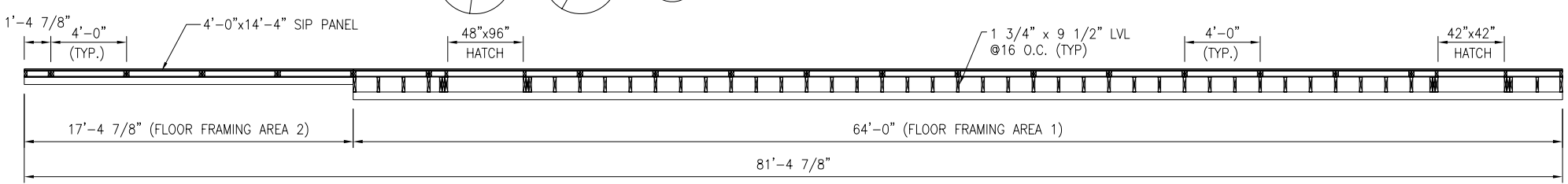


1 NICL FLOOR FRAMING PLAN
SCALE: 1/4"=1'-0"

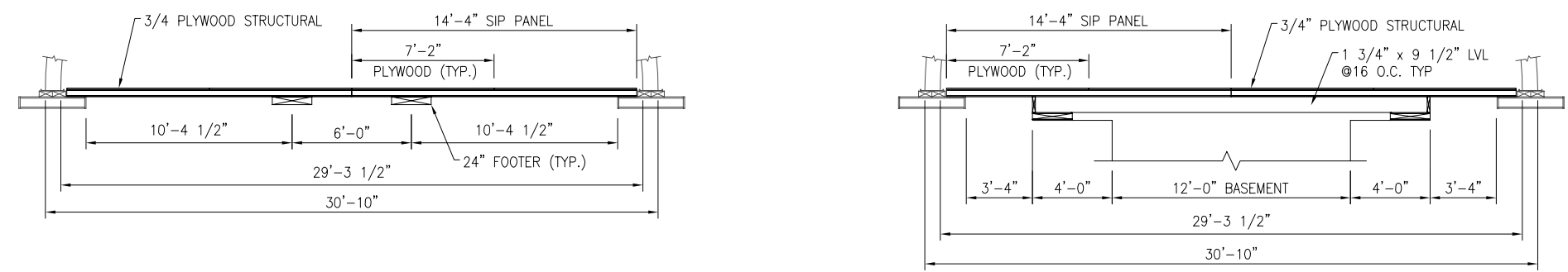
GENERAL NOTES

- DESIGN LOADS FOR AREA 1
DL 15 LB/SF
LL 100 LB/SF
TL 115 LB/SF
- DESIGN LOADS FOR AREA 2
DL 15 LB/SF
LL 200 LB/SF
TL 215 LB/SF

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



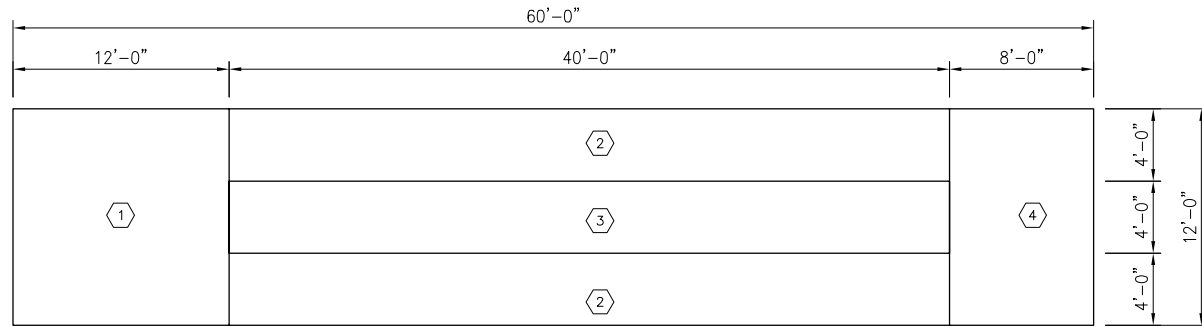
3 SECTION
SCALE: 1/4"=1'-0"



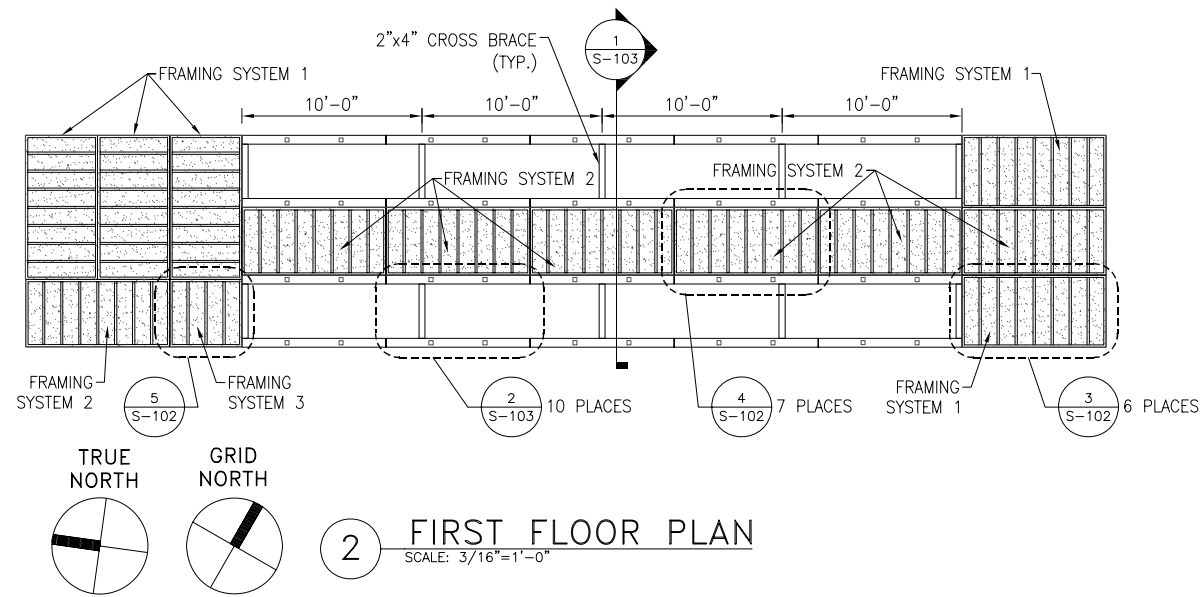
PRELIMINARY
NOT FOR RELEASE

THIS BAR = 1" AT FULL SCALE

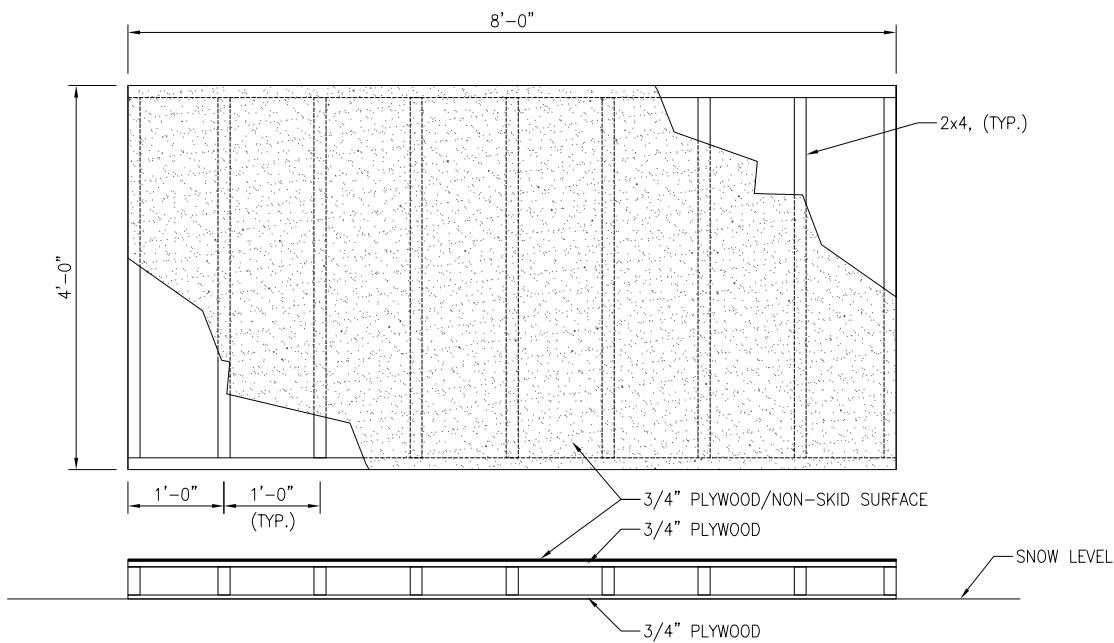
INCHES CENTIMETERS	
NATIONAL SCIENCE FOUNDATION OFFICE OF POLAR PROGRAMS DIVISION OF POLAR OCEANOGRAPHY CONTRACT ORP: 0000373	
DSNR CHD	MK CS CS
REVISIONS	90% SUBMITTAL 60% SUBMITTAL
REV NO	DATE
B	06/20/06
A	03/20/06
McMURDO STATION WAIS DIVIDE NICL/ICDS FACILITY STRUCTURAL	CHECKED BY: K.NAWALANY DESIGNED BY: K.NAWALANY DRAWN BY: C.SEO DATE CREATED: 01/15/06
7400 South Tucson Way Denver, Colorado 80231-7900 303-790-8606 800-688-8606 303-790-9130 Fax	Raytheon Polar Services
FILE NAME: MC-WAIS-S-101-REV B	PROJECT NUMBER: 218B50
SCALE: AS NOTED	SHEET TITLE: NICL FLOOR FRAMING PLAN
SHEET NUMBER: S-101	A



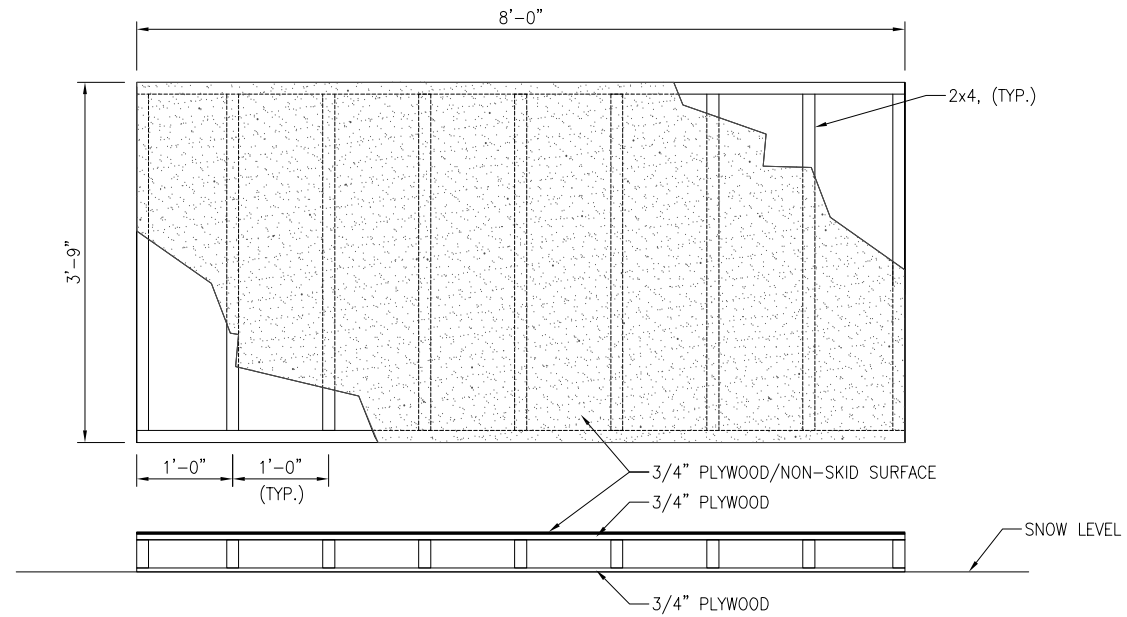
1 BASEMENT FLOOR PLAN
SCALE: 3/16"=1'-0"



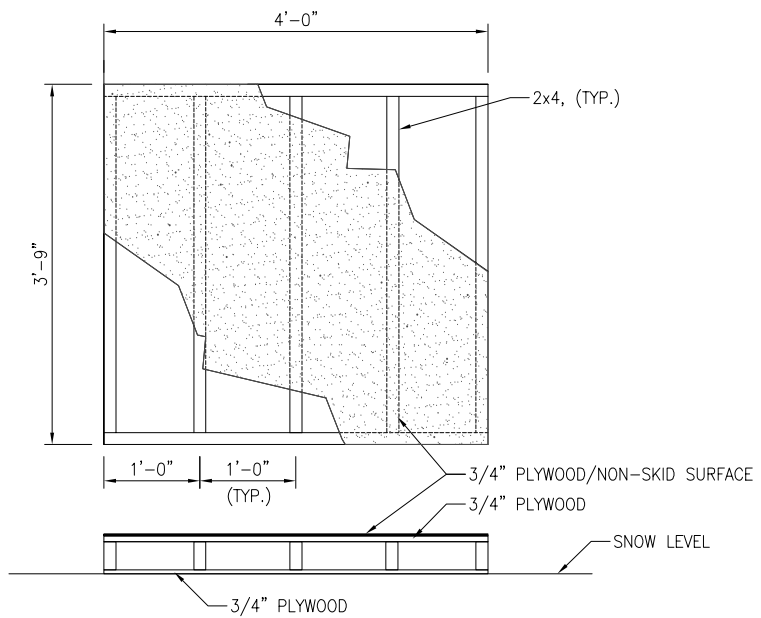
2 FIRST FLOOR PLAN
SCALE: 3/16"=1'-0"



3 FLOOR FRAMING SYSTEM 1 DETAIL
SCALE: 1"=1'-0"



4 FLOOR FRAMING SYSTEM 2 DETAIL
SCALE: 1"=1'-0"



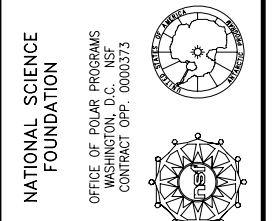
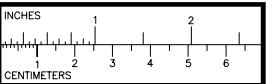
5 FLOOR FRAMING SYSTEM 3 DETAIL
SCALE: 1"=1'-0"

GENERAL NOTES

- THE 2 FLOOR SYSTEMS ARE CONSTRUCTED WITH 2x6's, LAID FLAT AND LEVEL ON THE SNOW WITH 3/4" PLYWOOD, SCREWED DOWN TO 2X6's.
- 1, 3 & 4 FLOOR SYSTEMS ARE CONSTRUCTED WITH 2x4's, SET ON 12" CENTERS WITH 2x4 FRAMING. 3/4" PLYWOOD APPLIED ON TOP. THE TOP 3/4" PLYWOOD HAS A NON-SKID COATING.
- 2 FLOOR SYSTEMS WILL HAVE HEAVY LOADS PLACED ON THEM, THEREFORE, THEY SHOULD NOT BE CONNECTED TO 1, 3 & 4 FLOOR SYSTEMS.
- NON-SKID SURFACE PLYWOOD TO OFFSET FIRST LAYER PLYWOOD SEAMS.

KEYNOTES

- 1 INDEPENDENT FLOOR SYSTEM
- 2 INDEPENDENT FLOOR SYSTEM
- 3 INDEPENDENT FLOOR SYSTEM
- 4 INDEPENDENT FLOOR SYSTEM



REV. NO.	DATE	DESCRIPTION	BY	CHKD.
B	06/20/06	90% SUBMITTAL	CS	MK
A	03/20/06	60% SUBMITTAL	CS	MK

McMURDO STATION
WAIS DIVIDE
NICL/ICDS FACILITY
STRUCTURAL

DESIGNED BY: C. NAUGHTON
DRAWN BY: C. SEO
CHECKED BY: M. KIPPENHAN

7400 South Tucson Way
Denver, Colorado 80231
303-790-8606
800-688-8606
303-790-9130 Fax

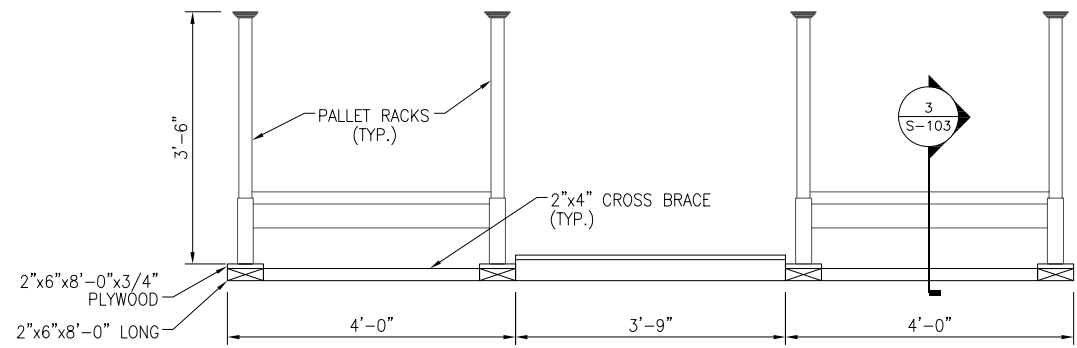
Raytheon
Polar Services

FILE NAME: MC-WAIS-S-102-REV B
PROJECT NUMBER: 218B50
SCALE: AS NOTED
SHEET TITLE: NICL BASEMENT FRAMING PLAN
SHEET NUMBER: S-102

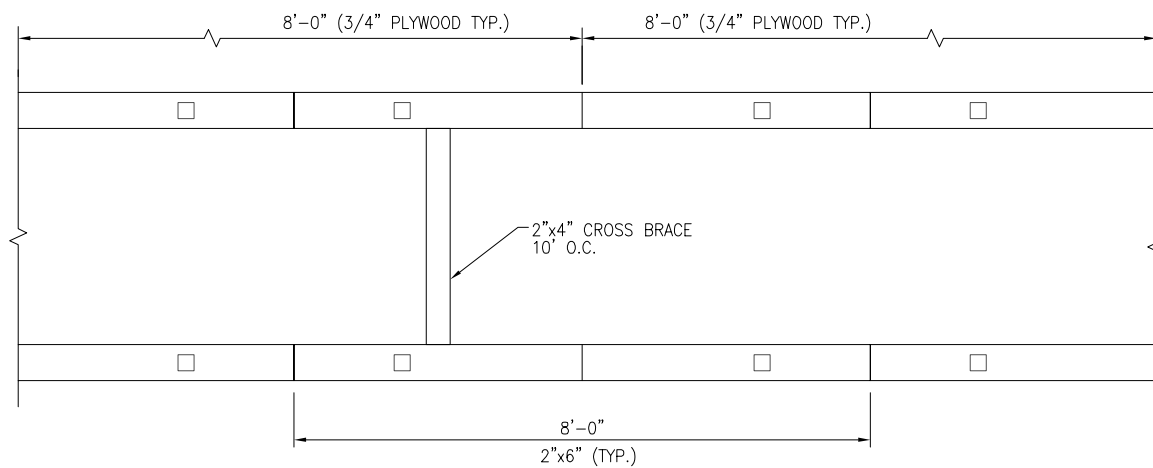
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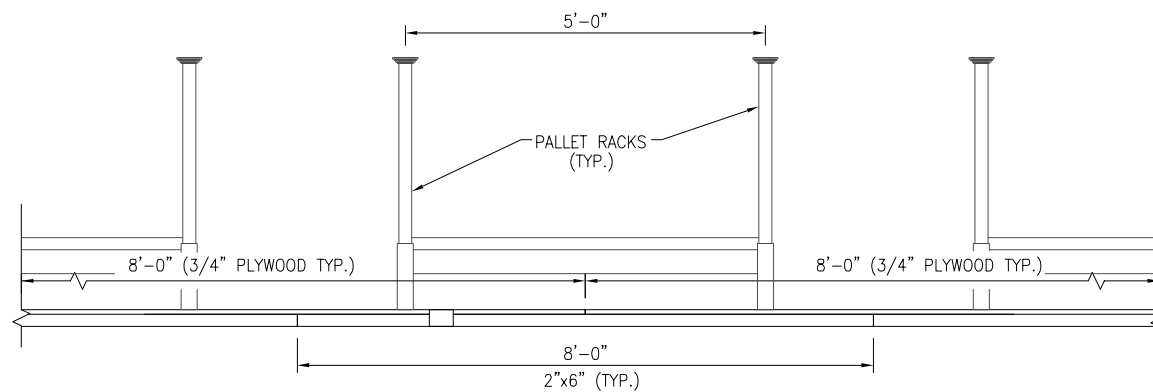




