

PROJECT DESCRIPTION:

CONSTRUCTION OF PERSONAL COMMUNICATION SYSTEM (PCS) CONSISTING OF A MONOPOLE TOWER, EQUIPMENT CABINETS 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-F

6. UNIFORM PLUMBING CODE

7. NATIONAL ELECTRIC CODE

8. LOCAL BUILDING CODE

9. CITY/COUNTY ORDINANCES



Sprint PCS

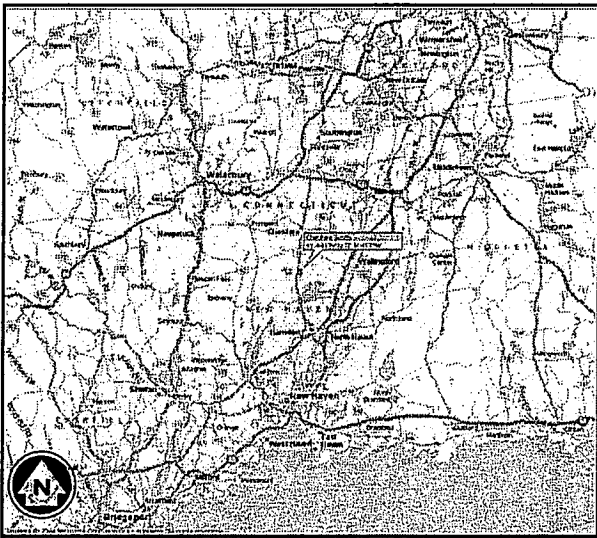
DIRECTIONS:

RTE 84 EAST TO RTE 691 EAST TO EXIT 3 (RTE 10). TAKE A RIGHT (SOUTH) ON RTE 10. TAKE LEFT ONTO WILLOW STREET - ACCESS TO CLUB IS ON LEFT.

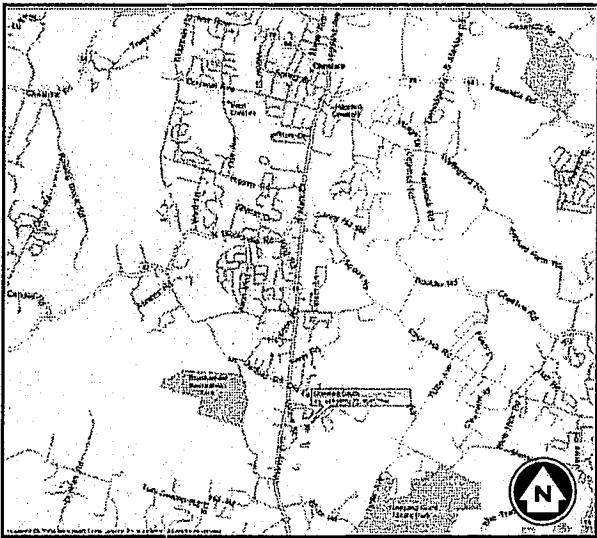
HAMDEN

PROPOSED UNMANNED WIRELESS TELECOMMUNICATION SITE

SITE NUMBER: CT54XC773
150 WILLOW STREET
HAMDEN, CT 06518



VICINITY MAP
N.T.S.



LOCATION MAP
N.T.S.

infinigy
ENGINEERING

810 MARIETTA HIGHWAY
ROSWELL, GA 30075
OFFICE #: (770) 640-9969
FAX #: (770) 640-7363
158-06

NAD 83/NAVD 88

SURVEYOR CERTIFIES THAT THE COORDINATES ARE ACCURATE
TO WITHIN 50' +/- HORIZONTAL AND 20' +/- VERTICAL.

RAD CENTER: ±157' AGL
LATITUDE: 41° 26' 57.81"
LONGITUDE: 72° 54' 16.46"
GROUND ELEVATION: 126' AMSL

HAMDEN, CONNECTICUT

PROJECT INFORMATION

SITE NAME: HAMDEN
SITE ADDRESS: 150 WILLOW STREET
HAMDEN, CT 06518
ZONING DISTRICT: R-1
PROPERTY: MAP: 3430
LOT: 001
CONSTRUCTION AREA: ±2500 SQ. FT.
LATITUDE: 41° 26' 57.81"
LONGITUDE: 72° 54' 16.46"

PROJECT DIRECTORY

LAND OWNER: HAMDEN FISH & GAME PROTECTIVE
CONTACT: JOHN KNOTT
(203) 271-3031

APPLICANT

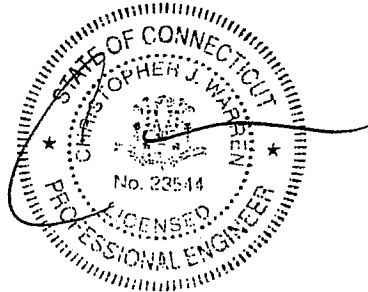
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INTERNATIONAL BOULEVARD
SUITE 800
MAHWAH, NJ 07495
CONTACT: MAUREEN MUTI
PHONE: (201) 684-4313

POWER COMPANY: NORTHEAST UTILITIES

TELCO COMPANY: SNET

DRAWING INDEX

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GENERAL NOTES

1. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
2. DO NOT CHANGE SIZE NOR SPACING OF STRUCTURAL ELEMENTS.
3. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
4. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.
5. BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
6. DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
7. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE APPROVAL.
8. EACH CONTRACTOR SHALL COOPERATE WITH THE OWNER'S REPRESENTATIVE, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
9. IT IS THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE ALL PLAN SHEETS AND SPECIFICATIONS AND COORDINATE HIS WORK WITH THE WORK OF ALL OTHER CONTRACTORS TO ENSURE THAT WORK PROGRESSION IS NOT INTERRUPTED.
10. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A NEAT AND ORDERLY SITE, YARD AND GROUNDS. REMOVE AND DISPOSE OFF SITE ALL RUBBISH, WASTE MATERIALS, LITTER, AND ALL FOREIGN SUBSTANCES. REMOVE PETRO-CHEMICAL SPILLS, STAINS AND OTHER FOREIGN DEPOSITS. RAKE GROUNDS TO A SMOOTH EVEN-TEXTURED SURFACE.
11. THE PLANS SHOW SOME KNOWN SUBSURFACE STRUCTURES, ABOVE-GROUND STRUCTURES AND/OR UTILITIES BELIEVED TO EXIST IN THE WORKING AREA, EXACT LOCATION OF WHICH MAY VARY FROM THE LOCATIONS INDICATED. IN PARTICULAR, THE CONTRACTOR IS WARNED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SUCH PIPELINES, SUBSURFACE STRUCTURES AND/OR UTILITIES IN THE AREA MAY BE SHOWN OR MAY NOT BE SHOWN; AND IT SHALL BE HIS RESPONSIBILITY TO PROCEED WITH GREAT CARE IN EXECUTING ANY WORK. 48 HOURS BEFORE YOU DIG, DRILL OR BLAST, CALL 1-800-922-4455
12. THE OWNER OR OWNER'S REPRESENTATIVE SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT THE EXPRESSED APPROVAL OF THE OWNER OR OWNER'S REPRESENTATIVE.
13. THE CONTRACTOR IS INSTRUCTED TO COOPERATE WITH ANY AND ALL OTHER CONTRACTORS PERFORMING WORK ON THIS JOB SITE DURING THE PERFORMANCE OF THIS CONTRACT.
14. THE CONTRACTOR SHALL RESTORE ALL PUBLIC OR PRIVATE PROPERTY DAMAGED OR REMOVED TO AT LEAST AS GOOD OF CONDITION AS BEFORE DISTURBED AS DETERMINED BY THE OWNER OR OWNER'S REPRESENTATIVE.
15. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIRED PERMITS.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, AND INCURRING THE COST OF ALL REQUIRED PERMITS, INCLUDING, BUT NOT LIMITED TO, THE BUILDING PERMIT, INSPECTIONS, CERTIFICATES, ETC.
17. THE CONTRACTOR SHALL PROTECT EXISTING PROPERTY LINE MONUMENTATION. ANY MONUMENTATION DISTURBED OR DESTROYED, AS JUDGED BY THE OWNER OR OWNER'S REPRESENTATIVE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE UNDER THE SUPERVISION OF A LICENSED LAND SURVEYOR.
18. ALL TRENCH EXCAVATION AND ANY REQUIRED SHEETING AND SHORING SHALL BE DONE IN ACCORDANCE OSHA REGULATIONS FOR CONSTRUCTION.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING AND THE MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF WORK.
20. ALL UTILITY WORK INVOLVING CONNECTIONS TO EXISTING SYSTEMS SHALL BE COORDINATED WITH THE OWNER OR OWNER'S REPRESENTATIVE AND THE UTILITY OWNER. NOTIFY THE OWNER OR OWNER'S REPRESENTATIVE AND THE UTILITY OWNER BEFORE EACH AND EVERY CONNECTION TO EXISTING SYSTEMS IS MADE.
21. MAINTAIN FLOW FOR ALL EXISTING UTILITIES.
22. ALL SITE FILL SHALL MEET SELECTED FILL STANDARDS AS DEFINED BY THE OWNER OR OWNER'S REPRESENTATIVE ON THE DRAWINGS.
23. CONTRACTOR SHALL GRADE ALL AREAS ON THE SITE TO PROVIDE POSITIVE DRAINAGE AWAY FROM THE EQUIPMENT PAD AND THE TOWER.
24. ALL IMPROVEMENTS TO CONFORM WITH LOCAL JURISDICTION CONSTRUCTION STANDARDS AND SPECIFICATIONS, LATEST EDITION.

STRUCTURAL STEEL NOTES

1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
2. ALL INTERIOR STRUCTURAL STEEL USED SHALL BE, WHEN DELIVERED, FINISHED WITH ONE COAT FABRICATOR'S NON-LEAD, RED OXIDE PRIMER. PRIMING SHALL BE PERFORMED AFTER SHOP FABRICATION TO THE GREATEST EXTENT POSSIBLE. ALL DINGS, SCRAPES, MARS, AND WELDS IN THE PRIMED AREAS SHALL BE REPAIRED BY FIELD TOUCH-UP PRIOR TO COMPLETION OF THE WORK.
3. ALL EXTERIOR STEEL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH SPECIFICATION ASTM A36 UNLESS OTHERWISE NOTED. GALVANIZING SHALL BE PERFORMED AFTER SHOP FABRICATION TO THE GREATEST EXTENT POSSIBLE. ALL DINGS, SCRAPES, MARS, AND WELDS IN THE GALVANIZED AREAS SHALL BE REPAIRED BY FIELD TOUCH-UP PRIOR TO COMPLETION OF THE WORK.
4. DO NOT PLACE HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
5. CONNECTIONS:
- A. ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1, WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION. AT THE COMPLETION OF WELDING, ALL DAMAGE TO GALVANIZED COATING SHALL BE REPAIRED.
- B. BOLTED CONNECTIONS SHALL USE BEARING TYPE GALVANIZED ASTM A325 BOLTS (3/4" DIA) AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
- C. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIA. GALVANIZED ASTM A 307 BOLTS UNLESS NOTED OTHERWISE.
- D. CONNECTION DESIGN BY FABRICATOR WILL BE SUBJECT TO REVIEW AND APPROVAL BY ENGINEER.

DESIGN DATA

1. WIND LOADS: PER EIA/TIA F-222
ICE LOADS: 1/2" RADIAL ON ALL COMPONENTS & CABLE
SNOW LOAD: PER CT STATE BLDG. CODE.
SEISMIC LOADS: PER CT STATE BLDG CODE.

2. DEAD LOADS	
BATTERY CABINET	2825#
FUTURE BATTERY CABINET	2825#
MODCELL 4.0 PRIMARY CABINET	1210#
MODCELL 4.0 GROWTH CABINET	1210#
PPC FRAME	270#
WIREWAY	40#

CONCRETE NOTES

1. DESIGN AND CONSTRUCTION OF ALL CONCRETE ELEMENTS SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING APPLICABLE CODES: ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS"; ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE";
2. MIX DESIGN SHALL BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO PLACING CONCRETE.
3. CONCRETE SHALL BE NORMAL WEIGHT, 6% AIR ENTRAINED ($\pm 1.5\%$) WITH A MAXIMUM 4" SLUMP, AND HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI UNLESS OTHERWISE NOTED.
4. MAXIMUM AGGREGATE SIZE SHALL BE 1".
5. THE FOLLOWING MATERIALS SHALL BE USED:
- | | |
|--------------------------|-------------------------|
| PORTLAND CEMENT: | ASTM C 150, TYPE I |
| REINFORCEMENT: | ASTM A 185 |
| NORMAL WEIGHT AGGREGATE: | ASTM C 33 |
| WATER: | DRINKABLE |
| ADMIXTURES: | NON-CHLORIDE CONTAINING |
6. REINFORCING DETAILS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ACI 315.
7. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
8. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
- | | |
|--|-----------|
| CONCRETE CAST AGAINST EARTH..... | 3 IN. |
| CONCRETE EXPOSED TO EARTH OR WEATHER: | |
| #6 AND LARGER | 2 IN. |
| #5 AND SMALLER & WWF | 1 1/2 IN. |
| CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND: | |
| SLAB AND WALL | 3/4 IN. |
| BEAMS AND COLUMNS | 1 1/2 IN. |

9. A CHAMFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.
10. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHOR, SHALL BE PER MANUFACTURES WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO MANUFACTURER'S RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR ENGINEERING APPROVAL WHEN DRILLING HOLES IN CONCRETE.
11. CURING COMPOUNDS SHALL CONFORM TO ASTM C-309.
12. ADMIXTURES SHALL CONFORM TO THE APPROPRIATE ASTM STANDARD AS REFERENCED IN ACI-301.
13. DO NOT WELD OR TACKWELD REINFORCING STEEL.
14. ALL DOWELS, ANCHOR BOLTS, EMBEDDED STEEL, ELECTRICAL CONDUITS, PIPE SLEEVES, GROUNDS AND ALL OTHER EMBEDDED ITEMS AND FORMED DETAILS SHALL BE IN PLACE BEFORE START OF CONCRETE PLACEMENT.
15. LOCATE ADDITIONAL CONSTRUCTION JOINTS REQUIRED TO FACILITATE CONSTRUCTION AS ACCEPTABLE TO ENGINEER. PLACE REINFORCEMENT CONTINUOUSLY THROUGH JOINT.
16. REINFORCEMENT SHALL BE COLD BENT WHENEVER BENDING IS REQUIRED.
17. PLACE CONCRETE IN A UNIFORM MANNER TO PREVENT THE FORMATION OF COLD JOINTS AND OTHER PLANES OF WEAKNESS. VIBRATE THE CONCRETE TO FULLY EMBED REINFORCING. DO NOT USE VIBRATORS TO TRANSPORT CONCRETE THROUGH CHUTES OR FORMWORK.
18. DO NOT PLACE CONCRETE IN WATER, ICE, OR ON FROZEN GROUND.
19. DO NOT ALLOW CONCRETE SUBBASE TO FREEZE DURING CONCRETE CURING AND SETTING PERIOD, OR FOR A MINIMUM OF 14 DAYS AFTER PLACEMENT.
20. FOR COLD-WEATHER AND HOT-WEATHER CONCRETE PLACEMENT, CONFORM TO APPLICABLE ACI CODES AND RECOMMENDATIONS. IN EITHER CASE, MATERIALS CONTAINING CHLORIDE, CALCIUM, SALTS, ETC. SHALL NOT BE USED. PROTECT FRESH CONCRETE FROM WEATHER FOR 7 DAYS MINIMUM.

CIVIL LEGEND

EXISTING		PROPOSED
UNDERGROUND ELECTRIC		-----
UNDERGROUND TELEPHONE		-----
OVERHEAD WARES		-----
OVERHEAD ELECTRIC		-----
5' OR 10' CONTOUR LINE		-----
1' OR 2' CONTOUR LINE		-----
SPOT ELEVATION		-----
PRIMARY PROPERTY OR R.O.W.		-----
LEASE LINE		-----
EASEMENT		-----
UTILITY POLE		-----
TELEPHONE PEDESTAL		-----
CURB		-----
ASPHALT PAVEMENT		-----
BUILDING		-----
TREES, SHRUBS, BUSHES		-----
	REPRESENTS DETAIL NUMBER	
	REF. DRAWING NUMBER	

3	10/23/06	REVISED PER CUENT COMMENTS	EKM	SJB	CJW
2	7/14/06	REVISED PER CUENT COMMENTS	EKM	SJB	CJW
1	10/12/05	REVISED PER CUENT COMMENTS	AJD	SJB	CJW
0	06/30/05	ISSUED FOR REVIEW	TWS	SJB	CJW
NO.	DATE	REVISIONS	BY	CHK	APP'D

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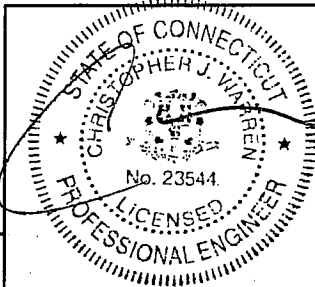
GENERAL NOTES & LEGEND

CT54XC773

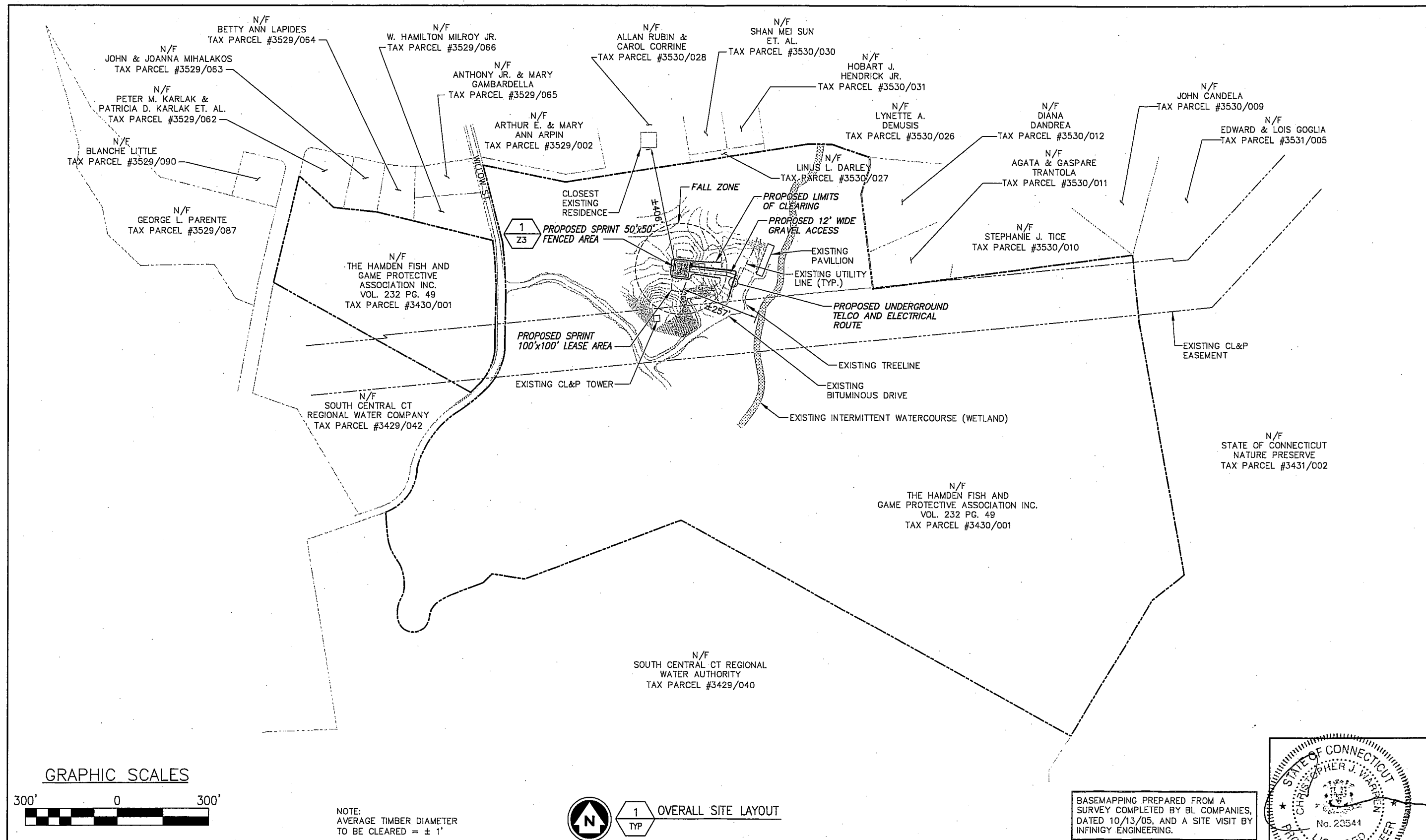
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Z1

REV
3



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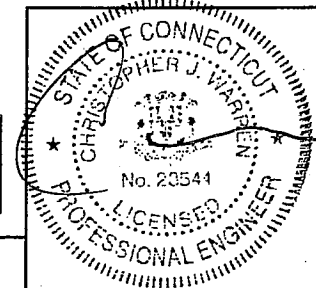
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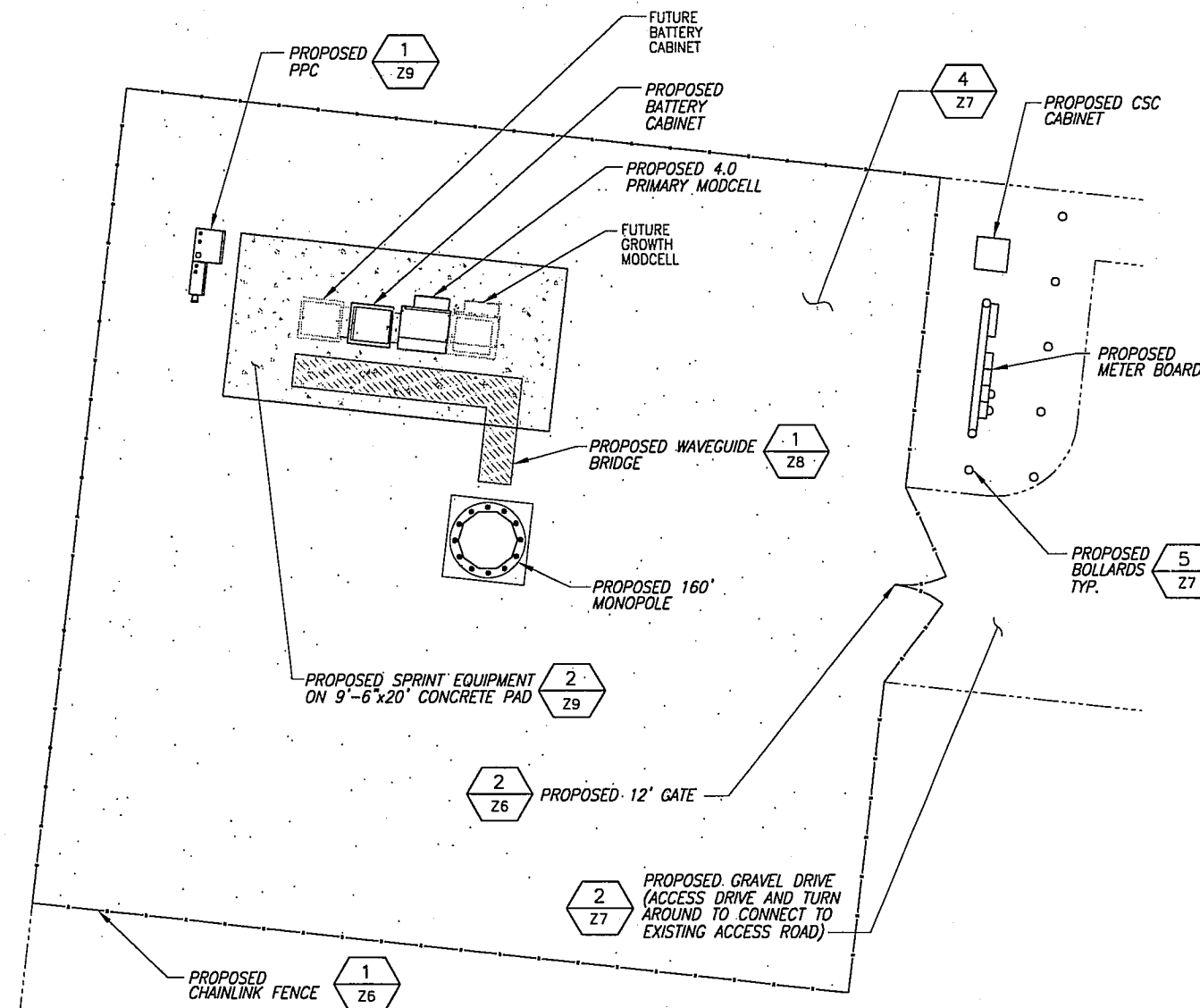
HAMDEN

150 WILLOW STREET
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OVERALL SITE LAYOUT	Z2
CT54XC773	
DATE: 7/14/06	REV 3



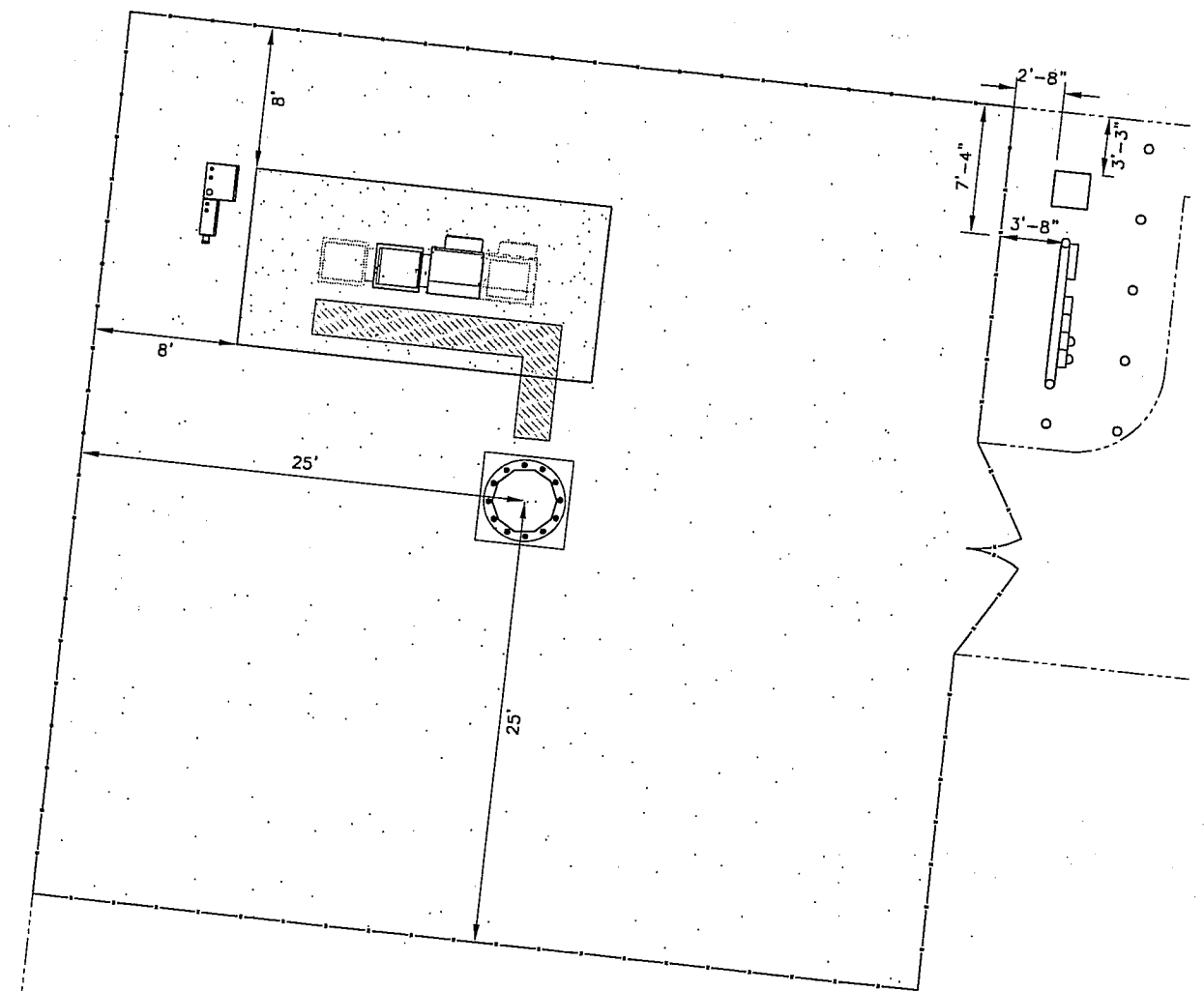
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 **1** SITE LAYOUT
TYP

GENERAL SITE NOTES:

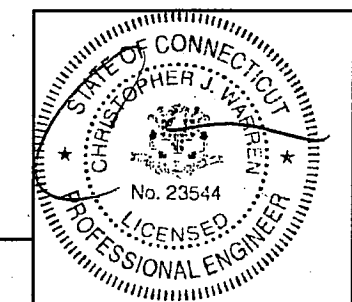
1. THE SUBGRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING ENGINEER.
3. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF AN ENGINEER.
4. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW



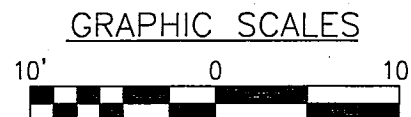
 **2** STAKING PLAN
TYP

5. GARBAGE, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER..
6. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE BUILDING OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, FERTILIZED, AND SEEDED.
7. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND STIPULATED IN THE SPECIFICATION SUMMARY.
8. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
9. CONTRACTOR IS TO SUPPLY 8-COMBINATION LOCKS (MASTER LOCK 175LH, PART NUMBER 71649 39565).
10. TREE CLEARING WILL BE LIMITED TO TOWER COMPOUND AND ACCESS DRIVE.

