SPECIFICATIONS

1 SUMMARY

1.1 PROVIDE ALL MATERIALS, EQUIPMENT, AND PERFORM ALL LABOR TO INSTALL VOICE/DATA SYSTEMS COMPLETE AS REQUIRED BY CODE AND AS SPECIFIED HEREIN.

1.2. OBTAIN AND PAY FOR ALL PERMITS, BONDS, AND INSPECTIONS. COORDINATE INSPECTIONS WITH WORK AS IT PROGRESSES.

a) PROVIDE SERVICES NECESSARY TO COORDINATE WORK WITH WORK OF OTHERS. NOTIFY CONCERNED PARTIES BEFORE PROCEEDING WITH WORK THAT WILL AFFECT THEM.

b) ALL SPARE, EMPTY, AND JUNCTION BOXES TO HAVE PULL STRING.

c) FURNISH AND INSTALL ALL BRANCH CABLES (CIRCUITS) BETWEEN PANELBOARDS AND THE FINAL TERMINALS AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN.

d) RECEIVE, STORE, INSTALL AND MAKE FINAL CONNECTIONS TO ALL TERMINATIONS AS SHOWN ON DRAWINGS AND SPECIFIED HEREIN.

e) MAKE ALL CONNECTIONS TO PUBLIX SUPPLIED EQUIPMENT. CABLE CONTRACTOR TO VERIFY ALL MANUFACTURER EQUIPMENT REQUIREMENTS PRIOR TO CONNECTION. ANY CONFLICTS OR DEVIATION IN DESIGN SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.

f) FURNISH AND INSTALL ALL VOICE AND DATA WIRING DEVICES AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN.

g) THE CABLE CONTRACTOR IS FULLY RESPONSIBLE AND LIABLE FOR DAMAGED AND LOST MATERIALS FURNISHED BY PUBLIX. IT SHALL BE REQUIRED THAT THE CABLE CONTRACTOR SIGN FOR THE MATERIALS SUPPLIED BY PUBLIX.

1.3 PUBLIX RESERVES THE RIGHT TO FURNISH ANY ITEMS OF THE VOICE/DATA EQUIPMENT TO THE CABLE CONTRACTOR. IF THIS IS DONE THE CABLE CONTRACTOR SHALL INSTALL THE EQUIPMENT AND DEDUCT THE COST OF THE EQUIPMENT FROM THE CONTRACT. COST ADJUSTMENT WILL BE MADE BY CHANGE ORDER.

1.4. CONFLICTS, DISCREPANCIES, INTERFERENCE'S AND OMISSION IN THE DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION PRIOR TO COMMENCEMENT OF WORK.

2. SUBMITTALS

2.1. SUBMIT ALL REQUIRED PRODUCT DATA, SAMPLES, PRODUCT PERFORMANCE CRITERIA, ETC. TO:

PUBLIX SUPER MARKETS, INC.
ATTN: FACILITIES DESIGN
P.O. BOX 407 (3300 PUBLIX CORP. PKWY)
LAKELAND, FL 33802 (33811)

2.2. WITHIN 30 DAYS OF CONTRACT COMMENCEMENT (AUTHORIZATION TO PROCEED), SUBMIT FOR PUBLIX ENGINEER'S APPROVAL:

a) LIST OF MATERIALS INTENDED FOR USE IN THE PROJECT.

b) MANUFACTURER'S CATALOG CUT SHEETS OF MATERIALS INTENDED FOR USE IN THE PROJECT. LETTERS OF INTENT ARE NOT ACCEPTABLE.

1) WHERE MORE THAN ONE OPTION IS DESCRIBED, MARK TO INDICATE MODEL OR TYPE TO BE USED.

c) SUBMITTALS TO INCLUDE: WIRE, WIRING DEVICES, PERFORMANCE CHARACTERISTICS. SUPPORTS, STRAPS, ETC.

d) COPIES OF LICENSES OF KEY PERSONNEL IF REQUESTED BY PUBLIX.

e) SAMPLES OF MATERIALS IF REQUESTED BY PUBLIX.

f) OTHER ITEMS REQUIRED TO COMPLETE THE WORK.

2.3 SUBMIT THREE IDENTICAL BOUND COPIES OF ALL ITEMS. ARRANGE CATEGORIES IN ORDER LISTED ABOVE.

2.4. CLOSE OUT DOCUMENTS:

a) PROVIDE A COMPLETE SET OF MANUFACTURER'S WARRANTIES AND WARRANTY CERTIFICATES.

b) PROVIDE A COPY OF ALL TEST RESULTS AS REQUESTED BY THESE CONSTRUCTION DOCUMENTS.

c) PROVIDE A COPY OF THE FINAL APPROVAL FROM THE LOCAL BUILDING DEPARTMENT.

d) CABLE CONTRACTOR SHALL PREPARE AND PROVIDE A COPY OF ALL AS-BUILT DRAWINGS

i. AS-BUILT DOCUMENTS SHALL CONTAIN COMPLETE INFORMATION REGARDING ANY AND ALL CHANGES TO THE DESIGN DOCUMENTS, COMPONENANTS AND OR SYSTEMS FROM THE ORIGINAL DESIGN.

3. QUALITY

3.1. THE CABLE CONTRACTOR SHALL BE A REPUTABLE COMPANY REGULARLY ENGAGED IN THIS TYPE OF WORK, EMPLOYING SKILLED WORKMEN, AND WITH PROPER EQUIPMENT AND LICENSE.

3.2. UPON REQUEST, THE CABLE CONTRACTOR SHALL SHOW EVIDENCE OF AT LEAST TWO SIMILAR JOBS, OF COMPARABLE SIZE AND CHARACTER, INSTALLED AND OPERATING WITHIN THE PREVIOUS TWO YEARS TO BID OPENING.

3.3 CONTRACTOR SHALL PERFORM AN INITIAL SITE SURVEY TO ENSURE A SUCCESSFUL, QUALITY INSTALLATION.

3.3. PUBLIX RESERVES THE RIGHT TO REFUSE ANY SUBCONTRACTOR WITH OR WITHOUT CAUSE.

4. PERSONNEL

4.1 EMPLOY AN EXPERIENCED SUPERVISOR TO OVERSEE ALL OPERATIONS.

4.2 WORK SHALL NOT PROCEED WITHOUT ADEQUATE SUPERVISION PRESENT AT ALL TIMES.

4.3 WORK SHALL BE ACCOMPLISHED BY WORKERS CERTIFIED IN THEIR TRADE IN ACCORDANCE WITH REGULATIONS OF THE GOVERNING AUTHORITY OR CUSTOMARY PRACTICE. UTILIZE WORKERS WITH SKILLS IN PROPORTION TO THE COMPLEXITY OF THE TASKS REQUIRED.

