



**Federal Communications Commission  
Washington, DC 20554**

**Informational Notice of Section 106 Filings**

Date: 09/11/2019  
Reference Number: 1060716

Christina Therrien  
Town of Machias  
P.O. Box 418  
Machias, ME 04654

The following new Section 106 filing has been submitted:

FILE NUMBER: 0008787995  
TCNS Number: 186878  
Purpose: New Tower Submission Packet

Notification Date: 7AM EST 09/06/2019

Applicant: Rising Tide Towers, LLC  
Consultant: Black Diamond Consultants, Inc.  
Positive Train Control Filing Subject to Expedited Treatment Under Program Comment: No  
Site Name: Machias  
Site Address: Sugar Hill Road  
Detailed Description of Project:  
Site Coordinates: 44-42-40.5 N, 067-27-04.5 W  
City: Machias  
County: WASHINGTON  
State: ME  
Lead SHPO/THPO: Maine Historic Preservation Commission (Deputy SHPO)

**Consultant Contact Information:**

Name: Chad Hebert  
Title:  
PO Box: 57  
Address: 312 Water Street  
City: Gardiner  
State: ME  
Zip: 04345  
Phone: (207) 582-0056  
Fax:  
Email: cjhebert@blackdiamond.net

**NOTICE OF FRAUDULENT USE OF SYSTEM, ABUSE OF PASSWORD AND RELATED MISUSE**

Use of the Section 106 system is intended to facilitate consultation under Section 106 of the National Historic Preservation Act and may contain information that is confidential, privileged or otherwise protected from disclosure under applicable laws. Any person having access to Section 106 information shall use it only for its intended purpose. Appropriate action will be taken with respect to any misuse of the system.

September 10, 2019

Town of Machias  
7 Court St  
Machias, ME 04654

Dear Machias Planning Board:

Enclosed please find and building permit application from Rising Tide Towers, LLC to build a communications tower in the industrial park located off Stackpole Road. Rising Tide towers proposal falls within the communication ordinance guidelines as set forth by the town of Machias. As part of the building permit requirements, Rising Tide agrees to build the proposed tower so that it is capable of shared use with other cellular operators. Rising Tide also agrees to negotiated in good faith with applicants for collocation. Please consider this application for approval and please let me know if you have any questions and concerns. I am prepared to attend another planning board meeting to answer questions as necessary.

Do not hesitate to contact me with any questions or concerns



Todd Rich

Vice President  
Rising Tide Towers, LLC  
207.332.3243

Rising Tide Towers, LLC

**APPLICATION FOR BUILDING PERMIT**

TOWN OF MACHIAS

MAP 6A LOT 14

Rising Tide Towers, LLC

FCC License



Federal Communications Commission  
Wireless Telecommunications Bureau

Spectrum Leasing Arrangement

ATTN: ROBERT PARSLOE  
WIRELESS PARTNERS FN LLC  
5 MILK STREET, SUITE 420  
PORTLAND, ME 04101

Date: 08/26/2019  
Reference Number:

This approval allows the Lessee to lease spectrum from the Licensee pursuant to the provisions and requirements of Subpart X of Part 1 of the Commission's Rules, 47 C.F.R. Part 1, and as described in the associated spectrum leasing application or notification.

Type of Lease Arrangement	Lease Term	Lease Identifier
De Facto Transfer Lease	Long Term	L000038901

Lease Grant/Accepted Date	Lease Commencement Date	Lease Expiration Date
06/05/2019	06/06/2019	01/23/2026

Call Sign	Radio Service
WPZA251	WZ - 700 MHz Lower Band (Blocks C, D)

**Lessee Information**

0028172583  
WIRELESS PARTNERS FN LLC  
Attn: ROBERT PARSLOE  
5 MILK STREET, SUITE 420  
PORTLAND, ME 04101

**Licensee Information**

0014980726  
AT&T MOBILITY SPECTRUM LLC  
Attn: CECIL J MATHEW  
208 S. AKARD ST.  
DALLAS, TX 75202

Geographically-Licensed Services		
Market Number	Market Name	Channel Block
CMA466	Maine 4 - Washington	C

**Condition:**

This lease may not authorize operation throughout the entire geographic area or spectrum identified on the hardcopy version. To view the specific geographic area and spectrum associated with this leasing agreement, refer to the Spectrum and Market Area information under the Market Tab of the license record in the Universal Licensing System (ULS). To view the license record, go to the ULS homepage at <http://wireless.fcc.gov/uls/index.htm?job=home> and select "License Search". Follow the instructions on how to search for license information.

Official  
Copy

**Conditions:**

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.

Rising Tide Towers, LLC

Site Plan:

Engineered Construction Drawings



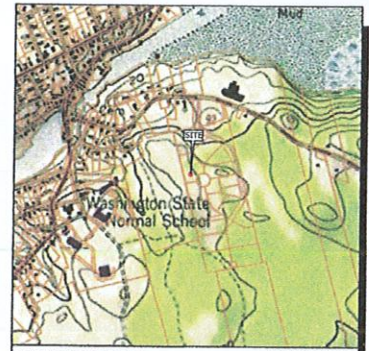
BLACK DIAMOND  
CONSULTANTS INC

# RIISING TIDE TOWERS

BlackDiamond.net  
100 Water Street  
Box 57  
Machias, ME 04345  
Tel: 207.582.9098  
Fax: 207.582.9098

SITE NAME: MACHIAS  
SITE NUMBER: N/A  
LATITUDE: 44° 42' 40.5"  
LONGITUDE: 67° 27' 04.5"

PROJECT  
-17



VICINITY MAP SOURCE: DeLorme SCALE: NTS

**DIRECTIONS:** (FROM INTERSTATE 95)  
Head northeast on I-95 N (1.1 mi) Take exit 185 for ME-15 N/Broadway (0.2 mi) Turn left onto Broadway (1.1 mi) Continue onto Statson Square (397 ft) Continue onto Oak St (0.1 mi) Keep left to stay on Oak St (236 ft) Continue onto State St (0.3 mi) Use the left 2 lanes to turn left onto State Rte 9 SW/Main St Continue to follow State Rte 9 E (64.3 mi) Turn right onto ME-192 S (19.2 mi) Continue onto Broadway St (0.8 mi) Turn left onto Court St (312 ft) Turn right onto Free St (443 ft) Turn left onto Colonial Way/Main St (361 ft) Turn right onto Dublin St (0.1 mi) Turn left onto ME-92 E (98 ft) Turn left to stay on ME-92 E (0.4 mi) Turn right onto Stackpole Rd (0.5 mi) Turn left onto tower access road. End at tower.

LEGEND	PROJECT INFORMATION		DRAWING INDEX																			
<p>FILE NUMBER TOWNSHIP ON WHICH DETAIL APPEARS</p> <p>SECTION NUMBER TOWNSHIP ON WHICH SECTION APPEARS</p> <p>PLAT NUMBER TOWNSHIP ON WHICH ELEVATION APPEARS</p>	<p><b>SITE ADDRESS</b> SUGAR HILL ROAD MACHIAS, MAINE 04654</p> <p><b>APPLICANT</b> RIISING TIDE TOWERS LLC c/o BLACK DIAMOND CONSULTANTS, INC 312 WATER STREET, PO BOX 57 GARDINER, MAINE 04345</p> <p><b>TOWER OWNER</b> RIISING TIDE TOWERS, LLC 5 MILK STREET, SUITE 420 PORTLAND, MAINE 04101</p> <p><b>PROPERTY OWNER</b> TOWN OF MACHIAS 7 COURT STREET, SUITE 1 MACHIAS, MAINE 04654</p>	<p><b>RESERVED TENANT</b> WIRELESS PARTNERS FN (FIRSTNET &amp; ATT) 5 MILK STREET, SUITE 420 PORTLAND, MAINE 04101</p> <p><b>RESERVED TENANT</b> WIRELESS PARTNERS NETWORKS 5 MILK STREET, SUITE 420 PORTLAND, MAINE 04101</p>	<p><b>COVERSHEET</b> CVR-B COVERSHEET</p> <p><b>SURVEY</b> S1-B PLOT PLAN</p> <p><b>CIVIL</b> C1-A OMITTED C2-A COMPOUND LAYOUT PLAN C3-A FENCE AND VEHICLE ACCESS GATE DETAILS C4-A ENVIRONMENTAL AND CIVIL DETAILS</p>	<p><b>ARCHITECTURAL</b> A1-A TOWER ELEVATION</p> <p><b>ELECTRICAL</b> E1-A ELECTRICAL AND TELCO DETAILS E2-A ELECTRICAL METER DETAILS E3-A GROUNDING DETAILS</p>																		
<p><b>DEVIATIONS</b></p> <p>USER CONVERTER, TELEPHONE POLE MOUNTED USER ENCLOSURE PS POWER SUPPLY FOUNDATION PT POINT OF TANGENT NOTING QTY QUANTITY ALVANIZED QUAD QUADSPUTTER RADIUS R RADIO RR RAILROAD SC SEALED CONCRETE SILTATION FENCE SF SECURITY OPERATIONS BUILDING SSB SECURITY PANEL SP SPECIFICATION SPEC TYPICAL TYP UNINTERRUPTIBLE POWER SUPPLY UPS WIPSY IN FIELD WF WALL MOUNTED WM UNLESS NOTED OTHERWISE UNO</p>	<p><b>ELECTRICAL COMPANY</b> EMERA MAINE PO BOX 932 BANGOR, MAINE 04401 207.973.2000</p> <p><b>TELEPHONE COMPANY</b> FAIRPOINT COMMUNICATIONS 627 ROUTE 3 SOUTH CHINA, MAINE 04358 866.984.3001</p>	<p><b>DRAFT</b> FOR DESIGN REVIEW ONLY</p>	<p>APPROVED: TOWN OF MACHIAS PLANNING BOARD</p> <table border="1"> <tr><td>DRAWN</td><td>DW11</td></tr> <tr><td>DESIGNED</td><td>DES1</td></tr> <tr><td>CHECKED</td><td>CHE1</td></tr> <tr><td>INVESTIGATED</td><td>INV1</td></tr> <tr><td>INVESTIGATED</td><td>INV1</td></tr> <tr><td>INVESTIGATED</td><td>INV1</td></tr> <tr><td>INVESTIGATED</td><td>INV1</td></tr> <tr><td>INVESTIGATED</td><td>INV1</td></tr> <tr><td>INVESTIGATED</td><td>INV1</td></tr> </table>	DRAWN	DW11	DESIGNED	DES1	CHECKED	CHE1	INVESTIGATED	INV1	INVESTIGATED	INV1	INVESTIGATED	INV1	INVESTIGATED	INV1	INVESTIGATED	INV1	INVESTIGATED	INV1	<p>PROJECT NUMBER RT-17 SHEET NUMBER CVR</p>
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<p>PDF PRINTS SCALE MAY VARY DUE TO INDIVIDUAL PLOTTER SETTINGS</p>	<p>DOC PROJECT(S) / DOC PROPOSAL(S) DOC JOB ORDER(S) / CLIENT DATA REV 001 / REV 001</p>																					





