

SITE NAME: EAST BENCH BOISE

SITE NUMBER: BOISID1110



at&t

LTE BUILDING ROOFTOP



4383 RIVERBENT ROAD, SUITE 5400
TAYLORSVILLE, UTAH 84123

GENERAL DYNAMICS
Information Technology

860 W. LINDY DRIVE, SUITE 220
SALT LAKE CITY, UTAH 84123



Technology Associates

UTAH MARKET OFFICE
9847 SOUTH 500 WEST
SANDY, UTAH 84070

ENGINEERING
288 INTERNATIONAL BUILDING CODE
309 NATIONAL ELECTRIC CODE
TIA-222-B OR LATEST EDITION

GENERAL NOTES
THE FACILITY IS UNBARRICADED AND NOT FOR MAINTENANCE. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR EFFECT ON DRINKING WATER, SANITARY SEWER SERVICE, POTABLE WATER, OR TRASH DISPOSAL AS REQUIRED AND NO COMMERCIAL STORAGE IS PROVIDED.

PROJECT DESCRIPTION
THE PROJECT CONSISTS OF THE INSTALLATION AND OPERATION OF ANTENNAS AND ASSOCIATED EQUIPMENT ELEMENTS FOR AT&T'S WIRELESS TELECOMMUNICATIONS NETWORK.

SITE INFORMATION

PROPERTY OWNER: BOISE CITY HOUSING
ADDRESS: 700 CUNNINGHAM PLACE
BOISE, ID 83702

TOWER OWNER: AT&T
SITE NAME: EAST BENCH BOISE
SITE NUMBER: BOISID1110

COUNTY: ADA COUNTY

LATITUDE (RAD US): 43° 37' 16.87" N
LONGITUDE (RAD US): 111° 17' 48.97" W

ZONING JURISDICTION: BOISE
ZONING DISTRICT: R-3.5D-RESIDENTIAL

PARCEL #: _____

POWER COMPANY: IDAHO POWER
TELEPHONE COMPANY: CENTURY LINK

SITE ACQUISITION CONTACT: AMY DOKER
(855) 777-4873

RF ENGINEER: J. BRAD HYNDLICH
(208) 217-4911

CONSTRUCTION MANAGER: KEVIN HANST
(801) 478-2123



DRIVING DIRECTIONS

ATTENTION: FROM AT&T OFFICE, 4383 RIVERBENT ROAD, TAYLORSVILLE, UT

1. HEAD SOUTH ON RIVERBENT RD TOWARD W 4800 S
2. TAKE THE 1ST LEFT ONTO W 4800 S
3. TURN LEFT TO ENTER ONTO I-84 N
4. SLIGHTLY LEFT TO STAY ON I-84 N
5. CONTINUE STRAIGHT ONTO I-84 W TOWARD BOISE
6. TAKE EXIT 54 FOR US-89/SOUTH-BOISEWAY AVE TOWARD CITY CENTER
7. TURN RIGHT ONTO US-89/SOUTH-BOISEWAY AVE
8. CONTINUE TO FOLLOW SOUTHWAY AVE
9. CONTINUE ONTO N AVE B
10. WALK RIGHT AT THE FORK
11. TURN RIGHT ONTO W CUNNINGHAM PL

DESTINATION WILL BE ON THE RIGHT

APPROVALS

THE FOLLOWING PARTIES HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE SUBCONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND MAY IMPOSE CHANGES OR MODIFICATIONS.

AT&T WIRELESS COMPLIANCE REPRESENTATIVE: _____ DATE: _____

AT&T WIRELESS REPRESENTATIVE: _____ DATE: _____

AT&T WIRELESS RF ENGINEER: _____ DATE: _____

GENERAL DYNAMICS SITE ACQUISITION: _____ DATE: _____

TAC SITE ACQUISITION: _____ DATE: _____

PROPERTY OWNER: _____ DATE: _____

GENERAL DYNAMICS CONSTRUCTION MANAGER: _____ DATE: _____

THE INFORMATION CONTAINED IN THIS SET OF DRAWINGS IS THE PROPERTY OF AT&T. ANY USE OR DISCLOSURE OTHER THAN AS RELATED TO IS STRICTLY PROHIBITED.

DRAWING INDEX

SHEET NO:	DESCRIPTION:
T-1	TITLE SHEET
C-1	OVERALL SITE PLAN
C-1.1	ENLARGED SITE PLAN
C-2	EQUIPMENT PLANS
C-2.1	ANTENNA PLANS
C-3	NORTHEAST ELEVATIONS
C-4	NORTHWEST ELEVATIONS

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

811 Know what's below. CALL before you dig.

CALL AT LEAST TWO WORKING DAYS BEFORE YOU DIG

REV	DATE	DESCRIPTION	BY
1		ISSUED FOR PERMITS	JKM
2		ISSUED FOR BIDDING	JKM
3		ISSUED FOR CONSTRUCTION	JKM

NOT TO BE USED FOR CONSTRUCTION

IF IN VIOLATION OF LAW FOR ANY PERSON, THESE PLANS ARE APPROVED BY THE DESIGN OF A LICENSED PROFESSIONAL ENGINEER, REGISTERED IN THE STATE OF UTAH.

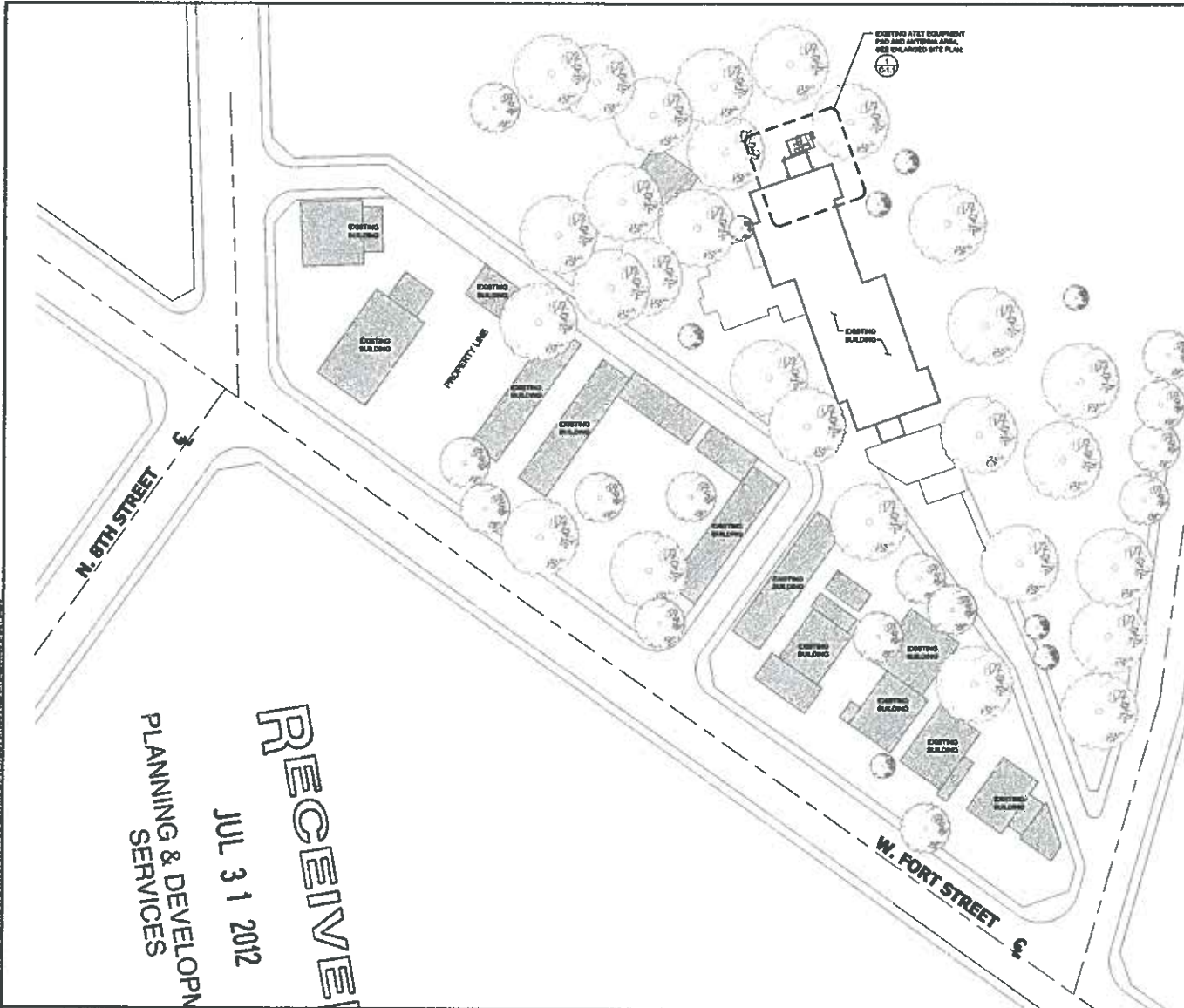
EAST BENCH BOISE
BOISID1110
700 CUNNINGHAM PLACE
BOISE, ID 83702
LTE ROOFTOP

TITLE SHEET

SHEET NUMBER
T-1

DRH 1200218

RECEIVED
JUL 31 2012
PLANNING & DEVELOPMENT SERVICES



DISCLAIMER
 THESE DRAWINGS WERE PRODUCED WITHOUT THE BENEFIT OF A CURRENT LAND SURVEY. ALL PROPERTY LINES, EASEMENTS, AND SETBACKS SHALL BE VERIFIED PRIOR TO START OF CONSTRUCTION. TAD DOES NOT GUARANTEE THE ACCURACY OF BOUND PROPERTY LINES, EASEMENTS AND SETBACKS.



GENERAL DYNAMICS
 Information Technology
 860 W. LEVY DRIVE, SUITE 250
 SALT LAKE CITY, UTAH 84123

Technology Associates
 UTAH MARKET OFFICE
 9847 SOUTH 500 WEST
 SANDY, UTAH 84070

REV	DATE	DESCRIPTION	BY
B	08/07/12	ISSUED FOR PERMITS	PKM
A	08/07/12	ISSUED FOR PERMITS	PKM
A	08/07/12	ISSUED FOR PERMITS	JKW

NOT TO BE USED FOR CONSTRUCTION

IF IN VIOLATION OF LAW FOR ANY REASON, WE AND OUR AGENTS ACCEPT THE OPINION OF A LICENSED PROFESSIONAL ENGINEER, AS AT THE TIME OF OUR REVIEW.

EAST BENCH BOISE
 BOISID1110
 700 CUNNINGHAM PLACE
 BOISE, ID 83702
 LTE ROOFTOP

SHEET TITLE
OVERALL SITE PLAN

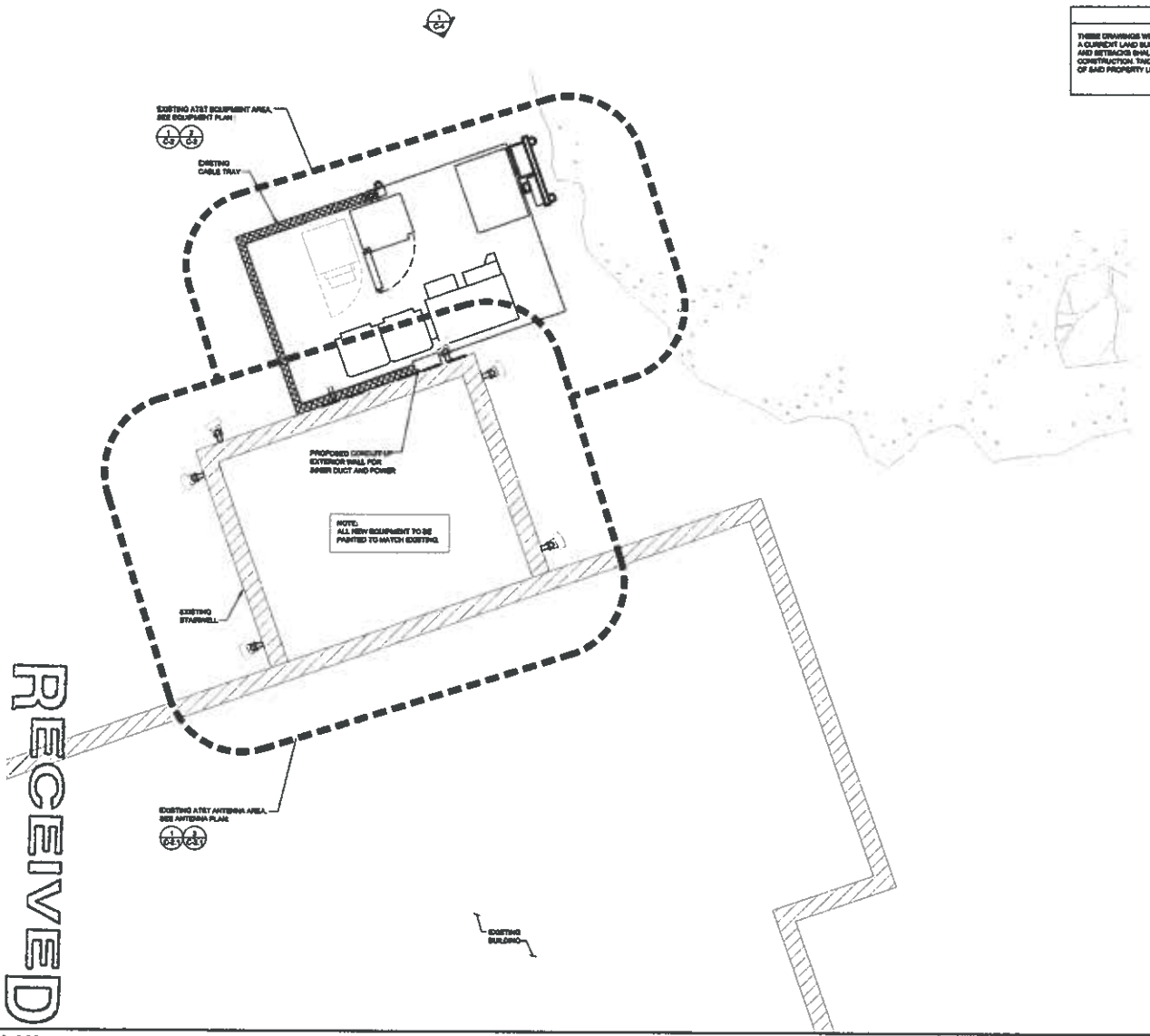
SHEET NUMBER
C-1

RECEIVED
 JUL 31 2012
 PLANNING & DEVELOPMENT
 SERVICES

OVERALL SITE PLAN

DRH 12 00218

DISCLAIMER
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4383 RIVERBEND ROAD, SUITE #400
 BOULDERVILLE, UTAH 84123

GENERAL DYNAMICS
 Information Technology

980 N. LEVY DRIVE, SUITE 200
 SALT LAKE CITY, UTAH 84123



Technology Associates

UTAH MARKET OFFICE
 9847 SOUTH 500 WEST
 SANDY, UTAH 84070

REV	DATE	DESCRIPTION	BY
1		ISSUED FOR PERMITS	PCB
2		ISSUED FOR ANTENNA SCREEN	PCB
3		ISSUED FOR ANTENNA SCREEN	JCB

NOT TO BE USED FOR CONSTRUCTION

IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER TO ASSESS THE ACCURACY OF THESE DRAWINGS.

