

**RCY South Rapid City**

**MEMORANDUM OF BUILDING AND ROOFTOP LEASE AGREEMENT**

This Memorandum dated this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_\_\_, by and between the Pennington County Housing & Redevelopment Commission, a South Dakota political subdivision with its principal offices located at 1805 West Fulton Street, Rapid City, South Dakota 57702, (hereinafter "LESSOR") and CommNet Cellular License Holding LLC, d/b/a Verizon Wireless, 180 Washington Valley Road, Bedminster, New Jersey, 07921 (hereinafter "LESSEE"), is a record of that Cellular Inc. Network Corporation, Agreement (hereinafter "Agreement") between LESSOR and LESSEE dated \_\_\_\_\_, 200\_\_\_\_, which Agreement includes in part the following terms:

1. Leased Premises The Agreement pertains to real property consisting of certain space on the roof of the property located at 636 North Cathedral Drive, Rapid City, South Dakota, together with that area of the roof as shown in **Exhibit A** attached hereto and made a part hereof together with the non-exclusive right for ingress and egress, seven (7) days a week, twenty-four (24) hours a day for the purpose of installation and maintenance of the demised premises, which roof space and access are collectively referred to hereinafter as the "Premises", legally described as follows, to wit:

Tract A of Lot 2 in the Northwest Quarter of the Southwest Quarter of Section 12, Township One North, Range Seven East of the Black Hills Meridian, Pennington County, South Dakota.

2. Term of Agreement and Renewals. The initial term of the Agreement is for a five-year (5) period commencing on the first day of the month following the date the Agreement was executed by the parties or the first day of the month following the date LESSEE was granted a building permit by the appropriate government agency, whichever event occurs last. LESSEE has the right to extend the lease term for at least four (4) additional five-year (5) periods.

3. Successors and Assigns. The terms, covenants and provisions of the Agreement extend to and are binding upon the respective executors, administrators, heirs, successors and assigns of LESSOR and LESSEE.

4. Ratification of Agreement. The parties, by this Memorandum, intend to record a reference to the Agreement and do hereby ratify and confirm all of the terms and conditions of the Agreement and, do hereby declare that the Leased Premises described in **Exhibits A and B** attached hereto is in all respects subject to all of the applicable provisions contained in the Agreement.

**LESSOR:**  
**Pennington County Housing & Redevelopment Commission**

By \_\_\_\_\_

Name: \_\_\_\_\_

Its: \_\_\_\_\_

and

By \_\_\_\_\_

Name: \_\_\_\_\_

Its: \_\_\_\_\_

Date: \_\_\_\_\_

**LESSEE:**  
**CommNet Cellular License Holding LLC**  
**d/b/a Verizon Wireless,**  
**By Cellular Inc. Financial Corporation, Its Sole Member**

By: \_\_\_\_\_

**Robert F. Swaine**

Its: **West Area Vice President, Network**

Date: \_\_\_\_\_

**ACKNOWLEDGEMENTS**

**LESSOR ACKNOWLEDGMENT**

STATE OF SOUTH DAKOTA )  
 ) ss.  
COUNTY OF \_\_\_\_\_ )

On this \_\_\_\_\_ day of \_\_\_\_\_, 2002, before me, the undersigned, a Notary Public in and for the State of South Dakota, duly commissioned and sworn, personally appeared \_\_\_\_\_ and \_\_\_\_\_ to me known to be the \_\_\_\_\_ and \_\_\_\_\_ of Pennington County Housing & Redevelopment Commission, a South Dakota political subdivision the political subdivision that executed the foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of the political subdivision, for the uses and purposes therein mentioned, and on oath stated that he/she is authorized to execute the said instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

\_\_\_\_\_  
Print or Type Name: \_\_\_\_\_  
Notary Public in and for the State of \_\_\_\_\_  
Residing at \_\_\_\_\_  
My appointment expires: \_\_\_\_\_

**LESSEE ACKNOWLEDGMENT**

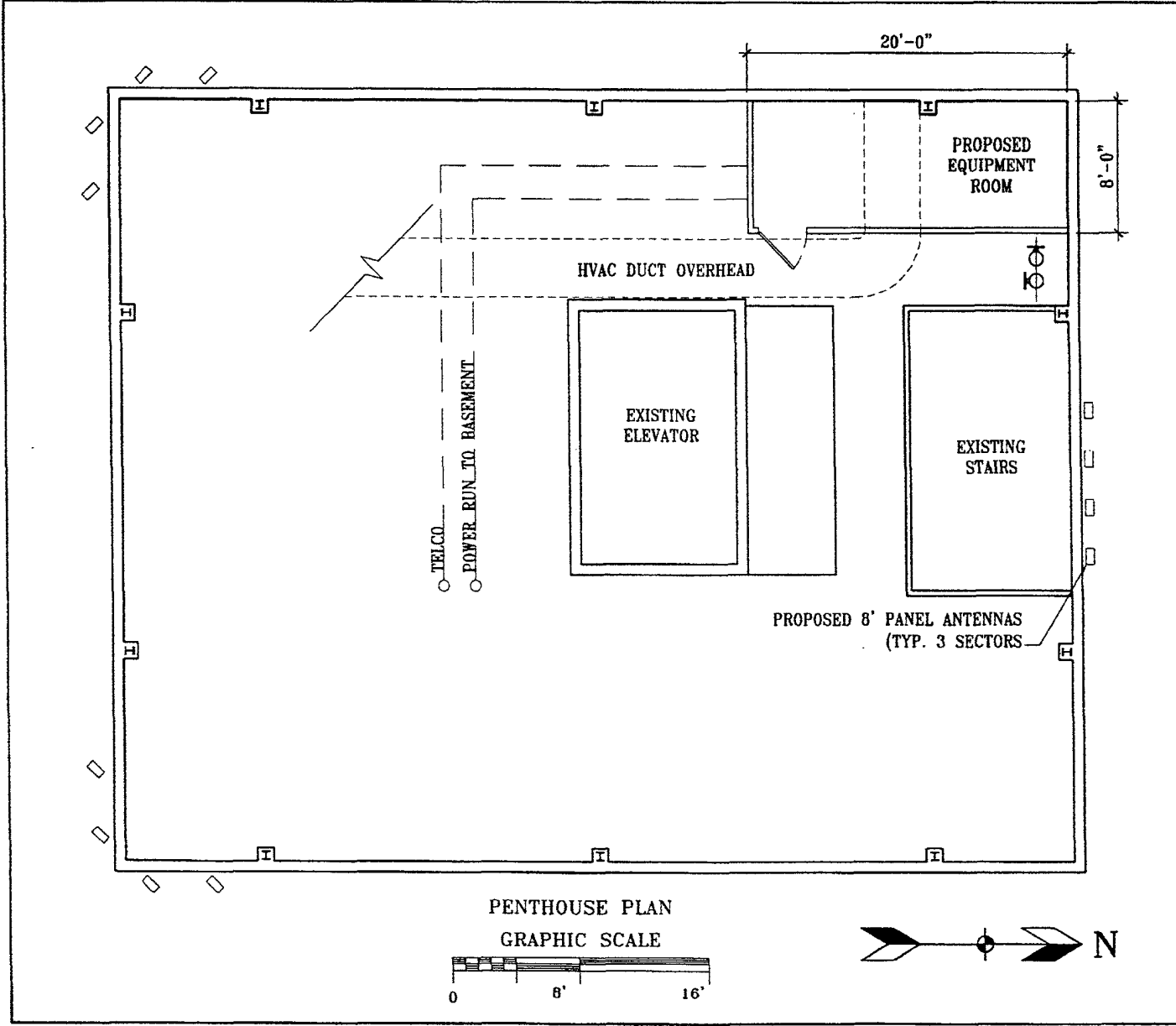
STATE OF ARIZONA )  
 ) ss.  
COUNTY OF MARICOPA )

On this \_\_\_\_\_ day of \_\_\_\_\_, 200\_\_\_\_, before me, the undersigned, a Notary Public in and for the State of Arizona, duly commissioned and sworn, personally appeared Robert F. Swaine to me known to be an authorized representative of Cellular Inc. Financial Corporation, the Sole Member of CommNet Cellular License Holding LLC, d/b/a Verizon Wireless, the limited liability company that executed the foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of CommNet Cellular License Holding LLC, d/b/a Verizon Wireless, for the uses and purposes therein mentioned, and on oath stated that he is authorized to execute the said instrument.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year first above written.

\_\_\_\_\_  
Print or Type Name: \_\_\_\_\_  
Notary Public in and for the State of AZ,  
residing at \_\_\_\_\_  
My appointment expires: \_\_\_\_\_

THIS DOCUMENT WAS DRAFTED BY  
AND WHEN RECORDED RETURN TO:  
Moss & Barnett (JDL)  
4800 Wells Fargo Center  
90 South Seventh Street  
Minneapolis, MN 55402-4129  
(612) 347-0300



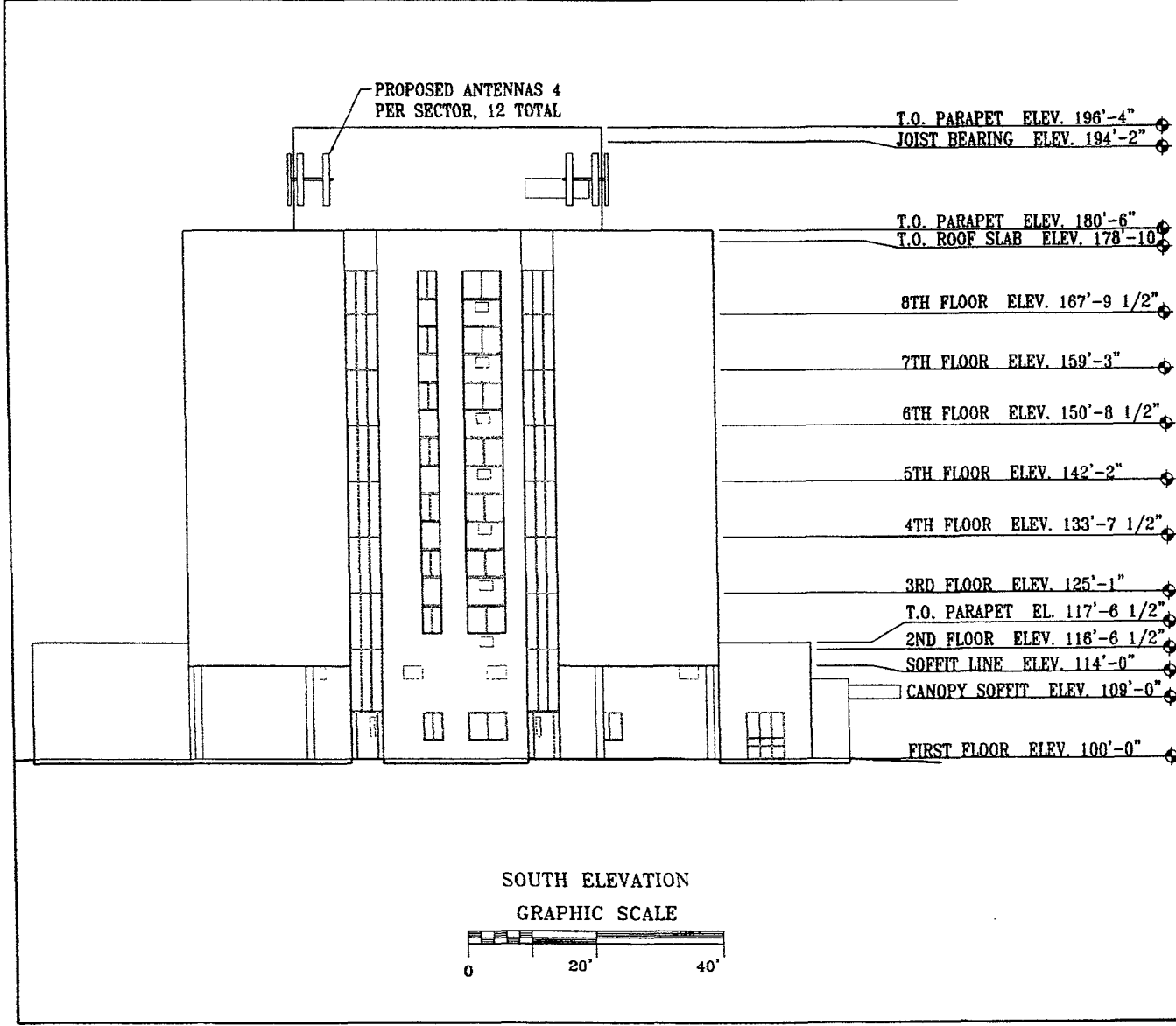
DRAWN BY: TAB  
 DATE: 06-14-02  
 SHEET: 1 OF 5

PROJECT NO. 01066304190  
**RCY S. RAPIDCITY**  
 CATHEDRAL DRIVE  
 RAPID CITY, SD 57701

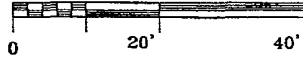
**verizon** *wireless*  
 Suite 120  
 9955 59th Avenue North  
 Plymouth, MN 55442-1671  
 (763) 595-5102

**DESIGN**  
 OF EDNA, LTD.  
 ROBERT J. DAVIS  
 ARCHITECT  
 8873 VALLEY VIEW ROAD  
 EDEN PRAIRIE, MN 56344  
 PHONE (952) 903-9288 FAX 905-8282

(Sketch of Property)



