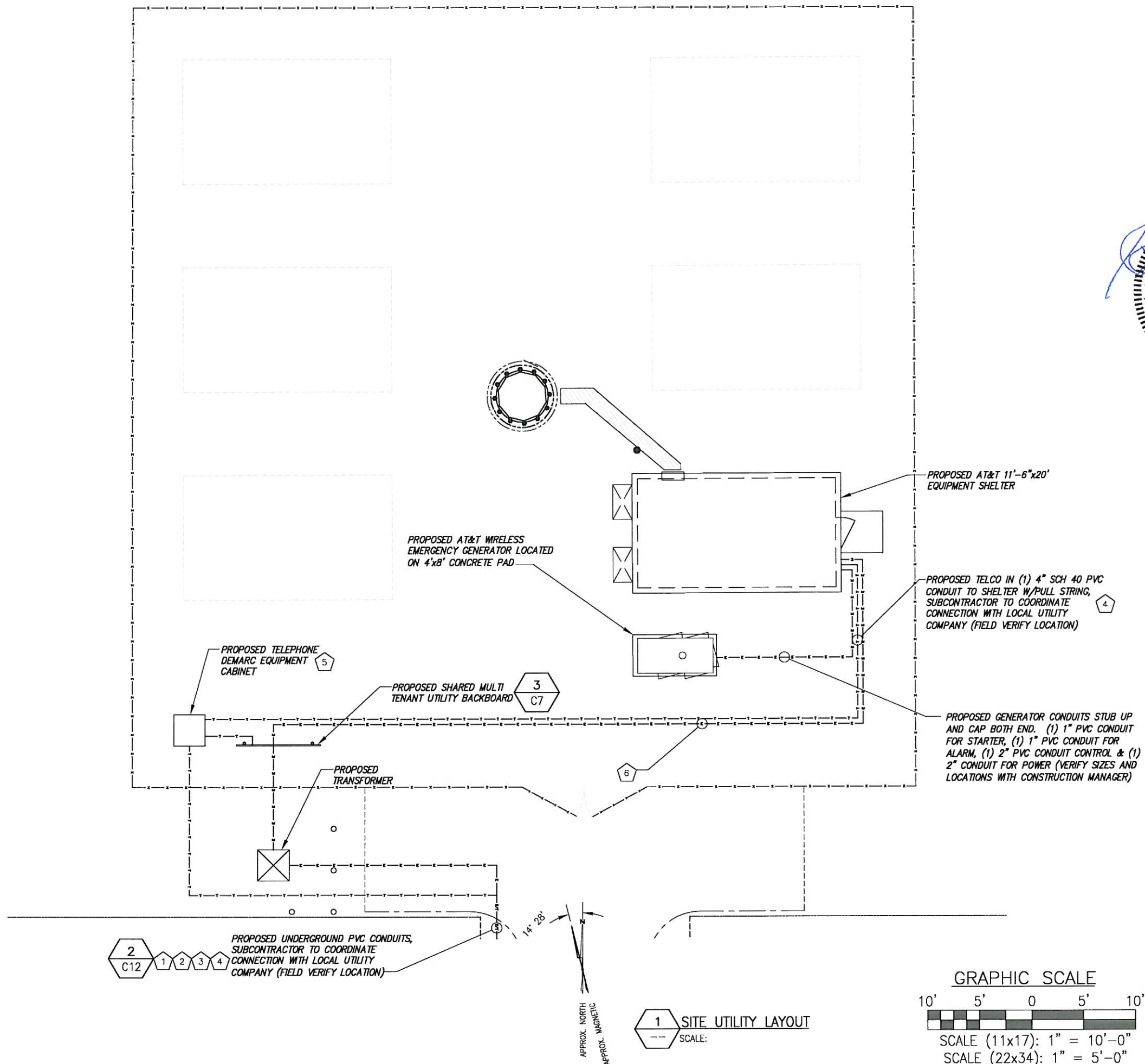
- ① COORDINATE EXACT LOCATION WITH UTILITY COMPANY. STUB UP POWER AND TELEPHONE CONDUITS AS DIRECTED BY UTILITY COMPANY. REFER TO EQUIPMENT SPECIFICATIONS FOR ELECTRICAL REQUIREMENTS.
- ② (2) 4" SCH 40 PVC POWER CONDUITS WITH PULLWIRE FROM PROPOSED EQUIPMENT AREA TO EXISTING POWER SOURCE. EXACT ROUTING TO BE COORDINATED WITH UTILITY COMPANY AND CONTRACTOR TO FIELD COORDINATE CONDUIT STUB-UP LOCATION. STUB-UP 6" ABOVE GRADE AT EXISTING POWER SOURCE & EQUIPMENT AREA.
- ③ (2) 4" SCH 40 PVC TELCO CONDUITS WITH PULL STRINGS. EXACT ROUTING AND STUB-UP LOCATION TO BE FIELD COORDINATED WITH UTILITY COMPANY. STUB-UP 6" ABOVE GRADE AT TELCO DEMARC & EQUIPMENT AREA.
- ④ ALL TELCO CONDUITS SHALL USE LONG SWEEPS AT BENDS.
- ⑤ PROPOSED TELEPHONE DEMARC EQUIPMENT CABINET
- ⑥ 2" C. W/(3) #3/0 + #6 GND.