EAST BENCH BOISE
 BOISID1110
 700 CUNNINGHAM PLACE
 BOISE, ID 83702
 LTE ROOFTOP

SHEET TITLE
ENLARGED SITE PLAN

SHEET NUMBER
C-1.1



SCALE: 3/8" = 1'-0" (AS SHOWN)
 (OR) 3/8" = 1'-0" (1:60)

1

RECEIVED

JUL 31 2012

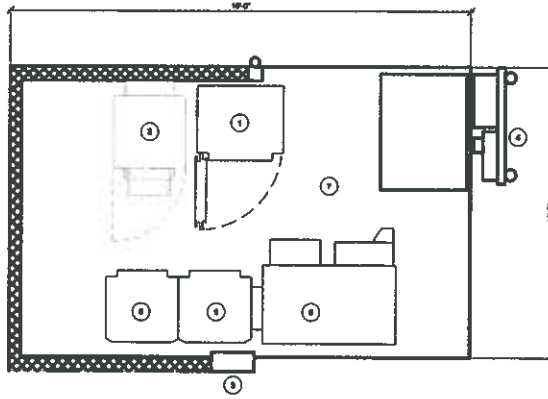
PLANNING & DEVELOPMENT SERVICES

ENLARGED SITE PLAN

DRH 12 00215

KEY NOTES

- 1 EXISTING LIMITS EQUIPMENT (LUCEINT)
- 2 EXISTING DC POWER CABINET
- 3 NOT USED
- 4 EXISTING UTILITY RACK
- 5 EXISTING GSM EQUIPMENT (NOKIA)
- 6 EXISTING SBC CABINET
- 7 EXISTING CONCRETE EQUIPMENT PAD
- 8 NOT USED
- 9 NOT USED
- 10 NOT USED
- 11 NOT USED
- 12 NOT USED
- 13 NOT USED
- 14 NOT USED
- 15 NOT USED
- 16 NOT USED
- 17 NOT USED
- 18 NOT USED
- 19 NOT USED
- 20 NOT USED

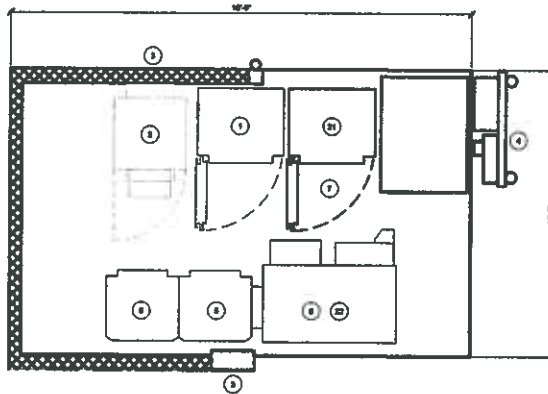


EQUIPMENT PLAN (EXISTING)

SCALE: 1/8" = 1'-0" (AS SHOWN)
 (OR) 1/8" = 1'-0" (1/16")

KEY NOTES

- 1 EXISTING LIMITS EQUIPMENT (LUCEINT)
- 2 EXISTING DC POWER CABINET
- 3 NOT USED
- 4 EXISTING UTILITY RACK
- 5 EXISTING GSM EQUIPMENT (NOKIA)
- 6 EXISTING SBC CABINET
- 7 EXISTING CONCRETE EQUIPMENT PAD
- 8 NOT USED
- 9 NOT USED
- 10 NOT USED
- 11 NOT USED
- 12 NOT USED
- 13 NOT USED
- 14 NOT USED
- 15 NOT USED
- 16 NOT USED
- 17 NOT USED
- 18 NOT USED
- 19 NOT USED
- 20 NOT USED
- 21 FUTURE LIMITS CABINET
- 22 PROPOSED LTE EQUIPMENT, BUILT IN EXISTING SBC CABINET



NOTE:
 1. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS.



EQUIPMENT PLAN (PROPOSED)

SCALE: 1/8" = 1'-0" (AS SHOWN)
 (OR) 1/8" = 1'-0" (1/16")

4383 BIRCHMOUNT ROAD, SUITE #400
 SALT LAKE CITY, UTAH 84123

GENERAL DYNAMICS
 Information Technology

980 W. LEDDY DRIVE, SUITE 230
 SALT LAKE CITY, UTAH 84123

Technology Associates

UTAH MARKET OFFICE
 9847 SOUTH 500 WEST
 SANDY, UTAH 84070

REV	DATE	DESCRIPTION	BY

NOT TO BE USED FOR CONSTRUCTION

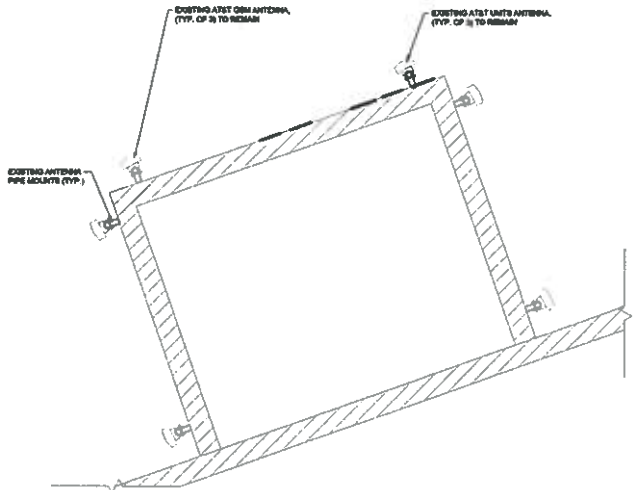
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EAST BENCH BOISE
 BOISID1110
 700 CUNNINGHAM PLACE
 BOISE, ID 83702
 LTE ROOFTOP

SHEET TITLE
EQUIPMENT PLANS

SHEET NUMBER
C-2

DRH 12 00218

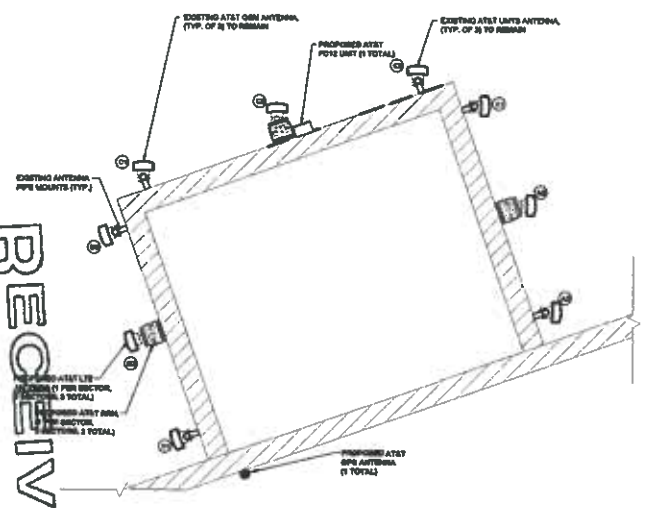


EXISTING ANTENNAS @ TOP HEIGHT 74'-0"



ANTENNA PLAN (EXISTING)

SCALE: 3/8" = 1'-0" (24x36)
FOR: 302" x 1'-0" (11x17) **1**



EXISTING / PROPOSED ANTENNAS @ TOP HEIGHT 74'-0"



PLANNING & DEVELOPMENT SERVICES

JUL 31 2012

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ANTENNA PLAN (PROPOSED)

PROPOSED ANTENNA AND TRANSMISSION CABLE REQUIREMENT						
SECTOR	ANTENNA TYPE	TECHNOLOGY	ANTENNA AZIMUTH	TRANSMISSION CABLE		
				QTY.	LENGTH	TYPE
ALPHA	EXISTING ANTENNA	OSM	90°			NO CHANGES
	PROPOSED ANTENNA	LTE	10°	1	50'	FIBER
	EXISTING ANTENNA	UMTS	90°			NO CHANGES
BETA	EXISTING ANTENNA	OSM	280°			NO CHANGES
	PROPOSED ANTENNA	LTE	250°	1	50'	FIBER
	EXISTING ANTENNA	UMTS	280°			NO CHANGES
GAMMA	EXISTING ANTENNA	OSM	90°			NO CHANGES
	PROPOSED ANTENNA	LTE	0°	1	50'	FIBER
	EXISTING ANTENNA	UMTS	90°			NO CHANGES

NOTE TO CONTRACTOR:
ANTENNA CLEARANCE AND MOUNTING TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION WITH FINAL ANTENNA SPECIFICATIONS, MOUNTING HARDWARE, AND RF DESIGN. ANTENNA PIPE MOUNT MODIFICATION MAY BE REQUIRED.

SCALE: 3/8" = 1'-0" (24x36)
FOR: 302" x 1'-0" (11x17) **2**



4383 RIVERWAY ROAD, SUITE #400
SALT LAKE CITY, UTAH 84123

GENERAL DYNAMICS
Information Technology

940 W. LEVY DRIVE, SUITE 250
SALT LAKE CITY, UTAH 84123



Technology Associates

UTAH MARKET OFFICE
9847 SOUTH 500 WEST
SANDY, UTAH 84070

REV	DATE	DESCRIPTION	BY
0		ISSUED FOR PERMITS	JDM
1		ISSUED FOR PERMITS	JDM
2		ISSUED FOR PERMITS	JDM
3		ISSUED FOR PERMITS	JDM

NOT TO BE USED FOR CONSTRUCTION

IF A HOLDING OF LAW FOR ANY PURPOSE, UNDER THEY ARE APPROVED UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER TO ALTER THE DOCUMENT.

EAST BENCH BOISE
BOISID1110
700 CUNNINGHAM PLACE
BOISE, ID 83702
LTE ROOFTOP

SHEET TITLE
ANTENNA PLANS

SHEET NUMBER
C-2.1

DRH 12 00210



GENERAL DYNAMICS
Information Technology
940 N. LEVY DRIVE, SUITE 250
SALT LAKE CITY, UTAH 84123

Technology Associates
UTAH MARKET OFFICE
9847 SOUTH 500 WEST
SANDY, UTAH 84070

REV	DATE	DESCRIPTION	BY
B	EXISTING	ISSUED FOR PERMITS	PER
E	EXISTING	ISSUED FOR PERMITS	PER
A	ISSUED	ISSUED FOR PERMITS	PER

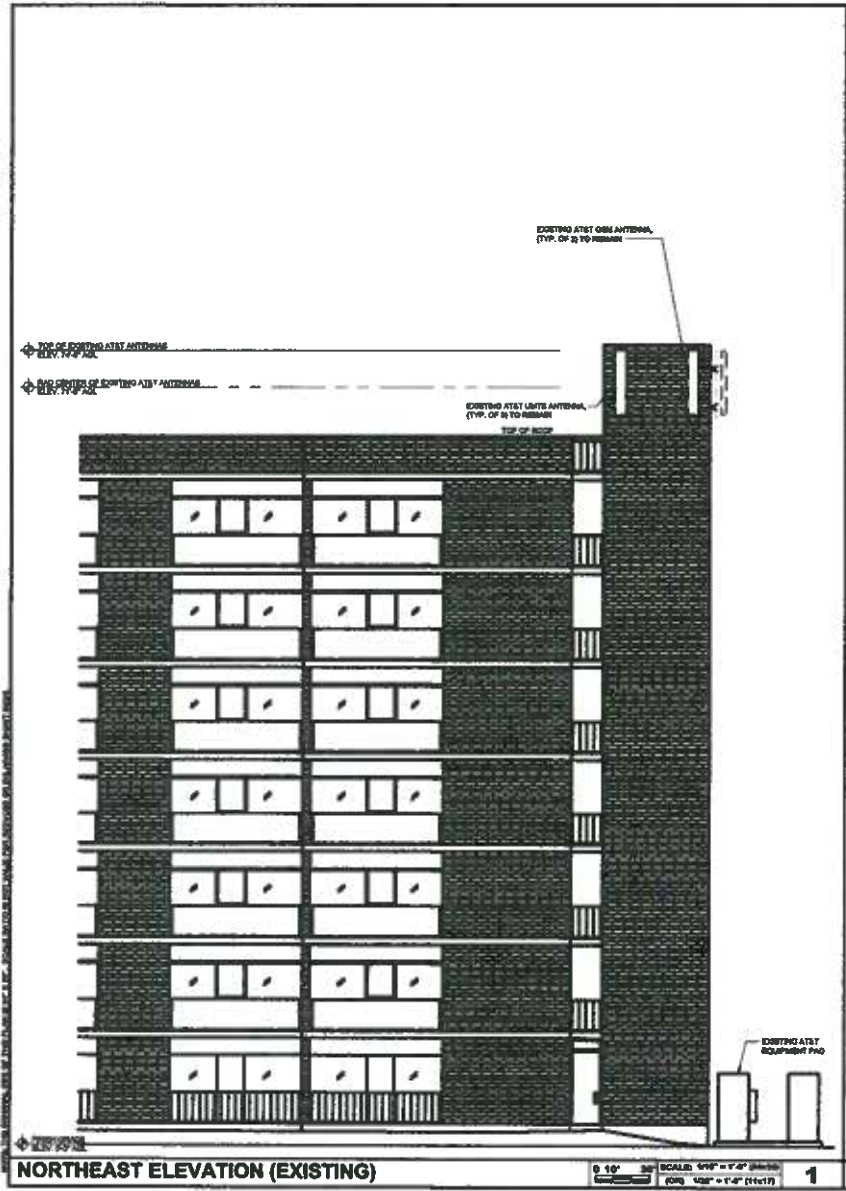
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UNLESS THEY ARE ADVISED UNDER THE GUIDANCE
OF A LICENSED PROFESSIONAL ENGINEER,
DO NOT ALTER THIS DOCUMENT.