SOUTH ELEVATION  
GRAPHIC SCALE



**DESIGN 1**  
OF DESIGN, LTD.  
 ROBERT J. DAINE  
 ARCHITECT

**verizon wireless**  
 Suite 120  
 9955 59th Avenue North  
 Plymouth, MN 55442-1671  
 (763) 995-5102

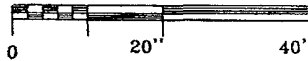
PROJECT NO. 01066304190  
**RCY S. RAPID CITY**  
 CATHEDRAL DRIVE  
 RAPID CITY, SD 57701

DRAWN BY: TAB  
 DATE: 06-14-02  
 SHEET: 2 OF 5

(Sketch of Property)

- ◆ T.O. PARAPET ELEV. 196'-4"
- ◆ JOIST BEARING ELEV. 194'-2"
- ◆ T.O. PARAPET ELEV. 180'-6"
- ◆ T.O. ROOF SLAB ELEV. 178'-10"
- ◆ 8TH FLOOR ELEV. 167'-9 1/2"
- ◆ 7TH FLOOR ELEV. 159'-3"
- ◆ 6TH FLOOR ELEV. 150'-8 1/2"
- ◆ 5TH FLOOR ELEV. 142'-2"
- ◆ 4TH FLOOR ELEV. 133'-7 1/2"
- ◆ 3RD FLOOR ELEV. 125'-1"
- ◆ T.O. PARAPET EL. 117'-6 1/2"
- ◆ 2ND FLOOR ELEV. 116'-6 1/2"
- ◆ SOFFIT LINE ELEV. 114'-0"
- ◆ CANOPY SOFFIT ELEV. 109'-0"
- ◆ FIRST FLOOR ELEV. 100'-0"

NORTH ELEVATION  
GRAPHIC SCALE

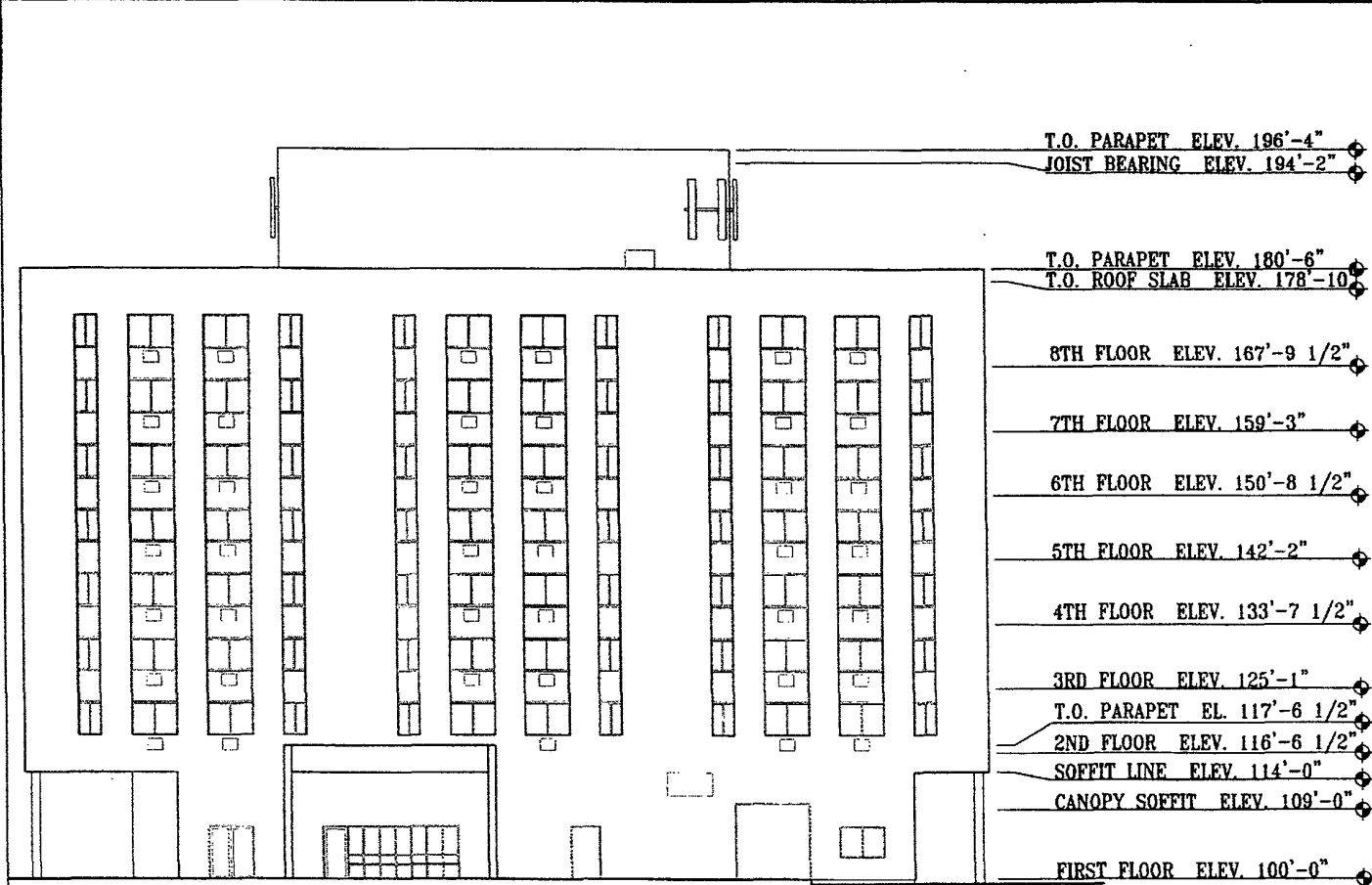


**DESIGN 1**  
OF EDNA, LTD.  
 ROBERT J. DAVIS  
 ARCHITECT

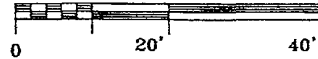
**verizon wireless**  
 Suite 120  
 9955 59th Avenue North  
 Plymouth, MN 55442-1671  
 (763) 595-5102

PROJECT NO. 01066304190  
**RCY S. RAPIDCITY**  
 CATHEDRAL DRIVE  
 RAPID CITY, SD 57701

DRAWN BY: TAB  
 DATE: 06-14-02  
 SHEET: 3 OF 5



WEST ELEVATION  
GRAPHIC SCALE



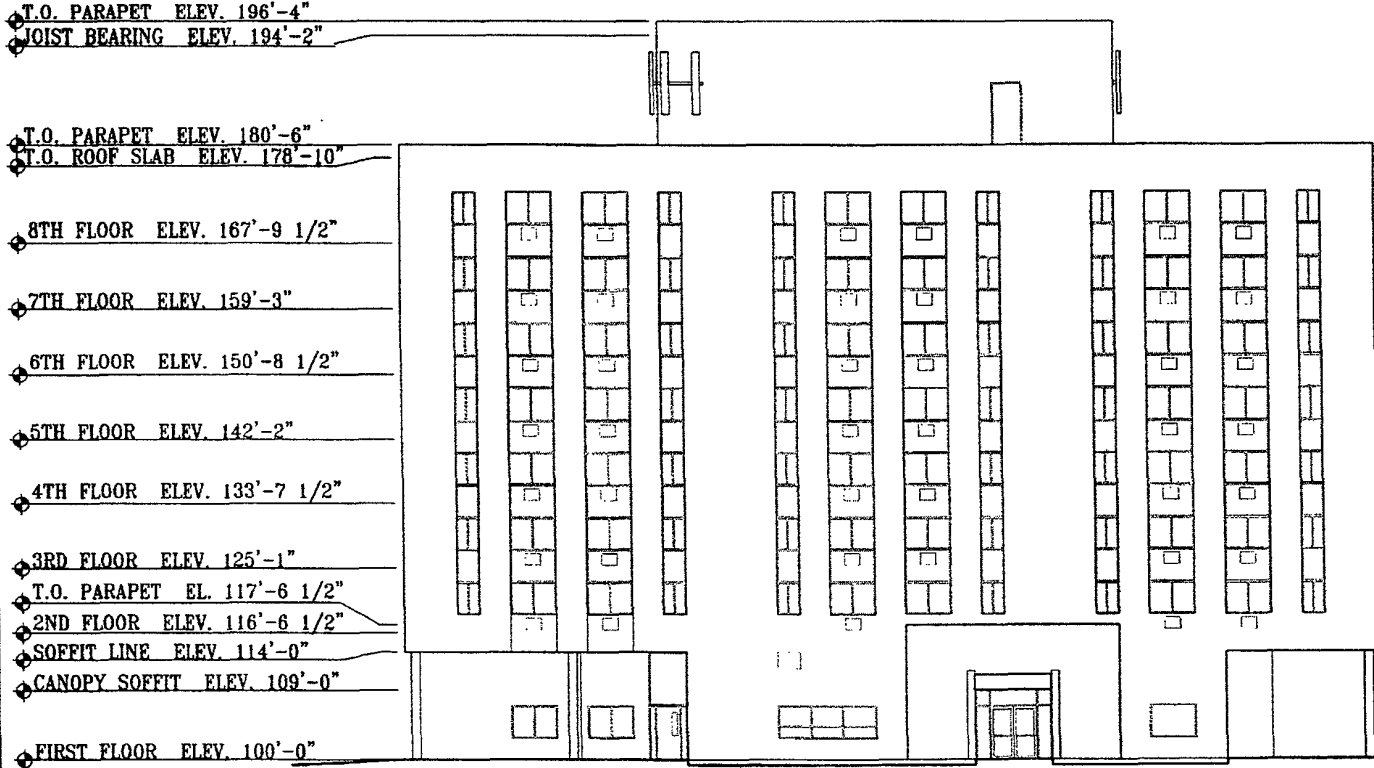
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**RCY S.RAPIDCITY**  
 CATHEDRAL DRIVE  
 RAPID CITY, SD 57701

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 SHEET: 4 OF 5

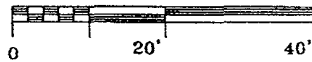
**verizon wireless**  
 Suite 120  
 9955 59th Avenue North  
 Plymouth, MN 55442-1671  
 (763) 595-5102

**DESIGN 1**  
 OF ERMA LTD.  
 ROBERT J. DAVIS  
 ARCHITECT  
 9873 VALLEY VIEW ROAD  
 EDEN PRAIRIE, MN 55344  
 PHONE (952) 903-6289 FAX 903-6286

(Sketch of Property)



EAST ELEVATION  
GRAPHIC SCALE



**DESIGN**  
OF EDINA, LTD.  
 ROBERT J. DAVIS  
 ARCHITECT

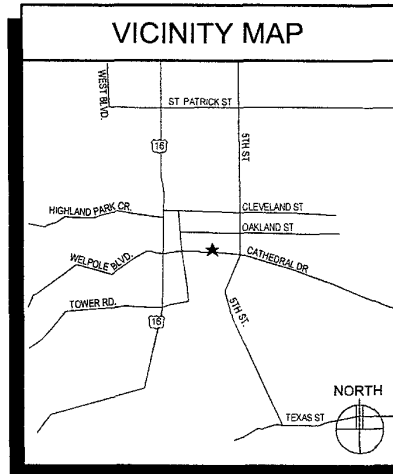
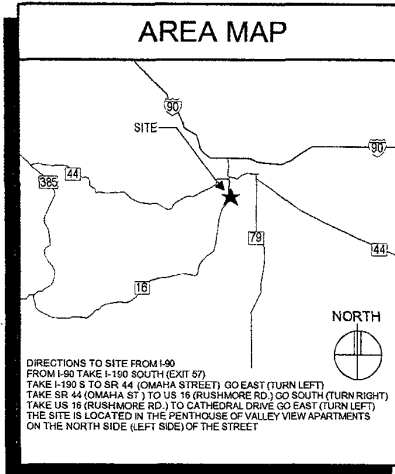
9873 VALLEY VIEW ROAD  
 EDEN PRAIRIE, MN 55344  
 PHONE (953) 903-8288 FAX 903-8082

**verizon wireless**  
 Suite 120  
 9955 59th Avenue North  
 Plymouth, MN 55442-1671  
 (763) 595-5102

PROJECT NO. 01066304190  
**RCY S.RAPIDCITY**  
 CATHEDRAL DRIVE  
 RAPID CITY, SD 57701

DRAWN BY: TAB  
 DATE: 06-14-02  
 SHEET: 5 OF 5

# VERIZON WIRELESS



- ### GENERAL NOTES
- The following general notes shall apply to drawings and govern unless otherwise noted or specified
  - The work delineated in these drawings and described in the specifications shall conform to codes, standards and regulations that have jurisdiction in the state of SOUTH DAKOTA and the city of RAPID CITY
  - Requirements and regulations pertaining to R.F. safety codes and practices must be incorporated in the work even though they may not be listed individually and separately in either the drawings or the specifications
  - Compare field conditions with architectural and engineering drawings. Any discrepancies shall be directed to the Architect for clarification prior to fabrication and/or construction. Submit necessary shop drawings prior to fabrication for approval by the Architect. No information or details on these sheets may be used without the permission of the owner, or the architect
  - Do not scale drawings!
  - Unless otherwise shown or noted, typical details shall be used where applicable
  - Details shall be considered typical at similar conditions.
  - Safety measures: The contractor shall be solely and completely responsible for the conditions of the job site, including safety of the persons and property and for independent engineering reviews of these conditions. The Architect's or Engineers' job site review is not intended to include review of the adequacy of the contractor's safety measures.
  - Within these plans and specifications, "Owner" implies VERIZON WIRELESS.
  - The work is the responsibility of the general contractor unless noted otherwise
  - The terms "contractor" and "g.c." refer to the owner's general contractor and the general contractor's sub-contractors. It is the general contractor's responsibility to determine the division of work among sub-contractors.

