

City of Portland, Maine - Building or Use Permit Application
 389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

PERMIT ISSUED

Permit No: 01-1373	Issue Date: NOV 20 2001	CBL: 053 D007001
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Location of Construction: 22 Bramhall St	Owner Name: Maine Medical Center	Owner Address: 22 Bramhall St	Phone: 207-871-2447
Business Name: n/a	Contractor Name: Hebert Construction LLC	Contractor Address: 9 Gould Rd. Lewiston	Phone: 2077832091
Lessee/Buyer's Name: n/a	Phone: n/a	Permit Type: Alterations - Commercial	Zone: R-6

Past Use: Medical Center / In-Patient Rooms	Proposed Use: Medical Center / Short stay In-Patient Rooms; Renovate existing 6,500 sq. ft. of patient rooms, nurse station & corridors.	Permit Fee: \$4,824.00	Cost of Work: \$800,000.00	CEO District: 2
Proposed Project Description: Renovate existing 6,500 sq. ft. patient rooms & nurse station. <i>4th floor Pavilion "C"</i>		FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied	INSPECTION: Use Group: <i>I-2</i> Type: <i>2A</i> <i>11/19/01</i>	
		Signature: <i>[Signature]</i>	Signature: <i>[Signature]</i>	
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)				
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied				
Signature: _____ Date: _____				

Permit Taken By: gg	Date Applied For: 11/05/2001	Zoning Approval
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1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules. 2. Building permits do not include plumbing, septic or electrical work. 3. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..	Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Major <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/>	Zoning Appeal <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied	Historic Preservation <input type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied
	Date: <i>11/7/01</i>	Date: _____	Date: <i>Any Exterior work requires A separate permit & review</i>

EXPIRED

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

04/06/09 Expired penalty No one comes
for refinancing -

All Purpose Building Permit Application

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>22 BRAMHALL STREET</u>		
Total Square Footage of Proposed Structure	Square Footage of Lot	
Tax Assessor's Chart, Block & Lot Chart# <u>653</u> Block# <u>D</u> Lot# <u>007</u>	Owner: <u>MAINE MEDICAL CENTER</u>	Telephone: <u>871-2447</u>
Lessee/Buyer's Name (If Applicable) <u>PLANS given ON disk</u>	Applicant name, address & telephone: <u>HEBERT CONSTRUCTION 9 GOULD ROAD LEWISTON, ME 04240</u>	Cost Of Work: \$ <u>800,000.00</u> Fee: \$
Current use: <u>IN-PATIENT ROOMS</u>		
If the location is currently vacant, what was prior use: <u>SHORT STAY IN-PATIENT ROOMS</u>		
Approximately how long has it been vacant: <u>3 MONTHS</u>		
Proposed use: <u>SHORT STAY IN PATIENT ROOMS</u>		
Project description: <u>RENOVATE EXISTING 6,500 S.F. of PATIENT ROOMS, NURSE STATION & CORRIDORS. NEW FLOORING, WALL FINISHES, ACOUSTICAL CEILING, HVAC & LIGHTING</u>		
Contractor's name, address & telephone: <u>HEBERT CONSTRUCTION LLC 9 GOULD ROAD LEWISTON, MAINE 04240 783-2091</u>		
Who should we contact when the permit is ready: <u>DAN HEBERT</u>		
Mailing address: <u>9 GOULD ROAD LEWISTON, ME 04240</u>		<u>NOTIFY WHEN READY</u>
		Phone: <u>783-2091</u>

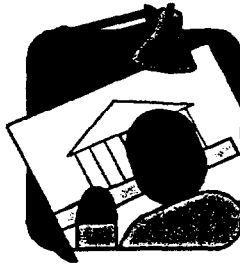
IF THE REQUIRED INFORMATION IS NOT INCLUDED IN THE SUBMISSIONS THE PERMIT WILL BE AUTOMATICALLY DENIED AT THE DISCRETION OF THE BUILDING/PLANNING DEPARTMENT, WE MAY REQUIRE ADDITIONAL INFORMATION IN ORDER TO APPROVE THIS PERMIT.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature of applicant: <u>Daniel R Hebert</u>	Date: <u>11-5-01</u>
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This is not a permit, you may not commence ANY work until the permit is issued

WOULD LIKE ASAP -



CITY OF PORTLAND MAINE

**389 Congress St., Rm 315
Portland, ME 04101
Tel. - 207-874-8704
Fax - 207-874-8716**

TO: Inspector of Buildings City of Portland, Maine
Planning & Urban Development
Division of Housing & Community Services

FROM DESIGNER: Winton Scott Architects
5 Milk St. Portland, ME 04101

DATE: November 5, 2001

Job Name: MMC P4 Renovation (Pavilion C, Fourth Floor)

Address of Construction: 22 Bramhall St. Portland, ME 04102

THE BOCA NATIONAL BUILDING CODE/1999 Fourteenth EDITION

Construction project was designed according to the building code criteria listed below:

Building Code and Year BOCA Use Group Classification(s) I-2
Type of Construction 2A Bldg. Height 58' Bldg. Sq. Footage 12,805
Seismic Zone Existing Group Class Existing
Roof Snow Load Per Sq. Ft. N/A Dead Load Per Sq. Ft. N/A
Basic Wind Speed (mph) N/A Effective Velocity Pressure Per Sq. Ft. N/A
Floor Live Load Per Sq. Ft. N/A

Structure has full sprinkler system? Yes No No Alarm System? Yes No
Sprinkler & Alarm systems must be installed according to BOCA and NFPA Standards with approval from the Portland Fire Department.

Is structure being considered unlimited area building: Yes No

If mixed use, what subsection of 313 is being considered _____

List Occupant loading for each room or space, designed into this Project.

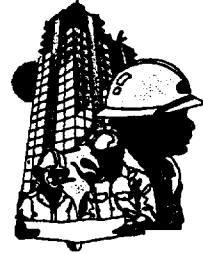
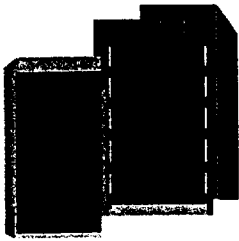
Patient Rooms = 1 person each



(Designers Stamp & Signature)

PSH 6/07/2K

Pavilion C+D to be sprinklered on fourth floor by this project.



**CITY OF PORTLAND
BUILDING CODE CERTIFICATE
389 Congress St., Rm 315
Portland, ME 04101**

TO: Inspector of Buildings City of Portland, Maine
Department of Planning & Urban Development
Division of Housing & Community Service

FROM: Winton Scott Architects

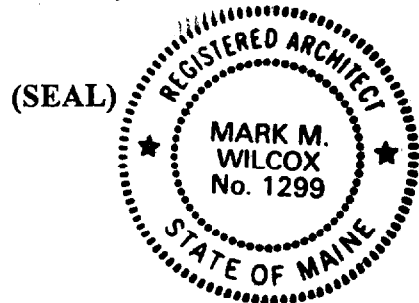
RE: Certificate of Design

DATE: November 5, 2001

These plans and/or specifications covering construction work on:

MMC P4 Renovation (Pavilion C, Fourth Floor)
(Existing building designed in 1954)

Have been designed and drawn up by the undersigned, a Maine registered architect/engineer according to the BOCA National Building Code/1999 Fourteenth Edition, and local amendments.



Signature Mark M. Wilcox

Title Principal

Firm Winton Scott Architects

Address Portland, Maine

As per Maine State Law:

\$50,000.00 or more in new construction, repair, expansion, addition, or modification for Building or Structures, shall be prepared by a registered design Professional.



