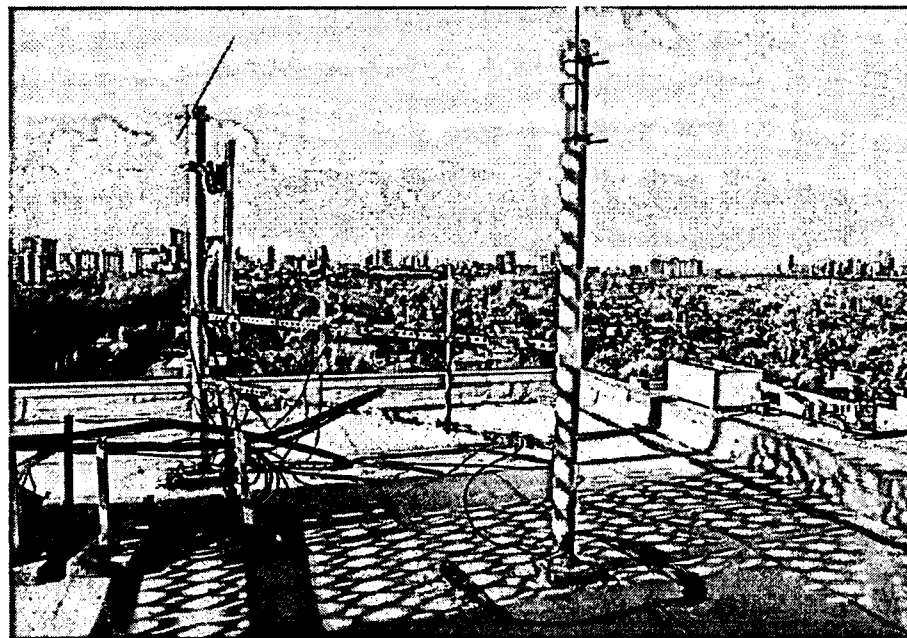
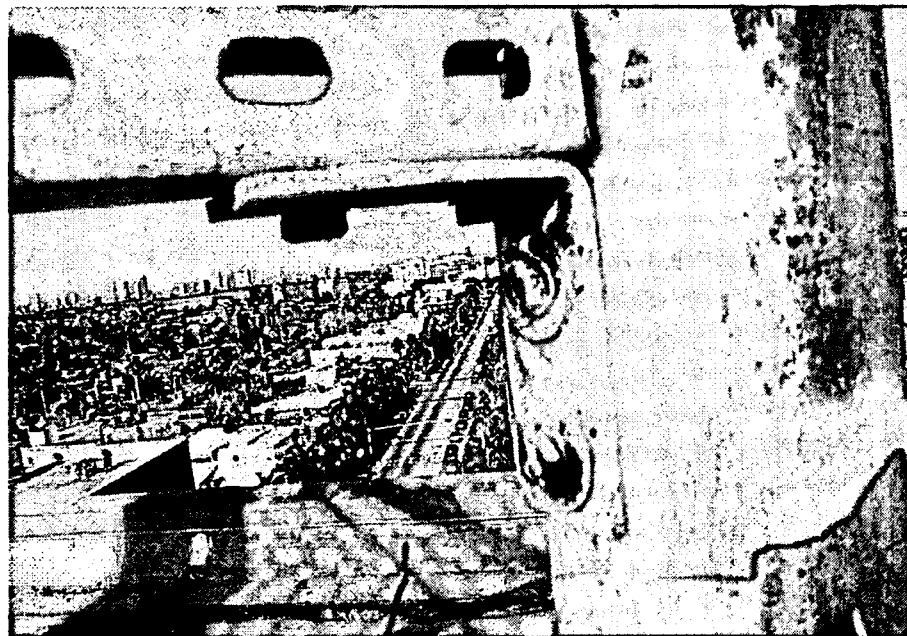
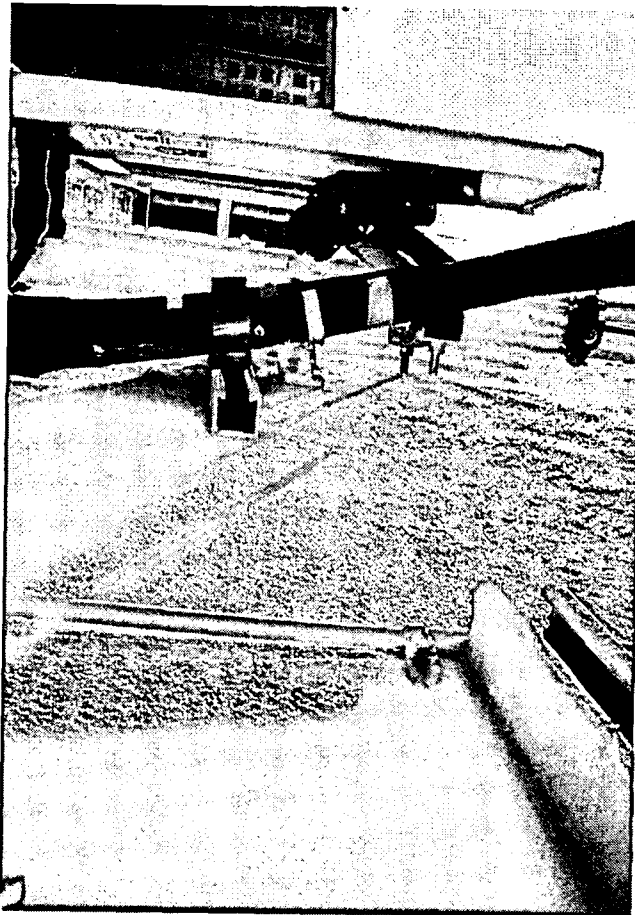
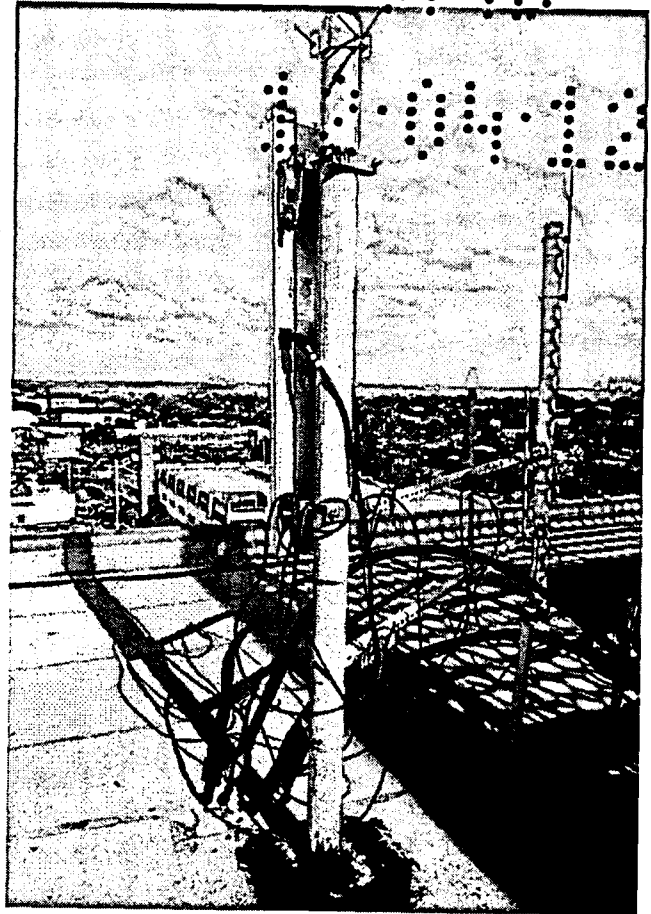
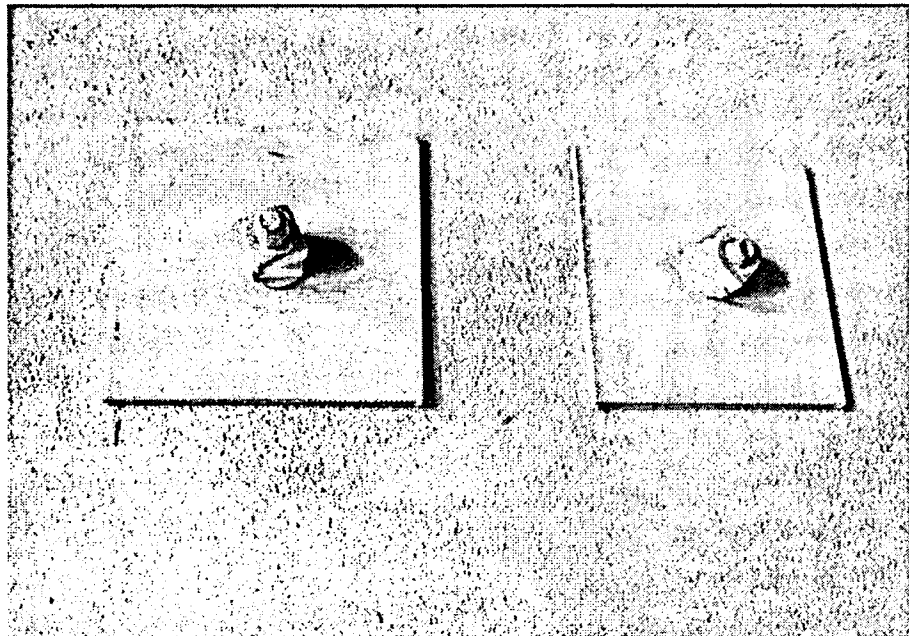
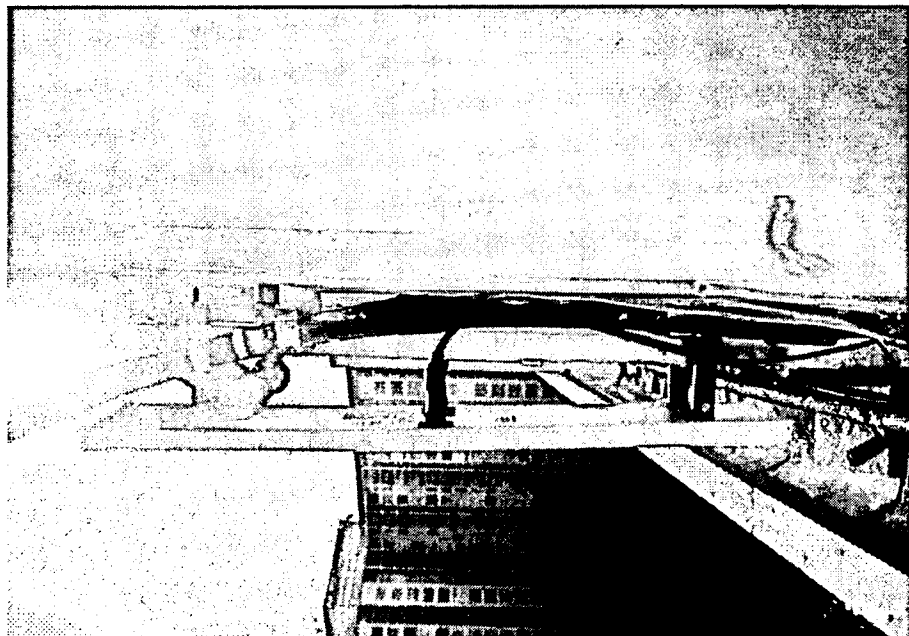
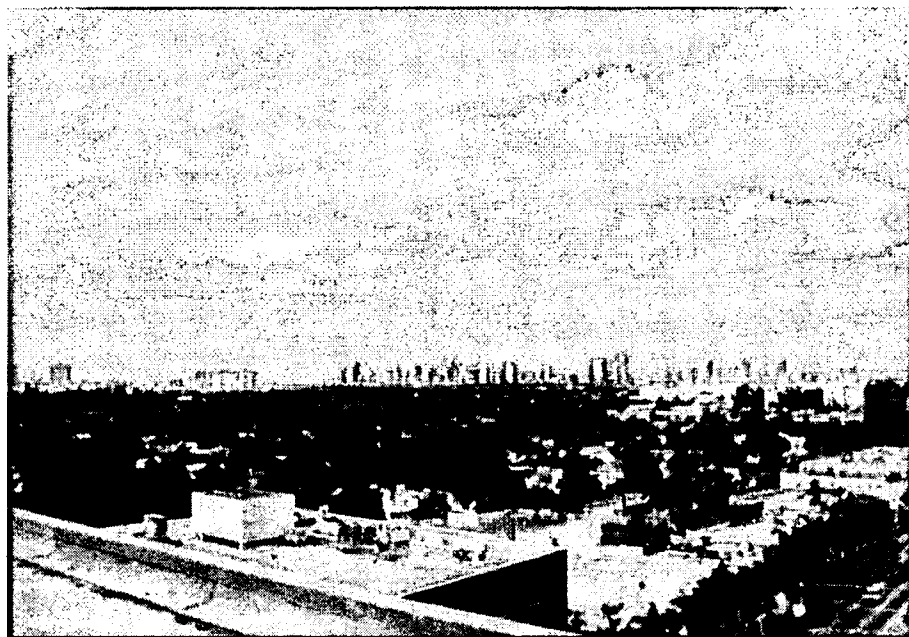
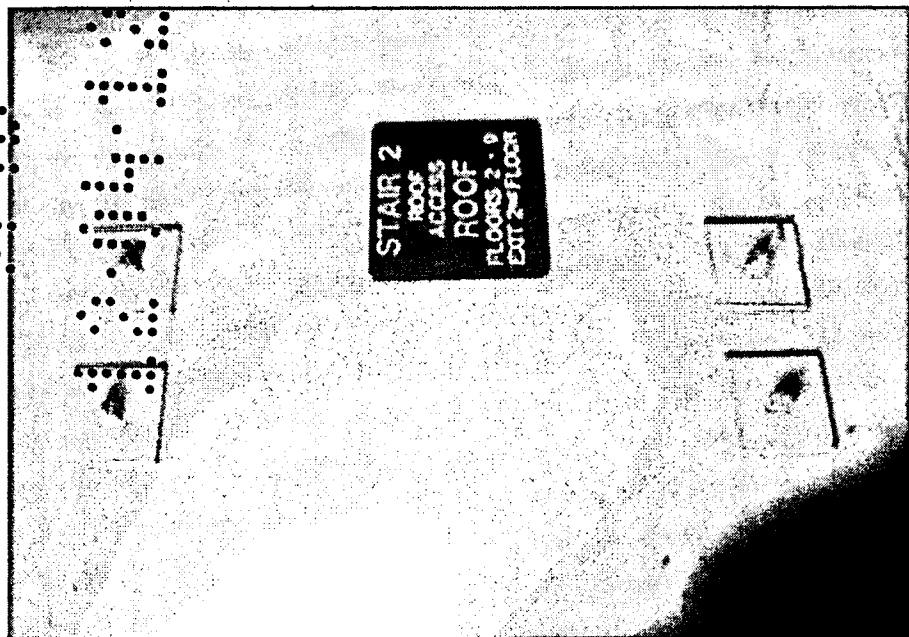
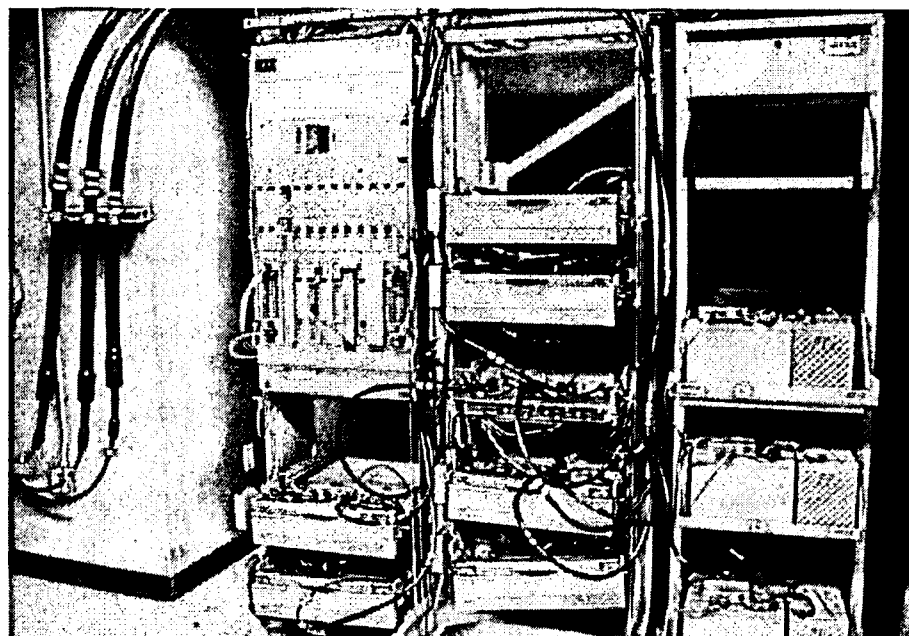
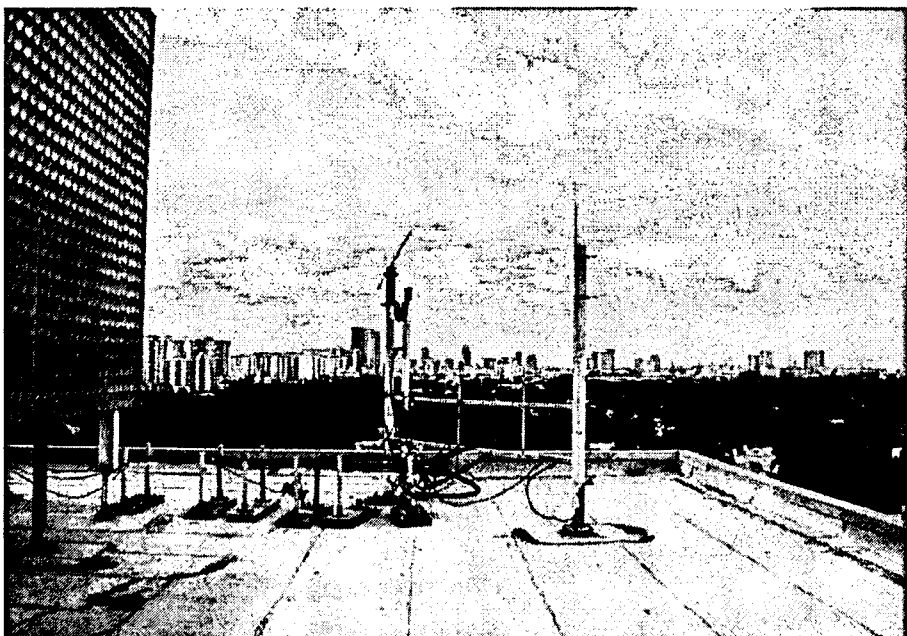
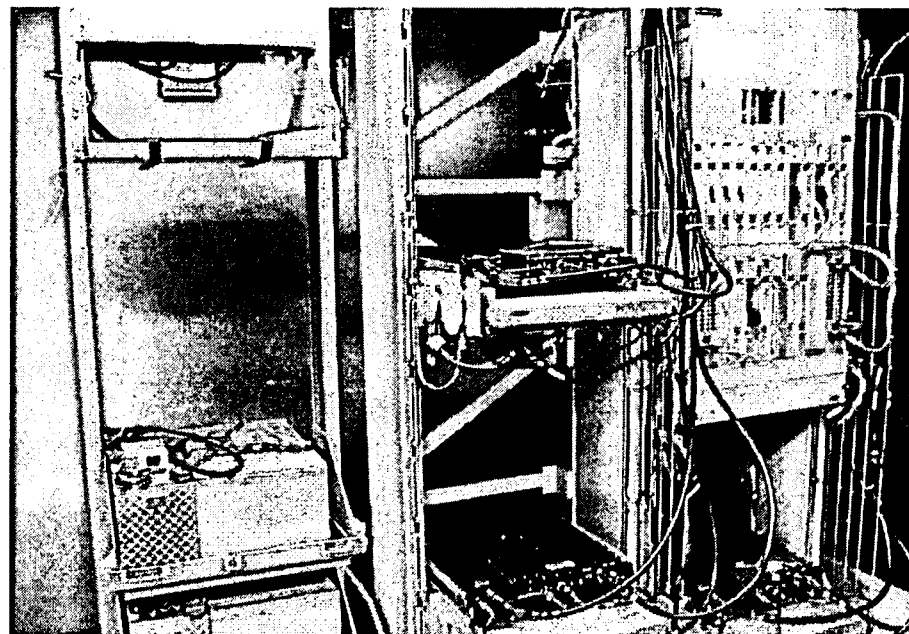
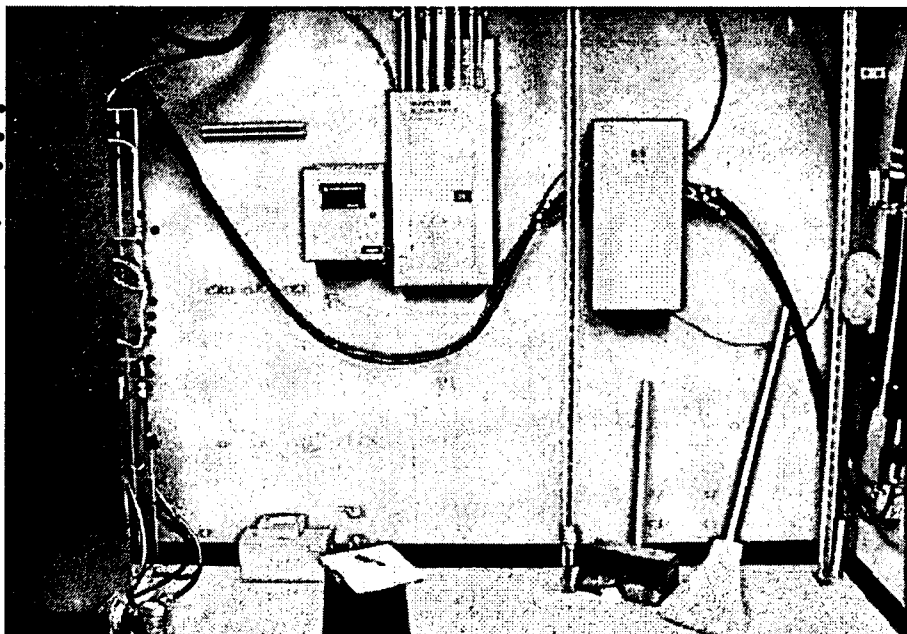
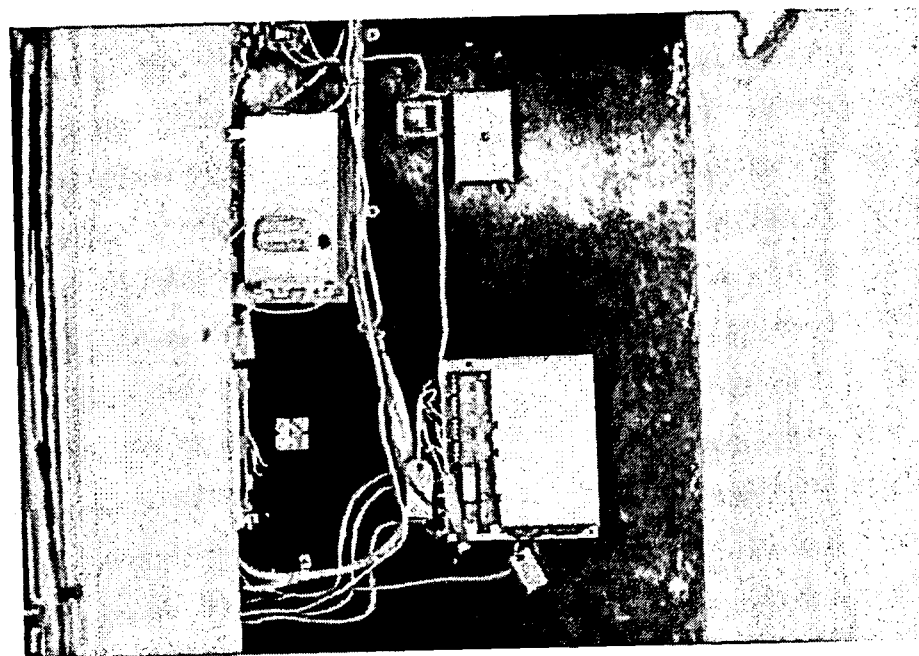
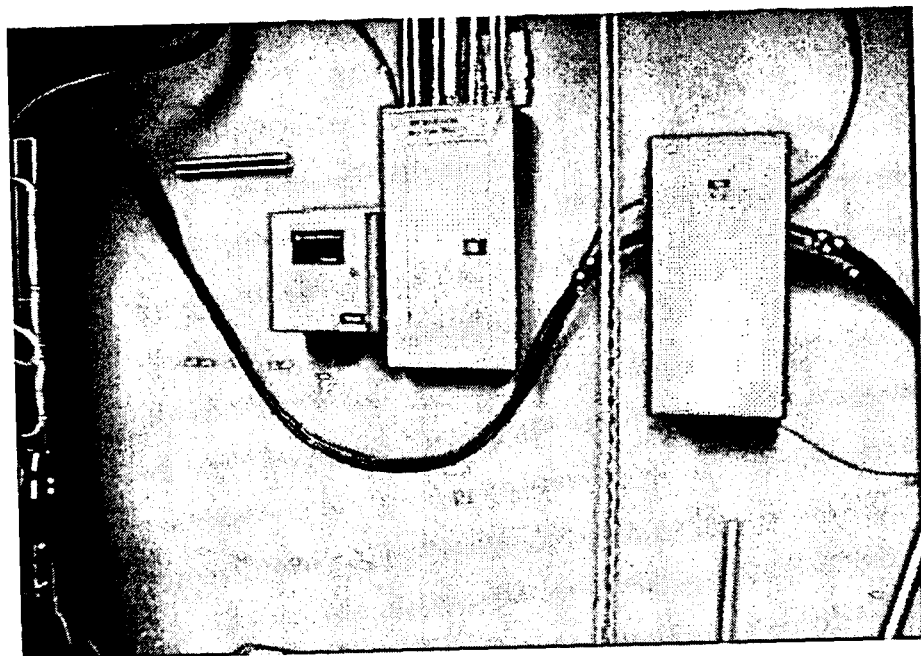
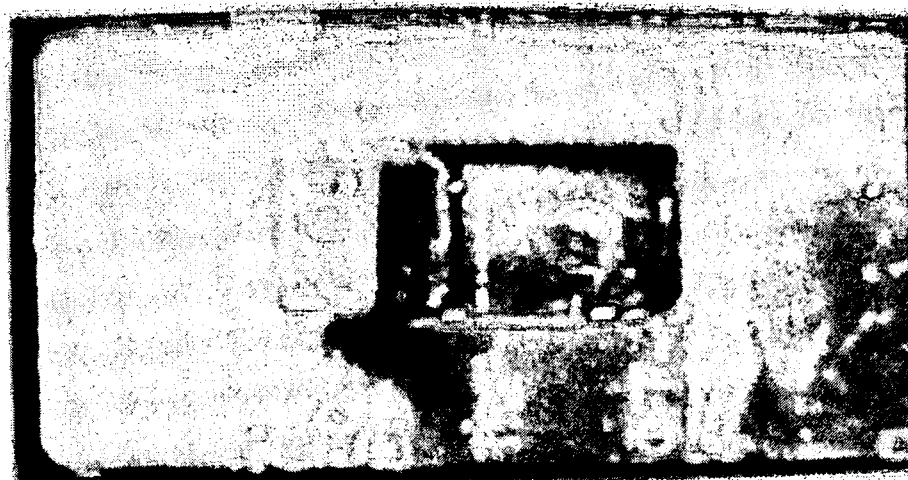
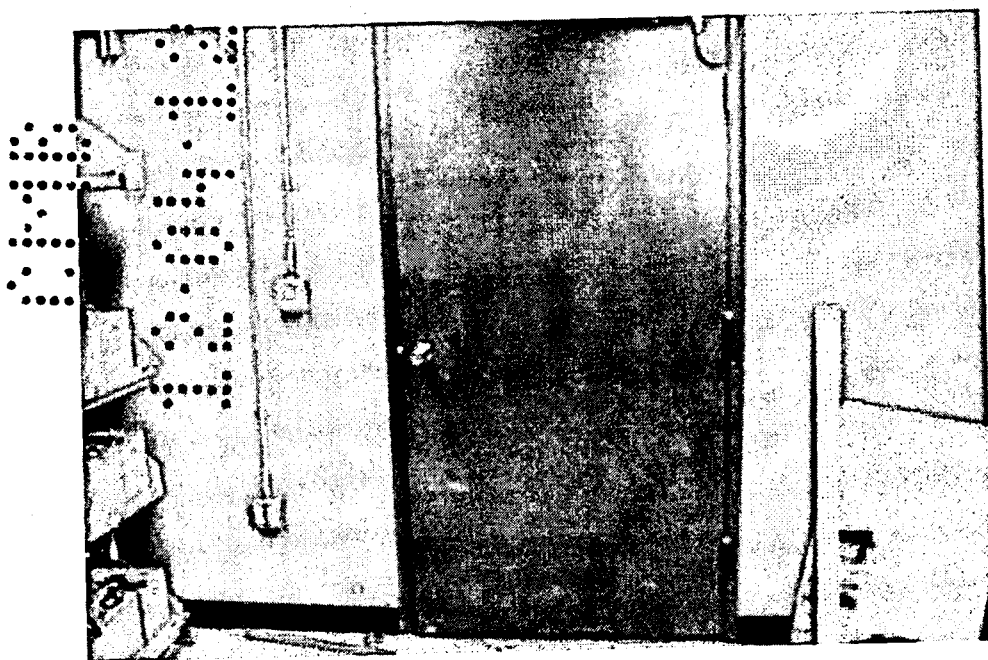












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3	THREE REFE UNITS	4	THREE REFE UNITS
5	A/C #1 AIR HANDLING	6	A/C #2 AIR HANDLING
7	UNIT	8	UNIT
9	FLUORESCENT LIGHTING	10	QUADRAPLEX RECEPT
11	TELEPHONE RECEPT.	12	A/C #2
13	A/C UNIT #1	14	
15		16	RECEPTACLE
17	SPACE	18	SURGE
19		20	ARRESTOR
21		22	
23		24	

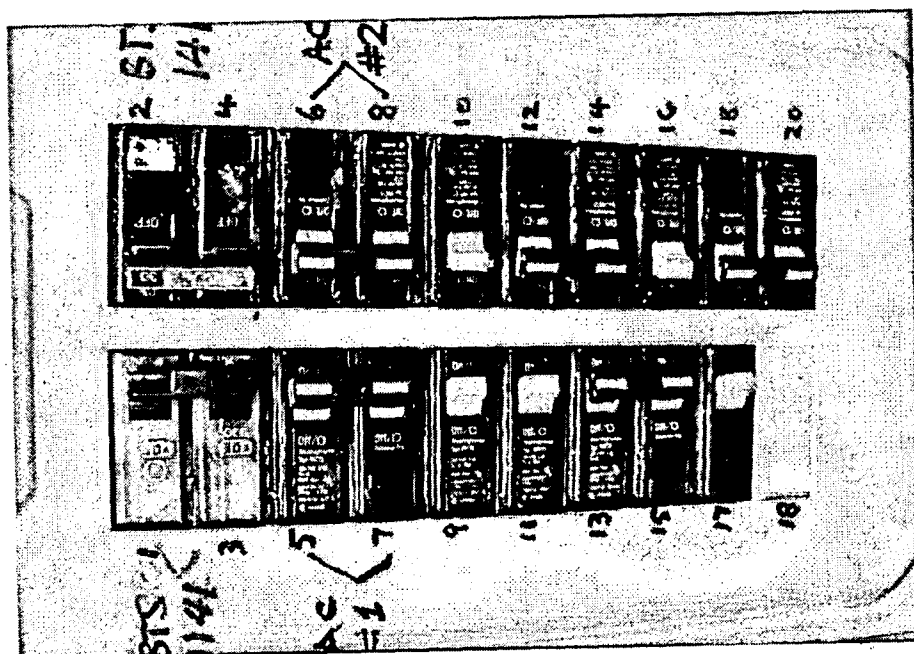
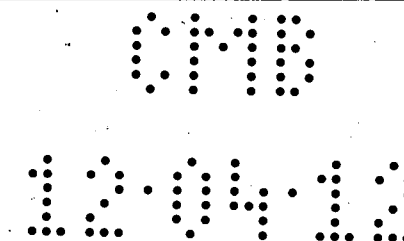


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COMPLY WITH THESE STANDARDS UNLESS OTHERWISE REQUIRED BY APPLICABLE CODES

1.0	CONSTRUCTION TO CONFORM TO SPRINT NEXTEL INTEGRATED CONSTRUCTION STANDARDS
1.1	PURPOSE AND INTENT
A.	THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE FULLY EXPLANATORY AND SUPPLEMENTARY. HOWEVER, SHOULD ANYTHING BE SHOWN, INDICATED OR SPECIFIED ON ONE AND NOT THE OTHER, IT SHALL BE DONE THE SAME AS IF SHOWN, INDICATED OR SPECIFIED IN BOTH. SHOULD THERE BE ANY DISCREPANCIES BETWEEN REQUIREMENTS SHOWN IN BOTH, THE MORE STRINGENT REQUIREMENTS SHALL APPLY.
B.	THE INTENTION OF THE DOCUMENTS IS TO INCLUDE ALL LABOR AND MATERIALS REASONABLY NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK AS STIPULATED IN THE CONTRACT.
C.	THE PURPOSE OF THE SPRINT WIRELESS CONSTRUCTION SPECIFICATIONS IS TO INTERPRET THE INTENT OF THE DRAWINGS AND TO DESIGNATE THE METHOD OF THE PROCEDURE, TYPE AND QUALITY OF MATERIALS REQUIRED TO COMPLETE THE WORK.
1.2	CONFLICTS
A.	VERIFY ALL MEASUREMENTS AT THE SITE BEFORE ORDERING MATERIAL OR DOING ANY WORK. NO EXTRA CHARGE OR COMPENSATION WILL BE ALLOWED DUE TO DIFFERENCES BETWEEN ACTUAL DIMENSIONS OR DIMENSIONS SHOWN ON PLANS. SUBMIT NOTICE OF ANY DISCREPANCY IN DIMENSIONS OR OTHERWISE TO SPRINT WIRELESS FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.
B.	NO PLEA OF IGNORANCE OF CONDITIONS THAT EXIST OR OF DIFFICULTIES OF CONDITIONS THAT MAY BE ENCOUNTERED, OR OF ANY OTHER RELEVANT MATTER CONCERNING THE EXECUTION OF THE WORK WILL BE ACCEPTED AS AN EXCUSE FOR ANY FAILURE OR OMISSION ON THE PART OF THE CONTRACTOR TO FULFILL EVERY DETAIL OF ALL THE REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS GOVERNING THE WORK.
1.3	CLEANING
	KEEP THE SITE FREE FROM ACCUMULATION OF WASTE AND RUBBISH CAUSED BY EMPLOYEES AT THE COMPLETION OF THE WORK. REMOVE ALL WASTE AND NON-CONSTRUCTION MATERIAL INCLUDING ALL CONTRACTOR TOOLS, SCAFFOLDING AND SURPLUS MATERIAL AND LEAVE SITE CLEAN AND READY FOR USE.
1.4	CODES
	CONTRACTOR SHALL BE RESPONSIBLE FOR FOLLOWING ALL LAWS, REGULATIONS AND RULES PROMULGATED BY FEDERAL STATE AND LOCAL AUTHORITIES WITH JURISDICTION OVER THE SITE. THIS RESPONSIBILITY IS IN EFFECT REGARDLESS OF WHETHER THE LAW, ORDINANCE, REGULATION OR RULE IS MENTIONED IN THESE SPECIFICATIONS.
1.5	LICENSING
	HAVE AND MAINTAIN A VALID CONTRACTORS LICENSE FOR THE LOCATION IN WHICH THE WORK IS TO BE PERFORMED. FOR JURISDICTIONS THAT LICENSE INDIVIDUAL TRADES, THE TRADESMAN OR SUBCONTRACTORS PERFORMING THOSE TRADES SHALL BE LICENSED. RESEARCH AND COMPLY WITH LICENSING LAWS, PAY LICENSE FEES, AND SELECT AND INFORM SUBCONTRACTORS REGARDING THESE LAWS.
1.6	OSHA
	FOLLOW ALL APPLICABLE RULES AND REGULATIONS OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, AND STATE LAWS BASED IN THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT. THESE REGULATIONS INCLUDE BUT ARE NOT LIMITED TO REGULATIONS DEALING WITH TOWER CONSTRUCTION AND SAFETY, EXCAVATIONS AND TRENCHING, AND WORK IN CONFINED SPACES. ENSURE THAT EMPLOYEES AND SUBCONTRACTORS WEAR HARD HATS AT ALL TIMES DURING CONSTRUCTION.
1.7	PHOTOS
	PROVIDE PHOTOGRAPHIC EVIDENCE OF ALL FOUNDATION INSTALLATION, GROUNDING AND TRENCHING AFTER PLACEMENT OF UTILITIES PRIOR TO BACKFILL.
1.8	BUILDING PERMITS
	SPRINT WIRELESS WILL SUBMIT CONSTRUCTION DOCUMENTS TO THE JURISDICTIONAL AUTHORITY FOR PLAN CHECK AND REVIEW. CONTRACTOR WILL SUBMIT LICENSING AND WORKMAN'S COMPENSATION INFORMATION TO THE JURISDICTION AS REQUIRED TO OBTAIN THE BUILDING PERMIT. CONTRACTOR SHALL COORDINATE AND SCHEDULE REQUIRED INSPECTIONS AND POST REQUIRED PERMITS AT THE JOB SITE. COMPLY WITH SPECIFIC PROJECT-RELATED REQUESTS AND SUGGESTIONS MADE BY BUILDING INSPECTOR AND INFORM CONSTRUCTION MANAGER OF ANY SUCH WORK THAT MAY BE BEYOND THE SCOPE OF THE CONTRACT OR DEVIATE FROM THE CONSTRUCTION DOCUMENTS. SPRINT WIRELESS WILL REIMBURSE THE CONTRACTOR FOR FEES FOR PLAN REVIEW, BUILDING PERMIT, CONNECTIONS AND INSPECTION.
1.9	ZONING REGULATIONS AND CONDITIONAL USE PERMITS
	SPRINT WIRELESS WILL SUBMIT FOR AND OBTAIN ALL ZONING AND CONDITIONAL USE PERMITS. SOME USE PERMITS MAY HAVE SPECIFIC REQUIREMENTS RELATED TO THE CONSTRUCTION SUCH AS NOISE REGULATIONS, HOURS OF WORK, ACCESS LIMITATIONS, ETC. THE CONSTRUCTION MANAGER WILL INFORM THE CONTRACTOR OF THESE REQUIREMENTS AT THE PRE-BID MEETING OR AS SHOWN IN CONSTRUCTION DOCUMENTS.
1.10	FAA PERMIT AND TOWER LIGHTING
	REFER TO CONSTRUCTION DOCUMENTS AND CONSTRUCTION MANAGER FOR FAA AND STATE LIGHTING REQUIREMENTS. CONTRACTOR SHALL PROVIDE TEMPORARY FAA APPROVED LIGHTING UNTIL PERMANENT LIGHTING IS OPERATIONAL.
1.11	TOWER SECURITY
	TOWER MUST BE FENCED, TEMPORARILY OR PERMANENTLY WITHIN 24 HOURS OF ERECTION. DO NOT ALLOW THE GATE ACCESSING THE TOWER AREA TO REMAIN OPEN OR UNATTENDED AT ANY TIME FOR ANY REASON. KEEP THE GATE CLOSED AND LOCKED WHEN NOT IN USE.
1.12	SITE CONTROL
A.	THE CONTRACTOR IS COMPLETELY RESPONSIBLE FOR CONTAINMENT OF SEDIMENT AND CONTROL OF EROSION AT THE SITE. ANY DAMAGE TO ADJACENT OR DOWNSTREAM PROPERTIES WILL BE CORRECTED BY THE CONTRACTOR AT NO EXPENSE TO SPRINT WIRELESS.



PREPARED FOR:

Sprint

6391 SPRINT PARKWAY
OVERLAND PARK, KS 66251-4300

CONSULTANT:

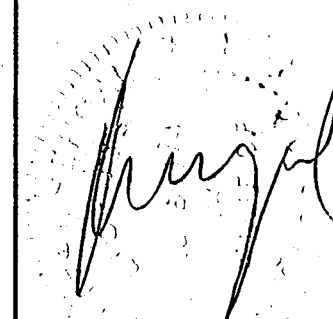


SITE NAME:
**MIDTOWN
MEDICAL CENTER**

SITE NUMBER:
MI03XC166

SITE ADDRESS:
333 W 41ST.
MIAMI, FL 33140
MIAMI-DADE COUNTY

STAMP:



FLORIDA REG
No. 59174
RAJESH SEHGAL P.E. 11/30/12

DRAWN BY:	GS		
APPROVED BY:	RS		
DATE DRAWN:	05/04/12		
REVISION			
NO	DESCRIPTION	BY	DATE
A	SUBMISSION: 90% CD	GS	05/04/12
0	100% IFC FOR CM	NN	05/21/12
1	100% SAM/CM RL	GS	05/23/12
2	100% SAM RL	IH	06/20/12
3	100% STRUCTURAL RL	JQS	10/17/12
4	100% FIRE REJECTION RL	IH	11/30/12

SHEET TITLE:
GENERAL NOTES

SHEET NUMBER:
T-2

3.7 N/A

3.8 N/A

3.9 N/A

3.10 N/A

3.11 GRAVEL SURFACING

- A. CONSTRUCT GRAVEL SURFACING AREAS USING CRUSHED AGGREGATE BASE AND FINISH COURSES AS SPECIFIED BY CONSTRUCTION MANAGER OR CONSTRUCTION DOCUMENTS.
- B. SPREAD GRAVEL AND RAKE TO OBTAIN UNIFORM SURFACE AREA.

4.0 TRENCHING

CALL LOCAL UNDERGROUND UTILITY LOCATING SERVICE BEFORE EXCAVATION OR TRENCHING.

4.1 MATERIALS

FILL MATERIAL SHALL BE OBTAINED, WHEN POSSIBLE FROM MATERIALS EXCAVATED FROM TRENCHES. ON-SITE STRUCTURAL FILL SAND OR SLURRY SHALL BE APPROVED BY THE CONSTRUCTION MANAGER AND SHALL CONFORM TO LOCAL GOVERNING JURISDICTIONS AND UTILITY COMPANY REQUIREMENTS. THE FILL MATERIAL SHALL CONTAIN NO ORGANIC MATERIAL OR ROCKS, NOR SHALL CONTAIN OBJECTIONABLE MATERIALS AND/OR MATERIALS DESIGNATED AS HAZARDOUS INDUSTRIAL BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THE FILL MATERIAL SHALL CONTAIN FINES SUFFICIENT TO FILL ALL VOID IN THE MATERIAL. COMPACTION OF BACKFILL OR BORROW SHALL BE PLACED IN 12 INCH LOOSE LIFTS WHEN UTILIZING HEAVY COMPACTION EQUIPMENT OR 6 INCH LOOSE LIFTS WHEN UTILIZING HAND OPERATED TAMPERS.

4.2 PIPE DETECTION AND IDENTIFICATION

- A. UTILIZING WARNING TAPE: ALL ELECTRIC SERVICE TRENCHES SHALL BE MARKED WITH WARNING TAPE.

4.3 TRENCH EXCAVATION

- A. DIG TRENCH TO LINES AND GRADES SHOWN ON THE PLANS OR AS DIRECTED BY CONSTRUCTION MANAGER.
- B. TRENCH LENGTH SHALL BE SUFFICIENT TO ALLOW FOR SATISFACTORY CONSTRUCTION AND INSPECTION OF THE PROJECT WITHOUT ENDANGERING OTHER CONSTRUCTION WORK OR ADJACENT FACILITIES.
- C. DISPOSE OF EXCESS AND UNSUITABLE EXCAVATION MATERIAL PROPERLY, AS DIRECTED BY CONSTRUCTION MANAGER.
- D. USE HAND METHODS FOR EXCAVATION THAT CANNOT BE ACCOMPLISHED WITHOUT ENDANGERING EXISTING OR NEW STRUCTURES OR OTHER FACILITIES.

4.4 TRENCH PROTECTION

- A. PROVIDE MATERIALS, LABOR AND EQUIPMENT NECESSARY TO PROTECT TRENCHES AT ALL TIMES.
- B. SHEETING AND BRACING: MEET OR EXCEED OSHA REQUIREMENTS.

4.5 BACKFILLING

- A. NOTIFY THE CONSTRUCTION MANAGER AT LEAST 24 HOURS IN ADVANCE OF BACKFILLING.
- B. BACKFILL TRENCH WITH LIFTS UP TO 12 INCHES, LOOSE MEASURE.
- C. PROTECT CONDUIT FROM LATERAL MOVEMENT, DAMAGE FROM IMPACT OR UNBALANCED LOADING TO AVOID DISPLACEMENT OF CONDUIT AND/OR STRUCTURES. DO NOT BACKFILL INTO TRENCH UNTIL AT LEAST 12 INCHES OF COVER IS OVER THE FREE FALL CONDUIT.

4.6 COMPACTION

- A. COMPACT BACKFILL TO A 95 PERCENT COMPACTION AT A MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557 OR WITHIN PLUS OR MINUS 3 PERCENT OF OPTIMUM MOISTURE CONTENT.
- B. IF REQUIRED COMPACTION DENSITY HAS NOT BEEN OBTAINED, REMOVE THE BACKFILL FROM THE TRENCH OR STRUCTURE, REPLACE WITH APPROVED BACKFILL AND AS SPECIFIED.
- C. ANY SUBSEQUENT SETTLEMENT OF TRENCH OR STRUCTURE BACKFILL DURING MAINTENANCE PERIOD SHALL BE CONSIDERED THE RESULT OF IMPROPER COMPACTION AND SHALL BE PROMPTLY CORRECTED.

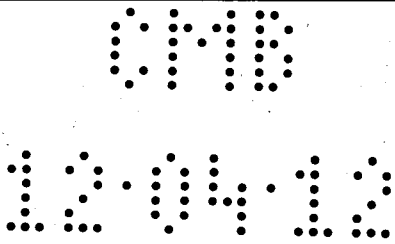
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8.0 N/A

9.0 N/A



PREPARED FOR:



6391 SPRINT PARKWAY
OVERLAND PARK, KS 66251-4300

CONSULTANT:



CONSULTING GROUP, INC.
9221 LYNDON B. JOHNSON FREEWAY
SUITE 204, DALLAS, TX 75243
PHONE: 972-231-8883
FAX: 866-364-8375
WWW.ALLPROCONS.COM
FLORIDA CERTIFICATE OF AUTHORIZATION # 27482
ACGI # 12-2724

SITE NAME:
**MIDTOWN
MEDICAL CENTER**

SITE NUMBER:
MI03XC166

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RAJESH SEHGAL P.E. 11/30/12

DRAWN BY: GS

APPROVED BY: RS

DATE DRAWN: 05/04/12

REVISION

NO	DESCRIPTION	BY	DATE
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SHEET TITLE:
GENERAL NOTES

SHEET NUMBER:
T-3

10.0 STRUCTURAL STEEL

MEET OR EXCEED MANUFACTURER'S RECOMMENDATIONS.

A. UNLESS OTHERWISE NOTED, ALL DETAILING, FABRICATION AND PLACING OF REINFORCING STEEL SHALL CONFORM TO THE MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (ACI 315).

B. ALL REINFORCING STEEL SHALL BE NEW BILLET STEEL, CONFORMING TO ASTM A-615, GRADE 60, DEFORMED.

C. HEATING AND WELDING OF BARS IS PROHIBITED WITH THE EXCEPTION OF WRITTEN APPROVAL BY THE STRUCTURAL ENGINEER.

D. ALL REINFORCEMENT BARS TO BE FREE FROM LOOSE RUST AND SCALE.

E. UNLESS OTHERWISE NOTED, ALL REINFORCEMENT SHALL HAVE A MINIMUM CONCRETE COVERAGE OF 3 INCHES. THIS MAY REQUIRE SPACERS AND CHAIRS AS REQUIRED BY TESTING AGENCY OR CONSTRUCTION MANAGER.

F. SPLICES IN REINFORCEMENT STEEL ARE PROHIBITED, UNLESS APPROVED BY CONSTRUCTION MANAGER. ALL SPLICES MUST THEN MEET ALL APPLICABLE ASTM STANDARDS FOR SPLICING.

11.0 GROUNDING

MEET ALL APPLICABLE CODES, REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS AND SPRINT WIRELESS CONSTRUCTION SPECIFICATIONS.

GENERATOR SPECIFICATIONS

1. SWITCHES AND STANDARD FEATURES

A. CYCLIC CRANKING

B. ALARM HORN WITH SILENCING SWITCH

C. VOLTAGE ADJUSTING RHEOSTAT

D. OVERVOLTAGE PROTECTION

E. REMOTE TWO-WIRE AUTO START SYSTEM

F. LAMP TEST SWITCH

G. RUN-OFF-RESET/AUTO SWITCH (ENGINE START)

H. ENGINE COOL DOWN TIMER (5 MINUTES)

2. ERROR-PROOF WIRING HARNESS FOR ELECTRICAL CONNECTIONS

3. PANEL LAMPS

4. DC CIRCUIT PROTECTION

UNIT ACCESSORIES

1. WEATHER HOUSING-STANDARD WITH ROOF MOUNTED

SILENCER

2. MOUNTED CRITICAL GRADE EXHAUST SILENCER

3. TAIL PIPE AND RAIN CAP

COOLING SYSTEM ACCESSORIES

1. UNIT MOUNTED RADIATOR

2. ENGINE BLOCK HEATER

FUEL SYSTEM ACCESSORIES

1. FLEXIBLE FUEL LINES

2. ENGINE BLOCK HEATER

3. SUBBASE FUEL TANK-172 GALLONS

4. DOUBLE WALL CONSTRUCTION WITH LEAK DETECTION MONITOR

5. U.L. 142 LISTED

6. FUEL LEVEL GAUGE

7. LOW FUEL LEVEL ALARM

8. FILL PIPE EXTENDED 10% INTO TANK

9. HIGH-FUEL LEVEL ALARM-SET AT 95%

10. 7.5 GALLON LOCKABLE FILL WITH SPILL CONTAINMENT

GENERATOR ACCESSORIES

1. MAIN LINE CIRCUIT BREAKER-100 AMPS,

INSTALLED ON GENERATOR

2. VOLTAGE REGULATOR $\pm 2\%$

3. SAFEGUARD BREAKER

ENGINE ELECTRICAL ACCESSORIES

1. ELECTRONIC/ISOCRONOUS GOVERNOR

2. BATTERY RACK, CABLES AND STARTING

BATTERY SYSTEM-LEAD ACID TYPE

3. BATTERY CHARGER-AUTOMATIC 6 AMP

OUTPUT

UTILITY POLES

1. ALL UTILITY POLES SHALL BE 35 FT., CLASS 4 OR AS DIRECTED BY THE UTILITY PROVIDER. THE CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY PRIOR TO EXCAVATING OR INSTALLING ANY UTILITY POLES.

GENERAL NOTES:

1. THE GENERAL CONTRACTOR MUST VERIFY ALL DIMENSIONS, CONDITIONS AND ELEVATIONS BEFORE STARTING WORK. ALL DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER AND SHALL BE RESOLVED BEFORE PROCEEDING WITH THE WORK. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER IN ACCORDANCE WITH ACCEPTED CONSTRUCTION PRACTICES.

2. IT IS THE INTENTION OF THESE DRAWINGS TO SHOW THE COMPLETED INSTALLATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY BRACING, SHORING, TIES, FORM WORK, ETC. IN ACCORDANCE WITH ALL NATIONAL, STATE AND LOCAL ORDINANCES TO SAFELY EXECUTE ALL WORK AND SHALL BE RESPONSIBLE FOR SAME. ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES.

3. THE CONTRACTOR SHALL USE ADEQUATE NUMBER OF SKILLED WORKMEN WHO ARE THOROUGHLY TRAINED AND EXPERIENCED IN THE NECESSARY CRAFTS AND WHO ARE COMPLETELY FAMILIAR WITH THE SPECIFIED REQUIREMENTS AND METHODS NEEDED FOR PROPER PERFORMANCE OF THE WORK.

4. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY. THAT REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO INDEMNIFY AND HOLD DESIGN ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF WORK ON THIS PROJECT.

5. SITE GROUNDING SHALL COMPLY WITH SPRINT/NEXTEL GROUNDING STANDARDS, LATEST EDITION AND COMPLY WITH SPRINT/NEXTEL GROUNDING CHECKLIST, LATEST VERSION. WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT, THEY SHALL GOVERN. GROUNDING SHALL BE COMPLETED BEFORE ERECTION OF A NEW TOWER.

6. ALL WORK SHALL COMPLY WITH OSHA AND STATE SAFETY REQUIREMENTS. PROCEDURES FOR THE PROTECTION OF EXCAVATIONS, EXISTING CONSTRUCTION AND UTILITIES SHALL BE ESTABLISHED PRIOR TO FOUNDATION INSTALLATION. IF TEMPORARY LIGHTING AND MARKING ARE REQUIRED BY THE FEDERAL AVIATION ADMINISTRATION (FAA), IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE NECESSARY LIGHTS AND NOTIFY THE PROPER AUTHORITIES IN THE EVENT OF A PROBLEM.

7. ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL CODES OR ORDINANCES. THE MOST STRINGENT CODE WILL APPLY IN THE CASE OF DISCREPANCIES OR DIFFERENCES IN THE CODE REQUIREMENTS.

8. ANY DAMAGE TO ADJACENT PROPERTIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE

9. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AMPLE NOTICE TO THE BUILDING INSPECTION DEPARTMENT TO SCHEDULE THE REQUIRED INSPECTIONS. A MINIMUM OF 24 HOURS OF NOTICE SHOULD BE GIVEN AND THE BUILDING INSPECTION DEPARTMENTS HAVE REQUESTED THAT GROUPS OF TWO OR THREE SITES BE SCHEDULED AT ONE TIME IF POSSIBLE.

10. FOR NEW TOWERS, SPRINT WILL CONFIRM FAA APPROVAL OF TOWER LOCATION BY ISSUING TOWER RELEASE FORM. NO TOWER SHALL BE CONSTRUCTED UNTIL TOWER RELEASE FORM IS ISSUED TO THE CONTRACTOR.

11. THE COMPLETE BID PACKAGE INCLUDES THESE CONSTRUCTION DRAWINGS ALONG WITH THE SPECIFICATIONS AND TOWER DRAWINGS/ANALYSIS. CONTRACTOR IS RESPONSIBLE FOR REVIEW OF THE TOTAL BID PACKAGE PRIOR TO BID SUBMITTAL.

12. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING UTILITIES WITHIN THE CONSTRUCTION LIMITS PRIOR TO CONSTRUCTION.

13. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE ON THE SITE AT ALL TIMES. SILT AND EROSION CONTROL SHALL BE MAINTAINED ON THE DOWNSTREAM SIDE OF THE SITE AT ALL TIMES. ANY DAMAGE TO ADJACENT PROPERTIES WILL BE CORRECTED AT THE CONTRACTORS EXPENSE.

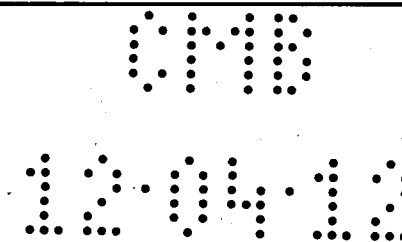
14. CLEARING OF TREES AND VEGETATION ON THE SITE SHOULD BE KEPT TO A MINIMUM. ONLY THE TREES NECESSARY FOR CONSTRUCTION OF THE FACILITIES SHALL BE REMOVED. ANY DAMAGE TO PROPERTY OUTSIDE THE LEASED PROPERTY SHALL BE REPAIRED BY THE CONTRACTOR.

15. ALL SUITABLE BORROW MATERIAL FOR BACKFILL OF THE SITE SHALL BE INCLUDED IN THE BID. EXCESS TOPSOIL AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF SITE AT LOCATIONS APPROVED BY GOVERNING AGENCIES PRIOR TO DISPOSAL.

16. SEEDING AND MULCHING OF THE SITE WILL BE ACCOMPLISHED AS SOON AS POSSIBLE AFTER COMPLETION OF THE SITE DEVELOPMENT. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING AN ADEQUATE COVER OF VEGETATION OVER THE SITE FOR A ONE YEAR PERIOD.

17. PERMITS: THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS, LICENSES, FEES, INSPECTIONS, ETC. AND PROVIDE E911 ADDRESS TO SPRINT WIRELESS.

18. RECORD DRAWINGS: MAINTAIN A RECORD OF ALL CHANGES, SUBSTITUTIONS, ETC., BETWEEN THE WORK AS SPECIFIED AND INSTALLED. RECORD CHANGES ON A CLEAN SET OF CONTRACT DRAWINGS WHICH SHALL BE TURNED OVER TO THE CONSTRUCTION MANAGER UPON COMPLETION OF THE PROJECT.



PREPARED FOR:

Sprint



6391 SPRINT PARKWAY
OVERLAND PARK, KS 66251-4300

CONSULTANT:



CONSULTING GROUP, INC.