### VERIZON WIRELESS DEPARTMENTAL APPROVALS

	NAME	DATE
PROJECT MANAGER		
DESIGN ENGINEER		
OPERATIONS MANAGER		
IMPLEMENTATION MANAGER		
REAL ESTATE MANAGER		
LESSOR / OWNER		

### PROJECT INFORMATION

SITE NAME	RCY SOUTH RAPID CITY
PROJECT NUMBER	01066304190
SITE ADDRESS	636 CATHEDRAL DRIVE RAPID CITY, SD 57701
COUNTY	PENNINGTON
LONGITUDE	W 103° 13' 48"
LATITUDE	N 44° 03' 35"
GROUND ELEVATION	3389' AMSL
ANTENNA TIP HEIGHT	97'-9" AGL 3486'-9" AMSL
ANTENNA CENTERLINE HEIGHT	93'-11" AGL 3482'-11" AMSL
OVERALL STRUCTURE HEIGHT	100' AGL 3489' AMSL
DRAWING BASED ON SITE DATA FORM DATED	12-10-02
OCCUPANCY	S-2
BUILDING TYPE	TYPE II
SITE AREA	173.25 SQ. FT.
ROOF LOAD	PER STRUCTURAL
ESTIMATED COAX RUN	*X RUN = 20' PER ANTENNA *Y RUN = 85' PER ANTENNA *Z RUN = 70' PER ANTENNA
PARKING	EXISTING / PROVIDED
PROJECT DESCRIPTION	INSTALL 2 ANTENNAS PER SECTOR (6 TOTAL) ON THE PENTHOUSE OF THE EXISTING BUILDING. BUILD OUT AN EQUIPMENT ROOM ON THE INSIDE OF THE EXISTING PENTHOUSE IN THE NORTHWEST CORNER

### SHEET INDEX

SHEET	SHEET DESCRIPTION
T-1	PROJECT INFORMATION, MAPS, DIRECTIONS, AND SHEET INDEX
A-1	ROOF PLAN, SITE PLAN, PENTHOUSE PLAN
A-2	ELEVATIONS
A-3	ENLARGED PENTHOUSE PLAN & DETAILS
A-4	ANTENNA MOUNTING DETAILS
A-5	SPECIFICATIONS
RF-1	ANTENNA KEY, COAX KEY, & DETAILS
M-1	MECHANICAL PLANS & NOTES
E-1	ELECTRICAL PLANS & NOTES
E-2	ELECTRICAL INTERIOR ELEVATIONS
E-3	ONE LINE DIAGRAM & PANEL SCHEDULE
	SURVEY

### ISSUE SUMMARY

REV	DESCRIPTION	SHEET OR DETAIL
A	ISSUED FOR REVIEW 12-23-02	

### CONTACTS

LESSOR	PENNINGTON COUNTY HOUSING & REDEVELOPMENT (605) 394-5350
LESSEE	VERIZON WIRELESS 9555 69TH AVENUE NORTH, SUITE 120 PLYMOUTH, MN 55344 (763) 595-5102
POWER UTILITY COMPANY:	BLACK HILLS POWER AND LIGHT P.O. BOX 1400 RAPID CITY, SD 57709 (605) 721-2231
TELCO UTILITY COORDINATOR:	QWEST COMMUNICATIONS (605) 394-4558
ARCHITECT:	DESIGN 1 OF EDINA, LTD. 9573 VALLEY VIEW ROAD EDEN PRAIRIE, MN 55344 (625) 903-9299
SURVEYOR	FIRKLAND SURVEYING 1303 MAIN ST., P.O. BOX 8154 RAPID CITY, SD 57709 (605) 348-1538
STRUCTURAL ENGINEER:	AFEX STRUCTURAL DESIGN LLC 405 S. 3RD AVE SUITE 101 SIOUX FALLS, SD 57104 (605) 335-4071

PROJECT: 01066304190  
**RCY S. RAPID CITY**  
 636 CATHEDRAL DR.  
 RAPID CITY, SD 57701

SHEET CONTENTS:  
 REVISIONS SUMMARY  
 PROJECT INFORMATION  
 CONTACTS  
 DIRECTIONS & LOCATION  
 AREA & VICINITY MAPS

DRAWN BY: TAB  
 DATE: 12-23-02  
 CHECKED BY: TRB

REV A

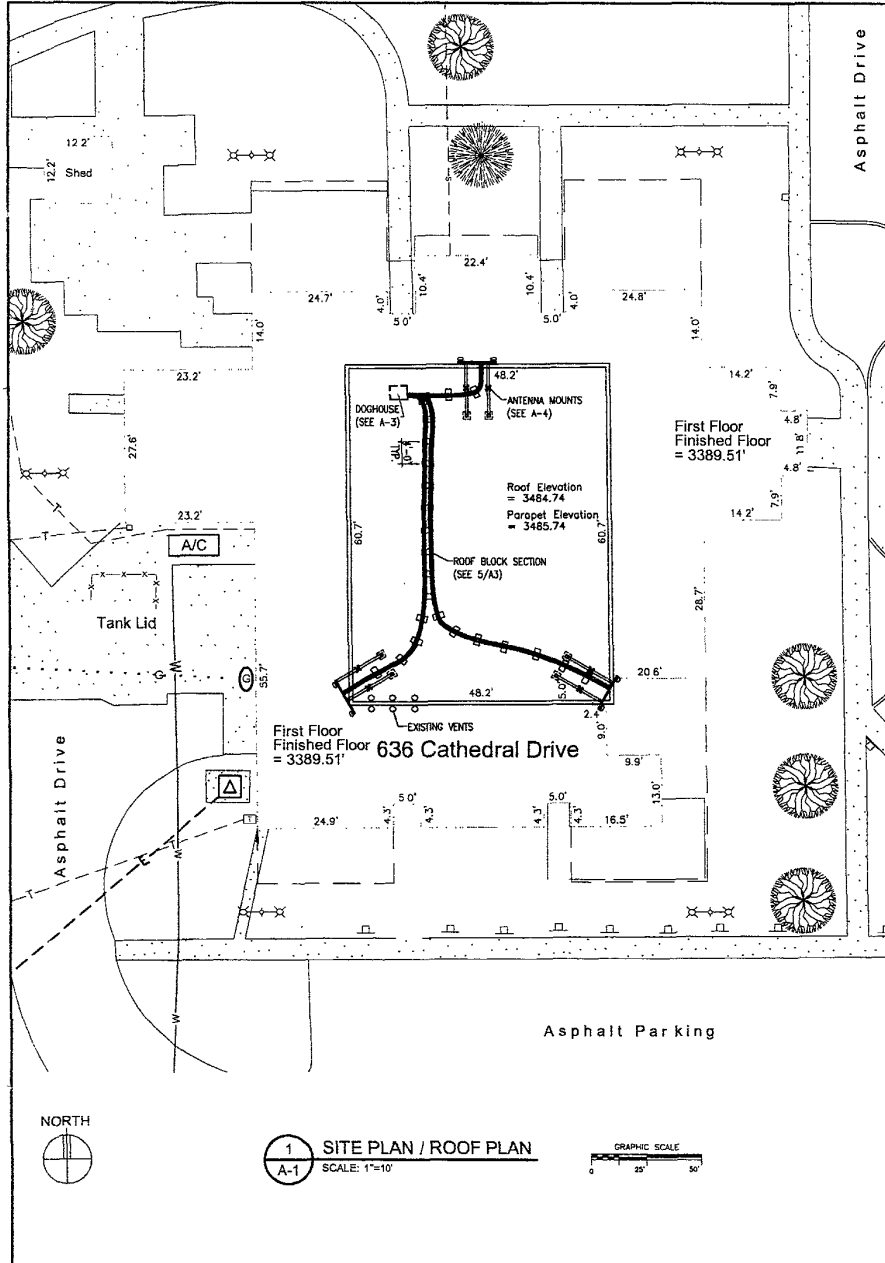
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 ARCHITECT  
 9573 VALLEY VIEW ROAD  
 EDEN PRAIRIE, MN 55344  
 (625) 903-9299

905 69th Avenue North  
 Plymouth, MN 55442  
 (763) 595-5102

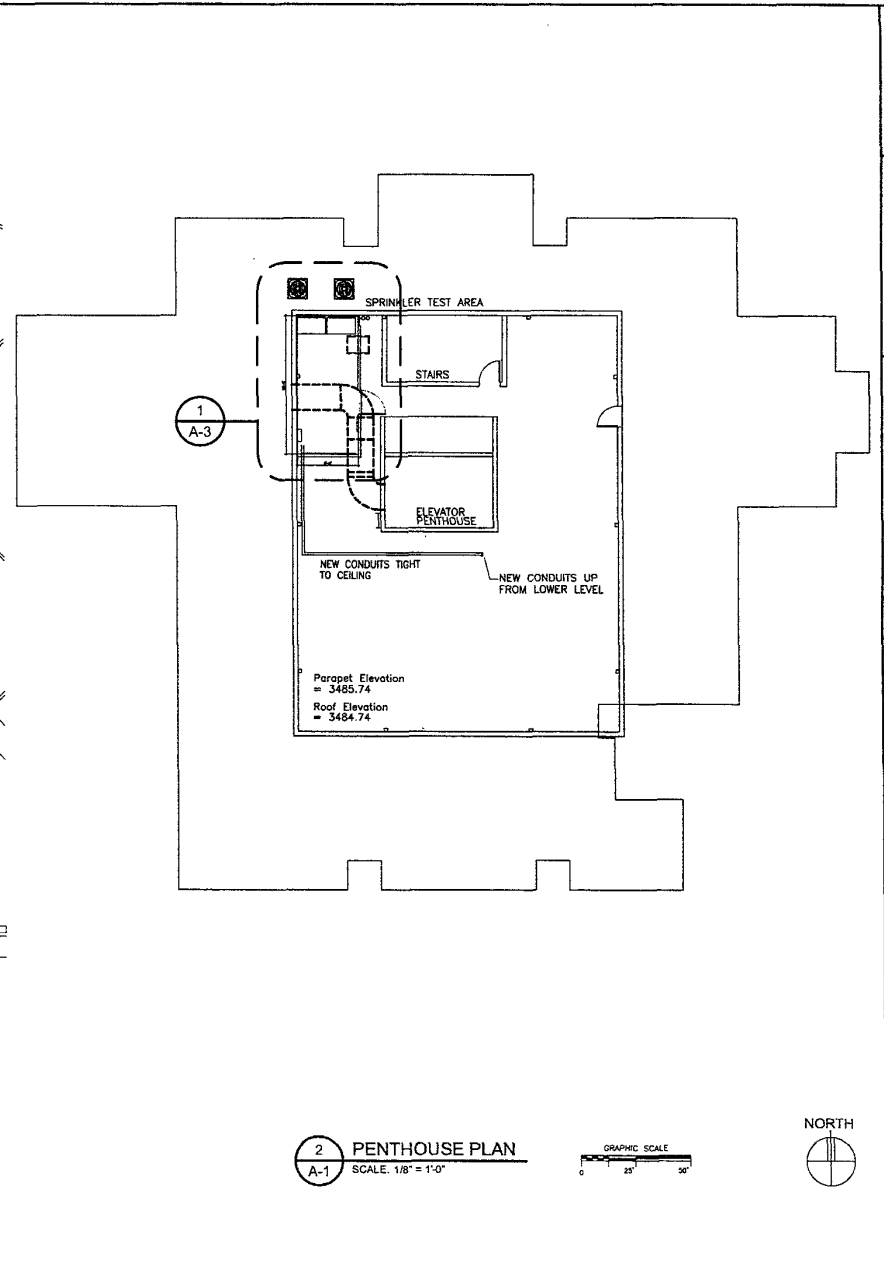
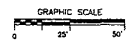
**VERIZON WIRELESS**

T-1

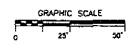




**1 SITE PLAN / ROOF PLAN**  
SCALE: 1"=10'



**2 PENTHOUSE PLAN**  
SCALE: 1/8" = 1'-0"



THIS DOCUMENT IS THE PROPERTY OF DESIGN 1. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF DESIGN 1.



