

**at&t**  
Your world. Delivered.

# TOTEM LAKE WA758

14216 132ND AVENUE NORTHEAST  
KIRKLAND, WA 98034

**PROPRIETARY INFORMATION**

THE INFORMATION CONTAINED IN THIS SET OF CONSTRUCTION DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO CARRIER SERVICES IS STRICTLY PROHIBITED.



**FINAL CONSTRUCTION  
DRAWINGS**

11/17/2011



EXPIRATION DATE OF THE  
LICENSE: 08/20/13

**TOTEM LAKE**  
WA758  
14216 132ND AVENUE NORTHEAST  
KIRKLAND, WA 98034

**PROJECT INFORMATION**

**PROJECT DESCRIPTION:**

AT&T MOBILITY PROPOSES TO MODIFY AN EXISTING UNSTAFFED TELECOMMUNICATIONS FACILITY BY REMOVING AND REPLACING (3) GSM PANEL ANTENNAS AND (3) UMS PANEL ANTENNAS WITH (3) PROPOSED DUAL GSM/UMTS PANEL ANTENNAS (1) PER SECTOR AT RAD CENTER OF 62'-0" AND (3) PROPOSED LTE PANEL ANTENNAS (1) PER SECTOR AT A RAD CENTER OF 72'-0" WITH (3) PROPOSED TMA'S BEHIND LTE ANTENNAS AND (6) PROPOSED RRH UNITS (2) PER LTE PANEL ANTENNA MOUNTED ON A PROPOSED UNISTRUT ON EXISTING WOOD UTILITY POLE AND (1) PROPOSED GPS ANTENNA MOUNTED NEAR EXISTING GPS ANTENNA. AT&T ALSO PROPOSES LTE 9412 COMPACT ENCLOSURE TO BE BACKPACK MOUNTED WITHIN EXISTING AT&T EQUIPMENT SHELTER.

**APPLICANT:**

AT&T MOBILITY  
RTC BUILDING 3  
16221 NE 72ND  
REDMOND, WA 98052

**PROPERTY OWNER:**

FATHER AND SONS MINISTRIES  
14216 132ND AVENUE NORTHEAST  
KIRKLAND, WA 98034  
CONTACT:  
PH:

**CODE INFORMATION:**

ZONING CLASSIFICATION: R4 - RESIDENTIAL  
BUILDING CODE: 2009 IBC  
CONSTRUCTION TYPE: IIB  
OCCUPANCY: S-2  
JURISDICTION: KING COUNTY  
CURRENT USE: TELECOMMUNICATIONS FACILITY  
PROPOSED USE: TELECOMMUNICATIONS FACILITY

**TEAM LEAD:**

GOODMAN NETWORKS  
8815 122ND AVE NE  
KIRKLAND, WA 98033  
CONTACT: WENDY LONG  
PH: (206) 321-1116

**SITE ACQUISITION:**

PACIFIC TELECOM SERVICES, LLC  
568 FIRST AVENUE, S., SUITE 650  
SEATTLE, WA 98104  
CONTACT: BECKY TODD  
PH: (206) 342-6388

**SITE LOCATION: (BASED ON NAD 83):**

LATITUDE: 47° 43' 41.6" N  
LONGITUDE: 122° 9' 49.8" W  
TOP OF STRUCTURE AGL: 75'-0"  
BASE OF STRUCTURE AMSL: 388'-0" AMSL

**PERMITTING:**

PACIFIC TELECOM SERVICES, LLC  
568 FIRST AVENUE, S., SUITE 650  
SEATTLE, WA 98104  
CONTACT: BECKY TODD  
PH: (206) 342-6388

**PARCEL NUMBER(S):**

2226059067

**CONSTRUCTION MANAGER:**

PACIFIC TELECOM SERVICES, LLC  
568 FIRST AVENUE, S., SUITE 650  
SEATTLE, WA 98104  
CONTACT: PAT HEALY  
PH: (425) 471-3553

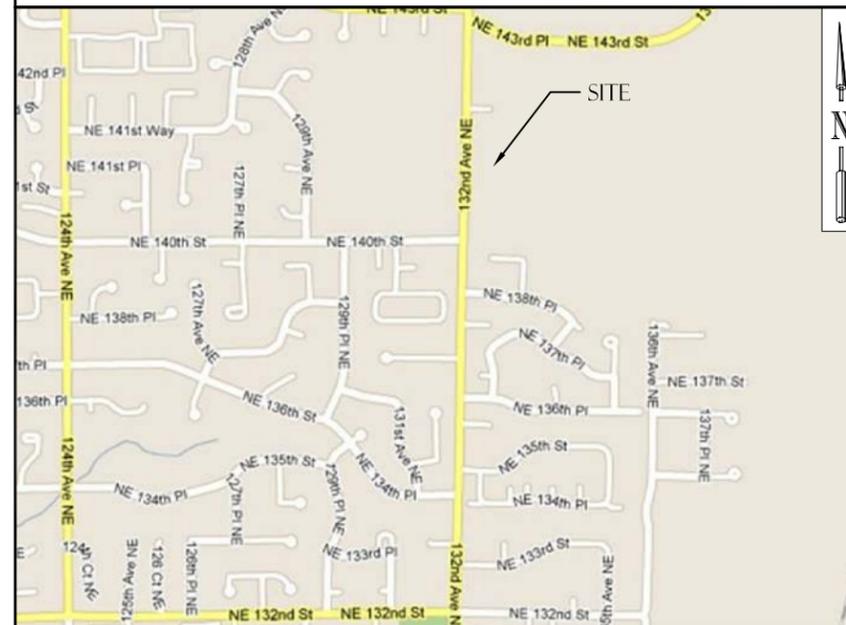
**RF ENGINEER:**

AT&T MOBILITY  
CONTACT: LUKASZ GRABARSKI  
PH: (425) 698-8272

**GENERAL INFORMATION:**

1. PARKING REQUIREMENTS ARE UNCHANGED.
2. TRAFFIC IS UNAFFECTED.

**VICINITY MAP**



**DRIVING DIRECTIONS**

- FROM AT&T MOBILITY OFFICE (REDMOND):
1. HEAD NORTH ON 152ND AVE NE TOWARD NE 24TH ST 200 FT
  2. TAKE THE 1ST LEFT ONTO NE 24TH ST 0.2 MI
  3. TAKE THE 2ND RIGHT ONTO 148TH AVE NE 0.3 MI
  4. MERGE ONTO WA-520 W/STATE ROUTE 520 W VIA THE RAMP TO SEATTLE 2.3 MI
  5. TAKE THE EXIT ONTO I-405 N TOWARD EVERETT 5.3 MI
  6. TAKE EXIT 208 FOR NE 124TH ST 0.3 MI
  7. TURN RIGHT AT NE 124TH ST 0.7 MI
  8. SLIGHT LEFT AT 132ND PL NE
- DESTINATION WILL BE ON THE RIGHT
- 14216 132ND AVE NE KIRKLAND, WA 98034

APPROVAL	DATE	SIGNATURE	APPROVAL	DATE	SIGNATURE
RF ENGINEER:			LANDLORD:		
RF MANAGER:			SITE ACQUISITION:		
OPPS MANAGER:			ZONING AGENT:		
CONSTR MANAGER:			PROJECT MANAGER:		
NSB MANAGER:			CONSTR MANAGER:		
TRANSPORT:					
EQUIP ENGINEER:					
COMPLIANCE:					

REVIEWERS SHALL CLEARLY PLACE INITIALS ADJACENT TO EACH REDLINE NOTE AS DRAWINGS ARE BEING REVIEWED

**DRAWING INDEX**

**SHEET DESCRIPTION**

T-1	TITLE SHEET
G-1	GENERAL NOTES
G-2	GENERAL NOTES & SYMBOLS
A-1	SITE PLAN
A-2	ENLARGED SITE PLAN
A-3	EXISTING AND PROPOSED WEST ELEVATION
A-4	CONSTRUCTION DETAILS
RF-1	ANTENNA LAYOUT PLAN
RF-2	RF & EQUIPMENT DETAILS
E-1	SCHEMATIC GROUNDING PLAN
E-2	GROUNDING DETAILS

**LEGAL DESCRIPTION**

LOT 1 KCSP R-107707 AF 7807131012 SD PLAT DAF S 254.64 FT OF NW 1/4 OF SW 1/4 OF NW 1/4 LESS W 30 FT FOR CO RDS FOR TAXABLE

**ABBREVIATIONS**

A/C	AIR CONDITIONING	HORZ	HORIZONTAL	PLYWD	PLYWOOD
AGL	ABOVE GROUND LEVEL	HR	HOUR	PROJ	PROJECT
APPROX	APPROXIMATELY	HT	HEIGHT	PROP	PROPERTY
BLDG	BUILDING	HVAC	HEATING	PT	PRESSURE TREATED
BLK	BLOCKING		VENTILATION	REQ	REQUIRED
CLG	CEILING	ID	INSIDE DIAMETER	RM	ROOM
CLR	CLEAR	IN	INCH	RO	ROUGH OPENING
CONC	CONCRETE	INFO	INFORMATION	SHT	SHEET
CONSTR	CONSTRUCTION	INSUL	INSULATION	SIM	SIMILAR
CONT	CONTINUOUS	INT	INTERIOR	SPEC	SPECIFICATION
		IBC	INTERNATIONAL BUILDING CODE	SF	SQUARE FOOT
DBL	DOUBLE			SS	STAINLESS STEEL
DIA	DIAMETER			STL	STEEL
DIAG	DIAGONAL	LBS	POUNDS	STRUCT	STRUCTURAL
DN	DOWN			STD	STUD
DET	DETAIL	MAX	MAXIMUM	SUSP	SUSPENDED
DWG	DRAWING	MECH	MECHANICAL		
EA	EACH	MTL	METAL	THRU	THROUGH
ELEV	ELEVATION	MFR	MANUFACTURE	TNG	TINNED
ELEC	ELECTRICAL	MGR	MANAGER	TYP	TYPICAL
EQ	EQUAL	MIN	MINIMUM		
EQUIP	EQUIPMENT	MISC	MISCELLANEOUS	UNO	UNLESS NOTED OTHERWISE
EXT	EXTERIOR	NA	NOT APPLICABLE	VERT	VERTICAL
		NIC	NOT IN CONTRACT	VIF	VERIFY IN FIELD
FIN	FINISH	NTS	NOT TO SCALE		
FLUOR	FLOURESCENT			W/	WITH
FLR	FLOOR	OC	ON CENTER	W/O	WITHOUT
FT	FOOT	OD	OUTSIDE DIAMETER	WP	WATER PROOF
GA	GAUGE				
GALV	GALVANIZED				
GC	GENERAL CONTRACTOR				
GRND	GROUND				
GYP	GYPSON WALL BOARD				

**PROJECT TEAM**

**PROJECT ARCHITECT**

RICHARD B. HALL, AIA  
PACIFIC TELECOM SERVICES, LLC  
568 FIRST AVENUE, S., SUITE 650  
SEATTLE, WA 98104  
CONTACT: ROBERT LEIGHTON  
PH: (206) 464-4402  
EMAIL: RLEIGHTON@PTS.WA.COM

**PROJECT CONSULTANT**

PACIFIC TELECOM SERVICES, LLC  
568 FIRST AVENUE, S., SUITE 650  
SEATTLE, WA 98104  
CONTACT: KATIE KENNEY  
PH: (206) 909-9454

**PROJECT CONSULTANT**

GOODMAN NETWORKS  
8815 122ND AVE NE  
KIRKLAND, WA 98033  
PH: (206) 321-1116

**REVISIONS**

NO.	DATE	DESCRIPTION	INITIAL
0	02/17/11	ISSUED FOR PCO REVIEW	SV
A	04/04/11	ISSUED FOR FINAL CONSTRUCTION	WJR
1	11/17/11	ISSUED FOR REVISED FINAL CONSTRUCTION	RC

