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RECORDS AND
REPORTING

December 22, 1999

Mrs. Blanca S. Bayó
Director, Division of Records and Reporting
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Docket No. 991761-TL (MANDARIN-LORETTO CO)

Dear Ms. Bayó:

Enclosed is an original and fifteen copies of BellSouth Telecommunications, Inc.'s tour report of the Mandarin-Loretto Central Office, which we ask that you file in the captioned matter.

A copy of this letter is enclosed. Please mark it to indicate that the original was filed and return the copy to me. Copies have been served to the parties shown on the attached Certificate of Service.

Sincerely,

Nancy B. White

- AFA _____
- APP _____
- CAF _____
- CMU favor
- CTR _____
- EAG _____
- LEG 1
- MAS _____
- OPC _____
- RRR _____
- SEC 1
- WAW _____
- OTH _____

NBW:jn

cc: All parties of record
Marshall M. Criser III
R. Douglas Lackey

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CERTIFICATE OF SERVICE
Docket No. 991761-TL

I hereby certify that a true and correct copy of the foregoing has been served by U. S. mail this 22nd day of December, 1999 to:

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Nancy B. White

Nancy B. White (AM)

ORIGINAL

**Post Tour Report for Mandarin-Loretto
Application for Temporary Waiver
December 30, 1999**

The following post tour report is submitted in accordance with Florida Public Service Commission's Physical Collocation guidelines adopted by Order Nos. PSC-1744-PAA-TP and PSC-99-2393-FOF-TP. BellSouth is requesting a Temporary Waiver for Physical Collocation for the Mandarin-Loretto Central Office until BellSouth completes the building addition for this office. The addition is due for completion in the second quarter of 2000.

Building Assessment Methodology

BellSouth uses various factors to evaluate space in its central offices throughout Florida. These factors fall into five categories, existing building configuration, space usage and forecast demand, building codes and regulatory constraints, BellSouth design requirements, and equipment vendor's design instructions. Each category will be discussed below.

Existing Building Configuration

The existing building configuration must be considered when evaluating a central office for available physical collocation space. This entails consideration of the existing building configuration, location of doors, hallways, stairs, lounges, air handling, the building outline and the physical capacity of the structure.

Space Usage and Forecasted Demand

Space usage and forecasted demand must also be considered when evaluating an office for the availability of physical collocation space. There are several steps in this category of review of the central office. This review contains the following steps:

- A) Determine the gross building space. This is the total space contained in the central office.
- B) From that gross building space number, unavailable space is subtracted. Unavailable space consists of building support components required to support the building and its occupancies such as air handling rooms, pump rooms, transformer and cable vaults, restrooms, stair towers, janitor closets, main corridors, vestibules, and light shafts.
- C) Occupied space is then determined and subtracted from the answer determined in step B above. Occupied space is that physically occupied by:
 - (1) Switching equipment, which provides dial tone and calling ability to customers;
 - (2) Transmission (toll & circuit) equipment, which provides transport of customer services from one switch to another;
 - (3) Frame space assigned to the various distributing frames in the office, which provides interconnect points for switch, toll or outside plant; and
 - (4) Power space assigned to the various DC power plants and standby generators necessary to support all equipment in the building.
- D) Reserved space is determined and subtracted from the answer determined in step C. Generally, reserved space is held for the various space usages described in step C with forecasted needs for the next 2-year shipping interval. There is one exception. There are several types and families of equipment requiring fixed layouts. That is, this equipment cannot be split up into several different locations in the central office without degrading service or capping the size or customer service levels for that type of equipment. Examples

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of this type of equipment are switch processor frames for digital central offices and control points, the Digital Signal Cross Connect (DSX) family of cross connect panels, the Digital Access and Cross Connect Systems (DACS) family of digital toll cross connect systems, and remote testing and monitoring systems. Therefore, we keep these equipment families together to provide the best service.

- E) Vacant space/unusable space is determined and subtracted from the answer determined in step D. Space is not usable due to configuration problems, lack of exits, the fact that the building will be demolished etc.
- F) The net space possibly available for collocation is then determined.

BellSouth considers administrative space as any space **NOT** directly supporting the installation or repair of both telephone equipment and customer service. Examples of this space are storerooms, lounges, shipping-receiving rooms, and training areas. These rooms are necessary to meet code, life safety, or contractual requirements. Administrative space can also include regular office space used by work groups performing company functions outside of the equipment support described above. BellSouth allocates space to these administrative groups in response to changes in the regulatory environment, increases or decreases in company manpower requirements, or in response to new service offerings.

Building Codes and Regulatory Constraints

In evaluating space for physical collocation in a given central office, BellSouth must also consider the building codes and regulatory considerations placed on BellSouth. There are building codes at national, state, and local levels that affect space allocations. For example, the National Fire Protection Act provides minimum requirements, with due regard to function, for the design, operation, and maintenance of buildings and structures for safety to life from fire and similar emergencies. The Standard Building Code defines types and methods of construction for various functions to protect the occupants of the structure. Counties and municipalities adopt the National Fire Protection Act and Standard Building Code, adding new regulations, restrictions, and interpretations to the existing legal framework.

Local codes generally govern the type of construction necessary to separate the physical collocation space from BellSouth occupancy. Local code officials are the final interpreters of the codes. They govern the width of the fire aisles, heights of walls, sizes and amounts of lighting, landscaping, air conditioning duct design, exterior access, interior corridors, exits, etc. Local codes also affect work on the outside of the building. Landscaping, Americans with Disability Act provisions, building setback, height, stormwater retention, and maximum site usable for development are all regulated by local building code officials.

The jurisdictions for this office has adopted an edition of the National Fire Protection Association (NFPA) 101 as the minimum standard for life safety and the Standard Building Code, edition 1997. The Standard Building Code is maintained and revised by the Southern Building Code Congress International (SBCCI).

BellSouth has encountered several conflicts between the fire and life safety codes, and the building codes. Under NFPA 101, Part 1, Section 28-141, a telephone exchange is listed as a Special Use Industrial Occupancy, which does not require fire-rated separation related to exit access corridors. The Standard Building Code refers to telephone exchanges as Group B – Business or Group G – storage that requires fire rated exit access corridors. The NFPA does not define a tenant. The Standard Building Code defines tenant. They also define special requirements for tenant situations. The Standard Building Code (section 704.3) requires a fire-rated separation between tenants and common areas (which includes corridors). The building official can choose which sections of the codes that he/she wants the BellSouth plans and specifications to meet when there are conflicts. For example, the Fire Marshal of Ft. Lauderdale at the Main Relief CO (Central Office) and the Cypress CO, has insisted that BellSouth meet the separation requirements of the South Florida Building Code, and the 50 foot common path of travel requirement of NFPA 101. Under NFPA 101, Special Use Industrial Occupancy, the corridor would not be required to have rated walls. However, since the building official is picking and choosing between codes, he/she can

require that the corridor from the building be constructed of fire-rated wall construction (according to the South Florida Building Code).

