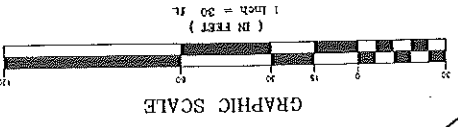
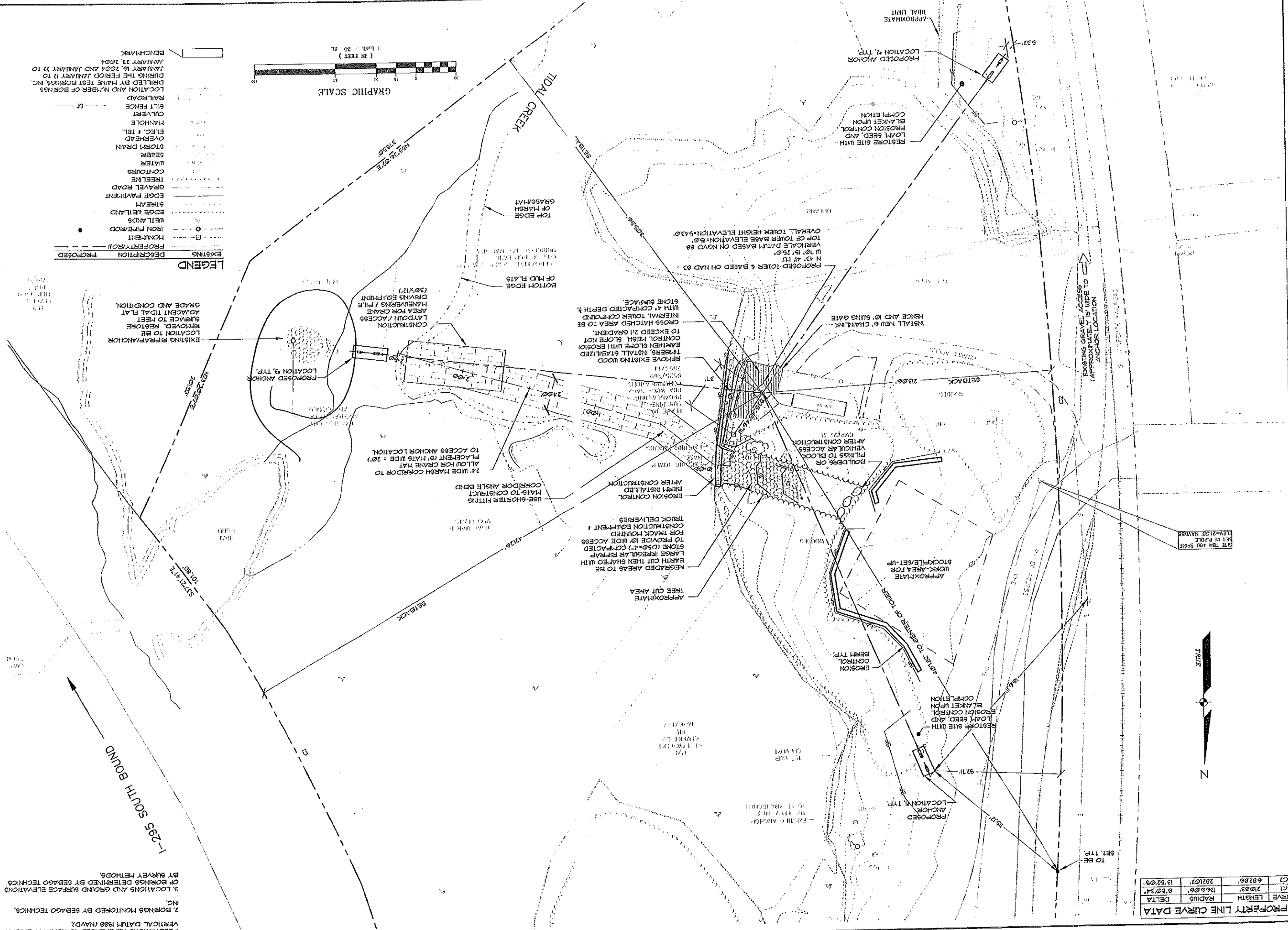




PROPERTY LINE CURVE DATA			
CURVE LENGTH	RADIUS	DELTA	CHORD
682.86'	1562.06'	87.80°34'	C1
210.23'	1562.06'	87.80°34'	C2
2021.07'		13.92°09'	



EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY LINE	---
---	MONUMENT	---
---	IRON PIPE/ROD	---
---	WETLANDS	---
---	EDGE WETLAND	---
---	STREET	---
---	EDGE PAVEMENT	---
---	GRAVEL ROAD	---
---	TREELINE	---
---	CONTOURS	---
---	WATER	---
---	SEWER	---
---	STORM DRAIN	---
---	OVERHEAD ELEC. & TEL.	---
---	MANHOLE	---
---	CULVERT	---
---	SILT FENCE	---
---	RAILROAD	---
---	LOCATION AND NUMBER OF BORINGS	---
---	DURING THE PERIOD JANUARY 12 TO JANUARY 18, 2004 AND JANUARY 22 TO JANUARY 23, 2004	---
---	NOT PRESUMPTIVE FOR PLANNING PURPOSES	---
---	BENCHMARK	---

**SITE PLAN**  
**528' TOWER REPLACEMENT PROJECT**  
 FOR  
**SAGA COMMUNICATIONS,**  
 40 WESTERN AVE  
 SOUTH PORTLAND, MAINE 04106

RECORD OWNER:  
**ST. LAWRENCE CEMENT, INC.**  
 3 COLUMBIA CIR.  
 ALBANY, NY 12203

DATE: 05-28-04  
 SCALE: 1" = 30'

**SHEET 1 OF 2**

**Sebago Technics**  
 Engineering Experience You Can Build On  
 One Sebago Square - 139  
 Portland, ME 04106  
 Tel: (207) 856-0277

PROJECT NO: FIELD BOOK DESIGN CHNG DRAWN  
 03497 CLB CLB JNB

REV.	BY	DATE	STATUS	COMMENTS
B	JNS	8-30-04	BANK & RIPRAP ANCHOR REMOVAL PER D.E.P. COMMENTS	
A	JNS	5-28-04	NRPA/DEP APPLICATION SUBMISSION	

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, ADDITIONS OR DELETIONS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.



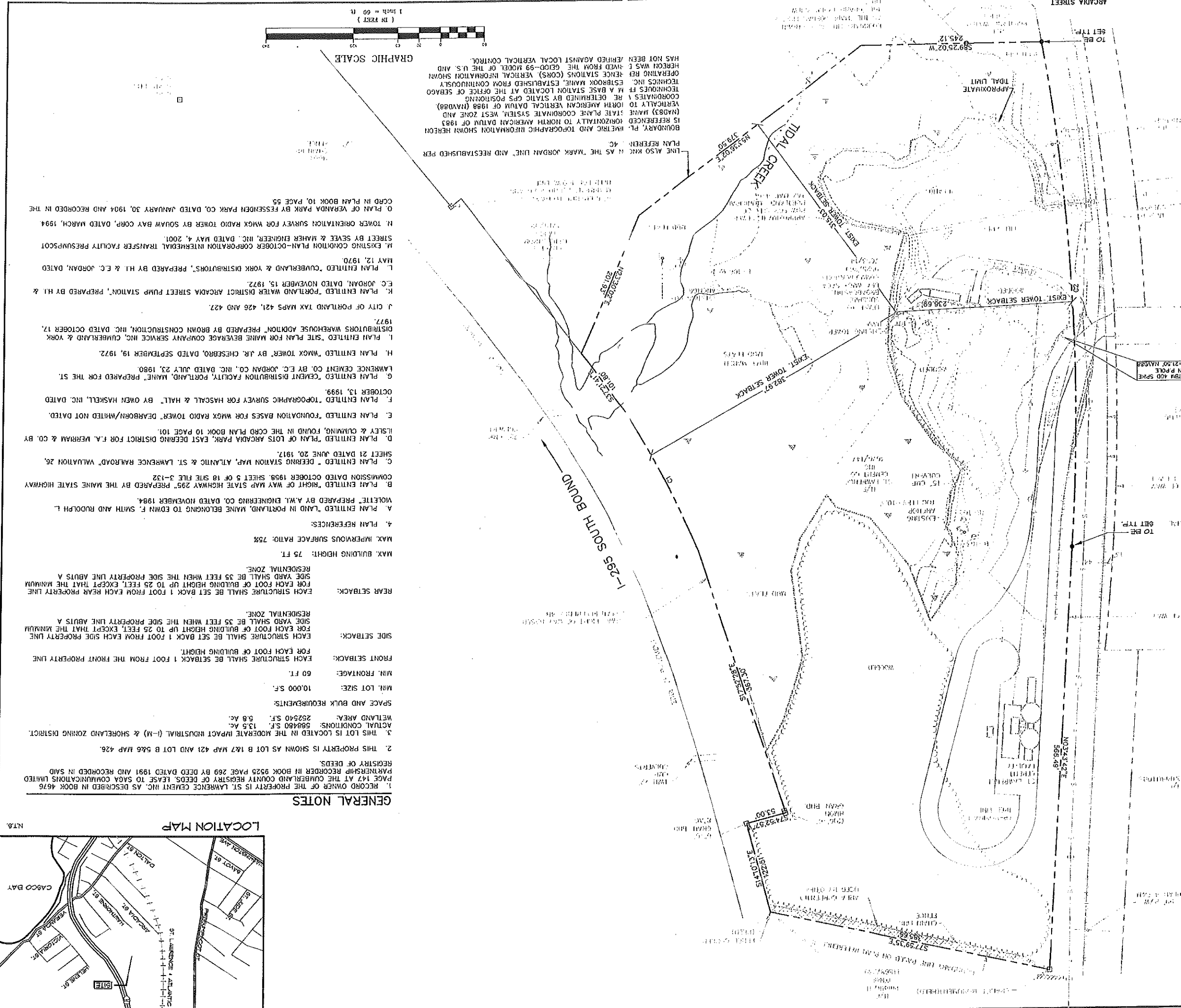
1. ELEVATIONS REFERENCED TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD).  
 2. BORINGS MONITORED BY SEBAGO TECHNICS, INC.  
 3. LOCATIONS AND GROUND SURFACE ELEVATIONS OF BORINGS DETERMINED BY SEBAGO TECHNICS BY SURVEY METHODS.



CURVE	LENGTH	RADIUS	DELTA
C1	20.03'	1366.02'	0.9034°
C2	68.286'	2012.02'	1.9220°



EXISTING	DESCRIPTION	PROPOSED
	BENCHMARK	
	RAILROAD	
	MANHOLE	
	CONTOURS	
	UTILITY POLE	
	TRESTLE	
	GRAVEL ROAD	
	EDGE PAVEMENT	
	WETLAND	
	BUILDING	
	IRON PIPE/PROP	
	MONUMENT	
	PROPERTY ROW	
	EXISTING	
	PROPOSED	



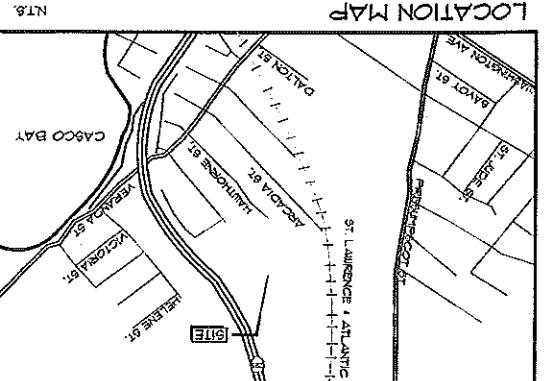
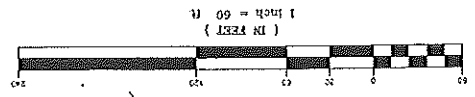
**GENERAL NOTES**

- RECORD OWNER OF THE PROPERTY IS ST. LAWRENCE CEMENT INC. AS DESCRIBED IN BOOK 4676 PARTNERSHIP RECORD IN BOOK 9525 PAGE 269 BY DEED DATED 1991 AND RECORDED IN SAID REGISTRY OF DEEDS.
- THIS PROPERTY IS SHOWN AS LOT B 187 MAP 421 AND LOT B 546 MAP 426.
- THIS LOT IS LOCATED IN THE MODERATE IMPACT INDUSTRIAL (I-M) & SHORELAND ZONING DISTRICT. ACTUAL CONDITIONS: 588480 S.F. 13.5 AC. 252540 S.F. 5.8 AC.
- SPACE AND BULK REQUIREMENTS: MIN. LOT SIZE: 10,000 S.F. MIN. FRONTAGE: 60 FT.
- FRONT SETBACK: EACH STRUCTURE SHALL BE SETBACK 1 FOOT FROM THE FRONT PROPERTY LINE FOR EACH FOOT OF BUILDING HEIGHT.
- SIDE SETBACK: EACH STRUCTURE SHALL BE SET BACK 1 FOOT FROM EACH SIDE PROPERTY LINE FOR EACH FOOT OF BUILDING HEIGHT UP TO 25 FEET, EXCEPT THAT THE MINIMUM SIDE YARD SHALL BE 35 FEET WHEN THE SIDE PROPERTY LINE ABUTS A RESIDENTIAL ZONE.
- REAR SETBACK: EACH STRUCTURE SHALL BE SET BACK 1 FOOT FROM EACH REAR PROPERTY LINE FOR EACH FOOT OF BUILDING HEIGHT UP TO 25 FEET, EXCEPT THAT THE MINIMUM SIDE YARD SHALL BE 35 FEET WHEN THE SIDE PROPERTY LINE ABUTS A RESIDENTIAL ZONE.
- MAX. BUILDING HEIGHT: 75 FT.
- MAX. IMPERVIOUS SURFACE RATIO: 75%
4. PLAN REFERENCES:
  - PLAN ENTITLED "LAND IN PORTLAND, MAINE BELONGING TO EDWIN F. SMITH AND RUDOLPH L. VIOLETTE" PREPARED BY A.W.L. ENGINEERING CO. DATED NOVEMBER 1984.
  - PLAN ENTITLED "RIGHT OF WAY MAP STATE HIGHWAY 295" PREPARED BY THE MAINE STATE HIGHWAY COMMISSION DATED OCTOBER 1958. SHEET 5 OF 18 SITE FILE 3-132
  - PLAN ENTITLED "DEERING STATION MAP, ATLANTIC & ST. LAWRENCE RAILROAD" VALUATION 26, SHEET 21 DATED JUNE 20, 1917.
  - PLAN ENTITLED "PLAN OF LOTS ARCADIA PARK, EAST DEERING DISTRICT FOR F.A. VERRIAM & CO. BY HILEY & CUMMING, FOUND IN THE CORD PLAN BOOK 10 PAGE 101.
  - PLAN ENTITLED "TOPOGRAPHIC SURVEY FOR HASCALL & HALL" BY OWEN HASKELL, INC. DATED OCTOBER 13, 1999.
  - PLAN ENTITLED "CEMENT DISTRIBUTION FACILITY, PORTLAND, MAINE" PREPARED FOR THE ST. LAWRENCE CEMENT CO. BY E.C. JORDAN CO., INC. DATED JULY 23, 1980.
  - PLAN ENTITLED "WMOX TOWER" BY J.R. CHESEBRO, DATED SEPTEMBER 19, 1972.
  - PLAN ENTITLED "SITE PLAN FOR MAINE BEVERAGE COMPANY SERVICE INC. CUMBERLAND & YORK DISTRIBUTORS WAREHOUSE ADDITION" PREPARED BY BROWN CONSTRUCTION, INC. DATED OCTOBER 17, 1977.
  - CITY OF PORTLAND TAX MAPS 421, 426 AND 427.
  - PLAN ENTITLED "PORTLAND WATER DISTRICT ARCADIA STREET PUMP STATION", PREPARED BY H.I. & E.C. JORDAN, DATED NOVEMBER 15, 1972.
  - PLAN ENTITLED "CUMBERLAND & YORK DISTRIBUTORS", PREPARED BY H.I. & E.C. JORDAN, DATED MAY 12, 1970.
  - EXISTING CONDITION PLAN-OCTOBER INTERMEDIAL TRANSFER FACILITY PRESUMPSCOOT STREET BY SEVEE & MAHER ENGINEER, INC. DATED MAY 4, 2001.
  - EXISTING ORIENTATION SURVEY FOR WMOX RADIO TOWER BY SQUAW BAY CORP, DATED MARCH, 1994
  - PLAN OF VERANDA PARK BY FESSENDEN PARK CO. DATED JANUARY 30, 1904 AND RECORDED IN THE CORD IN PLAN BOOK 10, PAGE 55.

BOUNDARY PL. METRIC AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS REFERENCED HORIZONTALLY TO NORTH AMERICAN DATUM OF 1983 (NAD83) MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE AND VERTICALLY TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). COORDINATES ARE DETERMINED BY STATIC GPS POSITIONING TECHNIQUES FROM A BASE STATION LOCATED AT THE OFFICE OF SEBAGO TECHNICS INC. ESTABLISHED FROM CONTIGUOUS REFERENCE STATIONS (CORDS) VERTICAL INFORMATION SHOWN OPERATING REFERENCE STATIONS (CORDS) VERTICAL INFORMATION SHOWN HEREON WAS DERIVED FROM THE GICD-99 MODEL OF THE U.S. AND HAS NOT BEEN ADJUSTED AGAINST LOCAL VERTICAL CONTROL.

LINE ALSO KNOWN AS THE "MARK JORDAN LINE" AND REESTABLISHED PER PLAN REFERENCE 4C.

BOUNDARY PL. METRIC AND TOPOGRAPHIC INFORMATION SHOWN HEREON IS REFERENCED HORIZONTALLY TO NORTH AMERICAN DATUM OF 1983 (NAD83) MAINE STATE PLANE COORDINATE SYSTEM, WEST ZONE AND VERTICALLY TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). COORDINATES ARE DETERMINED BY STATIC GPS POSITIONING TECHNIQUES FROM A BASE STATION LOCATED AT THE OFFICE OF SEBAGO TECHNICS INC. ESTABLISHED FROM CONTIGUOUS REFERENCE STATIONS (CORDS) VERTICAL INFORMATION SHOWN HEREON WAS DERIVED FROM THE GICD-99 MODEL OF THE U.S. AND HAS NOT BEEN ADJUSTED AGAINST LOCAL VERTICAL CONTROL.



**EXISTING CONDITIONS SURVEY**  
**OF THE**  
**SUNSHINE BROADCASTING WMOX TOWER**  
 FOR:  
**SAGA COMMUNICATIONS, INC.**  
 420 WESTERN AVE.  
 SOUTH PORTLAND, MAINE 04106

**Sebago Technics**  
 Engineering Experts You Can Build On  
 One Central Street  
 Westbrook, Me 04098-1339  
 Tel (207) 866-0277

PROJECT NO.	FIELD BOOK	DESIGN	CHKD	DRAWN
03497		CLB	CLB	JNB

#	BY	DATE	STATUS

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, INCORPORATIONS, OR OMISSIONS SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.

RECORD OWNER:  
**SAGA COMMUNICATIONS, INC.**  
 ST. LAWRENCE CEMENT, INC.  
 3 COLUMBIA CIR.  
 ALBANY, NY 12203

CURVE	LENGTH	RADIUS	DELTA
C1	210.83'	1366.06'	85°34'
C2	681.26'	2811.02'	13°52'09"



1. ELEVATIONS REFERENCED TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD)  
 2. BORINGS MONITORED BY SEBAGO TECHNICS, INC.  
 3. LOCATIONS AND GROUND SURFACE ELEVATIONS OF BORINGS DETERMINED BY SEBAGO TECHNICS BY SURVEY METHODS.



REV.	BY	DATE	STATUS	COMMENTS
A	JRS	8-30-04	BANK & RIPRAP ANCHOR REMOVAL PER D.E.P. COMMENTS	
B	JRS	9-28-04	PREPARED APPLICATION SUBMISSION	

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**Sebago Technics**  
 Engineering Experts You Can Build On  
 One Oyster Street  
 Westbrook, ME 04092-1338  
 Tel: (207) 886-0277

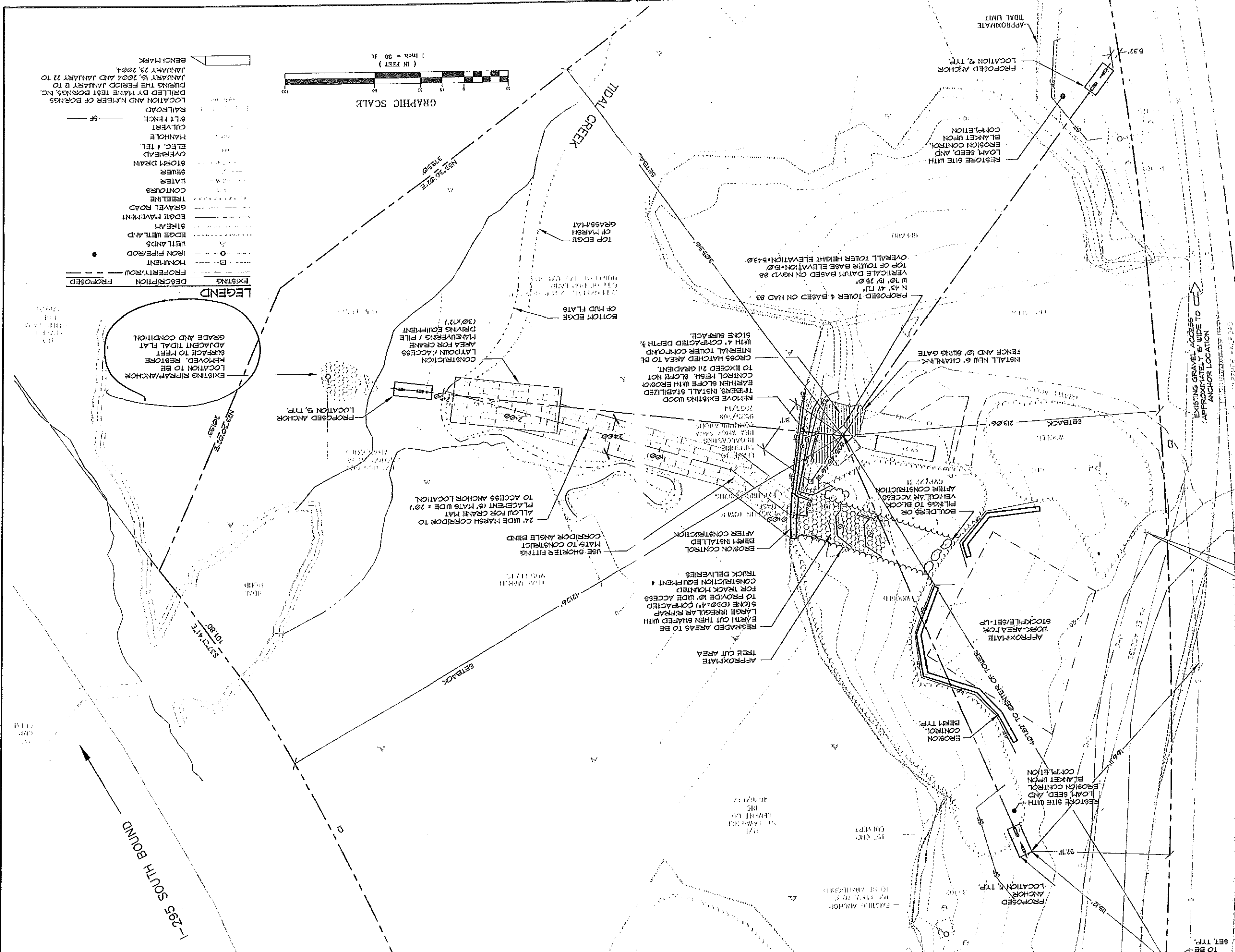
PROJECT NO.	FIELD BOOK	DESIGN	CHAD	DRAWN
03497			CLB	JMB

**SITE PLAN**  
 FOR THE  
**528' TOWER REPLACEMENT PROJECT**  
 167 PRESUMPSCOT STREET  
 PORTLAND, MAINE  
 FOR: SAGA COMMUNICATIONS, INC.  
 140 WESTERN AVE  
 SOUTH PORTLAND, MAINE 04106

RECORD OWNER: ST. COLUMBA CEMENT, INC.  
 3 COLUMBIA CIR  
 ALBANY, NY 12203

DATE: 05-28-04  
 SCALE: 1" = 30'

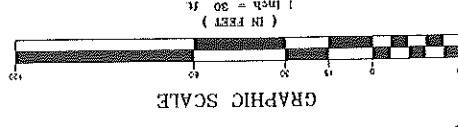
SHEET 1 OF 2



**LEGEND**

EXISTING	DESCRIPTION	PROPOSED
—	PROPERTY LINE	---
—	PROFFERED	---
—	MONUMENT	---
—	IRON PIPE/ROD	---
—	WETLANDS	---
—	EDGE WETLAND	---
—	STREAM	---
—	EDGE PAVEMENT	---
—	GRAVEL ROAD	---
—	TREELINE	---
—	CONTOURS	---
—	WATER	---
—	SEWER	---
—	STORM DRAIN	---
—	OVERHEAD	---
—	ELEC. & TEL.	---
—	MANHOLE	---
—	CULVERT	---
—	SILT FENCE	---
—	RAILROAD	---

LOCATION AND NUMBER OF BORINGS DURING THE PERIOD JANUARY 12 TO JANUARY 16, 2004 AND JANUARY 22 TO JANUARY 23, 2004.  
 BENCHMARK

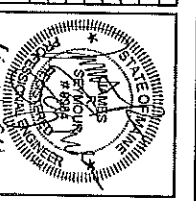


1. ELEVATIONS REFERENCED TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD)  
 2. BORINGS MONITORED BY SEBAGO TECHNICS, INC.  
 3. LOCATIONS AND GROUND SURFACE ELEVATIONS OF BORINGS DETERMINED BY SEBAGO TECHNICS BY SURVEY METHODS.