NOT FOR CONSTRUCTION UNLESS  
LABELED AS CONSTRUCTION SET

SHEET TITLE  
TITLE SHEET

SHEET NUMBER

**T-1**

**GENERAL NOTES:**

1. THE CONTRACTOR SHALL NOTIFY TOWER NETWORK CARRIER OF ANY ERRORS, OMISSIONS, OR INCONSISTENCIES AS THEY MAY BE DISCOVERED IN PLANS, DOCUMENTS, NOTES, OR SPECIFICATIONS PRIOR TO STARTING CONSTRUCTION INCLUDING, BUT NOT LIMITED BY, DEMOLITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ANY ERROR, OMISSION, OR INCONSISTENCY AFTER THE START OF CONSTRUCTION WHICH HAS NOT BEEN BROUGHT TO THE ATTENTION OF TOWER NETWORK CARRIER CONSTRUCTION PROJECT MANAGER AND SHALL INCUR ANY EXPENSES TO RECTIFY THE SITUATION. THE MEANS OF CORRECTING ANY ERROR SHALL FIRST BE APPROVED BY TOWER NETWORK CARRIER CONSTRUCTION PROJECT MANAGER.
2. PRIOR TO THE SUBMISSION OF BIDS, CONTRACTORS INVOLVED SHALL VISIT THE JOB SITE TO FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THE PROPOSED PROJECT. CONTRACTORS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR HAVING BEEN AWARDED THIS PROJECT SHALL VISIT THE CONSTRUCTION SITE WITH THE CONSTRUCTION/CONTRACT DOCUMENTS TO VERIFY FIELD CONDITIONS AND CONFIRM THAT THE PROJECT WILL BE ACCOMPLISHED AS SHOWN. PRIOR TO PROCEEDING WITH CONSTRUCTION, ANY ERRORS, OMISSIONS, OR DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER VERBALLY AND IN WRITING.
3. FOR COLLOCATION SITES: CONTACT TOWER OWNER REPRESENTATIVE FOR PARTICIPATION IN BID WALK.
4. NOT USED
5. THE ARCHITECTS/ENGINEERS HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. CONTRACTORS BIDDING THE JOB ARE NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS. THE BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE ARCHITECT/ENGINEER OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO SUBMISSION OF CONTRACTOR'S PROPOSAL. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED OTHERWISE.
6. DRAWINGS ARE NOT TO BE SCALED UNDER ANY CIRCUMSTANCE. TOWER NETWORK CARRIER IS NOT RESPONSIBLE FOR ANY ERRORS RESULTING FROM THIS PRACTICE WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS.
7. OWNER, CONTRACTOR, AND TOWER NETWORK CARRIER CONSTRUCTION PROJECT MANAGER SHALL MEET JOINTLY TO VERIFY ALL DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION.
8. THE GENERAL CONTRACTOR SHALL RECEIVE WRITTEN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
9. THE CONTRACTOR SHALL PERFORM WORK DURING OWNER'S PREFERRED HOURS TO AVOID DISTURBING NORMAL BUSINESS.
10. THE CONTRACTOR SHALL PROVIDE TOWER NETWORK CARRIER PROPER INSURANCE CERTIFICATES NAMING TOWER NETWORK CARRIER AS ADDITIONAL INSURED, AND TOWER NETWORK CARRIER PROOF OF LICENSE(S) AND PE & PD INSURANCE.
11. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
12. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO MANUFACTURER'S/VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
13. ALL WORK PERFORMED ON THE PROJECT AND MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK.
14. NOT USED
15. A COPY OF GOVERNING AGENCY IS APPROVED PLANS SHALL BE KEPT IN A PLACE SPECIFIED BY THE GOVERNING AGENCY, AND BY LAW, SHALL BE AVAILABLE FOR INSPECTION AT ALL TIMES. THE ORIGINAL PERMIT SET PLANS ARE NOT TO BE USED BY THE WORKMEN. ALL CONSTRUCTION SETS SHALL REFLECT THE SAME INFORMATION AS GOVERNING AGENCY APPROVED PLANS. THE CONTRACTOR SHALL ALSO MAINTAIN ONE SET OF PLANS, IN GOOD CONDITION, COMPLETE WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES UNDER THE DIRECT CARE OF THE SUPERINTENDENT. THE CONTRACTOR SHALL SUPPLY TOWER NETWORK CARRIER CONSTRUCTION PROJECT MANAGER, WITH A COPY OF ALL REVISIONS, ADDENDA, AND/OR CHANGE ORDERS AT THE CONCLUSION OF THE WORK AS A PART OF THE AS-BUILT DRAWING RECORDS.
16. THE STRUCTURAL COMPONENTS OF ADJACENT CONSTRUCTION OR FACILITIES ARE NOT TO BE ALTERED BY THIS CONSTRUCTION PROJECT UNLESS NOTED OTHERWISE.
17. THE CONTRACTOR SHALL STUDY THE STRUCTURAL, ELECTRICAL, MECHANICAL, AND PLUMBING PLANS AND CROSS CHECK THEIR DETAILS, NOTES, DIMENSIONS, AND ALL REQUIREMENTS PRIOR TO THE START OF ANY WORK.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE PROJECT AND SITE WHILE THE WORK IS IN PROGRESS UNTIL THE JOB IS COMPLETE.
19. THE CONTRACTOR HAS THE RESPONSIBILITY OF LOCATING ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THE PLANS, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR, OR SUBCONTRACTOR AS SPECIFIED IN THE AGREEMENT BETWEEN SUBCONTRACTOR AND CONTRACTOR, SHALL BEAR THE EXPENSES OF REPAIR AND/OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGE BY OPERATIONS IN CONJUNCTION WITH THE EXECUTION OF THE WORK.
20. THE REFERENCES ON THE DRAWINGS ARE FOR CONVENIENCE ONLY AND SHALL NOT LIMIT THE APPLICATION OF ANY DRAWING OR DETAIL.
21. ALL DIMENSIONS ON THE PLANS ARE TO FACE OF STUD (F.O.S.) UNLESS NOTED OTHERWISE (U.N.O.).
22. ALL EXISTING CONSTRUCTION, EQUIPMENT, AND FINISHES NOTED TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND WILL BE REMOVED FROM THE SITE WITH THE FOLLOWING EXCEPTIONS:
  - A. PROPERTY NOTED TO BE RETURNED TO THE OWNER.
  - B. PROPERTY NOTED TO BE REMOVED BY THE OWNER.
23. THE GOVERNING AGENCIES, CODE AUTHORITIES, AND BUILDING INSPECTORS SHALL PROVIDE THE MINIMUM STANDARDS FOR CONSTRUCTION TECHNIQUES, MATERIALS, AND FINISHES USED THROUGHOUT THE PROJECT. TRADE STANDARDS AND/OR PUBLISHED MANUFACTURERS SPECIFICATIONS MEETING OR EXCEEDING DESIGN REQUIREMENTS SHALL BE USED FOR INSTALLATION.
24. WHEN REQUIRED STORAGE OF MATERIALS OCCURS, THEY SHALL BE EVENLY DISTRIBUTED OVER ROUGH FRAMED FLOORS OR ROOFS SO AS NOT TO EXCEED THE DESIGNED LIVE LOADS FOR THE STRUCTURE. TEMPORARY SHORING AND/OR BRACING IS TO BE PROVIDED WHERE THE STRUCTURE HAS NOT ATTAINED THE DESIGN STRENGTH FOR THE CONDITIONS PRESENT.
25. PRIOR TO THE POURING OF ANY NEW SLAB OVER AN EXISTING SLAB THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL OPENINGS, CHASES, AND EQUIPMENT WHICH ARE TO BE IMPLEMENTED INTO THE NEW WORK. ALL ITEMS DESIGNATED TO BE ABANDONED SHALL BE NOTED AND DISCUSSED WITH THE OWNER AND TOWER NETWORK CARRIER CONSTRUCTION PROJECT MANAGER AS PART OF THE AS-BUILT DRAWING PACKAGE.
26. SEAL ALL PENETRATIONS THROUGH FIRE-RATED AREAS WITH U.L. LISTED OR FIRE MARSHALL APPROVED MATERIALS IF APPLICABLE TO THIS FACILITY AND OR PROJECT SITE.
27. BUILDING INSPECTORS AND/OR OTHER BUILDING OFFICIALS ARE TO BE NOTIFIED PRIOR TO ANY GRADING, CONSTRUCTION, AND ANY OTHER PROJECT EFFORT AS MANDATED BY THE GOVERNING AGENCY.
28. CONTRACTOR TO PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A OR 2-A10BC WITHIN 75 FEET TRAVEL DISTANCE TO ALL PORTIONS OF PROJECT AREA DURING CONSTRUCTION.
29. THE PROJECT, WHEN COMPLETED, SHALL COMPLY WITH LOCAL SECURITY CODES AND TITLE-24 ENERGY CONSERVATION REQUIREMENTS. (TITLE-24 WHEN APPLICABLE)
30. ALL GLASS AND GLAZING IS TO COMPLY WITH CHAPTER 54 OF THE U.S. CONSUMER SAFETY COMMISSION - SAFETY STANDARDS FOR ARCHITECTURAL GLAZING MATERIALS (42 FR 1428, CFR PART 1201) AND LOCAL SECURITY REQUIREMENTS.
31. CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
32. CONTRACTOR SHALL KEEP GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, AND RUBBISH. CONTRACTOR SHALL REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY OR PREMISES. SITE SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
33. NEW CONSTRUCTION ADDED TO EXISTING CONSTRUCTION SHALL MATCH IN FORM, TEXTURE, FINISH, AND IN MATERIALS EXCEPT AS NOTED IN THE PLANS AND SPECIFICATIONS.
34. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BACKING, BLOCKING, AND/OR SLEEVES REQUIRED FOR THE INSTALLATION OF FIXTURES, MECHANICAL EQUIPMENT, PLUMBING, HARDWARE, AND FINISH ITEMS TO INSURE A PROPER AND COMPLETE JOB.
35. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A PROJECT LEVEL, STRAIGHT, AND TRUE ACCORDING TO THE PLANS. THE CONTRACTOR SHALL COMPARE THE LINES AND LEVELS OF THE EXISTING CONDITIONS WITH THOSE SHOWN ON THE PLANS PRIOR TO THE START OF ANY CONSTRUCTION. TOWER NETWORK CARRIER SHALL BE NOTIFIED OF ANY ERRORS, OMISSIONS, OR INCONSISTENCIES PRIOR TO ANY CONSTRUCTION.
36. THE CONTRACTOR IS TO PROVIDE PROTECTION FOR ADJOINING PROPERTIES FROM PHYSICAL HARM, NOISE, DUST, DIRT, AND FIRE AS REQUIRED BY THE GOVERNING AGENCIES.
37. WHERE SPECIFIED, MATERIALS TESTING SHALL BE TO THE LATEST STANDARDS AND/OR REVISIONS AVAILABLE AS REQUIRED BY THE GOVERNING AGENCY RESPONSIBLE FOR RECORDING THE RESULTS.
38. THE CONTRACTOR IS RESPONSIBLE FOR THE STORAGE OF ALL MATERIALS AND SHALL NOT DO SO ON PUBLIC PROPERTY WITHOUT A PERMIT TO DO SO FROM THE GOVERNING AGENCIES FOR THIS PURPOSE.
39. GENERAL NOTES AND STANDARD DETAILS ARE THE MINIMUM REQUIREMENTS TO BE USED IN CONDITIONS WHICH ARE NOT SPECIFICALLY SHOWN OTHERWISE.
40. TRADES INVOLVED IN THE PROJECT SHALL BE RESPONSIBLE FOR THEIR OWN CUTTING, FITTING, PATCHING, ETC., SO AS TO BE RECEIVED PROPERLY BY THE WORK OF OTHER TRADES.
41. ALL DEBRIS AND REFUSE IS TO BE REMOVED FROM THE PROJECT PREMISES AND SHALL BE LEFT IN A CLEAN (BROOM FINISH) CONDITION AT ALL TIMES BY EACH TRADE AS THEY PERFORM THEIR OWN PORTION OF THE WORK.
42. TOWER NETWORK CARRIER DOES NOT GUARANTEE ANY PRODUCTS, FIXTURES, AND/OR ANY EQUIPMENT NAMED BY A TRADE OR MANUFACTURER. GUARANTEE OR WARRANTY THAT MAY BE IN EFFECT IS DONE SO THROUGH THE COMPANY OR MANUFACTURER PROVIDING THE PRODUCT, FIXTURE, AND/OR EQUIPMENT ONLY; UNLESS SPECIFIC RESPONSIBILITY IS ALSO PROVIDED BY THE CONTRACTOR/SUBCONTRACTOR IN WRITTEN FORM.
43. CAUTION! CALL BEFORE YOU DIG! BURIED UTILITIES EXIST IN THE AREA AND UTILITY INFORMATION SHOWN MAY NOT BE COMPLETE. CONTACT THE ONE-CALL UTILITY LOCATE SERVICE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. 1-800-227-2600.
44. CONTRACTOR TO REPLACE AND/OR REROUTE ANY EXISTING UNDERGROUND UTILITIES ENCOUNTERED DURING TRENCHING AND GENERAL CONSTRUCTION.
45. WHEN APPLICABLE, CONTRACTOR IS RESPONSIBLE TO CALL, COORDINATE AND MAKE ARRANGEMENTS FOR ROW AND/OR PRIVATE PROPERTY LOCATE MODIFICATION CONSTRUCTION; BASED ON SPECIFIC SITE REQUIREMENTS.
46. SEE CIVIL DRAWINGS FOR ADDITIONAL SITE INFORMATION.
47. CONTRACTORS TO DOCUMENT ALL WORK PERFORMED WITH PHOTOGRAPHS AND SUBMIT TO TOWER NETWORK CARRIER ALONG WITH REDLINED CONSTRUCTION SET.
48. CONTRACTOR SHALL DOCUMENT ALL CHANGES MADE IN THE FIELD BY MARKING UP (REDLINING) THE APPROVED CONSTRUCTION SET AND SUBMITTING THE REDLINED ALONG WITH PHOTOGRAPHS PER NETWORK CARRIER REQUIREMENTS.
49. GENERAL CONTRACTOR IS TO COORDINATE ALL POWER INSTALLATION WITH POWER COMPANY AS REQUIRED. CONTRACTOR TO REPORT POWER INSTALLATION COORDINATION SOLUTION(S) TO NETWORK CARRIER REPRESENTATIVE, PROJECT CONSTRUCTION MANAGER AND ARCHITECT.
50. ANY SUBSTITUTIONS OF MATERIALS AND/OR EQUIPMENT, MUST BE APPROVED BY TOWER NETWORK CARRIER CONSTRUCTION MANAGER.
51. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL REMEDY ALL FAULTY, INFERIOR, AND/OR IMPROPER MATERIALS, DAMAGED GOODS, AND/OR FAULTY WORKMANSHIP FOR ONE (1) YEAR AFTER THE PROJECT IS COMPLETE AND ACCEPTED UNDER THIS CONTRACT; UNLESS NOTED OTHERWISE IN THE CONTRACT BETWEEN THE OWNER AND THE CONTRACTOR. (EXCEPTION) THE ROOFING SUBCONTRACTOR SHALL FURNISH A MAINTENANCE AGREEMENT FOR ALL WORK DONE, COSIGNED BY THE GENERAL CONTRACTOR, TO MAINTAIN THE ROOFING IN A WATERTIGHT CONDITION FOR A PERIOD OF TWO (2) YEARS STARTING AFTER THE DATE OF SUBSTANTIAL COMPLETION OF THE PROJECT, UNLESS OTHERWISE WRITTEN IN THE CONTRACT BETWEEN THE OWNER AND THE CONTRACTOR.
52. THE CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION FOR THE SAFETY OF THE OWNER'S EMPLOYEES, WORKMEN, AND ALL TIMES DURING THE CONSTRUCTION OF THE PROJECT.
53. THE CONTRACTOR SHALL BE REQUIRED TO PAY FOR ALL NECESSARY PERMITS AND/OR FEES WITH RESPECT TO THE WORK TO COMPLETE THE PROJECT. BUILDING PERMIT APPLICATIONS SHALL BE FILED BY THE OWNER OR HIS REPRESENTATIVE. CONTRACTOR SHALL OBTAIN PERMIT AND MAKE FINAL PAYMENT FOR SAID DOCUMENT.
54. NOT USED
55. TOWER NETWORK CARRIER WILL REVIEW AND APPROVE SHOP DRAWINGS AND SAMPLES FOR CONFORMANCE WITH DESIGN CONCEPT. TOWER NETWORK CARRIER PROJECT APPROVAL OF A SEPARATE ITEM SHALL NOT INCLUDE APPROVAL OF AN ASSEMBLY IN WHICH THE ITEM FUNCTIONS.
56. ALL ANTENNAS MOUNTED ON ROOF SUPPORT FRAMES TO BE PROVIDED BY TOWER NETWORK CARRIER COMMUNICATIONS.
57. CONTRACTOR TO PROVIDE TRENCH AS REQUIRED TO INSTALL BOTH ELECTRICAL AND TELEPHONE UNDERGROUND CONDUITS (#40 PVC) PER S.C.E. WORKORDER. BACKFILL WITH CLEAN SAND AND COMPACT TO THE SATISFACTION OF THE DISTRICTS INSPECTOR. REPLACE FINISH GRADE WITH MATCHING MATERIALS (GRASS, ASPHALT, CONCRETE, ETC.).
58. CONTRACTOR TO PROVIDE HEAVY STEEL PLATES AT OPEN TRENCHES FOR SAFETY AND TO PROTECT EXISTING GROUND SURFACES FROM HEAVY EQUIPMENT UTILIZED DURING CONSTRUCTION.
59. CONTRACTOR TO PATCH AND REPAIR ALL GROUND SURFACES WITHIN THE CONSTRUCTION AREA AS NECESSARY TO PROVIDE A UNIFORM SURFACE AND MAINTAIN EXISTING SURFACE DRAINAGE SLOPES.
60. CONTRACTOR TO REPLACE LANDSCAPE VEGETATION THAT WAS DAMAGED DUE TO CONSTRUCTION, AND TO MODIFY REMAINING IRRIGATION LINES TO OPERATING CONDITION, PROVIDING FULL COVERAGE TO IMPACTED AREAS.
61. IN THE CASE OF ROOFTOP SOLUTIONS FOR EQUIPMENT AND/OR ANTENNA FRAMES WHERE PENETRATION OF EXISTING ROOFING MATERIALS OCCUR, THE GENERAL CONTRACTOR SHALL COORDINATE WITH BUILDING OWNER AND BUILDING ROOFING CONTRACTOR OF RECORD FOR INSTALLATION, PATCH, REPAIR OR ANY AUGMENTATION TO THE ROOF, AND HAVE THE WORK GUARANTEED UNDER THE ROOFING CONTRACTOR'S WARRANTY FOR MOISTURE PENETRATION OR AND OTHER FUTURE BREACH OF ROOFING INTEGRITY.
62. IN THE CASE OF ROOFTOP SOLUTIONS WITH THE INSTALLATION OF ANTENNAS WITHIN CONCEALED (SHROUDED) SUPPORT FRAMES OR TRIPODS, THE GENERAL CONTRACTOR SHALL COORDINATE WITH THE FRP DESIGNER/FABRICATOR TO ENSURE THAT THE FINAL FRP SHROUD IS SIMULATING (IN APPEARANCE) DESIGNATED EXISTING EXTERIOR BUILDING FACADE MATERIALS, TEXTURES, AND COLORS. THE CONTRACTOR SHALL FURTHERMORE ENSURE THE USE OF COUNTERSUNK FASTENERS IN ALL FRP CONSTRUCTION. WHEN PHOTOSIMULATIONS ARE PROVIDED, THE CONTRACTOR SHALL ENSURE THAT FINAL CONSTRUCTION REPRESENTS WHAT IS INDICATED IN PHOTOSIMULATION. SHOP DRAWINGS SHALL BE PROVIDED TO THE GENERAL CONTRACTOR, CONSTRUCTION COORDINATOR, AND ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION.
63. IN THE CASE OF ROOFTOP SOLUTIONS FOR EQUIPMENT AND/OR ANTENNA FRAMES WHERE ANCHORING TO A CONCRETE ROOF SLAB IS REQUIRED, CONTRACTORS SHALL CONFIRM (PRIOR TO SUBMITTING BID) WITH CONSULTING CONSTRUCTION COORDINATOR AND ARCHITECT THE PRESENCE OF POST TENSION TENDONS WITHIN THE ROOF SLAB - RESULTING FROM AN UNDOCUMENTED DESIGN CHANGE IN THE EXISTING BUILDING "AS-BUILT DRAWING SET" - HAVING INDICATED AN ORIGINAL DESIGN SOLUTION OF REINFORCED CONCRETE W/ EMBEDDED STEEL REBAR. IN THE EVENT POST TENSION SLAB SOLUTION IS PRESENT, CONTRACTOR SHALL INCLUDE PROVISIONS FOR X-RAY PROCEDURES (INCLUDED IN BID) FOR ALL PENETRATION AREAS WHERE ANCHORING OCCURS.
64. GENERAL & SUB CONTRACTORS SHALL USE STAINLESS STEEL METAL LOCKING TIES FOR ALL CABLE TRAY TIE DOWNS AND ALL OTHER GENERAL TIE DOWNS (WHERE APPLICABLE). PLASTIC ZIP TIES SHALL NOT BE PERMITTED FOR USE ON TOWER NETWORK CARRIER PROJECTS. RECOMMENDED MANUFACTURE SHALL BE: PANDUIT CORP. METAL LOCKING TIES MODEL NO. MLT4S-CP UNDER SERIES-304 (OR EQUAL). PANDUIT PRODUCT DISTRIBUTED BY TRIARC.
65. NOT USED.