9221 LYNDON B JOHNSON FREEWAY

SUITE 204, DALLAS, TX 75243

PHONE: 972-231-8883

FAX: 866-364-6375

WWW.ALLPROCG.COM

FLORIDA CERTIFICATE OF AUTHORIZATION # 27492

ACGI # 12-2724

SITE NAME:
**MIDTOWN
MEDICAL CENTER**

SITE NUMBER:
MI03XC166

SITE ADDRESS:
333 W 41ST.
MIAMI, FL 33140
MIAMI-DADE COUNTY

STAMP:

FLORIDA REG

No. 59174

RAJESH SEHGAL P.E. 11/30/12

DRAWN BY: GS

APPROVED BY: RS

DATE DRAWN: 05/04/12

REVISION			
NO	DESCRIPTION	BY	DATE
A	SUBMISSION: 90% CD	GS	05/04/12
0	100% IFC FOR CM	NN	05/21/12
1	100% SAM/CM RL	GS	05/23/12
2	100% SAM RL	IH	06/20/12
3	100% STRUCTURAL RL	JQS	10/17/12
4	100% FIRE REJECTION RL	IH	11/30/12

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

T-4

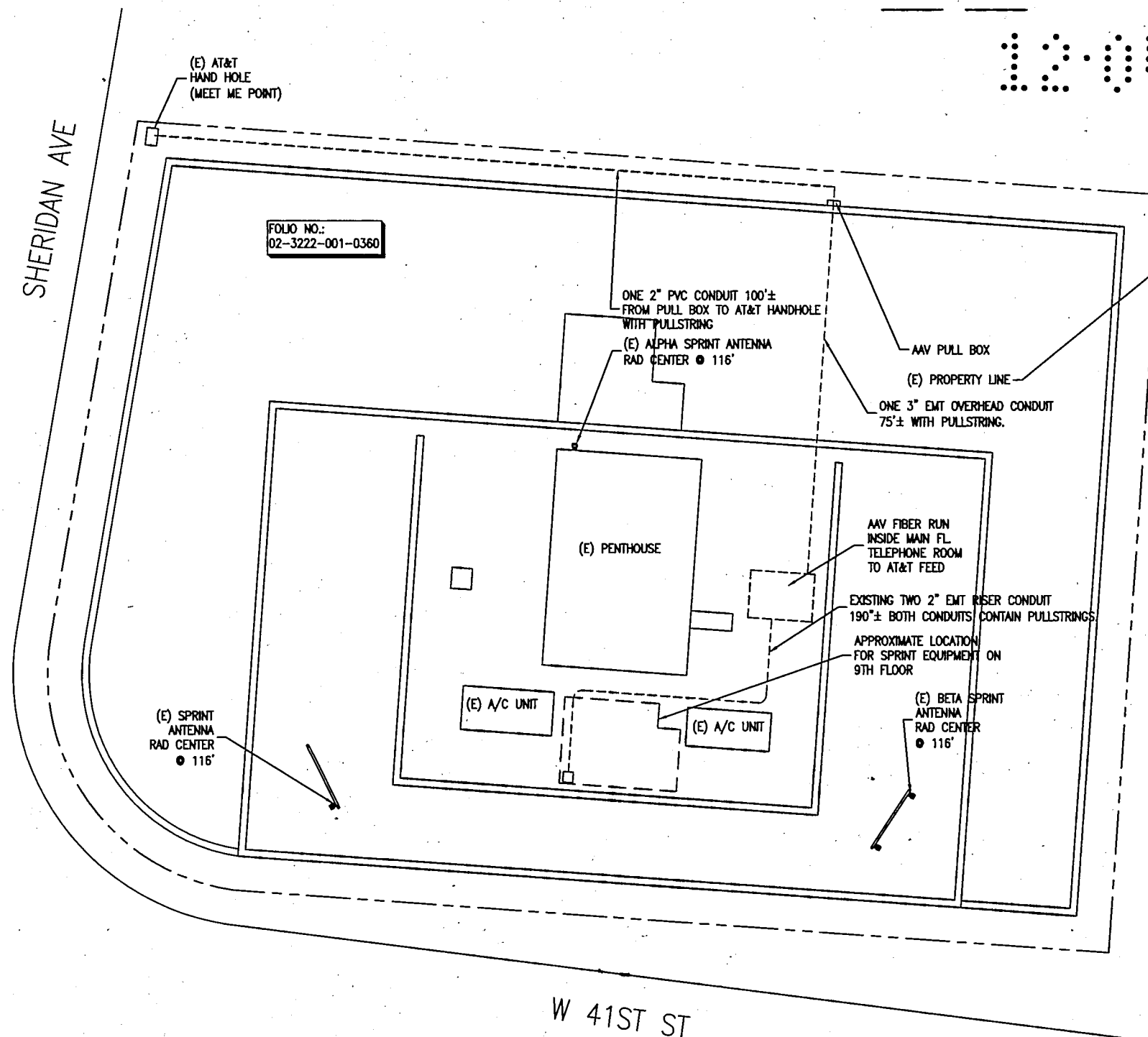
ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AGL	ABOVE GRADE LEVEL
AMSL	ABOVE MEAN SEA LEVEL
APPROX	APPROXIMATE
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
BTS	BASE TRANSMISSION STATION
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CND	CONDUIT
DWG	DRAWING
FT	FOOT (FEET)
EGG	EQUIPMENT GROUND BAR
ELEC	ELECTRICAL
EMT	ELECTRICAL METALLIC TUBING
ELEV	ELEVATION
EQUIP	EQUIPMENT
(E)	EXISTING
EXT	EXTERIOR
FND	FOUNDATION
F	FIBER
GA	GAUGE
GALV	GALVANIZED
GPS	GLOBAL POSITIONING SYSTEM
GND	GROUND
LTE	LONG TERM EVOLUTION
MAX	MAXIMUM
MFR	MANUFACTURER
MGB	MASTER GROUND BAR
MIN	MINIMUM
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
OE/OT	OVERHEAD ELECTRIC/TELCO
PPC	POWER PROTECTION CABINET
RBS	RADIO BASED STATION
RRU	REMOTE RADIO UNIT
RGS	RIGID GALVANIZED STEEL
IN	INCH(ES)
INT	INTERIOR
LB(S) or #	POUND(S)
SF	SQUARE FOOT
STL	STEEL
TYP	TYPICAL
UE/UT	UNDERGROUND ELECTRIC/TELCO
UNO	UNLESS NOTED OTHERWISE
VF	VERIFY IN FIELD
W/	WITH
XFMR	TRANSFORMER

SYMBOLS

	REVISION
	WORK POINT
	UTILITY POLE
	BRICK
	COMPRESSED STONE
	CONCRETE
	EARTH
	GRAVEL
	MASONRY
	STEEL
	CENTERLINE
	PROPERTY LINE
	LEASE LINE
	EASEMENT LINE
	CHAIN LINK FENCE
	WOOD FENCE
	UNDERGROUND ELECTRIC
	UNDERGROUND TELEPHONE
	OVERHEAD ELECTRIC/TELEPHONE

SHERIDAN AVE



W 41ST ST



OVERALL SITE PLAN

FULL SIZE PLOT: SCALE: 1" = 10'-0"
 HALF SIZE PLOT: SCALE: 1" = 20'-0"
 0 5' 10' 20'

018
12.04.12

PREPARED FOR:

Sprint

6391 SPRINT PARKWAY
 OVERLAND PARK, KS 66251-4300

CONSULTANT:



CONSULTING GROUP, INC.
 8221 LYNDON B. JOHNSON FREEWAY
 SUITE 204, DALLAS, TX 75243
 PHONE: 972-231-8893
 FAX: 972-231-8893
 WWW.ALLPROCONS.COM
 FLORIDA CERTIFICATE OF AUTHORIZATION # 27492
 ACCI # 12-2724

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[Signature]

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2	100% SAM RL	IH	06/20/12
3	100% STRUCTURAL RL	QJS	10/17/12
4	100% FIRE REJECTION RL	IH	11/30/12

SHEET TITLE:
OVERALL SITE PLAN

SHEET NUMBER:
A-1

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
ACL	ABOVE GRADE LEVEL
AMSL	ABOVE MEAN SEA LEVEL
APPROX	APPROXIMATE
AWG	AMERICAN WIRE GAUGE
BLOG	BUILDING
BTS	BASE TRANSMISSION STATION
CLR	CLEAR
COL	COLUMN
CONC	CONCRETE
CND	CONDUIT
DWG	DRAWING
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IN	INCH(ES)
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STL	STEEL
TYP	TYPICAL
UE/UT	UNDERGROUND ELECTRIC/TELCO
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD
W/	WITH
XFMR	TRANSFORMER

SYMBOLS

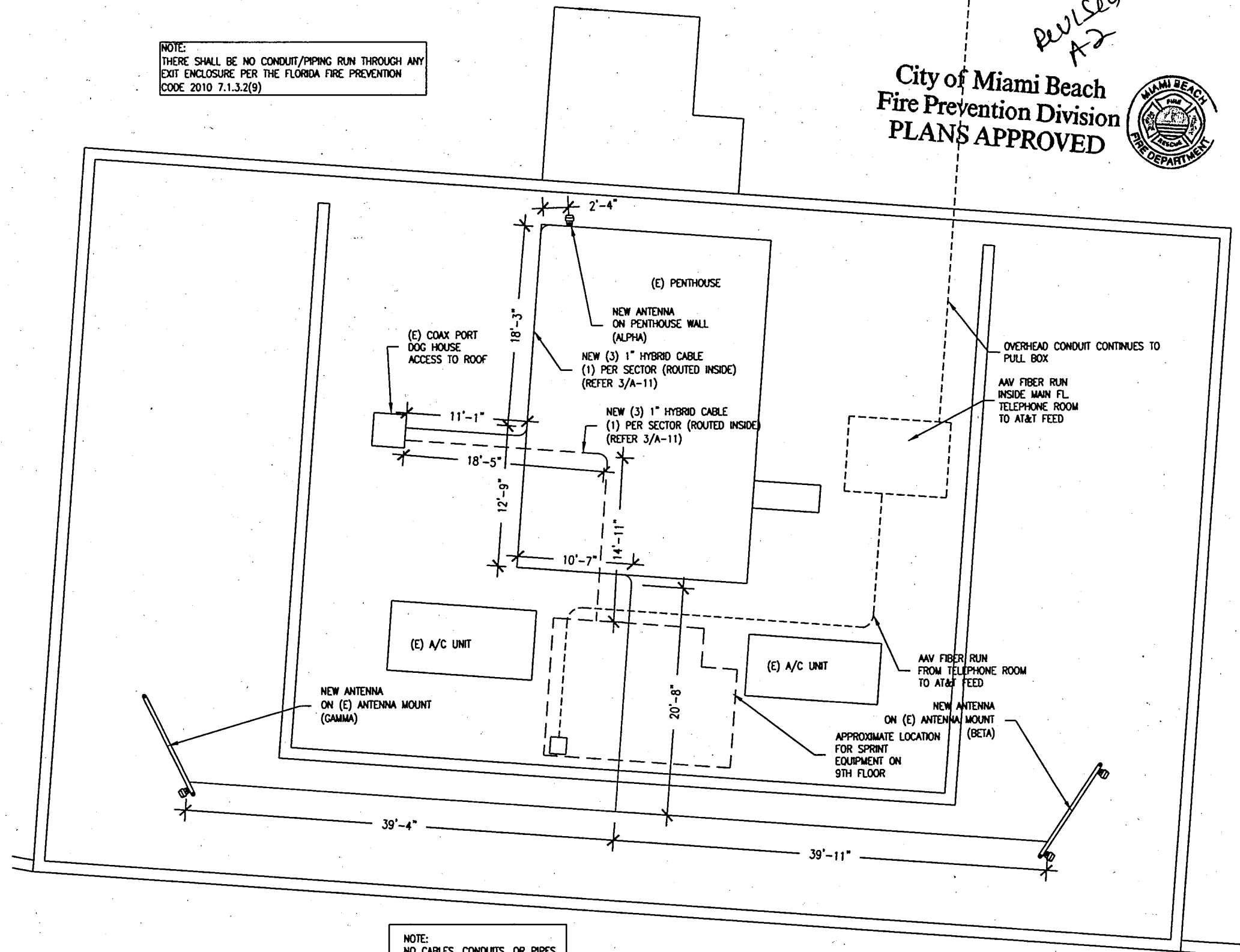
	REVISION
	WORK POINT
	UTILITY POLE
	BRICK
	COMPRESSED STONE
	CONCRETE
	EARTH
	GRAVEL
	MASONRY
	STEEL
	CENTERLINE
	PROPERTY LINE
	LEASE LINE
	EASEMENT LINE
	CHAIN LINK FENCE
	WOOD FENCE
	UNDERGROUND ELECTRIC
	UNDERGROUND TELEPHONE
	OVERHEAD ELECTRIC/TELEPHONE

NOTE:
THERE SHALL BE NO CONDUIT/PIPING RUN THROUGH ANY
EXIT ENCLOSURE PER THE FLORIDA FIRE PREVENTION
CODE 2010 7.1.3.2(9)

City of Miami Beach
Fire Prevention Division
PLANS APPROVED



REVISED
A-2



NOTE:
NO CABLES, CONDUITS, OR PIPES
SHALL PENETRATE THE STAIRS
OR ITS ENVELOPE



1 ENLARGED SITE PLAN

FULL SIZE PLOT: SCALE: 3/16" = 1'-0"
HALF SIZE PLOT: SCALE: 3/32" = 1'-0"

0 2' 4' 8'

PREPARED FOR:

Sprint



6391 SPRINT PARKWAY
OVERLAND PARK, KS 66251-4300

CONSULTANT:



CONSULTING GROUP, INC.
9221 LYNDON B. JOHNSON FREEWAY
SUITE 204, DALLAS, TX 75243
PHONE: 972-231-8893
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FLORIDA CERTIFICATE OF AUTHORIZATION # 27492
ACGI # 12-2724

SITE NAME:

**MIDTOWN
MEDICAL CENTER**

SITE NUMBER:

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MIAMI-DADE COUNTY

STAMP:



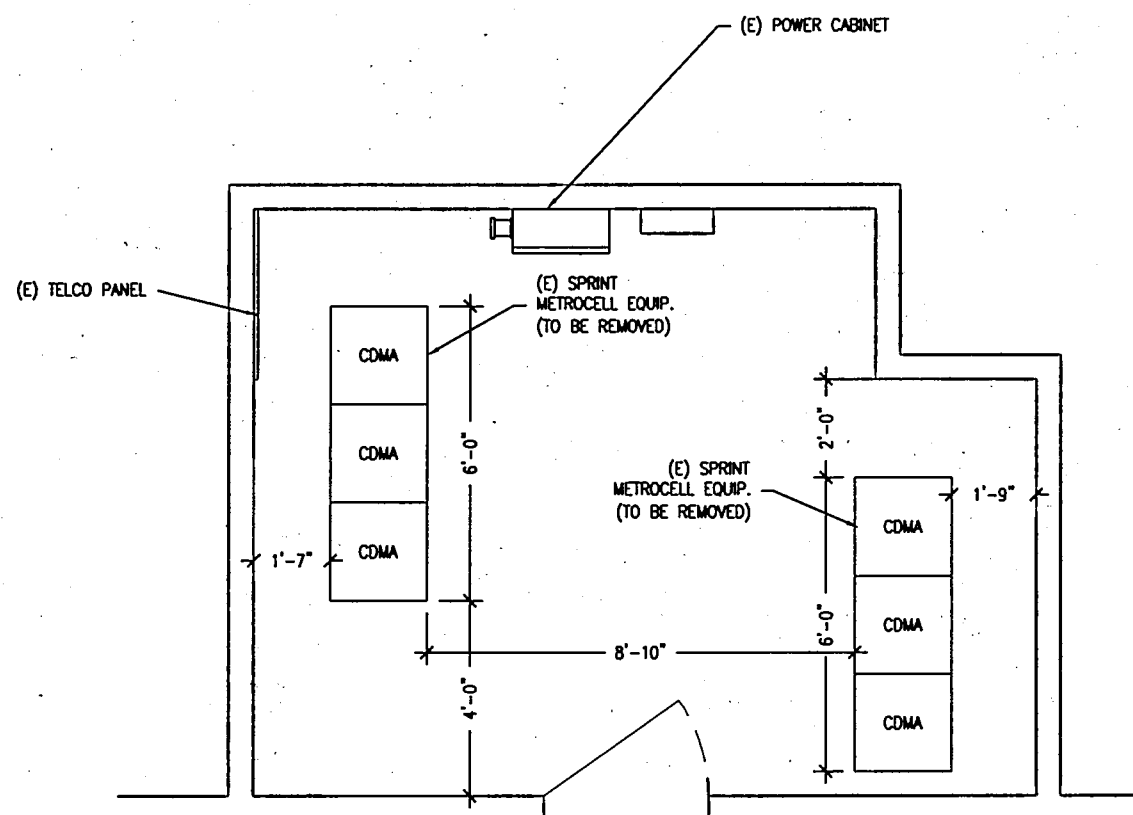
FLORIDA REG
No. 59174
RAJESH SEHGAL P.E. 01/11/13

DRAWN BY: GS
APPROVED BY: RS
DATE DRAWN: 05/04/12

REVISION			
NO	DESCRIPTION	BY	DATE
A	SUBMISSION: 90% CD	GS	05/04/12
0	100% IFC FOR CM	NN	05/21/12
1	100% SAM/CM RL	GS	05/23/12
2	100% SAM RL	IH	06/20/12
3	100% STRUCTURAL RL	JQS	10/17/12
4	100% FIRE REJECTION RL	IH	11/30/12
5	100% FIRE REJECTION RL	DE	01/11/13

SHEET TITLE:
ENLARGED SITE PLAN

SHEET NUMBER:
A-2

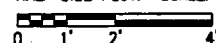


TRUE
NORTH

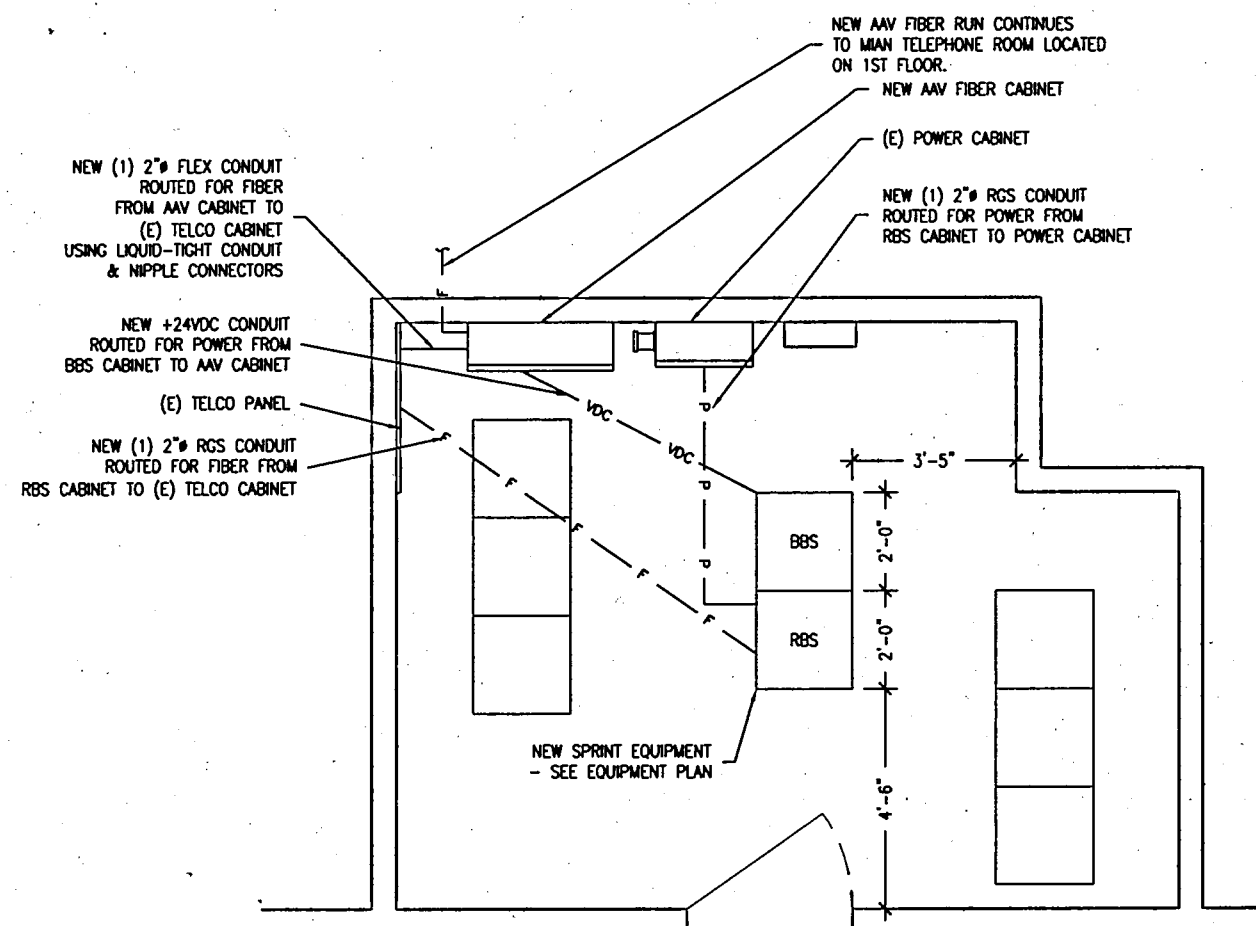
5 EQUIPMENT SITE PLAN (EXISTING)

FULL SIZE PLOT: SCALE: $1/2" = 1'-0"$
 HALF SIZE PLOT: SCALE: $1/4" = 1'-0"$

HALF SIZE PLOT: SCALE: 1/4" = 1'-0"



NOTE:
THERE SHALL BE NO CONDUIT/PIPING RUN THROUGH ANY
EXIT ENCLOSURE PER THE FLORIDA FIRE PREVENTION
CODE 2010 7.1.3.2(9)

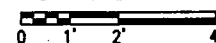


TRUE
NORTH

1 EQUIPMENT SITE PLAN (FINAL)

FULL SIZE PLOT: SCALE: $1/2" = 1'-0"$
HALF SIZE PLOT: SCALE: $1/4" = 1'-0"$

HALF SIZE PLOT: SCALE: $1/4" = 1'-0"$



Revised
A3

PREPARED FOR:

Sprint

6391 SPRINT PARKWAY
OVERLAND PARK, KS 66251-4300

CONSULTANT:


ALLPRO
CONSULTING GROUP, INC.
9221 LYNDON B JOHNSON FREEWAY
SUITE 204, DALLAS, TX 75243
PHONE: 972-231-8893
FAX: 866-364-8375
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FLORIDA CERTIFICATE OF AUTHORIZATION # 27492
ACCL # 12-2724

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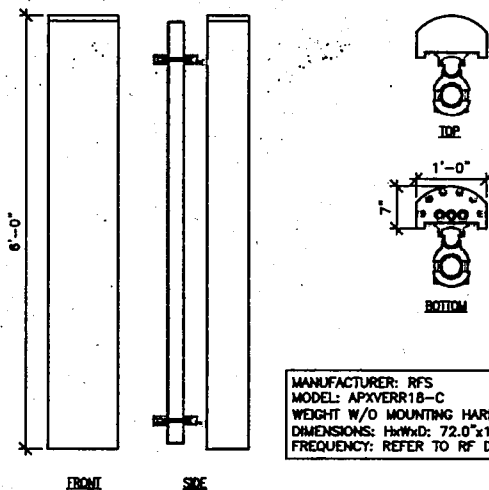
FLORIDA REG
No. 59174
RAJESH SEHGAL P.E. 01/11/13

DRAWN BY:	GS
APPROVED BY:	RS
DATE DRAWN:	05/04/12

REVISION			
NO	DESCRIPTION	BY	DATE
A	SUBMISSION: 90% CD	GS	05/04/12
0	100% IFC FOR CM	NN	05/21/12
1	100% SAM/CM RL	GS	05/23/12
2	100% SAM RL	IH	06/20/12
3	100% STRUCTURAL RL	JQS	10/17/12
4	100% FIRE REJECTION RL	IH	11/30/12
5	100% FIRE REJECTION RL	DE	01/11/13

SHEET TITLE:
EQUIPMENT PLANS

SHEET NUMBER: **A-3**



MANUFACTURER: RFS
MODEL: APXVRR18-C
WEIGHT W/O MOUNTING HARDWARE: 55 LBS
DIMENSIONS: HxWxD: 72.0"x11.8"x7.0"
FREQUENCY: REFER TO RF DATA SHEET

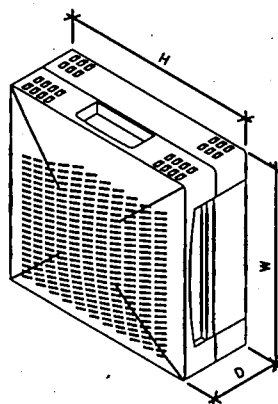
4 ANTENNA DETAIL

SCALE: 3/4" = 1'-0"

ERICSSON RRUS-11
-DIMENSIONS (H x W x D):
17.8" x 17.0" x 7.2" (INCLUDES SUNSHIELD)
-WEIGHT: 55 LBS
-CLIMATE: -40°C TO +55°C
(SELF CONVECTION SILENT, NO FANS, IP55)
-POWER CONSUMPTION: 200 WATTS (TYP.)

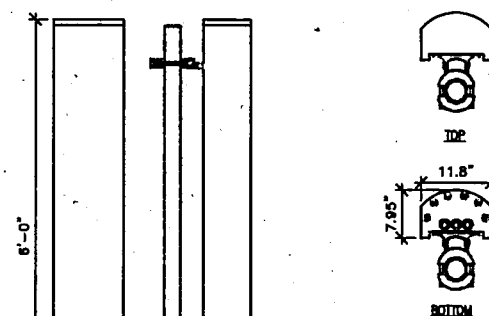
ERICSSON RRUS-12
-DIMENSIONS (H x W x D):
18.2" x 17.8" x 8" (INCLUDES SUNSHIELD)
-WEIGHT: 60 LBS
-CLIMATE: -40°C TO +55°C
(SELF CONVECTION SILENT, NO FANS, IP55)
-POWER CONSUMPTION: 200 WATTS (TYP.)

NOTE:
RRUS CAN ONLY BE
PAINTED ON SOLAR SHIELD.



3 RRUS DETAIL

N.T.S.



MANUFACTURER: RFS
MODEL: APXVRR18-C
WEIGHT W/O MOUNTING HARDWARE: 55 LBS
DIMENSIONS: HxWxD: 72.0"x11.8"x7.95"
FREQUENCY: REFER TO RF DATA SHEET

2 ANTENNA DETAIL

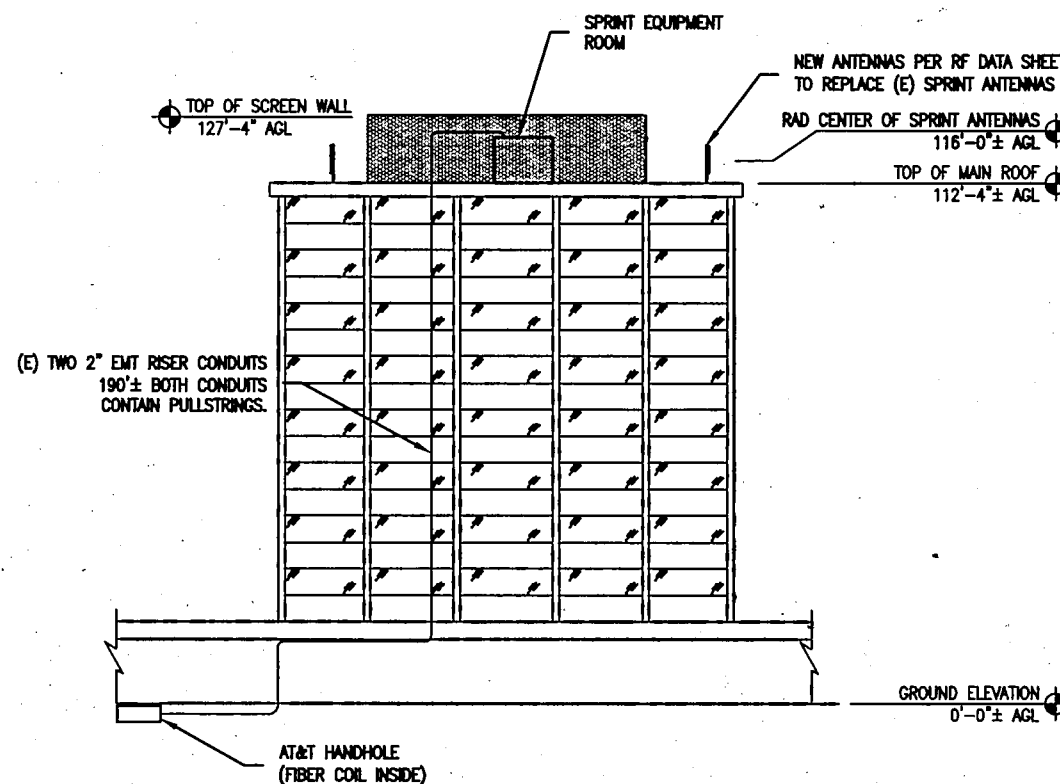
SCALE: 3/4" = 1'-0"

NOTE:
STRUCTURAL ANALYSIS PERFORMED BY ALLPRO CONSULTING GROUP INC. AS PER ACGI #12-1582 DATED 10/15/12. STATES THAT SPRINT'S ENTIRE ANTENNA STRUCTURE, INCLUDING TOWERS, TOWER PLATFORMS, ARMS, AND ALL OTHER ASPECTS OF THE STRUCTURE THAT WILL SUPPORT THE SPRINT NETWORK VISION EQUIPMENT DEPLOYMENT ARE STRUCTURALLY SOUND FOR THE PLANNED LOAD. THE EXISTING OR PROPOSED STRUCTURE, TOWER PLATFORM, ARM, MOUNT, ETC., WILL CARRY THE PROPOSED LOAD (INCLUSIVE OF ALL RRUS, ANTENNAS, AND ANY OTHER ASSOCIATED EQUIPMENT AND/OR MATERIALS.)

NOTE:
NO CABLES, CONDUITS, OR PIPES
SHALL PENETRATE THE STAIRS
OR ITS ENVELOPE

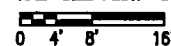
HYBRID CABLE SCHEDULE			
SECTOR	ALPHA	BETA	GAMMA
HORIZONTAL	33'±	94'±	95'±
VERTICAL	8'±	8'±	8'±
10% EXTRA	+10%	+10%	+10%
TOTAL	45'±	112'±	113'±

*ALL DIMENSIONS SHOULD BE FIELD VERIFIED



1 SITE ELEVATION (FINAL CONFIGURATION)

FULL SIZE PLOT: SCALE: 3/32" = 1'-0"
HALF SIZE PLOT: SCALE: 3/64" = 1'-0"



- NOTES:
- CONTRACTOR TO FIELD VERIFY ANTENNA CABLE LENGTHS.
 - ALL MAIN CABLES WILL BE COLOR CODED AT THREE (3) LOCATIONS.
 - COLOR CODE ALL ANTENNA AND COAX WITH 2" WIDE BANDS OF COLORED TAPE WITH 1" SEPARATION BETWEEN BANDS.
 - COLOR CODE ALL TOP AND BOTTOM GROUND KITS WITH 1" WIDE BANDS OF COLORED TAPE WITH 1/2" SEPARATION BETWEEN BANDS.
 - START COLOR BANDS 2" BEYOND WEATHERPROOFING.
 - START SECTOR COLOR NEXT TO END CONNECTOR.
 - ALL MAIN CABLES WILL BE GROUND TO COAXIAL CABLE GROUND KIT AT:
 - THE ANTENNA LEVEL
 - MID LEVEL IF TOWER IS OVER 200'
 - BASE OF TOWER PRIOR TO TURNING HORIZONTAL
 - TERMINATION OF COAX LINES TO JUMPERS
 - ALL NEW GROUND BAR DOWNLOADS ARE TO BE CADWELDED TO THE EXISTING ADJACENT GROUND BAR DOWNLOADS A MINIMUM DISTANCE OF 4FT BELOW GROUND BAR
 - PROVIDE BUSS BAR NEAR BTS FOR ATTACHMENT OF WMAX COAX GROUND KITS

COAXIAL ANTENNA CABLE NOTES:

- THE ANTENNA COAXIAL CABLE INSTALLER SHALL BE RESPONSIBLE FOR PERFORMING AND SUPPLYING SPRINT WITH 3 TYPEWRITTEN SWEEP TESTS (ANTENNA RETURN LOSS TEST). THIS TEST SHALL BE PERFORMED TO THE SPECIFICATIONS AND PARAMETERS OUTLINED BY THE SPRINT RADIO FREQUENCY (RF) ENGINEER. THIS TEST SHALL BE PERFORMED PRIOR TO FINAL ACCEPTANCE OF THE SITE.
- THE COAXIAL ANTENNA CABLE INSTALLER SHALL BE RESPONSIBLE FOR PERFORMING AND SUPPLYING SPRINT WITH 3 TYPEWRITTEN TIME DOMAIN REFLECTOMETER (TDR) TESTS TO VERIFY CABLE LENGTH AND TO CHECK FOR WATER DAMAGE.
- VAPOR WRAP WILL BE USED TO SEAL ALL CONNECTIONS.
- ALL JUMPERS TO THE ANTENNAS FROM THE MAIN TRANSMISSION LINE WILL BE 1/2" JUMPERS AND SHALL NOT EXCEED 6'-0". MAXIMUM LENGTH FOR THE JUMPERS AT LTE BTS UNITS WILL BE 6'-0".
- IF COAX IS BEING RE-USED FOR THIS INSTALLATION, PRE AND POST ANTENNA LINE SWEEPS ARE REQUIRED.
- UPON COMPLETION, PROVIDE A HEIGHT VERIFICATION DEPICTING RAD CENTER AND TOP OF ANTENNA.

ANTENNA MOUNTING NOTES:

- DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO CURRENT ANSI/EIA/TIA-222; APPENDIX B FOR WIND LOADING; "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES" OR APPLICABLE LOCAL CODES.
- ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIPPED GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS OTHERWISE NOTED.
- ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT DIP) ON IRON AND STEEL HARDWARE", UNLESS OTHERWISE NOTED.
- DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED BY COLD GALVANIZING IN ACCORDANCE WITH ASTM A780.
- ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH DOUBLE NUTS AND SHALL BE INSTALLED SNUG TIGHT.
- MINIMUM HORIZONTAL SPACING SHALL BE 2'-0" BETWEEN ALL ANTENNAS.

NOTES:

- ALL AZIMUTHS ARE TO BE ESTABLISHED CLOCKWISE FROM THE TRUE NORTH HEADING.
- CONTRACTOR SHALL VERIFY PROPOSED ANTENNA RAD CENTER AND ORIENTATIONS WITH SPRINT PCS PRIOR TO INSTALLATION OF ANTENNAS.
- CONTRACTOR SHALL REFER TO TOWER STRUCTURAL CALCULATIONS FOR ADDITIONAL LOADS. NO ERECTION OR MODIFICATION OF TOWER SHALL BE MADE WITHOUT APPROVAL OF STRUCTURAL ENGINEER.

RF WARNING SIGNAGE & EMERGENCY SIGNAGE NOTE:

CONTRACTOR TO CONFIRM THAT THE SITE IS COMPLIANT WITH RF WARNING SIGNAGE & EMERGENCY SIGNAGE AS REQUIRED BY THE FEDERAL GUIDELINES CONTAINED WITHIN OET 05 BULLETIN & AS PER SPRINT GUIDELINES.
(WARNING SIGNAGE & EMERGENCY SIGNAGE POSTED ON THE ACCESS DOOR)

PREPARED FOR:

Sprint

6391 SPRINT PARKWAY
OVERLAND PARK, KS 66251-4300

CONSULTANT:

ALLPRO
CONSULTING GROUP, INC.
9221 LYNDON B JOHNSON FREEWAY
SUITE 204, DALLAS, TX 75243
PHONE: 972-231-8883
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WWW.ALLPROCG.COM
FLORIDA CERTIFICATE OF AUTHORIZATION # 27482
ACGI # 12-2724

SITE NAME:
**MIDTOWN
MEDICAL CENTER**

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MIAMI-DADE COUNTY

STAMP:

[Signature]

FLORIDA REG
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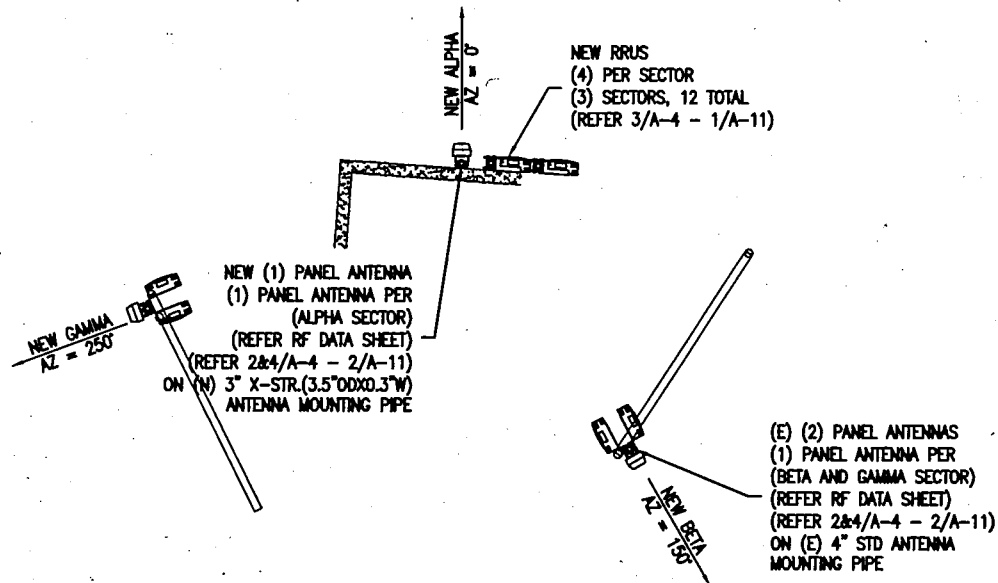
DRAWN BY: GS
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DATE DRAWN: 05/04/12

REVISION			
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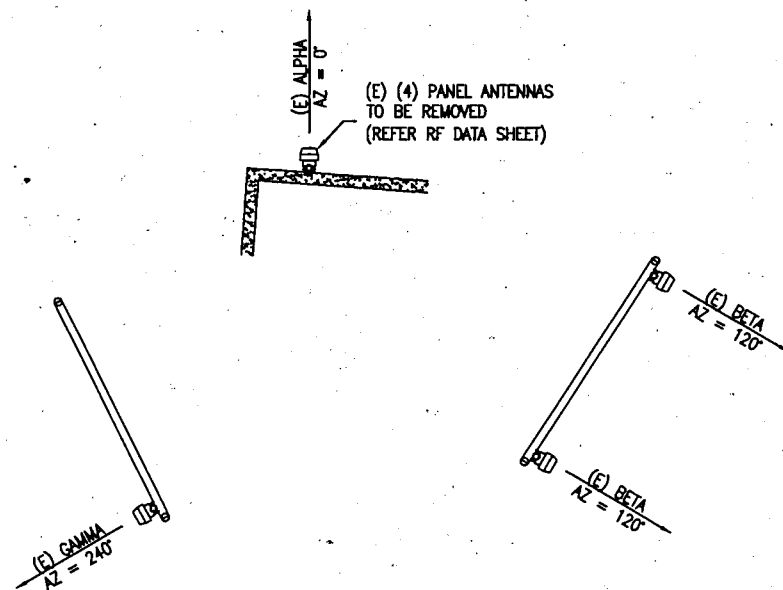
SHEET TITLE:
**SITE ELEVATION &
ANTENNA DETAILS**

SHEET NUMBER:

A-4



4 PROPOSED ANTENNA PLAN - FINAL
 FULL SIZE PLOT: SCALE: 1/4" = 1'-0"
 HALF SIZE PLOT: SCALE: 1/8" = 1'-0"
 TRUE NORTH



2 EXISTING ANTENNA PLAN
 FULL SIZE PLOT: SCALE: 1/4" = 1'-0"
 HALF SIZE PLOT: SCALE: 1/8" = 1'-0"
 TRUE NORTH

048
12.04.12

N/A

3 NOT USED

N/A

1 NOT USED

PREPARED FOR:
Sprint
 6391 SPRINT PARKWAY
 OVERLAND PARK, KS 66251-4300

CONSULTANT:
ALLPRO
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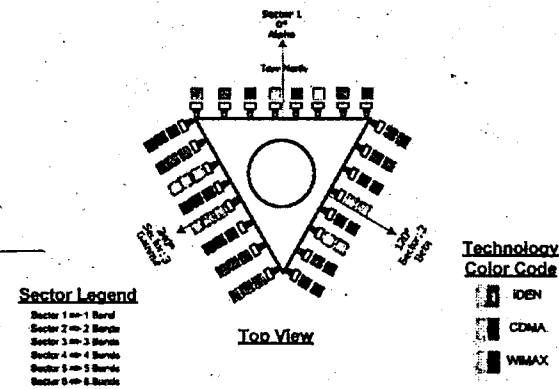
 FLORIDA P.E.
 No. 59174
 RAJESH SEHGAL P.E. 11/30/12

DRAWN BY:	GS		
APPROVED BY:	RS		
DATE DRAWN:	05/04/12		
REVISION			
NO	DESCRIPTION	BY	DATE
A	SUBMISSION: 90% CD	GS	05/04/12
0	100% IFC FOR CM	NN	05/21/12
1	100% SAM/CM RL	GS	05/23/12
2	100% SAM RL	IH	06/20/12
3	100% STRUCTURAL RL	QJS	10/17/12
4	100% FIRE REJECTION RL	IH	11/30/12

SHEET TITLE:
**ENLARGED ANTENNA
 PLANS**

SHEET NUMBER:
A-7

ANTENNA AND CABLE COLOR CODING (3 Sectored / Multiple RF Channels) Assuming 8 lines and antennas



Example - Sector 1 and Cable 3 (IDEN)



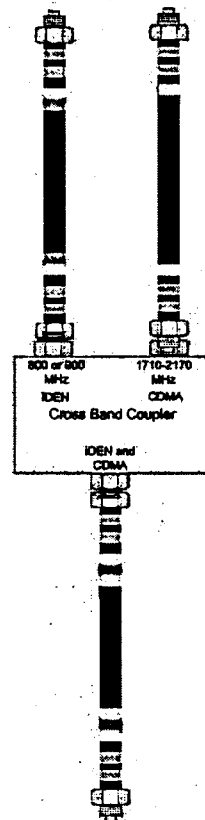
Example - Sector 2 and Cable 5 (CDMA)



Example - Sector 2 and Cable 1 (IDEN & CDMA)



1. Color Band to be 2" wide on main line.
2. Spacing to be 1" between bands and 2" between line and technology bands. No space between technology color bands.
3. Color band on Jumpers 1" wide w/ 1" space.
4. Start color bands 2" beyond weatherproofing.
5. Start Sector Color next to end connector.



3 ANTENNA & CABLE COLOR CODE
SCALE: N.T.S.

Typical Coax Cable Color Coding Scheme				
Sector	Cable	First Ring	Second Ring	Third Ring
1 Alpha	1		No Tape	No Tape
1	2		No Tape	No Tape
1	3		No Tape	No Tape
1	4	White	No Tape	No Tape
1	5		No Tape	No Tape
1	6	Grey	No Tape	No Tape
1	7	Purple	No Tape	No Tape
1	8	Orange	No Tape	No Tape
2 Beta	1			No Tape
2	2			No Tape
2	3			No Tape
2	4	White	White	No Tape
2	5			No Tape
2	6	Grey	Grey	No Tape
2	7	Purple	Purple	No Tape
2	8	Orange	Orange	No Tape
3 Gamma	1			
3	2			
3	3			
3	4	White	White	White
3	5			
3	6	Grey	Grey	Grey
3	7	Purple	Purple	Purple
3	8	Orange	Orange	Orange

5 COAXIAL CABLE COLOR CODE
SCALE: N.T.S.

Technology Color Code	First Ring	Second Ring
IDEN	Yellow	Green
CDMA	Yellow	
WIMAX	Yellow	

2 FREQUENCY COLOR CODE
SCALE: N.T.S.

0710
120410

4 NOT USED

1 NOT USED

PREPARED FOR:
Sprint
6391 SPRINT PARKWAY
OVERLAND PARK, KS 66251-4300

CONSULTANT:
ALLPRO
CONSULTING GROUP, INC.
9221 LYNDON B JOHNSON FREEWAY
SUITE 204, DALLAS, TX 75243
PHONE: 972-231-8883
FAX: 866-364-5375
WWW.ALLPROCG.COM
FLORIDA CERTIFICATE OF AUTHORIZATION # 27492
ACGI # 12-2724

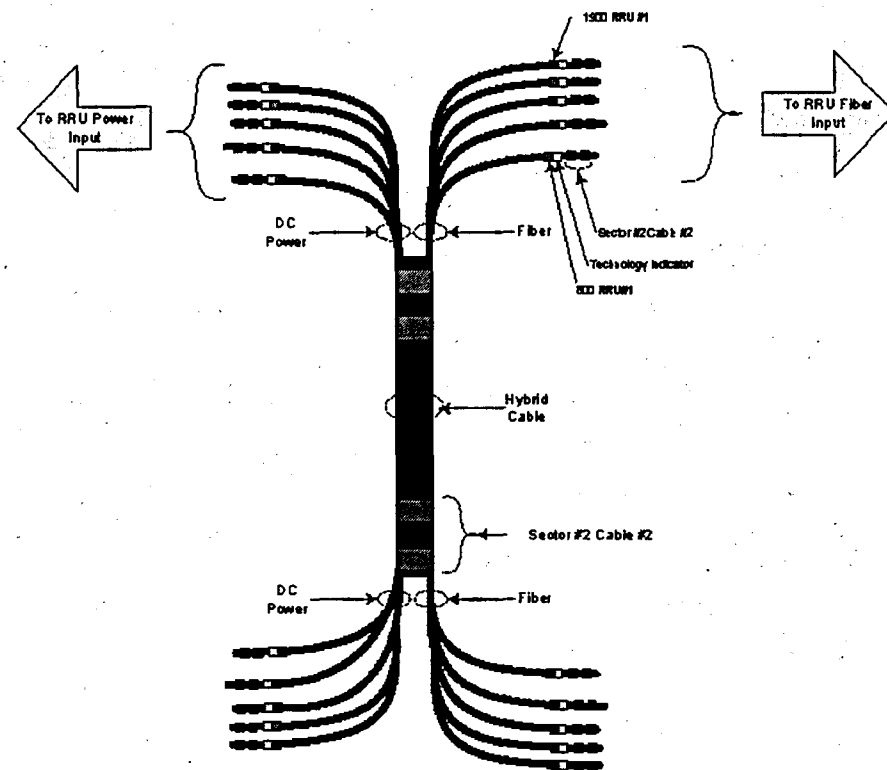
SITE NAME:
**MIDTOWN
MEDICAL CENTER**
SITE NUMBER:
MI03XC166
SITE ADDRESS:
333 W 41ST.
MIAMI, FL 33140
MIAMI-DADE COUNTY

STAMP:

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2 100% SAM RL IH 06/20/12
3 100% STRUCTURAL RL QS 10/17/12
4 100% FIRE REJECTION RL IH 11/30/12

SHEET TITLE:
(E) COLOR CODING

SHEET NUMBER:
A-8



NOTE:

HYBRID CABLE WILL BE MARKED IN A SIMILAR MANNER AS COAX CABLE DESCRIBED IN THE "ANTENNA & CABLE COLOR CODE" DETAIL LOCATED ON THE SHEET. THE MAIN "TRUNK" OF THE HYBRID CABLE WILL NOT BE MARKED WITH THE FREQUENCY CODE AS THE HYBRID CABLE IN MANY CASES WILL CONTAIN ALL TECHNOLOGIES. THE INDIVIDUAL POWER PAIRS AND FIBER CABLES WILL BE LABELED WITH BOTH THE FREQUENCY AND SECTOR CABLE MARKINGS.

Sprint NV Color Code Fiber Hybrid cable						
Sprint Frequency	Sprint Indicator	Sprint ID	Carrier	Hybrid Fiber & DC ID Color	DC Cable Colors @ RBS	DC Cable @ RRU
Side A						
800 #1	Yellow	Green	CDMA	Green	GREEN / WHITE	Black / Gray
1900 #1	Yellow		LTE		RED / BLACK	Black / Gray
1900 #2	Yellow		CDMA	Yellow	Wht - Bk & Red-Bk Leads	Black / Gray
1900 #3	Yellow	Blue	CDMA	Blue	Blue & Orange Leads	Black / Gray
1900 #4	Yellow	Slate	LTE	Wht	Gr-Bk & Or-Bk Leads	Black / Gray
				Black Fiber Spare	No DC spare	n/a
Side B						
Color tape from H & S for identification. Install correct Sprint color code during installation.						
Hybrid Cable ID: 1 Red-Green / Sector Alpha 2 Red-Green / Sector Beta 3 Red-Green / Sector Gamma						
4 Red-Green / Sector Delta 5 Red-Green / Epsilon 6 Red-Green / Zeta						

3 HYBRID CABLE COLOR CODE

SCALE: N.T.S.

Sector	Cable	First Ring	Second Ring	Third Ring
1 Alpha	1	Green	No Tape	No Tape
	2		No Tape	No Tape
	3	Brown	No Tape	No Tape
	4	White	No Tape	No Tape
	5		No Tape	No Tape
	6	Slate	No Tape	No Tape
	7		No Tape	No Tape
	8	Orange	No Tape	No Tape
2 Beta	1	Green	Green	No Tape
	2			No Tape
	3	Brown	Brown	No Tape
	4	White	White	No Tape
	5			No Tape
	6	Slate	Slate	No Tape
	7			No Tape
	8	Orange	Orange	No Tape
3 Gamma	1	Green	Green	Green
	2			
	3	Brown	Brown	Brown
	4	White	White	White
	5			
	6	Slate	Slate	Slate
	7			
	8	Orange	Orange	Orange

4 COAXIAL CABLE COLOR CODE

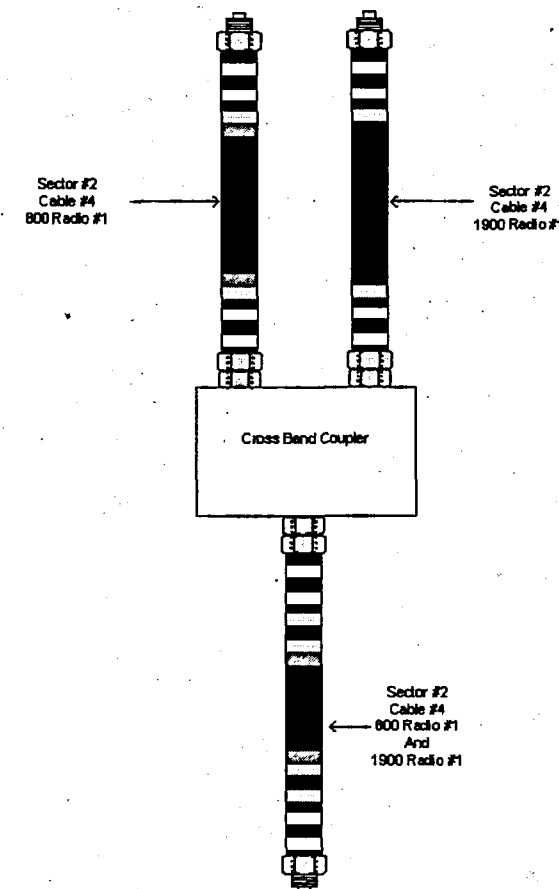
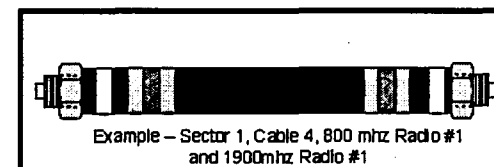
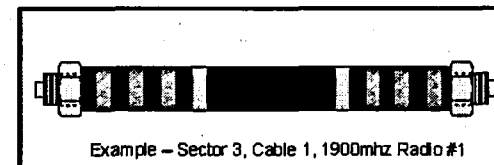
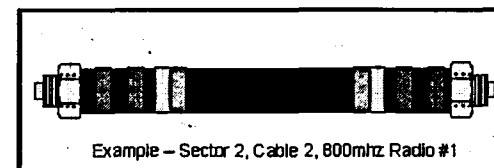
SCALE: N.T.S.

Frequency	Indicator	ID
800 #1	Yellow	Green
1900 #1	Yellow	
1900 #2	Yellow	Brown
Reserved	Yellow	
Reserved	Yellow	Slate
Reserved	Yellow	Orange
Reserved	Yellow	White
1600 #1	Yellow	Purple

2 FREQUENCY COLOR CODE

SCALE: N.T.S.

0708
120412



1 ANTENNA & CABLE COLOR CODE

SCALE: N.T.S.

PREPARED FOR:

Sprint

6391 SPRINT PARKWAY
OVERLAND PARK, KS 66251-4300

CONSULTANT:



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9221 LYNDON B. JOHNSON FREEWAY
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PHONE: 972-231-8883
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FLORIDA CERTIFICATE OF AUTHORIZATION # 27482
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MIAMI-DADE COUNTY

STAMP:

[Signature]

FLORIDA REG
No. 59174
RAJESH SEHGAL P.E. 11/30/12

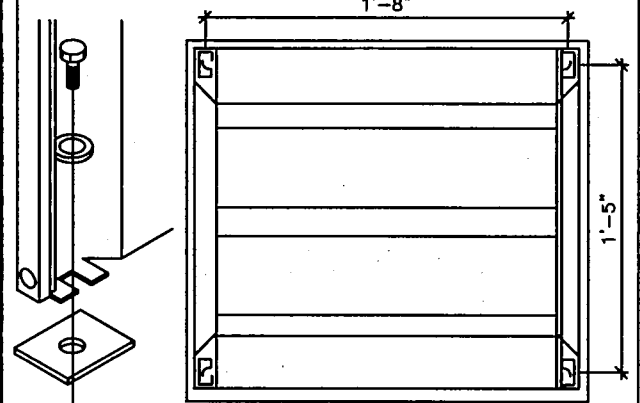
DRAWN BY: GS
APPROVED BY: RS
DATE DRAWN: 05/04/12

REVISION			
NO	DESCRIPTION	BY	DATE
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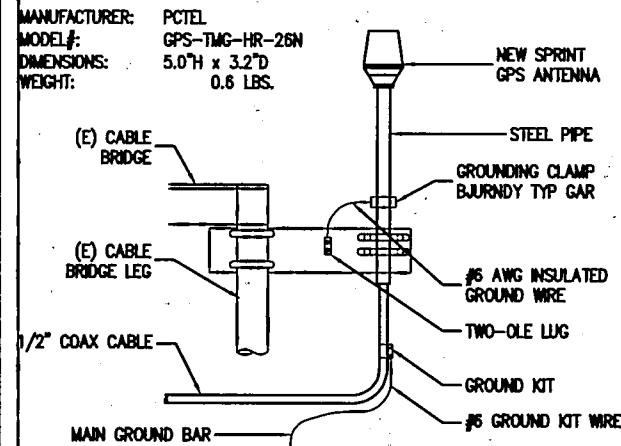
SHEET TITLE:
NEW COLOR CODING

SHEET NUMBER:
A-9

PLACE THE BATTERY RACK ON THE FOUNDATION AND MARK THE POSITIONS OF THE FOUR FLOOR BOLTS. THE FIGURE BELOW SHOWS THE DRILLING TEMPLATE FOR THE CAPACITY AGM TYPE BATTERY RACK POSITION THE BATTERY RACK OVER THE ANCHOR SLEEVES AND INSERT BOLTS WITH WASHERS. DO NOT TIGHTEN. LEVEL THE BATTERY RACK, USING A SPIRIT LEVEL. IF NECESSARY, PUT SHIMS UNDER THE FEET OF THE RACK IF REQUIRED.

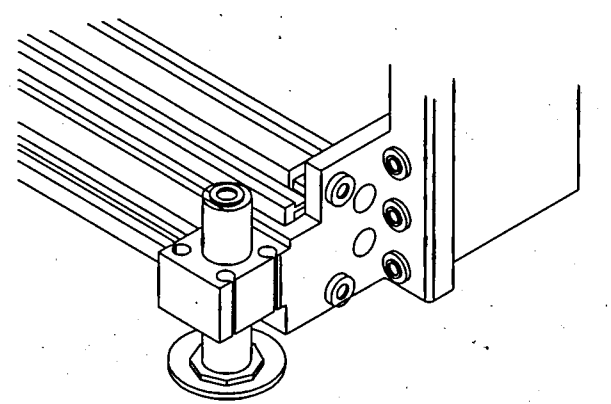


5 BBU INDOOR DETAIL
SCALE: N.T.S.



4 GPS ANTENNA
SCALE: N.T.S.

USING THE LTC 136 03 MARKING TEMPLATE, MARK THE POSITIONS OF THE "33" HOLES, FRONT AND REAR. DRILL THE MOUNTING HOLES IN THE CONCRETE AND INSERT ANCHORS INTO EACH HOLE. USE THE DRILL GAUGE, ON THE HAMMER DRILL, TO REGULATE THE DEPTH OF EACH HOLE. MOVE THE RBS CABINET INTO POSITION AND ENSURE THE CABINET IS LEVEL AND PLUMB. IF THE CABINET NEEDS TO BE LEVELLED, ADJUST THE FEET

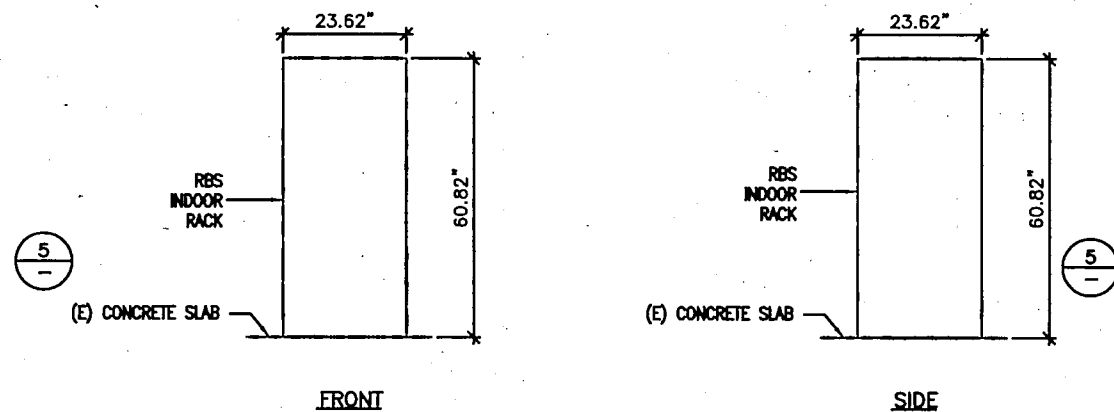


3 RBS INDOOR DETAIL
SCALE: N.T.S.

ERICSSON RBS	
DIMENSIONS	20.62" x 23.62" x 60.82"
WEIGHT	**677 LBS.
MINIMUM CLEARANCES	
FRONT	23.62"
SIDES	-
REAR	-

*HEIGHT SHOWN ON THE TABLE INCLUDES GLOBAL BASE FRAME, PROVIDED BY ERICSSON.