4.4 PUBLIX RESERVES THE RIGHT TO REJECT PERSONNEL WITH OR WITHOUT CAUSE.

5. QUALITY STANDARDS

5.1 WORK SHALL BE ACCOMPLISHED TO ENSURE THE SAFETY TO ALL PERSONNEL BOTH DURING INSTALLATION AND AFTER OCCUPANCY.

5.2 WORK WILL BE JUDGED BY PUBLIX IN COMPARISON TO WORK OF SIMILAR TYPE. SUBSTANDARD CONSTRUCTION AS JUDGED BY PUBLIX REPRESENTATIVE WILL NOT BE ACCEPTED.

5.3 NEATNESS COUNTS. MAKE ALL JOINTS CONNECTIONS, UNIONS, ETC. WITH PROPER CARE TO ENSURE THAT TIGHT CONNECTIONS ARE MADE WITHOUT EXCESS MATERIAL, WELL SECURED TO THE PROPER SUPPORTS.

5.4 INSTALL CABLE WITH STRAIGHT RUNS, ACCURATELY FORMED RADII AT BENDS, AND ADEQUATE SUPPORTS.

5.5 TEST THE ENTIRE SYSTEM. EACH CABLE/CONDUCTOR SHALL BE TESTED TO MEET STATED MANUFACTURER'S PERFORMANCE CRITERIA.

5.6 SUBSTITUTIONS: COMPLY WITH SECTION 01 63 00 PRODUCT OPTIONS AND SUBSTITUTIONS OF THE CONSTRUCTION DOCUMENTS ('PM' SHEETS). IN GENERAL, SUBSTITUTIONS ARE NOT PERMITTED.

6. REGULATIONS AND STANDARDS

6.1 COMPLY WITH APPLICABLE PROVISIONS OF THE FOLLOWING CODES AND STANDARDS (LATEST VERSION ADOPTED BY AUTHORITY HAVING JURISDICTION).

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
NATIONAL ELECTRIC CODE (NFPA 70)
LOCAL UTILITY CODE
LOCAL BUILDING CODE
SAFETY CODE FOR MECHANICAL REFRIGERATION
LATEST TIA/EIA STANDARDS (TIA/EIA 568 B&C)
OSHA (FOR CONSTRUCTION)

7. TEMPORARY OPERATION

7.1 THE OWNER MAY REQUIRE OPERATION OF PARTS OR WHOLE OF THE INSTALLATION PRIOR TO FINAL ACCEPTANCE.

8. EMERGENCY REPAIRS

8.1 THE OWNER RESERVES THE RIGHT TO MAKE EMERGENCY REPAIRS AS REQUIRED TO KEEP THE EQUIPMENT IN OPERATION WITHOUT VOIDING THE CONTRACTOR'S GUARANTEE NOR RELIEVING THE CONTRACTOR OF HIS RESPONSIBILITIES DURING THE GUARANTEE PERIOD.

9. OPERATING INSTRUCTIONS AND SERVICE MANUALS

9.1 PROVIDE TWO (2) NEATLY BOUND COPIES OF MAINTENANCE, INSTRUCTION BOOKS, AND PARTS LISTS PERTAINING TO ALL EQUIPMENT FURNISHED.

9.2 EACH SECTION SHALL BE INDEXED AND INCLUDE MAINTENANCE, INSTRUCTION BOOKS, PARTS LISTS, SUPPLIER'S CONTACT INFORMATION AND INDIVIDUAL EQUIPMENT GUARANTEES, ALL IN SEPARATE SECTIONS.

10. PRODUCTS

10.1 ALL MATERIALS SHALL BE NEW, AND OF THE BEST QUALITY.

10.2 ALL EQUIPMENT AND MATERIALS MUST BE UL APPROVED AND LISTED.

10.3 ALL EQUIPMENT AND MATERIALS SHALL BE FURNISHED IN STRICT ACCORDANCE WITH THE EQUIPMENT SCHEDULES AND SPECIFICATION REQUIREMENTS.

10.4 SUBSTITUTIONS, IF PERMITTED, REQUIRE PRIOR WRITTEN APPROVAL FROM PUBLIX ENGINEERS.

a) CONTRACTOR SHALL PROVIDE PRODUCT CUT SHEETS FOR ORIGINAL AND SUBSTITUTE PRODUCTS FOR CONSIDERATION. COMPLY WITH SECTION 01 63 00 PRODUCT OPTIONS AND SUBSTITUTIONS OF THE CONSTRUCTION DOCUMENTS ('PM' SHEETS).

11. CONDUCTORS

11.1 CONTRACTOR TO PROVIDE AND INSTALL CABLE RATED FOR INTENDED ENVIRONMENT.

a) UTILIZE GEL FILLED CABLE IN ALL UNDERGROUND INSTALLATIONS.

b) UTILIZE PLENUM RATED CABLE ONLY WHEN PENETRATING INTO OR PASSING THROUGH RETURN AIR PLENUMS. NO OTHER USE SHALL BE PERMITTED UNLESS REQUIRED BY LOCAL ORDINANCE. CONTRACTOR MUST PROVIDE COPY OF SUCH ORDINANCE.

c) UTILIZE OPEN AIR RATED CABLE IN ALL OTHER AREAS UNLESS OTHERWISE REQUIRED BY LOCAL ORDINANCE. CONTRACTOR SHALL PROVIDE COPY OF SUCH ORDINANCE.

11.2 CABLES AND TERMINATIONS

a) APPROVED COPPER COMPONENTS ARE TYCO/AMP NETCONNECT CATEGORY 5E SYSTEMS PRODUCTS.

b) APPROVED FIBER OPTIC COMPONENTS ARE CORNING INC. CABLE SYSTEMS PRODUCTS.

12. TELEPHONE OUTLETS AND DATA PORTS

12.1 PROVIDE OUTLETS AND PORTS AS INDICATED ON DRAWINGS.

12.2 PROVIDE STAINLESS STEEL COVER PLATES IN ALL FOOD PREP AREAS.

12.3 LOCATE TELEPHONE CONTROL BOX IN TELEPHONE EQUIPMENT ROOM (COMM 'A').

13. TESTS AND CERTIFICATIONS

EACH OUTLET SHALL BE TESTED TO DEMONSTRATE THE CATEGORY 5E TRANSMISSION CAPABILITY TO TRANSMIT 1000BASET ETHERNET AND TO VERIFY THE INTEGRITY OF THE CABLING AND TERMINATION PROCESS. TESTING SHALL BE PERFORMED BETWEEN THE MODULAR JACKS AT THE COMMUNICATIONS OUTLET AND THE PANELS AT THE RESPECTIVE COMMUNICATIONS ROOM AND OR CABINET.

a) PROVIDE TEST RESULTS, WITH SUMMARY REPORT, TO THE OWNER FOR APPROVAL AS DESCRIBED IN SECTION 2.4 OF THESE SPECIFICATIONS.

b) ALL TEST RESULTS, WITH SUMMARY REPORT, SHALL BECOME A PART OF THE AS-BUILT DOCUMENTATION. SEE SECTION 2.4 OF THESE SPECS.

c) CABLE CONTRACTOR SHALL PROVIDE RESULTS OF ALL ABOVE TESTS IN .PDF FORMAT ON CD LABELED WITH STORE NUMBER AND SHOPPING CENTER NAME AND ADDRESS. CD SHALL CONTAIN ALL TEST AND CERTIFICATION RESULTS.