**DETAILS**  
**OF THE**  
**528<sup>th</sup> TOWER REPLACEMENT PROJECT**  
 FOR THE  
 157 PRESUMSCOTT STREET  
 PORTLAND, MAINE  
**SAGA COMMUNICATIONS,**  
 420 WESTERN AVE  
 SOUTH PORTLAND, MAINE 04106

RECORD OWNER:  
 37 COLIMBERT DRIVE  
 ALBANY, NY 12203  
**Sebago Technics**  
 Engineering Experts You Can Build On  
 One Church Street  
 Westbrook, ME 04090-1309  
 Tel: (207) 556-0277

PROJECT NO.	FIELD BOOK	DESIGN	CHGD	DRAWN
03497		JMS	CLB	BOY
REV.	DATE	STATUS		
A	5-28-04			
THIS PLAN SHALL NOT BE ADDED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS, AUTHORIZED OR OTHERWISE, SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.				



**EROSION AND SEDIMENTATION CONTROL PLAN**

**A. PRE-CONSTRUCTION PHASE**

1. PRIOR TO THE BEGINNING OF ANY CONSTRUCTION FILTER FABRIC SHALL BE BLANKET COVERED ALONG THE ENTIRE LENGTH OF THE CONSTRUCTION AREA OR THE ENTIRE PERIMETER OF THE CONSTRUCTION AREA. THE FABRIC SHALL BE BLANKET COVERED WITH A 6" TRENCH AT THE TOP END OF THE FILTER FABRIC AND BACKFILL AND TAMPED BEHIND THE FABRIC. THE FABRIC SHALL BE BLANKET COVERED WITH A 6" TRENCH AT THE TOP END OF THE FILTER FABRIC AND BACKFILL AND TAMPED BEHIND THE FABRIC. THE FABRIC SHALL BE BLANKET COVERED WITH A 6" TRENCH AT THE TOP END OF THE FILTER FABRIC AND BACKFILL AND TAMPED BEHIND THE FABRIC.

**B. CONSTRUCTION AND POST-CONSTRUCTION PHASE**

1. AREAS UNDER CONSTRUCTION SHALL ONLY EXPOSE SOIL TO A LIMITED EXTENT FOR PROGRESSIVE AND EFFICIENT CONSTRUCTION AND SHALL NOT EXCEED 10 DAYS THAT WILL NOT BE COVERED WITH A 6" TRENCH AT THE TOP END OF THE FILTER FABRIC AND BACKFILL AND TAMPED BEHIND THE FABRIC.

**C. VEGETATION PLAN**

1. VEGETATION IN AN REVEALATION SHALL BE REPLANTED WITH THE FOLLOWING VEGETATION PLAN.

2. ALL AREAS SHALL BE REVEALED AND STABILIZED IN ACCORDANCE WITH THE FOLLOWING VEGETATION PLAN.

3. STONE CHECK DAMS SHALL BE INSTALLED ONLY AFTER THE ROADWAY IS OPENED AND THE VEGETATION SHALL BE ESTABLISHED WITH AT LEAST 50% OF VEGETATION PERENNIAL GROUND.

4. A CONSTRUCTION ENTRANCE SHALL BE PLACED AT THE INTERSECTION OF THE EXISTING ROAD AND THE ACCESS DRIVE ROADWAY AREAS SHALL BE REVEALED AND STABILIZED IN ACCORDANCE WITH THE FOLLOWING VEGETATION PLAN.

5. STONE CHECK DAMS SHALL BE INSTALLED ONLY AFTER THE ROADWAY IS OPENED AND THE VEGETATION SHALL BE ESTABLISHED WITH AT LEAST 50% OF VEGETATION PERENNIAL GROUND.

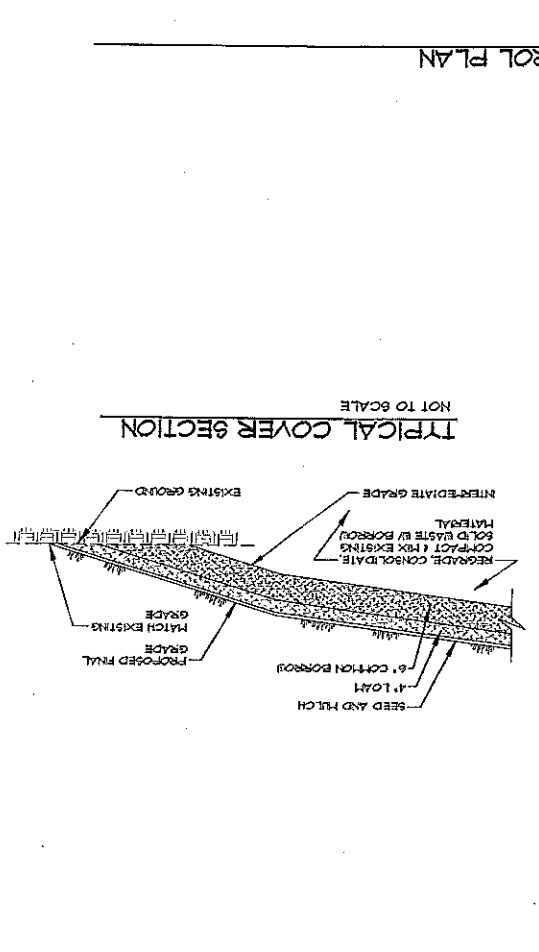
6. ALL AREAS SHALL BE REVEALED AND STABILIZED IN ACCORDANCE WITH THE FOLLOWING VEGETATION PLAN.

7. VEGETATION IN AN REVEALATION SHALL BE REPLANTED WITH THE FOLLOWING VEGETATION PLAN.

8. ALL AREAS SHALL BE REVEALED AND STABILIZED IN ACCORDANCE WITH THE FOLLOWING VEGETATION PLAN.

9. STONE CHECK DAMS SHALL BE INSTALLED ONLY AFTER THE ROADWAY IS OPENED AND THE VEGETATION SHALL BE ESTABLISHED WITH AT LEAST 50% OF VEGETATION PERENNIAL GROUND.

10. A CONSTRUCTION ENTRANCE SHALL BE PLACED AT THE INTERSECTION OF THE EXISTING ROAD AND THE ACCESS DRIVE ROADWAY AREAS SHALL BE REVEALED AND STABILIZED IN ACCORDANCE WITH THE FOLLOWING VEGETATION PLAN.



**EROSION CONTROL BLANKET**

**NOT TO SCALE**

1. BURY THE TOP END OF THE FRESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP BEHIND THE FABRIC.

2. FRESH MATERIAL SHALL BE BLANKET COVERED WITH A 6" TRENCH AT THE TOP END OF THE FILTER FABRIC AND BACKFILL AND TAMPED BEHIND THE FABRIC.

3. LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS, STRIP ON CENTER.

4. STRIP OUTSIDE LATERAL EDGE 2" ON CENTER.

5. USE NORTH ARROW AS SHOWN OR APPROXIMATE EQUAL.

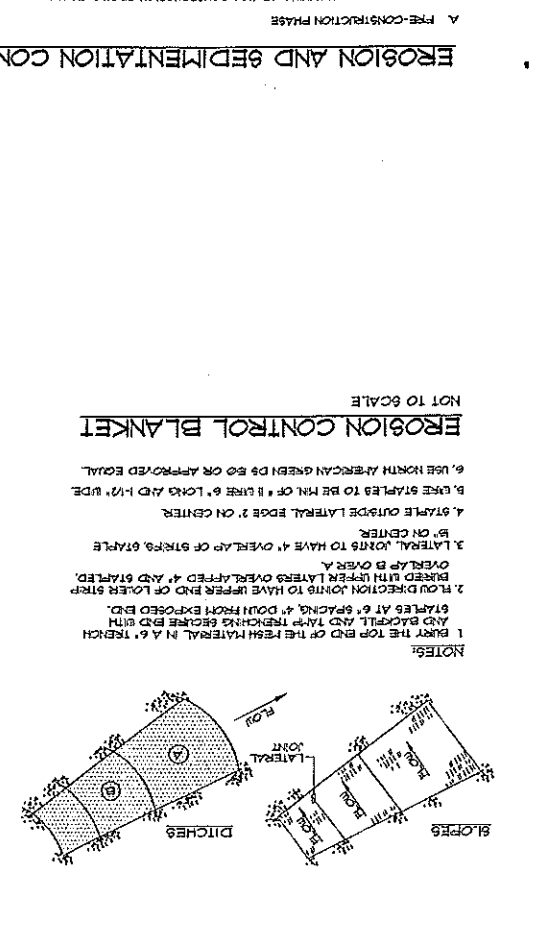
6. USE NORTH ARROW AS SHOWN OR APPROXIMATE EQUAL.

7. USE NORTH ARROW AS SHOWN OR APPROXIMATE EQUAL.

8. USE NORTH ARROW AS SHOWN OR APPROXIMATE EQUAL.

9. USE NORTH ARROW AS SHOWN OR APPROXIMATE EQUAL.

10. USE NORTH ARROW AS SHOWN OR APPROXIMATE EQUAL.



**SLIDE SLOPE RIPRAP**

**NOT TO SCALE**

1. ALL STIPPLED AREAS DO NOT RECEIVE FILL, BEING BY DESIGN LEFT OPEN TO RECEIVE FILL. ALL STIPPLED AREAS DO NOT RECEIVE FILL, BEING BY DESIGN LEFT OPEN TO RECEIVE FILL.

2. ALL STIPPLED AREAS DO NOT RECEIVE FILL, BEING BY DESIGN LEFT OPEN TO RECEIVE FILL.

3. ALL STIPPLED AREAS DO NOT RECEIVE FILL, BEING BY DESIGN LEFT OPEN TO RECEIVE FILL.

4. ALL STIPPLED AREAS DO NOT RECEIVE FILL, BEING BY DESIGN LEFT OPEN TO RECEIVE FILL.

5. ALL STIPPLED AREAS DO NOT RECEIVE FILL, BEING BY DESIGN LEFT OPEN TO RECEIVE FILL.

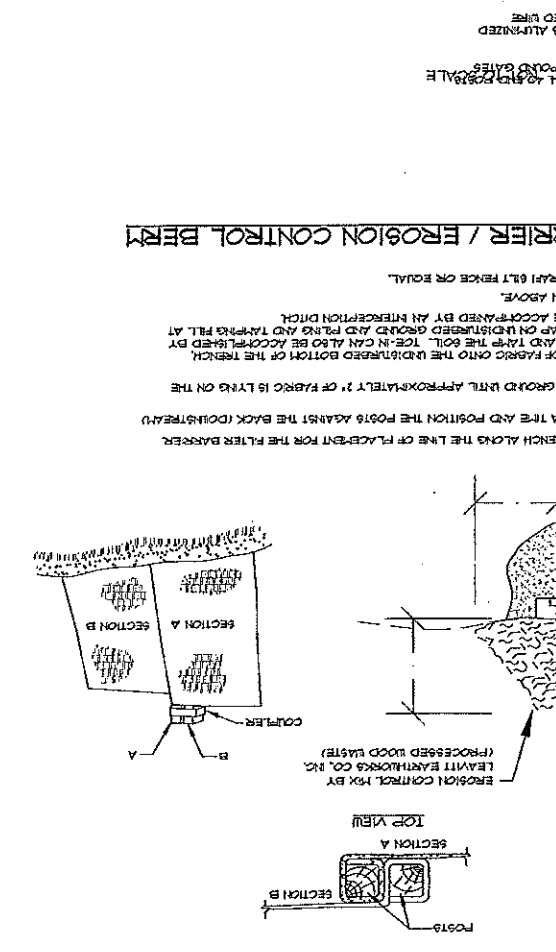
6. ALL STIPPLED AREAS DO NOT RECEIVE FILL, BEING BY DESIGN LEFT OPEN TO RECEIVE FILL.

7. ALL STIPPLED AREAS DO NOT RECEIVE FILL, BEING BY DESIGN LEFT OPEN TO RECEIVE FILL.

8. ALL STIPPLED AREAS DO NOT RECEIVE FILL, BEING BY DESIGN LEFT OPEN TO RECEIVE FILL.

9. ALL STIPPLED AREAS DO NOT RECEIVE FILL, BEING BY DESIGN LEFT OPEN TO RECEIVE FILL.

10. ALL STIPPLED AREAS DO NOT RECEIVE FILL, BEING BY DESIGN LEFT OPEN TO RECEIVE FILL.



**CRANE MAT DETAIL**

**SCALE: 1" = 2'**

1. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION. RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

2. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

3. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

4. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

5. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

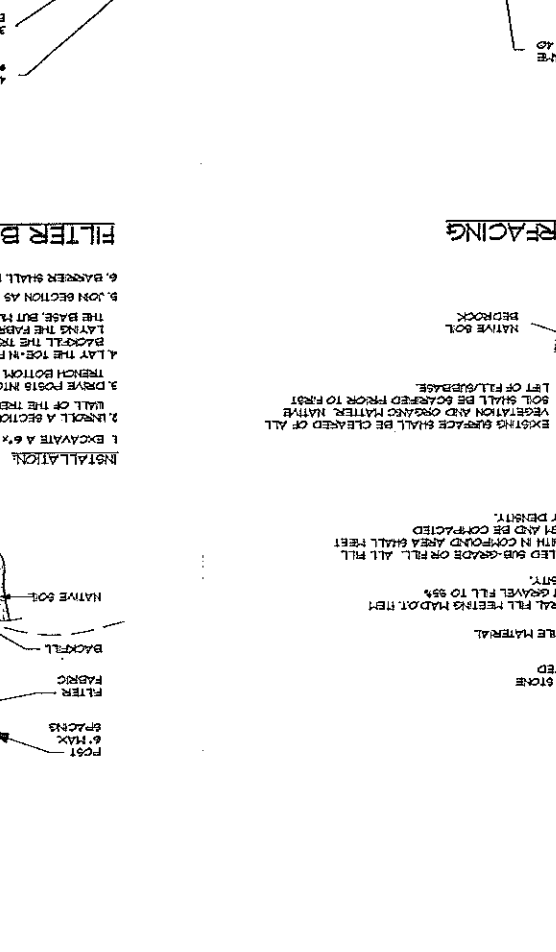
6. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

7. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

8. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

9. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

10. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.



**TYPICAL FENCE SECTION**

**NOT TO SCALE**

1. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

2. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

3. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

4. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

5. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

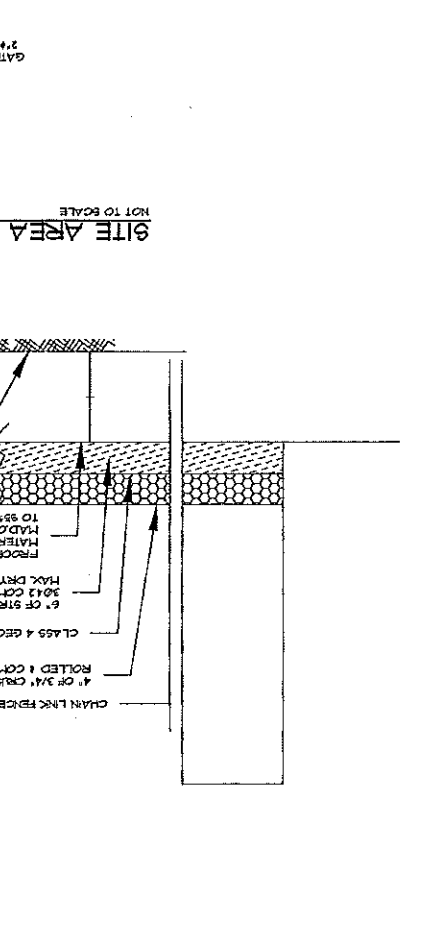
6. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

7. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

8. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

9. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

10. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.



6. BARRIER SHALL BE REPAIRED 6" TRENCH OR EQUAL.

7. JOIN SECTION AS SHOWN ABOVE.

8. JOIN SECTION AS SHOWN ABOVE.

9. JOIN SECTION AS SHOWN ABOVE.

10. JOIN SECTION AS SHOWN ABOVE.

**SLIP AREA SURFACING**

**NOT TO SCALE**

1. EXCAVATE A 6" x 6" TRENCH ALONG THE LINE OF PLACEMENT FOR THE FILTER FABRIC INSTALLATION.

2. UNROLL A SECTION AT THE END POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH.

3. DRIVE POSTS INTO THE GROUND UNTIL APPROXIMATELY 2" OF FABRIC IS LYING ON THE NATIVE SOIL.

4. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

5. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

6. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

7. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

8. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

9. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.

10. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, RESEED WITH FILL AND REVEALED WITHIN 10 DAYS OF CONSTRUCTION.



1. BURY THE TOP END OF THE FRESH MATERIAL IN A 6" TRENCH AND BACKFILL AND TAMP BEHIND THE FABRIC.

2. FRESH MATERIAL SHALL BE BLANKET COVERED WITH A 6" TRENCH AT THE TOP END OF THE FILTER FABRIC AND BACKFILL AND TAMPED BEHIND THE FABRIC.

3. LATERAL JOINTS TO HAVE 4" OVERLAP OF STRIPS, STRIP ON CENTER.

4. STRIP OUTSIDE LATERAL EDGE 2" ON CENTER.

5. USE NORTH ARROW AS SHOWN OR APPROXIMATE EQUAL.

6. USE NORTH ARROW AS SHOWN OR APPROXIMATE EQUAL.

7. USE NORTH ARROW AS SHOWN OR APPROXIMATE EQUAL.

8. USE NORTH ARROW AS SHOWN OR APPROXIMATE EQUAL.

9. USE NORTH ARROW AS SHOWN OR APPROXIMATE EQUAL.

10. USE NORTH ARROW AS SHOWN OR APPROXIMATE EQUAL.

GUY DATA CHART

GUY WIRE	ELEVATION	GUY BAR PLATE (A-572)	THIMBLE HD END FITTING	PREFORM	TURN-BUCKLE	TOWER	SHACKLES	ANCHOR	PRIMARY INSULATOR	SECONDARY INSULATOR	GUY WIRE CUT LGTH	MINI TENSION BOFF
1" EHS	121.0'	10" X 5-3/4" X 1 1/4"	1"	1"	1-1/2"	1-1/4"	1-1/8"	1-1/8"	-	-	*	10,450
5/8" EHS	241.0'	10" X 4-1/2" X 1"	5/8"	5/8"	1"	7/8"	3/4"	3/4"	-	-	*	4,240
5/8" EHS	241.0'	10" X 4-1/2" X 1"	5/8"	5/8"	1"	7/8"	3/4"	3/4"	-	-	*	4,240
7/8" EHS	361.0'	10" X 4-1/2" X 1"	7/8"	7/8"	1-1/2"	1"	1"	1"	-	-	*	7,970
1" EHS	470.0'	10" X 5-3/4" X 1 1/4"	1"	1"	1-1/2"	1-1/4"	1-1/8"	1-1/8"	-	-	*	10,450

\* REFERENCE E-1A FOR ANCHOR RADIUS AND GUY WIRE CUT LENGTH DUE TO DROPS AND RISES IN SURFACE GRADE.