**VERIZON WIRELESS**  
1000 South Avenue North  
Pharmacia, MA 01462  
(781) 596-5102

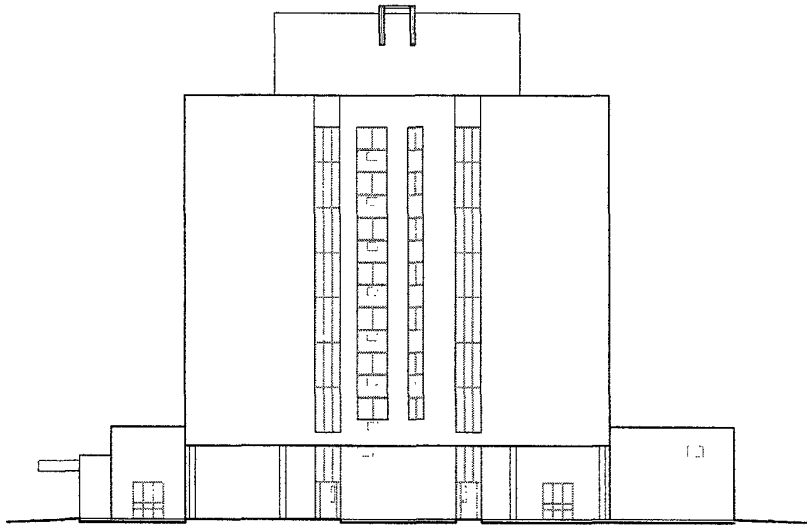
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**RCY S. RAPID CITY**  
636 CATHEDRAL DR.  
RAPID CITY, SD 57701

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PENTHOUSE PLAN

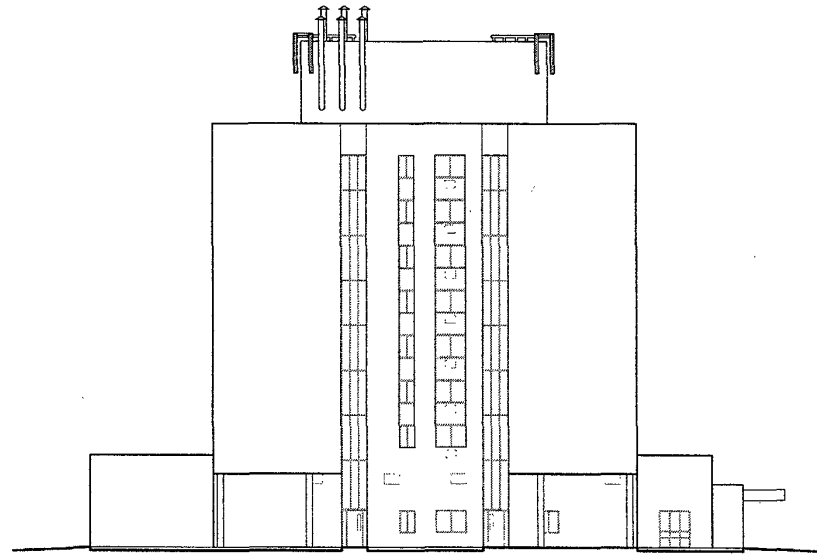
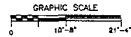
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DATE:	12-23-02
CHECKED BY:	TRB

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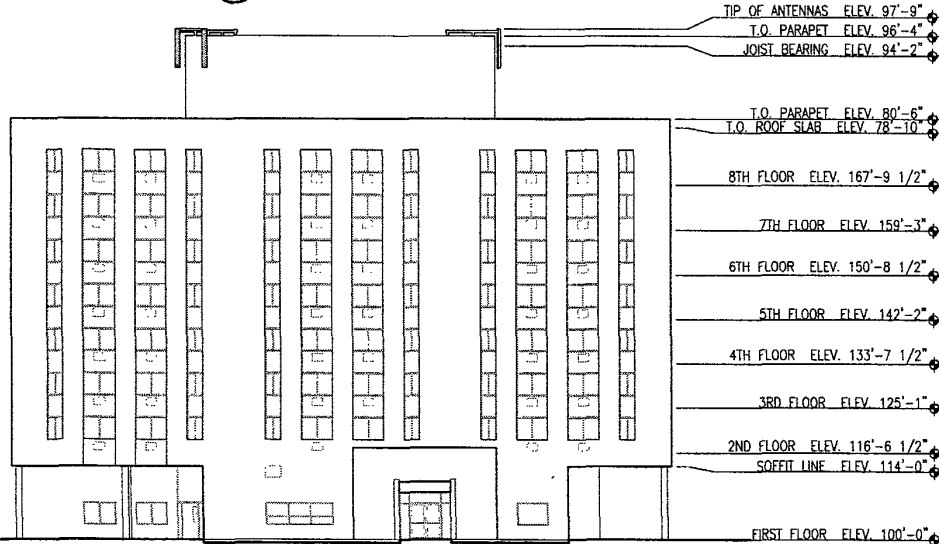
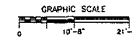
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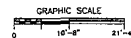
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A-2 SCALE: 3/32" = 1'-0"



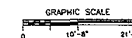
2 SOUTH ELEVATION  
A-2 SCALE: 3/32" = 1'-0"



3 EAST ELEVATION  
A-2 SCALE: 3/32" = 1'-0"



4 WEST ELEVATION  
A-2 SCALE: 3/32" = 1'-0"



1. This drawing is the property of the  
 architect and is not to be reproduced,  
 copied, or otherwise used without the  
 written consent of the architect.  
 2. This drawing is not to be used for  
 any other project without the  
 written consent of the architect.

**DESIGN**  
 ARCHITECTS  
 800 VALLEY VIEW ROAD  
 PLYMOUTH, MINN 55442  
 (763) 586-5102  
 WWW.DESIGNARCHITECTS.COM

**VERIZON**  
**WIRELESS**  
 9945 6th Avenue North  
 Plymouth, MN 55442  
 (763) 586-5102

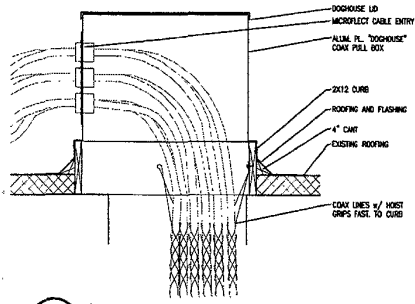
PROJECT: 01066304190  
**RCY S. RAPID CITY**  
 636 CATHEDRAL DR.  
 RAPID CITY, SD 57701

SHEET CONTENTS:  
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 EAST ELEVATION  
 WEST ELEVATION

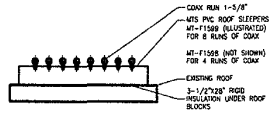
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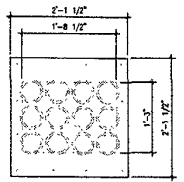
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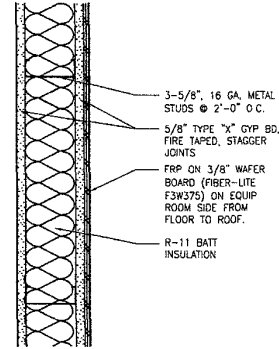
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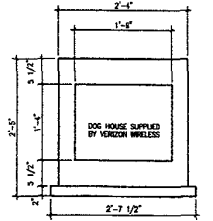
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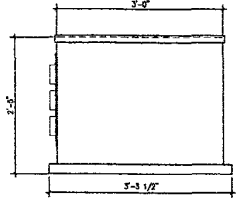
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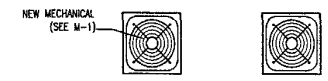
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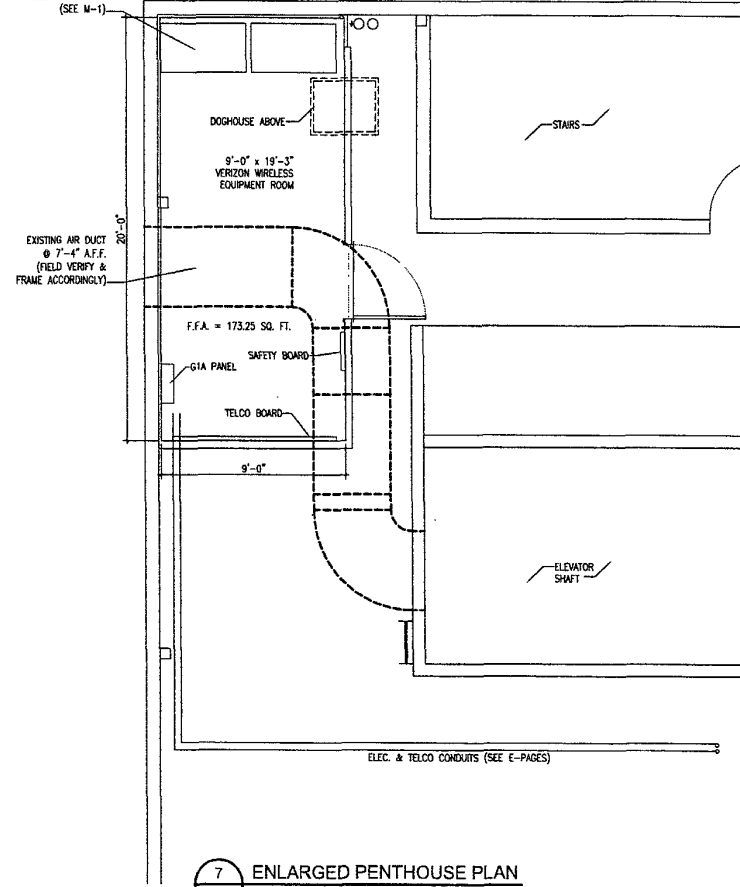
3 DOGHOUSE FRONT ELEV.  
SCALE: 1"=1'-0"



4 DOGHOUSE SIDE ELEV.  
SCALE: 1"=1'-0"



NEW MECHANICAL (SEE M-1)



7 ENLARGED PENTHOUSE PLAN  
SCALE: 3/8"=1'-0"

DESIGN  
ARCHITECT  
1000 W. 10TH AVENUE SUITE 100  
PLYMOUTH, MN 55442  
(763) 305-5102  
www.design-architect.com

PROJECT: 01066304190  
RCY S. RAPID CITY  
636 CATHEDRAL DR.  
RAPID CITY, SD 57701

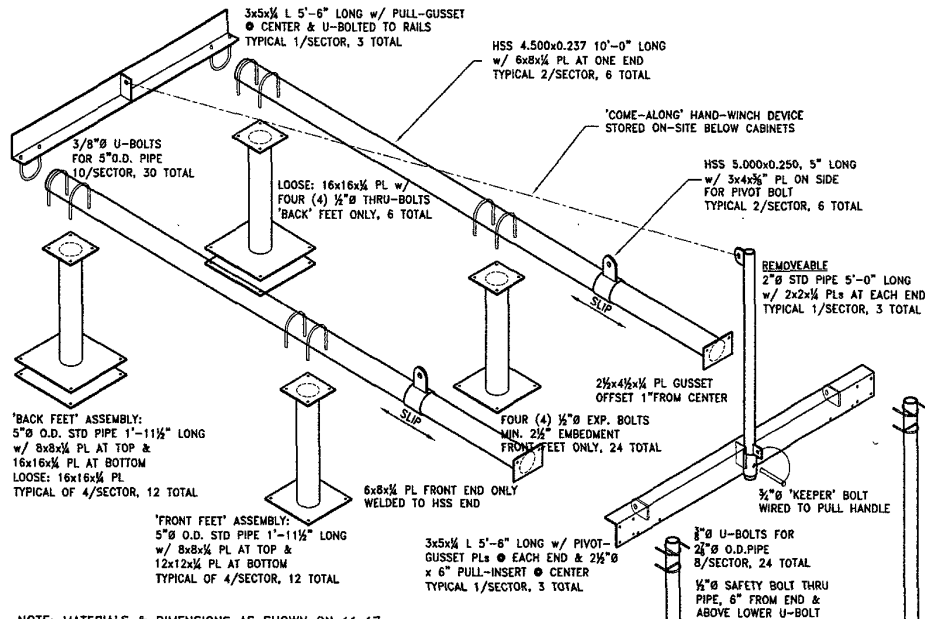
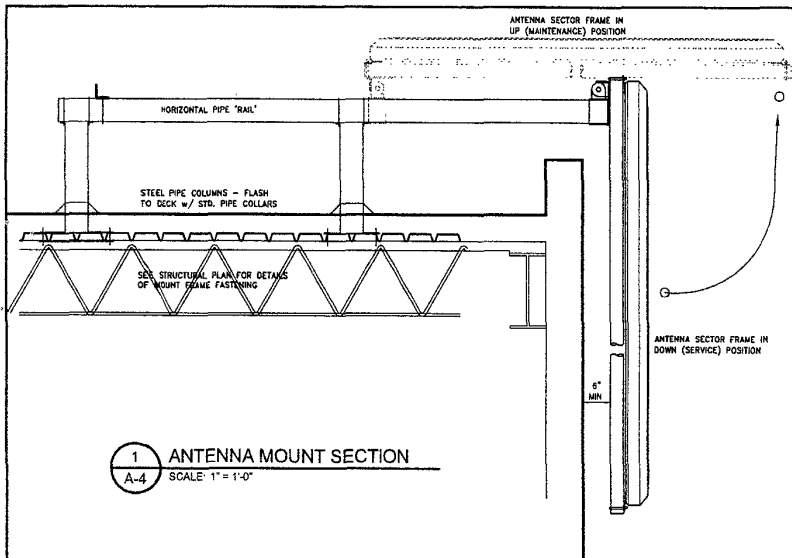
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DOGHOUSE DETAILS  
ROOF BLOCK DETAILS  
WALL SECTION  
ENLARGED PENTHOUSE PLAN

DRAWN BY: TAB  
DATE: 12-23-02  
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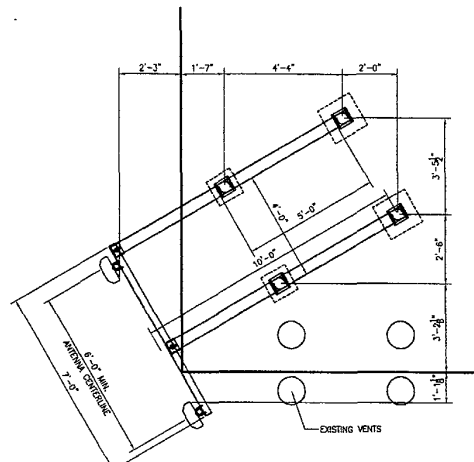
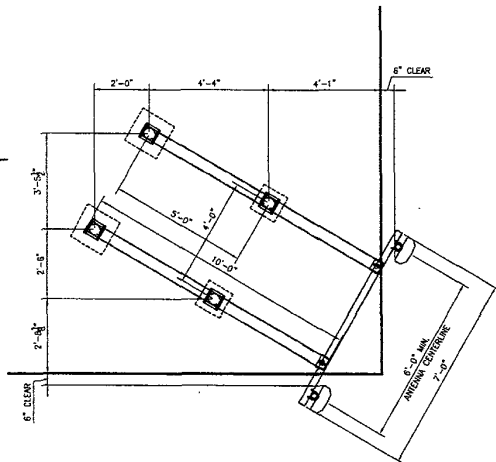
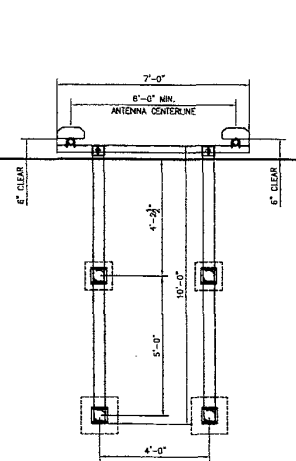
REV. A



A-3



NOTE: MATERIALS & DIMENSIONS AS SHOWN ON 11x17  
STRUCT. PLANS BY APEX STRUCTURAL DESIGN LLC  
OVERRIDE ANY INFORMATION GIVEN HERE.