BASEMAPPING PREPARED FROM A SURVEY COMPLETED BY BL COMPANIES, DATED 10/13/05, AND A SITE VISIT BY INFINIGY ENGINEERING.



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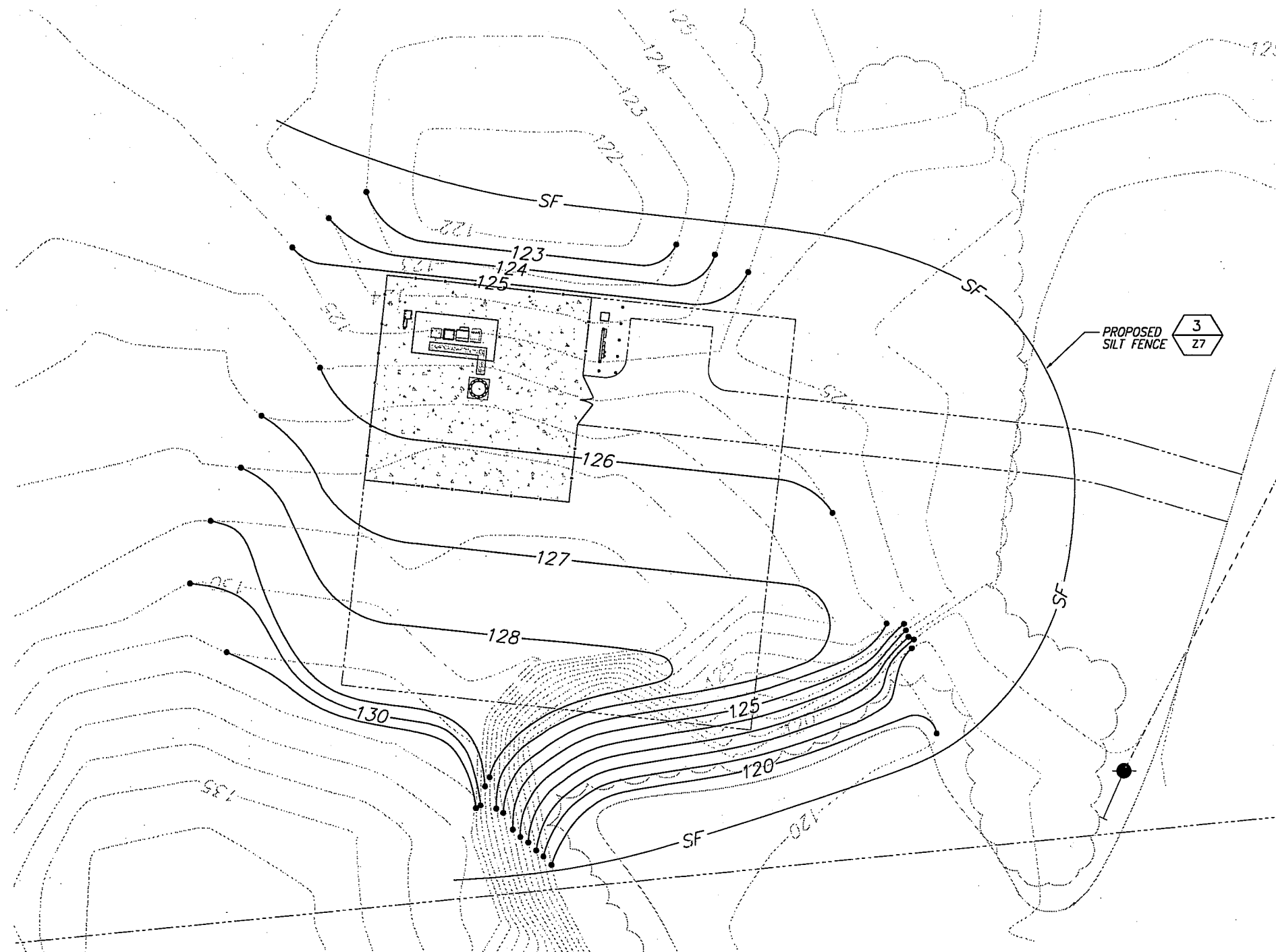
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ENLARGED SITE LAYOUT & STAKING PLAN
CT54XC773
DATE: 7/14/06
REV 3

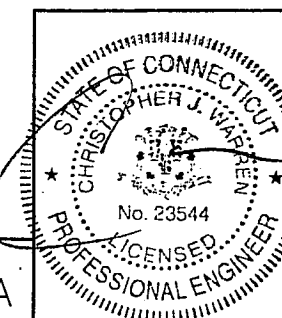


1
TYP GRADING PLAN



PROPOSED
SILT FENCE 3
Z7

BASEMAPPING PREPARED FROM A
SURVEY COMPLETED BY BL COMPANIES,
DATED 10/13/05, AND A SITE VISIT BY
INFINIGY ENGINEERING.



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GRADING PLAN	Z3A
CT54XC773	
DATE: 7/14/06	REV 3

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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 COMPLYING 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 UNDAUNAGED 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.

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 THOSE 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.

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 ₂ O ₅ , #/ACRE	K ₂ O, #/ACRE	N, TOP DRESSING
1st	60 - 90	120 - 180	120 - 180	50
2nd	60	120	120	-

NOTE:

- GRASS AND MULCH ALL DISTURBED AREAS

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.

NOTE:

SET TREE PLUMB PRIOR TO STAKING

RUBBER HOSE (2 PLY GREEN)

GUY WIRE (DOUBLE STRAND, 2 PLY WIRE)

3" PINESTRAW MULCH

#4 REBAR STAKE

36" LENGTH, DRIVE BELOW GRADE

SCARIFY BASE OF PLANT PIT

ROOTBALL PIT TO EXCEED DIAMETER OF ROOTBALL BY 24"

ROOTBALL

RUBBER HOSE

GUY WIRE

PLAN

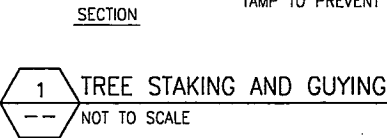
120' TYP.

STAKE

CULTIVATED SOIL - 24" DIAMETER LARGER THAN ROOT BALL OR CONTAINER

ADD EXCAVATED SOIL AS NEEDED TO BRING TREE TO FINISHED GRADE; TAMP TO PREVENT SETTLING

SECTION



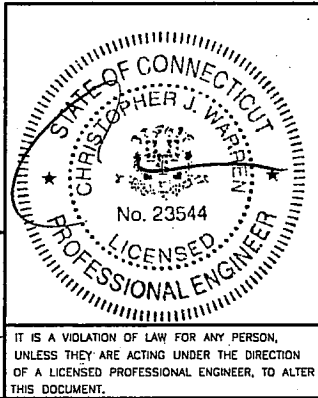
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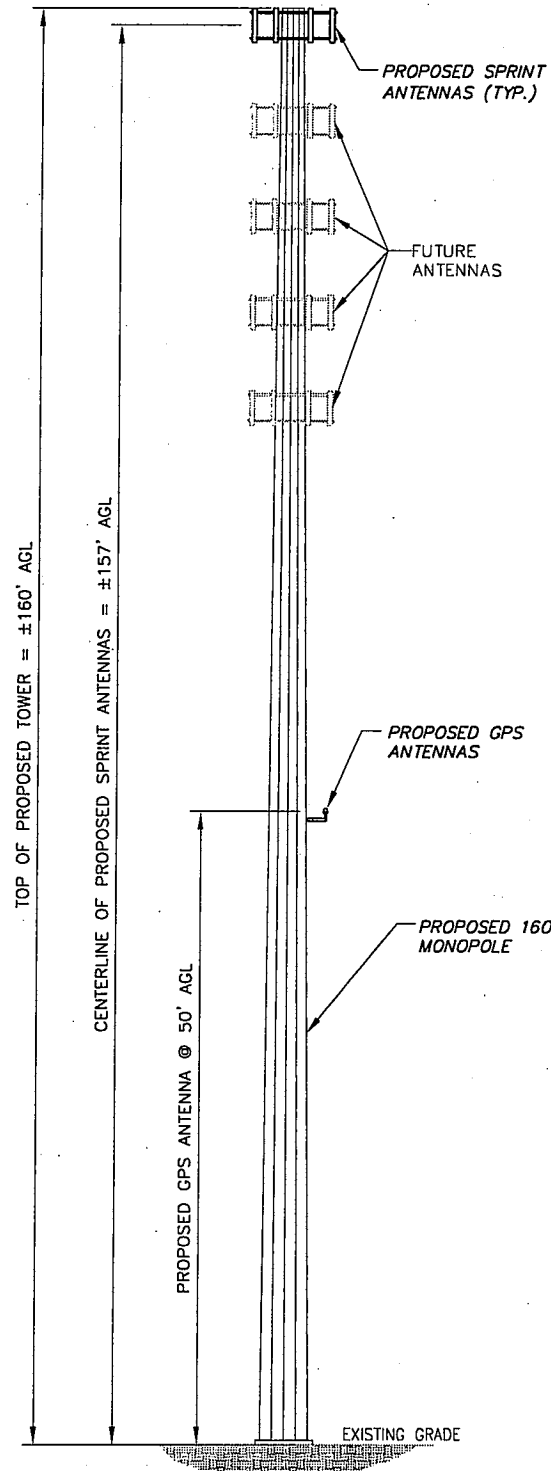
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GRADING & EROSION CONTROL NOTES		Z4
CT54XC773		
DATE: 7/14/06		REV 3





1 MONOPOLE ELEVATION
NOT TO SCALE

ANTENNA CABLE CONFIGURATION

SITE NAME: HAMDEN		SITE NO.: CT54XC773		A/E FIRM: INFINIGY ENGINEERING	
ITEM NO.	DESCRIPTION	QUANTITY (EACH)	LENGTH (FT. EACH)	TOTAL LENGTH	
1	ANTENNAS: • DB950F65E-M • DB950F65T2E-M • DB950F65E-M • GPS - LUCENT # 407517689	2 2 2 1	N/A N/A N/A N/A	N/A N/A N/A N/A	
2	TILT BRACKET MODEL #DB5098	N/A	N/A	N/A	
3	JUMPER CABLES: DIN MALE - DIN MALE 6' SUPERFLEX	24	6	N/A	
4	MAIN CABLES: • 1/2" DIA. FLEXWELL COAXIAL (CABLEWAVE 810918-001) • 7/8" DIA. FLEXWELL COAXIAL (CABLEWAVE 810921-001) • 1-5/8" DIA. FLEXWELL COAXIAL (CABLEWAVE 810920-001)	1 N/A 190'	FIELD CUT TO LENGTH	80' N/A 1140'	
5	GROUNDING KITS WITH 60" GROUND CABLE AND 2-HOLE LUGS FOR THE FOLLOWING: • 1/2" CABLE (CABLEWAVE 916382) • 7/8" CABLE (CABLEWAVE 916385) • 1-5/8" CABLE (CABLEWAVE 916391)	2 N/A 12	N/A N/A N/A	N/A N/A N/A	
6	CONNECTORS - UNATTACHED FOR GPS AND MAIN CABLES: • MALE "N" 1/2" (CABLEWAVE 734803) • FEMALE "N" 1/2" (CABLEWAVE 734806) • MALE "DIN" 7/8" (CABLEWAVE 734737) • FEMALE "N" 7/8" (CABLEWAVE 734837) • FEMALE "DIN" 1-5/8" (CABLEWAVE 734756)	2 N/A N/A N/A 12	N/A N/A N/A N/A N/A	N/A N/A N/A N/A N/A	
7	PPC MINI (200 AMP), IN LINE TYPE AS MANUFACTURED BY NORTHERN TECHNOLOGIES, MODEL # N2101-WD1	1	N/A	N/A	
8	ACCA: PROVIDED BY LUCENT W/O JUMPERS	1	N/A	N/A	
9	HOISTING GRIPS • 1/2" CABLE (CABLEWAVE 910303) • 7/8" CABLE (CABLEWAVE 910307) • 1-5/8" CABLE (CABLEWAVE 910311)	1 N/A 12	N/A N/A N/A	N/A N/A N/A	
10	WEATHERPROOFING KITS (CABLEWAVE 916132)	24	N/A	N/A	

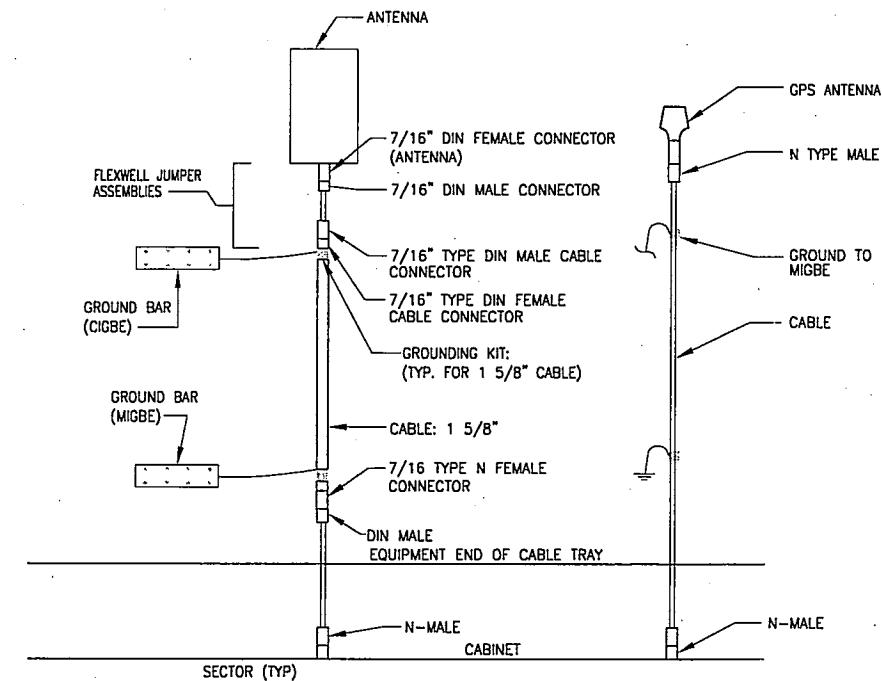
NOTES: 1. ITEMS LISTED TO BE SUPPLIED BY OWNER.
2. ITEM 4 IS TO BE FIELD FABRICATED BY CONTRACTOR.

ANTENNA CABLE CONFIGURATION

* ESTIMATED LENGTHS FROM AVAILABLE INFORMATION. FIELD ENGINEER TO UPDATE ON AS-BUILT DRAWINGS.

FROM/TO	AZIMUTH: 0°	DOWNTILT = 0°		AZIMUTH: 200°	DOWNTILT = 2°		AZIMUTH: 290°	DOWNTILT = 0°		GPS ANTENNA	LENGTH (FT)* GPS ⑦
	COAX CABLE TYPE/SIZE	LENGTH (FT)*		COAX CABLE TYPE/SIZE	LENGTH (FT)*		COAX CABLE TYPE/SIZE	LENGTH (FT)*		COAX CABLE TYPE/SIZE	
		RX/TX ①	GROWTH		RX/TX ③	GROWTH		RX/TX ⑤	GROWTH		
TOP JUMPER CABLE	DIN MALE DIN MALE 6' SUPERFLEX	6' 6'	N/A	DIN MALE DIN MALE 6' SUPERFLEX	3' 3'	N/A	DIN MALE DIN MALE 6' SUPERFLEX	6' 6'	N/A	N/A	-
FROM TOP JUMPER TO ANTENNA CABLE COVER ASSEMBLY	810920-001 1 5/8"	190' 190'	N/A	810920-001 1 5/8"	190' 190'	N/A	810920-001 1 5/8"	190' 190'	N/A	810918-001 1/2"	80'
ANTENNA CABLE COVER ASSEMBLY TO PRIMARY RADIO CABINET	DIN MALE DIN MALE 6' SUPERFLEX	6' 6'	N/A	DIN MALE DIN MALE 6' SUPERFLEX	6' 6'	N/A	DIN MALE DIN MALE 6' SUPERFLEX	6' 6'	N/A	N/A	TBD

NOTE: CONTRACTOR TO CERTIFY ANTENNA AZIMUTHS ARE WITHIN ± 2° OF INFORMATION SHOWN WITH REGISTERED LAND SURVEYOR.



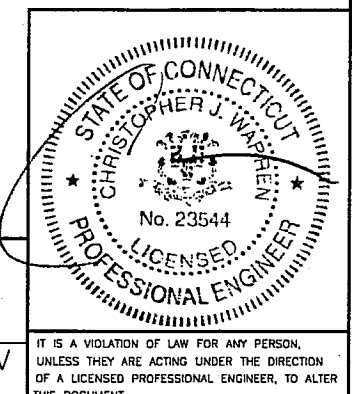
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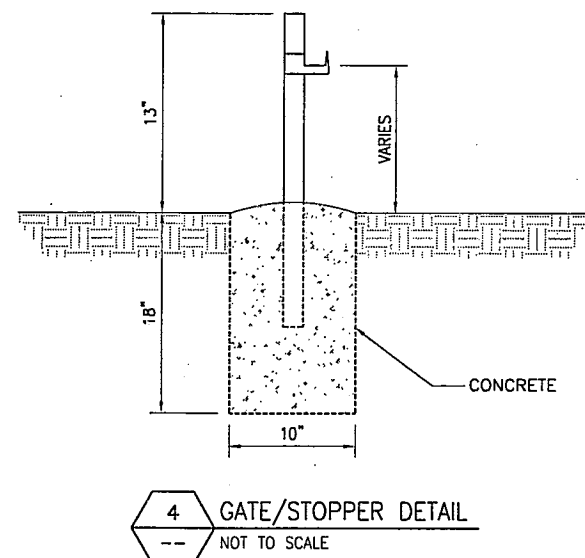
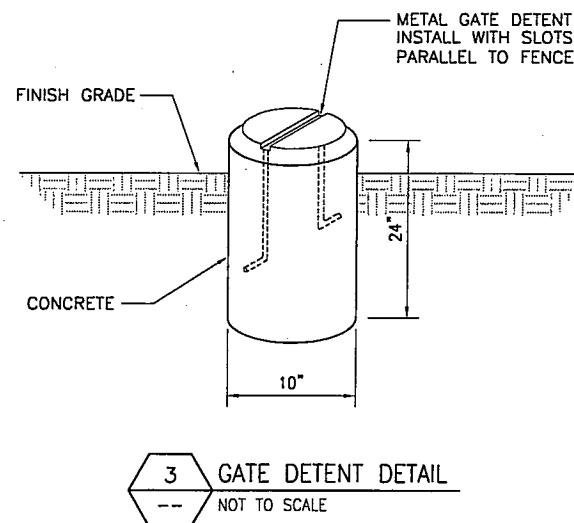
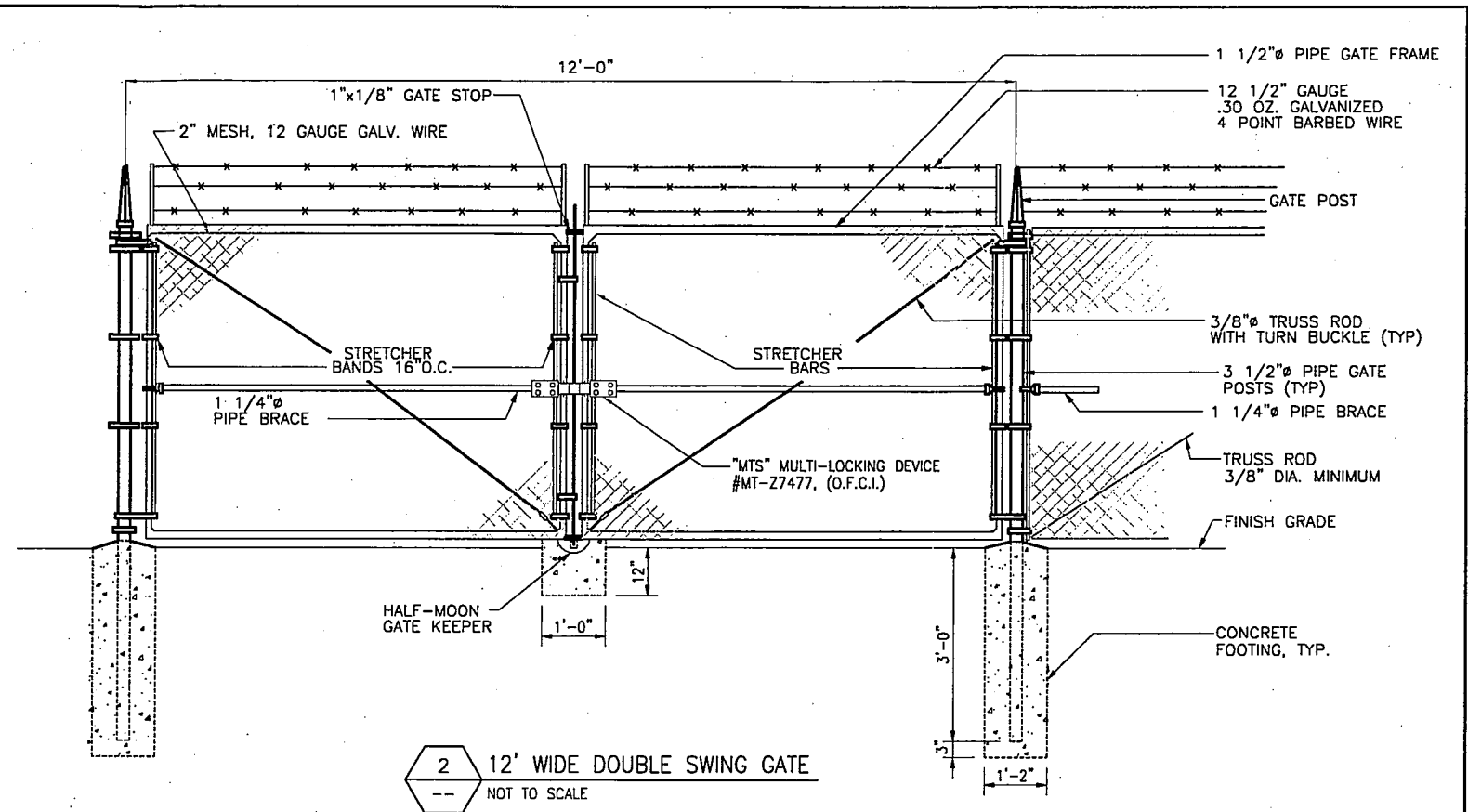
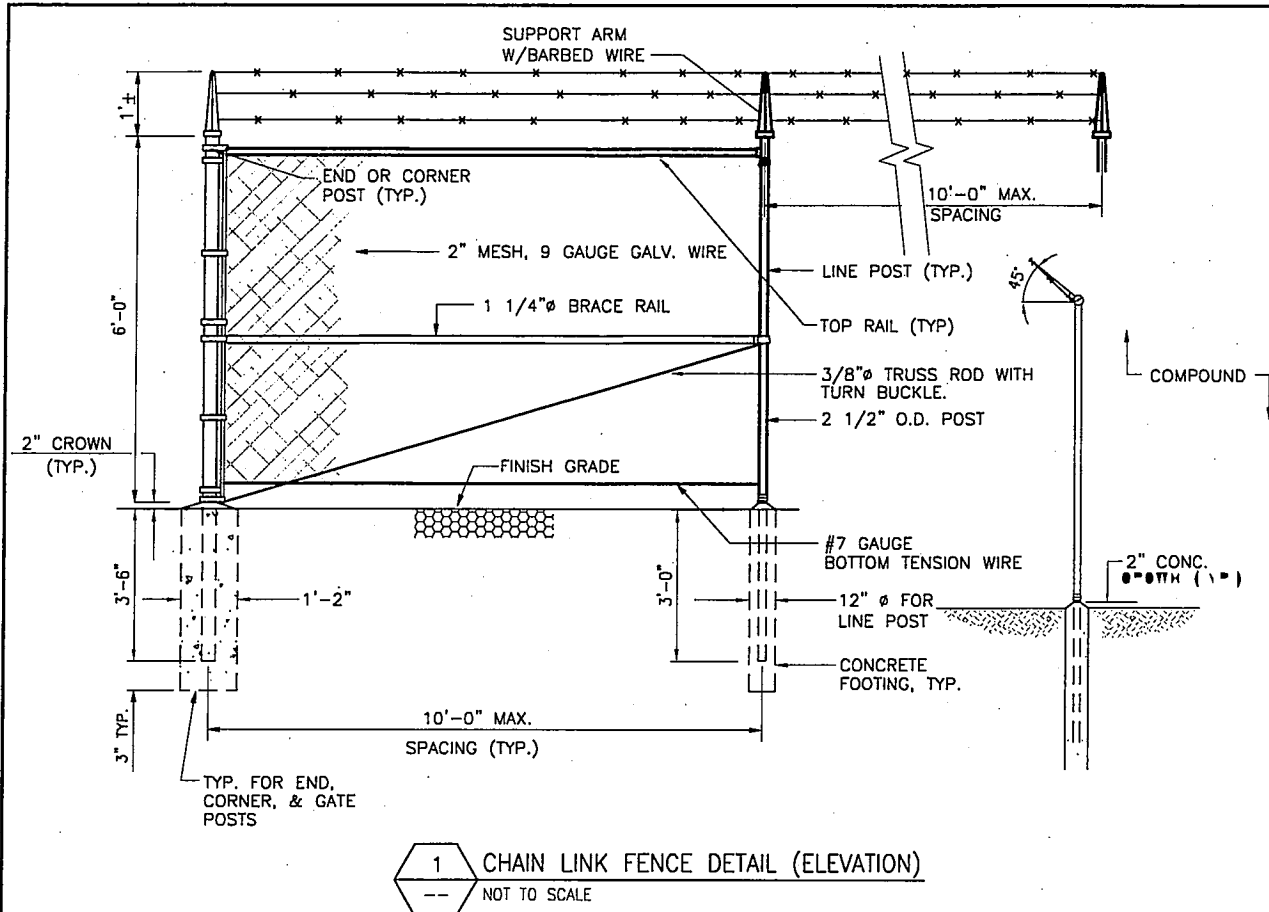
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TOWER ELEVATION		Z5
CT54XC773		
DATE: 7/14/06		REV 3





FENCE NOTES:

1. FENCING MATERIALS SHALL BE OF GALVANIZED STEEL.
2. POST, BRACES AND GATE FRAMES SHALL BE SCHEDULE 40 (STANDARD WEIGHT) PIPE. SIZES SPECIFIED ARE NOMINAL DIAMETER.
3. DOUBLE SWING GATE SHALL BE PROVIDED WITH TUBULAR PLUNGER BAR, 1 LOCK KEEPER, 1 LOCK KEEPER GUIDE, 2 LATCH FORKS, 2 FORK CATCHES, 1 CATCH FOR PLUNGER BAR, AND 2 GATE STOPS LOCATED AS DIRECTED BY THE OWNER.
4. POSTS, CAPS AND OTHER NECESSARY FENCE FITTINGS SHALL BE AS MANUFACTURED BY THE FENCE MANUFACTURER OR EQUAL. HINGES SHALL BE OF GALVANIZED STEEL.
5. POSTS SHALL BE SPACED EQUIDISTANT BUT NOT MORE THAN 10' O.C.
6. BOTTOM OF FENCE SHALL BE NO MORE THAN 3" ABOVE GRADE AT ANY SECTION.