EAST BENCH BOISE
BOISID1110
700 CUNNINGHAM PLACE
BOISE, ID 83702
LTE ROOFTOP

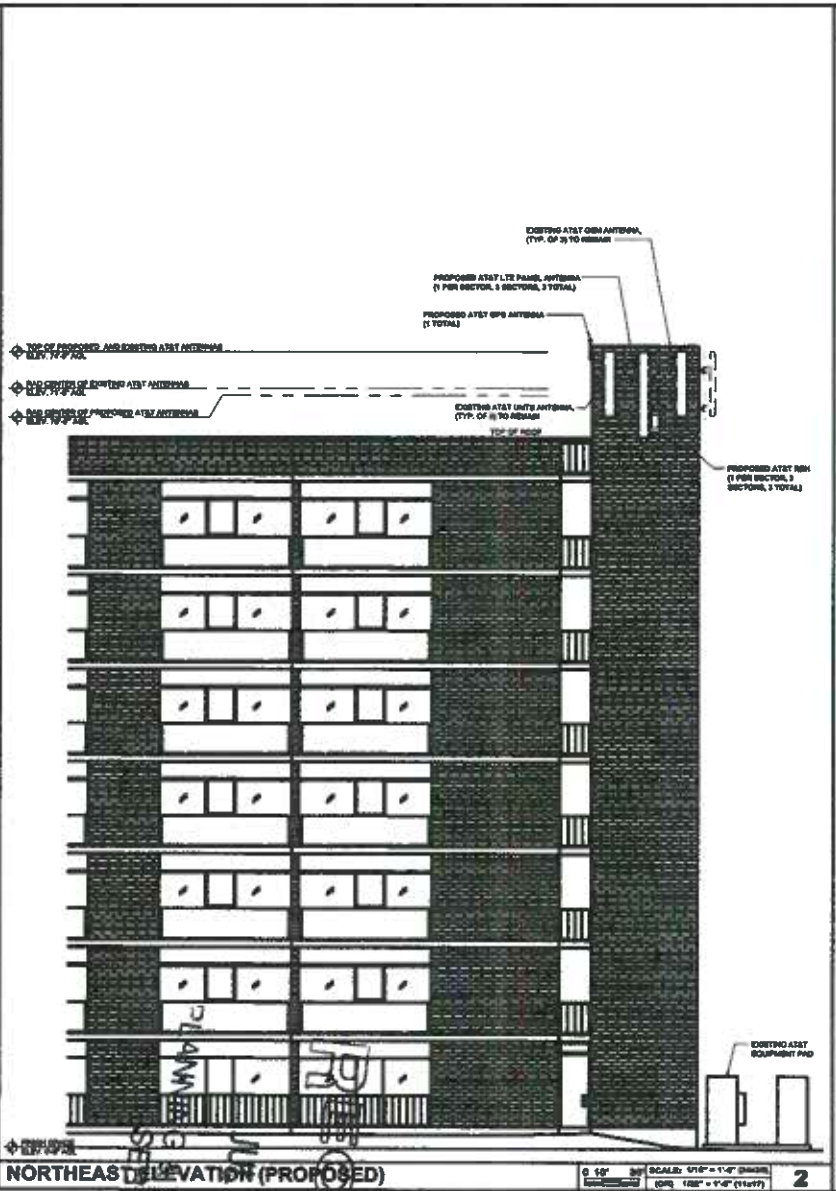
SHEET TITLE
**NORTHEAST
ELEVATIONS**

SHEET NUMBER
C-3



NORTHEAST ELEVATION (EXISTING)

0 10' SCALE: 1/8" = 1'-0" (1:60)
1



NORTHEAST ELEVATION (PROPOSED)

0 10' SCALE: 1/8" = 1'-0" (1:60)
2

DRH 12 002 1n

DEVELOPMENT SERVICES
31 2012
EVEEL

SITE NAME: EAST BENCH BOISE

SITE NUMBER: BOISID1110



ENGINEERING
 388 INTERNATIONAL BUILDING CODE
 388 NATIONAL ELECTRIC CODE
 TIA-222-G OR LATEST EDITION

GENERAL NOTES
 THIS FACILITY IS UNMANNED AND NOT FOR HEAVY HABITATION. A TECHNICIAN WILL VISIT THE SITE AS REQUIRED FOR ROUTINE MAINTENANCE. THIS PROJECT WILL NOT RESULT IN ANY SIGNIFICANT DISTURBANCE OR IMPACT ON DRINKAGE, NO HAZARDOUS WASTE SERVICE, POTENTIAL WATER OR TRASH DISPOSAL, IS REQUIRED AND NO COMMERCIAL SERVICE IS PROVIDED.

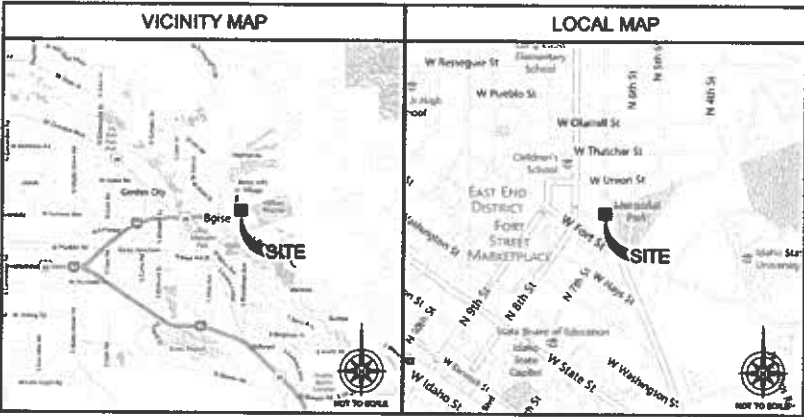
PROJECT DESCRIPTION
 THE PROJECT CONSISTS OF THE INSTALLATION AND OPERATION OF ANTENNAS AND ASSOCIATED EQUIPMENT CABINETS FOR AT&T WIRELESS TELECOMMUNICATIONS NETWORK.

SITE INFORMATION

PROPERTY OWNER: BOISE CITY HOLDING 700 CUNNINGHAM PLACE BOISE, ID 83702
 ADDRESS:
 TOWER OWNER: AT&T
 SITE NAME: EAST BENCH BOISE
 SITE NUMBER: BOISID1110
 COUNTY: ADA COUNTY
 LATITUDE (GMS D): 43° 07' 16.87" N
 LONGITUDE (GMS W): 112° 11' 46.87" W
 ZONING JURISDICTION: BOISE
 ZONING DISTRICT: PLAND-RESIDENTIAL
 PARCEL #:
 POWER ACCOUNT: DAVID POMER
 TELEPHONE COMPANY: CENTURY LINK
 SITE ACQUISITION OFFICER: JEFF DOHERT (208) 777-4893
 RF ENGINEER: J. BRAD RUDOLPH (208) 977-0491
 CONSTRUCTION MANAGER: JIMM ASHBY (208) 490-0128

CONTACT INFORMATION

ENGINEER: TECHNOLOGY ASSOCIATES
 8517 SOUTH 600 WEST
 SANDY, UT 84070
 CONTACT: JEFF WANDERNECH
 PHONE: (208) 974-2888



DRIVING DIRECTIONS

STARTING FROM AT&T OFFICE, 4385 RIVERBENT ROAD, TOLA, IDAHO 83401, UT

1. HEAD SOUTH ON RIVERBENT RD TOWARD W 4800 S
2. TAKE THE 1ST LEFT ONTO W 4800 S
3. TURN LEFT TO MERGE ONTO I-84 W
4. BLIGHT LEFT TO EXIT ON I-84 W
5. CONTINUE STRAIGHT ONTO I-84 W (EXIT FOR BOISE)
6. TAKE EXIT 64 FOR US-20/US-20/BOISE AND TOWARD CITY CENTER
7. TURN RIGHT ONTO US-20 (US-20 TOWARD CITY CENTER)
8. CONTINUE TO FOLLOW BOISE/US-20
9. CONTINUE ON I-84 W
10. RAMP RIGHT AT THE PARK
11. TURN RIGHT ONTO W CUNNINGHAM PL
12. DESTINATION WILL BE ON THE RIGHT

APPROVALS

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AT&T WIRELESS COMPLIANCE REPRESENTATIVE: _____ DATE: _____

AT&T WIRELESS REPRESENTATIVE: _____ DATE: _____

AT&T WIRELESS RF ENGINEER: _____ DATE: _____

GENERAL DYNAMICS SITE ACQUISITION: _____ DATE: _____

TAC SITE ACQUISITION: _____ DATE: _____

PROPERTY OWNER: _____ DATE: _____

GENERAL DYNAMICS CONSTRUCTION MANAGER: _____ DATE: _____

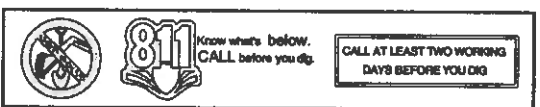
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DRAWING INDEX

SHEET NO.	DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
T-3	GENERAL NOTES
T-4	GENERAL NOTES
T-5	SIGNAGE & NOTES
C-1	OVERALL SITE PLAN
C-1.1	ENLARGED SITE PLAN
C-2	EQUIPMENT PLANS
C-2.1	ANTENNA PLANS
C-3	NORTHEAST ELEVATIONS
C-4	NORTHWEST ELEVATIONS
C-5	EQUIPMENT DETAILS
G-1	GROUNDING PLANS
G-2	GROUNDING DETAILS
E-1	DC SURGE SUPPRESSION DIAGRAMS
RF-1	ANTENNA DETAILS
RF-2	LTE CONFIGURATION

DO NOT SCALE DRAWINGS

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GENERAL DYNAMICS
 Information Technology
 940 W. LEVY DRIVE, SUITE 250
 SALT LAKE CITY, UTAH 84123

Technology Associates
 UTAH MARKET OFFICE
 9847 SOUTH 500 WEST
 SANDY, UTAH 84070

REV	DATE	DESCRIPTION	BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

THIS IS A PRELIMINARY DRAWING FOR YOUR REVIEW. PLEASE VERIFY ALL DIMENSIONS AND CONDITIONS OF THE JOB SITE & IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

EAST BENCH BOISE
 BOISID1110
 700 CUNNINGHAM PLACE
 BOISE, ID 83702
 LTE ROOFTOP

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

DRH 12 00213

RECEIVED
 JUL 31 2012
 PLANNING & DEVELOPMENT SERVICES

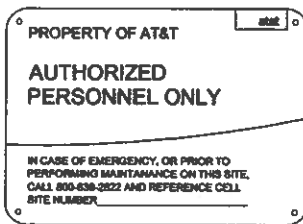


ALERTING SIGN

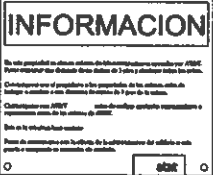
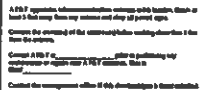
ALERTING SIGNS