**WEIGHT SHOWN ON THE TABLE INCLUDES GLOBAL BASE FRAME, PROVIDED BY ERICSSON

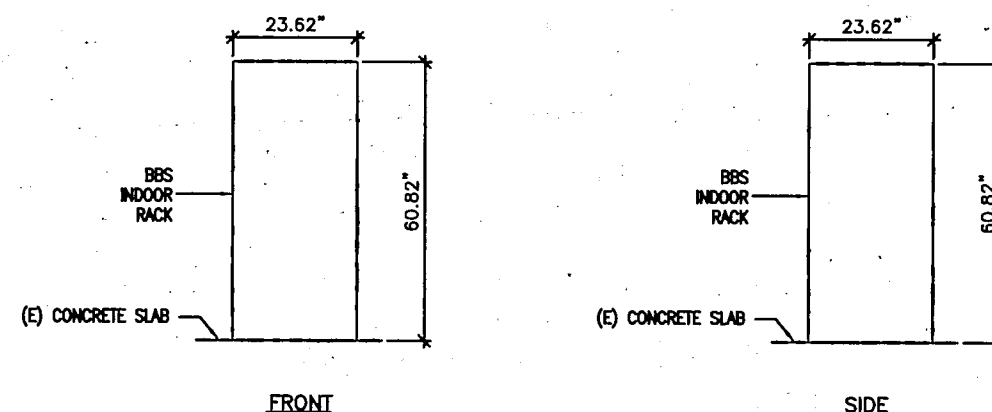


2 RBS
SCALE: N.T.S.

ERICSSON BBS	
DIMENSIONS	20.62" x 23.62" x 60.82"
WEIGHT	**677 LBS.
MINIMUM CLEARANCES	
FRONT	23.62"
SIDES	-
REAR	-

*HEIGHT SHOWN ON THE TABLE INCLUDES GLOBAL BASE FRAME, PROVIDED BY ERICSSON.

**WEIGHT SHOWN ON THE TABLE INCLUDES GLOBAL BASE FRAME, PROVIDED BY ERICSSON



1 BBS
SCALE: N.T.S.

PREPARED FOR:

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6391 SPRINT PARKWAY
OVERLAND PARK, KS 66251-4300

CONSULTANT:



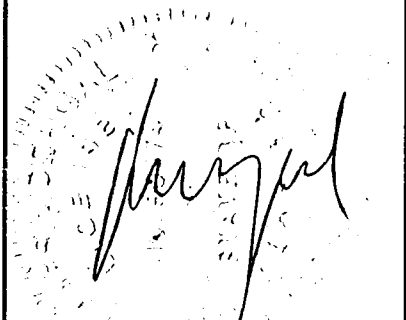
CONSULTING GROUP, INC.
9221 LYNDON B JOHNSON FREEWAY
SUITE 204, DALLAS, TX 75243
PHONE: 972-231-8893
FAX: 866-364-8375
WWW.ALLPROCG.COM
FLORIDA CERTIFICATE OF AUTHORIZATION # 27492
ACGI # 12-2724

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MI03XC166

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333 W 41ST.
MIAMI, FL 33140
MIAMI-DADE COUNTY

STAMP:



FLORIDA REG
No. 59174
RAJESH SEHGAL P.E. 11/30/12

DRAWN BY: GS

APPROVED BY: RS

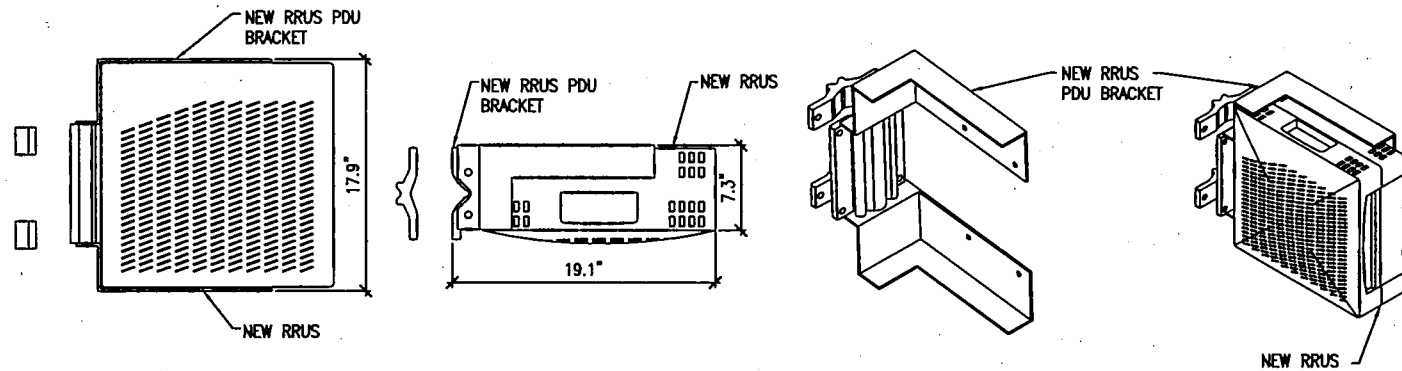
DATE DRAWN: 05/04/12

REVISION

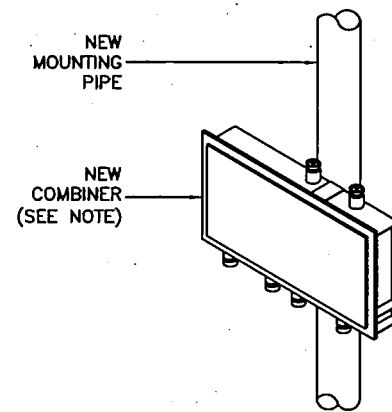
NO	DESCRIPTION	BY	DATE
A	SUBMISSION: 90% CD	GS	05/04/12
0	100% IFC FOR CM	NN	05/21/12
1	100% SAM/CM RL	GS	05/23/12
2	100% SAM RL	IH	06/20/12
3	100% STRUCTURAL RL/QS	IH	10/17/12
4	100% FIRE REJECTION RL	IH	11/30/12

SHEET TITLE:
DETAILS

SHEET NUMBER:
A-10

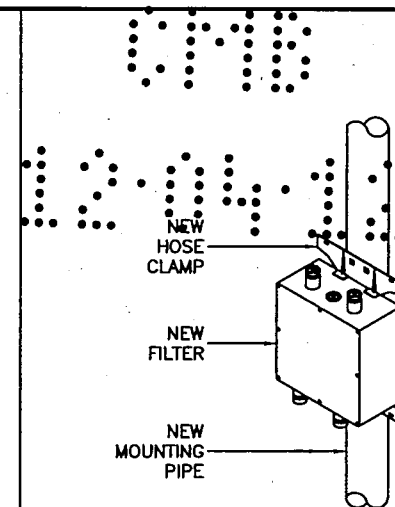


5 RRUS - PDU MOUNTING BRACKET
SCALE: N.T.S.



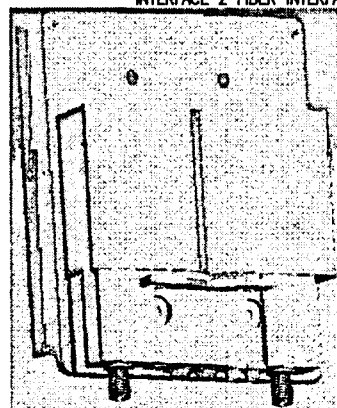
NOTE:
COMBINERS SHALL BE MOUNTED ON NEW
ANTENNA MOUNTING PIPE WITH MANUFACTURES
MOUNTING BRACKET.

6 COMBINER MOUNTING DETAIL
SCALE: N.T.S.



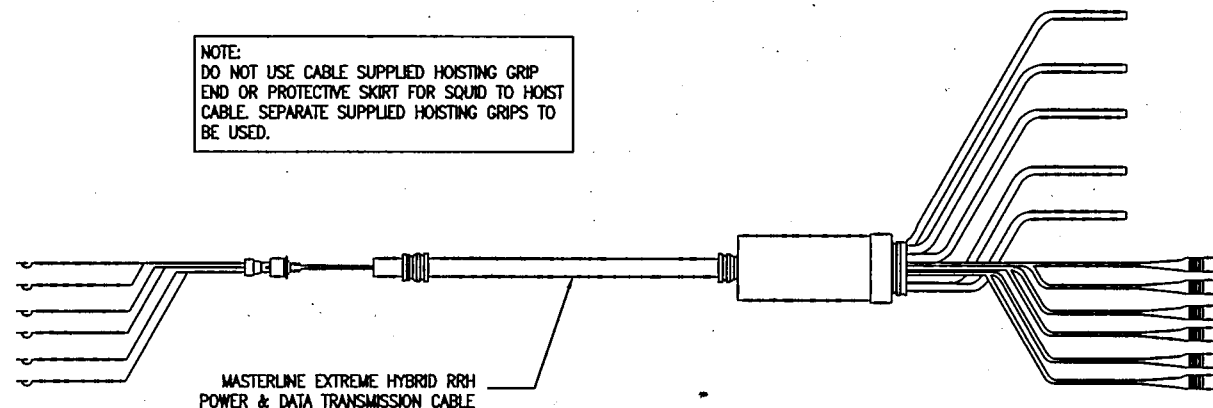
7 FILTER MOUNTING DETAIL
SCALE: N.T.S.

MANUFACTURER: ERICSSON
DIMENSIONS: HxWxD: 12.8"x15.0"x3.4"
VOLUME: 10.76 LITERS
WEIGHT: 21 LBS
EXTERNAL CONNECTIONS: 2x 7/8" DIN ANT CONNECTIONS POWER IN AND POWER OUT TO RRU EXTERNAL RET INTERFACE 2 FIBER INTERFACES

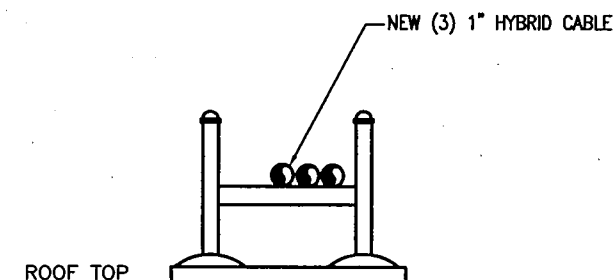


4 A2 MODULE DETAIL
SCALE: N.T.S.

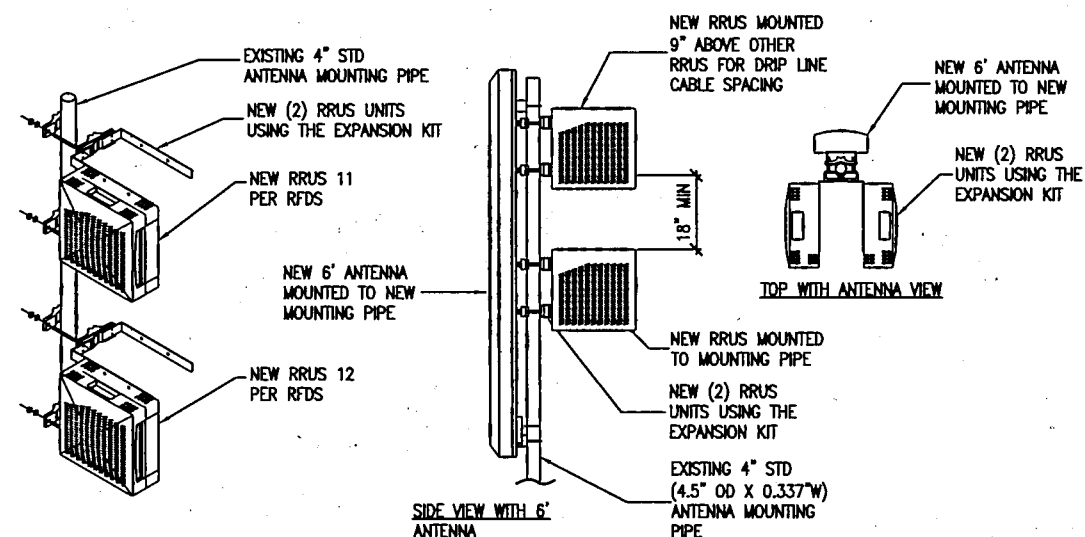
NOTE:
DO NOT USE CABLE SUPPLIED HOISTING GRIP
END OR PROTECTIVE SKIRT FOR SQUID TO HOIST
CABLE. SEPARATE SUPPLIED HOISTING GRIPS TO
BE USED.



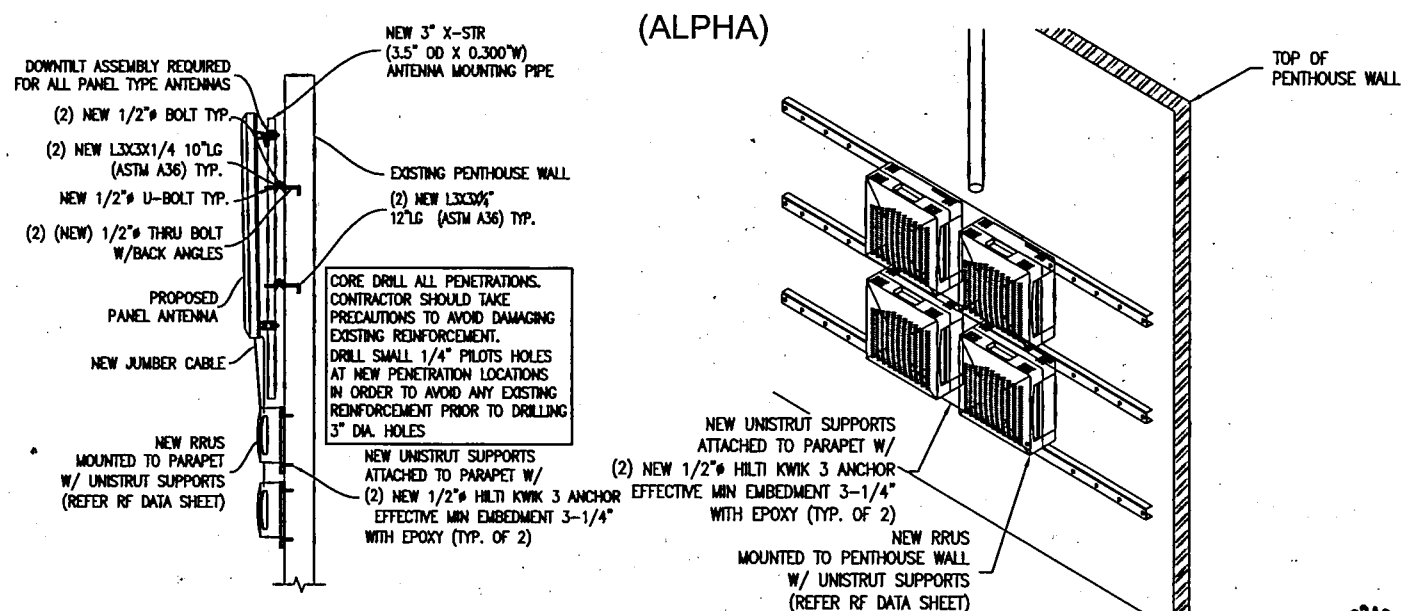
3 NEW CABLES
SCALE: N.T.S.



2 CABLE TRAY/ICE BRIDGE
SCALE: N.T.S.



1 RRUS PIPE MOUNT SPACING (BETA & GAMMA)
SCALE: N.T.S.



PREPARED FOR:
Sprint
6391 SPRINT PARKWAY
OVERLAND PARK, KS 66251-4300

CONSULTANT:
ALLPRO
CONSULTING GROUP, INC.
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FLORIDA REG No. 59174 RAJESH SEHGAL P.E.			11/30/12
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4	100% FIRE REJECTION RL	IH	11/30/12

SHEET TITLE:
DETAILS
SHEET NUMBER:
A-11

NOT USED

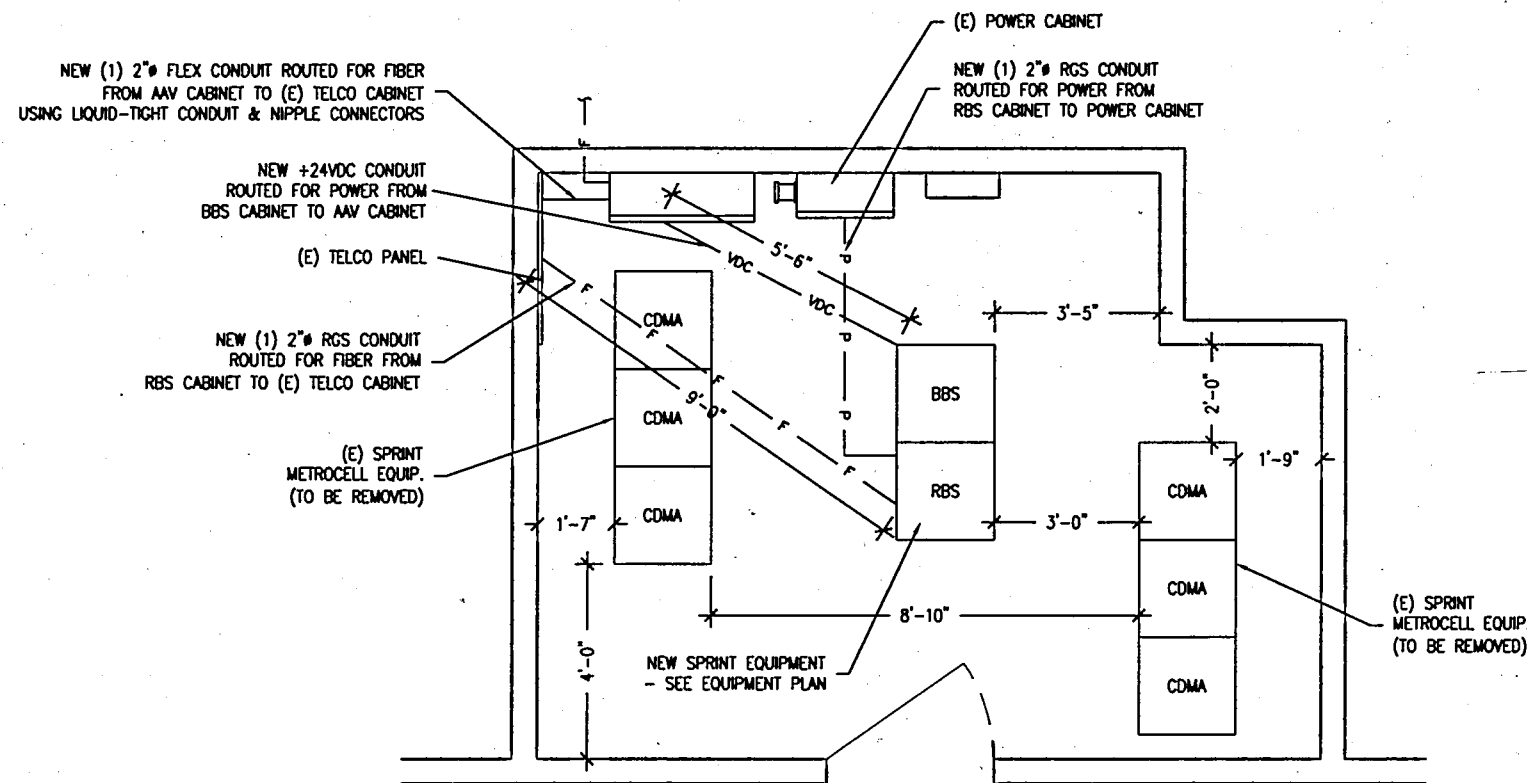
3 DETAIL

SCALE: 1/2" = 1'-0"

NOT USED

2 DETAIL

SCALE: 1/2" = 1'-0"

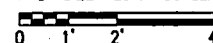


NOTE:
THERE SHALL BE NO CONDUIT/PIPING RUN THROUGH ANY
EXIT ENCLOSURE PER THE FLORIDA FIRE PREVENTION
CODE 2010 7.1.3.2(9)



1 UTILITIES SITE PLAN

FULL SIZE PLOT: SCALE: 1/2" = 1'-0"
HALF SIZE PLOT: SCALE: 1/4" = 1'-0"



ABBREVIATIONS:

A	AMPERE
AF	AMPERE FRAME
AGB	ANTENNA GROUND BAR
C	CONDUIT
G	GROUND
KWH	KILOWATT HOUR
MCB	MASTER GROUND BAR
MCB	MAIN CIRCUIT BREAKER
PVC	POLYVINYL CHLORIDE
P	POLE
RMC	RIGID METAL CONDUIT
SN	SOLID NEUTRAL
V	VOLT
W	WIRE
#	PHASE

ELECTRICAL NOTES:

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (N.E.C.), AND APPLICABLE LOCAL CODES.
2. GROUNDING SHALL COMPLY WITH ARTICLE 250 OF NATIONAL ELECTRICAL CODE.
3. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED.
4. ALL WIRES SHALL BE AWG MIN #12 THIN COPPER UNLESS NOTED OTHERWISE.
5. CONDUCTORS SHALL BE INSTALLED IN SCHEDULE 40 PVC CONDUIT UNLESS NOTED OTHERWISE.
6. LABEL SPRINT SERVICE DISCONNECT SWITCH AND PPC CABINET WITH ENGRAVED LAMACOID LABELS, LETTERS 1" IN HEIGHT.
7. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. BEND GROUNDING LEADS WITH A MINIMUM 8" RADIUS.
8. ENGAGE AN INDEPENDENT TESTING FIRM TO TEST AND VERIFY THAT RESISTANCE DOES NOT EXCEED 5 OHMS TO GROUND. TEST GROUND RING RESISTANCE PRIOR TO MAKING FINAL GROUND CONNECTIONS TO INFRASTRUCTURE AND EQUIPMENT. GROUNDING AND OTHER OPERATIONAL TESTING SHALL BE WITNESSED BY SPRINTS REPRESENTATIVE.
9. PROVIDE PULL BOXES AND JUNCTION BOXES WHERE REQUIRED SO THAT CONDUIT BENDS DO NOT EXCEED 360°.
10. OBTAIN PERMITS AND PAY FEES RELATED TO ELECTRICAL WORK PERFORMED ON THIS PROJECT. DELIVER COPIES OF ALL PERMITS TO SPRINT REPRESENTATIVE.
11. SCHEDULE AND ATTEND INSPECTIONS RELATED TO ELECTRICAL WORK REQUIRED BY JURISDICTION HAVING AUTHORITY. CORRECT AND PAY FOR ANY WORK REQUIRED TO PASS ANY FAILED INSPECTION.
12. REDUNDANT AS-BUILTS ARE TO BE DELIVERED TO SPRINT REPRESENTATIVE.
13. PROVIDE TWO COPIES OF OPERATION AND MAINTENANCE MANUALS IN THREE-RING BINDER.
14. FURNISH AND INSTALL THE COMPLETE ELECTRICAL SERVICE, TELCO CONDUIT, AND THE COMPLETE GROUNDING SYSTEM.
15. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL APPLICABLE BUILDING CODES AND LOCAL ORDINANCES, INSTALLED IN A NEAT MANNER, AND SHALL BE SUBJECT TO APPROVAL BY SPRINT REPRESENTATIVE.
16. CONDUCT A PRE-CONSTRUCTION SITE VISIT AND VERIFY EXISTING SITE CONDITIONS AFFECTING THIS WORK. REPORT ANY OMISSIONS OR DISCREPANCIES FOR CLARIFICATION PRIOR TO THE START OF CONSTRUCTION.
17. PROTECT ADJACENT STRUCTURES AND FINISHES FROM DAMAGE. REPAIR TO ORIGINAL CONDITION ANY DAMAGED AREA.
18. REMOVE DEBRIS ON A DAILY BASIS. DEBRIS NOT REMOVED IN A TIMELY FASHION WILL BE REMOVED BY OTHERS AND THE RESPONSIBLE SUBCONTRACTOR SHALL BE CHARGED ACCORDINGLY. REMOVAL OF DEBRIS SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE. DEBRIS SHALL BE REMOVED FROM THE PROPERTY AND DISPOSED OF LEGALLY.
19. UPON COMPLETION OF WORK, THE SITE SHALL BE CLEAN AND FREE OF DUST AND FINGERPRINTS.
20. PRIOR TO ANY TRENCHING, CONTACT LOCAL UTILITY TO VERIFY LOCATION OF ANY EXISTING BURIED SERVICE CONDUITS.
21. DOCUMENT GROUND RING INSTALLATION AND CONNECTIONS TO IT WITH PHOTOGRAPHS PRIOR TO BACKFILLING SITE. PRESENT PHOTO ARCHIVE AT SITE "PUNCH LIST" WALK TO SPRINT'S REPRESENTATIVE.

LEGEND:

	KILOWATT HOUR METER
	COPPER GROUND BAR MOUNTED ON INSULATORS
	CIRCUIT BREAKER
	TOGGLE LIGHT SWITCH
	JUNCTION BOX
	GROUND TEST WELL
	EXOTHERMIC BONDING CONNECTION
	5/8" DIA X 10'-0" COPPER-CLAD STEEL GROUND ROD
	125 VOLT NEMA CONFIGURATION 5-20R DUPLEX RECEPTACLE MOUNTED 16" AFF
	POWER WIRING
	TELCO WIRING
	GROUND WIRE
	FIBER WIRE

PREPARED FOR:

Sprint

6391 SPRINT PARKWAY
OVERLAND PARK, KS 66251-4300

CONSULTANT:



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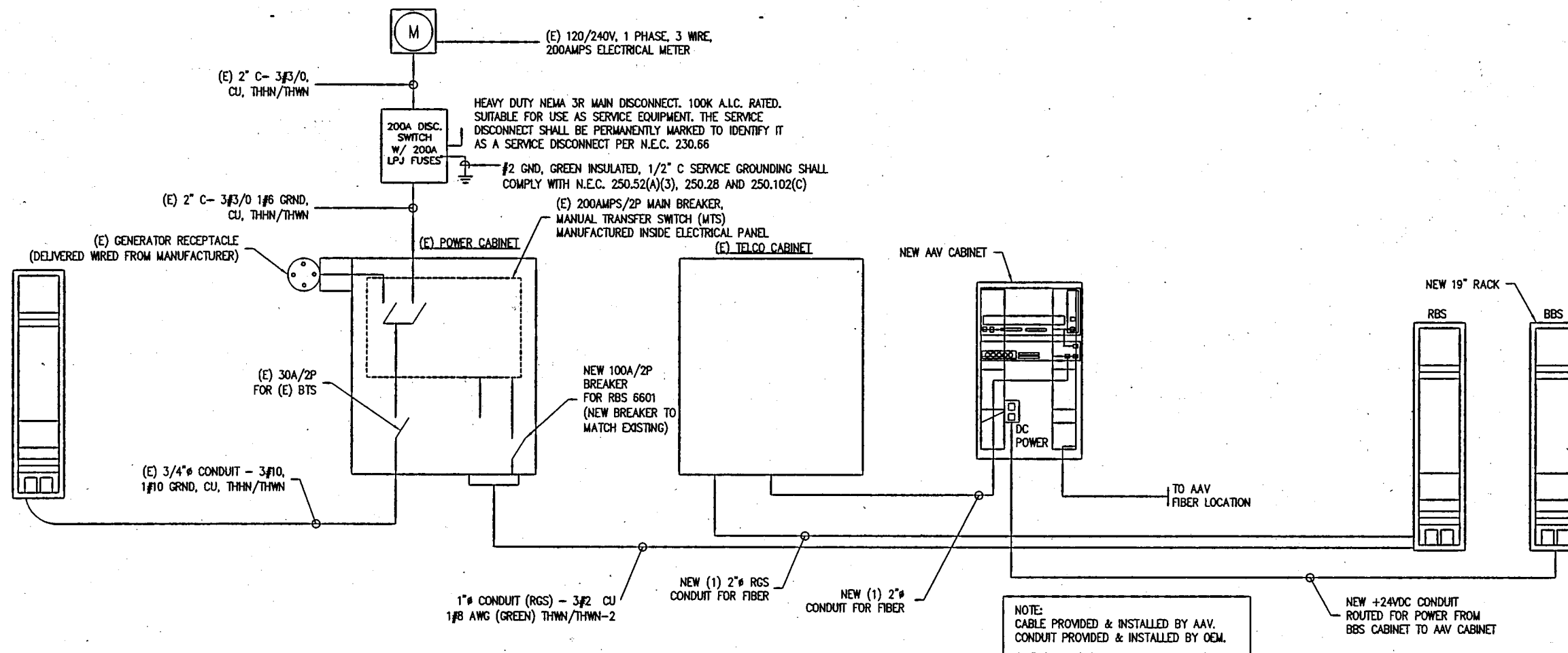
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2	100% SAM RL	IH	06/20/12
3	100% STRUCTURAL RL	JQS	10/17/12
4	100% FIRE REJECTION RL	IH	11/30/12
5	100% FIRE REJECTION RL	DE	01/11/13

SHEET TITLE:
**UTILITIES
SITE PLAN**

SHEET NUMBER:
E-1

20/12/13



2 ELECTRICAL & TELCO ONE-LINE RISER DIAGRAM
N.T.S.

EXISTING EQUIPMENT
ELECTRICAL LOADS TO
BE PROVIDED A
LICENSED
ELECTRICIAN.

Ericsson MM-BTS RBS 6102	Alarm Contact	Severity	Owner	Comments	Color Code
BTS Scan Point 1 [1000] Utility Power Failure	NC	Major	Service Assurance	RBS/Right OVP1/A4	White/Blue
BTS Scan Point 2 [1200] Generator Failure	NC	Minor	Field Services	RBS/Right OVP1/A5	White/Orange
BTS Scan Point 3 [1201] Generator Running	NC	Minor	DRMS Only	RBS/Right OVP1/A6	White/Green
BTS Scan Point 4 [1202] Generator Low Fuel Threshold Reached	NC	Major	Field Services	RBS/Right OVP1/A7	White/Brown
BTS Scan Point 5 [9000] Tower Top Light Failure, NOTAM Required	NC	Major	Service Assurance	RBS/Right OVP1/A5	White/Slate
BTS Scan Point 6 [9100] Tower Side Light Failure, no NOTAM	NC	Minor	Service Assurance	RBS/Right OVP2/A2	Red/Blue
BTS Scan Point 7 [2008] 1900#1 DBU Fan Failure (cable supplied internal)	NC	Major	Field Services	RBS/Right OVP2/A3	White/Brown
BTS Scan Point 8 [2008] 1900#2 DBU Fan Failure (cable supplied internal)	NC	Major	Field Services	RBS/Right OVP2/A1	White/Brown
BTS Scan Point 9 [2008] 800 DBU Fan Failure (cable supplied internal)	NC	Major	Field Services	RBS/Left OVP1/A1	White/Brown
BTS Scan Point 10 User Defined from Standards Column A Only	NC			RBS/Right OVP1/A8	Red/Orange
BTS Scan Point 11 User Defined from Standards Column A Only	NC			RBS/Right OVP2/A4	Red/Green
BTS Scan Point 12 User Defined from Standards Column A Only	NC			RBS/Right OVP2/A5	Red/Brown
BTS Scan Point 13 User Defined from Standards Column A Only	NC			RBS/Right OVP2/A6	Red/Slate
BTS Scan Point 14 User Defined from Standards Column A Only	NC			RBS/Right OVP2/A7	Black/Blue
BTS Scan Point 15 Climate Alarm RBS 6102 (Cable supplied)	NC		Field Services	RBS/Right OVP1/A2	Red/Orange
BTS Scan Point 16 Open Door RBS 6102 (Cable supplied)	NC		Field Services	RBS/Right OVP1/A1	Black/Brown

* NC = Normally Closed (Closed contacts with no alarm condition)
GNOC = Global Network Operations Center

3 BTS ALARM WIRE SCHEMATICS
N.T.S.

120/240V, 1ø, 3W 200A, BUS, 10KAIC		Incoming Voltage EXISTING PANEL SCHEDULE		240			
Circuit#	Poles	Circuit Breaker AMPS	Description	Description	Circuit Breaker AMPS	Poles	Circuit#
1	2	30	BTS 1141	BTS 141	30	2	
3							
5	2	25	AC 1	AC 2	25	2	
7							
9	1	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	1	
11	1	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	1	
13	1	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	1	
15	1	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	1	
17	1	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	1	
19	1	EMPTY	EMPTY	UNKNOWN	UNKNOWN	1	

120/240V, 1ø, 3W 200A, BUS, 10KAIC		Incoming Voltage EXISTING + NEW PANEL SCHEDULE (TEMPORARY CONDITION)		240			
Circuit#	Poles	Circuit Breaker AMPS	Description	Description	Circuit Breaker AMPS	Poles	Circuit#
1	2	30	BTS 1141	BTS 141	30	2	
3							
5							
7	2	25	AC 1	AC 2	25	2	
9							
11							
13	2	100	(N) RBS 6102	UNKNOWN	UNKNOWN	1	
15				UNKNOWN	UNKNOWN	1	
17				UNKNOWN	UNKNOWN	1	
19	1	EMPTY	EMPTY	UNKNOWN	UNKNOWN	1	
				UNKNOWN	UNKNOWN	1	

1 PANEL SCHEDULE SUMMARY
N.T.S.

2 N/A

1 N/A

GROUNDING NOTES

12.04.12

PREPARED FOR:

Sprint

6391 SPRINT PARKWAY
OVERLAND PARK, KS 66251-4300

CONSULTANT:



CONSULTING GROUP, INC.
9221 LYNDON B. JOHNSON FREEWAY
SUITE 204, DALLAS, TX 75243
PHONE: 972-231-8893
FAX: 966-364-8375
WWW.ALLPROCG.COM
FLORIDA CERTIFICATE OF AUTHORIZATION # 27482
ACGI # 12-2724

SITE NAME:
**MIDTOWN
MEDICAL CENTER**

SITE NUMBER:
MI03XC166

SITE ADDRESS:
333 W 41ST.
MIAMI, FL 33140
MIAMI-DADE COUNTY

STAMP:



FLORIDA REG
No. 59174
RAJESH SEHGAL, P.E. 11/30/12

DRAWN BY: GS
APPROVED BY: RS
DATE DRAWN: 05/04/12

GROUNDING LEGEND:

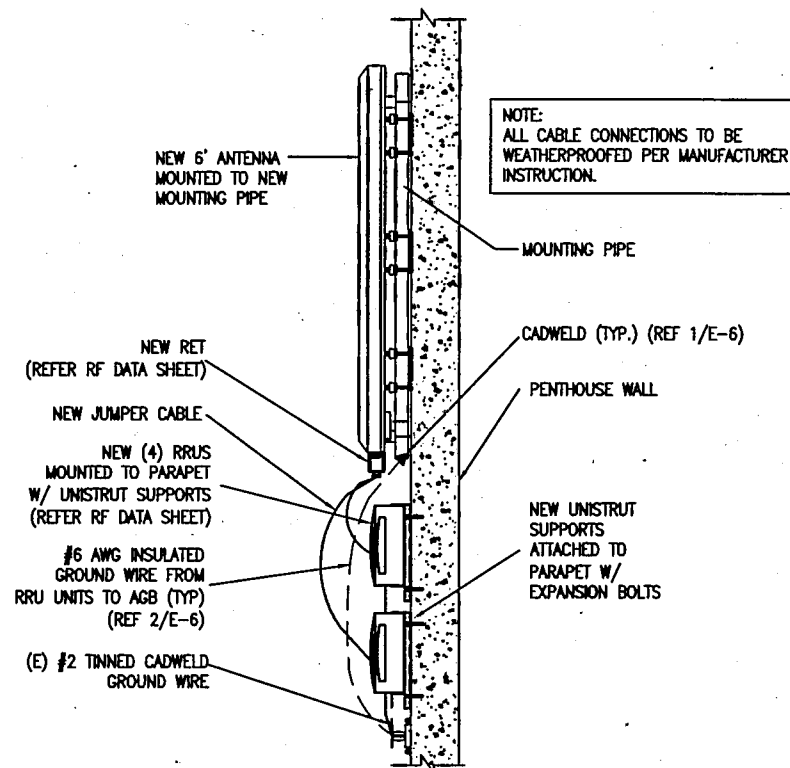
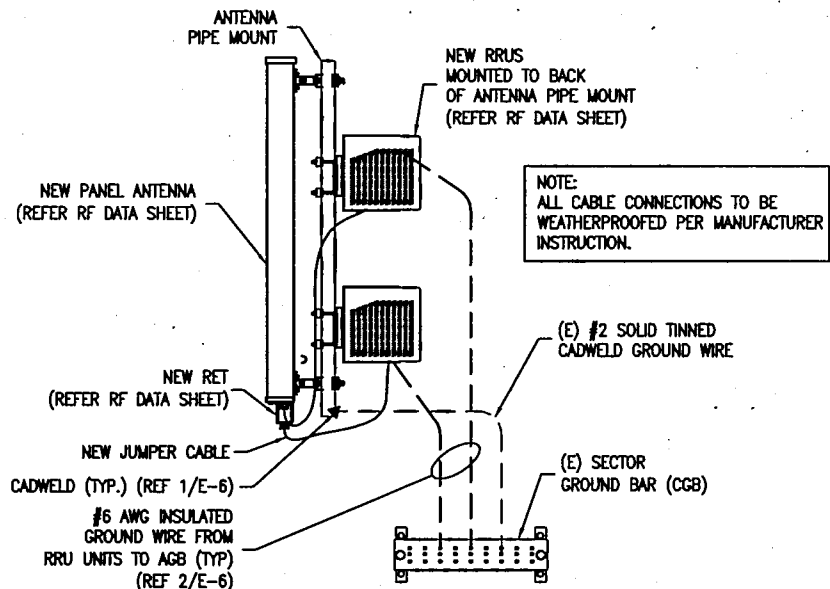
SYMBOL	DESCRIPTION
	EXOTHERMIC WELD
	GROUND CONDUCTOR
	MECHANICAL CONNECTION
	GROUND ROD EXOTHERMICALLY WELDED TO GROUND RING
	INTERIOR GROUND LEAD
	CHAIN LINK FENCE

NO	DESCRIPTION	BY	DATE
A	SUBMISSION: 90% CD	GS	05/04/12
0	100% IFC FOR CM	NN	05/21/12
1	100% SAM/CM RL	GS	05/23/12
2	100% SAM RL	IH	06/20/12
3	100% STRUCTURAL RL	QS	10/17/12
4	100% FIRE REJECTION RL	IH	11/30/12

SHEET TITLE:
**GROUNDING PLAN
N/A**

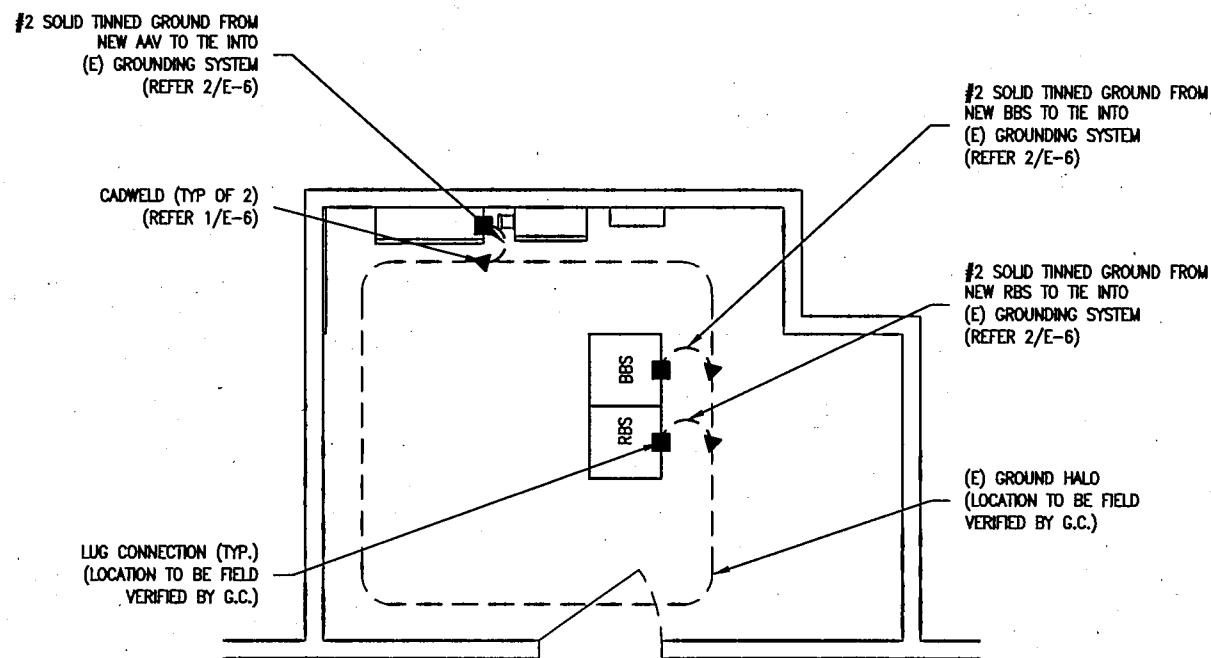
SHEET NUMBER:
E-3

12/22/13



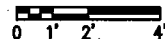
2 ANTENNA GROUNDING (FINAL)

SCALE: 1/4" = 1'-0"



1 GROUNDING PLAN (FINAL)

FULL SIZE PLOT: SCALE: 3/8" = 1'-0"
HALF SIZE PLOT: SCALE: 3/16" = 1'-0"



GROUNDING NOTES:

1. ALL DOWN CONDUCTORS AND GROUND RING CONDUCTOR SHALL BE #2 AWG, SOLID, BARE, TINNED COPPER, UNO. ALL CONNECTIONS TO GROUND RING SHALL BE EXOTHERMICALLY WELDED. CONDUCTOR SHALL BE A MINIMUM DEPTH BELOW GRADE OF 30 INCHES OR TO THE LEDGE. MINIMUM BEND RADIUS SHALL BE 8 INCHES. CONDUCTOR SHALL BE AT LEAST 24 INCHES FROM ANY FOUNDATION, UNO.
2. ELECTRICAL SERVICE GROUND ROD SHALL BE COPPER CLAD STEEL, HARGER, T&B, ERICO OR EQUIVALENT.
3. WHERE MECHANICAL CONDUCTOR CONNECTIONS ARE SPECIFIED, BOLTED, COMPRESSION-TYPE CLAMPS OR SPLIT-BOLT TYPE CONNECTORS SHALL BE USED.
4. GRIND OFF GALVANIZING IN AFFECTED AREA. EXOTHERMICALLY WELD #2 CONDUCTOR AT 6 INCHES ABOVE GRADE OR FOUNDATION, WHICHEVER IS HIGHER. COLD-GALV AFTER. EXOTHERMICALLY WELD OTHER END TO GROUND.
5. GROUND CONDUCTORS ON EXTERIOR WALL OF SHELTER SHALL BE ENCASED IN 3/4" PVC CONDUIT TO GRADE. MOUNT PVC WITH GALVANIZED "C" CLAMPS. SEAL TOP ENDS.
6. FOLLOWING COMPLETION OF WORK, CONDUCT GROUND TEST. SUBMIT WRITTEN TEST TO CONSTRUCTION MANAGER AND PROJECT MANAGER.
7. ALL GROUNDING WORK SHALL COMPLY WITH CARRIER(S) STANDARDS.
8. GROUNDING REQUIREMENTS SHOWN ON THIS PLAN ARE FOR ITEMS THAT ARE LOCATED NEAR GRADE LEVEL AND THAT NEED TO BE TIED TO THE BELOW GRADE GROUND RING.
9. UNLESS NOTED OTHERWISE, ALL GROUNDING SHALL BE IN ACCORDANCE WITH SPRINT'S SSED DOCUMENTS 3.018.02.004 "BONDING, GROUNDING AND TRANSIENT PROTECTION FOR CELL SITES", AND 3.018.10.002 "SITE RESISTANCE TO EARTH TESTING". ALL GROUNDING SHALL ALSO COMPLY WITH ALL STATE AND LOCAL CODES, AND THE NATIONAL ELECTRICAL CODE (NEC).
10. THE GROUND RING SHALL BE INSTALLED WITHIN 18 TO 24 INCHES FROM THE EQUIPMENT PAD FOUNDATION OR EQUIPMENT PLATFORM.
11. GROUND RODS SHALL NEVER BE SPACED HORIZONTALLY CLOSER THAN TWICE THE GROUND ROD LENGTH.
12. UNLESS NOTED OTHERWISE, ALL GROUNDING CONNECTIONS SHALL BE MADE BY AN EXOTHERMIC WELD.
13. NOTIFY THE CONSTRUCTION MANAGER 24 HOURS IN ADVANCE WHEN THE BURIED GROUND RING IS INSTALLED SO THAT A REPRESENTATIVE CAN INSPECT THE GROUND RING BEFORE IT IS BACKFILLED WITH SOIL.
14. RESISTANCE TO EARTH TESTING IS REQUIRED PER SMC STANDARDS ON ALL NEW SITES.

GROUNDING LEGEND:

SYMBOL	DESCRIPTION
▶	EXOTHERMIC WELD
—	GROUND CONDUCTOR
■	MECHANICAL CONNECTION
⊕	GROUND ROD EXOTHERMICALLY WELDED TO GROUND RING
—	INTERIOR GROUND LEAD
○	CHAIN LINK FENCE

PREPARED FOR:

Sprint

6391 SPRINT PARKWAY
OVERLAND PARK, KS 66251-4300

CONSULTANT:



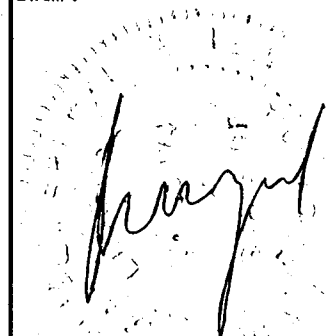
CONSULTING GROUP, INC.
9221 LYNDON B JOHNSON FREEWAY
SUITE 204, DALLAS, TX 75243
PHONE: 972-231-8883
FAX: 972-231-8883
WWW.ALLPROCGI.COM
FLORIDA CERTIFICATE OF AUTHORIZATION # 27482
ACGI # 12-2724

SITE NAME:
**MIDTOWN
MEDICAL CENTER**

SITE NUMBER:
MI03XC166

SITE ADDRESS:
333 W 41ST.
MIAMI, FL 33140
MIAMI-DADE COUNTY

STAMP:



FLORIDA REG
No. 59174
RAJESH SEHGAL P.E. 11/30/12

DRAWN BY: GS
APPROVED BY: RS
DATE DRAWN: 05/04/12

NO	DESCRIPTION	BY	DATE
A	SUBMISSION: 90% CD	GS	05/04/12
0	100% IFC FOR CM	NN	05/21/12
1	100% SAM/CM RL	GS	05/23/12
2	100% SAM RL	IH	06/20/12
3	100% STRUCTURAL RL/QS	IH	10/17/12
4	100% FIRE REJECTION RL	IH	11/30/12

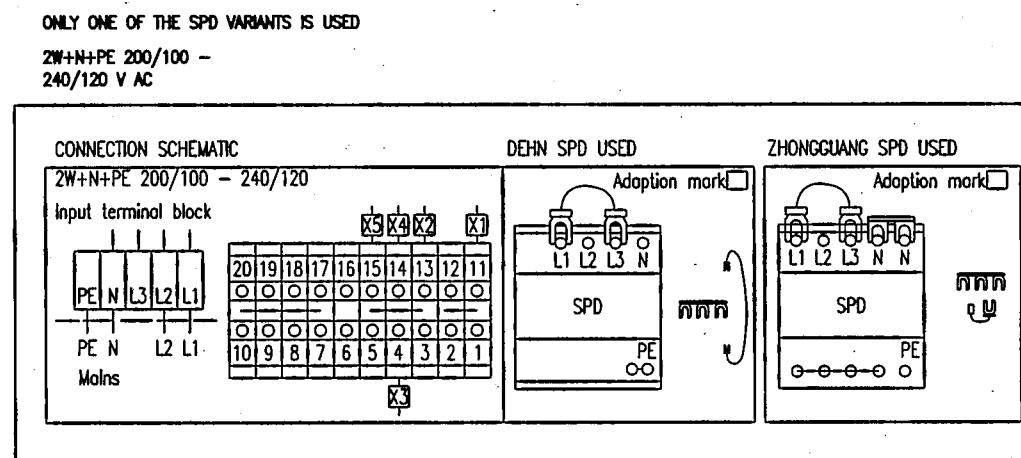
SHEET TITLE:
**GROUNDING PLANS
(FINAL)**

SHEET NUMBER:
E-4

10/22/13

6 NOT USED
SCALE: N.T.S.

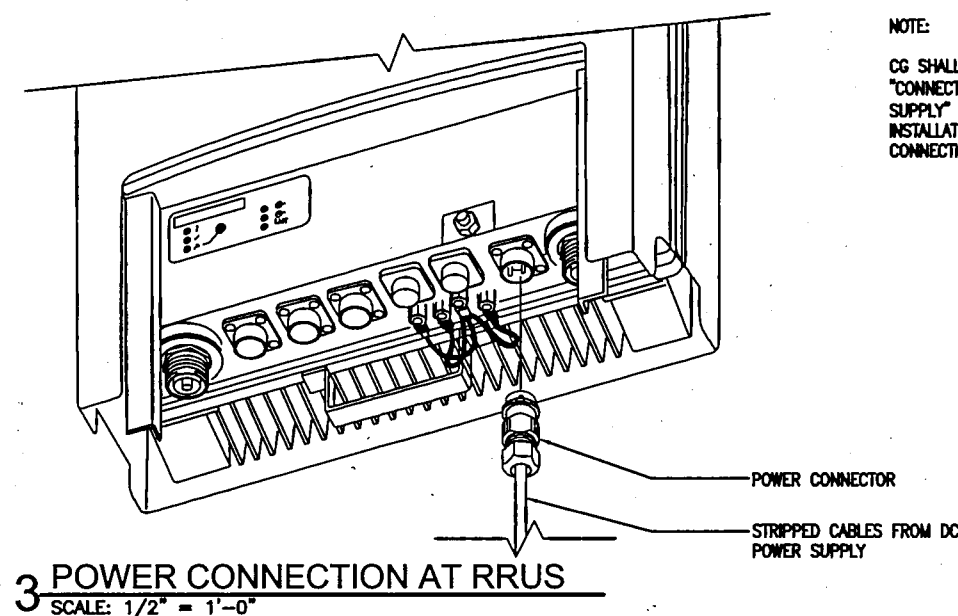
4. NOT USED
SCALE: N.T.S.



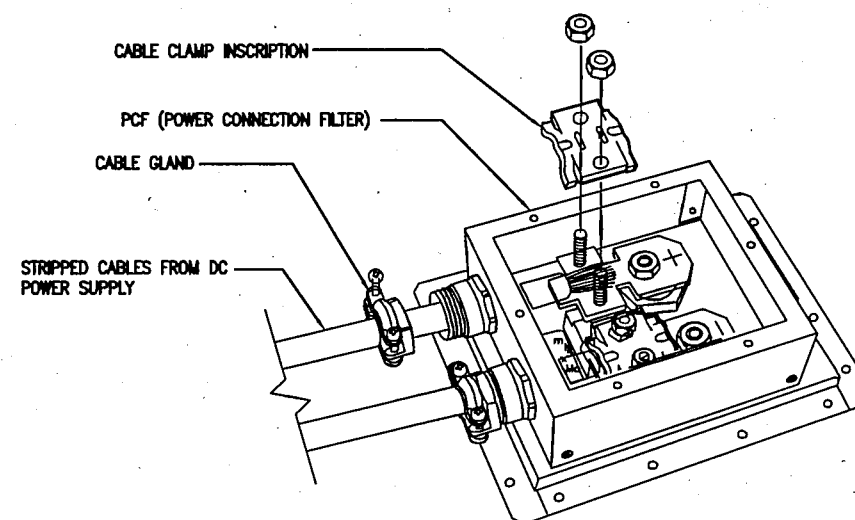
2 AC POWER CONNECTION AT RBS

078
12-04-12

5 NOT USED
SCALE: N.T.S.



1 DC POWER CONNECTION AT RBS
SCALE: N.T.S.



PREPARED FOR:

Sprint

6391 SPRINT PARKWAY
OVERLAND PARK, KS 66251-4300

CONSULTANT:


ALLPRO

CONSULTING GROUP, INC.
8221 LINDEN & JOHNSON FREEWAY
SUITE 204, DALLAS, TX 75243
PHONE: 972-231-6893
FAX: 866-364-8375
WWW.ALLPROCGI.COM
FLORIDA CERTIFICATE OF AUTHORIZATION # 27462
ACGI # 12-2724

SITE NAME:
MIDTOWN
MEDICAL CENTER

SITE NUMBER:
MI03XC166

SITE ADDRESS:
333 W 41ST.
MIAMI, FL 33140
MIAMI-DADE COUNTY

STAMP:

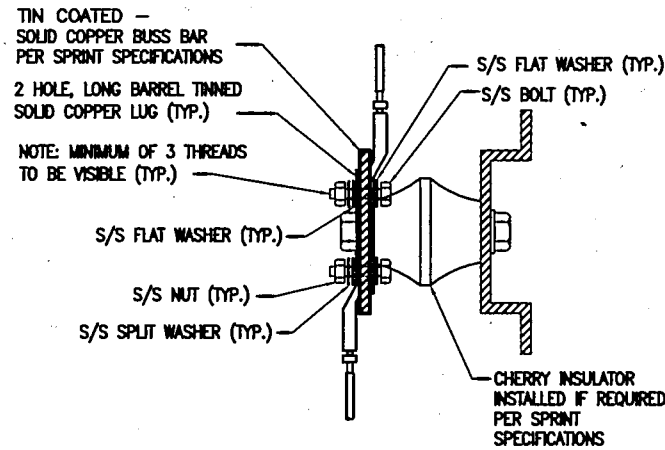
A circular stamp, likely a postmark, containing a handwritten signature in dark ink. The signature is stylized and appears to be 'R. J. ...'. The stamp is located in the upper right quadrant of the document.

FLORIDA REG ;			
No. 59174		11/30/12	
RAJESH SEHGAL P.E.			
DRAWN BY:		GS	
APPROVED BY:		RS	
DATE DRAWN:		05/04/12	
REVISION			
NO	DESCRIPTION	BY	DATE
A	SUBMISSION: 90% CD	GS	05/04/12
0	100% IFC FOR CM	NN	05/21/12
1	100% SAM/CM RL	GS	05/23/12
2	100% SAM RL	IH	06/20/12
3	100% STRUCTURAL RL	JQS	10/17/12
4	100% FIRE REJECTION RL	IH	11/30/12

SHEET TITLE:
ELECTRICAL DETAILS

SHEET NUMBER:
E-5

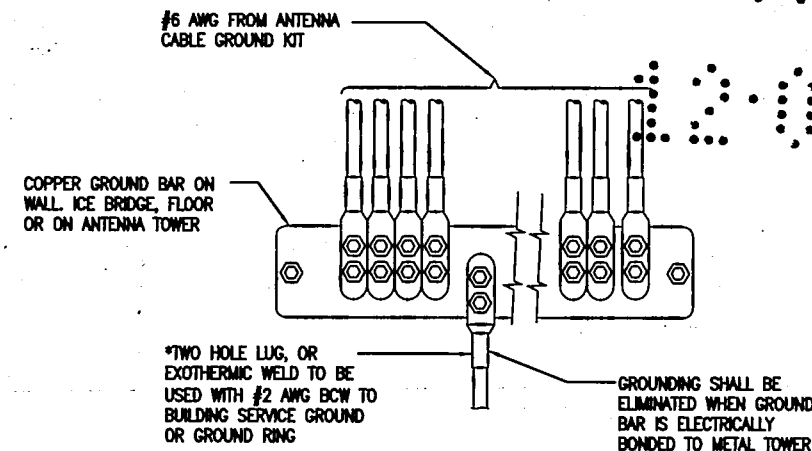
122.3



GROUNDING - GENERAL LUG DETAIL (FRONT AND BACK ATTACHMENT)

6 SCALE: N.T.S.

- NOTES:
- 1) ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING SPLIT WASHERS.
 - 2) SPLIT WASHERS.
 - 3) COAT WIRE END WITH ANTI-OXIDATION COMPOUND PRIOR TO INSERTION INTO LUG BARREL AND CRIMPING. APPLY ANTI-OXIDATION COMPOUND BETWEEN ALL LUGS AND BUSS BARS PRIOR TO MATING AND BOLTING.

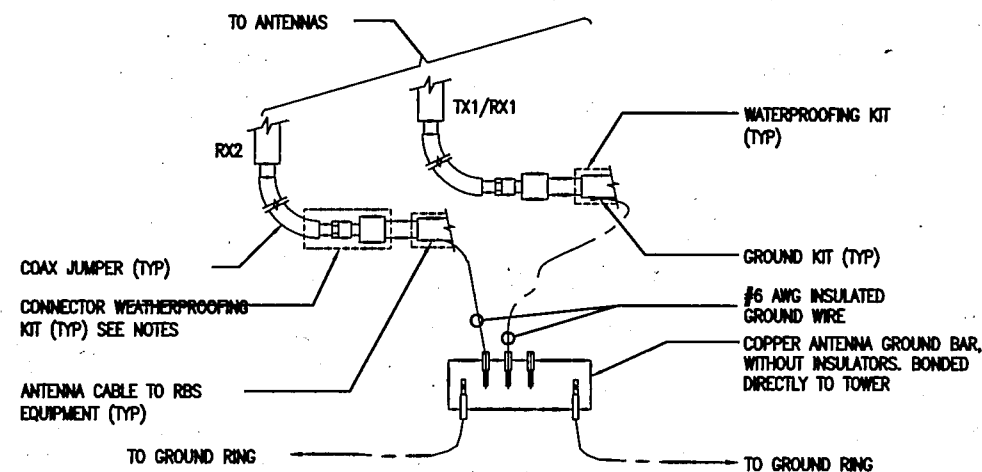


5 GROUNDWIRE INSTALLATION

SCALE: N.T.S.

NOTES:

1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE USED.



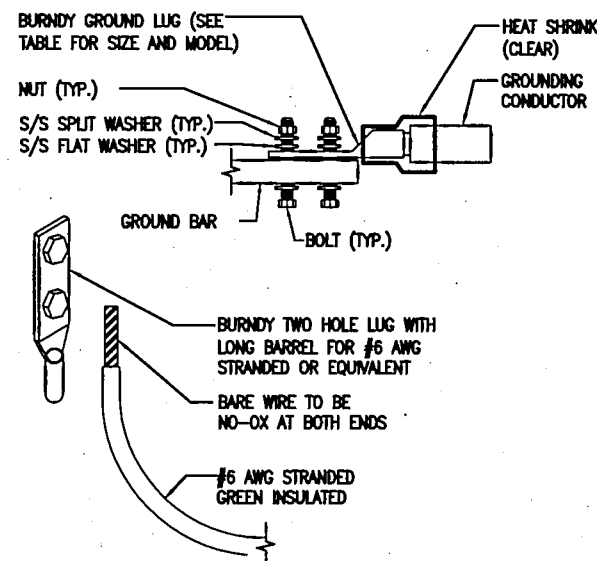
4 ANTENNA GROUNDING KIT

SCALE: N.T.S.