MATERIAL LIST

MARK	SIZE
A	1 1/8" S.R.
B	1 1/4" S.R.
C	12" x 1" PL
D	7/8" S.R.
E	N/A
F	1 1/2" x 1/2"

WEIGHT LIST

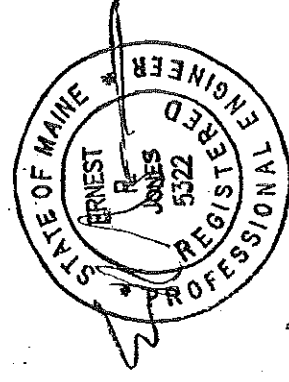
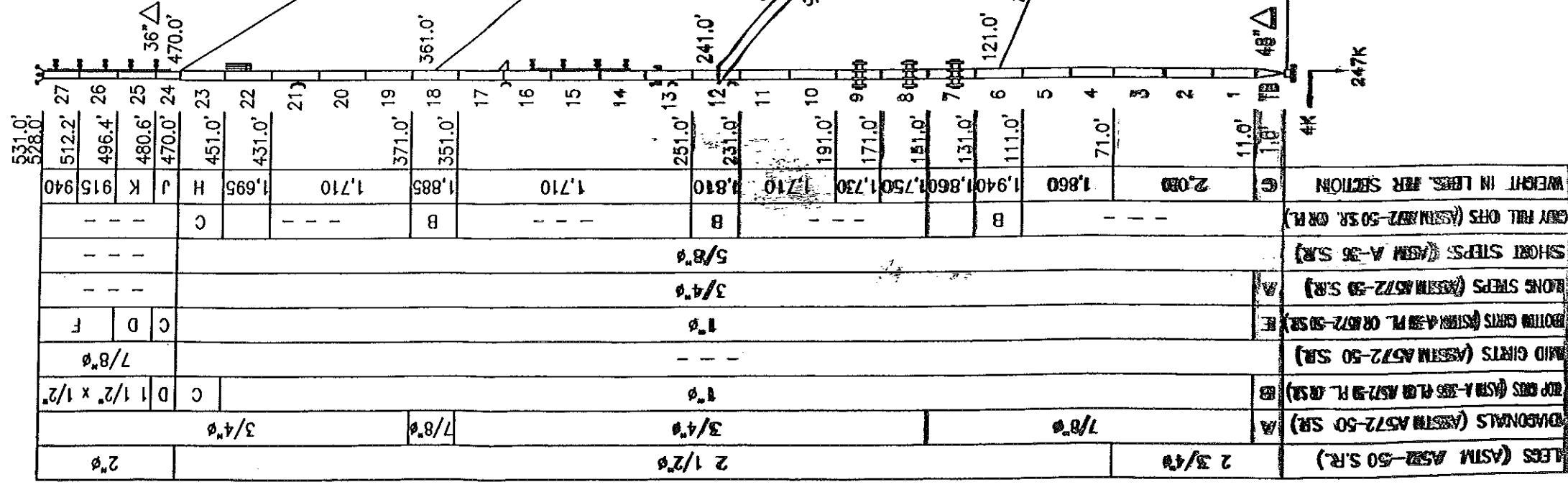
MARK	WEIGHT
G	1,475 LBS.
H	3,100 LBS.
J	1,770 LBS.
K	1,005 LBS.

DESIGNED ANTENNA LOADING

ANTENNA TYPE	ELEVATION	LINE
(12) 5' X 1' PCS PANELS	140'	(12) 1-5/8"
(12) 5' X 1' PCS PANELS	160'	(12) 1-5/8"
(12) 5' X 1' PCS PANELS	180'	(12) 1-5/8"
4' GRID	235'	7/8"
4' GRID	260'	7/8"
DRC-C 4 BAY W/RADOMES	280.8'-319.2'	3"
4' X 6' ICE SHIELD	329.2'	-
4' GRID	330'	7/8"
6' GRID	420'	7/8"
(3) DB224 W/LONG ARM MOUNTS	440'	7/8"
SHPX-5AE W/RADOMES	480.6'-522.7'	3"
A-2/3 LIGHT KIT W/SPUR	-	CONDUIT

TOWER DESIGN NOTES

- TOWER DESIGNED FOR A 80 MPH (70 MPH W/ 1/2" ICE) BASIC WIND SPEED [FASTEST MILE] IN ACCORDANCE WITH THE TIA/EIA-222-F STANDARDS. THIS IS EQUIVALENT TO 100 MPH (85 MPH W/ 1/2" RADIAL ICE) [3 SECOND GUST] WIND SPEED PER TABLE 1609.3.1 OF THE 2000 INTERNATIONAL BUILDING CODE.
- WELD TOGETHER TRIANGULAR TOWER SECTIONS HAVE BOLTED CONNECTIONS. CONNECTIONS USE GALVANIZED A-325 BOLTS, NUTS AND LOCKING DEVICES. INSTALLATION PER EIA-222-F.
- TOWER MEMBERS ARE "HOT DIPPED" GALVANIZED IN ACCORDANCE WITH ASTM A-123 AND A-153 STANDARDS.
- LEG STEEL IS ASTM A572 GRADE 50 OR EQUAL. ALL OTHER STEEL IS A-36 UNLESS OTHERWISE SPECIFIED.
- WELDS ARE FABRICATED WITH ER-70S-6 ELECTRODES.
- LISTED WEIGHTS ARE ESTIMATES TO BE USED FOR INSTALLATION ERECTION PLANNING ONLY. IT SHALL BE THE RESPONSIBILITY OF THE ERECTOR TO VERIFY ALL SECTION WEIGHTS AT GROUND LEVEL PRIOR TO THE FINAL HOISTING OPERATION.



10-05-04

NAME	TOWER ELEVATION
FOR	PORTLAND, ME
FOR NO.	2
DATE	08/24/04
DATE AS NOTED	08/24/04
REVISION	
NO	

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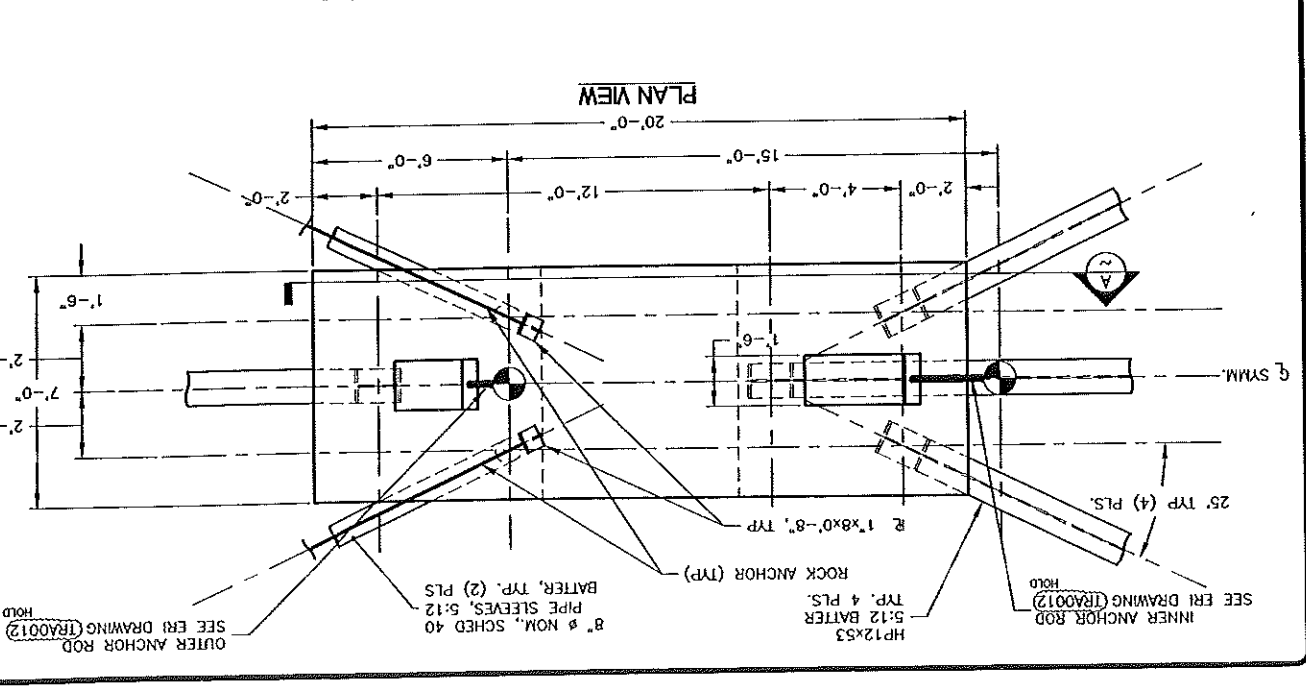
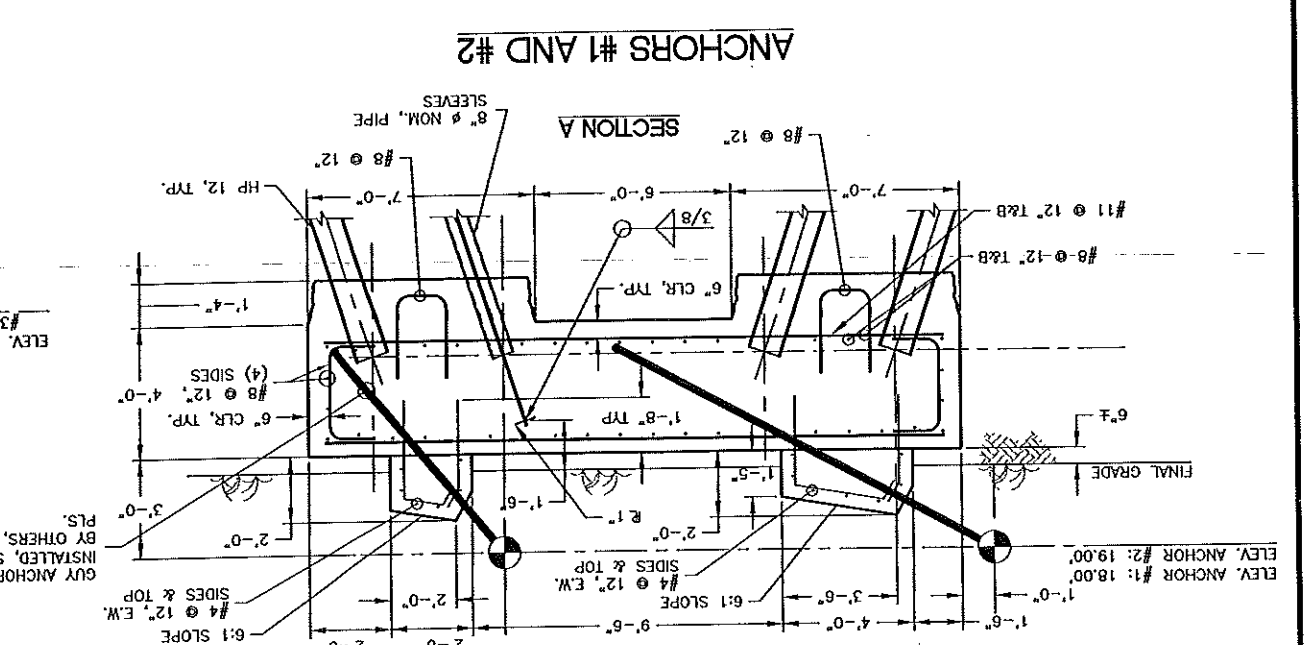
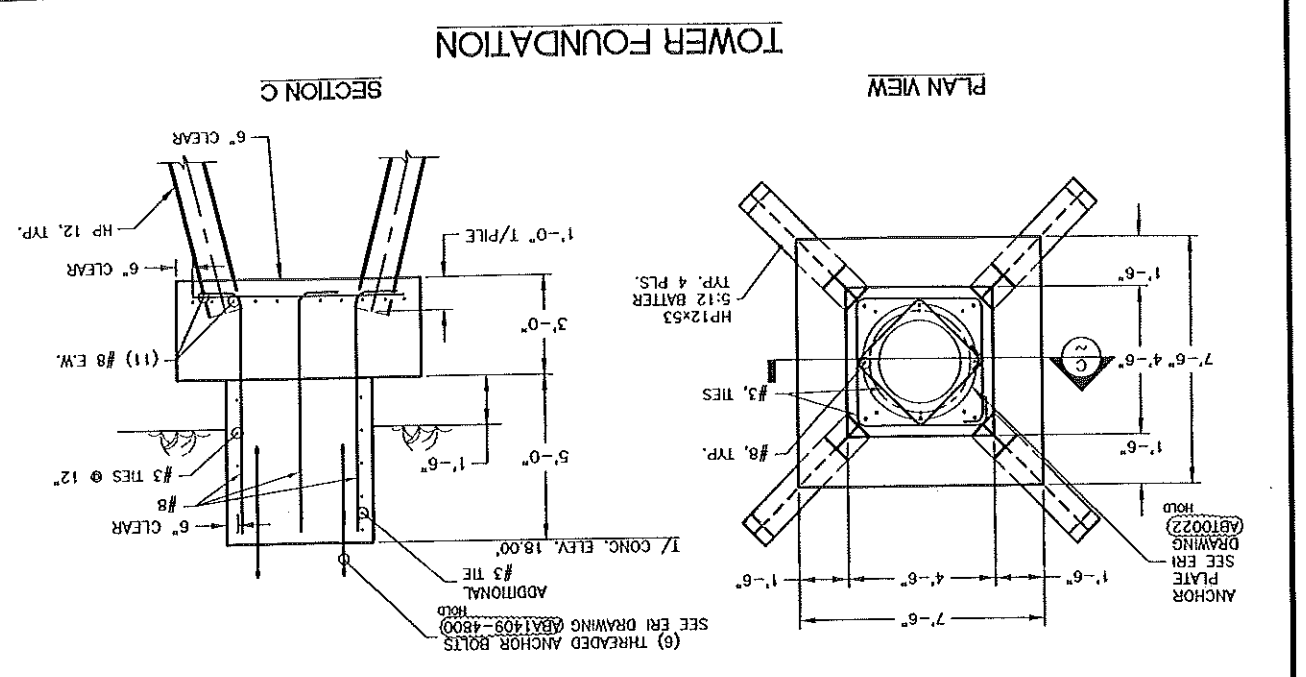
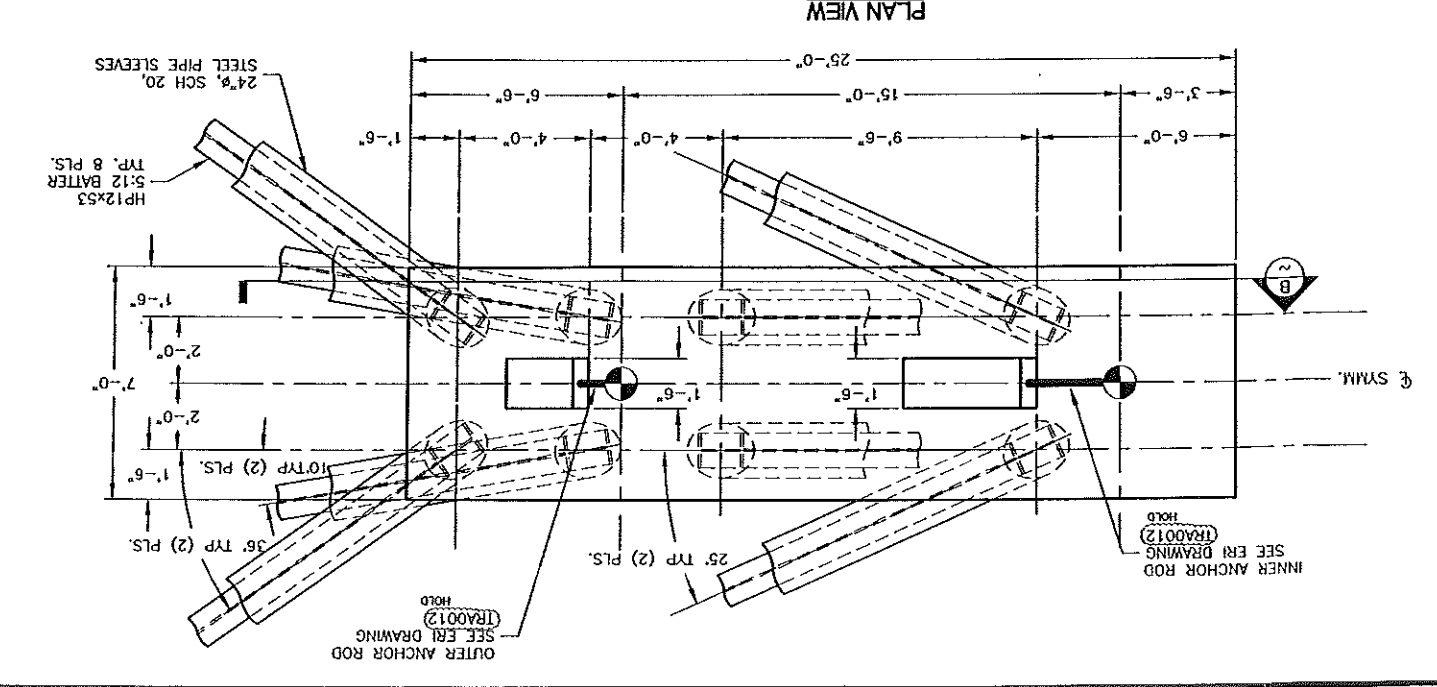
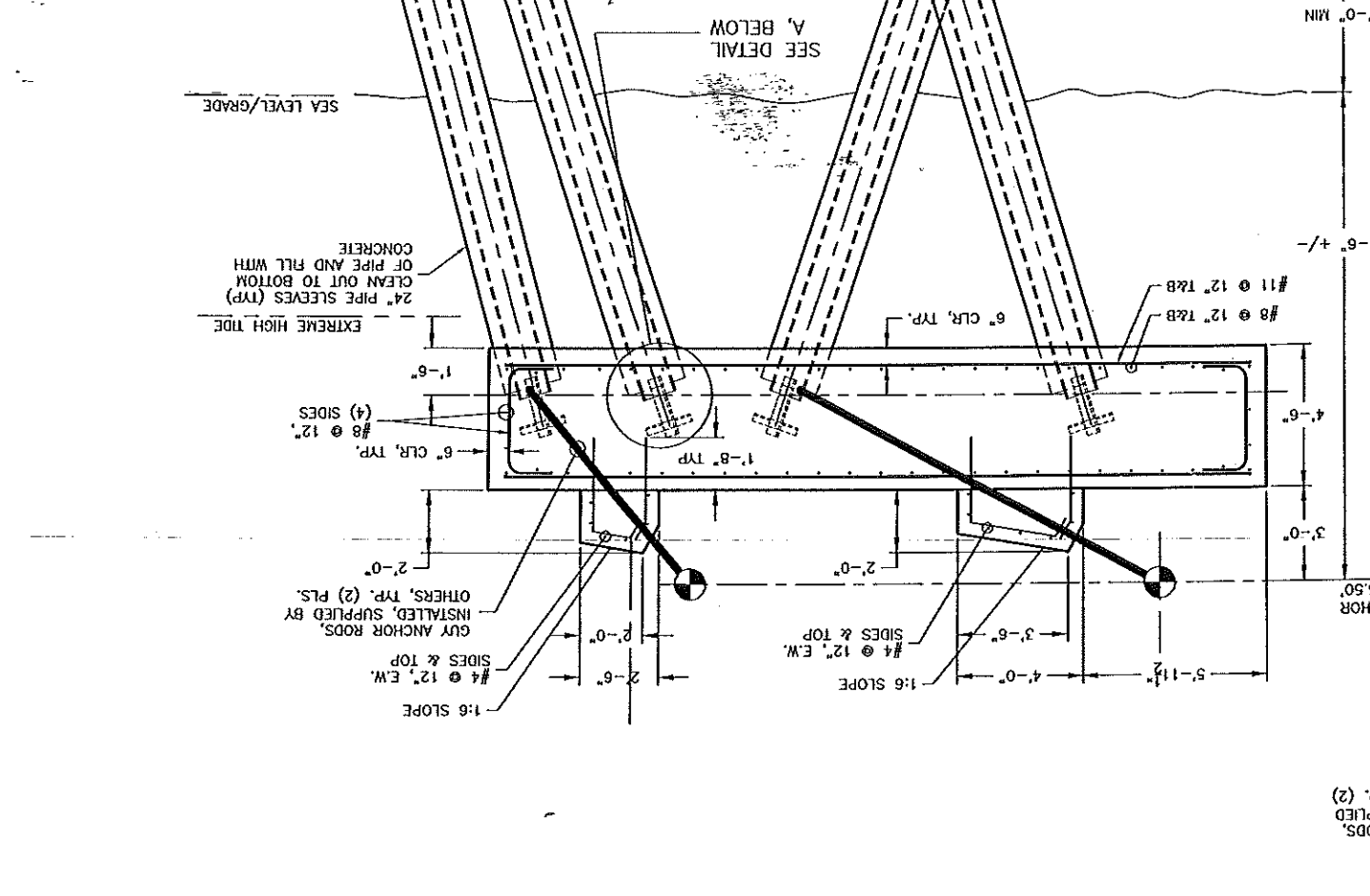
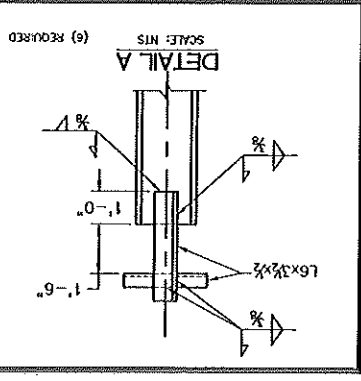
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 DRAWN BY: BARNETT  
 FILE # : 04053-FR-R3-C1XX.DWG  
 PROJECT NUMBER:  
 SHEET NO. 102

NO.	BY	REVISIONS	DATE
1	RCA	CLIENT REVIEW	6/22/04
2	RCA	FILE AND FOOTING REVISIONS	10/06/04
3	RCA	CONCRETE NOTE REVISION	10/06/04
4	RCA	UNUSUAL REVISIONS	10/13/04