ALERTING SIGN



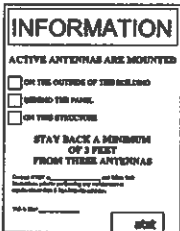
INFO SIGN #5



INFO SIGN #1

INFO SIGN #2

INFO SIGN #4



STAY BACK 3 FEET FROM ANTENNA

PLANNING & DEVELOPMENT SERVICES

JUL 31 2012

RECEIVE

GENERAL SIGNAGE GUIDELINES

STRUCTURE TYPE	INFO SIGN #1	INFO SIGN #2	INFO SIGN #3	INFO SIGN #4	INFO SIGN #5	STRIPING	NOTICE SIGN	CAUTION SIGN
TOWERS								
MONOPOL/LEAF/PHENOMON/PAUL	ENTRANCE GATE SHELTER DOORS OR ON THE OUTDOOR CABINETS	CLIMBING ROPE OF THE TOWER	ON BACKSIDE OF ANTENNAS	ON THE SIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET			AT THE HEIGHT OF THE FIRST CLIMBING STEP, MAX. 8 FT ABOVE GROUND
ICE TOWER/STONERS WITH HIGH VOLTAGE	ENTRANCE GATE SHELTER DOORS OR ON THE OUTDOOR CABINETS	CLIMBING ROPE OF THE TOWER	ON BACKSIDE OF ANTENNAS	ON THE SIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET			AT THE HEIGHT OF THE FIRST CLIMBING STEP, MAX. 8 FT ABOVE GROUND
LIGHT POLE/FLAG POLES	ENTRANCE GATE SHELTER DOORS OR ON THE OUTDOOR CABINETS	ON THE POLE, NO LESS THAN 8 FT BELOW THE ANTENNA	ON BACKSIDE OF ANTENNAS	ON THE SIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET			
UTILITY WOOD POLES (PW)	ENTRANCE GATE SHELTER DOORS OR ON THE OUTDOOR CABINETS	ON THE POLE, NO LESS THAN 8 FT BELOW THE ANTENNA	ON BACKSIDE OF ANTENNAS	ON THE SIDE OF ANTENNAS	ON THE SHELTER DOORS OR ON ONE OUTDOOR EQUIPMENT CABINET			IF OF MAX VALUE OF 8 FEET AT ANTENNA LEVEL, IS 8 FEET; NOTICE SIGN OVER 8 FEET, CAUTION SIGN AT NO LESS THAN 8 FT BELOW ANTENNA AND 8 FT ABOVE GROUND
MICROWAVE MOUNTED ON HIGH-UP POLES	ENTRANCE GATE SHELTER DOORS OR ON THE OUTDOOR CABINETS	ON THE POLE, NO LESS THAN 8 FT BELOW THE ANTENNA	ON BACKSIDE OF ANTENNAS	ON THE SIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET			NOTICE OR CAUTION SIGN AT NO LESS THAN 8 FT ABOVE GROUND, ONLY IF THE EXPOSURE EXCEEDS 5% OF THE GENERAL PUBLIC EXPOSURE AT 8 FT ABOVE GROUND
ROOF TOPS								
AT ALL ACCESS POINTS OF THE ROOF	X							
ON ANTENNAS	X		X	X				
CONCEALED ANTENNAS	X	X						
ANTENNAS MOUNTED FACING OUTSIDE THE BUILDING	X	X						
ANTENNAS ON SUPPORT STRUCTURE	X	X						
ROOFTOP GROUPS								
AVOIDANCE AREA IS WITHIN 8 FT FROM ANTENNA	X	ADJACENT TO EACH ANTENNA						
AVOIDANCE IS BEYOND 8 FT FROM ANTENNA	X	ADJACENT TO EACH ANTENNA				CHECK FOR YELLOW STRIPING AS TO ROOF VENT STACKS		EITHER NOTICE OR CAUTION SIGN BASED ON ROOFTOP RESULTS AT ANTENNA HEIGHTS
CHURCH STEEPLES	ACCESS TO STEEPLE	ADJACENT TO ANTENNAS IF ANTENNAS ARE CONCEALED	ON BACKSIDE OF ANTENNAS	ON THE SIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET			CAUTION SIGN AT THE ANTENNA
WATER STATIONS	ACCESS TO STEEPLE	ADJACENT TO ANTENNAS IF ANTENNAS ARE CONCEALED	ON BACKSIDE OF ANTENNAS	ON THE SIDE OF ANTENNAS	ON THE SHELTER DOOR OR ON ONE OUTDOOR EQUIPMENT CABINET			CAUTION SIGN AT THE ANTENNA

NOTES FOR ROOFTOP SITES:
 1. EITHER NOTICE OR CAUTION SIGNS NEED TO BE POSTED AT EACH SECTOR AS CLOSE AS POSSIBLE TO THE OUTER EDGE OF THE STRIPPED OFF AREA OR THE OUTER ANTENNAS OF THE SECTOR.
 2. IF ROOFTOP SHOWS ONLY YELLOW, NOTICE SIGN, BLUE AND YELLOW, CAUTION SIGN, ONLY YELLOW, CAUTION SIGN TO BE INSTALLED.
 3. SHOULD THE REQUIRED STRIPING BE IN CONFLICT WITH ANY STRUCTURES OR EQUIPMENT (A.C. VENTS, ROOF HATCH DOORS, OTHER ANTENNAS, OTHER ETC.), PLEASE NOTIFY AT&T TO MODIFY THE STRIPING AREA, PRIOR TO STARTING THE WORK.



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 WOLFEVILLE, UTAH 84123

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Technology Associates

UTAH MARKET OFFICE
 9847 SOUTH 500 WEST
 SANDY, UTAH 84070

REV	DATE	DESCRIPTION	BY

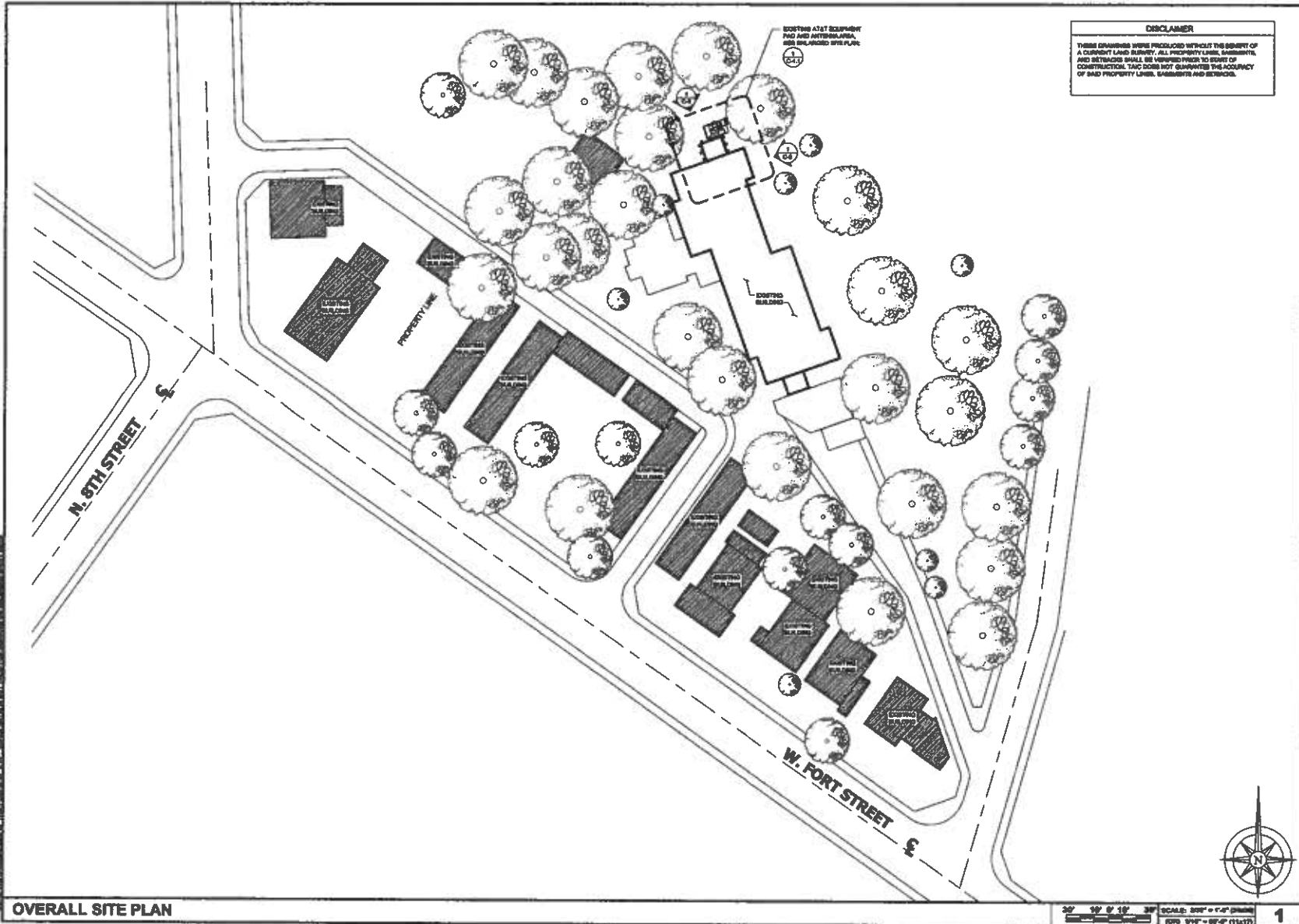
IF A SIGN IS NOT PLACED AT THE LOCATION, THE SIGNAGE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SIGNAGE CONTRACTOR TO PLACE THE SIGNAGE AT THE LOCATION.

EAST BENCH BOISE
 BOISID1110
 700 CUNNINGHAM PLACE
 BOISE, ID 83702
 LTE ROOFTOP

SHEET TITLE
SIGNAGE & NOTES

SHEET NUMBER
T-5

DRH 12 00211



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REV	DATE	DESCRIPTION	BY

THIS IS A NOTIFICATION OF LAW POLICY BY GENERAL DYNAMICS AND TECHNOLOGY ASSOCIATES. THE ACCURACY OF ANY AND ALL INFORMATION IS THE RESPONSIBILITY OF A LICENSED PROFESSIONAL ENGINEER. SEE ALL SETS FOR DETAILS.

EAST BENCH BOISE
BOISID1110
700 CUNNINGHAM PLACE
BOISE, ID 83702
LTE ROOFTOP

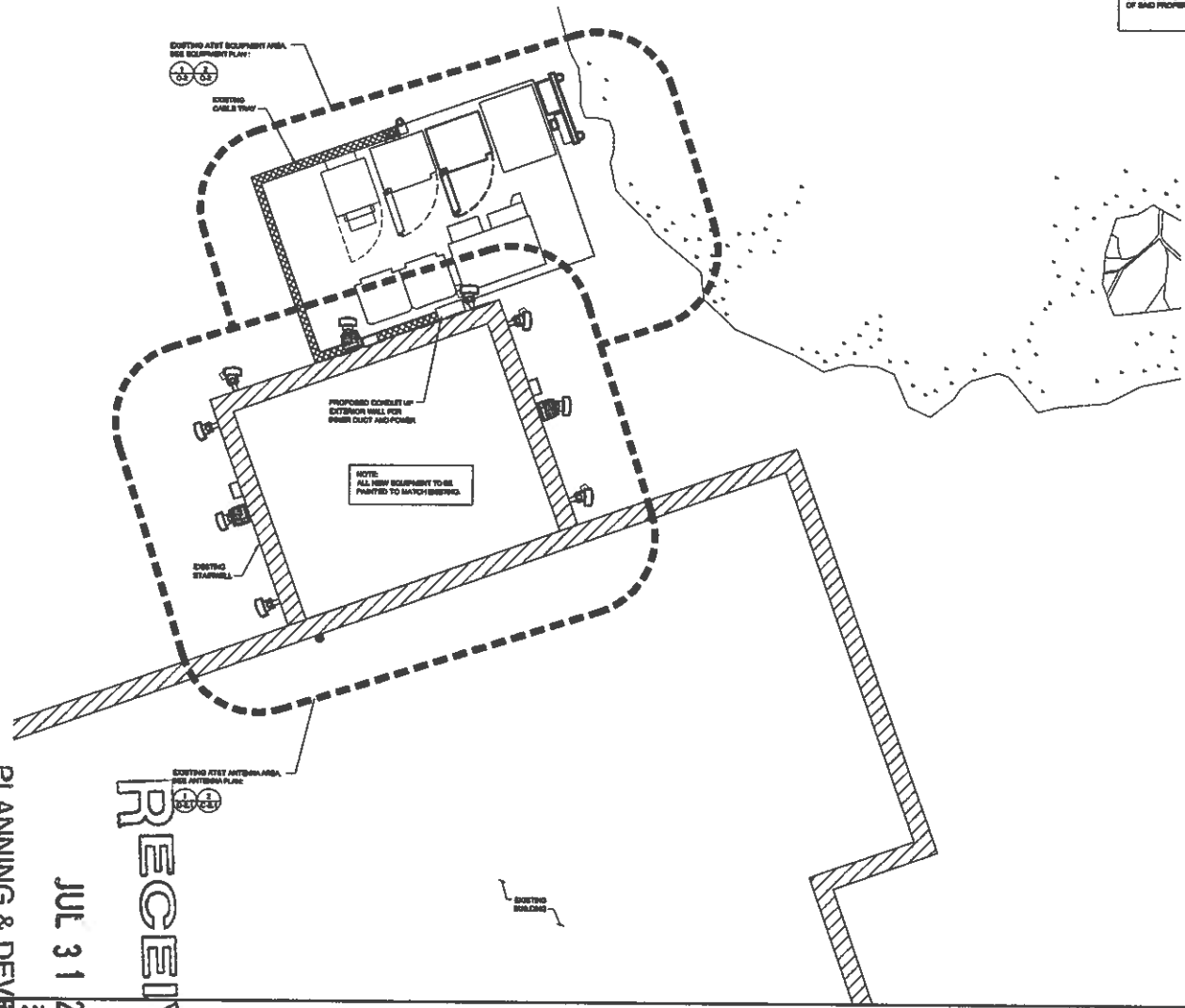
SHEET TITLE
**OVERALL
SITE PLAN**

SHEET NUMBER
C-1



DR# 12 00218

DISCLAIMER
 THESE DRAWINGS WERE PRODUCED WITHOUT THE BENEFIT OF A CURRENT LAND SURVEY. ALL PROPERTY LINES, BARRIERS, AND UTILITIES SHALL BE VERIFIED PRIOR TO START OF CONSTRUCTION. T&A DOES NOT GUARANTEE THE ACCURACY OF SAID PROPERTY LINES, BARRIERS AND UTILITIES.



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 HOLDING TITLE AND ACTION SUBJECT TO THE CONTROL
 OF A LICENSED PROFESSIONAL ENGINEER
 IN AN APPLICABLE JURISDICTION.