8828 REGISTERED ARCHITECT

*Richard B. Hall*

**RICHARD B. HALL**  
STATE OF WASHINGTON

EXPIRATION DATE OF THE LICENSE: 08/20/13

**TOTEM LAKE**  
WA758  
14216 132ND AVENUE NORTHEAST  
KIRKLAND, WA 98034

REVISIONS			
NO.	DATE	DESCRIPTION	INITIAL
0	02/17/11	ISSUED FOR PCD REVIEW	SV
A	04/04/11	ISSUED FOR FINAL CONSTRUCTION	WJR
1	11/17/11	ISSUED FOR REVISED FINAL CONSTRUCTION	RC

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

SHEET TITLE  
GENERAL NOTES

SHEET NUMBER  
**G-1**

**DESIGN CRITERIA:**

- THE STRUCTURAL DESIGN OF THIS PROJECT IS IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE 2009 WITH WASHINGTON STATE BUILDING CODE AMENDMENTS (2009 IBC)
- DESIGN LOADS:**  
DESIGN DATA FOR [CITY, STATE]  
 -ROOF SNOW LOAD \_\_\_\_\_ N/A (NOT A ROOFTOP SOLUTION)  
 -BASIC WIND SPEED \_\_\_\_\_ 85 MPH (100 MPH 3 SECOND GUSTS)  
 -WIND EXPOSURE \_\_\_\_\_ C  
 -SEISMIC ZONE \_\_\_\_\_ D

**CONCRETE NOTES:**

- ALL CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI-318.
- CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED AND PLACED IN ACCORDANCE WITH CHAPTER 19 OF THE 2006 IBC. STRENGTHS AT 28 DAYS AND MIX CRITERIA SHALL BE AS FOLLOWS.  

TYPE OF CONSTRUCTION	28 DAY STRENGTHS (f'c)	W/C RATIO	MINIMUM CEMENT CONTENT PER CUBIC YARD
A. SLABS ON GRADE TOPPING SLABS CONCRETE PIERS	2,400 PSI	≤ .45	5 ½ SACKS
B. ALL STRUCTURAL CONCRETE EXCEPT WALLS	4,000 PSI	≤ .45	6 ½ SACKS
C. CONCRETE WALLS	4,000 PSI	≤ .45	6 ½ SACKS

 CEMENT SHALL BE ASTM C150, PORTLAND CEMENT TYPE II U.N.O.
- THE GENERAL CONTRACTOR SHALL SUPERVISE AND BE RESPONSIBLE FOR THE METHODS AND PROCEDURES OF CONCRETE PLACEMENT.
- ALL CONCRETE WITH SURFACES EXPOSED TO STANDING WATER SHALL BE AIR-ENTRAINED WITH AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260, C494, C618, C989 AND C1017. TOTAL AIR CONTENT SHALL BE IN ACCORDANCE WITH TABLE 1904.2.1 OF THE 2006 IBC.
- REINFORCING STEEL SHALL CONFORM TO ASTM A615 (INCLUDING SUPPLEMENT S1), GRADE 60, fy=60,000 PSI. EXCEPTIONS: ANY BARS SPECIFICALLY SO NOTED ON THE DRAWINGS SHALL BE GRADE 40, fy=40,000 PSI. GRADE 60 REINFORCING BARS INDICATED ON DRAWINGS TO BE WELDED SHALL CONFORM TO ASTM A706. REINFORCING COMPLYING WITH ASTM A615(S1) MAY BE WELDED ONLY IF MATERIAL PROPERTY REPORTS INDICATING CONFORMANCE WITH WELDING PROCEDURES SPECIFIED IN A.W.S. D14 ARE SUBMITTED.
- REINFORCING STEEL SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 315 AND 318. LAP ALL CONTINUOUS REINFORCEMENT AT LEAST 30 BAR DIAMETERS OR A MINIMUM OF 2'-0". PROVIDE CORNER BARS AT ALL WALL AND FOOTING INTERSECTIONS. LAP CORNER BARS AT LEAST 30 BAR DIAMETERS OR A MINIMUM OF 2'-0". LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185.
- SPIRAL REINFORCEMENT SHALL BE PLAIN WIRE CONFORMING TO ASTM A615, GRADE 60, fy=60,000 PSI.
- NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY SO DETAILED OR APPROVED BY THE CONSULTANT.
- CONCRETE PROTECTION (COVER) FOR REINFORCING STEEL SHALL BE AS FOLLOWS:
 

- FOOTINGS AND OTHER UNFORMED SURFACES, EARTH FACE	3"
- FORMED SURFACES EXPOSED TO EARTH OR WEATHER	(#6 BARS OR LARGER) 2" (#5 BARS OR SMALLER) 1 1/2"
- SLABS AND WALLS (INTERIOR FACE)	3/4"
- BARS SHALL BE SUPPORTED ON CHAIRS OR DOBIE BRICKS.
- ANCHOR BOLTS TO CONFORM TO ASTM A307.
- NON-SHRINK GROUT SHALL BE FURNISHED BY AN APPROVED MANUFACTURER AND SHALL BE MIXED AND PLACED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS. GROUT STRENGTH SHALL BE AT LEAST EQUAL TO THE MATERIAL ON WHICH IT IS PLACED (3,000 PSI MINIMUM).
- ALL EXPANSION ANCHORS TO BE HILTI BRAND. ADHESIVE ANCHORS REQUIRE TESTING TO CONFIRM CAPACITY UNLESS WAIVED BY ENGINEER.

**STRUCTURAL STEEL NOTES:**

- SHOP DRAWINGS FOR STRUCTURAL STEEL SHALL BE SUBMITTED TO THE CONSULTANT FOR REVIEW PRIOR TO FABRICATION.
- STRUCTURAL STEEL DESIGN, FABRICATION AND ERECTION (INCLUDING FIELD WELDING, HIGH STRENGTH FIELD BOLTING, EXPANSION BOLTS, AND THREADED EXPANSION ANCHORS) SHALL BE BASED ON THE A.I.S.C. "SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" LATEST EDITION. SUPERVISION SHALL BE IN ACCORDANCE WITH 2006 IBC CHAPTER 22, BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE CONSULTANT. THE CONSULTANT SHALL BE FURNISHED WITH A COPY OF ALL INSPECTION REPORTS AND TEST RESULTS.
- STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:  
 TYPE OF MEMBER  
 A. PLATES, SHAPES, ANGLES, AND RODS  
 B. SPECIAL SHAPES AND PLATES  
 C. PIPE COLUMNS  
 D. STRUCTURAL TUBING  
 E. ANCHOR BOLTS  
 F. CONNECTION BOLTS  
 ASTM A36, Fy 36 KSI  
 ASTM A572, Fy 50 KSI  
 ASTM A53, Fy 35 KSI  
 ASTM A500, Fy 46 KSI  
 ASTM A307  
 ASTM A325 TWIST-OFF-TYPE
- ALL MATERIAL TO BE HOT DIPPED GALVANIZED AFTER FABRICATION PER A123/A123M-00.
- ALL WELDING SHALL BE IN CONFORMANCE WITH A.I.S.C. AND AWS STANDARDS AND SHALL BE PERFORMED BY W.A.B.O. CERTIFIED WELDERS USING E70 XX ELECTRODES. ONLY PREQUALIFIED WELDS (AS DEFINED BY AWS) SHALL BE USED. WELDING OF GRADE 60 REINFORCING BARS (IF REQUIRED) SHALL BE PERFORMED USING LOW HYDROGEN ELECTRODES. WELDING OF GRADE 40 REINFORCING BARS (IF REQUIRED) SHALL BE PERFORMED USING E70 XX ELECTRODES. WELDING WITHIN 4" OF COLD BENDS IN REINFORCING STEEL IS NOT PERMITTED. SEE REINFORCING NOTE FOR MATERIAL REQUIREMENTS OF WELDED BARS.
- COLD-FORMED STEEL FRAMING MEMBERS SHALL BE OF THE SHAPE, SIZE, AND GAGE SHOWN ON THE PLANS. PROVIDE MINIMUM SECTION PROPERTIES INDICATED. ALL COLD-FORMED STEEL FRAMING SHALL CONFORM TO THE A.I.S.C. "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS."
- BOLTED CONNECTIONS SHALL USE BEARING TYPE ASTM A325 BOLTS (3/4" DIA.) AND SHALL HAVE A MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE.
- NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE 5/8" DIA. ASTM A307 BOLTS UNLESS NOTED OTHERWISE.
- ALL STEEL WORK SHALL BE PAINTED IN ACCORDANCE WITH THE DESIGN & CONSTRUCTION SPECIFICATION AND IN ACCORDANCE WITH ASTM A36 UNLESS NOTED OTHERWISE.
- ALL WELDS TO BE 1/4" FILLET UNLESS NOTED OTHERWISE.
- TOUCH UP ALL FIELD DRILLING AND WELDING WITH 2 COATS OF GALVACON (ZINC RICH PAINT) OR APPROVED EQUAL.

**TOWER/POLE NOTES:**

- VERIFICATION THAT THE EXISTING APPLICABLE BUILDING, TOWER, POLE OR WATER TANK CAN SUPPORT THE PROPOSED ANTENNA LOADING SHALL BE PERFORMED BY A REGISTERED STRUCTURAL ENGINEER.
- PROVIDE SUPPORTS FOR THE ANTENNA COAX CABLES TO THE ELEVATION OF ALL INITIAL AND FUTURE ANTENNAS. ANTENNA COAX CABLES ARE TO BE SUPPORTED AND RESTRAINED AT THE CENTERS SUITABLE TO THE MANUFACTURER'S REQUIREMENTS.

**ABBREVIATED ROOF TOP SAFETY PROCEDURES**

**(WHEN APPLICABLE):**

(AS PER "ACCIDENT PREVENTION PROGRAM" - BY PERMISSION OF WREN CONSTRUCTION, INC. - 03/01/99)

**FALL PROTECTION METHODS AND EQUIPMENT  
ROOF TOP INSTALLATIONS**

- FOR WORK IS BEING PERFORMED WITHIN 25' OF AN UNPROTECTED ROOF EDGE, THE CONSTRUCTION SUPERVISOR SHALL DESIGNATE A TRAINED SAFETY MONITOR TO OBSERVE THE MOVEMENTS AND ACTIVITIES OF THE CONSTRUCTION WORKERS.
- SAFETY MONITOR SHALL WARN CONSTRUCTION WORKERS OF HAZARDS (I.E., BACKING UP TOWARD A ROOF EDGE, ETC.) OR UNSAFE ACTIVITIES. THE SAFETY MONITOR MUST BE ON THE SAME ROOF AND WITHIN VISUAL AND VERBAL DISTANCE OF THE CONSTRUCTION WORKERS.
- CONSTRUCTION INVOLVING WORKERS TO APPROACH WITHIN 6' OR LESS OF AN UNPROTECTED ROOF EDGE, REQUIRES WORKERS TO USE SAFETY LINE.
- SAFETY LINE SHALL BE MINIMUM 1/2" DIAMETER NYLON, WITH A NOMINAL TENSILE STRENGTH OF 5400 LBS.
- SAFETY LINE SHALL BE ATTACHED TO A SUBSTANTIAL MEMBER OF THE STRUCTURE.
- SAFETY LINE LENGTH SHALL BE SET ALLOWING CONSTRUCTION WORKER TO REACH EDGE OF ROOF, BUT NOT BEYOND.
- SAFETY BELTS SHALL BE WORN BY ALL CONSTRUCTION WORKERS.
- MONTHLY SAFETY INSPECTION AND MAINTENANCE OF THE FALL PROTECTION EQUIPMENT SHALL OCCUR BY THE SAFETY COMMITTEE REPRESENTATIVES, INCLUDING:

INSPECTION OF CONSTRUCTION AREA FOR HAZARDS  
 USE OF AN INSPECTION CHECKLIST  
 INTERVIEWING COWORKERS REGARDING SAFETY CONCERNS  
 REPORTING AND DOCUMENTING ANY HAZARDS  
 REPORTING HAZARDS TO THE SAFETY COMMITTEE FOR CONSIDERATION  
 POSTING RESULTS OF INSPECTION AND ANY ACTION TAKEN  
 RECEIVING AN UNBIASED REVIEW OF ONE'S OWN WORK AREA BY ANOTHER COWORKER SAFETY REPRESENTATIVE