**5 EXPLODED VIEW OF ANTENNA MOUNT**  
SCALE: 1" = 1'-0"

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**DESIGN**  
APEX STRUCTURAL DESIGN LLC  
1000 VALLEY VIEW ROAD  
ROCKFORD, ILLINOIS 61107  
(815) 398-8888

**VERIZON WIRELESS**  
9515 5th Avenue North  
Plymouth, MN 55442  
(763) 585-5102

PROJECT: 01066304190  
**ROY S. RAPID CITY**  
636 CATHEDRAL DR.  
RAPID CITY, SD 57701

SHEET CONTENTS:  
X- ANTENNA MOUNT SECTION  
Y- SECTOR MOUNT  
Z- SECTOR MOUNT  
ANTENNA MOUNT

DRAWN BY: TAB  
DATE: 12-23-02  
CHECKED BY: TRB

REV A

A-4

# OUTLINE SPECIFICATIONS

## GENERAL CONDITIONS

### 00 0001 PERMITS

Construction Permit shall be acquired by, or in the name of, VERIZON WIRELESS, to be hereinafter referred to as the OWNER. Other permits shall be acquired by the Contractor.

### 00 0002 SURVEY FEES

Survey shall be furnished by the Owner. Layout Staking shall be coordinated with the Owner's Surveyor.

### 01 0010 INSURANCE & BONDS

Contractor is to furnish insurance certificates for themselves and subcontractors. Contractor will provide any required Bonding. Contractor agrees to warranty the project for one year after completion.

### 01 0400 SUPERVISION & COORDINATION

Contractor shall provide supervision throughout the Project, coordinating the work of the Subcontractors, and delivery & installation of Owner-furnished items. Contractor's responsibilities include arranging & conducting of Underground Utilities Locates. Contractor shall comply with municipal, county, state and/or federal codes, including OSHA.

### 01 0600 TESTING

Contractor is responsible for providing Architect with sufficient notice to arrange for Test Samples (i.e.: Concrete Cylinders), and for Special Inspections.

### 01 2000 MEETINGS

Contractor shall make themselves aware of, and attend, meetings with the Owner and/or Architect. Contractor is to attend a Pre-Construction Meeting of all parties involved, prior to the start of construction.

### 01 5100 TEMPORARY UTILITIES

Contractor shall maintain the job site in a clean and orderly fashion, providing temporary sanitary facilities, waste disposal, and security (fence area or trailer module).

### 01 5300 EQUIPMENT RENTAL

Contractor shall furnish equipment necessary to expedite Work.

### 01 5900 FIELD OFFICES & SHEDS

Contractor shall provide security (fence area or trailer module) for tools and materials that remain overnight on site.

### 01 7000 CLEAN UP & CLOSE OUT

Contractor shall clean up the Site to the satisfaction of Owner. Contractor shall complete the items listed on the Owner's Punch List, and shall sign and return the List to the Owner. Contractor shall maintain a set of drawings during the job, on which all changes shall be noted in red ink. Red-lined drawings (as-builts) are to be given to the Architect at Job completion.

### 01 8000 TRUCKS & MILEAGE

Contractor shall provide transportation for their own personnel.

### 01 8300 TRAVEL TIME & PER DIEM

Contractor shall provide room and board for their own personnel, and reasonable time for traveling to & from job site.

### 01 9200 TAXES

Contractor shall pay sales tax on materials and taxable services.

## SITEWORK

### 02 1000 SITE PREPARATION & DEMOLITION

Contractor is to mobilize within 7 calendar days of the Owner issuing a "START" document. Contractor will immediately report to Architect if any environmental considerations arise. See 07 5000 for roofing demolition.

### 02 1100 ROAD IMPROVEMENT & CONSTRUCTION

Not applicable.

### 02 2000 EARTHWORK & EXCAVATION

Not applicable.

### 02 5000 PAVING & SURFACING

Not applicable.

### 02 7800 POWER TO SITE

Contractor shall coordinate the electrical service to the cabinets with the Utility Provider. Conduits shall be rigid galvanized, with pull strings. Service shall be 200 amp, single phase, 120/240 volt.

### 02 7900 TELCO TO SITE

Contractor shall provide 2" rigid galvanized conduit with large sweep elbows & pull string for TELCO service as noted on plans.

### 02 8000 SITE IMPROVEMENTS

Not applicable.

### 02 8001 FENCING

Not applicable.

### 02 8500 IRRIGATION SYSTEMS

Not applicable.

### 02 9000 LANDSCAPING

Not applicable.

## CONCRETE

### 03 1800 CONCRETE FORMWORK

Not applicable.

### 03 6000 GROUT

Not applicable.

### 03 8000 TOWER FOUNDATION

Not applicable.

### 03 8001 CATHODIC PROTECTION

Not applicable.

### 03 8050 TRANSPORT AND ERECT TOWER

Not applicable.

### 03 9000 SHELTER FOUNDATION

Not applicable.

### 03 9050 TRANSPORT AND SET CABINETS & ANTENNA FRAMES

Contractor shall contact Owner to coordinate delivery, and provide means to place cabinets, antennas, cable spools, etc. at their final roof levels.

## MASONRY

### 04 0000 MASONRY

Not applicable.

## METALS

### 05 0000 METALS

Contractor will furnish and install structural and fabricated steel items. Structural steel shall be fabricated and erected per AISC specifications. Welding shall conform to AWS standards. Field welding shall be as shown on Shop Drawings, performed by AWS Certified Welders, and inspected as prescribed by the Structural Engineer. Steel shall be ASTM A36, and 1/4" field bolts shall be A325. Temporary erecting bolts, slip nuts, and washers shall be furnished by Contractor. Fabrications shall be shop welded if possible, and galvanized and primed before delivery to site.

## WOOD & PLASTICS

### 06 1000 ROUGH CARPENTRY

Not applicable.

### 06 2000 FINISH CARPENTRY

Not applicable.

## THERMAL & MOISTURE

### 07 2000 INSULATION

Not applicable.

### 07 2500 FIREPROOFING

Not applicable.

### 07 3000 SHINGLES AND ROOFING TILES

Not applicable.

### 07 5000 MEMBRANE ROOFING

Contractor shall provide 1" foam-backed 4'x 8' plywood sheets, ballasted with at least two (2) #4x16 CMI blocks per panel, in heavy use areas (trawl, staging and work) as protection for the existing roof membrane, unless existing reinforced pad areas are deemed sufficient by all parties. Contractor shall confirm with Lessor whether the roof is bonded, if so, Contractor shall take all measures needed to conform to warranty requirements. Cutting the membrane and insulation shall be done neatly, and patched back immediately after steel frame installation is complete, to minimize potential leakage. Standing water in the work areas must be removed or dammed off prior to cutting roof.

### 07 6000 FLASHING AND SHEET METAL

Not applicable.

## DOORS AND HARDWARE

### 08 0000 DOORS AND HARDWARE

Not applicable.

## FINISHES

### 09 2600 DRYWALL

Not applicable.

### 09 5700 FLOOR COVERING

Not applicable.

### 09 9000 PAINTING

Contractor shall paint wall-mounted items (exposed conduits, cables, mounting brackets, etc.) to match color of existing building walls. Contractor shall submit color to Architect for approval prior to painting.

## SPECIAL CONSTRUCTION

### 13 1250 WAVE GUIDE

Contractor shall furnish and install Wave Guide mounting materials (roof blocks, cable bridges, wall brackets, etc.).

### 13 1260 CABLE BRIDGE & SHIELD

Not applicable.

### 13 1400 ANTENNA INSTALL

Contractor shall provide means to place antennas, cable spools, and other RF equipment on the roof levels. Contractor shall test & sweep coax lines, and submit a report to the Owner.

## MECHANICAL

### 15 4000 PLUMBING

Existing site utilities, and piping shall be relocated as necessary for radio equipment. Existing sprinkler heads in co-locate spaces shall be extended as necessary, and fitted with new high-temperature heads.

### 15 5000 HVAC

Not applicable.

## ELECTRIC

### 16 5000 LIGHTING AND ELECTRICAL

Refer to sheets E1 & E2. Contractor shall provide 200A 1Ø 120/240V service to cabinets, including conduit, wire, grounding, ringless meter base w/commercial bypass handle, permits, and power company coordination. Contractor shall furnish and install equipment listed below, and provide all other materials necessary to complete the work shown on plans. If service is sub-metered from an existing service, sub-meter shall be 1Ø or 1Øx type. Contractor shall ensure the Meter Base complies with Utility Provider (Bask Hills Power, (605) 721-2231, Don Dubaj) requirements.

### 16 5000 GROUNDING

Refer to plan sheet G1 for more information. Contractor shall make themselves familiar with and follow the current GROUNDING STANDARDS of VERIZON WIRELESS. Contractor shall furnish & install lightning grounding materials. Contractor shall furnish tools including "snatch" & "mud" /hydraulic rams and fittings, needed to complete exothermic connections/compression connections. Any site-specific grounding issues not covered by the GROUNDING STANDARD are to be addressed by the Contractor to the Owner.

## OWNER FURNISHED EQUIPMENT & FEES

### EQUIPMENT CABINETS COAXIAL CABLE & CONNECTORS ANTENNAS AND MOUNTING BRACKETS

### BUILDING PERMIT MATERIALS TESTING SPECIAL INSPECTIONS

## SCOPE OF WORK

CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, TOOLS, TRANSPORTATION, SUPERVISION, ETC. TO FULLY EXECUTE WORK. WORK REQUIREMENTS ARE DETAILED ON THE DRAWINGS AND SPECIFICATIONS AND SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING ITEMS:

### DEMOLITION & SITE PREPARATION EQUIPMENT ROOM BUILD OUT SITE GROUNDING ELECTRICAL AND TELEPHONE SERVICES STEEL ANTENNA MOUNT FRAMES CABLE BRIDGES & SUPPORTS

Information furnished hereon is for informational purposes only and does not constitute an offer of insurance. Coverage is subject to the actual terms, coverages, conditions, exclusions, and limitations of the actual policy. VERIZON WIRELESS, 1000 VERIZON WAY, SUITE 1000, OMAHA, NE 68102-1000. © 2008 VERIZON WIRELESS. ALL RIGHTS RESERVED.



VERIZON WIRELESS  
1455 68th Avenue North  
Suite # 100  
Plymouth, MN 55442  
(763) 985-5100  
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PROJECT: 01066304190  
ROY S. RAPID CITY  
638 CATHEDRAL DR.  
RAPID CITY, SD 57701

SHEET CONTENTS:  
SPECIFICATIONS  
DRAWN BY: TAB  
DATE: 12-23-02  
CHECKED BY: TRB  
REV. A

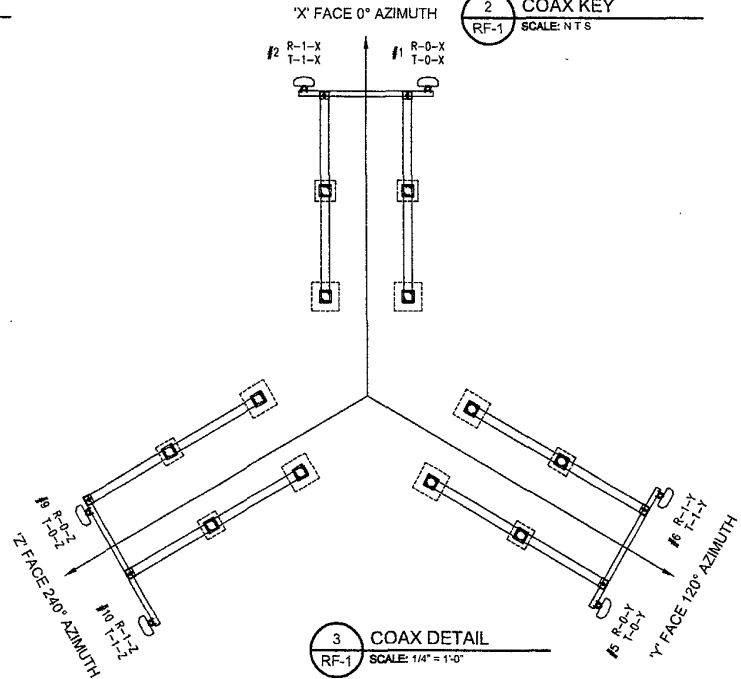
A-5

ANTENNA KEY											
	AZIMUTH	NUMBER	FUNCTION	MANUFACTURER	MODEL	TYPE	ANTENNA LENGTH	ANTENNA TIP HEIGHT	ANTENNA @ HEIGHT	ELECTRICAL DOWNLIT	MECHANICAL DOWNLIT
"X" FACE	0°	#1	R-0-X / T-0-X	RFS	APL86901442TD	DIGITAL	92"	97'-9"	93'-11"	0'	0'
	0°	#2	R-1-X / T-1-X	RFS	APL86901442TD	DIGITAL	92"	97'-9"	93'-11"	0'	0'
"Y" FACE	120°	#5	R-0-Y / T-0-Y	RFS	APL86901442TD	DIGITAL	92"	97'-9"	93'-11"	0'	0'
	120°	#6	R-1-Y / T-1-Y	RFS	APL86901442TD	DIGITAL	92"	97'-9"	93'-11"	0'	0'
"Z" FACE	240°	#9	R-0-Z / T-0-Z	RFS	APL86901442TD	DIGITAL	92"	97'-9"	93'-11"	0'	0'
	240°	#10	R-1-Z / T-1-Z	RFS	APL86901442TD	DIGITAL	92"	97'-9"	93'-11"	0'	0'