EAST BENCH BOISE
 BOISID1110
 700 CUNNINGHAM PLACE
 BOISE, ID 83702
 LTE ROOFTOP

SHEET TITLE
**ENLARGED
 SITE PLAN**

SHEET NUMBER
C-1.1



SCALE: 3/8" = 1'-0" (AS SHOWN)
 (FOR 3/8" = 1'-0" (1/4" = 1'-0"))

1

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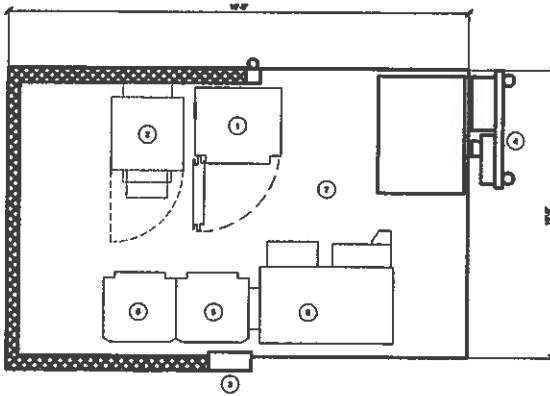
PLANNING & DEVELOPMENT
 SERVICES

ENLARGED SITE PLAN

DRH 12 00218

KEY NOTES

- 1 EXISTING WAVE EQUIPMENT (LUCENT)
- 2 EXISTING DC POWER CABINET
- 3 NOT USED
- 4 EXISTING UTILITY RACK
- 5 EXISTING ODM EQUIPMENT (NORX)
- 6 EXISTING BSC CABINET
- 7 EXISTING CONCRETE EQUIPMENT PAD
- 8 NOT USED
- 9 NOT USED
- 10 NOT USED
- 11 NOT USED
- 12 NOT USED
- 13 NOT USED
- 14 NOT USED
- 15 NOT USED
- 16 NOT USED
- 17 NOT USED
- 18 NOT USED
- 19 NOT USED
- 20 NOT USED

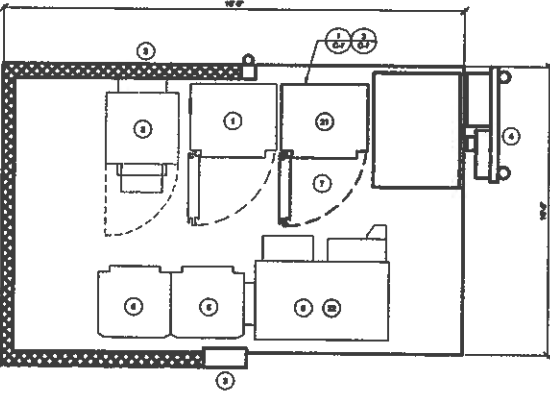


EQUIPMENT PLAN (EXISTING)

SCALE: 1/4" = 1'-0" (AS SHOWN)
 (SEE 1/4" = 1'-0" (1/4" = 1'-0"))

KEY NOTES

- 1 EXISTING WAVE EQUIPMENT (LUCENT)
- 2 EXISTING DC POWER CABINET
- 3 NOT USED
- 4 EXISTING UTILITY RACK
- 5 EXISTING ODM EQUIPMENT (NORX)
- 6 EXISTING BSC CABINET
- 7 EXISTING CONCRETE EQUIPMENT PAD
- 8 NOT USED
- 9 NOT USED
- 10 NOT USED
- 11 NOT USED
- 12 NOT USED
- 13 NOT USED
- 14 NOT USED
- 15 NOT USED
- 16 NOT USED
- 17 NOT USED
- 18 NOT USED
- 19 NOT USED
- 20 NOT USED
- 21 FUTURE WAVE CABINET
- 22 PROPOSED LTE EQUIPMENT, BSC, IN EXISTING BSC CABINET



NOTE:
 1. THE CONTRACTOR SHALL FIELD VERIFY ALLOWANCES.



EQUIPMENT PLAN (FINAL)

SCALE: 1/4" = 1'-0" (AS SHOWN)
 (SEE 1/4" = 1'-0" (1/4" = 1'-0"))

4353 INVERSON ROAD, SUITE #400
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 9847 SOUTH 500 WEST
 SANDY, UTAH 84070

REV	DATE	DESCRIPTION	BY
1		ISSUED FOR CONSTRUCTION	JCB
2		ISSUED FOR CONSTRUCTION	JCB

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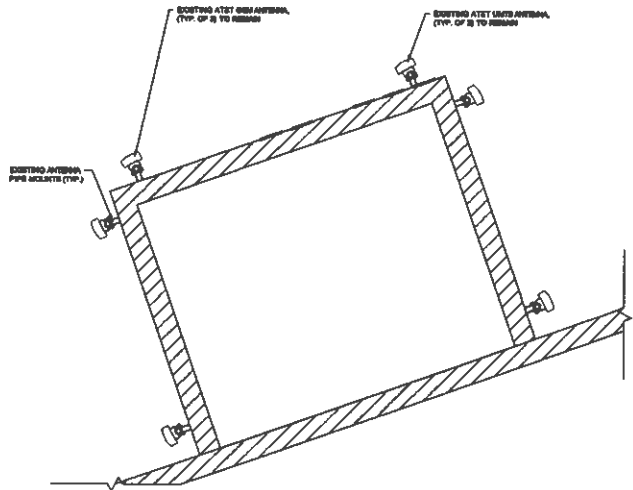
EAST BENCH BOISE
 BOISID1110
 700 CUNNINGHAM PLACE
 BOISE, ID 83702
 LTE ROOFTOP

SHEET TITLE
EQUIPMENT PLANS

SHEET NUMBER
C-2

DRH 12 00213

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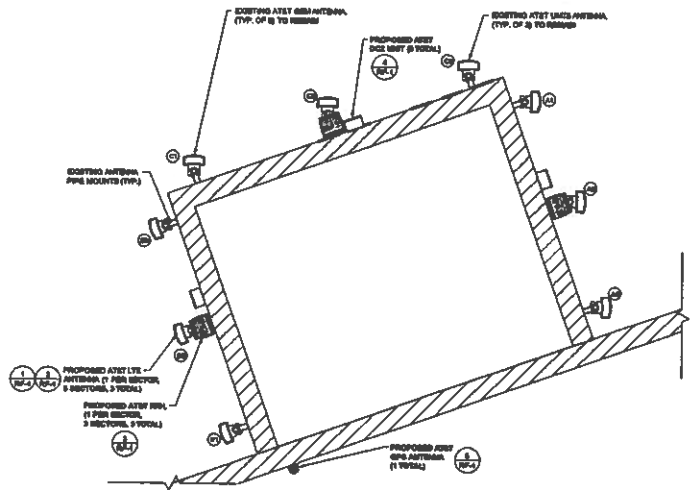


EXISTING ANTENNAS @ TOP HEIGHT 74'-0"

ANTENNA PLAN (EXISTING)



SCALE: 3/8" = 1'-0" (AS SHOWN)
 (OR) 3/16" = 1'-0" (1 to 1)



EXISTING / PROPOSED ANTENNAS @ TOP HEIGHT 74'-0"

ANTENNA PLAN (FINAL)

PROPOSED ANTENNA AND TRANSMISSION CABLE REQUIREMENT						
SECTOR	ANTENNA TYPE	TECHNOLOGY	ANTENNA ADJUST	TRANSMISSION CABLE		
				QTY	LENGTH	TYPE
AREA 1	EXISTING ANTENNA	GSM	90°			NO CHANGES
	PROPOSED ANTENNA	LTE	90°	1	50'	FIBER
	EXISTING ANTENNA	UMTS	90°			NO CHANGES
AREA 2	EXISTING ANTENNA	GSM	270°			NO CHANGES
	PROPOSED ANTENNA	LTE	270°	1	50'	FIBER
	EXISTING ANTENNA	UMTS	270°			NO CHANGES
AREA 3	EXISTING ANTENNA	GSM	0°			NO CHANGES
	PROPOSED ANTENNA	LTE	0°	1	50'	FIBER
	EXISTING ANTENNA	UMTS	0°			NO CHANGES

NOTE TO CONTRACTOR:
 ANTENNA CLEARANCE AND MOUNTING TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION WITH FINAL ANTENNA SPECIFICATIONS, MOUNTING HARDWARE, AND RF DESIGN. ANTENNA PIPE MOUNT MODIFICATION MAY BE REQUIRED.

SCALE: 3/8" = 1'-0" (AS SHOWN)
 (OR) 3/16" = 1'-0" (1 to 1)



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 SALT LAKE CITY, UTAH 84123



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 SANDY, UTAH 84070

REV	DATE	DESCRIPTION	BY
0	08/11/12	ISSUED FOR CONSTRUCTION	JCB
1	08/11/12	ISSUED FOR CONSTRUCTION	JCB

IF IN A MULTIPLE-LEVEL PLAN VIEW, THESE NOTES APPLY TO ALL LEVELS UNLESS OTHERWISE SPECIFIED.

EAST BENCH BOISE
 BOISID1110
 700 CUNNINGHAM PLACE
 BOISE, ID 83702
 LTE ROOFTOP

SHEET TITLE
ANTENNA PLANS

SHEET NUMBER
C-2.1

PLANNING & DEVELOPMENT
 SERVICES

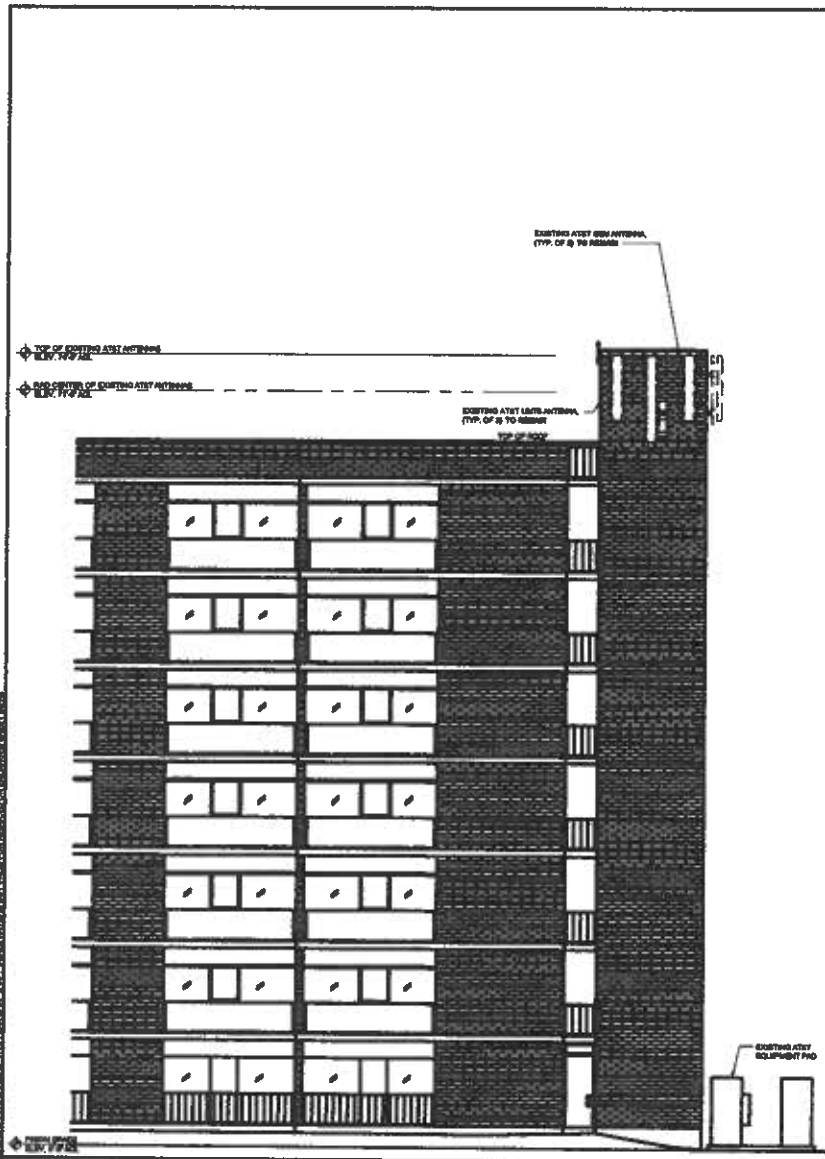
JUL 31 2012

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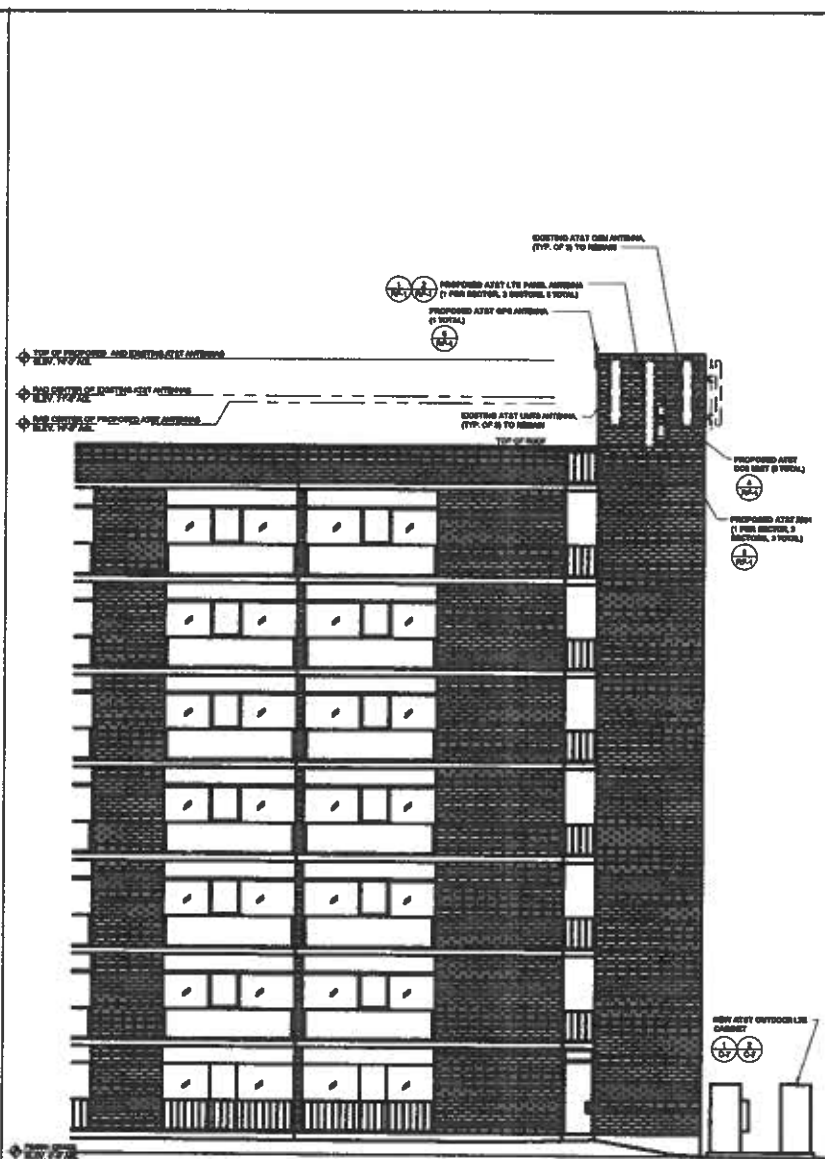
08/11/12 00210

DRH 12 00218



NORTHEAST ELEVATION (EXISTING) 1

0 1/8" = 1' SCALE: 3/16" = 1'-0" (1/16")
 (1/8" = 1'-0" (1/16"))



NORTHEAST ELEVATION (PROPOSED) 2

0 1/8" = 1' SCALE: 3/16" = 1'-0" (1/16")
 (1/8" = 1'-0" (1/16"))

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REV	DATE	DESCRIPTION	BY
1	09/18/18	ISSUE FOR CONSTRUCTION	JW
2	09/18/18	ISSUE FOR CONSTRUCTION	JW

IF IN A MULTIBLOCK LAYOUT FOR ANY PROJECT, PLEASE REFER TO THE PROJECT SHEET FOR THE LOCATION OF A LARGER PROGRAMMING DRAWING. TO BE FOR THIS DRAWING.