VICINITY MAP - NOT TO SCALE

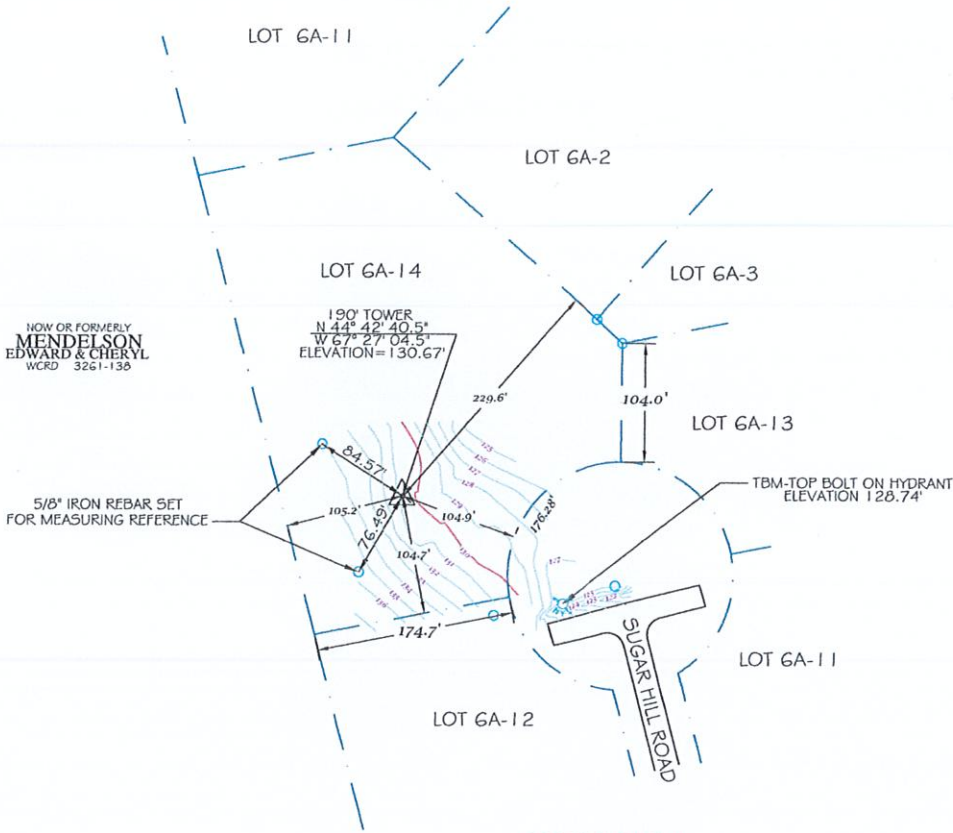
NOW OR FORMERLY  
**MENDELSON**  
 EDWARD & CHERYL  
 WCRD 3261-138

LIST OF ABUTTERS-WITHIN 1000' OF TOWER LOCATION		
MAP/LOT	RECORD OWNER	MAILING ADDRESS
8-12	DANIEL CARLSON	1111 SW 110TH LANE, DAVIS, FL 33334
8-13	WINSTON WOOD COMMUNITY AGENCY	244 BUCKSPORT RD, ELLSWORTH, ME 04805
8-14	EDWARD MENDELSON	18 BARTLETT STREET, MACHIAS, ME 04854
8-1, 9, 12, 14, 15, 16	TOWN OF MACHIAS	7 COURT STREET, SUITE 1, MACHIAS, ME 04854
8A-2 & 3	ZIAXES LLC	13 GREAT BAR ROAD, JONESPORT, ME 04949
8A-3	FREDRICK & REGINA HERRICK	16 BARTLETT STREET, MACHIAS, ME 04854
8A-4, 5, 6 & 7	MACHIAS REALTY TRUST	208 CONGRESS STREET, PORTLAND, ME 04101
8A-7	RAY WOOD	928 CORFEY HILL WAY, EDENSTON, ME 04425
8A-8	EAST POINT ASSISTED LIVING COMMUNITY LLC	19 TALBOT AVENUE, ROCKLAND, ME 04841
8A-10	JOHN PARKER	35 COOPER STREET, MACHIAS, ME 04854
8-83	UNIVERSITY OF MAINE	116 DEBIS H AVENUE, MACHIAS, ME 04854
12-2	CHEERYFIELD FOODS	320 RIDGE ROAD, CHERRYFIELD, ME 04832
12-3	DALE LAMBERT	58 ELM STREET, MACHIAS, ME 04854
12-4	ANN GADYS	53 ELM STREET, MACHIAS, ME 04854
12-5	JAMES MATTOX	41 ELM STREET, MACHIAS, ME 04854
12-6	KEITH PINNELL, JR.	31 ELM STREET, MACHIAS, ME 04854
12-7	SUSAN BURNS	822 WEST BIRCHWAY, SALEM, NY 12865
12-9	JEFFREY PRUSINS	8 BARTLETT STREET, MACHIAS, ME 04854
12-10	EDWARD MENDELSON	18 BARTLETT STREET, MACHIAS, ME 04854
12-11	CATRY BRICE	33 CHURCHILL FARM LN, DUCKERSVILLE, MD 21608



ABUTTER MAP - NOT TO SCALE

Classification: **UNCLASSIFIED** SITE NAME: MACHIAS  
 Quality Category: **NOX-Q** SITE NUMBER: N/A



**NOTES:**

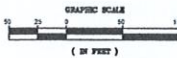
- 1) Bear Name: Machias
- 2) Site Number:
- 3) Site Address: Sugar Hill Road, Machias, ME 04854
- 4) Client: Town of Machias
- 5) Applicant: Rising Tide Towers (a Black Diamond Consultants, Inc. PO Box 57 312 Water Street, Grand, Maine 04845 207.582.0554)
- 6) Tax Parcel Identification: Map GA, Lot 14
- 7) Deed Reference:
- 8) Vertical Datum: National Geodetic Vertical Datum of 1929 (Mean Sea Level)
- 9) Horizontal Datum: North American Datum of 1983 (NAD83)
- 10) Date of Field Survey: May 2019
- 11) Center of Polygon Tower: Latitude = 44° 42' 40.5" (NAD 83) Longitude = W 67° 27' 04.5" (NAD 83) Bearing Ground Elev = 130.67'
- 12) Division: Gr-1 North

**SURVEYOR'S NOTES:**

This is not a Standard Boundary Survey as limited research was performed per client request. Distances shown on this plan have been computed from raw tapes and fact sheets and are apparent property lines only.  
 All bearings are Grid North.  
 All distances are in US Survey Feet.