14. EXECUTION

14.1 GENERAL

a) THE CABLE CONTRACTOR SHALL FOLLOW EQUIPMENT MANUFACTURERS' INSTALLATION INSTRUCTIONS.

b) LOCATIONS OF VOICE AND DATA DEVICES, CABINETS AND RELAY RACK SHALL BE APPROXIMATELY AS INDICATED IN THE DRAWINGS AND AS SPECIFIED HEREIN, BUT EXACT LOCATIONS SHALL BE DIRECTED BY THE PUBLIX FIELD REPRESENTATIVE DURING THE INITIAL SITE SURVEY.

c) CONDUCTOR ROUTING IS SCHEMATIC AND THE CONTRACTOR SHALL NOT SCALE DRAWINGS.

d) THE CABLE CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES TO AVOID CONFLICTS AND SCHEDULING DELAYS.

e) IDENTIFY MISSING OR MISPLACED CONDUCTORS, CABLING AND/OR RACEWAYS DURING THE INITIAL SITE SURVEY WITH THE PUBLIX REPRESENTATIVE.

f) THE CONTRACTOR SHALL SECURELY MOUNT EQUIPMENT, PLUMB AND SQUARE IN PLACE. PROVIDE BRACKETS, SCREWS, ADAPTERS, SPRINGS, RACK MOUNTING CABLING, ETC., AS RECOMMENDED BY MANUFACTURER FOR CORRECT ASSEMBLY AND INSTALLATION OF ALL EQUIPMENT.

g) CONTRACTOR SHALL PROVIDE ALL NECESSARY INDUSTRY STANDARD HARDWARE TO SECURE CABLING IN ACCORDANCE WITH THESE SPECIFICATIONS. CABLES OTHER THAN THOSE PLACED IN CONDUITS ARE TO BE RAN EXPOSED ABOVE DROP CEILINGS AND/OR IN JOIST SPACE.

h) THE ATTACHMENT OF BOXES, ENCLOSURES, WIRE MANAGEMENT DEVICES, HANGERS, SUPPORTS, ETC, SHALL BE ACCOMPLISHED WITH MACHINE SCREWS OR THROUGH BOLTS ON STEEL, EXPANSION BOLTS IN CONCRETE AND MASONRY, SHEET METAL SCREWS IN METAL STUDS AND SHEET METAL, AND WOOD SCREWS IN WOOD. WOOD COMPOSITION PLUGS SHALL NOT BE USED.

i) AREAS OF WORK BY TRADES SHALL CONFORM TO LOCATIONS AS DEFINED IN SECTION 01 11 00 SUMMARY OF WORK OF THE GENERAL SPECIFICATIONS ('PM' DRAWINGS).

j) ALL INDIVIDUAL CABLE RUNS MUST BE INSTALLED AND CERTIFIED IN COMPLIANCE WITH CURRENT TIA/EIA 586C STANDARDS. SPLICING OF CABLES IS PROHIBITED.

14.2 GROUNDING

a) CABLE CONTRACTOR SHALL ESTABLISH AND VERIFY SATISFACTORY PERFORMANCE THAT ALL GROUNDS PROVIDED MEET THE REQUIREMENTS OF N.E.C. ARTICLES 250, 645, AND 800.

b) CABLE CONTRACTOR SHALL BOND COMM 'A' TO SYSTEM EQUIPMENT GROUND PROVIDED BY ELECTRICAL CONTRACTOR AS REQUIRED BY N.E.C.

c) CABLE CONTRACTOR SHALL BE PERMITTED TO PROVIDE SUPPLEMENTAL GROUNDS. ALL SUPPLEMENTAL GROUNDS INSTALLED BY CABLE CONTRACTOR MUST BE BONDED TO SYSTEM EQUIPMENT GROUND BUS PER N.E.C.

14.3 METHODS

a) AS A MINIMUM, THE INSTALLATION OF EACH SYSTEM, AND COMPONENTS, SHALL MEET THE REQUIREMENTS OF N.E.C. ARTICLES 250, 645, AND 800.

b) ALL WIRING IS TO BE VOID OF SHORTS, OPENS, POLARITY REVERSALS, AND SPLIT PAIRS. DO NOT INSTALL SYSTEM CABLES PARALLEL TO OR IN THE SAME RACEWAY WITH POWER CONDUCTORS.

c) PROVIDE 10.0 FEET OF SERVICE LOOP AT THE COMM CLOSET. SECURE ABOVE CEILING IN AN 'S' PATTERN.

d) PROVIDE 3.5 FEET OF SERVICE LOOP AT EACH OUTLET ABOVE VERTICAL STUB.

e) NEATLY GROUP ALL CABLES EXPOSED AND WITHIN EQUIPMENT CABINETS, HOUSINGS, AND TERMINAL CABINETS. USE PROPERLY SIZED VELCRO STRAPS OR OTHER SUITABLE METHOD SECURING CABLES AT NO MORE THAN 8" INTERVALS.

f) SECURE ALL CABLES IN EQUIPMENT CABINETS AND RACKS TO CABLE-FORM BARS OR OTHER SUPPORTS TO PROVIDE STRAIN RELIEF AT ALL CONNECTIONS.

g) DO NOT SUPPORT CABLES FROM THE ELECTRONIC EQUIPMENT.

h) INSTALL IN ACCORDANCE WITH THE LATEST TIE/EIA INSTALLATION STANDARDS.

14.4 CIRCUIT IDENTIFICATION

a) LABEL ALL PANELS BY APPROVED METHODS TO IDENTIFY CIRCUITS.

b) INSTALL ALL EQUIPMENT IN CANS AS INDICATED ON DRAWINGS.

c) MARK ALL PANELS, BOXES, ETC. WITH RIVETED OR APPROVED ATTACHED PLASTIC LAMINATED LABELS 1" MIN. HIGH WITH .75" HIGH LETTERS OF CONTRASTING COLORS.

d) ALL CIRCUITS (i.e. TIME CLOCKS, VOICE/DATA DEVICE FACE PLATES, ETC.) SHALL BE IDENTIFIED BY TYPED LETTERING OF CONTRASTING COLOR TO TAGS AND SECURED WITH APPROVED PLASTIC COVERS.

e) ALL PATCH PANELS, VOICE STATION PANELS, ETC. SHALL INCLUDE A TYPED CIRCUIT DIRECTORY OF ALL ASSOCIATED TERMINATIONS.