EAST BENCH BOISE
 BOISID1110
 700 CUNNINGHAM PLACE
 BOISE, ID 83702
 LTE ROOFTOP

SHEET TITLE
NORHEAST ELEVATIONS

SHEET NUMBER
C-3



4303 INDEPENDENT ROAD, SUITE 8100
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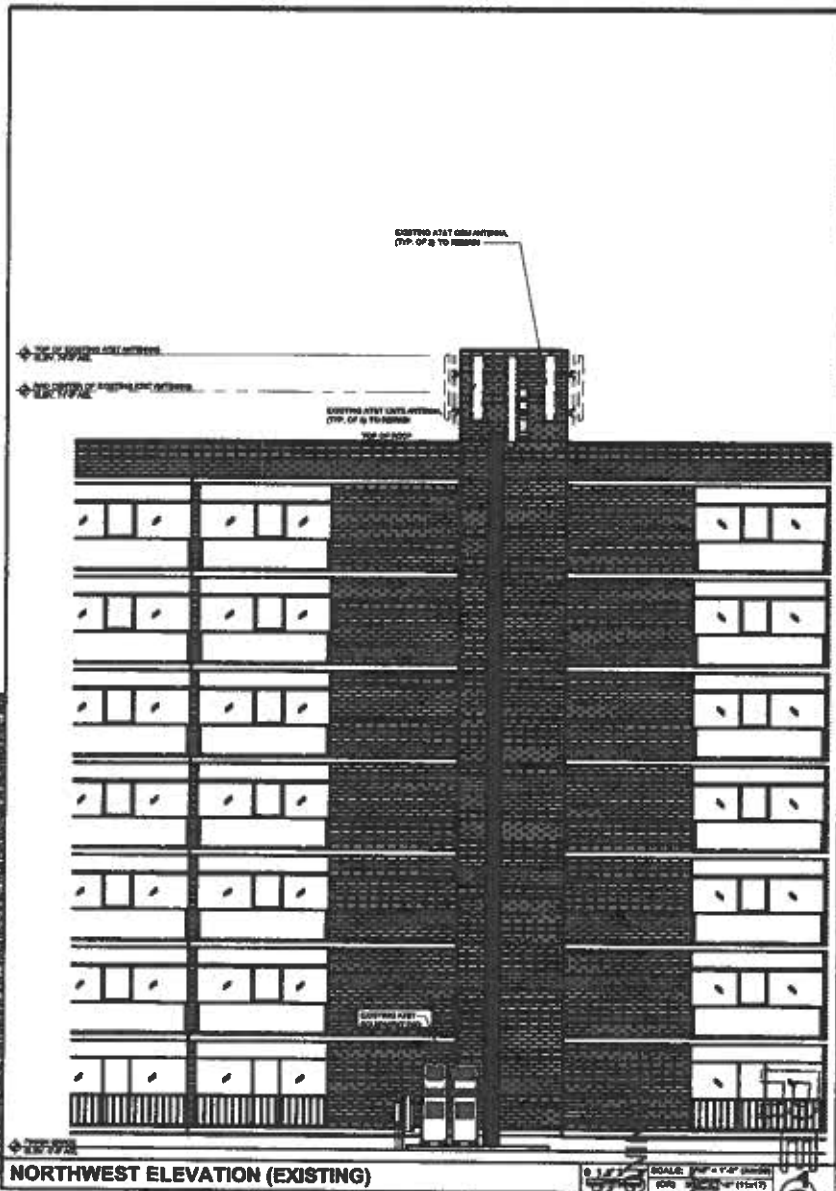
REV	DATE	DESCRIPTION	BY
0	01/10	ISSUED FOR CONSTRUCTION	AD
1	01/10	ISSUED FOR CONSTRUCTION	AD

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WHOSE NAME AND ADDRESS APPEAR ON THE BACKSIDE
OF A LICENSED PROFESSIONAL INSTRUCTOR
TO ACT AS HIS ASSISTANT.

EAST BENCH BOISE
BOISID1110
700 CUNNINGHAM PLACE
BOISE, ID 83702
LTE ROOFTOP

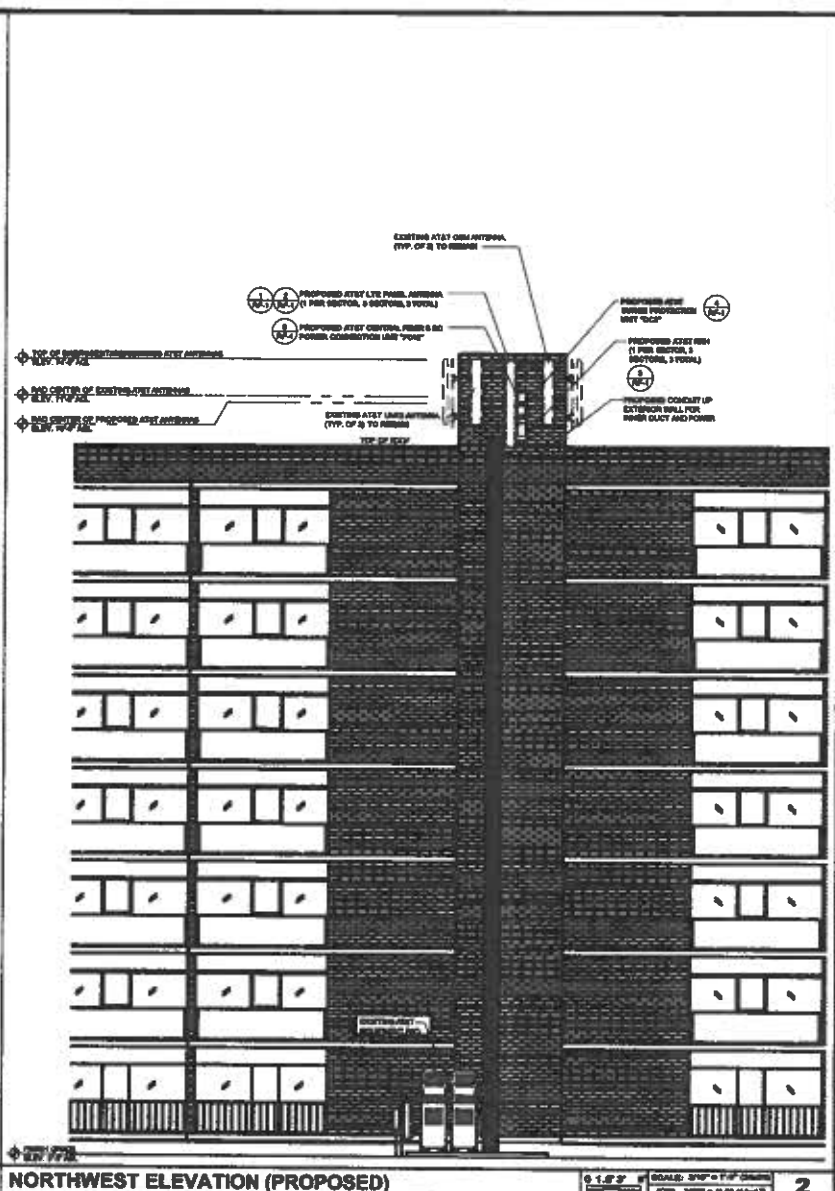
SHEET TITLE
**NORTHWEST
ELEVATIONS**

SHEET NUMBER
C-4



NORTHWEST ELEVATION (EXISTING)

SCALE: 3/8" = 1'-0" (SEE SHEET C-1)
DATE: JUL 31 2012
SERVICES & DEVELOPMENT
PERFORMED BY
CEIVE



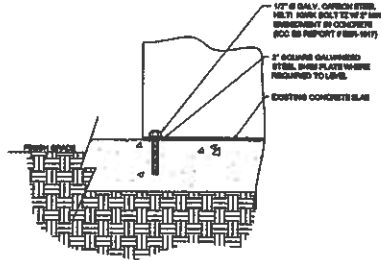
NORTHWEST ELEVATION (PROPOSED)

SCALE: 3/8" = 1'-0" (SEE SHEET C-1)
DATE: JUL 31 2012
SERVICES & DEVELOPMENT
PERFORMED BY
CEIVE

GRAPH 12 002 13

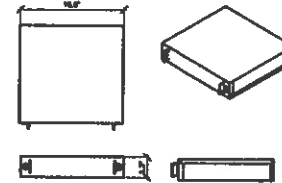


MANUFACTURER: PARCELL SYSTEMS
 MODEL: PL1000
 DIMENSIONS: 19" x 17" x 17"



RAYCAP DC6-48-60-RM

NORMAL OPERATING VOLTAGE: 48 VDC
 NORMAL DISCHARGE CURRENT: 28 MA @25°C
 MAXIMUM DISCHARGE CURRENT: 28 MA @25°C
 MAXIMUM CONTINUOUS OPERATING VOLTAGE: 75 VDC
 VOLTAGE PROTECTION POINT: 480 V
 TOTAL WEIGHT: 85 lbs



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Technology Associates

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REV	DATE	DESCRIPTION	BY
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			

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EAST BENCH BOISE
 BOISID1110
 700 CUNNINGHAM PLACE
 BOISE, ID 83702
 LTE ROOFTOP

SHEET TITLE
**EQUIPMENT
 DETAILS**

SHEET NUMBER
C-5

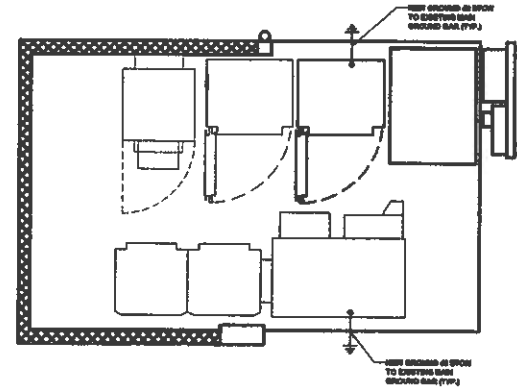
CABINET SPECIFICATIONS		SCALE: N.T.S.	1	CABINET MOUNTING		SCALE: N.T.S.	2	DC SURGE SUPPRESSOR		SCALE: N.T.S.	3
NOT USED		SCALE: N.T.S.	4	NOT USED		SCALE: N.T.S.	5	NOT USED		SCALE: N.T.S.	6
NOT USED		SCALE: N.T.S.	7	NOT USED		SCALE: N.T.S.	8	NOT USED		SCALE: N.T.S.	9
NOT USED		SCALE: N.T.S.	10	NOT USED		SCALE: N.T.S.	11	NOT USED		SCALE: N.T.S.	12