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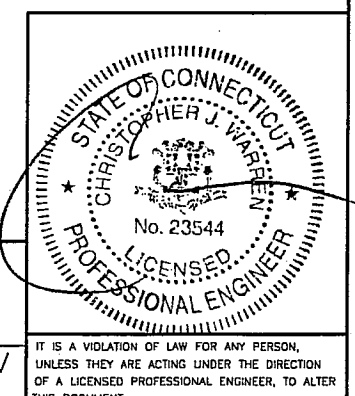
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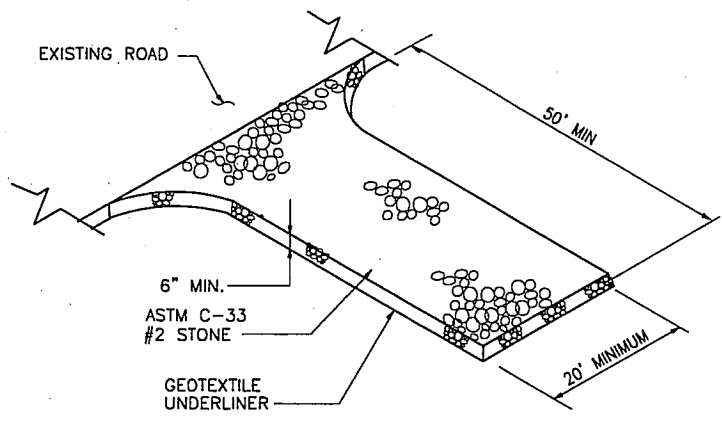
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DETAILS
CT54XC773
DATE: 7/14/06

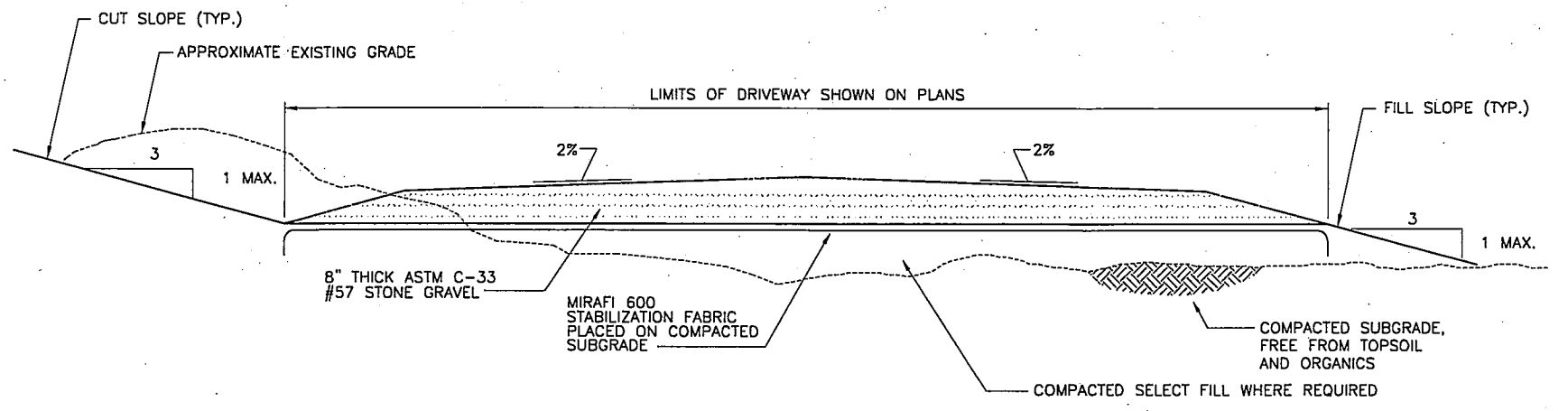
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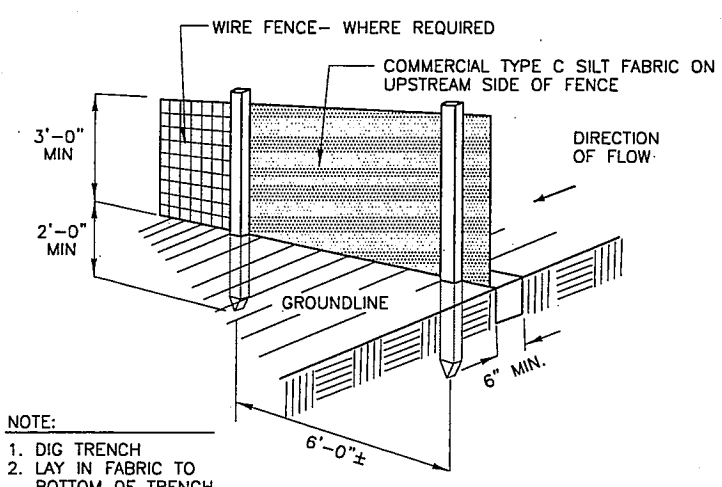




1 CONSTRUCTION EXIT DETAIL
--- NOT TO SCALE

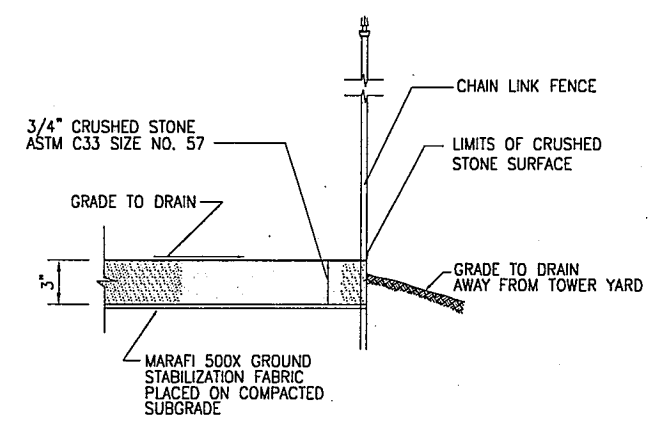


2 DRIVEWAY SECTION - CROWNED
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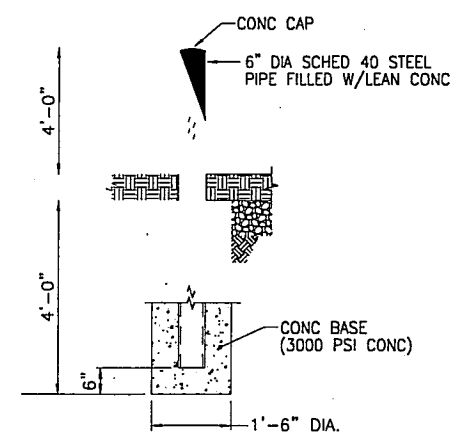


NOTE:
1. DIG TRENCH
2. LAY IN FABRIC TO BOTTOM OF TRENCH
3. BACKFILL TRENCH, COVERING FABRIC

3 SILT FENCE DETAIL
--- NOT TO SCALE



4 SECTION THROUGH COMPOUND
--- NOT TO SCALE



5 BOLLARD DETAIL
--- NOT TO SCALE

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. |
| 3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. | FILTER CLOTH: FILTER X, MIRAFIX 100X' STABILINKA T140N OR APPROVED EQUAL. |
| 4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" 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. | |

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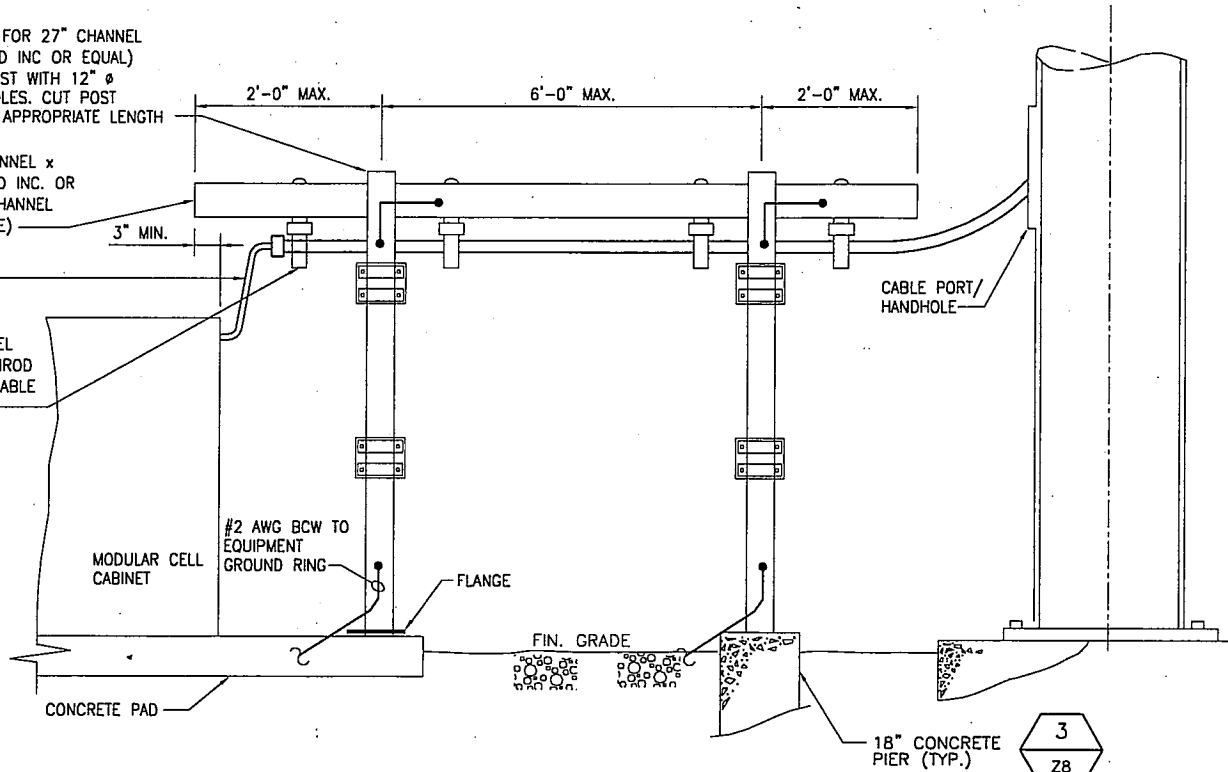
27
REV 3
STATE OF CONNECTICUT
CHRISTOPHER J. WARREN
No. 23544
LICENSED PROFESSIONAL ENGINEER
IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SUPPORT POST + BRACKET FOR 27" CHANNEL
(3-9" PART #802225 (PIROD INC OR EQUAL)
USE PART #150410 FOR POST WITH 12" Ø
WELDED FLANGE + BOLT HOLES. CUT POST
LENGTH TO SUIT OR ORDER APPROPRIATE LENGTH

27" ICE BRIDGE 3-9" CHANNEL x
10" PART # 124470 (PIROD INC. OR
EQUAL) CUT ICE BRIDGE CHANNEL
LENGTH TO SUIT (SEE NOTE)

JUMPER CABLE

HANGER BRACKET TYPE LEVEL
CHANNEL PART #802257 (PIROD
INC OR EQUAL). MAXIMUM CABLE
SPAN = 3' TYP.



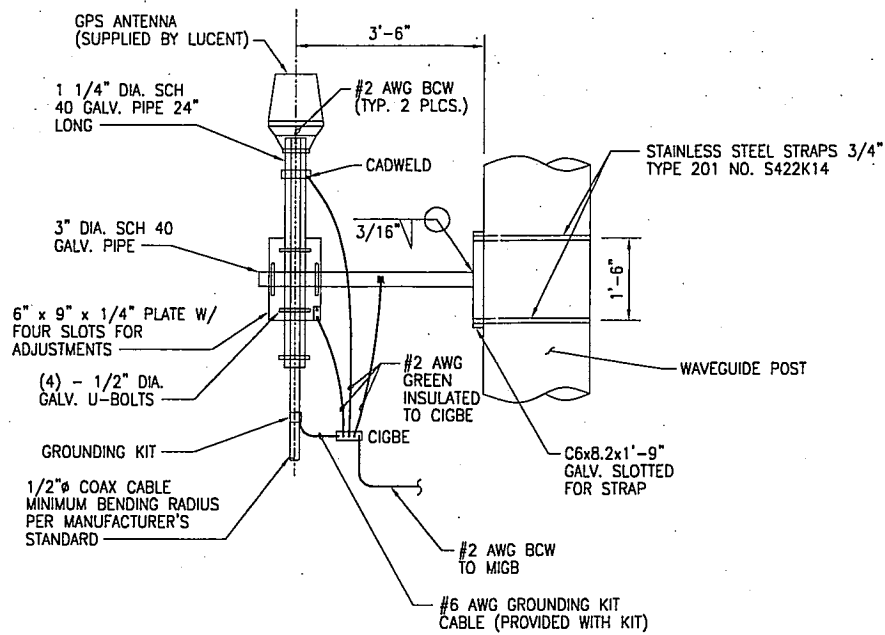
ELEVATION

NOMINAL CABLE SIZE	NOMINAL CABLE SIZE	CABLE PART NO.	MINIMUM BEND RADIUS	STANDARD NON-INSULATED HANGER KIT	SNAP-IN HANGER KIT
1/2"	810918-001	LCF12-50	5"	920981-010	915659
7/8"	810921-001	LCF78-50	10"	920981-007	915660
1 1/4"	810916-001	LCF114-50	15"	920981-004	915594
1 5/8"	810920-001	LCF158-50	20"	920981-012	915661
1/2" JUMPER	826052-003 3' 826052-006 6' 826052-008 8' 826052-010 10'	SCF12-50	5"	920981-010	915659

NOTES :

1. WHEN USING PIROD 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 PIROD 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 PIROD 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 1/2" EMBEDMENT.
8. DEVIATIONS FROM ICE BRIDGE FOUNDATIONS SHOWN ON SITE SPECIFIC DRAWINGS OR STANDARD DETAILS REQUIRE ENGINEERING APPROVAL.

1 ICE BRIDGE
NOT TO SCALE

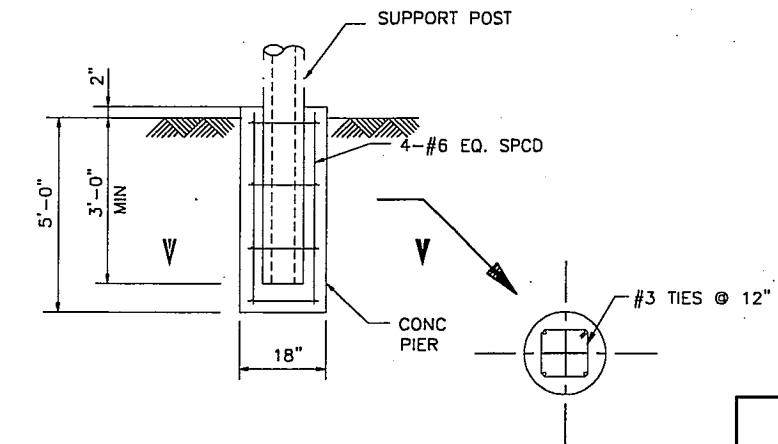


NOTES:

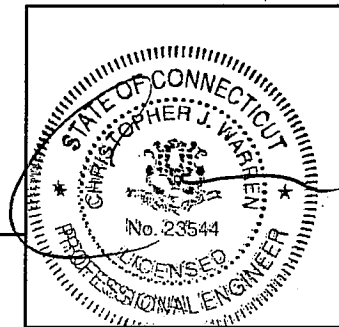
1. THE ELEVATION AND LOCATION OF THE GPS ANTENNA SHALL BE IN ACCORDANCE WITH THE FINAL RF REPORTS.
2. THE GPS ANTENNA MOUNT IS DESIGNED TO FASTEN TO A STANDARD 1-1/4" DIAMETER, SCHEDULE 40 GALVANIZED STEEL OR STAINLESS STEEL PIPE. THE PIPE MUST NOT BE THREADED AT THE ANTENNA MOUNT END. THE PIPE SHALL BE CUT TO THE REQUIRED LENGTH (MINIMUM OF 18 INCHES) USING A HAND OR ROTARY PIPE CUTTER TO ASSURE A SMOOTH AND PERPENDICULAR CUT. A HACK SAW SHALL NOT BE USED. THE CUT PIPE END SHALL BE DEBURRED AND SMOOTH IN ORDER TO SEAL AGAINST THE NEOPRENE GASKET ATTACHED TO THE ANTENNA MOUNT.

GPS ANTENNA MOUNTING BRACKET

2 GPS ANTENNA
NOT TO SCALE



3 SUPPORT POST FOOTING
NOT TO SCALE



NO.	DATE	REVISIONS	BY	CHK	APP'D
3	10/23/06	REVISED PER CLIENT COMMENTS	EKM	SJB	CJW
2	7/14/06	REVISED PER CLIENT COMMENTS	EKM	SJB	CJW
1	10/12/05	REVISED PER CLIENT COMMENTS	AJD	SJB	CJW
0	06/30/05	ISSUED FOR REVIEW	TWS	SJB	CJW

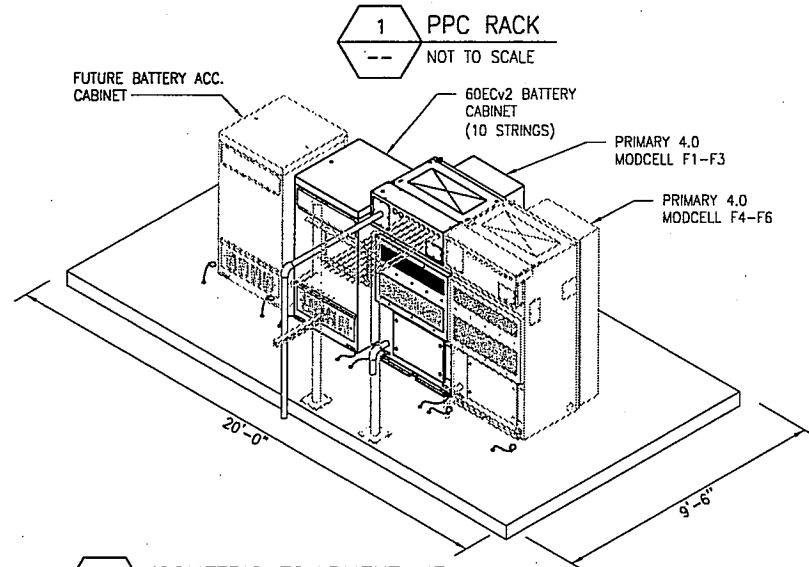
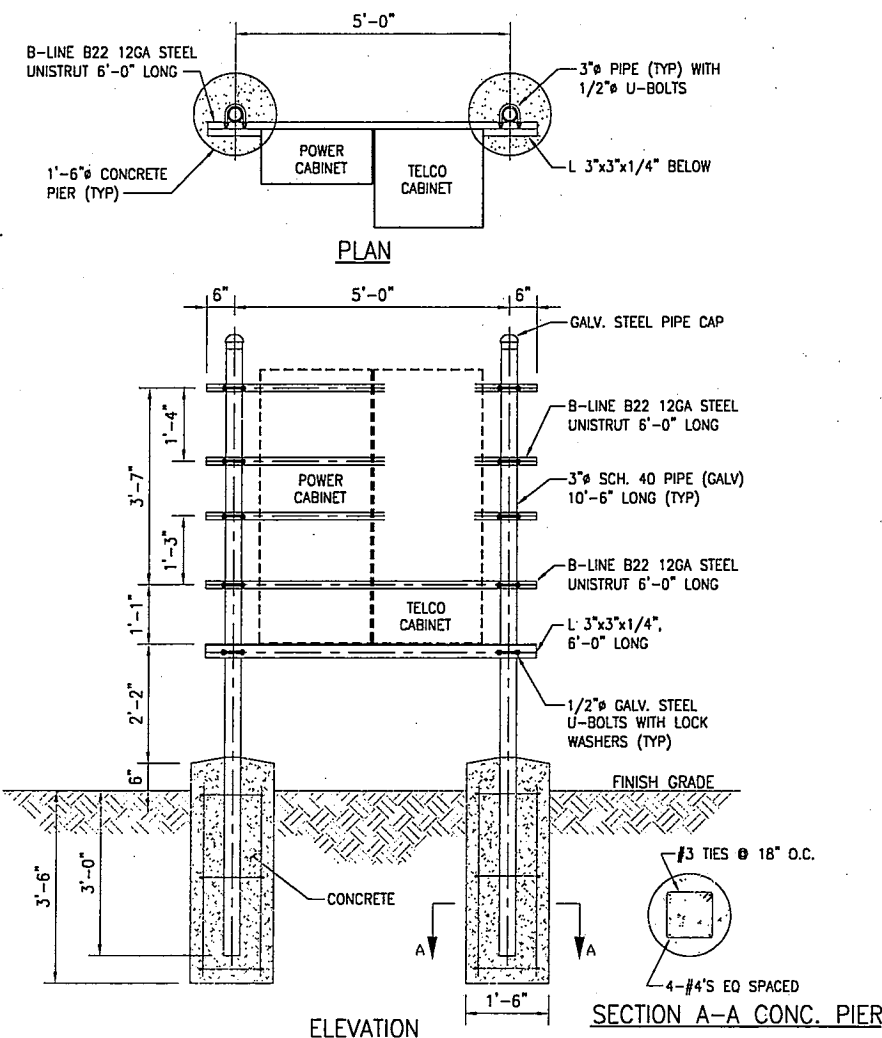
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INTERNATIONAL BOULEVARD
SUITE 800
MAHWAH, NJ 07495

HAMDEN
150 WILLOW STREET
HAMDEN, CT 06518

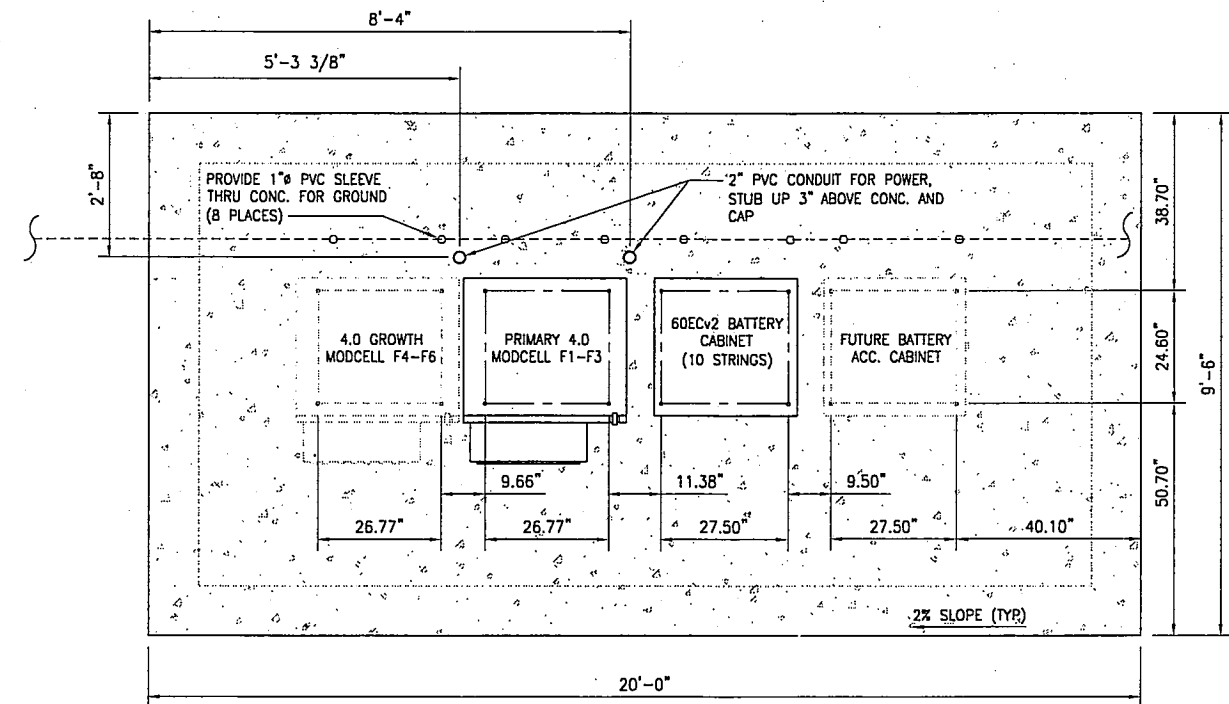
DETAILS		Z8
CT54XC773		
DATE: 7/14/06		REV 3

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.



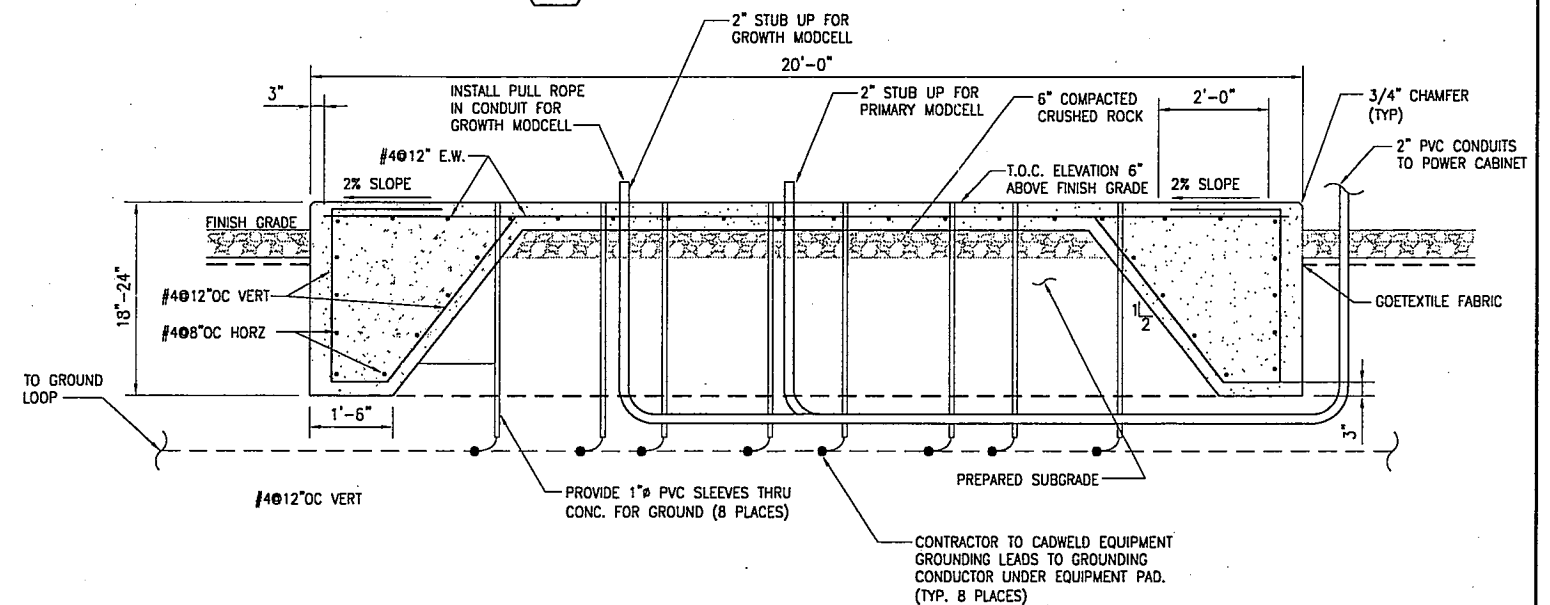
3 ISOMETRIC EQUIPMENT VIEW

NOT TO SCALE



2 EQUIPMENT CABINET LAYOUT AND ANCHORING

NOT TO SCALE



4 EQUIPMENT CABINET FOUNDATION

NOT TO SCALE

NO.	DATE	REVISIONS	BY	CHK	APP'D
3	10/23/06	REVISED PER CLIENT COMMENTS	EKM	SJB	CJW
2	7/14/06	REVISED PER CLIENT COMMENTS	EKM	SJB	CJW
1	10/12/05	REVISED PER CLIENT COMMENTS	AJD	SJB	CJW
0	06/30/05	ISSUED FOR REVIEW	TWS	SJB	CJW

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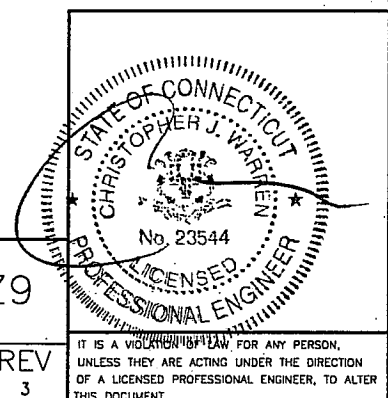
DETAILS

CT54XC773

DATE: 7/14/06

Z9

REV 3

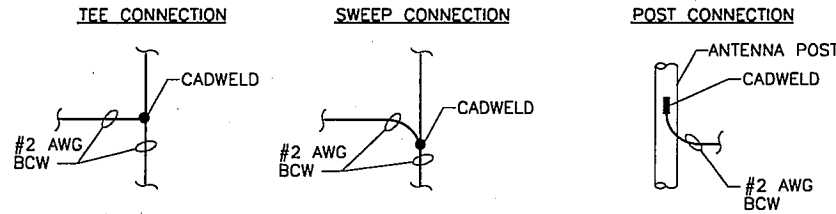


CELL SITE INSTALLATION NOTES:

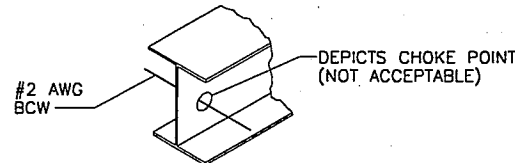
THE FOLLOWING INSTALLATION NOTES HAVE BEEN COMPILED FROM EXISTING PROJECT DOCUMENTS (I.E. PROJECT SPECIFICATIONS, SPRINT STANDARD PRACTICE, LUCENT DOCUMENTS, ETC.) FOR USE. THESE NOTES SHALL BE UTILIZED FOR THE CONSTRUCTION OF THE CELL SITES TO ENSURE COMPLIANCE WITH THE PROJECT DESIGN AND SPECIFICATION REQUIREMENTS.