City of Portland, Maine

389 Congress St., Rm 315
Portland, ME 04101

ACCESSIBILITY CERTIFICATE

TO: Inspector of Buildings City of Portland, Maine
Department of Planning & Urban Development
Division of Housing & Community Services

FROM: Winton Scott Architects

RE: Certificate of Design, HANDICAP ACCESSIBILITY

DATE: November 5, 2001

These plans and/or specifications covering construction work on:

Fourth floor of Pavilion C at Maine
Medical Center, renovation work on
existing patient rooms.

Have been designed and drawn up by the undersigned, a Maine registered engineer/architect according to State Regulations as adopted by the State of Maine on Handicapped Accessibility.

(SEAL)



Signature Mark M. Wilcox

Title Principal

Firm Winton Scott Architects

Address Portland, Maine



Hebert Construction LLC
9 Gould Road
Lewiston, ME 04240 (207)783-2091
FAX: (207) 782-4938

LETTER OF TRANSMITTAL

TO: City of Portland

DATE: 11/02/01

Attn: Building Inspection Department

RE: MMC P4

WE ARE SENDING YOU:

- SHOP DRAWINGS
- COPY OF LETTER

ATTACHED

- PRINTS
- CHANGE ORDER

UNDER SEPERATE COVER VIA

- PLANS
- SAMPLES
- Contract

COPIES	DATE	NO.	DESCRIPTION
2 ea	11/02/01		FP1, D1, A1, A2, A3, F1, T1, NC1, PA1
2	11/02/01		Outline Specifications
1	11/02/01		Electronic File

THESE ARE TRANSMITTED AS CHECKED BELOW:

- FOR APPROVAL
- FOR YOUR USE
- AS REQUESTED
- FOR BIDS DUE:
- APPROVED AS SUBMITTED
- APPROVED AS NOTED
- RETURNED FOR CORRECTIONS
- RESUBMIT COPIES
- FOR REVIEW & COMMENT
- RETURN CORRECTED PRINTS

REMARKS: Application for Building Permit

COPY TO :

SIGNED: Dan Hebert

P4

Renovation

Maine Medical Center
22 Bramhall Street
Portland, Maine 04102

Outline and Telecom Specification

Winton Scott Architects
5 Milk Street
Portland, Maine 04101

October 30, 2001

Outline Specification
October 30, 2001

Division 1: General Requirements

- Standard MMC front end documents. CPM Scheduling to be required.
- Section 01030 Alterations. General to describe patching and protection of existing finishes and patching to match existing.
- Possible Alternates for Owner Consideration: None
- Possible Allowances for Owner Consideration:
 - I. Relocation of Pneumatic Tube Station: \$7,500
- Unit Prices to be required on bid form: None
- Special Conditions Section not required. Phasing will not be required. Summary of Work to also describe work off site such as in ceiling space of Third Floor and requirements for night and weekend work in that area.
- Negative air for project work area is required.

Division 2: Demolition

- Section 02070 Selective Demolition to be used.
- Flooring removed by ACM.

Division 3: Concrete No Work

Division 4: Masonry No Work (work to be done only under patching of new openings).

Division 5: Metals - Beams under new air cooled condenser on roof at existing support frame.

Division 6: Wood - Fire retardant stud/plywood partitions at Telecom
- Architectural Woodwork:

Item	Description
AW-1	HPDL Wall Cabinet
AW-2	Patient Wardrobe Unit (Paint By Sect. 09900)
AW-3	HPDL Tall Cabinet
AW-4	Corian Counter/Corian Undermount Sink
AW-5	Patient Wardrobe Unit (Paint By Sect. 09900)
AW-6	HPDL Counter
AW-7	HPDL Counter / HPDL Drawer Bases
AW-8	HPDL Wall Shelf
AW-9	HPDL Convectior Enclosure w/Continuous Bar Grilles @ Horiz and Vert Faces
AW-10	Oak Board w/2 Dowels (Slide Board Hanger)

Item	Repair Work
All wardrobes	Remove (2) pulls and putty smooth. Provide new pulls.
Wardrobe @ 456, 458, 460, 462, 464	Remove sloped top; add catches;
Wardrobe @ 458, 462, 464	Provide new door, hinges, catches and pull
Wardrobe @ 462, 472, 476	Sand drawer to slide freely

- All work to be HPDL over MDF cores. including concealed surfaces. unless otherwise noted.
- New doors at existing wardrobes to be 3/4" birch plywood with 1/2" birch edgeband.

Division 7: Thermal and Moisture Protection

- Interior Sealants Work
- Firecaulking of plumbing and electrical penetrations of floor.

Division 8: Doors and Windows

- Oak flush doors in existing hollow metal frames.
- Provide new finish hardware. locksets, closers and hinges. All existing finish hardware to be removed.
- Doors to be prefinished but not prefitted. Each door to be prepped to match existing frame.
- Patient room latches to be Glynn Johnson cylindrical hospital latch.
- Hardware on all new doors to be lever type. Sargent 10 line cylindrical type.
- New window sashes, balances and screens at all rooms within the limit of work area with the exception of Rooms 4328, 4329, and ST-418. No work required at window sidelites (these have existing insulated panels).

Division 9: Finishes

- 4 x 4 glazed ceramic mosaic wall tile to 5' AFF and 2 x 2 ceramic mosaic floor tile at new bathrooms, utility rooms and shower room (shower to be fiberglass unit).
- 2x2 square-edged acoustic tile throughout; Armstrong Fine Fissured #1728. Drywall soffits at new chilled water piping and sprinkler piping.
- Typical walls to be painted GWB on metal studs with vinyl base.
- Patient Room walls to be overlaid with 3/8" GWB at headwall, footwall and outside wall
- All floors to be trowel skim coated with patching/underlayment compound 1/8" thick (not self leveling material).
- Flooring to be VCT, Typical: Armstrong or Mannington. Vinyl base to be Roppe.
- Carpet: Level loop tufted 32 ounce solution dyed nylon.
- Special coating and prep: Elevator doors, metal sill and grilles in Rooms 4328, 4329.

Division 10: Specialties

- Soap dispensers and paper towel dispensers at new hand sinks by MMC.
- Metal Toiled Accessories at New Patient Room Bathrooms
 - Grab Bars
 - Metal Framed Mirror With Shelf
 - Towel Bars (Existing baths have towel bars.)
 - Toilet Paper Dispensers
 - Robe Hooks
 - Soap Dispenser furnished by MMC
- Mirrors and shelves at all patient room bathrooms.
- Cubicle ceiling tracks: Cubi-Trac Model 110-C. Ceiling Mounted by ADC Hospital Equipment, Allentown, PA. no exceptions.
- Cubicle curtains: By Owner.
- Three tier lockers with key locks in Staff Room. 30 Total

Division 10: Specialties (cont):

- Television wall brackets (existing to be removed).
- At corridor intersection: Detex DM-18-585H 24" Full Hemisphere Mirrored Ceiling Dome (Owner verify).
- Corner protection: Surface mounted stainless steel.
- Door protection: Acrovyn overlay - adhesive and screw mounted (all patient room doors).

Division 11: Equipment - See Equipment Plan.

Division 12: Furnishings

- Horizontal Blinds at Rooms 4328, 4329, 4403, 4405, 4406.
- Room darkening shades for all patient rooms.

Division 13 and 14: No Work

Division 15: Mechanical

- Plumbing connections to new bathrooms.
- New seats and flush valves at all toilets. New faucets at all existing sinks.
- Wet sprinkler heads installed in all ceilings in C wing and D wing, including telecom room. Space above ceiling not to be sprinklered. Sprinkler service to be from existing standpipe riser. Valve and flow switch to be provided to sectionalize P4C/D. Reuse existing wiring to data gatherer on 4 1/2 Level. Existing partial sprinkler system to be removed.
- Existing isolation room air ductwork and cooling unit to be removed.
- Fan coil units for mechanical cooling in each room. Control by thermostat in each room.
- Chilled water pumps and expansion tank to be located on 4 1/2 Level.
- Roof mounted air cooled condenser.