PROJECT: **WMGX TOWER**  
 PORTLAND, ME  
 FOR PORTLAND RADIO GROUP  
 SHEET TITLE:  
**TOWER BASE AND ANCHOR DETAILS**

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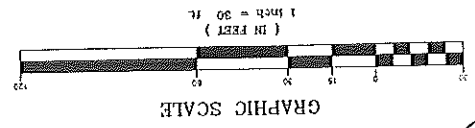
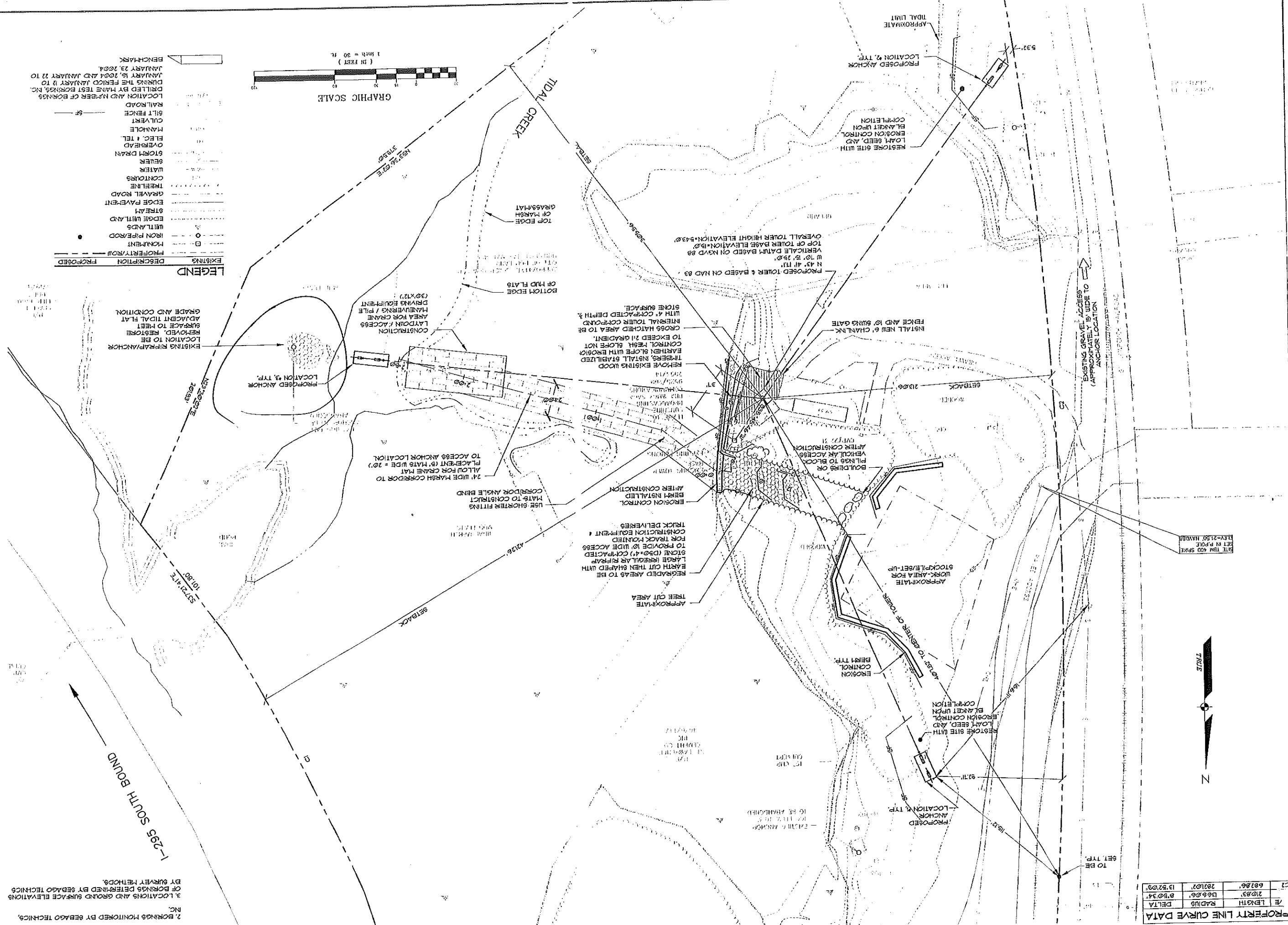
**ASSOCIATED DESIGN PARTNERS INC.**  
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 Office: (207) 878-1751  
 Fax: (207) 878-1788  
 E-Mail: [adp@designpartners.com](mailto:adp@designpartners.com)







PROPERTY LINE CURVE DATA	RADIUS	DELTA	SET POINT	BEYOND 400 SPKEL
1	2003'	0°00'34"		
2	66286'	281102'		



**LEGEND**

DESCRIPTION	PROPOSED
PROPERTY/ROW	---
MONUMENT	□
IRON PIPE/ROD	○
WETLANDS	▨
EDGE WETLAND	▤
STRAIGHT	---
EDGE PAVEMENT	---
GRAVEL ROAD	---
TREELINE	---
CONTOURS	---
WATER	---
SEWER	---
STORM DRAIN	---
OVERHEAD ELEC. & TEL.	---
MANHOLE	○
CULVERT	---
SILT FENCE	---
RAILROAD	---
LOCATION AND NUMBER OF BORINGS	○
DRAWN BY HANE TEST BORINGS, INC. DURING THE PERIOD JANUARY 12 TO JANUARY 18, 2004 AND JANUARY 22 TO JANUARY 23, 2004.	
BENCHMARK	+

**STE PLAN**  
**528' TOWER REPLACEMENT PROJECT**  
 167 PRESUMPTIVE STREET  
 PORTLAND, MAINE  
**SAGA COMMUNICATIONS,**  
 40 WESTERN AVE  
 SOUTH PORTLAND, MAINE 04105  
 RECORD OWNER:  
 ST. LAWRENCE CEMENT, INC.  
 3 COLUMBIA CIR  
 ALBANY, NY 12203

**Sebago Technics**  
 Engineering Experts You Can Build On  
 One Orono Street  
 Waterville, ME 04906-1339  
 Tel: (207) 866-0277  
 Fax: (207) 866-0277

PROJECT NO.	FIELD BOOK	DESIGN	CHNG	DRAWN
03497		CLB	CLB	JNB

REV.	BY:	DATE:	STATUS:	COMMENTS:
B	JNS	8-30-04	BANK & RIPRAP ANCHOR REMOVAL PER D.E.P. COMMENTS	
A	JNS	5-28-04	NRPA/DEP APPLICATION SUBMISSION	

THIS PLAN SHALL NOT BE MODIFIED WITHOUT WRITTEN PERMISSION FROM SEBAGO TECHNICS, INC. ANY ALTERATIONS AUTHORIZED OR OTHERWISE SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO SEBAGO TECHNICS, INC.



1. ELEVATIONS REFERENCED TO NORTH AMERICAN VERTICAL DATUM 1988 (NAVD).  
 2. BORINGS MONITORED BY SEBAGO TECHNICS, INC.  
 3. LOCATIONS AND GROUND SURFACE ELEVATIONS OF BORINGS DETERMINED BY SEBAGO TECHNICS BY SURVEY METHODS.



CONCRETE

1. ALL CONCRETE WORK AND MATERIAL SHALL CONFORM TO ACI 318-02 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND ACI 301-99 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS".

2. CONCRETE COMPRESSIVE STRENGTH SHALL BE A MINIMUM OF 4,000 PSI AT 28 DAYS AND A MAXIMUM WATER-CEMENT RATIO OF 0.45.

3. CONCRETE IN ANCHOR #3 SHALL HAVE 3 GALLONS PER CUBIC YARD OF DC-15 CORROSION INHIBITOR BY W.R. GRACE, ADDED IN ACCORDANCE WITH THE MANUFACTURER'S SUGGESTED PRACTICES; ALL OTHER CONCRETE SHALL HAVE 2 GALLONS PER CUBIC YARD OF DC-15.

4. ENTRAINED AIR IN THE CONCRETE SHALL BE 6% ± 1%.

5. REINFORCING STEEL SHALL BE GRADE 60, DEFORMED BARS CONFORMING TO ASTM A-615.

6. CONTRACTOR TO SUBMIT MILL CERTIFICATION FOR REINFORCING STEEL AND DESIGN MIX FOR CONCRETE SEVEN DAYS PRIOR TO CONSTRUCTION.

1. PILES SHALL BE DRIVEN TO BEARING IN GLACIAL TILL OR BEDROCK WITH A HAMMER DELIVERING A MINIMUM OF 25,000 FT. LBS OF ENERGY PER BLOW. A FINAL PENETRATION RESISTANCE EQUAL TO 10 BLOWS PER INCH FOR THE FINAL 6 INCHES OF DRIVING IS REQUIRED. IF ABRUPT REFUSALS OCCURRED, DRIVING MAY BE TERMINATED WHEN THE PENETRATION IS LESS THAN 1/4" FOR TEN SUCCESSIVE BLOWS.

4. AT ANCHOR #3, DRIVE 24" DIA. SCH. 20 PIPE CONCENTRIC WITH PILES, TO 5'-0" BELOW AND WITH CLEAN SOIL FROM INSIDE PIPE AND FILL WITH CONCRETE.

5. ONE PILE SHOULD BE LOAD TESTED TO 300 KIPS. IN LIEU OF A PILE LOAD TEST, THE CONTRACTOR MAY MONITOR THE INSTALLATION OF THREE PRODUCTION PILES AT SEPARATE LOCATIONS USING CASE COILS TO FILE DRIVING ANALYZER EQUIPMENT TO CAPACITY; MONITORING WITH PILE DRIVING ANALYZER IN LIEU OF LOAD TEST WILL REQUIRE APPROVAL OF THE LOCAL BUILDING OFFICIAL.

6. WHERE INDICATED ON THE DRAWING, ROCK ANCHORS SHALL BE INSTALLED INSIDE THE WED OF THE PILES TO RESIST UPLIFT. ANCHORS SHALL BE 1 1/2" DIAMETER UPSET THREADED STEEL BARS CONFORMING TO ASTM A772, TYPE II, GRADE 150 KSI.

7. ROCK ANCHORS SHALL BE SMALLER THAN A MINIMUM BOND LENGTH INTO BEDROCK OF 26 FEET; THIS HOLE SHOULD BE OVER-BORED AT LEAST 6" THE HOLE INTO BEDROCK SHALL BE AT LEAST 4" DIAMETER MADE WITH AIR PERCUSSION DRILLING TECHNIQUES TO PROVIDE A ROUGH SURFACE.

8. ROCK ANCHORS SHALL BE GROUTED INTO THIS BEDROCK WITH EITHER PORTLAND CEMENT GROUT OR EPOXY RESIN. CEMENT GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 6,000 PSY. GROUT MUST BE TRENCHED OR PUMPED INTO THE HOLE.

9. ROCK ANCHORS SHALL BE PROOF TESTED TO 180 KIPS (150% OF DESIGN CAPACITY) AND LOCKED OFF AT 71 KIPS (50% OF DESIGN CAPACITY).

10. THE TOP 15 FEET OF 8" DIAMETER PIPE SLEEVES AND THE ENTIRE LENGTH OF 24" DIAMETER PIPE SLEEVES, WITH CARBON FIBRE REPAIR PREPARATION BY NEAR-WHITE BLAST CLEANING PER SSPC SP 11, THEN, COMPLETE SURFACE PREPARATION BY NEAR-WHITE BLAST CLEANING. REMOVE RESIDUAL DUST FROM BLASTED SURFACE BY BLOWING WITH DRY, OIL-FREE AIR, VACUUMING, OR SWEEPING.

PROVIDE SURFACE PROFILE OF AT LEAST 2 MIL THICKNESS, PER SSPC SP 10.

DESIGN LOADS

TOWER BASE DESIGN BASED ON LOADING INFORMATION PROVIDED BY ELECTRONICS RESEARCH, INC. (E.R.I.) 7777 GARDNER RD., CHANDLER, INDIANA. E.R.I. LOADS GENERATED USING THE DESIGN CRITERIA.

DATE: 06-22-04  
SCALE: 1" = 30'  
DESIGN BY: ARLEDOE  
DRAWN BY: BENNETT  
FILE # 04053-FR-R3-C1XXDMS

PROJECT: WMGX TOWER  
FOR PORTLAND, ME  
AND ANCHOR LOCATIONS

REVISIONS

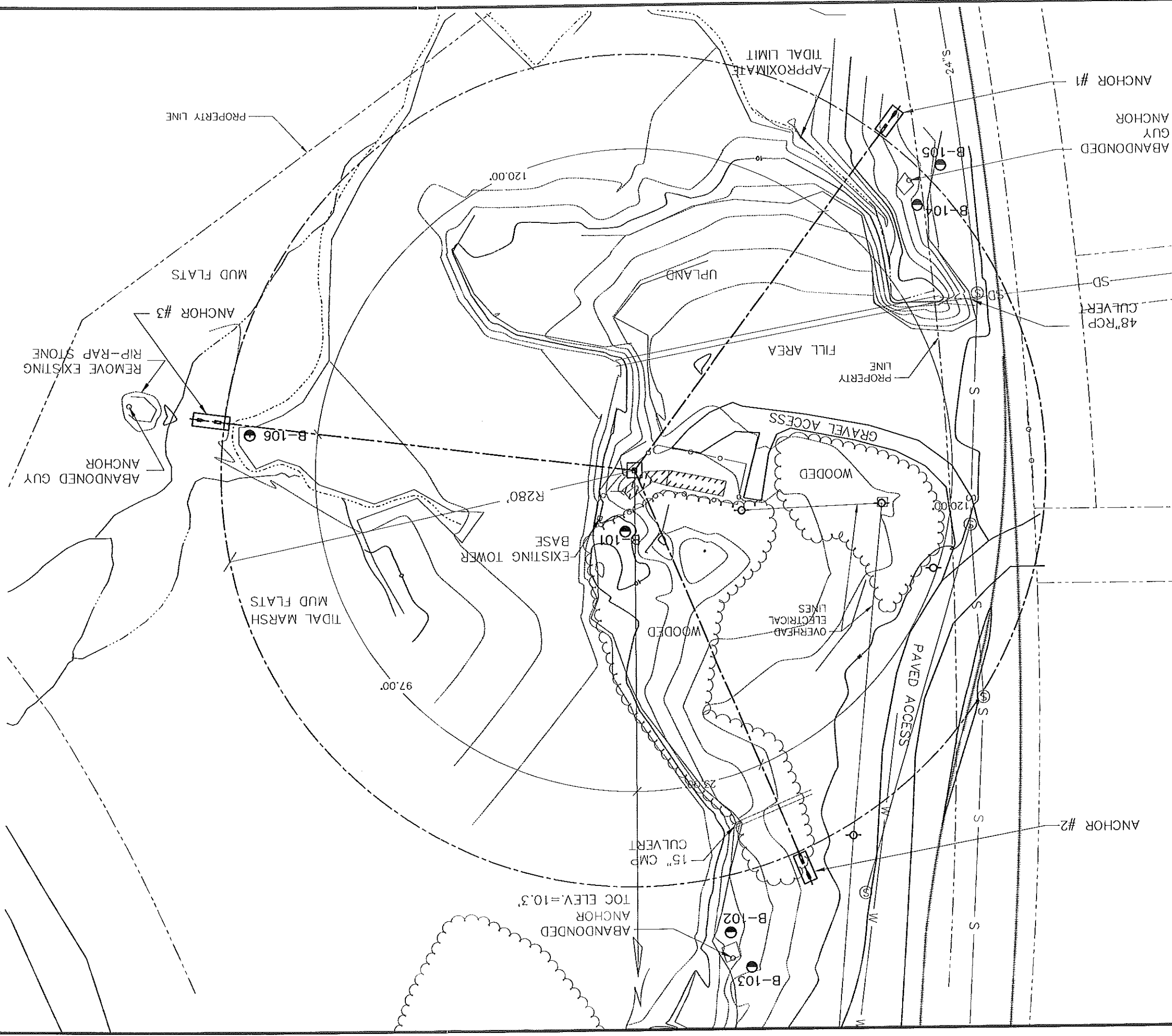
No.	BY	DESCRIPTION	DATE
1	RCA	CLIENT REVIEW	6/22/04
2	RCA	TITLE AND FOOTING REVISIONS & CONCRETE NOTE REVISION	10/05/04
3	RCA	FILE NOTE #9	10/11/04

PROJECT: WMGX TOWER  
FOR PORTLAND, ME  
AND ANCHOR LOCATIONS

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AND ANCHOR LOCATIONS



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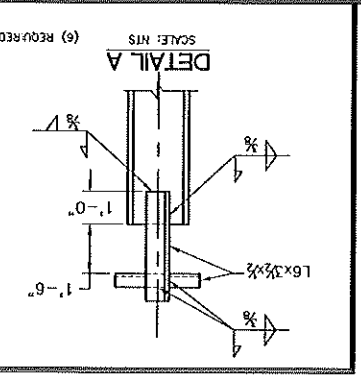
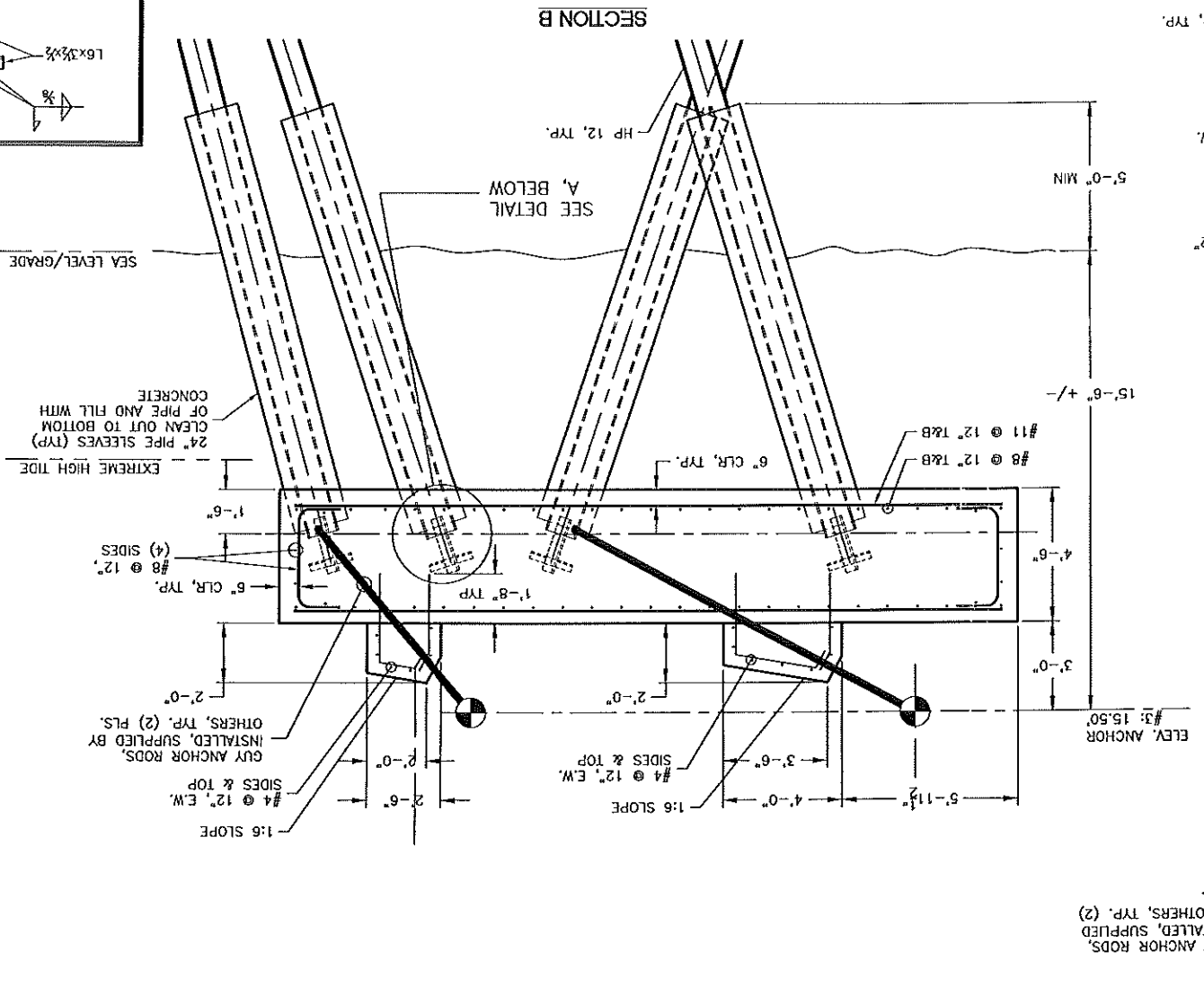
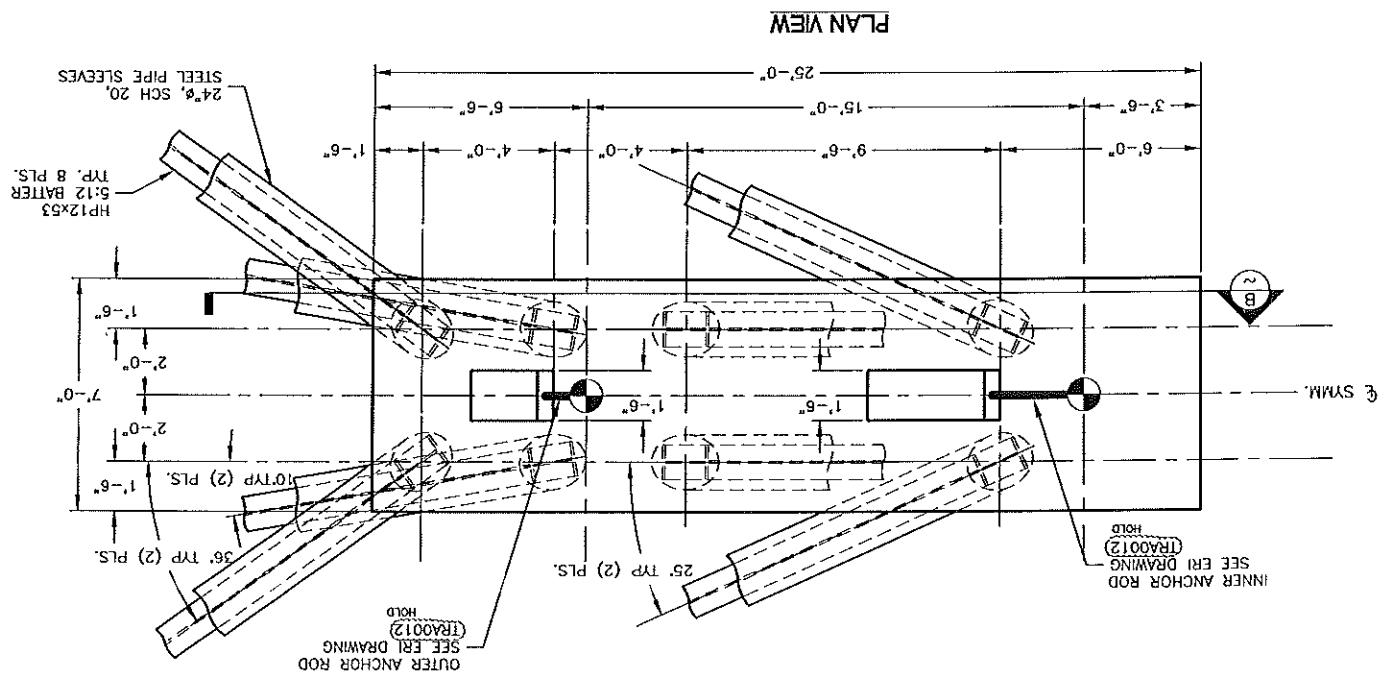
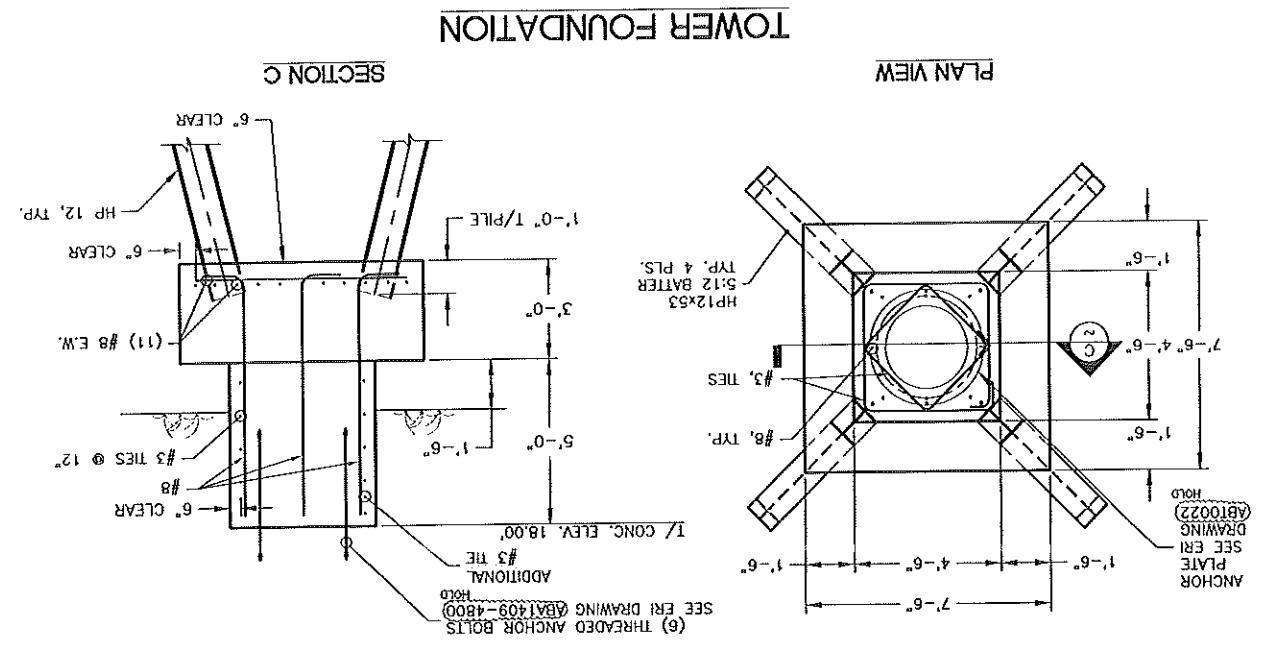
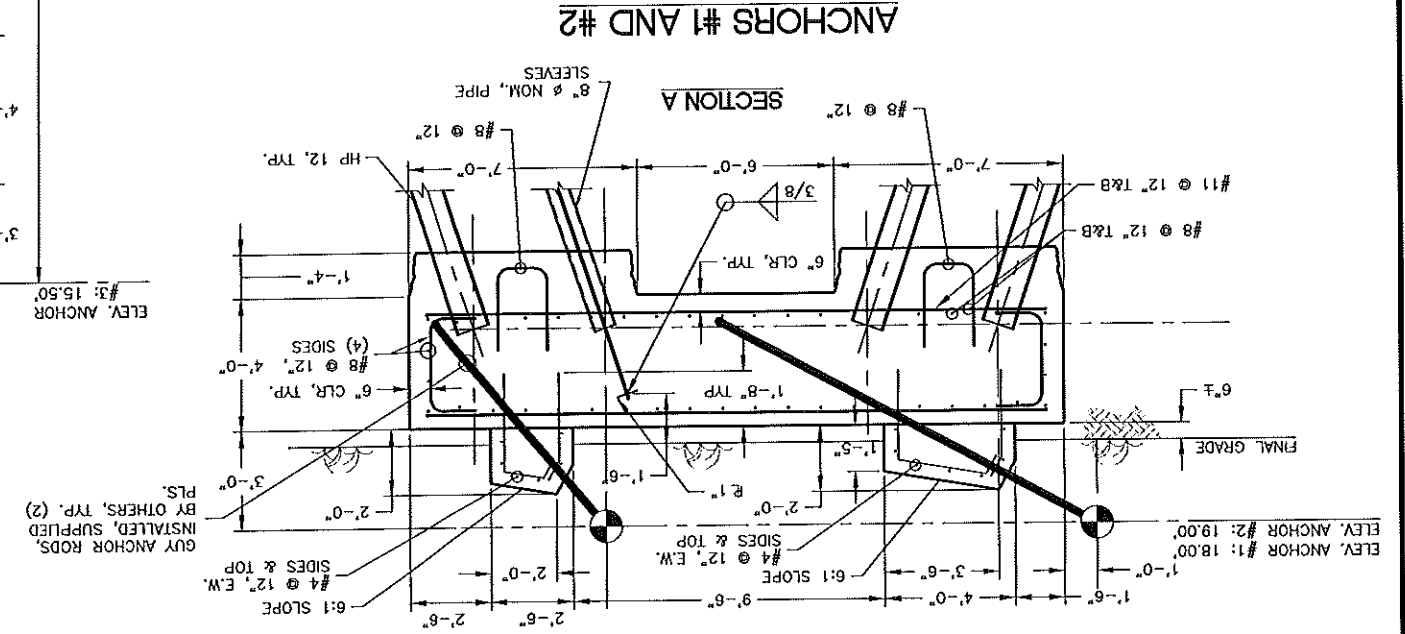
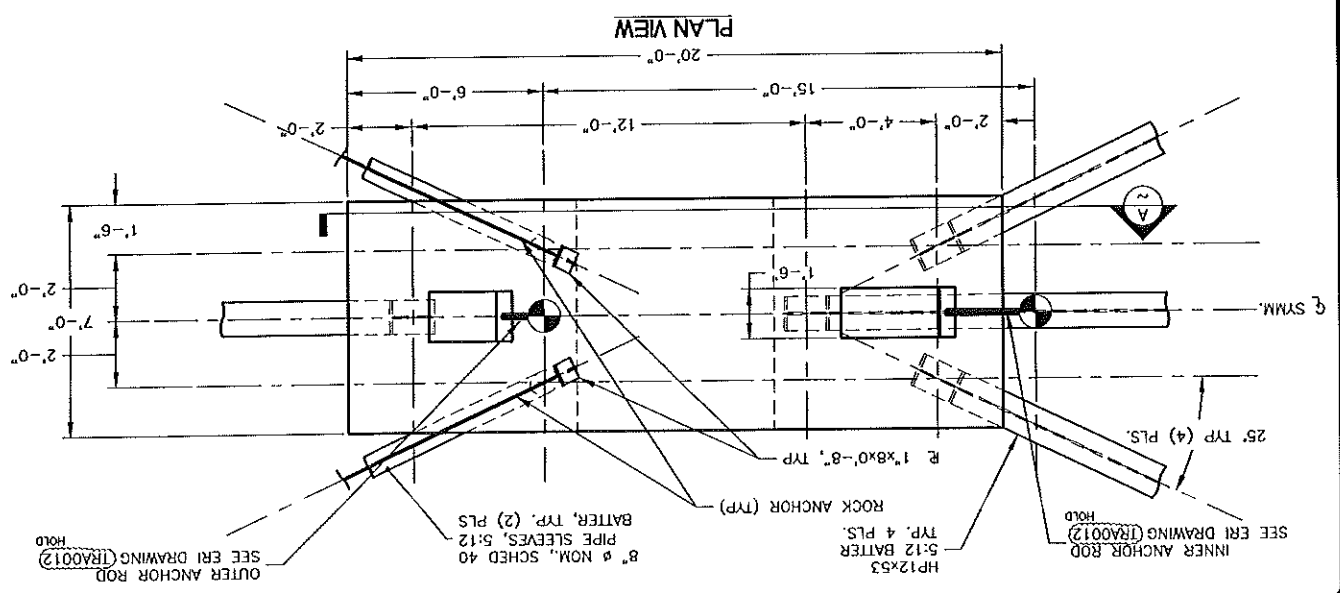
PROJECT: WMGX TOWER  
FOR PORTLAND, ME  
AND ANCHOR LOCATIONS