BellSouth Design Practices

BellSouth design practices act as another set of codes specifying space allocations that meet the safety needs for employees and vendors, as well as customer service needs provided by the building and its occupants. These practices detail maximum equipment-lineup length, travel distances to exits, front and rear equipment aisle widths, and the size of various support components (such as air-conditioning, house service panels, duct, conduit, ceiling rack heights, size and number of toilet facilities, lounges, storerooms, etc.). These practices also dictate the separation distances necessary to prevent service outages caused by grounding violations. People being able to work on one type of equipment and touching another type usually cause grounding violations. The solution is to separate the equipment by the type of grounding path required. This is referred to as integrated and isolated grounding plane separation.

Vendor Equipment Design Instructions

Finally, BellSouth uses equipment vendor's (manufacturer's) detailed design instructions on where and how much space is necessary for a particular family or group of equipment.

Equipment Forecast Methodology

BellSouth utilizes its Florida Capacity Managers (Switch, Circuit, Power, and Common Systems) to determine the equipment requirements for forecasted growth for its offices. In the past, the network was relatively stable, primarily used for voice traffic, and BellSouth relied heavily on forecasts received for BellSouth line growth and interexchange carrier access growth. There was a direct correlation between the interoffice trunk growth and the access line growth. However, due to the following reasons that have occurred over the past 24 months, BellSouth has revised its process for projecting equipment requirements. Those changes are: 1) the increased use of the Internet and the resulting increased demand on the network; 2) the introduction of ALEC networks and the need to interconnect those networks; and 3) the increased demand for wireless interconnection. The demand on the network is no longer stable or predictable. Therefore, a lack of a forecast from these influences has forced BellSouth Capacity Managers to rely heavily on trended demand to determine capacity exhaust and equipment relief.

BellSouth has several levels of forecasts. There are Company, State (or GEO), Turf (sometimes referred to as District), and Wire Center level forecasts. The state of Florida has two GEOs, North and South. As it pertains to this specific situation, the forecasts being described for the six Central Offices in question are known as Wire Center Level Forecasts. The Wire Center Level forecast is a prediction of growth for future years of individual products or groups of products within a Wire Center. BellSouth often group several products together and refer to this grouped forecast as the Total Access Line (TAL) forecast. This group of products known as TAL includes both residential and business lines. Non-Switched and High Speed units are forecasted in addition to the TAL forecast. The intended use of the Wire Center Level forecast is for inventory or capacity management.

BellSouth's Network and Carrier Services department employs GEO forecasters responsible for preparing Wire Center Level forecasts. These forecasters generally have years of experience in other areas of the Company and are usually selected because of their strong analytical and statistical skills. The forecasters are trained on the use of analytical tools such as Time Series and Regression models that enable them to analyze large amounts of data and predict future growth.

Forecasts are made by analyzing internal historical product data, such as residential and business lines, applying external economic indicators, such as Gross Domestic Product (GDP) growth and Consumer Price Index (CPI), Unemployment Rates, and any promotional efforts, such as Additional Line sales campaigns, that might alter historical trends. Any local knowledge (such as a new factory or large business locating in a given wire center) that might alter past trends is also applied to the forecast.

BellSouth's historical data varies by product. Some products have history dating back to 1994. However, forecasters usually use only the past three to five years when building a forecast because the recent past is usually a better indicator of the future.

The data is kept in a forecast system BellSouth calls Strategic Market Analysis System (SMAS). In addition to being a repository of historical data, SMAS contains applications and statistical tools that are used to analyze the data and project future demands. SMAS also has the capability of taking a "tops down" number developed for a larger geographic area, (State or District) and spreading it to the wire centers included in the larger area.

Forecasts are made twice a year at the wire center level. Products that require units of switching equipment or outside facilities are forecasted for ten years, current year plus nine years. In addition, individual wire center forecasts validations are provided upon request in the event that the current forecast is several months old.

Forecast Managers make some validation of the forecast such as view over view comparisons and graph the results to determine if the forecast seems reasonable when compared to the Wire Center's history. In addition, BellSouth has Forecast Assurance personnel that make additional reviews to ensure the forecast is reasonable. BellSouth also uses commercial forecasting programs such as Forecast Pro (Trademark of Business Forecast Systems) and SmartForecasts for Windows, (Trademark of SmartSoftware, Inc.) that make use of several statistical models to analyze BellSouth's data and help it build a forecast. BellSouth also publishes tracking reports that contain analysis and notes about why actual units deviate from the forecast. While performing this monthly analysis, if a given wire center's actual units seem to be veering out of range and appear to put the annual forecast in jeopardy, BellSouth revises the forecast and notifies the capacity managers of the revised forecast.

Switch, Circuit and Loop Capacity managers use the forecasts for sizing and timing of growth projects. These managers compare the forecast to the existing capacity and determine what additional capacity is required for their particular discipline.

When the forecast is completed, it is transmitted to personnel who load the forecast into other systems, such as the Network Switching Plan. The data is processed and sent to an application that generates Demand and Facility (D&F) charts. D&F charts show historical data plotted on a graph that can be interpolated or trended to indicate future demand. D&F charts are used by Switch Capacity Managers to determine when to provide additional switching capacity and how much capacity to provide based on the forecast.

The forecast is also passed on to Loop Capacity Managers via their system called Loop Engineering Information System (LEIS). The Loop Capacity Managers use the forecast to determine the timing and sizing of Outside Plant cables. The forecast is also passed on to Circuit Capacity Managers, who use the forecast to assist in determining the timing and sizing of circuit facilities.

Currently, BellSouth projects equipment requirements for the next 12 to 18 months based on the actual demand of the past 12 to 18 months. BellSouth uses the geo-forecast of network access lines to determine the line peripherals required and rely heavily upon the recent trend of trunk demand to project the trunk peripherals required. The capacity managers uses their professional judgment and experience in applying the trended forecast to the equipment requirements when they are aware of an unusual occurrence that has, or will, take place. Another change from the past is that BellSouth is deploying hardware equipment to last approximately 18 months and deploying the expensive electronics or plug-ins as demand occurs, which is approximately every six months in the volatile access tandem switches. This allows BellSouth to economically and quickly respond to interconnecting customer demand. In the past, because there was little data traffic on the voice network, BellSouth was able to correlate the trunk demand to the access line growth, and provision trunks on a similar growth pattern. BellSouth would provision equipment for a planned 24 to 36 month period.

As stated before, there are four types of Capacity Managers, Circuit, Power, Switch, and Common Systems. The responsibilities of these managers are discussed below.