Division 16: Electrical

- New service and circuit breaker panels. Existing to be removed (requires shutdown of floors above and below).
- Emergency power outlets.
- Isolated ground dedicated circuits for sensitive equipment. To be verified with Owner.
- New lighting system.
 - Patient headwall lights and exam lights over beds
 - Guest reading overhead light
 - New over mirror light at each patient bathroom.
 - Reuse existing patient room night lights with new LED lamps if possible
 - Corridor lighting, with separate fixtures for night use on dimmer.
- New telecommunications and data outlets and wiring to new telecom room.
- Nurse call system.
- Public address system.
- Television system wiring. Televisions by Owner. Wall mount brackets by Base Bid.

DIVISION 16600

Telecommunications Network Services Specifications (Revised October 29,2001)

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specifications sections, apply to work of this Section.

1.2 DESCRIPTION OF WORK

- A. **Definition:** Telecommunications includes cabling systems for voice, data, and video systems. System specifications included in this document reference public address systems, stentofon intercom systems, master time systems and nurse call (visual only, and visual and voice) systems. Specifications for equipment rooms, communication closets, power, grounding and environmental specifications, video systems, PBX systems, data networking systems, and non-standard cabling requirements shall be detailed within the Scope Of Work document provided on a project by project basis.
- B. Maine Medical Center uses the Ortronics Open Systems Architecture and the Siecor Fiber Optic Universal Transport Systems (UTS). The required system shall be specified within the Scope Of Work document on a per project basis.
- C. All voice/data and fiber-optic cabling shall be installed by a qualified and MMC approved cable installation firm. A list of acceptable contractors can be referenced in Appendix B of this document.

1.3 SUBMITTALS

- A. **No substitution of material or equipment for that specified on the electrical or telecommunications drawings or in the specifications shall be allowed without prior approval from MMC. All change proposals shall be submitted in writing with signed approval obtained from an authorized MMC agent.**
- B. **No shop drawings shall be submitted unless required by other sections of the Project Specifications.**
- C. **The submittal procedure shall be as follows:**
 - 1. The Contractor shall provide 2 sets of submittals.
 - 2. The submittal shall contain reference to specified manufacturers' catalog numbers which shall be qualified in writing if required to meet the product performance or characteristics described in the Project's drawings or specifications.
 - 3. All submittals shall contain a list of all equipment and materials to be supplied by the contractor or sub-contractor for completion of the Project. Only materials and equipment referenced in the MMC Telecommunications Section 16600 shall be accepted. In the event that a new number since the preparation of the Project's drawings and specifications has superseded any specified manufacturer's part number, the new number shall be provided with the old catalog number noted as a reference on the submittal.
 - 4. All equipment and material submittals shall have a letter included with the submittal that lists the delivery lead-time requirements for each item in the submittal. The delivery lead-time is the number of CALENDAR days between the time the order is for an item is placed with the distributor and the time can be delivered to the work site. No proposed item shall be reviewed without its delivery lead time indicated.
 - 5. All contractors shall submit a detailed description for methods and procedures for testing of all voice, data and facilities and the testing equipment to be used. The description shall

also contain methods and procedures for labeling and documentation of all terminations in accordance with the 16600 Specifications.

1.4 **PRODUCT HANDLING**

Delivery and storage: Job materials shall be kept clean, dry and protected at all times. Protect all materials against exposure to wet weather and contact with damp or wet surfaces.

PART 2 - VOICE / DATA AND VIDEO CONFERENCE INSTALLATIONS (Master Spec 16715)

2.1 **ASSUMPTIONS For Standard Installations**

- A. The contractor shall perform all terminations at the origination and outlet end. The contractor shall supply all cable and termination equipment. All cables shall be labeled with a unique ID for each cable with corresponding labels at the origination point (closet) and faceplate (station). All cables shall be bundled neatly, tie wrapped, and dressed into the termination panels. Origination (closet) and termination (station) points shall be identified by MMC on the project prints and detailed within the Scope Of Work document.
- B. Installation of cables shall be accomplished according to the Master Floor/Site Plan. One 4-pair Category 3 UTP cable and one 4-pair Category 5-E UTP cable shall be installed at each location with a minimum of **6 feet of slack** for a service loop unless otherwise specified in the Scope Of Work. All cable shall be placed along established cable pathways without weaving between pipes, conduit, etc. All direction changes shall be at ninety (90) degree angular turns. Consult the BICSI Telecommunications Design Manual (TDM) for clarification of these requirements. Plenum rated cable shall be used where required and shall be indicated in the Scope Of Work document supplied as part of the project. Plenum cables shall be used whenever necessary and shall be detailed as part of the Scope Of Work for the project.
- C. For all standard installations, the voice cable shall be terminated on the top two RJ25C jacks with the 4 pair cable split between the two jacks. The white/orange-white/blue pairs shall be terminated on jack "A" and the white/brown-white/green pairs terminated on jack "B". The data cable shall be terminated normally on the left most RJ45 jack. **The right jack is left blank.**
- D. For all Video Conference installations, there shall be one 4-pair Category 5-E UTP cable installed for each video conference unit. These cables shall be terminated on the standard data connections listed in the Appendix A section of this Specification Document. All cable shall be placed along established cable pathways without weaving between pipes, conduit, etc. All direction changes shall be at ninety (90) degree angular turns. Consult the BICSI Telecommunications Design Manual (TDM) for clarification of these requirements. Plenum rated cable shall be used where required and shall be indicated in the Scope Of Work document supplied as part of the project.
- E. The cable shall be dressed and tie wrapped following the existing cable path. At the closet, when using the existing path, all old cable ties shall be cut and removed. The new cable shall be added to the bundle and redressed utilizing Velcro straps.
- F. All cabling (including multi pair) shall be identified by printed labels, the cable range, as documented in the Scope Of Work. This must be done on both ends of the cable as well as at each penetration point and numbers shall be retained on the cable sheath after termination. All 4 pair station cables shall be treated in the same manner using the defined station number indicated on the master plan.
- F. Two types of cables are available and shall be specified on the project plan and within the Scope of Work for that project. Use one 4-pair Berktek Category 5-E yellow, UTP cable for LAN data for standard applications. Horizontal lengths shall not exceed 100 meters from the

- G.** origination point. All cables shall be terminated into approved Ortronics components at the station ends.

NOTE: All Part Numbers are listed in Appendix A.

- H.** All cabling at the origination point (closet) shall be terminated by the contractor on contractor-provided and installed BIX style connection blocks. Two types of cables are available and shall be specified on the project plan and within the Scope of Work for that project. Use one Berktek 4-pair Category 3 gray UTP cable for standard voice applications. All cables shall be terminated into approved Ortronics components at the station ends.

NOTE: All Part Numbers are listed in Appendix A.

- I.** All diagrams depicting rack layouts, patch panel locations, room layouts, and backboard plans shall be followed exactly as outlined. No deviations to these plans shall be acceptable without the written consent of MMC personnel.

NOTE: All Part Numbers are listed in Appendix A.

All riser cabling shall be run in a separate conduit. Conduit shall be sized to allow free movement of the riser cable depending on pair counts and O.D. of cable. Riser cable shall be pulled and terminated according to EIA/TIA specifications and labeled as outlined in the Scope Of Work for that project with the corresponding cable number and origination point (from-to) at each end as well as all penetration points.

NOTE: All Part Numbers are listed in Appendix A.

- J.** All Grounding installations shall be in accordance with all State and Federal regulations and shall follow any and all NEC, EIA/TIA, and BICSI Standards.

NOTE: See Appendix G for more detail.

2.2 FIBER OPTIC CABLING

- A.** The contractor shall perform all terminations, at the origination and station end. Cable and termination equipment to be supplied by the contractor. All cables shall be labeled with a unique ID for each cable with corresponding labels at the origination point and faceplate and all penetration points. All cables shall be bundled neatly, tie wrapped, and dressed into the termination panels. Origination (closet) and termination (station) points shall be identified by MMC on the project prints and detailed within the Scope Of Work document.