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1 2 3 4 5 6 7 8 9 10 11 12

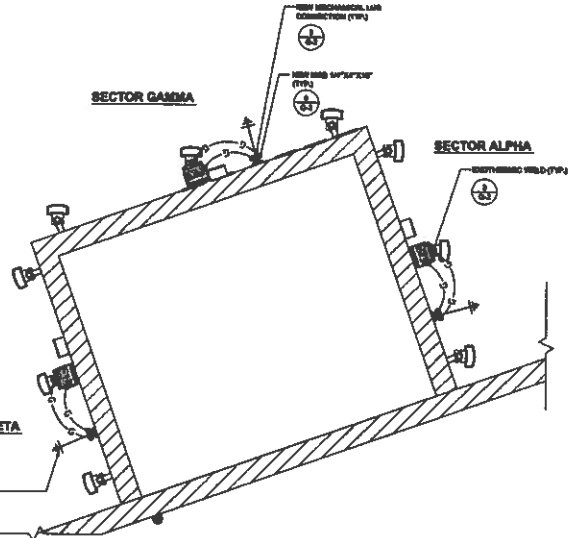
ELECTRICAL GROUNDING SPECIFICATIONS

1. GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE CURRENTLY IN EFFECT FOR THE AUTHORITY JURISDICTION.
2. ALL GROUNDING DEVICES SHALL BE U.L. LISTED FOR THEIR INTENDED USE.
3. GROUND WIRING SHALL BE THINWALLED AND SAVER SOLID COPPER UNLESS OTHERWISE NOTED.
4. CONNECTIONS OF ALL GROUND WIRES TO THE GROUND RING SHALL BE EXTENSIVE (SOLDERED, LARGES OTHERWISE NOTED) AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND TEST METHODS INCLUDING ENDPOINTS.
5. GROUNDING CONDUCTORS SHALL BE ROUTED ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, WHEN REQUIRED, GROUND LEADS SHALL BE BENT TO A MINIMUM OF 90 DEGREE.
6. WHERE GROUND WIRES ARE ROUTED FROM ANY CONNECTION ABOVE GRADE TO THE GROUND RING, INSTALL WIRE IN 3/4" HEAVY WALL LIQUID TIGHT FLEXIBLE CONDUIT FROM CONNECTION POINT TO 6" BELOW GRADE AND SEAL THE TOP WITH GLEICORE SEALANT.
7. ALL GROUND BARS SHALL BE THINWALLED, 1/4" COPPER, SECTOR BARS 1/2" COLLECTOR AND MAIN BARS 1/2" OF SUFFICIENT LENGTH TO ACCOMMODATE ALL REQUIRED CONNECTIONS WITHOUT COILING AND LEAD, AND SHALL BE INSTALLED WITH ISOLATION WIRE CONNECTOR GROUND WIRE (NOTES 10 FEET OF GROUND WIRE) TO THE GROUND RING, 2 SA. 60 SOLID COPPER LEADS SHALL BE CADWELDED TO THE GROUND BAR, 1 AT EACH CORNER BOTTOM CORNER, AND MAIN BARS RUN IN 3/4" HEAVY WALL LEADS THAT FLEXIBLE CONDUIT FROM GROUND BAR CORNER TO THE GROUND RING, WIRE CONNECTORS SECTOR GROUND BARS, CHECK-OVER THE GROUND BARS AND RUN 1 SA. 60 AND BRANCHED COPPER WIRE WITH TIGHT INSULATION FROM THE ISOLATION GROUND BAR TO THE GROUND RING AND CHECKED TO THE RING.
8. WHEN ATTACHING STRANDED GROUND LEADS TO THE GROUND BAR, 2 HOLE COMPRESSION LUGS SHALL BE USED, PROTECT WITH HEAT-SHOCK PROOF HEAT SHELVE, AND WITH A THIN COAT OF "GOLD BRASS" OR EQUIVALENT PROPERLY APPLIED AND ATTACHED ONLY WITH STAINLESS STEEL HARDWARE.
9. WHEN GROUNDING EQUIPMENT ENCLOSURES, PANELS, FRAMES, AND OTHER METAL APPARATUS, A 30 AWG STRANDED COPPER WIRE WITH TIGHT INSULATION SHALL BE ATTACHED UTILIZING A 2 HOLE COMPRESSION TYPE LUG, PROTECTED WITH HEAT-SHOCK PROOF HEAT A CLEAN AND CORROSION FREE METALLIC SURFACE UTILIZING STAINLESS STEEL, GEL-TAPPING SCREWS AS NOTED IN NOTES 10 BELOW.
10. PREPARE ALL BONDING SURFACES FOR GROUND CONNECTIONS BY REMOVING ANY AND ALL PAINT AND CORROSION TO EXPOSE METAL, FOLDED SOLDERED CONNECTIONS TO NON-COPPER SURFACES, APPLY ONE COAT OF ANY ANTI-CORROSION PAINT, "GOLD ONLY" OR EQUIVALENT.
11. GROUND RODS SHALL BE COPPER-CLAD STEEL, 60% W, 3/4" DIA, 6" LONG, 1/2" DIA, 6" LONG.
12. ALL GROUND SYSTEM CONDUCTORS AND CONDUITS SHALL BE SECURED UTILIZING ONLY NONMETALLIC, NON-CORROSIVE UNPAINTED CLAMP, BRACKET, AND OR SUPPORTS.
13. WHEN REQUIRED, THE CONTRACTOR SHALL OBTAIN THE SERVICES OF AN INDEPENDENT TESTING FIRM TO VERIFY, UTILIZING A MEGGER TEST, THAT THE RESISTANCE TO GROUND OF THE BONDING SYSTEM IS EQUAL TO OR LESS THAN 6 OHMS, A COPY OF THE COMPLETE TEST REPORT SHALL BE PROVIDED TO THE AT&T REPRESENTATIVE.
14. ALL MATERIALS AND HARDWARE SHALL BE INSTALLED IN A WORKMAN LIKE MANNER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND EQUIPMENT IN APPROVALS AND APPROVED BY A.U.L.



EQUIPMENT GROUNDING

SCALE N.T.S. 2



ANTENNA GROUNDING

SCALE N.T.S. 3



438 RIVINGTON ROAD, SUITE #400
VANDERBILT, UTAH 84123

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Information Technology

980 W. LINDY DRIVE, SUITE 250
SALT LAKE CITY, UTAH 84123



Technology Associates

UTAH MARKET OFFICE
9847 SOUTH 500 WEST
SANDY, UTAH 84070

REV	DATE	DESCRIPTION	BY
1		ISSUED FOR CONSTRUCTION	JAN
2		ISSUED FOR CONSTRUCTION	JAN

IF IN A REGULAR COURSE OF BUSINESS, YOU ARE A REGISTERED PROFESSIONAL ENGINEER, YOU MAY SEAL THIS DRAWING.

EAST BENCH BOISE
BOISID1110
700 CUNNINGHAM PLACE
BOISE, ID 83702
LTE ROOFTOP

SHEET TITLE
GROUNDING PLANS

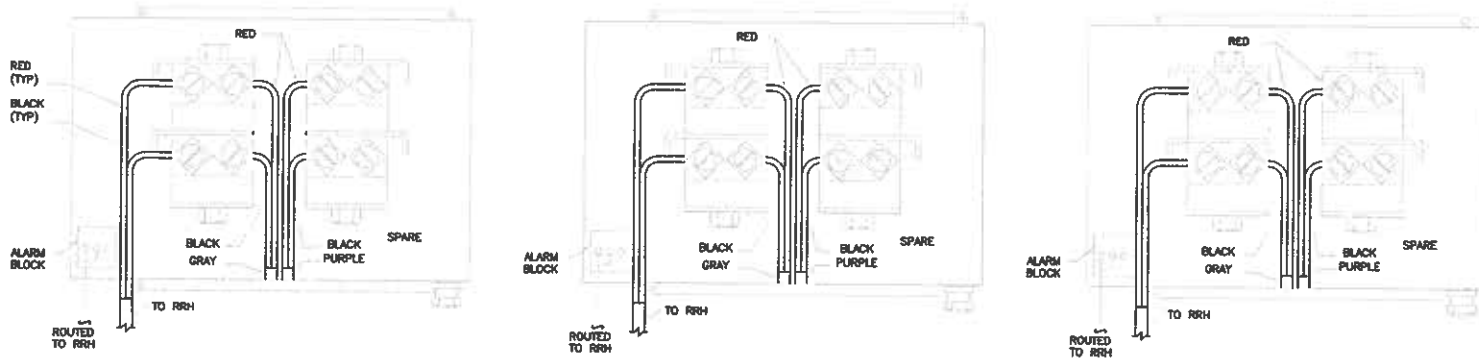
SHEET NUMBER
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NOTES

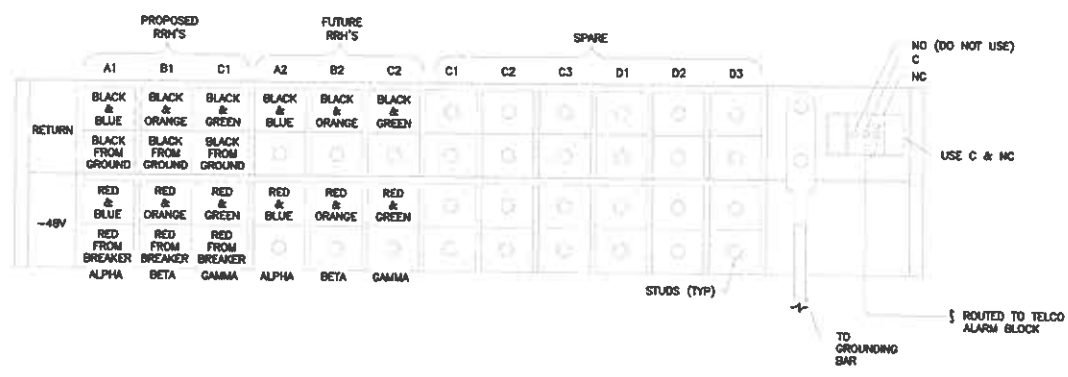
SCALE N.T.S. 1

DRN 12 00218



SURGE PROTECTION DIAGRAM

SCALE 1
N.T.S.



REAR VIEW OF DC-48-60-RM WIRE DIAGRAM

SCALE 2
N.T.S.

4363 RYEBROOK ROAD, SUITE #400
TAYLORSVILLE, UTAH 84123

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SALT LAKE CITY, UTAH 84123

Technology Associates

UTAH MARKET OFFICE
9847 SOUTH 500 WEST
SANDY, UTAH 84070

1	DATE	DESCRIPTION	BY
2			

IT IS A VIOLATION OF LAW FOR ANY PERSON, WITHOUT WRITTEN AND SIGNED AUTHORITY, TO REPRODUCE OR A DERIVATIVE PROFESSIONAL ENGINEER, TO BE FOR THIS DOCUMENT.

EAST BENCH BOISE
BOISID1110
700 CUNNINGHAM PLACE
BOISE, ID 83702
LTE ROOFTOP

SHEET TITLE
DC SURGE SUPPRESSION DIAGRAM

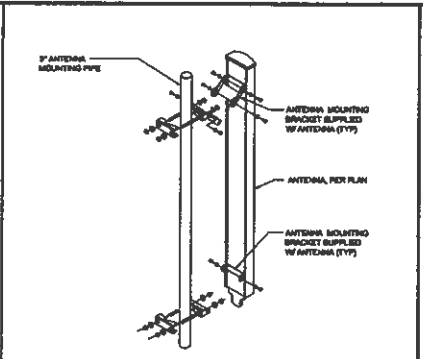
SHEET NUMBER
E-1

DATE: 12 00 21 0

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 PLANNING & DEVELOPMENT
 SERVICES

AM-X-CD-17-68-00T-RET-72586-000T

RADOME MATERIAL: PVC, UV RESISTANT
 RADOME COLOR: LIGHT GRAY
 DIMENSIONAL MARK: 12" x 11.5" x 1.5"
 WEIGHT, W/ PRE-ASSEMBLED BRACKET: 88.5 LB
 CONNECTOR: 4 x 7/8" DIA FEMALE



ALCATEL - LUCENT 9842 RRH 700

OPERATIONAL BANDWIDTH: 18 MHz, LTE CAPABLE

WEIGHT: 81 LBS

SIZE: 18.2" x 18.5" x 3.1"

MOUNTING BRACKET SUPPLIED W/ RRH
 SIDE VIEW
 FRONT VIEW
 BOTTOM VIEW

SIZE:
 RRH SHALL BE MOUNTED TO ANTENNA MOUNTING PIPE (SEE RRH ANTENNA)

ANTENNA SPECIFICATIONS SCALE N.T.S. 1

ANTENNA MOUNTING SCALE N.T.S. 2

RRH SPECIFICATIONS SCALE N.T.S. 3

NOT USED SCALE N.T.S. 4

NOT USED SCALE N.T.S. 5

NOTES (WALL ATTACHMENT)

- ANCHOR**
 ANCHOR: HELIX HT NY 180 ADHESIVE ANCHOR
 SIZE: Ø = 3/8"
 EMBEDMENT: 1.5"
 SPACING: Ø = 24" MAX
 * IF THE WALL THICKNESS IS LESS THAN 2", THE STRIP ANCHOR SHALL BE USED TO GO THROUGH THE WALL WITH A 30° SHOULDERED BEZEL OF THE WALL.
- FRAY-RESISTANT CHANNEL**
 ANCHOR: HELIX HT NY 180 ADHESIVE ANCHOR
 SIZE: Ø = 3/8"
 EMBEDMENT: 1.5"
 SPACING: ONE (1) ANCHOR PER CELL (8" x 8" AND 8" x 8")
- SOLID BRICK WALL**
 ANCHOR: HELIX HT NY 180 ADHESIVE ANCHOR
 SIZE: Ø = 3/8"
 EMBEDMENT: 2"
 SPACING: Ø = 24" MAX
- HOLLOW UNREINFORCED CONCRETE BRICK WALL WITH HOLE**
 ANCHOR: HELIX HT NY 180 ADHESIVE ANCHOR
 SIZE: Ø = 3/8"
 THROUGH FACE OF HOLLOW BRICK = 8" MIN
 Ø = 2" COMPLETE BRICK IN ANY DIRECTION
 (1) ANCHOR PER BLOCK CELL (25")
- STEEL**
 BOLT: A307
 BOLT SIZE: Ø = 1/2"
 BOLT HOLE SIZE: Ø = 5/16"

6. IF THE WALL MATERIAL IS DIFFERENT FROM ABOVE, CONTRACTOR SHALL INFORM DESIGN ENGINEER IMMEDIATELY.
 7. ALL HARDWARE AND PARTS SHALL BE HOT-DIPPED GALVANIZED WITH LOCK WASHERS AND HEAVY HEX NUTS.
 8. ALL BOLT HOLES SHALL BE 3/16" UNLESS NOTED OTHERWISE.
 9. THE MAX LOAD BETWEEN ANCHORS SHALL BE LESS THAN 800 LBS.

NOT USED SCALE N.T.S. 4

NOT USED SCALE N.T.S. 5

NOTES (WALL ATTACHMENT)

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 8. ALL BOLT HOLES SHALL BE 3/16" UNLESS NOTED OTHERWISE.