**FAA CERTIFICATION-1A:**

I hereby certify that the Latitude, Longitude, and elevation presented herein meets the requirements of the FAA with the following accuracies:  
 +/- Three (3) feet vertically  
 +/- Twenty (20) feet horizontally



05/13/2019  
 DATE

Edward M. Lawrence, PLS 2169

**DRAFT**  
 FOR DESIGN  
 REVIEW ONLY

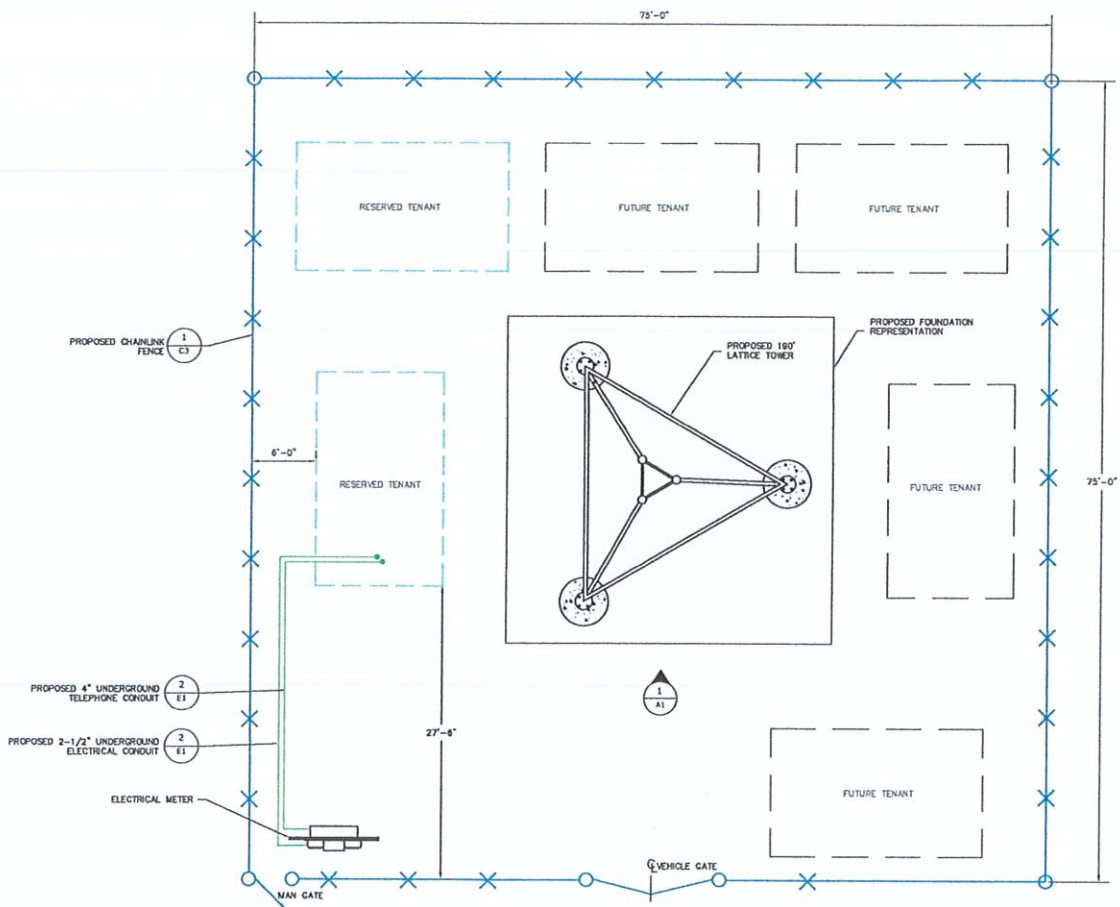
**PLOT PLAN**

**RIISING TIDE TOWERS**

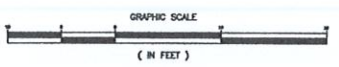


PROJECT NUMBER: RT-17  
 SHEET NUMBER: S1

DATE	BY	DESCRIPTION
05/13/2019	ELM	PROJECT(S)
		BOC PROPOSED(S)
		BOC JOB ORDER(S)
		CLIENT DATA
		DATE
		BY
		DATE
		BY
		DATE



- NOTES:
- CONTRACTOR SHALL VERIFY EXISTING BURIED UTILITIES PRIOR TO CONSTRUCTION ACTIVITIES. (DIG SAFE UNDERGROUND SERVICE ALERT: 1-888-344-7233).
  - ALL MEASUREMENTS ARE APPROXIMATE.



**COMPOUND LAYOUT PLAN**  
SCALE: GRAPHIC SCALE

**DRAFT**  
FOR DESIGN  
REVIEW ONLY

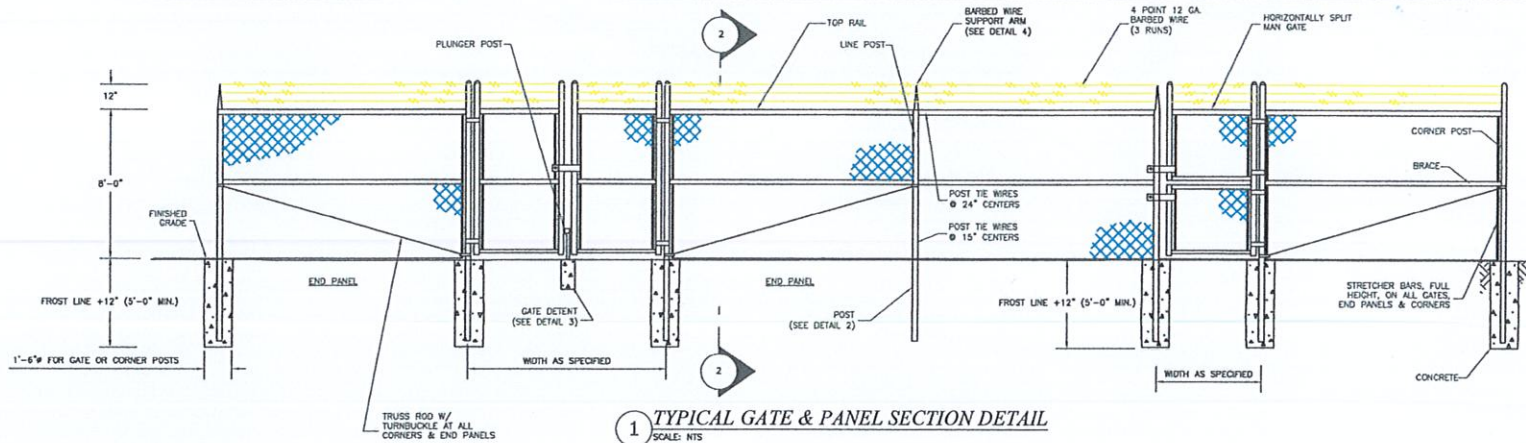
COMPOUND LAYOUT PLAN  
**RISEING TIDE TOWERS**

**BLACK DIAMOND CONSULTANTS INC**

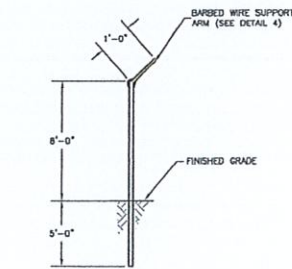
PROJECT NUMBER RT-17  
SHEET NUMBER C2

Classification: UNCLASSIFIED	SITE NAME: MACHIAS
Quality Category: NON-Q	SITE NUMBER: N/A

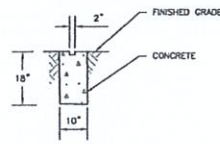
REV	DATE	BY	CHKD	DESCRIPTION
001				ISSUE FOR PERMIT
002				ISSUE FOR REVIEW



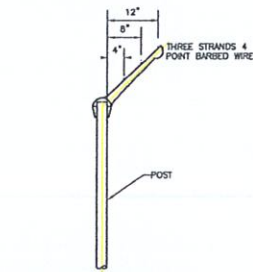
1 TYPICAL GATE & PANEL SECTION DETAIL  
SCALE: NTS



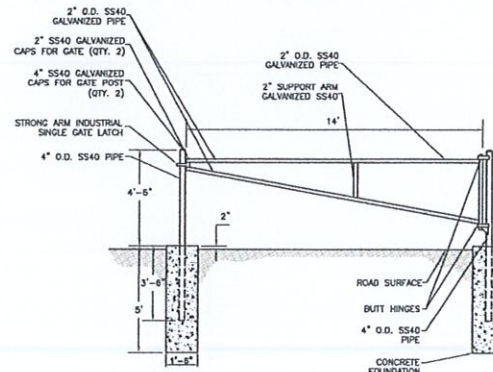
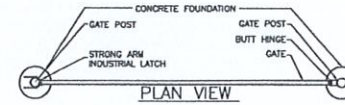
2 FENCE CROSS SECTION  
SCALE: NTS



3 GATE DETENT  
SCALE: NTS



4 BARBED WIRE SUPPORT ARM  
SCALE: NTS



5 VEHICLE ACCESS GATE  
SCALE: NTS

**FENCE NOTES:**

1. FENCE CONSTRUCTION SHALL BE PLUMB, STRAIGHT, AND STRUCTURALLY SOUND.
2. FENCE FABRIC SHALL USE A BOTTOM TENSION WIRE AND BARBED WIRE. FENCING SHALL BE TIGHT AND CONTINUOUS.
3. FENCE FABRIC AND BARBED WIRE SHALL BE BONDED TO THE FACILITY OR TOWER EXTERNAL GROUND RING (EDR) AT EACH CORNER OR INSIDE OF FENCING COMPOUND.
4. ALL ENTRY GATES SHALL BE BONDED TO THE MAIN FENCE ASSEMBLY BY A METAL STRAP.
5. TWO HOLE COMPRESSION LUGS CAN BE USED IN PLACE OF EXOTHERMIC WELDS DUE TO THICKNESS OF METAL.
6. FENCE SHALL CONFORM TO LOCAL ZONING REGULATIONS.
7. ALL STEEL TO BE GALVANIZED.