14.5 INSTALLATION OF ITEMS SUPPLIED BY OTHERS

a) ALL STORE FIXTURES AND EQUIPMENT, INCLUDING EMS AND CHECKOUT STANDS, WILL BE FURNISHED AND INSTALLED BY PUBLIX OR OTHERS. THE CABLE CONTRACTOR SHALL MAKE ALL REQUIRED TERMINATIONS. VERIFY ITEMS AND LOCATION WITH PUBLIX REPRESENTATIVE.

b) ALL WIRING AND MOUNTING SHALL BE IN COOPERATION WITH AND UNDER THE DIRECTION OF THE PUBLIX REPRESENTATIVE.

14.6 FINAL INSPECTION

a) ALL ITEMS MUST BE COMPLETED PRIOR TO FINAL INSPECTION. NO EXCEPTIONS WILL BE MADE AND FINAL PAYMENT WILL BE HELD UNTIL ITEMS ARE COMPLETED.

b) THOROUGHLY CLEAN ALL PARTS OF THE APPARATUS AND EQUIPMENT PRIOR TO FINAL INSPECTION.

INSTALLATION NOTES

1. DS1 IS EXTENDED FROM THE BUILDING ENTRANCE DIRECTLY TO A T-1 SMART JACK INSTALLED BY THE LOCAL CARRIER.

a) CONTRACTOR SHALL INSTALL ONE SURFACE MOUNTED RJ-45 JACK FOR EACH OF THE ACCESS LINE BEING TERMINATED. BOX AND JACK TO BE TYCO/AMP #1116697-1/406372-1

b) EXTEND THE DS-1 FROM THE T-1 SMART JACK TO LEFT MOST SURFACE MOUNT RJ-45. LABEL AS A T-1 AND INCLUDE THE TRUNK LINE NUMBER.

c) EXTEND THE ISDN/BRI CIRCUIT FROM THE RJ-21X TO THE MIDDLE SURFACE MOUNT RJ-45. LABEL AS ISDN/BRI WITH CARRIER CIRCUIT NUMBER.

2. COMM 'A (MAIN DISTRIBUTION FACILITY - MDF)

PRIMARY VOICE AND DATA COMMUNICATIONS SYSTEMS CENTER; THIS CONSISTS OF TELECOM EQUIPMENT, OUTSIDE PLAN CABLE, CARRIER ACCESS AND ANCILLARY SYSTEMS SUCH AS EMS, SECURITY, SATELLITE TV, CCTV ETC. (SEE COMM 'A' DETAIL).

a) DATA AND TELEPHONE CABLES MUST BE SEPARATED FROM OTHER SYSTEMS TO MITIGATE ELECTRICAL OR ELECTRONIC INTERFERENCE OR CROSSOVER.

b) INTERCOM CABLING SHALL NOT BE INSTALLED IN THE SAME PATH AS THE DATA CABLE.

c) VOICE CROSS-CONNECTS SHALL BE PROVIDED.

3. COMM 'B' (INTERMEDIATE DISTRIBUTION FACILITY - IDF)

A SECONDARY VOICE AND DATA COMMUNICATIONS SYSTEMS CENTER.

a) THE VOICE PORTION CONSISTS OF A FLUSH MTD. 24"x24"x4" PULL BOX AT 4'-0" TO BOTTOM WITH 110 TYPE TERMINAL BLOCK (SEE COMM 'B' DETAIL).

b) THE DATA PORTION CONSISTS OF A 2'x2'x3' HUBBELL CABINET SURFACE MTD. AT 8'-0", TO BOTTOM, ABOVE THE VOICE PORTION OF COMM 'B' (SEE COMM 'B' DETAIL) WITH LAN SYSTEMS EQUIPMENT, DATA NETWORK TIE CABLES FROM COMM 'A', DATA PATCH PANEL 'B3'.

c) DATA AND TELEPHONE CABLES MUST BE SEPARATED FROM OTHER CONDUCTORS.

d) INTERCOM AND CCTV CABLING SHALL NOT BE INSTALLED IN THE SAME PATH AS THE DATA CABLE.

e) VOICE CROSS-CONNECTS SHALL BE PROVIDED.

4. COMM 'A'/COMM 'B' INTERCONNECT (TIE CABLES)

a) THE DATA BACKBONE CABLING WILL CONSIST OF (2) TWO CATEGORY 5E FOUR PAIR CABLES BETWEEN THE COMM 'A' AND COMM 'B'. A (6) STRAND, 62.5/125 UM MULTI-MODE FIBER OPTIC CONDUCTOR SHALL BE USED FOR LENGTHS EXCEEDING 275 FT.

b) THE VOICE CABLE BETWEEN COMM 'A' AND COMM 'B' SHALL BE A 25PAIR/24AWG, CATEGORY 5E POWER SUM CABLE (MOHAWK #M58783) TERMINATED ON 110 STYLE TERMINAL BLOCKS ON BOTH ENDS USING C-5 CONNECTORS.

c) INSTALL (1) 6-STRAND 62.5/125UM MULTI-MODE FIBER OPTIC CABLE TO NEXGEAR PARALLEL SWITCH.

VOICE AND DATA WORKSTATIONS

a) VOICE CABLES SHALL BE TERMINATED ON A WHITE RJ45 JACK.

b) DATA CABLES SHALL BE TERMINATED ON A YELLOW RJ45 JACK.

CABLE PATHWAYS

a) IT IS THE RESPONSIBILITY OF THE CABLE CONTRACTOR TO COORDINATE THE FINAL SIZE, LOCATION AND QUANTITY OF SLEEVES REQUIRED WITH THE ELECTRICAL CONTRACTOR DURING THE INITIAL SITE SURVEY.

b) IN THE EVENT THAT A CONDUIT IS NOT USED AFTER THE CABLE CONTRACTOR HAS REMOVED THE PULL STRING IT SHALL BE THE CABLE CONTRACTORS RESPONSIBILTY TO REINSTALL THE PULL STRING.

c) THE PULL STRING SHALL BE RATED FOR 600LB OR MORE.

d) ALL UNUSED/SPARE CONDUIT SHALL BE AS SPARE AND CONTAIN A PULL STRING AND HAVE BUSHINGS ON EACH END.

e) DATA AND TELEPHONE CABLE MAY BE RUN IN THE SAME CONDUIT SYSTEM. NO OTHER MEDIA CABLES SHALL BE RUN WITH THE DATA AND TELEPHONE CABLES.

f) THE CABLING CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE PROPER FIRE STOPPING MATERIAL INSIDE ALL SLEEVES PER UL.