REFER TO ROOFTOP WORK AREA SAFETY PROTOCOL  
 NATIONAL ASSOCIATION OF TOWER ERECTORS 2000 PUBLICATION

REFERENCED OSHA REGULATION/STANDARDS SHALL BE REVIEWED BY TOWER ERECTORS,  
 EQUIPMENT INSTALLERS, AND TOWER/ROOF TOP CONTRACTORS/SUBCONTRACTORS  
 29 CFR 1926.500 - SCOPE, APPLICATION, AND DEFINITIONS  
 29 CFR 1926.501 - DUTY TO HAVE FALL PROTECTION  
 19 CFR 1926.502 - FALL PROTECTION SYSTEMS CRITERIA AND PRACTICES

**SYMBOLS:**

- GRID REFERENCE
- DETAIL REFERENCE
- ELEVATION REFERENCE
- SECTION REFERENCE
- CENTERLINE
- PROPERTY/LEASE LINE
- MATCH LINE
- WORK POINT
- GROUND CONDUCTOR
- TELEPHONE CONDUIT
- ELECTRICAL CONDUIT
- COAXIAL CABLE
- OVERHEAD SERVICE CONDUCTORS
- GROUT OR PLASTER
- (E) BRICK
- (E) MASONRY
- CONCRETE
- EARTH
- GRAVEL
- PLYWOOD
- SAND
- WOOD CONTINUOUS
- WOOD BLOCKING
- STEEL
- (N) NEW
- (E) EXISTING
- NEW ANTENNA
- EXISTING ANTENNA
- GROUND ROD
- GROUND BUS BAR
- MECHANICAL GRND. CONN.
- CADWELD
- GROUND ACCESS WELL
- (E) ELECTRIC BOX
- (T) TELEPHONE BOX
- LIGHT POLE
- FND. MONUMENT
- SPOT ELEVATION
- SET POINT
- REVISION

**SPECIAL INSPECTIONS REQUIRED:**

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> SOILS COMPLIANCE PRIOR TO FOUNDATION INSPECTION           | <input type="checkbox"/> VERIFICATIONS OF MILL REPORT  | <input type="checkbox"/> SPRAYED -ON- FIREPROOFING           |
| <input type="checkbox"/> CONCRETE OVER 2400 PSI (5 1/2 SACK MIX) AT 28 DAYS        | <input type="checkbox"/> IDENTIFICATION OF STEEL AND AT JOB SITE   | <input type="checkbox"/> STRUCTURAL MASONRY                  |
| <input type="checkbox"/> CONCRETE PLACEMENT AT SLAB ON GRADE                       | <input type="checkbox"/> WRITTEN CERTIFICATION FOR PROPER PLACEMENT OF REINFORCEMENTS AT SLAB ON GRADE                 | <input type="checkbox"/> PRESTRESSED CONCRETE                |
| <input type="checkbox"/> FOUNDATION EXCAVATION AND FILL INCLUDING UTILITY TRENCHES | <input type="checkbox"/> CERTIFICATION OF BUILDING PAD, FOUNDATION AND FILL BY THE GEOTECHNICAL ENGINEER OF THE RECORD | <input type="checkbox"/> ALL FIELD WELDING                   |
| <input type="checkbox"/> ANCHOR BOLTS INSTALLATION AND PLACEMENT IN CONCRETE       | <input type="checkbox"/> HIGH STRENGTH BOLTING   | <input type="checkbox"/> REINFORCING PLACEMENT               |
| <input type="checkbox"/> OTHER _____   |  | <input type="checkbox"/> DESIGNER SPECIFIED (SEE SHEET#____) |
|  |  | <input type="checkbox"/> OTHER _____                         |

SUBMITTAL DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT OR ENGINEER OF RECORD, WHO SHALL REVIEW THEM AND FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND THAT THEY HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE BUILDING. THE DEFERRED AND SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.



PACIFIC TELECOM SERVICES, LLC



EXPIRATION DATE OF THE LICENSE: 08/20/13

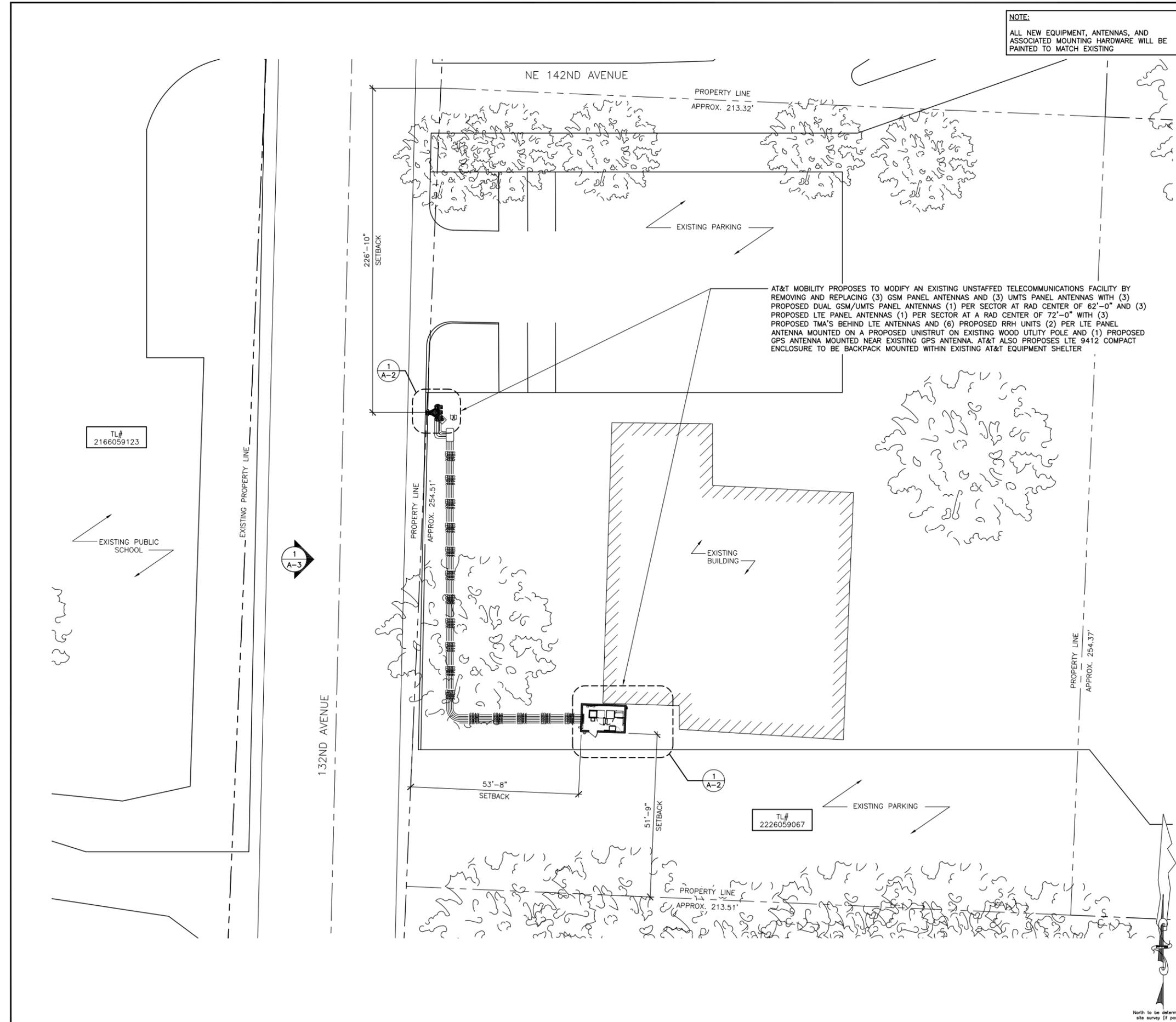
TOTEM LAKE  
 WA758  
 14216 132ND AVENUE NORTHEAST  
 KIRKLAND, WA 98034

REVISIONS				
NO.	DATE	DESCRIPTION	INITIAL	
0	02/17/11	ISSUED FOR PCO REVIEW	SV	
A	04/04/11	ISSUED FOR FINAL CONSTRUCTION	WJR	
1	11/17/11	ISSUED FOR REVISED FINAL CONSTRUCTION	RC	

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

SHEET TITLE  
 GENERAL NOTES & SYMBOLS

SHEET NUMBER  
**G-2**



**NOTE:**  
ALL NEW EQUIPMENT, ANTENNAS, AND ASSOCIATED MOUNTING HARDWARE WILL BE PAINTED TO MATCH EXISTING

**LEGEND**

---	SUBJECT BOUNDARY LINE	---	SECTIONAL BREAKDOWN LINE
- - -	RIGHT-OF-WAY CENTERLINE	---	OVERHEAD POWER LINE
---	RIGHT-OF-WAY LINE	---	BURIED POWER LINE
- - -	ADJACENT BOUNDARY LINE	---	BURIED GAS LINE
---	OHP	---	OVERHEAD TELEPHONE LINE
---	UGP	---	BURIED TELEPHONE LINE
---	OHT	---	BURIED WATER LINE
---	UGT	---	BURIED SANITARY SEWER
---	W	---	BURIED STORM DRAIN
---	SS	---	DITCH LINE/FLOW LINE
---	SD	---	ROCK RETAINING WALL
---	VEGETATION LINE	---	CHAIN LINK FENCE
---	WOOD FENCE	---	BARBED WIRE/WIRE FENCE
△	TRANSFORMER	○	FIRE HYDRANT
⊗	LIGHT STANDARD	⊗	GATE VALVE
⊞	POWER VAULT	⊞	WATER METER
⊞	UTILITY BOX	⊞	FIRE STAND PIPE
⊞	UTILITY POLE	⊞	CATCH BASIN, TYPE I
←	POLE GUY WIRE	⊞	CATCH BASIN, TYPE II
⊞	GAS VALVE	⊞	SIGN
⊞	GAS METER	○	BOLLARD
⊞	TELEPHONE VAULT	⊞	MAIL BOX
⊞	TELEPHONE RISER	⊞	SPOT ELEVATION

AT&T MOBILITY PROPOSES TO MODIFY AN EXISTING UNSTAFFED TELECOMMUNICATIONS FACILITY BY REMOVING AND REPLACING (3) GSM PANEL ANTENNAS AND (3) UMS PANEL ANTENNAS WITH (3) PROPOSED DUAL GSM/UMTS PANEL ANTENNAS (1) PER SECTOR AT RAD CENTER OF 62'-0" AND (3) PROPOSED LTE PANEL ANTENNAS (1) PER SECTOR AT A RAD CENTER OF 72'-0" WITH (3) PROPOSED TMA'S BEHIND LTE ANTENNAS AND (6) PROPOSED RRH UNITS (2) PER LTE PANEL ANTENNA MOUNTED ON A PROPOSED UNISTRUT ON EXISTING WOOD UTILITY POLE AND (1) PROPOSED GPS ANTENNA MOUNTED NEAR EXISTING GPS ANTENNA. AT&T ALSO PROPOSES LTE 9412 COMPACT ENCLOSURE TO BE BACKPACK MOUNTED WITHIN EXISTING AT&T EQUIPMENT SHELTER

**PARCEL NUMBER AND LEGAL DESCRIPTION**  
2226059067

LOT 1 KCSP R-107707 AF 7807131012 SD PLAT DAF S 254.64 FT OF NW 1/4 OF SW 1/4 OF NW 1/4 LESS W 30 FT FOR CO RDS POR TAXABLE

**VICINITY MAP**



8828 REGISTERED ARCHITECT  
*Richard B. Hall*  
**RICHARD B. HALL**  
STATE OF WASHINGTON

EXPIRATION DATE OF THE LICENSE: 08/20/13

**TOTEM LAKE**  
WA758  
14216 132ND AVENUE NORTHEAST  
KIRKLAND, WA 98034

**REVISIONS**

NO.	DATE	DESCRIPTION	INITIAL
0	02/17/11	ISSUED FOR PCO REVIEW	SV
A	04/04/11	ISSUED FOR FINAL CONSTRUCTION	WJR
1	11/17/11	ISSUED FOR REVISED FINAL CONSTRUCTION	RC

SHEET TITLE  
ENLARGED SITE PLAN

SHEET NUMBER  
**A-1**

24"x36" SCALE: 1/16" = 1'-0"  
11"x17" SCALE: 1/32" = 1'-0"  
16' 12' 8' 4' 0' 16'

ENLARGED SITE PLAN 1

NOTE:  
ALL NEW EQUIPMENT, ANTENNAS, AND ASSOCIATED MOUNTING HARDWARE WILL BE PAINTED TO MATCH EXISTING



8828 REGISTERED ARCHITECT  
*Richard B. Hall*  
RICHARD B. HALL  
STATE OF WASHINGTON

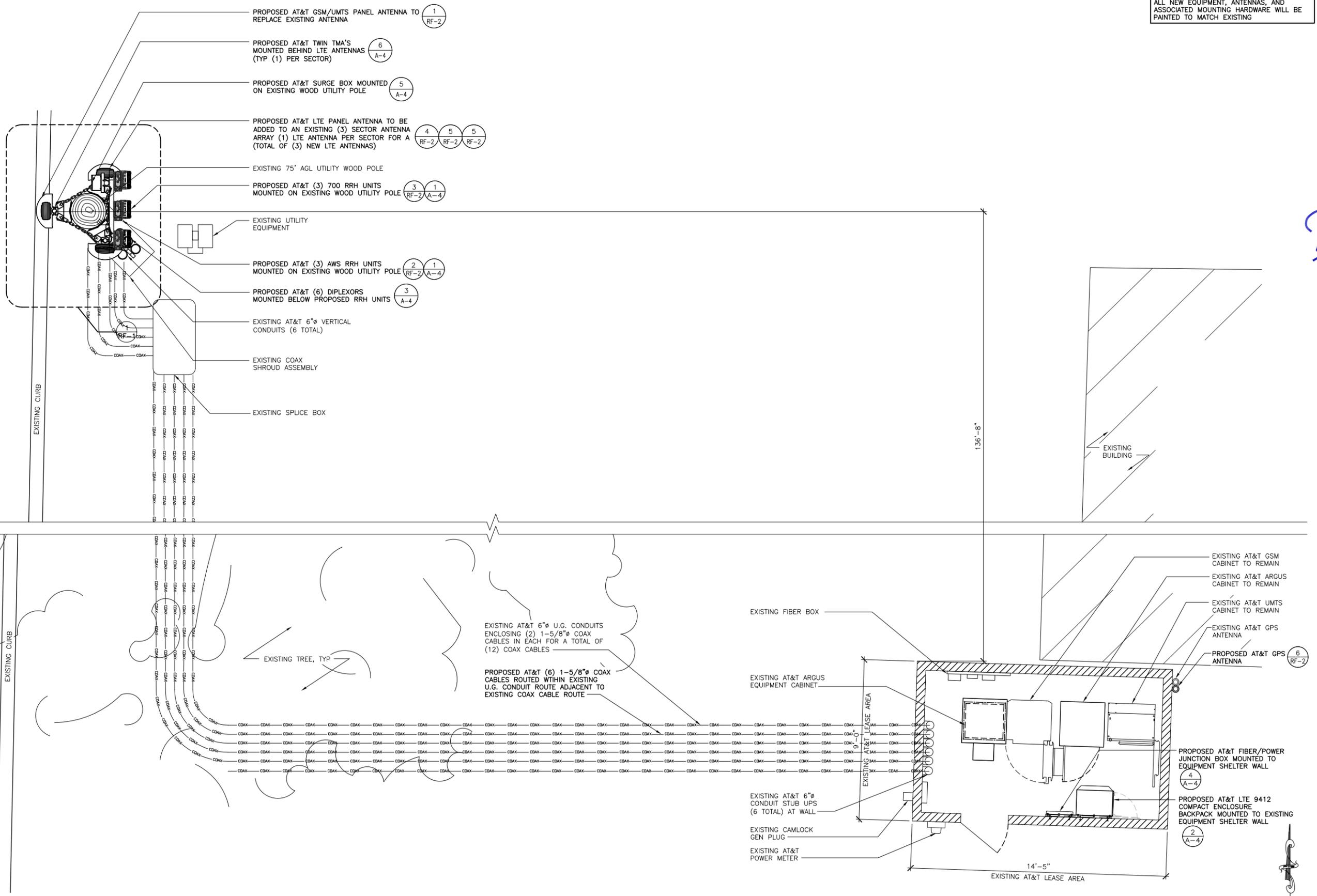
EXPIRATION DATE OF THE LICENSE: 08/20/13