**ABBREVIATIONS**

- AWG AMERICAN WIRE GAUGE
- BFG BELOW FINISH GRADE
- BTS BARE TINNED STRANDED
- C CONDUIT
- CAB CABINET
- DLO DIESEL LOCOMOTIVE CABLE
- DWG DRAWING
- EGR EXTERIOR GROUND RING
- EIGB EXTERIOR ISOLATED GROUND BAR
- G GROUND
- HALO INTERIOR GROUND RING
- MIGB MAIN ISOLATED GROUND BAR
- MGN MULTI-GROUNDED NEUTRAL
- MSC MOBILE SWITCHING CENTER
- MTSO MOBILE TELEPHONE SWITCHING OFFICE
- PVC POLYVINYL CHLORIDE
- RGS RIGID GALVANIZED STEEL
- SS STAINLESS STEEL
- SST SELF SUPPORTING TOWER
- TGR TOWER GROUND RING
- TYP. TYPICAL

**GENERAL ELECTRICAL NOTES:**

1. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF THE NATIONAL ELECTRICAL CODE AND ALL LOCAL AND STATE CODES, LAWS, AND ORDINANCES.
2. ALL UNDERGROUND CONDUIT SHALL BE PVC SCHEDULE 40 UNLESS OTHERWISE INDICATED. CONDUITS EXPOSED ABOVE GROUND SHALL BE RIGID GALVANIZED STEEL. ALL UNDERGROUND CONDUIT SHALL TRANSITION FROM PVC TO RIGID ABOVE GRADE. PROVIDE 36" SEPARATION BETWEEN UNDERGROUND POWER AND TELEPHONE CONDUITS. SUPPLY UTILITY MARKING TAPE BURIED 12" BELOW GRADE ALONG ENTIRE LENGTH OF UNDERGROUND CONDUITS.
3. ALL CONDUCTORS SHALL BE COPPER WITH THHN/THWN INSULATION. CONTROL CONDUCTORS SHALL BE STRANDED, POWER & LIGHTING CONDUCTORS SHALL BE SOLID FOR #10 & #12 CONDUCTORS AND STRANDED FOR ALL OTHER SIZES.
4. ELECTRICAL DRAWINGS ARE IN PART DIAGRAMMATIC. COORDINATE ELECTRICAL WORK WITH SITE CONDITIONS.
5. LOCATE ALL UNDERGROUND UTILITIES BEFORE TRENCHING. IF CONFLICTS ARISE, CONTACT UTILITY COMPANY AND ENGINEER IMMEDIATELY.
6. ALL EXPOSED CONDUITS SHALL HAVE WEATHERPROOF CAPS NOT DUCT TAPE.



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Project Title: WOODSTOCK CT1182

ROUTE 198  
 WOODSTOCK, CT 06281

Prepared For: NORTH ATLANTIC TOWERS

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Drawing Number: **E1**

**GENERAL NOTES:**

**1. INSPECTIONS**

- A. GENERAL: DURING AND UPON COMPLETION OF THE WORK, ARRANGE AND PAY ALL ASSOCIATED INSPECTIONS OF ALL ELECTRICAL WORK INSTALLED UNDER THIS CONTRACT IN ACCORDANCE WITH THE CONDITIONS OF THE CONTRACT. INSTALLATION SHALL COMPLY WITH APPLICABLE LAWS AND ORDINANCES, UTILITY COMPANY REQUIREMENTS, AND THE LATEST EDITION OF NEC, NFC, NEMA, OSHA, SBC, AND UL.
- B. INSPECTIONS REQUIRED: AS PER THE LAWS AND REGULATIONS OF THE LOCAL AND/OR STATE AGENCIES HAVING JURISDICTION AT THE PROJECT SITE.
- C. INSPECTION AGENCY: APPROVED BY THE LOCAL AND/OR STATE AGENCIES HAVING JURISDICTION AT THE PROJECT SITE.
- D. CERTIFICATES: SUBMIT ALL REQUIRED INSPECTION CERTIFICATES.