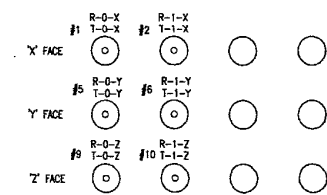
COAX KEY					
COAX TYPE	MANUFACTURER	MODEL	DIELECTRIC	DIAMETER (INCH)	RUN (FEET)
MAIN	ANDREW	LDFS-50A	FOAM	7/8"	20'
MAIN	ANDREW	LDFS-50A	FOAM	7/8"	20'
MAIN	ANDREW	LDFS-50A	FOAM	7/8"	85'
MAIN	ANDREW	LDFS-50A	FOAM	7/8"	85'
MAIN	ANDREW	LDFS-50A	FOAM	7/8"	70'
MAIN	ANDREW	LDFS-50A	FOAM	7/8"	70'

1 ANTENNA KEY  
RF-1 SCALE: NTS

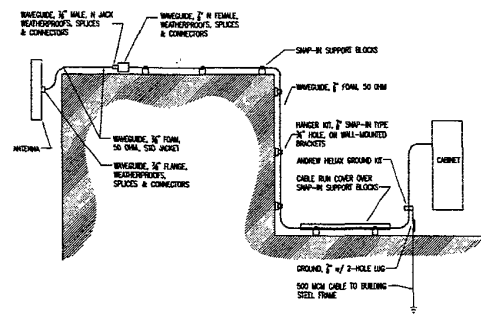
2 COAX KEY  
RF-1 SCALE: NTS



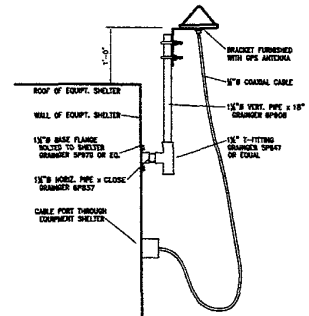
3 COAX DETAIL  
RF-1 SCALE: 1/4" = 1'-0"



6 COAX ENTRY DTL. FROM INSIDE  
RF-1 SCALE: NONE



4 ONELINE DIAGRAM  
RF-1 SCALE: NONE



5 GPS ANTENNA DETAIL  
RF-1 SCALE: NONE

I hereby certify that this portion of the work was prepared by me or under my direct supervision and that I am a duly registered Professional Engineer in the State of Missouri. My No. is 10000. My Exp. Date is 12/31/2008. My License No. is 10000.

**DESIGN**  
 CONSULTING / PROJECT / ARCHITECT

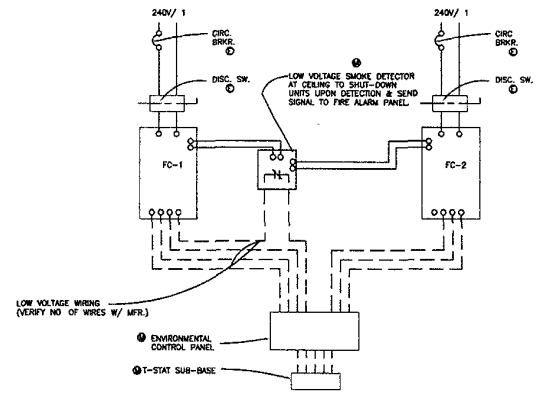
**verizon wireless**  
 9925 - 59th Avenue North  
 Suite 120  
 MSP 55442  
 (763) 955-5100

PROJECT NO 01066904190  
**RCY S. RAPID CITY**  
 CATHEDRAL DRIVE  
 RAPID CITY, SD 57701

SHEET CONTENT:  
**MECHANICAL PLAN AND SPECIFICATION**

DRAWN BY: LRP  
 DATE: 20 DEC 02  
 CHKD BY: ADP  
 DATE: 20 DEC 02  
 REVISIONS

SHEET NO  
**M-1**



AN ENVIRONMENTAL CONTROL PANEL, MODEL: MARVAIRE #LL357, SHALL OPERATE AH-1 AND AH-2. THE CONTROL PANEL WILL ALTERNATE THE OPERATION OF AH-1 AND AH-2 FOR EQUAL PERIODS OF TIME, BUT SHOULD THE COOLING LOAD REQUIRE THE OPERATION OF BOTH AH-1 AND AH-2, THE CONTROL PANEL WILL OPERATE BOTH UNITS SIMULTANEOUSLY.

**MECHANICAL SEQUENCE OF OPERATION**

SCALE: 1/8"=1'-0" AT 24"X36" 1

CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE BEST ASHRAE AND INDUSTRY STANDARDS. ALL HVAC WORK SHALL COMPLY WITH ALL APPLICABLE STATE, LOCAL, AND FEDERAL BUILDING CODES WHICH HAVE JURISDICTION.

CONTRACTOR SHALL EXAMINE THE PROJECT SITE AND DISCUSS GENERAL REQUIREMENTS OF BUILDING AND WORK PERFORMANCE WITH THE PROJECT MANAGER. CONTRACTOR SHALL CONFIRM EXISTING CONDITIONS AND PROVIDE ALL LABOR AND MATERIALS REQUIRED TO MAKE A COMPLETE AND USABLE SYSTEM. CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHERS ON THE PROJECT.

CONTRACTOR SHALL REPORT TO THE PROJECT MANAGER ANY OBSERVATIONS OR CONDITIONS WHICH ARE DISCOVERED IN THE BUILDING WHICH COULD PREVENT THE FULLEST USE OF THE HVAC SYSTEM.

CONTRACTOR SHALL ARRANGE AND PAY FOR ALL FEES, PERMITS AND INSPECTIONS CONCERNING HIS WORK. THE MAINTENANCE LABEL MUST BE ATTACHED TO ALL MECHANICAL EQUIPMENT. TWO COPIES OF THE MAINTENANCE MANUAL, FOR ALL EQUIPMENT, SHALL BE PROVIDED TO THE OWNER BY THE CONTRACTOR.

CONDENSATE DRAININGS FROM THE AIR HANDLER SHALL BE COPPER TUBING. DRAINS SHALL BE INDIRECT WITH A MINIMUM OF 1/2" EQUAL TO AVOID LEAK. SOFT COPPER TUBING MAY BE USED IF NECESSARY TO INSTALL LINES AROUND OBSTRUCTIONS. AVOID SHARP BENDS AS TUBING MAY PINCH, CAUSING A RESTRICTION. LONG RADIUS ELBOWS SHALL BE USED WHENEVER POSSIBLE. SHORT RADIUS ELBS FOR THE TRAPS AT THE BOTTOM OF ALL SUCTION RISERS. BRACE ALL COPPER TO COPPER JOINTS WITH SLEDC-9 BRACING MATERIAL, OR EQUAL. DO NOT USE SOFT SOLDER. SUCTION LINES SHALL BE SUPPORTED EVERY 6' (MIN) AND LIQUID LINES EVERY 6' (MIN).

SUCTION AND LIQUID LINES SHALL BE TYPE L, HARD DRAWN COPPER TUBING AND SHALL BE INSULATED WITH A MINIMUM OF 1/2" EQUAL TO AVOID LEAK. SOFT COPPER TUBING MAY BE USED IF NECESSARY TO INSTALL LINES AROUND OBSTRUCTIONS. AVOID SHARP BENDS AS TUBING MAY PINCH, CAUSING A RESTRICTION. LONG RADIUS ELBOWS SHALL BE USED WHENEVER POSSIBLE. SHORT RADIUS ELBS FOR THE TRAPS AT THE BOTTOM OF ALL SUCTION RISERS. BRACE ALL COPPER TO COPPER JOINTS WITH SLEDC-9 BRACING MATERIAL, OR EQUAL. DO NOT USE SOFT SOLDER. SUCTION LINES SHALL BE SUPPORTED EVERY 6' (MIN) AND LIQUID LINES EVERY 6' (MIN).

ALL LOW VOLTAGE (24 VOLT) WIRING AND CONDUIT BY CONTRACTOR. CONTRACTOR SHALL BE RESPONSIBLE FOR THE ACQUISITION AND PAYMENT OF ALL PERMITS AND INSPECTIONS REQUIRED AND RELATED FEES FOR THIS INSTALLATION. ALL WORK SHALL COMPLY WITH ALL APPLICABLE STATE AND LOCAL CODES.

ALL WEATHER EXPOSED EQUIPMENT (INCLUDING EQUIPMENT, DUCTWORK, ETC.) SHALL BE COMPLETELY WEATHERPROOFED.

ALL SUPPLY AND RETURN AIR DUCTS EXPOSED TO WEATHER SHALL BE LINED WITH 1-1/2" DENSITY FIBERGLASS WITH VENT FACE TO AIR STREAM. SEAL ALL JUNK EDGES. ALL CONCEALED SUPPLY AND RETURN DUCTS SHALL BE WRAPPED WITH 1/2" DENSITY FIBERGLASS INSULATION AND SECURED WITH GALVANIZED WIRE. PROVIDE VENT BARBERS ON SUPPLY DUCTS. USE 1-1/2" THICK INSULATION ON BOTH SUPPLY AND RETURN DUCTS. PLENUMS IN WALLS MAY BE UNINSULATED. ALL OTHER PLENUMS REQUIRE 1" THICK INSULATION.

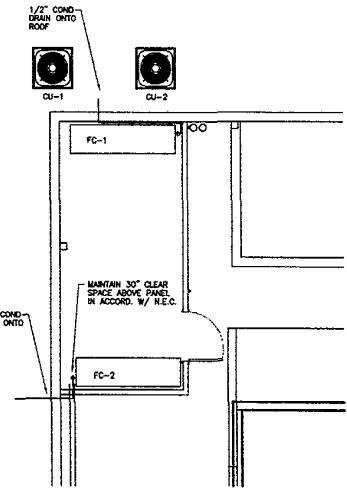
EER RATING OF ALL HVAC UNITS SHALL COMPLY WITH STATE REGULATIONS.

ALL CONDENSATE LINES SHALL BE INSTALLED AWAY FROM ELECTRICAL, RADIO, AND TELEPHONE EQUIPMENT.

ALL HVAC EQUIPMENT AND DUCTWORK SHALL BE SEISMICALLY BRACED PER LOCAL REQUIREMENTS.

MECHANICAL CONTRACTOR SHALL PROVIDE ALL REQUIRED TRANSITIONS, ETC FOR A COMPLETE AND OPERATIONAL SYSTEM.

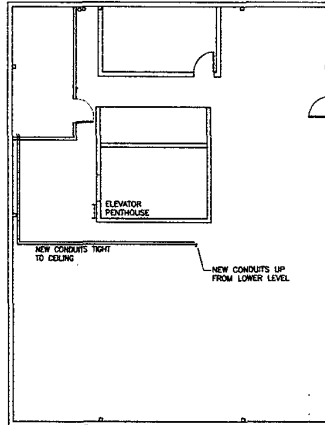
SUPPLY AND RETURN AIR DUCT SIZES INDICATED ARE CLEAR INSIDE DIMENSIONS.



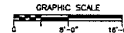
**ROOM COOLING SYSTEM**  
 DUCT FREE SPLIT SYSTEM  
 CARRIER SERIES 58A08066 DUCT FREE COOLING  
 ONLY SPLIT SYSTEM AIR CONDITIONING UNIT  
 RATED FOR 5 TONS NOMINAL COOLING CAPACITY.  
 SYSTEM SHALL CONSIST OF THE FOLLOWING EQUIPMENT.  
 FC-1 & FC-2  
 CARRIER MODEL 400A08060-3 CEILING SUSPENDED  
 FAN COIL UNIT RATED FOR 58000 BTUH NET  
 COOLING CAPACITY AND 1800 CFM AIRFLOW.  
 230V, SINGLE PHASE, 2.91LA.  
 CU-1 & CU-2  
 CARRIER MODEL 38A0C066-3 OUTDOOR CONDENSING  
 UNIT RATED FOR 58000 BTUH NET COOLING CAPACITY.  
 230V, SINGLE PHASE, 30.47FLA. UNIT SHALL INCLUDE  
 WINTER START CONTROL, DRAIN-PAN HEATER, LOW  
 AMBIENT TEMPERATURE CONTROLS, AND WIND BAFFLES.  
 PROVIDE WITH HOUSEKEEPING PADS.