A. GROUNDING:

1. ALL METAL CONDUIT FOR GROUNDING DOWN CONDUCTORS SHALL BE BONDED TO THE GROUND SYSTEM AT BOTH ENDS.
2. N/A
3. KOPR-SHIELD ANTI-OXIDATION COMPOUND SHALL BE USED ON ALL GROUNDING CONNECTIONS.
4. ALL UNDERGROUND GROUNDING CONNECTIONS SHALL BE MADE BY THE CADWELD PROCESS.
5. ALL CADWELDS SHALL BE INSTALLED USING THE PROPER CONNECTION/MOLD AND MATERIALS FOR THE PARTICULAR CONNECTION AND/OR APPLICATION.

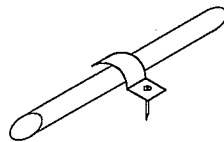


6. ALL BOLTED GROUNDING CONNECTIONS SHALL BE INSTALLED WITH A LOCK WASHER UNDER THE NUT. HARDWARE FOR BOLTED CONNECTIONS SHALL BE MINIMUM OF 3/8" DIAMETER AND SHALL BE STAINLESS STEEL.
7. GROUNDING WIRE SHALL NOT BE INSTALLED OR ROUTED THROUGH HOLES IN ANY METAL OBJECTS OR SUPPORTS TO PRECLUDE ESTABLISHING A "CHOKE" POINT.



8. FERROUS METAL CLIPS WHICH COMPLETELY SURROUND THE GROUNDING CONDUCTOR SHALL NOT BE USED, THE FOLLOWING CLIPS MAY BE USED TO FASTEN AND SUPPORT GROUNDING CONDUCTORS.

* METAL CLIPS WHICH DO NOT COMPLETELY SURROUND THE GROUND CONDUCTOR

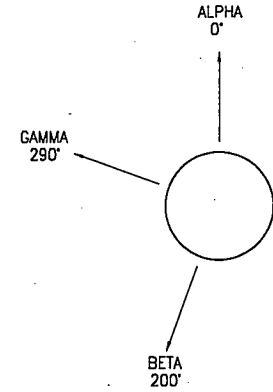


9. STANDARD BUSS BARS (CIGBES AND MIGBS) SHALL BE FURNISHED AND INSTALLED. THEY SHALL NOT BE FABRICATED OR MODIFIED IN THE FIELD.
10. THE GROUNDING CONNECTION TO THE POWER AND TELCO CABINETS OF THE PPC SHALL BE MADE BY CONNECTING THE CONDUCTOR FROM THE GROUND RING TO THE FACTORY FURNISHED BUSS BAR IN EACH COMPARTMENT.
11. ALL GROUNDING WIRES SHALL BE INSTALLED WITHOUT LOOPS (PIGTAILS) AND SHARP BEND RADIUS.

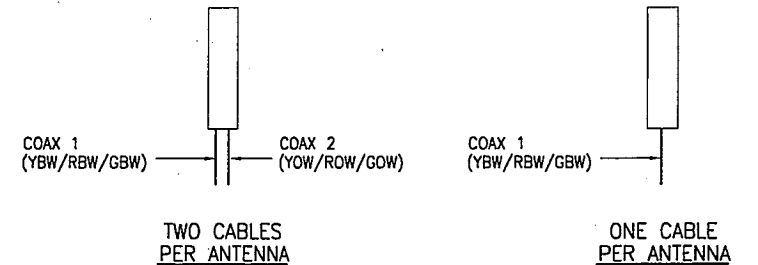
B. ANTENNA COAXIAL CABLES (WAVEGUIDE)

NOTE: THE RF TRANSMISSION LINE INSTALLED BETWEEN THE PRIMARY RADIO CABINET (PRC), FURNISHED BY LUCENT, AND THE ANTENNA CONSISTS OF A COAXIAL CABLE, SOMETIMES REFERRED TO AS A WAVEGUIDE.

1. ALL ANTENNA COAXIAL CABLES AND JUMPERS SHALL BE INSTALLED WITHOUT LOOPS AND/OR PIGTAILS.
2. ANTENNA COAXIAL CABLE GROUND KITS SHALL NO BE INSTALLED ON THE JUMPER BETWEEN THE ANTENNA AND MAIN LINE CABLE.
3. ANTENNA COAXIAL CABLE GROUND KITS SHALL BE INSTALLED AS CLOSE TO THE CONNECTOR AS POSSIBLE AT EACH ANTENNA. IF THIS IS NOT FEASIBLE THE GROUND KIT SHALL BE INSTALLED IMMEDIATELY AFTER THE BEND ON THE FIRST STRAIGHT RUN OF CABLE. THE GROUNDKIT SHALL BE INSTALLED ON STRAIGHT SECTION OF CABLE ONLY AND NOT ON BENDS
4. ANTENNA COAXIAL CABLE SHALL BE INSTALLED TO COMPLY WITH THE MANUFACTURER'S MINIMUM BEND RADIUS SPECIFIED BELOW. THE CONTRACTOR SHALL INSTALL RACEWAY FOR COAXIAL CABLE USING THE PROPER FITTINGS NECESSARY TO ENSURE THAT THE MINIMUM BEND RADIUS REQUIREMENTS ARE MET. (REFERENCE: TECHNICAL INFORMATION BULLETIN NO. 96-026)
5. THE GPS ANTENNA COAXIAL CABLE SHALL BE A CONTINUOUS CABLE RUN, FROM THE CONNECTOR AT THE ANTENNA HEAD TO THE CONNECTION AT THE BTS CABINETS, WITHOUT JUMPERS.
6. THE ANTENNA COAXIAL CABLE AT THE BTS SHALL BE INSTALLED IN THE ACCA. THE FINISHED ANTENNA CABLES (WITH CONNECTOR AND GROUND KIT INSTALLED) SHALL BE INSTALLED SO THAT THE END OF THE CONNECTOR PROTRUDES NO FARTHER THAN 12 INCHES INTO THE ACCA.
7. THE COAXIAL CABLE ENTRY HATCHPLATE ON THE REAR OF THE ACCA SHALL BE INSTALLED WITH THE SMALL 1/2" DIAMETER HOLE (FOR THE GPS ANTENNA AND GROUND WIRES) TO THE RIGHT (WHEN FACING THE ACCA FROM THE REAR OF THE PRC).
8. ALL ANTENNA COAXIAL CABLES SHALL BE MARKED AND TAGGED IN ACCORDANCE WITH THE REQUIREMENTS IN PROJECT SPECIFICATION G-002, SECTION 16000, PARAGRAPHS 36 AND 37. THE FIGURE TO THE RIGHT INDICATES AN EXAMPLE OF THE COLOR CODE MARKED ON THE COAXIAL CABLES.
9. SINCE THERE ARE A NUMBER OF DIFFERENT COAXIAL CABLE ENTRY HATCHPLATES THAT MAY BE SUPPLIED WITH THE ACCA, THE CONTRACTOR SHALL ORIENT THE COAXIAL CABLE ENTRANCE IN TO THE ACCA IN ACCORDANCE WITH THE DIRECTION ISSUED BY EACH MTA. THE FIGURE SHOWN BELOW INDICATES THE PROPER ORIENTATION FOR THE COAXIAL CABLE ENTRANCE INTO THE ACCA.



	ALPHA FACE	BETA FACE	GAMMA FACE
COAX 1	Y B W	R B W	G B W
COAX 2	Y O W	R O W	G O W
COAX 3	Y O O	R O O	G O O
COAX 4	Y B O	R B O	G B O



C. ELECTRICAL

1. THE ELECTRICAL RACEWAY INSTALLED FROM THE MINI-PPC TO THE PRIMARY RADIO CABINET, FURNISHED BY LUCENT, SHALL HAVE AN 1 1/4" MALE CONNECTOR/REDUCER FOR THE TIE TO THE ELECTRICAL FITTING ON THE CABINET. THIS MAY BE ACCOMPLISHED USING EITHER A 1 1/4" CONDUIT, 1 1/4" FLEXIBLE CONDUIT OR A 1 1/4" BUSHING.

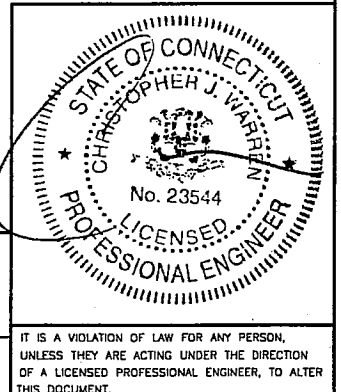
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CELL SITE INSTALLATION NOTES	Z10
CT54XC773	
DATE: 7/14/06	REV 3

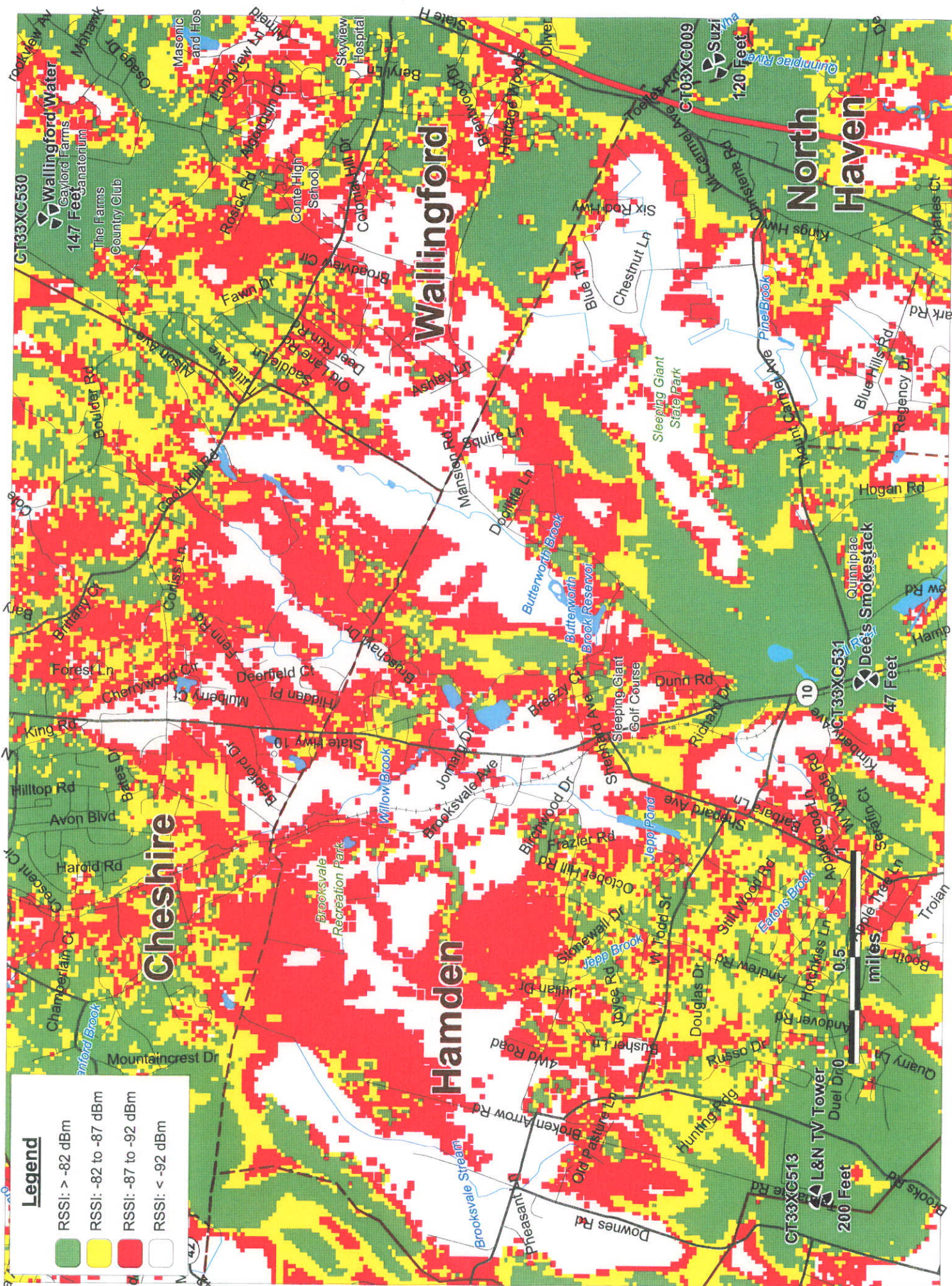


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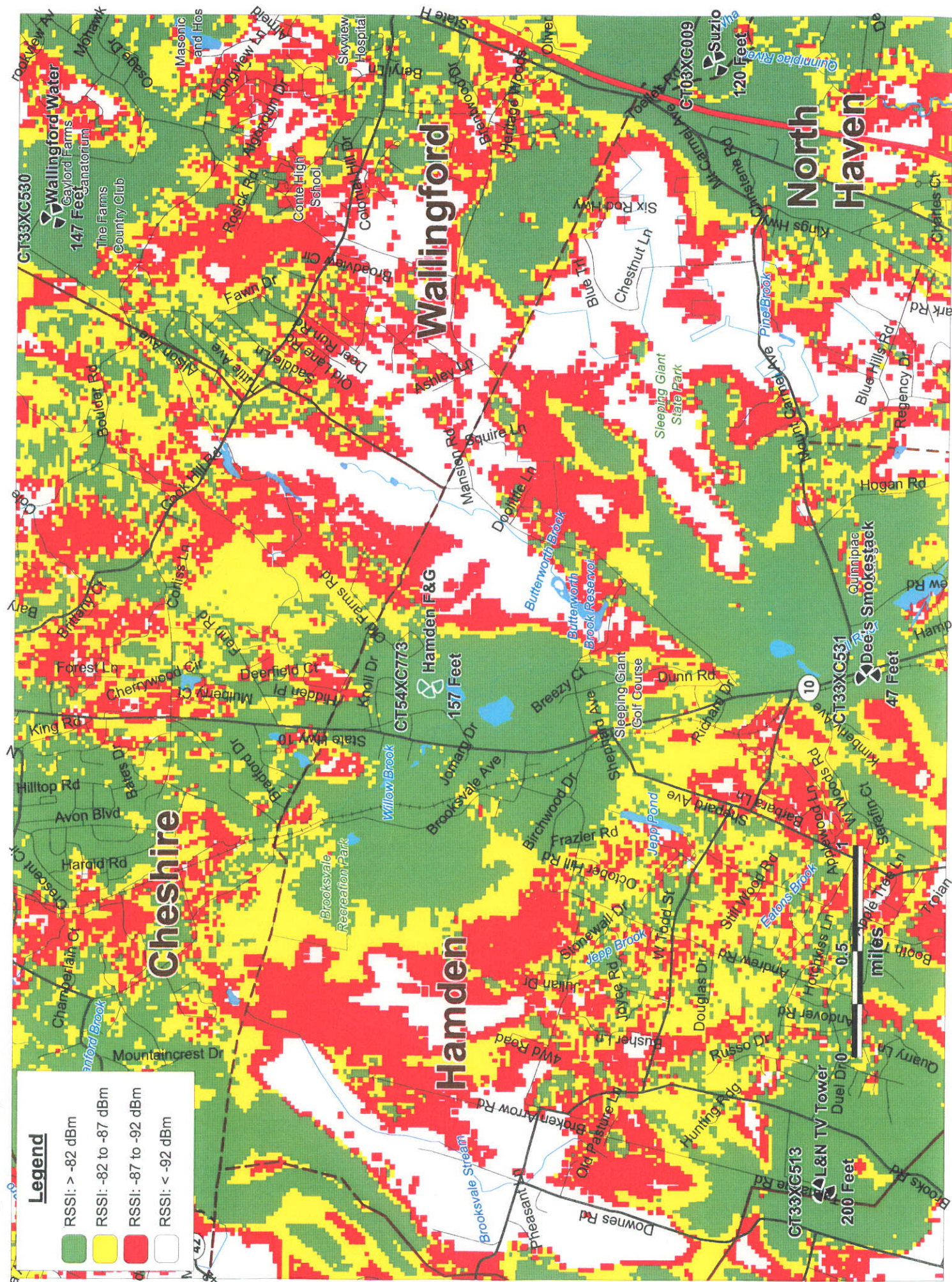
9.

ESTIMATED CONSTRUCTION COSTS

Site Work.....	\$30,500.00
Monopole.....	\$30,000.00
Electrical & Telephone.....	\$17,500.00
Foundation.....	\$31,800.00
Landscaping.....	\$ 3,000.00
Road.....	\$ 4,000.00
TOTAL.....	\$116,800.00

[illegible]

Coverage with Proposed Site



Site Information Used in Coverage Plots

Site	Sector	Latitude	Longitude	Antenna Height	Antenna Type	Antenna Azimuth
CT03XC007	A	41°30'37"	72°46'07"	52	DB980H90E-M	0
CT03XC007	B	41°30'37"	72°46'07"	52	DB980H90E-M	180
CT03XC008	A	41°26'37"	72°47'47"	130	ALL7184.05	60
CT03XC008	B	41°26'37"	72°47'47"	130	ALL7184.05	180
CT03XC008	C	41°26'37"	72°47'47"	130	ALL7184.05	300
CT03XC009	A	41°25'45"	72°50'55"	120	ALL7184.05	20
CT03XC009	B	41°25'45"	72°50'55"	120	DB980G90E-M	120
CT03XC009	C	41°25'45"	72°50'55"	120	ALL7184.05	240
CT03XC010	A	41°28'51"	72°46'05"	47	ALL7184.05	0
CT03XC010	B	41°28'51"	72°46'05"	47	DB980H65E-M	185
CT03XC010	C	41°28'51"	72°46'05"	47	ALL7184.05	270
CT03XC015	A	41°33'54"	72°53'34"	147	DB980H90E-M	350
CT03XC015	B	41°33'54"	72°53'34"	147	DB980H90E-M	135
CT03XC015	C	41°33'54"	72°53'34"	147	DB980H90E-M	250
CT03XC025	A	41°31'04"	73°01'06"	210	fr65-17-04dp	30
CT03XC025	B	41°31'04"	73°01'06"	210	ALL7184.05	150
CT03XC025	C	41°31'04"	73°01'06"	210	fr65-17-04dp	280
CT03XC026	A	41°30'33"	72°48'39"	100	ALL7184.05	30
CT03XC026	B	41°30'33"	72°48'39"	100	ALL7184.05	150
CT03XC026	C	41°30'33"	72°48'39"	100	ALL7182.07	270
CT03XC027	A	41°32'16"	72°59'06"	130	DB980H65T2E-M	0
CT03XC027	B	41°32'16"	72°59'06"	130	DB950F85T2E-M	90
CT03XC027	C	41°32'16"	72°59'06"	130	fr65-17-04dp	180
CT03XC035	A	41°28'52"	73°03'14"	150	DB980H90E-M	40
CT03XC035	B	41°28'52"	73°03'14"	150	DB980H90E-M	170
CT03XC035	C	41°28'52"	73°03'14"	150	DB980H90E-M	300
CT03XC039	A	41°23'47"	72°51'30"	104	ALL7184.05	350
CT03XC039	B	41°23'47"	72°51'30"	104	ALL7184.05	110
CT03XC039	C	41°23'47"	72°51'30"	104	ALL7184.05	230
CT03XC043	A	41°24'17"	73°00'00"	240	DB980H90E-M	0
CT03XC043	B	41°24'17"	73°00'00"	240	DB980H90E-M	120
CT03XC043	C	41°24'17"	73°00'00"	240	DB980H90E-M	240
CT03XC044	A	41°29'15"	72°55'45"	225	DB980H90E-M	30
CT03XC044	B	41°29'15"	72°55'45"	225	DB980H90E-M	130
CT03XC044	C	41°29'15"	72°55'45"	225	DB980H65E-M	210
CT03XC046	A	41°22'34"	72°55'12"	53	DB950G65E-M	290
CT03XC046	B	41°22'34"	72°55'12"	53	DB950G65E-M	60
CT03XC046	C	41°22'34"	72°55'12"	53	DB950G65E-M	160
CT33XC512	A	41°30'29"	72°57'05"	150	DB980H90E-M	310
CT33XC512	B	41°30'29"	72°57'05"	150	DB980H90E-M	70
CT33XC512	C	41°30'29"	72°57'05"	150	DB980H90E-M	190
CT33XC513	A	41°25'23"	72°57'04"	200	DB980H90E-M	320
CT33XC513	B	41°25'23"	72°57'04"	200	DB980H90E-M	70
CT33XC513	C	41°25'23"	72°57'04"	200	DB980F65T4E-M	200
CT33XC514	A	41°28'12"	72°58'21"	190	DB980F65T2E-M	10
CT33XC514	B	41°28'12"	72°58'21"	190	DB980H90E-M	130
CT33XC514	C	41°28'12"	72°58'21"	190	DB980H90E-M	250

Site Information Used in Coverage Plots (Continued)

Site	Sector	Latitude	Longitude	Antenna Height	Antenna Type	Antenna Azimuth
CT33XC515	A	41°26'34"	72°59'33"	130	DB980F90E-M	30
CT33XC515	B	41°26'34"	72°59'33"	130	DB980F90E-M	150
CT33XC515	C	41°26'34"	72°59'33"	130	DB980F90E-M	270
CT33XC524	A	41°27'21"	73°02'24"	150	DB980H65E-M	0
CT33XC524	B	41°27'21"	73°02'24"	150	DB980H90E-M	120
CT33XC524	C	41°27'21"	73°02'24"	150	DB980H90E-M	240
CT33XC530	A	41°28'29"	72°51'40"	147	DB980F90T2E-M	0
CT33XC530	B	41°28'29"	72°51'40"	147	DB980F90T2E-M	120
CT33XC530	C	41°28'29"	72°51'40"	147	DB980H90E-M	240
CT33XC531	A	41°25'10"	72°54'17"	47	DB980H65E-M	0
CT33XC531	B	41°25'10"	72°54'17"	47	DB980H65E-M	90
CT33XC531	C	41°25'10"	72°54'17"	47	DB980H65E-M	180
CT33XR598	A	41°27'18"	72°46'48"	33	DB974H90E-M	320
CT43XC809	A	41°30'40"	72°53'54"	158	DB950F65T6E-M	0
CT43XC809	B	41°30'40"	72°53'54"	158	DB950F65T4E-M	120
CT43XC809	C	41°30'40"	72°53'54"	158	DB950F65T2E-M	240
CT43XC815	A	41°21'33"	72°55'34"	62	DB932DG65VT4E-M	35
CT43XC815	B	41°21'33"	72°55'34"	62	DB932DG65VT2E-M	120
CT43XC815	C	41°21'33"	72°55'34"	62	DB932DG65VT4E-M	210
CT43XC821	A	41°24'13"	72°53'52"	46	DB980F65E-M	330
CT43XC821	B	41°24'13"	72°53'52"	46	DB980F65E-M	120
CT43XC821	C	41°24'13"	72°53'52"	46	DB980F65E-M	190
CT43XC839	A	41°28'49"	72°49'06"	118	DB980H65E-M	330
CT43XC839	B	41°28'49"	72°49'06"	118	DB980H65E-M	90
CT43XC839	C	41°28'49"	72°49'06"	118	DB980H65E-M	210
CT43XC844	A	41°32'11"	72°57'26"	148	DB980F65T4E-M	50
CT43XC844	B	41°32'11"	72°57'26"	148	DB980F65E-M	170
CT43XC844	C	41°32'11"	72°57'26"	148	DB980F65E-M	290
CT60XC007	A	41°27'17"	72°49'05"	74	RR65-18-00DPL2	30
CT60XC007	B	41°27'17"	72°49'05"	74	RR65-18-00DPL2	150
CT60XC007	C	41°27'17"	72°49'05"	74	RR65-18-00DPL2	260
CT60XC955	A	41°30'27"	73°02'37"	55	DB932DG65T2E-M	320
CT60XC955	B	41°30'27"	73°02'37"	55	DB932DG65T2E-M	150
CT60XC955	C	41°30'27"	73°02'37"	55	DB932DG65T2E-M	235
CT60XC991	A	41°22'42"	72°52'40"	100	DB950F85E-M	30
CT60XC991	B	41°22'42"	72°52'40"	100	DB950F85T4E-M	150
CT60XC991	C	41°22'42"	72°52'40"	100	DB950F85E-M	290
CT54XC773	A	41°26'58"	72°54'17"	157	DB950F65E-M	0
CT54XC773	B	41°26'58"	72°54'17"	157	DB950F65T2E-M	200
CT54XC773	C	41°26'58"	72°54'17"	157	DB950F65E-M	290

Proposed Wireless Telecommunications Facility

Hamden Fish and Game
Association
150 Willow Street
Town of Hamden, Connecticut

Prepared for

Sprint

One International Boulevard
Suite 800
Mahwah, NJ 07495

Prepared by

VHB/Vanasse Hangen Brustlin, Inc.
54 Tuttle Place
Middletown, CT 06457

July 2006

Visual Resource Evaluation

Sprint PCS seeks approval from the Connecticut Siting Council for a Certificate of Environmental Compatibility and Public Need associated with the construction of a wireless telecommunications facility (Facility) to be located within the Town of Hamden, Connecticut. This "Visual Resource Evaluation" was conducted to approximate the visibility of the proposed monopole within a two-mile radius of the proposed Facility (Study Area).

Project Introduction

The proposed Facility includes the construction of a 157-foot tall monopole and associated ground equipment to be located within a fenced enclosure at the base of the tower. The monopole will be designed to accommodate up to five antenna platforms. The antennas occupying the top level on the monopole would extend to a maximum height of 160 feet. Based on information provided by the Site engineers, Infinigy Engineering, the proposed project area is located at approximately 126 feet Above Mean Sea Level (AMSL). Access to the Facility would be provided via a proposed gravel driveway which will extend in a southwesterly direction from an existing paved drive.

Site Description and Setting

The proposed Facility would be located on an undeveloped portion of an approximate 87-acre parcel of land currently occupied by the Hamden Fish and Game Association located at 150 Willow Street ("host property") in the Town of Hamden, Connecticut (see Photolog Documentation map contained in Attachment A). Land use within the general vicinity of the host property is comprised of medium-density residential development, undeveloped forested lands and overhead electrical utility infrastructure and associated rights-of-way. Portions of Sleeping Giant State Park, Naugatuck State Forest, Brooksville Recreation Park, Farmington Canal State Park Trail and Quinnipiac Trail are contained within the Study Area. The Route 10 transportation corridor, a north-south arterial roadway, traverses the central portion of the Study Area. In total, the Study Area contains roughly 60 linear miles of paved roadways. The Study Area also features approximately 53 acres of open water.

The topography in the Study Area is generally characterized by rolling hills that range in elevation from approximately 150 feet AMSL to just over 700 feet AMSL at the base of the Sleeping Giant State Park lookout tower. The tree cover within the Study Area consists mainly of mixed deciduous hardwood species interspersed with stands of various types of evergreens. The tree canopy occupies approximately 5,926 acres of the 8,042-acre study area (74%). During the in-field activities associated with this analysis, an infrared laser range finder was used to accurately determine the average tree canopy height throughout the Study Area. Numerous trees were selected for measurement and the average tree canopy established, in this case 65 feet.