EQUIPMENT AND CABLE SUPPORTS

PROVIDE CABLE GUIDES, 'J' HOOKS, 'D' RINGS, POSTS, VELCRO TIES, SNAP LOCKS, AND OTHER WIRE MANAGEMENT DEVICES AS REQUIRED FOR ALL EQUIPMENT, RACKS/CABINETS, PATCH PANELS, FIBER OPTIC INTER-CONNECT CENTER, PROPOSED HUB, SWITCH AND ROUTERS FOR A NEAT AND ORGANIZED INSTALLATION PER BICSI TDMM STANDARDS.

a) PROVIDE 12" WIDE LADDER RACK, EXTENDING FROM THE BACKBOARD TO TOP OF 7'-0" EQUIPMENT RACK FRAME.

b) CABLE TIES SHALL NOT BE USED AS A PRIMARY MEANS OF SUPPORTING HORIZONTAL CABLES.

c) CABLE SHALL NOT BE ATTACHED TO SUPPORT HANGERS REQUIRED TO BY OTHER BUILDING SYSTEMS (I.E. CEILING GRID SUPPORT WIRE, THREADED RODS FOR LUMINAIRE SUPPORT, DUCT WORK HANGERS, PIPE LINE HANGERS, ETC.)

d) CABLE CONTRACTOR INSTALLED SUPPORT WIRE SHALL BE ATTACHED TO STRUCTURAL STEEL AS REQUIRED BY N.E.C.

e) ALL SUPPORT WIRE INSTALLED AS CABLE SUPPORT SHALL BE MARKED WITH BLUE PAINT FOR IDENTIFICATION.

COPPER CONDUCTORS

a) HORIZONTAL VOICE COMMUNICATIONS TIE CABLE FROM COMM 'A' TO COMM 'B'; A 25 PAIR, 24AWG, CATEGORY 5E, INDOOR/OUTDOOR RATED, GEL FILLED CABLE, MOHAWK #M58783.

b) HORIZONTAL DATA CABLES IN UNDERGROUND CONDUITS FROM COMM 'A' OR 'B'; A 4 PAIR, 24AWG, CATEGORY 5E (CMR), INDOOR/OUTDOOR RATED, GEL FILLED. MOHAWK #M58762.

c) HORIZONTAL VOICE AND DATA CABLE FROM COMM 'A' OR COMM 'B' TO WORKSTATION FACEPLATES SHALL BE (WHITE) UNSHIELDED, TWISTED 4 PAIR, UTP, 24 AWG, CATEGORY 5E (CMR). TYCO/AMP #57826-1.

d) RJ45 PATCH AND DROP CORDS; A YELLOW, BOOTLESS, TWISTED, 4 PAIR, UNSHIELDED, UTP, STRANDED, CATEGORY 5E (CM). TYCO/AMP #1499116-3.

e) RJ45 CROSS CONNECTOR EQUIPMENT CABLES; A RED, BOOTLESS, TWISTED, 4 PAIR, UNSHIELDED, UTP, STRANDED, CATEGORY 5E (CM) ASSEMBLY. TYCO/AMP #1499114-X, (REPLACE 'X' WITH DESIRED LENGTH IN FEET)

FIBER OPTIC CONDUCTORS

NOTE: FIBER OPTIC CABLE SHALL NOT BE USED UNLESS TOTAL LENGTH OF 2" CONDUIT INSTALLED BETWEEN COMM 'A' AND COMM 'B' EXCEEDS 275'. COORD. WITH PUBLIX ELECTRICAL SUPERVISOR DURING INITIAL SITE SURVEY.

(COMM 'A' AND COMM 'B' INTERCONECT)

a) UNDERGROUND FIBER OPTIC CABLE; 62.5/125um, 6-STRAND FIBER, COLOR CODED, MULTI-MODE, TIGHT-BUFFERED, INDOOR/OUTDOOR RATED, GEL FILLED, CORNING #006K8F-31130-29 TO BE USED ONLY IF CONDUIT LENGTH BETWEEN COMM 'A' AND COMM 'B' EXCEEDS 275' AND EACH OF TWO CAT 5E CABLES ARE REPLACED WITH FIBER OPTIC.

b) OVERHEAD FIBER OPTIC CABLE; CABLE CONTRACTOR TO INSTALL 62.5/125UM, 6-STRAND FIBER, COLOR CODED, MULTI-MODE, TIGHT-BUFFERED, INDOOR RATED, NON-GEL FILLED, CORNING INC. #006K81-31130-24 ONLY IF CONDUIT LENGTH BETWEEN COMM 'A' AND COMM 'B' EXCEEDS 275', EACH OF TWO CAT 5E CABLES ARE REPLACED WITH FIBER OPTIC AND UNDERGROUND CONDUITS ARE NOT AVAILABLE. INSTALL FIBER OPTIC CABLE IN 1" INNERDUCT, PYRAMID #IND-100-PVC-WHITE.

c) INSTALL FIBER OPTIC TERMINATION UNITS IN TOP POSITIONS OF RELAY RACK (COMM A) AND DATA CABINET (COMM B). FIBER OPTIC TERMINATION UNITS SHALL BE CORNING INC. #CCH-01U.

e) TERMINATE OPTICAL CABLE AT BOTH ENDS USING CORNING INC. UNICAM PREMIUM-PERFORMANCE ST COMPATIBLE CONNECTOR, 62.5um MMF, CERAMIC FERRULE, #95-000-51.

f) PROPERLY DRESS AND CONNECT SIX FIBERS TO ST BULKHEAD PANEL 1, PORTS 1 THRU 6 ON BOTH ENDS. CORNING INC. #CCH-CP-06-15T.

g) FIBER OPTIC PATCH CORDS TO CONSIST OF 62.5um, DUPLEX, MULTI-MODE, ST/LC CONNECTORS AS FOLLOWS:

1) 2 EACH CORNING INC. #50-05-02-K5141-001-1
2) 2 EACH CORNING INC. #50-05-02-K5141-001-2

(STANDBY GENERATOR REQUIREMENTS)

h) 500 kW GENERATOR; CABLE CONTRACTOR INSTALL A 62.5/125um, 6-STRAND FIBER, COLOR CODED, MULTI-MODE, TIGHT-BUFFERED, INDOOR/OUTDOOR RATED, GEL FILLED, CORNING INC. #006K8F-31130-29 IN CONDUIT PROVIDED.

i) TERMINATE OPTICAL CABLE FROM GENERATOR ON ORTRONICS -SERIES II PLASTIC SURFACE MOUNT BOX #OR-40400040. MOUNT INSIDE COMM 'B' ON BACKBOARD, REAR RIGHT CORNER APPROXIMATELY 6" FROM CORNER USING THREE (3) - SERIES II MODULE, 2-ST MULTIMODE ADAPTERS #OR-60900324.

j) INSTALL (2) 62.5/125, 2.9 MILLIMETER ST/ST PATCH CORDS; CORNING INC. #50-50-K5141-001-M.

k) INSTALL BETWEEN 62./125um, 6STRAND, COLOR-CODED FIBER, MULTI-MODE, TIGHT BUFFERED DESIGN, GEL FILLED FIBER OPTIC CONDUCTOR, CORNING INC. 006K8F-31130-29 BETWEEN COMM 'B' AND NEXGEAR CONTROL CABINET IN CONDUIT PROVIDED.