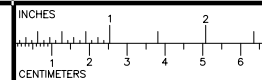
1 SECTION
S-102 SCALE: 3/4"=1'-0"



2 FLOOR FRAMING DETAIL
S-102 SCALE: 3/4"=1'-0"



3 SECTION
S-103 SCALE: 3/4"=1'-0"



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WASHINGTON, DC
CONTRACT OPP. 0000373

REV. NO.	DATE	REVISIONS	CS	MK
A	03/20/06	BOX SUBMITTAL		
B	06/20/06	BOX SUBMITTAL		

McMURDO STATION
WAIS DIVIDE
NICL/ICDS FACILITY
STRUCTURAL

DESIGNED BY: C. NAUGHTON
DRAWN BY: C. SEO
DATE CREATED: 01/15/06

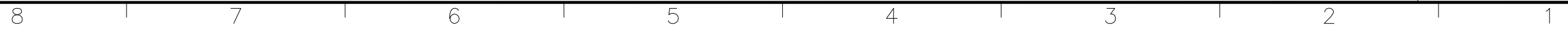
CHECKED BY: M. KIPPENHAN
7400 South Tucson Way
Colorado Springs, CO 80906
303-790-8606
800-688-8606
303-790-9130 Fax

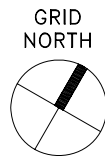
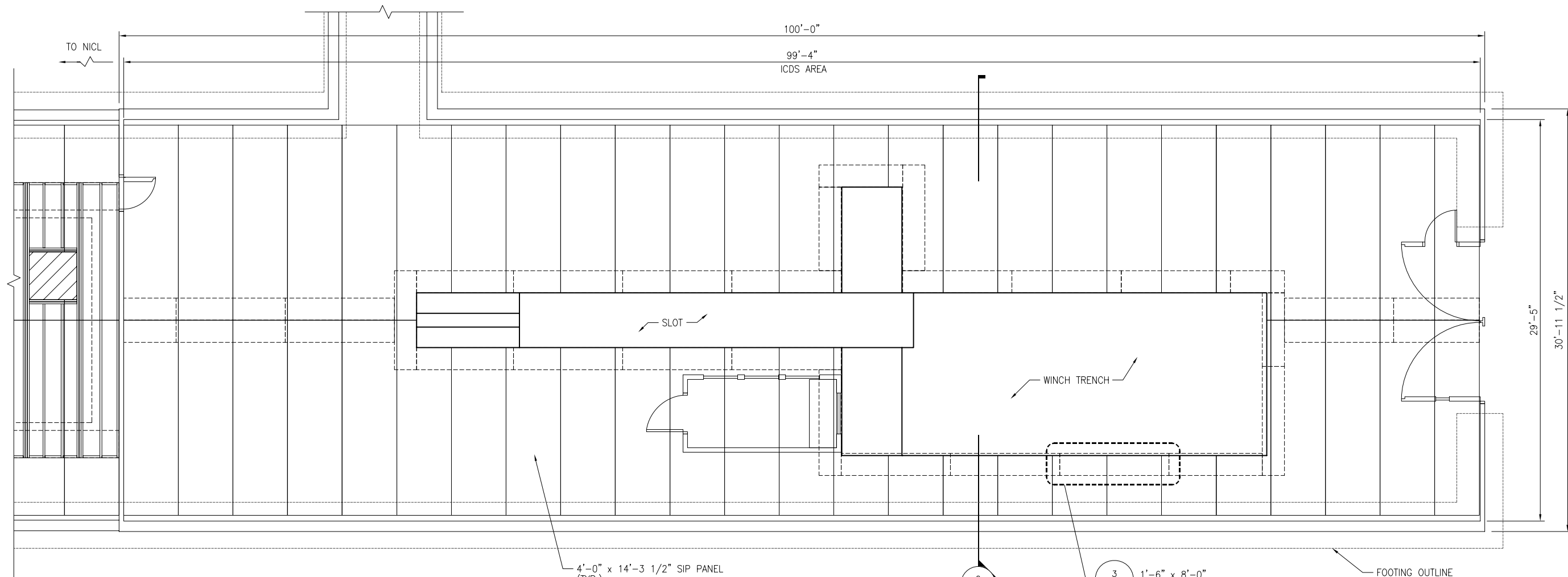
Raytheon
Polar Services

FILE NAME: MC-WAIS-S-103-REV B
PROJECT NUMBER: 218B50
SCALE: AS NOTED
SHEET TITLE: NICL BASEMENT SECTIONS
SHEET NUMBER: S-103

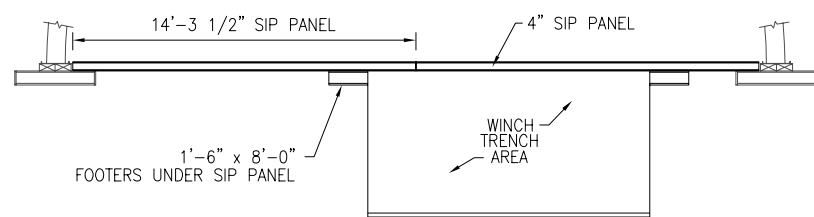
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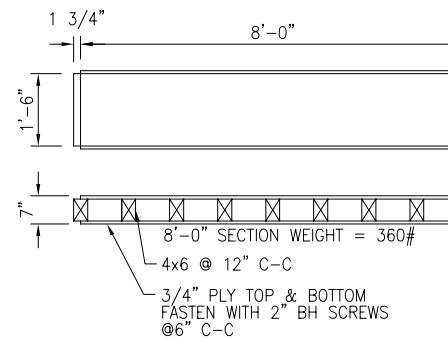




1 ICDS FLOOR FRAMING PLAN
SCALE: 1/4"=1'-0"



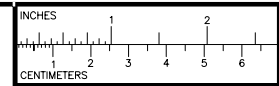
2 SECTION
SCALE: 1/4"=1'-0"



3 FOOTER DETAILS
SCALE: 1/2"=1'-0"

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CONTRACT ORF: 0000373

REV NO	DATE	DESCRIPTION	BY	CHKD
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A	03/20/06	60% SUBMITTAL	CS	MK

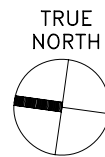
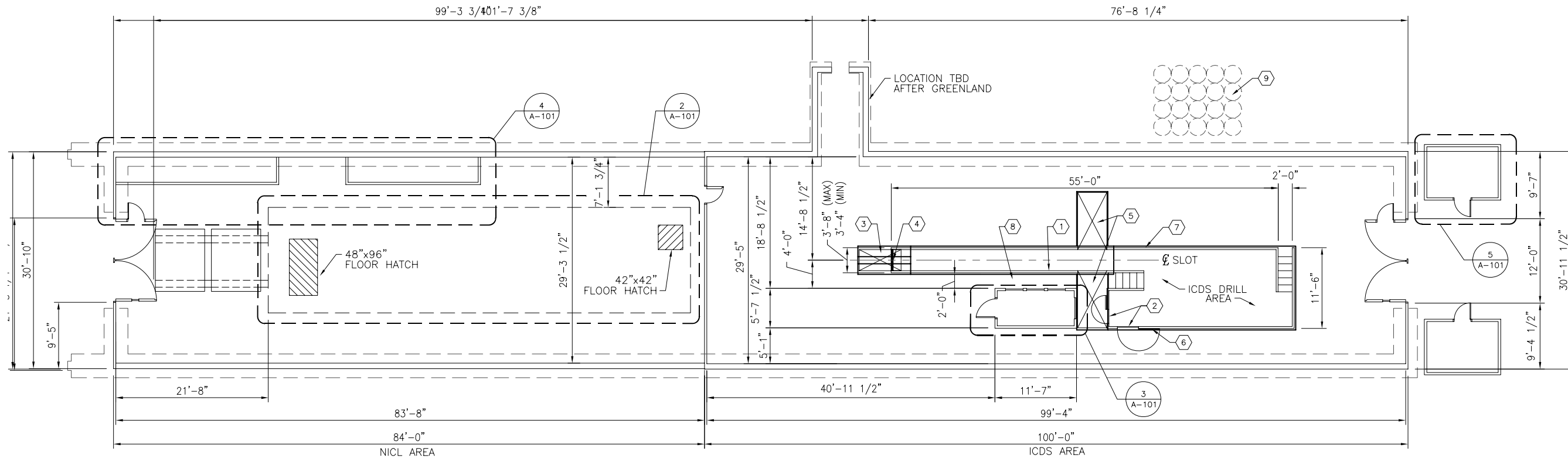
McMURDO STATION
WAIS DIVIDE
NICL/ICDS FACILITY
STRUCTURAL

DESIGNED BY: M. KIPPENHAN
DRAWN BY: C. SEO
CHECKED BY: M. KIPPENHAN

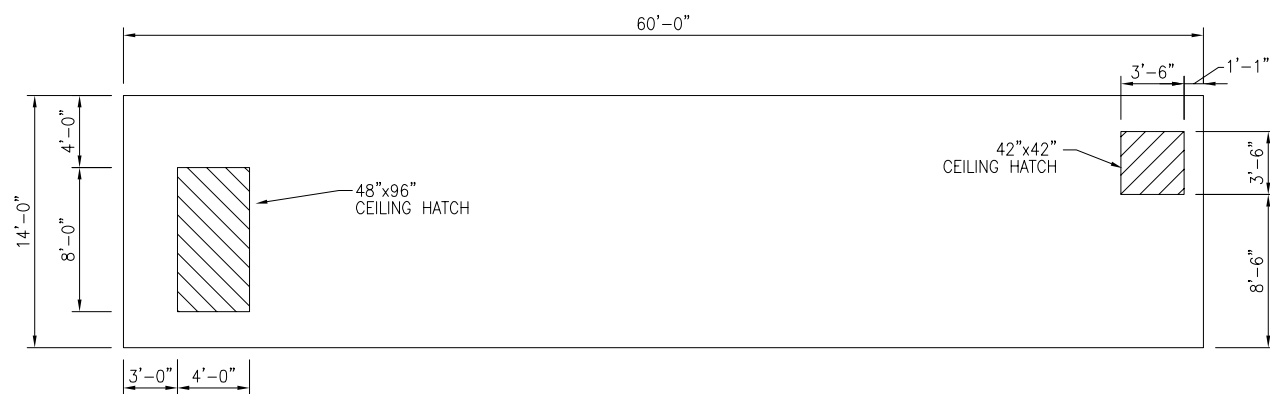
7400 South Tucson Way
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Raytheon
Polar Services

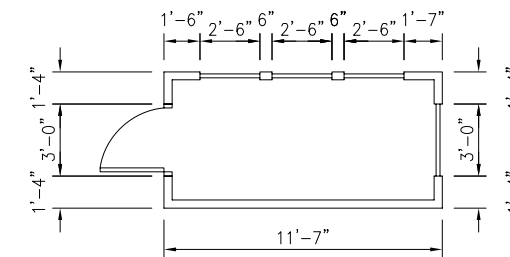
FILE NAME: MC-WAIS-S-104-REV B
PROJECT NUMBER: 218B50
SCALE: AS NOTED
SHEET TITLE: ICDS FLOOR FRAMING PLAN
SHEET NUMBER: S-104



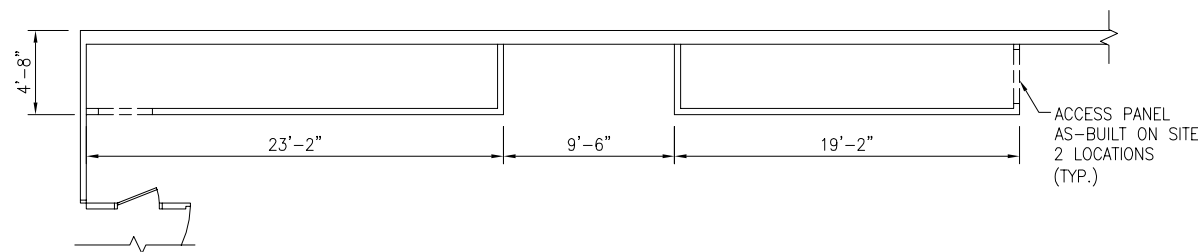
1 NICL/ICDS FLOOR PLAN
SCALE: 1/8"=1'-0"



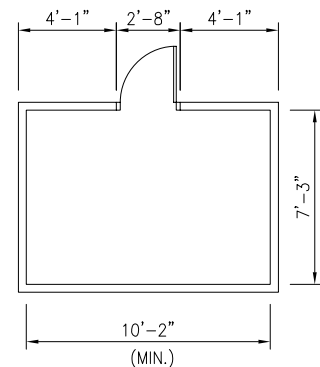
2 CORE STORAGE BASEMENT PLAN
SCALE: 3/16"=1'-0"



3 DRILL OPS PLAN
SCALE: 1/4"=1'-0"



4 MECHANICAL COMPRESSOR ROOM
SCALE: 3/16"=1'-0"



5 FAN OUTBUILDING PLAN (TYP.)
SCALE: 1/4"=1'-0"

GENERAL NOTE

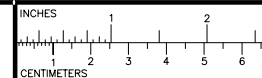
- FAN OUTBUILDING AS-BUILT ON SITE. SIZE TO BE DETERMINED IN FIELD.

KEYNOTES

- DO NOT CONNECT RAILING TO DRILL OPS
- DETERMINE EXACT LOCATION IN FIELD
- REMOVABLE FLOOR PANEL (SLOT ACCESS)
- REMOVABLE RAIL OR GATE
- REMOVABLE FLOOR PANELS (ONCE/SEASON)
- GATE FOR WINCH CONTROL CABINET ACCESS
- GUARDRAILS
- 2'-0" MIN. CLEAR AREA FOR WALKWAY
- FLUID STORAGE AREA

PRELIMINARY
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CONTRACT OPP. 0000373

REV NO	DATE	DESCRIPTION	BY	CHKD
B	06/20/06	90% SUBMITTAL		CS
A	03/20/06	60% SUBMITTAL		CS

McMURDO STATION
WAIS DIVIDE
NICL/ICDS FACILITY
ARCHITECTURAL

DESIGNED BY: C. NAUGHTON
DRAWN BY: C. SEO
DATE CREATED: 01/15/06

CHECKED BY: M. KIPPENHAN
7400 South Tucson Way
Denver, Colorado
80231-3538
303-790-8606
303-688-8606
303-790-9130 Fax

Raytheon
Polar Services

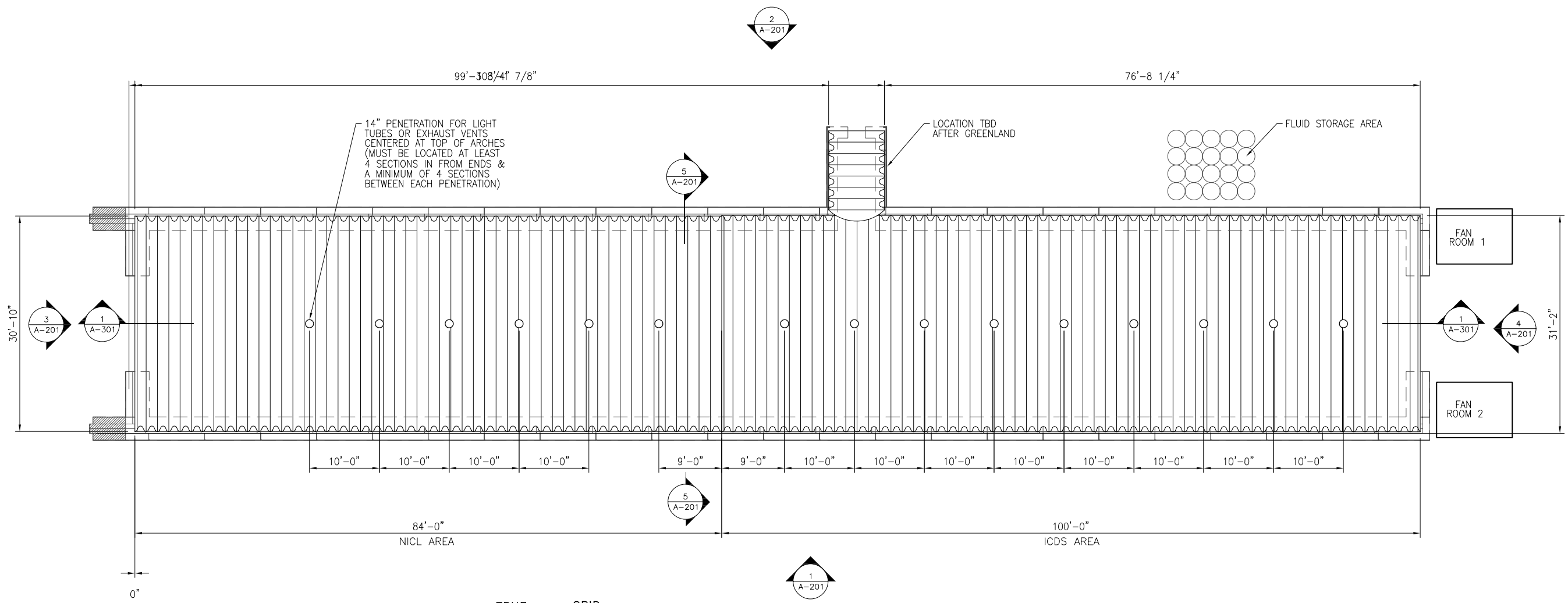
FILE NAME: MC-WAIS-A-101-REV B
PROJECT NUMBER: 218B50
SCALE: AS NOTED
SHEET TITLE: NICL/ICDS FLOOR PLAN
SHEET NUMBER: A-101

XREF FILES:

MAKE FILES:

XREF FILES:

IMAGE FILES:



14" PENETRATION FOR LIGHT TUBES OR EXHAUST VENTS CENTERED AT TOP OF ARCHES (MUST BE LOCATED AT LEAST 4 SECTIONS IN FROM ENDS & A MINIMUM OF 4 SECTIONS BETWEEN EACH PENETRATION)

LOCATION TBD AFTER GREENLAND

FLUID STORAGE AREA

FAN ROOM 1

FAN ROOM 2

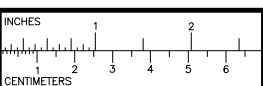
84'-0"
NICL AREA

100'-0"
ICDS AREA

TRUE NORTH

GRID NORTH

1 NICL/ICDS ROOF PLAN
SCALE: 1/8"=1'-0"



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WASHINGTON, D.C. 20547
CONTRACT OPP. 0000373

REV NO	DATE	DESCRIPTION	BY	CHKD
B	06/26/06	50X SUBMITTAL		CS
A	03/20/06	60X SUBMITTAL		MK

McMURDO STATION
WAIS DIVIDE
NICL/ICDS FACILITY
ARCHITECTURAL

DESIGNED BY: C. NAUGHTON
DRAWN BY: C. SEO
CHECKED BY: M. KIPPENHAN

7400 South Tucson Way
Denver, Colorado
303-790-8606
800-688-8606
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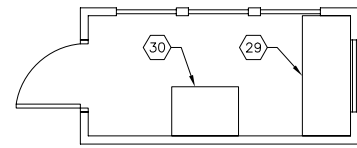
Raytheon
Polar Services

FILE NAME: MC-WAIS-A-102-REV B
PROJECT NUMBER: 218B50
SCALE: AS NOTED
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SHEET NUMBER: A-102