- B.** Siecor fiber optic cabling and shall be installed as specified on the Master Project Plan and within the Scope of Work for that project. For standard installations, 12 strand, 18 strand or 24 strand Siecor MIC cable with PVC jacket is normally specified. All fiber and innerduct shall be labeled with the corresponding cable number and origination point (from-to) at each end as well as all penetration points.

- C.** All cable shall be installed inside appropriately sized innerduct, bright orange in color, sized appropriately for the number of strands requested and secured according to industry standards. Fiber cabling and innerduct that is run through machine areas shall be installed inside conduit for protection. All fiber conduits shall be marked "Fiber Optic Cable" every 10 feet on the conduit and at every penetration point.

- D.** All fiber installed for risers shall be rated for that application whether PVC or Plenum rated. Fiber innerduct shall be installed within riser conduit. Riser conduit shall be labeled "Fiber Optic Cable" every 10 feet in visible areas and at every penetration point.

- E.** All fiber shall be terminated with the Siecor SC connectors using the required tools and consumables. Siecor patch panels and connector centers shall be provided and installed by the contractor.

NOTE: All Part Numbers are listed in Appendix A.

2.3 INSTALLATION

A. GENERAL

1. Discard units of material with defects that might impair quality of work.
2. All activities associated with MMC Telecommunications closets shall be in strict adherence to the Scope Of Work for that project.
3. All cabling shall be provided, installed, supported and fastened according to NFPA, state, local and the ANSI/EIA/TIA 568A Commercial Building Telecommunications Cabling Standards and the ANSI/EIA/TIA 569 specification.
4. For all major renovations and new construction, contractor shall provide and install a cable tray support system in all major corridors and passages. The Cablofil EZ Tray and Caddy CableCat systems are the preferred cable support systems at Maine Medical Center. Four inch sleeved penetrations shall be provided in all firewalls adjacent to cable trays and passages. Firestop of any firewall penetration is the responsibility of the contractor and shall be completed prior to leaving the premises each working day.

B. VOICE AND DATA CABLE TESTING

1. All pairs must be tested for continuity and polarity. Any pairs that do not pass shall be reterminated and retested. If unable to repair any pair within a riser system they must be clearly marked as a bad pair by blacking out the color code on the 110 or BIX block and listing on the designation strip as B/P. Hard copy documentation shall be provided to the Cable Management Technician to make MMC aware that the pairs are not in a usable condition. MMC will not be held responsible for costs associated with bad pairs.
2. All voice testing equipment used shall be able to determine short circuits, opens, reverse polarity, and tone on 4-pair cables. If cabling is to be used for high speed Token Ring or Ethernet connectivity, a twisted pair cable analyzer such as an AGILENT WireScope 350 ,OmniScanner, PentaScanner or Fluke DSP-150 or equivalent tester capable of measuring attenuation, NEXT, FEEXT at frequencies up to 150+ MHz shall be used. These devices shall be capable of measuring cable length, NEXT, attenuation, ambient noise, and other important cable functions. When these tests are performed all results must be documented. Any cables not passing the above tests shall not be accepted and shall be rerun at the contractor's expense.

C. FIBER-OPTIC CABLE TESTING

1. All fiber optic strands must be tested in the following manner: All testing must be done using a fiber optic test meter such as Agilent WireScope 350, Fluke or OTDR. All multimode fiber strands must be tested at the 850nm and 1300nm wavelengths and in both directions and all singlemode fiber strands must be tested at the 1310nm and 1550nm wavelengths and in both directions. OTDR testing may be requested in one direction, from the equipment main location to the IDF location. All fiber strands shall be certified with no more than 2 dB of loss. All dB losses must be stated at both the 850 and 1300nm windows for the multimode and 1310nm and 1550nm wavelengths for the singlemode. All fiber facilities shall be tested in accordance with industry procedures. Link certification forms for each strand showing dB losses in both directions must be provided prior to acceptance. Any strands not passing the above tests shall not be accepted and shall be rerun at the contractor's expense.

D. DOCUMENTATION

1. All fiber optic cables must be labeled with fiber optic warning tags within 18" of entering any light interface unit. All tags must show the fiber type, size, construction, and its source and destination locations. This information must also be included on all link certification forms showing dB losses. All strands must be terminated in order of color code and properly labeled.

2. All fiber test sheets and certification forms showing each strand tested from the MDF or main equipment location towards the IDF or secondary equipment location must be provided.
3. Manufacturer's material, equipment, and part numbers must be provided for all fiber optic materials. This includes light interface units, ST & SC connectors, fiber optic cable, color code, and construction of the cable.
4. Whenever strands are not terminated for any reason, those strands must be noted in the documentation with the location and future termination instructions included. All strands that are not terminated must be labeled anyway by marking the buffer to the main cable or each individual strand. These labels must coincide with the normal labeling scheme and must be noted in the documentation as unterminated strands.
5. Test results shall be provided to MMC's Cable Management Technician upon job completion, and prior to acceptance. Test results shall include a summary report of all cables and fiber strands tested and certified, and a report of each cable identifying all performance characteristics of each cable.
6. The contractor shall provide a complete set of as-built drawings to MMC on completion of this project and prior to acceptance. As-builts shall indicate all types and sizes of facility pathways, junctions, termination points. All as-builts shall be in hard copy and digital formats. Additionally, Upon substantial completion of the project, an accurate copy of the field documentation for all cabling shall be submitted immediately to the Cable Management Technician for review and Final project As-builts shall be furnished to MMC Telecommunications per project completion schedule.

2.5 VIDEO APPLICATIONS (Master Spec 16850)

A. DESCRIPTION

Cabling for MATV, CCTV or ITV systems and other electronic equipment. The contractor shall perform all terminations, at the origination and station ends. Cable and termination equipment to be supplied by the contractor. All cables shall be labeled with a unique ID for each cable with corresponding labels at the origination point and faceplate. All cables shall be bundled neatly, tie wrapped, and dressed into the termination panels. Origination (closet) and termination (station) points shall be identified by MMC on the project prints and detailed within the Scope Of Work document. Final connection to the live system shall be performed by MMC.

- A. 1. All ITV outlet jacks shall be installed at the height of 96" unless otherwise specified in the Scope of work for that project. Adequate blocking for TV support is mandatory and shall be noted on the as-built documentation.

B. REQUIREMENTS

1. Cabling:

75-ohm coaxial cables are available in a variety of RG styles. White RG-11 shall be used for Riser applications and Black RG-6 shall be used for Station locations.

2. Terminations:

Numerous connectors and adapters are available for each individual application. All outlets shall have a 2-1/2", 2" x 4" duplex box or a 2-_", 4" x 4" quad box. Specific inserts and connectors shall be detailed on the print for each location.

<u>MFG.</u>	<u>Part #</u>	<u>Description</u>
TF	2360V	RG-6 CATV UL
TF	2362V	RG11-CATV UL
TF	7065ALC	RG-6 Plenum
TF	8118AL	RG-11 Plenum

<u>MFG.</u>	<u>Part #</u>	<u>Description</u>
HA	J30BF-F	F-F 30" Jumper Black
BT	CRT-(*)	One Port Tap/Directional Coupler
Pico	DC2G-(*)	Two Port Tap
Pico	DC4G-(*)	Four Port Tap
BT	XRS-2	2 Way Splitter
BT	XRS-4	4 Way Splitter
BT	XRS-8	8 Way Splitter
BT	F56-234	RG-6 Connector
GIL	GF-11-AH-S/460	Gilbert RG-11 Connector
BT	F56P	RG6 Plenum Connector
GIL	F11P	RG-11 Plenum Connector
BT	F81	F-F Splice Female/Female Barrel
BT	F-59T	75 Ohm Terminator
BT	FAM-(*)	Assorted Attenuator
BT	BITA 450-50	Distribution Amp
BT	BITA-RF	Return Filter
BT	BITA-RA	Return Amp
BT	BITA-CE-4	Cable Equalizer
BT	BITA-FA-(*)	Amplifier Attenuator
Pico	SC-3	Channel 3 VCP/VCR Inserter
HA	MCO1/4-F	TV Outlet w/Control Cable Jack (No cover Plate)
HA	JK1/4-PLT	Pillow Speaker Jack w/Single Gang St. Steel Plate
HA	WP-81SS	Stainless Steel Face Plate With "F" Barrel
HA	WP-81IV	Ivory Pace Plate w/"F" Barrel

BT= Blonder Tongue, Pico=Pico Macon, TF=Times Fiber, GIL=Gilbert, HA=Howlands Associates

Note: All above mentioned components available from Howland Associates.