WIRE SIZE	BURNDY LUG	BOLT SIZE
#6 AWG GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG SOLID TINNED	YA3C-2TC38	3/8" - 16 NC S 2 BOLT
#2 AWG STRANDED	YA2C-2TC38	3/8" - 16 NC S 2 BOLT
#2/0 AWG STRANDED	YA26-2TC38	3/8" - 16 NC S 2 BOLT
#4/0 AWG STRANDED	YA28-2N	1/2" - 16 NC S 2 BOLT

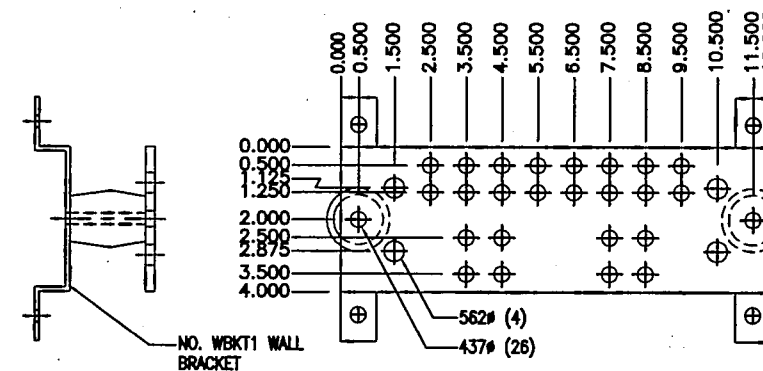
NOTES:

1. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.
2. COPPER SHIELD, ANTIOX, OR NO-OX OR EQUIVALENT SHALL BE PLACE WHERE ALL DISSIMILAR METALS CONNECT.
3. ALL LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.



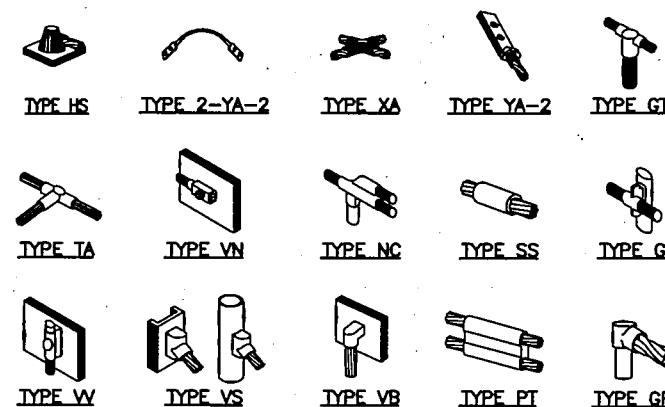
2 MECHANICAL LUG CONNECTION

SCALE: N.T.S.



3 12" GROUND BAR

SCALE: N.T.S.



NOTE:

ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH PROJECT MANAGER FOR SPECIFIC MOLDS TO BE USED FOR THIS PROJECT.

1 EXOTHERMIC WELD

SCALE: N.T.S.

PREPARED FOR:

Sprint

6391 SPRINT PARKWAY
OVERLAND PARK, KS 66251-4300

CONSULTANT:



CONSULTING GROUP, INC.
9221 LYNDON B. JOHNSON FREEWAY
SUITE 204, DALLAS, TX 75243
PHONE: 972-231-8893
FAX: 972-231-8375
WWW.ALLPROCG.COM
FLORIDA CERTIFICATE OF AUTHORIZATION # 27482
ACGI # 12-2724

SITE NAME:
**MIDTOWN
MEDICAL CENTER**

SITE NUMBER:
MI03XC166

SITE ADDRESS:
333 W 41ST.
MIAMI, FL 33140
MIAMI-DADE COUNTY

STAMP:

[Signature]

FLORIDA REG
No. 59174
RAJESH SEHGAL P.E. 11/30/12

DRAWN BY: GS

APPROVED BY: RS

DATE DRAWN: 05/04/12

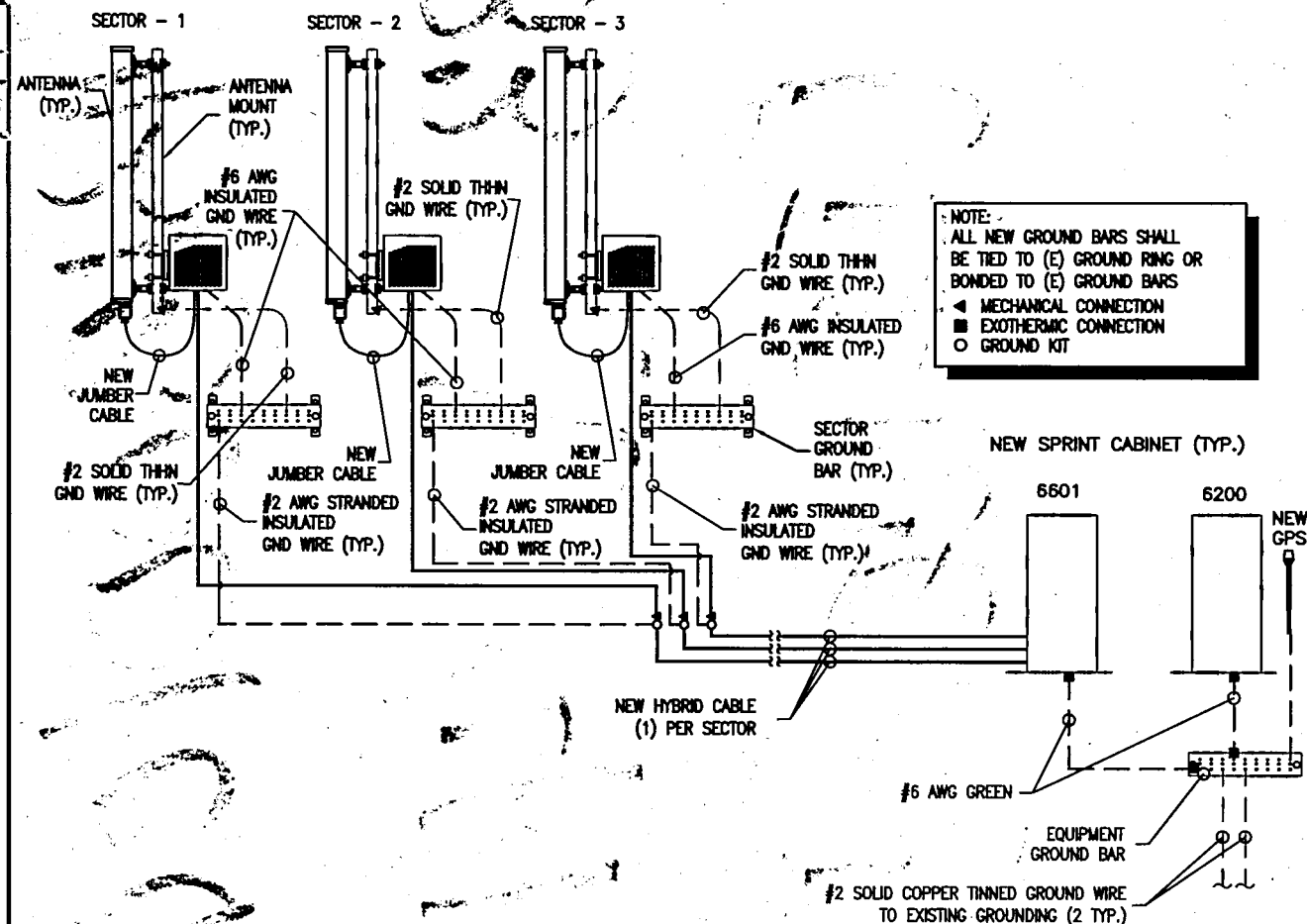
REVISION

NO	DESCRIPTION	BY	DATE
A	SUBMISSION: 90% CD	GS	05/04/12
0	100% IFC FOR CM	NN	05/21/12
1	100% SAM/CM RL	GS	05/23/12
2	100% SAM RL	IH	06/20/12
3	100% STRUCTURAL RL	JQS	10/17/12
4	100% FIRE REJECTION RL	IH	11/30/12

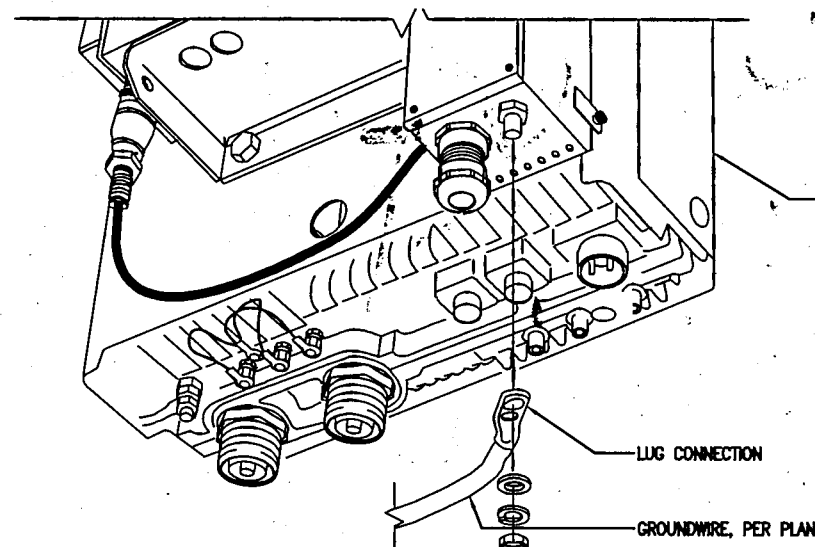
SHEET TITLE:
GROUNDING DETAILS

SHEET NUMBER:
E-6

11/22/13



4 GROUNDING DETAIL
SCALE: N.T.S.



2 RRU GROUNDING DETAIL
SCALE: N.T.S.

5 NOT USED
SCALE: N.T.S.

3 NOT USED
SCALE: N.T.S.

1 NOT USED
SCALE: N.T.S.

0710
12.04.12

PREPARED FOR:

Sprint

6391 SPRINT PARKWAY
OVERLAND PARK, KS 66251-4300

CONSULTANT:



CONSULTING GROUP, INC.
9221 LYNDON B JOHNSON FREEWAY
SUITE 204, DALLAS, TX 75243
PHONE: 972-231-8893
FAX: 972-364-8375
WWW.ALLPROCG.COM
FLORIDA CERTIFICATE OF AUTHORIZATION # 27492
ACGI # 12-2724

SITE NAME:
**MIDTOWN
MEDICAL CENTER**

SITE NUMBER:
MI03XC166

SITE ADDRESS:
333 W 41ST.
MIAMI, FL 33140
MIAMI-DADE COUNTY

STAMP:

[Handwritten Signature]

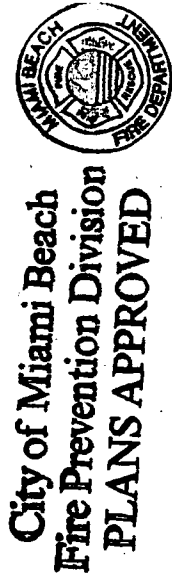
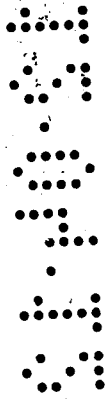
FLORIDA REG
No. 59174
RAJESH SEHGAL P.E. 11/30/12

DRAWN BY: GS
APPROVED BY: RS
DATE DRAWN: 05/04/12

REVISION			
NO	DESCRIPTION	BY	DATE
A	SUBMISSION: 90% CD	GS	05/04/12
0	100% IFC FOR CM	NN	05/21/12
1	100% SAM/CM RL	GS	05/23/12
2	100% SAM RL	IH	06/20/12
3	100% STRUCTURAL RL	QS	10/17/12
4	100% FIRE REJECTION RL	IH	11/30/12

SHEET TITLE:
GROUNDING DETAILS

SHEET NUMBER:
E-7



B/300/06

333 W 41 ST.

OFFICE COPY

OFFICE COPY
CITY OF MIAMI BEACH
APPROVED FOR PERMIT BY
THE FOLLOWING:

BUILDING:	mm 12/21/13
ZONING:	mm 12/4/13
DRB/HPB:	mm 12/4/13
CONCURRENCY:	
PLUMBING:	
ELECTRICAL:	mm 12/21/13
MECHANICAL:	mm 12/21/13
FIRE PREVENTION:	
ENGINEERING:	
PUBLIC WORKS:	mm 12-4-13
STRUCTURAL:	
ELEVATOR:	

B1306528



EFOB



AMEC Project No. 6788-12-2458

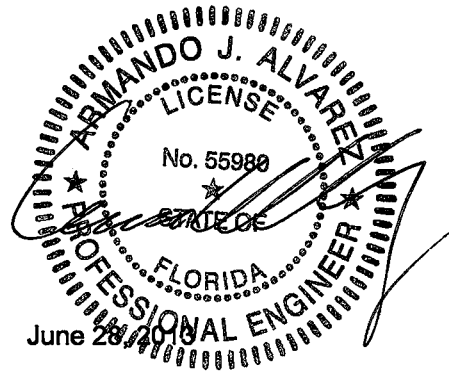
STRUCTURAL CALCULATIONS

For

EFOB

333 W 41st Street, Miami Beach, FL 33140
06/28/2013

Prepared by: Armando Alvarez, P.E.
Principal Engineer
Florida No. 55980
Amec Environment & Infrastructure, Inc.
5845 NW 158th Street
Miami Lakes, FL 33014





Job Summary:

AT&T requested that we perform a structural design of a new rooftop equipment platform and antenna mounting structures to be located at 333 W 41st Street, Miami Beach, FL 33140. It is our understanding that AT&T wishes to install new telecommunications equipment on the proposed platform and antenna mounting structures, as depicted in construction drawings that we have prepared.

We based our analysis on information obtained during our site visits, published catalog information, documentation provided by AT&T. Our analysis was performed in accordance with the Florida Building Code, 2010 Edition with the minimum design criteria shown below. We used hand calculations to calculate the antenna mast mounts. We verified the existing steel platform structure could adequately sustain the proposed gravity and wind loads applied to them. Refer to the attached drawing for additional information.

DESIGN CRITERIA:

V = 175 mph
Exp. C
Cat. II

AMEC E&C, Inc.
5845 NW 158th Street
Miami Lakes, FL 33014

JOB NO. 6788-11-2458

SHEET _____ OF _____

PHASE _____

TASK 17.03

JOB NAME EFOB

BY ZL

DATE DEC 13 2011

CHECKED BY AA

DATE DEC 13 2011

Wind Load - Cellexion Shelter

In Accordance With ASCE 7-10

Design Criteria

Wind Velocity, $V = 175$ mph

Exposure = C

Risk Category = II (ASCE Table 1.5-1)

Equipment

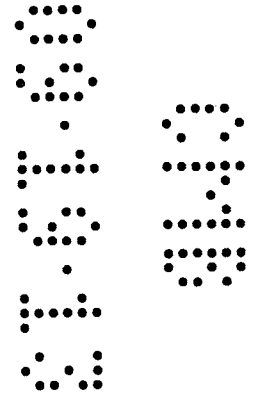
$H = 11.92$ ft (Equipment Height Dimension)

$W = 20.21$ ft (Equipment Width Dimension)

$D = 11.58$ ft (Equipment Depth Dimension)

Round ? N (Equipment is Round or Not)

$z = 110$ ft (Equipment Height Above Ground)



Design Parameters

$Z_g = 900$ (ASCE Table 26.9-1)

Bldg Height = 66 ft

$\alpha = 9.5$ (ASCE Table 26.9-1)

Bldg Base = 105 ft

$A_f = 240.8$ ft² (Front)

$B_h = 6930$ ft²

$A_f = 138$ ft² (Side)

$GC_f = 3.10$ (Gust Factor, 2010 FBC 1609.8/1620.6)

$K_z = 1.291$ (Coefficient from ASCE Table 6-3)

$K_{zt} = 1.0$ (Topographic Factor from ASCE Section 26.8.2)

$K_d = 0.85$ (Directionality Factor from ASCE Table 26.6-1)

Velocity Pressure

$q_z = 0.00256(V^2)(K_z)(K_{zt})(K_d)$ (ASCE EQ. 29.3-1)

$q_z = 86.1$ psf

Wind Load

$F = (q_z)(GC_f)(A_f)$ (ASCE EQ. 29.5-1)

Case 1: Wind at Front

$V = 1636$ lbs/ft

$F_{FRONT} = 64276$ lbs (Total Lateral Force, ASCE Eq. 29.5-1)

$H = 1590$ lbs/ft

Case 2: Wind at Side

$V = 938$ lbs/ft

$F_{SIDE} = 36843$ lbs (Total Lateral Force, ASCE Eq. 6-28)

$H = 1590$ lbs/ft

Shelter Weight, Use 20000 lbs

$H = 495$ lbs/ft

DESIGN MEMORANDUM (METRIC)

Client: NSORO (AT&T)
 Project: EFUB
 Data For: SHELTER FRAME ANCHORING
 Prepared By: AJA Checked By: _____

Sheet _____ Of _____
 Date: 6/27/13
 Work Order: _____
 File No: _____



Note: This form must be used for project calculations and original filed in project files

ANCHOR = HILTI 3/4" Ø HAS SUPER 3 3/8" EMBED H_y 150 MAY

$T_{allow} = 4295 \text{ lbs} \leftarrow \text{USE}$

$V_{allow} = 8635 \text{ lbs} \leftarrow \text{USE}$

ADJUSTMENT FACTORS

CHECK STEEL (ANCHOR)

MAIN FRAME = 0.9

$T_{allow} = 18225 \text{ lbs}$

ANTENNA LEG = 0.92

$V_{allow} = 9390 \text{ lbs}$

CHECK MAIN FRAME

$T_{max} = 4276 \text{ lbs} / 7 \text{ ANCHORS} = 611 \text{ lbs/ANCHOR}$

$V_{max} = 8713 \text{ lbs} / 7 \text{ ANCHORS} = 1245 \text{ lbs/ANCHOR}$

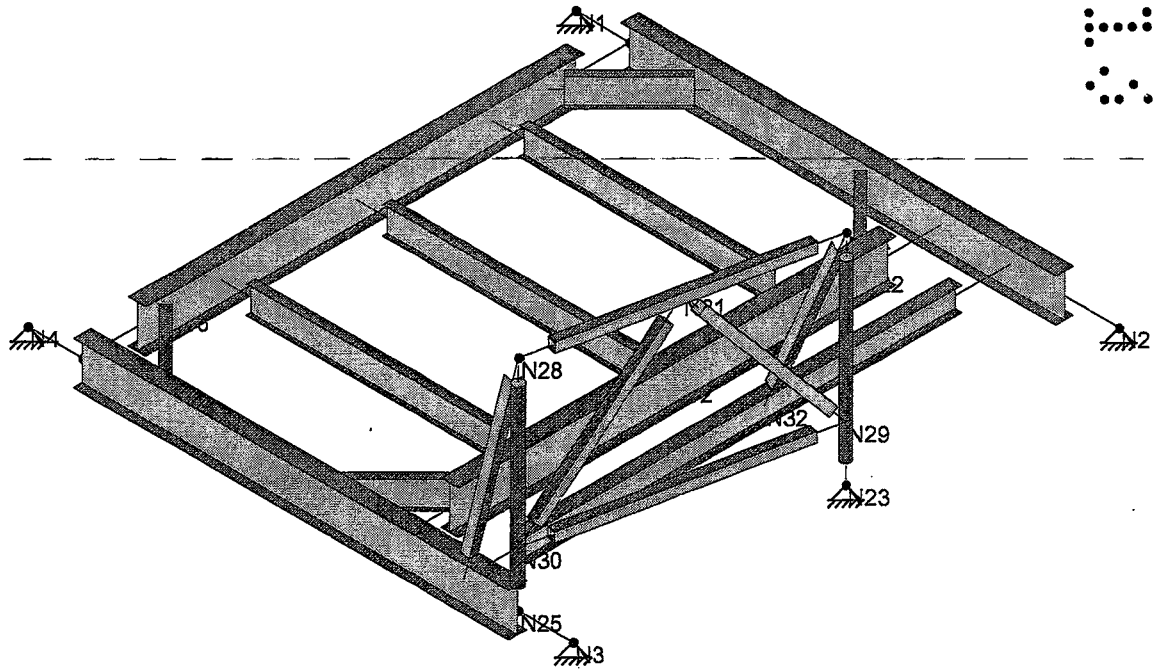
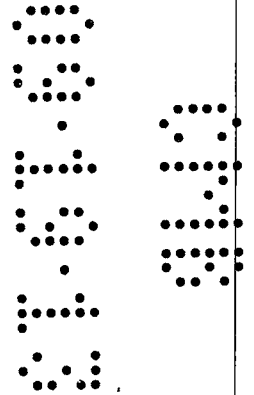
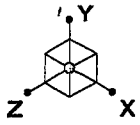
$$\frac{611}{4295(0.9)} + \frac{1245}{8635(0.9)} = 0.32 < 1.0 \text{ OK}$$

CHECK ANTENNA LEG

$T_{max} = 1417 \text{ lbs} / 4 \text{ ANCHORS} = 355 \text{ lbs}$

$V_{max} = 1475 \text{ lbs} / 4 \text{ ANCHORS} = 369 \text{ lbs}$

$$\frac{355}{4295(0.9)} + \frac{369}{8635(0.9)} = 0.14 < 1.0 \text{ OK}$$



Solution: Envelope

AMEC

ZL/AA

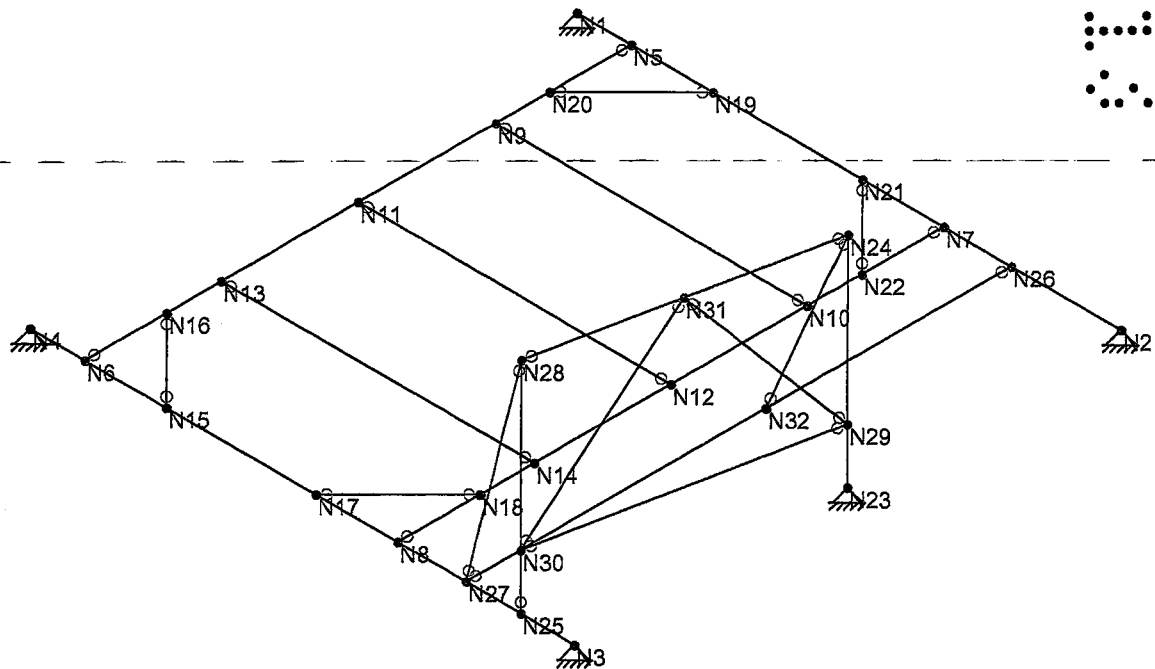
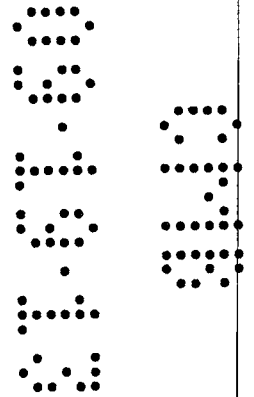
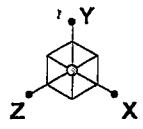
6788-12-2458

AT&T Site EFOB
SHELTER FRAME ISO

SK - 1

June 28, 2013 at 5:02 PM

EFOB Shelter.r3d



Solution: Envelope

AMEC

ZL/AA

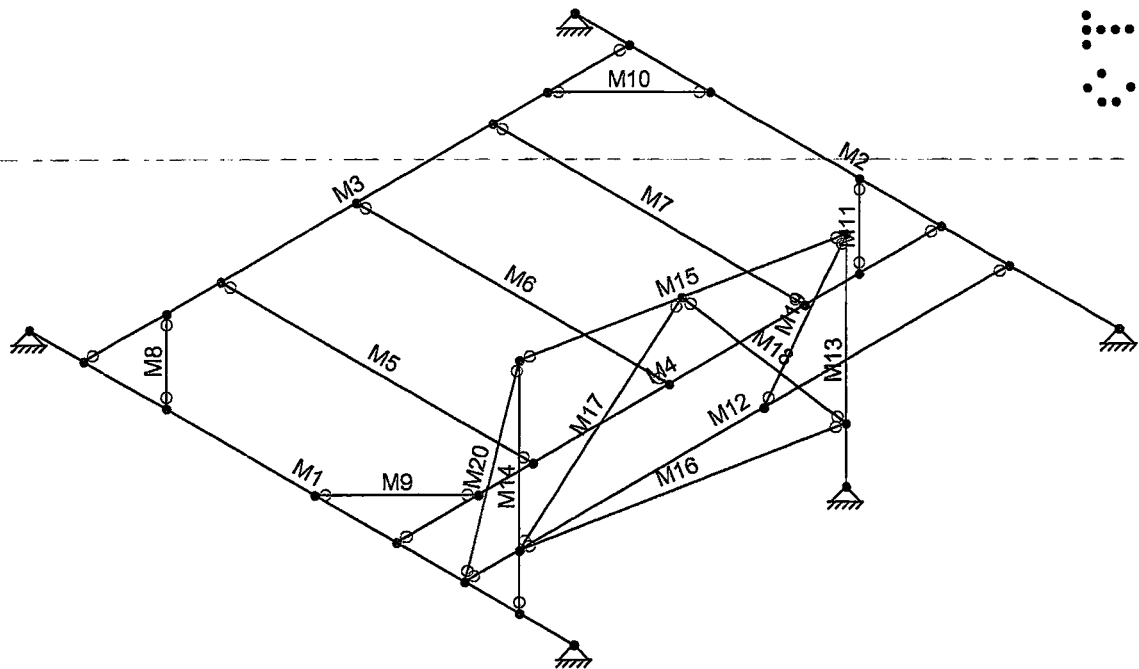
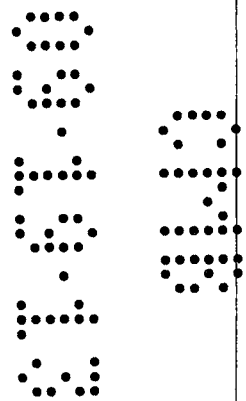
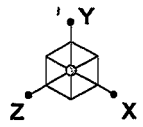
6788-12-2458

AT&T Site EFOB
SHELTER FRAME NODES

SK - 2

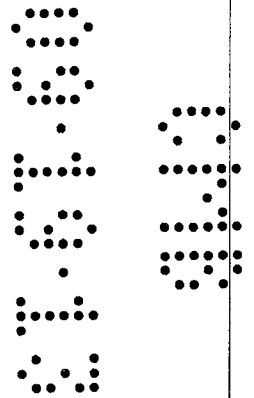
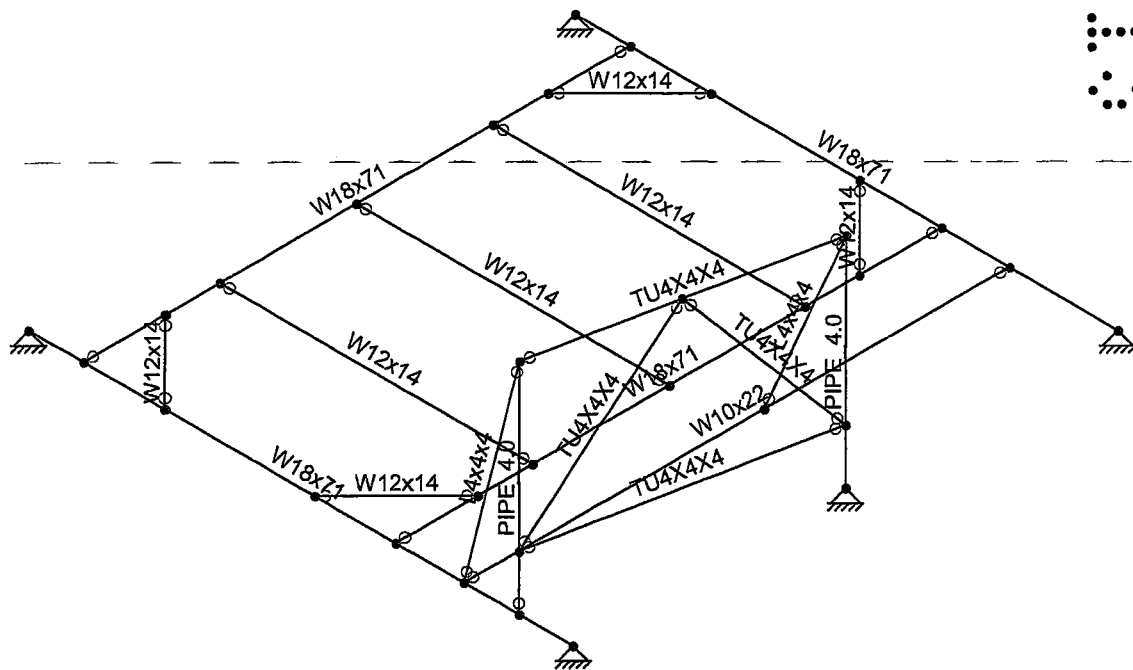
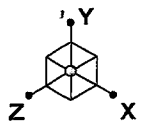
June 28, 2013 at 5:02 PM

EFOB Shelter.r3d



Solution: Envelope

AMEC	AT&T Site EFOB SHELTER FRAME MEMBER LABELS	SK - 3
ZL/AA		June 28, 2013 at 5:02 PM
6788-12-2458		EFOB Shelter.r3d



Solution: Envelope

AMEC

ZL/AA

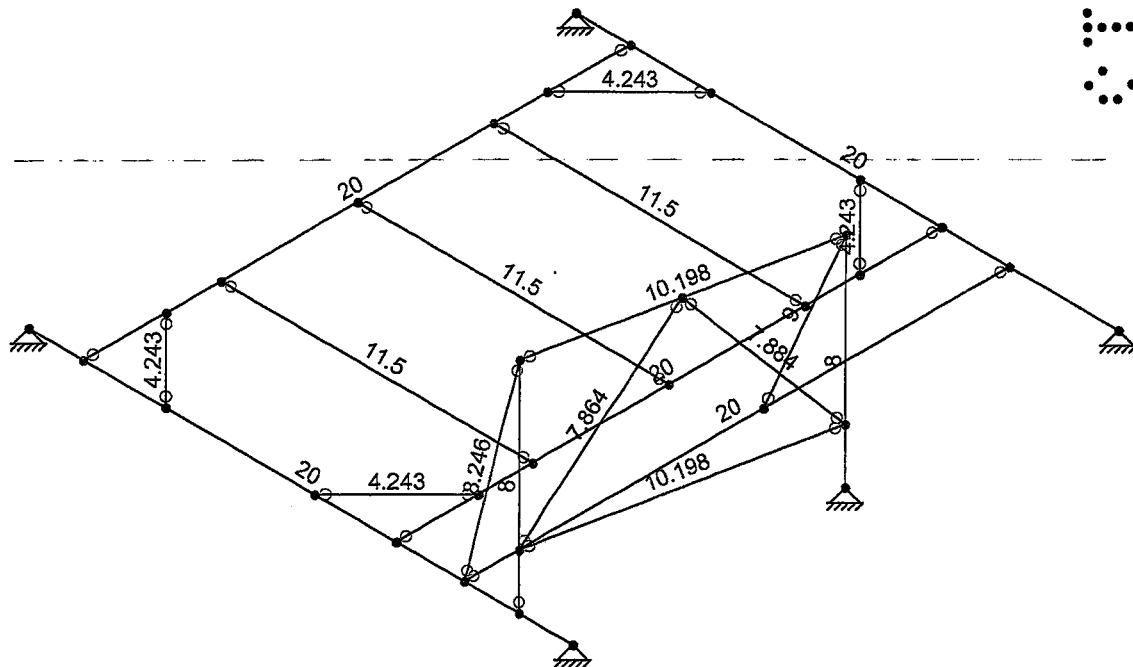
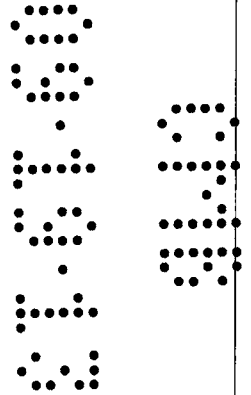
6788-12-2458

AT&T Site EFOB
SHELTER FRAME MEMBERS

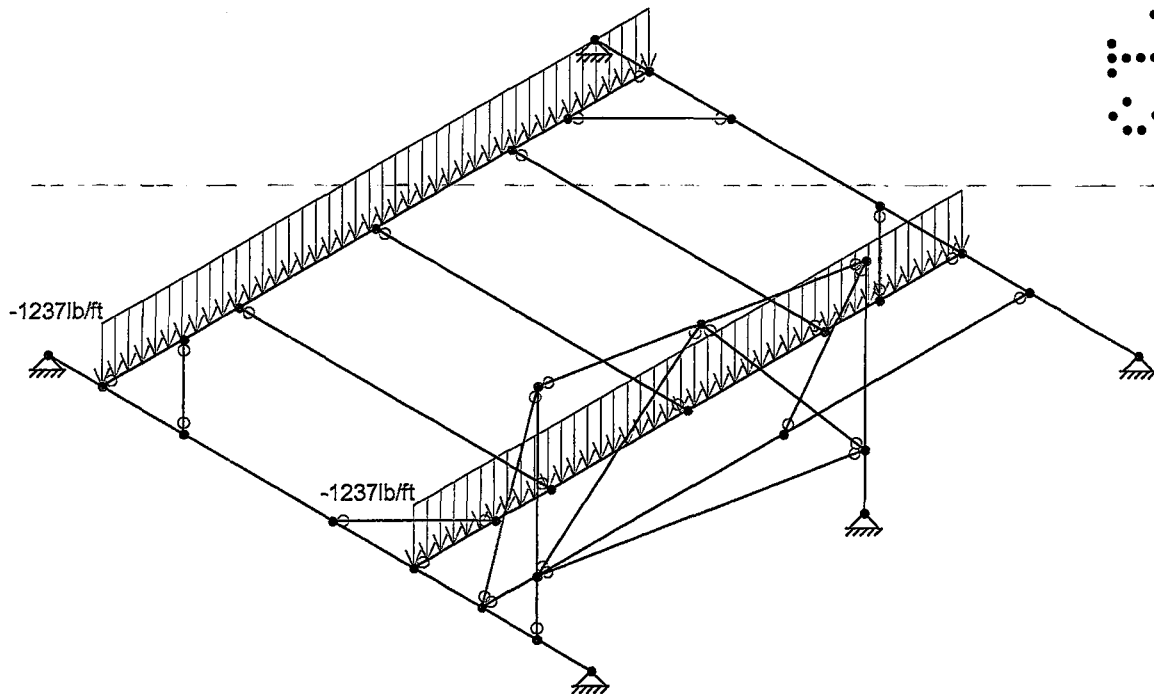
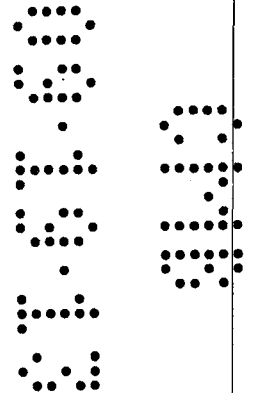
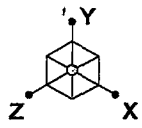
SK - 4

June 28, 2013 at 5:02 PM

EFOB Shelter.r3d



AMEC	AT&T Site EFOB SHELTER FRAME MEMBER LENGTHS	SK - 5
ZL/AA		June 28, 2013 at 5:03 PM
6788-12-2458		EFOB Shelter.r3d



Loads: BLC 1, Dead Load
Solution: Envelope

AMEC

ZL/AA

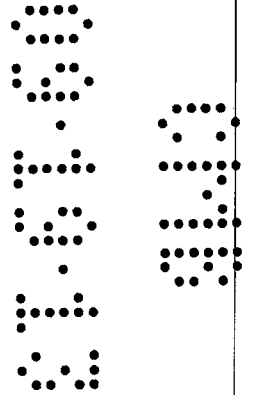
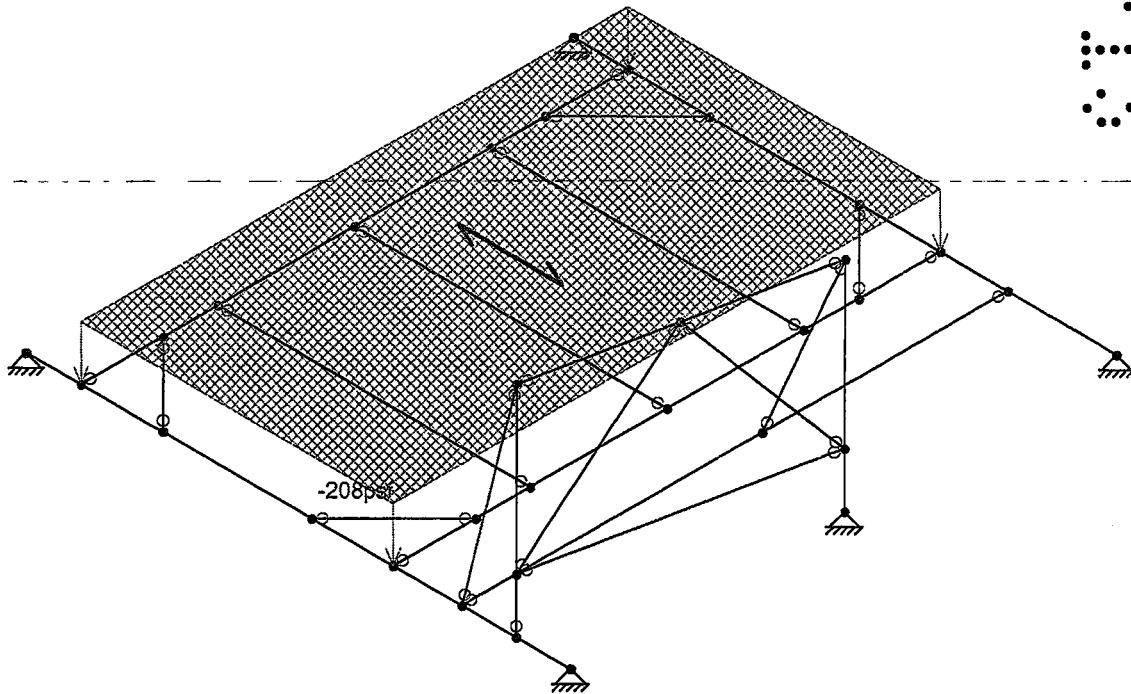
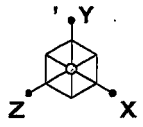
6788-12-2458

AT&T Site EFOB
SHELTER DL

SK - 6

June 28, 2013 at 5:03 PM

EFOB Shelter.r3d



Loads: BLC 2, Live Load
Solution: Envelope

AMEC

ZL/AA

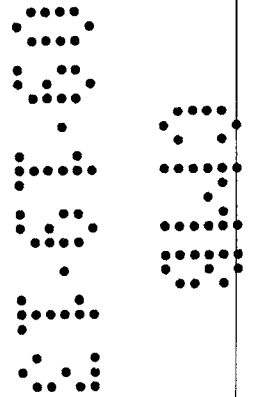
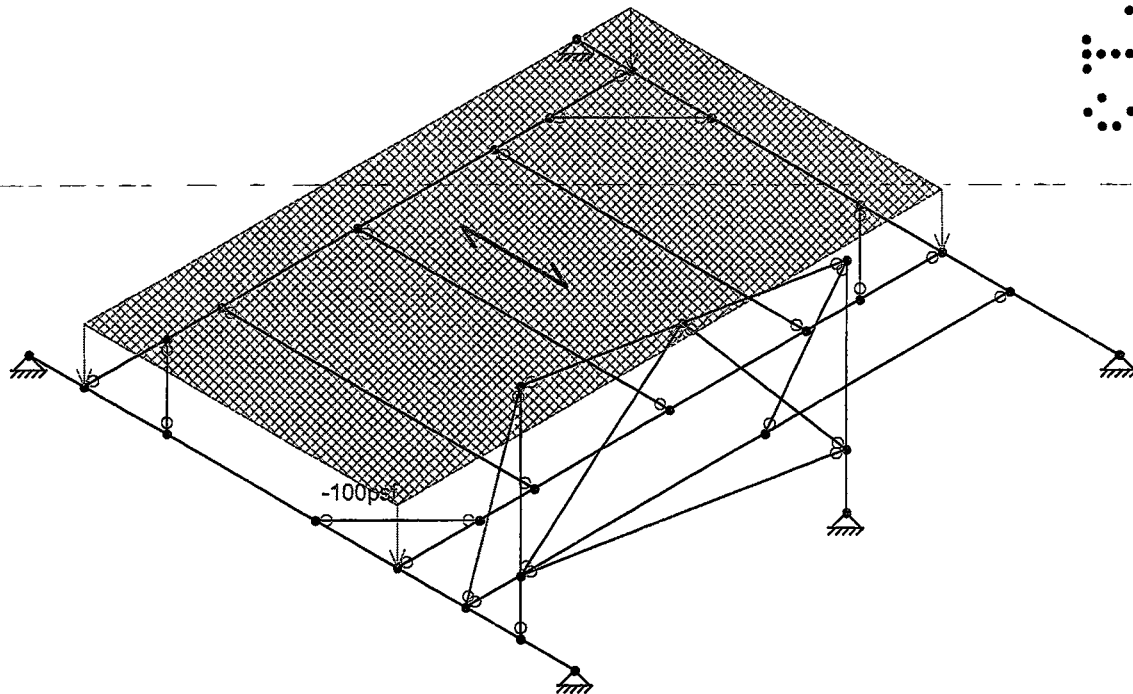
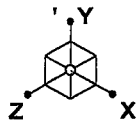
6788-12-2458

AT&T Site EFOB
SHELTER LL

SK - 7

June 28, 2013 at 5:04 PM

EFOB Shelter.r3d



Loads: BLC 7, Lr
Solution: Envelope

AMEC

ZL/AA

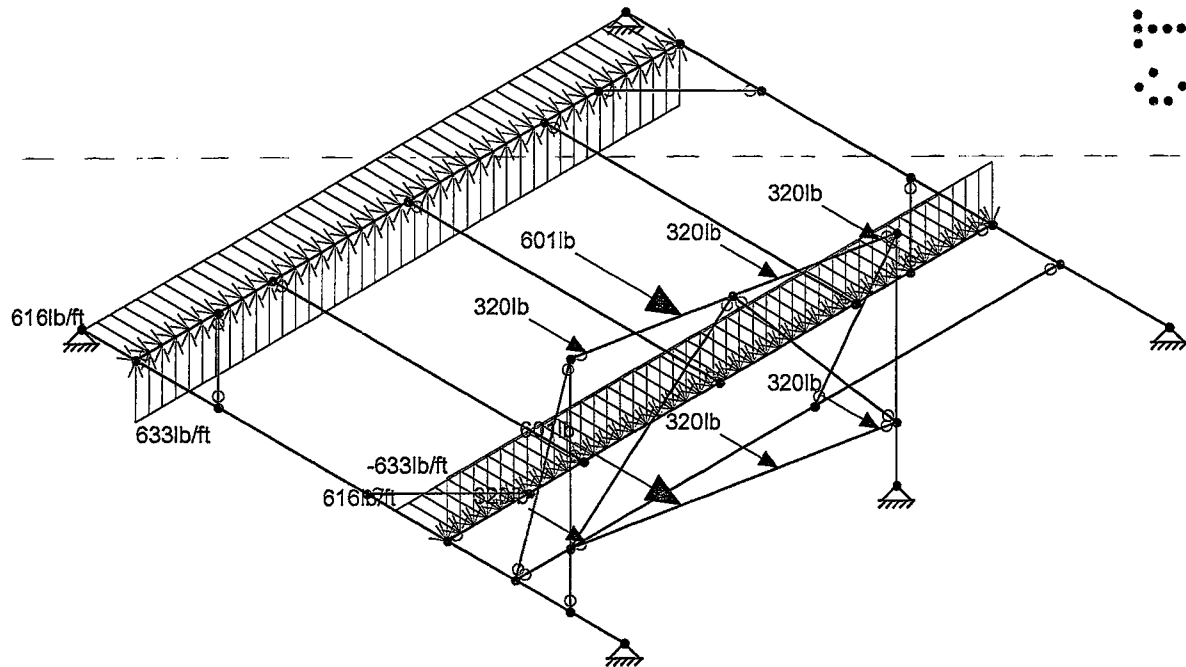
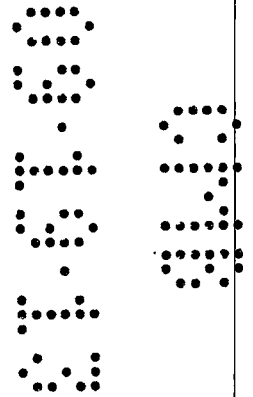
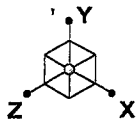
6788-12-2458

AT&T Site EFOB
SHELTER ROOF LL

SK - 8

June 28, 2013 at 5:04 PM

EFOB Shelter.r3d



Loads: BLC 3, +WLX
Solution: Envelope

AMEC

ZL/AA

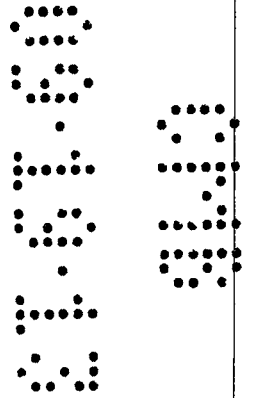
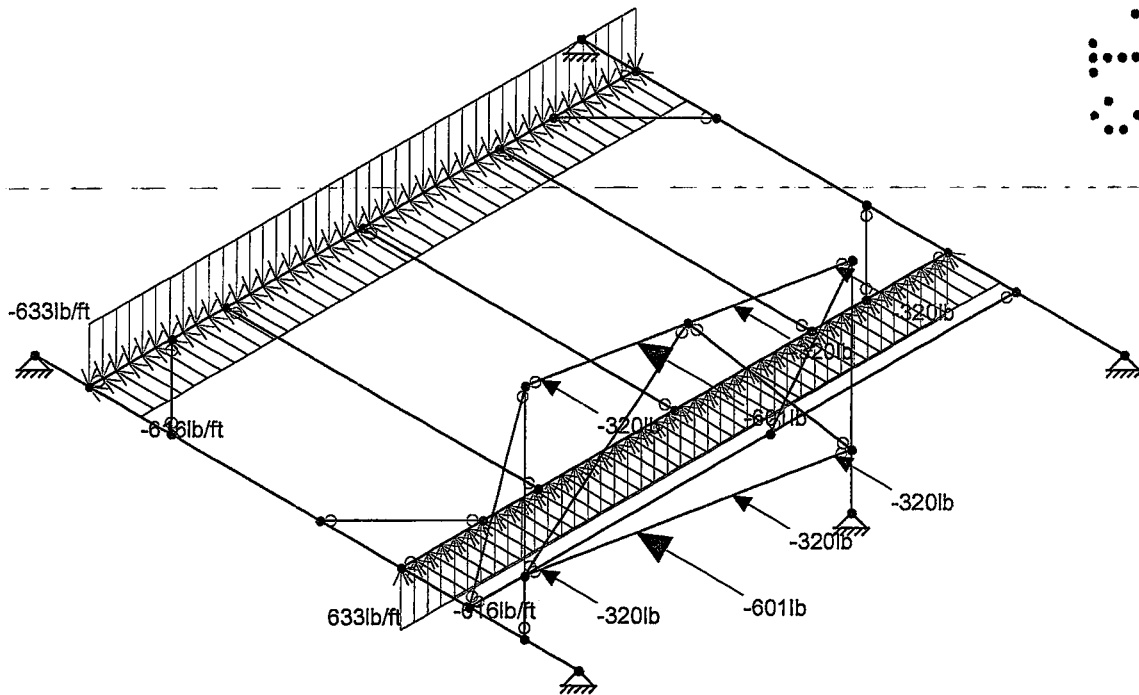
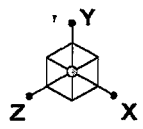
6788-12-2458

AT&T Site EFOB
SHELTER +WLX

SK - 9

June 28, 2013 at 5:04 PM

EFOB Shelter.r3d



Loads: BLC 4, -WLX
Solution: Envelope

AMEC

ZL/AA

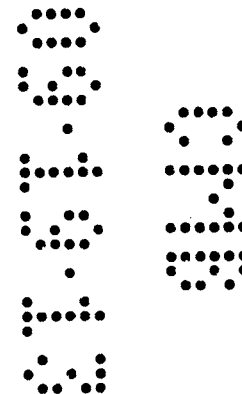
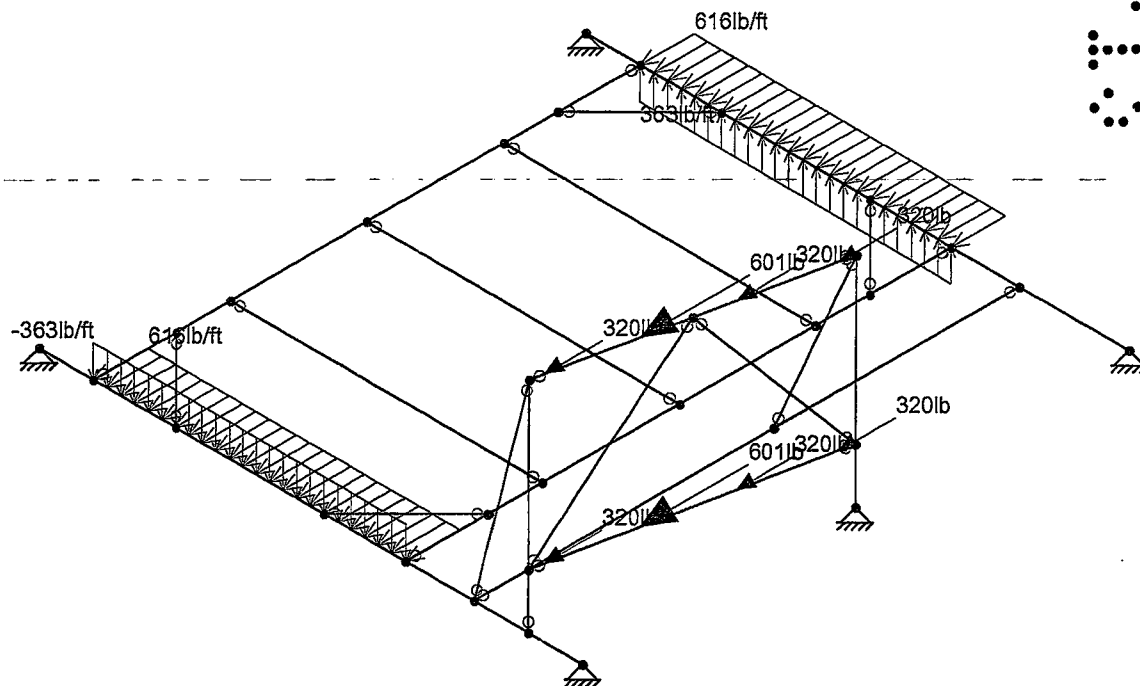
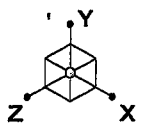
6788-12-2458

AT&T Site EFOB
SHELTER -WLX

SK - 10

June 28, 2013 at 5:04 PM

EFOB Shelter.r3d



Loads: BLC 5, +WLZ
Solution: Envelope

AMEC

ZL/AA

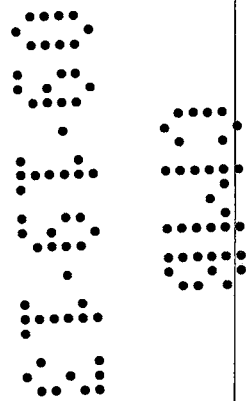
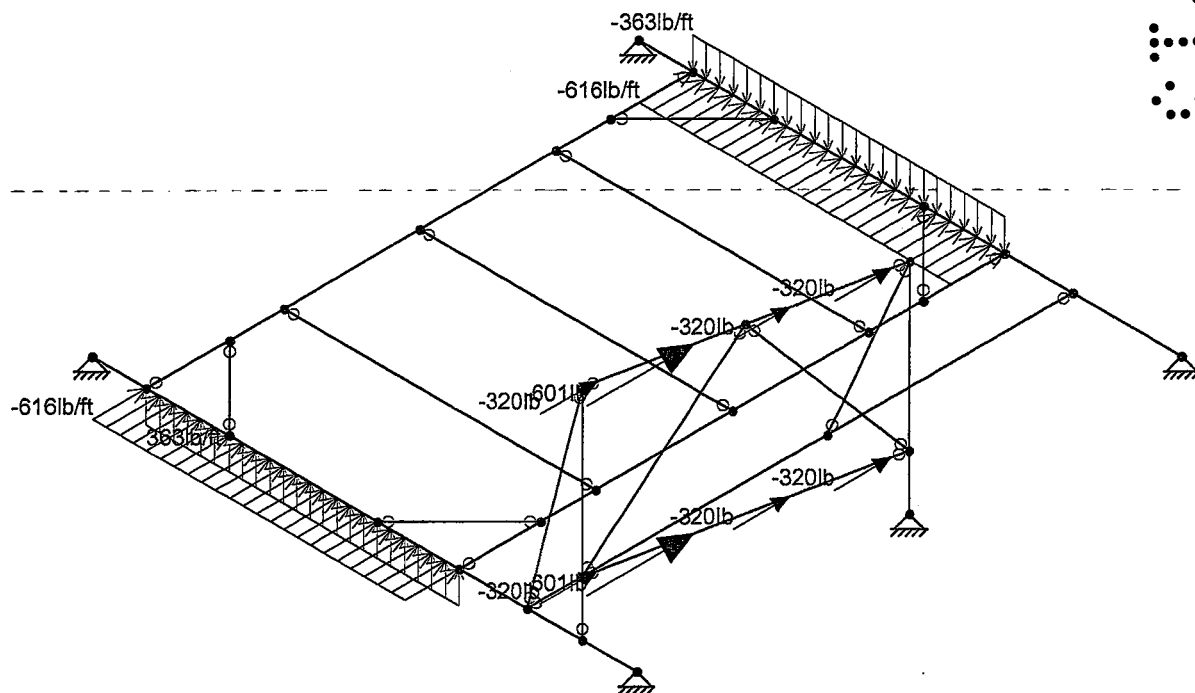
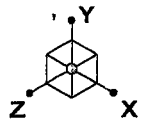
6788-12-2458

AT&T Site EFOB
SHELTER +WLZ

SK - 11

June 28, 2013 at 5:05 PM

EFOB Shelter.r3d



Loads: BLC 6, -WLZ
Solution: Envelope

AMEC

ZL/AA

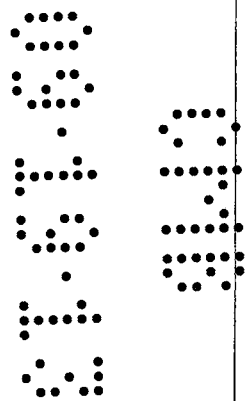
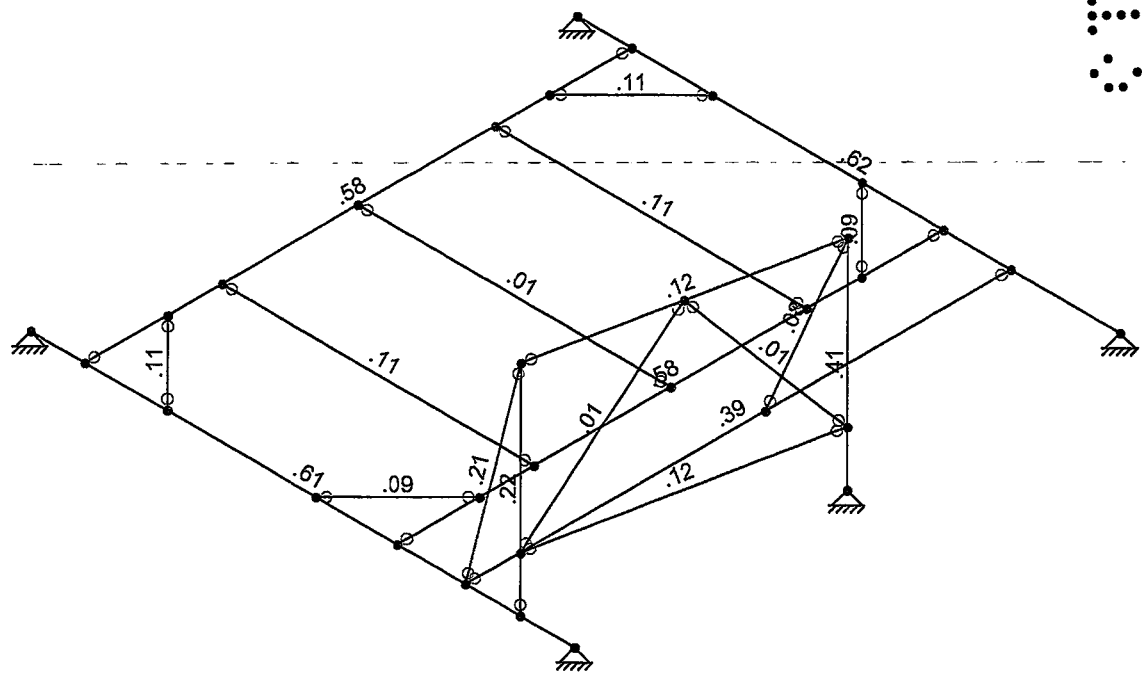
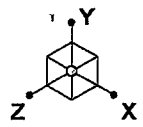
6788-12-2458

AT&T Site EFOB
SHELTER -WLZ

SK - 12

June 28, 2013 at 5:05 PM

EFOB Shelter.r3d

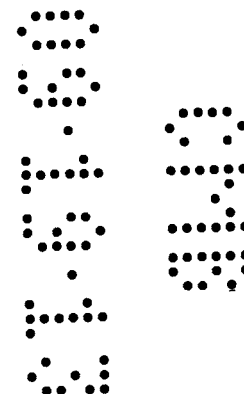


Member Code Checks Displayed
Solution: Envelope

AMEC	AT&T Site EFOB SHELTER FRAME UNITY CHECK	SK - 13
ZL/AA		June 28, 2013 at 5:05 PM
6788-12-2458		EFOB Shelter.r3d

Global

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation?	Yes
Include Warping?	Yes
Trans Load Btwn Intersecting Wood Wall?	Yes
Increase Nailing Capacity for Wind?	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	.12
P-Delta Analysis Tolerance	0.50%
Include P-Delta for Walls?	Yes
Automaticly Iterate Stiffness for Walls?	No
Maximum Iteration Number for Wall Stiffness	3
Gravity Acceleration (in/sec^2)	386.4
Wall Mesh Size (in)	12
Eigensolution Convergence Tol. (1.E-)	4
Vertical Axis	Y
Global Member Orientation Plane	XZ
Static Solver	Sparse Accelerated
Dynamic Solver	Accelerated Solver

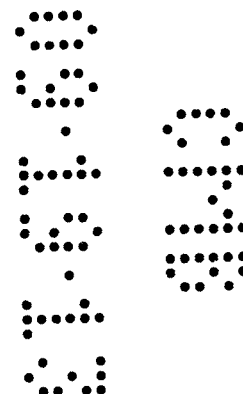


Hot Rolled Steel Code	AISC 13th(360-05): LRFD
Adjust Stiffness?	Yes(Iterative)
RISAC Connection Code	AISC 13th(360-05): LRFD
Cold Formed Steel Code	AISI NAS-01: ASD
Wood Code	AF&PA NDS-05/08: ASD
Wood Temperature	< 100F
Concrete Code	ACI 318-05
Masonry Code	ACI 530-05: ASD
Aluminum Code	AA ADM1-05: ASD - Building

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	PCA Load Contour
Parme Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections?	Yes
Bad Framing Warnings?	No
Unused Force Warnings?	Yes
Min 1 Bar Diam. Spacing?	No
Concrete Rebar Set	REBAR SET ASTMA615
Min % Steel for Column	1
Max % Steel for Column	8

Global, Continued

Seismic Code	UBC 1997
Seismic Base Elevation (in)	Not Entered
Add Base Weight?	No
Ct Z	.035
Ct X	.035
T Z (sec)	Not Entered
T X (sec)	Not Entered
R Z	8.5
R X	8.5
Ca	.36
Cv	.54
Nv	1
Occupancy Category	4
Seismic Zone	3
Seismic Detailing Code	ASCE 7-05
Om Z	1
Om X	1
Rho Z	1
Rho X	1



Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in ²]	I _{yy} [in ⁴]	I _{zz} [in ⁴]	J [in ⁴]
1	Column 1	TU4X4X6	Column	SquareTube	A36 Gr.36	Typical	5.08	10.7	10.7	18.4
2	Column 2	TU6X6X8	Column	SquareTube	A500 Gr.46	Typical	10.4	50.5	50.5	85.6
3	Column 3	W8x28	Column	WF 8	A992	Typical	8.25	21.7	98	.537
4	Column 4	PIPE 4.0	Column	Pipe	A36 Gr.36	Typical	2.96	6.82	6.82	13.6
5	Beam 1	W18x71	Beam	Wide Flange	A992	Typical	20.9	60.3	1170	3.49
6	Beam 2	W12x14	Beam	Wide Flange	A992	Typical	4.16	2.36	88.6	.07
7	Beam 3	W12x50	Beam	Wide Flange	A992	Typical	14.6	56.3	391	1.71
8	Beam 4	C8x11.5	Beam	Channel	A36 Gr.36	Typical	3.37	1.31	32.5	.13
9	Beam 5	MC12x10.6	Beam	Channel	A36 Gr.36	Typical	3.1	.378	55.3	.06
10	Beam 6	L4x4x4	Beam	Single Angle	A36 Gr.36	Typical	1.93	3	3	.044
11	Girt 1	L4x4x4	Beam	Single Angle	A36 Gr.36	Typical	1.93	3	3	.044
12	Girt 2	TU4X4X4	Beam	Tube	A500 Gr.46	Typical	3.59	8.22	8.22	13.5
13	Girt 3	TU4X4X6	Beam	Tube	A500 Gr.46	Typical	5.08	10.7	10.7	18.4
14	Brace 1	TU8X8X4	VBrace	Tube	A500 Gr.46	Typical	7.59	75.1	75.1	118
15	Brace 2	L4x4x4	VBrace	Single Angle	A36 Gr.36	Typical	1.93	3	3	.044
16	Brace 3	LL3x3x4x6	VBrace	Double Angle	A36 Gr.36	Typical	2.88	6.65	2.46	.063

Hot Rolled Steel Design Parameters

	Label	Shape	Length[in]	L _{byy} [in]	L _{bzz} [in]	L _{comp top} [in]	L _{comp bot} [in]	L-torqu...	K _{yy}	K _{zz}	C _b	Function
1	M1	Beam 1	240									Lateral
2	M2	Beam 1	240									Lateral
3	M3	Beam 1	240									Lateral
4	M4	Beam 1	240									Lateral
5	M5	Beam 2	138									Lateral
6	M6	Beam 2	138									Lateral
7	M7	Beam 2	138									Lateral
8	M8	Beam 2	50.912									Lateral
9	M9	Beam 2	50.912									Lateral
10	M10	Beam 2	50.912									Lateral
11	M11	Beam 2	50.912									Lateral
12	M12	W10x22	240									Lateral
13	M13	Column 4	96									Lateral
14	M14	Column 4	96									Lateral

Hot Rolled Steel Design Parameters (Continued)

	Label	Shape	Length[in]	Lbyy[in]	Lbzz[in]	Lcomp top[in]	Lcomp bot[in]	L-torqu...	Kyy	Kzz	Cb	Function
15	M15	Girt 2	122.376									Lateral
16	M16	Girt 2	122.376									Lateral
17	M17	Girt 2	94.366									Lateral
18	M18	Girt 2	94.61									Lateral
19	M19	L4x4x4	108									Lateral
20	M20	L4x4x4	98.955									Lateral

Joint Loads and Enforced Displacements

Joint Label	L.D.M	Direction	Magnitude[(lb,lb-in),(in,rad),(lb,lb-in)]
No Data to Print ...			