METHODOLOGY

In order to represent the visibility associated with the Facility, VHB uses a two-fold approach incorporating both a predictive computer model and in-field analysis. The predictive model is employed to assess potential visibility throughout the entire Study Area, including private property and/or otherwise inaccessible areas for field verification. A "balloon float" and Study Area drive-through reconnaissance are also conducted to obtain locational and height representations, back check the initial computer model results and provide documentation from publicly accessible areas. Results of both activities are analyzed and incorporated into the final viewshed map. A description of the methodologies used in the analysis is provided below.

Visibility Analysis

Using ESRI's ArcView® Spatial Analyst, a computer modeling tool, the areas from where the proposed Facility is expected to be visible are calculated. This is based on information entered into the computer model, including Facility height, its ground elevation, the surrounding topography, existing vegetation and any significant structures/objects that may act to obstruct potential views. Data incorporated in the model includes 7.5 minute digital elevation models (DEMs) and a digital forest layer for the project area. The DEMs were produced by the United States Geological Survey (USGS) in 1982 at a 30 meter resolution. The forest layer was derived through on-screen digitizing in ArcView® GIS from 2004 digital orthophotos with a 0.5 meter pixel resolution.

Once the data are entered, a series of constraints are applied to the computer model to achieve an estimate of where the Facility will be visible. Initially, only topography was used as a visual constraint; the tree canopy is omitted to evaluate all areas of potential visibility without any vegetative screening. Although this is an overly conservative prediction, the initial omission of these layers assists in the evaluation of potential seasonal visibility of the proposed Facility. A conservative tree canopy height of 50 feet is then used to prepare a preliminary viewshed map for use during the Study Area reconnaissance. The average height of the tree canopy is determined in the field using a hand-held infra-red laser range finder. The average tree canopy height is incorporated into the final viewshed map; in this case, 65 feet was identified as the average tree canopy height. The forested areas within the Study Area were then overlaid on the DEM with a height of 65 feet added and the visibility calculated. The forested areas are then extracted from the areas of visibility, with the assumption that a person standing among the trees will not be able to view the Facility beyond a distance of approximately 500 feet. Depending on the density of the vegetation in these areas, it is assumed that some locations within this range will provide visibility of at least portions of the Facility based on where one is standing. Lastly, this analysis was conducted in 32-foot increments from 160 feet (the top of the uppermost antenna) down to 32 feet and the results consolidated into a single thematic layer in order to determine the approximate amount of the tower structure that would be visible from any given location.

Also included on the map is a data layer, obtained from the Connecticut State Department of Environmental Protection (CTDEP), which depicts various land and water resources such as state parks and forests, recreational facilities, dedicated open space and CTDEP boat launches among other categories. This layer is useful in identifying potential visual impacts to any sensitive receptors that may be located within the Study Area. In addition, based on a review of the *Connecticut Walk Book* it was determined that segments of the Quinnipiac Trail (part of the Connecticut Blue Blaze trail system) traverses portions of the Study Area.

A preliminary viewshed map (using topography and a conservative tree canopy height of 50 feet) is generated for use during the in-field activity in order to confirm that no significant land use changes have occurred since the 2004 aerial photographs used in this analysis were produced and to verify the results of the model in comparison to the balloon float. Information obtained during the reconnaissance is then incorporated into the final visibility map.

Balloon Float and Study Area Reconnaissance

On July 24, 2006 Vanasse Hangen Brustlin Inc., (VHB) conducted a "balloon float" at the proposed Facility in order to evaluate the potential viewshed within the Study Area. The balloon float consisted of raising and maintaining an approximate four-foot diameter, helium-filled weather balloon at the proposed site location at a height of 160 feet. Once the balloon was secured at a height of 160 feet, VHB personnel drove the public road system in the Study Area to inventory those areas where the balloon was visible. During the balloon float, weather conditions were sunny. The temperature was approximately 85 degrees Fahrenheit with mostly calm winds.

Photographic Documentation

Once the balloon was secured at a height of 160 feet, VHB staff conducted a drive-by reconnaissance along the roads located within the Study Area with an emphasis on nearby residential areas and other potential sensitive receptors in order to evaluate the results of the preliminary viewshed map and to verify where the balloon was, and was not, visible above and/or through the tree canopy. The balloon was photographed from a number of different vantage points to document the actual view towards the proposed Facility. The locations and orientations of the photos are described below:

1. View from Route 10 (Whitney Avenue) north of Brooksvale Avenue, looking northeast.
2. View from Knoll Drive adjacent to house #162, looking south.
3. View from Brooksvale Avenue at existing utility right-of-way, looking northeast.
4. View from Route 10 (Whitney Avenue) at existing utility right-of-way, looking northeast.

5. View from Willow Street at existing utility right-of-way, looking northeast.

Photographs of the balloon from the view points listed above were taken with a Nikon Digital Camera COOLPIX 5700, which has a lens focal length equivalent to a 35 mm camera with a 38 to 115 mm zoom. The optical zoom lens for the Nikon COOLPIX was set at a range of 50 mm to 70 mm for the purposes of this Visual Resource Evaluation. "The lens that most closely approximates the view of the unaided human eye is known as the normal focal-length lens. For the 35 mm camera format, which gives a 24x36 mm image, the normal focal length is about 50 mm."¹

The locations of the photographic points are recorded in the field using a hand held GPS receiver and are subsequently plotted on the maps contained in the attachments to this document.

Photographic Simulation

Photographic Simulations were generated for the five representative locations identified above. The Photographic Simulations represent a scaled depiction of the proposed monopole from these locations. The height of the Facility is determined based on the location of the balloon in the photographs and a proportional monopole image is simulated into the photographs. The simulations are contained in Attachment A.

CONCLUSIONS

Based on this analysis, areas from where the proposed Facility would be visible above the tree canopy comprise approximately 59 acres (representing less than one percent of the 8,042-acre Study Area). As shown on the attached viewshed map (provided in Attachment B), a significant amount of the total visibility associated with the proposed structure falls on the host property and the existing utility right-of-way that traverses the Study Area. Other areas of visibility include a roadside commercial development along Route 10 located within the general vicinity of Photo #1; an adjacent open field located to the southwest of the proposed Facility (also featured in Photo #1); and along select portions of Knoll Drive located approximately 1,000 feet to the northeast. In total, VHB estimates that approximately 6 residences within one mile of the Facility could have year round views of the proposed monopole. These include four residences along Knoll Drive and two residences along Route 10. In addition, the viewshed map depicts several small areas of potential visibility located over one mile to the northwest and approximately 900 feet northeast of the proposed Facility. These areas occur on private properties and as such could not be field verified during the balloon float. VHB anticipates that these areas of potential visibility would be limited to tree line views and/or views of the upper 25 percent of the proposed Facility. The topographic relief and abundance of wooded land found within the Study Area are key factors that serve to minimize potential views from residential properties.

¹ Warren, Bruce. *Photography*, West Publishing Company, Eagan, MN, c. 1993, (page 70).

Moreover, VHB does not anticipate views of the proposed Facility from any portion of the Quinnipiac Trail. Also, as noted previously in this document, Sleeping Giant State Park is contained within the Study Area. VHB staff hiked portions of the Sleeping Giant State Park trail system during the balloon float in order to identify any potential views of the proposed monopole from this facility. The lookout tower within the park was accessed during this reconnaissance – no views were identified from the lookout tower or any of the adjoining trails. A copy of the Sleeping Giant State Park trail system is contained in Attachment C.

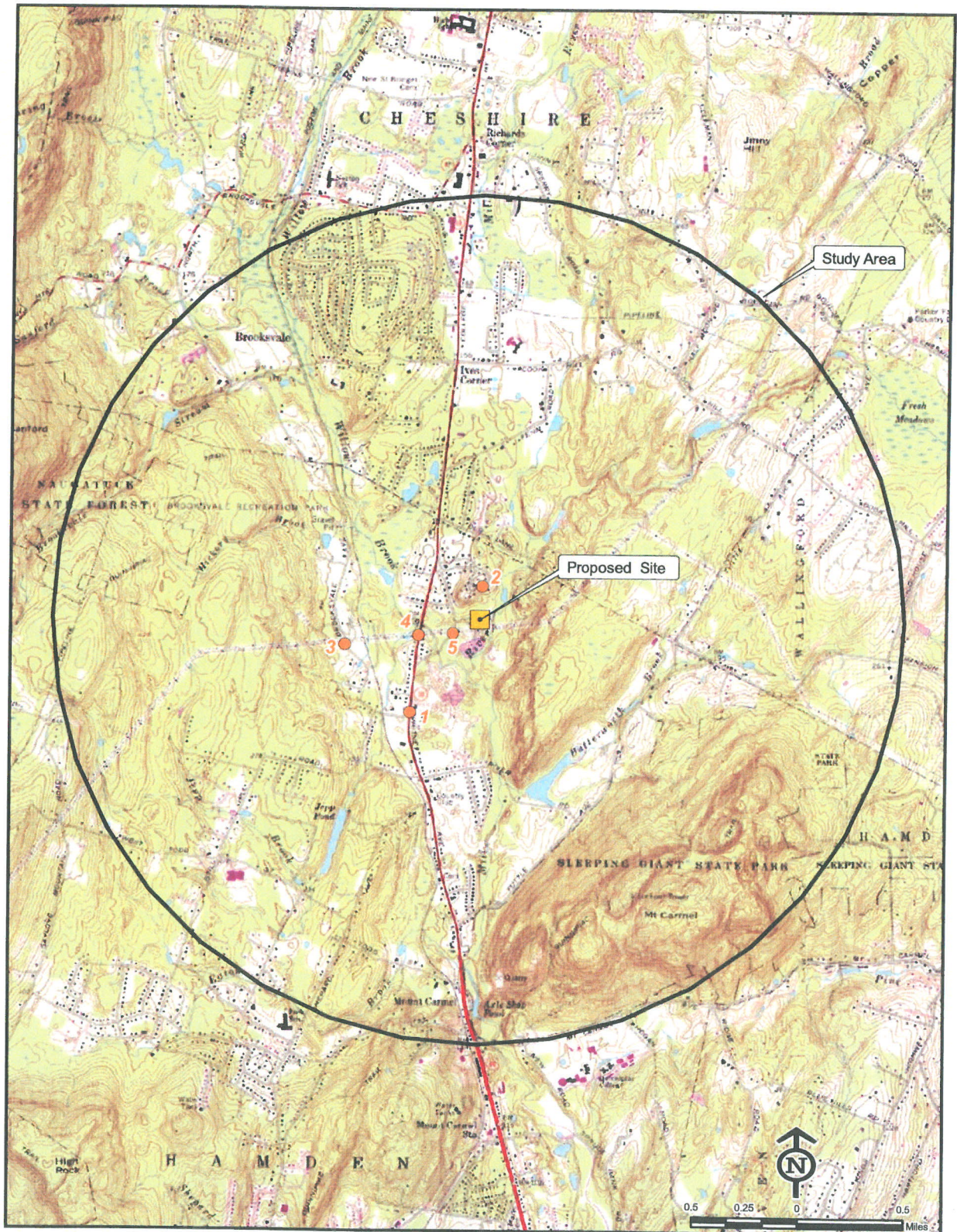
The map depicts additional areas where seasonal (i.e. during “leaf off” conditions) views are anticipated. These areas comprise approximately 97 acres and are mostly limited to portions of the host property and its immediate vicinity. VHB anticipates that approximately eight nearby residences may have seasonal views of the proposed Facility. These include five properties along Knoll Drive and three properties along Willow Street.

Attachment A

Photolog Documentation Map, Balloon Float Photographs and Photographic Simulations

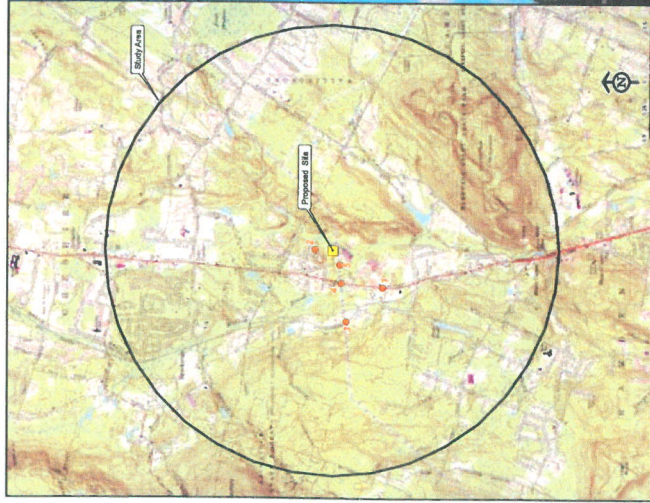
Photolog Documentation

Town of
Hamden
Connecticut



ct:\mdata\proj\409381\Sites\CT33XC773_Hamden\graphics\visuals\CT33XC773_photodoc.indd

Photographic Documentation and Simulation View 1



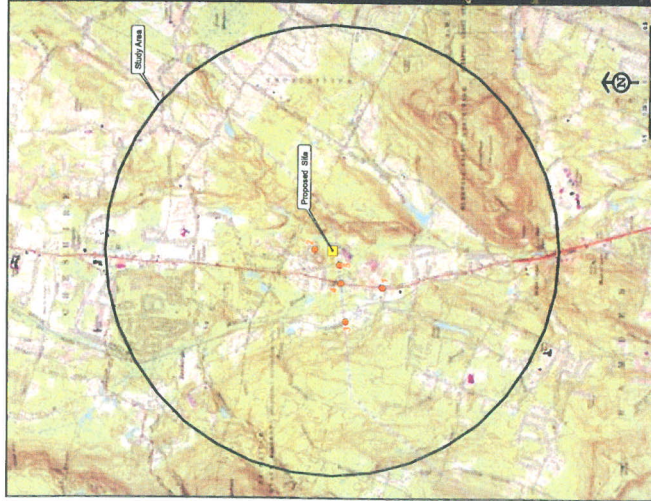
150 Willow Street
Hamden, CT
CT33XC773

Monopole with 5
carriers



PHOTO TAKEN FROM ROUTE 10 (WHITNEY AVENUE) NORTH OF BROOKSVALE AVENUE, LOOKING NORTHEAST
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 0.57 MILE +/-

Photographic Documentation and Simulation View 2



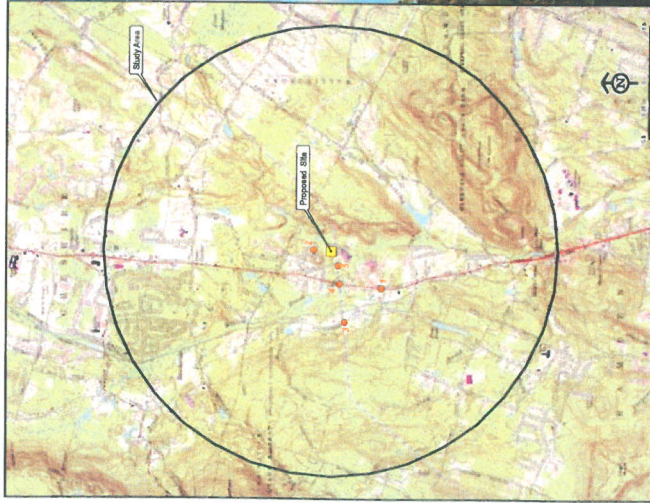
150 Willow Street
Hamden, CT
CT33XC773

Monopole with 5
carriers



PHOTO TAKEN FROM KNOLL DRIVE ADJACENT TO HOUSE #162, LOOKING SOUTH
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 0.34 MILE +/-

Photographic Documentation and Simulation View 3



150 Willow Street
Hamden, CT
CT33XC773

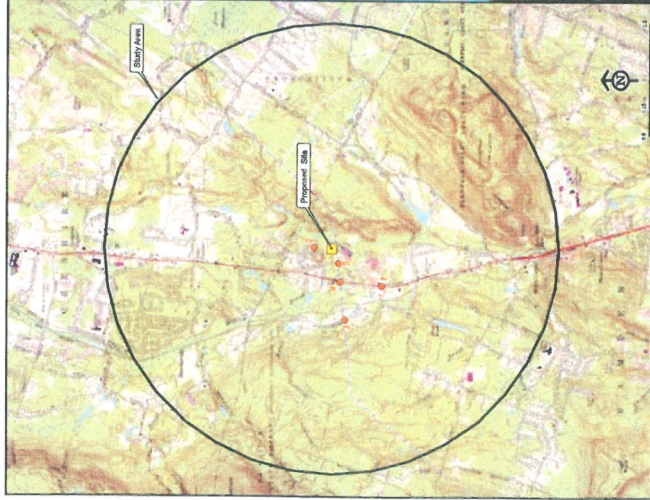
Monopole with 5
carriers



Existing Photo

PHOTO TAKEN FROM BROOKSVALE AVENUE AT EXISTING UTILITY RIGHT-OF-WAY, LOOKING NORTHEAST
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 0.63 MILE +/-

Photographic Documentation and Simulation View 4



150 Willow Street
Hamden, CT
CT33XC773

Monopole with 5
carriers

Existing Photo



PHOTO TAKEN FROM ROUTE 10 (WHITNEY AVENUE) AT EXISTING UTILITY RIGHT-OF-WAY, LOOKING NORTHEAST
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 0.28 MILE +/-

Photographic Documentation and Simulation View 5



150 Willow Street
Hamden, CT
CT33XC773

Monopole with 5
carriers



PHOTO TAKEN FROM WILLOW STREET AT EXISTING UTILITY RIGHT-OF-WAY, LOOKING NORTHEAST
DISTANCE FROM THE PHOTOGRAPH LOCATION TO THE PROPOSED SITE IS 0.13 MILE +/-

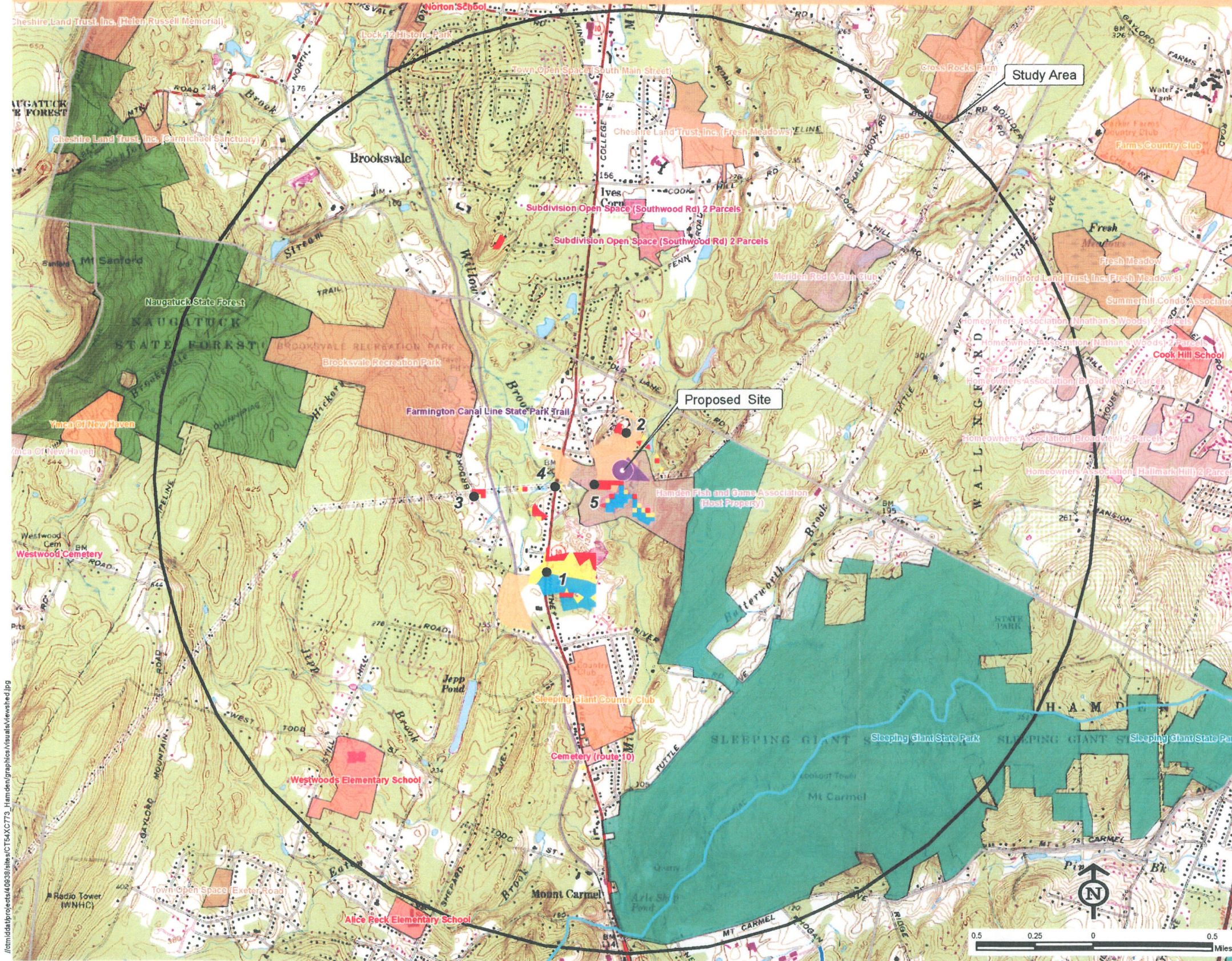
Attachment B

Viewshed Map

Viewshed Map

Topography and Forest Cover as Constraints

Town of
Hamden
Connecticut



Proposed Telecommunications Facility 150 Willow Street Hamden, Connecticut

NOTE:

- Viewshed analysis conducted using ESRI's Spatial Analyst.
- Proposed Facility height is 160 feet AGL to top of antennas.
- Existing tree canopy height estimated at 65 feet.

DATA SOURCES:

- 7.5 minute digital elevation model (DEM) with 30 meter resolution produced by the USGS, 1982
- Forest areas derived from 2004 digital orthophotos with 0.5 meter pixel resolution; digitized by VHB, 2005
- Base map comprised of Mt. Carmel and Wallingford USGS Quadrangle Maps
- Coordinates of proposed Facility: Lat. 41 26 57.81 Long. 72 54 4.5
- Protected properties data layer provided CTDEP, 2003
- Scenic Roads layer derived from available State and Local listings.

Map Compiled July, 2006

Legend

- Proposed Site Location (Includes areas of limited visibility approximately 500 feet around Facility)
- Photographs - July 24, 2006
- Balloon visible above trees
- Seasonal Visibility (Approximately 97 acres)
- Approx. % of Tower Visible (Year-Round)
 - Tree Line View - 14 Acres
 - Upper 25% - 18 Acres
 - 50% - 31 Acres
 - 75% - 3 Acres
 - Entire Facility Visible - 3 Acres
- Year-round Visibility is Approximately 59 acres
- Protected Properties (Municipal)
 - Cemetery
 - Preservation
 - Conservation
 - Existing Preserved Open Space
 - Recreation
 - General Recreation
 - School
 - Uncategorized
- Protected Properties (CT DEP)
 - State Forest
 - State Park
 - DEP Owned Waterbody
 - State Park Scenic Reserve
 - Historic Preserve
 - Natural Area Preserve
 - Fish Hatchery
 - Flood Control
 - Other
 - State Park Trail
 - Water Access
 - Wildlife Area
 - Wildlife Sanctuary
- DEP Boat Launches
- Scenic Road (State and Local)
- Quinnipiac Trail (CT Blue Blaze)
- Town Line
- Protected Properties (Federal)

Attachment C

Sleeping Giant Trail System Map

Sleeping Giant Trail System

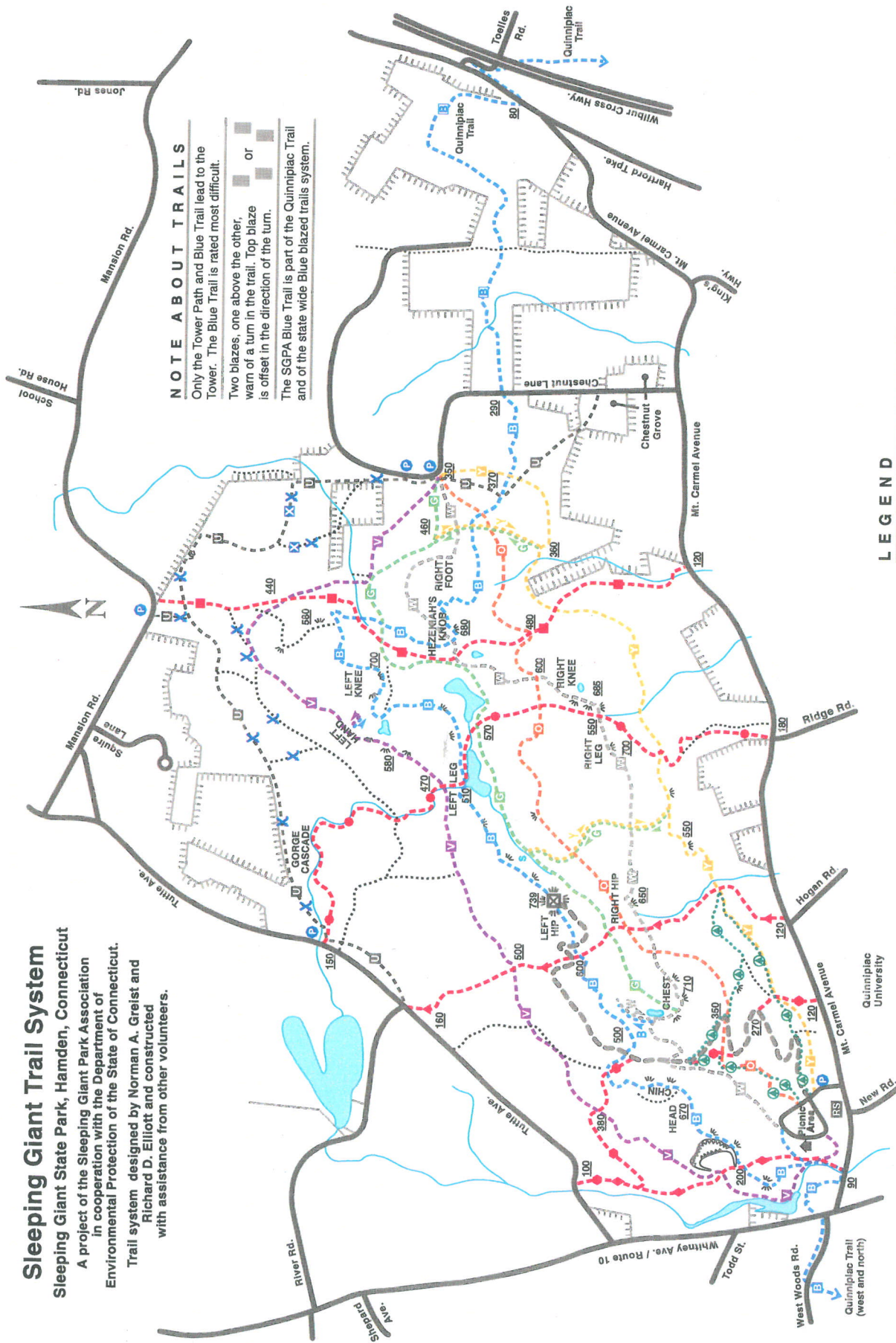
A project of the Sleeping Giant Park Association
in cooperation with the Department of
Environmental Protection of the State of Connecticut.
Trail system designed by Norman A. Greist and
Richard D. Elliott and constructed
with assistance from other volunteers.

NOTE ABOUT TRAILS

Only the Tower Path and Blue Trail lead to the Tower. The Blue Trail is rated most difficult.

Two blazes, one above the other, warn of a turn in the trail. Top blaze is offset in the direction of the turn.

The SGPA Blue Trail is part of the Quinipiac Trail and of the state wide Blue blazed trails system.