**VEHICLE ACCESS GATE NOTES:**

1. GATE CONSTRUCTION SHALL BE PLUMB, STRAIGHT, AND STRUCTURALLY SOUND.
2. FOR BURIED LEDGE AT LESS THAN 3'-8\"/>

**DRAFT**  
FOR DESIGN  
REVIEW ONLY

FENCE AND VEHICLE ACCESS GATE DETAILS

**RIISING TIDE TOWERS**

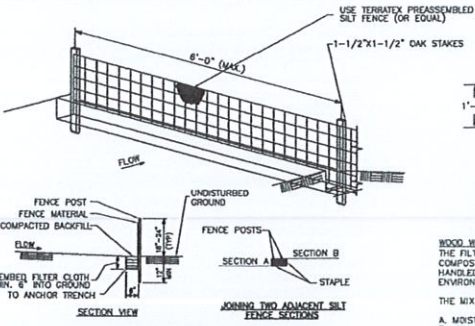
**BLACK DIAMOND CONSULTANTS INC**

PROJECT NUMBER RT-17  
SHEET NUMBER C3

Classification: UNCLASSIFIED SITE NAME: MACHIAS  
Quality Category: NON-Q SITE NUMBER: N/A

REV	DESCRIPTION	DATE	BY	CHECKED
01	ISSUED FOR PERMIT	08/17/17	WJ	WJ
02	REVISED FOR DESIGN REVIEW	08/17/17	WJ	WJ





**WOOD WASTE COMPOST/BARK FILTER BERM ALTERNATIVE**

SCALE: NTS

**WOOD WASTE COMPOST/BARK FILTER BERMS NOTES:**  
THE FILTER BERM SHALL CONSIST OF A WOOD WASTE COMPOST/BARK MULCH MIX OR RECYCLED COMPOSTED BARK FLUME GRIT AND FRAGMENTED WOOD GENERATED FROM WATER-FLUME LOG HANDLED SYSTEMS. COMPOSTED MULCH CAN BE USED UPON APPROVAL OF THE OFFICE OF ENVIRONMENTAL SERVICES LANDSCAPE UNIT.  
THE MIX SHALL CONFORM TO THE FOLLOWING STANDARDS:

- A. MOISTURE CONTENT - 30-60%
- B. pH - 5.0-8.0
- C. SCREEN SIZE - 100% LESS THAN 3", MAXIMUM 70% LESS THAN 1"
- D. NO LESS THAN 40% ORGANIC MATERIAL (DRY WEIGHT) BY LOSS OF IGNITION
- E. NO STONES LARGER THAN 2" IN DIAMETER

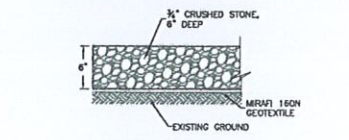
THE COMPOSTED BERM SHALL BE PLACED, UNCOMPACTED, ALONG A RELATIVELY LEVEL CONTOUR.

**NOTE:**  
WOOD WASTE COMPOST/BARK FILTER BERMS MAY BE USED IN COMBINATION WITH SILT FENCE TO IMPROVE SEDIMENT REMOVAL AND PREVENT CLOGGING OF THE WOOD WASTE COMPOST/BARK BERM BY LARGER SEDIMENT PARTICLES. (SILT FENCE PLACED TO FILTER RUNOFF BEFORE WOOD WASTE COMPOST/BARK).

**1 SILT FENCE DETAIL**

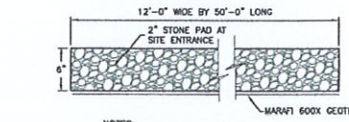
SCALE: NTS

- NOTES:**
- SILT FENCE AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
  - SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
  - SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE, PREPARED AND SEED.
  - THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.



**2 COMPOUND CRUSHED STONE SECTION**

SCALE: NTS



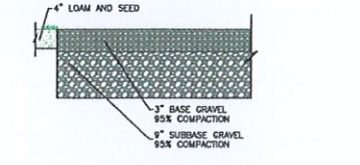
**3 PARKING AREA DETAIL**

SCALE: NTS



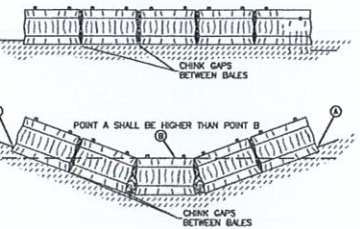
**4 STABILIZED CONSTRUCTION EXIT**

SCALE: NTS



**5 DITCH BALE BARRIER**

SCALE: NTS



**6 GRAVEL DRIVE SECTION**

SCALE: NTS

**NOTES:**  
TO PROTECT CONSTRUCTION SITE AREAS AND ADJACENT SENSITIVE LAND AND WATERS OF THE STATE, THE FOLLOWING EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED AND MAINTAINED. THESE MEASURES HAVE BEEN ESTABLISHED TO CONFORM TO STATE OF MAINE EROSION AND SEDIMENT CONTROL "BEST MANAGEMENT PRACTICES (BMP)".

THIS EROSION/STABILIZATION PLAN IS A MINIMUM THAT THE CONTRACTOR MUST DO. GIVEN SITE AND WEATHER CONDITIONS, ADDITIONAL MEASURES MAY BE NEEDED.

**SOIL DISTURBANCE:** THE CONTRACTOR SHALL LIMIT THE EXTENT OF SOIL EXPOSED DURING CONSTRUCTION TO THE MINIMUM POSSIBLE. EXPOSED AREAS SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED AS SOON AS POSSIBLE, BUT NO LATER THAN 15 DAYS AFTER INITIAL DISTURBANCE OF THE SOIL AND WITHIN 7 DAYS OF FINAL GRADING.

**ROAD DITCHES, INLET AND OUTLET PROTECTION FOR CULVERTS:** EXPOSED AREAS FOR ROAD DITCHING SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED AS SOON AS POSSIBLE BUT NO LATER THAN 7 DAYS AFTER INITIAL DISTURBANCE OF THE SOIL. INLET AND OUTLET PROTECTION FOR CULVERTS SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED AS SOON AS POSSIBLE BUT NO LATER THAN 24 HOURS OF INSTALLING EACH CULVERT, FIELD INLET OR STORM DRAIN OUTFALL.

**SILT FENCING AND/OR HAY BALES:** INSTALL SILT FENCES AND/OR HAY BALES AROUND SITE EXPOSED AREAS AS SHOWN ON THE SITE PLAN AND FOR ANY ADDITIONAL AREAS DETERMINED TO BE SUBJECT TO SOIL EROSION AS A RESULT OF SITE CONDITIONS. SILT FENCING AND/OR HAY BALES WILL REMAIN IN PLACE UNTIL EXPOSED AREAS HAVE ACQUIRED STABILIZATION. INSTALL THE SILT FENCING AND/OR HAY BALES IN ACCORDANCE WITH DETAILS PROVIDED BY THE SITE PLAN.

**STOCKPILING, HAIL ROADS, BORROW AREAS:** THE CONTRACTOR SHALL VERIFY THAT STOCKPILING, HAIL ROAD, AND BORROW AREAS SHALL NOT BE LOCATED IN WETLANDS AND AREAS OF CONCENTRATED FLOWS. SILT FENCES, MULCHING, AND OTHER EROSION CONTROL MEASURES SHALL BE PROVIDED TO PREVENT SEDIMENTATION CONTROL TO THESE AREAS.

**DUST CONTROL:** THE EXPOSED SOIL SURFACE SHALL BE MOISTENED PERIODICALLY WITH ADEQUATE WATER TO CONTROL DUST.

**SITE EROSION/STABILIZATION MAINTENANCE:** THE CONTRACTOR SHALL INSPECT THE AREAS ROUTINELY AND ESPECIALLY AFTER RAIN EVENTS AND SHALL REPAIR THE SEDIMENTATION CONTROLS AS NECESSARY. THE CONTRACTOR SHALL MAINTAIN THE TEMPORARY AND PERMANENT SITE EROSION AND STABILIZATION CONTROLS UNTIL FINAL ACCEPTANCE OF THE WORK. MAINTENANCE SHALL INCLUDE PROTECTING PROTECTION AGAINST SITE TRAFFIC AND REPAIRING DAMAGES TO CONTROLS RESULTING FROM RAIN, WIND, OR OTHER EVENTS. DAMAGED AREAS SHALL BE REPAIRED TO RE-ESTABLISH SOIL CONDITIONS AND GRASSES SHALL INCLUDE RE-ESTABLISHING THE TEMPORARY OR PERMANENT FERTILIZING, LIMING, SEEDING, MULCHING CONDITIONS OBTAINED PRIOR TO THE DAMAGES.