RRH MOUNTING PLATE SCALE N.T.S. 6

RAYCAP EQUIPMENT SPECIFICATIONS SCALE N.T.S. 7

GPS ANTENNA MOUNTING SCALE N.T.S. 8

RAYCAP FC12-PC8-10E

CONNECTORS: ENVIRONMENTAL RATED

WEIGHT: 12 PAIR FIBER, 5 DC POWER: 30 LB

RAYCAP DC2-48-80-0-0E

NUMBER OF RADIOS PROTECTED: 1

SUPPRESSION CONNECTION METHOD: COMPRESSION LINA, 18-PA AND COPPER, 6/42 ALLOWANCE

ENVIRONMENTAL NOTES: WEIGHT: 18 LB

ANCHOR BOLT (SEE NOTES)

NOTES (WALL ATTACHMENT)

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 SPACING: Ø = 24" MAX
 * IF THE WALL THICKNESS IS LESS THAN 2", THE STRIP ANCHOR SHALL BE USED TO GO THROUGH THE WALL WITH A 30° SHOULDERED BEZEL OF THE WALL.
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 EMBEDMENT: 1.5"
 SPACING: ONE (1) ANCHOR PER CELL (8" x 8" AND 8" x 8")
- SOLID BRICK WALL**
 ANCHOR: HELIX HT NY 180 ADHESIVE ANCHOR
 SIZE: Ø = 3/8"
 EMBEDMENT: 2"
 SPACING: Ø = 24" MAX
- HOLLOW UNREINFORCED CONCRETE BRICK WALL WITH HOLE**
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 SIZE: Ø = 3/8"
 THROUGH FACE OF HOLLOW BRICK = 8" MIN
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GPS ANTENNA MOUNTING SCALE N.T.S. 8

4383 RIVERBENT ROAD, SUITE 2400
 WILSONVILLE, UTAH 84123

GENERAL DYNAMICS
 Information Technology

980 W. LINDY DRIVE, SUITE 250
 SANDY, UTAH 84123

Technology Associates

UTAH MARKET OFFICE
 9847 SOUTH 500 WEST
 SANDY, UTAH 84070

REV	DATE	DESCRIPTION	BY
1			
2			
3			
4			

IT IS A REQUIREMENT FOR ANY FEDERAL, STATE, LOCAL, AND OTHER AGENCY TO BE AWARE OF A LICENSE PROFESSIONAL ENGINEER TO SEAL THIS DOCUMENT.

EAST BENCH BOISE
 BOISID1110
 700 CUNNINGHAM PLACE
 BOISE, ID 83702
 LTE ROOFTOP

SHEET TITLE
ANTENNA
DETAILS

SHEET NUMBER
RF-1

DR# 12 00218

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RADIO HEAD CONFIGURATION NOTES:

1. ALL RF CABLE LENGTHS ARE WITHIN 8 FT. OF EACH OTHER ACROSS ALL SECTORS. FOR BETA/LTA SECTOR AS SHORTEST JUMPER IS 8 FT., THEREFORE SECTOR C9 LONGEST JUMPER CAN BE NO MORE THAN 16 FT. LONG.
2. ALL RF CABLE JUMPERS MUST USE PWS-MADE JUMPERS WITH PWS-INSTALLED CONNECTORS ON BOTH ENDS. AS PER RF AND CTO BEST PRACTICES AND GUIDELINES, USE ONLY LCP OR LCP-12 JUMPERS FROM APPROVED RF JUMPER CABLE VENDORS (PWS-110). DO NOT USE SUPERLITE TYPE JUMPER. ENSURE PROPER WEATHERPROOFING AND TORQUE IS APPLIED TO ALL RF CONNECTORS. AS PER RTT-68-38-64 . ENSURE PROPER RF GNDING IS PERFORMED, AS PER RTT-68-38-63 .
3. ANY RF JUMPERS REMOVED FROM THE TOWER DURING THE IMPLEMENTATION OF THIS MOP CHANGE RELATED AT NEW CELL SITES, PROVIDED THEY WERE CONSTRUCTED WITH PWS-MADE CONNECTORS ON BOTH ENDS AND PWS PER SPECIFICATIONS.
4. ALL PWS MUST BE OF THE SAME LENGTH FROM THE PWS-MADE PROTECTOR BOX TO THE RFA. ANY EXCESS FIBER SHOULD BE SPECIFIED BY THE PWS-MADE PROTECTOR BOX.
5. IMPLEMENTATION OF THIS MOP WILL BE A LTE CAPITAL PROJECT. REFER TO DRAWING NUMBER 019 FOR PRICES.

NOTES:

1. ONLY TYPES TO BE USED FOR RED AND PURPLE TOPS TO BE USED FOR ALL TOPS TO FOLLOW ATEY STANDARD.

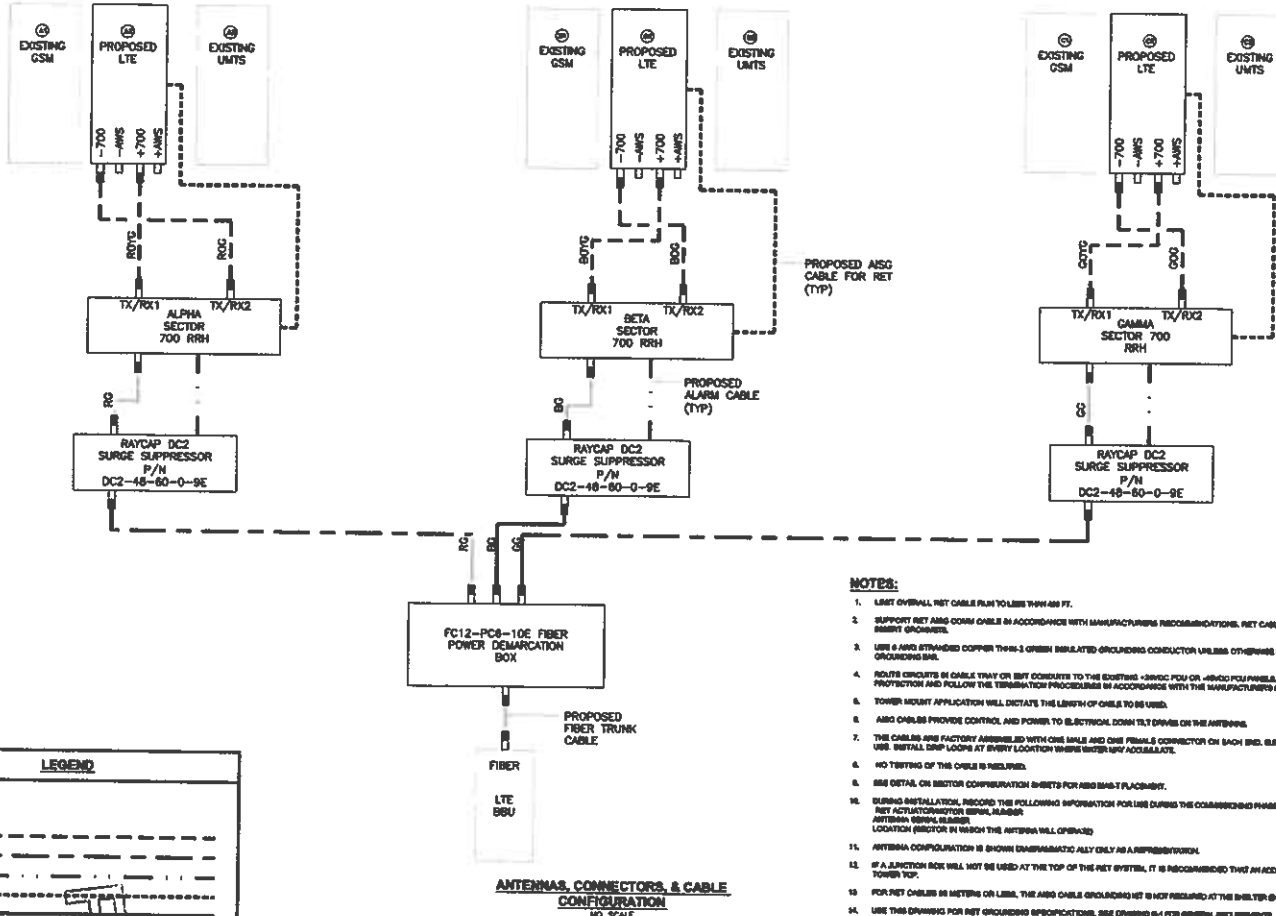
ABBREVIATIONS

- R RED
- B BLUE
- C GREEN
- GR GRAY

NOTES:

1. FOR BOTTOM JUMPERS FROM THE MAIN COAX TO THE SITE CONNECTOR LONGER THAN 16 FT. 7/8" COAX FOR BOTTOM JUMPERS LESS THAN 16 FT. USE 1/2" OR 3/4" BULKHEAD.
2. PREPARE JUMPERS TO ASSURE THAT THE RF CONNECTOR IS 1/2" FROM THE FLOOR ALIGNED THROUGH BLACK TO REACH ALL SITE EXHAUST CONNECTORS IF COVER IS NOT IN PLACE.
3. MOUNT PDU IN RF RACK. ASSURE THAT THE PREPARED CONNECTORS SUPPLIED WITH THIS SET WILL REACH THE DESIGNATED MOUNTING POINTS.
4. SUPPLY AND INSTALL 16 AWG GROUND TO TELECOM RACK FROM THE MAIN GROUNDING BUS. SUPPLY AND INSTALL BY CONTRACTOR.

CONFIGURATION AS VIEWED FROM INSIDE THE PLATFORM AT THE REAR OF ANTENNA



LEGEND

DRN MALE	■
DRN FEMALE	□
CONDUIT JUMPER	---
FIBER JUMPER	---
ALARM CABLE	---
RET CABLE	---
FIBER TRUNK CABLE	---

NOTES:

1. LIMIT OVERALL NET CABLE RUN TO LESS THAN 480 FT.
2. SUPPORT RET AISG DOWN CABLE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. RET CABLE TO BE SUPPORTED USING KIT CLIPS WITH SELF-HEALING GROUNDING.
3. USE 6 AWG STRANDED COPPER THREE-1 GREEN INSULATED GROUNDING CONDUCTOR UNLESS OTHERWISE NOTED. CONNECT THE PDU TO EXISTING TELECOM GROUNDING BUS.
4. ROUTE CIRCUITS IN CABLE TRAY OR BENT CONDUITS TO THE EXISTING -120VDC PDU OR -48VDC PDU PANELS. PROVIDE THE APPROPRIATE SIZE OF CABLE/PROTECTOR AND FOLLOW THE TERMINATION PROCEDURES IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND RECOMMENDATIONS.
5. TOWER MOUNT APPLICATION WILL DICTATE THE LENGTH OF CABLE TO BE USED.
6. AISG CABLES PROVIDE CONTROL AND POWER TO ELECTRICAL DOWN TILT DRIVES ON THE ANTENNAS.
7. THE CABLES ARE FACTORY ASSEMBLED WITH ONE MALE AND ONE FEMALE CONNECTOR ON EACH END. SUPPORT EVERY 1/2" USING THE WIPERS SUITABLE FOR OUTDOOR USE. INSTALL DRIP LOOPS AT EVERY LOCATION WHERE WATER MAY ACCUMULATE.
8. NO TYPING OF THE CABLE IS REQUIRED.
9. SEE DETAIL ON SECTOR CONFIGURATION SHEETS FOR AISG-51 PLACEMENT.
10. DURING INSTALLATION, RECORD THE FOLLOWING INFORMATION FOR USE DURING THE COMMISSIONING PHASE:
 - ANTENNA SERIAL NUMBER
 - LOCATION (SECTOR IN WHICH THE ANTENNA WILL OPERATE)
11. ANTENNA CONFIGURATION IS SHOWN DEMONSTRATIVE ONLY. ONLY AS A REPRESENTATION.
12. IF A JUNCTION BOX WILL NOT BE USED AT THE TOP OF THE NET SYSTEM, IT IS RECOMMENDED THAT AN ADDITIONAL LIGHTNING PROTECTION UNIT BE INSTALLED AT THE TOWER TOP.
13. FOR NET CABLES IN MASTERS OR LIMS, THE AISG CABLE GROUNDING KIT IS NOT REQUIRED AT THE SHELTER END.
14. USE THE DRAWING FOR NET GROUNDING SPECIFICATIONS. SEE DRAWING 014 FOR GENERAL REQUIREMENTS.
15. ALL NET CONNECTORS SHALL BE WEATHERPROOFED. PREFERRED METHOD OF WEATHER PROOFING SHALL BE TO HEAT SHREDDER ALL NET CONNECTORS PER IEC-105 NET GUIDE LANS SECTION 5.5 AND/OR AISG CABLES - ALL CABLE CONNECTORS REQUIRE WEATHERPROOFING.



4303 RIVERCROFT ROAD, SUITE #400
SALT LAKE CITY, UTAH 84123

GENERAL DYNAMICS
Information Technology

960 W. LEVY DRIVE, SUITE 250
SALT LAKE CITY, UTAH 84123



UTAH MARKET OFFICE
9847 SOUTH 500 WEST
SANDY, UTAH 84070

REV	DATE	DESCRIPTION	BY

REV	DATE	DESCRIPTION	BY

IT IS A MULTIPURPOSE PLAN FOR AIR SERVICES. UNLESS NOTED OTHERWISE, THE GENERAL REQUIREMENTS OF A LICENSED PROFESSIONAL ENGINEER WILL APPLY TO THIS DOCUMENT.

EAST BENCH BOISE
BOISID1110
700 CUNNINGHAM PLACE
BOISE, ID 83702
LTE ROOFTOP

SHEET TITLE
LTE
CONFIGURATION

SHEET NUMBER
RF-2

SCALE
1/8" = 1'

1

DRAFT 12 00210

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ANTENNA, CONNECTORS, & CABLE CONFIGURATION