REVISIONS

No.	BY	DESCRIPTION	DATE
1	RCA	CLIENT REVIEW	6/22/04
2	RCA	TITLE AND FOOTING REVISIONS & CONCRETE NOTE REVISION	10/05/04
3	RCA	FILE NOTE #9	10/11/04

DATE: 06-22-04  
SCALE: 1" = 30'  
DESIGN BY: ARLEDOE  
DRAWN BY: BENNETT  
FILE # 04053-FR-R3-C1XXDMS

PROJECT NUMBER: 04053  
SHEET NO.: 101



NO.	BY	REVISIONS	DATE
1	RCA	CLIENT REVIEW	6/22/04
2	RCA	PILE AND FOOTING REVISIONS	10/06/04
3	RCA	CONCRETE NOTE REVISION	10/13/04
4	RCA	UNUSUAL RESPONSE	

PROJECT: **WMGX TOWER**  
**PORTLAND, ME**  
 FOR: PORTLAND RADIO GROUP


SHEET TITLE:  
**TOWER BASE AND ANCHOR DETAILS**

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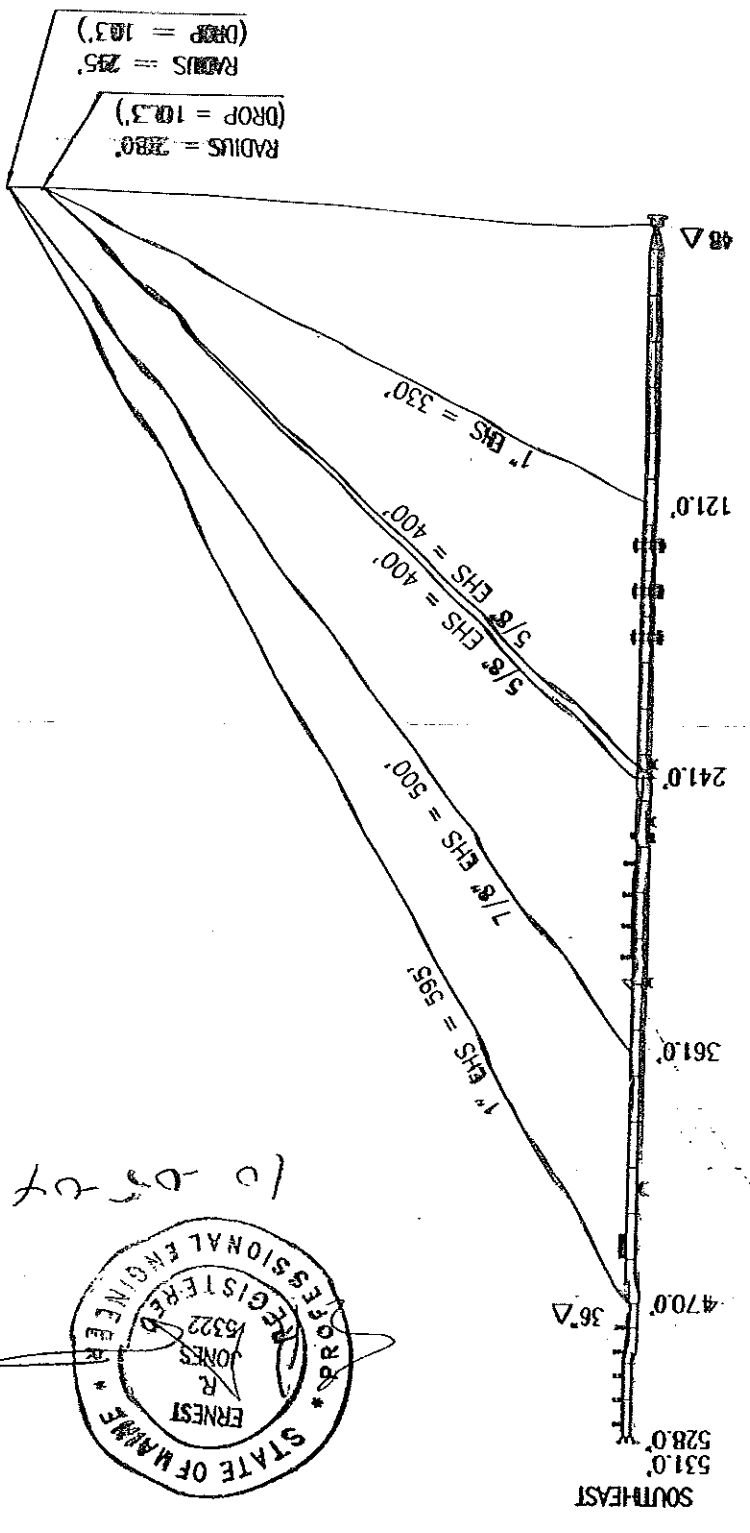
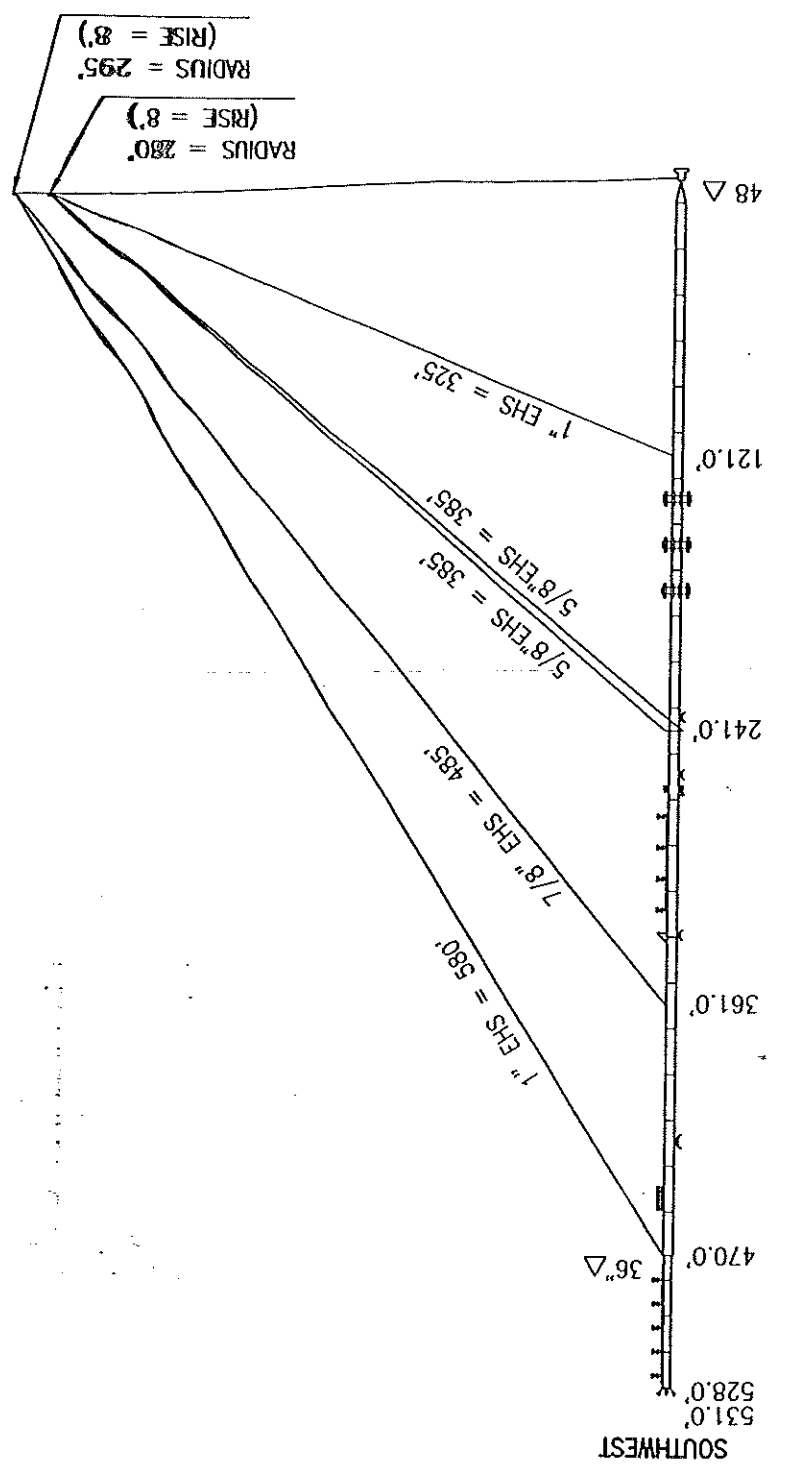
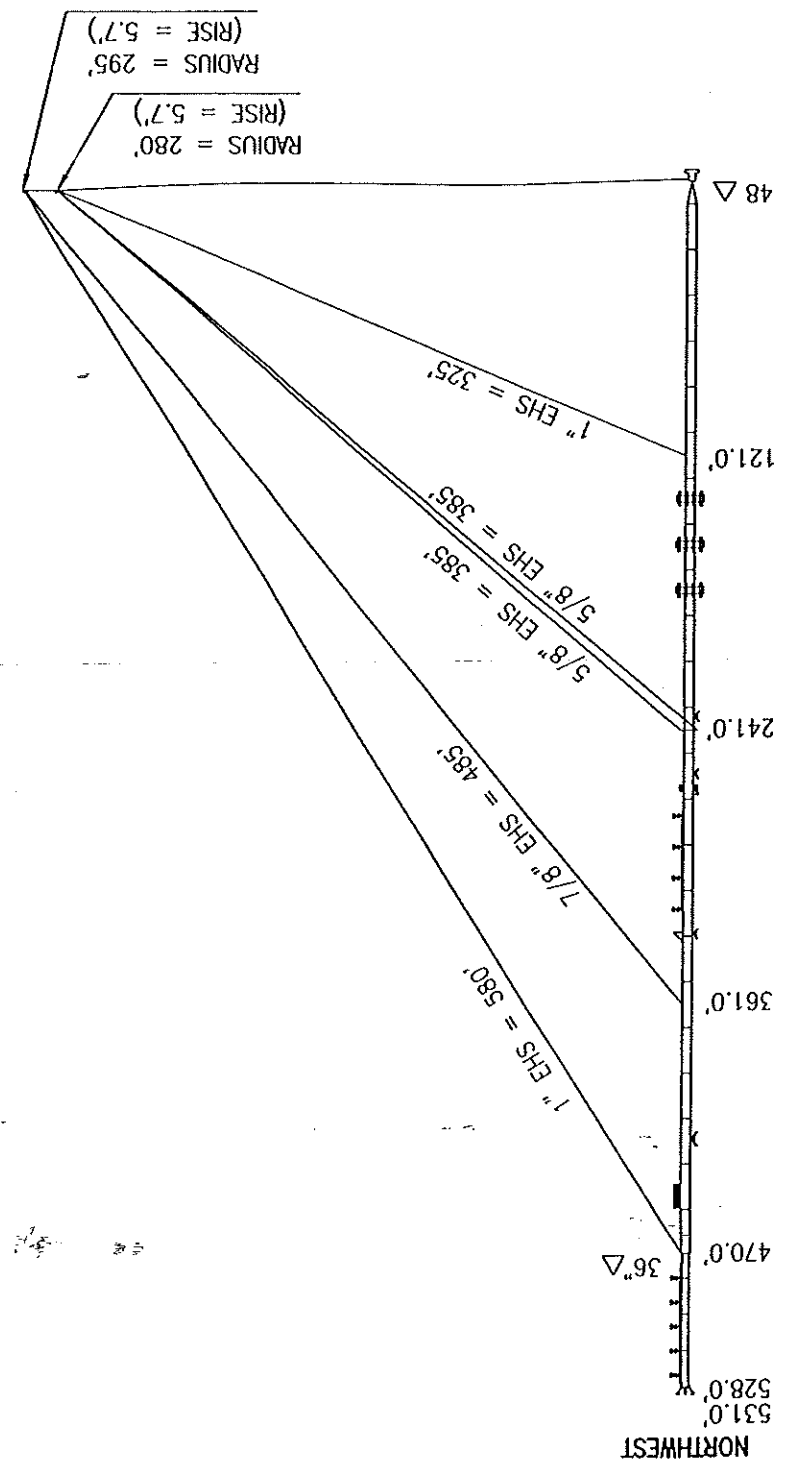
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 E-Mail: [adp@designpartnersinc.com](mailto:adp@designpartnersinc.com)

DATE: 06-22-04  
 SCALE: 3/8" = 1'-0" (MAX)  
 DESIGN BY: ARLENE  
 DRAWN BY: BENNETT  
 FILE #: 04053-PR-R3-C1XKDM  
 PROJECT NUMBER:  
**04053**  
 SHEET NO.:  
**102**

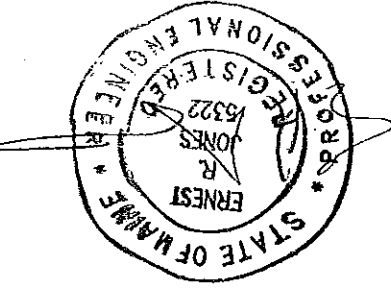


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NO	REVISION	APP'D	DATE
1			
2			
3			
4			
5			
6			

NAME	CITY WIRE TOWERING & CUT LENGTHS
FOR	PORTLAND, ME
DATE	08/26/04
SCALE	AS NOTED
PROJECT NO.	125901E-1A
DRAWING NO.	E-1A