Member Distributed Loads (BLC 1 : Dead Load)

	Member Label	Direction	Start Magnitude[lb/ft.F]	End Magnitude[lb/ft.F]	Start Location[in.%]	End Location[in.%]
1	M3	Y	-1237	-1237	0	0
2	M4	Y	-1237	-1237	0	0

Member Distributed Loads (BLC 2 : Live Load)

	Member Label	Direction	Start Magnitude[lb/ft.F]	End Magnitude[lb/ft.F]	Start Location[in.%]	End Location[in.%]
1	M1	Y	0	0	0	0

Member Distributed Loads (BLC 3 : +WLX)

	Member Label	Direction	Start Magnitude[lb/ft.F]	End Magnitude[lb/ft.F]	Start Location[in.%]	End Location[in.%]
1	M4	Y	-633	-633	0	0
2	M3	Y	633	633	0	0
3	M3	X	616	616	0	0
4	M4	X	616	616	0	0

Member Distributed Loads (BLC 4 : -WLX)

	Member Label	Direction	Start Magnitude[lb/ft.F]	End Magnitude[lb/ft.F]	Start Location[in.%]	End Location[in.%]
1	M4	X	-616	-616	0	0
2	M3	X	-616	-616	0	0
3	M4	Y	633	633	0	0
4	M3	Y	-633	-633	0	0

Member Distributed Loads (BLC 5 : +WLZ)

	Member Label	Direction	Start Magnitude[lb/ft.F]	End Magnitude[lb/ft.F]	Start Location[in.%]	End Location[in.%]
1	M1	Y	-363	-363	24	162
2	M2	Y	363	363	24	162
3	M2	Z	616	616	24	162
4	M1	Z	616	616	24	162

Member Distributed Loads (BLC 6 : -WLZ)

	Member Label	Direction	Start Magnitude[lb/ft.F]	End Magnitude[lb/ft.F]	Start Location[in.%]	End Location[in.%]
1	M1	Z	-616	-616	24	162
2	M2	Z	-616	-616	24	162
3	M2	Y	-363	-363	24	162
4	M1	Y	363	363	24	162

Member Distributed Loads (BLC 8 : BLC 2 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft.F]	End Magnitude[lb/ft.F]	Start Location[in.%]	End Location[in.%]
1	M3	Y	-199.333	-199.333	1.421e-14	12
2	M3	Y	-199.333	-99.667	12	24

Member Distributed Loads (BLC 8 : BLC 2 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F]	End Magnitude[lb/ft.F]	Start Location[in.%]	End Location[in.%]
3	M3	Y	-99.667	-598	24	36
4	M3	Y	-598	-1196	36	48
5	M3	Y	-1196	-1196	48	60
6	M3	Y	-1196	-1196	60	72
7	M3	Y	-1196	-1196	72	84
8	M3	Y	-1196	-1196	84	96
9	M3	Y	-1196	-1196	96	108
10	M3	Y	-1196	-1196	108	120
11	M3	Y	-1196	-1196	120	132
12	M3	Y	-1196	-1196	132	144
13	M3	Y	-1196	-1196	144	156
14	M3	Y	-1196	-1196	156	168
15	M3	Y	-1196	-1196	168	180
16	M3	Y	-1196	-1196	180	192
17	M3	Y	-1196	-598	192	204
18	M3	Y	-598	-99.667	204	216
19	M3	Y	-99.667	-199.333	216	228
20	M3	Y	-199.333	-199.333	228	240
21	M4	Y	-199.333	-199.333	1.421e-14	12
22	M4	Y	-199.333	-99.667	12	24
23	M4	Y	-99.667	-598	24	36
24	M4	Y	-598	-1196	36	48
25	M4	Y	-1196	-1196	48	60
26	M4	Y	-1196	-1196	60	72
27	M4	Y	-1196	-1196	72	84
28	M4	Y	-1196	-1196	84	96
29	M4	Y	-1196	-1196	96	108
30	M4	Y	-1196	-1196	108	120
31	M4	Y	-1196	-1196	120	132
32	M4	Y	-1196	-1196	132	144
33	M4	Y	-1196	-1196	144	156
34	M4	Y	-1196	-1196	156	168
35	M4	Y	-1196	-1196	168	180
36	M4	Y	-1196	-1196	180	192
37	M4	Y	-1196	-598	192	204
38	M4	Y	-598	-99.667	204	216
39	M4	Y	-99.667	-199.333	216	228
40	M4	Y	-199.333	-199.333	228	240
41	M8	Y	-693.004	-693.004	1.776e-15	16.971
42	M8	Y	-693.004	-763.479	16.971	33.941
43	M8	Y	-763.479	-904.429	33.941	50.912
44	M9	Y	-693.004	-693.004	1.776e-15	16.971
45	M9	Y	-693.004	-763.479	16.971	33.941
46	M9	Y	-763.479	-904.429	33.941	50.912
47	M10	Y	-904.429	-763.479	1.776e-15	16.971
48	M10	Y	-763.479	-693.004	16.971	33.941
49	M10	Y	-693.004	-693.004	33.941	50.912
50	M11	Y	-693.004	-693.004	1.776e-15	16.971
51	M11	Y	-693.004	-763.479	16.971	33.941
52	M11	Y	-763.479	-904.429	33.941	50.912

Member Distributed Loads (BLC 9 : BLC 7 Transient Area Loads)

	Member Label	Direction	Start Magnitude[lb/ft.F]	End Magnitude[lb/ft.F]	Start Location[in.%]	End Location[in.%]
1	M3	Y	-95.833	-95.833	1.421e-14	12
2	M3	Y	-95.833	-47.917	12	24
3	M3	Y	-47.917	-287.5	24	36
4	M3	Y	-287.5	-575	36	48

Member Distributed Loads (BLC 9 : BLC 7 Transient Area Loads) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft.F]	End Magnitude[lb/ft.F]	Start Location[in.%]	End Location[in.%]
5	M3	Y	-575	-575	48	60
6	M3	Y	-575	-575	60	72
7	M3	Y	-575	-575	72	84
8	M3	Y	-575	-575	84	96
9	M3	Y	-575	-575	96	108
10	M3	Y	-575	-575	108	120
11	M3	Y	-575	-575	120	132
12	M3	Y	-575	-575	132	144
13	M3	Y	-575	-575	144	156
14	M3	Y	-575	-575	156	168
15	M3	Y	-575	-575	168	180
16	M3	Y	-575	-575	180	192
17	M3	Y	-575	-287.5	192	204
18	M3	Y	-287.5	-47.917	204	216
19	M3	Y	-47.917	-95.833	216	228
20	M3	Y	-95.833	-95.833	228	240
21	M4	Y	-95.833	-95.833	1.421e-14	12
22	M4	Y	-95.833	-47.917	12	24
23	M4	Y	-47.917	-287.5	24	36
24	M4	Y	-287.5	-575	36	48
25	M4	Y	-575	-575	48	60
26	M4	Y	-575	-575	60	72
27	M4	Y	-575	-575	72	84
28	M4	Y	-575	-575	84	96
29	M4	Y	-575	-575	96	108
30	M4	Y	-575	-575	108	120
31	M4	Y	-575	-575	120	132
32	M4	Y	-575	-575	132	144
33	M4	Y	-575	-575	144	156
34	M4	Y	-575	-575	156	168
35	M4	Y	-575	-575	168	180
36	M4	Y	-575	-575	180	192
37	M4	Y	-575	-287.5	192	204
38	M4	Y	-287.5	-47.917	204	216
39	M4	Y	-47.917	-95.833	216	228
40	M4	Y	-95.833	-95.833	228	240
41	M8	Y	-333.175	-333.175	1.776e-15	16.971
42	M8	Y	-333.175	-367.057	16.971	33.941
43	M8	Y	-367.057	-434.822	33.941	50.912
44	M9	Y	-333.175	-333.175	1.776e-15	16.971
45	M9	Y	-333.175	-367.057	16.971	33.941
46	M9	Y	-367.057	-434.822	33.941	50.912
47	M10	Y	-434.822	-367.057	1.776e-15	16.971
48	M10	Y	-367.057	-333.175	16.971	33.941
49	M10	Y	-333.175	-333.175	33.941	50.912
50	M11	Y	-333.175	-333.175	1.776e-15	16.971
51	M11	Y	-333.175	-367.057	16.971	33.941
52	M11	Y	-367.057	-434.822	33.941	50.912

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(P...
1	Dead Load	DL		-1				2	
2	Live Load	LL						1	
3	+WLX	WL+X					8	4	
4	-WLX	WL-X					8	4	
5	+WLZ	WL+Z					8	4	

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...)	Surface(P...
6	-WLZ	WL-Z					8	4	
7	Lr	RLL							1
8	BLC 2 Transient Area...	None						52	
9	BLC 7 Transient Area...	None						52	

Load Combinations

	Description	Sol...	PD...	SR...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...
1	1.4DL	Yes	Y		DL 1.4									
2	1.2DL + 1.6LL + 0.5LR	Yes	Y		DL 1.2	LL 1.6	RLL .5							
3	1.2DL + 1.6LR + 0.5LL	Yes	Y		DL 1.2	RLL 1.6	LL .5							
4	1.2DL + 1.6LR + 0.5WLX	Yes	Y		DL 1.2	RLL 1.6	WL-X .5							
5	1.2DL + 1.6LR - 0.5WLX	Yes	Y		DL 1.2	RLL 1.6	WL-X .5							
6	1.2DL + 1.6LR + 0.5WLZ	Yes	Y		DL 1.2	RLL 1.6	WL-Z .5							
7	1.2DL + 1.6LR - 0.5WLZ	Yes	Y		DL 1.2	RLL 1.6	WL-Z .5							
8	1.2DL + 1.WLX + 1.0LL	Yes	Y		DL 1.2	WL-X 1	LL 1	RLL .5						
9	1.2DL - 1.WLX + 1.0LL	Yes	Y		DL 1.2	WL-X 1	LL 1	RLL .5						
10	1.2DL + 1.WLZ + 1.0LL	Yes	Y		DL 1.2	WL-Z 1	LL 1	RLL .5						
11	1.2DL - 1.WLZ + 1.0LL	Yes	Y		DL 1.2	WL-Z 1	LL 1	RLL .5						
12	0.9DL + 1.WLX	Yes	Y		DL .9	WL-X 1								
13	0.9DL - 1.WLX	Yes	Y		DL .9	WL-X 1								
14	0.9DL + 1.WLZ	Yes	Y		DL .9	WL-Z 1								
15	0.9DL - 1.WLZ	Yes	Y		DL .9	WL-Z 1								
16	1.2DL + 0.75WLX + 0.7...	Yes	Y		DL 1.2	WL-X .75	WL-Z .75	LL 1	RLL .5					
17	1.2DL - 0.75WLX - 0.75...	Yes	Y		DL 1.2	WL-X .75	WL-Z .75	LL 1	RLL .5					
18	1.2DL + 0.75WLX - 0.75...	Yes	Y		DL 1.2	WL-X .75	WL-Z .75	LL 1	RLL .5					
19	1.2DL - 0.75WLX + 0.75...	Yes	Y		DL 1.2	WL-X .75	WL-Z .75	LL 1	RLL .5					
20	0.9DL + 0.75WLX + 0.7...	Yes	Y		DL .9	WL-X .75	WL-Z .75							
21	0.9DL - 0.75WLX - 0.75...	Yes	Y		DL .9	WL-X .75	WL-Z .75							
22	0.9DL + 0.75WLX - 0.75...	Yes	Y		DL .9	WL-X .75	WL-Z .75							
23	0.9DL - 0.75WLX + 0.75...	Yes	Y		DL .9	WL-X .75	WL-Z .75							
24	(SERVICE) DL + LL	Y			DL 1	LL 1								
25	(SERVICE) DL + LL + .6...	Y			DL 1	LL 1	WL-X .6							
26	(SERVICE) DL + LL - .6...	Y			DL 1	LL 1	WL-X .6							
27	(SERVICE) DL + LL + .6...	Y			DL 1	LL 1	WL-Z .6							
28	(SERVICE) DL + LL - .6...	Y			DL 1	LL 1	WL-Z .6							
29	(SERVICE) DL + LL + 0...	Y			DL 1	LL 1	WL-X .45	WL-Z .45						
30	(SERVICE) DL + LL - 0...	Y			DL 1	LL 1	WL-X .45	WL-Z .45						
31	(SERVICE) DL + LL + 0...	Y			DL 1	LL 1	WL-X .45	WL-Z .45						
32	(SERVICE) DL + LL - 0...	Y			DL 1	LL 1	WL-X .45	WL-Z .45						
33	(SERVICE) 0.6DL + .6...	Y			DL .6	WL-X .6								
34	(SERVICE) 0.6DL - .6W...	Y			DL .6	WL-X .6								
35	(SERVICE) 0.6DL + .6...	Y			DL .6	WL-Z .6								
36	(SERVICE) 0.6DL - .6W...	Y			DL .6	WL-Z .6								
37	(SERVICE) 0.6DL + 0.4...	Y			DL .6	WL-X .45	WL-Z .45							
38	(SERVICE) 0.6DL - 0.45...	Y			DL .6	WL-X .45	WL-Z .45							
39	(SERVICE) 0.6DL + 0.4...	Y			DL .6	WL-X .45	WL-Z .45							
40	(SERVICE) 0.6DL - 0.45...	Y			DL .6	WL-X .45	WL-Z .45							
41	(SERVICE) Lr	Y			RLL 1									
42	(SERVICE) + WLX	Y			W... 1									
43	(SERVICE) - WLX	Y			W... 1									
44	(SERVICE) DL + Lr	Y			DL 1	RLL 1								
45	(SERVICE) DL	Y			DL 1									

Envelope Member Section Forces

Member	Sec	Axial[lb]	LC	y Shear[lb]	LC	z Shear...	LC	Torque[lb]	LC	y-y Mo...	LC	z-z Momen...	LC
1	M1	1 max	7908.451	13	47421.291	2	6078.938	22	0	1	0	1	0
2		min	-7911.718	12	10196.749	22	-6096.2	19	0	1	0	1	0
3		2 max	11223.2	23	12040.65	16	8230.494	19	11.745	8	125038...	19	-346533.301
4		min	-11248.194	22	448.74	21	-8231.4	22	-7.899	13	-12549...	22	-1.5691e+6
5		3 max	4280.779	21	9101.521	8	3078.724	12	11.745	8	91022....	22	-458878.082
6		min	-4285.712	20	702.161	13	-3085.3	9	-7.899	13	-90647	19	-2.10035e+6
7		4 max	4406.013	8	-5092.818	21	3319.302	20	.019	22	127874...	15	-444143.314
8		min	-4411.826	9	-29712.844	2	-3325.2	17	-2.757	19	-12800...	10	-1.82132e+6
9		5 max	6428.014	8	-5385.372	21	2725.075	10	0	1	0	1	0
10		min	-6409.839	13	-30827.835	2	-2741.91	11	0	1	0	1	0
11	M2	1 max	7624.89	13	47366.993	2	6100.749	21	0	1	0	1	0
12		min	-7637.069	8	10525.298	20	-6088.2	16	0	1	0	1	0
13		2 max	11066.52	21	12356.716	18	8247.057	16	7.218	13	125828...	16	-344173.681
14		min	-11104.441	16	39.58	23	-8237.7	21	-12.432	8	-12519...	21	-1.56585e+6
15		3 max	4012.613	23	9538.941	8	3089.898	13	7.218	13	90753....	21	-409841.663
16		min	-4018.275	22	169.325	13	-3092.0	8	-12.432	8	-91261...	16	-2.09384e+6
17		4 max	4687.915	12	-5501.253	23	3232.935	23	0	1	130311...	15	-370621.598
18		min	-4697.352	9	-29767.094	2	-3232.0	18	0	1	-13032...	10	-1.81155e+6
19		5 max	5062.585	8	-6465.82	23	2237.601	10	0	1	0	1	0
20		min	-5041.551	13	-30458.933	2	-2236.7	15	0	1	0	1	0
21	M3	1 max	12932.752	19	35192.182	9	4184.382	22	154.677	14	0	1	0
22		min	-12932.364	22	5565.18	12	-4178.2	19	-154.125	11	0	1	0
23		2 max	74.854	8	19000.716	2	6494.173	19	156.584	10	8534.024	22	-251990.125
24		min	-72.183	9	2831.407	12	-6498.4	22	-151.314	15	-8416.4	19	-1.70385e+6
25		3 max	74.854	8	56.977	1	121.023	10	156.584	10	87421....	8	-335823.543
26		min	-72.183	9	-56.584	10	-120.601	15	-151.314	15	-87365...	9	-2.27241e+6
27		4 max	74.854	8	-2831.77	12	6511.393	16	156.584	10	8658.724	16	-251970.14
28		min	-72.183	9	-19000.722	2	-6500.5	21	-151.314	15	-8457.9	21	-1.70385e+6
29		5 max	12944.757	21	-5564.392	12	4183.667	21	160.415	10	0	1	0
30		min	-12956.939	16	-35191.267	9	-4196.4	16	-149.942	15	0	1	0
31	M4	1 max	8745.341	20	35164.798	8	1642.179	12	81.753	15	0	1	0
32		min	-8766.685	17	5576.676	13	-1645.6	9	-90.446	10	0	1	0
33		2 max	691.997	9	19000.725	2	5314.273	21	83.561	11	79806....	15	-252414.257
34		min	-692.979	8	2831.983	13	-5311.3	16	-83.655	10	-79813...	10	-1.70384e+6
35		3 max	691.997	9	56.978	1	1330.82	10	83.561	11	87901....	13	-336275.688
36		min	-692.978	8	-55.286	10	-1330.2	15	-83.655	10	-87845...	8	-2.2724e+6
37		4 max	691.997	9	-2831.927	13	5306.058	22	83.561	11	79837....	10	-252417.535
38		min	-692.978	8	19000.712	2	-5311.55	19	-83.655	10	-79802...	15	-1.70384e+6
39		5 max	8646.388	22	-5576.799	13	1645.597	13	87.152	11	0	1	0
40		min	-8669.011	23	-35164.873	8	-1646.7	8	-83.653	14	0	1	0
41	M5	1 max	5397.446	10	113.952	1	0	1	8.987	8	0	1	0
42		min	-5400.259	15	73.255	12	0	1	-9.047	9	0	1	0
43		2 max	5397.446	10	56.976	1	0	1	8.987	8	0	1	-1895.474
44		min	-5400.259	15	36.628	12	0	1	-9.047	9	0	1	-2948.516
45		3 max	5397.446	10	0	1	0	1	8.987	8	0	1	-2527.299
46		min	-5400.259	15	0	1	0	1	-9.047	9	0	1	-3931.354
47		4 max	5397.446	10	-36.628	13	0	1	8.987	8	0	1	-1895.474
48		min	-5400.259	15	-56.976	1	0	1	-9.047	9	0	1	-2948.516
49		5 max	5397.446	10	-73.255	13	0	1	8.987	8	0	1	0
50		min	-5400.259	15	-113.952	1	0	1	-9.047	9	0	1	0
51	M6	1 max	30.768	12	113.952	1	0	1	.898	15	0	1	0
52		min	-28.242	13	73.255	12	0	1	-.95	10	0	1	0
53		2 max	30.768	12	56.976	1	0	1	.898	15	0	1	-1895.474
54		min	-28.242	13	36.628	12	0	1	-.95	10	0	1	-2948.516
55		3 max	30.768	12	0	1	0	1	.898	15	0	1	-2527.299
56		min	-28.242	13	0	1	0	1	-.95	10	0	1	-3931.354

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear...	LC	Torque[...	LC	y-y Mo...	LC	z-z Momen...	LC
57		4	max	30.768	12	-36.628	13	0	1	.898	15	0	1	-1895.474	12
58			min	-28.242	13	-56.976	1	0	1	-.95	10	0	1	-2948.516	1
59		5	max	30.768	12	-73.255	13	0	1	.898	15	0	1	0	1
60			min	-28.242	13	-113.952	1	0	1	-.95	10	0	1	0	1
61	M7	1	max	5397.878	15	113.952	1	0	1	8.501	9	0	1	0	1
62			min	-5401.998	10	73.255	12	0	1	-8.561	8	0	1	0	1
63		2	max	5397.878	15	56.976	1	0	1	8.501	9	0	1	-1895.474	12
64			min	-5401.998	10	36.628	12	0	1	-8.561	8	0	1	-2948.516	1
65		3	max	5397.878	15	0	1	0	1	8.501	9	0	1	-2527.299	12
66			min	-5401.998	10	0	1	0	1	-8.561	8	0	1	-3931.354	1
67		4	max	5397.878	15	-36.628	13	0	1	8.501	9	0	1	-1895.474	12
68			min	-5401.998	10	-56.976	1	0	1	-8.561	8	0	1	-2948.516	1
69		5	max	5397.878	15	-73.255	13	0	1	8.501	9	0	1	0	1
70			min	-5401.998	10	-113.952	1	0	1	-8.561	8	0	1	0	1
71	M8	1	max	18371.372	22	2833.265	2	0	1	16.61	8	0	1	0	1
72			min	-18363.253	19	27.026	20	0	1	-11.17	13	0	1	0	1
73		2	max	18371.372	22	1462.489	2	0	1	16.61	8	0	1	-257.985	20
74			min	-18363.253	19	13.513	20	0	1	-11.17	13	0	1	-27338.014	2
75		3	max	18371.372	22	68.784	2	0	1	16.61	8	0	1	-343.98	20
76			min	-18363.253	19	0	1	0	1	-11.17	13	0	1	-37164.041	2
77		4	max	18371.372	22	-13.513	21	0	1	16.61	8	0	1	-257.985	20
78			min	-18363.253	19	-1428.097	2	0	1	-11.17	13	0	1	-28651.237	2
79		5	max	18371.372	22	-27.026	21	0	1	16.61	8	0	1	0	1
80			min	-18363.253	19	-3108.403	2	0	1	-11.17	13	0	1	0	1
81	M9	1	max	13056.139	17	2833.265	2	0	1	18.503	8	0	1	0	1
82			min	-13042.51	20	27.026	23	0	1	-9.179	13	0	1	0	1
83		2	max	13056.139	17	1462.489	2	0	1	18.503	8	0	1	-257.985	23
84			min	-13042.51	20	13.513	23	0	1	-9.179	13	0	1	-27338.014	2
85		3	max	13056.139	17	68.784	2	0	1	18.503	8	0	1	-343.98	23
86			min	-13042.51	20	0	1	0	1	-9.179	13	0	1	-37164.041	2
87		4	max	13056.139	17	-13.513	22	0	1	18.503	8	0	1	-257.985	23
88			min	-13042.51	20	-1428.097	2	0	1	-9.179	13	0	1	-28651.237	2
89		5	max	13056.139	17	-27.026	22	0	1	18.503	8	0	1	0	1
90			min	-13042.51	20	-3108.403	2	0	1	-9.179	13	0	1	0	1
91	M10	1	max	18406.68	16	3108.403	2	0	1	10.207	13	0	1	0	1
92			min	-18379.997	21	27.026	23	0	1	-17.582	8	0	1	0	1
93		2	max	18406.68	16	1428.097	2	0	1	10.207	13	0	1	-257.985	23
94			min	-18379.997	21	13.513	23	0	1	-17.582	8	0	1	-28651.237	2
95		3	max	18406.68	16	0	1	0	1	10.207	13	0	1	-343.98	23
96			min	-18379.997	21	-68.784	2	0	1	-17.582	8	0	1	-37164.041	2
97		4	max	18406.68	16	-13.513	22	0	1	10.207	13	0	1	-257.985	23
98			min	-18379.997	21	-1462.489	2	0	1	-17.582	8	0	1	-27338.014	2
99		5	max	18406.68	16	-27.026	22	0	1	10.207	13	0	1	0	1
100			min	-18379.997	21	-2833.265	2	0	1	-17.582	8	0	1	0	1
101	M11	1	max	13053.096	23	2833.265	2	0	1	10.207	13	0	1	0	1
102			min	-13039.539	18	27.026	21	0	1	-17.582	8	0	1	0	1
103		2	max	13053.096	23	1462.489	2	0	1	10.207	13	0	1	-257.985	21
104			min	-13039.539	18	13.513	21	0	1	-17.582	8	0	1	-27338.014	2
105		3	max	13053.096	23	68.784	2	0	1	10.207	13	0	1	-343.98	21
106			min	-13039.539	18	0	1	0	1	-17.582	8	0	1	-37164.041	2
107		4	max	13053.096	23	-13.513	20	0	1	10.207	13	0	1	-257.985	21
108			min	-13039.539	18	-1428.097	2	0	1	-17.582	8	0	1	-28651.237	2
109		5	max	13053.096	23	-27.026	20	0	1	10.207	13	0	1	0	1
110			min	-13039.539	18	-3108.403	2	0	1	-17.582	8	0	1	0	1
111	M12	1	max	2374.196	13	853.63	9	295.683	13	8.925	11	0	1	0	1
112			min	-2368.814	8	-398.283	12	-293.186	8	-9.147	10	0	1	0	1
113		2	max	2374.196	13	721.126	9	295.683	13	8.925	11	17740....	13	26878.659	12

Envelope Member Section Forces (Continued)

Member	Sec	Axial[lb]	LC	v Shear[lb]	LC	z Shear...	LC	Torque[lb]	LC	y-y Mo...	LC	z-z Momen...	LC
114		min -2368.814	8	-497.661	12	-293.186	8	-9.147	10	-17591...	8	-47242.214	9
115	3	max 2374.196	13	588.622	9	295.683	13	8.925	11	35481....	13	59719.594	12
116		min -2368.814	8	-600.217	8	-293.186	8	-9.147	10	-35182....	8	-86534.726	9
117	4	max 2530.433	13	630.299	12	358.405	8	7.406	15	21689....	13	34836.841	12
118		min -2542.442	8	-851.88	9	-361.488	13	-7.957	19	-21504....	8	-55087.601	9
119	5	max 2530.433	13	530.921	12	358.405	8	7.406	15	0	1	0	1
120		min -2542.442	8	-984.384	9	-361.488	13	-7.957	19	0	1	0	1
121	M13	1	max 2523.939	18	768.548	22	2114.747	11	0	1	0	1	1
122		min -1735.144	23	-782.826	19	-2102.21	14	0	1	0	1	0	1
123	2	max 2499.766	18	768.548	22	2114.747	11	17.035	17	50753....	11	18787.834	19
124		min -1753.274	23	-782.826	19	-2102.21	14	-14.283	20	-50453....	14	-18445.143	22
125	3	max 1477.878	8	124.236	14	696.564	10	17.035	17	33409....	11	9945.484	23
126		min -1179.051	13	-151.167	11	-692.774	15	-14.283	20	-33351....	10	-10417.093	18
127	4	max 1453.705	8	124.236	14	696.564	10	17.035	17	16798....	11	7901.092	19
128		min -1197.181	13	-151.167	11	-692.774	15	-14.283	20	-16652....	14	-7537.537	22
129	5	max 1429.532	8	124.236	14	696.564	10	17.035	17	1587.909	9	7968.634	9
130		min -1215.311	13	-151.167	11	-692.774	15	-14.283	20	-1328.1...	12	-6661.454	12
131	M14	-1	max 5990.389	-16	483.973	-8	991.485	-11	5670.101	-20	0	1	1
132		min -5427.84	21	-429.418	13	-993.574	10	-5996.1...	17	0	1	0	1
133	2	max 5966.215	16	483.973	8	991.485	11	5670.101	20	23837....	11	18578.939	9
134		min -5445.97	21	-429.418	13	-993.574	10	-5996.1...	17	-23845....	10	-18298.147	12
135	3	max 5074.559	12	414.093	9	336.239	14	11.027	19	15595....	11	8907.725	23
136		min -5034.265	9	-388.399	12	-343.415	11	-0.77	22	-15536....	10	-9221.195	18
137	4	max 5056.429	12	414.093	9	336.239	14	11.027	19	7372.686	15	3156.999	14
138		min -5058.439	9	-388.399	12	-343.415	11	-0.77	22	-7494.6...	10	-3855.527	11
139	5	max 5038.299	12	414.093	9	336.239	14	11.027	19	1958.704	20	9796.633	20
140		min -5082.612	9	-388.399	12	-343.415	11	-0.77	22	-2270.1...	17	-11340.199	17
141	M15	1	max 426.346	17	36.465	9	849.459	9	11564....	17	0	1	1
142		min -424.919	20	-12.859	12	-845.399	12	-9990.6...	20	0	1	0	1
143	2	max 703.491	11	1.365	13	535.673	9	11564....	17	18271.15	9	35.383	12
144		min -695.719	14	-17.462	8	-531.613	12	-9990.6...	20	-18146....	12	-543.872	9
145	3	max 1327.727	14	54.499	8	58.268	8	8125.031	9	19394....	9	1047.921	8
146		min -1331.207	11	-26.502	13	-56.689	9	-6792.3...	12	-19490....	8	-93.494	13
147	4	max 1013.942	14	17.125	8	372.053	8	8125.031	9	13335....	9	27.276	12
148		min -1017.421	11	-1.529	13	-370.475	9	-6792.3...	12	-13383....	8	-551.055	9
149	5	max 700.156	14	-13.124	12	685.839	8	8125.031	9	0	1	0	1
150		min -703.635	11	-36.7	9	-684.261	9	-6792.3...	12	0	1	0	1
151	M16	1	max 96.835	13	87.205	1	815.606	9	11900....	9	0	1	1
152		min -248.993	8	-56.061	14	-815.606	12	-10036	12	0	1	0	1
153	2	max 220.025	21	43.603	1	501.82	9	11900....	9	17235.47	9	-1286.343	20
154		min -395.984	10	-28.03	14	-501.82	12	-10036	12	-17235....	12	-2000.978	1
155	3	max 805.979	15	0	1	87.508	8	11900....	9	21280....	9	-1715.124	12
156		min -985.313	10	0	1	-87.508	13	-10036	12	-21280....	12	-2667.97	1
157	4	max 1119.765	15	-28.03	21	401.294	8	11900....	9	14278.09	9	-1286.343	20
158		min -1299.099	10	-43.603	1	-401.294	13	-10036	12	-14278....	12	-2000.978	1
159	5	max 1433.55	15	-56.061	21	715.08	8	11900....	9	0	1	0	1
160		min -1612.885	10	-87.205	1	-715.08	13	-10036	12	0	1	0	1
161	M17	1	max 2194.916	10	43.469	1	0	1	7428.214	20	0	1	1
162		min -1886.704	15	-27.944	14	0	1	-7869.9...	17	0	1	0	1
163	2	max 2172.927	10	21.734	1	0	1	7428.214	20	0	1	-494.433	14
164		min -1903.195	15	-13.972	14	0	1	-7869.9...	17	0	1	-769.118	1
165	3	max 2150.939	10	0	1	0	1	7428.214	20	0	1	-659.244	14
166		min -1919.687	15	0	1	0	1	-7869.9...	17	0	1	-1025.491	1
167	4	max 2128.95	10	-13.972	15	0	1	7428.214	20	0	1	-494.433	14
168		min -1936.178	15	-21.734	1	0	1	-7869.9...	17	0	1	-769.118	1
169	5	max 2106.961	10	-27.944	15	0	1	7428.214	20	0	1	0	1
170		min -1952.67	15	-43.469	1	0	1	-7869.9...	17	0	1	0	1

Envelope Member Section Forces (Continued)

Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear...	LC	Torque[...	LC	y-y Mo...	LC	z-z Momen...	LC	
171	M18	1	max	2120.401	11	43.737	1	0	1	18.768	20	0	1	0	1
172			min	-1950.049	14	28.117	20	0	1	-22.385	17	0	1	0	1
173		2	max	2142.39	11	21.868	1	0	1	18.768	20	0	1	-498.77	20
174			min	-1933.558	14	14.058	20	0	1	-22.385	17	0	1	-775.864	1
175		3	max	2164.379	11	0	1	0	1	18.768	20	0	1	-665.027	20
176			min	-1917.066	14	0	1	0	1	-22.385	17	0	1	-1034.486	1
177		4	max	2186.367	11	-14.058	15	0	1	18.768	20	0	1	-498.77	20
178			min	-1900.574	14	-21.868	1	0	1	-22.385	17	0	1	-775.864	1
179		5	max	2208.356	11	-28.117	15	0	1	18.768	20	0	1	0	1
180			min	-1884.083	14	-43.737	1	0	1	-22.385	17	0	1	0	1
181	M19	1	max	1403.009	13	18.955	1	0	8	16.068	20	0	1	0	1
182			min	-1574.239	8	12.185	20	0	9	-19.165	17	0	1	0	1
183		2	max	1414.83	13	9.477	1	0	8	16.068	20	271.301	1	-174.546	20
184			min	-1558.478	8	6.093	20	0	9	-19.165	17	174.408	23	-271.517	1
185		3	max	1426.652	13	0	1	0	1	16.068	20	361.734	1	-232.729	20
186			min	-1542.716	8	0	1	0	1	-19.165	17	232.543	23	-362.022	1
187		4	max	1438.473	13	-6.093	22	0	8	16.068	20	271.301	1	-174.546	20
188			min	-1526.954	8	-9.477	1	0	9	-19.165	17	174.408	23	-271.517	1
189		5	max	1450.294	13	-12.185	22	0	8	16.068	20	0	1	0	1
190			min	-1511.193	8	-18.955	1	0	9	-19.165	17	0	1	0	1
191	M20	1	max	5271.458	9	9.194	1	0	2	.079	22	0	1	0	1
192			min	-5176.681	12	-5.911	12	0	20	-11.367	19	0	1	0	1
193		2	max	5287.22	9	4.597	1	0	2	.079	22	120.578	1	-77.576	13
194			min	-5164.86	12	2.955	12	0	20	-11.367	19	77.514	20	-120.674	1
195		3	max	5302.981	9	0	1	0	1	.079	22	160.771	1	-103.435	13
196			min	-5153.039	12	0	1	0	1	-11.367	19	103.353	20	-160.899	1
197		4	max	5318.743	9	-2.955	13	0	2	.079	22	120.578	1	-77.576	13
198			min	-5141.218	12	-4.597	1	0	20	-11.367	19	77.514	20	-120.674	1
199		5	max	5334.505	9	-5.911	12	0	2	.079	22	0	1	0	1
200			min	-5129.396	12	-9.194	1	0	20	-11.367	19	0	1	0	1

Envelope Member Section Deflections

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [r...	LC	(n) L/y Ratio	LC	(n) L/z Ratio	LC
1	M1	1	max	0	1	0	1	0	1	-2.336e-3	23	NC	1	NC	1
2			min	0	1	0	1	0	1	-8.108e-3	2	NC	1	NC	1
3		2	max	0	22	-0.086	15	.156	10	-2.336e-3	23	2804.536	15	1534.724	10
4			min	0	23	-.361	2	-.156	15	-8.108e-3	2	665.073	2	1535.18	15
5		3	max	.001	12	-.119	21	.294	10	-2.331e-3	23	2023.023	21	815.481	10
6			min	-.001	13	-.51	2	-.294	15	-8.111e-3	2	470.95	2	815.617	15
7		4	max	0	12	-.088	21	.291	10	-2.33e-3	23	2735.336	21	823.481	10
8			min	0	13	-.375	2	-.291	15	-8.109e-3	2	639.154	2	823.755	15
9		5	max	0	1	0	1	0	1	-2.329e-3	23	NC	1	NC	1
10			min	0	1	0	1	0	1	-8.109e-3	2	NC	1	NC	1
11	M2	1	max	0	1	0	1	0	1	8.271e-3	2	NC	1	NC	1
12			min	0	1	0	1	0	1	2.479e-3	21	NC	1	NC	1
13		2	max	0	16	-.08	23	.156	10	8.271e-3	2	3010.014	23	1534.854	10
14			min	0	21	-.36	2	-.156	15	2.479e-3	21	667.082	2	1535.062	15
15		3	max	0	8	-.106	23	.294	10	8.275e-3	2	2253.622	23	815.319	10
16			min	0	13	-.508	2	-.294	15	2.475e-3	21	472.566	2	815.665	15
17		4	max	0	8	-.078	23	.291	10	8.275e-3	2	3090.388	23	823.672	10
18			min	0	13	-.374	2	-.291	15	2.475e-3	21	641.776	2	823.924	15
19		5	max	0	1	0	1	0	1	8.275e-3	2	NC	1	NC	1
20			min	0	1	0	1	0	1	2.475e-3	21	NC	1	NC	1
21	M3	1	max	.086	15	-.04	15	0	12	6.113e-3	2	NC	15	NC	12
22			min	-.086	10	-.167	2	0	13	1.455e-3	15	NC	2	NC	13
23		2	max	.086	15	-.11	12	.104	16	6.111e-3	2	4317.765	12	2322.814	16

Envelope Member Section Deflections (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [r...	LC	(n) L/v Ratio	LC	(n) L/z Ratio	LC
24			min	-.086	10	-.542	2	-.103	21	1.637e-3	21	638.717	2	2329.518	21
25		3	max	.086	15	-.133	12	.179	8	6.107e-3	2	3085.149	12	1345.513	8
26			min	-.086	10	-.693	2	-.179	13	1.736e-3	13	456.133	2	1344.821	13
27		4	max	.086	15	-.112	12	.103	22	6.103e-3	2	4317.872	12	2328.333	22
28			min	-.086	10	-.542	2	-.103	19	1.574e-3	23	638.717	2	2331.903	19
29		5	max	.086	15	-.04	23	0	8	6.094e-3	2	NC	23	NC	8
30			min	-.086	10	-.166	2	0	13	1.369e-3	23	NC	2	NC	13
31	M4	1	max	.328	15	-.105	21	0	12	-7.361e-4	21	NC	21	NC	12
32			min	-.328	10	-.452	2	0	13	-3.202e-3	2	NC	2	NC	13
33		2	max	.328	15	-.176	13	.099	16	-8.223e-4	21	4310.948	13	2438.116	16
34			min	-.328	10	-.827	2	-.099	21	-3.195e-3	2	638.72	2	2445.403	21
35		3	max	.328	15	-.194	13	.179	8	-8.72e-4	13	3080.456	13	1348.519	8
36			min	-.328	10	-.977	2	-.179	13	-3.194e-3	2	456.135	2	1347.801	13
37		4	max	.328	15	-.168	13	.099	22	-7.892e-4	23	4310.93	13	2443.060	22
38			min	-.328	10	-.826	2	-.099	19	-3.192e-3	2	638.719	2	2447.009	19
39		5	max	.328	15	-.093	23	0	8	-6.715e-4	23	NC	23	NC	8
40			min	-.328	10	-.45	2	0	13	-3.195e-3	2	NC	2	NC	13
41	M5	1	max	-.104	16	-.11	12	-.086	10	-6.948e-4	12	NC	12	NC	10
42			min	-.103	21	-.542	2	-.086	15	-4.601e-3	2	NC	2	NC	15
43		2	max	.102	16	-.171	22	.147	10	-1.071e-3	20	NC	22	NC	10
44			min	-.102	21	-.616	2	-.147	15	-4.6e-3	2	NC	2	NC	15
45		3	max	.101	16	-.201	21	.207	10	-1.263e-3	14	NC	21	NC	10
46			min	-.101	21	-.688	2	-.207	15	-4.598e-3	2	NC	2	NC	15
47		4	max	.1	16	-.192	13	.268	10	-9.524e-4	23	NC	13	NC	10
48			min	-.1	21	-.758	2	-.268	15	-4.597e-3	2	NC	2	NC	15
49		5	max	.099	16	-.176	13	.328	10	-6.161e-4	13	NC	13	NC	10
50			min	-.099	21	-.827	2	-.328	15	-4.596e-3	2	NC	2	NC	15
51	M6	1	max	.179	8	-.133	12	.086	10	1.066e-4	10	NC	12	NC	10
52			min	-.179	13	-.693	2	-.086	15	-1.028e-4	11	NC	2	NC	15
53		2	max	.179	8	-.208	12	.147	10	1.483e-4	10	NC	12	NC	10
54			min	-.179	13	-.766	2	-.147	15	-1.421e-4	15	NC	2	NC	15
55		3	max	.179	8	-.252	13	.207	10	1.901e-4	10	NC	13	NC	10
56			min	-.179	13	-.838	2	-.207	15	-1.815e-4	15	NC	2	NC	15
57		4	max	.179	8	-.223	13	.268	10	2.318e-4	10	NC	13	NC	10
58			min	-.179	13	-.908	2	-.268	15	-2.21e-4	15	NC	2	NC	15
59		5	max	.179	8	-.194	13	.328	10	2.735e-4	10	NC	13	NC	10
60			min	-.179	13	-.977	2	-.328	15	-2.605e-4	15	NC	2	NC	15
61	M7	1	max	.103	22	-.112	12	.086	10	4.605e-3	2	NC	12	NC	10
62			min	-.103	19	-.542	2	-.086	15	6.646e-4	12	NC	2	NC	15
63		2	max	.102	22	-.173	20	.147	10	4.606e-3	2	NC	20	NC	10
64			min	-.102	19	-.616	2	-.147	15	1.035e-3	22	NC	2	NC	15
65		3	max	.101	22	-.198	23	.207	10	4.608e-3	2	NC	23	NC	10
66			min	-.101	19	-.687	2	-.207	15	1.269e-3	15	NC	2	NC	15
67		4	max	.1	22	-.185	13	.268	10	4.609e-3	2	NC	13	NC	10
68			min	-.1	19	-.758	2	-.268	15	1.034e-3	21	NC	2	NC	15
69		5	max	.099	22	-.168	13	.328	10	4.61e-3	2	NC	13	NC	10
70			min	-.099	19	-.826	2	-.328	15	7.237e-4	21	NC	2	NC	15
71	M8	1	max	.11	15	-.086	15	.111	15	8.786e-3	2	NC	15	NC	15
72			min	-.11	10	-.361	2	-.111	10	2.5e-3	21	NC	2	NC	10
73		2	max	.109	15	-.094	15	.087	15	8.71e-3	2	NC	15	NC	15
74			min	-.109	10	-.377	2	-.088	10	2.611e-3	15	NC	2	NC	10
75		3	max	.107	15	-.096	22	.064	15	8.633e-3	2	NC	22	NC	15
76			min	-.108	10	-.39	2	-.064	10	2.481e-3	22	NC	2	NC	10
77		4	max	.106	15	-.094	22	.041	15	8.557e-3	2	NC	22	NC	15
78			min	-.106	10	-.401	2	-.041	10	2.296e-3	22	NC	2	NC	10
79		5	max	.105	15	-.09	12	.03	18	8.48e-3	2	NC	12	NC	18
80			min	-.105	10	-.41	2	-.03	23	2.083e-3	12	NC	2	NC	23

Envelope Member Section Deflections (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [r...]	LC	(n) L/y Ratio	LC	(n) L/z Ratio	LC
81	M9	1	max	.216	15	-.119	21	.216	10	-1.76e-3	23	NC	21	NC	10
82			min	-.216	10	-.51	2	-.216	15	-5.886e-3	2	NC	2	NC	15
83		2	max	.215	15	-.128	21	.225	10	-1.652e-3	13	NC	21	NC	10
84			min	-.215	10	-.56	2	-.225	15	-6.018e-3	2	NC	2	NC	15
85		3	max	.214	15	-.138	21	.234	10	-1.504e-3	13	NC	21	NC	10
86			min	-.214	10	-.607	2	-.233	15	-6.15e-3	2	NC	2	NC	15
87		4	max	.214	15	-.147	21	.242	10	-1.355e-3	13	NC	21	NC	10
88			min	-.214	10	-.652	2	-.242	15	-6.282e-3	2	NC	2	NC	15
89		5	max	.213	15	-.157	21	.251	10	-1.206e-3	13	NC	21	NC	10
90			min	-.213	10	-.695	2	-.251	15	-6.414e-3	2	NC	2	NC	15
91	M10	1	max	.105	15	-.093	12	.03	20	8.474e-3	2	NC	12	NC	20
92			min	-.105	10	-.41	2	-.03	17	2.133e-3	12	NC	2	NC	17
93		2	max	.106	15	-.097	20	.041	10	8.579e-3	2	NC	20	NC	10
94			min	-.106	10	-.401	2	-.041	15	2.333e-3	20	NC	2	NC	15
95		3	max	.107	15	-.1	20	.064	10	8.683e-3	2	NC	20	NC	10
96			min	-.107	10	-.39	2	-.064	15	2.519e-3	20	NC	2	NC	15
97		4	max	.109	15	-.094	14	.088	10	8.787e-3	2	NC	14	NC	10
98			min	-.109	10	-.376	2	-.088	15	2.611e-3	23	NC	2	NC	15
99		5	max	.11	15	-.08	23	.111	10	8.891e-3	2	NC	23	NC	10
100			min	-.11	10	-.36	2	-.111	15	2.497e-3	23	NC	2	NC	15
101	M11	1	max	.216	10	-.106	23	.216	10	6.004e-3	2	NC	23	NC	10
102			min	-.216	15	-.509	2	-.216	15	1.819e-3	22	NC	2	NC	15
103		2	max	.215	10	-.117	23	.225	10	6.108e-3	2	NC	23	NC	10
104			min	-.215	15	-.558	2	-.225	15	1.754e-3	13	NC	2	NC	15
105		3	max	.214	10	-.127	23	.234	10	6.212e-3	2	NC	23	NC	10
106			min	-.214	15	-.606	2	-.233	15	1.588e-3	13	NC	2	NC	15
107		4	max	.214	10	-.138	23	.242	10	6.317e-3	2	NC	23	NC	10
108			min	-.214	15	-.651	2	-.242	15	1.423e-3	13	NC	2	NC	15
109		5	max	.213	10	-.147	13	.251	10	6.421e-3	2	NC	13	NC	10
110			min	-.213	15	-.694	2	-.251	15	1.257e-3	13	NC	2	NC	15
111	M12	1	max	.25	15	-.073	21	0	12	-1.244e-3	21	NC	21	NC	12
112			min	-.25	10	-.312	2	0	13	-5.314e-3	2	NC	2	NC	13
113		2	max	.25	15	-.042	12	.47	8	-1.37e-3	21	3313.282	12	510.961	8
114			min	-.25	10	-.355	9	-.474	13	-5.311e-3	2	2040.667	9	506.633	13
115		3	max	.25	15	-.005	12	.7	8	-1.403e-3	13	2204.409	12	342.874	8
116			min	-.25	10	-.408	9	-.706	13	-5.309e-3	2	1379.588	9	339.966	13
117		4	max	.25	15	-.04	20	.496	8	-1.276e-3	23	3907.353	20	483.806	8
118			min	-.25	10	-.356	17	-.501	13	-5.303e-3	2	2156.183	17	479.696	13
119		5	max	.25	15	-.065	23	0	8	-1.099e-3	23	NC	23	NC	8
120			min	-.25	10	-.311	2	0	13	-5.295e-3	2	NC	2	NC	13
121	M13	1	max	0	1	0	1	0	1	2.252e-3	17	NC	1	NC	1
122			min	0	1	0	1	0	1	-1.622e-3	20	NC	1	NC	1
123		2	max	0	23	.415	9	.26	10	2.252e-3	17	2046.443	9	517.945	10
124			min	0	18	-.211	12	-.263	15	-1.622e-3	20	2007.08	12	516.76	15
125		3	max	0	23	.794	9	.374	10	2.249e-3	17	1659.117	9	427.251	10
126			min	-.001	18	-.386	12	-.38	15	-1.62e-3	20	1633.178	12	426.203	15
127		4	max	.001	13	1.147	9	.366	10	2.246e-3	17	2247.75	9	673.1	10
128			min	-.002	8	-.533	12	-.375	15	-1.618e-3	20	2269.03	12	670.65	15
129		5	max	.002	13	1.473	9	.345	16	2.244e-3	17	NC	9	NC	16
130			min	-.002	8	-.654	12	-.357	21	-1.615e-3	20	NC	12	NC	21
131	M14	1	max	-.038	21	0	13	.137	10	5.33e-3	10	NC	13	NC	10
132			min	-.164	2	0	8	-.137	15	-5.328e-3	15	NC	8	NC	15
133		2	max	-.036	21	.179	19	.259	10	4.729e-3	10	2096.698	19	1107.41	10
134			min	-.164	2	-.013	22	-.256	15	-4.677e-3	15	7327.662	22	1105.948	15
135		3	max	-.034	21	.32	19	.312	10	4.728e-3	10	1779.27	19	917.851	10
136			min	-.164	2	.012	22	-.305	15	-4.677e-3	15	7569.538	22	917.641	15
137		4	max	-.032	21	.443	2	.308	10	4.726e-3	10	216.478	2	1455.916	10

Envelope Member Section Deflections (Continued)

	Member	Sec	x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [r...	LC	(n) L/v Ratio	LC	(n) L/z Ratio	LC
138		min	-.164	2	.072	22	-.297	15	-4.677e-3	15	1333.17	22	1460.569	15
139		5 max	-.031	21	.593	2	.277	10	4.725e-3	10	161.882	2	NC	10
140		min	-.164	2	.14	22	-.263	15	-4.678e-3	15	685.751	22	NC	15
141	M15	1 max	.225	15	-.031	21	-.132	20	-1.553e-3	14	NC	21	NC	20
142		min	-.371	10	-.164	2	-.579	2	-6.145e-3	2	NC	2	NC	2
143		2 max	.225	15	-.025	21	.192	12	4.096e-4	20	NC	21	925.382	12
144		min	-.371	10	-.124	2	-.887	9	-7.769e-3	17	NC	2	924.291	9
145		3 max	.225	15	-.018	21	.443	12	2.433e-3	20	NC	21	683.244	12
146		min	-.37	10	-.082	2	-1.175	9	-1.011e-2	17	NC	2	684.095	9
147		4 max	.225	15	-.009	21	.59	12	3.49e-3	20	NC	21	1005.68	12
148		min	-.371	10	-.042	2	-1.358	9	-1.144e-2	9	NC	2	1004.1	9
149		5 max	.225	15	.002	13	.672	12	4.802e-3	12	NC	13	NC	12
150		min	-.371	10	-.002	8	-1.478	9	-1.309e-2	9	NC	8	NC	9
151	M16	1 max	.246	15	-.036	21	.017	20	-1.815e-4	12	NC	21	NC	20
152		min	-.282	10	-.164	2	-.18	17	-6.626e-3	9	NC	2	NC	17
153		2 max	.245	15	-.037	21	.19	12	1.858e-3	12	NC	21	946.237	12
154		min	-.282	10	-.136	2	-.361	9	-9.044e-3	9	9181.509	2	946.237	9
155		3 max	.245	15	-.032	21	-.289	12	3.897e-3	12	8722.434	21	688.424	12
156		min	-.281	10	-.101	2	-.47	9	-1.146e-2	9	6541.825	2	688.424	9
157		4 max	.245	15	-.019	21	.286	12	5.936e-3	12	NC	21	993.042	12
158		min	-.281	10	-.054	2	-.476	9	-1.388e-2	9	9181.509	2	993.042	9
159		5 max	.245	15	0	23	.213	12	7.975e-3	12	NC	23	NC	12
160		min	-.281	10	0	18	-.414	9	-1.63e-2	9	NC	18	NC	9
161	M17	1 max	.128	15	.16	14	.017	20	2.332e-3	14	NC	14	NC	20
162		min	-.294	10	-.253	11	-.18	17	-6.718e-3	11	NC	11	NC	17
163		2 max	.129	15	.171	14	.118	12	1.54e-3	14	8732.82	14	NC	12
164		min	-.294	10	-.234	11	-.422	9	-5.859e-3	11	NC	11	NC	9
165		3 max	.129	15	.183	14	.226	12	9.049e-4	23	4107.402	14	NC	12
166		min	-.295	10	-.212	11	-.672	9	-5.161e-3	18	NC	11	NC	9
167		4 max	.13	15	.203	10	.334	12	8.948e-4	23	1139.057	10	NC	12
168		min	-.295	10	-.194	15	-.923	9	-5.086e-3	18	NC	15	NC	9
169		5 max	.13	15	.235	10	.442	12	1.286e-3	13	823.994	10	NC	12
170		min	-.296	10	-.185	15	-1.173	9	-5.366e-3	8	NC	15	NC	9
171	M18	1 max	.161	15	.158	15	.442	12	6.132e-3	12	NC	15	NC	12
172		min	-.184	10	-.33	10	-1.173	9	-1.207e-2	9	NC	10	NC	9
173		2 max	.161	15	.163	15	.385	12	6.131e-3	12	NC	15	NC	12
174		min	-.184	10	-.304	10	-.983	9	-1.206e-2	9	NC	10	NC	9
175		3 max	.16	15	.169	15	.328	12	6.129e-3	12	8870.398	15	NC	12
176		min	-.183	10	-.276	10	-.794	9	-1.206e-2	9	NC	10	NC	9
177		4 max	.16	15	.177	15	.27	12	6.127e-3	12	5097.723	15	NC	12
178		min	-.183	10	-.246	10	-.604	9	-1.206e-2	9	NC	10	NC	9
179		5 max	.159	15	.186	15	.213	12	6.126e-3	12	3399.006	15	NC	12
180		min	-.182	10	-.213	10	-.414	9	-1.206e-2	9	NC	10	NC	9
181	M19	1 max	.672	9	1.308	9	.204	15	2.451e-3	20	166.26	9	479.154	15
182		min	-.306	12	-.699	12	-.387	10	-3.873e-3	17	NC	12	NC	10
183		2 max	.671	9	1.075	9	.208	22	1.563e-3	20	222.779	9	NC	22
184		min	-.306	12	-.606	12	-.351	19	-2.814e-3	17	NC	12	296.541	19
185		3 max	.671	9	.848	9	.232	22	8.301e-4	14	336.01	9	NC	22
186		min	-.305	12	-.609	12	-.332	19	-1.9e-3	11	NC	12	458.413	19
187		4 max	.67	9	.627	9	.259	22	3.472e-4	23	675.032	9	NC	22
188		min	-.304	12	-.608	12	-.309	19	-1.278e-3	18	NC	12	940.1	19
189		5 max	.669	9	.494	13	.29	18	7.484e-4	13	NC	13	NC	18
190		min	-.303	12	-.678	8	-.285	23	-1.463e-3	8	NC	8	NC	23
191	M20	1 max	.303	2	.536	2	.263	15	4.161e-3	15	224.421	2	759.614	15
192		min	-.078	15	.123	22	-.277	10	-4.236e-3	10	NC	22	NC	10
193		2 max	.303	2	.38	2	.258	15	4.46e-3	11	300.042	2	1041.999	15
194		min	-.078	21	.084	22	-.272	10	-3.963e-3	14	NC	22	NC	10