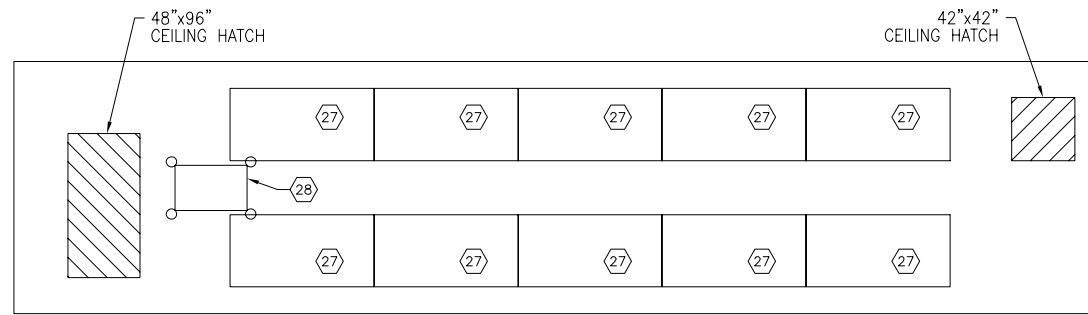
PRELIMINARY NOT FOR RELEASE

THIS BAR = 1" AT FULL SCALE

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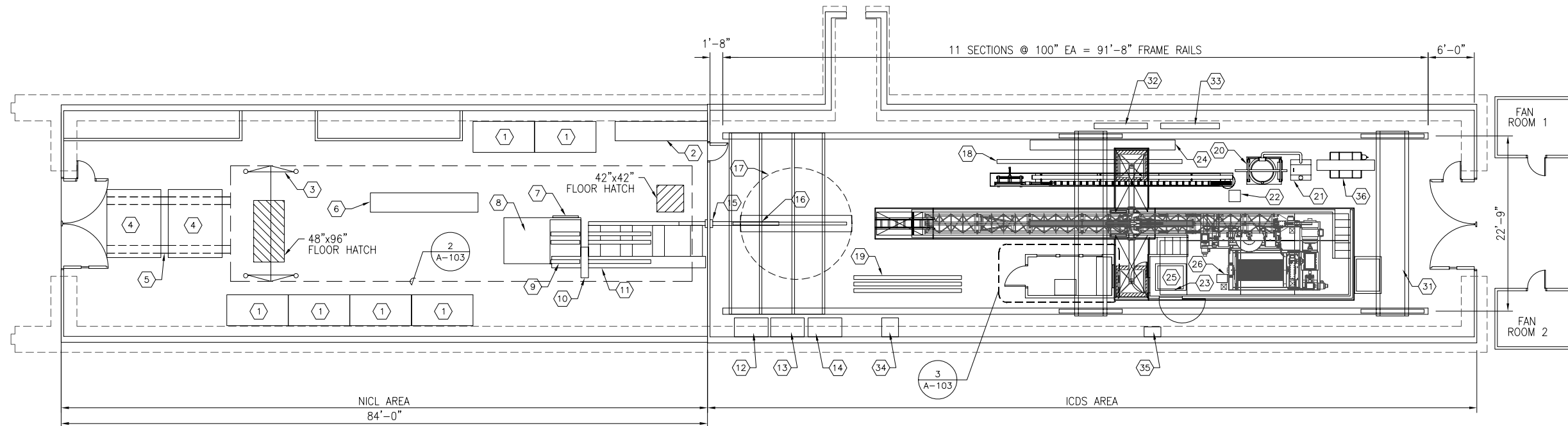
3 DRILL OPS FURNITURE/EQUIPMENT LAYOUT
 A-103 SCALE: 1/4"=1'-0"



KEYNOTES

- 1 4'-0" x 8'-0" DRYING BOOTH
- 2 PHYSICAL PROPERTIES WORKBENCH
- 3 1 TON TRI-ADJUSTABLE STEEL CRANE. 15'-0" WIDE, 6 WHEEL SPAN. WALLACE CRANE, MODEL #S2T12-S15
- 4 A.F. PALLET
- 5 REMOVABLE FLOOR LEVEL ROLLERS (TBD)
- 6 MOBILE TABLES (PACKING STATION)
- 7 DIGITAL MEASURING DEVICE
- 8 LOGGING COMPUTER
- 9 1 METER LOGGING AREA
- 10 SAW
- 11 10'-0" ROLLER TRACK
- 12 ELECTRICAL PANEL - 408V MDP
- 13 TRANSFORMER - 208V
- 14 ELECTRICAL PANEL - 208V
- 15 CORE FED
- 16 CORE BARREL
- 17 CORE BARREL ROTATION AREA
- 18 SCREEN BARREL STAGING
- 19 CORE BARREL STAGING
- 20 CENTRIFUGE
- 21 COLLECTION TANK
- 22 LOCAL WINCH CONTROL
- 23 WINCH DRIVE
- 24 SCREEN CLEANING
- 25 TOWER HYDR. UNIT
- 26 WINCH HYDR. UNIT
- 27 4'-0" x 8'-0" STORAGE RACKS
- 28 WHEELED CART
- 29 DESK (DRILL OPS)
- 30 ELEC (DRILL OPS)
- 31 CARGO STAGING
- 32 FRAME POWER
- 33 CENTRIFUGE POWER & SCREEN CLEANING POWER
- 34 LOAD BANK (LOCATION TOBE WITHIN 15'-0" OF 480V MDP) VENT TO OUTSIDE
- 35 ELEC (HYDRAULIC POWER UNIT-TOWER)
- 36 FLUID HANDLING & MIXING

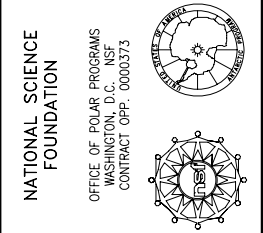
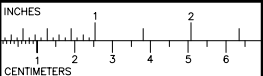
2 CORE STORAGE BASEMENT FURNITURE/EQUIPMENT LAYOUT
 A-103 SCALE: 3/16"=1'-0"



1 NICL/ICDS FURNITURE/EQUIPMENT LAYOUT
 A-103 SCALE: 1/8"=1'-0"

**PRELIMINARY
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REV NO	DATE	DESCRIPTION	BY	CHKD
B	06/20/06	90% SUBMITTAL		CS
A	03/20/06	60% SUBMITTAL		CS

McMURDO STATION
 WAIS DIVIDE
 NICL/ICDS FACILITY
 ARCHITECTURAL

DESIGNED BY: C. NAUGHTON
 CHECKED BY: M. KIPPENHAN

DATE CREATED: 01/15/06
 DATE: 01/15/06

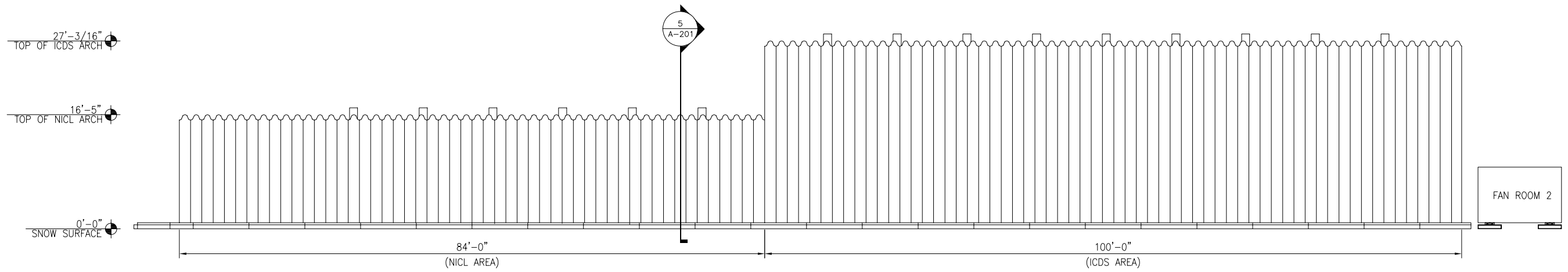
7400 South Tucson Way
 Denver, Colorado 80231
 303-790-8606
 800-688-8606
 303-790-9130 Fax

Raytheon
Polar Services

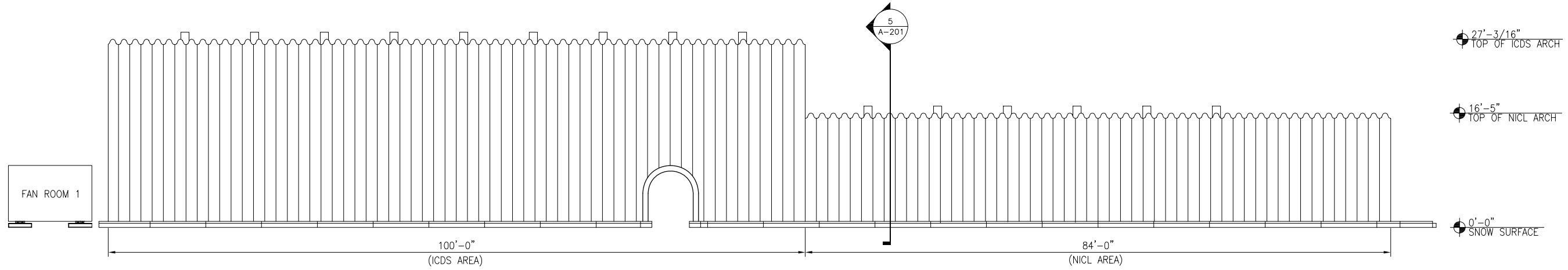
FILE NAME: MC-WAIS-A-103-REV B
 PROJECT NUMBER: 218B50
 SCALE: AS NOTED
 SHEET TITLE: NICL/ICDS FURNITURE/EQUIPMENT LAYOUT
 SHEET NUMBER: A-103

XREF FILES:

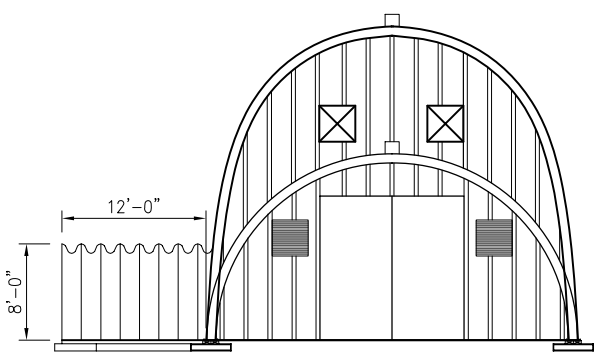
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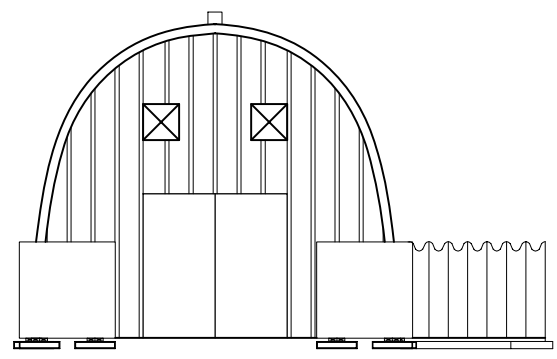
1 NICL/ICDS ELEVATION
SCALE: 1/8"=1'-0"



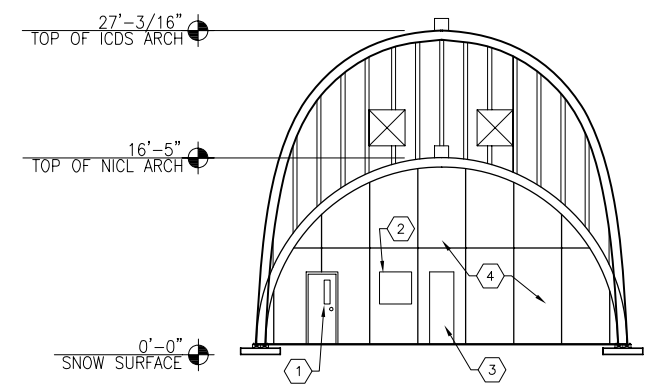
2 NICL/ICDS ELEVATION
SCALE: 1/8"=1'-0"



3 NICL ENTRANCE ELEVATION
SCALE: 1/8"=1'-0"



4 ICDS ENTRANCE ELEVATION
SCALE: 1/8"=1'-0"



5 SECTION
SCALE: 1/8"=1'-0"

- KEYNOTES**
- 1 WINDOW IN DOOR FOR SAFETY.
 - 2 WINDOW NEXT TO OPENING FOR VISUAL OBSERVATION. LOCATION & SIZE TBD ON SITE.
 - 3 EXACT FED LOCATION & OPENING SIZE TBD ON SITE
 - 4 FRAMED WITH STEEL STUDS INSULATED WITH RIGID FOAM SHEETED WITH 1/2" PLYWOOD BOTH SIDES.

**PRELIMINARY
NOT FOR RELEASE**

THIS BAR = 1" AT FULL SCALE

INCHES CENTIMETERS 	
NATIONAL SCIENCE FOUNDATION OFFICE OF POLAR PROGRAMS PROJECT D. 0000373 CONTRACT ORF. 0000373 	
DSNR CHD REVISIONS DATE REV NO	MK CS CS MK MK 90X SUBMITTAL 60X SUBMITTAL 06/20/06 03/20/06 B A
McMURDO STATION WAIS DIVIDE NICL/ICDS FACILITY ARCHITECTURAL DATE CREATED: 01/15/06 DRAWN BY: C.SEO DESIGNED BY: C.NAUGHTON CHECKED BY: M.KIPPENHAN 7400 South Tucson Way Denver, Colorado 80231-7900 800-688-8606 303-790-9130 Fax	
FILE NAME: MC-WAIS-A-201-REV B PROJECT NUMBER: 218B50 SCALE: AS NOTED SHEET TITLE: NICL/ICDS ELEVATION SHEET NUMBER: A-201	

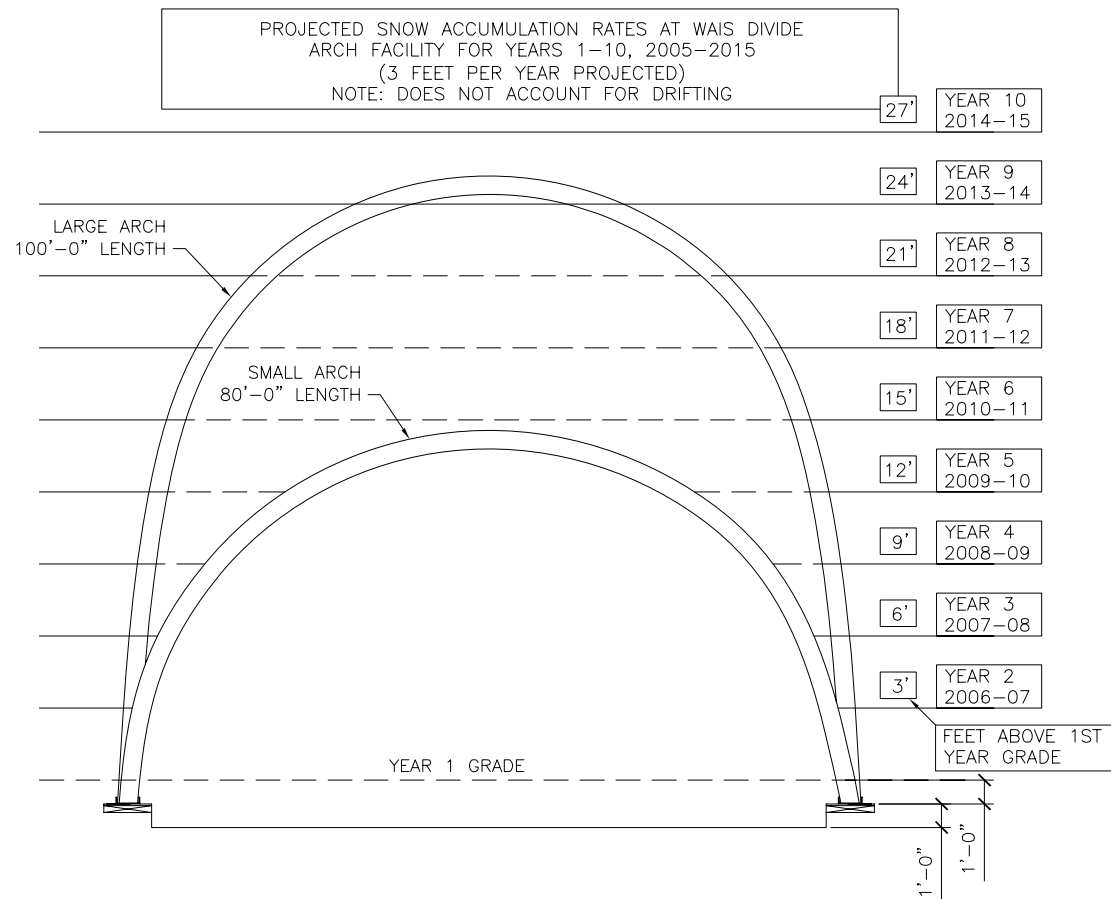
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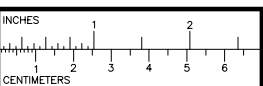
IMAGE FILES:



1 SNOW ACCUMULATION DETAIL
SCALE: 1/4"=1'-0"

**PRELIMINARY
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OFFICE OF POLAR PROGRAMS
WASHINGTON, DC
CONTRACT OPP: 0000373

REV NO	DATE	REVISIONS	CS	CS	MK	MK
A	03/20/06					
B	06/20/06				BOX SUBMITTAL	BOX SUBMITTAL

McMURDO STATION
WAIS DIVIDE
NICL/ICDS FACILITY
ARCHITECTURAL

DESIGNED BY: C. NAUGHTON
DRAWN BY: C. SEO
CHECKED BY: M. KIPPENHAN

Raytheon
Polar Services

7400 South Tucson Way
Colorado Springs, CO 80906
303-790-8606
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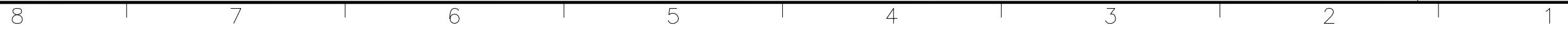
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MC-WAIS-A-202-REV B

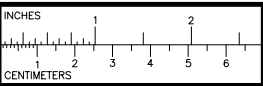
PROJECT NUMBER:
218B50

SCALE:
AS NOTED

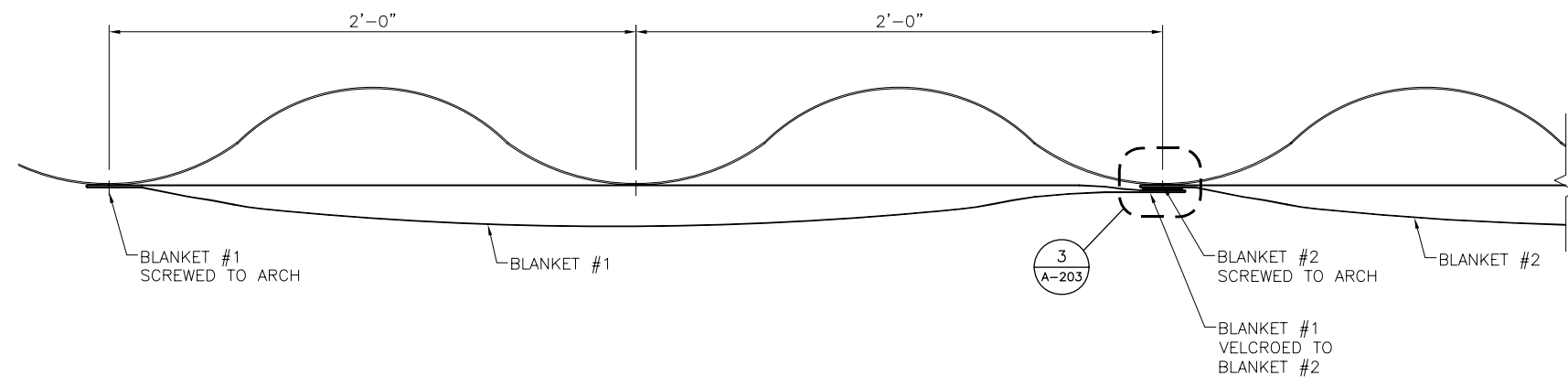
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NICL/ICDS SNOW ACCUMULATION

SHEET NUMBER:
A-202

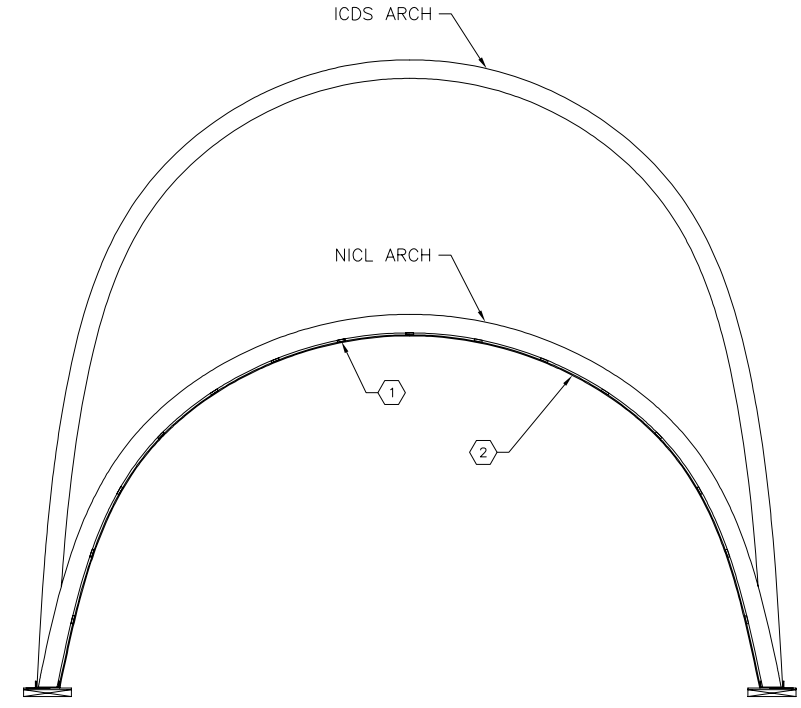




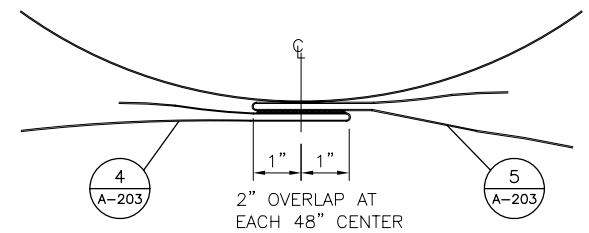
NATIONAL SCIENCE FOUNDATION
 OFFICE OF POLAR PROGRAMS
 WASHINGTON, D.C. 20546
 CONTRACT OPP: 0000373