<u>Product Number</u>	<u>Description</u>
#555650-1	AMP Duplex faceplate
#555670-1	AMP Quad Faceplate
#555621-1	AMP Unshielded Installation Kit
#555645-1	AMP 75ohm F series insert
#GF6AHSUSA	Gilbert RG-6 "F" Connector
#555642-1	AMP Video BNC insert
#555644-1	AMP Blank insert

3. Documentation:

As-Built documentation of any additions to the existing CATV/MATV/ITV plant shall be the responsibility of the contractor. All testing of the cabling plant shall be the responsibility of the contractor. Testing results shall be submitted to and approved by MMC prior to acceptance of any cabling work. As-Built drawings as well as floor by floor information are available for reference use by contacting the Engineering department.

C. PAR X

All Par X connections shall be installed at the height of 18" from the ceiling unless otherwise specified and shall follow the standard wall jack numbering scheme noted in the Scope of work for that project. This cable installed shall be a standard Category 3 cable. All Par X locations shall be noted on the print.

2.06 PUBLIC ADDRESS SYSTEM 25/70 volt system (Master Spec 16726)

A. DESCRIPTION

25 volt and 70 volt paging amplifiers are used at Maine Medical Center. Volume control attenuators (as indicated on project prints) and speakers shall be arranged in a daisy-chain fashion. Each individual speaker is to be set between 1.25 and 2.0 watts. The contractor shall perform all terminations at the origination and speaker end. Cable and termination equipment is to be supplied by the contractor. All cables shall be labeled with a unique ID at the origination point and at all termination points. All cables will be bundled neatly; tie wrapped and dressed into the termination panels. Origination points will be identified by MMC on the project prints. MMC will perform the final connections to the network.

B. REQUIREMENTS

1. **Cabling**
West Penn 224 (non-plenum) 18 gauge single twisted pair double jacketed cable or equivalent shall be used.
2. **Terminations**
Each speaker shall have its transformer set for 25 volts or 70 volts to match the paging amplifier. Each speaker shall be set between 1.25 and 2.0 watts, with volume control set by the contractor as appropriate for the space. See project plans for placement and other details.
3. **Components**
Speakers are set at 1.25 to 2.0 watts. For amplifier selection, take number of speakers and multiply by 2 watts. Divide this number by 8/10 to get amplifier size. If volume control is specified in plans, also match its rating to this wattage figure.

<u>Product Number</u>	<u>Description</u>
BOGTPU15A	Bogen 14 Watt Paging Amplifier
BOGTPU35B	Bogen 35 Watt Paging Amplifier
BOGTPU60B	Bogen 60 Watt Paging Amplifier
BOGTPU100B	Bogen 100 Watt Paging Amplifier

2.9 VISUAL/VOICE NURSE PATIENT CALL SYSTEM (Master Spec 16725)

A. DESCRIPTION

The **Rauland-Borg Responder IV nurse/patient call system** shall be installed where a visual/voice nurse/patient call system is required. Installation and programming shall be accomplished by factory certified installers according to all current manufacturer standards and recommendations. The system shall be installed as a networked system to the other Responder IV systems in the hospital, and shall be connected to hospital emergency power.

This system provides two-way communication from a patient room to the nurse station, as well as visual and/or audible annunciation at a variety of other devices such as corridor lamps and duty stations.

B. COMPONENTS

The following components shall be installed as indicated on project plans. Additional system items such as splitters and Universal Interface Modules shall be installed as needed.

1. NC2828 Terminal Cabinet

Can accommodate up to 3 power supplies, 3 battery backup kits, and 3 X-bus kits (NCGCM, NCDATA, NCTLI).

- a. NCPWR power supply
- b. NCBBK battery backup kit
- c. X-bus kits as needed:
 - i. **NGCM Group Control Module** gives data and audio control for up to 3 nurse consoles and 36 control stations.
 - ii. **NCDATA Data Interface Module** provides interface to pocket page systems, system programming terminals, and system management software.
 - iii. **NCTLI Telephone Line Interface Module** provides up to 3 analog connections to the hospital telephone system.

2. **Master Stations**
 - a. **NCTSM Touch screen Console** shall be installed at all primary nurse stations.
 - b. **NCLCD Standard Console** shall be installed in secondary locations as needed.

3. **Bed Stations**
 - a. **NCBSS1 Single Bed Station** shall be installed in each private patient room. Station shall be equipped with one 12' pushbutton call cord. This device requires an electrical backbox which can be one of the following: Raco 697, Steel City 335C, Steel City H3BD-3/4 with 3GC plaster ring, or UL recognized equivalent.
 - b. **NCBSD2 Dual Bed Station** shall be installed between beds in each semi-private patient room. Station shall be equipped with two 12' pushbutton call cords. This device requires an electrical backbox, which can be one of the following: Raco 697, Steel City GW-335C, Steel City H3BD-3/4 with 3GC plaster ring, or UL recognized equivalent.

4. **Other Devices:**
 - a. **NCDUTY Duty Station** shall be installed where staff members require notification of active patient calls in the area and two-way audio communication to the nurse stations(s). This device requires an electrical backbox, which can be one of the following: Raco 697, Steel City GW-335C, Steel City H3BD-3/4 with 3GC plaster ring, or UL recognized equivalent.
 - b. **NCSTAFF Staff Station** shall be installed where staff members require two-way audio communication to the nurses' stations(s). This device requires an electrical backbox, which can be one of the following: Raco 697, Steel City GW-335C, Steel City H3BD-3/4 with 3GC plaster ring, or UL recognized equivalent.
 - c. **NCPCS1 Pull-Cord Station** shall be installed in all patient lavatories and showers, or as indicated on plans. This device requires an electrical backbox, which can be one of the following: Steel City 58371 3/4R, Raco 561 or UL recognized equivalent.
 - d. **NCSPB1 Single Pushbutton Station** shall be installed where needed for staff assistance calls, or as indicated on plans. This device requires an electrical backbox, which can be one of the following: Steel City 58371 3/4R, Raco 561 or UL recognized equivalent.
 - e. **NCSPB2 Dual Pushbutton Station** shall be installed where needed for staff assistance and code calls, or as indicated on plans. This device requires an electrical backbox, which can be one of the following: Steel City 58371 3/4R, Raco 561 or UL recognized equivalent.
 - f. **NCCB1 Supervised Code Station** shall be installed where code calls may need to be placed, or as indicated on plans. This device requires an electrical backbox, which can be one of the following: Steel City 58371 3/4R, Raco 561 or UL recognized equivalent.
 - g. **NCCLF4 Corridor Lights** shall be placed outside each patient room to visually announce active patient calls in that room. This device requires a two-gang backbox, which can be a Raco 245 with 838, raised device cover, or UL recognized equivalent. Lamps shall be installed and programmed as follows:
 Top position: White lamp. Lit steady for a normal call, flashing for priority.
 Position 2: Green lamp. Lit steady for nurse present, flashing for nurse request.
 Position 3: Amber lamp. Lit steady for aid present, flashing for aid requests.
 Position 4: Red lamp. Flashing for bath call and emergency.
 - h. **NCCLS6 Corridor Lights** shall be placed outside each patient room that has code blue functionality to announce patient calls in that room. This device requires a two-gang backbox, which can be a Raco 245 with 838, raised device cover, or UL

recognized equivalent. Lamps shall be installed and programmed the same as 15 above, except for the addition of Position 6: Blue lamp. Flashing for code call.