Envelope Member Section Deflections (Continued)

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [r...]	LC	(n) L/y Ratio	LC	(n) L/z Ratio	LC
195	3	max	.303	2	.225	2	.255	15	4.782e-3	11	451.419	2	1614.409	15
196		min	.075	21	.045	12	-.266	10	-3.713e-3	14	1935.424	12	NC	10
197	4	max	.303	2	.074	9	.252	15	5.105e-3	11	1011.055	9	3317.144	15
198		min	.073	21	.008	12	-.259	10	-3.463e-3	14	3901.467	12	NC	10
199	5	max	.303	2	-.017	21	.25	15	5.427e-3	11	NC	21	NC	15
200		min	.071	21	-.076	2	-.25	10	-3.213e-3	14	NC	2	NC	10

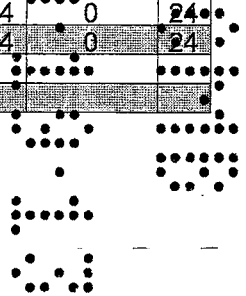
Envelope AISC 13th(360-05): LRFD Steel Code Checks

	Member	Shape	Code Check	Loc[in]	LC Shear ...	Loc[in]	Dir	LC phi*Pnc [...]	phi*Pnt [...]	phi*Mn y...	phi*Mn z...	Cb	Pgn
1	M1	W18x71	.612	162.5	16	.173	0	y	2	236501....	940500	1.1115e+64.74975...	1... H1-1b
2	M2	W18x71	.623	162.5	18	.172	0	y	2	236501....	940500	1.1115e+64.75221...	1... H1-1b
3	M3	W18x71	.582	120	9	.128	0	y	9	236501....	940500	1.1115e+64.7165e+61...	1... H1-1b
4	M4	W18x71	.583	120	8	.128	240	y	8	236501....	940500	1.1115e+64.47872...	1... H1-1b
5	M5	W12x14	.109	69	10	.003	138	y	9	27995.851	187200	85500 271993....	1... H1-1b
6	M6	W12x14	.014	69	1	.002	138	y	1	27995.851	187200	85500 271993....	1... H1-1b
7	M7	W12x14	.109	69	11	.003	138	y	8	27995.851	187200	85500 271993....	1... H1-1b
8	M8	W12x14	.107	25.986	18	.049	50.912	y	2	123380....	187200	85500 777520.21...	1... H1-1b
9	M9	W12x14	.085	25.986	17	.049	50.912	y	2	123380....	187200	85500 777520.21...	1... H1-1b
10	M10	W12x14	.107	24.926	16	.049	0	y	2	123380....	187200	85500 777520.21...	1... H1-1b
11	M11	W12x14	.085	25.986	19	.049	50.912	y	2	123380....	187200	85500 777520.21...	1... H1-1b
12	M12	W10x22	.387	132.5	9	.019	240	y	9	44711.806	210276	197640 564703...	1... H1-1b
13	M13	PIPE 4.0	.405	24	11	.074	24	11	77693.756	95904	131220	131220 1...	H1-1b
14	M14	PIPE 4.0	.215	24	22	.076	24	17	77693.756	95904	131220	131220 1...	H1-1b
15	M15	TU4X4X4	.121	42.067	9	.102	0	z	9	95723.119	148626	205758 205758 1...	H1-1b
16	M16	TU4X4X4	.122	42.067	9	.104	0	z	9	95723.119	148626	205758 205758 1...	H1-1b
17	M17	TU4X4X4	.014	46.2	10	.056	94.366	y	17	114413....	148626	205758 205758 1...	H1-1b
18	M18	TU4X4X4	.014	48.291	11	.001	0	y	1	114258...	148626	205758 205758 1...	H1-1b
19	M19	L4x4x4	.075	57.375	9	.006	108	y	17	22876.267	62532	37651.16263266.158 1...	H2-1
20	M20	L4x4x4	.206	54.631	9	.003	0	y	19	26486.323	62532	37651.16265091.401 1...	H2-1

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-in]	LC	MY [lb-in]	LC	MZ [lb-in]	LC
1	N1	max	7626.825	43	34502.973	30	3651.905	38	0	24	0	24	0	24
2		min	-7634.706	42	-3784.858	42	-3661.697	29	0	24	0	24	0	24
3	N4	max	7908.633	43	34769.102	32	3655.834	39	0	24	0	24	0	24
4		min	-7913.852	42	-4276.899	42	-3649.531	32	0	24	0	24	0	24
5	N3	max	6413.675	43	23696.575	29	1643.756	28	0	24	0	24	0	24
6		min	-6421.867	42	-3567.213	43	-1636.221	35	0	24	0	24	0	24
7	N2	max	5047.22	43	22573.98	31	1341.259	36	0	24	0	24	0	24
8		min	-5056.94	42	-3074.058	43	-1343.787	27	0	24	0	24	0	24
9	N23	max	765.647	43	1611.593	31	1261.993	28	0	24	0	24	0	24
10		min	-734.635	42	-1416.892	43	-1264.66	35	0	24	0	24	0	24
11	Totals:	max	27762	43	104895.677	30	10374	36						
12		min	-27762	42	0	42	-10374	27						

ASD



AMEC E&C, Inc.
5845 NW 158th Street
Miami Lakes, FL 33014

JOB NO. 6788-12-2458

SHEET _____ OF _____

PHASE _____

TASK 17.03

JOB NAME EFOB

BY ZL

DATE DEC 13 2011

CHECKED BY AA

DATE DEC 13 2011

Wind Load - 800 10765K ANTENNA

In Accordance With ASCE 7-10

Design Criteria

Wind Velocity, $V = 175$ mph

Exposure = C

Risk Category = II (ASCE Table 1.5-1)

Equipment

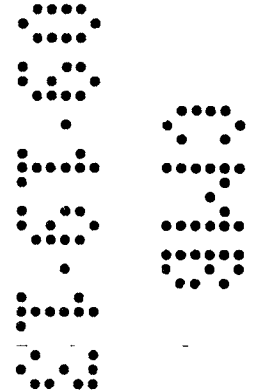
$H = 6.292$ ft (Equipment Height Dimension)

$W = 0.983$ ft (Equipment Width Dimension)

$D = 0.5$ ft (Equipment Depth Dimension)

Round ? N (Equipment is Round or Not)

$z = 110$ ft (Equipment Height Above Ground)



Design Parameters

$Z_g = 900$ (ASCE Table 26.9-1)

Bldg Height = 66 ft

$\alpha = 9.5$ (ASCE Table 26.9-1)

Bldg Base = 105 ft

$A_f = 6.187$ ft² (Front)

$B_h = 6930$ ft²

$A_f = 3.146$ ft² (Side)

$GC_f = 3.10$ (Gust Factor, 2010 FBC 1609.8/1620.6)

$K_z = 1.291$ (Coefficient from ASCE Table 6-3)

$K_{zt} = 1.0$ (Topographic Factor from ASCE Section 26.8.2)

$K_d = 0.85$ (Directionality Factor from ASCE Table 26.6-1)

Velocity Pressure

$q_z = 0.00256(V^2)(K_z)(K_{zt})(K_d)$ (ASCE EQ. 29.3-1)

$q_z = 86.1$ psf

Wind Load

$F = (q_z)(GC_f)(A_f)$ (ASCE EQ. 29.5-1)

Case 1: Wind at Front

$F_{FRONT} = 1651$ lbs (Total Lateral Force, ASCE Eq. 29.5-1) $1/2 = 825$ lbs

Case 2: Wind at Side

$F_{SIDE} = 840$ lbs (Total Lateral Force, ASCE Eq. 6-28)

Equipment Weight, Use 51.8 lbs

AMEC E&C, Inc.
5845 NW 158th Street
Miami Lakes, FL 33014

JOB NO. 6788-12-2458

SHEET _____ OF _____

PHASE _____

TASK 17.03

JOB NAME AAB

BY ZL

DATE DEC 13 2011

CHECKED BY AA

DATE DEC 13 2011

Wind Load - 800 10692V01 ANTENNA

In Accordance With ASCE 7-10

Design Criteria

Wind Velocity, $V = 175$ mph

Exposure = C

Risk Category = II (ASCE Table 1.5-1)

Equipment

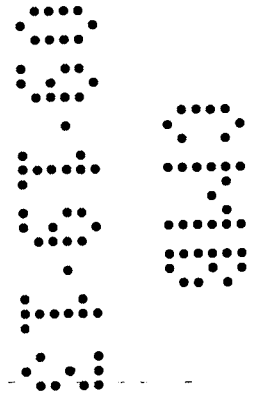
$H = 8.6$ ft (Equipment Height Dimension)

$W = 0.983$ ft (Equipment Width Dimension)

$D = 0.5$ ft (Equipment Depth Dimension)

Round ? N (Equipment is Round or Not)

$z = 500$ ft (Equipment Height Above Ground)



Design Parameters

$Z_g = 900$ (ASCE Table 26.9-1)

$\alpha = 9.5$ (ASCE Table 26.9-1)

$A_f = 8.457$ ft² (Front)

$A_s = 4.3$ ft² (Side)

Bldg Height = 66 ft

Bldg Base = 105 ft

$B_h = 6930$ ft²

$GC_f = 3.10$ (Gust Factor, 2010 FBC 1609.8/1620.6)

$K_z = 1.776$ (Coefficient from ASCE Table 6-3)

$K_{zt} = 1.0$ (Topographic Factor from ASCE Section 26.8.2)

$K_d = 0.85$ (Directionality Factor from ASCE Table 26.6-1)

Velocity Pressure

$q_z = 0.00256(V^2)(K_z)(K_{zt})(K_d)$ (ASCE EQ. 29.3-1)

$q_z = 118.4$ psf

Wind Load

$F = (q_z)(GC_f)(A_f)$ (ASCE EQ. 29.5-1)

Case 1: Wind at Front

$F_{FRONT} = 3104$ lbs (Total Lateral Force, ASCE Eq. 29.5-1) $/2 = 1550$ lbs

Case 2: Wind at Side

$F_{SIDE} = 1578$ lbs (Total Lateral Force, ASCE Eq. 6-28)

Equipment Weight, Use 72.8 lbs

AMEC E&C, Inc.
5845 NW 158th Street
Miami Lakes, FL 33014

JOB NO. 6788-12-2458

SHEET _____ OF _____

PHASE _____

TASK 17.03

JOB NAME AABB

BY ZL

DATE DEC 13 2011

CHECKED BY AA

DATE DEC 13 2011

Wind Load - RRU-11

In Accordance With ASCE 7-10

Design Criteria

Wind Velocity, $V = 175$ mph

Exposure = C

Risk Category = II (ASCE Table 1.5-1)

Equipment

$H = 1.967$ ft (Equipment Height Dimension)

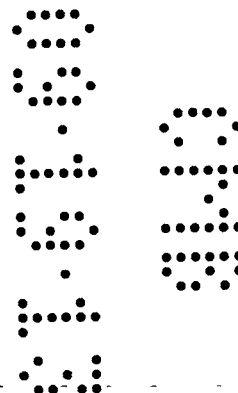
$W = 1.25$ ft (Equipment Width Dimension)

$D = 0.958$ ft (Equipment Depth Dimension)

Round ? N (Equipment is Round or Not)

$z = 110$ ft (Equipment Height Above Ground)

Weight = 64 lbs



Design Parameters

$Z_g = 900$ (ASCE Table 26.9-1)

$\alpha = 9.5$ (ASCE Table 26.9-1)

$A_f = 2.458$ ft² (Front)

$A_s = 1.885$ ft² (Side)

Bldg Height = 66 ft

Bldg Base = 105 ft

$B_h = 6930$ ft²

$GC_f = 3.10$ (Gust Factor, 2010 FBC 1609.8/1620.6)

$K_z = 1.291$ (Coefficient from ASCE Table 6-3)

$K_{zt} = 1.0$ (Topographic Factor from ASCE Section 26.8.2)

$K_d = 0.85$ (Directionality Factor from ASCE Table 26.6-1)

Velocity Pressure

$q_z = 0.00256(V^2)(K_z)(K_{zt})(K_d)$ (ASCE EQ. 29.3-1)

$q_z = 86.1$ psf

Wind Load

$F = (q_z)(GC_f)(A_f)$ (ASCE EQ. 29.5-1)

Case 1: Wind at Front

$F_{FRONT} = 656$ lbs (Total Lateral Force, ASCE Eq. 29.5-1)

Case 2: Wind at Side

$F_{SIDE} = 503$ lbs (Total Lateral Force, ASCE Eq. 6-28)

DESIGN MEMORANDUM (METRIC)

Client: NSORO (AT&T) Sheet 1 Of 1
 Project: EFOB Date: 6/27/13
 Data For: ANCHOR CHECK ANTENNA FRAME Work Order: _____
 Prepared By: ATA Checked By: _____ File No: _____



Note: This form must be used for project calculations and original filed in project files

ANCHOR = HEATZ 3/4" HAS ROD, 3 3/4" EMBED HY ISOMAX ADHESIVE

$$T_{allow} = 4295 \text{ lbs}$$

$$V_{allow} = 8635 \text{ lbs}$$

CHECK ANCHOR STEEL STRENGTH 3/4" HAS SUPER

$$T_{allow} = 18225 \text{ lbs}$$

$$V_{allow} = 9390 \text{ lbs}$$

$$USE \quad T_{allow} = 4295 \quad V_{allow} = 8635$$

ADJUSTMENT FACTORS 0.92 TENSION/SHEAR

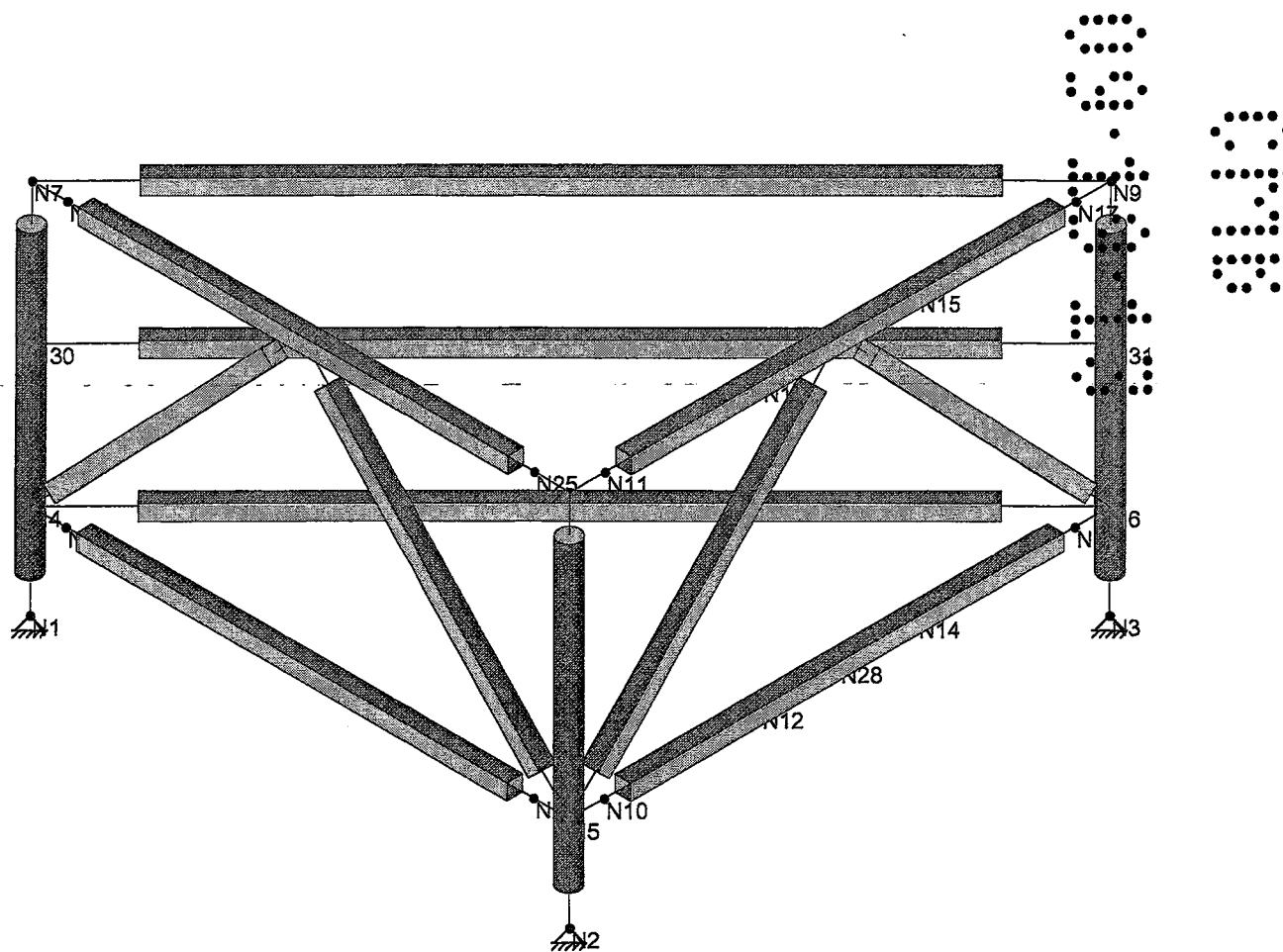
FROM RISA (ASD)

$$T_{MAX} = 5975 \text{ lbs} / 4 \text{ ANCHORS} = 1494 \text{ lbs/ANCHOR}$$

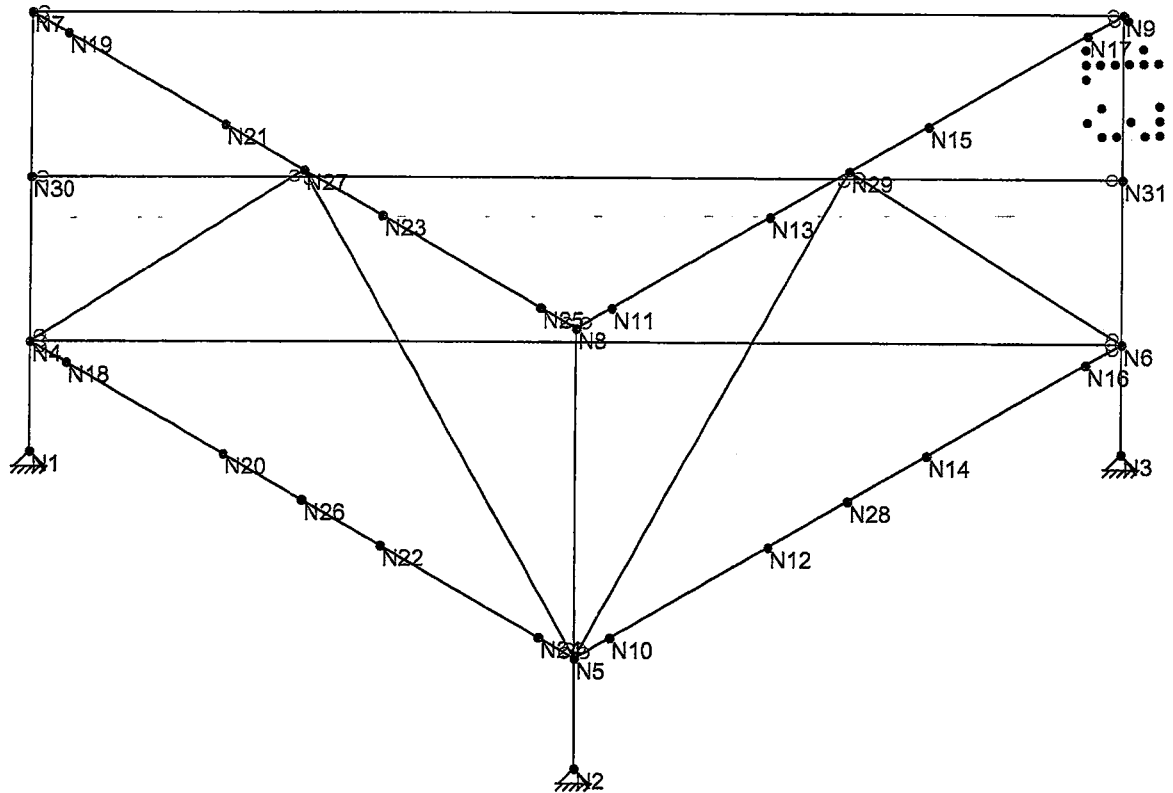
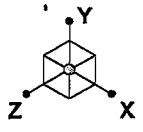
$$V_{MAX} = 5940 \text{ lbs} / 4 \text{ ANCHORS} = 1485 \text{ lbs/ANCHOR}$$

$$\frac{T_{MAX}}{T_{allow}(A.F.)} + \frac{V_{MAX}}{V_{allow}(A.F.)} < 1.0$$

$$\frac{1494 \text{ lbs}}{4295(0.92)} + \frac{1485}{8635(0.92)} = 0.57 < 1.0 \quad OK$$



EFOB Antenna Frame.r3d



Solution: Envelope

AMEC

ZL/AA

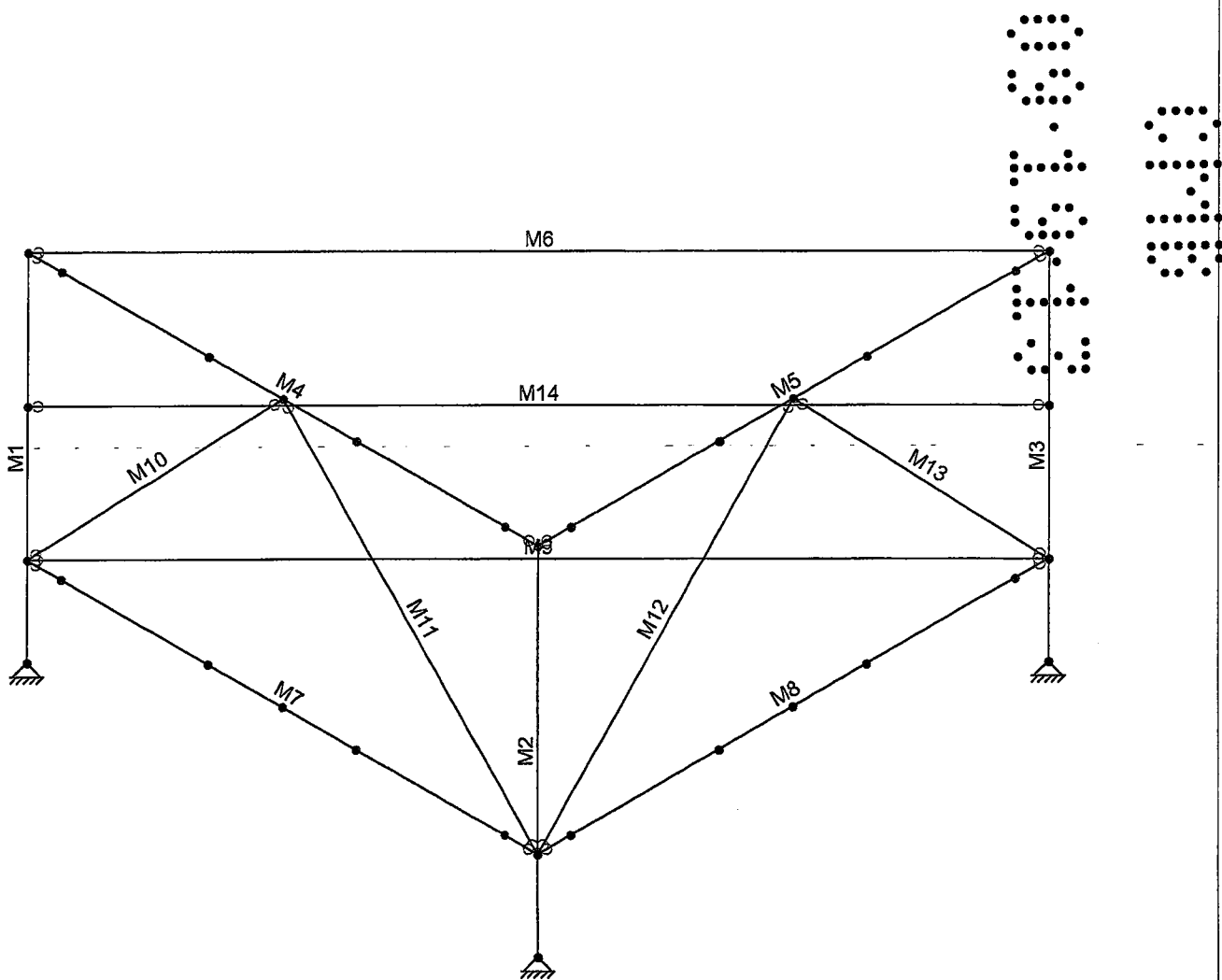
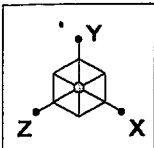
6788-12-2458

AT&T Site EFOB
ANTENNA FRAME NODES

SK - 2

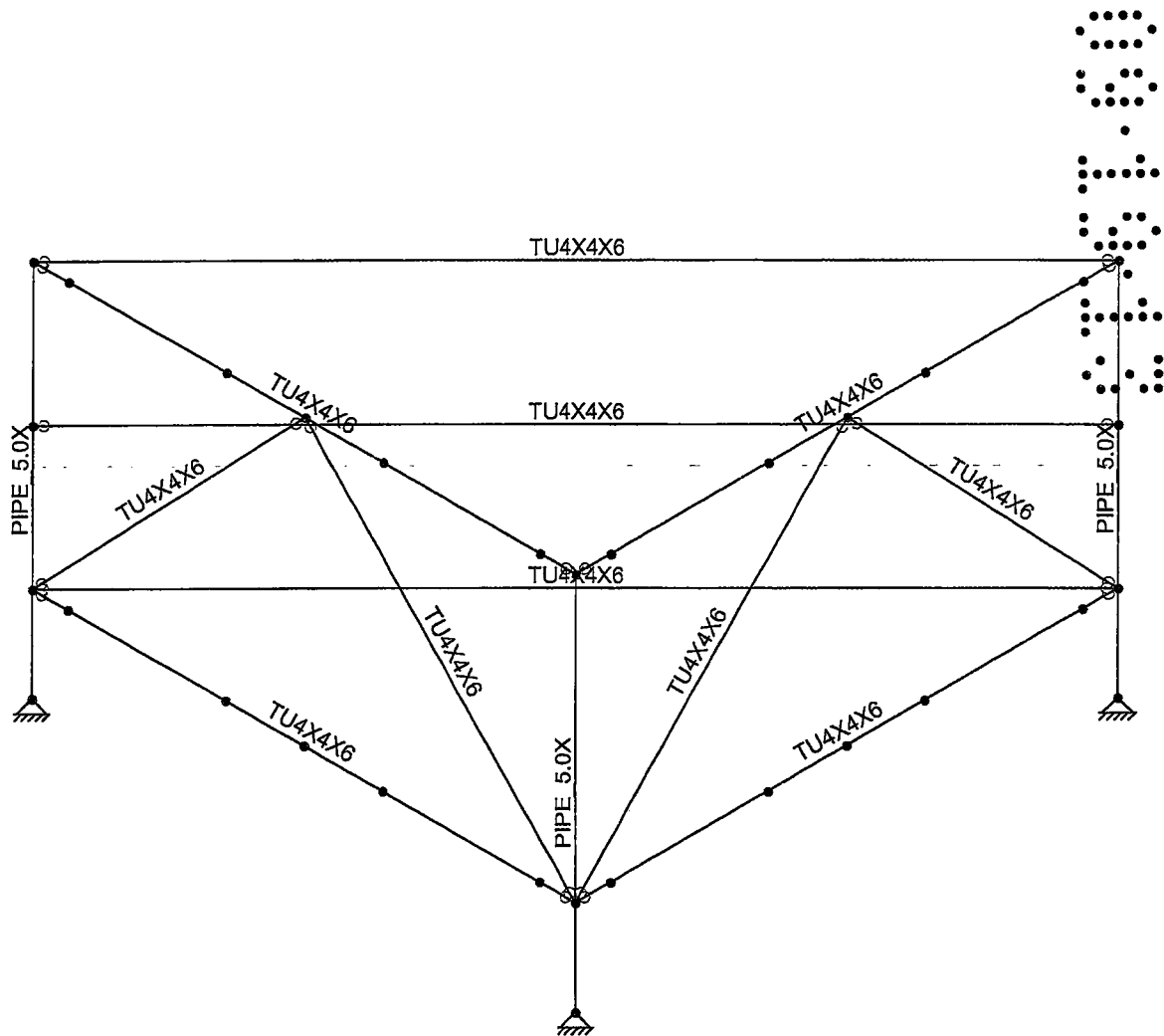
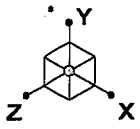
June 28, 2013 at 4:40 PM

EFOB Antenna Frame.r3d



Solution: Envelope

AMEC	AT&T Site EFOB ANTENNA FRAME MEMBER LABELS	SK - 3
ZL/AA		June 28, 2013 at 4:40 PM
6788-12-2458		EFOB Antenna Frame.r3d



Solution: Envelope

AMEC

ZL/AA

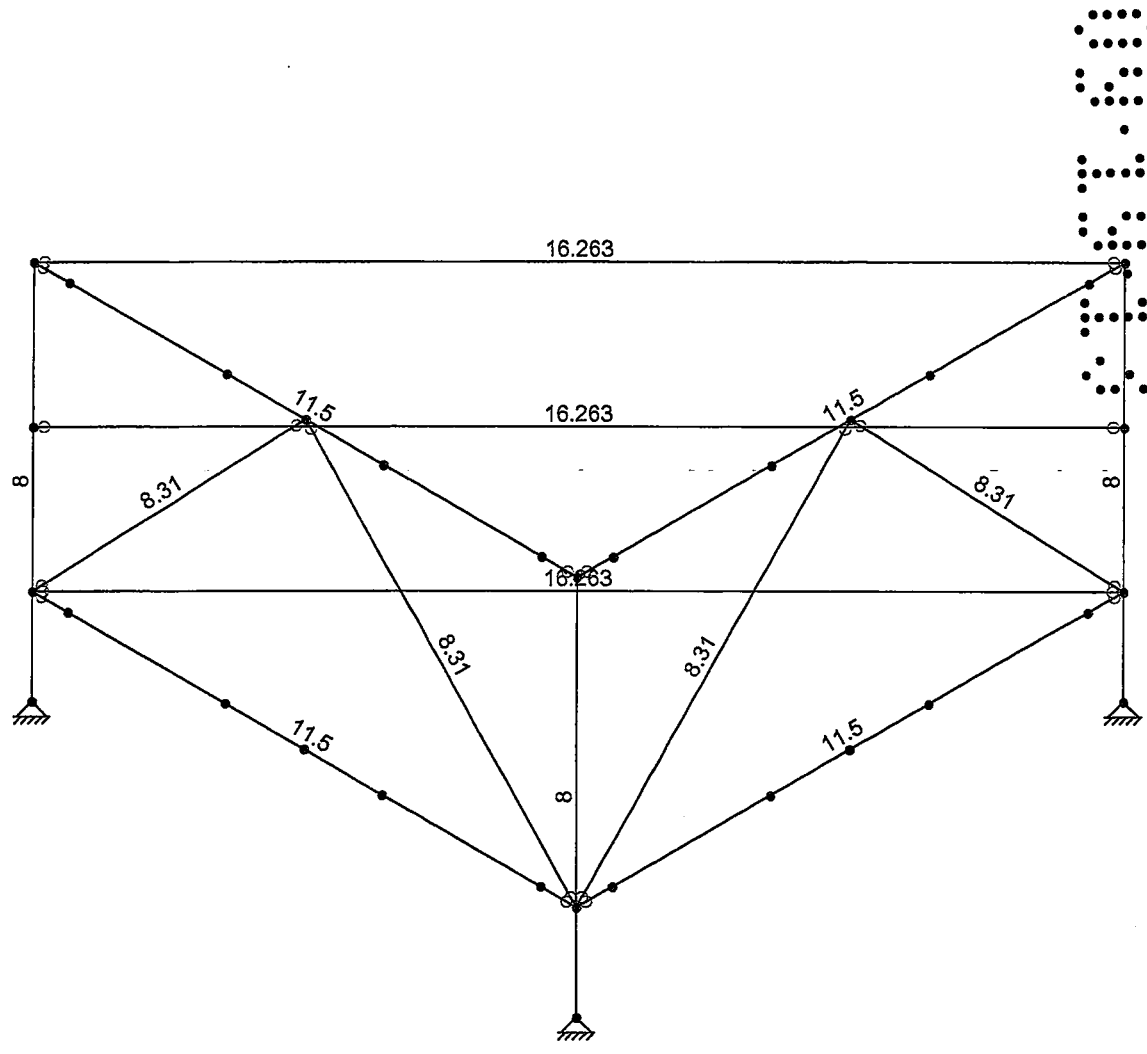
6788-12-2458

AT&T Site EFOB
ANTENNA FRAME MEMBERS

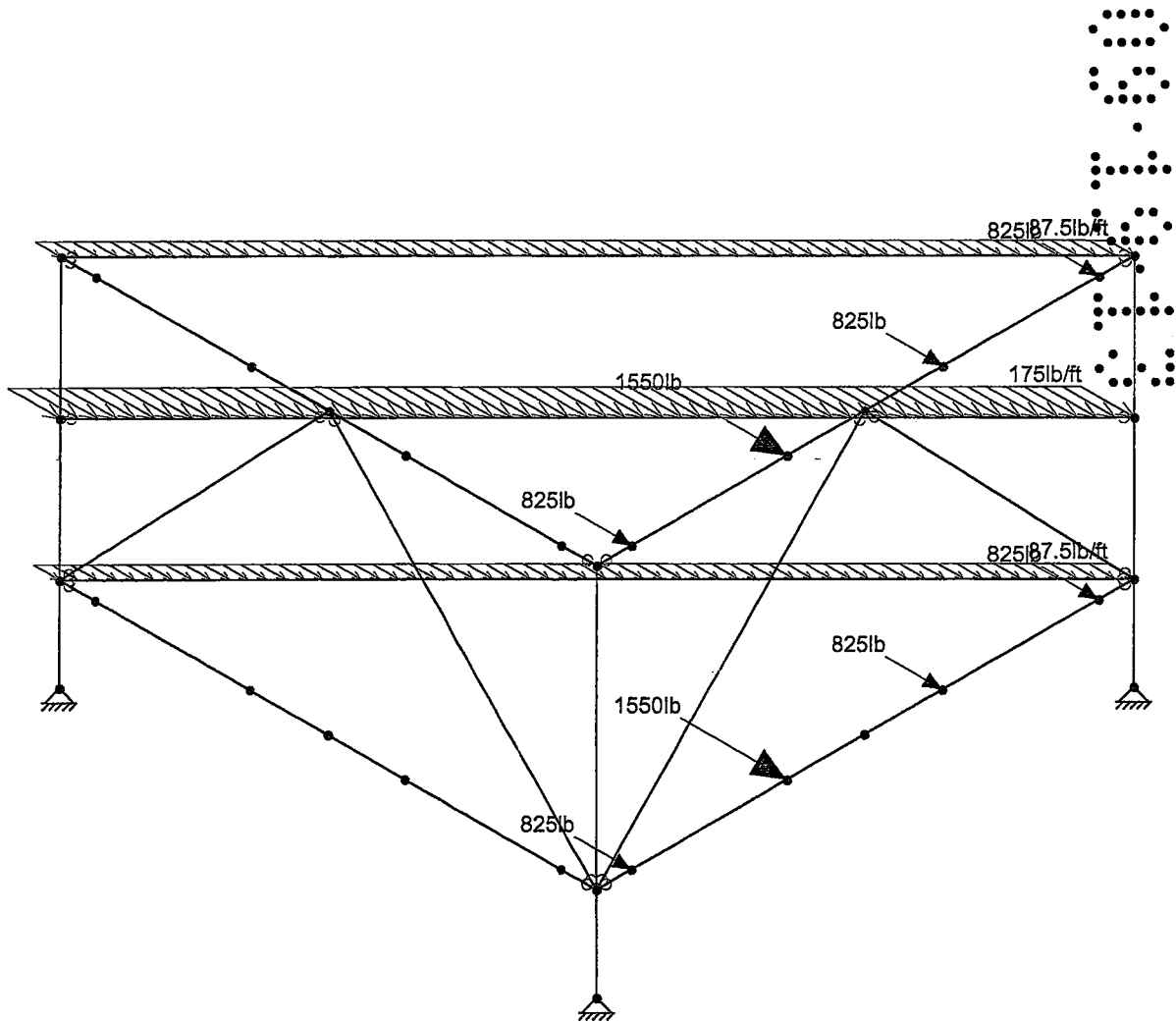
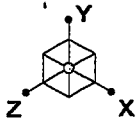
SK - 4

June 28, 2013 at 4:40 PM

EFOB Antenna Frame.r3d



EFOB Antenna Frame.r3d



Loads: BLC 3, +WLX
Solution: Envelope

AMEC

ZL/AA

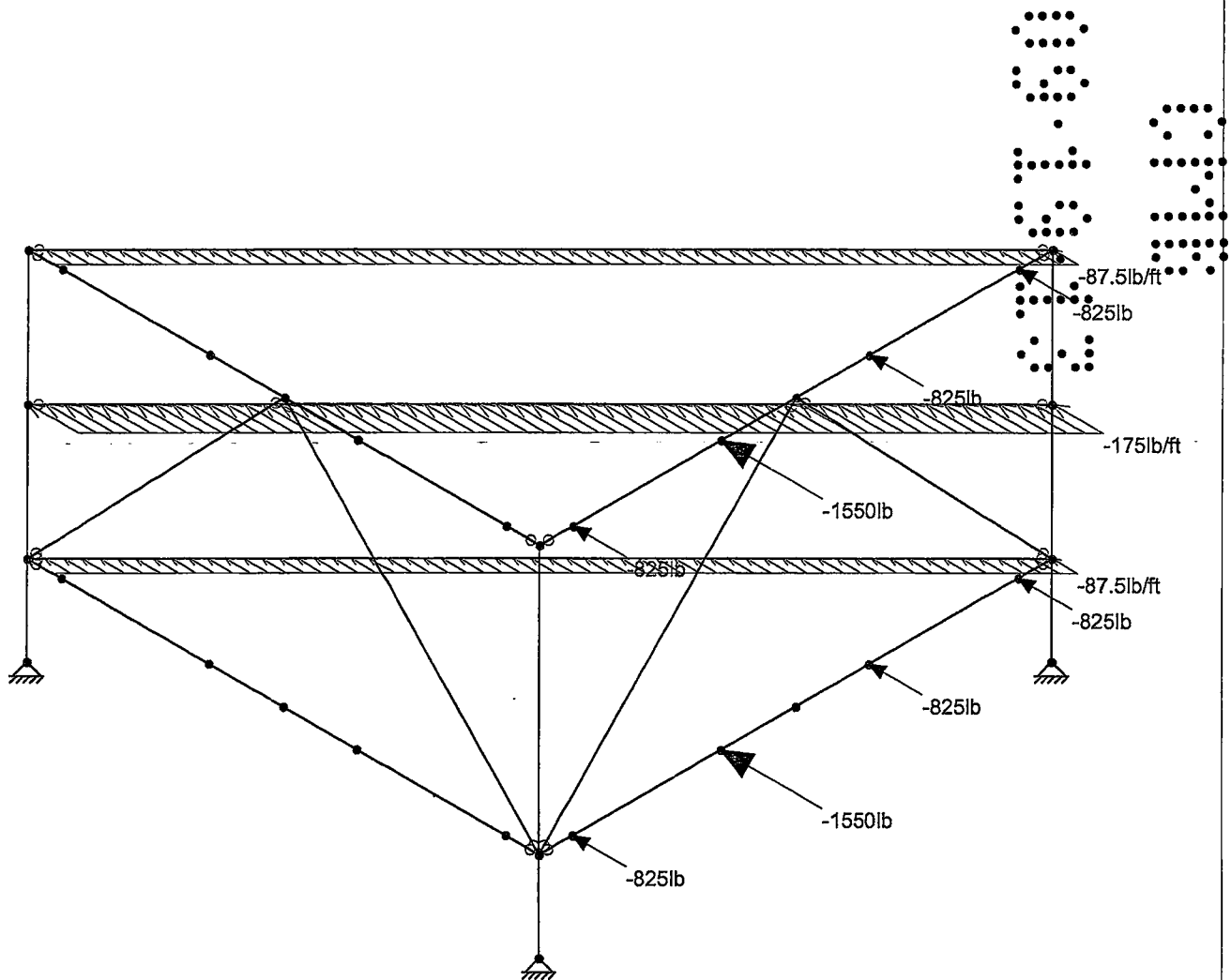
6788-12-2458

AT&T Site EFOB
+WLX

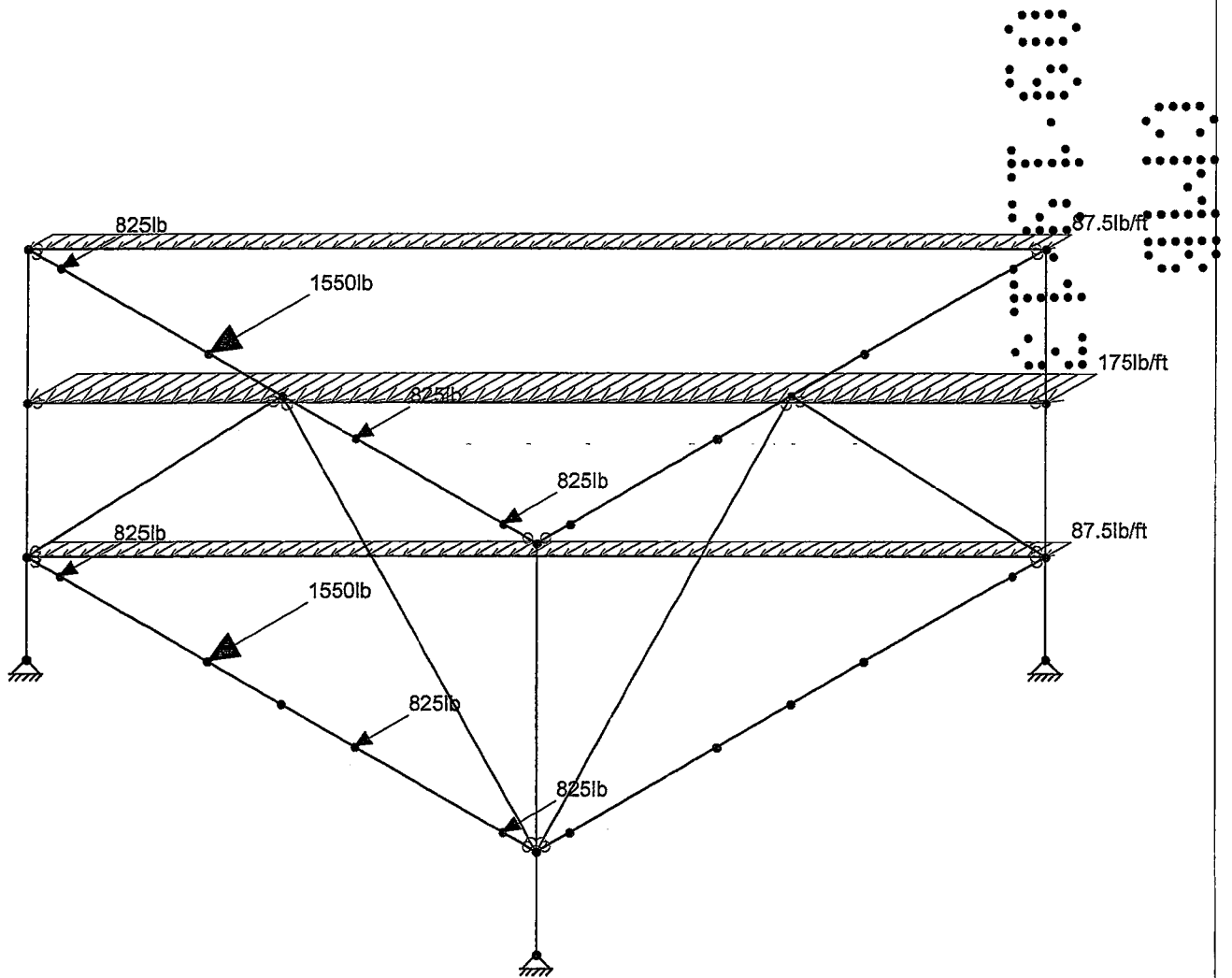
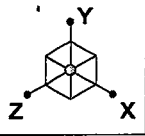
SK - 6

June 28, 2013 at 4:42 PM

EFOB Antenna Frame.r3d



EFOB Antenna Frame.r3d



Loads: BLC 5, +WLZ
Solution: Envelope

AMEC

ZL/AA

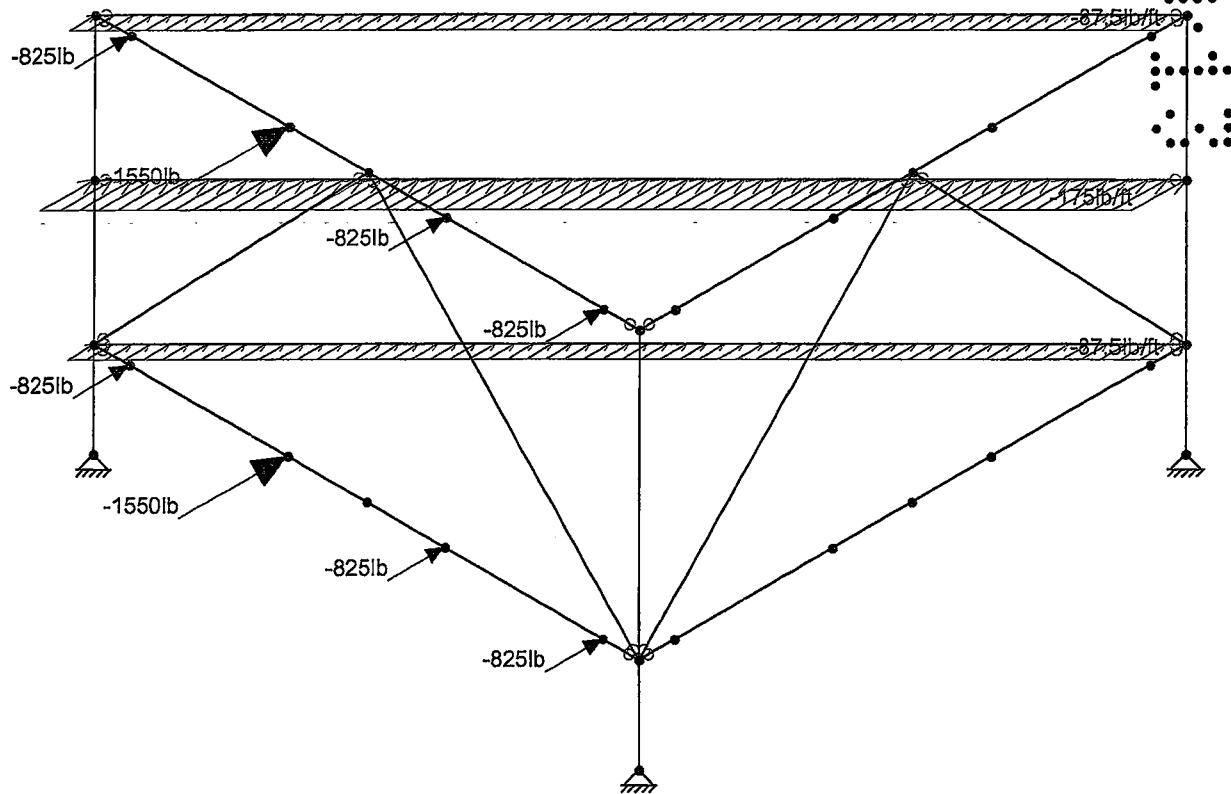
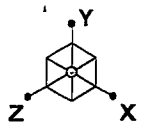
6788-12-2458

AT&T Site EFOB
+ WLZ

SK - 8

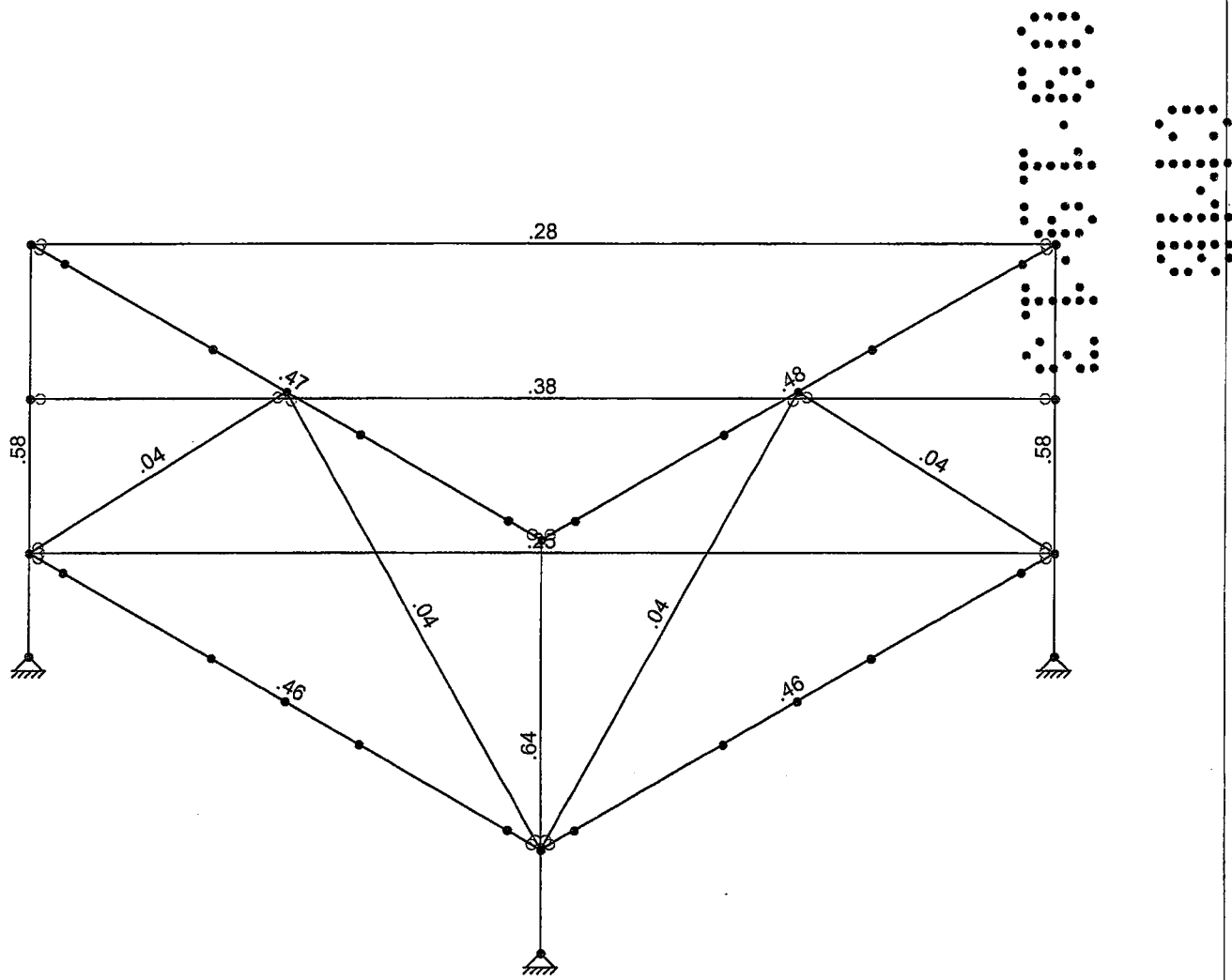
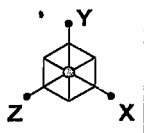
June 28, 2013 at 4:42 PM

EFOB Antenna Frame.r3d



Loads: BLC 6, -WLZ
Solution: Envelope

AMEC	AT&T Site EFOB - WLZ	SK - 9
ZL/AA		June 28, 2013 at 4:42 PM
6788-12-2458		EFOB Antenna Frame.r3d



Member Code Checks Displayed
Solution: Envelope

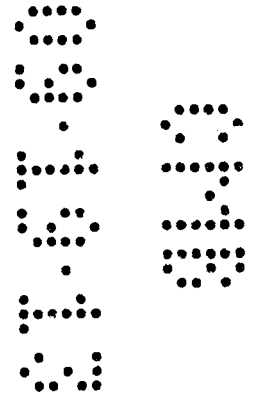
AMEC	AT&T Site EFOB ANTENNA FRAME UNITY CHECK	SK - 10
ZL/AA		June 28, 2013 at 4:43 PM
6788-12-2458		EFOB Antenna Frame.r3d

Global

Display Sections for Member Calcs	5
Max Internal Sections for Member Calcs	97
Include Shear Deformation?	Yes
Include Warping?	Yes
Trans Load Btwn Intersecting Wood Wall?	Yes
Increase Nailing Capacity for Wind?	Yes
Area Load Mesh (in^2)	144
Merge Tolerance (in)	12
P-Delta Analysis Tolerance	0.50%
Include P-Delta for Walls?	Yes
Automaticly Iterate Stiffness for Walls?	No
Maximum Iteration Number for Wall Stiffness	3
Gravity Acceleration (ft/sec^2)	32.2
Wall Mesh Size (in)	12
Eigensolution Convergence Tol. (1.E-)	4
Vertical Axis	Y
Global Member Orientation Plane	XZ
Static Solver	Sparse Accelerated
Dynamic Solver	Accelerated Solver

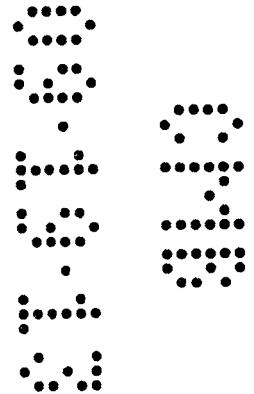
Hot Rolled Steel Code	AISC 13th(360-05): LRFD
Adjust Stiffness?	Yes(Iterative)
RISAConnection Code	AISC 13th(360-05): LRFD
Cold Formed Steel Code	AISI NAS-01: ASD
Wood Code	AF&PA NDS-05/08: ASD
Wood Temperature	< 100F
Concrete Code	ACI 318-05
Masonry Code	ACI 530-05: ASD
Aluminum Code	AA ADM1-05: ASD - Building

Number of Shear Regions	4
Region Spacing Increment (in)	4
Biaxial Column Method	PCA Load Contour
Parme Beta Factor (PCA)	.65
Concrete Stress Block	Rectangular
Use Cracked Sections?	Yes
Bad Framing Warnings?	No
Unused Force Warnings?	Yes
Min 1 Bar Diam. Spacing?	No
Concrete Rebar Set	REBAR SET ASTMA615
Min % Steel for Column	1
Max % Steel for Column	8



Global, Continued

Seismic Code	UBC 1997
Seismic Base Elevation (ft)	Not Entered
Add Base Weight?	No
Ct Z	.035
Ct X	.035
T Z (sec)	Not Entered
T X (sec)	Not Entered
R Z	8.5
R X	8.5
Ca	.36
Cv	.54
Nv	1
Occupancy Category	4
Seismic Zone	3
Seismic Detailing Code	ASCE 7-05
Om Z	1
Om X	1
Rho Z	1
Rho X	1



Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design Rules	A [in ²]	I _{yy} [in ⁴]	I _{zz} [in ⁴]	J [in ⁴]
1	Column 1	PIPE 5.0X	Column	Pipe	A36 Gr.36	Typical	5.73	19.5	19.5	39
2	Column 2	TU6X6X8	Column	Square Tube	A500 Gr.46	Typical	10.4	50.5	50.5	85.6
3	Column 3	W8x28	Column	WF 8	A992	Typical	8.25	21.7	98	.537
4	Column 4	PIPE 4.0	Column	Pipe	A500 Gr.42	Typical	2.96	6.82	6.82	13.6
5	Beam 1	TU4X4X6	Beam	Tube	A36 Gr.36	Typical	5.08	10.7	10.7	18.4
6	Beam 2	W12x35	Beam	Wide Flange	A992	Typical	10.3	24.5	285	.741
7	Beam 3	W12x50	Beam	Wide Flange	A992	Typical	14.6	56.3	391	1.71
8	Beam 4	C8x11.5	Beam	Channel	A36 Gr.36	Typical	3.37	1.31	32.5	.13
9	Beam 5	MC12x10.6	Beam	Channel	A36 Gr.36	Typical	3.1	.378	55.3	.06
10	Beam 6	L4x4x4	Beam	Single Angle	A36 Gr.36	Typical	1.93	3	3	.044
11	Girt 1	L4x4x4	Beam	Single Angle	A36 Gr.36	Typical	1.93	3	3	.044
12	Girt 2	TU4X4X4	Beam	Tube	A500 Gr.46	Typical	3.59	8.22	8.22	13.5
13	Girt 3	TU4X4X6	Beam	Tube	A500 Gr.46	Typical	5.08	10.7	10.7	18.4
14	Brace 1	TU8X8X4	VBrace	Tube	A500 Gr.46	Typical	7.59	75.1	75.1	118
15	Brace 2	L4x4x4	VBrace	Single Angle	A36 Gr.36	Typical	1.93	3	3	.044
16	Brace 3	LL3x3x4x6	VBrace	Double Angle	A36 Gr.36	Typical	2.88	6.65	2.46	.063