LEGEND

- hikeback trails: U
- east - west trails: Y O W G B V
- (yellow-orange-white-green-blue-violet)
- north - south trails: R D T C S Q
- crossover trails: X
- nature trail: N
- unmarked trail (but cleared):
- paved road: ———
- tower path: ———
- ski trail: X
- elevation at trail intersections or views: 580
- ranger station: RS
- stone tower: X
- picnic shelter: P
- parking: P
- water course: ~~~~
- swamp or pond: ~~~~
- park boundary: ———
- view: V
- quarry: Q
- private park: P

east - west trails (rating & length)	north - south trails (red markers)	additional trails	trail ratings
yellow C 2.2	diamond C 0.7	tower path D 1.6	A - hard, steep climbs, for experienced hikers.
orange B 2.4	hexagon B 1.1	nature trail C 1.5	B - steady ascent to crest from all trailheads
white A 2.8	triangle B 1.1	NOTE: except for the tower path, all trails are rocky and rough. Hiking shoes advised.	C - mostly level, some rises
green B 2.0	circle B 1.9		D - gentle climb on wide clear path
blue A 5.1	square B 1.6		
violet C 3.2			

CT54XC773 Hamden CT

Worst Case Power Density Analysis of Sprint PCS Antennas @ Base of Building. Assumes Max ERP & No Antenna Pattern Adjustment

Operating Frequency (MHz)	Number of Trans.	Effective Radiated Power (ERP) Per Transmitter (Watts)	Total ERP (Watts)	Antenna Height (Feet)	Distance From Base of Tower (Feet)	Calculated Power Density (mW/cm ²)	Maximum Permissible Exposure*	%MPE
1962.5	11	299.95	3299.45	157	0	0.0482	1	4.82%
1962.5	11	299.95	3299.45	157	50	0.0438	1	4.38%
1962.5	11	299.95	3299.45	157	100	0.0343	1	3.43%
1962.5	11	299.95	3299.45	157	150	0.0252	1	2.52%
1962.5	11	299.95	3299.45	157	200	0.0184	1	1.84%
1962.5	11	299.95	3299.45	157	250	0.0136	1	1.36%
1962.5	11	299.95	3299.45	157	300	0.0104	1	1.04%
1962.5	11	299.95	3299.45	157	350	0.0081	1	0.81%
1962.5	11	299.95	3299.45	157	400	0.0064	1	0.64%
1962.5	11	299.95	3299.45	157	450	0.0052	1	0.52%
1962.5	11	299.95	3299.45	157	500	0.0043	1	0.43%
1962.5	11	299.95	3299.45	157	550	0.0036	1	0.36%
1962.5	11	299.95	3299.45	157	600	0.0031	1	0.31%
1962.5	11	299.95	3299.45	157	650	0.0027	1	0.27%
1962.5	11	299.95	3299.45	157	700	0.0023	1	0.23%
1962.5	11	299.95	3299.45	157	750	0.0020	1	0.20%
1962.5	11	299.95	3299.45	157	800	0.0018	1	0.18%
1962.5	11	299.95	3299.45	157	850	0.0016	1	0.16%
1962.5	11	299.95	3299.45	157	900	0.0014	1	0.14%
1962.5	11	299.95	3299.45	157	950	0.0013	1	0.13%
1962.5	11	299.95	3299.45	157	1000	0.0012	1	0.12%

*Requirements set forth in OET Bulletin 65. Based on NCRP Report No. 86 and ANSI/IEEE C95.1-1992

**Transportation
Land Development
Environmental
Services**



imagination | innovation | energy Creating results for our clients and benefits for our communities

Vanasse Hangen Brustlin, Inc.

Revised
June 30, 2006

Ref: 40938.00

Mr. Kevin Savage
Infinigy Engineering, PLLC
99 Pine Street
Albany, NY 12207

Re: NEPA Compliance Documentation Update
Hamden Fish & Game Protective Association, Inc.
150 Willow Street
Hamden, Connecticut
Sprint PCS Site #CT54XC773

Dear Mr. Savage,

Vanasse Hangen Brustlin, Inc. (VHB) has been retained by Infinigy Engineering, PLLC (Infinigy), on behalf of Sprint Spectrum, L.P. ("Sprint PCS"), to review environmental resource information outlined in 47 CFR Ch.1 § 1.1307 sections (a) and (b) for environmental consequences pursuant to the Federal Communications Commission ("FCC or Commission") requirements. Sprint PCS is proposing to construct a new wireless telecommunications facility on portions of property owned by Hamden Fish & Game Protective Association, Inc. located at 150 Willow Street in Hamden, Connecticut (Sprint PCS #CT54XC773). Sprint PCS plans to install a ±170-foot tall monopole and attach antennae at ±165-feet above ground level onto the monopole. Associated Sprint PCS concrete pad-mounted equipment will be installed at the base of the monopole. The entire facility will be developed within a 100-foot by 100-foot chain-link fence-enclosed Sprint PCS lease compound area. Access to the facility will be provided via a proposed ±12-foot wide gravel drive that will extend in a southeasterly direction towards the compound area originating off of an existing asphalt-paved drive located east of Willow Street. Specifically, VHB reviewed source information outlined below to determine if the proposed facility will be located in an environmentally sensitive area.

National Environmental Policy Act (NEPA) Requirements

As a licensing agency, the FCC complies with NEPA by requiring its licensees to review their proposed actions for environmental consequences. Rules implementing NEPA are found at Title 47 of the Code of Federal Regulations (CFR), Part 1, Subpart I, rule sections 1.1301 to 1.1319.

Section 1.1305 of these rules, state that the Commission "has found no common pattern which would enable it to specify" any particular Commission action as a "major action" under NEPA. Thus, section 1.1306 of the Rules "categorically excluded from environmental processing" all Commission actions except for those specifically identified in section 1.1307. If a licensee's proposed action falls within one of the categories of 1.1307, section 1.1308(a) requires the licensee to consider the potential environmental effects from its construction of antenna facilities or structures, and disclose those effects in an environmental assessment (EA) which is filed with the Commission for review.

VHB has reviewed the following source information for identification, location, and impacts to environmentally sensitive areas:

54 Tuttle Place
Middletown, Connecticut 06457-1847
860.632.1500 • FAX 860.632.7879
email: info@vhb.com
www.vhb.com

1. **Officially designated wilderness areas** - State of Connecticut, Department of Environmental Protection (CTDEP) Geographic Information System data layers, CTDEP Natural Resources Center and Natural Diversity Data Base (NDDB). See attached NEPA screen map prepared by VHB, Inc and letter from CTDEP.
2. **Officially designated wildlife preserve** - CTDEP Geographic Information System (GIS) data layers, CTDEP Natural Resources Center and NDDB. See attached NEPA screen map and letter from CTDEP.
3. **Threatened or Endangered Species or designated critical habitats** - CTDEP GIS data and CTDEP's Natural Resources Center and NDDB. See attached NEPA screen map and letter from CTDEP.
4. **National Register of Historic Places** - State of Connecticut Commission on Cultural & Tourism, Historic Preservation & Museum Division, State Historic Preservation Officer (SHPO); National Register and Reported Archeological Sites Connecticut Geographic Information System data layer provided by Heritage Consultants, LLC; and public notice. See attached NEPA screen map prepared by VHB, Inc., SHPO letter, and a copy of public notice published in the New Haven Register on April 29, 2006.
5. **Indian Religious Sites** - State of Connecticut, Connecticut Commission on Cultural & Tourism, Historic Preservation & Museum Division SHPO, National Register and Reported Archeological Sites Connecticut Geographic Information System data layer provided by Heritage Consultants, LLC, and all interested Native American Tribes (NAT) and/or Native Hawaiian Organizations (NHO) identified on FCC's online Tower Construction Notification System (TCNS). As identified via FCC's TCNS, VHB consulted with the Mashantucket Pequot Tribe and the Narragansett Indian Tribe. See attached SHPO letter and letters from these NATs. Please note that in the unlikely event that tribal artifacts or human remains are encountered during construction activities, excavation is required to be halted immediately and the appropriate NATs and SHPO are to be contacted as pursuant to Title 47 CFR Sec. 1.1312 of the Commission's rules.
6. **Flood Plain** - Flood Insurance Rate Maps (FIRM) by Federal Emergency Management Agency (FEMA) Federal Insurance Administration, Office of Risk Assessment 50 C Street, SW Washington, DC 20472; CTDEP GIS data layer. See attached NEPA screen map prepared by VHB, Inc.
7. **Significant change in surface features** - Based on field observations and information provided by Sprint PCS and its contractors, the proposed activity by Sprint PCS does not appear to involve a significant change in surface features or result in wetland fill, deforestation or water diversion. See attached letter prepared by VHB, Inc. dated September 9, 2005.
8. **High Intensity white lights located in residential neighborhoods** - No lighting information was provided to VHB. However, we understand that no lighting is required on this facility

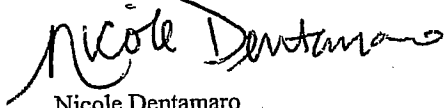


Mr. Kevin Savage
Infinigy Engineering, PLLC
Page 3

Based on the information currently available, VHB has found that the proposed facility does not fall under any of the listed categories of Section 1.1307. The NEPA checklist and NEPA screen map, which outlines the location of the site and the location of the environmental resources, and agency correspondence are attached to this letter.

Very truly yours,

VANASSE HANGEN BRUSTLIN, INC.



Nicole Dentamaro
Environmental Scientist

Attachments

cc: Tom Abernatha, Transcend Wireless, LLC
Steve Florio, Sprint PCS



**Sprint PCS®**

Contact Name: Kevin Savage	Site type (choose one): ☒ Raw land ☐ Radio tower colo* ☐ Other colo*	Sprint PCS Cascade ID: CT54XC773	Site Name & Address: Hamden Fish & Game 150 Willow Street Hamden, CT
--------------------------------------	--	--	--

NEPA Land Use Screening Checklist*Check appropriate box(es) below*

FCC NEPA Category	Consulting Agency to Contact	SSEO Document Reference	Check appropriate box(es) below			
			No Adverse Impact	Potential Adverse Impact	Exempt from Review*	CNPA Applies**
1. Designated Wilderness Areas	National Park Service, US Forest Service, Bureau of Land Management (BLM), CTDEP GIS data layers and Natural Diversity Data Base (NDDB)	Section 3.4.1	☒	☐	☐	☐
2. Designated Wildlife Preserves	National Park Service, US Forest Service, BLM, CTDEP GIS data layers and NDDB	Section 3.4.1	☒	☐	☐	☐
3. Threatened or Endangered Species & Critical Habitats	CTDEP NDDB	Section 3.4.2	☒	☐	☐	☐
4. Historic Places	State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO), Public Notice	Section 3.4.3	☒	☐	☐	☐
5. Indian Religious Sites	SHPO, Tower Construction Notification System (TCNS) website - Native American Tribes (NATs), and/or Native Hawaiian Organizations (NHOs), Bureau of Indian Affairs (BIA)	Section 3.4.4	☒	☐	☐	☐
6. Floodplain	Federal Emergency Management Agency (FEMA)	Section 3.4.5	☒	☐	☐	☐
7. Wetlands & Surface Waterways	US Army Corps of Engineers (ACOE)	Section 3.4.6	☒	☐	☐	☐
8. High Intensity White Lights in Residential Neighborhoods	Lighting information, if applicable, to be provide by client via FAA form or other relevant lighting documentation	Section 3.4.7	☒	☐	☐	☐

*For collocation projects that are not subject to exemption under the CNPA, NEPA Land Use Screening Categories 4 and 5 are only required. The remaining categories are categorically excluded.

**Based on the CNPA the collocation project is exempt from Section 106 review.

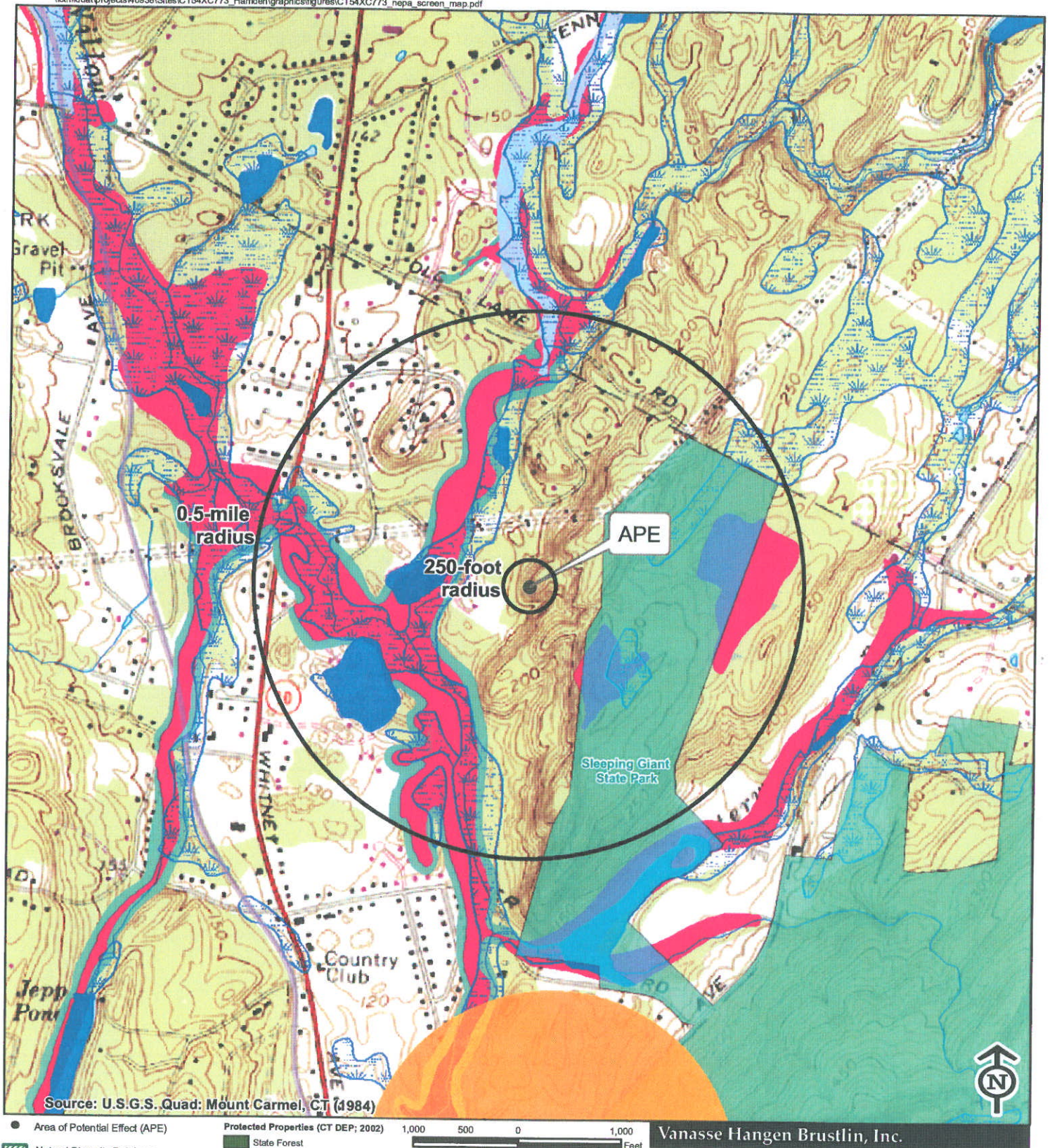
Prepared By: Nicole Dentamaro
(print name): Nicole Dentamaro

Company: Vanasse Hangen Brustlin, Inc.
Date: June 30, 2006

The undersigned has reviewed and approved this Checklist prior to commencement of site construction.

By: _____
Site Development Manager or Director

Date: _____



- Area of Potential Effect (APE)
- Natural Diversity Database Threatened and Endangered Species (updated December 2005, buffered)
- National Register Sites*
- National Register Districts*
- Reported Archaeological Sites (buffered)*
- Open Water
- Wetlands
- Floodplains**
 - 100 Year Floodplain
 - 500 Year Floodplain
 - Floodway
- Protected Properties (CT DEP; 2002)
 - State Forest
 - State Park
 - DEP Owned Waterbody
 - State Park Scenic Reserve
 - Historic Preserve
 - Natural Area Preserve
 - Fish Hatchery
 - Flood Control
 - Other
 - State Park Trail
 - Water Access
 - Wildlife Area
 - Wildlife Sanctuary
 - Protected Properties (Federal; 2002)

*none within 1/2 mile of the APE

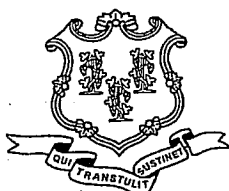
Vanasse Hangen Brustlin, Inc.

NEPA Screen Map Sprint Site CT54XC773

Lat: 41 26 57.81 Long: 72 54 16.45
Hamden Fish & Game
150 Willow Street
Hamden, Connecticut

March 22, 2006





STATE OF CONNECTICUT
DEPARTMENT OF ENVIRONMENTAL PROTECTION



ENVIRONMENTAL & GEOGRAPHIC INFORMATION CENTER
79 Elm Street, Store Level
Hartford, CT 06106
Natural Diversity Data Base

August 25, 2005

Mr. Dean Gustafson
Vanasse Hangen Brustlin, Inc.
54 Tuttle Place
Middletown, CT 06457-1847

re: Proposed Wireless Telecommunications
Facility at 150 Willow Street in Hamden,
Connecticut

Dear Mr. Gustafson:

I have reviewed Natural Diversity Data Base maps and files regarding the area delineated on the map you provided for the proposed wireless telecommunications facility at 150 Willow Street in Hamden, Connecticut. According to our information, there are no known extant populations of Federal or State Endangered, Threatened or Special Concern Species that occur at the site in question.

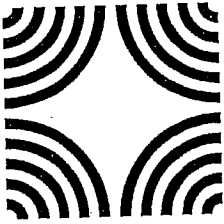
Natural Diversity Data Base information includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Natural Resources Center's Geological and Natural History Survey and cooperating units of DEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substitutes for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available.

Please contact me if you have further questions at 424-3592. Thank you for consulting the Natural Diversity Data Base. Also be advised that this is a preliminary review and not a final determination. A more detailed review may be conducted as part of any subsequent environmental permit applications submitted to DEP for the proposed site.

Sincerely,

Dawn M. McKay
Biologist/Environmental Analyst





Connecticut Commission on Culture & Tourism

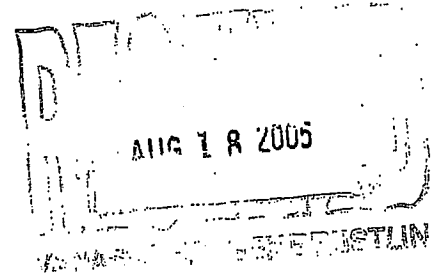
August 12, 2005

Historic Preservation
& Museum Division

59 South Prospect Street
Hartford, Connecticut
06106

(v) 860.566.3005
(f) 860.566.5078

Mr. Dean Gustafson
Vanasse Hangen Brustlin Inc.
54 Tuttle Place
Middletown, CT 06457-1847



Subject: Telecommunications Facilities
150 Willow Street
Hamden, CT
Sprint PCS Site #CT54XC773

Dear Mr. Gustafson,

The State Historic Preservation Office has reviewed the above-named project. This office expects that the proposed undertaking will have no effect on historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places.

In the opinion of the State Historic Preservation Office, the proposed telecommunications facilities will have no effect on properties of traditional cultural importance to Connecticut's Native American community.

This office appreciates the opportunity to have reviewed and commented upon the proposed undertaking.

We recommend that the responsible agency provide concerned citizens with the opportunity to review and comment upon the proposed undertaking in accordance with the National Historic Preservation Act and the Connecticut Environmental Policy Act.

For further information please contact Dr. David A. Poirier, Staff Archaeologist.

Sincerely,

J. Paul Loether
Division Director and Deputy
State Historic Preservation Officer

**PUBLIC NOTICE
MARCH 30, 2006**

Sprint PCS is proposing to install a new wireless telecommunication facility, consisting of a 170-foot tall monopole tower, antenna, and associated ground equipment, at the Hamden Fish and Game property, 150 Willow Street, Hamden, Connecticut. This facility will provide improved wireless coverage to areas of Hamden.

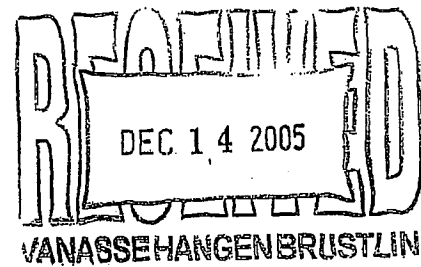
Parties interested in submitting comments regarding any potential effects of the proposed facility on historic properties may do so by sending comments to Vanasse Hangen Brustlin, Inc., 54 Tuttle Place, Middletown, CT, 06457, to the attention of Nicole Dantamaro. Questions about this proposed project may be submitted via regular mail, email to ndantamaro@vhb.com, or by calling (860) 632-1500 ext. 2317.

VHB will be accepting comments and/or questions within 30 days of the date of this publication (insert comment period dates). Therefore, all comments or questions regarding this matter should be postmarked/submitted by no later than April 29, 2006.

NEW HAVEN REGISTER PROOF

Customer: VHB INC Contact: FAX/NICOLE D. Phone: 8606321500
Ad Number: 1649605
Insert Dates: 03/30/2006
Price: 143.96
Section: CL Class: 1200; LEGALS Size: 1 x 42.00
Printed By: SQUINN Date: 04/06/2006

Signature of Approval: ----- Date: -----



12-12-05

Ms. Nicole Dentamaro
Vanasse Hangen Brustlin, Inc.
54 Tuttle Place
Middletown, Ct. 06457

RE: Phase I Cultural Resources Reconnaissance Survey Of Proposed Cellular Communications Facility CT54XC773 Hamden, Ct.

Dear Ms. Dentamaro,

I have reviewed the Phase I Archaeological Reconnaissance Report entitled "Phase I Cultural Resources Reconnaissance Survey Of Proposed Cellular Communications Facility CT54XC773 Hamden, Ct. - Hamden Fish & Game Property, 150 Willow St., Hamden, Ct.," submitted by Heritage Consultants, LLC. The research design and testing strategy meets acceptable professional standards, and agree with the recommendations and conclusions. Please keep me informed of any further developments with respect to this project.

Sincerely,

A handwritten signature in cursive script that reads "Kathleen Knowles".

Kathleen Knowles,
Tribal Historic Preservation Officer
Mashantucket Pequot Tribe

NITHPO

Narragansett Indian Tribal Historic Preservation Office

Narragansett Indian Longhouse
P. O. Box 700
Wyoming, Rhode Island 02898



22 June 2006

Nicole Dentamaro
VHB
54 Tuttle Place
Middletown, CT 06457

RE: Cell tower site exam
TCNS #5718
150 Willow St. Hamden, CT

Greetings, Nicole:

NITHPO's site examination revealed no indicators of the presence of significant past tribal cultural resources. NITHPO, therefore, anticipates no inadvertent encounters on your behalf with significant intact cultural resources (burials, village sites or ceremonial sites). This proposed cell tower construction excavation site is however in close proximity to the ceremonial feature known as "the sleeping giant". In the unlikely event that tribal artifacts or human remains are encountered during construction excavation, you are requested to immediately halt excavation and contact NITHPO and the appropriate town and state officials.

This letter completes NITHPO's Section 106 assessment of this site. Thank you for your compliance with F.C.C. permitting and consultation requirements as specified under Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR PART 800).

Sincerely,

Doug Harris
Senior Deputy Tribal Historic Preservation Officer
(401) 742-4035, dh@nithpo.com



WETLANDS DELINEATION REPORT

Vanasse Hangen Brustlin, Inc.

Date: September 9, 2005

Project No.: 40938.00

Prepared For: Mr. Kevin Savage
Infinigy Engineering
99 Pine Street
Albany, NY 12207

Site Location: 150 Willow Street
Hamden, Connecticut

Site Map: Wetland Sketch, 8/2405

Inspection Date: August 24 2005

Field Conditions: Weather: Sunny, mid 80°F General Soil Moisture: moist
Snow Depth: 0 inches Frost Depth: 0 inches

Type of Wetlands Identified and Delineated:

Connecticut Inland Wetlands and Watercourses ☒
Tidal Wetlands ☐
U.S. Army Corps of Engineers ☐

Hamden Regulated Upland Review Areas: Wetlands: 200 feet Watercourses: 200 feet

Field Numbering Sequence of Wetlands Boundary: WF1-01 to WF1-14
[as depicted on attached wetland sketch map]

Wetlands Delineation Report (continued)

DESCRIPTIONS OF MAPPED SOIL UNITS

Wetland Soil Types:

Ro Rippowam fine sandy loam. This is a poorly drained, moderately coarse over coarse textured, friable over loose alluvial soil developed on floodplains.

Non-wetland Soil Types:

Mg Manchester gravelly sandy loam. This is an excessively drained, gravelly coarse textured, loose, reddish colored glacial fluvial (outwash) soil.

For detailed information regarding the above-referenced soil types, please refer to the Natural Resources Conservation Service.

Existing Condition Narrative:

A VHB soil scientist conducted a wetland investigation and delineation at the Hamden Fish and Game Preserve, 150 Willow Street, Hamden, Connecticut. The study area included the location of a proposed telecommunications facility and within ± 200 feet of the proposed construction activities. The proposed facility is located to the west of a bocce court and shooting range in an upland forest dominantly vegetated with sugar maple (*Acer saccharum*), Norway maple (*Acer platanoides*), black oak (*Quercus velutina*), red cedar (*Juniperus virginiana*), Russian olive (*Elaeagnus angustifolia*) and poison ivy (*Toxicodendron radicans*).

An intermittent watercourse and associated wetland system are located east of the proposed telecommunications facility. The intermittent watercourse is characterized by a defined bank and channel with sandy sediment and cobblestone bed material. Portions of the watercourse are flanked by poorly drained groundwater-depressional wetland areas. The watercourse flows south through forest and disturbed transmission line right of way (ROW) areas within 200 feet of the proposed facility. The forested portions of the wetland are vegetated with red maple (*Acer rubrum*), green ash (*Fraxinus pennsylvanica*), spicebush (*Lindera benzoin*), skunk cabbage (*Symplocarpus foetidus*) and sensitive fern (*Onoclea sensibilis*). Wetland areas occurring within the ROW are commonly vegetated with multiflora rose (*Rosa Multiflora*), brambles (*Rubus sp.*), grape (*Vitis riparia*), silky dogwood (*Cornus amomum*) and goldenrod (*Solidago spp.*).



**Wetlands Delineation Report
(continued)**

The classification systems of the National Cooperative Soil Survey, the U.S. Department of Agriculture, Natural Resources Conservation Service, County Soil Survey Identification Legend and the Connecticut Department of Environmental Protection were used in this investigation.

All established wetlands boundary lines are subject to change until officially adopted by local, state, or federal regulatory agencies.

The wetlands delineation was conducted by:



Sara Fusco
Soil Scientist

The wetlands delineation was reviewed by:



Dean Gustafson
Professional Soil Scientist

Enclosure



DATE	ISSUED FOR REVIEW	BY	DATE
01/22/04	12/08/04	12/08/04	12/08/04
REVISIONS			

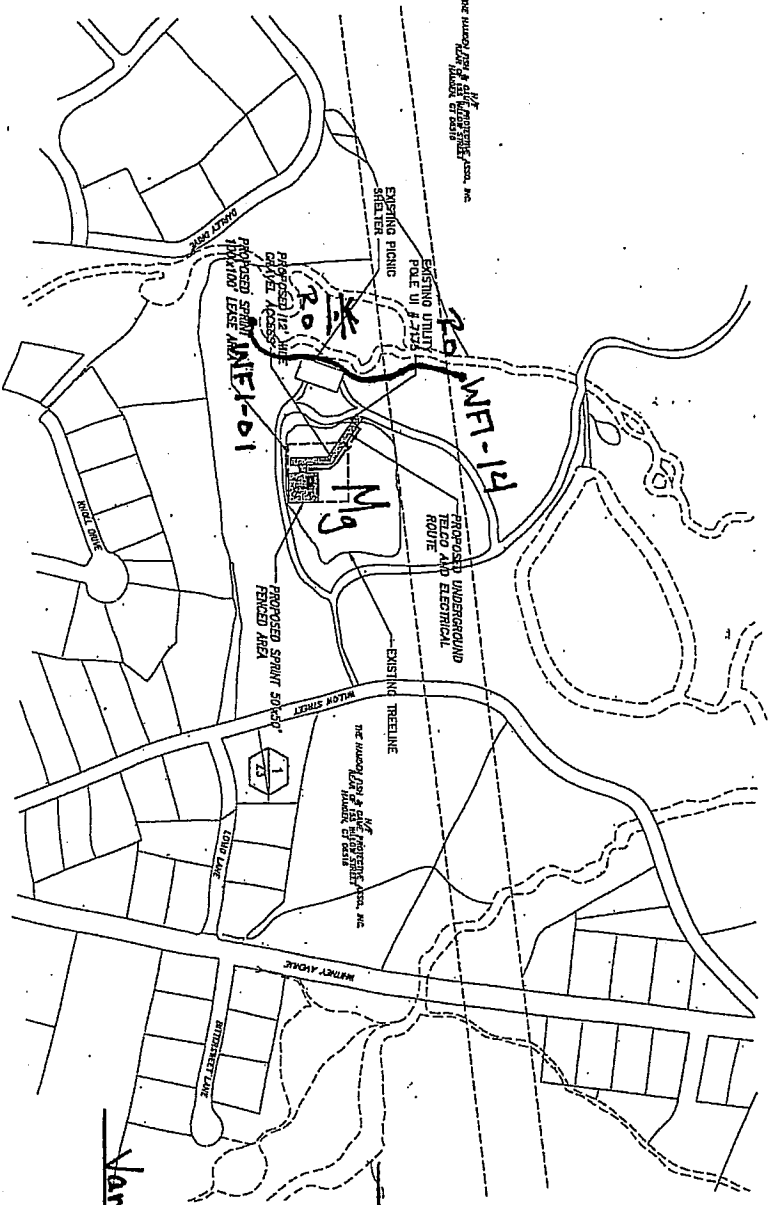
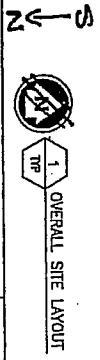
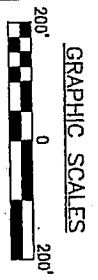
infinigy
Engineering
150 Willow Street
Hamden, CT 06518
158-06

Sprint
INTERNATIONAL CORPORATE CENTER
INTERNATIONAL BOULEVARD
HARTFORD, CT 06183

CHESHIRE SOUTH
150 WILLOW STREET
HAMDEN, CT 06518

OVERALL SITE LAYOUT
-GT33X6679-
DATE: 12/08/04
REV 0

Z2
REV 0
IF IN A VIOLATION OF LAW FOR ANY REASON,
DESIGNER SHALL BE RESPONSIBLE FOR THE DESIGN
AND CONSTRUCTION OF THE PROJECT.