TOTEM LAKE WA758  
14216 132ND AVENUE NORTHEAST  
KIRKLAND, WA 98034

REVISIONS				
NO.	DATE	DESCRIPTION	INITIAL	
0	02/17/11	ISSUED FOR PCD REVIEW	SV	
A	04/04/11	ISSUED FOR FINAL CONSTRUCTION	WJR	
1	11/17/11	ISSUED FOR REVISED FINAL CONSTRUCTION	RC	

SHEET TITLE  
ENLARGED SITE PLAN

SHEET NUMBER  
**A-2**



24"x36" SCALE: 3/8" = 1'-0"  
11"x17" SCALE: 3/16" = 1'-0"  
2' 1' 0" 2'

ENLARGED SITE PLAN | 1

**NOTE:**  
ALL NEW EQUIPMENT, ANTENNAS, AND ASSOCIATED MOUNTING HARDWARE WILL BE PAINTED TO MATCH EXISTING



8828 REGISTERED ARCHITECT  
*Richard B. Hall*  
RICHARD B. HALL  
STATE OF WASHINGTON

EXPIRATION DATE OF THE LICENSE: 08/20/13

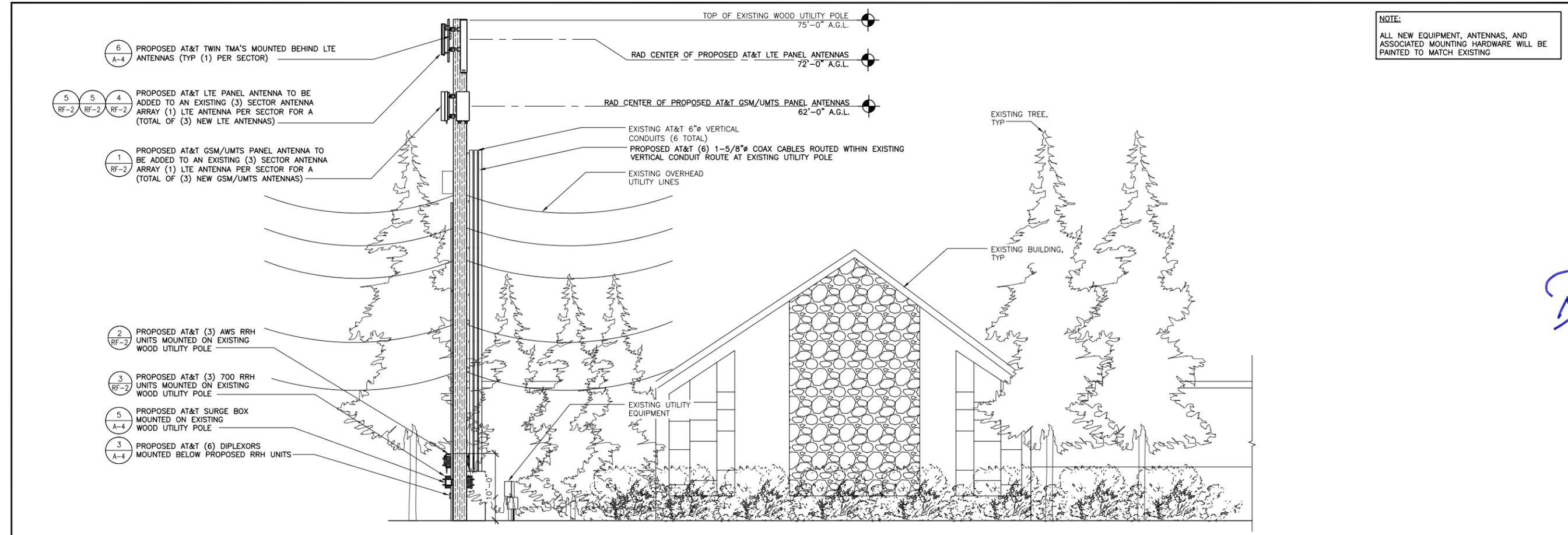
TOTEM LAKE  
WA758  
14216 132ND AVENUE NORTHEAST  
KIRKLAND, WA 98034

REVISIONS				
NO.	DATE	DESCRIPTION	INITIAL	
0	02/17/11	ISSUED FOR PCD REVIEW	SV	
A	04/04/11	ISSUED FOR FINAL CONSTRUCTION	WJR	
1	11/17/11	ISSUED FOR REVISED FINAL CONSTRUCTION	RC	

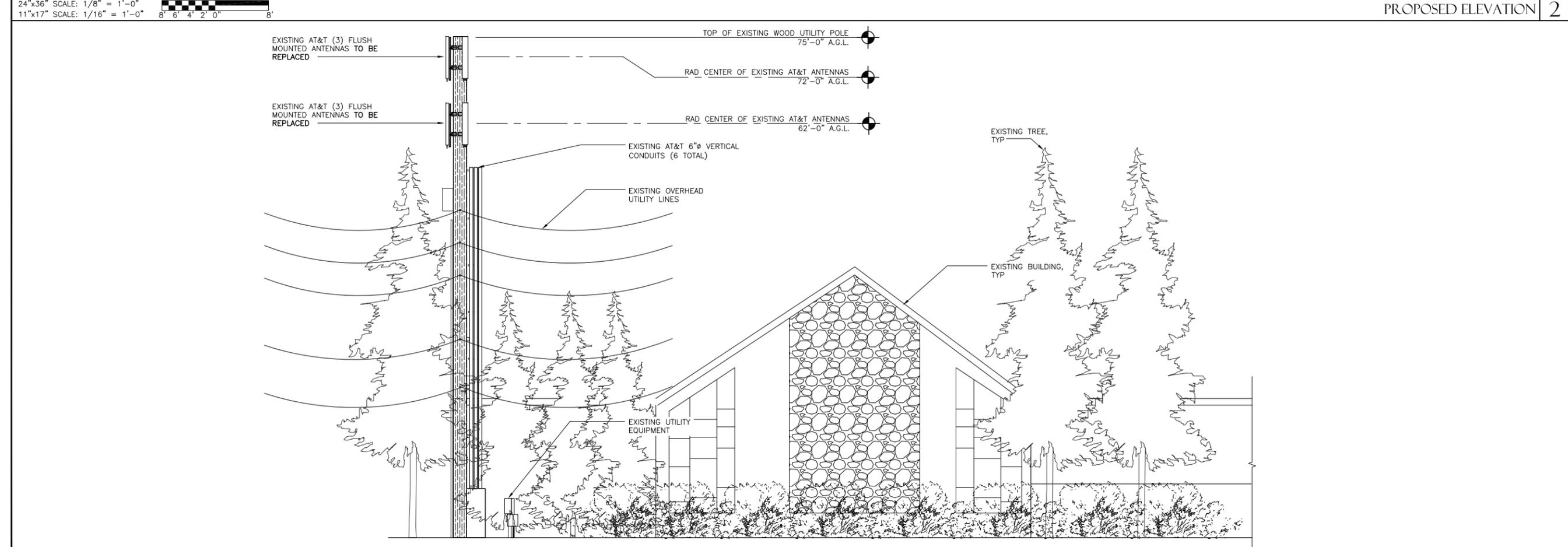
NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

SHEET TITLE  
EXISTING AND PROPOSED ELEVATION

SHEET NUMBER  
**A-3**

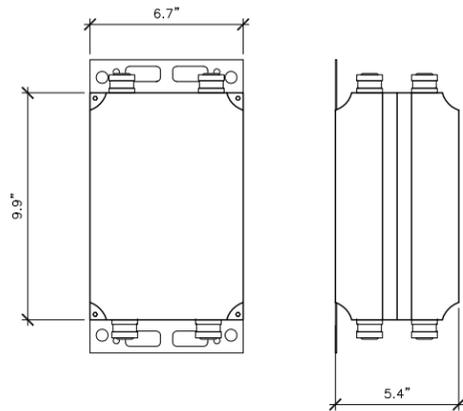


PROPOSED ELEVATION 2



EXISTING ELEVATION 1

**MECHANICAL SPECIFICATIONS:**  
 TMA TWIN DUAL BAND AWS  
 MODEL NUMBER: TTAW-07BP111-001  
 DIMENSIONS: 9.9"x6.7"x5.4" (250x169x139mm)  
 WEIGHT: <18 lbs (8 Kg)

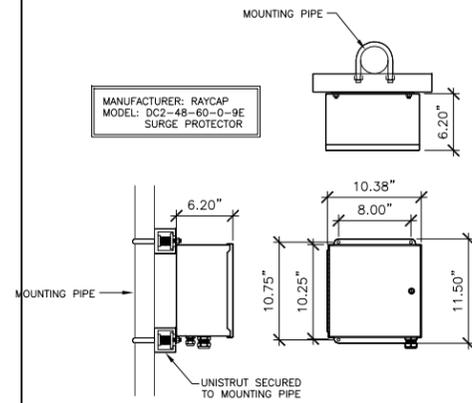


**TMA SPECIFICATIONS**

24"x36" SCALE: 3" = 1'-0"  
 11"x17" SCALE: 1-1/2" = 1'-0"

6

MANUFACTURER: RAYCAP  
 MODEL: DC2-48-60-0-9E  
 SURGE PROTECTOR

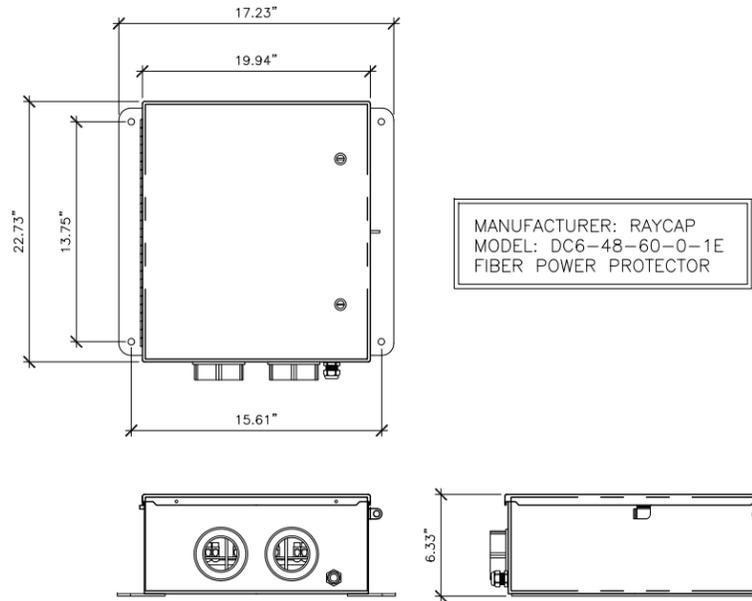


**SURGE BOX DETAIL**

24"x36" SCALE: 1 1/2"=1'-0"  
 11"x17" SCALE: 3/4"=1'-0"

5

MANUFACTURER: RAYCAP  
 MODEL: DC6-48-60-0-1E  
 FIBER POWER PROTECTOR

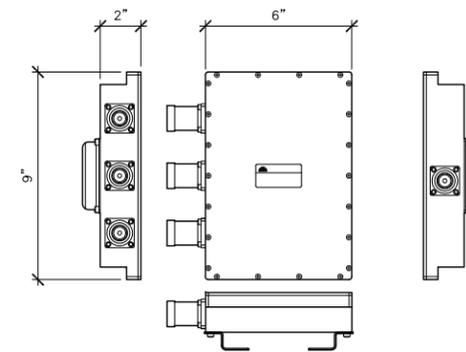


**FIBER/POWER JUNCTION BOX DETAIL**

24"x36" SCALE: NOT USED  
 11"x17" SCALE: NOT USED

4

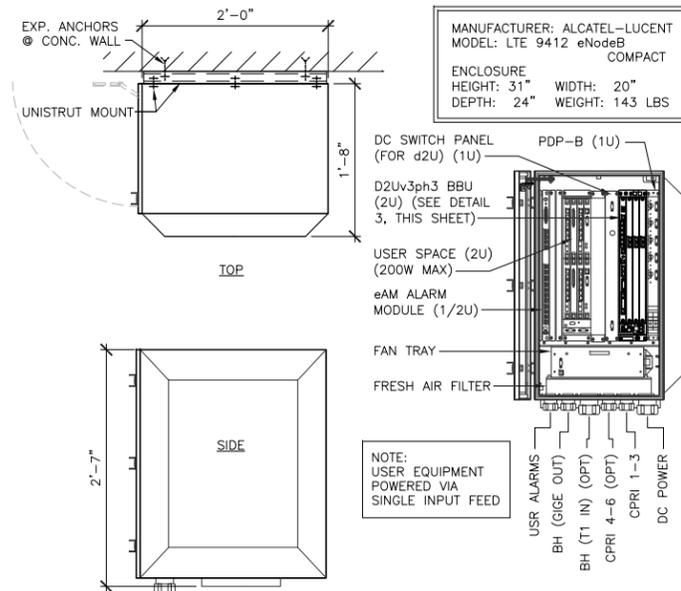
MANUFACTURER: CLEARCOMM  
 MODEL # CCDP-671-1W  
 LENGTH: 6.40"  
 WIDTH: 9.06"  
 THICKNESS: 1.78"  
 WEIGHT: 4.5 LB



**DIPLEXOR SPECIFICATIONS**

24"x36" SCALE: 3" = 1'-0"  
 11"x17" SCALE: 1-1/2" = 1'-0"