- i. **NCCLT2 Corridor Lights** shall be placed at each patient unit corridor intersection so as to indicate any active station calls in that corridor, and between the nurse master station and any rooms whose associated corridor lights cannot be seen.

C. IN-SERVICE TRAINING

Contractor shall provide thorough training of all nursing staff assigned to those nursing units in which the new system is installed. This training shall be developed and implemented to address two different types of staff. Floor nurses/staff shall receive training from their perspective, and likewise, unit secretaries(or any person whose specific responsibilities include answering patient calls and dispatching staff) shall receive operational training from their perspective. A separate training room shall be set up that allows this type of individualized training utilizing an in-service training unit, prior to cut over of the new system.

D. WIRING

1. There shall be two types of networks running concurrently within the system:
 - a. Hub controlled to hub controller wiring shall be Category 5, 2 pair 22 AWG.
 - b. Hub controller to control station shall be Category 3,2 pair 24 AWG, and 2 conductor 14 AWG(or smaller depending on cable run length) for up to 12 control stations and associated sub-stations.
2. Contractor shall terminate all wiring with manufacturer approved connectors. The use of wire nuts is prohibited.
3. All wiring shall be free from shorts and faults. Wiring shall be UL listed, NEC and NFPA 70, Article 25 approved.
4. **Nurse/patient communication network wiring** shall not be run in the same conduit with other systems(i.e. Class 1 AC power distribution, fire alarm entertainment systems, lighting controls, etc.).

E. ATTACHMENTS

Appendix A - Telecommunications Products and General Description

Appendix B - Telecommunications Preferred Vendor List

Appendix C - MMC Preferred Vendor List (Miscellaneous)

Appendix D - Telecommunications Closet Layout

All new Telecommunications Closets shall follow the specifications put forth in the "Typical Communications Room Design" diagram. The actual layout of the closet shall be furnished by the Owner.

Appendix E - Office Terminations for Voice and Data

Voice and data terminations shall follow the guidelines shown on this faceplate diagram. More detail on termination practices can be found in Section 2.01.

Appendix F - Telecommunications Legend

Appendix G - Telecommunications Closet Terminations

Appendix A

Product List and General Description Voice & Data

<u>Product Number</u>	<u>Description</u>
40604-001	Chatsworth rack install kit (concrete)
40607-001	Chatsworth rack installation kit (wood)
55053-503	Chatsworth 19" Universal Rack (Clear)
55053-703	Chatsworth 19" Universal Rack (Black)
12096-503	Chatsworth Vertical Section (Clear)
12096-703	Chatsworth Vertical Section (Black)
10250-009	9" Universal Cable Runway (Gray)
10250-709	9" Universal Cable Runway (Black)
10250-012	12" Universal Cable Runway (Gray)
10250-712	12" Universal Cable Runway (Black)
OR-851004862	Ortronics 568A 24 port UTP patch panel
OR-851004865	Ortronics 568A 48 port UTP patch panel
OR-808044916	Ortronics wire management panel
OR-60400129	Ortronics wire management panel
OR-60400199	Ortronics Strain Relief Bar
OR-62750002	568A dual RJ45 Jacks (DATA)
OR-62700021	Dual RJ25C Jacks (VOICE)
OR-40300182	Single gang face plates
OR-40300183	Dual gang face plates
OR-40700072	1.59 cm medium bezel for cubicles
CABLOFIL	CABLOFIL Cable Tray System

BIX

<u>Northern Telecom Number</u>	<u>Description</u>
A0270164	QMBIX10A 250 pair distribution frame
A0340836	QMBIX12E 300-pair distribution frame
A0266828	QMBIX1A5 25-pair distribution connector (5pr)
A0393146	QMBIX1A4 25-pair distribution connector (4pr)
A0270169	QMBIX20A Data plate
A0270168	QMBIX19A Distribution ring
P0748006	QCBIX1A4 Label, Blue
P0588406	QCBIX1A Label, White
P0748019	QCBIX1A Label, Grey

Appendix A (Cont.)

Voice & Data

Station Cable

Product Number

532282--TP

530462-TP

232441--TP

230282

Description

Berktek 4 Pair Category 5-E Data (PVC)

Berktek 4 Pair Category 3 Voice (PVC)

Berktek 4 Pair Category 5-E Data (PLENUM)

Berktek 4 Pair Category 3 Voice (PLENUM)

Riser Cable

The following manufacturers provide an acceptable Multipair Riser cable product for use throughout the Maine Medical Center campus. Each manufacturer noted below may provide any of the multipair cables noted in the description field below. Prior to any installations, All vendors shall provide Maine Medical Center's Telecommunications Department with the complete Manufacturers specifications for the intended product.

Manufacturer

Ortronics

Berk-Tek

General

Superior

Mohawk

Essex

Description

25 Pair

50 Pair

100 Pair

200 Pair

300 Pair

400 Pair

FIBER OPTIC CABLE

Siecor Number

#CCH-01U

#CCH-02U

#CCH-03U

#WCH-02P

#WCH-04P

#CCH-CP06-15T

#CCH-CP06-19T

#CCH-CP12-91

#CCH-CP12-59

#95-000-41

#95-200-41

#95-000-51

#95-200-51

#CCH-BLNK

Description

24 port Closet Connector Housing

48 port Closet Connector Housing

72 port Closet Connector Housing

24 port Closet Connector Housing

48 port Closet Connector Housing

ST Multimode Connector Panel

ST Singlemode Connector Panel

SC Multimode Connector Panel

SC Singlemode Connector Panel

SC Multimode Connector

SC Singlemode Connector

ST Multimode Connector

ST Singlemode Connector

Blank Connector Panel

Siecor FREEDM Cable or Equivalent (**Corning Glass**)

Siecor MIC Cable or Equivalent (**Corning Glass**)

Appendix B

Maine Medical Center Approved Telecommunication Cabling Contractors

Moreau Electric
711 Lisbon Street
P.O. Box 1097
Lewiston, ME 0423-1097
Contact: Paul Moreau
207-782-4800
207-782-4811 Fax

E.S. Boulos Co.
45 Bradley Drive
Westbrook, ME 04092
Contact: Rico Didonato
207-464-3706
207-464-1833 Fax

Computer Cable Co., Inc
150 Zachary Rd.
Manchester, NH
Contact: Tom Rider
603-623-4138
603-623-4475 Fax

MTS Services
1 Industrial Way, Unit 13
Portland, ME 04103-1072
Contact: Karl Sandmann
207-797-0886
207-797-5130 Fax

Point To Point
936 Rosevelt Trail
Windham, ME 04062
Contact: Doug Watt
207-893-1000
207-893-1001 Fax

CTI Communications Technologies, Inc.
202 Warren Avenue, Suite 300
Portland, ME 04103
Contact: Carl Richardson
207-797-9123
207-797-9103 Fax

Appendix C

Maine Medical Center Preferred Vendor List (Miscellaneous)

STENTOFON SYSTEMS

Envoy Technologies, Inc.
394 Main St.
Woburn, MA 01888
PO Box 2005
781-944-7070
781-944-9808 (Fax)
Contact: Donald Boudreau

MATV/ITV SYSTEMS

Howlands Associates
49 River Street
Plymouth, MA 02360
(508) 747-8332 (Office)
(800) 225-0256 PIN #147169 (Pager)
Contact: Ken Reardon