Hot Rolled Steel Design Parameters

	Label	Shape	Length[ft]	L _{byy} [ft]	L _{bzz} [ft]	L _{comp top} [ft]	L _{comp bot} [ft]	L-torqu...	K _{yy}	K _{zz}	C _b	Function
1	M1	Column 1	8									Lateral
2	M2	Column 1	8									Lateral
3	M3	Column 1	8									Lateral
4	M4	Beam 1	11.5									Lateral
5	M5	Beam 1	11.5									Lateral
6	M6	Beam 1	16.263									Lateral
7	M7	Beam 1	11.5									Lateral
8	M8	Beam 1	11.5									Lateral
9	M9	Beam 1	16.263									Lateral
10	M10	Beam 1	8.31									Lateral
11	M11	Beam 1	8.31									Lateral
12	M12	Beam 1	8.31									Lateral
13	M13	Beam 1	8.31									Lateral
14	M14	Beam 1	16.263									Lateral

Joint Loads and Enforced Displacements (BLC 3 : +WLX)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-in), (in,rad), (lb*s^...
1	N11	L	X	825
2	N15	L	X	825
3	N17	L	X	825
4	N16	L	X	825
5	N14	L	X	825
6	N10	L	X	825
7	N13	L	X	1550
8	N12	L	X	1550

Joint Loads and Enforced Displacements (BLC 4 : -WLX)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-in), (in,rad), (lb*s^...
1	N13	L	X	-1550
2	N12	L	X	-1550
3	N11	L	X	-825
4	N15	L	X	-825
5	N17	L	X	-825
6	N16	L	X	-825
7	N14	L	X	-825
8	N10	L	X	-825

Joint Loads and Enforced Displacements (BLC 5 : +WLZ)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-in), (in,rad), (lb*s^...
1	N25	L	Z	825
2	N23	L	Z	825
3	N19	L	Z	825
4	N18	L	Z	825
5	N22	L	Z	825
6	N24	L	Z	825
7	N21	L	Z	1550
8	N20	L	Z	1550

Joint Loads and Enforced Displacements (BLC 6 : -WLZ)

	Joint Label	L,D,M	Direction	Magnitude[(lb,lb-in), (in,rad), (lb*s^...
1	N25	L	Z	-825
2	N23	L	Z	-825
3	N19	L	Z	-825
4	N18	L	Z	-825
5	N22	L	Z	-825
6	N24	L	Z	-825
7	N21	L	Z	-1550
8	N20	L	Z	-1550

Member Distributed Loads (BLC 3 : +WLX)

	Member Label	Direction	Start Magnitude[lb/ft,F]	End Magnitude[lb/ft,F]	Start Location[ft, %]	End Location[ft, %]
1	M14	X	175	175	0	0
2	M6	X	87.5	87.5	0	0
3	M9	X	87.5	87.5	0	0

Member Distributed Loads (BLC 4 : -WLX)

	Member Label	Direction	Start Magnitude[lb/ft,F]	End Magnitude[lb/ft,F]	Start Location[ft, %]	End Location[ft, %]
1	M14	X	-175	-175	0	0
2	M6	X	-87.5	-87.5	0	0
3	M9	X	-87.5	-87.5	0	0

Member Distributed Loads (BLC 5 : +WLZ)

	Member Label	Direction	Start Magnitude[lb/ft.F]	End Magnitude[lb/ft.F]	Start Location[ft.%]	End Location[ft.%]
1	M14	Z	175	175	0	0
2	M6	Z	87.5	87.5	0	0
3	M9	Z	87.5	87.5	0	0

Member Distributed Loads (BLC 6 : -WLZ)

	Member Label	Direction	Start Magnitude[lb/ft.F]	End Magnitude[lb/ft.F]	Start Location[ft.%]	End Location[ft.%]
1	M14	Z	-175	-175	0	0
2	M9	Z	-87.5	-87.5	0	0
3	M6	Z	-87.5	-87.5	0	0

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(P...
1	Dead Load	DL		-1					
2	Live Load	LL							
3	+WLX	WL+X				8		3	
4	-WLX	WL-X				8		3	
5	+WLZ	WL+Z				8		3	
6	-WLZ	WL-Z				8		3	
7	Lr	RLL							

Load Combinations

	Description	Sol.	PD	SR	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...	BLC Fact...
1	1.4DL	Yes	Y		DL	1.4													
2	1.2DL + 1.6LL + 0.5LR	Yes	Y		DL	1.2	LL	1.6	RLL	.5									
3	1.2DL + 1.6LR + 0.5LL	Yes	Y		DL	1.2	RLL	1.6	LL	.5									
4	1.2DL + 1.6LR + 0.5WLX	Yes	Y		DL	1.2	RLL	1.6	WL+X	.5									
5	1.2DL + 1.6LR - 0.5WLX	Yes	Y		DL	1.2	RLL	1.6	WL-X	.5									
6	1.2DL + 1.6LR + 0.5WLZ	Yes	Y		DL	1.2	RLL	1.6	WL+Z	.5									
7	1.2DL + 1.6LR - 0.5WLZ	Yes	Y		DL	1.2	RLL	1.6	WL-Z	.5									
8	1.2DL + 1.0WLX + 1.0LL	Yes	Y		DL	1.2	WL+X	1	LL	1	RLL	.5							
9	1.2DL - 1.0WLX + 1.0LL	Yes	Y		DL	1.2	WL-X	1	LL	1	RLL	.5							
10	1.2DL + 1.0WLZ + 1.0LL	Yes	Y		DL	1.2	WL+Z	1	LL	1	RLL	.5							
11	1.2DL - 1.0WLZ + 1.0LL	Yes	Y		DL	1.2	WL-Z	1	LL	1	RLL	.5							
12	0.9DL + 1.0WLX	Yes	Y		DL	.9	WL+X	1											
13	0.9DL - 1.0WLX	Yes	Y		DL	.9	WL-X	1											
14	0.9DL + 1.0WLZ	Yes	Y		DL	.9	WL+Z	1											
15	0.9DL - 1.0WLZ	Yes	Y		DL	.9	WL-Z	1											
16	1.2DL + 0.75WLX + 0.7...	Yes	Y		DL	1.2	WL+X	.75	WL+Z	.75	LL	1	RLL	.5					
17	1.2DL - 0.75WLX - 0.75...	Yes	Y		DL	1.2	WL-X	.75	WL-Z	.75	LL	1	RLL	.5					
18	1.2DL + 0.75WLX - 0.75...	Yes	Y		DL	1.2	WL+X	.75	WL-Z	.75	LL	1	RLL	.5					
19	1.2DL - 0.75WLX + 0.75...	Yes	Y		DL	1.2	WL-X	.75	WL+Z	.75	LL	1	RLL	.5					
20	0.9DL + 0.75WLX + 0.7...	Yes	Y		DL	.9	WL+X	.75	WL+Z	.75									
21	0.9DL - 0.75WLX - 0.75...	Yes	Y		DL	.9	WL-X	.75	WL-Z	.75									
22	0.9DL + 0.75WLX - 0.75...	Yes	Y		DL	.9	WL+X	.75	WL-Z	.75									
23	0.9DL - 0.75WLX + 0.75...	Yes	Y		DL	.9	WL-X	.75	WL+Z	.75									
24	(SERVICE) DL + LL		Y		DL	1	LL	1											
25	(SERVICE) DL + LL + .6...		Y		DL	1	LL	1	WL+X	.6									
26	(SERVICE) DL + LL - .6...		Y		DL	1	LL	1	WL-X	.6									
27	(SERVICE) DL + LL + .6...		Y		DL	1	LL	1	WL+Z	.6									
28	(SERVICE) DL + LL - .6...		Y		DL	1	LL	1	WL-Z	.6									
29	(SERVICE) DL + LL + 0...		Y		DL	1	LL	1	WL+X	.45	WL+Z	.45							
30	(SERVICE) DL + LL - 0...		Y		DL	1	LL	1	WL-X	.45	WL-Z	.45							
31	(SERVICE) DL + LL + 0...		Y		DL	1	LL	1	WL+X	.45	WL-Z	.45							
32	(SERVICE) DL + LL - 0...		Y		DL	1	LL	1	WL-X	.45	WL+Z	.45							

Load Combinations (Continued)

	Description	Sol.	PD	SR	BLC Fact	BLC Fact	BLC Fact	BLC Fact	BLC Fact	BLC Fact	BLC Fact	BLC Fact	BLC Fact	BLC Fact	BLC Fact	BLC Fact	BLC Fact
33	(SERVICE) 0.6DL + .6...		Y		DL .6	WL+X .6											
34	(SERVICE) 0.6DL - .6W...		Y		DL .6	WL-X .6											
35	(SERVICE) 0.6DL +.6...		Y		DL .6	WL+Z .6											
36	(SERVICE) 0.6DL - .6W...		Y		DL .6	WL-Z .6											
37	(SERVICE) 0.6DL + 0.4...		Y		DL .6	WL+X .45	WL+Z .45										
38	(SERVICE) 0.6DL - 0.45...		Y		DL .6	WL-X .45	WL-Z .45										
39	(SERVICE) 0.6DL + 0.4...		Y		DL .6	WL+X .45	WL-Z .45										
40	(SERVICE) 0.6DL - 0.45...		Y		DL .6	WL-X .45	WL+Z .45										
41	(SERVICE) Lr		Y		RLL 1												
42	(SERVICE) + WLX		Y		W... 1												
43	(SERVICE) - WLX		Y		W... 1												
44	(SERVICE) DL + Lr		Y		DL 1	RLL 1											
45	(SERVICE) DL		Y		DL	1											

Envelope Member Section Forces

Member	Sec	Axial[lb]	LC	y Shear[lb]	LC	z Shear...	LC	Torque[...	LC	y-y Mo...	LC	z-z Momen...	LC
1	M1	1	max	7102.096	9	4026.885	8	5742.661	11	0	1	0	1
2			min	-5163.631	12	-3992	9	-5636.1	10	0	1	0	1
3		2	max	7055.301	9	4026.885	8	5742.661	11	0	1	137823...	11
4			min	-5198.727	12	-3992	9	-5636.1	10	0	1	-13526...	10
5		3	max	555.398	1	2617.034	19	3172.74	18	0	1	88140...	11
6			min	-356.17	13	-2663.987	18	-3114.5	19	0	1	-87252...	10
7		4	max	304.011	1	3679.107	19	2429.091	8	0	1	74379....	11
8			min	-194.565	13	-3732.274	18	-2443.9	9	0	1	-73233...	10
9		5	max	249.417	1	3679.107	19	2429.091	8	0	1	121903...	18
10			min	-159.469	13	-3732.274	18	-2443.9	9	0	1	-12182...	19
11	M2	1	max	9981.135	16	4360.447	8	4176.49	11	0	1	0	1
12			min	-8212.785	21	-4295.237	9	-4245.6	10	0	1	0	1
13		2	max	9934.34	16	4360.447	8	4176.49	11	0	1	151359...	11
14			min	-8247.882	21	-4295.237	9	-4245.6	10	0	1	-15103...	10
15		3	max	214.437	1	2869.339	19	2925.349	19	0	1	83996....	11
16			min	-136.541	21	-2926.322	18	-2868.3	18	0	1	-84261...	10
17		4	max	159.843	1	2869.339	19	2925.349	19	0	1	26618	17
18			min	-101.445	21	-2926.322	18	-2868.3	18	0	1	-26658...	16
19		5	max	105.249	1	2869.339	19	2925.349	19	0	1	70624....	19
20			min	-66.348	21	-2926.322	18	-2868.3	18	0	1	-70508...	18
21	M3	1	max	7103.128	11	5420.516	8	3890.771	11	0	1	0	1
22			min	-5164.383	14	-5520.334	9	-3928.43	10	0	1	0	1
23		2	max	7056.333	11	5420.516	8	3890.771	11	0	1	132201...	11
24			min	-5199.479	14	-5520.334	9	-3928.43	10	0	1	-13178...	10
25		3	max	555.398	1	3122.811	18	2656.79	19	0	1	79223....	11
26			min	-356.315	15	-3180.877	19	-2609.9	18	0	1	-79732...	10
27		4	max	304.011	1	2552.426	11	3732.439	19	0	1	49868....	11
28			min	-194.71	15	-2537.112	10	-3679.0	18	0	1	-50046...	10
29		5	max	249.417	1	2552.426	11	3732.439	19	0	1	51538....	19
30			min	-159.613	15	-2537.112	10	-3679.0	18	0	1	-51538...	18
31	M4	1	max	6630.14	8	52.624	1	2079.973	11	70282.67	19	0	1
32			min	-6558.685	9	32.849	13	-2106.3	10	-70364...	18	0	1
33		2	max	6630.14	8	-10.048	12	1258.325	11	70282.67	19	50807....	11
34			min	-6558.685	9	-16.952	1	-1278.1	10	-70364...	18	-51548...	10
35		3	max	6630.14	8	86.529	1	304.757	19	70624....	19	67390....	11
36			min	-6558.685	9	-74.183	7	-326.979	22	-70508...	18	-68639...	10
37		4	max	4937.294	9	16.952	1	1125.469	10	70624....	19	45589....	11
38			min	-4864.996	8	10.081	12	-1104.1	11	-70508...	18	-46380...	10
39		5	max	4937.294	9	-33.239	13	1953.51	10	70624....	19	0	1
40			min	-4864.996	8	-52.624	1	-1926.0	11	-70508...	18	0	1

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	y Shear[lb]	LC	z Shear...	LC	Torque[...	LC	y-y Mo...	LC	z-z Momen...	LC
41	M5	1	max	4775.523	11	52.624	1	2136.844	9	70272....	19	0	1	0	1
42			min	-4696.107	10	33.334	21	-2164.4...	8	-70387....	18	0	1	0	1
43		2	max	4775.523	11	-10.226	14	1315.263	9	70272....	19	52770.79	9	-375.822	15
44			min	-4696.107	10	-16.952	1	-1336.09	8	-70387....	18	-53549....	8	-615.317	1
45		3	max	6800.937	10	86.529	1	338.293	18	70614....	19	67239....	9	11697.05	1
46			min	-6722.451	11	-74.902	11	-296.683	23	-70531....	18	-68433....	8	704.717	14
47		4	max	6800.937	10	16.952	1	1066.356	8	70614....	19	43649....	9	-371.996	15
48			min	-6722.451	11	10.196	14	-1047.8...	9	-70531....	18	-44338....	8	-615.339	1
49		5	max	6800.937	10	-32.982	15	1894.087	8	70614....	19	0	1	0	1
50			min	-6722.451	11	-52.624	1	-1870.0...	9	-70531....	18	0	1	0	1
51	M6	1	max	5228.232	17	196.792	1	754.687	16	72887....	19	0	1	0	1
52			min	-5155.827	16	126.509	12	-754.687	17	-72886....	18	0	1	0	1
53		2	max	5228.232	17	98.396	1	377.344	16	72887....	19	27616....	16	-4629.332	12
54			min	-5155.827	16	63.255	12	-377.344	17	-72886....	18	-27616....	17	-7201.183	1
55		3	max	5228.232	17	0	1	0	1	72887....	19	36821....	16	-6172.442	12
56			min	-5155.827	16	0	1	0	1	-72886....	18	-36821....	17	-9601.577	1
57		4	max	5228.232	17	-63.255	12	377.344	17	72887....	19	27616....	16	-4629.332	12
58			min	-5155.827	16	-98.396	1	-377.344	16	-72886....	18	-27616....	17	-7201.183	1
59		5	max	5228.232	17	-126.509	12	754.688	17	72887....	19	0	1	0	1
60			min	-5155.827	16	-196.792	1	-754.688	16	-72886....	18	0	1	0	1
61	M7	1	max	644.599	13	138.999	1	2118.273	15	78200....	19	0	1	0	1
62			min	-980.842	8	88.922	12	-2115.8...	14	-78207....	18	0	1	0	1
63		2	max	644.599	13	69.46	1	1293.51	15	78200....	19	52048.97	15	-2299.578	12
64			min	-980.842	8	44.326	12	-1291.7...	14	-78207....	18	-51981....	14	-3596.197	1
65		3	max	644.599	13	.1	9	256.477	10	78200....	19	65623....	15	-3063.025	12
66			min	-980.842	8	-16	8	-256.042	11	-78207....	18	-65521....	14	-4794.074	1
67		4	max	644.599	13	-44.326	12	1078.339	14	78200....	19	44785....	15	-2299.605	12
68			min	-980.842	8	-69.46	1	-1080.0...	15	-78207....	18	-44719....	14	-3596.228	1
69		5	max	644.599	13	-88.922	12	1902.597	14	78200....	19	0	1	0	1
70			min	-980.842	8	-138.999	1	-1904.8...	15	-78207....	18	0	1	0	1
71	M8	1	max	505.735	15	138.999	1	2119.333	13	78184....	19	0	1	0	1
72			min	-837.627	10	89.002	14	-2114.9...	12	-78177....	18	0	1	0	1
73		2	max	505.735	15	69.46	1	1294.304	13	78184....	19	52078....	13	-2301.854	14
74			min	-837.627	10	44.386	14	-1291.0...	12	-78177....	18	-51955....	12	-3596.197	1
75		3	max	505.735	15	.077	11	256.649	8	78184....	19	65668....	13	-3066.528	14
76			min	-837.627	10	-137	10	-255.849	9	-78177....	18	-65481....	12	-4794.074	1
77		4	max	505.735	15	-44.387	14	1077.651	12	78184....	19	44814....	13	-2301.879	14
78			min	-837.627	10	69.46	1	-1080.8...	13	-78177....	18	-44694....	12	-3596.228	1
79		5	max	505.735	15	-89.002	14	1901.701	12	78184....	19	0	1	0	1
80			min	-837.627	10	-138.999	1	-1905.8...	13	-78177....	18	0	1	0	1
81	M9	1	max	2279.914	16	196.792	1	754.687	16	78332....	19	0	1	0	1
82			min	-2280.092	17	126.509	12	-754.687	17	-78332....	18	0	1	0	1
83		2	max	2279.914	16	98.396	1	377.344	16	78332....	19	27616....	16	-4629.332	12
84			min	-2280.092	17	63.255	12	-377.344	17	-78332....	18	-27616....	17	-7201.183	1
85		3	max	2279.914	16	0	1	0	1	78332....	19	36821....	16	-6172.442	12
86			min	-2280.092	17	0	1	0	1	-78332....	18	-36821....	17	-9601.577	1
87		4	max	2279.914	16	-63.255	12	377.344	17	78332....	19	27616....	16	-4629.332	12
88			min	-2280.092	17	-98.396	1	-377.344	16	-78332....	18	-27616....	17	-7201.183	1
89		5	max	2279.914	16	-126.509	12	754.688	17	78332....	19	0	1	0	1
90			min	-2280.092	17	-196.792	1	-754.688	16	-78332....	18	0	1	0	1
91	M10	1	max	8592.448	9	69.577	1	0	1	0	1	0	1	0	1
92			min	-8087.316	12	44.728	22	0	1	0	1	0	1	0	1
93		2	max	8561.333	9	34.788	1	0	1	0	1	0	1	-836.338	22
94			min	-8110.652	12	22.364	22	0	1	0	1	0	1	-1300.97	1
95		3	max	8530.218	9	0	1	0	1	0	1	0	1	-1115.117	22
96			min	-8133.988	12	0	1	0	1	0	1	0	1	-1734.626	1
97		4	max	8499.103	9	-22.364	12	0	1	0	1	0	1	-836.338	22

Envelope Member Section Forces (Continued)

	Member	Sec		Axial[lb]	LC	v Shear[lb]	LC	z Shear...	LC	Torque[lb]	LC	y-y Mo...	LC	z-z Momen...	LC
98			min	8157.324	12	-34.788	1	0	1	0	1	0	1	-1300.97	1
99		5	max	8467.988	9	-44.728	12	0	1	0	1	0	1	0	1
100			min	-8180.661	12	-69.577	1	0	1	0	1	0	1	0	1
101	M11	1	max	8465.087	8	69.577	1	0	1	8218.103	17	0	1	0	1
102			min	-8178.978	13	44.728	22	0	1	-8291.5...	16	0	1	0	1
103		2	max	8496.202	8	34.788	1	0	1	8218.103	17	0	1	-836.338	22
104			min	-8155.642	13	22.364	22	0	1	-8291.5...	16	0	1	-1300.97	1
105		3	max	8527.317	8	0	1	0	1	8218.103	17	0	1	-1115.117	22
106			min	-8132.305	13	0	1	0	1	-8291.5...	16	0	1	-1734.626	1
107		4	max	8558.432	8	-22.364	12	0	1	8218.103	17	0	1	-836.338	22
108			min	-8108.969	13	-34.788	1	0	1	-8291.5...	16	0	1	-1300.97	1
109		5	max	8589.547	8	-44.728	12	0	1	8218.103	17	0	1	0	1
110			min	-8085.633	13	-69.577	1	0	1	-8291.5...	16	0	1	0	1
111	M12	1	max	8591.135	10	69.577	1	0	1	8291.579	16	0	1	0	1
112			min	-8086.899	15	44.728	15	0	1	-8218.1...	17	0	1	0	1
113		2	max	8560.02	10	34.788	1	0	1	8291.579	16	0	1	-836.338	15
114			min	-8110.235	15	22.364	15	0	1	-8218.1...	17	0	1	-1300.97	1
115		3	max	8528.905	10	0	1	0	1	8291.579	16	0	1	-1115.117	15
116			min	-8133.572	15	0	1	0	1	-8218.1...	17	0	1	-1734.626	1
117		4	max	8497.79	10	-22.364	22	0	1	8291.579	16	0	1	-836.338	15
118			min	-8156.908	15	-34.788	1	0	1	-8218.1...	17	0	1	-1300.97	1
119		5	max	8466.675	10	-44.728	22	0	1	8291.579	16	0	1	0	1
120			min	-8180.244	15	-69.577	1	0	1	-8218.1...	17	0	1	0	1
121	M13	1	max	8469.226	11	69.577	1	0	1	0	1	0	1	0	1
122			min	-8181.497	14	44.728	15	0	1	0	1	0	1	0	1
123		2	max	8500.341	11	34.788	1	0	1	0	1	0	1	-836.338	15
124			min	-8158.161	14	22.364	15	0	1	0	1	0	1	-1300.97	1
125		3	max	8531.456	11	0	1	0	1	0	1	0	1	-1115.117	15
126			min	-8134.824	14	0	1	0	1	0	1	0	1	-1734.626	1
127		4	max	8562.571	11	-22.364	14	0	1	0	1	0	1	-836.338	15
128			min	-8111.488	14	-34.788	1	0	1	0	1	0	1	-1300.97	1
129		5	max	8593.687	11	-44.728	14	0	1	0	1	0	1	0	1
130			min	-8088.152	14	-69.577	1	0	1	0	1	0	1	0	1
131	M14	1	max	1510.091	22	196.792	1	1509.375	16	81128....	19	0	1	0	1
132			min	-1518.934	19	126.509	12	-1509.3...	17	-81128....	18	0	1	0	1
133		2	max	755.403	22	98.396	1	754.687	16	81128....	19	55232....	16	-4629.332	12
134			min	-764.246	19	63.255	12	-754.687	17	-81128....	18	-55232....	17	-7201.183	1
135		3	max	130.125	20	0	1	0	1	81128....	19	73642....	16	-6172.442	12
136			min	-128.31	17	0	1	0	1	-81128....	18	-73642....	17	-9601.577	1
137		4	max	745.233	23	-63.255	12	754.688	17	81128....	19	55232....	16	-4629.332	12
138			min	-754.075	18	-98.396	1	-754.688	16	-81128....	18	-55232....	17	-7201.183	1
139		5	max	1499.92	23	-126.509	12	1509.375	17	81128....	19	0	1	0	1
140			min	-1508.763	18	-196.792	1	-1509.3...	16	-81128....	18	0	1	0	1

Envelope Member Section Deflections

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [r...	LC	(n) L/y Ratio	LC	(n) L/z Ratio	LC
1	M1	1	max	0	1	0	1	0	1	7.179e-3	9	NC	1	NC	1
2			min	0	1	0	1	0	1	-7.206e-3	8	NC	1	NC	1
3		2	max	0	12	.214	9	1.458	19	7.179e-3	9	610.946	9	836.541	19
4			min	-.001	9	-.214	8	-1.451	18	-7.206e-3	8	608.938	8	874.065	18
5		3	max	0	12	.309	9	2.848	19	7.179e-3	9	489.492	9	592.04	19
6			min	-.001	9	-.311	8	-2.839	18	-7.206e-3	8	487.622	8	614.334	18
7		4	max	0	12	.297	9	4.161	19	7.179e-3	9	756.358	9	727.907	19
8			min	-.001	9	-.298	8	-4.152	18	-7.206e-3	8	752.955	8	748.812	18
9		5	max	0	12	.226	9	5.372	19	7.179e-3	9	NC	9	NC	19
10			min	-.001	9	-.227	8	-5.365	18	-7.206e-3	8	NC	8	NC	18

Envelope Member Section Deflections (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [r...]	LC	(n) L/y Ratio	LC	(n) L/z Ratio	LC
11	M2	1	max	0	1	0	1	0	1	2.012e-2	19	NC	1	NC	1
12			min	0	1	0	1	0	1	-2.012e-2	18	NC	1	NC	1
13		2	max	.001	21	.214	9	.213	10	2.012e-2	19	608.009	9	612.429	10
14			min	-.002	16	-.215	8	-.212	11	-2.012e-2	18	604.621	8	615.782	11
15		3	max	.001	21	.298	9	.295	10	2.012e-2	19	518.865	9	523.175	10
16			min	-.002	16	-.299	8	-.294	11	-2.012e-2	18	515.673	8	526.634	11
17		4	max	.001	21	.273	9	.271	10	2.012e-2	19	920.698	9	933.139	10
18			min	-.002	16	-.275	8	-.269	11	-2.012e-2	18	911.238	8	946.635	11
19		5	max	.001	21	.226	9	.224	10	2.012e-2	19	NC	9	NC	10
20			min	-.002	16	-.226	8	-.223	11	-2.012e-2	18	NC	8	NC	11
21	M3	1	max	0	1	0	1	0	1	7.543e-3	10	NC	1	NC	1
22			min	0	1	0	1	0	1	-7.512e-3	11	NC	1	NC	1
23		2	max	0	14	1.451	19	.212	10	7.543e-3	10	873.322	19	916.181	10
24			min	-.001	11	-1.458	18	-.211	11	-7.612e-3	11	835.849	18	618.429	11
25		3	max	0	14	2.839	19	.307	10	7.543e-3	10	613.348	19	493.7	10
26			min	-.001	11	-2.849	18	-.306	11	-7.512e-3	11	591.11	18	495.788	11
27		4	max	0	14	4.153	19	.294	10	7.543e-3	10	747.256	19	763.085	10
28			min	-.001	11	-4.161	18	-.293	11	-7.512e-3	11	726.418	18	766.879	11
29		5	max	0	14	5.366	19	.225	10	7.543e-3	10	NC	19	NC	10
30			min	-.001	11	-5.372	18	-.224	11	-7.512e-3	11	NC	18	NC	11
31	M4	1	max	.227	8	0	12	5.372	19	4.761e-2	19	NC	12	NC	19
32			min	-.226	9	-.001	9	-5.365	18	-4.77e-2	18	NC	9	NC	18
33		2	max	.226	8	0	22	4.404	19	3.579e-2	19	NC	22	416.962	19
34			min	-.225	9	-.002	19	-4.323	18	-3.587e-2	18	NC	19	536.627	18
35		3	max	.224	8	0	21	3.234	19	2.398e-2	19	NC	21	299.61	19
36			min	-.223	9	-.001	16	-3.118	18	-2.404e-2	18	NC	16	392.928	18
37		4	max	.225	8	0	21	1.795	19	1.211e-2	19	NC	21	430.008	19
38			min	-.224	9	-.002	16	-1.712	18	-1.219e-2	18	NC	16	564.264	18
39		5	max	.226	8	.001	21	.224	10	1.963e-3	17	NC	21	NC	10
40			min	-.226	9	-.002	16	-.223	11	-1.969e-3	16	NC	16	NC	11
41	M5	1	max	.223	11	.001	21	.226	8	2.162e-3	17	NC	21	NC	8
42			min	-.224	10	-.002	16	-.226	9	-2.165e-3	16	NC	16	NC	9
43		2	max	.222	11	0	21	1.807	18	1.205e-2	18	NC	21	415.445	18
44			min	-.223	10	-.002	16	-1.724	19	-1.213e-2	19	NC	16	538.881	19
45		3	max	.221	11	0	21	3.234	18	2.388e-2	18	NC	21	299.825	18
46			min	-.222	10	-.001	16	-3.118	19	-2.394e-2	19	NC	16	392.791	19
47		4	max	.222	11	0	23	4.392	18	3.573e-2	18	NC	23	432.194	18
48			min	-.223	10	-.002	18	-4.312	19	-3.581e-2	19	NC	18	561.505	19
49		5	max	.224	11	0	14	5.372	18	4.759e-2	18	NC	14	NC	18
50			min	-.225	10	-.001	11	-5.366	19	-4.768e-2	19	NC	11	NC	19
51	M6	1	max	3.918	19	0	14	3.671	19	3.471e-2	19	NC	14	NC	19
52			min	-3.918	18	-.001	11	-3.68	18	-3.458e-2	18	NC	11	NC	18
53		2	max	3.918	19	-.07	14	1.833	19	1.739e-2	19	2776.56	14	NC	19
54			min	-3.918	18	-.11	1	-1.842	18	-1.726e-2	18	1784.931	1	NC	18
55		3	max	3.918	19	-.098	20	.828	17	3.522e-3	16	1978.299	20	331.625	17
56			min	-3.918	18	-.154	1	-.828	16	-3.527e-3	17	1271.763	1	331.625	16
57		4	max	3.918	19	-.07	12	1.833	18	1.74e-2	18	2776.56	12	NC	18
58			min	-3.918	18	-.11	1	-1.842	19	-1.727e-2	19	1784.931	1	NC	19
59		5	max	3.918	19	0	12	3.67	18	3.473e-2	18	NC	12	NC	18
60			min	-3.918	18	-.001	9	-3.68	19	-3.46e-2	19	NC	9	NC	19
61	M7	1	max	.214	8	0	12	1.458	19	5.834e-2	19	NC	12	NC	19
62			min	-.214	9	-.001	9	-1.451	18	-5.813e-2	18	NC	9	NC	18
63		2	max	.215	8	-.017	22	1.428	19	4.519e-2	19	7861.609	22	470.71	19
64			min	-.214	9	-.028	1	-1.419	18	-4.499e-2	18	5033.893	1	474.332	18
65		3	max	.215	8	-.024	15	1.216	19	3.205e-2	19	5573.752	15	341.358	19
66			min	-.214	9	-.039	1	-1.206	18	-3.184e-2	18	3585.821	1	344.059	18
67		4	max	.215	8	-.017	21	.805	10	1.89e-2	19	7789.841	21	369.482	10

Envelope Member Section Deflections (Continued)

	Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [r...	LC	(n) L/v Ratio	LC	(n) L/z Ratio	LC
68			min	-.214	9	-.028	1	-.812	11	-1.869e-2	18	5033.861	1	368.952	11
69		5	max	.215	8	.001	21	.213	10	6.94e-3	10	NC	21	NC	10
70			min	-.214	9	-.002	16	-.212	11	-6.923e-3	11	NC	16	NC	11
71	M8	1	max	.212	11	.001	21	.215	8	6.996e-3	8	NC	21	NC	8
72			min	-.213	10	-.002	16	-.214	9	-6.98e-3	9	NC	16	NC	9
73		2	max	.212	11	-.017	21	.808	8	1.892e-2	18	7792.233	21	354.797	8
74			min	-.213	10	-.028	1	-.815	9	-1.871e-2	19	5033.893	1	353.891	9
75		3	max	.211	11	-.024	13	1.216	18	3.206e-2	18	5570.223	13	341.784	18
76			min	-.212	10	-.039	1	-1.207	19	-3.186e-2	19	3585.821	1	343.636	19
77		4	max	.211	11	-.017	23	1.416	18	4.52e-2	18	7851.85	23	491.005	18
78			min	-.212	10	-.028	1	-1.408	19	-4.5e-2	19	5033.861	1	493.679	19
79		5	max	.211	11	0	14	1.458	18	5.834e-2	18	NC	14	NC	18
80			min	-.212	10	-.001	11	-1.451	19	-5.814e-2	19	NC	11	NC	19
81	M9	1	max	1.143	19	0	14	.909	19	3.711e-2	19	NC	14	NC	19
82			min	-1.144	18	-.001	11	-.918	18	-3.739e-2	18	NC	11	NC	18
83		2	max	1.144	19	-.07	14	.724	9	1.849e-2	19	2776.56	14	698.159	9
84			min	-1.144	18	-.11	1	-.717	8	-1.877e-2	18	1784.931	1	698.159	8
85		3	max	1.144	19	-.098	20	.809	17	7.108e-3	17	1978.299	20	331.625	17
86			min	-1.144	18	-.154	1	-.808	16	-7.103e-3	16	1271.763	1	331.625	16
87		4	max	1.144	19	-.07	12	.745	11	1.847e-2	18	2776.56	12	698.159	11
88			min	-1.144	18	-.11	1	-.738	10	-1.876e-2	19	1784.931	1	698.159	10
89		5	max	1.144	19	0	12	.909	18	3.71e-2	18	NC	12	NC	18
90			min	-1.144	18	-.001	9	-.918	19	-3.738e-2	19	NC	9	NC	19
91	M10	1	max	.149	8	.153	9	1.458	19	4.397e-2	19	NC	9	NC	19
92			min	-.149	9	-.154	8	-1.451	18	-4.406e-2	18	NC	8	NC	18
93		2	max	.15	8	.152	13	1.902	19	4.397e-2	19	NC	13	NC	19
94			min	-.15	9	-.161	8	-1.868	18	-4.406e-2	18	NC	8	NC	18
95		3	max	.152	8	.153	13	2.346	19	4.397e-2	19	NC	13	NC	19
96			min	-.152	9	-.165	8	-2.285	18	-4.406e-2	18	NC	8	NC	18
97		4	max	.153	8	.156	13	2.79	19	4.397e-2	19	NC	13	NC	19
98			min	-.153	9	-.165	8	-2.701	18	-4.406e-2	18	NC	8	NC	18
99		5	max	.155	8	.161	9	3.234	19	4.397e-2	19	NC	9	NC	19
100			min	-.155	9	-.162	8	-3.118	18	-4.406e-2	18	NC	8	NC	18
101	M11	1	max	.156	8	.161	8	3.234	19	1.079e-2	18	NC	8	NC	19
102			min	-.154	9	-.161	9	-3.118	18	-1.079e-2	19	NC	9	NC	18
103		2	max	.154	8	.156	12	2.467	19	1.077e-2	18	NC	12	NC	19
104			min	-.153	9	-.164	9	-2.378	18	-1.073e-2	19	NC	9	NC	18
105		3	max	.153	8	.153	12	1.7	19	1.074e-2	18	NC	12	NC	19
106			min	-.152	9	-.164	9	-1.639	18	-1.067e-2	19	NC	9	NC	18
107		4	max	.151	8	.153	12	.933	19	1.072e-2	18	NC	12	NC	19
108			min	-.15	9	-.16	9	-.899	18	-1.061e-2	19	NC	9	NC	18
109		5	max	.15	8	.155	8	.213	10	1.069e-2	18	NC	8	NC	10
110			min	-.149	9	-.154	9	-.212	11	-1.055e-2	19	NC	9	NC	11
111	M12	1	max	.147	11	.153	10	.215	8	1.068e-2	19	NC	10	NC	8
112			min	-.148	10	-.152	11	-.214	9	-1.053e-2	18	NC	11	NC	9
113		2	max	.148	11	.151	14	.934	18	1.062e-2	19	NC	14	NC	18
114			min	-.15	10	-.158	11	-.9	19	-1.051e-2	18	NC	11	NC	19
115		3	max	.15	11	.151	14	1.7	18	1.056e-2	19	NC	14	NC	18
116			min	-.151	10	-.162	11	-1.639	19	-1.048e-2	18	NC	11	NC	19
117		4	max	.151	11	.154	14	2.467	18	1.05e-2	19	NC	14	NC	18
118			min	-.152	10	-.162	11	-2.379	19	-1.046e-2	18	NC	11	NC	19
119		5	max	.153	11	.159	10	3.234	18	1.044e-2	19	NC	10	NC	18
120			min	-.154	10	-.159	11	-3.118	19	-1.043e-2	18	NC	11	NC	19
121	M13	1	max	.153	11	.159	11	3.234	18	4.347e-2	18	NC	11	NC	18
122			min	-.153	10	-.161	10	-3.118	19	-4.356e-2	19	NC	10	NC	19
123		2	max	.151	11	.154	15	2.79	18	4.347e-2	18	NC	15	NC	18
124			min	-.151	10	-.163	10	-2.702	19	-4.356e-2	19	NC	10	NC	19

Envelope Member Section Deflections (Continued)

Member	Sec		x [in]	LC	y [in]	LC	z [in]	LC	x Rotate [r...]	LC	(n) L/y Ratio	LC	(n) L/z Ratio	LC
125		3 max	.15	11	.151	15	2.346	18	4.347e-2	18	NC	15	NC	18
126		min	-.15	10	-.163	10	-2.285	19	-4.356e-2	19	NC	10	NC	19
127		4 max	.148	11	.15	15	1.902	18	4.347e-2	18	NC	15	NC	18
128		min	-.149	10	-.159	10	-1.868	19	-4.356e-2	19	NC	10	NC	19
129		5 max	.147	11	.152	11	1.458	18	4.347e-2	18	NC	11	NC	18
130		min	-.147	10	-.152	10	-1.451	19	-4.356e-2	19	NC	10	NC	19
131	M14	1 max	2.649	19	0	14	2.311	19	3.859e-2	19	NC	14	NC	19
132		min	-2.649	18	-.001	11	-2.324	18	-3.856e-2	18	NC	11	NC	18
133		2 max	2.649	19	-.07	14	1.538	9	1.93e-2	19	2776.56	14	349.079	9
134		min	-2.649	18	-.11	1	-1.518	8	-1.927e-2	18	1784.931	1	349.079	8
135		3 max	2.649	19	-.098	20	1.51	17	4.18e-4	20	1978.299	20	165.813	17
136		min	-2.649	18	-.154	1	-1.51	16	-4.205e-4	17	1271.763	1	165.813	16
137		4 max	2.649	19	-.07	12	1.589	11	1.93e-2	18	2776.56	12	349.079	11
138		min	-2.649	18	-.11	1	-1.568	10	-1.927e-2	19	1784.931	1	349.079	10
139		5 max	2.649	19	0	12	2.311	18	3.859e-2	18	NC	12	NC	18
140		min	-2.649	18	-.001	9	-2.324	19	-3.856e-2	19	NC	9	NC	19

Envelope AISC 13th(360-05): LRFD Steel Code Checks

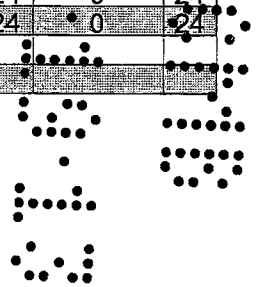
	Member	Shape	Code Check	Loc[ft]	LC	Shear ...	Loc[ft]	Dir	LC	phi*Pnc [...]	phi*Pnt [...]	phi*Mn y...	phi*Mn z...	Cb	Egn
1	M1	PIPE 5.0X	.581	2	19	.106	2		11	160984....	185652	307800	307800	1....	H1-1b
2	M2	PIPE 5.0X	.638	2	18	.099	0		16	160984....	185652	307800	307800	1....	H1-1b
3	M3	PIPE 5.0X	.580	2	18	.106	2		18	160984....	185652	307800	307800	1....	H1-1b
4	M4	TU4X4X6	.465	5.75	19	.551	0	z	19	102256....	164592	217728	217728	1....	H3-6
5	M5	TU4X4X6	.479	4.073	18	.553	0	z	18	102256....	164592	217728	217728	1....	H3-6
6	M6	TU4X4X6	.280	7.623	11	.533	0	y	19	63465.171	164592	217728	217728	1....	H3-6
7	M7	TU4X4X6	.459	4.073	19	.606	0	z	19	102256....	164592	217728	217728	1....	H3-6
8	M8	TU4X4X6	.457	4.073	19	.606	0	z	18	102256....	164592	217728	217728	1....	H3-6
9	M9	TU4X4X6	.253	8.64	10	.573	0	y	19	63465.171	164592	217728	217728	1....	H3-6
10	M10	TU4X4X6	.040	4.069	9	.002	8.31	y	1	128368.66	164592	217728	217728	1....	H1-1b
11	M11	TU4X4X6	.040	4.242	8	.062	0	y	16	128368.66	164592	217728	217728	1....	H1-1b
12	M12	TU4X4X6	.040	4.069	10	.062	0	y	16	128368.66	164592	217728	217728	1....	H1-1b
13	M13	TU4X4X6	.040	4.242	11	.002	8.31	y	1	128368.66	164592	217728	217728	1....	H1-1b
14	M14	TU4X4X6	.377	8.132	16	.593	0	y	19	63465.171	164592	217728	217728	1....	H1-1b

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [lb-in]	LC	MY [lb-in]	LC	MZ [lb-in]	LC
1	N1	max	3926.531	43	5974.882	43	3403.353	28	0	24	0	24	0	24
2		min	-4070.157	42	-5974.863	42	-3364.349	35	0	24	0	24	0	24
3	N2	max	4344.636	43	6223.141	29	2528.309	36	0	24	0	24	0	24
4		min	-4295.52	42	-5974.874	43	-2516.726	27	0	24	0	24	0	24
5	N3	max	5471.042	43	4517.023	28	2315.062	28	0	24	0	24	0	24
6		min	-5376.533	42	-3039.911	35	-2365.114	35	0	24	0	24	0	24
7	Totals:	max	13742.21	43	2681.126	29	8245.326	28						
8		min	-13742.21	42	0	42	-8245.326	35						

ASD

32 14 W 888



228

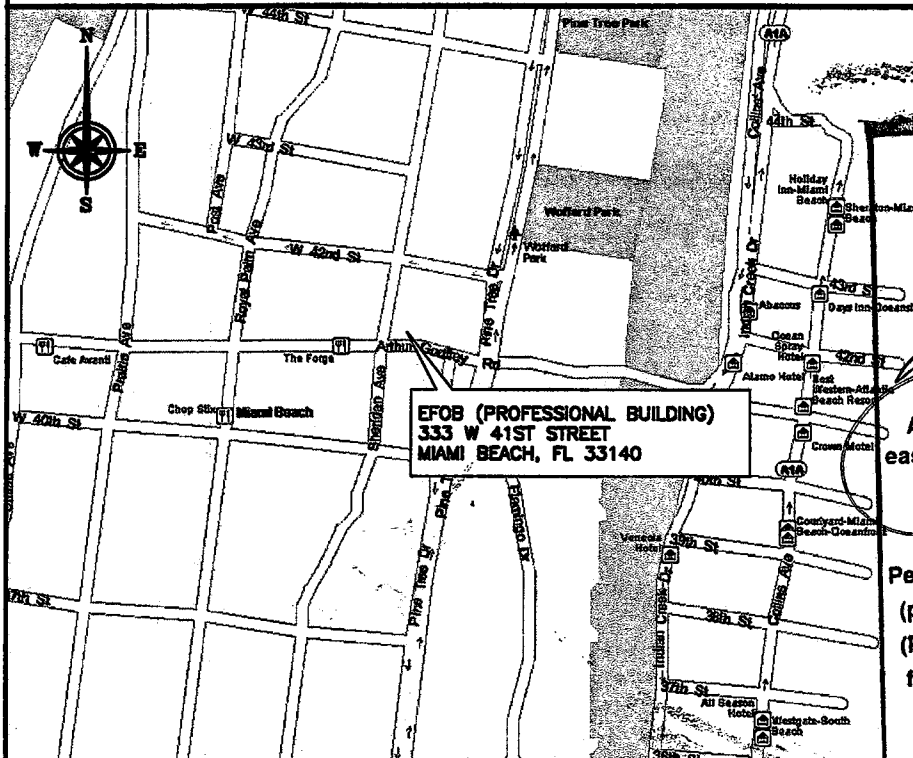
B1306528

333 W 41 St

DRIVING DIRECTIONS

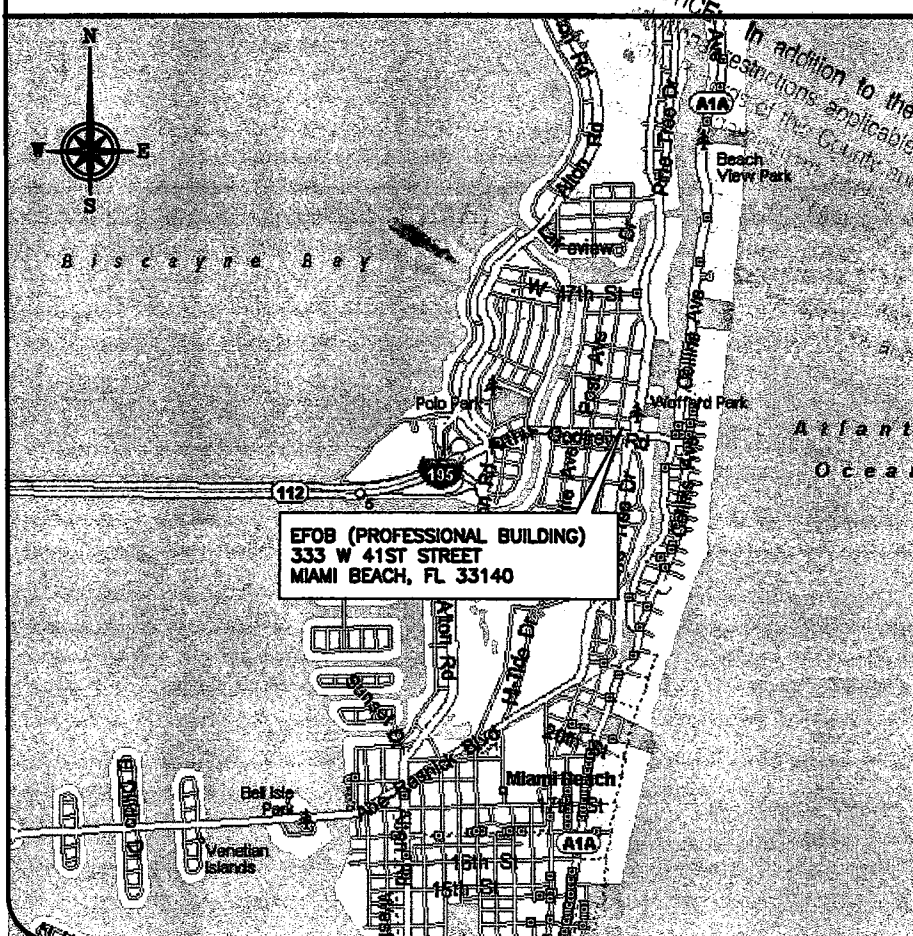
FROM AT&T'S OFFICE, HEAD SOUTH ON I-95 FOR 43.1 MILES TO EXIT 4 (I-195/SR-112),
TURN LEFT AND HEAD EAST FOR 4.6 MILES TO SITE ON LEFT SIDE OF ROAD.

LOCAL MAP



EF0B (PROFESSIONAL BUILDING)
333 W 41ST STREET
MIAMI BEACH, FL 33140

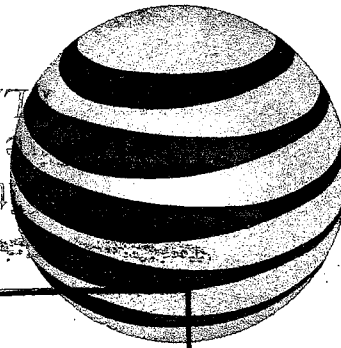
VICINITY MAP



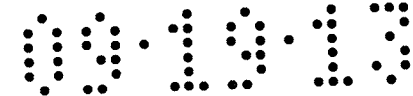
EF0B (PROFESSIONAL BUILDING)
333 W 41ST STREET
MIAMI BEACH, FL 33140



PLANS APPROVED
City of Miami Beach
Department of Public Works



at&t



**PUBLIC WORKS
PLAN REVIEW NOTICE**

Phone 305-673-7080 Fax 305-673-7028

THIS PLAN REVIEW CONSTITUTES APPROVAL FOR
OBTAINING BUILDING PERMITS ONLY.

All construction and/or use of equipment in the right-of-way and/or
easements, requires a separate Public Works Department permit prior
to start of construction.

Permit Requirements: Proof of existing sidewalk/swale area conditions
(pictures) and/or posting of sidewalk/roadway bonds
(Public Works Inspection of the right-of-way will be required prior to
final sign-off on the C.C. / C.O., or the release of bonds.)

Approved/Reviewed By:

Date: 11/19/13

EF0B

333 W 41ST STREET
MIAMI BEACH, FL 33140

PROPOSED INSTALLATION OF EQUIPMENTAL
ELEVATOR:

OFFICE COPY
CITY OF MIAMI BEACH
APPROVED FOR PERMIT BY

ameco

LOCAL OFFICE
5845 NW 158th STREET
MIAMI LAKES, FL 33014
TEL: (305) 828-5588
FAX: (305) 828-1799

CERTIFICATE OF AUTHORIZATION #: 5392

PROJECT NO.: 6788-12-2458 (17.03)

REV. DATE DESCRIPTION

0 08/27/13 FOR PERMIT

DRAWN BY: A. E. LOZANO

CHECKED BY: L. E. PUCHE

REVISED BY: J. A. MILIAN

DATE OF SIGNATURE: 08/27/13

EF0B
(333 PROFESSIONAL
BUILDING)

333 W 41ST STREET
MIAMI BEACH, FL 33140

SHEET NAME

TITLE SHEET

SHEET NUMBER

T1

FOLIO #: 02-3222-001-0360

Latitude: 25° 48' 50.44" N

Longitude: 80° 07' 38.20" W

City of Miami Beach

Zone: 18N

Classification: 6600 COMMERCIAL

Property Owner(s): APH CORPORATION

1940 FILLMORE STREET

SAN FRANCISCO, CA 94115

LEGAL DESCRIPTION

ORCHARD SUB NO 4 PB 25-30 LOTS 1-2-3
INC BLK 3 LOTE SIZE 155.000 X 110 OR
18891-3430/23524-4225 1299 1 OR
18891-3430 1299 00

APPROVALS

PROPERTY OWNER _____
RF ENGINEER _____
CONSTRUCTION _____
SITE ACQUISITION _____
ZONING _____
NETWORK _____
OPERATIONS _____
CONTRACTOR _____

CONSTRUCTION NOTES

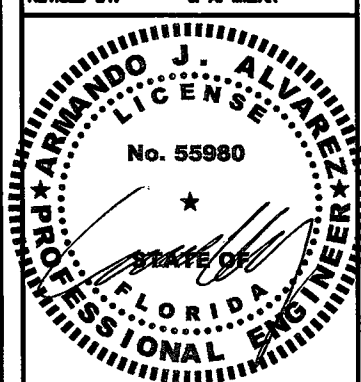
1. ALL NEW BUILDINGS AND STRUCTURES
HAVE BEEN DESIGNED IN ACCORDANCE
WITH THE 2010 EDITION OF THE FLORIDA
BUILDING CODE, FOR DESIGN PRESSURES
GENERATED BY NOMINAL DESIGN 3-SECOND
GUST WIND VELOCITY OF 175 MPH.
2. CONTRACTOR SHALL VERIFY ALL PLANS
AND EXISTING DIMENSIONS AND CONDITIONS
ON THE JOB SITE AND SHALL IMMEDIATELY
NOTIFY THE ENGINEER IN WRITING OF ANY
DISCREPANCIES BEFORE PROCEEDING WITH
THE WORK OR BE RESPONSIBLE FOR SAME.
3. CONTRACTOR SHALL NOTIFY OWNER
FOR ACCESS TO SITE.

PROJECT INFORMATION

1. THIS IS AN UNMANNED FACILITY AND WILL BE USED FOR THE TRANSMISSION OF
RADIO SIGNALS FOR THE PURPOSE OF PROVIDING PUBLIC CELLULAR SERVICE.
2. AT&T CERTIFIES THAT THIS EQUIPMENT FACILITY WILL BE SERVICED ONLY BY
AT&T EMPLOYEES AND SUBCONTRACTORS AND THE WORK ASSOCIATED WITH
ANY EQUIPMENT CANNOT BE PERFORMED BY HANDICAPPED PERSONS. THIS
FACILITY WILL BE FREQUENTED ONLY BY SERVICE PERSONNEL FOR REPAIR
PURPOSES ONLY.
3. NO POTABLE WATER SUPPLY IS TO BE PROVIDED AT THIS LOCATION.
4. NO WASTEWATER WILL BE GENERATED AT THIS LOCATION.
5. NO SOLID WASTE WILL BE GENERATED AT THIS LOCATION.