**PRIEST ENGINEERING, INC**  
 6309 Eastern Highway, Suite 301  
 St. Louis, Missouri 63112  
 Phone: 314-991-0773 Fax: 314-991-7555

- SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
- CONTRACTOR SHALL PERFORM ALL VERIFICATION OBSERVATION TESTS, AND EXAMINATION WORK PRIOR TO THE ORDERING OF THE ELECTRICAL EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE ARCHITECT LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
- HEIGHTS SHALL BE VERIFIED WITH OWNER PRIOR TO INSTALLATION.
- THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE.
- EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN EACH PANELBOARD, PULLBOX, J-BOX, SWITCH BOX, ETC., IN COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ACT (O.S.H.A.).
- CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR A COMPLETE AND PROPERLY OPERATIVE SYSTEM ENERGIZED THROUGHOUT AND AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
- ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORY AND SHALL BEAR THE INSPECTION LABEL "I" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA AND NFPA.
- CONTRACTOR SHALL CARRY OUT HIS WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY AND LOCAL CODES AND O.S.H.A.
- CONTRACTOR SHALL SECURE ALL NECESSARY BUILDING PERMITS.
- COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE BY OWNER. ANY WORK, MATERIAL OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
- ALL CONDUIT ONLY (C.O.) SHALL HAVE A PULL WIRE OR ROPE.
- PROVIDE CONSTRUCTION MANAGER WITH ONE SET OF COMPLETE ELECTRICAL "AS INSTALLED" DRAWINGS AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DIMENSIONS, ROUTINGS, AND CIRCUITS.
- ALL BROCHURES, OPERATING MANUALS, CATALOGS, SHOP DRAWINGS, ETC. SHALL BE TURNED OVER TO OWNER AT JOB COMPLETION.
- USE T-TAP CONNECTINGS ON ALL MULTI-CIRCUITS WITH COMMON NEUTRAL CONDUCTOR.
- ALL CONDUCTORS SHALL BE COPPER.
- ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN THE MAXIMUM SHORT CIRCUIT CURRENT TO WHICH THEY MAY BE SUBJECTED, AND A MINIMUM OF 10,000 A.I.C.
- THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED AS REQUIRED BY ALL APPLICABLE CODES AND DRAWINGS.
- PATCH, REPAIR AND PAINT ANY AREA THAT HAS BEEN DAMAGED IN THE COURSE OF THE ELECTRICAL WORK.
- IN DRILLING HOLES INTO CONCRETE WHETHER FOR FASTENING OR ANCHORING PURPOSES, OR PENETRATIONS THROUGH THE FLOOR FOR CONDUIT RUNS, PIPE RUNS, ETC., IT MUST BE CLEARLY UNDERSTOOD THAT TENDONS AND/OR REINFORCING STEEL WILL NOT BE DRILLED INTO, CUT OR DAMAGED UNDER ANY CIRCUMSTANCES.
- LOCATION OF TENDONS AND/OR REINFORCING STEEL IS NOT COMPLETELY KNOWN AND THEREFORE MUST BE SEARCHED FOR BY APPROPRIATE METHODS AND EQUIPMENT VIA X-RAY OR OTHER DEVICES THAT CAN ACCURATELY LOCATE THE REINFORCING AND/OR STEEL TENDONS.
- PENETRATIONS IN FIRE RATED WALLS SHALL BE FIRE STOPPED IN ACCORDANCE WITH SECTION NO. 4303 AND NO. 4304 OF THE U.S.C.
- RECEPTACLES SHALL BE 20 AMPERE, 125 VOLT A.C., WHITE AS REQUIRED BY THE ARCHITECT OR APPROVED EQUAL.
- WALL SWITCHES SHALL BE SINGLE-POLE, HUBBELL #1201 OR EQUIVALENT, WHITE AS REQUIRED BY THE ARCHITECT.
- PLASTIC PLATES FOR ALL SWITCHES, RECEPTACLES, TELEPHONE AND BLANKED OUTLETS, SHALL HAVE ENGRAVED LETTERING WHERE INDICATED ON THE DRAWINGS. WEATHERPROOF RECEPTACLES SHALL HAVE RACO #800, 1/2" RAISED WORK COVERS.
- WIRE AND CABLE CONDUCTORS SHALL BE COPPER #12 AND MINIMUM, NO BX OR ROPEWIRE CABLE IS PERMITTED UNLESS SPECIFICALLY NOTED OTHERWISE ON DRAWINGS.
- GROUND RODS SHALL BE COPPER CLAD STEEL, 5/8" ROUND AND 10' LONG. COPPERWELD OR APPROVED EQUAL.
- METER SOCKET AMPERES, VOLTAGE, NUMBER OF PHASES SHALL BE AS NOTED ON THE DRAWINGS, MANUFACTURED BY SQUARE D COMPANY OR APPROVED EQUAL. IF HOST FACILITY REQUIRES THE NEW SERVICE TO BE SUB-METERED FROM THE EXISTING SERVICE, SUB-METER SHALL BE OF THE 10x OR 16x TYPE.
- ALL MATERIALS SHALL BE U.L. LISTED.
- CONDUIT:
  - SERVICE CONDUITS SHALL BE GRAY SCH.40 PWC BURIED MIN. 24", EXCEPT THAT SCH.40 SHALL BE USED UNDER ROADWAYS AND IN LOCATIONS SUBJECT TO CASUAL IMPACTS. BENDS SHALL BE MADE USING "WIDE SWEEP" (12" MIN. RADIUS) ELBOW FITTINGS. ANY CODE-REQUIRED RIGID STEEL CONDUIT SHALL BE U.L. LABEL, GALVANIZED INSIDE & OUTSIDE. CONDUIT SHALL EXTEND MIN. 24" BELOW GRADE (OR MINIMUM 6" BELOW FROST LINE), WITH "SNEEP" ELBOWS (12" MIN.) ENDING IN PWC TRANSITION FITTINGS. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2" LAP-WRAPPED WITH HUNTS PROCESS NO. 3 EXTENDING MIN. 12" ABOVE GRADE.
  - INTERIOR CONDUITS SHALL BE ELECTRICAL METALLIC TUBING HAVING U.L. LABEL, FITTINGS SHALL BE GLAND RING COMPRESSION TYPE.
  - FLEXIBLE METALLIC CONDUIT SHALL HAVE U.L. LISTED LABEL AND MAY BE USED WHERE PERMITTED BY CODE. FITTINGS SHALL BE "JAKE" OR "SQUEEZE" TYPE, SEAL TIGHT FLEXIBLE CONDUIT. NO SUCH CONDUIT SHALL EXCEED 50 FEET IN LENGTH.
- ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS.
- UPON COMPLETION OF WORK, CONDUIT CONTINUITY, SHORT CIRCUIT, AND FALL POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION.
- CONTRACTOR TO COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF BOTH TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS TO BE PAID BY CONTRACTOR.

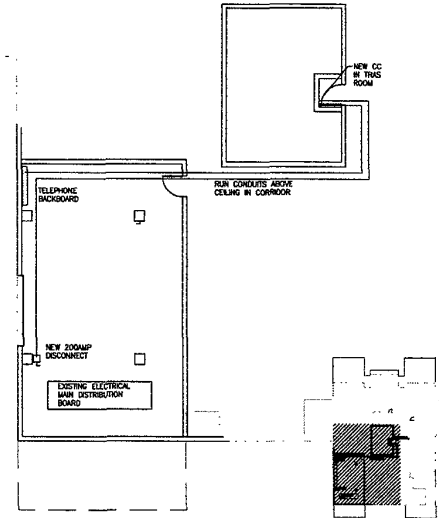


KEY PLAN - NO SCALE

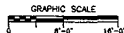


PENTHOUSE ELECTRICAL PLAN

SCALE: 1/8"=1'-0" AT 24"X36"

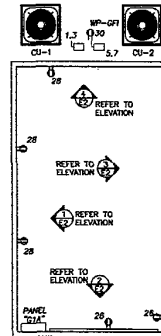


KEY PLAN - NO SCALE

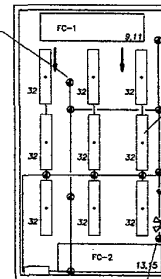


FIRST FLOOR ELECTRICAL PLAN

SCALE: 1/8"=1'-0" AT 24"X36"



CONDUIT AND JUNCTION BOXES FOR SMOKE DETECTION AND ALARM SYSTEM



FEATURES TO BE LITHIUM FIXTURES TO 1200828-616 WITH (2) SIKHANA F032/730 3500K LAMPS (OR EQUAL)

EXPRESS FIXTURE TO BE EQUAL TO DATON #2054 - CONNECTED TO UNSWITCHED LEG OF CIRCUIT - MOUNT ABOVE DOOR



ELECTRICAL POWER/CEILING PLAN

SCALE: 1/4"=1'-0" AT 24"X36"

PROJECT NO. 01066304180  
 ELECTRICAL SITE PLAN, GENERAL NOTES, AND SHELTER DETAILS  
 DRAWN BY: LRP  
 DATE: 20 DEC 02  
 CHKD BY: ADP  
 DATE: 20 DEC 02  
 REVISIONS

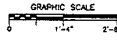
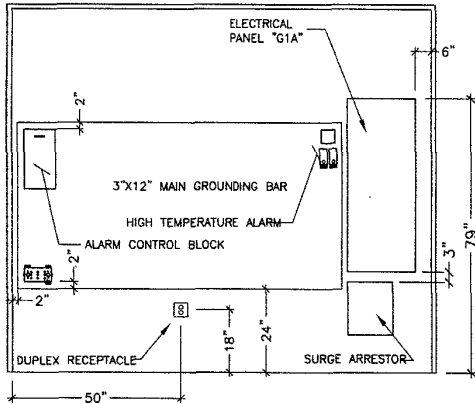
DESIGN  
 9925 W. 59th Avenue North  
 Suite #120  
 Fort Worth, TX 76142  
 (760) 955-5102

verizon wireless  
 9925 - 59th Avenue North  
 Suite #120  
 Fort Worth, TX 76142  
 (760) 955-5102

PRIEST ENGINEERING, INC  
 5555 W. 39th Street, Suite 200  
 Fort Worth, Texas 76119  
 P.O. Box 771219 Fort Worth, TX 76177-1219  
 (817) 336-7700

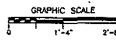
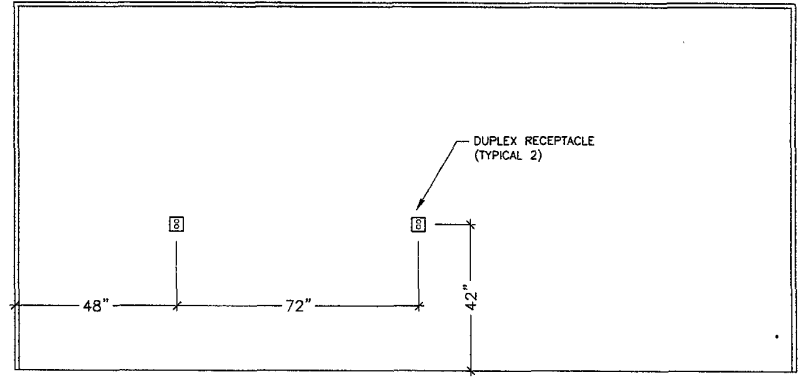
SHEET NO  
 E-1





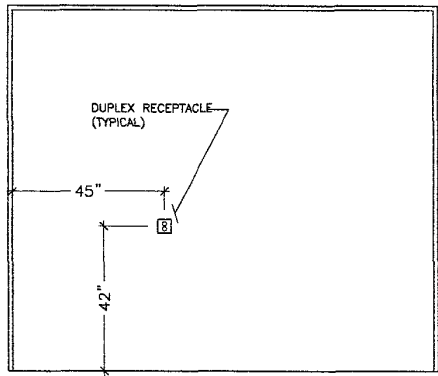
SCALE: 3/4"=1'-0" AT 24"X36"

INTERIOR ELEVATION 'A'



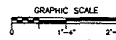
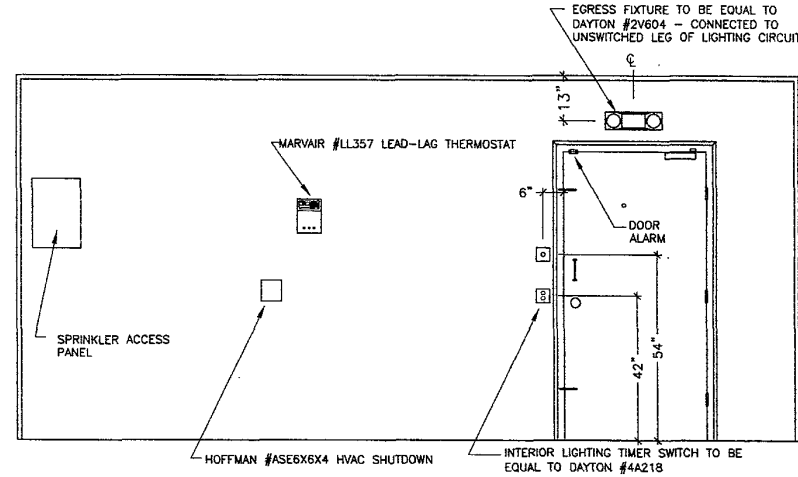
SCALE: 3/4"=1'-0" AT 24"X36"

INTERIOR ELEVATION 'B'



SCALE: 3/4"=1'-0" AT 24"X36"

INTERIOR ELEVATION 'C'



SCALE: 3/4"=1'-0" AT 24"X36"

INTERIOR ELEVATION 'D'

History: verify that the project of the  
has been completed and the work  
performed by the contractor meets  
the design requirements of the  
design. If not, the contractor shall  
submit a plan for correction.  
ARCHITECT  
ROBERT J. LAMAR, INC.  
10750 90th Street, Suite 100  
Houston, Texas 77036  
(713) 865-9999 FAX (713) 865-9999

**DESIGN**  
ARCHITECTURE  
INTERIOR DESIGN  
10750 90th Street, Suite 100  
Houston, Texas 77036  
(713) 865-9999 FAX (713) 865-9999