Circuit Capacity Manger

Circuit Capacity Managers (CCMs) oversee the interoffice trunking network and plan the associated equipment requirements. In projecting future equipment requirements, the CCM identifies the need for additional test access, metallic repeater equipment, SONET equipment, digital cross-connect system growth and associated cross-connect panels. The CCM considers interoffice message trunk growth, ISP (Internet Service Provider) trunk growth, interexchange carrier and CLEC trunk requirements. The CCM must also consider the expected growth for customer-driven SONET-based smart rings as well as interoffice SONET rings. The CCM is also an interface to the outside plant capacity manager, who provides requirements to them on the placement of equipment in this area for next-generation digital loop carrier equipment, loop multiplexers and fiber distribution frames. The CCM considers all of the above requirements and when they are requested, they provide the Common Systems Capacity Manager with an estimated equipment requirement.

The CCM uses historical data, current usage, and trended projections to perform his/her job functions. The CCM receives information from Bellcore programs such as the Total Network Data System (TNDS) which collects actual trunking data such as peg count, overflow, and usage. Data is also obtained from the Trunk Inventory Record Keeping System (TIRKS) and the Facility Equipment Planning System (FEPS). Customer forecasts and handoff documents from the infrastructure planning organization for customer-ordered smart rings or new service offerings are also inputs to the CCM.

The CCM converts this information to capacity requirements and translates it to facility and equipment needs to meet customer demand in a timely manner. Once the conversion is complete the CCM provides the CSCM a copy to ensure availability of office space to meet the circuit needs of the office.

Power Capacity Manager

A Power Capacity Manager (PCM) is responsible for the planning of adequate DC power to support all switching and circuit equipment, including collocation, within a central office. The PCM uses an outsource vendor, Lucent Technologies, to perform all DC power planning functions but the PCM directly oversees this vendor and approves all equipment projects and expenditures. The PCM performs all planning functions and acquires funding for standby engines/alternators located in all central offices to provide power to support the total switching, circuit and building load in the event of a commercial alternating current (AC) power failure.

DC battery plants, including rectifiers, batteries, power distribution bays and overhead copper buss bars, require special expertise to properly design. The PCM uses Lucent Technologies not only to plan but to engineer, furnish & install (EF&I) DC power equipment. High DC current and floor loading limitations due to the weight of the equipment, especially batteries, influence power room space requirements. Outside structural engineers, contracted by BellSouth, advise Lucent as to the safe spacing and layout of the heavy battery strings. The Lucent power engineer assists the PCM in determining the overall power room "footprint" required.

Standby engines/alternators also require special expertise as to the amount of floor space required. Physical size, volume of required intake air, cooling needs, exhaust arrangements, sound attenuation requirements and control cabinet layout all influence space needs. BellSouth's Property & Services Management (P&SM) group uses their outsource vendor or contracts outside mechanical and/or structural engineers to specify floor space needs for standby engine/alternator installations.

PCM receives the information needed to evaluate the power needs of the office from the various groups identified above. These sources of information allow the PCM to determine the power needs of the office. Once the power needs are determined the PCM and BellSouth's Property & Services Management (P&SM)

along with the Common Systems Capacity Manager determine the best method to provide the needed power resources.

Switch Capacity Manager

The Switch Capacity Manager (SCM) is responsible for managing the day to day switch capacity of the central offices, ensuring that capacity exists to meet forecasted and/or unforecasted service demands. The SCM is also responsible for determining when existing equipment capacities will exhaust based on actual and forecasted demand and planning future switch equipment relief to services prior to the exhaust of existing capacities. Finally, the SCM is responsible for monitoring the utilization of the switching equipment components to ensure effective and efficient use of the network switching elements. In planning future relief and provisioning near-term relief, the SCM obtains various forecasts, Handoff Documents, BellSouth Corporate directives, traffic data and Planning Guidelines.

The Switch Capacity Manager (SCM) uses the Wire Center or GEO Forecast of Access Lines and Services, the Integrated Digital Loop Carrier Forecast of Lines and Systems, and the Switch T1 Forecast. Historical data on traffic usage patterns is also used by the SCM to project future usage trends. The SCM, in performing their duties, also uses hand-off documents, which outlines the hardware and/or software requirements to support new services.

Information received from the various forecasts is used by the Switch Capacity Manager (SCM) to develop near-term relief (current year) and future relief (next years) plans. These plans, as well as the forecasts used by the SCM to support the plans, are embodied in the Local Switching Demand and Facility (D&F) charts for each office. This document reflects the forecast data obtained from the GEO Forecasters (Wire Center Forecast of Access Lines, ISDN – Basic and Primary Rate), Loop Capacity Managers (Integrated Digital Loop Carrier Forecast of Lines and Systems), and Circuit Capacity Managers (Switch T1 Forecast). Also reflected are the usage trends (CCS/NAL) developed by the SCM. These usage trends are developed from historical usage data for the impacted office and any known events that could significantly change usage patterns.

When it is determined that existing or projected demand will exceed the specified capacity, the SCM begins the relief sizing and timing process to estimate the quantity of equipment required for future demand. The timing of future equipment installation is determined when equipment must be placed in service to prevent service degradation, held orders or service interruption. The relief sizing for a specific switch project is determined by how much capacity must be provided over a specified period of time to meet the forecasted demand. To perform relief sizing, the SCM takes the aggregated forecast data for Access Lines, Switch T1 and IDLC (Integrated Digital Loop Carrier), along with the traffic usage projections, and inputs it into one of several engineering and ordering spreadsheets (such as SEOMP, SEPT, COEES, COMET, etc.) to derive an estimated equipment forecast and new capacity levels. The new capacity levels and proposed job are input into the Local Switching Demand and Facility (D&F) database and represent the relief plans for the office. Because the purview of Switch Capacity Management is the Current Year plus 1, relief plans in the Local Switching D&F database will generally cover a two-year window.

As near-term exhaust approaches, the SCM updates the Engineering and Ordering Spreadsheet and transmits it as a Telephone Equipment Order (TEO) to the switch vendor (after receiving proper authorization). The vendor takes the specifications outlined in the TEO, performs detailed engineering and determines the exact number of equipment bays, frames or modules needed. This information is then provided back to the SCM in the form of an Equipment Summary Report. The Equipment Summary Report, along with the TEO face Sheet, is provided to various work groups for their use. The Common Systems Capacity Manager (CSCM) is provided a copy of this information in order for the CSCM to accommodate the equipment footprint within the central office.

Common Systems Capacity Manager

The Common Systems Capacity Manager (CSCM) maintains the detailed equipment layouts on the building study plan that defines the growth strategy for all classes of central office equipment. In addition,

the CSCM also maintains the central office profile. Both documents reflect a snapshot in time and are continually changing as equipment in the office changes. The CSCM ensures that all installed equipment is properly designated on the floor plan, outstanding equipment orders for additional equipment, as well as equipment to be removed, are reflected and space for future equipment projections are reserved.