**2. HANGERS AND SUPPORTS**

- A. MATERIALS: ALL HANGERS, SUPPORTS, FASTENERS AND HARDWARE SHALL BE ZINC COATED OR OF EQUIVALENT CORROSION RESISTANCE BY TREATMENT OR INHERENT PROPERTY, AND SHALL BE MANUFACTURED PRODUCTS DESIGNED FOR THE APPLICATION. PRODUCTS FOR OUTDOOR USE SHALL BE HOT DIP GALVANIZED.
- B. TYPES: HANGERS, STRAPS, RISER SUPPORTS, CLAMPS, U-CHANNEL, THREADED RODS, ETC. AS INDICATED OR REQUIRED.
- C. INSTALLATION: RIGIDLY SUPPORT AND SECURE ALL MATERIALS, RACEWAY AND EQUIPMENT TO BUILDING STRUCTURE USING HANGERS, SUPPORTS AND FASTENERS SUITABLE FOR THE USE. MATERIALS AND LOADS ENCOUNTERED. PROVIDE ALL NECESSARY HARDWARE. PROVIDE CONDUIT SUPPORTS AT MAXIMUM 5 FT. O.C.
- D. STRUCTURAL MEMBERS: DO NOT CUT, DRILL, OR WELD ANY STRUCTURAL MEMBER EXCEPT AS SPECIFICALLY APPROVED BY THE ENGINEER.
- E. MISCELLANEOUS SUPPORTS: PROVIDE ANY ADDITIONAL STRUCTURAL SUPPORT STEEL BRACKETS, ANGLES, FASTENERS AND HARDWARE AS REQUIRED TO ADEQUATELY SUPPORT ALL ELECTRICAL MATERIALS AND EQUIPMENT.
- F. ONE HOLE STRAPS SHALL NOT BE USED FOR CONDUITS LARGER THAN 3/4 INCH.

**3. ENCLOSURES**

- A. NEMA 3R

**4. HOLES, SLEEVES AND OPENINGS**

GENERAL: PROVIDE ALL HOLES, SLEEVES, AND OPENINGS REQUIRED FOR THE COMPLETION OF WORK AND RESTORE ALL SURFACES DAMAGED TO MATCH SURROUNDING SURFACES.

**5. CUTTING AND PATCHING**

- A. GENERAL: PROVIDE ALL CUTTING, DRILLING, FITTING AND PATCHING NECESSARY FOR ACCOMPLISHING THE WORK. THIS INCLUDES ANY AND ALL WORK NECESSARY TO: UNCOVER WORK TO PROVIDE FOR THE INSTALLATION OF ILL TIMED WORK, REMOVE AND REPLACE DEFECTIVE WORK AND WORK NOT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- B. REPAIRS: REPAIR ANY AND ALL DAMAGE TO WORK OF OTHER TRADES CAUSED BY CUTTING AND PATCHING OPERATIONS, USING SKILLED MECHANICS OF THE TRADES INVOLVED.

**6. RACEWAY SYSTEMS**

- A. FOR INITIAL ANCHOR TENANT: ALL CONDUIT AND ALL CONDUIT ELBOWS SHALL BE SCHEDULE 40 PVC UNLESS NOTED OTHERWISE.
- B. FOR FUTURE CARRIERS: ALL ABOVE GRADE CONDUIT AND ALL CONDUIT ELBOWS SHALL BE RIGID GALVANIZED STEEL UNLESS NOTED OTHERWISE. ALL BELOW GRADE CONDUIT (EXCEPT ELBOWS) SHALL BE SCHEDULE 40 PVC.
- C. TOWER LIGHT CIRCUIT FROM CONTROLLER TO LIGHTS SHALL BE SCHEDULE 40 PVC. RACEWAY BURIAL DEPTH SHALL BE AS PER NEC. USE CLEAN SAND BACKFILL FOR ALL BURIED RACEWAY SYSTEMS.

**7. CONDUCTORS**

USE 98% CONDUCTIVITY COPPER WITH TYPE XHHW-2 INSULATION, 600 VOLT, COLOR CODED. USE SOLID CONDUCTORS FOR WIRE UP TO AND INCLUDING NO. 8 AWG, STRANDED CONDUCTORS FOR WIRE LARGER THAN NO. 8. USE PRESSURE-TYPE INSULATED TWIST-ON CONNECTORS FOR NO. 10 AWG AND SMALLER, SOLDERLESS MECHANICAL TERMINAL LUGS FOR NO. 8 AWG AND LARGER.

**8. ELECTRIC SERVICE**

- A. GENERAL: COMPLY WITH AND COORDINATE ALL REQUIREMENTS OF THE UTILITY COMPANY.
- B. SHORT CIRCUIT RATINGS: PROVIDE EQUIPMENT WITH HIGHER FAULT CURRENT RATINGS AS NEEDED TO MATCH UTILITY COMPANY AVAILABLE FAULT CURRENT.

**9. TELEPHONE SERVICE**

- A. GENERAL: INSTALLATION SHALL BE IN ACCORDANCE WITH TELEPHONE UTILITY COMPANY'S RULES AND REGULATIONS. UTILIZE LONG SWEEP BENDS IN ALL TELEPHONE CONDUITS.