**TEMPORARY MEASURES FOR EROSION CONTROL:** THESE TEMPORARY MEASURES WILL PROTECT THE AREA UNTIL MORE PERMANENT SITE STABILIZATION MEASURES ARE ESTABLISHED. THE FOLLOWING MEASURES SHALL BE USED FOR TEMPORARY SITE STABILIZATION. REFER TO MAINE EROSION AND SEDIMENT CONTROL BMP A-1 AND A-2 FOR ADDITIONAL INFORMATION ON TEMPORARY MEASURES FOR EROSION CONTROL.

**TEMPORARY SEEDING, GRADE AND PREPARE AREA AS NEEDED TO PROVIDE FOR SEEDING.** APPLY 10-10-10 FERTILIZER AT THE RATE OF 13.8#/1000FT<sup>2</sup>. APPLY LIMESTONE AT THE RATE OF 13.8#/1000FT<sup>2</sup>. APPLY WINTER RYE AT THE RATE OF 23 #/1000FT<sup>2</sup>. NOTE - SEEDING RATE MUST BE INCREASED BY 10% WHEN HYDRO-SEEDING. AFTER SEEDING, APPLY TEMPORARY HAY OR STRAW MULCHING AS FOLLOWS:

**TEMPORARY MULCHING:** APPLY HAY OR STRAW MULCHING OVER THE EXPOSED AREA AT THE RATE OF 2 BALES/1000FT<sup>2</sup> TO COVER 75 TO 80% OF THE GROUND SURFACE. SECURE MULCH BY TRACING, NETTING, OR PEG AND TWINE, AS NECESSARY, TO PREVENT LOSS OF COVER OVER EXPOSED AREA.

**PERMANENT MEASURES FOR EROSION CONTROL:** FOR DISTURBED AREAS WITH SLOPES GREATER THAN 2:1, EROSION CONTROLS AND AREA STABILIZATION SHALL BE PROVIDED AS SHOWN BY THE SITE PLAN.

**PERMANENT SEEDING:** PROVIDE PERMANENT SEEDING AS EACH CONSTRUCTION AREA IS BROUGHT TO FINISH GRADE. PREPARE AREA AS NEEDED TO PROVIDE FOR SEEDING. APPLY 10-20-20 FERTILIZER AT THE RATE OF 18.4#/1000FT<sup>2</sup>. APPLY LIMESTONE AT THE RATE OF 13.8#/1000FT<sup>2</sup>. APPLY A MIXTURE OF KENTUCKY BLUEGRASS (45%), CREeping RED FESCUE (45%), AND PERENNIAL RYEGRASS (10%) AT THE RATE OF 18#/1000FT<sup>2</sup>. NOTE - SEEDING RATE MUST BE INCREASED BY 10% WHEN HYDRO-SEEDING. AFTER SEEDING, APPLY TEMPORARY HAY OR STRAW MULCHING AS FOLLOWS:

**TEMPORARY MULCHING:** APPLY HAY OR STRAW MULCHING OVER THE EXPOSED AREA AT THE RATE OF 2 BALES/1000FT<sup>2</sup> TO COVER 75 TO 80% OF THE GROUND SURFACE. SECURE MULCH BY TRACING, NETTING, OR PEG AND TWINE, AS NECESSARY, TO PREVENT LOSS OF COVER OVER EXPOSED AREA.

**OVER-WINTER CONSTRUCTION AND STABILIZATION**

IF THE CONSTRUCTION SITE IS NOT STABILIZED BY NOVEMBER 15 THEN THE SITE NEEDS TO BE PROTECTED WITH OVER-WINTER STABILIZATION. THE WINTER CONSTRUCTION PERIOD IS FROM NOVEMBER 1 THROUGH APRIL 15. IF CONSTRUCTION IS CONDUCTED DURING THE WINTER CONSTRUCTION PERIOD, LIMIT CONSTRUCTION EXPOSED AREAS TO ONLY THOSE AREAS REQUIRED FOR TELECOMMUNICATIONS FACILITY INSTALLATION, SUCH AS ACCESS GRAVEL ROAD CONSTRUCTION, INSTALLATION OF UTILITIES, AND INSTALLATION OF TOWER, SHELTER AND EQUIPMENT. FINAL SITE GRADING, PERMANENT MEASURES FOR EROSION CONTROL, CONSTRUCTION AND STABILIZATION OF DITCHES AND CHANNELS SHALL BE PROVIDED AFTER WINTER CONSTRUCTION PERIOD. REFER TO MAINE EROSION AND SEDIMENT CONTROL BMP A-3 FOR ADDITIONAL INFORMATION ON OVER-WINTER CONSTRUCTION AND STABILIZATION.

**SEDIMENT BARRIERS:** DURING FROZEN CONDITION, SEDIMENT BARRIERS MAY CONSIST OF EROSION CONTROL MIX BERM OR ANY OTHER RECOGNIZED SEDIMENT BARRIERS IF FROZEN SOIL PREVENTS THE PROPER INSTALLATION OF HAY BALES OR SILT FENCES.

**MULCHING:** HAY AND STRAW MULCH SHALL BE APPLIED AT A RATE THAT IS TWICE THE NORMAL NON-WINTER PERIOD ACCEPTED RATE AND SHALL BE PROPERLY ANCHORED TO EROSION CONTROL MIX, IF USED, MUST BE APPLIED WITH A MINIMUM 4 INCH THICKNESS. ANY SNOW WILL BE REMOVED DOWN TO ONE INCH DEPTH OR LESS PRIOR TO MULCHING APPLICATION. STOCKPILES OF SOIL WILL BE SIMILARLY MULCHED.

**OVER-WINTER STABILIZATION OF DITCHES AND CHANNELS:** ALL DITCHES AND CHANNELS MUST BE CONSTRUCTED AND STABILIZED BY NOVEMBER 15.

**CONSTRUCTION SCHEDULE**

- (IN FOLLOWING SEQUENCE, COORDINATE WITH OTHER CONSTRUCTION ACTIVITIES, MAINTAIN CONTINUOUSLY.)
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE.
  - INSTALL SILT FENCE, PROJECT WIDE.
  - REMOVE AND STOCKPILE LOAM, PLACE SILT FENCE AT TOE.
  - SITE BLASTING AND PRIMARY EARTHWORK.
  - INSTALL DRAINAGE SYSTEM IMPROVEMENTS.
  - INSTALL DRAINAGE SYSTEM EROSION CONTROL MEASURES.
  - PROVIDE PRIMARY SLOPE STABILIZATION AND MULCHING OR TEMPORARY SEEDING.
  - FINAL SITE GRADING, PERMANENT SLOPE PROTECTION, PERMANENT SEEDING.
  - AFTER SITE IS STABILIZED AND COMPLETE, REMOVE TEMPORARY EROSION CONTROL MEASURES.

**PIPE INLET PROTECTION**

**INLET PROTECTION (RRPAP D50=8")** SHALL EXTEND AT LEAST ONE PIPE DIAMETER BEYOND THE CONDUIT. RRPAP SHALL BE INSTALLED IN ACCORDANCE WITH THE STATE OF MAINE "BMP". RRPAP PROTECTION SHALL BE UNDERLAIN WITH MARIAT BOOK GEOTEKSTILE FABRIC TO PREVENT PILING THROUGH THE GEOTEKSTILE MATERIAL.

**AGGREGATE FOR GRAVEL BASE:**

AGGREGATE FOR GRAVEL BASE SHALL BE SCREENED OR CRUSHED GRADE OF HARD DURABLE PARTICLES FREE FROM VEGETABLE MATTER, LUMPS OR BALLS OF CLAY AND OTHER DELETERIOUS SUBSTANCES. THE GRADATION OF THE FILL THAT PASSES A 3 INCH SIEVE SHALL MEET THE GRADING REQUIREMENTS OF THE FOLLOWING TABLE:

SIEVE DESIGNATION	PERCENTAGE BY WEIGHT PASSING SQUARE MESH SIEVE	
	TYPE A AGGREGATE	TYPE D AGGREGATE
3/8 INCH	42-70	
3/4 INCH	30-55	
No. 40	0-20	25-70
No. 200	0-5	0-30
		0-5

TYPE "A" AGGREGATE SHALL NOT CONTAIN PARTICLES WHICH WILL NOT PASS THE 2 INCH SQUARE MESH SIEVE.