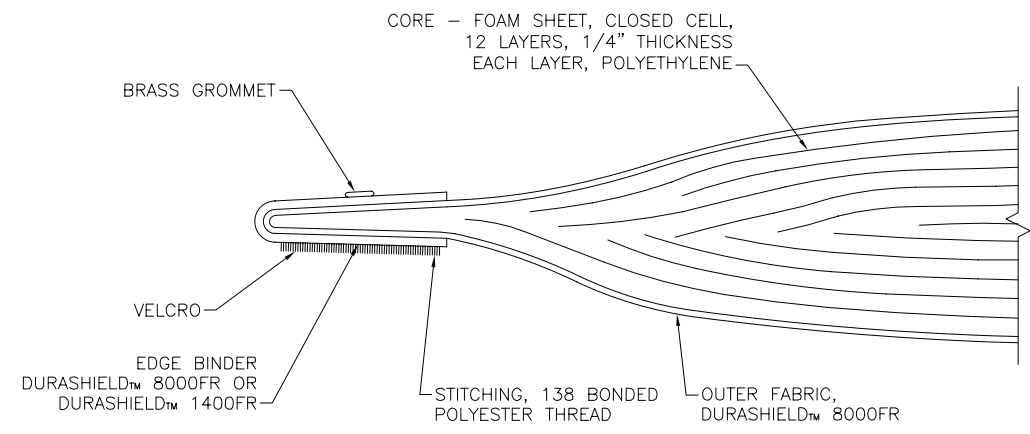
2 NICL INSULATION BLANKET SECTION
 SCALE: 3"=1'-0"



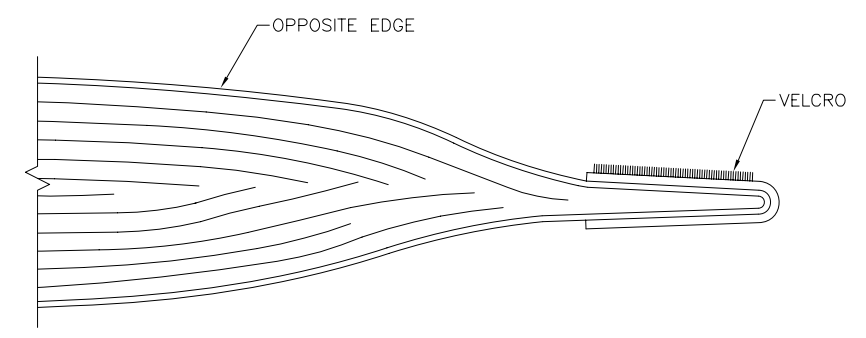
1 NICL INSULATION BLANKETS
 SCALE: 3/8"=1'-0"



3 NICL INSULATION BLANKET ATTACHMENT
 SCALE: 6"=1'-0"



4 NICL INSULATION BLANKET END
 SCALE: 1"=1'-0"



5 NICL INSULATION BLANKET OPPOSITE END
 SCALE: 1"=1'-0"

KEYNOTES

- 1 SCREW TYPE WITH FENDER WASHER TBD.
- 2 BLANKET R-12 WITH FIRE RESISTANT OUTER LAYER

APPROXIMATE BLANKET DIMENSIONS
LENGTH = 47'-0"
WIDTH = 50"
GROMMETS = 48" ON CENTERS TO VELCRO CENTER
GROMMETS = 12" SPACING

APPROXIMATE BLANKET WEIGHT
1 SQ. FOOT = .32 LBS.

REV	NO	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY	DATE
				C. NAUGHTON	M. KIPPENHAN	

90X SUBMITTAL

McMURDO STATION
 WAIS DIVIDE
 NICL/ICDS FACILITY
 ARCHITECTURAL

DESIGNED BY: C. NAUGHTON
 DRAWN BY: C. SEO
 DATE CREATED: 01/15/06

CHECKED BY: M. KIPPENHAN
 7400 South Tucson Way
 Centennial, Colorado
 80117-7066
 303-790-8606
 800-688-8606
 303-790-9130 Fax

Raytheon
Polar Services

FILE NAME:
 MC-WAIS-A-203-REV B

PROJECT NUMBER:
 218B50

SCALE:
 AS NOTED

SHEET TITLE:
 BATTEN SYSTEM LOCATION

SHEET NUMBER:
 A-203

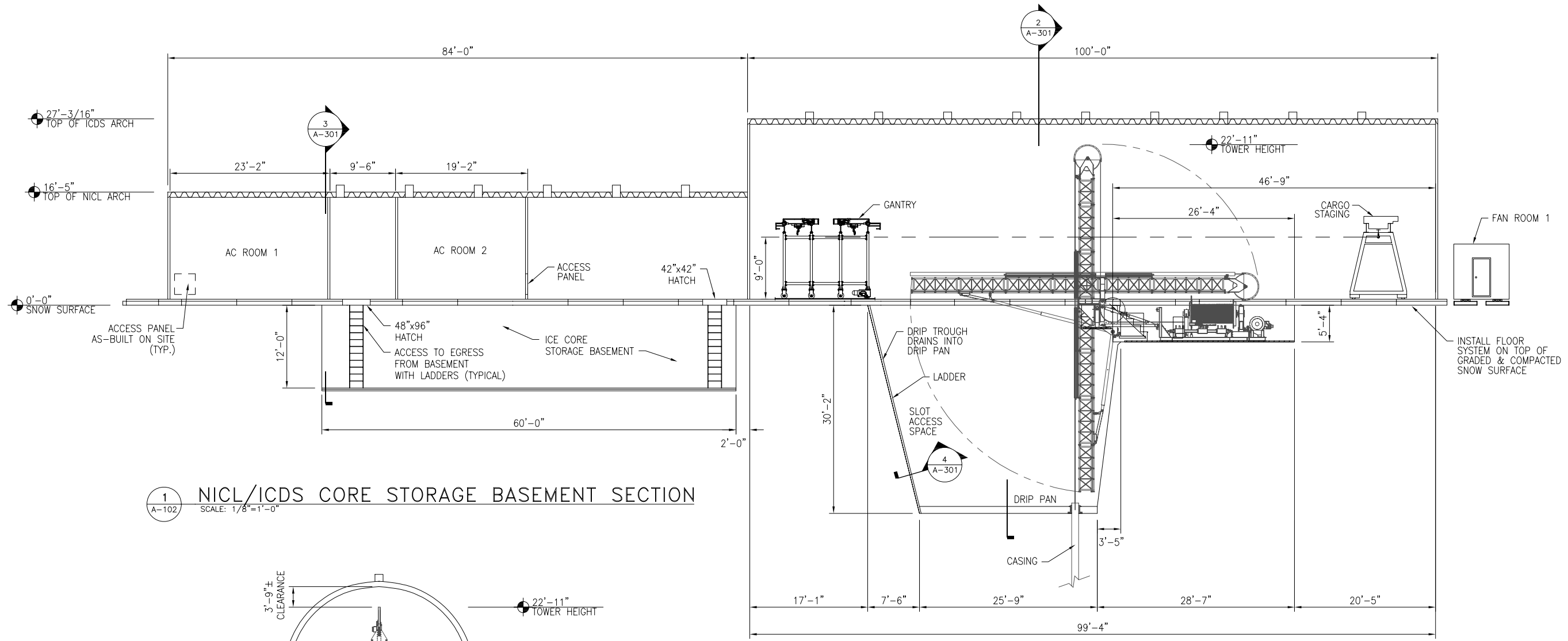
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 NOT FOR RELEASE**

THIS BAR = 1" AT FULL SCALE

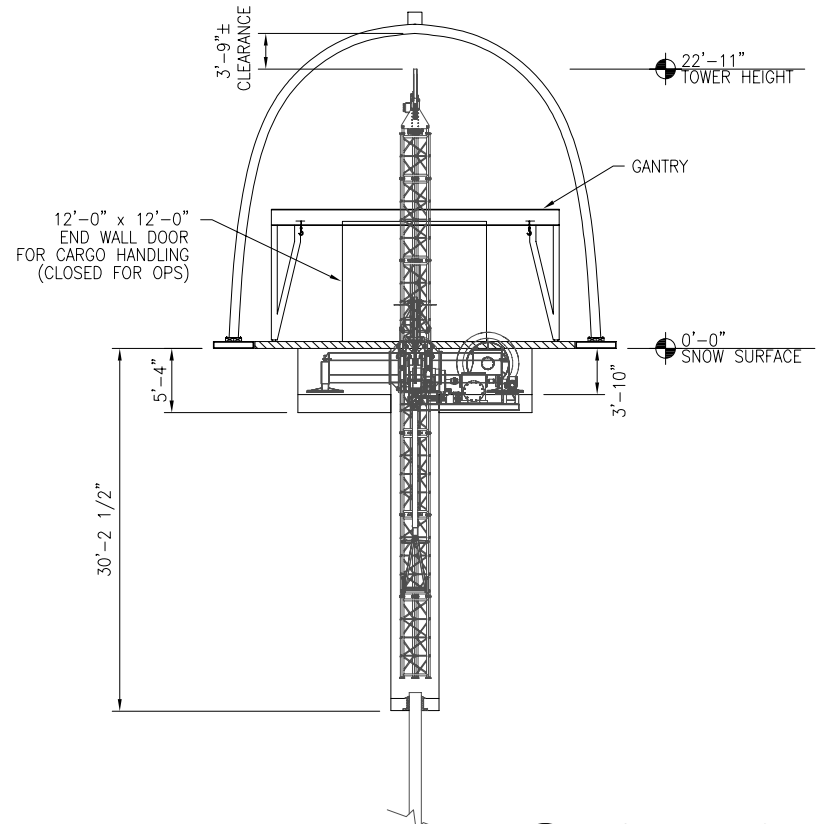
XREF FILES:

IMAGE FILES:

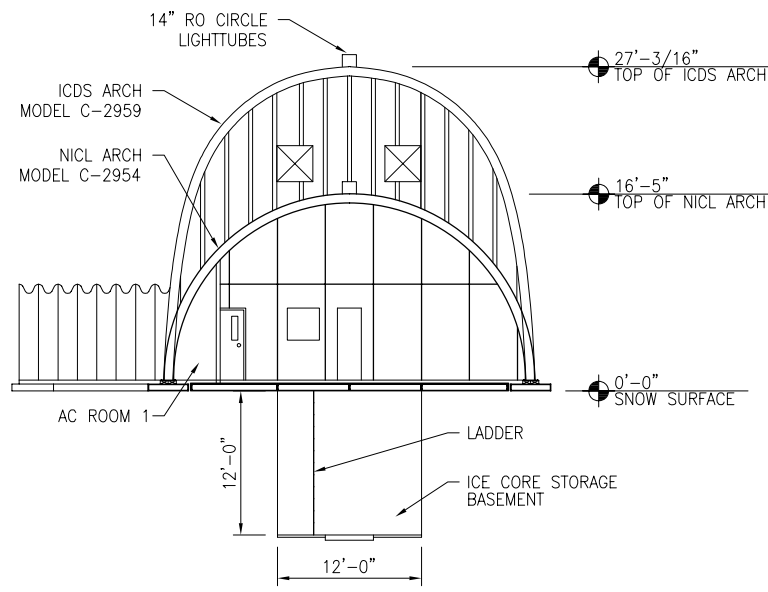
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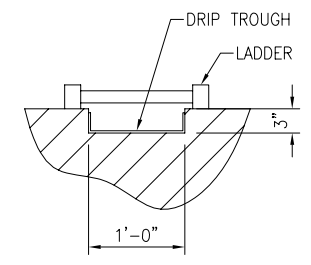
1 NICL/ICDS CORE STORAGE BASEMENT SECTION
SCALE: 1/8"=1'-0"



2 ICDS SECTION
SCALE: 1/8"=1'-0"



3 NICL SECTION
SCALE: 1/8"=1'-0"



4 ICDS SECTION
SCALE: 1"=1'-0"

**PRELIMINARY
NOT FOR RELEASE**

THIS BAR = 1" AT FULL SCALE

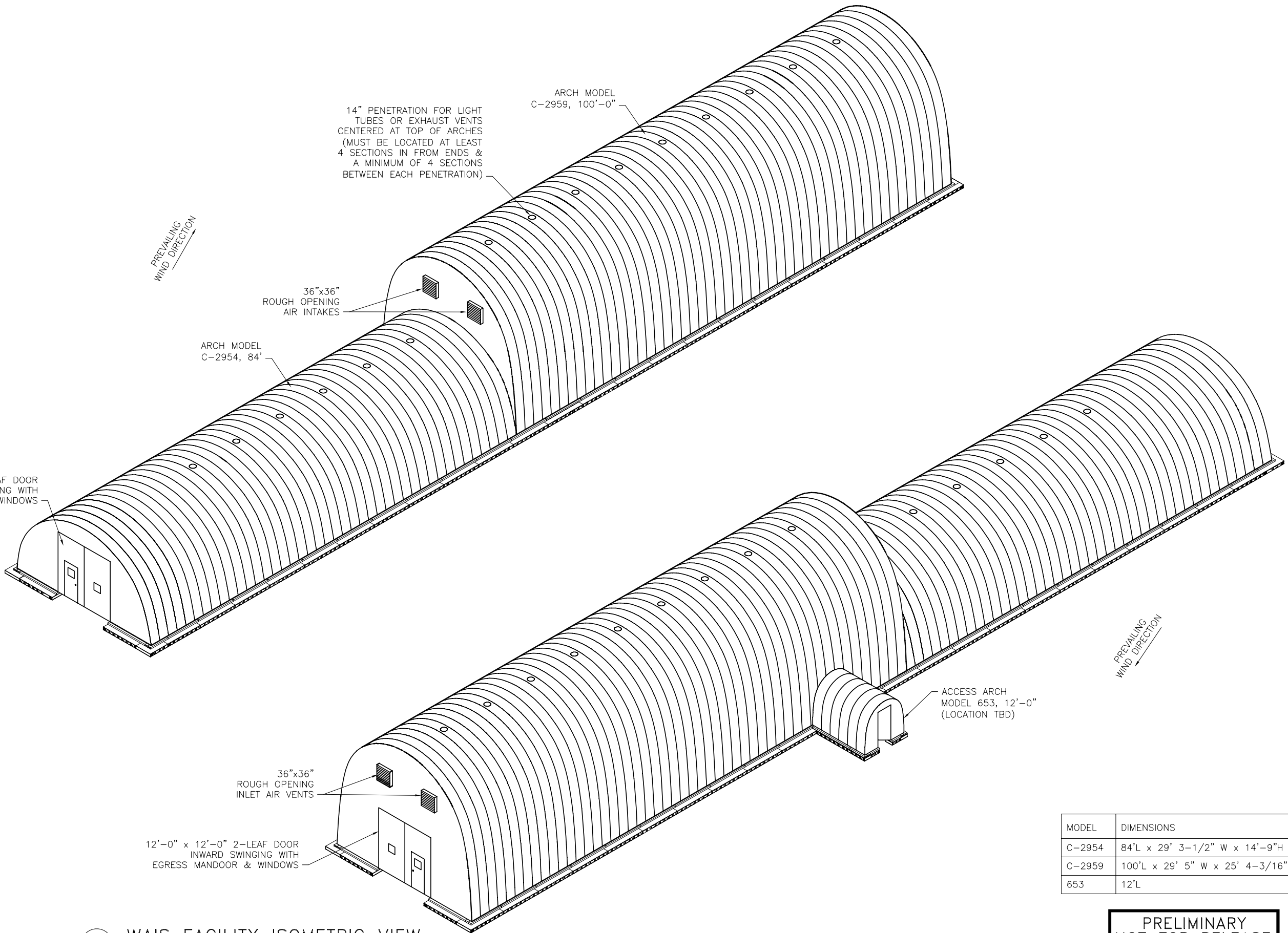
<p>NATIONAL SCIENCE FOUNDATION OFFICE OF POLAR PROGRAMS ATLANTA, GA 30334 CONTRACT ORF: 0000373</p>										
<p>REVISIONS</p> <table border="1"> <thead> <tr> <th>NO</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO	DATE	DESCRIPTION							<p>DATE: 06/20/06 REV: 1 BY: A</p>
NO	DATE	DESCRIPTION								
<p>McMURDO STATION WAIS DIVIDE NICL/ICDS FACILITY ARCHITECTURAL</p>	<p>CHECKED BY: M. KIPPENHAN DESIGNED BY: C. NAUGHTON DRAWN BY: C. SEO DATE CREATED: 01/15/06</p>									
<p>7400 South Tucson Way Tucson, Colorado 80755 303-790-8606 800-688-8606 303-790-9130 Fax</p> <p>Raytheon Polar Services</p>										
<p>FILE NAME: MC-WAIS-A-301-REV B PROJECT NUMBER: 218B50 SCALE: AS NOTED SHEET TITLE: NICL/ICDS SECTIONS SHEET NUMBER: A-301</p>										

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MADE FILES:

XREF FILES:

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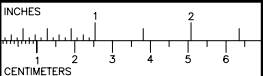


1 WAIS FACILITY ISOMETRIC VIEW
SCALE: 1/8"=1'-0"

MODEL	DIMENSIONS
C-2954	84'L x 29' 3-1/2" W x 14'-9"H
C-2959	100'L x 29' 5" W x 25' 4-3/16"H
653	12'L

**PRELIMINARY
NOT FOR RELEASE**

THIS BAR = 1" AT FULL SCALE



NATIONAL SCIENCE FOUNDATION
OFFICE OF POLAR PROGRAMS
WASHINGTON, D.C. 20545
CONTRACT OFF: 0000373

REV NO	DATE	DESCRIPTION	BY	CHKD
B	06/20/06	90% SUBMITTAL		CS
A	05/20/06	60% SUBMITTAL		CS

**McMURDO STATION
WAIS DIVIDE
NICL/ICDS FACILITY
ARCHITECTURAL**

DESIGNED BY: **C. NAUGHTON**
DRAWN BY: **M. LIFFENGREN**
CHECKED BY: **M. KIPPENHAN**

Raytheon
Polar Services

7400 South Tucson Way
Denver, Colorado
80231-7900 USA
800-688-8606
303-730-9130 Fax

FILE NAME: MC-WAIS-A-901-REV B

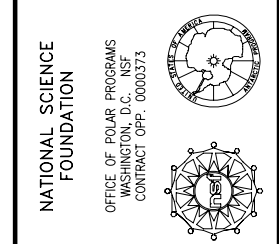
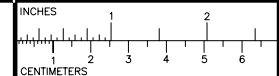
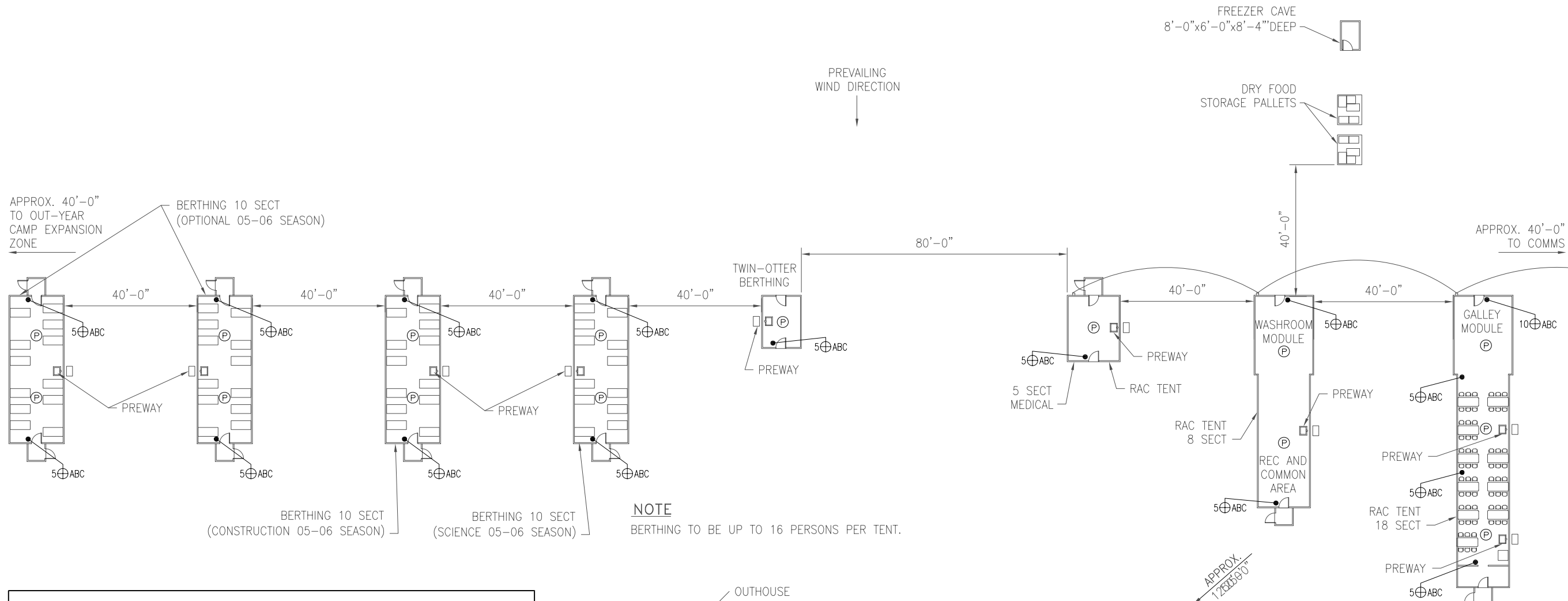
PROJECT NUMBER: 218B50