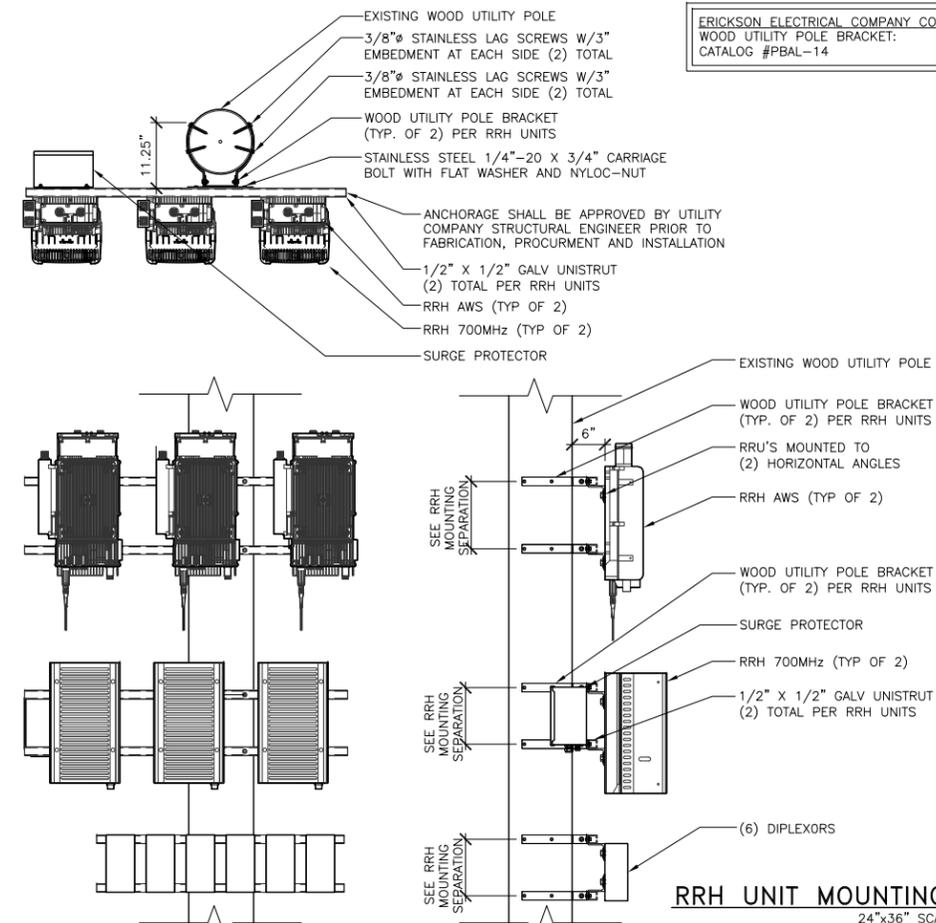
3



**LTE 9412 COMPACT ENCLOSURE**

24"x36" SCALE: 1"=1'-0"  
 11"x17" SCALE: 1/2"=1'-0"

2



**RRH UNIT MOUNTING DETAIL**

24"x36" SCALE: 1/2"=1'-0"  
 11"x17" SCALE: 1/4"=1'-0"

1



8828 REGISTERED ARCHITECT  
*Richard B. Hall*  
 RICHARD B. HALL  
 STATE OF WASHINGTON

EXPIRATION DATE OF THE LICENSE: 08/20/13

**TOTEM LAKE**  
 WA758  
 14216 132ND AVENUE NORTHEAST  
 KIRKLAND, WA 98034

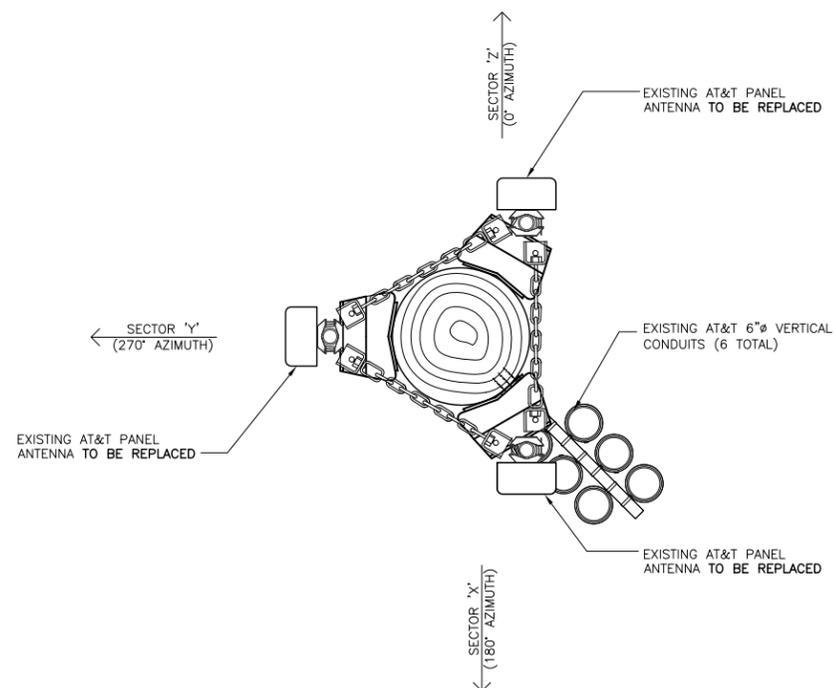
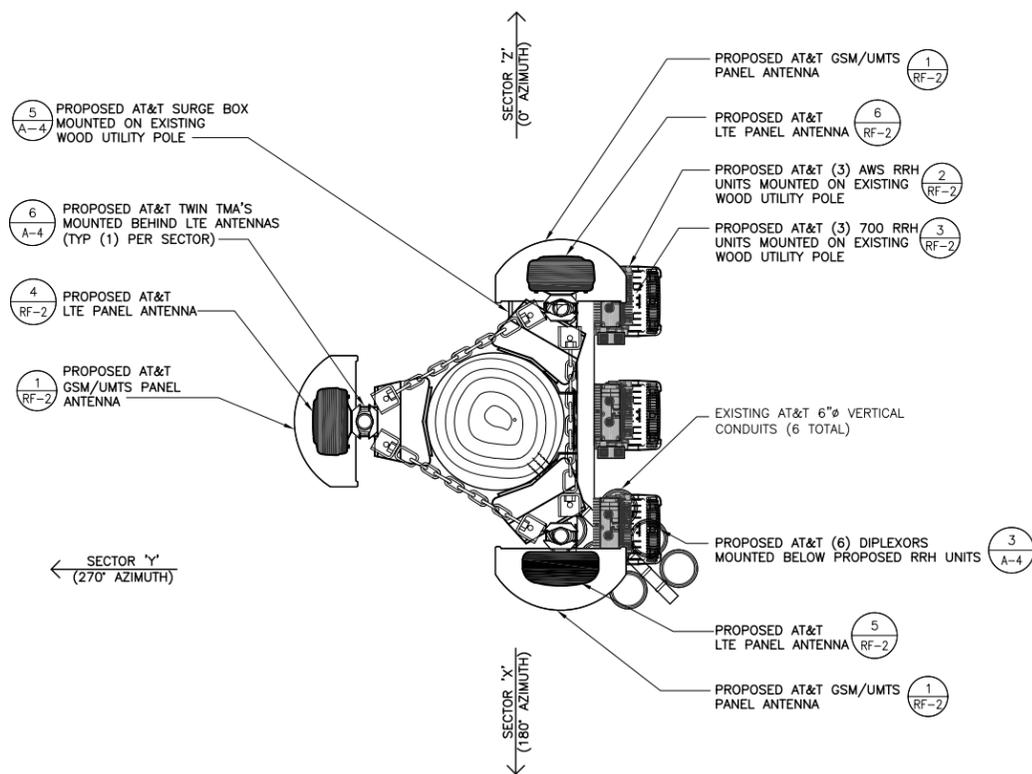
REVISIONS				
NO.	DATE	DESCRIPTION	INITIAL	
0	02/17/11	ISSUED FOR PCD REVIEW	SV	
A	04/04/11	ISSUED FOR FINAL CONSTRUCTION	WJR	
1	11/17/11	ISSUED FOR REVISED FINAL CONSTRUCTION	RC	

SHEET TITLE  
 CONSTRUCTION DETAILS

SHEET NUMBER  
**A-4**

PROPOSED ANTENNA CONFIGURATION AND SCHEDULE													
SECTOR X	AZIMUTH	RADCENTER	NUMBER OF ANTENNAS	VENDOR	MODEL	ELEC. TILT	MECH. TILT	RET	TMA	NUMBER OF COAX	COAX Ø	COAX LENGTH	DIPLEXED
GSM 850	180°	62°-0"	1	ANDREW	QBXLH-6565A	2°	3°	YES	LGP 21401	2	1-5/8"	101'-0"	NO
GSM 1900					2°	3°	YES	NONE	101'-0"			NO	
UMTS 850				ANDREW	QBXLH-6565A	2°	3°	YES	ERICSSON KRY 112 71/2	2	1-5/8"	101'-0"	YES (U8 U9)
UMTS 1900				2°	3°	YES	NONE	101'-0"	YES (U8 U9)				
LTE 700	180°	72°-0"	1	POWERWAVE	P65-17-XUH	0°	2°	YES	TTAW-07BP111-001	2	1-5/8"	101'-0"	NO
SECTOR Y	AZIMUTH	RADCENTER	NUMBER OF ANTENNAS	VENDOR	MODEL	ELEC. TILT	MECH. TILT	RET	TMA	NUMBER OF COAX	COAX Ø	COAX LENGTH	DIPLEXED
GSM 850	270°	62°-0"	1	ANDREW	QBXLH-6565A	2°	2°	YES	LGP 21401	2	1-5/8"	101'-0"	NO
GSM 1900					1°	2°	YES	NONE	101'-0"			NO	
UMTS 850				ANDREW	QBXLH-6565A	2°	2°	YES	ERICSSON KRY 112 71/2	2	1-5/8"	101'-0"	YES (U8 U9)
UMTS 1900				2°	2°	YES	NONE	101'-0"	YES (U8 U9)				
LTE 700	270°	72°-0"	1	KATHREIN	80010766	2°	0°	YES	TTAW-07BP111-001	2	1-5/8"	101'-0"	NO
SECTOR Z	AZIMUTH	RADCENTER	NUMBER OF ANTENNAS	VENDOR	MODEL	ELEC. TILT	MECH. TILT	RET	TMA	NUMBER OF COAX	COAX Ø	COAX LENGTH	DIPLEXED
GSM 850	0°	62°-0"	1	ANDREW	QBXLH-6565A	2°	2°	YES	LGP 21401	2	1-5/8"	101'-0"	NO
GSM 1900					0°	2°	YES	NONE	101'-0"			NO	
UMTS 850				ANDREW	QBXLH-6565A	2°	2°	YES	ERICSSON KRY 112 71/2	2	1-5/8"	101'-0"	YES (U8 U9)
UMTS 1900				2°	2°	YES	NONE	101'-0"	YES (U8 U9)				
LTE 700	0°	72°-0"	1	KATHREIN	80010764	3°	0°	YES	TTAW-07BP111-001	2	1-5/8"	101'-0"	NO

EXISTING ANTENNA CONFIGURATION AND SCHEDULE													
SECTOR X	AZIMUTH	RADCENTER	NUMBER OF ANTENNAS	VENDOR	MODEL	ELEC. TILT	MECH. TILT	RET	TMA	NUMBER OF COAX	COAX Ø	COAX LENGTH	DIPLEXED
GSM 850	180°	72°-0"	1	KATHREIN	742-265	2°	3°	YES	NONE	2	1-5/8"	101'-0"	NO
GSM 1900						2°		YES	ERICSSON KRY 112 71/2			101'-0"	NO
UMTS 850	180°	62°-0"	1	KATHREIN	742-265	3°	3°	YES	NONE	2	1-5/8"	101'-0"	YES (U8 U9)
UMTS 1900						0°		YES	LGP-21401			101'-0"	YES (U8 U9)
SECTOR Y	AZIMUTH	RADCENTER	NUMBER OF ANTENNAS	VENDOR	MODEL	ELEC. TILT	MECH. TILT	RET	TMA	NUMBER OF COAX	COAX Ø	COAX LENGTH	DIPLEXED
GSM 850	270°	72°-0"	1	KATHREIN	742-265	0°	2°	YES	NONE	2	1-5/8"	101'-0"	NO
GSM 1900						1°		YES	ERICSSON KRY 112 71/2			101'-0"	NO
UMTS 850	270°	62°-0"	1	KATHREIN	742-265	3°	2°	YES	NONE	2	1-5/8"	101'-0"	YES (U8 U9)
UMTS 1900						0°		YES	LGP-21401			101'-0"	YES (U8 U9)
SECTOR Z	AZIMUTH	RADCENTER	NUMBER OF ANTENNAS	VENDOR	MODEL	ELEC. TILT	MECH. TILT	RET	TMA	NUMBER OF COAX	COAX Ø	COAX LENGTH	DIPLEXED
GSM 850	0°	72°-0"	1	KATHREIN	742-265	5°	2°	YES	NONE	2	1-5/8"	101'-0"	NO
GSM 1900						2°		YES	ERICSSON KRY 112 71/2			101'-0"	NO
UMTS 850	0°	62°-0"	1	KATHREIN	742-265	8°	2°	YES	NONE	2	1-5/8"	101'-0"	YES (U8 U9)
UMTS 1900						5°		YES	LGP-21401			101'-0"	YES (U8 U9)



24"x36" SCALE: 3/4" = 1'-0"  
 11"x17" SCALE: 3/8" = 1'-0"

PROPOSED ANTENNA LAYOUT PLAN 2

24"x36" SCALE: 3/4" = 1'-0"  
 11"x17" SCALE: 3/8" = 1'-0"

EXISTING ANTENNA LAYOUT PLAN 1



8828 REGISTERED ARCHITECT  
*Richard B. Hall*  
 RICHARD B. HALL  
 STATE OF WASHINGTON

EXPIRATION DATE OF THE LICENSE: 08/20/13

TOTEM LAKE  
 WA758  
 14216 132ND AVENUE NORTHEAST  
 KIRKLAND, WA 98034

REVISIONS				
NO.	DATE	DESCRIPTION	INITIAL	
0	02/17/11	ISSUED FOR PCO REVIEW	SV	
A	04/04/11	ISSUED FOR FINAL CONSTRUCTION	WJR	
1	11/17/11	ISSUED FOR REVISED FINAL CONSTRUCTION	RC	

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

SHEET TITLE  
 ANTENNA LAYOUT PLAN

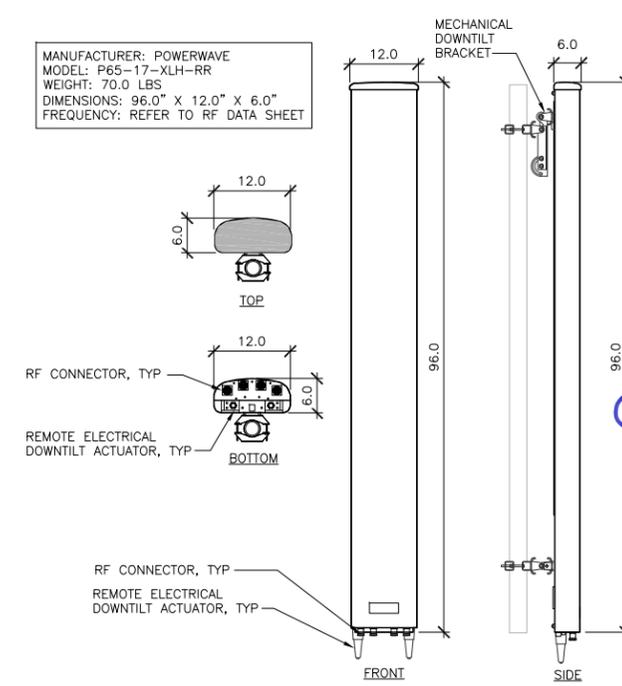
SHEET NUMBER  
**RF-1**

REVISIONS				
NO.	DATE	DESCRIPTION	INITIAL	
0	02/17/11	ISSUED FOR PC D REVIEW	SV	
A	04/04/11	ISSUED FOR FINAL CONSTRUCTION	WJR	
1	11/17/11	ISSUED FOR REVISED FINAL CONSTRUCTION	RC	