MASTER TIME SYSTEMS

Simplex Time Recorder Co.
136 US Route 1
PO Box 6850
Scarborough, ME 04070
883-2900
883-1488 (Fax)
Contact: Bill Burke

MATV/ITV SYSTEMS

Healthcare Television of New Eng., Inc.
26 Phillips Drive
Westford, MA 01886
(978) 692-7728 (Tech Support)
Contact: Jack Ryan
(413) 665-2844
Contact: Nancy Wilson (Sales)

NURSE-PATIENT CALL SYSTEMS (VISUAL or VOICE)

PUBLIC ADDRESS SYSTEMS

Norris Inc.
36 Mussey Rd.
Scarborough, ME 04074
883-3473
883-0815 (Fax)
Contact: Brad Norris

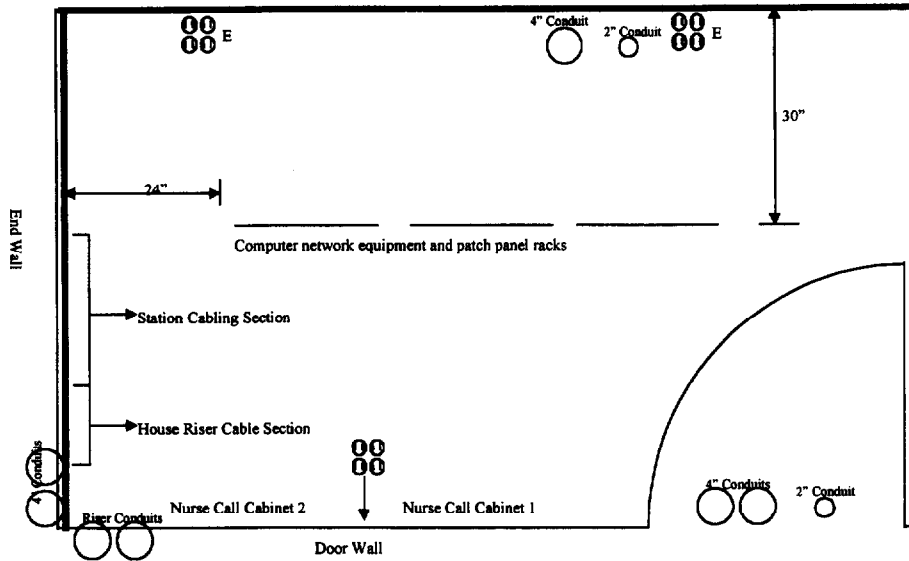
ITV SYSTEMS

DGA Technologies Inc.
2730B Brighton Road
Oakville, Ontario Canada L6H5T4
(888) 560-9063
Contacts:
Carmine Maiorano, Product Support
Anthony Barker, MMC Customer support

Appendix D

Typical Telecommunications Room Design Plans

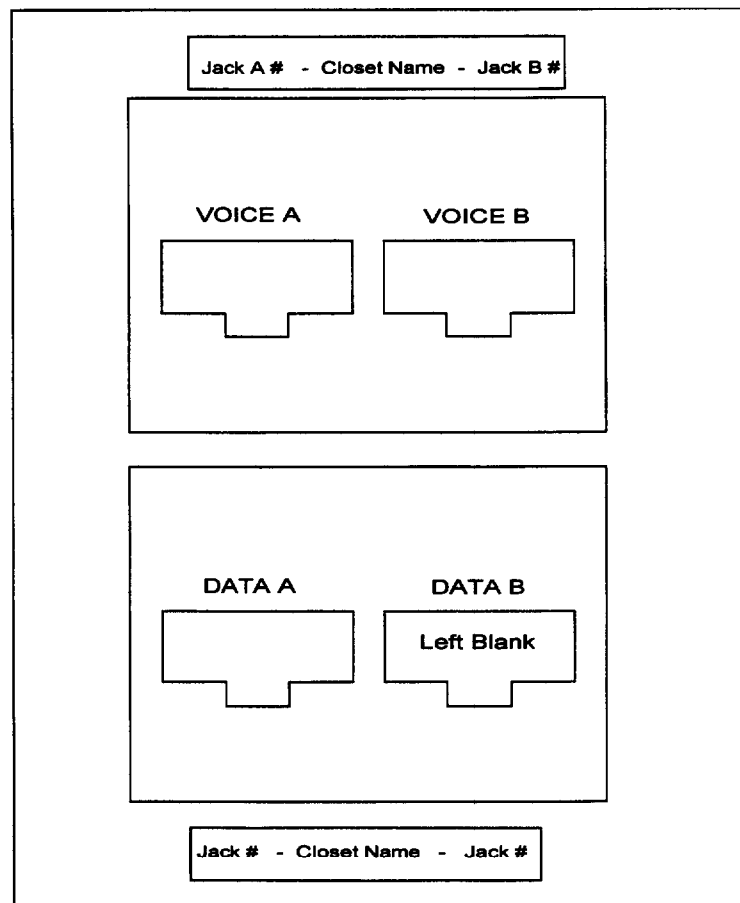
Each Telecommunications closet shall have at least 1 built-out wall with the top of the wall being open for access. This wall shall be constructed with either wooden or metal 2"x 4" studs. If metal studs are used, they shall be doubled up to close the inside opening and the exterior sheathing shall be 1/2" A/C grade Fire-retardant plywood with the finish side out. This wall shall be painted with 2 coats of White Fire-retardant paint. Any power or voice/data outlets installed on this wall shall be at the 18" A.F.F. height. All closets that shall be constructed as part of any Telecommunications project shall be designed by the Cable management Technician and no deviations shall be permitted without Telecommunications approval.



Appendix E

Office Terminations for Voice and Data

Maine Medical Center Standard Faceplate Layout









- * 1 Category 3 cable split into 2 voice jacks
- * Voice Jacks On Top Of Faceplate
- * 1 Category 5 Per Drop
- * Data Always Terminated On Left
With Right-Hand Jack Blank









APPENDIX F Telecommunications Legend

Communications Legend for Floor Plans




Voice/Data Wiring

-  **Voice/data jack**
-  **W Wall Telephone Jack**
-  **P Public Pay Telephone**
-  **V Voice Only Jack**
-  **D Data Only Jack**
-  **# Multiple voice /data at location**

Nurse Call Systems

-  **P Patient station.** If marked with a number 2, indicates dual. Lights associated corridor light, duty stations, and annunciator panel or master station.
-  **E Emergency station,** usually for lavatories, with pull cord. If marked with a B, is button instead of pull cord. Lights associated corridor light, duty stations, and annunciator panel or master station.
-  **D Duty Station.** Gives audio and visual indication that a patient has called for assistance in the corresponding area.
-  **S Staff Station.** Allows two-way communication with the master station. Either end can initiate.
-  **SD Staff-duty station.** Combines Staff and Duty station functions.
-  **AP Nurse call annunciator panel.** Gives visual indication that one of the above devices has called for assistance.
-  **MS Nurse call master station.** Gives audio and visual indication that one of the above devices has called for assistance. Provides for two-way communication with any capable device.
-  **Corridor light.** Required in corridor outside all patient and emergency stations and at corridor intersections.