SCALE: AS NOTED

SHEET TITLE: WAIS FACILITY ISOMETRIC VIEW

SHEET NUMBER: A-901

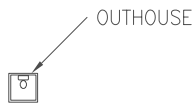




REV NO	DATE	DESCRIPTION	BY	CHKD
B	06/26/06	BOX SUBMITTAL		

FIRE SYSTEM LEGEND

- ☒ FIRE ALARM VISUAL INDICATOR SURFACE MOUNTED UP 8'-0", U.O.N.
- H FIRE ALARM COMBINATION HORN/VISUAL INDICATOR STATIONS SURFACE MOUNTED: NO PROJECTION UP 8'-0", U.O.N.
- H FIRE ALARM HORN INDICATOR STATIONS SURFACE MOUNTED: NO PROJECTION UP 8'-0", U.O.N.
- H CO₂ CO₂ DISCHARGE ALARM STATION UP 8'-0".
- ☐ CO₂ CO₂ MANUAL DISCHARGE ALARM SWITCH.
- F MANUAL PULL STATION UP 54", U.O.N.
- M FIRE ALARM MONITOR MODULE.
- EMERGENCY SHUTDOWN SWITCH FOR POWER AS NOTED.
- MAGNETIC DOOR HOLDER ASSEMBLY. MOUNT ON SOLIDLY MOUNTED OUTLET BOX AT HEIGHT AND LOCATION AS RECOMMENDED BY DOOR MANUFACTURER.
- Ⓟ SMOKE DETECTOR. (BATTERY OPERATED) SINGLE STATION
- Ⓟ_{UF} UNDERFLOOR PHOTOELECTRIC SMOKE DETECTOR.
- Ⓟ_{SA} PHOTOELECTRIC SMOKE DETECTOR, INSTALLED IN A SUPPLY (SA) OR RETURN (RA) DUCT.
- Ⓡ HEAT DETECTOR CEILING MOUNTED - RATE COMPENSATION TYPE.
- Ⓡ_{UF} HEAT DETECTOR UNDER FLOOR - FIXED TEMPERATURE
- Ⓡ₁₄₀ HEAT DETECTOR CEILING MOUNTED - FIXED TEMPERATURE
- Ⓡ₁₃₅ HEAT DETECTOR CEILING MOUNTED - FIXED TEMPERATURE
- Ⓡ F200 FIXED TEMPERATURE HEAT DETECTOR WITH HEAT COLLECTING SHROUD, PENDANT MOUNTED. SEE
- Ⓟ FE CO2 BRACKET MOUNT FIRE EXTINGUISHER
- 5Ⓟ ABC 5 LBS ABC BRACKET MOUNT FIRE EXTINGUISHER
- 10Ⓟ ABC 10 LBS ABC BRACKET MOUNT FIRE EXTINGUISHER



1 BERTHING & MAIN CAMP SITE PLAN
SCALE: 1"=200'-0"

**PRELIMINARY
NOT FOR RELEASE**

THIS BAR = 1" AT FULL SCALE

McMURDO STATION
WAIS DIVIDE
NICL/ICDS FACILITY
FIRE DETECTION

DESIGNED BY: M.KIPPENHAN
DRAWN BY: C.SEO
CHECKED BY: M.KIPPENHAN

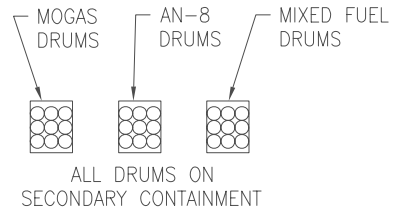
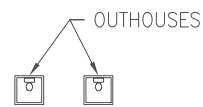
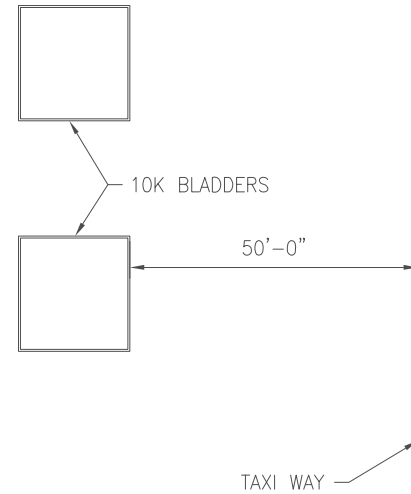
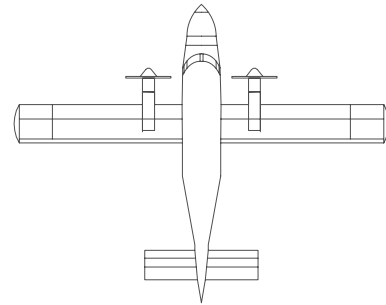
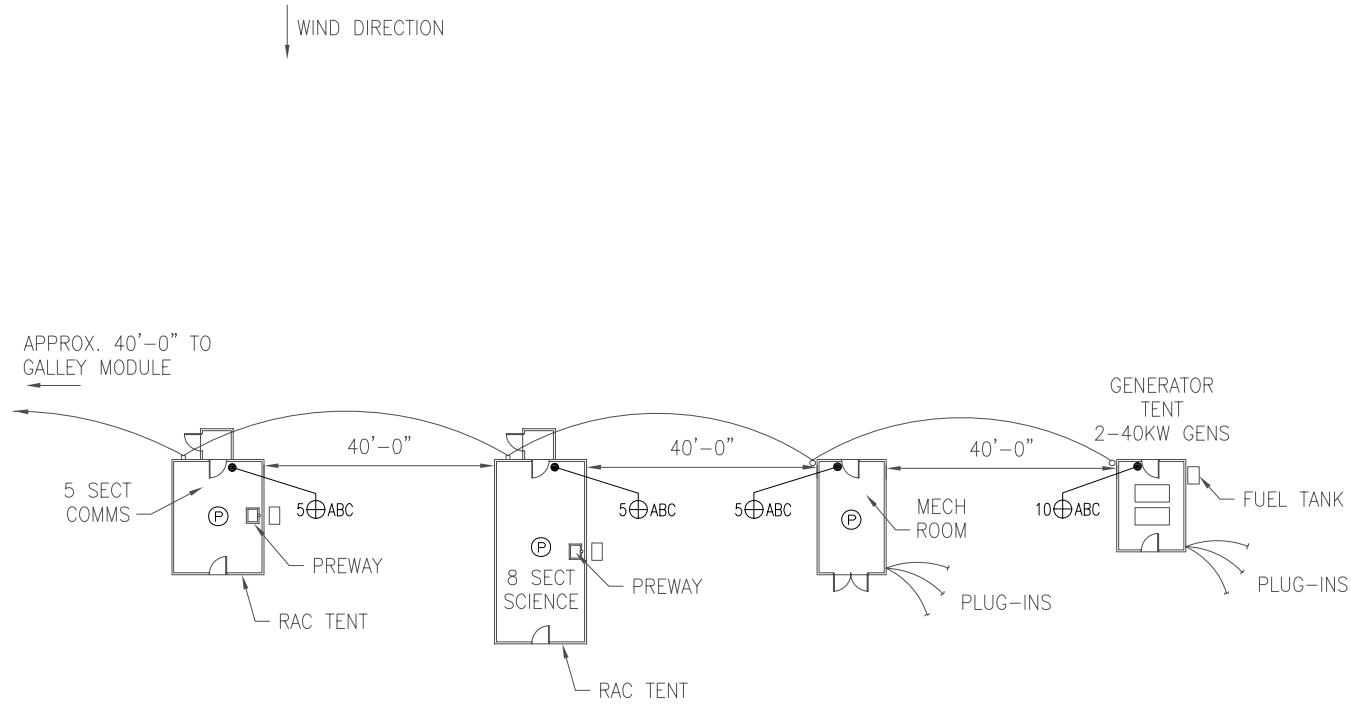
7400 South Tucson Way
Denver, Colorado 80231
303-790-8606
800-688-8606
303-790-9130 Fax

Raytheon
Polar Services

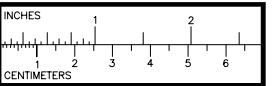
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PROJECT NUMBER: 218B50
SCALE: AS NOTED
SHEET TITLE: BERTHING & MAIN CAMP FIRE DETECTION PLAN
SHEET NUMBER: FP-101

XREF FILES:

MAKE FILES:



1 MAIN CAMP SITE PLAN
SCALE: 1"=200'-0"



NATIONAL SCIENCE FOUNDATION
OFFICE OF POLAR PROGRAMS
WASHINGTON, D.C. 20540
CONTRACT ORF: 0000373

REV NO	DATE	REVISIONS	DSNR CHD
B	06/26/06	BOX SUBMITTAL	CS MK

McMURDO STATION
WAIS DIVIDE
NICL/ICDS FACILITY
FIRE DETECTION

DESIGNED BY: M.KIPPENHAN
CHECKED BY: M.KIPPENHAN

DATE CREATED: 05/02/06
DRAWN BY: C.SEO

7400 South Tucson Way
Denver, Colorado
80231-7900 USA
303-790-8606
800-688-8606
303-790-9130 Fax

Raytheon
Polar Services

FILE NAME: MC-WAIS-FP-102-REV B
PROJECT NUMBER: 218B50
SCALE: AS NOTED
SHEET TITLE: MAIN CAMP FIRE DETECTION PLAN
SHEET NUMBER: FP-102

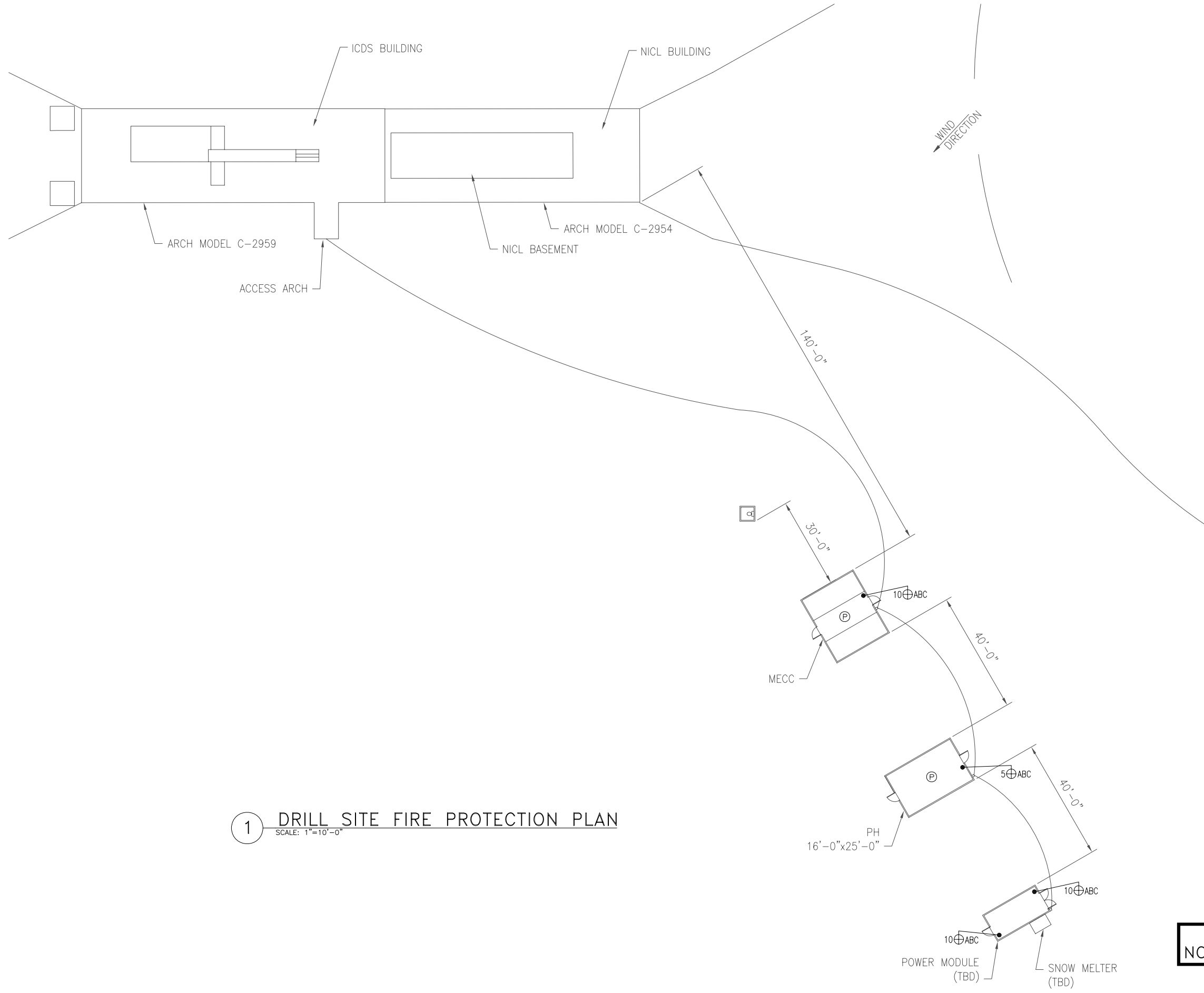
PRELIMINARY
NOT FOR RELEASE

THIS BAR = 1" AT FULL SCALE

XREF FILES:

MADE FILES:

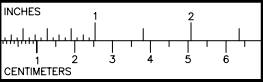
8 7 6 5 4 3 2 1



1 DRILL SITE FIRE PROTECTION PLAN
SCALE: 1"=10'-0"

PRELIMINARY
NOT FOR RELEASE

THIS BAR = 1" AT FULL SCALE



NATIONAL SCIENCE FOUNDATION
OFFICE OF POLAR PROGRAMS
STATION D. O. 600373
CONTRACT OPI: 0000373

REV NO	DATE	REVISIONS	DSNR CHD	CS	MR
B	06/26/06	BOX SUBMITTAL			

McMURDO STATION
WAIS DIVIDE
NICL/ICDS FACILITY
FIRE DETECTION

DESIGNED BY: M.KIPPENHAN
DRAWN BY: C.SEO
CHECKED BY: M.KIPPENHAN

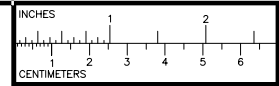
7400 South Tucson Way
Denver, Colorado
80231-7900 USA
303-790-8606
800-688-8606
303-790-9130 Fax

Raytheon
Polar Services

FILE NAME: MC-WAIS-FP-103-REV B
PROJECT NUMBER: 218B50
SCALE: AS NOTED
SHEET TITLE: DRILL SITE FIRE DETECTION PLAN
SHEET NUMBER: FP-103

XREF FILES:

MAKE FILES:



NATIONAL SCIENCE FOUNDATION
 OFFICE OF POLAR PROGRAMS
 WASHINGTON, DC
 CONTRACT OPP: 0000373

REV NO	DATE	REVISIONS	DSNR CHD
B	06/26/06	BOX SUBMITTAL	CS MK

McMURDO STATION
 WAIS DIVIDE
 NICL/ICDS FACILITY
 FIRE DETECTION

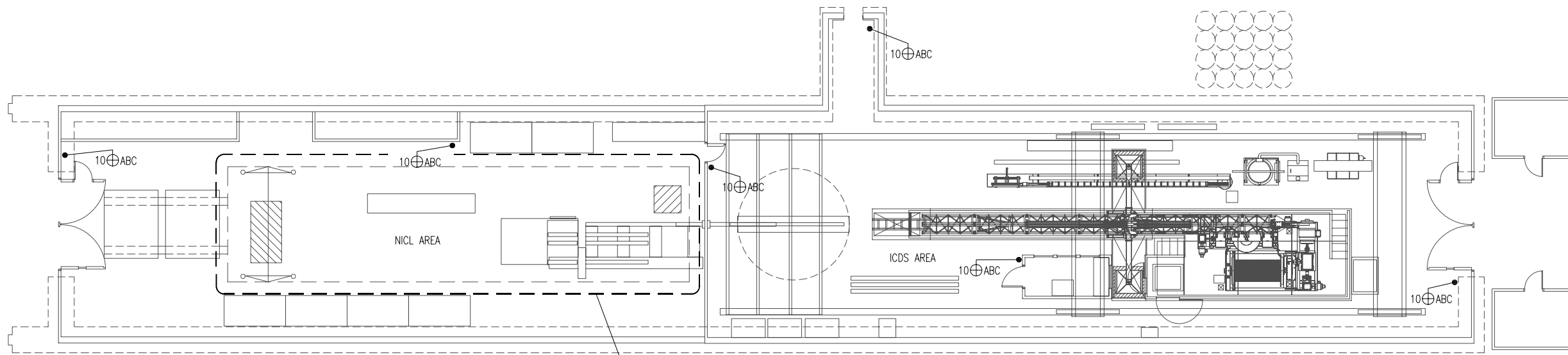
DESIGNED BY: M.KIPPENHAN
 CHECKED BY: M.KIPPENHAN

DRAWN BY: C.SEO
 DATE CREATED: 05/02/06

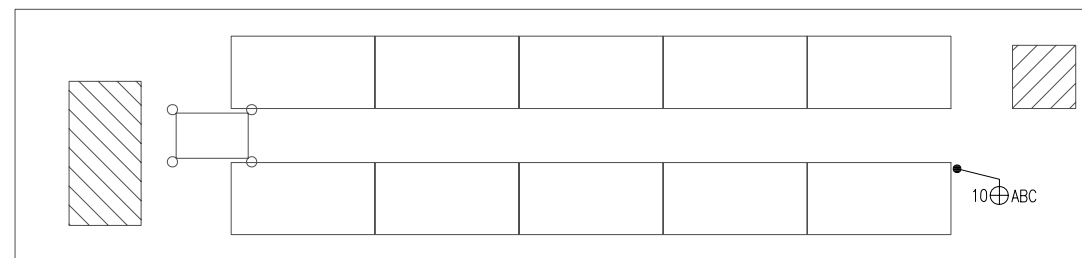
7400 South Tucson Way
 Colorado Springs, CO 80906 USA
 303-790-8606
 800-688-8606
 303-790-9130 Fax

Raytheon
Polar Services

FILE NAME: MC-WAIS-FP-104-REV B
 PROJECT NUMBER: 218B50
 SCALE: AS NOTED
 SHEET TITLE: NICL/ICDS FIRE DETECTION PLAN
 SHEET NUMBER: FP-104