CSCMs receive requests for space in numbers of "bays" of equipment or miscellaneous equipment that fit into existing bays from Switch, Circuit, and Power Capacity Managers. In addition to the requests from the other capacity managers, CSCM also receive information from the Regional Planning & Engineering Center (RPEC), other BST organizations, and even the Interconnection Sales group.

Once the CSCM receives equipment demands or projections from the entities noted above, they update the office study plan and office profile so the installation vendor can install the appropriate equipment in the proper place in the Central Office. This information is also used to trigger building additions, air conditioning upgrades and other miscellaneous space related concerns. The office profile contains the collocation space layout.

Customer needs are the basis for equipment forecasts as detailed above. However customer needs also drive the need for various workstations and spaces considered part of the equipment that does not show up on the forecast. These workstations provide BellSouth employees and vendors necessary space to carry out their daily assignments. The number of workstations and how they are equipped is a function of the individual vendors who specify the equipment and the number of employees and others needing to use the workstations at any time. These needs are discussed below:

There are many variables that affect the number of workstations placed in a central office. As a result, no definitive guidelines exist, but rather, "rule of thumb" deployment strategies are utilized in determining the placement of workstations. These variables include, but are not limited to, the number of employees, hours of staff coverage, physical size and makeup of office (multi-floor, widely spread out work areas, etc.), number and size of switch(es), number of network elements, capacity of network elements, office activities (provisioning, growth, upgrades, etc.), special activities (i.e., an office frequently used for "First Office Applications" or field trials) and miscellaneous (i.e., an office used for the concentration of testing or services such as remote access for centers). Each central office's specific monitoring, provisioning and staffing requirements must be considered in the determination of how many workstations should be placed by the Operations Manager. Workstations can consist of dumb terminals, personal computers (PCs), or specialized terminals that are specific to vendor equipment. Most of these terminals are equipped with specialized function keys, which would not make them interchangeable.

The types of equipment required to fulfill customer demands and the fact that central offices evolve through growth, upgrades, and rearrangements determine the number of workstations placed in a central office. Each one of these evolutions impact workstation and printer requirements. Therefore, while it is difficult to determine the exact number of workstations and printers for a given office, some bare minimum examples can be given, broken down by a typical floor layout and the disciplines of a central office.

Typically, a central office would have one workstation for every two or three technicians. In a one-story, small central office with only a Local switch, BellSouth would have a minimum of two terminals - one for the Electronic Technician and one for the Frame Attendant in that office. As the office grows and another type of switch and/or toll equipment is added, a bare minimum of one terminal would be required per vendor for that switch and/or toll equipment. Also, there would be one printer associated with each workstation.

The disciplines of a central office include: Switch, Toll, Operating Systems, a Plug-In Receipt area, and a Frame area. The Digital Cross Connect (DCC) is a subset of the Toll area. These areas are where the bulk of the work is performed in a central office.

The Switch discipline contains the equipment that processes calls and interfaces with toll and the local loop. There are different types of switches, including but not limited to, a Local switch which serves the surrounding community, a Tandem switch which interfaces with Local switches to transfer calls to another

switch or out of the area, a Remote switch which is served from one central office but is physically located in another office, a Signal Transfer Point (STP) switch which provides signaling to Local switches in the area, and an Operator Services switch which specializes in Operator services traffic.

In a central office, workstations and printers are synonymous. In almost all cases, a workstation has a dedicated printer associated with it. Depending on what type of workstations they are connected to, these printers are used for recording real-time data, issuing designs on circuits, printing work loads, staffing and labor reports, daily customer index reports, trouble tickets, provisioning data, etc.

As I stated earlier, workstations can consist of dumb terminals, personal computers, or specialized terminals that are specific to vendor equipment. Most of these terminals are equipped with specialized function keys, which would not make them interchangeable. Some examples of specialized workstations are those assigned to switches, digital cross connect systems, Work Force Administration/Dispatch In (WFA/DI - which is an operating system used to perform provisioning and maintenance of cable pair facilities and switch facilities), and documentation (CD-ROM based access). Within a switch there are also specialized workstations, like recent change terminals and terminals used for switch maintenance and provisioning.

The minimum requirements for switch discipline are four to six workstations per switch, broken down as follows:

- 1 Recent change terminal located in the Frame area (used for provisioning switch features and performing maintenance)
- 1 Recent change terminal located in the Switch area (used for provisioning switch features and performing maintenance)
- 1 Recent change terminal located in the Toll area (used for provisioning switch features and performing maintenance)
- 2 Main workstations located in the Switch area (used for performing maintenance, growth provisioning, and routines)
- 1 Main workstation located in the Toll area (used for performing maintenance)

Again, depending on the variables of the central office, this number can vary. In large metropolitan area switches, quite frequently, more than one activity is being performed on the switch at the same time by multiple technicians.

The minimum requirements for Toll discipline are as follows:

- 1 Workstation located in the central part of the Toll area (used for provisioning and performing maintenance activities associated with toll switch)
- 1 Workstation for each Digital Cross Connect System (used for placing digital cross connects for provisioning and maintenance)
- 1 Laptop workstation for mobile use throughout the Toll area (used for provisioning and maintenance of various toll services)

The minimum requirements for BellSouth's operating systems COSMOS and WFA/DI are:

- 1 WFA/DI terminal for every two employees (used to load work to employees, send and receive tickets, and access various databases)
- 2 COSMOS terminals in the frame area, one at each end (used for provisioning and performing maintenance work involving cable and pair assignments to switch and toll equipment on the frame)
- 1 COSMOS terminal in the Toll area (used for provisioning and performing maintenance work involving cable and pair assignments to switch and toll equipment on the frame.)
- 1 COSMOS terminal in the Switch area (used for the same as the one above.)

These numbers can vary due to the level of activity, the location of all the disciplines, and the number of employees.

The minimum requirement for the Plug-In Receipt area is:

1 Workstation (used for plug-in inventory)

Specific Building Analysis

Building name: Mandarin - Loretto Central Office GLC: 31040

Street Address 11499 Old St. Augustine Road City: Jacksonville, Florida

- I. Building data: See Attachment 1 for Map.
The Mandarin-Loretto 5ESS Central Office is located on the south side of Jacksonville just outside the I-295 beltway on Old St. Augustine Road in a fast developing mixed use neighborhood. The site is approximately 30 minutes south of downtown Jacksonville, and 3 hours west of Tallahassee.
The building was originally constructed in 1978 in the center of the regular-shaped original site. There have been 3 additions, two of which have been completed since 1990. The current forecast has been exceeded in this area for the past several years. The building now meets the building setback line on Old St Augustine road (east side of building). Code-required retention occupies the south and west sides of the site. The building addition is being completed on the north side with some room left for further expansion. The existing building structure will not support a vertical addition.
- II. Building Occupancy:
Space assessment and measuring methods have been detailed in direct and rebuttal testimony of J. D. Bloomer in Commission proceedings on previous waiver requests. Applying these methods to the Mandarin-Loretto building yields the following information as detailed in Attachments 2 and 3.