VOICE CABLE TERMINATIONS

ALL VOICE CABLES AND CROSS-CONNECTS SHALL BE PROPERLY TERMINATED ON BOTH ENDS USING APPROVED HARDWARE.

a) VOICE AND CROSS-CONNECT CABLES SHALL TERMINATED ON 110-STYLE, C-4/C-5 TERMINAL BLOCKS WITH ADEQUATE HORIZONTAL AND VERTICAL WIRE MANAGEMENT.

b) VOICE JACKS SHALL BE (WHITE) TYCO/AMP NETCONNECT #406372-3. PROVIDE CIRCUIT IDENTIFIER TABS AS REQUIRED FOR EACH OUTLET.

DATA CABLE TERMINATIONS

ALL DATA CABLE TERMINATIONS AND CROSS-CONNECTS SHALL TERMINATE IN COMM 'A' OR COMM 'B' AS SPECIFIED USING APPROVED HARDWARE.

a) PATCH PANELS (SEE SCHEDULES); CAT 5E, 110 CONNECT, 48 PORT, TYCO/AMP NETCONNECT #406331-1 AND WHEN REQUIRED 24 PORT, TYCO/AMP-NETCONNECT 406330-1.

b) DATA JACKS SHALL BE RJ45 (YELLOW) TYCO/AMP NETCONNECT MODULAR IDC #406372-8.

RELAY RACKS AND CABINETS

INSTALL RELAY RACKS, COMMUNICATIONS CABINETS, AND PARTS BY MODEL AND PART NUMBER AS SPECIFIED HEREIN.

a) RACK 19"W X 7'H X 3"D; BLACK; 45 RMU FLOOR MOUNT EQUIPMENT RACKS: CHATSWORTH #55053-703. (INCLUDE NECESSARY ISOLATION KIT E.G., PAD, WASHERS ETC; LADDER RACKS W/END CAPS; RACK INSTALLATION HARDWARE).

b) CHATSWORTH PRODUCTS 19"Wx16"D, SINGLE SIDED, VENTED SHELF, #40117-719.

c) HORIZONTAL WIRE MANAGEMENT FOR FLOOR MOUNTED 19" EIA RACKS SHALL BE ORTRONICS #OR-808044855.

d) REAR CABLE MANAGEMENT SUPPORT BAR SHALL BE TYCO/AMP #406042-1.

e) RACK ISOLATION KIT SHALL BE CHATSWORTH #10605-019.

f) WALL MOUNT CABINETS SHALL BE 36"Hx22"Wx24"D, DAMAC #WLR36AKS1VVV3.

g) HORIZONTAL WIRE MANAGEMENT FOR WALL MOUNTED DAMAC CABINETS 19" EIA UPRIGHTS SHALL BE ORTRONICS #OR-60400129.

CARRIER AND LEC ACCESS PROVISIONING

LOCAL POTS LINES AND CARRIER ACCESS TRUNKS SHALL ENTER FACILITY AND EXTENDED TO RESPECTIVE SYSTEMS AS FOLLOWS:

VOICE SYSTEMS ACCESS LINES

a) VOICE CIRCUITS SHALL BE EXTENDED FROM THE BUILDING ENTRANCE FACILITY, PROTECTED AND TERMINATED BY THE LEC AND EXTENDED TO AN RJ-21X BLOCK SUPPLIED BY THE LOCAL PROVIDER.

b) VOICE LINES ARE DISTRIBUTED FROM THE RJ-21X TO THE TELEPHONE SYSTEM, STORE FAX(S), LOTTO, MODEMS ETC., BY OTHER VENDORS.

DATA SYSTEMS ACCESS LINES

THE CABLE CONTRACTOR SHALL EXTEND THE FOLLOWING TRUNKS/CIRCUITS FROM THE DEMARCATION TO THE REAR OF THE 7'-0" DATA RACK AS IN ELEVATION DETAIL.

a) ALL DATA CIRCUITS AND TRUNKS (LOCAL CARRIER) SHALL BE EXTENDED TO THE RJ-21X.

b) EACH ACCESS LINE SHALL BE TERMINATED USING A RJ-45 JACK, TYCO/AMP #1116697-1/406372-1 COMBINATION.

c) EXTEND THE DS-1 FROM THE T-1 SMART JACK TO LEFT MOST SURFACE MOUNT RJ-45. LABEL AS A T-1 AND INCLUDE THE TRUNK NUMBER.

d) EXTEND THE ISDN BRI CIRCUIT FROM THE RJ-21X TO THE MIDDLE SURFACE MOUNT RJ-45. LABEL AS ISDN/BRI WITH CARRIER CIRCUIT NUMBER.

e) EXTEND THE MODEM CIRCUIT FROM THE RJ-21X TO THE MIDDLE RIGHT SURFACE MOUNT RJ-45. LABEL AS MODEM WITH THE AREA CODE AND LOCAL TELEPHONE NUMBER PROVIDED.

PATCH AND DROP CORDS

THE CABLE CONTRACTOR SHALL PROVIDE THE APPROPRIATE QUANTITIES AND LENGTHS OF PATCH CORDS, FIBER JUMPERS, ETC., AS REQUIRED IN THE TABLES BELOW FOR A SUCCESSFUL COMPLETION OF THIS INSTALLATION.

a) EACH COPPER PATCH CORD SHALL BE 4 PAIR, 24AWG STRANDED, CATEGORY 5E, AND MEET OR EXCEED CURRENT TIA/EIA 568B STANDARDS. TYCO/AMP NETCONNECT YELLOW #1499116-X (X INDICATES DESIRED LENGTH IN FEET).

b) COPPER CROSS CONNECT PATCH CORDS SHALL BE 4 PAIR, 24AWG STRANDED, CATEGORY 5E/6, PER TYCO/AMP NETCONNECT RED #1499114-X (X INDICATES DESIRED LENGTH IN FEET).