1 NICL/ICDS FURNITURE/EQUIPMENT LAYOUT
 SCALE: 1/8"=1'-0"



2 CORE STORAGE BASEMENT FURNITURE/EQUIPMENT LAYOUT
 SCALE: 3/16"=1'-0"

PRELIMINARY
 NOT FOR RELEASE

THIS BAR = 1" AT FULL SCALE





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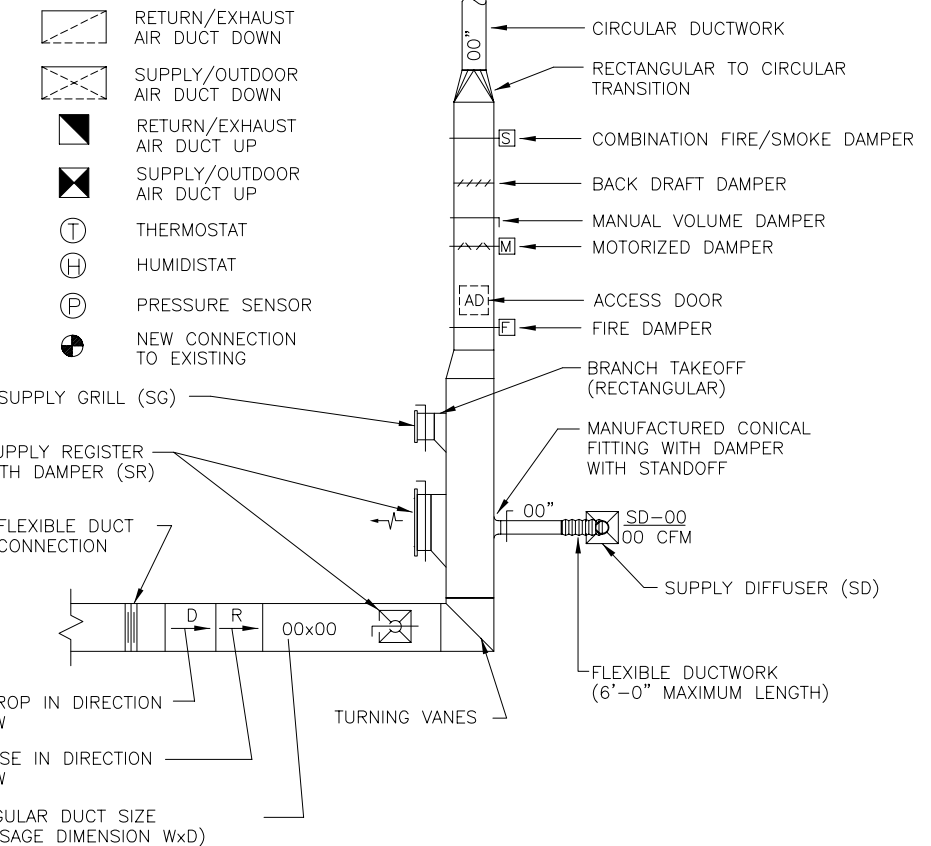
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IMAGE FILES:

GENERAL NOTES

1. ALL DUCT SHALL BE FABRICATED ACCORDING TO SMACNA DUCT CONSTRUCTION STANDARDS.




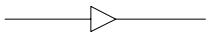
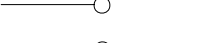
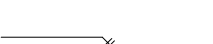
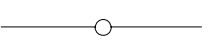
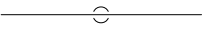


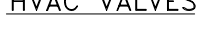
-  LOUVER
-  MD - MOTORIZED DAMPER
-  VD - VOLUME DAMPER
-  EIR - ELECTRIC INFRARED HEATER



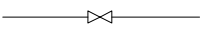
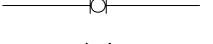
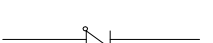

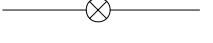
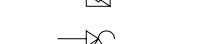

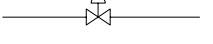
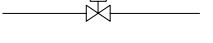
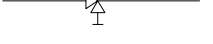


PIPING

- HWS — HEATING WATER SUPPLY
- HWR — HEATING WATER RETURN
- FOS — FUEL OIL SUPPLY
- FOR — FUEL OIL RETURN
- SEA — SEAWATER SUPPLY
- SAN — SANITARY SEWER
- V — VENT
- • — DOMESTIC COLD WATER
- •• — DOMESTIC HOT WATER
- ••• — DOMESTIC HOT WATER CIRCULATION

PIPE FITTINGS

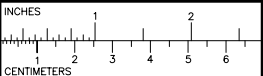
-  FILTER
-  GAUGE W/GAUGE COCK
-  THERMOMETER
-  CONCENTRIC REDUCER
-  PIPE UP
-  PIPE DOWN
-  HOSE BIB
-  TEE OUTLET UP
-  TEE OUTLET DOWN
-  MECHANICAL UNION
-  STRAINER

HVAC VALVES


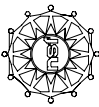
-  GATE VALVE
-  BALL VALVE
-  GLOBE VALVE
-  CHECK VALVE
-  PLUG VALVE
-  CALIBRATED BALANCING VALVE
-  TRIPLE DUTY VALVE
-  PRESSURE RELIEF VALVE
-  PRESSURE REDUCING VALVE
-  DIRECT EXPANSION VALVE
-  SOLENOID VALVE
-  ANGLE VALVE

ABBREVIATIONS

- BH BOILER
- DCW DOMESTIC COLD WATER
- DHW DOMESTIC HOT WATER
- DHWC DOMESTIC HOT WATER CIRCULATION
- DM DAMPER MODULE
- EF EXHAUST FAN
- ES EMERGENCY SHOWER
- EW EYEWASH
- F- FIRE DAMPER
- FH FUME HOOD
- FOS FUEL OIL SUPPLY
- FOR FUEL OIL RETURN
- FS FLOOR SINK
- FWS FRESH WATER SUPPLY
- HWP HEATING WATER PUMP
- HWR HEATING WATER RETURN
- HWS HEATING WATER SUPPLY
- MAU MAKE-UP AIR HANDLING UNIT
- RO REVERSE OSMOSIS
- SAN SANITARY
- SD SUPPLY DIFFUSER
- SF SEAWATER FAUCET
- SK SINK
- S- COMBINATION FIRE/SMOKE DETECTOR
- SR SUPPLY REGISTER
- TK TANK
- TU TERMINAL UNIT
- V VENT
- WC WATER CLOSET



NATIONAL SCIENCE FOUNDATION
OFFICE OF POLAR PROGRAMS
ATLANTA, GA 30334
CONTRACT ORF-0000373

REV NO	DATE	DESCRIPTION	BY	CHKD
B	06/20/06	90% SUBMITTAL	JW	JW
A	03/20/06	60% SUBMITTAL	JW	JW

McMURDO STATION
WAIS DIVIDE
NICL/ICDS FACILITY
MECHANICAL

DESIGNED BY: J. WALKER
CHECKED BY: J. WALKER

DATE CREATED: 01/15/06
DRAWN BY: C. SEO

Raytheon
7400 South Tucson Way
Denver, Colorado 80231
303-790-8606
800-688-8606
303-790-9130 Fax

Polar Services

FILE NAME: MC-WAIS-M-001-REV B

PROJECT NUMBER: 218B50

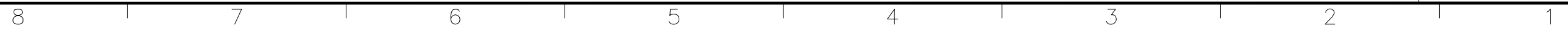
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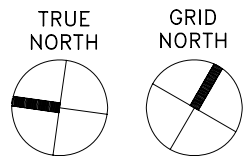
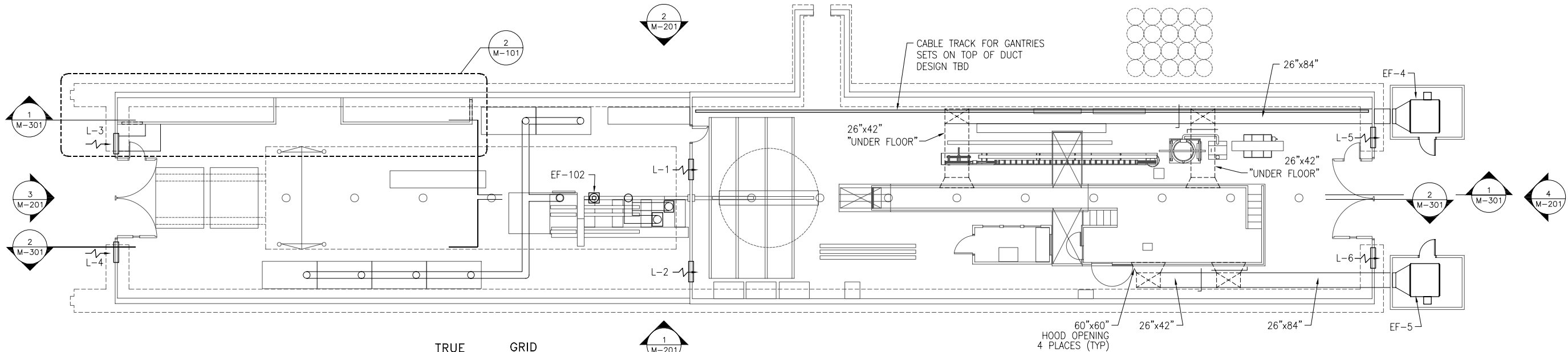
SHEET TITLE: MECHANICAL LEGEND & ABBREVIATIONS

SHEET NUMBER: M-001

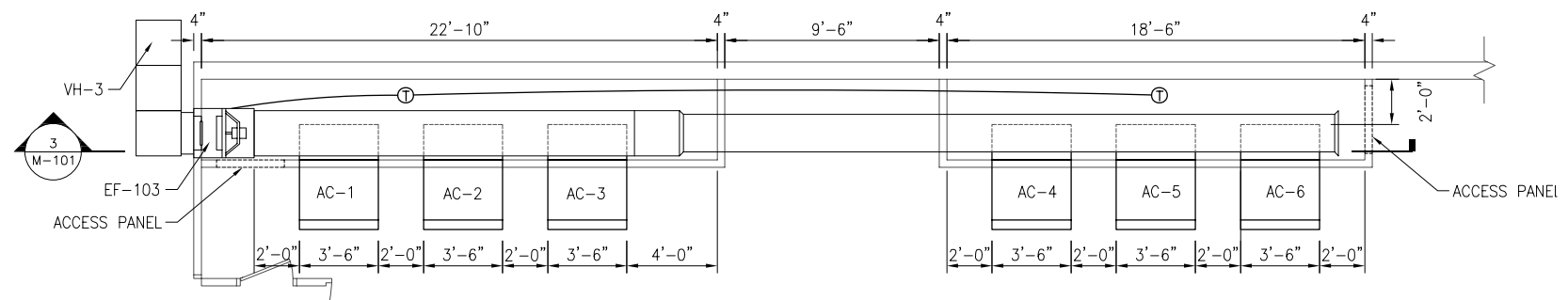
PRELIMINARY NOT FOR RELEASE

THIS BAR = 1" AT FULL SCALE

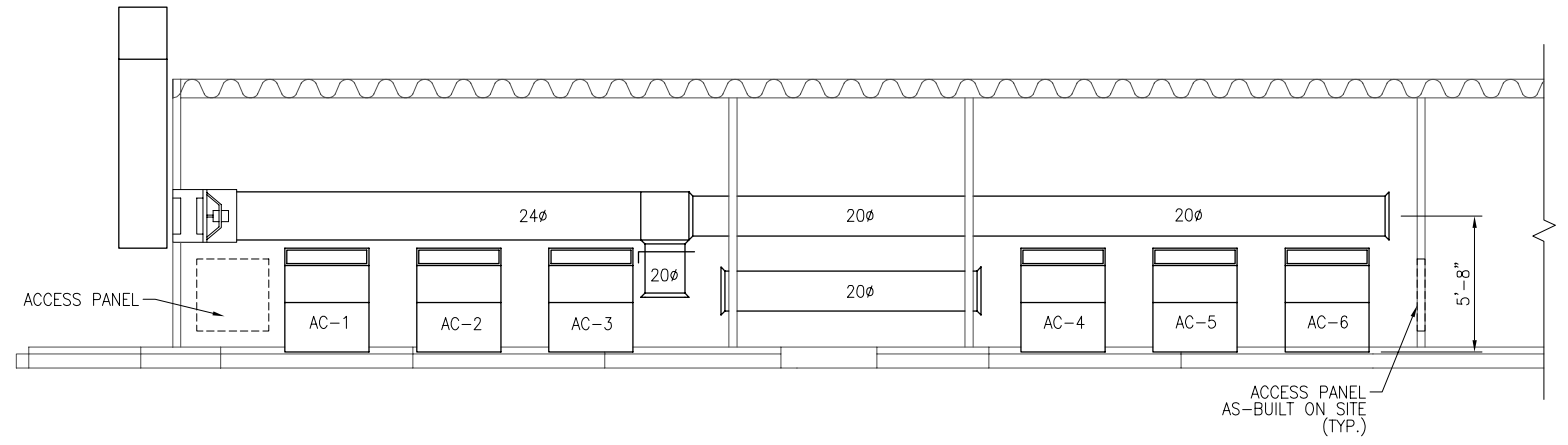




1 NICL/ICDS MECHANICAL FLOOR PLAN
SCALE: 1/8"=1'-0"



2 LARGE SCALE PLAN - MECHANICAL AIR CONDITION FLOOR PLAN
SCALE: 1/4"=1'-0"

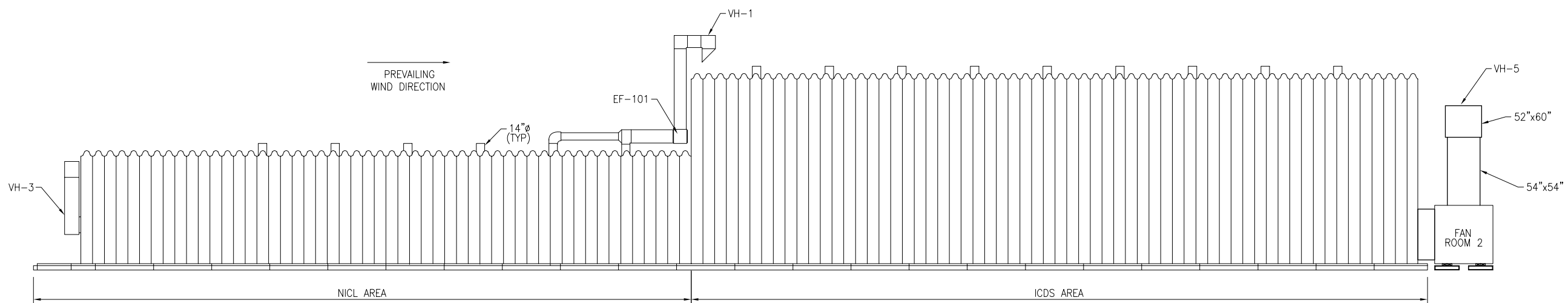


3 AIR CONDITION ROOM SECTION
SCALE: 1/4"=1'-0"

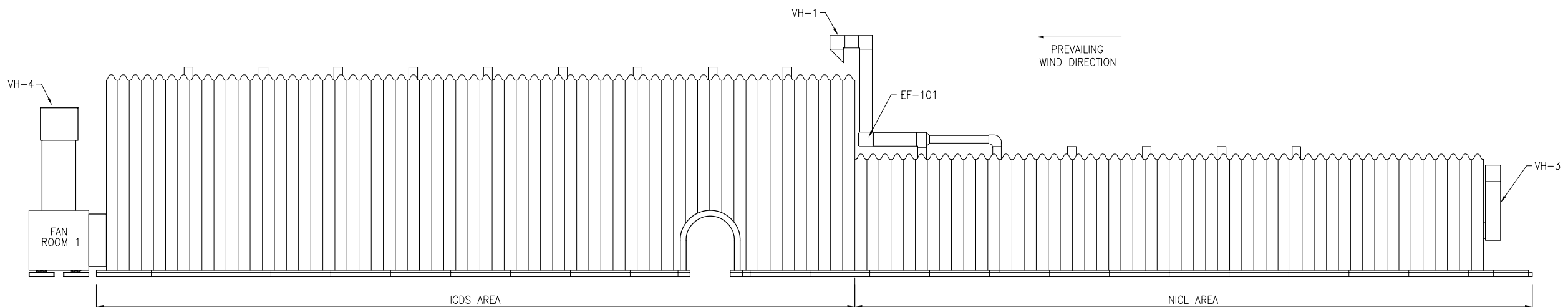
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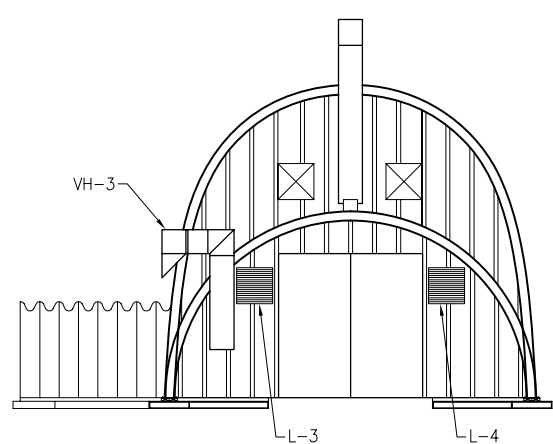
INCHES CENTIMETERS 									
NATIONAL SCIENCE FOUNDATION OFFICE OF POLAR PROGRAMS PROJECT D.D. 000373 CONTRACT O.P. 000373 									
REVISIONS <table border="1"> <tr> <th>REV</th> <th>NO</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>	REV	NO	DATE	DESCRIPTION					90% SUBMITTAL 60% SUBMITTAL
REV	NO	DATE	DESCRIPTION						
PROJECT INFORMATION PROJECT NO: 218B50 SCALE: AS NOTED SHEET TITLE: MECHANICAL PLANS SHEET NUMBER: M-101	DESIGNER: J. WALKER CHECKED BY: J. WALKER DATE CREATED: 01/15/06 DRAWN BY: C. SEO DESIGNED BY: J. WALKER 7400 South Tucson Way Tempe, Colorado 80517-9006 303-790-8606 800-688-8606 303-790-9130 Fax								



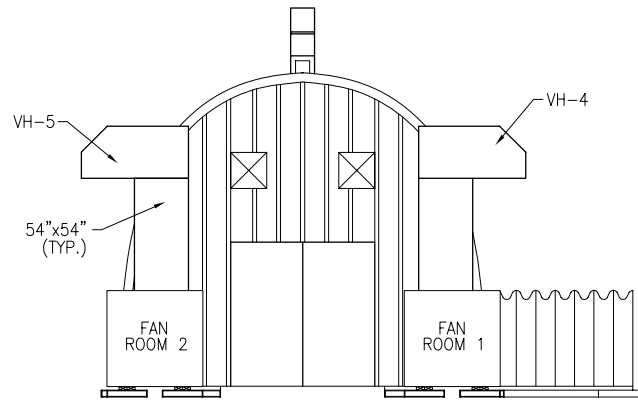
1 NICL/ICDS ELEVATION
M-101 SCALE: 1/8"=1'-0"



2 NICL/ICDS ELEVATION
M-101 SCALE: 1/8"=1'-0"



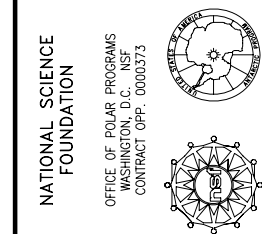
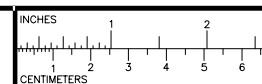
3 NICL ENTRANCE ELEVATION
M-101 SCALE: 1/8"=1'-0"



4 ICDS ENTRANCE ELEVATION
M-101 SCALE: 1/8"=1'-0"

PRELIMINARY
NOT FOR RELEASE

THIS BAR = 1" AT FULL SCALE



REV NO	DATE	DESCRIPTION	BY	CHKD
B	06/20/06	90% SUBMITTAL	JW	CS
A	03/20/06	60% SUBMITTAL	JW	CS

McMURDO STATION
WAIS DIVIDE
NICL/ICDS FACILITY
MECHANICAL

DESIGNED BY: J. WALKER
DRAWN BY: C. SEO
CHECKED BY: J. WALKER

DATE CREATED: 01/15/06

7400 South Tucson Way
Denver, Colorado
80231-7000
303-790-8606
800-688-8606
303-730-9130 Fax

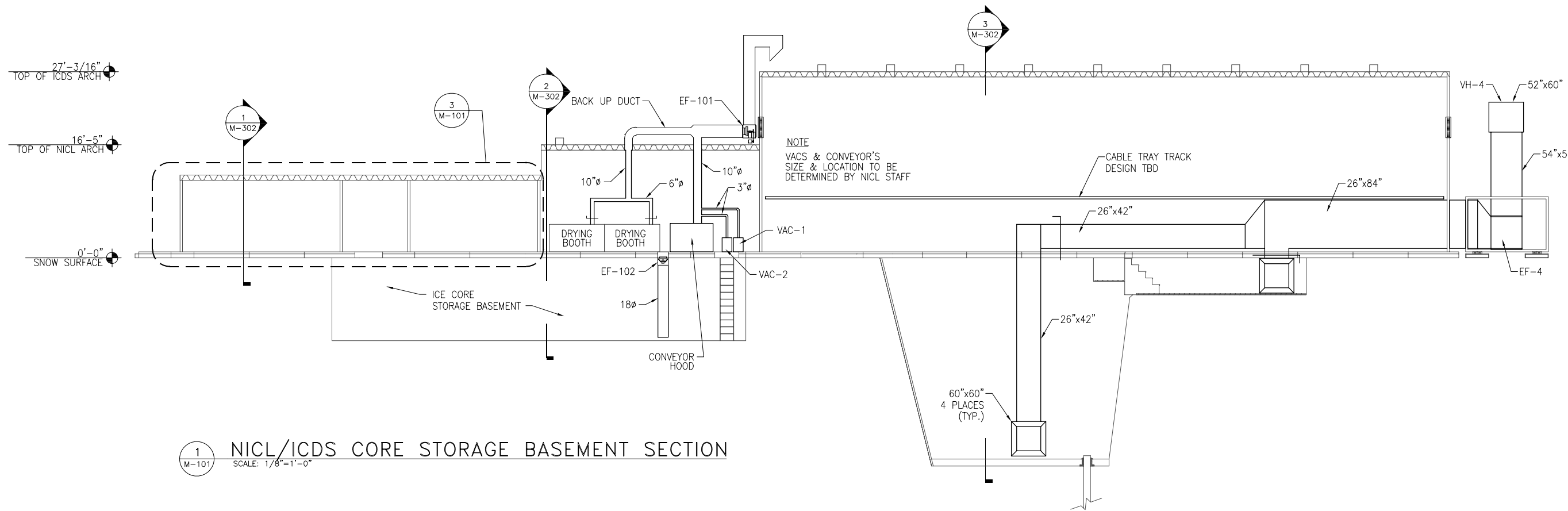
Raytheon
Polar Services

FILE NAME: MC-WAIS-M-201-REV B
PROJECT NUMBER: 218B50
SCALE: AS NOTED
SHEET TITLE: NICL/ICDS ELEVATION
SHEET NUMBER: M-201