The current building contains 8680 gross square feet.

There are 630 square feet of unavailable space. This space is assigned to building functions as required by code or national design standards. This type space typically contains restrooms, air handling and chiller rooms, mechanical equipment such as pumps, controls, compressors, house service panel/electrical system distribution panels, stairs, elevator shafts and equipment rooms, exits, etc).

BST equipment occupies 7341 square feet.

There is 2646.5 square feet of switch equipment.

There is 2030.5 square feet of circuit and subscriber line carrier equipment.

A power room/ engine occupies 1625 square feet.

The frame occupies 1039 square feet supporting all ILEC and proposed CLEC equipment in this location.

There are no unregulated services in this facility.

There are 562 square feet of administrative space (storage, office, entry, receiving rooms) in this facility. Administrative spaces are not directly related to the installation, maintenance, or servicing of telephone equipment. There are no administrative office personnel assigned to this location. All personnel assigned to this structure work on the equipment.

- III. Future BellSouth space needs based on forecasts for equipment shipping within 2 years of this application. BellSouth forecasting methods and procedures have been explained in great detail in direct and rebuttal testimony of Barbara Cruit in Commission proceedings on previous waiver dockets. In addition, the need to separate equipment by equipment types, family growth patterns, grounding, or size of cabinets has been detailed in numerous testimonies in other waiver proceedings. These needs also affect which spaces are available for collocation. All these factors are involved in making the following space allocations. A summary of this testimony is included as Attachment 5.

Applying the practices to the customer needs in this area yields the following information.

Isolated Ground plane area:

Switch growth: There are currently nineteen vacant switch bay spaces. Twelve are reserved for a processor upgrade. These bays must be located together due to manufacturer-specified cabling limitations. Failure to reserve these bays means the office will not be able to handle calls for current and future customers. This leaves seven remaining bays for growth. BellSouth forecasts require 3 spaces in 2000 and in 2001. This switch also supports the Mandarin Lemonwood and World Golf Village Remote switches. These areas are booming and growth there requires additional switching equipment to handle both line and trunking requirements.

Integrated ground plane area:

There are currently 23 circuit bay spaces reserved for growth. BellSouth forecasts require 14 spaces in 2000 and 10 in 2001. This leaves BellSouth with a deficit of one circuit space. We must complete the building addition to meet our own space needs.

Power plant space:

There is space for one battery addition and relocation of battery strings necessary for air handling room growth to support all ILEC needs and future CLEC requirements (See future addition plans in Attachment 3).

Frame area:

There are plans for frame growth to serve all ILEC and CLEC requirements in 2000. Temporary Subscriber Line Carrier frames will be relocated to clear the required safety aisles and equipment growth.

- IV. Collocation Occupancies
There is no square footage assigned to enclosed physical collocators in this office. There is one virtual collocator assigned space in this office.
- V. Other Occupancies
There is no square footage assigned to any 3rd party space.
- VI. Switched Turnaround space
There is no reservation for switch turnaround space.
- VII. Future Growth Plans
A 6148 square foot addition is under construction as observed in the space tour. This addition will serve both switch, circuit, and collocation requirements. There are currently 6 collocators assigned space in this addition.
- VIII. Any Other Space Relief Plans

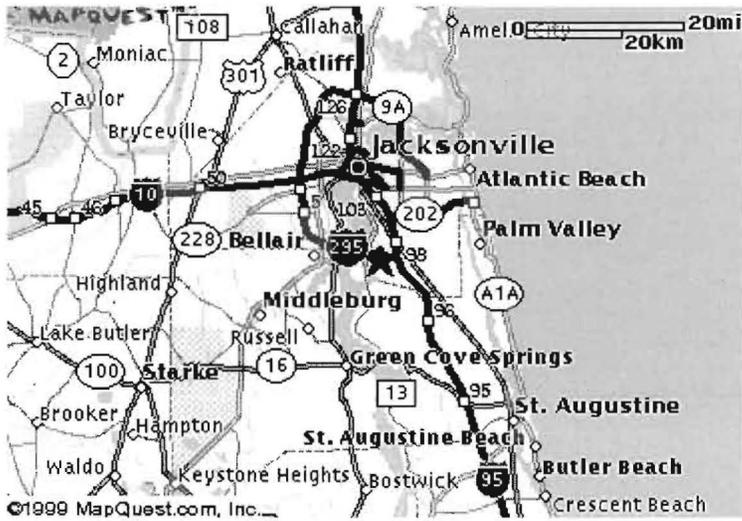
There are no other published plans for relieving the space exhaust situation

- IX. Special conditions noted on the space inspection tour
 - A. General safety - The current equipment room has inadequate safety exit aisles in several locations due to lack of storage rooms in the building. Storage rooms and break rooms have been converted to work spaces for the permanently assigned personnel at this location. At the end of the main frame the current frame workstation encroaches on the normal exit path.
 - B. Families of equipment - BellSouth reserves some growth spaces adjacent to existing equipment as specified by specific equipment vendors. Some types of equipment must be located together due to internal wiring considerations. Thus those spaces are not available for collocation even if not required in the forecasted interval. As these types of equipment generally serve both CLEC and ILEC requirements, it is in everyone's interest to preserve the space allocations.

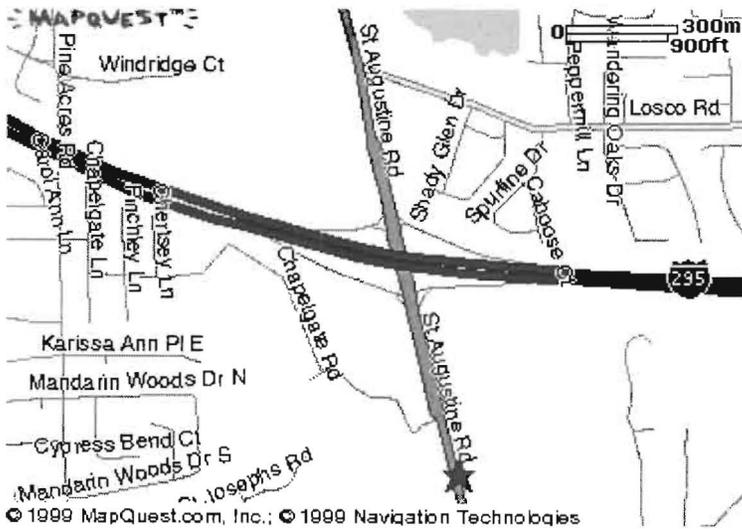
- X. Attachments:
 - Attachment 1 - Map of area locating building
 - Attachment 2 - Space Assessment Form Filed with Application for Waiver
 - Attachment 3 - Building Drawings Filed with Application for Waiver