C) FIBER OPTIC PATCH CORDS SHALL BE DUPLEX 62.5/125um, ST-LC, CORNING INC. #50-05-02-K5141-XXX (XXX INDICATES DESIRED LENGTH IN FEET)

PATCH CORD CONDUCTOR	TYPE	BOOT	FT	COLOR	QTY.
CAT5E, 4PR/24AWG, STRANDED	STRAIGHT	NO	3.0	YELLOW	50
CAT5E, 4PR/24AWG, STRANDED	STRAIGHT	NO	4.0	YELLOW	10
CAT5E, 4PR/24AWG, STRANDED	STRAIGHT	NO	6.0	YELLOW	10
CAT5E, 4PR/24AWG, STRANDED	STRAIGHT	NO	10.0	YELLOW	50
CAT5E, 4PR/24AWG, STRANDED	STRAIGHT	NO	15.0	YELLOW	4
CAT5E, 4PR/24AWG, STRANDED	STRAIGHT	NO	25.0	YELLOW	3
CAT5E, 4PR/24AWG, STRANDED	REVERSED	NO	3.0	RED	1
CAT5E, 4PR/24AWG, STRANDED	REVERSED	NO	6.0	RED	1
ST/LC FIBER PATCH CABLE	DUPLEX	N/A	3.5	ORANGE	ONLY REQUIRED WHEN
LC/LC FIBER PATCH CABLE	DUPLEX	N/A	7.0	ORANGE	FIBER OPTIC TIE CABLE
ST/ST FIBER PATCH CABLE	DUPLEX	N/A	3.5	ORANGE	REPLACES COPPER.

CONDUCTOR IDENTIFICATION

ALL LABELS SHALL CONSIST OF BLACK BLOCK LETTERING WITH CONTRASTING WHITE BACKROUND TO FIT THE INTENDED SPACE. LABELS SHALL BE ONE PIECE AND RESISTANT TO VARIOUS FLUID TYPES (i.e. OILS, WATER, ALCHOHOLS, SOLVENTS, AND OTHER CLEANING SOLUTIONS)

a) ALL CONDUCTORS, COPPER AND/OR FIBER, SHALL BE LABELED WITH RESPECTIVE CIRCUIT NUMBERS, DESIGNATIONS, ACRONYMS, ETC. AT EACH END.

b) ALL EQUIPMENT RACKS, CABLES, OUTLETS AND TERMINATIONS SHALL BE IDENTIFIED AT ALL ACCESS LOCATIONS USING AN ALPHANUMERIC SEQUENCE AS INDICATED ON THE PLANS AND SCHEDULES.

c) SPARE CABLES (IF ANY) SHALL BE TERMINATED AND IDENTIFIED AS 'SPARE' AT EACH END.

d) LABEL EACH PATCH PANEL BY THE POSITION IT IS INSTALLED IN THE RELAY RACK OR CABINET. REFER TO BAYFACE LAYOUT IN THESE PLANS.

e) IDENTIFY VOICE JACKS AS LISTED ON THE FLOOR PLAN AND PANEL SCHEDULE 'VS' (i.e. VS223)

f) EACH PATCH PANEL PORT AND DATA JACK TO BE IDENTIFIED AS LISTED ON THE DRAWING AND RESPECTIVE PANEL SCHEDULE (i.e. A1-234)

g) IDENTIFY THE 7'-0" EQUIPMENT RACK IN THE COMMUNICATION CLOSET AS COMM 'A'.

h) IDENTIFY THE HUBBELL CABINET AND 24" SQ. PULL BOX AS COMM 'B'.

i) ALL VOICE 110-BLOCK TERMINAL BLOCKS SHALL BE PERMANENTLY LABELED WITH PROPERLY SIZED TYPE WRITTEN LABELS.

j) ALL COMMUNICATIONS CABINETS SHALL BE PERMANENTLY LABELED AS DESCRIBED IN SECTION 13.3 OF SPECIFICATIONS (THIS SHEET). HANDWRITTEN OR IMPROPERLY MARKED LABELS WILL NOT BE ACCEPTED ON ANY PART OF THIS PROJECT.

GROUNDING

ALL DATA EQUIPMENT RACKS AND CABINETS SHALL BE PROPERLY GROUNDED USING AN INSULATED GROUND CONDUCTOR. ALL GROUNDS SHALL BE IN COMPLIANCE WITH LATEST LOCALLY ADOPTED EDITION OF N.E.C.

a) CABLE CONTRACTOR SHALL BOND EACH SECTION OF LADDER RACK AND COMM 'A' TO THE TELECOMMUNICATIONS EQUIPMENT GROUND BUSS INSTALLED BY THE ELECTRICAL CONTRACTOR.

b) EQUIPMENT GROUND CONDUCTORS SHALL BE GREEN, #6 AWG, STRANDED, THHN. GROUND LUGS SHALL BE BRUNDY #YAZ6C-2TC14. INSTALLION SHALL BE N.E.C. 250 COMPLIANT. A SINGLE GROUND WIRE PER LUG.

i. PAINTED/TREATED SURFACES MUST BE BURNISHED TO CLEAR METAL SURFACE.
ii. APPLY NO-OX COMPOUND COATING TO BOTH SURFACES BEFORE INSTALLATION.
iii. USE 1/4-20x3/4" STAINLESS STEEL BOLTS, NUTS, WASHERS AND LOCK WASHERS FOR MOUNTING LUGS TO GROUND BUSS, RACKS AND TRAYS.

INSTALLATION SEQUENCING

THE CABLE CONTRACTOR SHALL VERIFY ALL DEVICE LOCATIONS (i.e. RACKS, CABINETS, JACKS, TERMINAL BLOCKS, ETC.) DURING INITIAL SITE SURVEY.

a) THE INSTALLATION PATH FOR ALL CABLES SHALL BE CAREFULLY PLANNED TO MINIMIZE THE TOTAL LENGTH OF EACH CABLE RUN.

b) ALL CABLES SHALL BE INSTALLED IN CONTINUOUS RUNS BETWEEN THE END DEVICE (DATA OR VOICE) AND PATCH PANELS; BETWEEN THE PATCH PANELS AND COMMUNICATION CLOSETS; AND BETWEEN COMM 'A' AND COMM 'B' WITHOUT SPLICES.

c) PROVIDE ADEQUATE SERVICE LOOP AT ALL TERMINATION LOCATIONS. (MIN 10' AT COMM 'A' AND 'B' AND 3' AT EACH OUTLET).

d) CABLES TRAVERSING OPEN FLOOR SPACES SHALL BE PLACED ABOVE BOTTOM PLATE AND PARALLEL TO CEILING JOISTS AND SECURED AT MIN 5-FOOT INTERVALS. CABLES SHALL BE HIDDEN FROM VIEW FROM FLOOR LEVEL.

e) CABLES INSTALLED ABOVE DROP CEILINGS AND IN CORRIDORS SHALL BE INSTALLED WITHIN 4' OF SIDEWALLS OR GROUPED IN COMMON PATHS AND EXTENDED TO WALLS, POLES OR CONDUIT DROPS AT 90 DEGREE ANGLES TO ALLOW UNOBSTRUCTED ACCESS TO THE CEILING SPACE. CABLING SHALL NOT LIE ON CEILING TILES.

f) MAINTAIN 24" (MIN.) CLEARANCE FROM ALL LUMINAIRES.

g) CABLE SHALL NOT BE TIE-WRAPPED TO EXISTING CONDUIT.

h) ALL DRAWINGS PROVIDED ARE SCHEMATIC. CABLE CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY EQUIPMENT AND/OR DEVICES FOR A SUCCESSFUL COMPLETION OF THIS PROJECT.

i) CONTACTOR SHALL BE RESPONSIBLE TO MEET ALL APPLICABLE CODES AND STANDARDS REGARDLESS OF DESIGN.