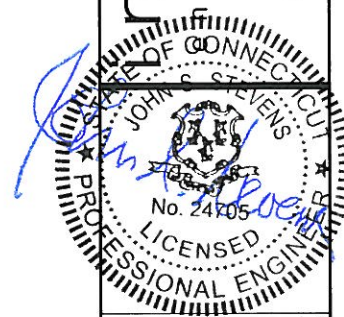
**10. GROUNDING SYSTEM**

- A. INSTALLATION: INSTALL AS INDICATED ON THE DRAWINGS AND AS REQUIRED. OWNER'S REPRESENTATIVE WILL INSPECT CADWELDS AND CONDUCT MEGGER TEST PRIOR TO BURIAL. MAXIMUM 5 OHMS RESISTANCE IS REQUIRED. USE CLEAN SAND AND CLAY BACKFILL FOR BURIED GROUND CONDUCTORS

**11. CHECKOUT, TESTING AND ADJUSTING**

- A. CORRECTION/REPLACEMENT: AFTER TESTING BY CONTRACTOR, OWNER OR ENGINEER, CORRECT ANY DEFICIENCIES AND REPLACE MATERIALS AND EQUIPMENT SHOWN TO BE DEFECTIVE OR UNABLE TO PERFORM AT DESIGN OR RATED CAPACITY.
- B. POWER CONDUCTORS: CONTRACTOR SHALL CONDUCT A CONTINUITY & INSULATION TEST ON CONDUCTORS BETWEEN SERVICE DISCONNECT SWITCH & POWER CABINET.
- C. WHEN SITE POWER IS DERIVED FROM 3 PHASE SOURCE LOAD READINGS WILL BE TAKEN AND RECORDED TO MAINTAIN A BALANCED LOAD AT THE PRIMARY SOURCE. RECORDS SHALL BE TURNED TO THE OWNER'S REPRESENTATIVE.

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Project Number: 226-064

Project Title:  
**WOODSTOCK CT1182**  
 ROUTE 198  
 WOODSTOCK, CT 06281

Prepared For:

NORTH ATLANTIC  
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**ELECTRICAL NOTES**