PC docs 190822

ATTACHMENT 1 - MAPS OF AREA - Overall Map



Enlarged Map of Area around Central Office

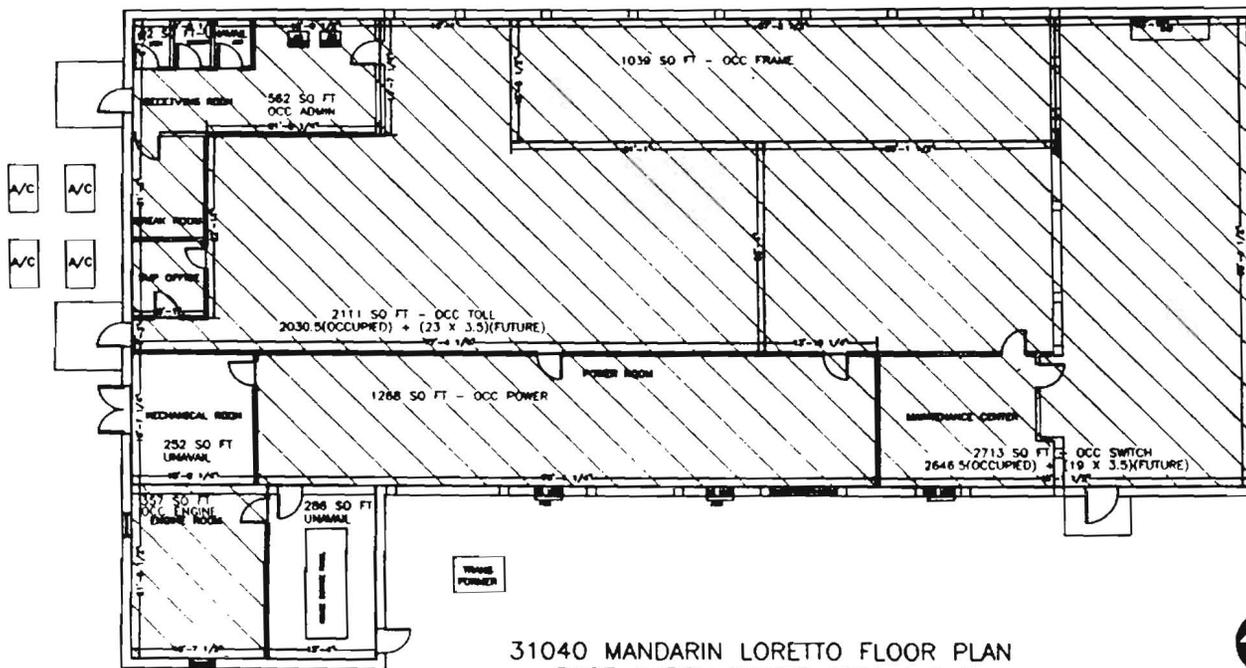


ATTACHMENT 2 - SPACE ASSESSMENT WORK SHEET

PETITION FOR WAIVER OF COLLOCATION REQUIREMENTS

12/06/1999

1	CENTRAL OFFICE CLLI:		<u>MNDNFLO</u>		
2	COLLOCATOR AND AMOUNT OF SPACE NA - Paperwork filed at PSC request		<u>NONE</u> <u>0</u> sf		
3.	TOTAL GROSS SQ. FT.		<u>8680</u>		
4.	FLOOR PLANS - INCLUDING DIMENSIONS - ATTACHED				
a.	BST occupied equipment space		<u>7341</u> sf		
	Nonregulated services		<u>0</u> sf		
	Administrative space - not related to installing, repairing, maintaining CO equipment		<u>562</u> sf		
b.	Retired equipment		<u>0</u> sf		
c.	Future BST space reservations		<u>147</u> sf		
	Switch	<u>66.5</u>			
	Circuit	<u>80.5</u>			
	Power	<u> </u>			
	Frame	<u> </u>			
d.	Collocation space (There is virtual but no physical)		<u>0</u> sf		
e.	Other 3rd party space		<u>0</u> sf		
	What is the occupancy	<u> </u>			
f.	Switch turnaround space				
	Service Yr <input type="text"/>		<u>0</u> sf		
g.	Remaining space		<u>630</u> sf		
	Unavailable space		<u>630</u>		
	Space available for Collocation		<u>0</u>		
h.	Central office growth plans.				
	Forecast completion				
	Yr				
	Addition	<table border="1" style="display: inline-table;"><tr><td style="width: 50px; text-align: center;">2000</td><td style="width: 50px;"></td></tr></table>	2000		<u>6148</u> sf
2000					
	Renovation	<table border="1" style="display: inline-table;"><tr><td style="width: 50px;"></td><td style="width: 50px;"></td></tr></table>			<u>0</u> sf
i.	Any other plans for relieving space exhaust				
5.	Floor loading	All space	<u>150#sf</u> <u>8680</u> sf		
		Power rooms only	<u>350#sf</u> <u>0</u> sf		



31040 MANDARIN LORETTO FLOOR PLAN
PAGE 1 PSC WAIVER ITEM 4 A-F

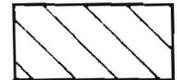


DECEMBER 6, 1999
A TOTAL GROSS SQ FT 8680

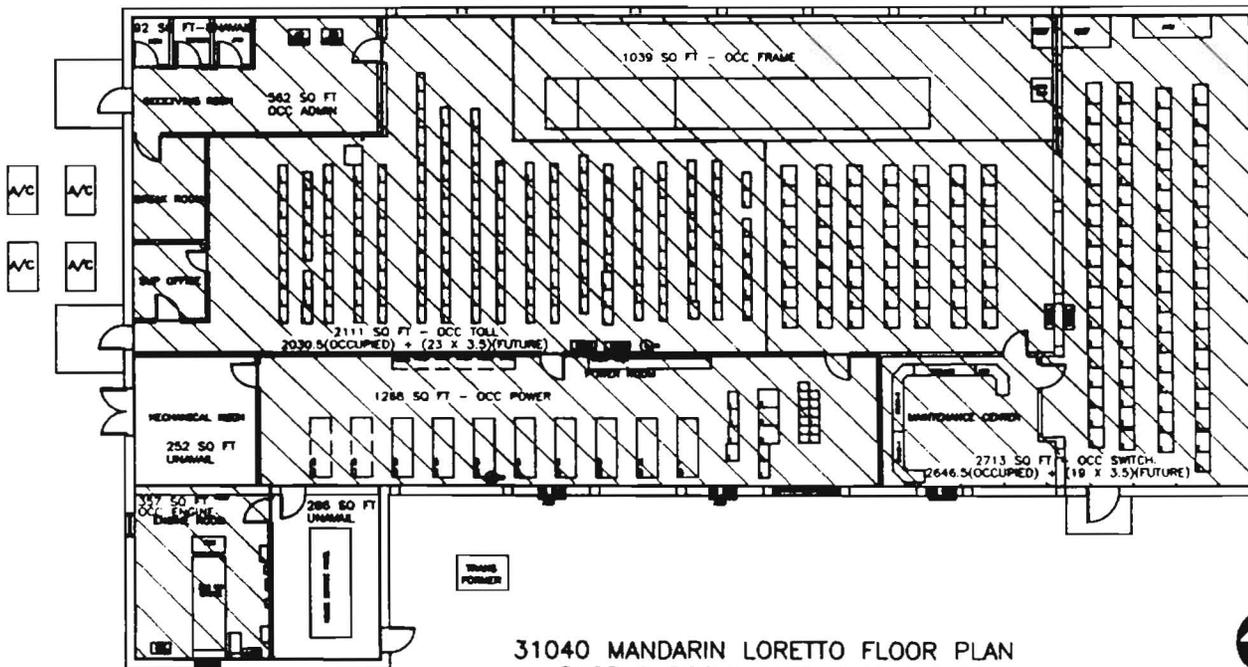
RESTROOMS & JANITOR 82
MECHANICAL ROOM 252
HOUSE SERVICE PANEL 228
B TOTAL UNAVAILABLE SPACE 630