10-05-07



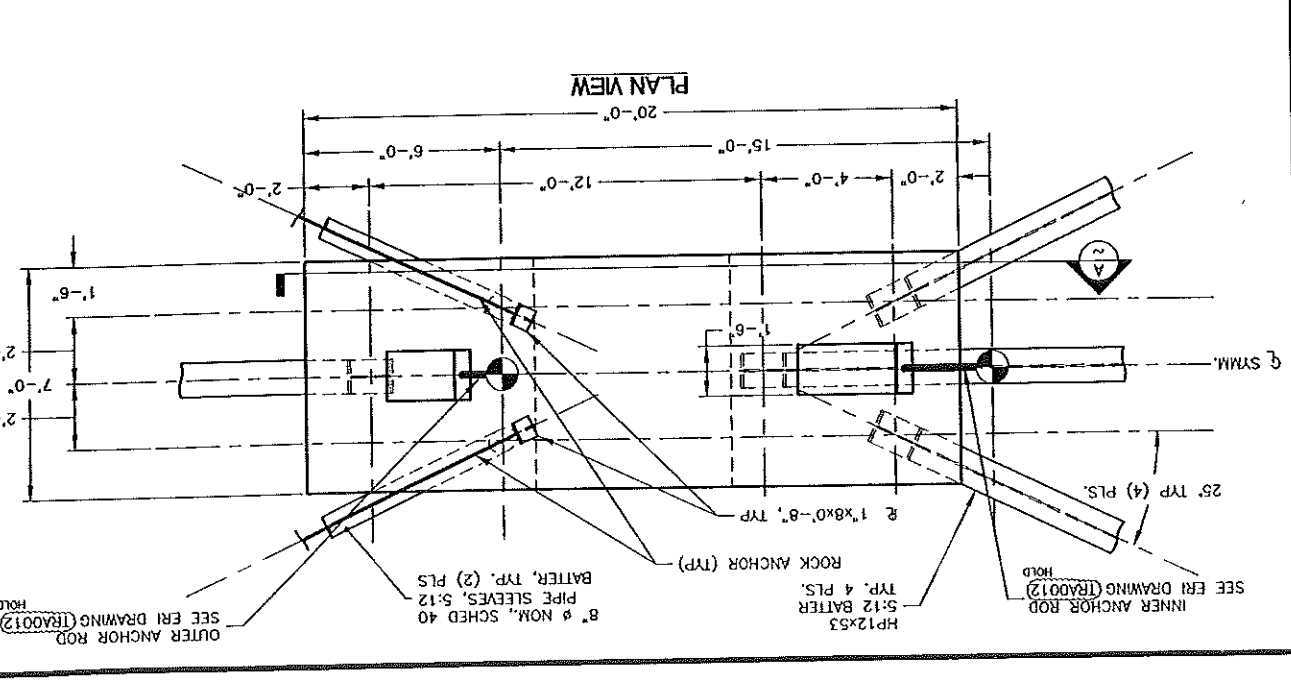
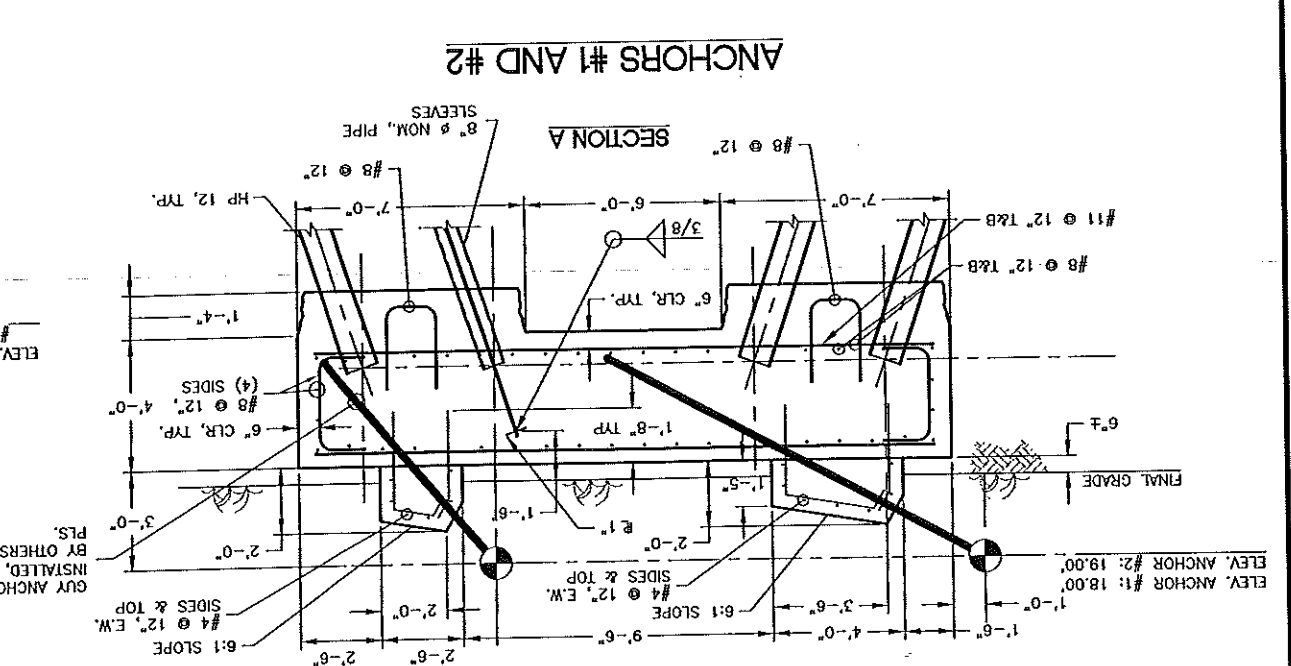
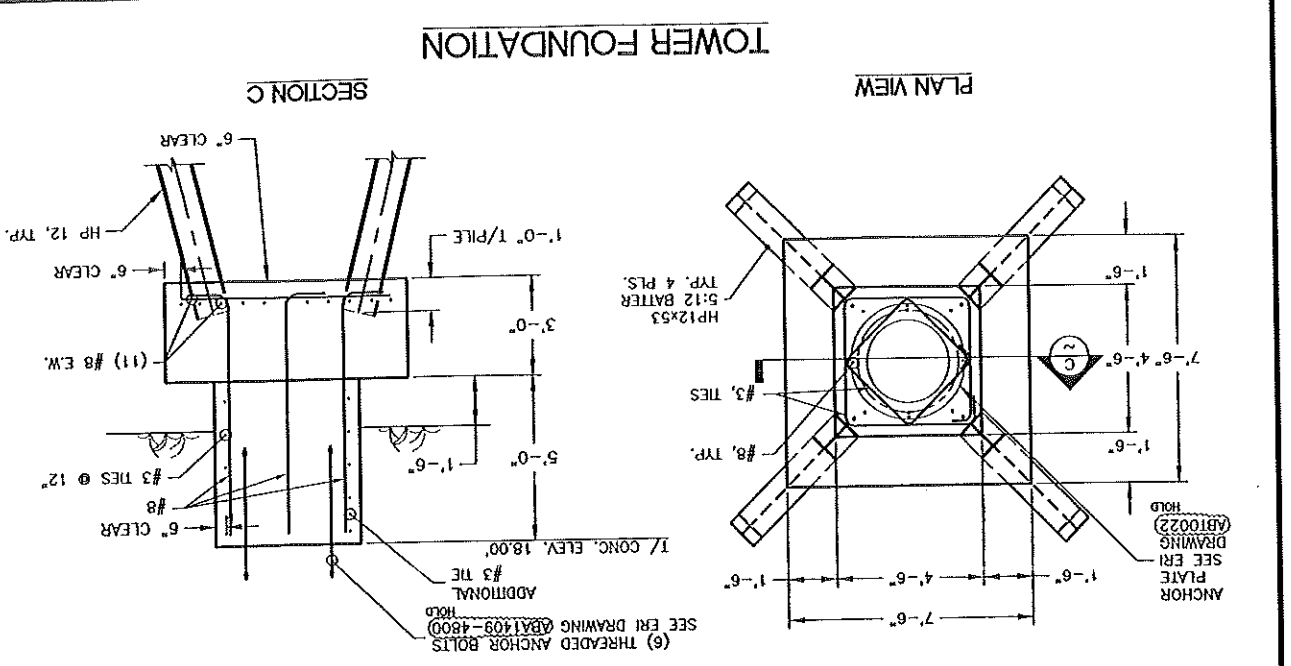
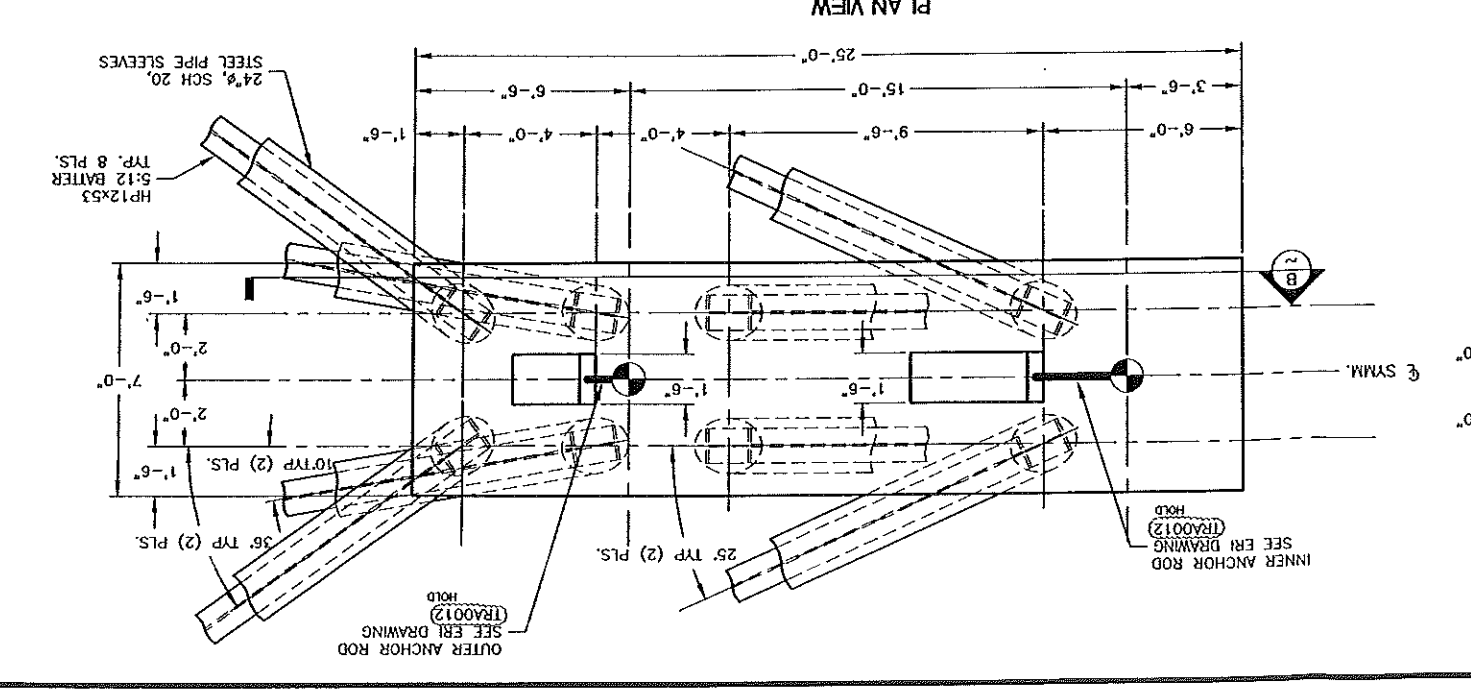
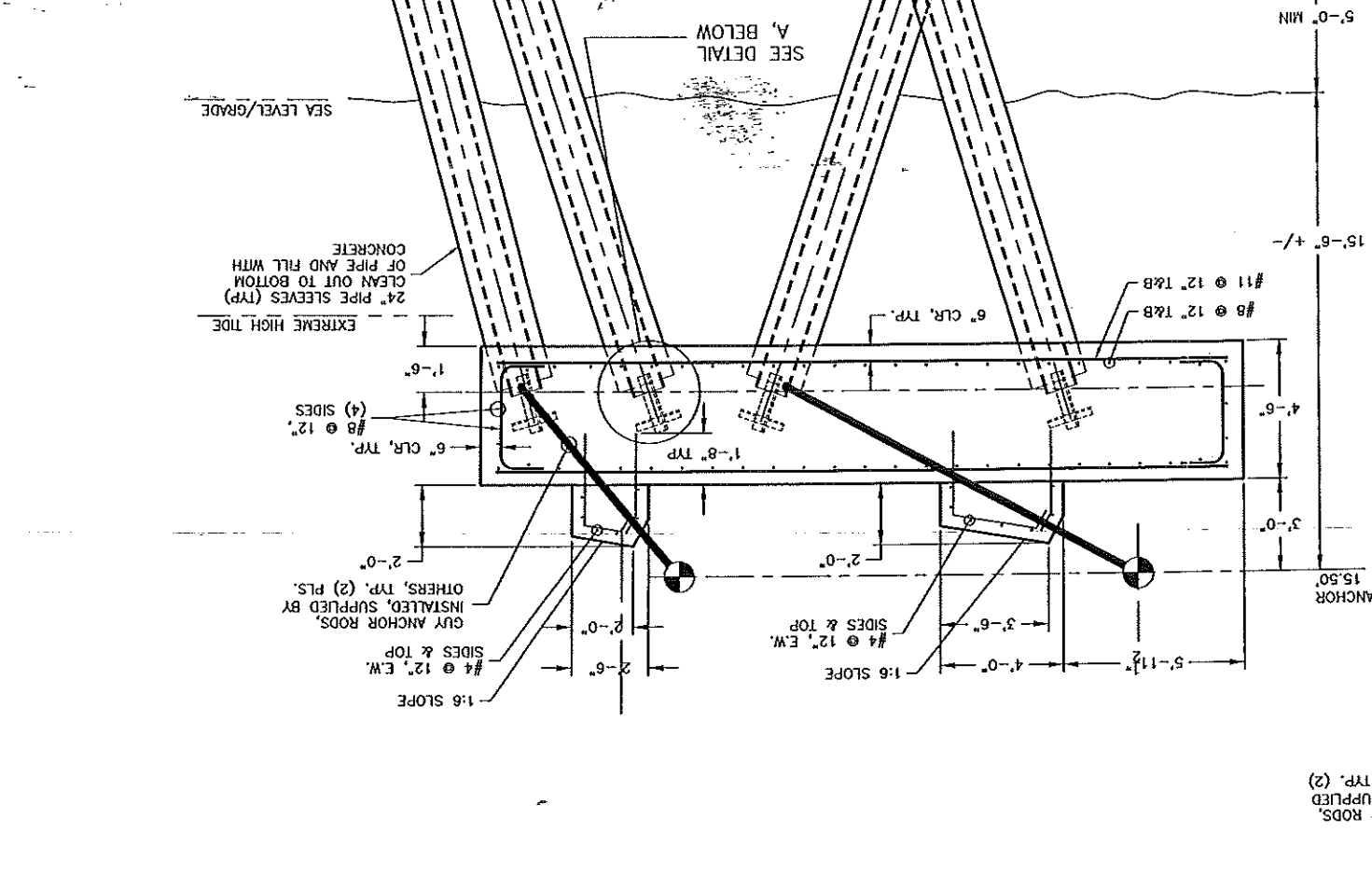
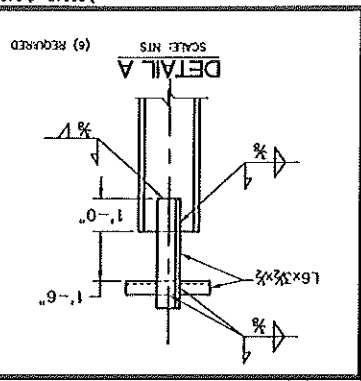
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 DRAWN BY: BENNETT  
 FILE: 04053-R3-C1XX.DWG  
 PROJECT NUMBER:  
**04053**  
 SHEET NO:  
**102**

No.	BY	DESCRIPTION	DATE
1	RCA	CLIENT REVIEW	6/22/04
2	RCA	PILE AND FOOTING REVISIONS	10/05/04
3	RCA	CONCRETE NOTE REVISION	10/13/04
4	RCA	LONGITUDINAL REVISIONS	

PROJECT: **WMGX TOWER**  
**PORTLAND, ME**  
 FOR: PORTLAND RADIO GROUP  
 SHEET TITLE:  
**TOWER BASE AND ANCHOR DETAILS**

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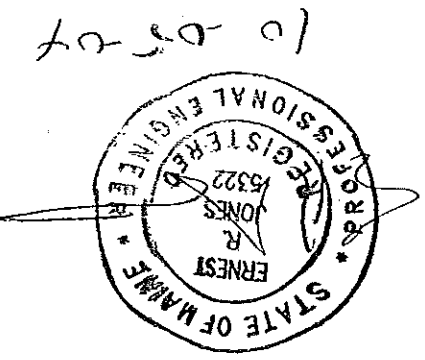
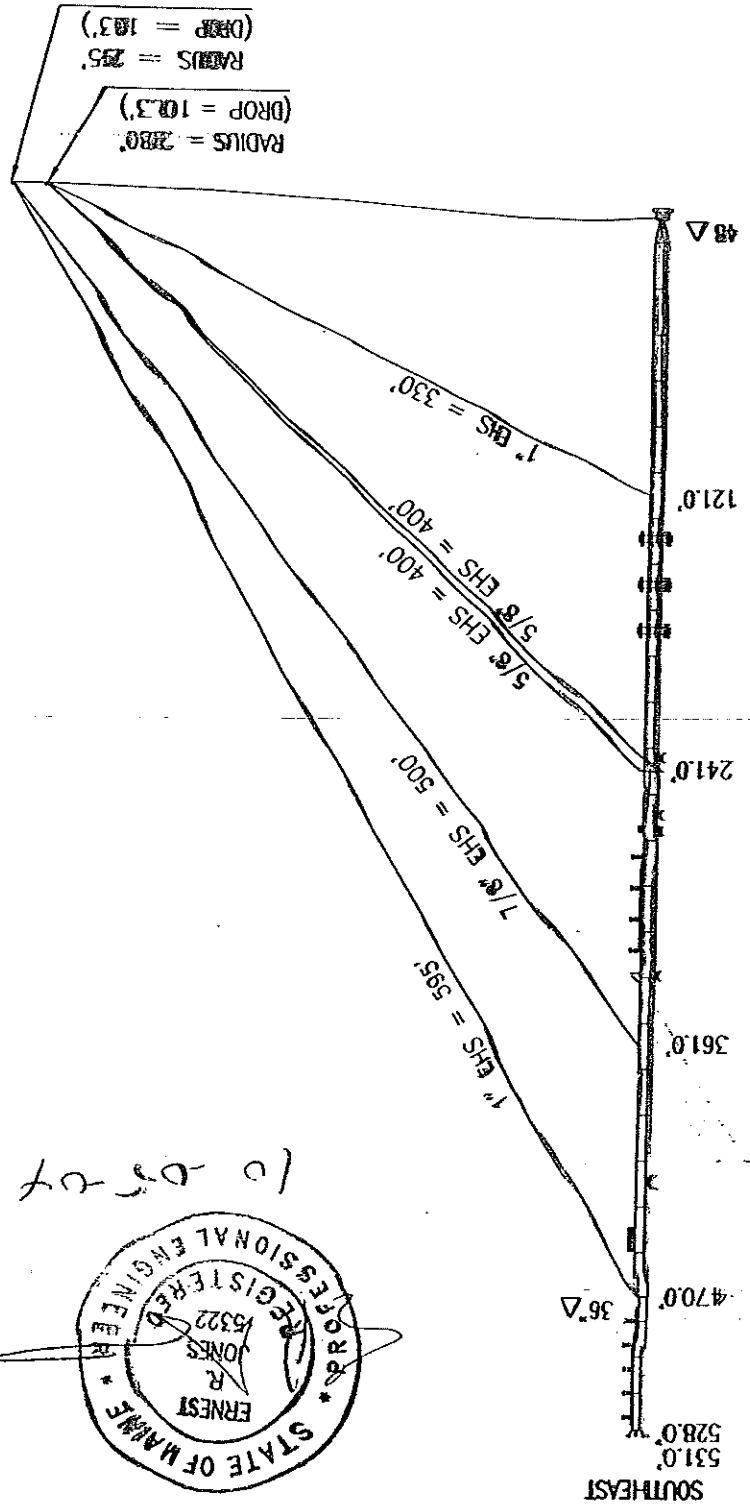
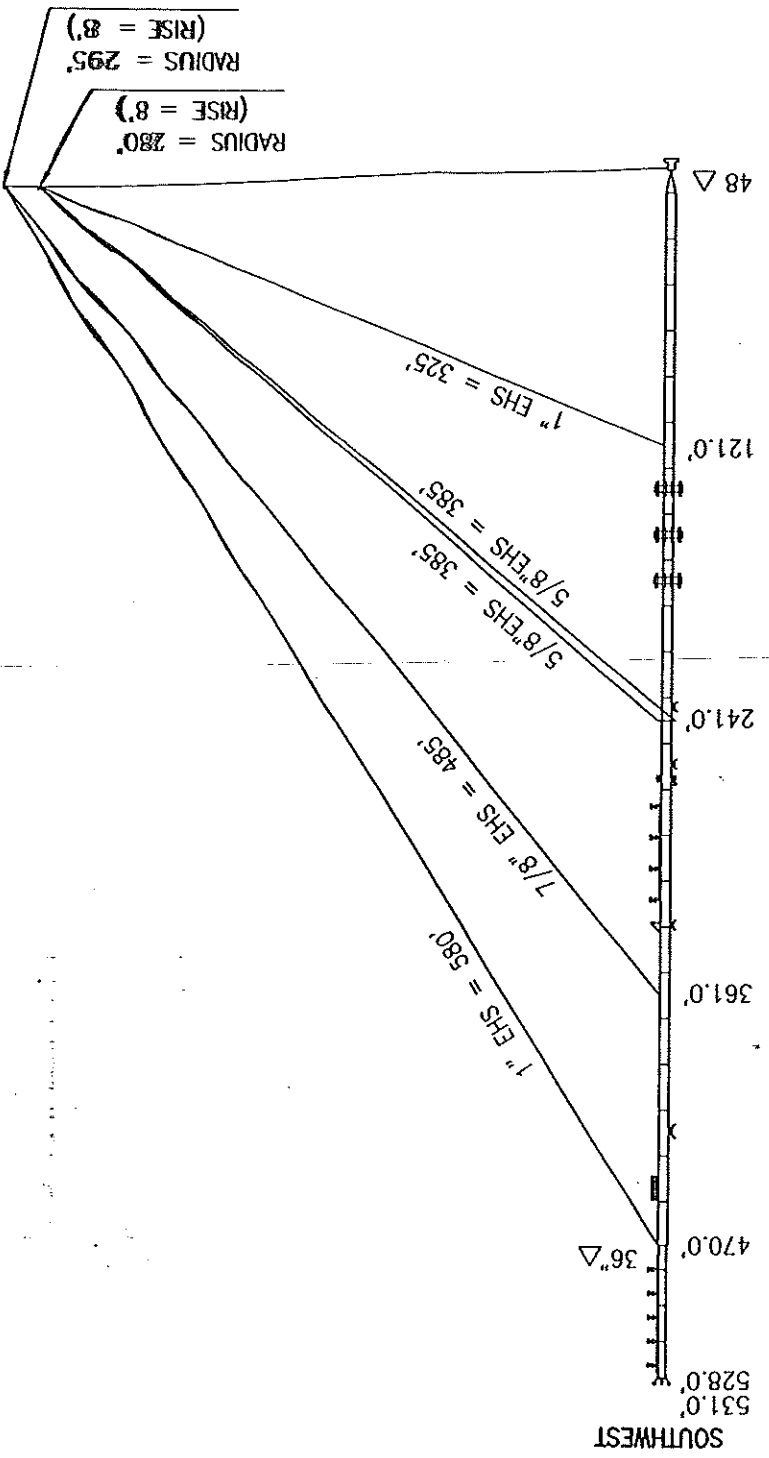
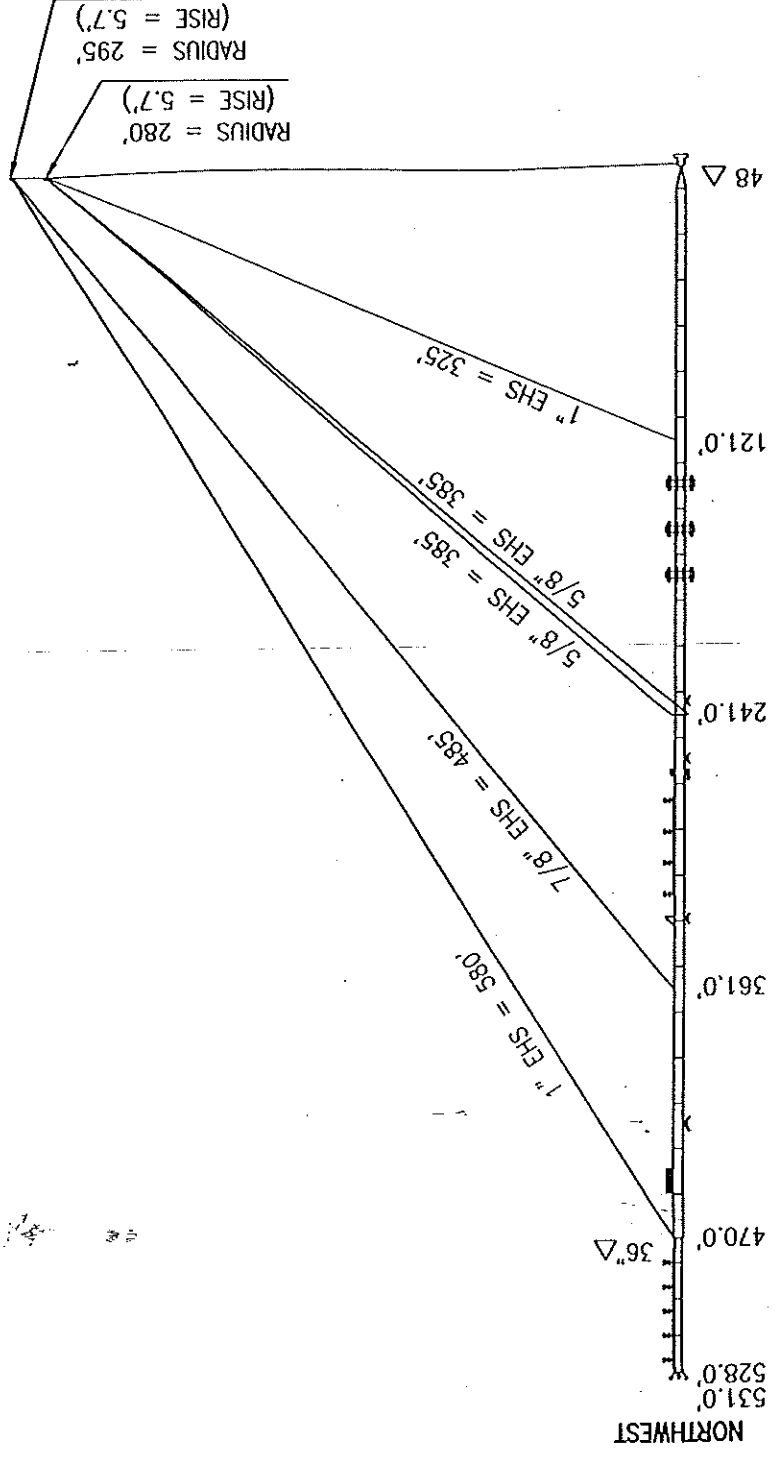




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<b>ERI</b>		

NO	REVISIONS	APP'D	DATE	REMARKS
1				
2				
3				
4				
5				
6				

NAME <b>GOY WIRE TOWERING &amp; CUT LENGTHS</b>	FOR <b>PORTLAND, ME</b>	DATE 08/26/04	SCALE 1/1000	DRAWING NO. E-1A
C:\DRAWING\ALL\PROJECTS\125901		DATE AS NOTED		
RUM NO. 2		DRAWING NO. E-1A		



CONCRETE

1. ALL CONCRETE WORK AND MATERIAL SHALL CONFORM TO ACI 318-02 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND FACTORS FOR

STRUCTURAL CONCRETE FOR BUILDINGS".