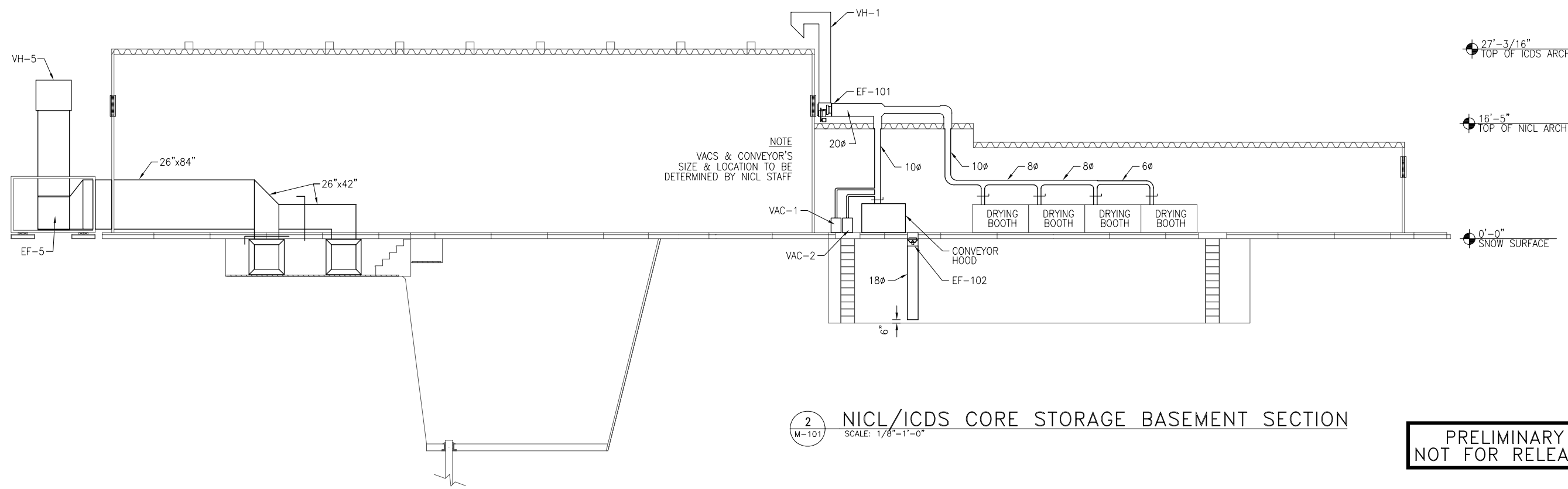
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MAKE FILES:





1 NICL/ICDS CORE STORAGE BASEMENT SECTION
SCALE: 1/8"=1'-0"



2 NICL/ICDS CORE STORAGE BASEMENT SECTION
SCALE: 1/8"=1'-0"

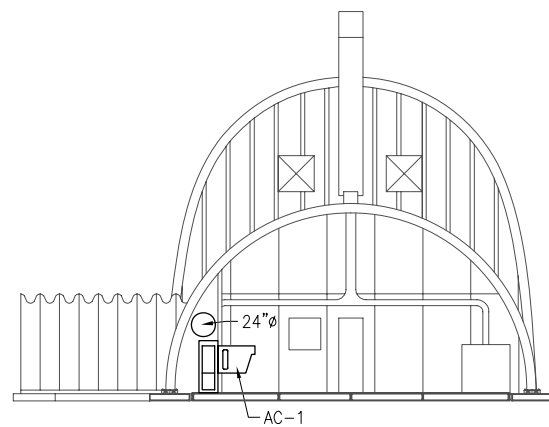
PRELIMINARY
NOT FOR RELEASE

THIS BAR = 1" AT FULL SCALE

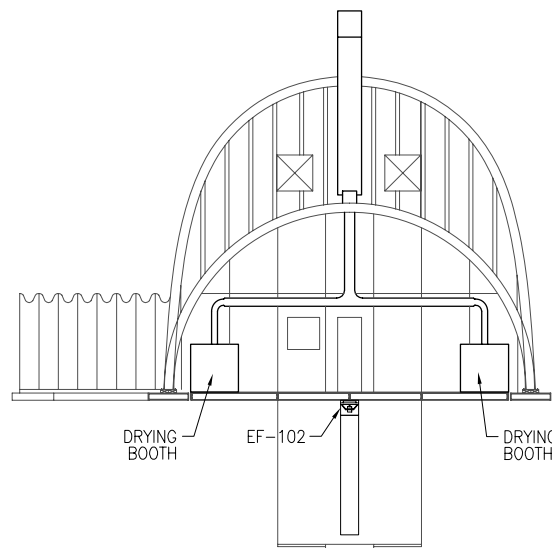
INCHES CENTIMETERS 	
NATIONAL SCIENCE FOUNDATION OFFICE OF POLAR PROGRAMS DIVISION OF POLAR RESEARCH CONTRACT ORP: 0000373	
DSNR CHD REVISIONS DATE REV NO	CS CS 06/20/06 03/20/06
McMurdo Station WAIS Divide NICL/ICDS Facility MECHANICAL	
DRAWN BY: C. SEO DESIGNED BY: J. WALKER CHECKED BY: J. WALKER	7400 South Tucson Way Denver, Colorado 80231-7000 303-790-8606 800-688-8606 303-790-9130 Fax
DATE CREATED: 01/15/06	
FILE NAME: MC-WAIS-M-301-REV B PROJECT NUMBER: 218B50 SCALE: AS NOTED SHEET TITLE: NICL/ICDS CORE STORAGE BASEMENT SECTION SHEET NUMBER: M-301	

XREF FILES:

MADE FILES:



1
M-301
NICL SECTION
SCALE: 1/8"=1'-0"

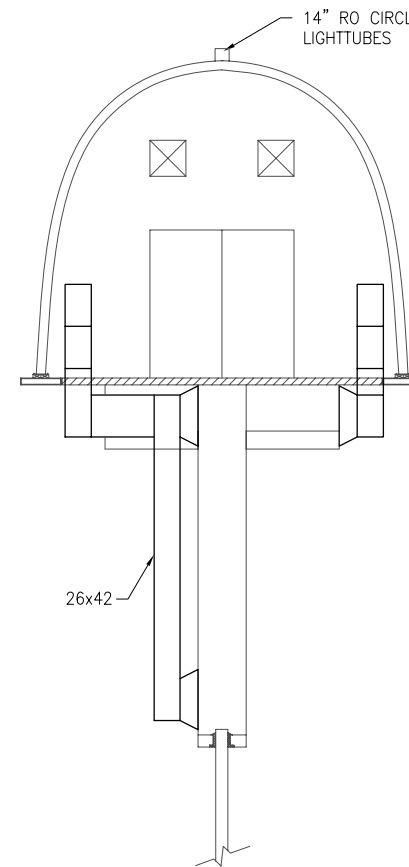


2
M-301
NICL SECTION
SCALE: 1/8"=1'-0"

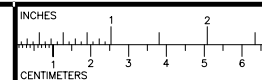
27'-3/16"
TOP OF ICDS ARCH

16'-5"
TOP OF NICL ARCH

0'-0"
SNOW SURFACE



3
M-301
ICDS SECTION
SCALE: 1/8"=1'-0"



NATIONAL SCIENCE FOUNDATION
OFFICE OF POLAR PROGRAMS
WASHINGTON, D.C. 20547
CONTRACT ORP: 0000373

REV NO	DATE	REVISIONS	DSNR	CHD
B	06/26/06	90% SUBMITTAL	CS	JW
A	03/20/06	60% SUBMITTAL	CS	JW

McMURDO STATION
WAIS DIVIDE
NICL/ICDS FACILITY
MECHANICAL

DATE CREATED: 01/15/06
DRAWN BY: C.SEO
DESIGNED BY: J.WALKER
CHECKED BY: J.WALKER

7400 South Tucson Way
Denver, Colorado
80231-7900
303-790-8606
800-688-8606
303-790-9130 Fax

Raytheon
Polar Services

FILE NAME: MC-WAIS-M-302-REV B

PROJECT NUMBER: 218B50

SCALE: AS NOTED

SHEET TITLE: NICL/ICDS CORE STORAGE BASEMENT SECTION

SHEET NUMBER: M-302

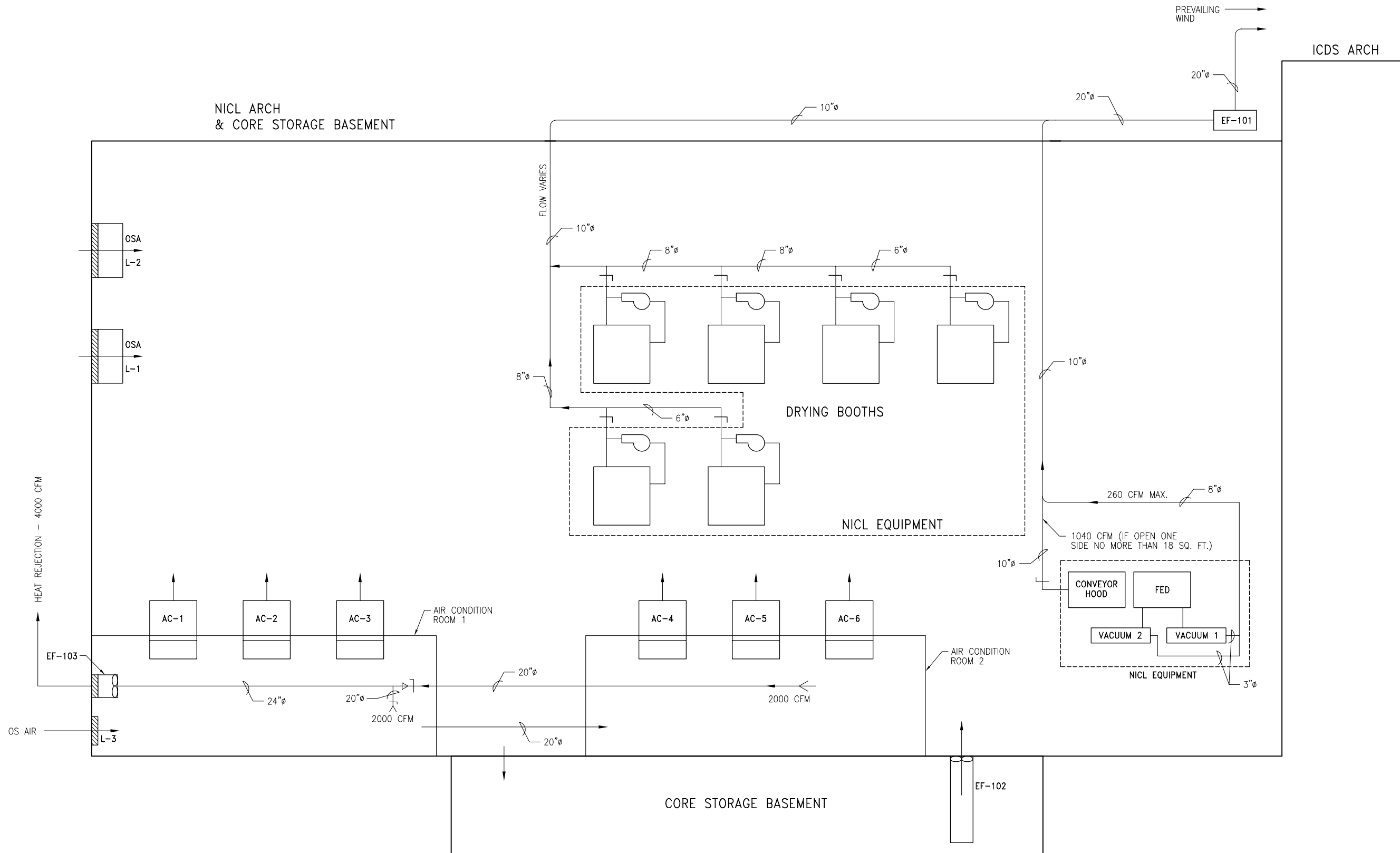
PRELIMINARY
NOT FOR RELEASE

THIS BAR = 1" AT FULL SCALE



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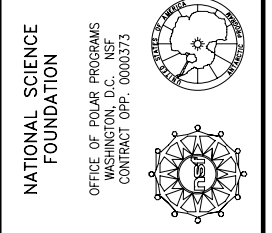
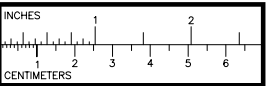
MAKE FILES:



1 VENTILATION FLOW DIAGRAM
SCALE: N.T.S.

PRELIMINARY
NOT FOR RELEASE

THIS BAR = 1" AT FULL SCALE



REV NO	DATE	DESCRIPTION	BY	CHKD
B	06/20/06	90% SUBMITTAL	JW	CS
A	05/20/06	60% SUBMITTAL	JW	CS

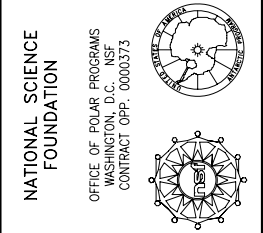
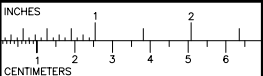
McMURDO STATION
WAIS DIVISION
NICL/ICDS FACILITY
MECHANICAL

DESIGNED BY: J. WALKER
CHECKED BY: J. WALKER
DRAWN BY: C. SEO
DATE CREATED: 01/15/06

7400 South Tucson Way
Denver, Colorado
80231-7900
303-790-8606
800-688-8606
303-790-9130 Fax

Raytheon
Polar Services

FILE NAME: MC-WAIS-M-501-REV B
PROJECT NUMBER: 218B50
SCALE: AS NOTED
SHEET TITLE: CORE PROCESSING & STORAGE VENTILATION FLOW DIAGRAM
SHEET NUMBER: M-501

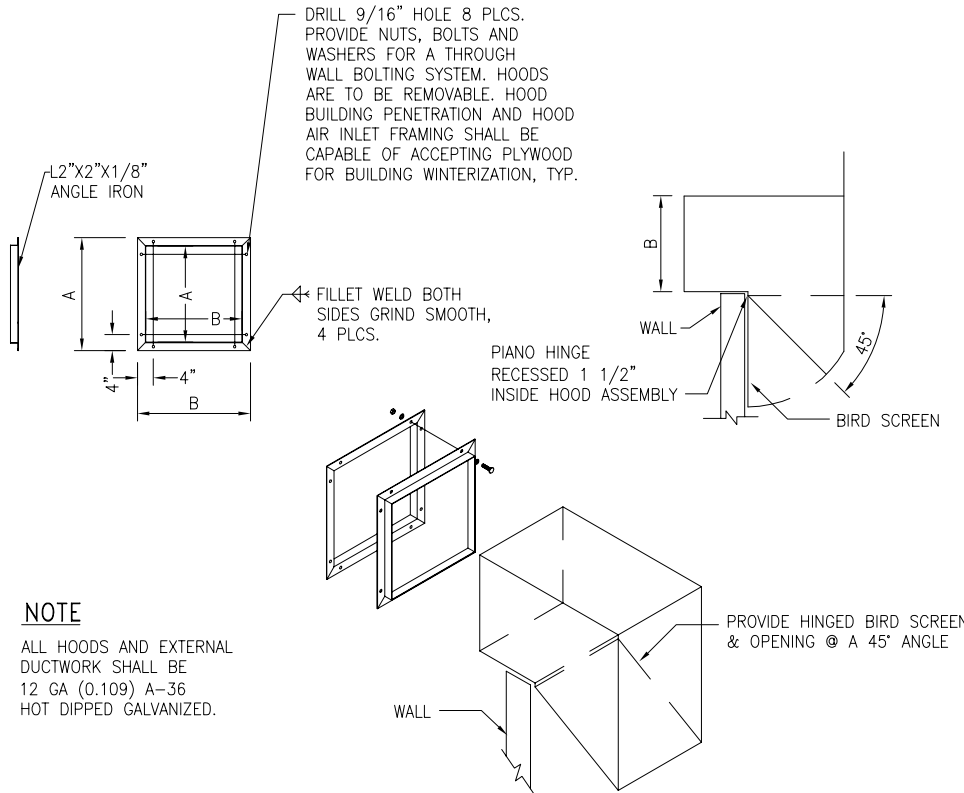


LOUVER SCHEDULE								
PLAN MARK	NO. REQ	MANUFACTURER MODEL NUMBER	SERVICE	CFM	SIZE IN.	MOUNT TYPE	MOTORIZED DAMPER	REMARKS
L-1	1	RUSKIN	INTAKE AIR		36x36	WALL	NO	
L-2	1	RUSKIN	INTAKE AIR		36x36	WALL	NO	
L-3	1	RUSKIN	INTAKE AIR		36x36	WALL	NO	
L-4	1	RUSKIN	INTAKE AIR		36x36	WALL	NO	
L-5	1	RUSKIN	INTAKE AIR		36x36	WALL	NO	
L-6	1	RUSKIN	INTAKE AIR		36x36	WALL	NO	

EQUIPMENT SCHEDULE												
PLAN MARK	NO. REQ	MANUFACTURER MODEL NUMBER	MOTOR		FAN RPM	APPROX. WEIGHT LBS.	SERVICE	CFM	DRIVE	MOTORIZED DAMPER	REMARKS	FLA
			HP	VOLT/PHASE								
EF-101	1	GREENHECK BSQ-140-10	1	480/3	1618	140	EXHAUST	2,539	BELT	NO	PROVIDE "E" MOTORS	2.1
EF-102	1	SE-1-12-432-A4	1/4	110/1	1750	29	CIRCULATION	1256	DIRECT	NO	PROVIDE "E" MOTORS	5.8
EF-103	1	GREENHECK SEI-20-420-A	3/4	480/3	1750	39	EXHAUST	3,973	DIRECT	NO	PROVIDE "E" MOTORS	1.6
EF-104	-	GREENHECK BSQ-420-100	10	460/3	632	720	EXHAUST	24,000	BELT	NO	PROVIDE "E" MOTORS	14.0
EF-105	1	GREENHECK BSQ-420-100	10	480/3	632	720	EXHAUST	24,000	BELT	NO	PROVIDE "E" MOTORS	14.0

REFRIGERATOR SYSTEM								
PLAN MARK	NO. REQ	MANUFACTURER MODEL	RATING @ 0 F. RA BTUH	RATING @ -20 F. RA BTUH	COOLANT	COMPRESSOR VOLTAGE/AMPS	CONDENSER EVAPORATOR VOLTAGE/AMPS	EVAPORATOR HEATER POWER
AC-1 - AC-6	6	CARRIER ELECTRA NOSE MOUNT TRAILER UNIT	29,000	18,000	R 404A	460V/3 60HZ/17.6	460V/3 60HZ/1.7/2.3	1000 WATTS @ 240V

VENT HOOD SCHEDULE		
PLAN MARK	A	B
VH-1	20"	20"
VH-3	24"	24"
VH-4	52"	60"
VH-5	52"	60"