TESTS AND CERTIFICATIONS

EACH OUTLET SHALL BE TESTED TO DEMONSTRATE THE CATEGORY 5E TRANSMISSION CAPABILITY TO TRANSMIT 1000BASET ETHERNET AND TO VERIFY THE INTEGRITY OF THE CABLING AND TERMINATION PROCESS. TESTING SHALL BE PERFORMED BETWEEN THE MODULAR JACKS AT THE COMMUNICATIONS OUTLET AND THE PANELS AT THE RESPECTIVE COMMUNICATIONS ROOM AND OR CABINET.

a) TESTING OF THE UTP SHALL BE PERFORMED WITH THE USE OF FLUKE METER #DTX-1800-M (OR EQUAL) IN ACCORDANCE WITH THE GUIDELINES FOR CATEGORY 5E SYSTEMS AND COMPONENTS.

b) FIBER OPTIC COMPONENTS SHALL BE TESTED ACCORDING TO MANUFACTURES RECOMENDATIONS ENSURE PERFORMANCE CHARACTERISTIC OF ALL COMPONENTS MEET MANUFACTURERS SPECS AND COMPLETE SYSTEM FUCTIONS AS REQUIRED.

1) MEASURE LOSS AND INTEGRITY OF THE CABLING, TERMINATION PROCESS AND THE OVERALL TRANSMISSION LOSS.

DATA /VOICE CABLE RUNNING LISTS

ALL CABLES SHALL BE TERMINATED AS INDICATED IN THIS SECTION.

a) ALL CABLE, PATCH PANELS, TERMINAL BLOCKS, AND JACKS WILL COMPLY WITH TIA/EIA 568C.1 STANDARD.

b) DATA CONNECTIONS SHALL BE TESTED FOR 1000BASET THROUGHPUT UNLESS OTHERWISE NOTED.

c) ALL JACKS AND PATCH PANELS SHALL BE TERMINATED TO THE EIA/TIA 568B CONFIGURATION.

ETHERNET 568B STRAIGHT PIN

TIA/EIA STD. 568B

PIN #	WIRE COLOR
1	WHITE w/ORANGE STRIPE
2	ORANGE w/WHITE STRIPE
3	WHITE w/GREEN STRIPE
4	BLUE w/WHITE STRIPE
5	WHITE w/BLUE STRIPE
6	GREEN w/WHITE STRIPE
7	WHITE w/BROWN STRIPE
8	BROWN w/WHITE STRIPE

ETHERNET 568B REVERSE PIN

CROSS CONNECT WIRING
WIRE ONE END USING TIA/EIA STD. 568B THE OTHER AS FOLLOWS: (SWAP ORANGE & GREEN PAIRS)

PIN #	WIRE COLOR
1	WHITE w/GREEN STRIPE
2	GREEN w/WHITE STRIPE
3	WHITE w/ORANGE STRIPE
4	BLUE w/WHITE STRIPE
5	WHITE w/BLUE STRIPE
6	ORANGE w/WHITE STRIPE
7	WHITE w/BROWN STRIPE
8	BROWN w/WHITE STRIPE

d) CAT 5E DATA (LAN) CABLES SHALL BE TERMINATED AT RESPECTIVE CAT 5E PATCH PANEL AND WORKSTATION JACKS AS INDICATED ON THE DRAWINGS AND PANEL SCHEDULES.

e) CAT 5E VOICE SYSTEM CABLES SHALL BE TERMINATED AT THE 110 TERMINAL BLOCK AND WORKSTATION JACK AS INDICATED ON THE DRAWINGS AND PANEL SCHEDULES.

DATA EQUIPMENT RACK/CABINET LAYOUTS

a) INSTALL A RELAY RACK (EIA 7'x19" - 45 RSU) IN TELECOM ROOM (COMM 'A') AND A HUBBELL CABINET IN REAR STORAGE (COMM 'B' - 24x24 - 18RSU) AS LOCATED ON THE DRAWINGS.

b) INSTALL WIRE MANAGEMENT, PATCH PANELS, SHELVES AND MOUNTING POWER STRIPS IN EQUIPMENT RACKS/CABINETS. THE FOLLOWING EQUIPMENT FOR THE NETWORK EQUIPMENT RACK AND COMMUNICATIONS CABINET AS INDICATED BELOW.

COMM 'A' (TELECOM RACK)	QTY.	COMM 'B' (HUBBELL CAB.)	QTY.
CAT 5E/48 PORT PATCH PANEL	2	CAT 5E/48 PORT PATCH PANEL	1
19" WIRE MANAGER	[illegible]	CAT5E/24 PORT PATCH PANEL	1
19" EQUIPMENT SHELF	2	19" WIRE MANAGER	3
SIX POSITION POWER STRIP	[illegible]	SIX POSITION POWER STRIP	1
REAR 19" STRAIN RELIEF BAR	4	REAR 19" STRAIN RELIEF BAR	3

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CORPORATE OFFICES, FACILITIES DESIGN
BOX 407, LAKELAND, FL 33802
(863) 680-5295
PHYSICAL ADDRESS:
3300 PUBLIX CORPORATE PARKWAY
LAKELAND, FL 33811-3311

PUBLIX FACILITIES DESIGN DEPARTMENT

DAVID [illegible]BEE, AIA
ARCHITECT - [illegible] 91318

DAVID R[illegible]
ARCHITECT - FL. REG. [illegible]7
GA. REG. [illegible]81
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AL. REG. [illegible]4
TN. REG. [illegible]497
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PLOT DATE:
25 AUG 2017

REVISION DATA:

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PLATT SPRINGS RD & HWY 6
LEXINGTON, LEXINGTON, SC

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SIENNA - LITE

COMMUNICATION SPECIFICATIONS & INSTALLATION NOTES

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

E-6c

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