**verizon wireless**  
5935 - 59th Avenue North  
Suite #1200 MN 55442  
(763) 595-5102

PROJECT NO: 01066304180  
**ROY S. RAPID CITY**  
CATHEDRAL DRIVE  
RAPID CITY, SD 57701

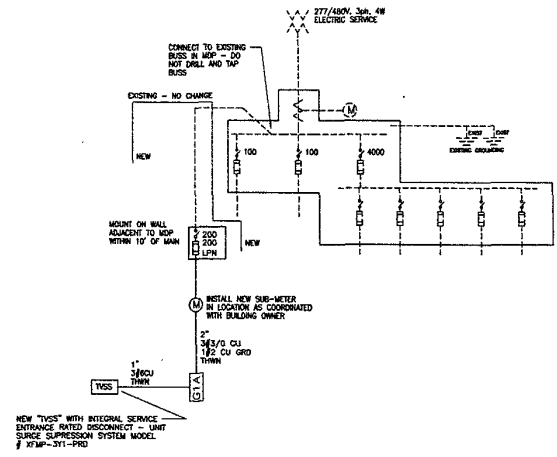
SHEET CONTENT:  
INTERIOR ELEVATIONS  
EQUIPMENT ROOM

DRAWN BY: LRP  
DATE: 20 DEC 02  
CHKD BY: ADP  
DATE: 20 DEC 02  
REVISIONS

SHEET NO  
**E-2**

DATE: 20 DEC 02  
DRAWN BY: LRP  
CHKD BY: ADP  
DATE: 20 DEC 02

SCHEDULE - PANEL		NOTE: ALL BREAKERS AND SWITCHES MUST BE LISTED	
WFL	AS APPROVED	LIGHT	1.0 EVA # 1SER = 1.2 EVA
TYPE	PANELBOARD	RECEPT	1.3 EVA # 1SER = 1.3 EVA
LIK LOC	TOP	RECIN	15.8 EVA # 1SER = 15.8 EVA
WFL	200A MCB	SW LARGEST MOTOR	INC. 2.0A
VOLTAGE	120/240V 1ph 3W	SPECIAL	18.0 EVA # 1SER = 18.0 EVA
MOUNTING SURFACE		SPARE	2.0A
BREAKING	10,000 A.I.C.	TOTAL	48.0 EVA
COND UNIT #1 (30.4 MCA)	3650	1500	RECEPTOR #1
COND UNIT #2 (30.4 MCA)	3650	1500	RECEPTOR #2
FAN COIL #1 (2.6 FLA)	310	1500	RECEPTOR #3
FAN COIL #2 (2.6 FLA)	310	1500	RECEPTOR #4 (FUTURE)
SPACE	19	1500	RECEPTOR #5 (FUTURE)
SPACE	19	1500	RECEPTOR #6 (FUTURE)
SPACE	19	1500	RECEPTOR #7 (FUTURE)
SPACE	19	1500	RECEPTOR #8 (FUTURE)
SPACE	19	1500	RECEPTOR #9 (FUTURE)
SPACE	19	1500	RECEPTOR #10 (FUTURE)
SPACE	19	1500	RECEPTOR #11 (FUTURE)
SPACE	19	1500	RECEPTOR #12 (FUTURE)
SPACE	19	1500	RECEPTOR #13 (FUTURE)
SPACE	19	1500	RECEPTOR #14 (FUTURE)
SPACE	19	1500	RECEPTOR #15 (FUTURE)
SPACE	19	1500	RECEPTOR #16 (FUTURE)
SPACE	19	1500	RECEPTOR #17 (FUTURE)
SPACE	19	1500	RECEPTOR #18 (FUTURE)
SPACE	19	1500	RECEPTOR #19 (FUTURE)
SPACE	19	1500	RECEPTOR #20 (FUTURE)
SPACE	19	1500	RECEPTOR #21 (FUTURE)
SPACE	19	1500	RECEPTOR #22 (FUTURE)
SPACE	19	1500	RECEPTOR #23 (FUTURE)
SPACE	19	1500	RECEPTOR #24 (FUTURE)
SPACE	19	1500	RECEPTOR #25 (FUTURE)
SPACE	19	1500	RECEPTOR #26 (FUTURE)
SPACE	19	1500	RECEPTOR #27 (FUTURE)
SPACE	19	1500	RECEPTOR #28 (FUTURE)
SPACE	19	1500	RECEPTOR #29 (FUTURE)
SPACE	19	1500	RECEPTOR #30 (FUTURE)
SPACE	19	1500	RECEPTOR #31 (FUTURE)
SPACE	19	1500	RECEPTOR #32 (FUTURE)
SPACE	19	1500	RECEPTOR #33 (FUTURE)
SPACE	19	1500	RECEPTOR #34 (FUTURE)
SPACE	19	1500	RECEPTOR #35 (FUTURE)
SPACE	19	1500	RECEPTOR #36 (FUTURE)
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SPACE	19	1500	RECEPTOR #38 (FUTURE)
SPACE	19	1500	RECEPTOR #39 (FUTURE)
SPACE	19	1500	RECEPTOR #40 (FUTURE)
SPACE	19	1500	RECEPTOR #41 (FUTURE)
SPACE	19	1500	RECEPTOR #42 (FUTURE)
SPACE	19	1500	RECEPTOR #43 (FUTURE)
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SPACE	19	1500	RECEPTOR #50 (FUTURE)
SPACE	19	1500	RECEPTOR #51 (FUTURE)
SPACE	19	1500	RECEPTOR #52 (FUTURE)
SPACE	19	1500	RECEPTOR #53 (FUTURE)
SPACE	19	1500	RECEPTOR #54 (FUTURE)
SPACE	19	1500	RECEPTOR #55 (FUTURE)
SPACE	19	1500	RECEPTOR #56 (FUTURE)
SPACE	19	1500	RECEPTOR #57 (FUTURE)
SPACE	19	1500	RECEPTOR #58 (FUTURE)
SPACE	19	1500	RECEPTOR #59 (FUTURE)
SPACE	19	1500	RECEPTOR #60 (FUTURE)
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SPACE	19	1500	RECEPTOR #95 (FUTURE)
SPACE	19	1500	RECEPTOR #96 (FUTURE)
SPACE	19	1500	RECEPTOR #97 (FUTURE)
SPACE	19	1500	RECEPTOR #98 (FUTURE)
SPACE	19	1500	RECEPTOR #99 (FUTURE)
SPACE	19	1500	RECEPTOR #100 (FUTURE)
1 phase =	17740 VA	3 phase =	18510 VA
		Total =	36250 VA



NEW 'TVS' WITH INTEGRAL SERVICE ENTRANCE RATED DISCONNECT - UNIT SURGE SUPPRESSION SYSTEM MODEL # NFM-3Y1-PRD

Priority: Verify All the contents of the drawings are correct and complete. Do not proceed with construction until all the drawings are approved by the architect. The architect is responsible for the design. The engineer is responsible for the calculations. The contractor is responsible for the construction. The owner is responsible for the payment. The architect is responsible for the design. The engineer is responsible for the calculations. The contractor is responsible for the construction. The owner is responsible for the payment.



verizon wireless  
 5935 - 59th Avenue North  
 Plymouth, MN 55442  
 (763) 395-5102

PROJECT NO: 0106804180  
 RCY S. RAPID CITY  
 CATHEDRAL DRIVE  
 RAPID CITY, SD 57701

SHEET CONTENT:  
 ONE LINE DIAGRAM &  
 PANEL SCHEDULE

DRAWN BY: LRP  
 DATE: 20 DEC 02  
 CHKD BY: ADP  
 DATE: 20 DEC 02  
 REVISIONS

SHEET NO  
 F-3

PRIEST ENGINEERING, INC  
 2007 South 10th Street, Suite 202  
 Rapid City, South Dakota 57701  
 P: 605 772-8773 Fax: 605 772-8828



① Latitude = 44°53'35.524167N  
Longitude = 103°13'47.980167W  
② Latitude = 44°53'34.754867N  
Longitude = 103°13'47.984807W  
Elevations shown are NGVD29

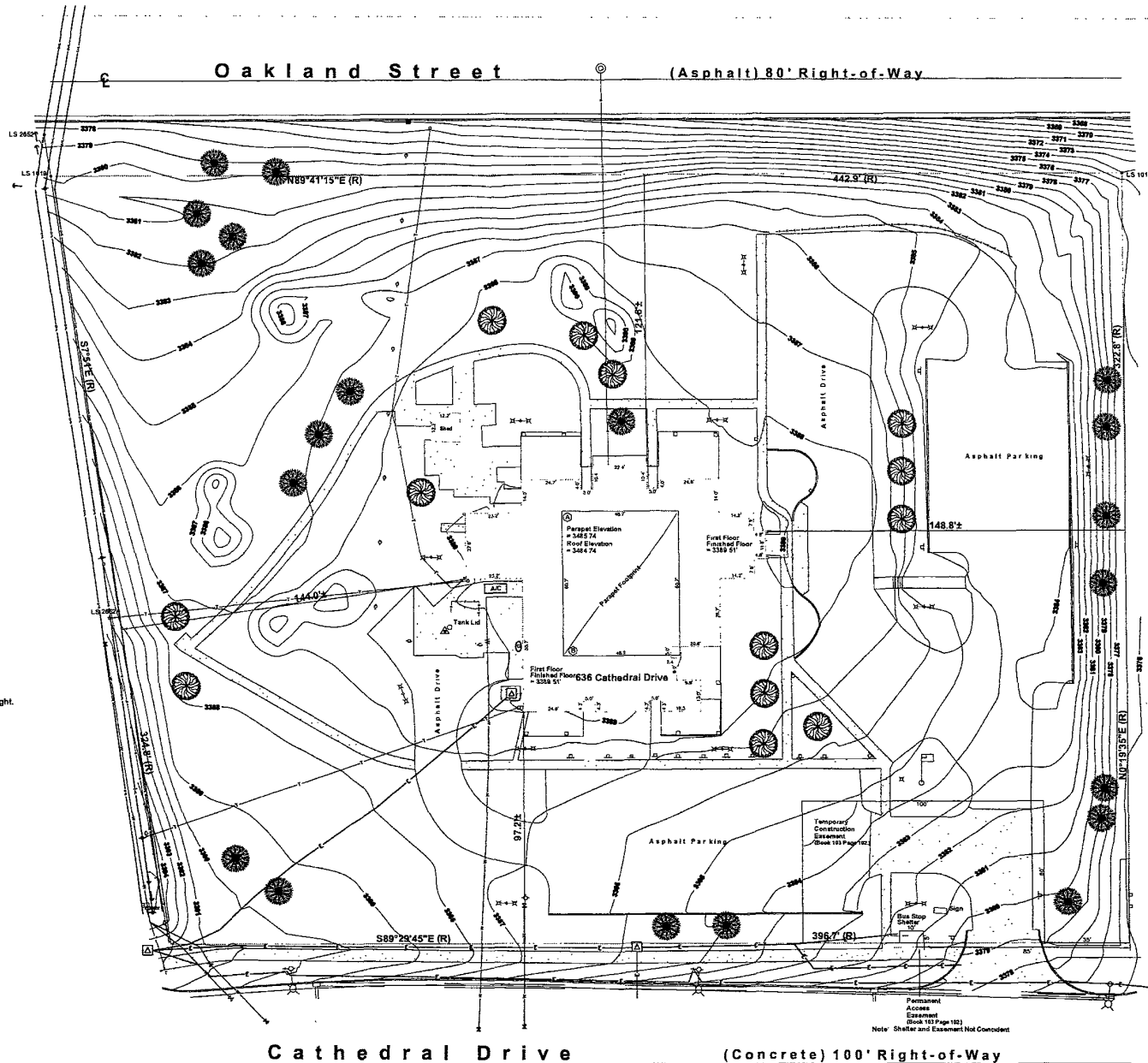
Utilities shown herein are from visible appearances, utility locates (SD One Call Ticket No. 023 190 324) and utility statistics provided by municipal authorities.  
NOTE: No trees on this site exceed 25' in height.

**Legend**

- ⊙ = Sanitary Sewer Manhole
- = Sanitary Sewer Service Line
- = Storm Sewer Line
- = Water Line
- M = Water Valve
- ⊕ = Fire Hydrant
- ⊠ = Electric Transformer
- ⊕ = Electric Vault
- = Electric Line (underground)
- = Overhead Lines
- ⊕ = Utility Pole
- ⊕ = Utility Pole Guy Anchor
- ⊠ = Fiber Optic Vault
- ⊕ = Telecommunications Pedestal
- = Telecommunications Line (underground)
- ⊕ = Natural Gas Meter
- ⊕ = Natural Gas Valve
- = Natural Gas Line
- ⊕ = Sign
- ⊕ = Area Light
- = Chain Link Fence
- = Guard Rail
- ⊕ = Monitoring Well
- LS 2952 ⊕ = Found survey monument as noted

**Easement Notes**

1. Right-of-way permit - Black Hills Power and Light, Misc. Book 38 Page 71.  
Route is not geometrically described.
2. Right-of-way permit - Black Hills Corporation Book 84 Page 1050.  
Route is not geometrically described.
3. Easement granted to City of Rapid City Book 103 Page 102.  
Easement as shown.



PROJECT No. 02-14-00  
 1030 MAIN STREET, P.O. BOX 8154  
 RAPID CITY, SOUTH DAKOTA 57709  
 (605) 348-1538 FAX (605) 341-1112  
 REVISIONS  
 SURVEYED BY: RWF  
 DATE: 11/20/02  
 CHECKED BY: WF  
 DRAWN BY: RWF  
**FISK LAND SURVEYING**  
 AND CONSULTING ENGINEERS, INC.

**Topographic Map - Tract A of Lot 2 located in the NW1/4 SW1/4 of Section 12, T1N, R7E, BHM, Rapid City, Pennington County, South Dakota RCY - South Rapid City. Client: Verizon/MegaCom**

Permanent Access Easement (Book 103 Page 102)  
 Note: Shelter and Easement Not Concordant