2. CONCRETE COMPRESSIVE STRENGTH SHALL BE A MINIMUM OF 4,000 PSI AT 28 DAYS AND A MAXIMUM WATER CEMENT RATIO OF 0.45.

3. CONCRETE IN ANCHOR #3 SHALL HAVE 3 GALLONS PER CUBIC YARD OF DYES ADDED FOR CORROSION INHIBITION BY W.C. GRACE. ADDED IN ACCORDANCE WITH THE MANUFACTURER'S SUGGESTED PRACTICES; ALL OTHER CONCRETES SHALL HAVE 2 GALLONS PER CUBIC YARD OF DYES.

4. EXHAUSTED AIR IN THE CONCRETE SHALL BE REMOVED BY VACUUMING OR SWEEPING.

5. REINFORCING STEEL SHALL BE GRADE 60, DESIGN MAX FOR CONCRETE SEVEN DAYS PRIOR TO CONSTRUCTION.

6. CONTRACTOR TO SUBMIT MILL CERTIFICATION FOR REINFORCING STEEL AND DESIGN MAX FOR CONCRETE SEVEN DAYS PRIOR TO CONSTRUCTION.

7. PILES SHALL BE FITTED WITH DRIVING POINTS.

8. PILES SHALL BE DRIVEN TO BEARING IN GLACIAL TILL OR BEDROCK WITH A HAMMER DELIVERING A MINIMUM OF 25,000 FT. LBS OF ENERGY PER BLOW. A FINAL PENETRATION TEST SHALL BE PERFORMED TO DETERMINE THE BEARING CAPACITY OF THE PILES.

9. CONTRACTOR SHALL MONITOR THE INSTALLATION OF THREE PRODUCTION PILES AT SEPARATE LOCATIONS USING CORRELATION DRIVING ANALYZER EQUIPMENT TO VERIFY THAT THE PILES ACHIEVE 300 KIP CAPACITY. MONITORING WITH PILE DRIVING ANALYZER IN LIEU OF LOAD TEST WILL REQUIRE APPROVAL OF THE LOCAL BUILDING OFFICIAL.

10. WHERE INDICATED ON THE DRAWING, ROCK ANCHORS SHALL BE INSTALLED INSIDE THE ANCHORS TO RESIST UPLIFT. ANCHORS W/ WEAP OF THE PILES TO RESIST UPLIFT. ANCHORS SHALL BE 1 1/2" DIAMETER UPSET THREADED STEEL BARS CONFORMING TO ASTM A72, TYPE 11, GRADE 110 KSI.

11. MINIMUM LENGTH TO BEDROCK OR 26 FEET, THE HOLE IS TO BE DRILLED AT LEAST 6". THE HOLE IS TO BE DRILLED AT LEAST 4" DIAMETER MADE WITH AIR PERCUSSION DRILLING TECHNIQUES TO PROVIDE A ROUGH SURFACE.

12. ROCK ANCHORS SHALL BE GROUTED INTO THE BEDROCK WITH EITHER PORTLAND CEMENT GROUT OR EPOXY RESIN GROUT. GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 6,000 EPOXY GROUT MUST BE TREATED OR PUMPED INTO THE HOLE.

13. ROCK ANCHORS SHALL BE PROOF TESTED TO 150 KIPS (150% OF DESIGN CAPACITY) AND LOCKED OFF AT 71 KIPS (50% OF DESIGN CAPACITY).

14. THE TOP 15 FEET OF 8" DIAMETER PIPE SLEEVES, AND THE ENTIRE LENGTH OF 2" DIAMETER PIPE SLEEVES, WITH CARBONLINE BITUMASTIC 300A, COAL TAR EPOXY, OR EQUAL, APPROVED IN WRITING BY THE ENGINEER. COATING SHALL BE A MINIMUM OF 20 MILS, DRY FILM THICKNESS.

15. SURFACE PREPARATION FOR COATING: FIRST REMOVE VISIBLE OIL, GREASE, AND DRAWING AND CUTTING COMPOUNDS BY SOLVENT CLEANING PER SSPC SP 1. THEN, COMPLETE SURFACE PREPARATION BY NEAR-WHITE BLAST CLEANING. REMOVE RESIDUAL DUST FROM BLASTED SURFACE BY BLOWING WITH DRY, OIL-FREE AIR, VACUUMING, OR SWEEPING.

16. PROVIDE SURFACE PROFILE OF AT LEAST 2 MIL THICKNESS, PER SSPC SP 10.

DESIGN LOADS

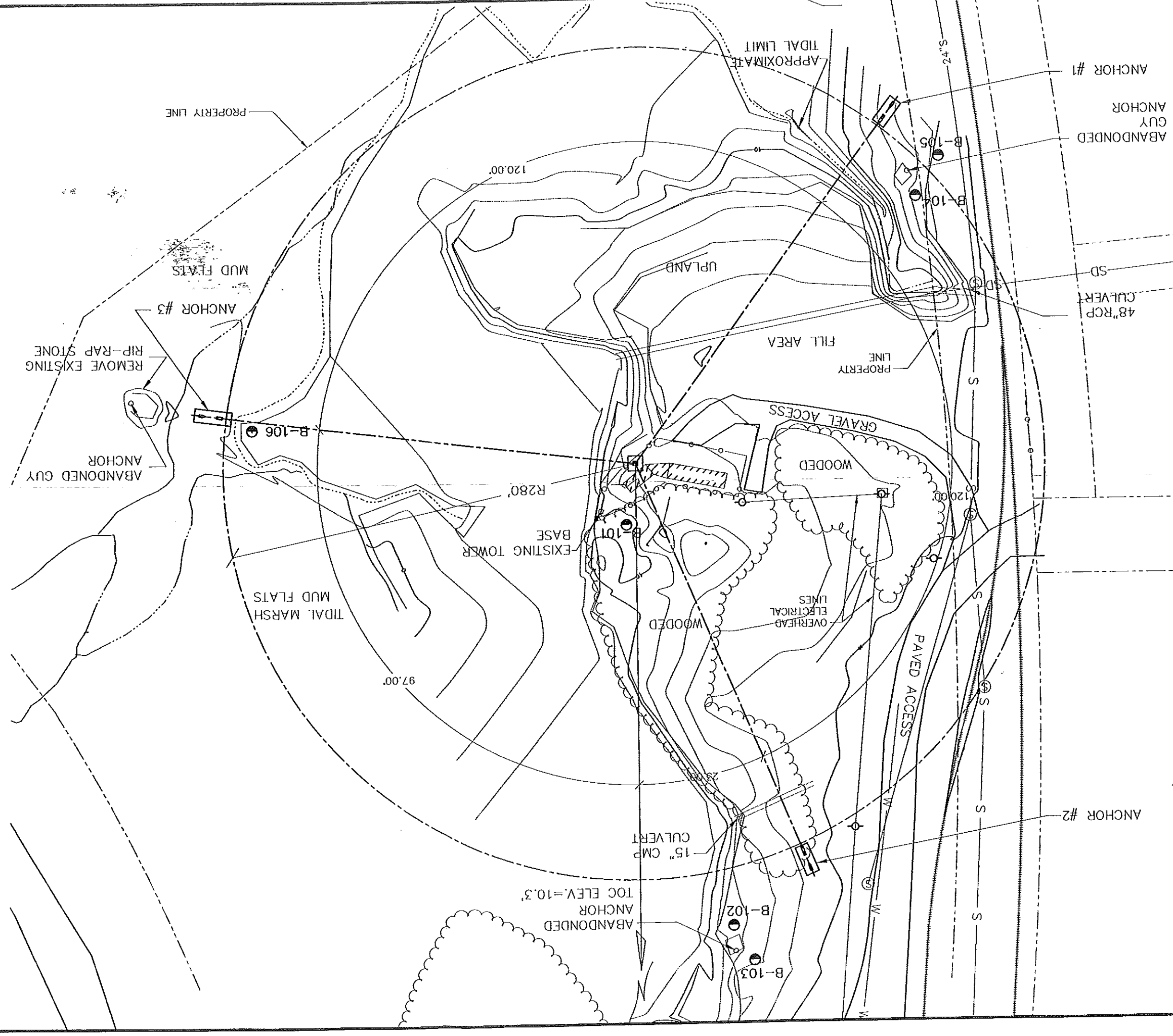
TOWER BASE DESIGN BASED ON LOADINGS INFORMATION PROVIDED BY ELECTRONICS RESEARCH, INC. (E.R.I.) 3777 GARDNER RD. CHANDLER, INDIANA. E.R.I. LOADS GENERATED

UTILIZING IBC DESIGN CRITERIA

DATE : 06-22-04  
SCALE : 1" = 30'

PROJECT NUMBER: 04053  
DRAWN BY: BENNETT  
DESIGN BY: ARLEGE  
FILE : 04053-PR-R3-C1XX.DWG

SHEET NO: 101



ASSOCIATED DESIGN PARTNERS INC.

80 Leighton Road  
Falmouth, Maine 04105

Office: (207) 878-1751  
Fax: (207) 878-1788  
E-Mail: adp@designpartnersinc.com

PROJECT: WMGX TOWER  
PORTLAND, ME  
FOR: PORTLAND RADIO GROUP

SHEET TITLE:  
TOWER BASE  
AND ANCHOR LOCATIONS

REVISIONS:

No.	BY	DESCRIPTION	DATE
1	RCA	CLIENT REVIEW	6/22/04
2	RCA	PILE AND FOOTING REVISIONS & CONCRETE NOTE REVISION	10/05/04
3	RCA	PILE NOTE #9	10/11/04

PROJECT NUMBER: 04053  
DRAWN BY: BENNETT  
DESIGN BY: ARLEGE  
FILE : 04053-PR-R3-C1XX.DWG

DATE : 06-22-04  
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DATE : 06-22-04  
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SHEET NO: 101

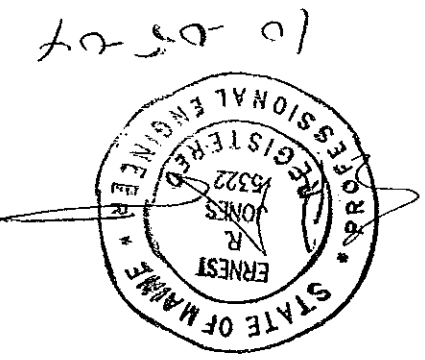
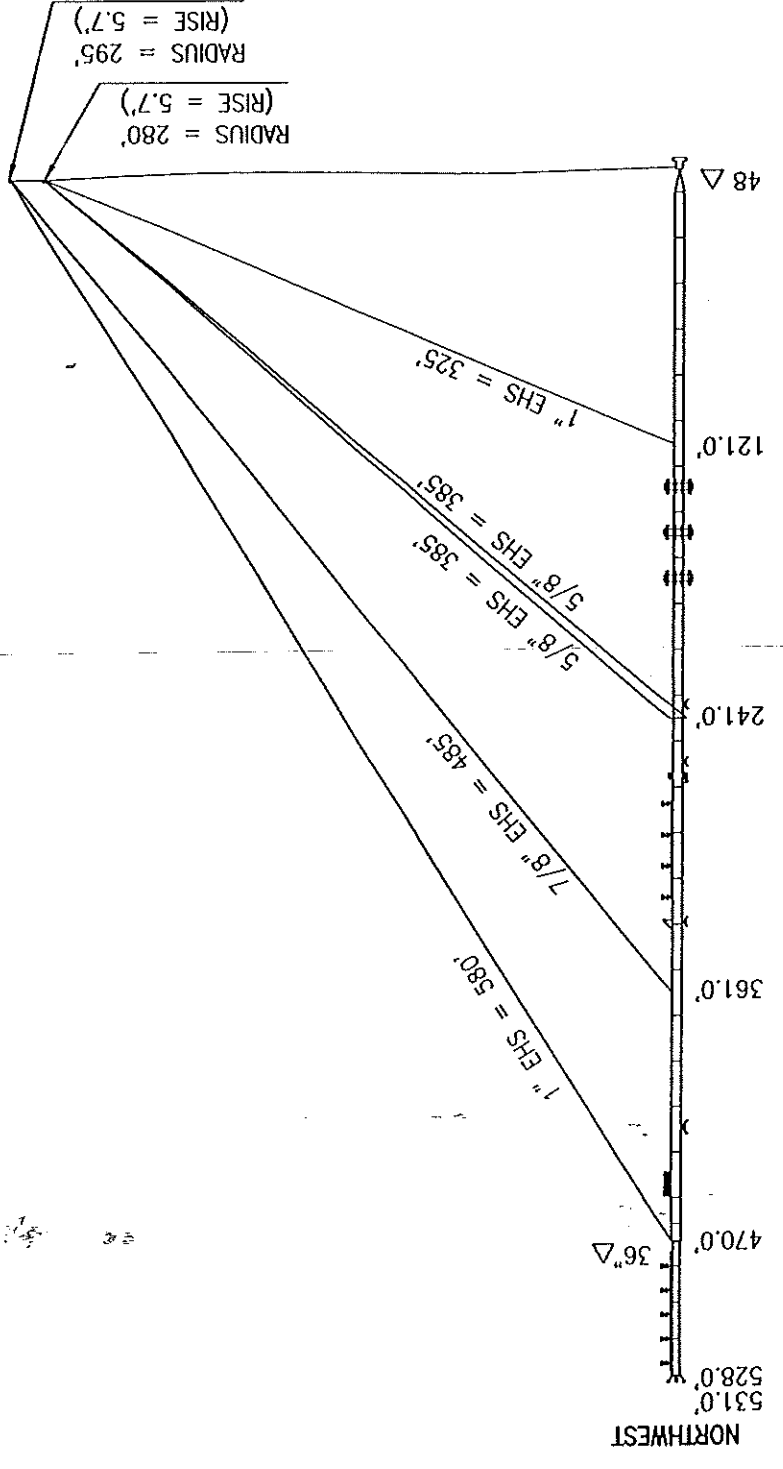
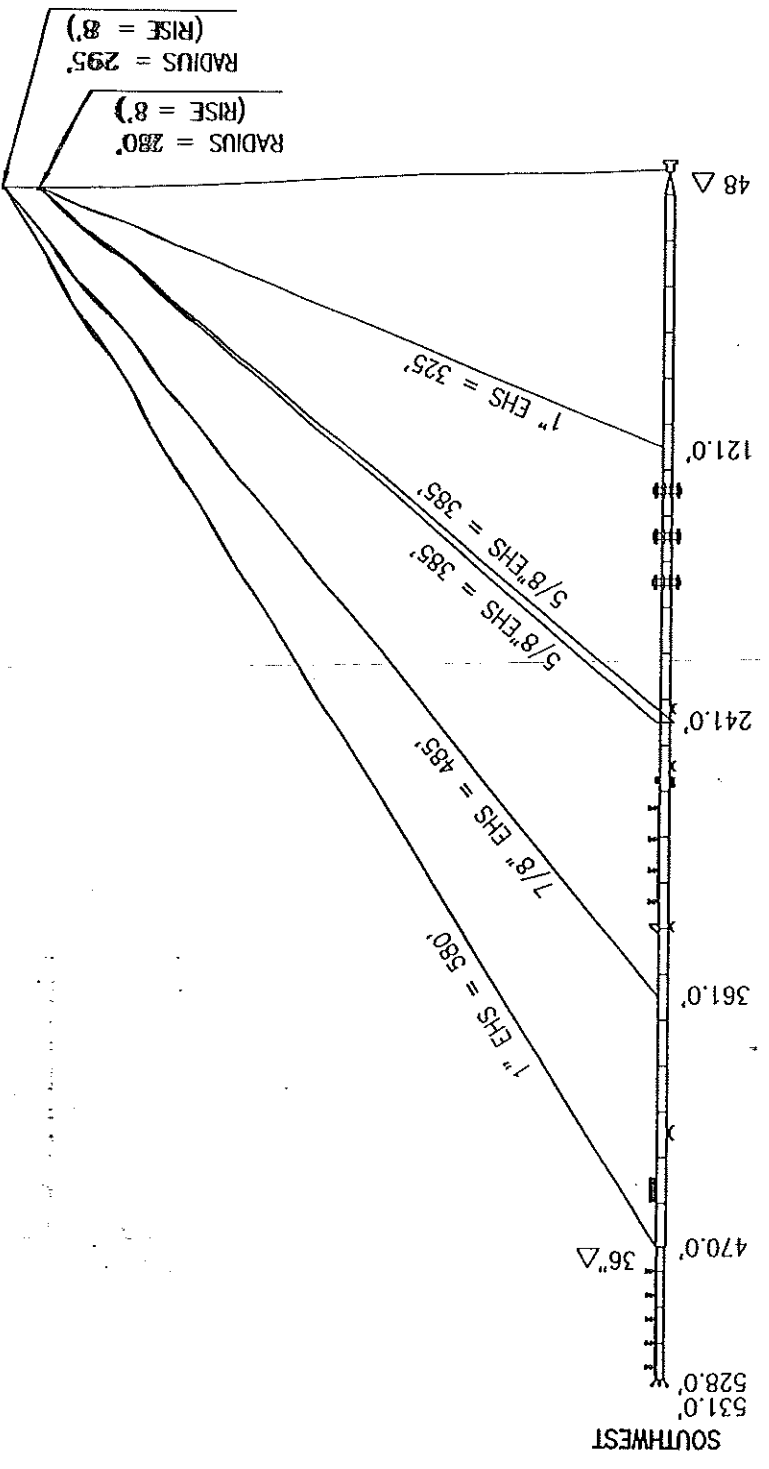
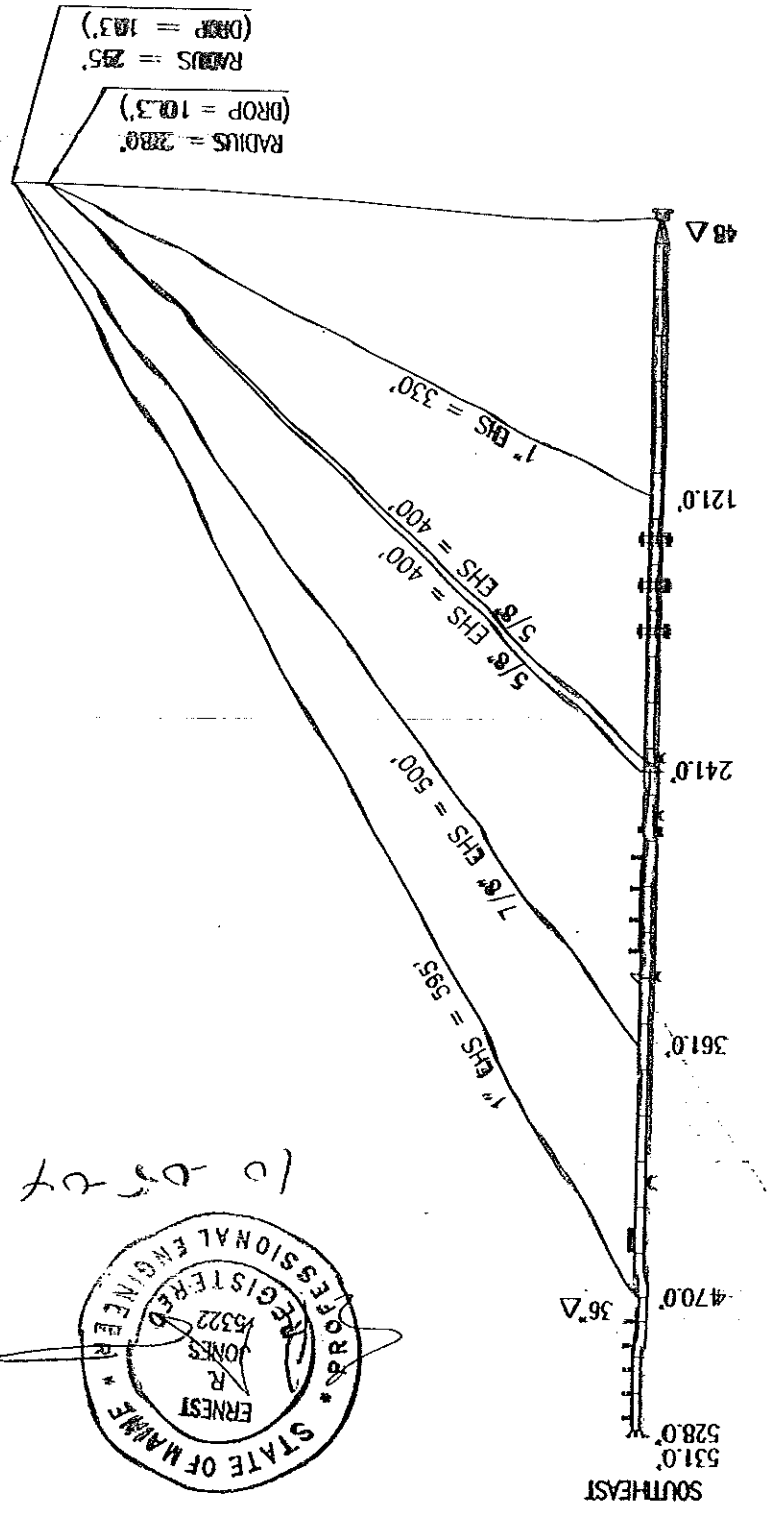
PROJECT NUMBER: 04053  
DRAWN BY: BENNETT  
DESIGN BY: ARLEGE  
FILE : 04053-PR-R3-C1XX.DWG