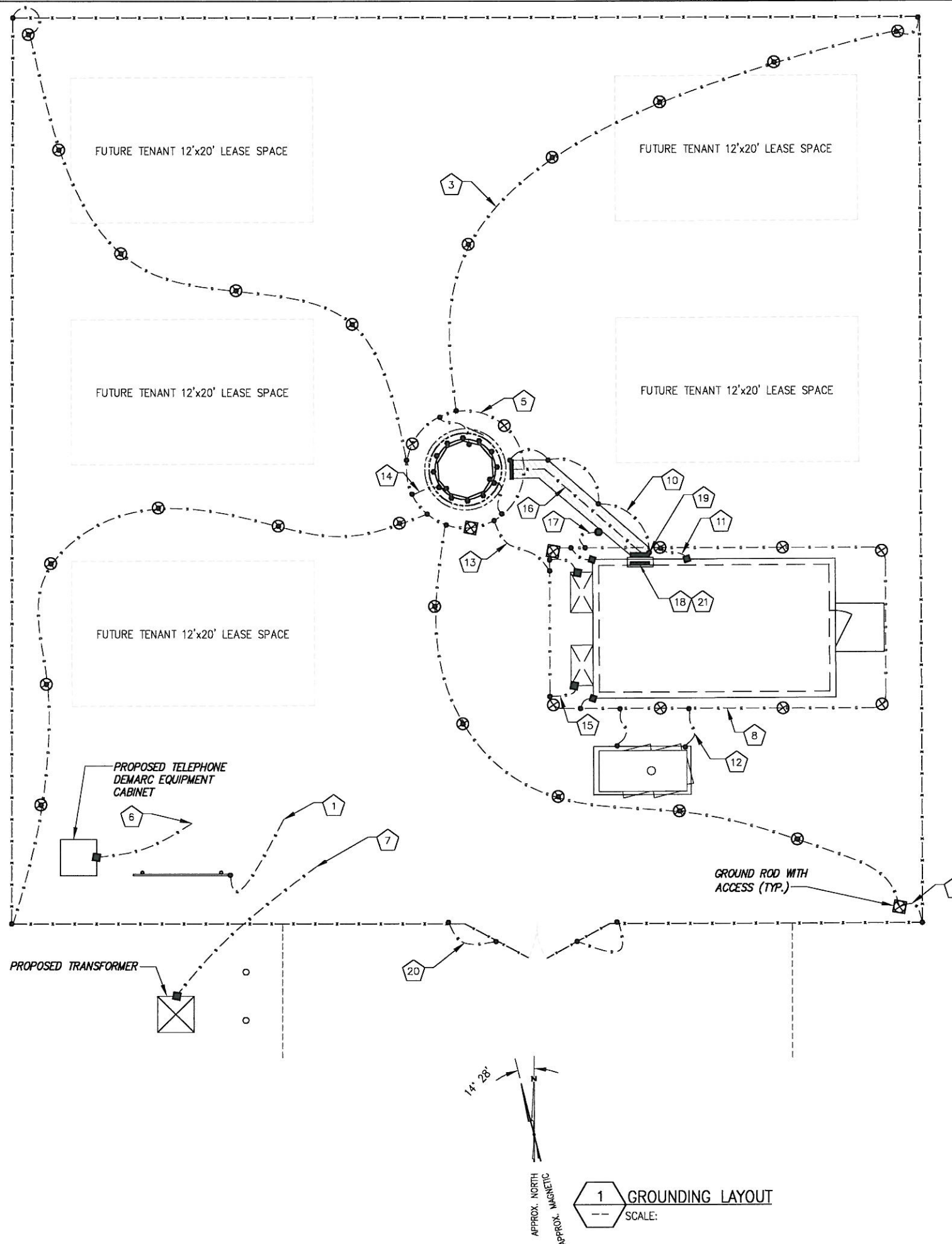
Drawing Number:  
E2

**CODED DRAWING NOTES**

- 1 BOND NEW UTILITY BACKBOARD TO GROUND RING WITH #2 SOLID TINNED BCW.
- 2 NOT USED
- 3 BOND PROPOSED GROUND RING TO PROPOSED FENCE WITH #2 SOLID TINNED BCW. (TYP. OF ALL POSTS)
- 4 NOT USED
- 5 PROPOSED TOWER GROUND RING WITH #2 SOLID TINNED BCW.
- 6 BOND PROPOSED GROUND RING TO PROPOSED TELEPHONE DEMARC EQUIPMENT CABINET WITH #2 SOLID TINNED BCW.
- 7 BOND PROPOSED GROUND RING TO PROPOSED TRANSFORMER WITH #2 SOLID TINNED BCW.
- 8 PROPOSED SHELTER GROUND RING WITH #2 SOLID TINNED BCW.
- 9 NOT USED
- 10 PROPOSED ICE BRIDGE GROUND WITH #2 SOLID TINNED BCW GROUNDED EACH ICE BRIDGE POST WITH #2 SOLID TINNED BCW. (TYP. EACH POST)
- 11 BOND PROPOSED SHELTER GROUND RING TO PROPOSED SHELTER WITH #2 SOLID TINNED BCW (TYP. OF (2) PLACES).
- 12 BOND PROPOSED SHELTER GROUND RING TO PROPOSED GENERATOR WITH #2 SOLID TINNED BCW (PER MANUFACTURER SPEC.)
- 13 BOND PROPOSED TOWER GROUND RING TO PROPOSED SHELTER GROUND RING WITH #2 SOLID TINNED BCW.
- 14 BOND PROPOSED TOWER GROUND RING TO PROPOSED TOWER WITH #2 SOLID TINNED BCW. (TYP. OF (3) PLACES)
- 15 BOND PROPOSED HVAC UNITS TO PROPOSED GROUND RING WITH #2 SOLID TINNED BCW.
- 16 PROPOSED GROUND WIRE FROM ANTENNA SECTOR GROUND BARS WITH #2 SOLID TINNED BCW.
- 17 BOND PROPOSED GPS ANTENNA TO PROPOSED SHELTER GROUND RING WITH #2 SOLID TINNED BCW.
- 18 BOND INTERIOR GROUND BARS TO GROUND RING.
- 19 BOND PROPOSED EXTERIOR GROUND BAR AT SHELTER TO GROUND RING WITH #2 SOLID TINNED BCW IN TWO PLACES.
- 20 BOND PROPOSED FENCE GATE TO PROPOSED FENCE WITH #2 SOLID TINNED BCW (TYP.)
- 21 INTERIOR GROUND BAR

**GROUNDING SYMBOLS**

- ⊗ GROUND ROD
- ACCESS WELL
- ⊗ GROUND ROD WITH ACCESS
- COMPRESSION TYPE CONNECTION
- EXOTHERMIC WELDS TYPE CONNECTION
- G — #2 SOLID TINNED BCW BURIED GROUND CABLE
- ⬢ INDICATES CODED NOTE
- GROUND BAR