TYPE "D" AGGREGATE SHALL NOT CONTAIN PARTICLES WHICH WILL NOT PASS THE 8 INCH SQUARE MESH SIEVE.

EACH LAYER AS APPLIED SHALL BE ROLLED WITH A 20 TON ROLLER. THE MATERIAL AS SPREAD SHALL BE WELL MIXED WITH NO POCKETS OF EITHER FINE OR COARSE MATERIAL. OVER SIZED STONES SHALL BE REMOVED FROM THE AGGREGATE.

EACH LAYER OF AGGREGATE SHALL BE PLACED OVER THE FULL WIDTH OF THE SECTION. AGGREGATE SUB-BASE COURSES MAY BE PLACED UPON FROZEN SURFACES WHEN SUCH SURFACES HAVE BEEN PROPERLY CONSTRUCTED.

THE SURFACE OF EACH LAYER SHALL BE MAINTAINED DURING CONSTRUCTION OPERATIONS IN SUCH A MANNER THAT A UNIFORM TEXTURE IS PRODUCED AND THE AGGREGATE IS FIRMLY KEYED. THE MOISTURE CONTENT OF THE MATERIAL SHALL BE MAINTAINED AT THE PROPER PERCENT TO ATTAIN THE REQUIRED COMPACTION AND STABILITY. COMPACTION OF EACH LAYER SHALL BE CONTINUED UNTIL DENSITY OF NOT LESS THAN 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557 "MODIFIED PROCTOR DENSITY" HAS BEEN ACHIEVED FOR THE FULL WIDTH AND DEPTH OF EACH LAYER AS APPLIED.

THE SURFACE TOLERANCE OF EACH BASE COURSE AS APPLIED SHALL BE 3/8 INCHES ABOVE OR BELOW THE REQUIRED TEMPLATE LINES.

**AGGREGATE FOR SUB-BASE:**

AGGREGATE FOR SUB-BASE SHALL BE TYPE "D" (M007). IT SHALL BE FREE FROM VEGETABLE MATTER, LUMPS OR BALLS OF CLAY AND OTHER DELETERIOUS SUBSTANCES.

**COMMON BORROW:** COMMON BORROW SHALL CONSIST OF EARTH, SUITABLE FOR EMBANKMENT CONSTRUCTION. IT SHALL BE FREE FROM FROZEN MATERIAL, PERSHABLE RUBBISH, PEAT AND OTHER UNSUITABLE MATERIAL.

THE MOISTURE CONTENT SHALL BE SUFFICIENT TO PROVIDE THE REQUIRED COMPACTION AND STABLE EMBANKMENT. IN THE CASE WHERE THE MOISTURE CONTENT EXCEEDS 4 PERCENT ABOVE OPTIMUM.

ALL COMMON BORROW AND GRAVEL AREAS TO BE COMPACTED TO 95% OF ITS MAX. DRY DENSITY AS DETERMINED BY ASTM D-1557 "MODIFIED PROCTOR DENSITY". PLACE IN 4" TO 12" LIFTS.

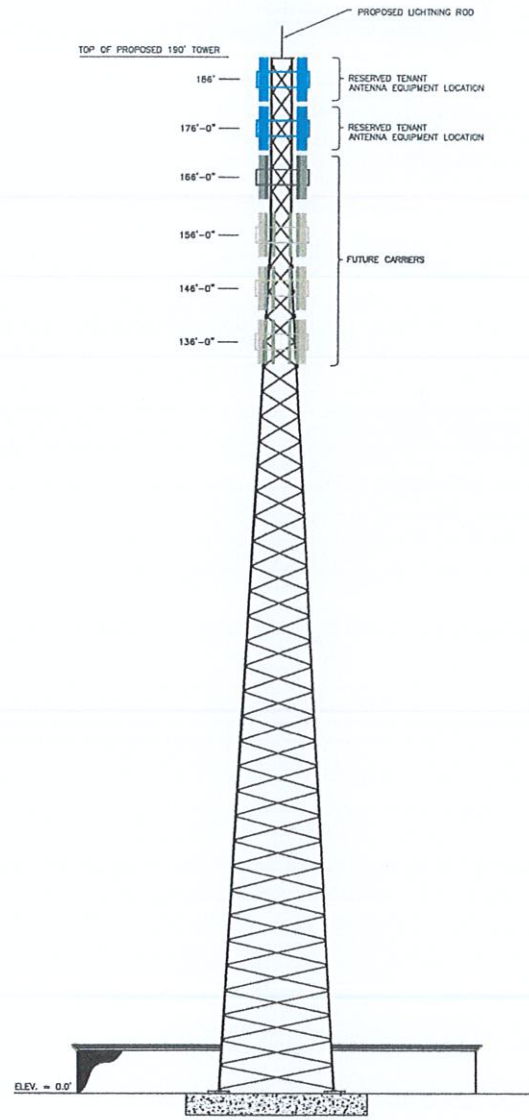
ENVIRONMENTAL AND CIVIL DETAILS

**RIISING TIDE TOWERS**

**BLACK DIAMOND CONSULTANTS INC**

PROJECT NUMBER RT-17  
SHEET NUMBER C4


DRAFT FOR DESIGN REVIEW ONLY



1 PROPOSED TOWER ELEVATION  
SCALE: NTS

**TOWER NOTES:**  
 1. TOWER ELEVATION PLAN SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL REFER TO TOWER MANUFACTURER DRAWINGS FOR COMPLETE INSTALLATION AND BILL OF MATERIAL INFORMATION.  
 2. TOWER MINIMUM DESIGN SPECIFICATIONS SHALL BE IN ACCORDANCE WITH ANSI/TIA/EIA 222-C "STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS, REVISION C" AND GOVERNING FEDERAL, STATE, AND LOCAL CODE REQUIREMENTS.  
 3. TOWER MANUFACTURER SHALL BE RESPONSIBLE FOR DESIGN AND STRUCTURAL COMPONENTS OF TOWER.

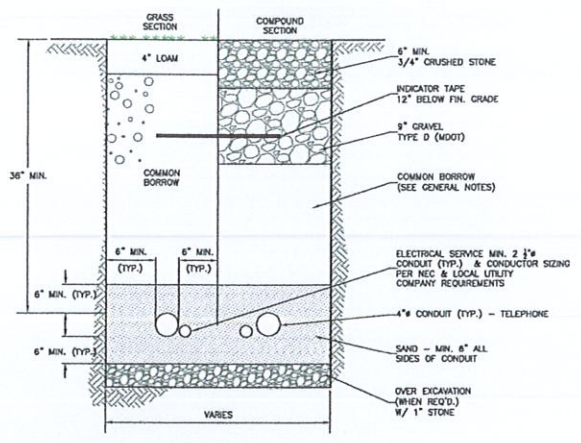
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FOR DESIGN REVIEW ONLY

TOWER ELEVATION  
**RIISING TIDE TOWERS**  
 **BLACK DIAMOND CONSULTANTS INC**  
 PROJECT NUMBER RT-17  
 SHEET NUMBER A1

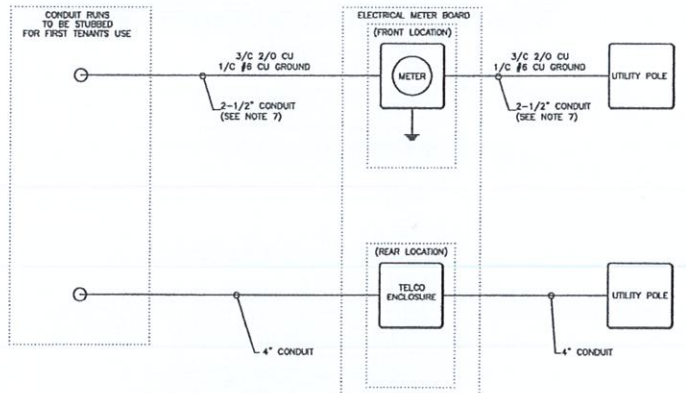
Classification: UNCLASSIFIED	SITE NAME: MACHIAS
Quality Category: NON-Q	SITE NUMBER: N/A