1 INTAKE/EXHAUST WEATHER HOOD DETAIL
SCALE: 3/4"=1'-0"

PRELIMINARY
NOT FOR RELEASE

THIS BAR = 1" AT FULL SCALE

REV. NO.	DATE	DESCRIPTION	BY	CHKD
B	06/20/06	90% SUBMITTAL	JW	JW
A	05/20/06	60% SUBMITTAL	CS	CS

McMURDO STATION
WAIS DIVIDE
NICL/ICDS FACILITY
MECHANICAL

DESIGNED BY: J. WALKER
DRAWN BY: C. SEO
CHECKED BY: J. WALKER

DATE CREATED: 01/15/06

Raytheon
Polar Services

7400 South Tucson Way
Denver, Colorado
80231-7000 USA
303-790-8606
800-688-8606
303-790-9130 Fax

FILE NAME: MC-WAIS-M-601-REV B
PROJECT NUMBER: 218B50
SCALE: AS NOTED
SHEET TITLE: EQUIPMENT SCHEDULES
SHEET NUMBER: M-601

TRANSFORMER CONNECTIONS

- Y WYE
- △ DELTA
- △ Y DELTA WYE CONNECTION
- Y Y WYE-WYE CONNECTION
- △ △ DELTA-DELTA CONNECTION

ABBREVIATIONS

- AF AMP FRAME
- AFF ABOVE FINISH FLOOR
- AGP AREA GROUNDING POINT
- AWG AMERICAN WIRE GAUGE
- BRKR BREAKER
- CLR CLEAR
- CMS CONTROL AND MONITORING SYSTEM
- DDC DIRECT DIGITAL CONTROL
- (E) EXISTING
- EGC EQUIPMENT GROUNDING CONDUCTOR
- FACP FIRE ALARM CONTROL PANEL
- FT FEET
- GFI GROUND FAULT CIRCUIT INTERRUPTER
- GND GROUND
- HTR HEATER
- HP HORSE POWER
- ID INSIDE DIAMETER
- IMC INTERMEDIATE METALLIC CONDUIT
- KW KILOWATTS
- MANUF MANUFACTURER
- MC METAL-CLAD CABLE
- MCB MAIN CIRCUIT BREAKER
- MLO MAIN LUG ONLY
- MTD MOUNTED
- MTG MOUNTING
- NEC NATIONAL ELECTRICAL CODE
- NL NIGHT LIGHT
- PB PUSH BUTTON
- RCPT RECEPTACLE
- RPSC RAYTHEON POLAR SERVICES CORPORATION
- SDC STAND-ALONE DIGITAL CONTROLLER
- TYP TYPICAL
- UH UNIT HEATER
- UON UNLESS OTHERWISE NOTED
- UPS UNINTERRUPTIBLE POWER SUPPLY
- VFD VARIABLE FREQUENCY DRIVE
- W WATT
- WP WEATHER PROOF
- XP EXPLOSION PROOF
- XFMR TRANSFORMER

FIRE SYSTEM

- [F] FIRE ALARM COMBINATION HORN/VISUAL INDICATOR STATIONS SURFACE MOUNTED
- [F] CO₂ CO₂ DISCHARGE ALARM STATION
- [F] MANUAL PULL STATION
- REMOTE FIRE SUPPRESSION MANUAL DISCHARGE SWITCH.
- (P) PHOTOELECTRIC SMOKE DETECTOR.
- (P) PHOTOELECTRIC SMOKE DETECTOR, DUCT MOUNTED W/ PROBE
- (H) HEAT DETECTOR CEILING MOUNTED - RATE COMPENSATION TYPE.
- (H) F200° FIXED-TEMPERATURE HEAT DETECTOR WITH HEAT-COLLECTING SHROUD, PENDANT MOUNTED.
- FAA REMOTE FIRE ALARM ANNUNCIATOR, SURFACE MOUNTED.
- [H] POWER HIGH OUTPUT ALARM HORN/VISUAL INDICATORS.
- [R] FD RELAY WITH 20A. CONTACT & 24V. COIL FOR FIRE/SMOKE DAMPER CONTROL.
- [H] FIRE ALARM HORN/AUDIBLE SIGNAL

RECEPTACLES

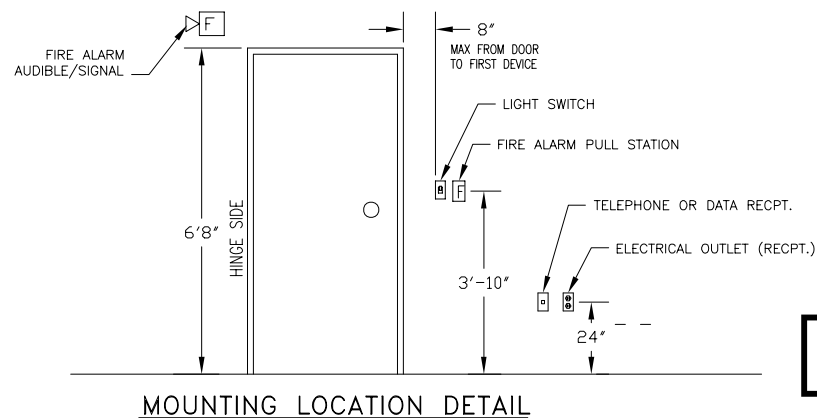
- ⊕ DUPLEX
- ⊕ DOUBLE DUPLEX
- ⊕ C CEILING MOUNTED RECEPTACLE
- GFI ⊕ DUPLEX GROUND FAULT INTERRUPTER 20A
- ⊕ SPECIAL RECEPTACLE OF AMP, VOLTAGE RATING AND PHASE AS NOTED
- M/2 MULTI-OUTLET ASSEMBLY. / FOLLOWED BY NUMBER INDICATES THE NUMBER OF RECEPTACLES
- 220 ⊕ 220 VOLT RECEPTACLE
- WP ⊕ WEATHER PROOF RECEPTACLE
- UPS ⊕ UPS POWER RECEPTACLE; ORANGE PLUG

LIGHTING SYSTEM

- ⌘ SWITCH - SINGLE POLE
- ⌘₃ SWITCH
 - 2- DOUBLE POLE
 - 3- 3 WAY
 - 4- 4 WAY
 - T- SINGLE POLE W/ THERMAL OVERLOADS
 - P- SINGLE POLE W/ PILOT LIGHT
 - O- OCCUPANCY SENSOR W/ MANUAL ON-OFF
- NL NIGHT LIGHT OR FIXTURE WITH LAMPS CONNECTED TO NIGHT LIGHT CIRCUIT.
- ☐ SURFACE CEILING/PENDANT MOUNTED FLUORESCENT FIXTURE 3. LIGHTING FIXTURE SCHEDULE. FIXTURES WILL VARY (2 X4",4'X1',2'X2',ETC.) CALL OUTS WILL BE PROVIDED ON DRAWINGS.
- ☐ WALL MOUNTED FLUORESCENT FIXTURE. FIXTURES WILL VARY (2 X4",4'X1',2'X2',ETC.) CALL OUTS WILL BE PROVIDED ON DRAWINGS.
- ⊗ EMERGENCY EXIT LIGHTING UNIT: WALL MOUNTED.
- ⊗ EMERGENCY EXIT LIGHTING UNIT
- ☐ BATTERY-OPERATED EMERGENCY LIGHTING UNIT.
- ☐ BATTERY PACK FOR REMOTE HEADS.
- ⊖ WALL-MOUNTED INCANDESCENT OR EMERGENCY LIGHTING UNIT. LIGHTING FIXTURE SCHEDULE.
- ⊗ EXD LIGHT FAN COMBINATION UNIT (L) LIGHT (F) FAN
- ⊗ INCANDESCENT LIGHTS
- ▽ TELEPHONE OR DATA RECEPTACLE (TYP.)

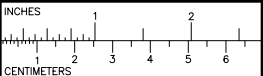
MISCELLANEOUS

- P PULL BOX.
- J JUNCTION BOX
- ⊕ EARTH GROUND
- C CONTACTOR
- HP MOTOR
- ⊕ TRANSFORMER
- ⊕ UNIT HEATER (UH)
- ☐ PANEL ENCLOSURE - PURPOSE AS INDICATED
- ☐ PANEL: FLUSH-MOUNTED.
- ☐ PANEL: SURFACE-MOUNTED.
- ☐ INDIVIDUAL HEAVY-DUTY DISCONNECT, NON-FUSED, SIZE AS INDICATED.
- ☐ INDIVIDUAL HEAVY-DUTY DISCONNECT, FUSED, SIZE AS INDICATED.
- ⊗ R INDIVIDUAL MOTOR CONTROLLER, H.P. RATED FULL VOLTAGE NON-REVERSIBLE, U.O.N. R=PROVIDE REDUCED VOLTAGE SOFT-START UNIT FOR MOTORS OVER 3 HP, U.O.N.
- (S) I(S) SPEAKERS, SURFACE-MOUNTED ON CEILING, WALL MTD.
- ⌘ WIRING, CONCEALED IN CEILING OR WALL.
- ⌘ WIRING, CONCEALED IN FLOOR.
- ⌘ WIRING, EXPOSED.
- ⌘ HOME-RUN (NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS), LA-30,32
- GROUND WIRE (1)
CONDUCTORS (2)
NEUTRAL
- HOME RUN DESIGNATION:
"LA" = PANELBOARD NOTATION FOR PANEL "0-103LA"
"30 & 32" = CIRCUIT NUMBERS E.G. LA-30,32
- TB THERMAL BREAK
- ⌘ EYS CONDUIT SEAL-OFF, EXPLOSION PROOF



**PRELIMINARY
NOT FOR RELEASE**

THIS BAR = 1" AT FULL SCALE



NATIONAL SCIENCE FOUNDATION
OFFICE OF POLAR PROGRAMS
ATLANTA, GA 30334
CONTRACT ORF-0000373

REV NO	DATE	DESCRIPTION	BY	CHKD
B	06/29/06	90% SUBMITTAL		CS
A	03/20/06	60% SUBMITTAL		CS

McMURDO STATION
WAIS DIVIDE
NICL/ICDS FACILITY
ELECTRICAL

DESIGNED BY: F.DIAL
CHECKED BY: F.DIAL

DRAWN BY: C.SEO
DATE CREATED: 01/15/06

7400 South Tucson Way
Denver, Colorado 80231
303-790-8606
800-688-8606
303-790-9130 Fax

Raytheon
Polar Services

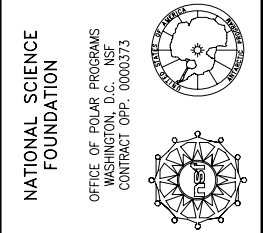
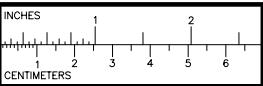
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PROJECT NUMBER: 218B50

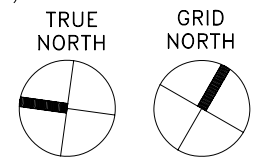
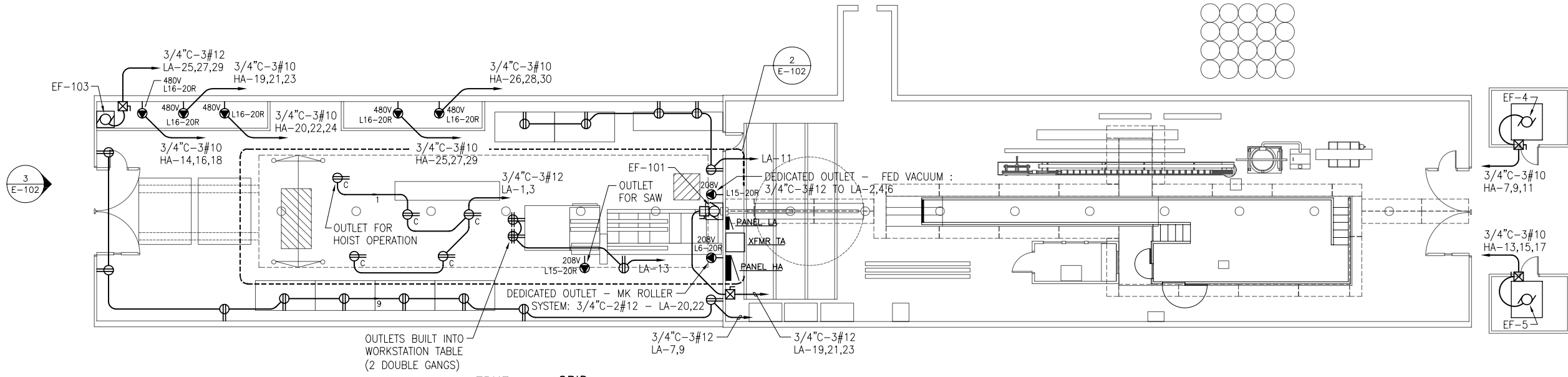
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SHEET TITLE: ELECTRICAL LEGEND

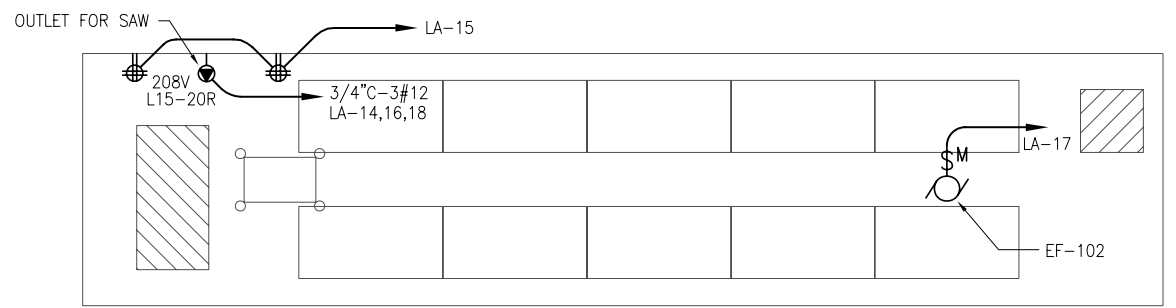
SHEET NUMBER: E-001



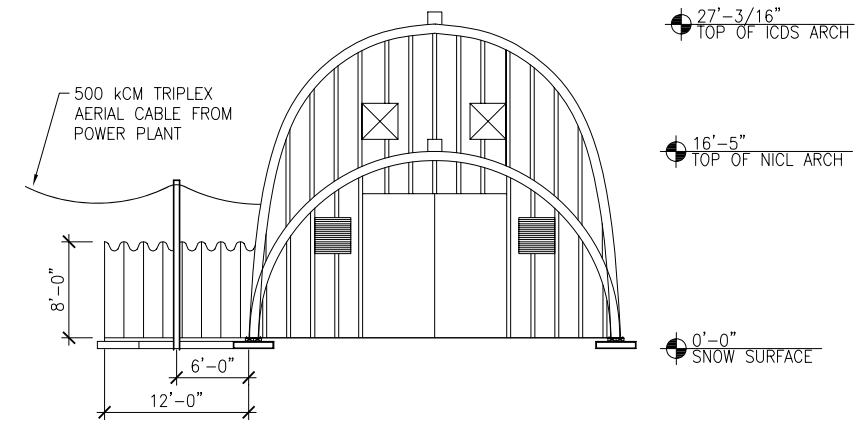
REV NO	DATE	DESCRIPTION	BY	CHKD
B	06/29/06	90% SUBMITTAL		FD
A	03/20/06	60% SUBMITTAL		FD



1 NICL/ICDS POWER PLAN
SCALE: 1/8"=1'-0"



2 CORE STORAGE BASEMENT POWER PLAN
SCALE: 3/16"=1'-0"



3 ELEVATION
SCALE: 1/8"=1'-0"

PRELIMINARY
NOT FOR RELEASE

THIS BAR = 1" AT FULL SCALE

McMURDO STATION
WAIS DIVIDE
NICL/ICDS FACILITY
ELECTRICAL

DESIGNED BY: F. DIAL
CHECKED BY: F. DIAL

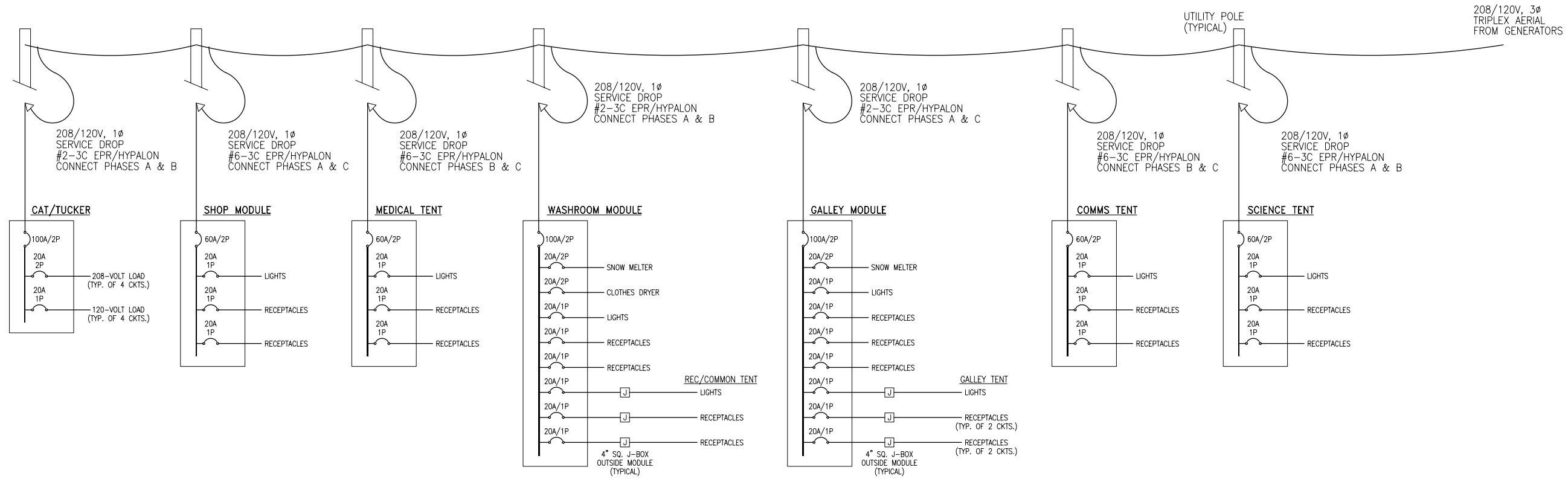
DRAWN BY: C. SEO
DATE CREATED: 01/15/06

7400 South Tucson Way
Denver, Colorado 80231
303-790-8606
800-688-8606
303-790-9130 Fax

Raytheon
Polar Services

FILE NAME: MC-WAIS-E-102-REV B
PROJECT NUMBER: 218B50
SCALE: AS NOTED
SHEET TITLE: POWER PLAN
SHEET NUMBER: E-102





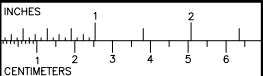
POWER DISTRIBUTION NOTES

1. ALL 20A/1P BRANCH CIRCUITS, EXTERNAL TO GALLEY & WASHROOM MODULES & INSIDE ALL TENTS, SHALL BE RUN USING #12-3C TYPE SOW/SOOW FLEXIBLE POWER CABLE. INSTALL, SUPPORT & PROTECT TO COMPLY WITH NEC ARTICLE 590.
2. ALL 20A/2P BRANCH CIRCUITS, EXTERNAL TO GALLEY & WASHROOM MODULES, SHALL BE RUN USING #12-4C TYPE SOW/SOOW FLEXIBLE POWER CABLE. INSTALL, SUPPORT & PROTECT TO COMPLY WITH NEC ARTICLE 590.
3. PROVIDE CAST METAL LIQUIDTIGHT, STRAIN RELIEF CORD & POWER CABLE CONNECTORS FOR ALL J-BOX, OUTLET BOX & ENCLOSURE CONNECTIONS INSIDE ALL TENTS & EXTERNAL TO GALLEY & WASHROOM MODULES.

1 CAMP ELECTRICAL SERVICE ONE-LINE
SCALE: N.T.S.

**PRELIMINARY
NOT FOR RELEASE**

THIS BAR = 1" AT FULL SCALE



NATIONAL SCIENCE FOUNDATION
OFFICE OF POLAR PROGRAMS
ATLANTA, GA 30337
CONTRACT ORF: 0000373

REV NO	DATE	DESCRIPTION
B	06/20/06	90% SUBMITTAL
A	05/20/06	60% SUBMITTAL

**McMURDO STATION
WAIS DIVIDE
NICL/ICDS FACILITY
ELECTRICAL**

DESIGNED BY: F.DIAL
DRAWN BY: F.DIAL
CHECKED BY: F.DIAL

Raytheon
Polar Services

7400 South Tucson Way
Denver, Colorado
80231-7000 USA
303-790-8606
800-688-8606
303-790-9130 Fax

FILE NAME: MC-WAIS-E-501-REV B
PROJECT NUMBER: 218B50
SCALE: NONE
SHEET TITLE: WAIS CAMP SERVICE ONE-LINE DIAGRAM
SHEET NUMBER: E-501