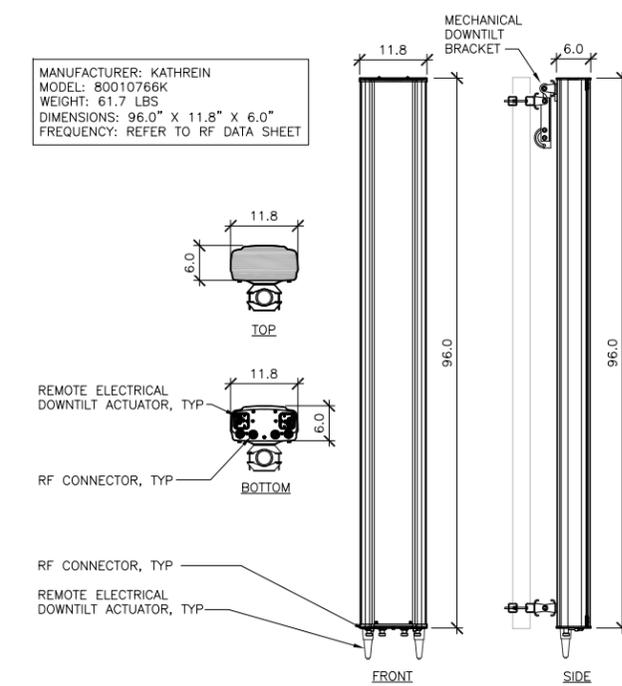
NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

SHEET TITLE  
 RF DETAILS

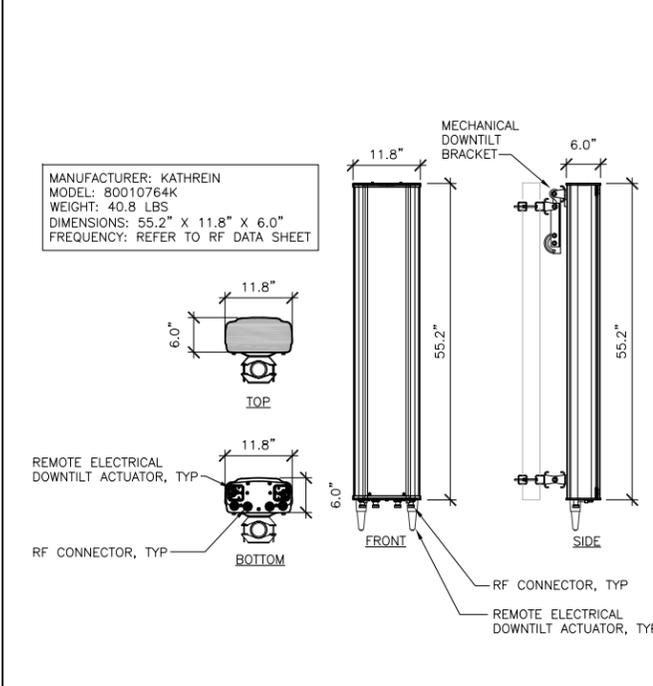
SHEET NUMBER  
**RF-2**



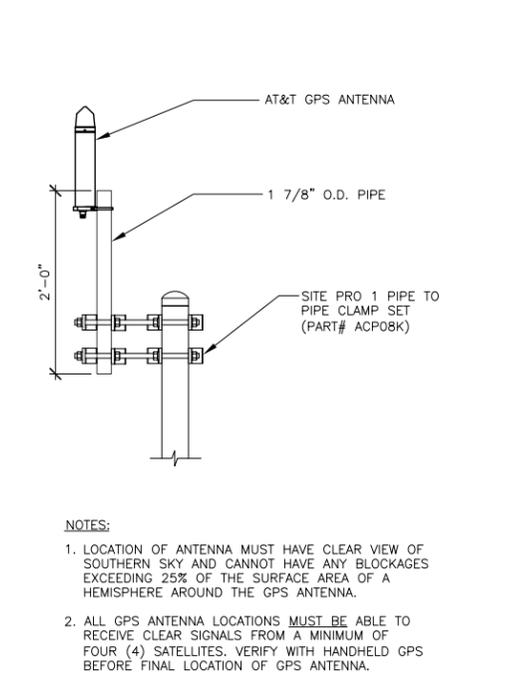
ANTENNA SPECIFICATIONS 4  
 24"x36" SCALE: 3/4"=1'-0"  
 11"x17" SCALE: 3/8"=1'-0"



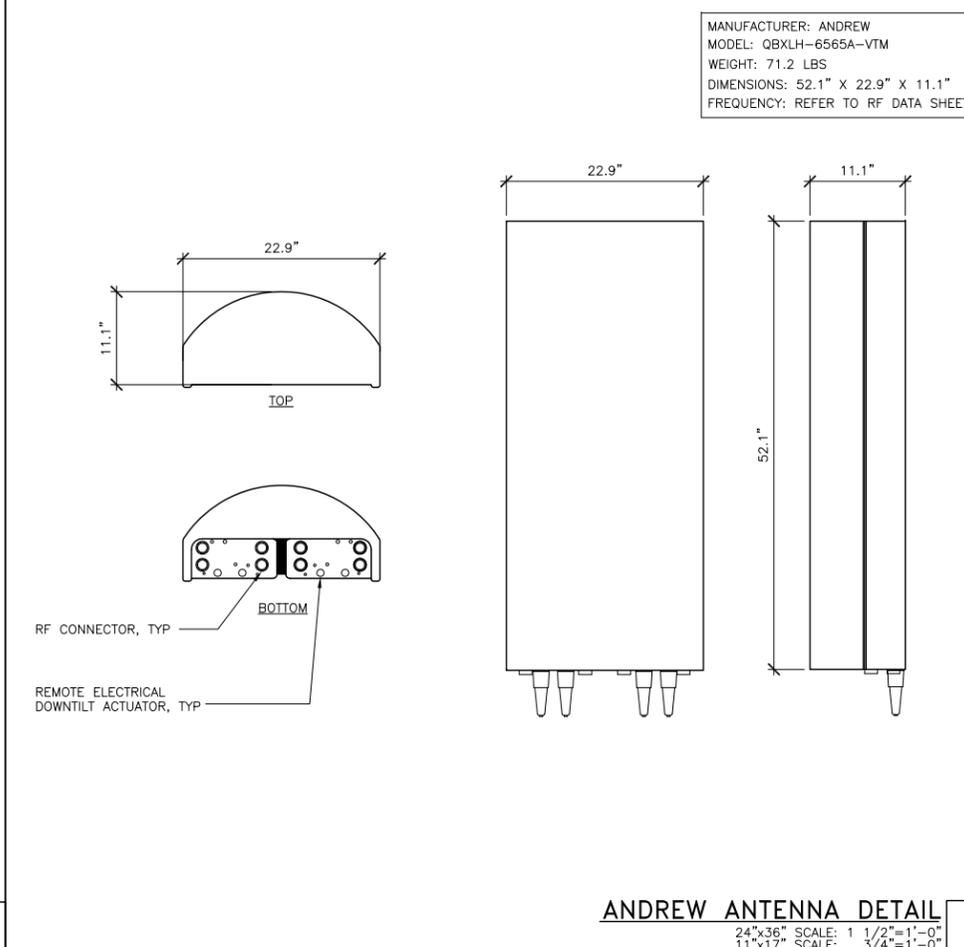
ANTENNA SPECIFICATIONS 5  
 24"x36" SCALE: 3/4"=1'-0"  
 11"x17" SCALE: 3/8"=1'-0"



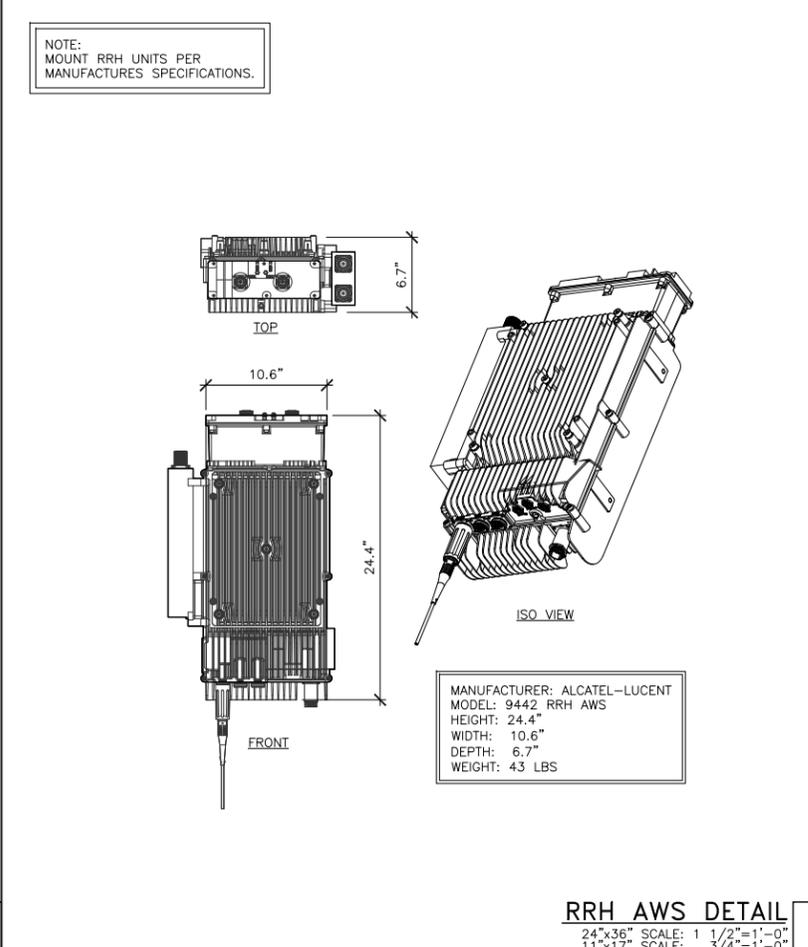
ANTENNA SPECIFICATIONS 6  
 24"x36" SCALE: 3/4"=1'-0"  
 11"x17" SCALE: 3/8"=1'-0"



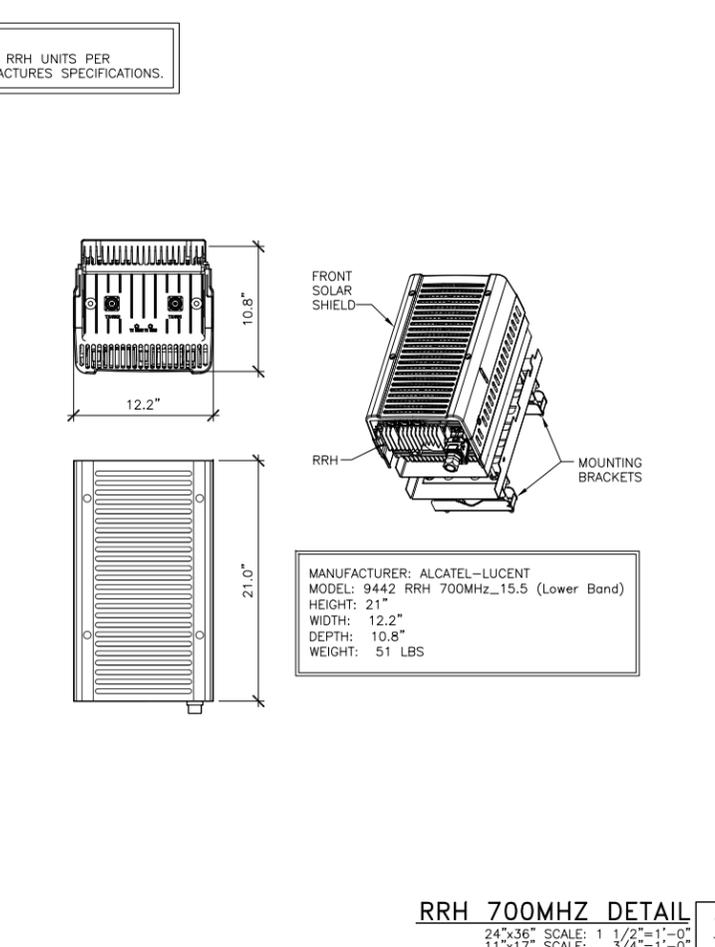
GPS MOUNTING DETAIL 6  
 24"x36" SCALE: NOT TO SCALE  
 11"x17" SCALE: NOT TO SCALE



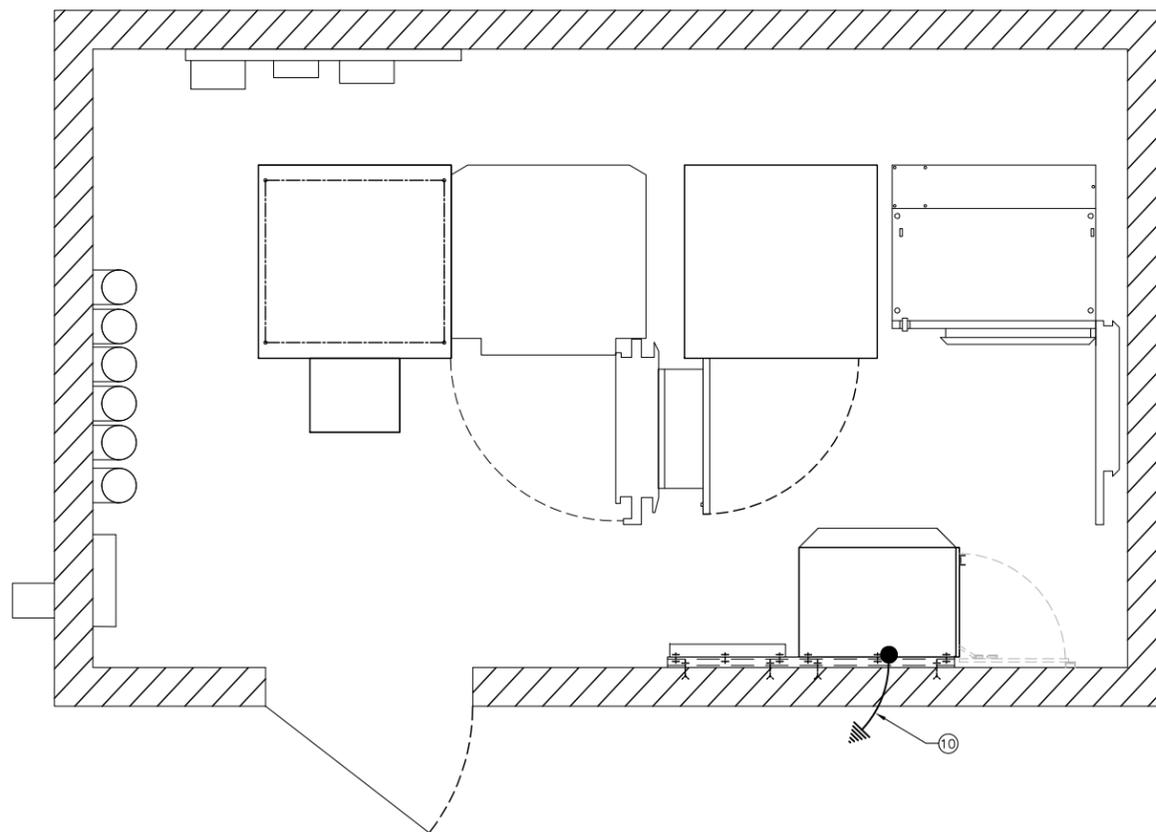
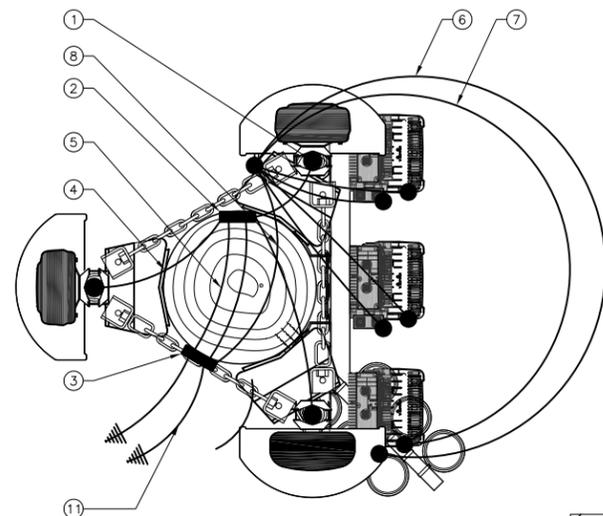
ANDREW ANTENNA DETAIL 1  
 24"x36" SCALE: 1 1/2"=1'-0"  
 11"x17" SCALE: 3/4"=1'-0"