SWITCH - 2646.5
TOLL 2030.5
FRAME 1039
POWER & ENGINE 357 + 1268 = 1625
C ADMINISTRATIVE 562
TOTAL OCCUPIED SPACE 7903

SWITCH 19 x 3.5 = 66.5
D TOLL 23 x 3.5 = 80.5
TOTAL RESERVED SPACE 147



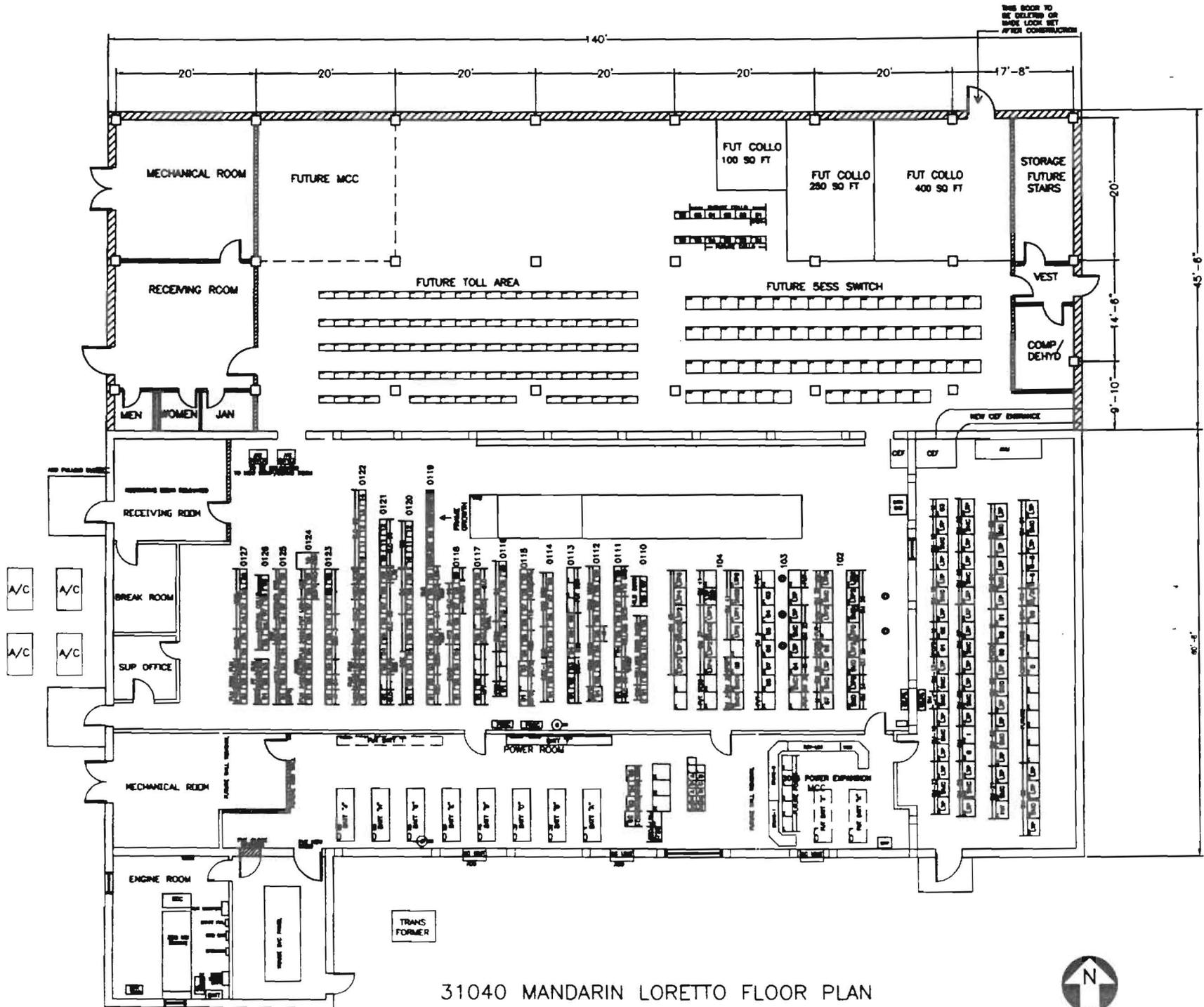
ATTACHMENT 3



DECEMBER 8, 1999

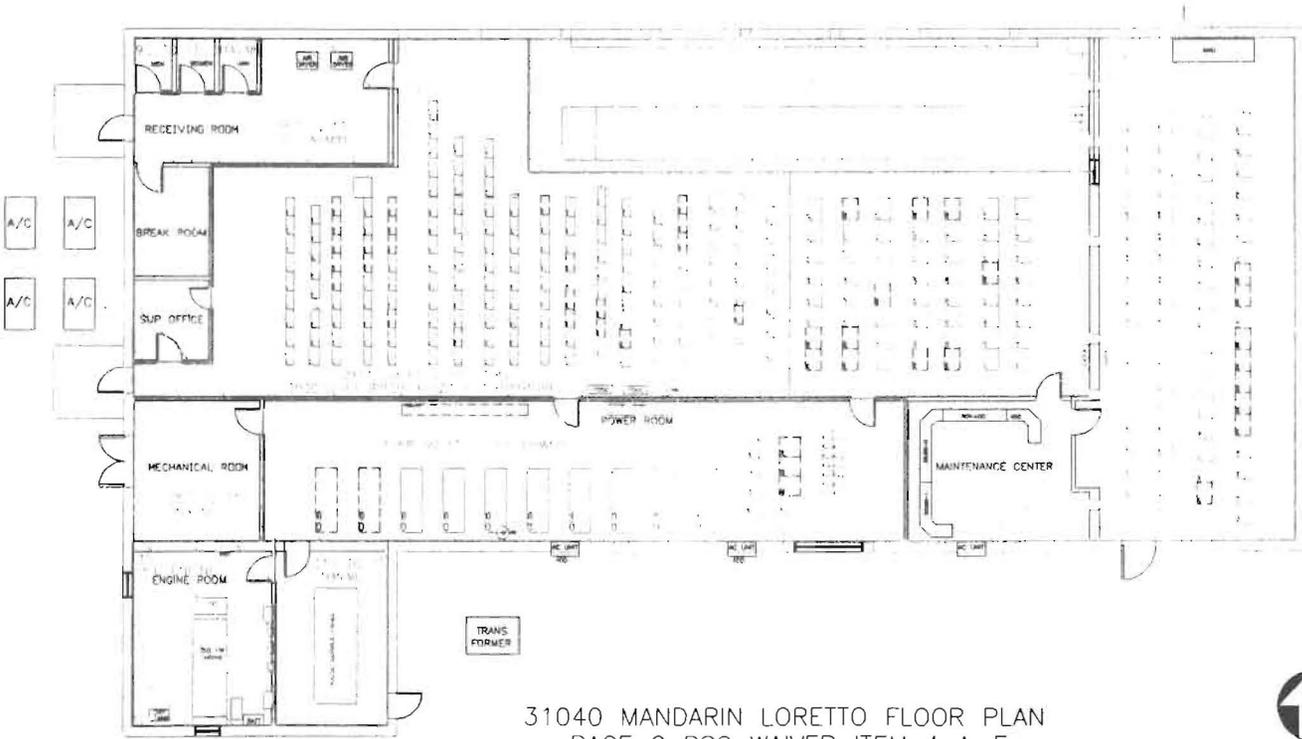
A	TOTAL GROSS SQ FT	8680
	RESTROOMS & JANITOR	92
	MECHANICAL ROOM	252
	HOUSE SERVICE PANEL	286
B	TOTAL UNAVAILABLE SPACE	630