<b>REVISIONS</b> NO. 1 NO. 2 NO. 3 NO. 4 NO. 5 NO. 6		DATE APP'D DATE		DATE 08/26/04 DRAWN 1/1000 CHECKED DATE 08/26/04 DESIGNED DATE 08/26/04 DRAWING NO. E-1A	
NAME CUT WIRE TOWER & CUT LENGTHS PORTLAND, ME RUN NO. 2		PROJECT PORTLAND, ME		DRAWING NO. E-1A PROJECT NO. 12590	

ELECTRONICS RESEARCH, INC. Established 1913  
 7777 GARDNER RD.  
 CHANDLER, IN 47610-9637  
 PHONE: (812) 925-6000  
 FAX: (812) 925-4026

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1. ALL CONCRETE WORK AND MATERIAL SHALL CONFORM TO ACI 318-02 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE AND ACI 301-99 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS".
2. CONCRETE COMPRESSIVE STRENGTH SHALL BE A MINIMUM OF 4000 PSI AT 28 DAYS AND A MAXIMUM WATER-CEMENT RATIO OF 0.45.
3. CONCRETE IN ANCHOR #3 SHALL HAVE 3 GALLONS PER CUBIC YARD OF DCI'S CORROSION INHIBITOR BY W.R. GRACE, ADDED IN ACCORDANCE WITH THE MANUFACTURER'S SUGGESTED PRACTICES. ALL OTHER CONCRETS SHALL HAVE 2 GALLONS PER CUBIC YARD OF DCI'S.
4. ENTRAINED AIR IN THE CONCRETE SHALL BE 6% ± 1%.
5. REINFORCING STEEL SHALL BE GRADE 60, DEFORMED BARS CONFORMING TO ASTM A-615.
6. CONTRACTOR TO SUBMIT MILL CERTIFICATION FOR REINFORCING STEEL AND DESIGN MIX FOR CONCRETE SEVEN DAYS PRIOR TO CONSTRUCTION.
7. FILES SHALL BE FITTED WITH A MINIMUM YIELD STRESS OF 50 KSI, AND SHALL CORFORM TO ASTM A 572 GRADE 50, A 212 GRADE 50, OR A 588 GRADE 50.
8. FILES SHALL BE FITTED WITH DRIVING POINTS.
9. FILES SHALL BE PULVED TO BEARING IN GLACIAL TILL OR BEDROCK WITH A MINIMUM DELTA TIL OR BEDROCK WITH A MINIMUM OF 2500 FT. LBS OF ENERGY PER BLOW. A FINAL PENETRATION ANALYZER IN LIEU OF LOAD TEST WILL BE REQUIRED. APPROVAL OF THE LOCAL BUILDING OFFICIAL.
10. WHERE INDICATED ON THE DRAWING, ROCK ANCHORS SHALL BE INSTALLED INSIDE THE WEBS OF THE PILES TO RESIST UPLIFT. ANCHORS SHALL BE 1/2" DIAMETER UPSET THREADED STEEL BARS CONFORMING TO ASTM A772, TYPE II, GRADE 150 KSI.
11. ONE PILE SHOULD BE LOAD TESTED TO 300 KIPS IN LIEU OF A PILE LOAD TEST. THE CONTRACTOR MAY MONITOR THE INSTALLATION OF THREE PRODUCTION PILES AT SEPARATE LOCATIONS USING CASE-GOBLER PILES DRIVING ANALYZER EQUIPMENT TO VERIFY THAT THE PILES ACHIEVE 300 KIP CAPACITY. MONITORING WITH PILE DRIVING ANALYZER IN LIEU OF LOAD TEST WILL BE REQUIRED. APPROVAL OF THE LOCAL BUILDING OFFICIAL.
12. WHERE INDICATED ON THE DRAWING, ROCK ANCHORS SHALL BE GROUTED INTO THE BEDROCK WITH EITHER PORTLAND CEMENT GROUT OR EPOXY RESIN. CEMENT GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 6000 EPOXY GROUT MUST BE TRENCH OR PUMPED INTO THE HOLE.
13. ROCK ANCHORS SHALL BE PROOF TESTED TO 150 KIPS (150% OF DESIGN CAPACITY) AND LOCKED OFF AT 71 KIPS (50% OF DESIGN CAPACITY).
14. THE TOP 15 FEET OF 8" DIAMETER PIPE SHALL BE REMOVED BY SAW CUTTING AND CLEANING PER ASPC SP 1. THIN COATINGS SURFACE PREPARATION BY NEAR WHITE BLAST CLEANING. REMOVE RESIDUAL DUST FROM BLASTED SURFACE BY BLOWING WITH DRY, OIL-FREE AIR, VACUUMING, OR SWEEPING. PROVIDE SURFACE PROFILE OF AT LEAST 2 MIL. THICKNESS, PER SSPC SP 10.
15. SURFACE PREPARATION FOR COATING: FIRST REMOVE VISIBLE OIL, GREASE, AND DRAMAING AND CUTTING COMPOUNDS BY SOLVENT CLEANING PER ASPC SP 1. THIN COATINGS SURFACE PREPARATION BY NEAR WHITE BLAST CLEANING. REMOVE RESIDUAL DUST FROM BLASTED SURFACE BY BLOWING WITH DRY, OIL-FREE AIR, VACUUMING, OR SWEEPING. PROVIDE SURFACE PROFILE OF AT LEAST 2 MIL. THICKNESS, PER SSPC SP 10.

DESIGN LOADS  
 TOWER BASE DESIGN BASED ON LOADING INFORMATION PROVIDED BY ELECTRONICS RESEARCH, INC. (E.R.I.) 7777 GARDNER RD. CHANDLER, INDIANA. E.R.I. LOADS GENERATED UTILIZING IBC DESIGN CRITERIA.

NO.	BY	DESCRIPTION	DATE
1	RCA	CLIENT REVIEW	6/22/04
2	RCA	FILE AND FOOTING REVISIONS #1	10/06/04
3	RCA	CONCRETE NOTE REVISION	10/11/04
4	RCA	FILE NOTE #9	

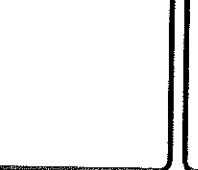
PROJECT: **WMGX TOWER**  
 PORTLAND, ME  
 FOR: PORTLAND RADIO GROUP

SHEET TITLE:  
**TOWER BASE AND ANCHOR LOCATIONS**

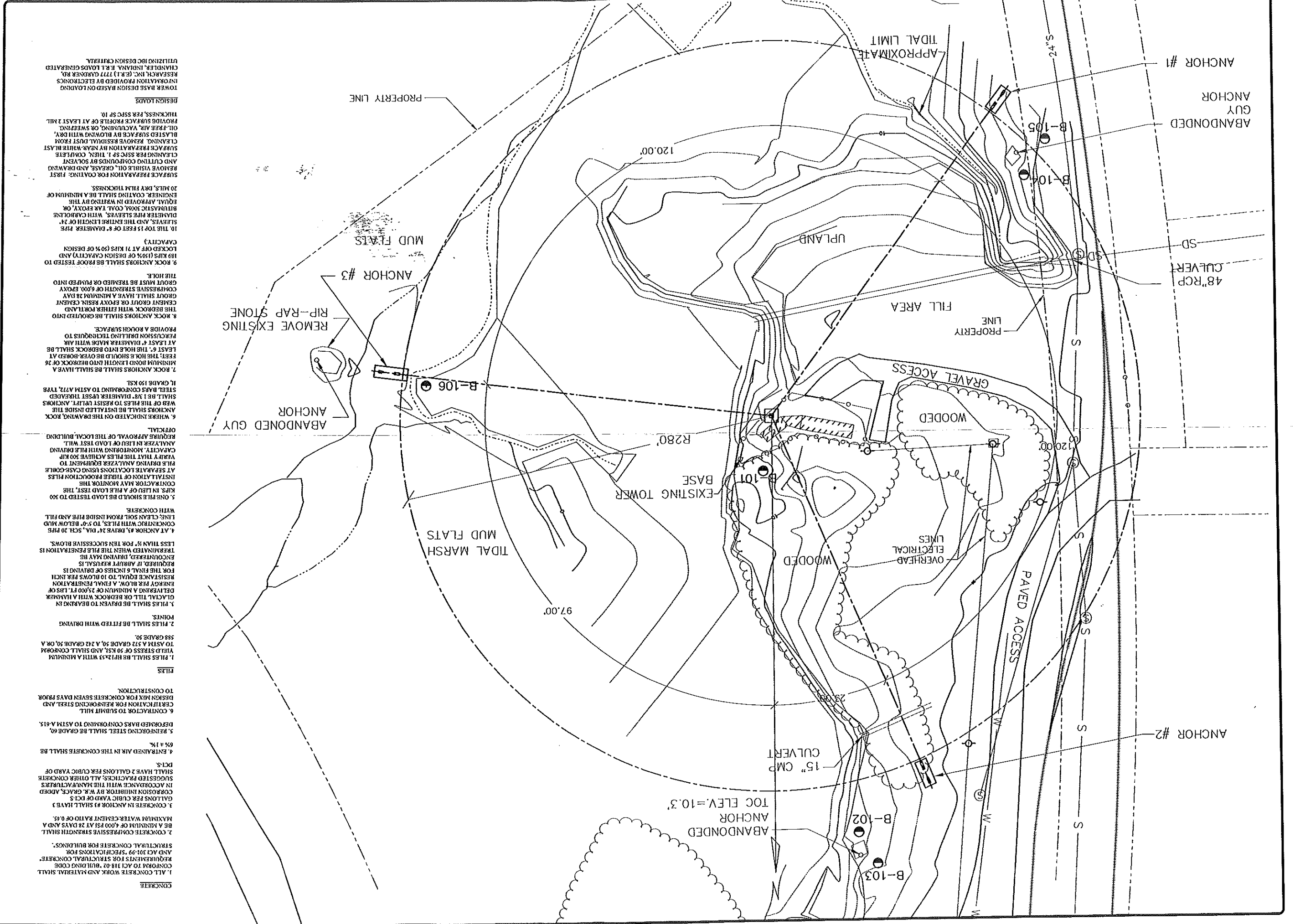
**ASSOCIATED DESIGN PARTNERS INC.**

80 Leighton Road  
 Falmouth, Maine 04105

Office: (207) 878-1751  
 Fax: (207) 878-1788  
 E-Mail: [adp@adpartnersinc.com](mailto:adp@adpartnersinc.com)



DATE: 06-22-04  
 SCALE: 1" = 30'  
 DESIGN BY: ARLDEGE  
 PROJECT NUMBER: **04053**  
 SHEET NO.: **101**





GUY DATA CHART

GUY WIRE SIZE	ELEVATION	GUY EMB PLATE (A-572)		THIMBLE END FITTING		PREFORM		TURN-BUCKLE		TOWER		ANCHOR		SHACKLES		PRIMARY INSULATOR		SECONDARY INSULATOR		GUY WIRE CUT LTH		MINI TENSION BOT.	
		1" EHS	5/8" EHS	5/8" EHS	7/8" EHS	1"	1-1/2"	1"	1-1/2"	1-1/4"	1-1/8"	1-1/4"	1-1/8"	1-1/4"	1-1/8"	1-1/4"	1-1/8"	1-1/4"	1-1/8"	1-1/4"	1-1/8"	10,450	10,450
1" EHS	121.0' 10" X 5-3/4" X 1 1/4"	1"	1"	1"	1-1/2"	1"	1-1/2"	1"	1-1/4"	1-1/8"	1-1/4"	1-1/8"	1-1/4"	1-1/8"	1-1/4"	1-1/8"	1-1/4"	1-1/8"	1-1/4"	1-1/8"	10,450	10,450	
5/8" EHS	241.0' 10" X 4-1/2" X 1"	5/8"	5/8"	5/8"	1"	5/8"	1"	7/8"	7/8"	3/4"	7/8"	3/4"	7/8"	3/4"	7/8"	3/4"	7/8"	3/4"	7/8"	3/4"	4,240	4,240	
5/8" EHS	241.0' 10" X 4-1/2" X 1"	5/8"	5/8"	5/8"	7/8"	7/8"	1"	7/8"	7/8"	3/4"	7/8"	3/4"	7/8"	3/4"	7/8"	3/4"	7/8"	3/4"	7/8"	3/4"	4,240	4,240	
7/8" EHS	361.0' 10" X 4-1/2" X 1"	7/8"	7/8"	7/8"	1"	1"	1-1/2"	1"	1-1/4"	1"	1-1/4"	1"	1-1/4"	1"	1-1/4"	1"	1-1/4"	1"	1-1/4"	1"	7,970	7,970	
1" EHS	470.0' 10" X 5-3/4" X 1 1/4"	1"	1"	1"	1-1/2"	1"	1-1/2"	1"	1-1/4"	1-1/8"	1-1/4"	1-1/8"	1-1/4"	1-1/8"	1-1/4"	1-1/8"	1-1/4"	1-1/8"	1-1/4"	1-1/8"	10,450	10,450	

\* REFERENCE E-1A FOR ANCHOR RADIUS AND GUY WIRE CUT LENGTH DUE TO DROPS AND RISES IN SURFACE GRADE.

DESIGNED ANTENNA LOADING

WEIGHT LIST

MARK	WEIGHT
G	1,475 LBS.
H	3,100 LBS.
J	1,770 LBS.
K	1,005 LBS.

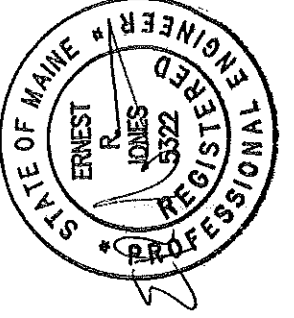
MATERIAL LIST

MARK	SIZE
A	1 1/8" S.R.
B	1 1/4" S.R.
C	12" x 1" PL.
D	7/8" S.R.
E	N/A
F	1 1/2" x 1/2"

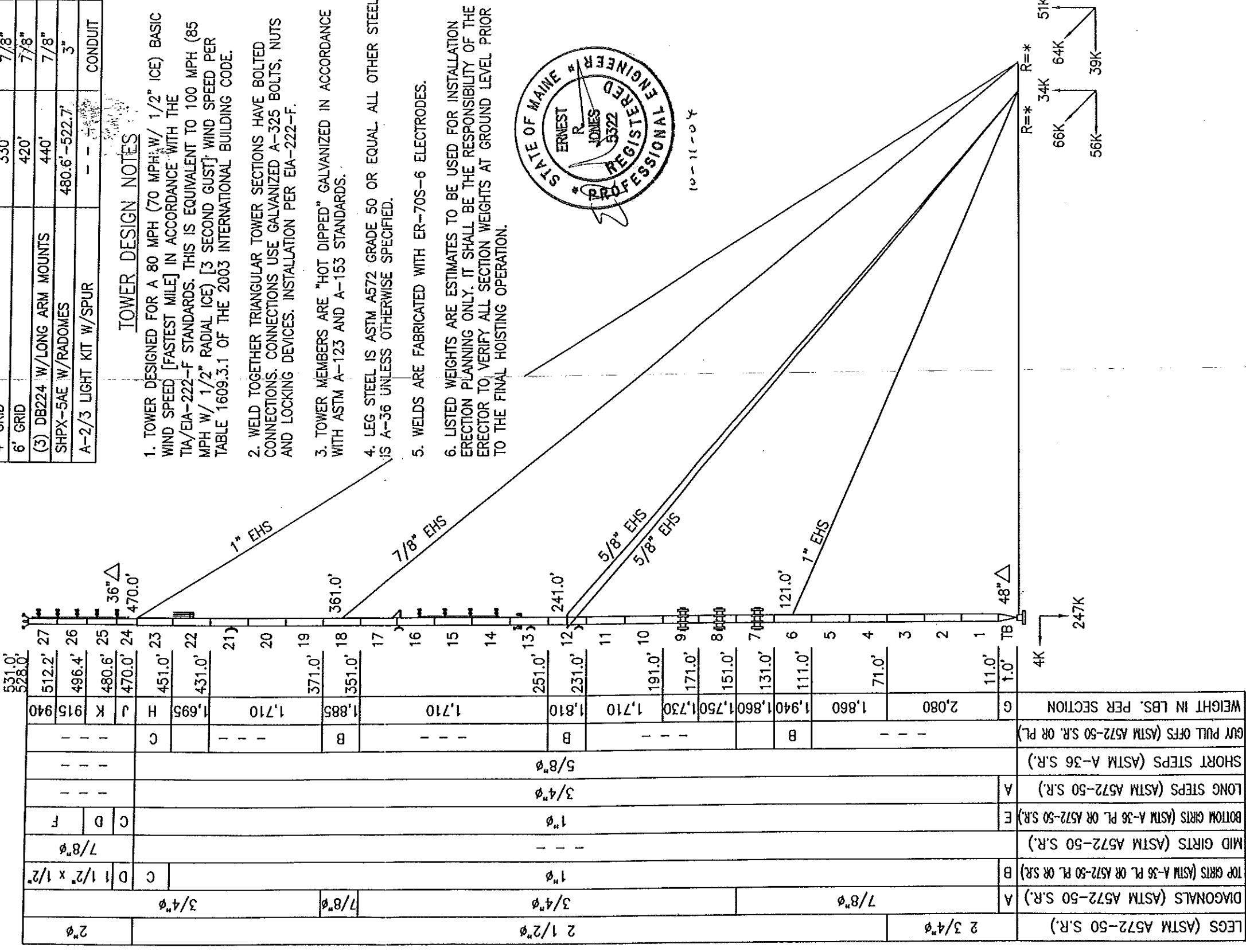
ANTENNA TYPE	ELEVATION	LINE
(12) 5' X 1' PCS PANELS	140'	(12) 1-5/8"
(12) 5' X 1' PCS PANELS	160'	(12) 1-5/8"
(12) 5' X 1' PCS PANELS	180'	(12) 1-5/8"
4' GRID	235'	7/8"
4' GRID	260'	7/8"
DRC-C 4 BAY W/RADOMES	280.8'-319.2'	3"
4' x 6' ICE SHIELD	329.2'	---
4' GRID	330'	7/8"
6' GRID	420'	7/8"
(3) DB224 W/LONG ARM MOUNTS	440'	7/8"
SHPX-5AE W/RADOMES	480.6'-522.7'	3"
A-2/3 LIGHT KIT W/SPUR	---	CONDUIT

TOWER DESIGN NOTES

- TOWER DESIGNED FOR A 80 MPH (70 MPH W/ 1/2" ICE) BASIC WIND SPEED [FASTEST MILE] IN ACCORDANCE WITH THE TIA/EIA-222-F STANDARDS. THIS IS EQUIVALENT TO 100 MPH (85 MPH W/ 1/2" RADIAL ICE) [3 SECOND GUST] WIND SPEED PER TABLE 1609.3.1 OF THE 2003 INTERNATIONAL BUILDING CODE.
- WELD TOGETHER TRIANGULAR TOWER SECTIONS HAVE BOLTED CONNECTIONS. CONNECTIONS USE GALVANIZED A-325 BOLTS, NUTS AND LOCKING DEVICES. INSTALLATION PER EIA-222-F.
- TOWER MEMBERS ARE "HOT DIPPED" GALVANIZED IN ACCORDANCE WITH ASTM A-123 AND A-153 STANDARDS.
- LEG STEEL IS ASTM A572 GRADE 50 OR EQUAL. ALL OTHER STEEL IS A-36 UNLESS OTHERWISE SPECIFIED.
- WELDS ARE FABRICATED WITH ER-70S-6 ELECTRODES.
- LISTED WEIGHTS ARE ESTIMATES TO BE USED FOR INSTALLATION ERECTION PLANNING ONLY. IT SHALL BE THE RESPONSIBILITY OF THE ERECTOR TO VERIFY ALL SECTION WEIGHTS AT GROUND LEVEL PRIOR TO THE FINAL HOISTING OPERATION.



10-11-04



**EL ELECTRONICS RESEARCH, INC.**  
 7777 GARDNER RD.  
 CHANDLER, IN 47610-9637  
 PHONE: (812) 926-6000  
 FAX: (812) 926-4020

Established 1949

**ERI**

REVISION NO. 1: REVISION DATE 10-12-04  
 APP'D DATE 10-12-04  
 DATE 08/24/04  
 FACTOR 1/200  
 DRAWN SGA  
 CHECKED LVL  
 DATE 08/24/04  
 MATERIALS AS NOTED

NAME: TOWER ELEVATION  
 FOR: PORTLAND, ME  
 PATH: C:\PROGRAMS\PROJECTS\12590  
 MARK: E-1  
 DRAWING NO. E-1

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NO.	REVISIONS	APP'D DATE	DATE	AS NOTED	DATE
1			08/26/04		
2					
3					
4					
5					
6					

NAME: CUT WIRE DIMENSIONS & CUT LENGTHS  
 FOR: PORTLAND, ME  
 PATH: C:\PROGRAMS\AUTOCAD\PROJECTS\125901E-1A  
 PLOT: 1/1000  
 DATE: 08/26/04  
 DRAWN BY: [Signature]  
 CHECKED BY: [Signature]  
 SCALE: [Blank]  
 SHEET NO.: [Blank]  
 TOTAL SHEETS: [Blank]

ELECTRONICS RESEARCH, INC.  
 1777 GARDNER RD.  
 CHANDLER, IN 47810-9837  
 PHONE: (812) 926-6000  
 FAX: (812) 926-4026

Established 1913  
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