RRH AWS DETAIL 2  
 24"x36" SCALE: 1 1/2"=1'-0"  
 11"x17" SCALE: 3/4"=1'-0"



RRH 700MHZ DETAIL 3  
 24"x36" SCALE: 1 1/2"=1'-0"  
 11"x17" SCALE: 3/4"=1'-0"



**GROUNDING KEYED NOTES:**

- ① CAD WELD (TYP). SEE DETAIL 2/E-2.
- ② EXISTING ANTENNA GROUND BUS BAR NEAR AT TOP OF UTILITY POLE WITH COAX GROUND KIT. SEE DETAIL 9/E-2 FOR GROUND BAR CONSTRUCTION, SEE DETAIL 7/E-2 FOR GROUND WIRE CONNECTIONS, AND SEE DETAIL 6/E-2 FOR COAX GROUNDING.
- ③ EXISTING TOWER GROUND BUS BAR AT BASE OF UTILITY POLE. SEE DETAIL 9/E-2 FOR GROUND BAR CONSTRUCTION, SEE DETAIL 7/E-2 FOR GROUND WIRE CONNECTIONS, AND SEE DETAIL 6/E-2 FOR COAX GROUNDING.
- ④ #6 AWG ANTENNA MOUNT GROUND TO ANTENNA GROUND BUS BAR (TYP OF 3) SEE DETAIL 5/E-2.
- ⑤ EXISTING GROUND FROM ANTENNA GROUND BUS BAR TO UTILITY POLE GROUND BUS BAR (TYP OF (2) PLACES). SEE DETAIL 7/E-2
- ⑥ #6 AWG AWS RRH UNIT GROUND TO SURGE SUPPRESSION BOX (TYP OF 3)
- ⑦ #6 AWG 700 RRH UNIT GROUND TO SURGE SUPPRESSION BOX (TYP OF 3)
- ⑧ #6 AWG SURGE SUPPRESSION BOX TO EXISTING TOWER GROUND BUS BAR (TYP OF 3) SEE DETAIL 5/E-2.
- ⑨ #6 AWG GPS ANTENNA GROUND TO H-FRAME GROUND BUS BAR SEE DETAIL 5/E-2.
- ⑩ #6 AWG LTE EQUIPMENT CABINET TO TIE INTO EXISTING SYSTEM GROUND RING.
- ⑪ #2 AWG BARE TINNED GROUND LEAD FROM EXISTING TOWER GROUND BUS BAR TO TIE INTO EXISTING GROUNDING SYSTEM. (TYP OF 2 PLACES)

**GROUNDING NOTES & LEGEND**

**GENERAL GROUNDING NOTES**

1. ALL DETAILS ARE SHOWN IN GENERAL TERMS. ACTUAL INSTALLATION AND CONSTRUCTION MAY VARY DUE TO SITE SPECIFIC CONDITIONS.
2. GROUND ALL ANTENNA BASES, FRAMES, CABLE RUNS, AND OTHER METALLIC COMPONENTS USING GROUND WIRES AND CONNECT TO SURFACE MOUNTED BUS BARS. FOLLOW ANTENNA AND BTS MANUFACTURERS PRACTICES FOR GROUNDING REQUIREMENTS. GROUND COAX SHIELD AT BOTH ENDS AND EXIT FROM TOWER OR POLE USING MFR'S PRACTICES.
3. ALL GROUND CONNECTIONS SHALL BE CADWELD. ALL WIRES SHALL BE COPPER THHN/THWN. ALL GROUND WIRE SHALL BE GREEN INSULATED WIRE ABOVE GROUND.
4. CONTRACTOR TO VERIFY AND TEST GROUND TO SOURCE. GROUNDING AND OTHER OPERATIONAL TESTING WILL BE WITNESSED BY AT&T WIRELESS, LLC. REPRESENTATIVE.
5. REFER TO DIVISION 16 GENERAL ELECTRIC; GENERAL ELECTRICAL PROVISION AND COMPLY WITH ALL REQUIREMENTS OF GROUNDING STANDARDS.
6. ELECTRICAL CONTRACTOR TO PROVIDE DETAILED DESIGN OF GROUNDING SYSTEM, AND RECEIVE APPROVAL OF DESIGN BY AUTHORIZED AT&T MOBILITY REPRESENTATIVE, PRIOR TO INSTALLATION OF GROUNDING SYSTEM. PHOTO DOCUMENT ALL CADWELDS AND GROUND RING
7. NOTIFY CONSTRUCTION MANAGER IF THERE ARE ANY DIFFICULTIES INSTALLING GROUNDING SYSTEM DUE TO SITE SOIL CONDITIONS.

**GROUNDING ROD NOTES**

(WHERE APPLICABLE)  
ELECTRICAL CONTRACTOR SHALL ORDER GROUND RESISTANCE TESTING ONCE THE GROUND SYSTEM HAS BEEN INSTALLED; A QUALIFIED INDIVIDUAL, UTILIZING THE FALL OF POTENTIAL METHOD, SHOULD PERFORM THE TEST. THE REPORT WILL SHOW THE LOCATION OF THE TEST AND CONTAIN NO LESS THAN 9 TEST POINTS ALONG THE TESTING LINE, GRAPHED OUT TO SHOW THE PLATEAU.

2 POINT GROUND TEST OR 3 POINT 62% TESTS WILL NOT BE ACCEPTED AS ALTERNATIVES TO THE AFORE MENTIONED GROUND TESTS. TEST SHALL BE PERFORMED WHILE THE COUNTERPOISE IS ISOLATED FROM THE A/C SYSTEM GRIDS AND EXISTING COMMUNICATIONS FACILITY.

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
⊗	COPPER GROUND ROD	⊗	TEST WELL
●	CADWELD CONNECTION	■	GROUND BAR
■	SIDE SPLICE CADWELD	—	FIELD VERIFY & TIE INTO EXISTING GROUNDING SYSTEM

24"x36" SCALE: 3/16" = 1'-0"  
11"x17" SCALE: 3/32" = 1'-0"



**SCHEMATIC GROUNDING PLAN 1**

PACIFIC TELECOM SERVICES, LLC

8828 REGISTERED ARCHITECT

*Richard B. Hall*

**RICHARD B. HALL**  
STATE OF WASHINGTON

EXPIRATION DATE OF THE LICENSE: 08/20/13

**TOTEM LAKE**  
WA758  
14216 132ND AVENUE NORTHEAST  
KIRKLAND, WA 98034

**REVISIONS**

NO.	DATE	DESCRIPTION	INITIAL
0	02/17/11	ISSUED FOR PCD REVIEW	SV
A	04/04/11	ISSUED FOR FINAL CONSTRUCTION	WJR
1	11/17/11	ISSUED FOR REVISED FINAL CONSTRUCTION	RC

NOT FOR CONSTRUCTION UNLESS LABELED AS CONSTRUCTION SET

SHEET TITLE  
SCHEMATIC GROUNDING PLAN

SHEET NUMBER  
**E-1**

NOT USED 15  
24"x36" SCALE: NOT TO SCALE  
11"x17" SCALE: NOT TO SCALE

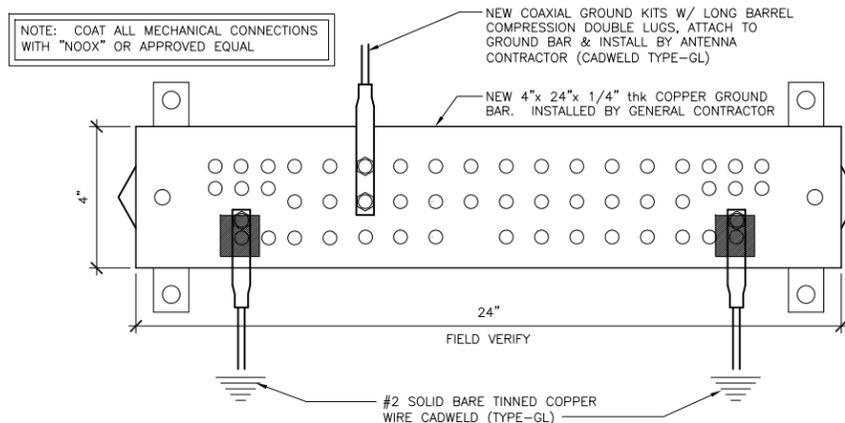
NOT USED 14  
24"x36" SCALE: NOT TO SCALE  
11"x17" SCALE: NOT TO SCALE

NOT USED 13  
24"x36" SCALE: NOT TO SCALE  
11"x17" SCALE: NOT TO SCALE

NOT USED 12  
24"x36" SCALE: NOT TO SCALE  
11"x17" SCALE: NOT TO SCALE

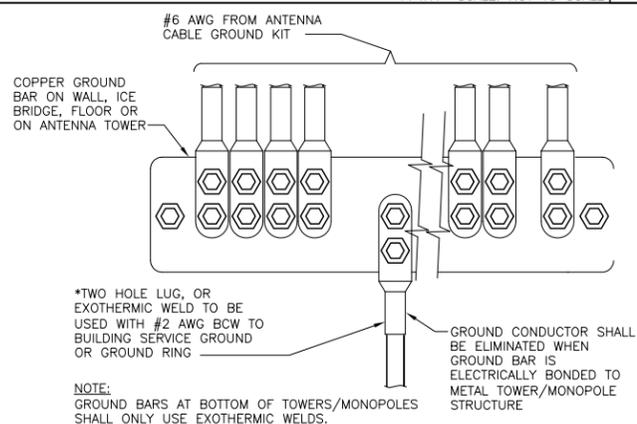
NOT USED 11  
24"x36" SCALE: NOT TO SCALE  
11"x17" SCALE: NOT TO SCALE

NOT USED 10  
24"x36" SCALE: NOT TO SCALE  
11"x17" SCALE: NOT TO SCALE



GROUND BAR 9  
24"x36" SCALE: NOT TO SCALE  
11"x17" SCALE: NOT TO SCALE

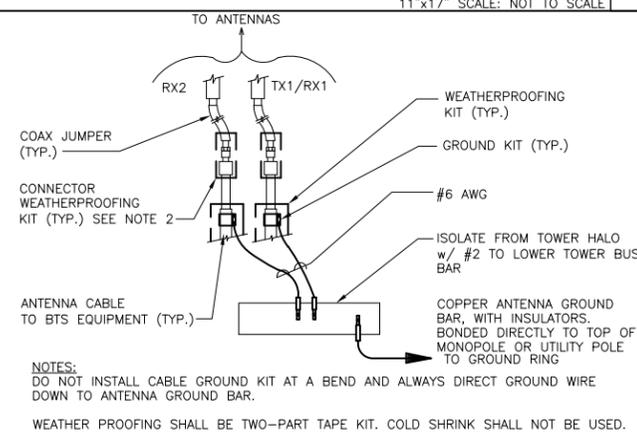
NOT USED 8  
24"x36" SCALE: NOT TO SCALE  
11"x17" SCALE: NOT TO SCALE



GROUND WIRE INSTALLATION 7  
24"x36" SCALE: NOT TO SCALE  
11"x17" SCALE: NOT TO SCALE

- NOTES:
- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
  - GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR RECOMMENDED BY CABLE MANUFACTURER.
  - WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE USED.

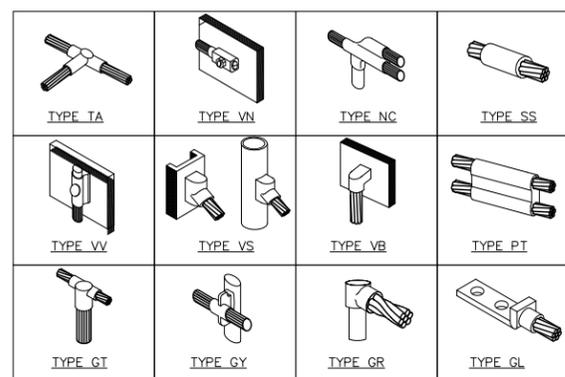
CABLE GROUND KIT CONNECTION 6  
24"x36" SCALE: NOT TO SCALE  
11"x17" SCALE: NOT TO SCALE



GROUND CABLE CONNECTION 5  
24"x36" SCALE: NOT TO SCALE  
11"x17" SCALE: NOT TO SCALE

NOT USED 4  
24"x36" SCALE: NOT TO SCALE  
11"x17" SCALE: NOT TO SCALE

NOT USED 3  
24"x36" SCALE: NOT TO SCALE  
11"x17" SCALE: NOT TO SCALE



CADWELD GROUNDING CONNECTIONS 2  
24"x36" SCALE: NOT TO SCALE  
11"x17" SCALE: NOT TO SCALE

NOT USED 1  
24"x36" SCALE: NOT TO SCALE  
11"x17" SCALE: NOT TO SCALE

REVISIONS			
NO.	DATE	DESCRIPTION	INITIAL
0	02/17/11	ISSUED FOR PCD REVIEW	SV
A	04/04/11	ISSUED FOR FINAL CONSTRUCTION	WJR
1	11/17/11	ISSUED FOR REVISED FINAL CONSTRUCTION	RC

SHEET TITLE  
GROUNDING DETAILS

SHEET NUMBER  
E-2