INDEX OF DRAWINGS

SHT. NO.	DESCRIPTION	REV. NO.
T1	TITLE SHEET	0
C1	SITE PLAN	0
C2	ROOF PLAN	0
C3	EQUIPMENT ROOM PLAN	0
C4	BUILDING ELEVATIONS	0
C5	BUILDING ELEVATIONS	0
C6	CABLE AND MOUNTING CONDUIT DETAILS	0
C7	SIGNAGE DETAILS	0
C8	CABLE MARKING	0
C9	CABLE MARKING	0
S1	STRUCTURAL DETAILS	0
S2	STRUCTURAL DETAILS	0
S3	STRUCTURAL DETAILS	0
S4	STRUCTURAL DETAILS	0
S5	STRUCTURAL DETAILS	0
E1	ELECTRICAL NOTES	0
E2	UTILITY ROUTING - SECOND FLOOR PLAN	0
E3	UTILITY ROUTING - ROOF DECK PLAN	0
E4	ONE-LINE DIAGRAM	0
E5	RISER DIAGRAM	0
E6	GROUNDING PLANS AND DETAILS	0
E7	GROUNDING DETAILS	0
E8	GROUNDING DETAILS	0
E9	PENETRATION DETAILS	0



DATE OF SIGNATURE: 08/27/13

EF0B
(333 PROFESSIONAL
BUILDING)

333 W 41ST STREET
MIAMI BEACH, FL 33140

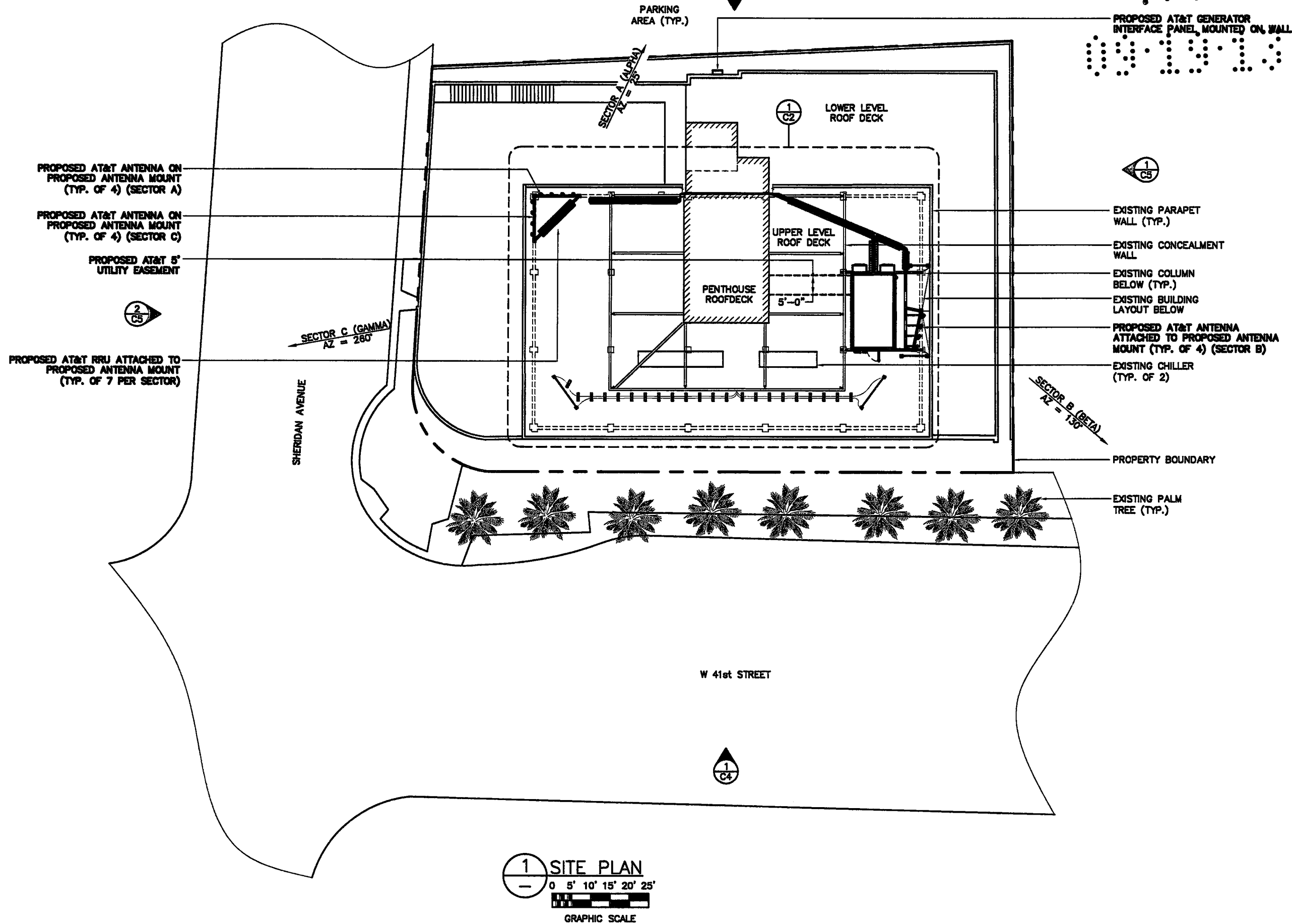
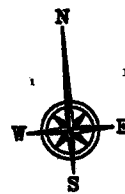
SHEET NAME

TITLE SHEET

SHEET NUMBER

T1

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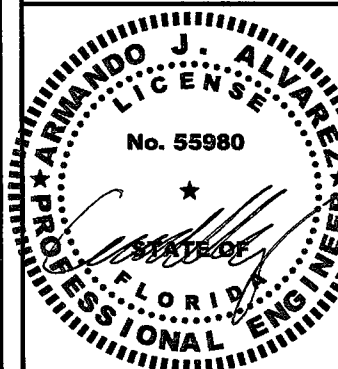
PROJECT NO.: 6788-12-2458 (17.03)

0	08/27/13	FOR PERMIT
REV	DATE	DESCRIPTION

DRAWN BY: A. E. LOZANO

CHECKED BY: L. E. PUCHE

REVISED BY: J. A. MILIAN



DATE OF SIGNATURE: 08/27/13

EF08
(333 PROFESSIONAL
BUILDING)

333 W 41ST STREET
MIAMI BEACH, FL 33140

SHEET NAME

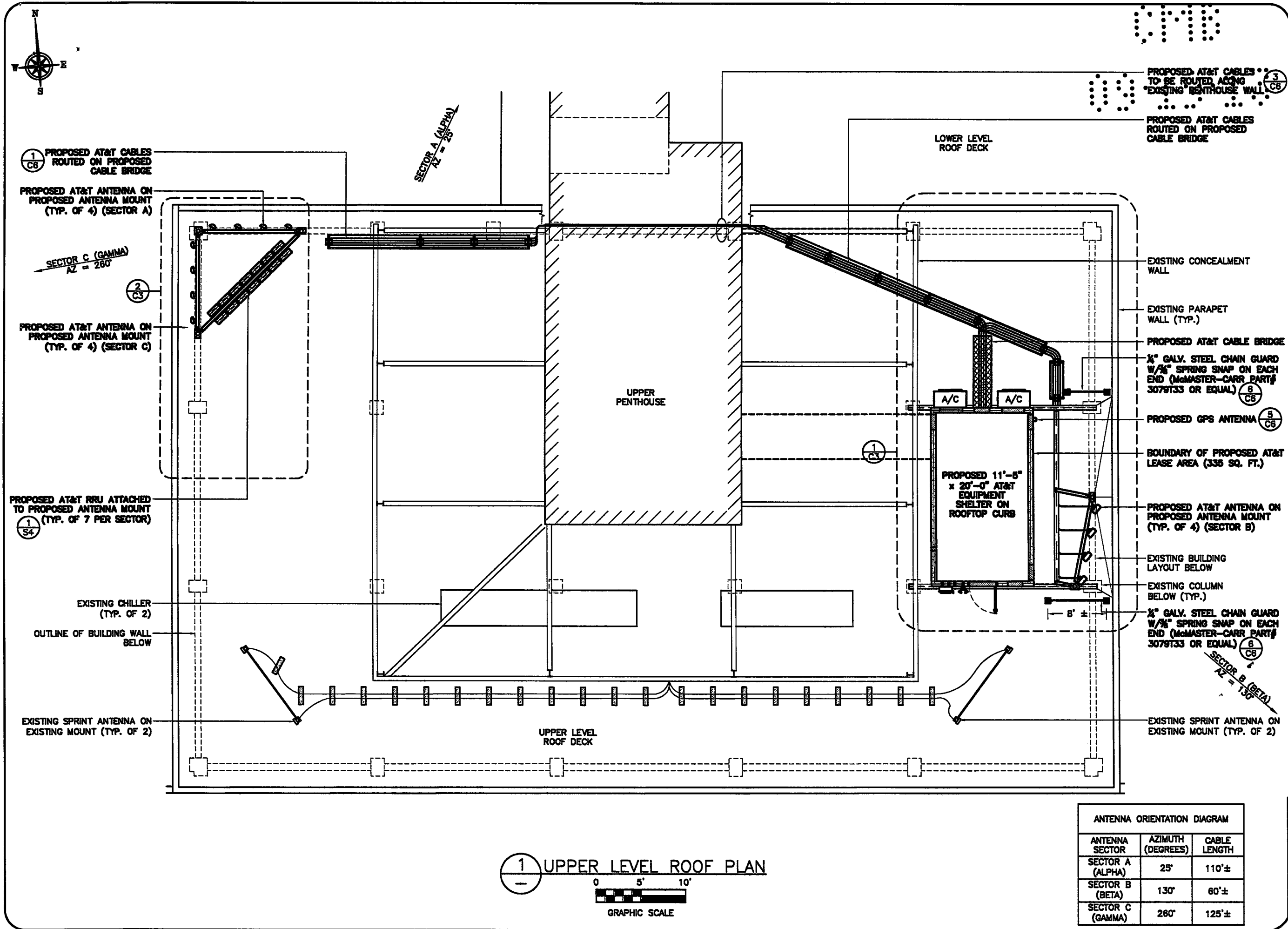
SITE PLAN

SHEET NUMBER

C1

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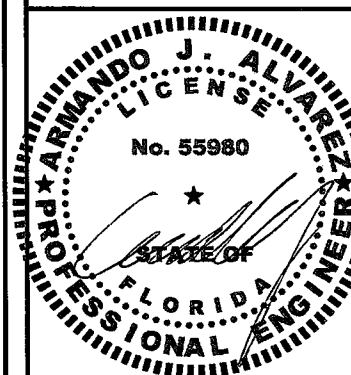
PROJECT NO.: 6788-12-2458 (17.03)

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REV	DATE	DESCRIPTION

DRAWN BY: A. E. LOZANO

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DATE OF SIGNATURE: 08/27/13

EF08
(333 PROFESSIONAL
BUILDING)

333 W 41ST STREET
MIAMI BEACH, FL 33140

SHEET NAME

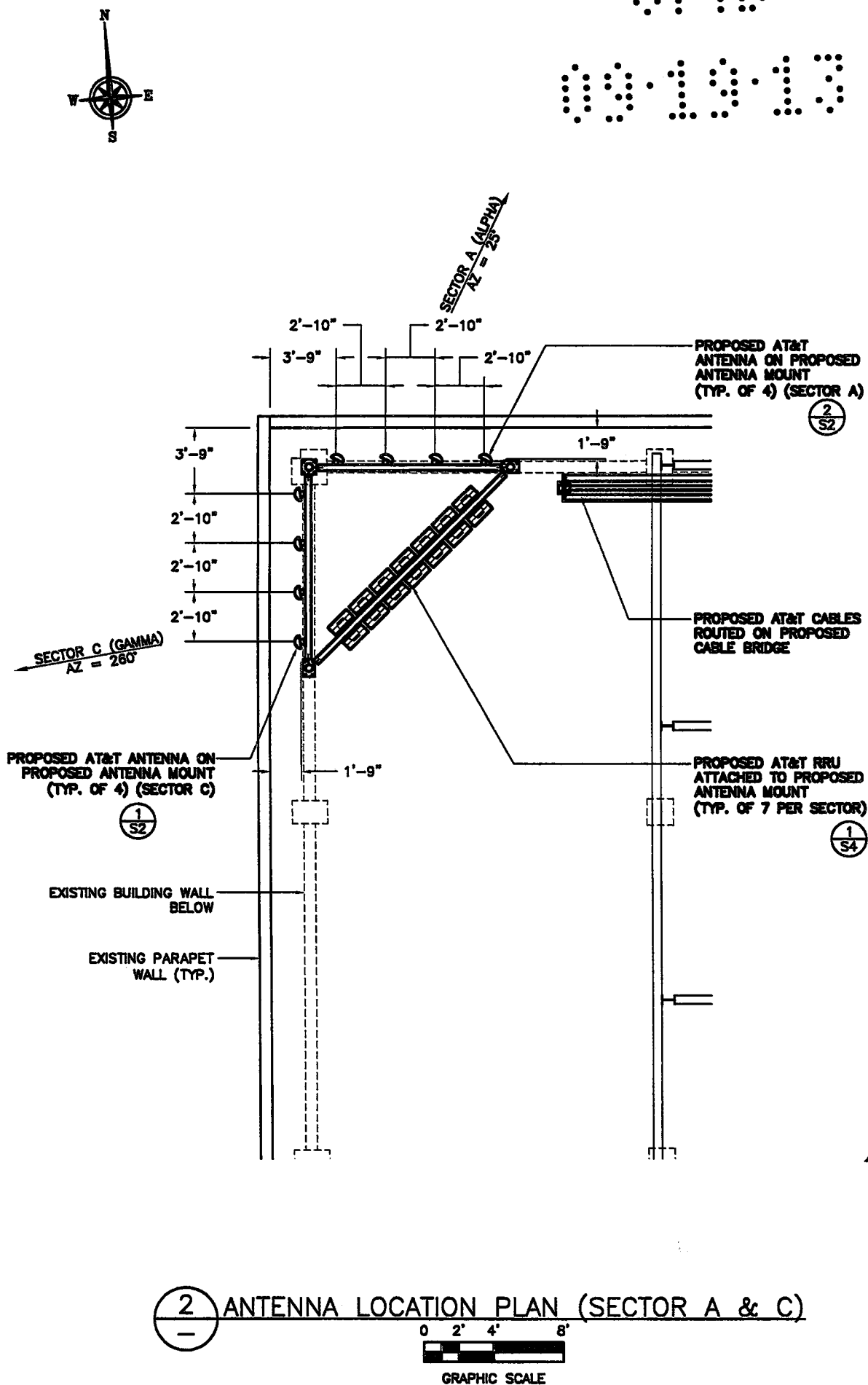
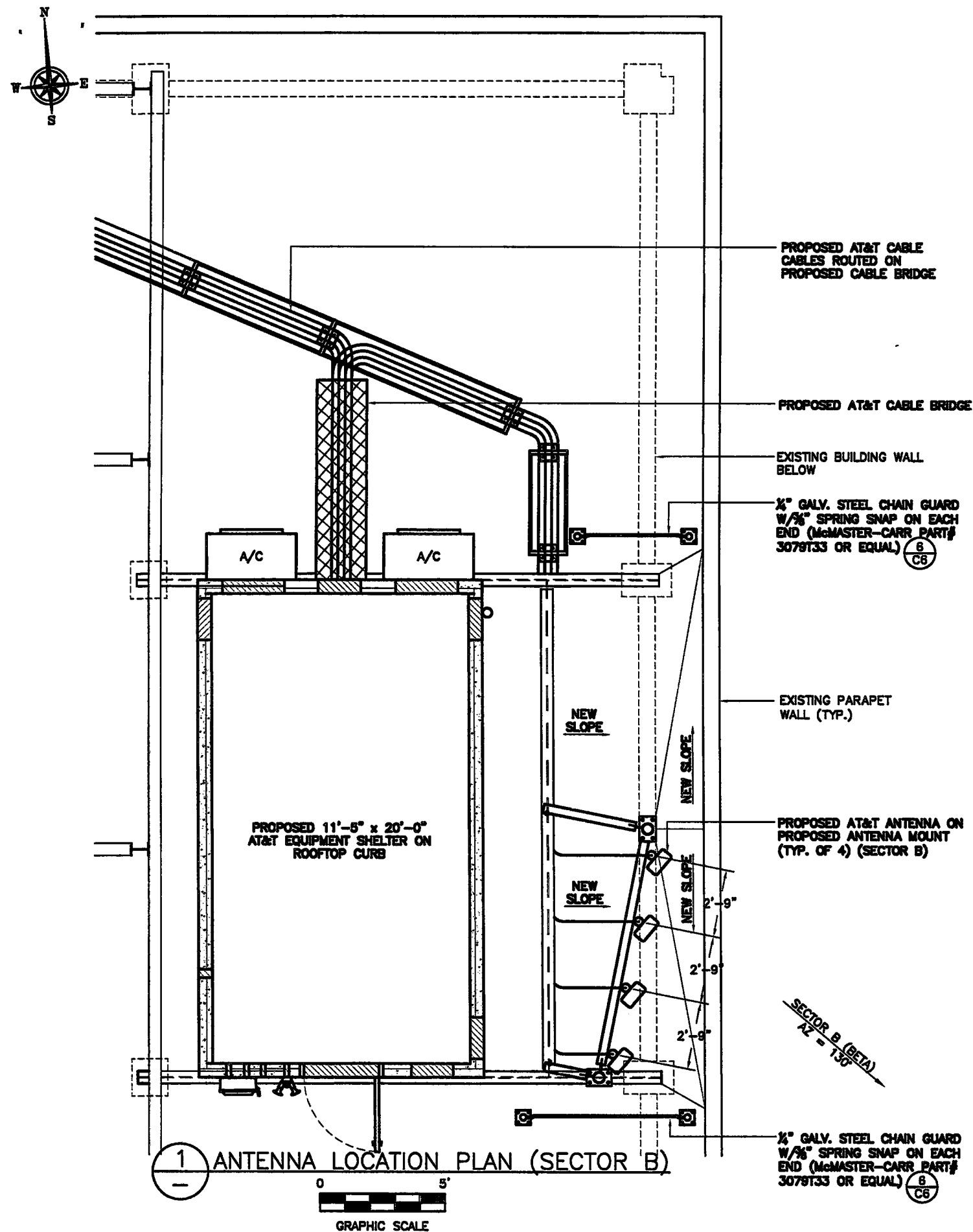
ROOF PLAN

SHEET NUMBER

C2

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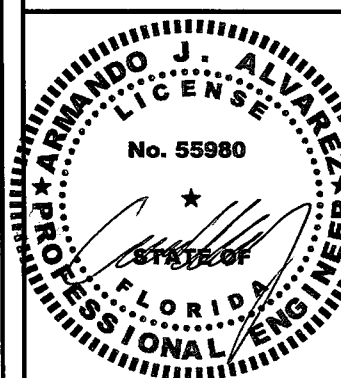


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333 W 41ST STREET
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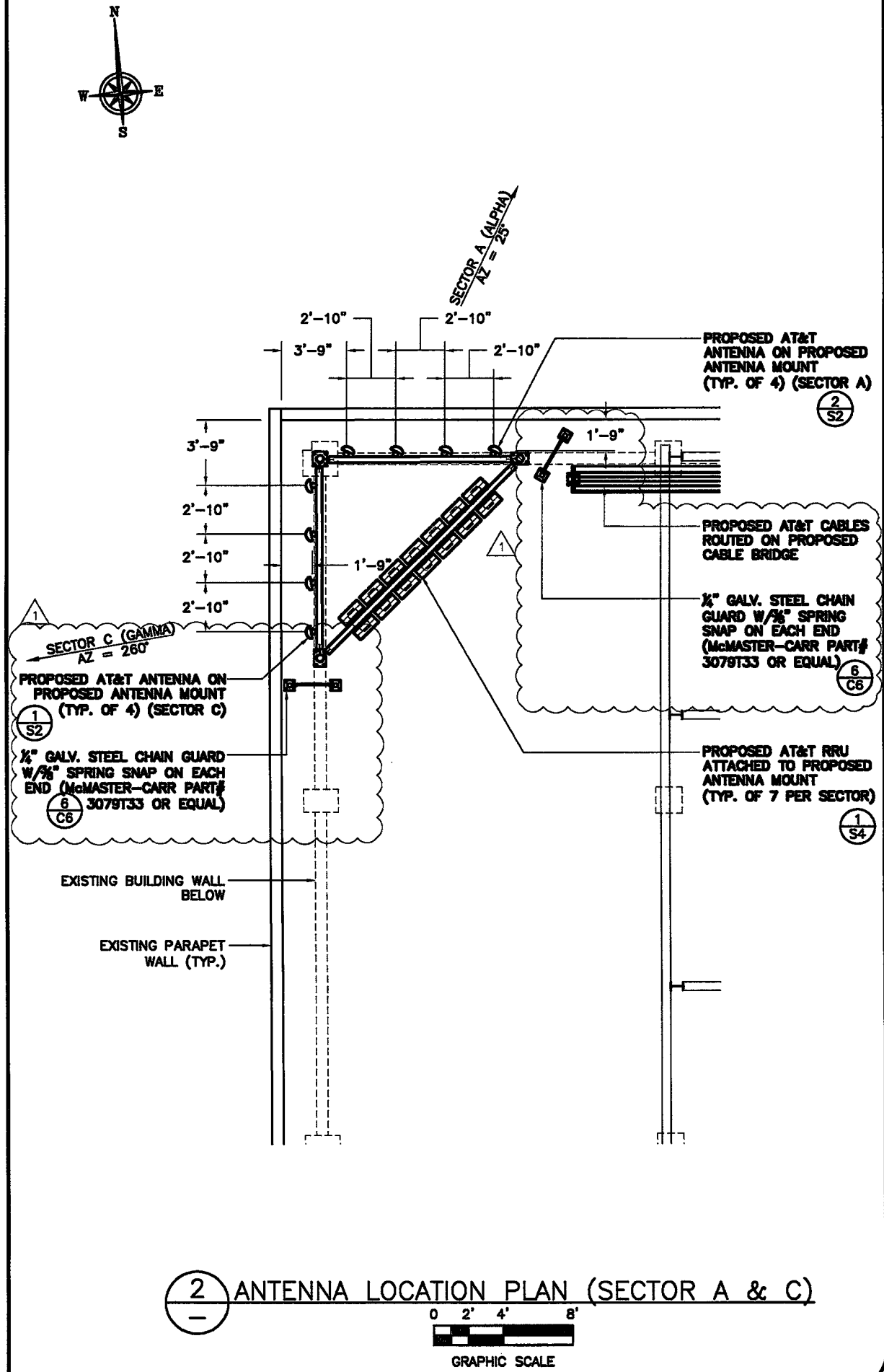
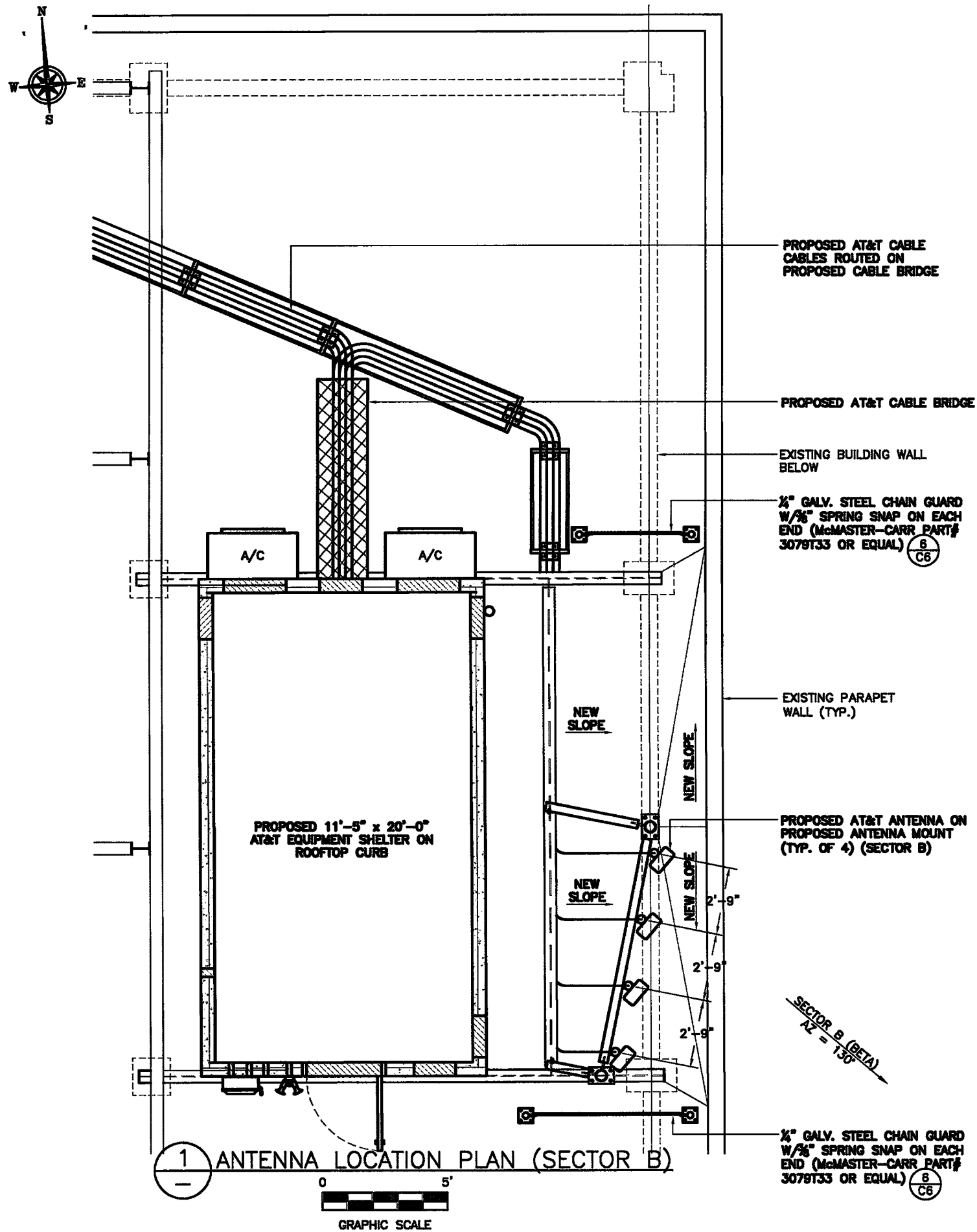
SHEET NAME
EQUIPMENT
ROOM PLAN

SHEET NUMBER

C3

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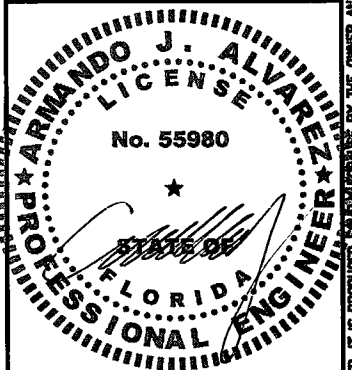
PROJECT NO. 6788-12-2458 (17.03)

REV	DATE	DESCRIPTION
1	09/26/13	REVISED
0	08/27/13	FOR PERMIT

DRAWN BY: A. E. LOZANO

CHECKED BY: E. PUCHE

REVISED BY: J. A. MILIAN



DATE OF SIGNATURE: 08/27/13

EF08
(333 PROFESSIONAL
BUILDING)

333 W 41ST STREET
MIAMI BEACH, FL 33140

SHEET NAME
EQUIPMENT
ROOM PLAN

SHEET NUMBER

C3

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TOP OF PENTHOUSE
EL. 120'-5" AGL
RAD CENTER OF PROPOSED AT&T ANTENNAS
EL. 110'-0" AGL
ROOF DECK
EL. 105'-4" AGL

PROPOSED AT&T ANTENNA MOUNTED
ON PROPOSED ANTENNA MOUNT
(TYP. OF 4) (SECTOR C)

PROPOSED AT&T ANTENNA ON
PROPOSED ANTENNA MOUNT
(TYP. OF 4) (SECTOR A)

EXISTING PENTHOUSE BEHIND
CONCEALMENT WALL
EXISTING SPRINT ANTENNA ON
EXISTING MOUNT (TYP. OF 2)
RAD CENTER OF PROPOSED AT&T ANTENNAS
EL. 110'-0" AGL
PROPOSED AT&T ANTENNA MOUNTED
ON A PROPOSED ANTENNA MOUNT
(TYP. OF 4) (SECTOR B)

PROPOSED 11'-5" x 20'-0" AT&T
EQUIPMENT SHELTER ON ROOFTOP
PLATFORM

EXISTING GRADE
EL. 0'-0"

1 SOUTH ELEVATION
0 5' 10' 15' 20' 25'
GRAPHIC SCALE

TOP OF PENTHOUSE
EL. 120'-5" AGL
RAD CENTER OF PROPOSED AT&T ANTENNAS
EL. 110'-0" AGL
ROOF DECK
EL. 105'-4" AGL

PROPOSED AT&T ANTENNA
MOUNTED ON PROPOSED ANTENNA
MOUNT (TYP. OF 4) (SECTOR B)

PROPOSED 11'-5" x 20'-0" AT&T
EQUIPMENT SHELTER ON ROOFTOP
PLATFORM

EXISTING PENTHOUSE
EXISTING CONCEALMENT WALL
RAD CENTER OF PROPOSED AT&T ANTENNAS
EL. 110'-0" AGL
PROPOSED AT&T ANTENNA ON
PROPOSED ANTENNA MOUNT
(TYP. OF 4) (SECTOR C)

PROPOSED AT&T ANTENNA ON
PROPOSED ANTENNA MOUNT
(TYP. OF 4) (SECTOR A)

EXISTING GRADE
EL. 0'-0"

2 NORTH ELEVATION
0 5' 10' 15' 20' 25'
GRAPHIC SCALE



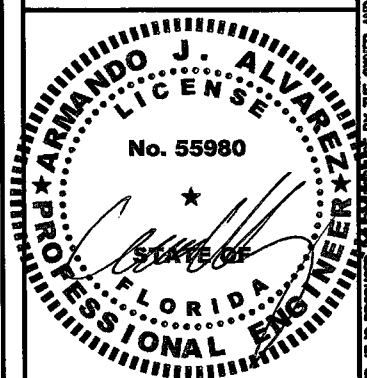
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PROJECT NO.: 6788-12-2458 (17.03)

REV	DATE	DESCRIPTION
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DRAWN BY: A. E. LOZANO
CHECKED BY: L. E. PUCHE
REVISED BY: J. A. MILIAN



DATE OF SIGNATURE: 06/27/13

EF08
(333 PROFESSIONAL
BUILDING)

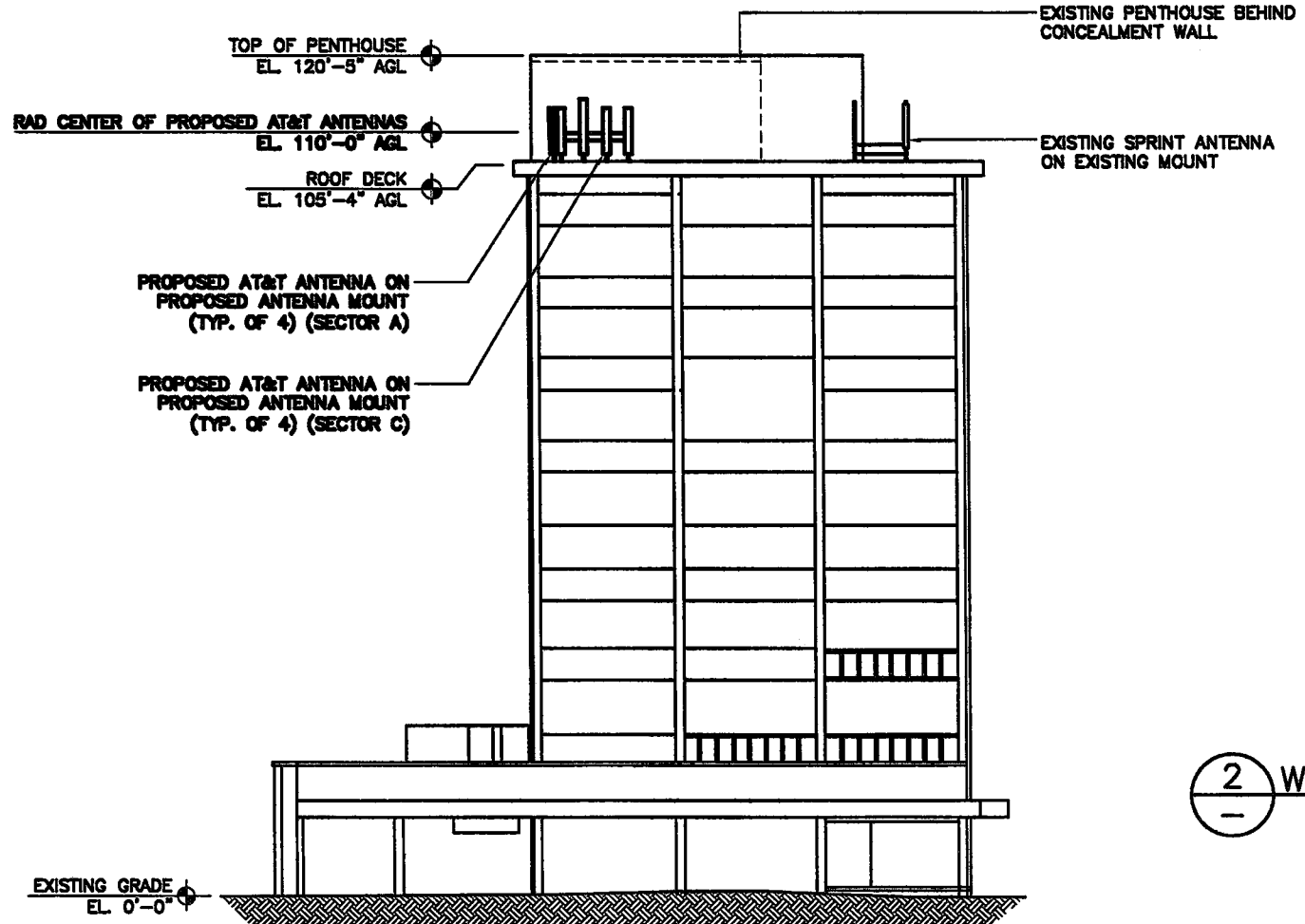
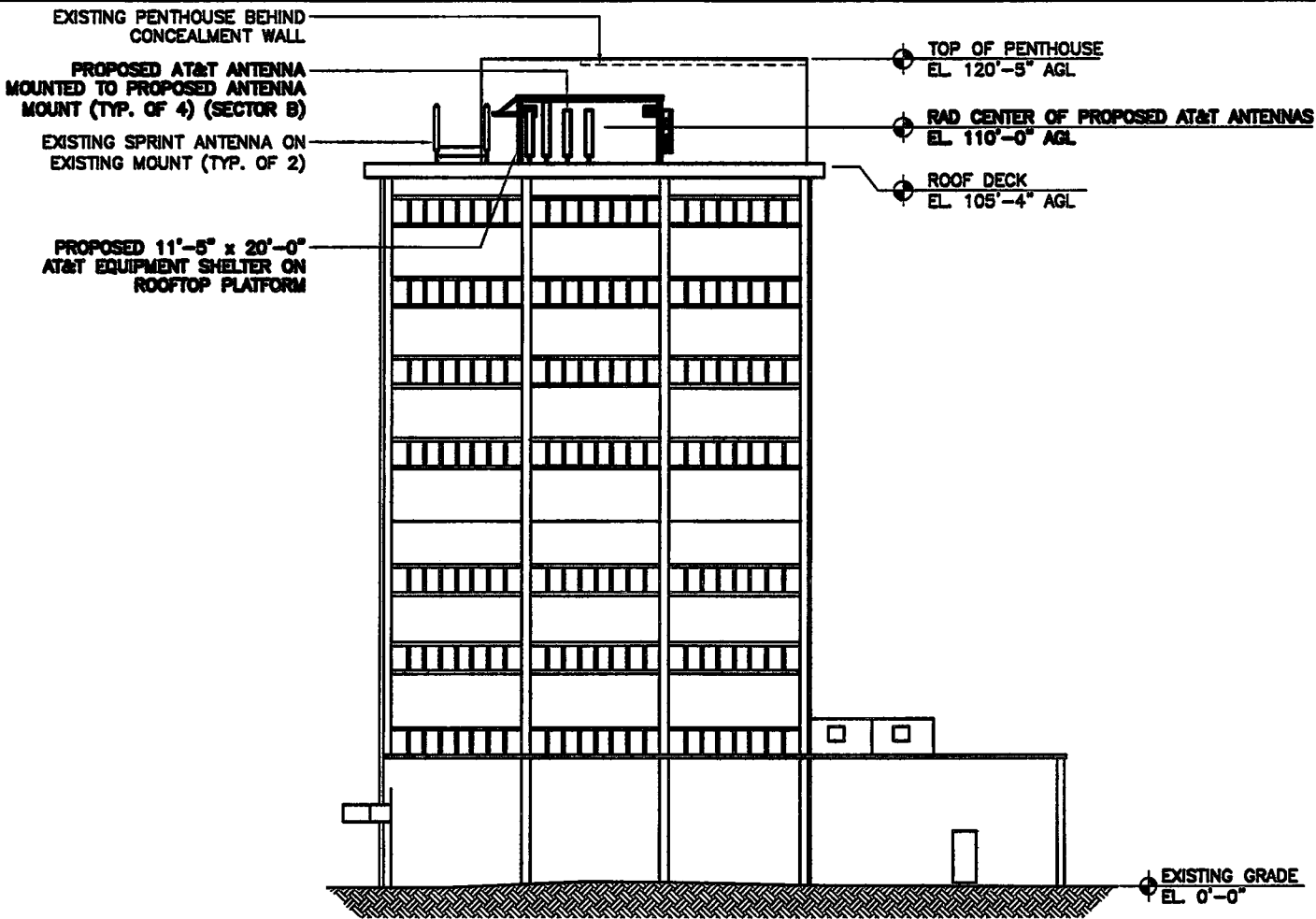
333 W 41ST STREET
MIAMI BEACH, FL 33140

SHEET NAME
BUILDING
ELEVATIONS

SHEET NUMBER

C4

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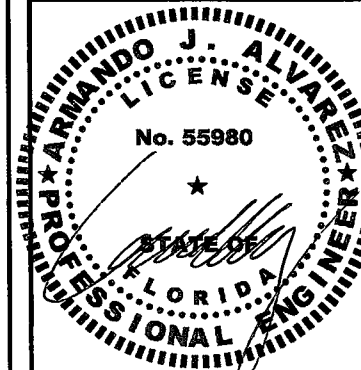
078
09.10.13



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DATE OF SIGNATURE: 06/27/13

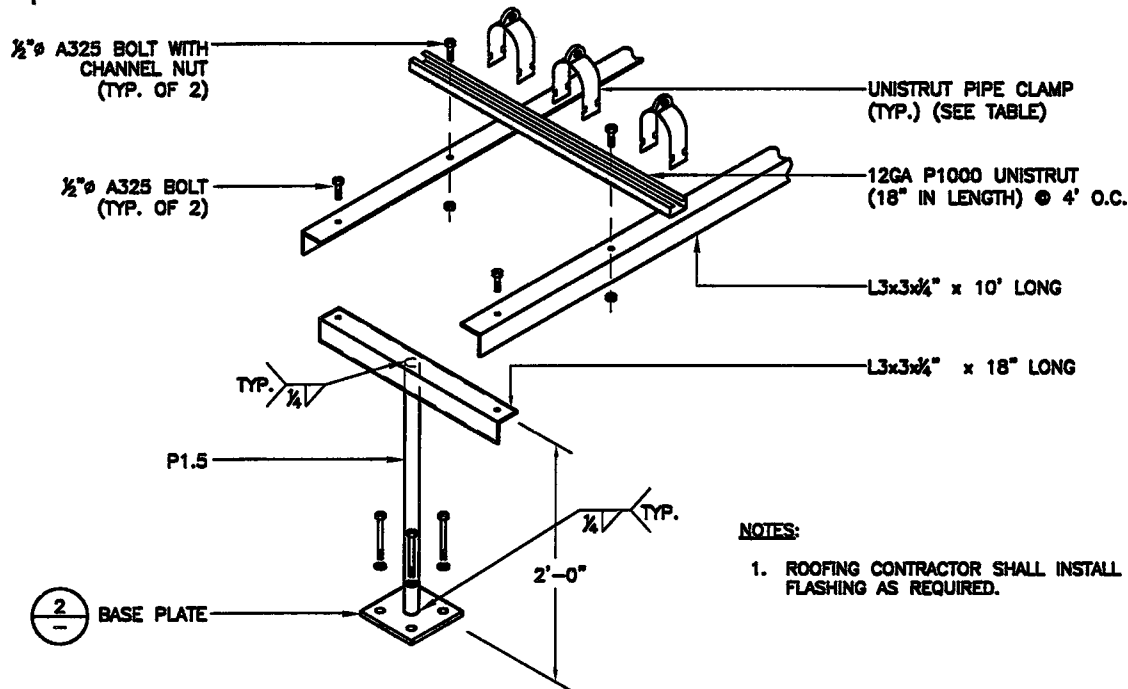
EFOB
(333 PROFESSIONAL
BUILDING)

333 W 41ST STREET
MIAMI BEACH, FL 33140

SHEET NAME
BUILDING
ELEVATIONS

SHEET NUMBER
C5

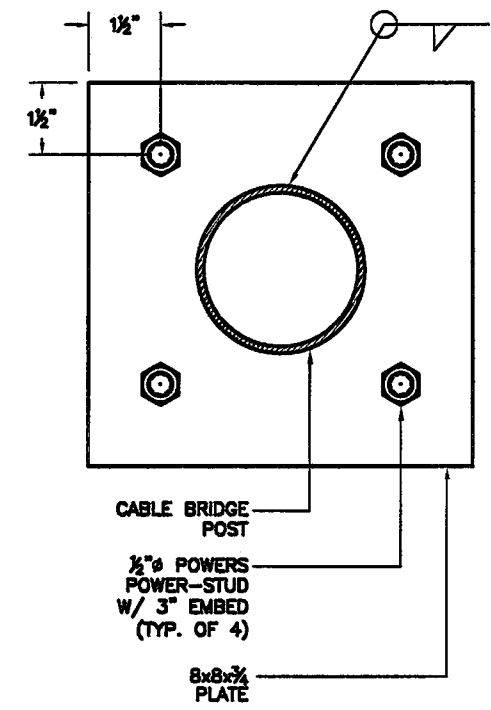
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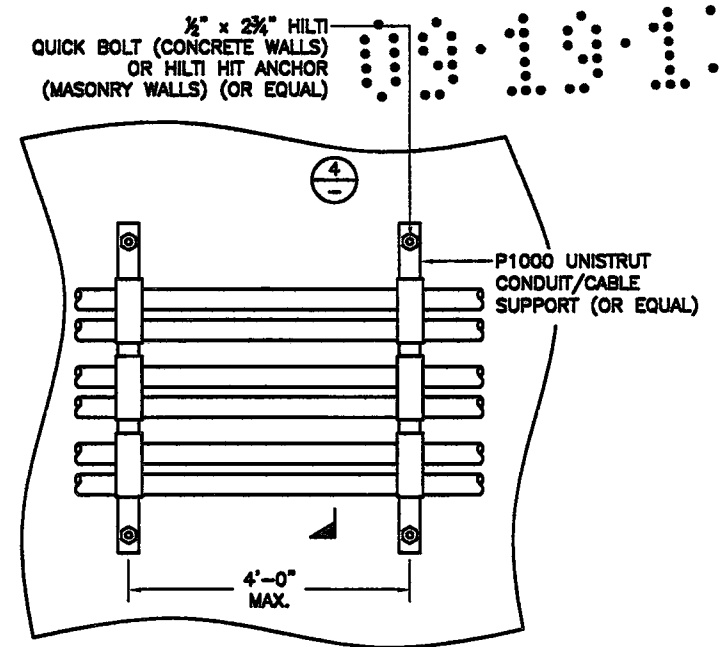
NOTES:
1. ROOFING CONTRACTOR SHALL INSTALL FLASHING AS REQUIRED.

1 CONDUIT/CABLE BRIDGE ISOMETRIC (TYP. @ 10'-0" C/C) NTS

NOTE:
ROOFING CONTRACTOR SHALL INSTALL FLASHING AS REQUIRED.

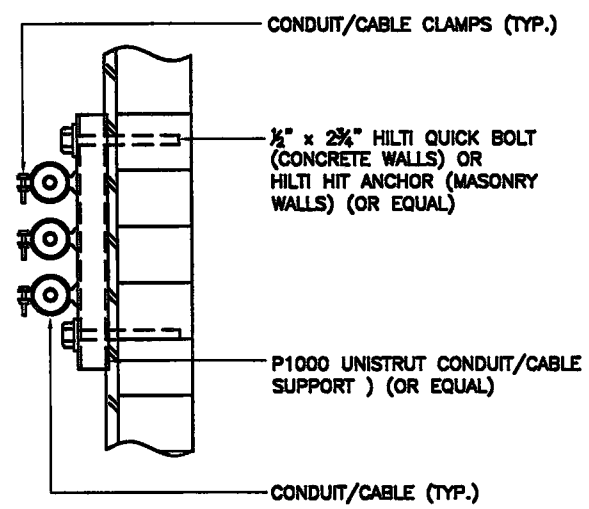


2 BASE PLATE DETAIL NTS

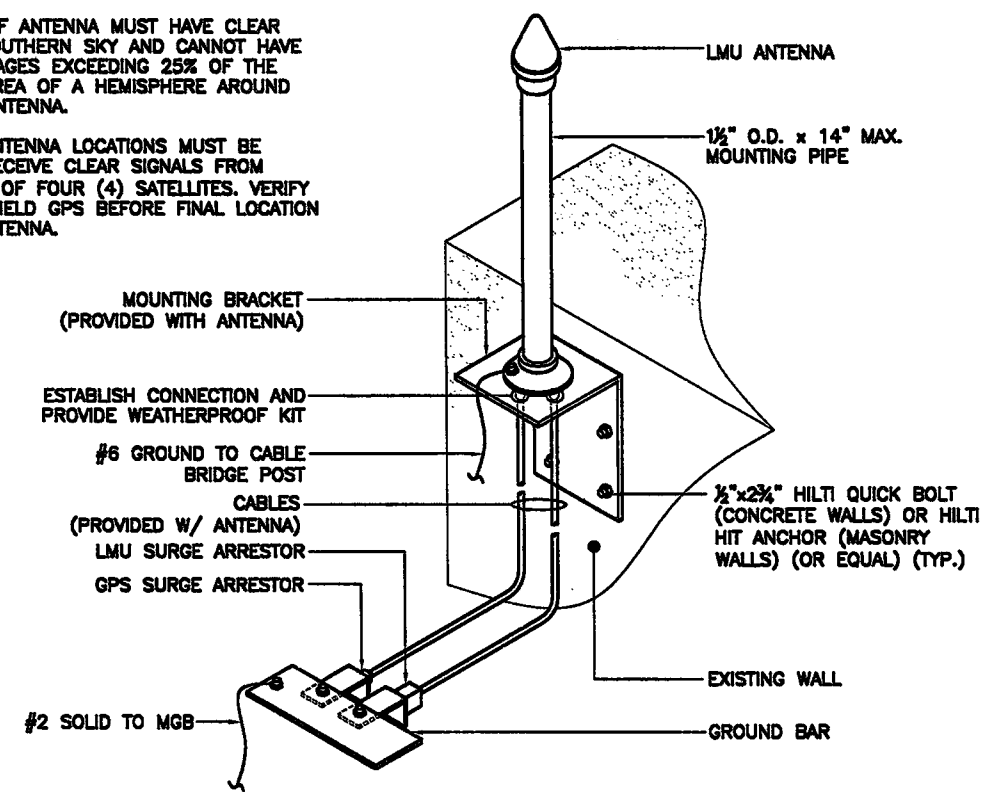


3 WALL MOUNTED CONDUIT/CABLE DETAIL NTS

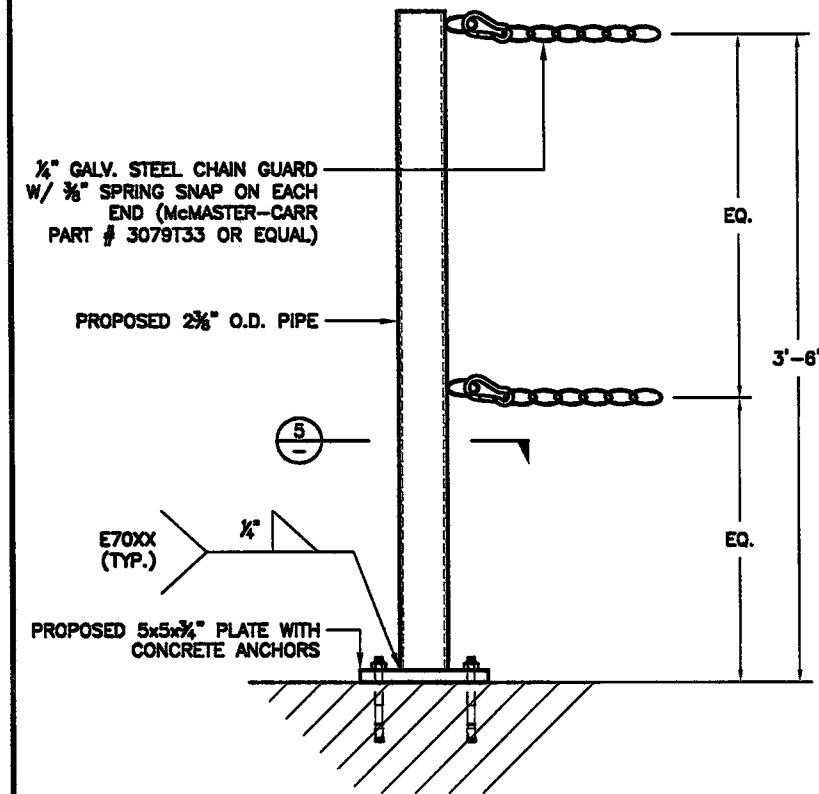
NOTES:
1. LOCATION OF ANTENNA MUST HAVE CLEAR VIEW OF SOUTHERN SKY AND CANNOT HAVE ANY BLOCKAGES EXCEEDING 25% OF THE SURFACE AREA OF A HEMISPHERE AROUND THE LMU ANTENNA.
2. ALL LMU ANTENNA LOCATIONS MUST BE ABLE TO RECEIVE CLEAR SIGNALS FROM A MINIMUM OF FOUR (4) SATELLITES. VERIFY WITH HANDHELD GPS BEFORE FINAL LOCATION OF LMU ANTENNA.



4 WALL-MOUNTED CONDUIT DETAIL NTS



5 GPS ANTENNA MOUNTING ISOMETRIC NTS



6 SAFETY CHAIN DETAIL NTS



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MIAMI LAKES, FL 33014
TEL: (305) 828-3588
FAX: (305) 828-1799

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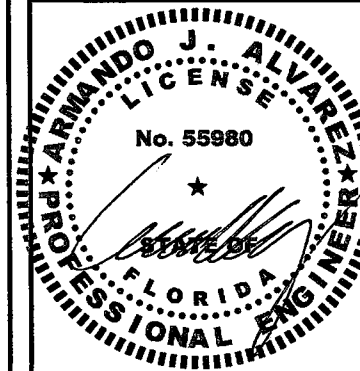
PROJECT NO.: 6788-12-2458 (17.03)

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CHECKED BY: L. E. PUCHE

REVISED BY: J. A. MILIAN



DATE OF SIGNATURE: 08/27/13

EF08
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333 W 41ST STREET
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SHEET NAME
CABLE & CONDUIT MOUNTING DETAILS

SHEET NUMBER
C6

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1. NO TRESPASSING SIGN
THIS SIGN SHOULD BE MADE OF 8½" x 11" 60-MIL THICK WHITE PLASTIC WITH CENTERED BLUE LETTERING OF 72 POINT FONT (1") OR LARGER.

1.1 RAWLAND SITES

FOR RAWLAND SITES THE SIGN SHOULD BE PLACED ON THE PERIMETER FENCE AT THE GATE LOCATION IF A FENCE IS AVAILABLE. IF THERE IS NO PERIMETER FENCE THE SIGN SHALL BE MOUNTED TO THE EXTERIOR SIDE OF THE ENTRANCE DOOR TO THE SHELTER/EQUIPMENT ROOM. IF A SHELTER IS NOT PLANNED FOR THE SITE, POSTING OF NO TRESPASSING SIGNS SHALL BE AS DIRECTED BY AT&T.

1.1.1 THE SIGN SHALL READ:

NO TRESPASSING
VIOLATORS WILL BE PROSECUTED

1.2 REQUIREMENTS

THE NO TRESPASSING SIGN SHALL NOT BE REQUIRED WHEN OUTDOOR BTS CABINETS ARE USED AND DANGER KEEP OFF SIGNS MEETING THE REQUIREMENTS OF SECTION 3.3.3 ARE MOUNTED TO THE CABINETS.

2. SITE ID AND NAME SIGN

THIS SIGN SHOULD BE MADE OF 8½" x 11" 60-MIL THICK WHITE PLASTIC WITH CENTERED BLUE LETTERING OF 72 POINT FONT (1") OR LARGER.

2.1 PLACEMENT SPECIFICATION

THIS SIGN SHOULD BE PLACED ON THE EXTERIOR SIDE OF THE ENTRANCE DOOR TO THE SHELTER/EQUIPMENT ROOM OR BTS CABINET.

2.2 THE SIGN SHALL READ:

SITE ID & NAME
FOR EMERGENCY ACCESS, OR
WHEN WORKING ON THIS SITE,
1-800-832-6662

2.3 COMBINING THE SITE ID AND NAME SIGN

THE SITE ID AND NAME SIGN AND THE NO TRESPASSING SIGN MAY BE COMBINED IF THERE IS NO PERIMETER FENCE. THIS SIGN SHOULD BE MADE OF 60-MIL THICK WHITE PLASTIC 8½" x 11" MINIMUM IN SIZE, WITH CENTERED BLUE LETTERING OF 72 POINT FONT (1") OR LARGER.

3. DANGER KEEP OFF SIGN

THIS SIGN SHOULD BE MADE OF 8½" x 11" 60-MIL THICK WHITE PLASTIC. LETTERING AND COLORING SHALL BE PER OSHA 1910.149: REGULATION OF ACCIDENT PREVENTION SIGNS AND TAGS.

3.1 PLACEMENT SPECIFICATION

THIS SIGN SHOULD BE PLACED ON THE TOWER/MONOPOLE AT EYE LEVEL (APPROXIMATELY 5-FEET) AS REQUIRED. THIS SIGN IS ONLY REQUIRED WHEN THE TOWER/MONOPOLE IS ERECTED BY AT&T.

3.2 THE SIGN SHALL READ:

DANGER
KEEP OFF

4. EFCC SIGNAGE REQUIREMENTS

ALL FCC SIGNS MUST COMPLY WITH THE FOLLOWING REQUIREMENTS:

MATERIAL - 2' x 10' 2-MIL THICK PREMIUM-GRADE CAST PVC FILM (VINYL) WITH PERMANENT ACRYLIC PRESSURE SENSITIVE ADHESIVE.

COLOR - BLACK LETTERING ON WHITE BACKGROUND WITH A 72 POINT FONT (1") FOR THE ACTUAL NUMBER AND 36 POINT FONT FOR THE SIGN NAME (0.5").

WHEN MOUNTING THE FCC CALL SIGN OR FCC TOWER REGISTRATION NO. SIGN ON CONCRETE OR OTHER POROUS SURFACE, THE VINYL GRAPHICS SHOULD BE MOUNTED ON A 2.5' x 11' ALUMINUM BACKING PLATE. THE BACKING PLATE CAN THEN BE MOUNTED USING SCREWS OR EPOXY.

5. FCC CALL SIGN

THE LICENSE'S CALL SIGN MUST BE POSTED ON EACH RADIO AT THE SITE. IF ALL RADIO ON A RACK BELONG TO THE SAME LICENSEE (AND THEREFORE HAVE THE SAME CALL SIGN), THE CALL SIGN CAN BE POSTED ON THE RACK INSTEAD OF EACH INDIVIDUAL RADIO. IF ALL RACKS IN THE SHELTER BELONG TO THE SAME LICENSEE, THE CALL SIGN CAN BE POSTED ON THE EXTERIOR OF THE SHELTER ITSELF. THE CALL SIGN MUST BE LEGIBLE ON A WEATHERPROOF IN THE ABSENCE OF CONFLICTING REQUIREMENTS (SUCH AS SIZE CONSTRAINTS OR LANDLORD DEMANDS) THE CALL-SIGN SIGNAGE SHOULD CONFORM TO THE STANDARDS SHOWN IN FIGURE 1.

6. FCC TOWER REGISTRATION NUMBER SIGN

6.1 SITES REQUIRING FAA APPROVAL

AS OF JULY 1, 1998, ALL SITES REQUIRING FAA APPROVAL MUST OBTAIN A FCC TOWER REGISTRATION NUMBER. THIS NUMBER MUST BE POSTED AT THE BASE OF THE SUPPORTING STRUCTURE ERECTED BY AT&T. THE TOWER REGISTRATION NUMBER SIGN MUST COMPLY WITH THE FCC MATERIAL/LETTERING REQUIREMENTS AS SHOWN IN FIGURE 2. AT&T WILL PROVIDE CONTRACTOR THE FCC TOWER REGISTRATION NUMBER THAT MUST BE USED.

1 SIGNAGE NOTES

INFORMATION

Federal Communications Commission
Tower Registration Number

1 2 3 4 5 6 7

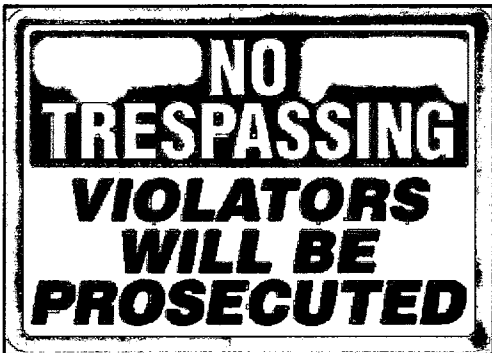
Posted in accordance with Federal Communications
Commission rules on antenna tower registration
47CFR 17.4(g).

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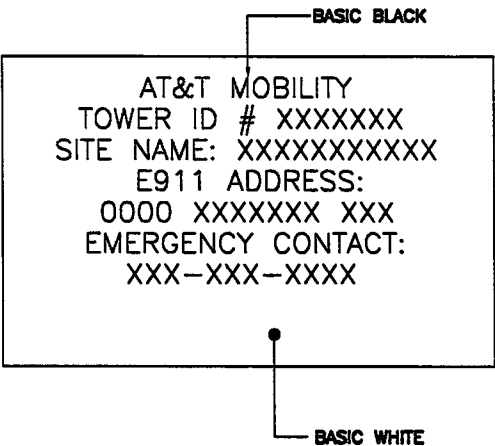
2 FCC REGISTRATION SIGN



3 RF WARNING SIGN



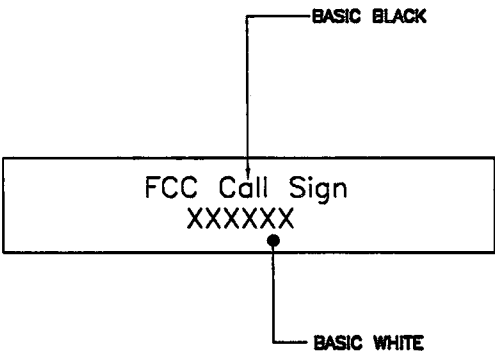
4 NO TRESPASSING SIGN



5 COMPOUND SIGN



6 DANGER KEEP OFF



7 FCC CALL SIGN



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TEL: (305) 828-8588
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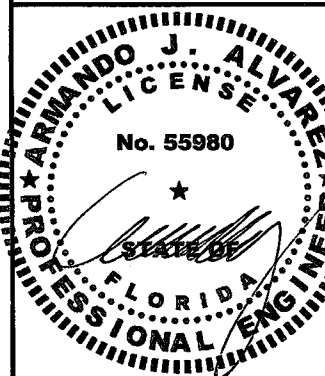
PROJECT NO.: 6788-12-2458 (17.03)

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DRAWN BY: A. E. LOZANO

CHECKED BY: L. E. PUCHE

REVISED BY: J. A. MILLAN



DATE OF SIGNATURE: 06/27/13

EF08
(333 PROFESSIONAL
BUILDING)

333 W 41ST STREET
MIAMI BEACH, FL 33140

SHEET NAME

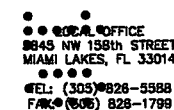
SIGNAGE

DETAILS

SHEET NUMBER

C7

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PROJECT NO.: • • • 6788-12-2458 (17.63)

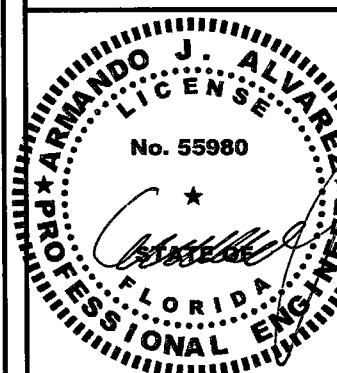
A 10x10 grid with black dots forming the letters 'S' and 'E'. The 'S' is formed by dots at (row, col): (1,4), (1,5), (2,4), (2,5), (2,6), (3,5), (3,6), (3,7), (4,6), (4,7), (4,8), (5,7), (5,8), (5,9), (6,8), (6,9), (6,10), (7,9), (7,10), (8,9), (8,10), (9,9), (9,10). The 'E' is formed by dots at (row, col): (1,8), (1,9), (1,10), (2,8), (2,9), (2,10), (3,8), (3,9), (3,10), (4,8), (4,9), (4,10), (5,8), (5,9), (5,10), (6,8), (6,9), (6,10), (7,8), (7,9), (7,10), (8,8), (8,9), (8,10), (9,8), (9,9), (9,10), (10,8), (10,9), (10,10).

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REV	DATE	DESCRIPTION

DRAWN BY: **A. E. LOZANO**

CHECKED BY: L. E. PUCHE

REVISOR BY: J. A. MILAN



DATE OF SIGNATURE: 09/27/13

EF0B
(333 PROFESSIONAL
BUILDING)

333 W 41ST STREET
MIAMI BEACH, FL 33140

SHEET NAME

CODE
COMPLIANCE

SHEET NUMBER

F

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

1. 2010 FLORIDA BUILDING CODE.
2. NATIONAL ELECTRIC CODE (NEC) WITH LOCAL AMENDMENTS LATEST EDITION.
3. ANSI/TIA/EIA APPLICABLE STANDARDS.
4. LIFE SAFETY CODE NFPA-1012009.
5. FLORIDA FIRE PREVENTION CODE 2010.
6. AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS (AISC).
7. UNDERWRITERS LABORATORIES (U.L.) APPROVED ELECTRICAL PRODUCTS.
8. LOCAL BUILDING CODE.
9. CITY/COUNTY ORDINANCES.

NOTE: THERE SHALL BE NO PIPES, CONDUITS OR CABLES RAN THOUGH THE STAIRS OR ITS ENVELOPE.



City of Miami Beach
The Prevention Division
PLANS APPROVED

1 CODE COMPLIANCE