**GENERAL GROUNDING NOTES:**

1. TO ENSURE PROPER BONDING, ALL CONNECTIONS SHALL BE AS FOLLOWS:
  - #2 BARE TINNED SOLID COPPER CONDUCTOR: EXOTHERMIC WELDS TO RODS OR GROUND RING
  - LUGS AND BUS BAR (UNLESS NOTED OTHERWISE): SANDED CLEAN, COATED WITH OXIDE INHIBITOR AND BOLTED FOR MAXIMUM SURFACE CONTACT. ALL LUGS SHALL BE COPPER (NO ALUMINUM SHALL BE PERMITTED). PROVIDE LOCK WASHERS FOR ALL MECHANICAL CONNECTIONS FOR GROUND CONDUCTORS. USE STAINLESS STEEL HARDWARE THROUGHOUT.
2. ALL GROUNDING CABLE IN CONCRETE OR THROUGH WALLS SHALL BE IN 3/4" PVC CONDUIT. SEAL AROUND CONDUIT THROUGH WALLS. NO METALLIC CONDUIT SHALL BE USED FOR GROUNDING CONDUCTORS.
3. OWNER'S REPRESENTATIVE WILL INSPECT EXOTHERMIC WELDS AND CONDUCT MEGGER TEST PRIOR TO BURIAL. MAXIMUM 5 OHMS RESISTANCE IS REQUIRED.
4. DO NOT INSTALL GROUND RING OUTSIDE OF LEASED AREA.
5. MAKE ALL GROUND CONNECTIONS AS SHORT AND DIRECT AS POSSIBLE. AVOID SHARP BENDS. ALL BENDS SHALL BE MINIMUM 8" RADIUS AND NO GREATER THAN 90 DEGREE.
6. ALL EXOTHERMIC WELDS TO BURIED GROUND RING SHALL BE THE PARALLEL TYPE, EXCEPT FOR THE GROUND RODS WHICH SHALL BE THE TEE TYPE.
7. BOND SERVICE CONDUITS TO GROUND RING AS THEY CROSS. DO NOT EXOTHERMICALLY WELD TO CONDUITS.
8. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER WHEN THE GROUNDING SYSTEM IS COMPLETE. THE CONSTRUCTION MANAGER SHALL INSPECT THE GROUNDING SYSTEM PRIOR TO BACKFILLING.
9. THE MINIMUM SPACING BETWEEN GROUND RODS SHALL BE 10'-0" (MAX. 15'-0").
10. BOND CIGBE TO EXTERNAL GROUND RING WITH 2 RUNS OF #2 BARE, TINNED, SOLID COPPER CONDUCTOR IN PVC. CONNECT BAR END WITH 2 HOLE LUG, AND "CADWELD" THE OTHER END TO THE EXTERNAL GROUND ROD.
11. THE PREFERRED LOCATION FOR COAX GROUNDING IS AT THE BASE OF THE TOWER PRIOR TO THE COAX BEND. BONDING IS SHOWN ON THE ICE BRIDGE DUE TO DIFFICULTY WITH WELDING OR ATTACHING TO TOWER. CONTRACTOR SHALL ADVISE CONSTRUCTION MANAGER PRIOR TO PLACING CIGBE ON ICE BRIDGE IF MOUNTING TO TOWER IS POSSIBLE.
12. BONDING OF THE GROUNDED CONDUCTOR (NEUTRAL) AND THE GROUNDING CONDUCTOR SHALL BE AT THE SERVICE DISCONNECTING MEANS. BONDING JUMPER SHALL BE INSTALLED PER N.E.C. ARTICLE 250-30.

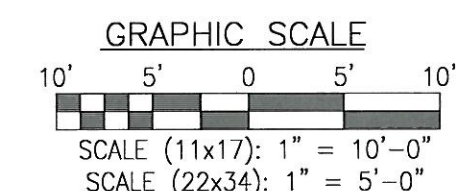
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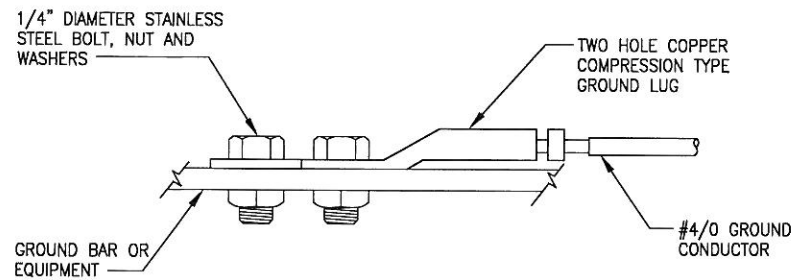
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Date:	7/26/12		
Drawing Title: <b>GROUNDING LAYOUT</b>			
Drawing Number: <b>E3</b>			