DATE: 10/11/17	BY: [Signature]	FOR: [Signature]
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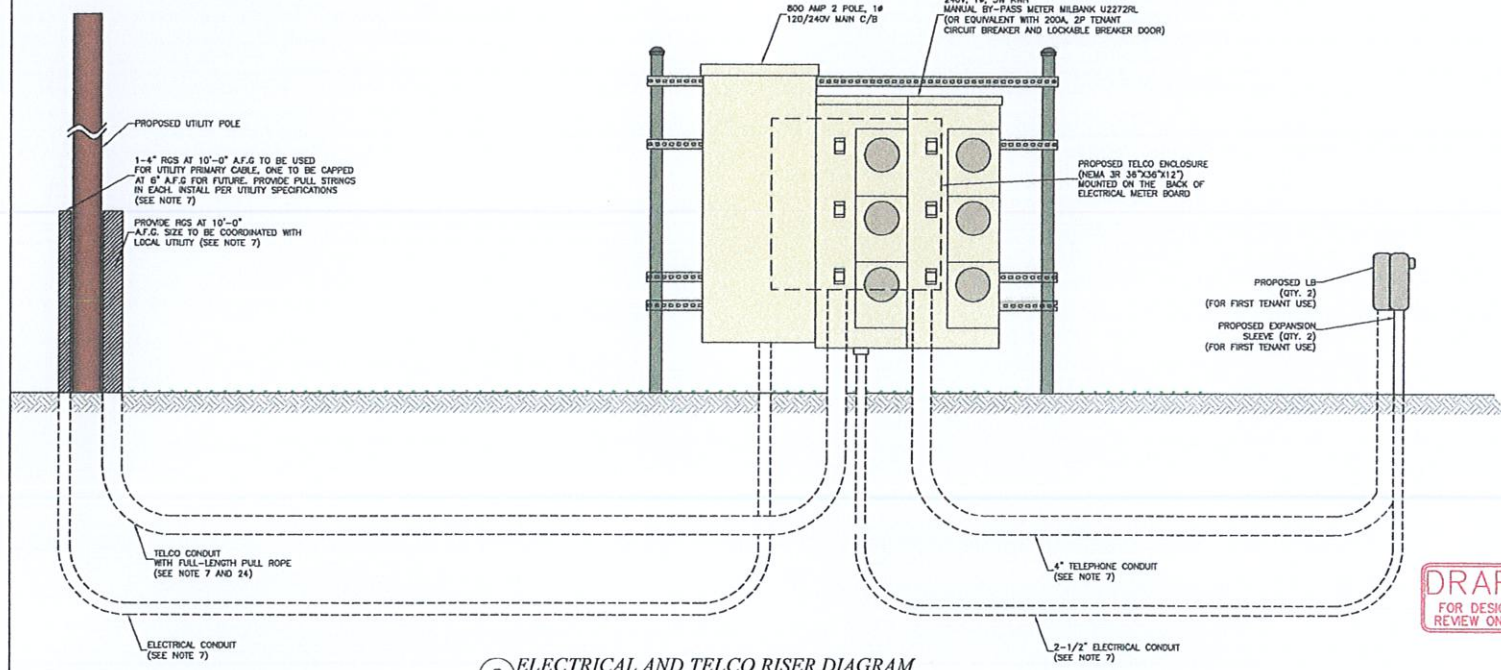




1 TYPICAL ELECTRICAL/TELEPHONE TRENCH SECTION  
SCALE: NTS



2 ELECTRICAL/TELEPHONE ONE LINE DIAGRAM  
SCALE: NTS



3 ELECTRICAL AND TELCO RISER DIAGRAM  
SCALE: NTS

- TRENCH NOTES:**
1. CONTRACTOR SHALL COMPLY WITH OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION REGULATIONS PERTAINING TO THE EXCAVATION OF ALL TRENCHES. CONTRACTOR SHALL ALLOW FOR PAYMENT OF ADDITIONAL EXCAVATION, TRENCH BOXES, AND BACKFILL WITH REGARD TO COMPLYING WITH ALL OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION STANDARDS.
  2. ALL COMMON BORROW AND GRAVEL AREAS TO BE COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557 "MODIFIED PROCTOR DENSITY". PLACE IN 9" TO 12" LIFTS.

- GENERAL ELECTRICAL AND TELCO NOTES:**
1. ALL TELCO CONDUITS SHALL BE 4" UNLESS OTHERWISE NOTED.
  2. CONTRACTOR SHALL INSTALL ALL CONDUITS AND WIRES AS SHOWN AS CONTINUOUS COPPER CONDUCTOR RUNS UNLESS OTHERWISE NOTED.
  3. CONDUIT AND PULL STRINGS SHALL BE INSTALLED BY CONTRACTOR.
  4. ALL ELECTRICAL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST NATIONAL ELECTRIC CODE, ALL LOCAL AND STATE CODES, LAWS AND ORDINANCES.
  5. POWER SERVICE REQUIREMENTS SHALL BE COMMERCIAL 120/240 VAC SINGLE PHASE AND 3 WIRE WITH 800 AMP RATING.
  6. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL CONDUIT ROUTING WITH LOCAL UTILITY COMPANIES AND WITH PROJECT MANAGER/ENGINEER.
  7. UTILITY SERVICES SHOWN ARE PROPOSED. THE ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT TELEPHONE AND ELECTRICAL SERVICE CONNECTION POINTS, ROUTING, CONDUIT SIZE, CONDUIT TYPE AND SIZE AND ASSOCIATED REQUIREMENTS WITH UTILITY COMPANIES.
  8. ALL CONDUITS ROUTED BELOW GRADE SHALL TRANSITION TO RIGID GALVANIZED STEEL CONDUIT ABOVE GRADE WITH EXPANSION SLEEVES.
  9. ALL METAL CONDUIT BUSHINGS SHALL BE PROVIDED WITH GROUNDING BUSHINGS.
  10. GENERAL CONTRACTOR SHALL PROVIDE ALL DIRECT BURIED CONDUITS WITH PLASTIC WARNING TAPE. IDENTIFYING CONTENTS. TAPE COLORS SHALL BE ORANGE FOR TELEPHONE AND RED FOR ELECTRICAL.
  11. CONTRACTOR SHALL VERIFY EXISTING BURIED UTILITIES PRIOR TO CONSTRUCTION (DIG SAFE UNDERGROUND SERVICE ALERT: 1-888-DIG-SAFE; 1-888-344-7233).
  12. SEAL ALL SERVICE ENTRANCES INTO THE CABINET FOLLOWING INSTALLATION.
  13. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY NEC AND LOCAL UTILITY.
  14. ALL MATERIALS SHALL BE U.L. LISTED.
  15. PENETRATIONS IN FIRE RATED WALLS SHALL BE SEALED IN ACCORDANCE WITH ALL APPLICABLE CODES.
  16. THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE. CONTRACTOR SHALL ENSURE THAT ACCESS TO EQUIPMENT IS MAINTAINED IN ACCORDANCE WITH MANUFACTURER SPECIFICATION AND ALL APPLICABLE CODES.
  17. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIAL SHALL BE LISTED AND APPROVED BY UNDERWRITER LABORATORY AND SHALL BEAR THE INSPECTION LABEL.
  18. POWER WIRE AND CABLE CONDUCTORS SHALL BE COPPER #12 AND MINIMUM UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS. CONDUCTORS #10 AWG AND SMALLER SHALL BE SOLID.
  19. ALL CONDUCTORS LARGER THAN #10 SHALL BE STRANDED COOPER WITH THIRN 800 VOLT INSULATION UNLESS OTHERWISE SPECIFIED.
  20. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING OF NOT LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C. COORDINATE SHORT CIRCUIT REQUIREMENTS WITH LOCAL UTILITY.
  21. CONTRACTOR SHALL PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF ELECTRICAL WORK.
  22. IN DRILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATION THROUGH THE FLOOR FOR CONDUIT RUNS, PIPING RUNS, ETC. IT MUST BE CLEARLY UNDERSTOOD THAT REINFORCEMENT STEEL WILL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES.
  23. LOCATION OF REINFORCING STEEL ARE NOT DEFINITELY KNOWN AND, THEREFORE, MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT.
  24. PULL ROPE SHALL BE 3/8" OR LARGER AND MUST BE INSTALLED IN TERMINATED CONDUIT END TO END.
  25. CONTRACTOR SHALL FASTEN CONDUIT TO BACK OF H-FRAME AND CAP FOR FUTURE USE.

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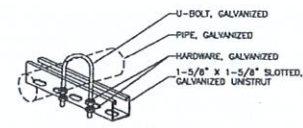
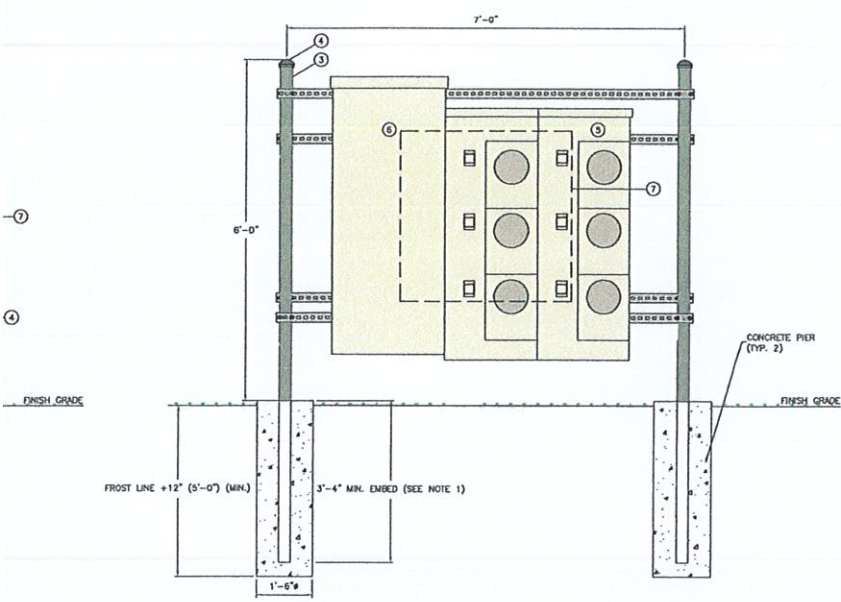
ELECTRICAL AND TELCO DETAILS  
**RIISING TIDE TOWERS**  
**BLACK DIAMOND CONSULTANTS INC**