Wetland Sketch Map
150 Willow Street
Hamden, CT
Site # CT54XC773
Wetland Flag Series:
MFI-01 to MFI-14
Vanasse Hangen Brustlin Inc
S. Fusco 8.24.04

NOTE:
DESIGNING PREPARED FROM A SITE
VISIT PERFORMED BY ANIRBY ENGINEERING
AND A SURVEY PERFORMED BY KOK.
DATE 01/22/04



APPROXIMATE SCALE
1000 0 1000 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TOWN OF
HAMDEN,
CONNECTICUT
NEW HAVEN COUNTY

PANEL 5 OF 10

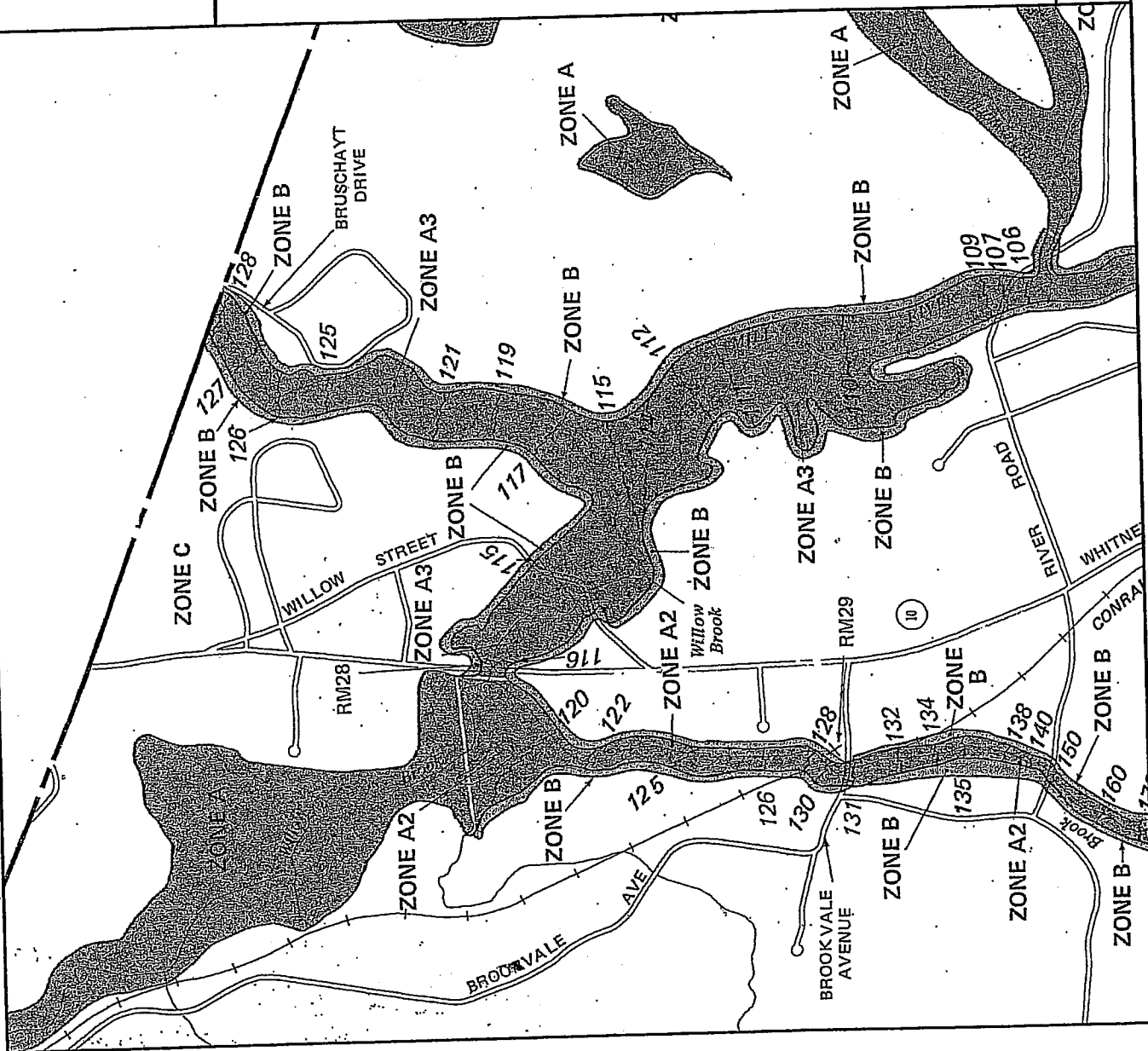
COMMUNITY-PANEL NUMBER
090078 0005 B

EFFECTIVE DATE:
JUNE 15, 1973



U.S. DEPARTMENT OF HOUSING
AND URBAN DEVELOPMENT
FEDERAL INSURANCE ADMINISTRATION

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov



PROJECT DESCRIPTION:
CONSTRUCTION OF PERSONAL COMMUNICATION SYSTEM (PCS) CONSISTING OF A MONOHOLE TOWER, EQUIPMENT CABINETS AND A TOWER FOUNDATION 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 AUTHORITY. THESE PLANS IS TO BE CONSIDERED AS THE LATEST EDITIONS OF THE FOLLOWING:

1. CT BUILDING CODE
2. NATIONAL BUILDING CODE
3. NATIONAL ELECTRICAL CODE
4. NATIONAL MECHANICAL CODE
5. ANS/IEEE/NEC-2002-F
6. NATIONAL FIRE ALARMING CODE
7. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CODE
8. LOCAL BUILDING CODE
9. CITY/COUNTY ORDINANCES



Sprint PCS

CHESHIRE SOUTH
PROPOSED UNMANNED WIRELESS TELECOMMUNICATION SITE
SITE NUMBER: CT33XC773
150 WILLOW STREET
HAMDEN, CT 06518

DIRECTIONS:
RTE 84 EAST TO RTE 691 EAST TO EXIT 3 (RTE 10). TAKE A RIGHT (SOUTH) ON RTE 10. TAKE LEFT ONTO WILLOW STREET - ACCESS TO CLUB IS ON RIGHT.

PROJECT INFORMATION

SITE NAME: CHESHIRE SOUTH
SITE ADDRESS: 150 WILLOW STREET
HAMDEN, CT 06518
ZONING DISTRICT: X-X
PROPERTY: VOL XXXX, PG. XXX
VOL XXX, PG. XXX
MAP 3430
CONSTRUCTION AREA: ±XXXX SQ. FT.
COORDINATES: 41° 26' 50.3" N
72° 54' 4.5" W

PROJECT DIRECTORY

LAND OWNER: HAMDEN FISH & GAME PROTECTIVE
CONTACT: JOHN KNOTT
(203) 271-3031

APPLICANT

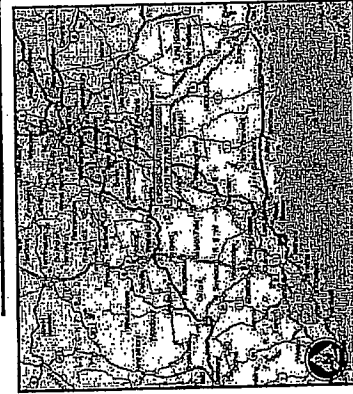
SPRINT COM INC.
SPRINT CORPORATE CENTER
INTERNATIONAL BOULEVARD
SUITE 800
MAHAH, NJ 07495
CONTACT: ROB CHAGNON
PHONE: (201) 684-4335

POWER COMPANY: NORTHEAST UTILITIES

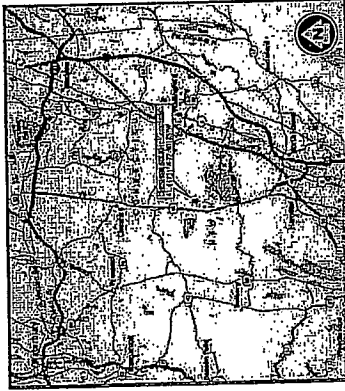
TELCO COMPANY: SNET

DRAWING INDEX

DRWG. #	TITLE	REV.#	DATE
T1	TITLE SHEET	0	06/30/05
Z1	GENERAL NOTES & LEGEND	0	06/30/05
Z2	OVERALL SITE LAYOUT	0	06/30/05
Z3	ENLARGED SITE LAYOUT & STAKING PLAN	0	06/30/05
Z4	GRADING & EROSION CONTROL NOTES	0	06/30/05
Z5	TOWER ELEVATION	0	06/30/05
Z6	DETAILS	0	06/30/05
Z7	DETAILS	0	06/30/05
Z8	DETAILS	0	06/30/05
Z9	DETAILS	0	06/30/05
Z10	CELL SITE INSTALLATION NOTES	0	06/30/05

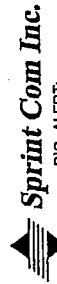


VICINITY MAP
N.T.S.



LOCATION MAP
N.T.S.

infini
ENGINEERING
875 OLD ROSWELL ROAD
BUILDING B, SUITE 300
ROSWELL, GA 30076
OFFICE #: (770) 640-9969
FAX #: (770) 640-7363



DIG-ALERT:
CALL FOR UNDERGROUND UTILITIES PRIOR TO DIGGING:
1-800-922-4455
EMERGENCY:
CALL 911

NAD 83/NAVD 88
SURVEYOR CERTIFIES THAT THE COORDINATES ARE ACCURATE TO WITHIN 50' +/- HORIZONTAL AND 20' +/- VERTICAL.

RAD CENTER ±165' AGL
LATITUDE: 41° 26' 50.3"
LONGITUDE: 72° 54' 4.5"
GROUND ELEVATION: 197' AMSL

HAMDEN, CONNECTICUT

GENERAL NOTES

- ALL DIMENSIONS TO, OF AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, DISCHARGES, AND FIELD OF CONSTRUCTION WITH ALL DISCHARGES SHALL BE THE ENGINEER'S RESPONSIBILITY.
- DO NOT CHANGE SIZE NOR SPACING OF STRUCTURAL ELEMENTS.
- DETAILS SHOWN ARE TO BE USED FOR SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
- THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.
- ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INDICATED ON THESE DRAWINGS.
- REINFORCING ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
- REINFORCING ELEMENTS OF EXISTING UTILITIES, GROUND DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
- INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE UNSUITABLE OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE OWNER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE APPROVAL.
- EACH CONTRACTOR SHALL COOPERATE WITH THE OWNER'S REPRESENTATIVE.
- AND COORDINATE HIS WORK WITH THE WORK OF OTHERS. PLAN SHEETS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO WORK WITH THE WORK OF ALL OTHER CONTRACTORS TO ENSURE THAT WORK PROGRESSION IS NOT INTERRUPTED.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING A NEAT AND ORDERLY SITE. WASTE MATERIAL, LITTER, AND ALL FOREIGN SUBSTANCES, DEPOSITS, RAKE GROUNDS TO A SMOOTH EVEN-TEXTURED SURFACE.
- THE PLANS SHOW SOME KNOWN SUBSURFACE STRUCTURES, ABOVE-GROUND STRUCTURES AND LOCATION OF WHICH MAY VARY FROM THE LOCATIONS INDICATED. IN PARTICULAR, THE CONTRACTOR IS WARNED THAT THE EXISTING UTILITIES AND/OR UTILITIES IN THE AREA MAY BE SHOWN OR MAY NOT BE SHOWN, AND IT SHALL BE HIS RESPONSIBILITY TO PROCEED WITH DRILL OR TEST, CALL 1-888-314-7233.
- THE OWNER OR OWNER'S REPRESENTATIVE SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THESE PLANS WITHOUT THE CONSENTED APPROVAL OF THE OWNER OR OWNER'S REPRESENTATIVE.
- THE CONTRACTOR IS INSTRUCTED TO COOPERATE WITH ANY AND ALL OTHER CONTRACTORS PERFORMING WORK ON THIS JOB SITE DURING THE PERFORMANCE OF THIS CONTRACT.
- THE CONTRACTOR SHALL RESTORE ALL EXISTING OR PRIVATE PROPERTY BEFORE OBTAINING AS DETERMINED BY THE OWNER OR OWNER'S REPRESENTATIVE.
- THE CONTRACTOR SHALL COMPLY WITH ALL REQUIRED PERMITS, INCLUDING THE CITY OF CHESHIRE, AND THE MAINTENANCE, BUT NOT THE COST OF THE PERMIT, INSPECTIONS, ETC.
- THE CONTRACTOR SHALL PROTECT EXISTING PROPERTY LINE. ANY MONUMENTATION OR REPRESENTATIVE SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE UNDER THE SUPERVISION OF A LICENSED LAND SURVEYOR.
- ALL TRENCH EXCAVATION AND ANY REQUIRED SHEETING AND SHORING SHALL BE DONE IN ACCORDANCE WITH THE CITY OF CHESHIRE, BUT NOT THE COST OF THE PERMIT, INSPECTIONS, ETC.
- ALL UTILITY WORK INVOLVING CONNECTIONS TO EXISTING SYSTEMS SHALL BE COORDINATED WITH THE OWNER OR OWNER'S REPRESENTATIVE AND THE UTILITY OWNER BEFORE EACH AND EVERY CONNECTION TO EXISTING SYSTEMS IS MADE.
- MAINTAIN FLOW FOR ALL EXISTING UTILITIES.
- ALL SITE FILL SHALL MEET SELECTED FILL STANDARDS AS DEFINED BY THE OWNER OR OWNER'S REPRESENTATIVE ON THE DAY OF CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AND THE TOWER.
- ALL APPROVED TO CONFORM WITH LOCAL JURISDICTION CONSTRUCTION STANDARDS AND SPECIFICATIONS, LATEST EDITION.

STRUCTURAL STEEL NOTES

- STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
- ALL INTERIOR STRUCTURAL STEEL USED SHALL BE WHEN DELIVERED, FINISHED WITH ONE COAT OF PRIMER. ONE-LEAD RED OXIDE PRIMER, PRIMER SHALL BE APPLIED AFTER SHOP FABRICATION TO THE GREATEST EXTENT POSSIBLE. ALL DINGS, SCRAPPES, WARS, AND WELDS IN THE PRIMERED AREAS SHALL BE REPAIRED BY FIELD TOUCH-UP PRIOR TO COMPLETION OF THE WORK.
- ALL EXTERIOR STEEL WORK SHALL BE GALVANIZED IN ACCORDANCE WITH SPECIFICATION ASTM A36 UNLESS OTHERWISE NOTED. GALVANIZING SHALL BE COMPLETED AFTER SHOP FABRICATION AND BEFORE DELIVERY TO THE FIELD. ALL DINGS, SCRAPPES, WARS, AND WELDS SHALL BE REPAIRED BY FIELD TOUCH-UP PRIOR TO COMPLETION OF THE WORK.
- DO NOT PLACE HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
- CONNECTIONS:
 - ALL WELDING SHALL BE DONE USING E70X ELECTRODES AND WELDING SHALL PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION. AT THE COMPLETION OF WELDING, ALL DAMAGE TO GALVANIZED COATING SHALL BE REPAIRED.
 - ALL GALVANIZED STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH SPECIFICATION ASTM A36 UNLESS OTHERWISE NOTED. GALVANIZING SHALL BE COMPLETED AFTER SHOP FABRICATION AND BEFORE DELIVERY TO THE FIELD. ALL DINGS, SCRAPPES, WARS, AND WELDS SHALL BE REPAIRED BY FIELD TOUCH-UP PRIOR TO COMPLETION OF THE WORK.
 - ALL STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIA. GALVANIZED ASTM A 307 BOLTS UNLESS NOTED OTHERWISE.
- CONNECTION DESIGN BY FABRICATOR WILL BE SUBJECT TO REVIEW AND APPROVAL BY ENGINEER.

DESIGN DATA

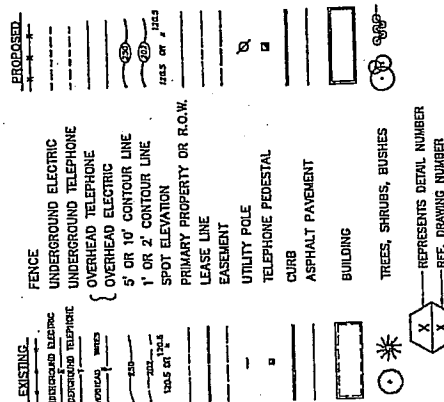
- WIND LOADS: PER ENR/TIA F-222
ICE LOADS: 1/2" PNA ON ALL COMPONENTS & CABLE
SNOW LOAD: PER ENR/TIA F-222
SEISMIC LOADS: PER IAS STATE BLDG CODE.
- DEAD LOADS:

BATTERY CABINET	20854
FUTURE BATTERY CABINET	23254
ROCKWELL 3.0 GROWTH CABINET	12104
PPC FRAME	2704
WIREWAY	404

CONCRETE NOTES

- DESIGN AND CONSTRUCTION OF ALL CONCRETE ELEMENTS SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING APPLICABLE CODES: AISC 301, "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS"; AISC 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE";
- NO DESIGN SHALL BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
- ALL PLACES SHALL BE NORMAL WEIGHT, 6X AIR ENTRAINMENT (2-1.5%) WITH A MAXIMUM 4" SLUMP, AND HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI UNLESS OTHERWISE NOTED.
- MAXIMUM AGGREGATE SIZE SHALL BE 1".
- THE FOLLOWING MATERIALS SHALL BE USED:
 - PORTLAND CEMENT: ASTM C 150, TYPE I
 - REINFORCEMENT: ASTM A 615, GRADE 60, DEFORMED
 - NORMAL WEIGHT AGGREGATE: ASTM A 115, GRADE 57, MAXIMUM SIZE 1 1/2 IN.
 - ADJUSTABLE: NON-CHLORIDE CONTAINING
 - ADJUSTABLE: NON-CHLORIDE CONTAINING
- REINFORCING DETAILS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF ACI 315.
- REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. REINFORCING STEEL SHALL CONFORM TO ASTM A 105 UNLESS NOTED OTHERWISE. ALL REINFORCING STEEL SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:
 - CONCRETE CAST AGAINST EARTH: 3 IN.
 - CONCRETE EXPOSED TO EARTH OR WEATHER: 2 IN.
 - 5 AND LARGER: 1 1/2 IN.
 - 5 AND SMALLER & W/F: 1 1/2 IN.
 - CONCRETE NOT EXPOSED TO EARTH OR WEATHER OR NOT CAST AGAINST THE GROUND: SLAB AND ALL OTHER: 1 1/2 IN.
 - BEAMS AND COLUMNS: 1 1/2 IN.

CIVIL LEGEND



GENERAL NOTES & LEGEND

CT33XC773

DATE: 12/08/04

REV 0

CHESHIRE SOUTH

160 WILLOW STREET

HAUDEN, CT 06516



Sprint

CHESHIRE SOUTH CORPORATE CENTER

160 WILLOW STREET

HAUDEN, CT 06516

infinigy

engineering

810 WILLOW STREET

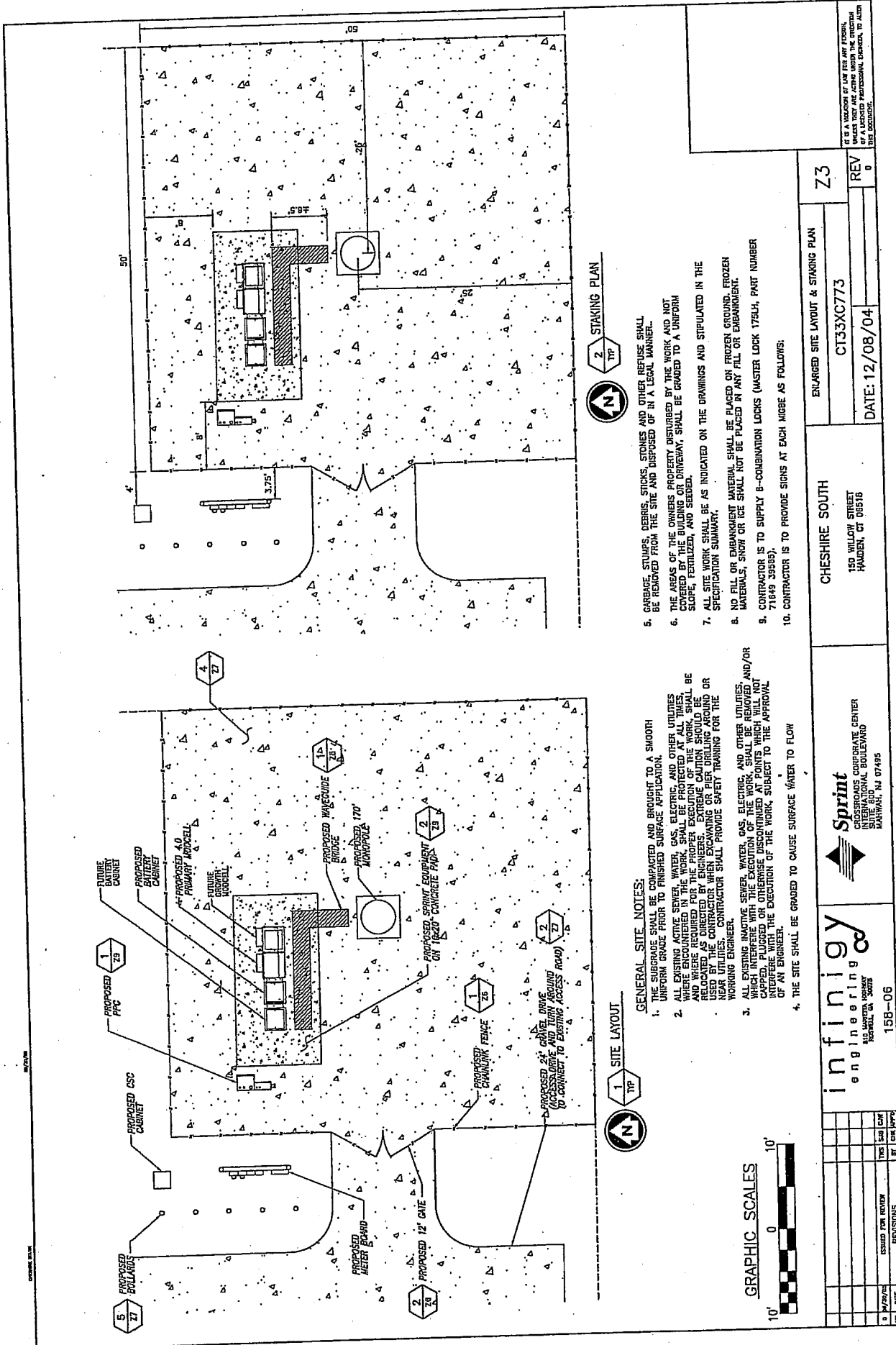
HAUDEN, CT 06516

158-06

NO.	DATE	REVISIONS	BY	CHK	APP
0	12/08/04	ISSUED FOR REVIEW	THE SHAW		

IT IS A VIOLATION OF LAW FOR ANY PERSON TO REPRODUCE OR TRANSMIT THIS DOCUMENT BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER.





GENERAL SITE NOTES:

1. THE SUBGRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES. ANY UTILITIES REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING NEAR UTILITIES. THE CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING ENGINEERS.
3. ALL EXISTING UTILITIES (SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES) SHALL BE PROTECTED AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES. ANY UTILITIES REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING NEAR UTILITIES. THE CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING ENGINEERS.
4. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BUILDING AND DRIVEWAYS.

2 STAKING PLAN

5. GARBAGE, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL MANNER.
6. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE BUILDING OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, FERTILIZED, AND SEEDED.
7. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND STIPULATED IN THE SPECIFICATION SUMMARY.
8. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIAL, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
9. CONTRACTOR IS TO SUPPLY B-COMBINATION LOCKS (MASTER LOCK 175LH, PART NUMBER 71649 35585).
10. CONTRACTOR IS TO PROVIDE SIGNS AT EACH MISE AS FOLLOWS:

infinigy
engineering
158-06

Sprint
CROSSROADS CORPORATE CENTER
INTERNATIONAL BOULEVARD
BURLINGTON, NJ 07495

CHESHIRE SOUTH
150 WILLOW STREET
HAUDEN, CT 06516

ENLARGED SITE LAYOUT & STAKING PLAN
CT33XC773

Z3

IT IS A VIOLATION OF LAW FOR ANY PERSON, FIRM OR COMPANY TO REPRODUCE OR TRANSMIT THIS DRAWING OR ANY PART THEREOF WITHOUT THE WRITTEN PERMISSION OF A LICENSED PROFESSIONAL ENGINEER TO ACT IN THIS CAPACITY.