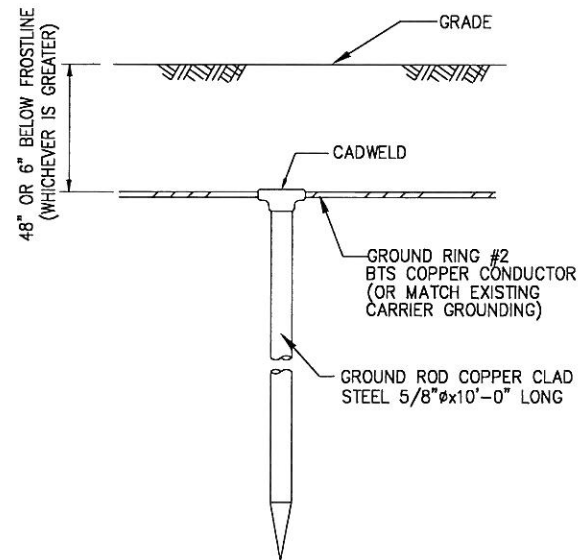


**1 GROUNDING LAYOUT**  
SCALE:

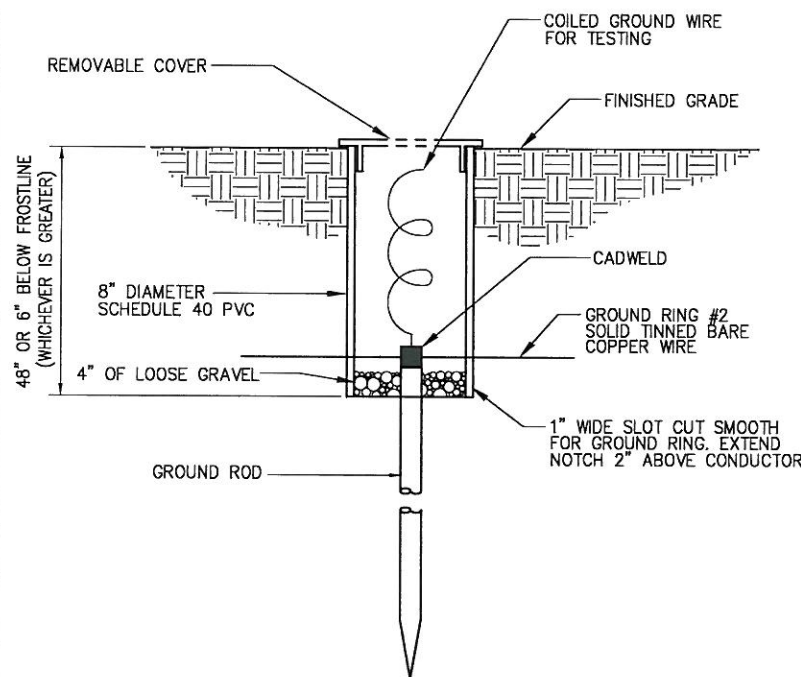


NOTE:  
ALL MECHANICAL EXTERNAL TERMINATION SURFACES SHALL BE TREATED WITH T&B KOPR-SHIELD CP8 ANTI-OXIDATION COMPOUND.

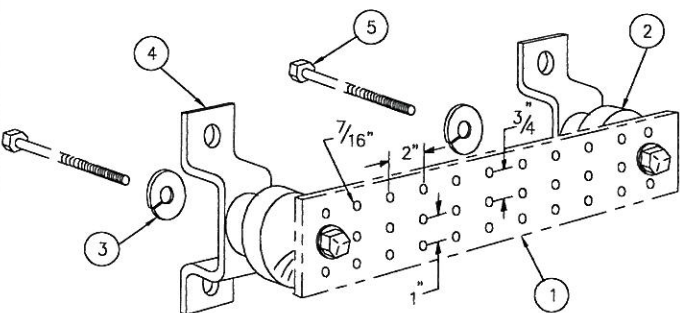
1 EQUIPMENT GROUND CONNECTION  
NOT TO SCALE



4 GROUND ROD DETAIL  
NOT TO SCALE



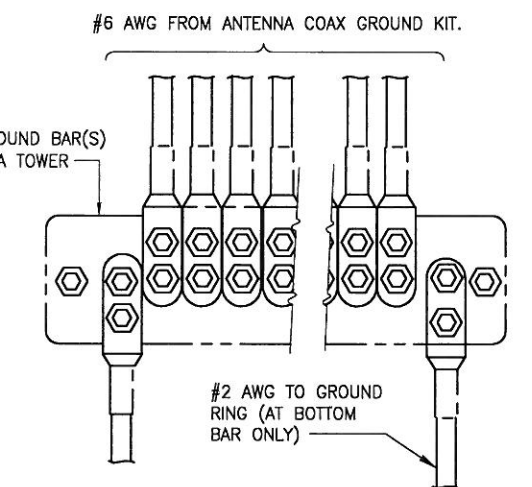
2 INSPECTION SLEEVE DETAIL  
NOT TO SCALE



3 TINNED GROUND BAR DETAIL  
NOT TO SCALE

LEGEND

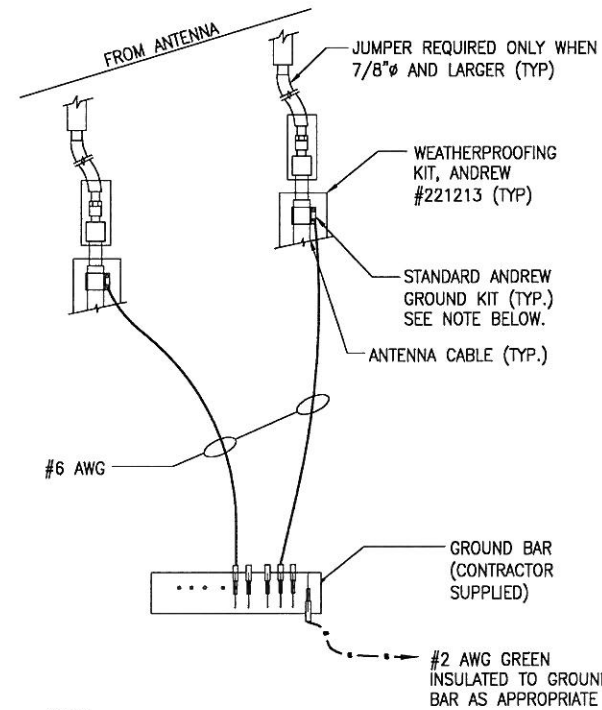
- 1 - TINNED COPPER GROUND BAR, 1/4"x4"x24"
- 2 - INSULATORS (NO INSULATORS ON TOWER)
- 3 - 5/8" LOCK WASHERS
- 4 - MOUNTING BRACKET (MOUNT HORIZONTAL ON VERTICAL CABLE LADDER)
- 5 - 5/8-11 X 1" H.H.C.S.BOLTS