PROJECT NUMBER RT-17  
SHEET NUMBER E1

Classification: UNCLASSIFIED SITE NAME: MACHIAS  
Quality Category: NON-Q SITE NUMBER: N/A

NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6
REV	BY	DATE	DESCRIPTION	APP'D	DATE





**UNISTRUT AND GALVANIZED PIPE CONNECTION DETAIL**  
SCALE: NTS

**SIDE ELEVATION**      **ELECTRICAL METER BOARD FRONT ELEVATION**  
SCALE: NTS

ITEM	DESCRIPTION
1	PIPE, SCHEDULE 40, GALVANIZED, 3"
2	CAP, GALVANIZED, 3"
3	CHANNEL, 1-5/8" X 1-5/8", SLOTTED HOLE, GALVANIZED
4	U-BOLT, FOR 3" PIPE, GALVANIZED, WITH HARDWARE
5	ELECTRICAL METER ENCLOSURE, SIX GANG
6	ELECTRICAL DISTRIBUTION ENCLOSURE
7	TELEC ENCLASURE NEMA 3R 36" X 36" X 12"

NOTES:  
1. FOR BURIED LEDGE AT LESS THAN 3'-0", CORE LEDGE WITH 4-1/2" X 8" DEEP HOLES AND GROUT.  
#3 REINFORCING STEEL WITH #3 TIES AT 6" O.C.

**DRAFT**  
FOR DESIGN  
REVIEW ONLY

ELECTRICAL METER DETAILS  
**RISING TIDE TOWERS**

**BLACK DIAMOND CONSULTANTS INC**

PROJECT NUMBER RT-17  
SHEET NUMBER E2

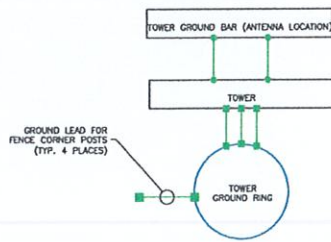
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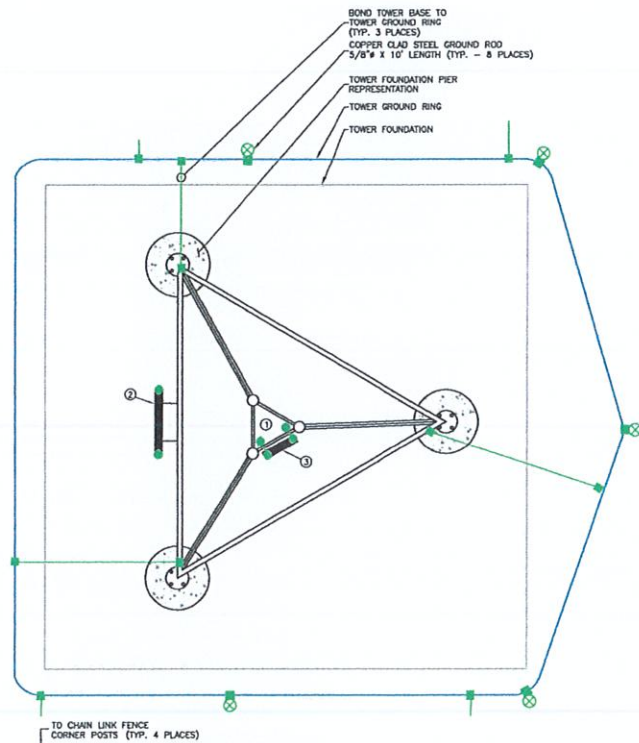
SOC PROJECT(S)	RT-17	SOC PROPOSAL(S)	N/A
SOC JOB ORDER(S)		CLIENT DATA	
SEE SHEET		WORKSHEET NUMBER	

LEGEND	
1	EXOTHERMIC CONNECTION
2	MECHANICAL CONNECTION
3	GROUND ROD

ITEM LIST	
NO	DESCRIPTION
1	TOWER
2	TOWER BASE GROUND BAR (TOWER BASE LOCATION)
3	TOWER TOP GROUND BAR (ANTENNA LOCATION)



**GROUNDING DIAGRAM**  
SCALE: NTS



**GROUNDING LAYOUT**  
SCALE: NTS

- NOTES:**
- GROUNDING INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SITE SPECIFIC CONDITIONS. ALL DETAILS ARE SHOWN DIAGRAMMATICALLY.
  - ALL GROUND WIRE SHALL BE BARE #2/0 AWG COPPER WIRE UNLESS OTHERWISE NOTED.
  - ALL GROUND WIRES SHALL PROVIDE A STRAIGHT, DOWNWARD PATH TO GROUND WITH GRADUAL BENDS AS REQUIRED. GROUND WIRES SHALL NOT BE LOOPED OR SHARPLY BENT.
  - GROUNDING SYSTEMS (TOWER GROUND RING) SHALL BE TESTED. AN EARTH RESISTANCE TESTER USING THE THREE-POINT TEST METHOD SHALL BE USED. TESTS SHALL BE COMBINED WITH SOIL RESISTIVITY TESTING. DOCUMENTATION TO BE PRESENTED RECORDING SUBSYSTEMS GROUND RESISTIVITY VIA A FALL-OF-POTENTIAL TEST OF 10 OHMS OR LESS AND SOIL RESISTIVITY RESULTS.
  - ALL UNDERGROUND CONNECTIONS AND/OR GROUND RODS SHALL BE CADWELDED AND INSPECTED BY PROJECT MANAGER/DESIGNEE PRIOR TO BACKFILLING.
  - ALL GROUND LEADS SHALL BE ATTACHED TO GROUND BARS USING TWO HOLE LUGS. CORROSION INHIBITING CONDUCTIVE COMPOUND SHALL BE APPLIED BETWEEN THE LUG AND GROUND BAR.
  - ALL EXPOSED #2/0 CONDUCTOR SHALL BE PLACED IN NON-METALLIC CONDUIT WITH THE EXPOSED OPEN ENDS SEALED.
  - GROUND RING LOCATION SHALL BE 2 FEET FROM MODULAR PLATFORM. MINIMUM LENGTH OF GROUND RING IS SIXTEEN FEET.
  - ALL CADWELDED CONNECTIONS TO GALVANIZED MATERIAL SHALL BE PROPERLY PREPARED TO ASSURE A SATISFACTORY CADWELD. THE CADWELD CONNECTION SHALL BE COATED WITH A COLD GALVANIZING SPRAY TO PREVENT CORROSION.
  - COPPER CLAD GROUND RODS SHALL BE 3/8" x 10' LONG AND BE DRIVEN INTO THE GROUND, TOP OF GRADE OR 6" BELOW AVERAGE FROST DEPTH (WHICHEVER IS GREATER).
  - GROUND RODS SHALL BE SYMMETRICALLY PLACED AROUND THE TOWER FOUNDATION AT A MINIMUM 20' DISTANCE.
  - ALL GROUNDING CONDUCTORS SHALL BE INSTALLED IN 3/4" INCH SCH 40 PVC CONDUIT TO 12" BELOW GRADE. ATTACH PVC CONDUIT WITH GALVANIZED "C" CLAMPS.
  - FENCES SHALL BE BONDED TO THE FACILITY OR TOWER EXTERNAL GROUND RING AT EACH CORNER ON INSIDE OF FENCED COMPOUND.
  - ALL ENTRY GATE'S SHALL BE BONDED TO THE MAIN FENCE ASSEMBLY BY A METAL STRAP.
  - GROUNDING CONDUCTORS SHALL HAVE A MINIMUM BEND RADIUS OF 8"
  - CONTRACTOR SHALL NOT DISTURB EXISTING GROUND SYSTEM AND ANY DAMAGE SHALL BE REPAIRED AT NO ADDITIONAL COST.

Classification: UNCLASSIFIED SITE NAME: MACHIAS  
Quality Category: NON-Q SITE NUMBER: N/A

DATE	BDC PROJECT(S)	BY	BDC PROPOSAL(S)
DATE	BDC JOB ORDER(S)	BY	CLIENT DATA
DATE	DATE	BY	DATE

GROUNDING DETAILS  
**RISING TIDE TOWERS**

**BLACK DIAMOND CONSULTANTS INC**

PROJECT NUMBER RT-17  
SHEET NUMBER E3

**DRAFT**  
FOR DESIGN REVIEW ONLY

Rising Tide Towers, LLC

Scenic Assessment















Rising Tide Towers, LLC

Existing Antenna Structures  
(within 30 miles)