REV 0
DATE: 12/08/04

NO.	DATE	REVISIONS	BY	CHK	APP
1	12/08/04	ISSUED FOR REVIEW	WES	WES	WES

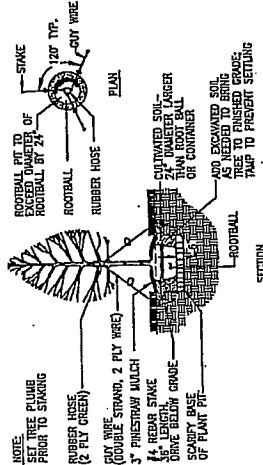
GRADING & EXCAVATING NOTES:

1. ALL EXCAVATIONS ON WHICH CONCRETE IS TO BE PLACED SHALL BE SUBSTANTIALLY HORIZONTAL, UNDISTURBED AND UNFROZEN SOIL, AND BE FREE FROM LOOSE MATERIAL AND EXCESS GROUNDWATER. DOWATERING FOR EXCESS GROUNDWATER SHALL BE PROVIDED IF REQUIRED.
2. CONCRETE FOUNDATIONS SHALL NOT BE PLACED ON ORGANIC MATERIAL. IF SOUND SOIL IS NOT REACHED AT THE DESIGNATED EXCAVATION DEPTH, THE EXCAVATION SHALL BE DEEPENED TO THE FULL DEPTH AND EITHER BE UNSUBSTANTIALLY MECHANICALLY COMPACTED GRANULAR MATERIAL OR THE EXCAVATION BE FILLED WITH CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE FOUNDATION.
3. ANY EXCAVATION OVER THE REQUIRED DEPTH SHALL BE FILLED WITH EITHER MECHANICALLY COMPACTED GRANULAR MATERIAL OR UNFROZEN STONE MAY BE USED TO STABILIZE THE BOTTOM OF THE EXCAVATION. STONE, IF USED, SHALL NOT BE USED AS CONFINING CONCRETE THICKNESS.
4. AFTER COMPLETION OF THE FOUNDATION AND OTHER CONSTRUCTION BELOW GRADE AND BEFORE BACKFILLING, ALL EXCAVATIONS SHALL BE CLEAN OF UNSUBSTANTIAL MATERIAL SUCH AS VEGETATION, TRASH, DEBRIS, AND SO FORTH.
5. -USE APPROVED MATERIALS CONSISTING OF EARTH, LOAM, SANDY CLAY, SAND OR FINE GRADED MATERIALS.
-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 GRASSSED/UNSOLOPED AREAS, WHERE 90% STANDARD PROCTOR
6. REMOVE ALL VEGETATION, TORSION, DEBRIS, WET AND UNSATURATED SOIL MATERIALS, OBSTACLES TO FILL, PLANT STRIPS OR BREAK UP SLOPED SURFACES STEEPER THAN 1:1 VERTICAL TO 1:4 HORIZONTAL SO FILL MATERIAL WILL BOND WITH EXISTING SURFACE. WHEN SUBGRADE OR EXISTING GROUND SURFACE TO RECEIVE FILL HAS A DESIGNED LESS THAN THAT REQUIRED FOR FILL, BREAK UP GROUND SURFACE TO DESIGNED PULVERISE, MOISTURE-CONDITION OR AERATE SOIL AND RECOMPACT TO REQUIRED DENSITY.
7. PROTECT EXISTING GRAVEL SURFACING AND SUBGRADE IN AREAS WHERE EQUIPMENT LOADS WILL OPERATE. USE PLANKING OR OTHER SUITABLE KING OR SUBGRADE WHERE SUCH LOADS, REPAIR DAMAGE TO CONTRACTOR'S OPERATIONS. DAMAGED GRAVEL SURFACING SHALL BE RESTORED TO MATCH THE ADJACENT UNDAUNAGED GRAVEL SURFACING AND SHALL BE OF THE SAME THICKNESS.
8. 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 STRENGTHENED AND REINFORCED IF INADJACENT EXISTING OF EXISTING ORGANIC MATERIAL OR OTHER DELETERIOUS MATERIALS ARE REQUIRED. PRIOR TO REUSE, FURNISH ALL ADDITIONAL GRAVEL RESURFACING MATERIALS ARE REQUIRED. BEFORE GRAVEL SURFACING IS REPLACED, SUBGRADE SHALL BE GRADDED TO MATCH EXISTING REQUIRED SUBGRADE ELEVATION. 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.
9. DAMAGE TO EXISTING STRUCTURES AND UTILITIES RESULTING FROM CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED/REPLACED TO OWNER'S SATISFACTION AT CONTRACTOR'S EXPENSE.
10. CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULE WITH PROPERTY OWNER SO AS TO AVOID INTERRUPTIONS TO PROPERTY OWNER'S OPERATIONS.
11. ENSURE POSITIVE DRAINAGE DURING AND AFTER COMPLETION OF CONSTRUCTION.
12. ALL CUT AND FILL SLOPES SHALL BE MAXIMUM 2 HORIZONTAL TO 1 VERTICAL.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING SITE VEGETATION AND TRAFFIC AS TO NOT ALLOW VEHICLES LEAVING THE SITE TO BACK UP AND INTO PUBLIC STREETS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING PUBLIC STREETS DUE TO MUDDY VEHICLES LEAVING THE SITE.

GENERAL EROSION & SEDIMENT CONTROL NOTES:

1. EROSION AND SEDIMENT CONTROL MEASURES AND DETAILS AS SHOWN HEREIN SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:
2. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN A MANNER SO AS TO MINIMIZE SEDIMENT LEAVING THE SITE.
3. PRIOR TO COMMENCEMENT OF ANY MAJOR EROSION CONTROL ACTIVITY, THE CONTRACTOR SHALL CONSIDER THE FOLLOWING: A. EROSION CONTROL MEASURES SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE DEVICES. B. EROSION CONTROL DEVICES SHALL BE INSTALLED BEFORE EROSION CONTROL MEASURES ARE LOCATED. C. SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THOSE SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE PATTERN SHOWN ON THE APPROVED PLANS. D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. E. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
4. THE LOCATION OF EROSION CONTROL DEVICES SHALL BE ALTERED FROM THAT SHOWN ON THE PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE PATTERN SHOWN ON THE APPROVED PLANS. EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
5. CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PERMANENT VEGETATION HAS GROWN WHERE 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.
6. THE CONTRACTOR SHALL REMOVE ACCUMULATED SILT WHEN THE SILT IS WITHIN 12" OF THE TOP OF THE SUBGRADE.
7. FAILURE TO INSTALL OR MAINTAIN EROSION CONTROL MEASURES OR BRING STOPPED ON THE JOB SITE UNTIL SUCH MEASURES ARE CORRECTED.
8. SILT BARRIERS TO BE PLACED AT DOWNSTREAM TOE OF ALL CUT AND FILL SLOPES.
9. ALL CUT AND FILL SLOPES MUST BE SUFFICIENTLY COVERED AND VEGETATED WITHIN SEVEN (7) DAYS OF CONSTRUCTION.
10. CONTRACTOR SHALL COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER.
11. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PERMANENT VEGETATION PRIOR TO, OR CONCURRENT WITH, THE REMOVAL OF EROSION CONTROL MEASURES.

TREE STAVING AND CLIVING



VEGETATIVE SCHEDULE				DATE
SPECIES	RATE/1000 SF.			
TALL FESCUE GRASS	1.0#			APRIL 1 - OCTOBER 15
SEEDING (LORAFLEX) SEED BEARING MAY WITH OVERSEEDING (KEEPLONG GRASS)	1.0# 0.2#			OCTOBER 15 - MARCH 15 MARCH 15 - MAY 1
FERTILIZER MIX				
APPLICATION	N, #/ACRE	P ₂ O ₅ , #/ACRE	K ₂ O, #/ACRE	N, TOP DRESSING
1st	50 - 90	120 - 180	120 - 180	50
2nd	50	60	120	-

NOTE:
CRATS AND WHICH ALL DISTURBED AREAS

HYDRAULIC SEEDING EQUIPMENT

WHEN HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS USED, NO GRADING AND SHAPING OF SEEDBEDS WILL BE REQUIRED. FERTILIZER, SEED, AND CROPPING CELLULOSE FIBER MULCH WILL BE MIXED WITH WATER AND PUMPED IN A SLURRY. ALL SLURRY INGREDIENTS MUST BE COMBINED TO FORM A HOMOGENEOUS Mixture, AND SPREAD UNIFORMLY OVER THE AREA WITHIN ONE HOUR AFTER FERTILIZER IS MADE. STRAW OR HAY MULCH AND ASPHALT EMULSION WILL BE APPLIED TO FERTILIZED AREAS WITHIN ONE HOUR AFTER SPREADING. 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

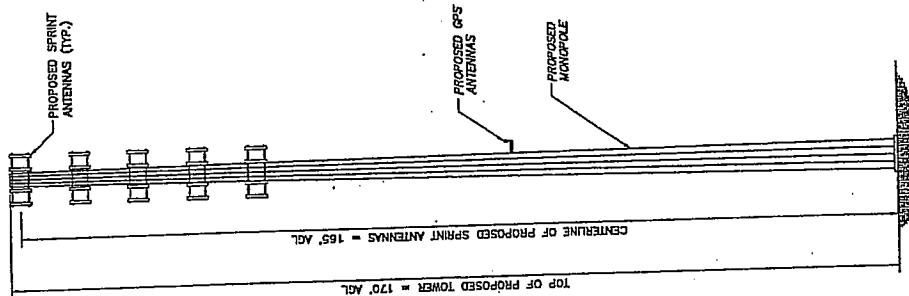
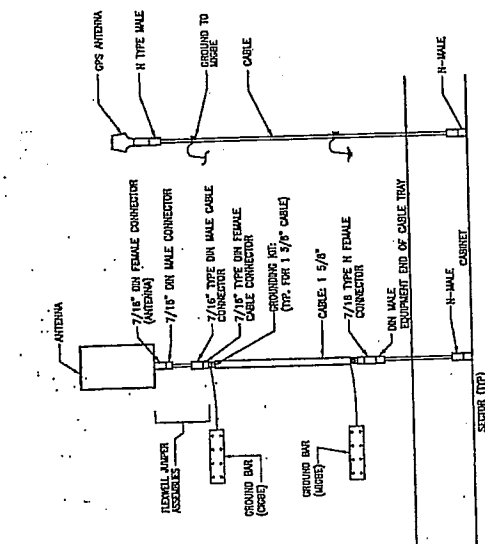
CRACKS SHAKE AND SMOOTH WHERE NEEDED TO PROVIDE FOR SAFE EQUIPMENT AT SEEDING TIME AND FOR MAINTENANCE PURPOSES. THE LIME AND FERTILIZER IN DRY FORM WILL BE SPREAD UNIFORMALLY OVER THE ENTIRE SURFACE OF THE SOIL TO A DEPTH OF 1 TO 4 INCHES AS DETERMINED BY FIELD TESTS. THE SEEDBED MUST BE WELL PULVERIZED, SMOOTHED AND ROLLED TO PREVENT ANY OBSTACLES TO THE SEEDS. THE SEEDS SHALL BE DISTRIBUTED UNIFORMLY OVER A FRESHLY PREPARED SEEDBED AND BE COVERED WITH CULTIVATOR OR DISK. WITHIN 24 HOURS AFTER SEEDING STRAW OR MULCH SHALL BE APPLIED TO THE ENTIRE SURFACE EXPOSED. THE SEEDBED SHALL BE SPREAD WITH BLOWER-TYPE MULCH EQUIPMENT OR BY HAND AND ANCHORED IMMEDIATELY AFTER IT IS SPREAD. A DISK HARROW WITH THE SOIL SET SHALLOW ON A SPECIAL

infinigy engineering & 810 MARTIN LUTHER KING JR. BLVD ROSELAND, NJ 07068	 Sprint CROSSROADS CORPORATE CENTER INTERNATIONAL BOULEVARD SUITE 200 BAHAMON, NJ 07005	CHESHIRE SOUTH 150 WILLOW STREET HAUDEN, CT 06515	GRADING & EROSION CONTROL NOTES CT33XC773 DATE: 12/08/04	Z4 REV 0	IF IT IS DETERMINED AT ANY TIME THAT AN ERROR, OMISSION, OR INCONSISTENCY MAY AFFECT THE ACCURACY OF THE INFORMATION CONTAINED HEREIN, THE USER SHALL BE RESPONSIBLE FOR THE CORRECTION OF THE INFORMATION. THE USER SHALL BE RESPONSIBLE FOR THE CORRECTION OF THE INFORMATION.
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TRANSNATIONAL TRADES UNION

FROM/TO	ADJUTH: 34P CABLE TYPE/SIZE	DOWRNTL: 2" X LENGTH (FT) RW/TK ①	ADJUTH: 200' CABLE TYPE/SIZE	DOWRNTL: 4" LENGTH (FT) RW/TK ②	ADJUTH: 260' CABLE TYPE/SIZE	DOWRNTL: 6" LENGTH (FT) RW/TK ③	US ANTENNA CABLE TYPE/SIZE	LENGTH (FT) GPS ④
TOP JUMPER CABLE	815396-003P 1/2"	3"	815395-003P 1/2"	3"	815395-003P 1/2"	3"	N/A	N/A
FROM THE JUMPER TO ANTENNA CABLE COVER ASSEMBLY	810920-001 1 5/8"	150'	810920-001 1 5/8"	150'	810920-001 1 5/8"	150'	810910-001 1/2"	40'
ANTENNA CABLE COVER ASSEMBLY TO RADIO CABINET	82031004P 1/2"	N/A	82031004P 1/2"	4"	82031004P 1/2"	4"	N/A	TBD

NOTE: CONTRACTOR TO CERTIFY ANTENNA AZIMUTHS ARE WITHIN $\pm 2^\circ$ OF INFORMATION SHOWN WITH REGISTERED LAND SURVEYOR.



INFINITY ENGINEERING HAS NOT EVALUATED THE PROPOSED TOWER FOR THIS SITE. IT IS THE CARRIER'S RESPONSIBILITY TO INVESTIGATE ANY LOADING CONCERNS WHEN ADDING ADDITIONAL EQUIPMENT TO THE TOWER. ANY FUTURE ANTENNAS SHOWN ARE FOR CABLES ONLY.

1	MONOPOLE ELEVATION
--	NOT TO SCALE

infinity
engineering
110 UNIVERSITY AVENUE



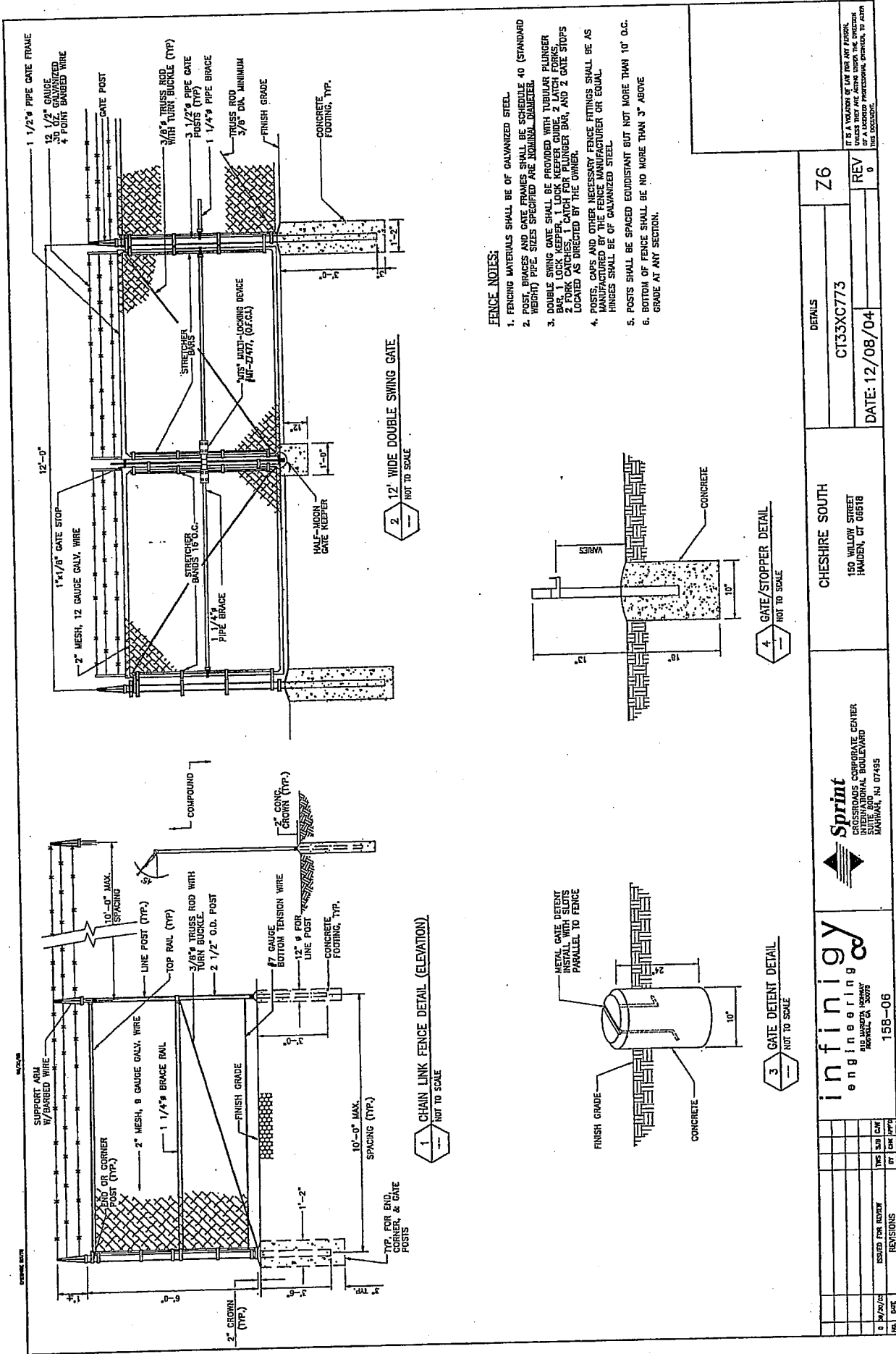
CROSSROADS CORPORATE CENTER
INTERNATIONAL BOULEVARD
SUITE 800
MAYTAWA, NJ 07495

CHESHIRE SOUTH
150 WILLOW STREET

TOWER ELEVATION
CT33XC773

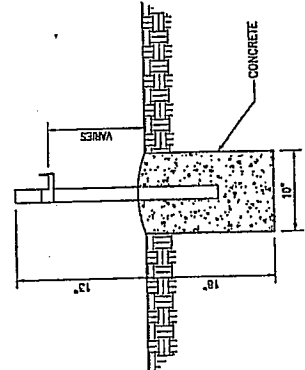
DATE: 12/08/04

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALLOW ANYONE TO SIGN ANYTHING FOR THEM.

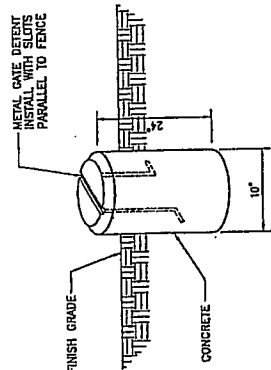


FENCE NOTES:

1. FENCING MATERIALS SHALL BE OF GALVANIZED STEEL.
2. POST, BRACES AND GATE FRAMES SHALL BE SCHEDULE 40 (STANDARD WEIGHT) PIPE SIZES SPECIFIED ARE MINIMUM DIAMETERS.
3. DOUBLE SWING GATE SHALL BE PROVIDED WITH TUBULAR PLUNGER BAR, A LOCK KEPTER, AND TWO GATE STOP BARS. GATE STOP BARS SHALL BE LOCATED AS DIRECTED BY THE OWNER.
4. POSTS, CAPS AND OTHER NECESSARY FENCE FITTINGS SHALL BE AS MANUFACTURED BY THE FENCE MANUFACTURER OR EQUAL.
5. POSTS SHALL BE SPACED EQUIDISTANT BUT NOT MORE THAN 10' O.C.
6. BOTTOM OF FENCE SHALL BE NO MORE THAN 3" ABOVE GRADE AT ANY SECTION.



4 GATE/STOPPER DETAIL
NOT TO SCALE

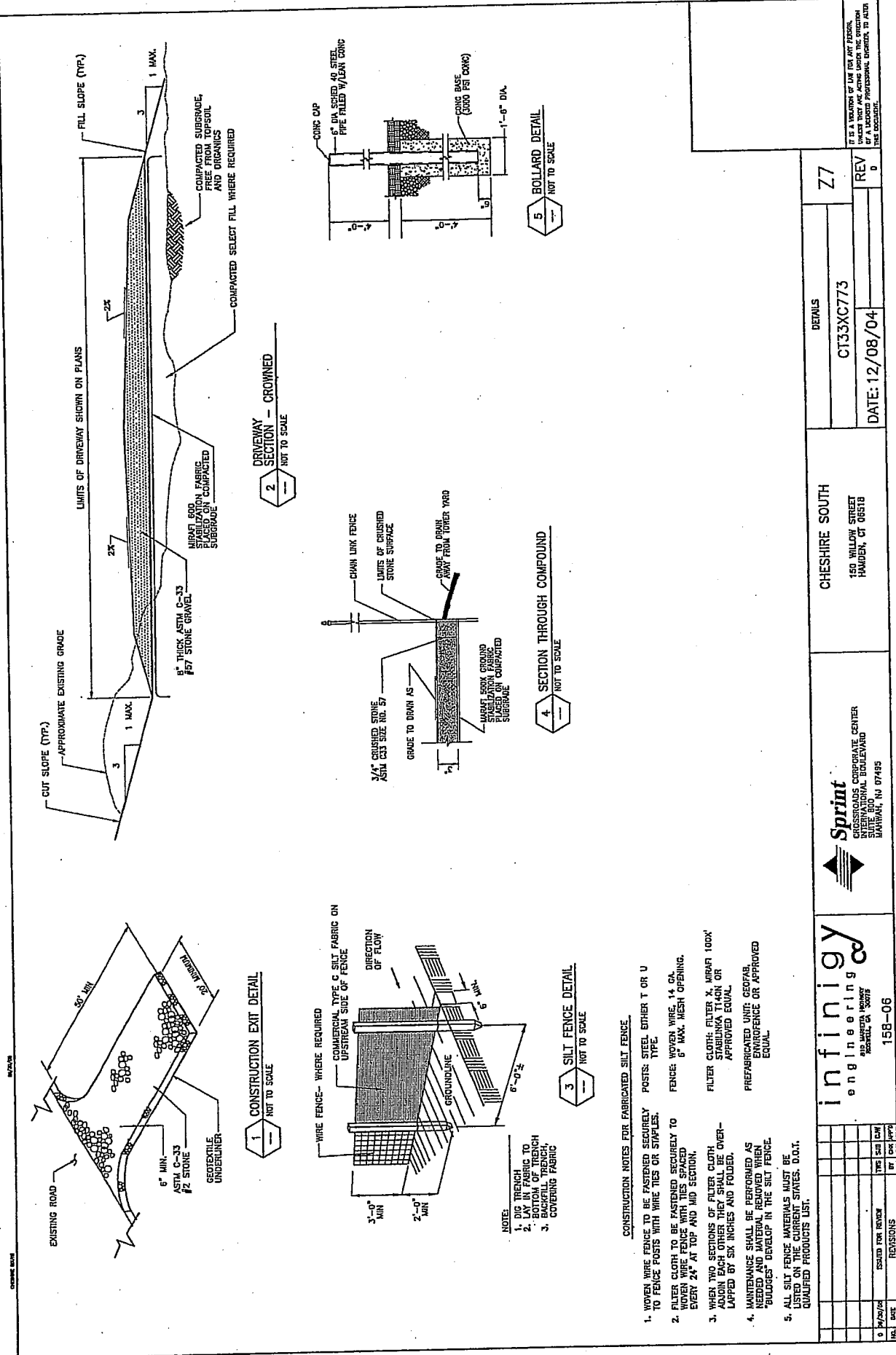


3 GATE DETENT DETAIL
NOT TO SCALE

2 12' WIDE DOUBLE SWING GATE
NOT TO SCALE

1 CHAIN LINK FENCE DETAIL (ELEVATION)
NOT TO SCALE

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- 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.
 3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
 4. MAINTENANCE SHALL BE PERFORMED AS NEEDED TO MAINTAIN PROPER FUNCTION OF FENCE. "BULGES" DEVELOP IN THE SILT FENCE.
 5. ALL SILT FENCE MATERIALS MUST BE LISTED ON THE CURRENT STATES. D.O.T. QUALIFIED PRODUCTS LIST.

				CHESHIRE SOUTH 150 WILLOW STREET HAUBEN, CT 06518		DETAILS CT33XC773		77	
158-06		REVISIONS		DATE		REV		DATE: 12/08/04	
ISSUED FOR REVIEW		TYPE		DATE		BY		DATE	

IT IS A VIOLATION OF LAW FOR ANY PERSON, FIRM OR COMPANY TO REPRODUCE OR TRANSMIT ANY INFORMATION CONTAINED HEREIN WITHOUT THE WRITTEN PERMISSION OF A REGISTERED PROFESSIONAL ENGINEER, TO ACT IN THE DOCUMENT.

DATE: 04/20/04

SUPPORT POST + BRACKET FOR 27" CHANNEL
(3-9" PART #02225 (PIRO INC OR EQUIV)
USE PART #02225 FOR POST WITH MAX
LENGTH TO SUIT OR OTHER APPROPRIATE LENGTH
TO SUIT OR OTHER APPROPRIATE LENGTH

27" ICE BRIDGE 3-9" CHANNEL *
10" PART # 124470 (PIRO INC. OR
EQUIV) CUT ICE BRIDGE CHANNEL
LENGTH TO SUIT (SEE NOTE)

JUMPER CABLE

HANGER BRACKET TYPE LEVEL
CHANNEL PART #02257 (PIRO
INC OR EQUIV), MAXIMUM CABLE
SPAN = 3' TYP.

MODULAR CELL
COURT

12 ANG BOW
GROUND ENG

CONCRETE PAD

ELEVATION

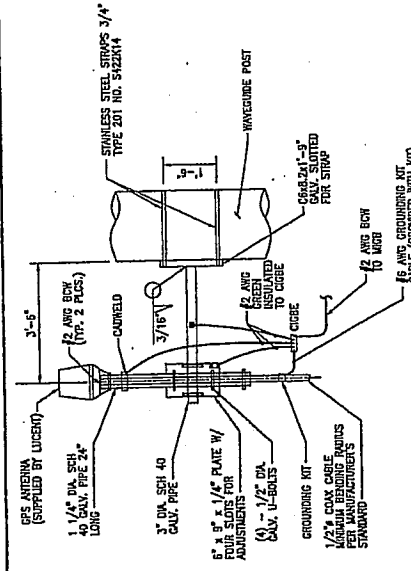
ORIGINAL CABLE SIZE	ORIGINAL CABLE PART NO.	MINIMUM BOND RADIUS	STANDARD HANGER KIT	SWAP-IN HANGER KIT
1/2"	810918-001	5"	820801-010	815859
3/8"	810921-001	10"	820801-007	815860
1 1/4"	810916-001	15"	820801-006	815954
1 5/8"	810920-001	20"	820801-012	815951
1 1/2" JUMPER	820803-003	5"	820801-010	815959
	820803-004			
	820803-005			

FOR CABLE HANGER
SEE TABLE BELOW

GPS/GPS ANTENNA
CABLES-ARRANGEMENT
BY CONNECTION

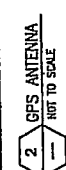
FLANGE

SECTION

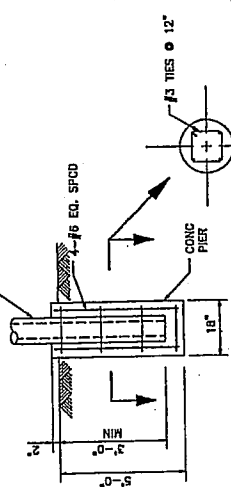


- NOTES:
1. THE ELEVATION AND LOCATION OF THE GPS ANTENNA SHALL BE IN ACCORDANCE WITH THE FINAL RF REPORTS.
 2. THE GPS ANTENNA MOUNT IS DESIGNED TO FASTEN TO A STANDARD 1-1/4" DIAMETER, SCHEDULE 40 GALVANIZED STEEL OR STAINLESS STEEL PIPE. THE PIPE MUST NOT BE THREADED AT THE ANTENNA MOUNT. THE ANTENNA MOUNT SHALL BE SECURED TO THE PIPE USING A MINIMUM OF 18" RICHES) USING A HAWK OR ROYAL PIPE CUTTER TO ASSURE A SMOOTH AND PERPENDICULAR CUT. A HACK SAW SHALL NOT BE USED. THE CUT PIPE END SHALL BE DEBURRED AND SMOOTH IN ORDER TO SEAL AGAINST THE NEOPRENE GASKET ATTACHED TO THE ANTENNA MOUNT.

GPS ANTENNA MOUNTING BRACKET



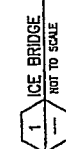
SUPPORT POST



3 SUPPORT POST FOOTING

NOT TO SCALE

- NOTES:
1. WHEN USING BRIDGE 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 SUPPORTS, OR 9 FEET FOR 10 FEET BRIDGE CHANNEL.
 2. WHEN USING BRIDGE 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 BRIDGE 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 PIRRO, PROVIDED THE MANUFACTURER'S INSTALLATION GUIDELINES ARE FOLLOWED.
 6. DEVIATIONS FROM STANDARD APPROVAL SUPPORT POST TO CONCRETE PAD USING 4 - 3/8" DIA. HILT-HY 150 ADHESIVE ANCHORS, PROVIDE THE BRIDGE FOUNDATIONS SHOWN ON SITE SPECIFIC DRAWINGS OR STANDARD DETAILS REQUIRE ENGINEERING APPROVAL.



CHESHIRE SOUTH		DETAILS		Z8	
150 WILLOW STREET HAUDEN, CT 06518		CT33XC773		REV 0	
DATE: 12/08/04					
infinig engineering		Sprint		15B-06	
910 WILLOW HIGHWAY MARTINE, NJ 07095		CROSSINGS CORP. CENTER 100 WILLOW HIGHWAY MARTINE, NJ 07095		DESIGNED FOR REVIEW	
DATE: 04/20/04		BY: [Signature]		DATE: 04/20/04	
REV: 0		REV: 0		REV: 0	