COAX WIRING

-  **C CAMERA**
-  **ITV INTERACTIVE TELEVISION**
-  **M MONITOR**

CLOCKS

-  **C CLOCK**
-  **CR CLOCK REPEATER**

PAGING WIRING

-  **PS PAGING SPEAKER**
-  **PA PAGING AMP**
-  **M MICROPHONE**
-  **VC VOLUME CONTROL**

Appendix G

Closet Terminations

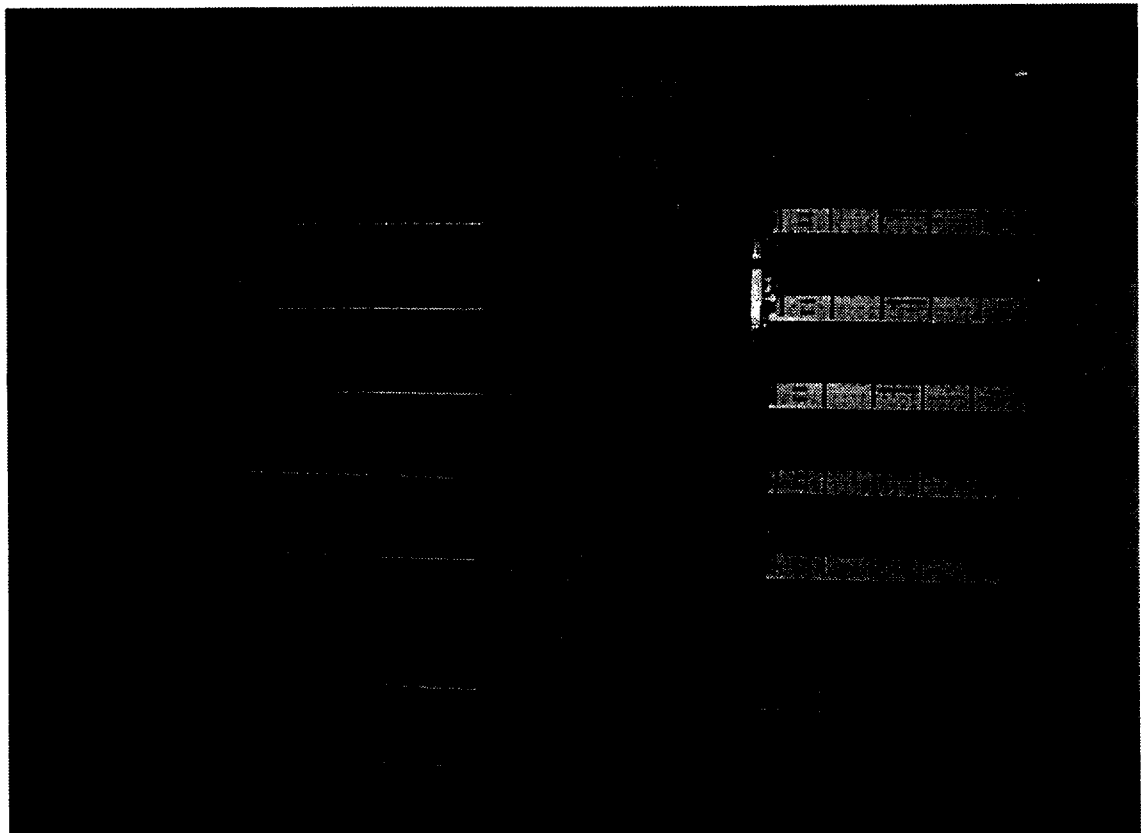
All Cat-5E terminations shall be installed as shown below. Each data drop shall be installed in a uniform manner, which shall include a cable identification number on each cable, and velcro strips shall be used for the finished install. **The Labeling for the Data frame shall be as follows:** Starting from the top left and working to the top right and continuing in ascending numerical order from left to right through the remaining frame, the labeling shall be **001** through **999**. This numbering sequence shall be adhered to throughout the Maine Medical Center campus unless specifically noted in the Scope Of Work for that project.



Appendix G Cont.

Closet Terminations

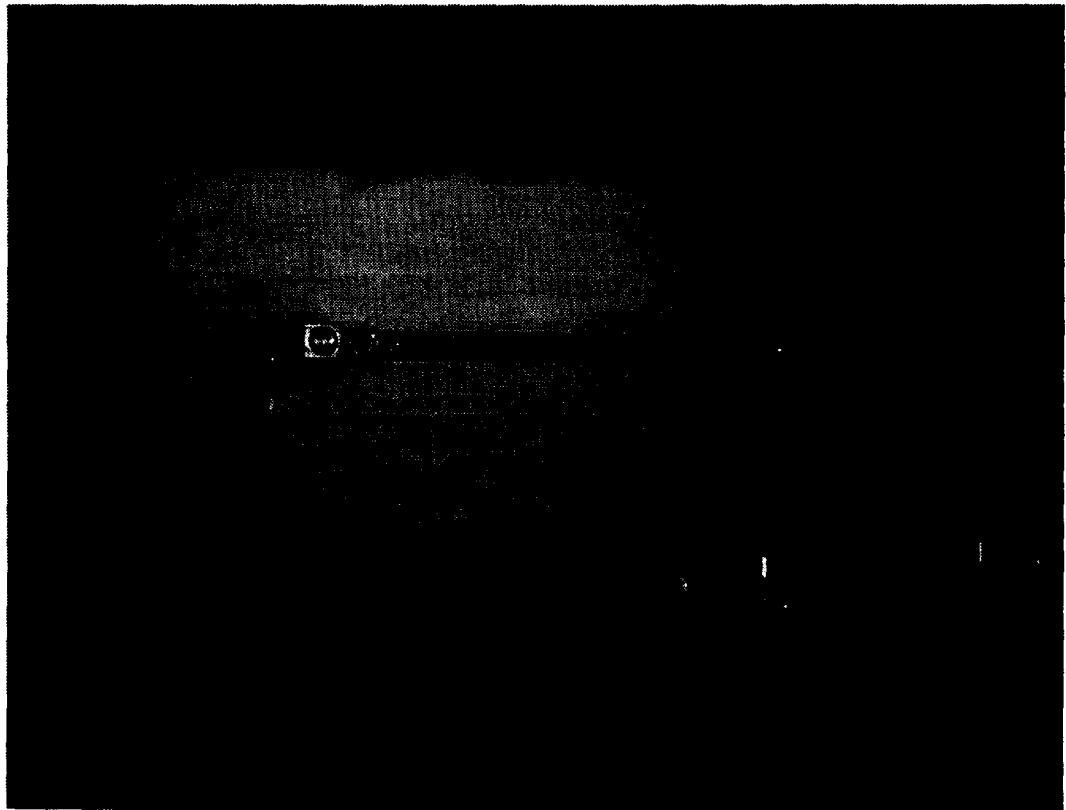
The Voice Frames in each MMC closet shall be installed utilizing NORDX/CDT (BIX) equipment. Typically the Station cables shall be installed on the left side and labeled with Blue DESI labels. Typically the Riser cables shall be installed on the right side and labeled with White DESI labels. BIX management rings shall be installed for cross-wire installs from left to right and No BIX rings shall be required on the extreme right side. **Voice Frame labeling shall be as follows:** Starting at the top left of the frame and working to the top right of the frame and continuing through to the end of the Station cable count the labeling shall be **001A** then two spaces and then **001B** in ascending numerical order to the end of the Station cables. The wall cables shall be installed starting at the end of the Voice Frame at the bottom right and working to the bottom left. These wall cables shall be labeled **W001** continuing in ascending numerical order to the end of the wall cables. The Riser cables shall be labeled with the next pair count from the Main Distribution Frame (MDF) and each 25 pair ID strip shall have the beginning and end pair labeled on the top and bottom of each ID strip until the complete cable has been identified. The Closet Identification number shall be included in the top and bottom center of each ID strip and shall include the cable origination point and the cable destination point. An example of this is **0GPA3 to 0BPA1**. This numbering sequence shall be adhered to throughout the Maine Medical Center campus unless specifically noted in the Scope Of Work for that project.



Appendix G Cont.

Closet Terminations

Each Telecommunications closet throughout the Maine Medical Center campus shall have an Isolated Grounding Bus Bar installed with a #6 Grounding cable. The #6 Grounding cable shall be installed from the Main Isolated Electrical Panel for the area and another #6 Grounding cable shall be installed from the Isolated Grounding Bus Bar to the Equipment rack.



END OF DOCUMENT