5 ANTENNA GROUND WIRE INSTALLATION  
NOT TO SCALE

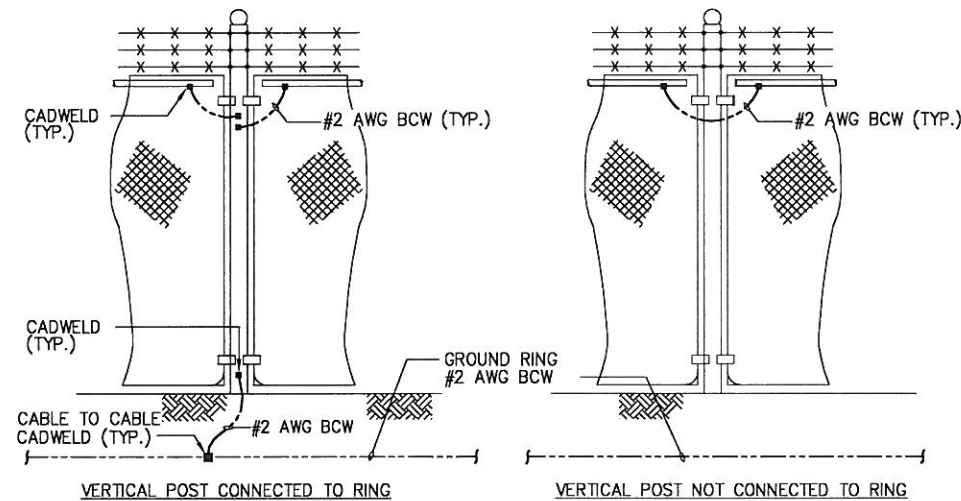
NOTES:

- 1. COPPER GROUND BAR 1/4"x4"x14" 2-HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION.
- 2. SIMILAR INSTALLATION FOR TOP AND BOTTOM TOWER GROUND BARS AND FOR COAX ENTRY PORT GROUND BARS.



NOTE:  
DO NOT INSTALL CABLE GROUND KIT AT A BEND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE.

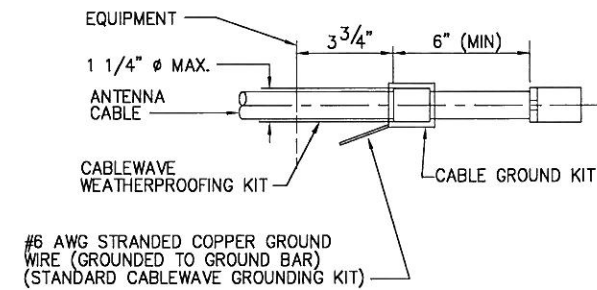
6 CONNECTION OF GROUND WIRES TO GROUNDING BARS @ ANTENNAS  
NOT TO SCALE



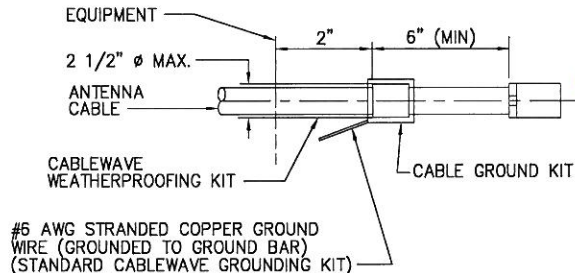
NOTES:

- 1. VERTICAL POSTS SHALL BE BONDED TO THE RING AT EACH CORNER AND AT EACH GATE POST. AS A MINIMUM ONE VERTICAL POST SHALL BE BONDED TO THE GROUND RING IN EVERY 100 FOOT STRAIGHT RUN OF FENCE.
- 2. HORIZONTAL POLES SHALL BE BONDED TO EACH OTHER.
- 3. BOND EACH HORIZONTAL POLE/BRACE TO EACH OTHER AND TO EACH VERTICAL POST THAT IS BONDED TO THE EXTERIOR GROUND RING.

8 FENCE GROUNDING  
NOT TO SCALE



#6 AWG STRANDED COPPER GROUND WIRE (GROUNDED TO GROUND BAR) (STANDARD CABLEWAVE GROUNDING KIT)



#5 AWG STRANDED COPPER GROUND WIRE (GROUNDED TO GROUND BAR) (STANDARD CABLEWAVE GROUNDING KIT)

TO ANTENNA CABLE

NOTE:  
DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.

7 CABLE GROUND KIT CONNECTION  
NOT TO SCALE

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**JOHN S. STEVENS**  
No. 24705  
PROFESSIONAL ENGINEER

4	RELOCATE GENERATOR	DJG	8/23/12
3	ADD AT&T RF INFO	AJD	8/8/12
2	HEIGHT REDUCED TO 110'	AJD	7/26/12
1	REVISED ROAD ENTRANCE	SKB	8/21/12
0	ISSUED FOR REVIEW	AJD	5/31/12

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Project Number: 226-064  
Project Title: WOODSTOCK CT1182  
ROUTE 188 WOODSTOCK, CT 06281

Prepared For: NORTH ATLANTIC TOWERS

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Drawing Scale: AS NOTED  
Date: 7/26/12  
Drawing Title: **GROUNDING DETAILS**  
Drawing Number: **E4**