	SWITCH	2646.5
	TOLL	2030.5
	FRAME	1039
	POWER & ENGINE	357 + 1288 = 1645
	ADMINISTRATIVE	562
C	TOTAL OCCUPIED SPACE	7903
	SWITCH	19 X 3.5 = 66.5
	TOLL	23 X 3.5 = 80.5
D	TOTAL RESERVED SPACE	147





31040 MANDARIN LORETTO FLOOR PLAN
 YEAR 2000 BUILDING ADDITION
 PSC WAIVER ITEM 4 G-H





31040 MANDARIN LORETTO FLOOR PLAN
PAGE 2 PSC WAIVER ITEM 4 A-F

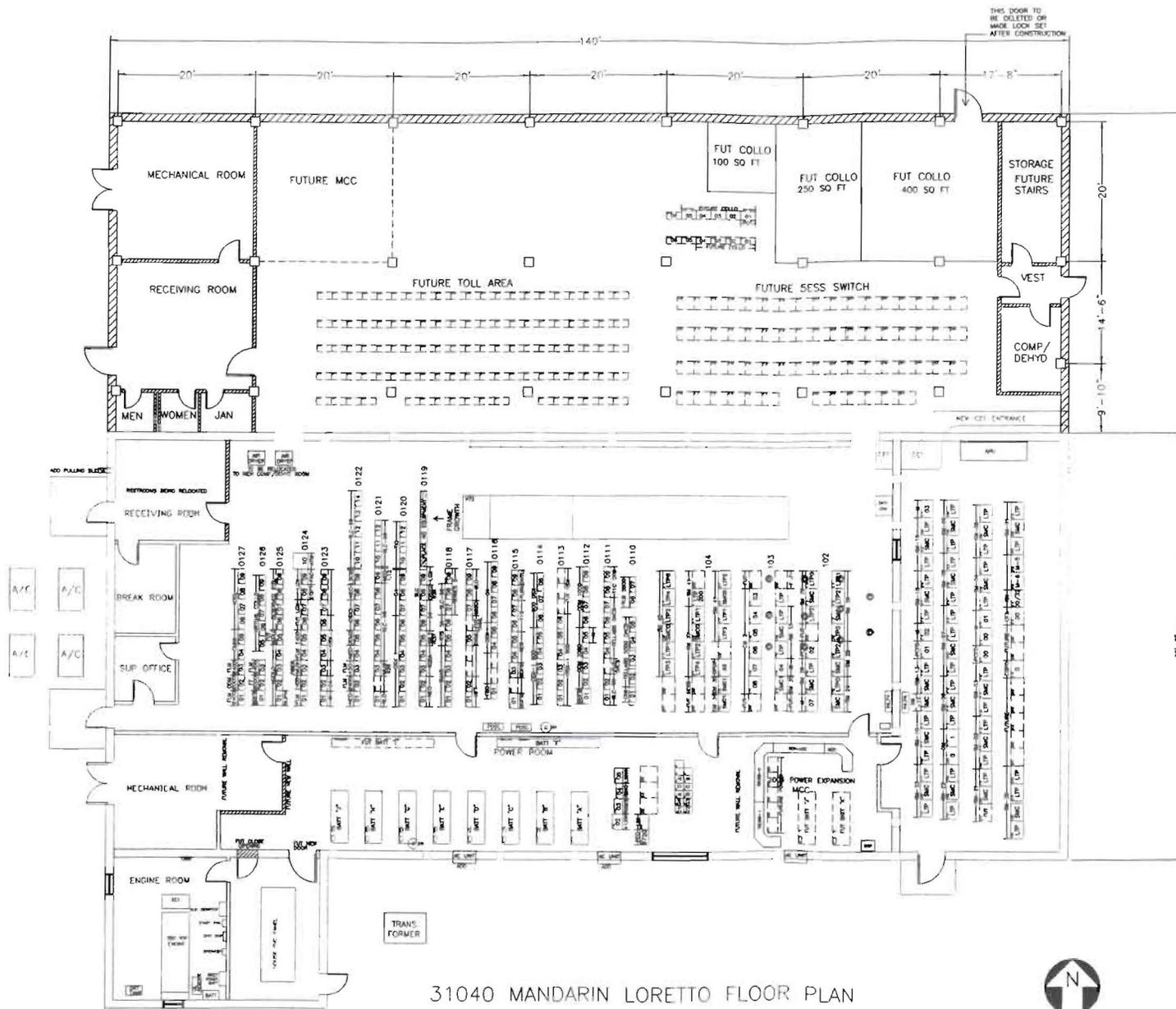


DECEMBER 6, 1999

A TOTAL GROSS SQ FT 8680

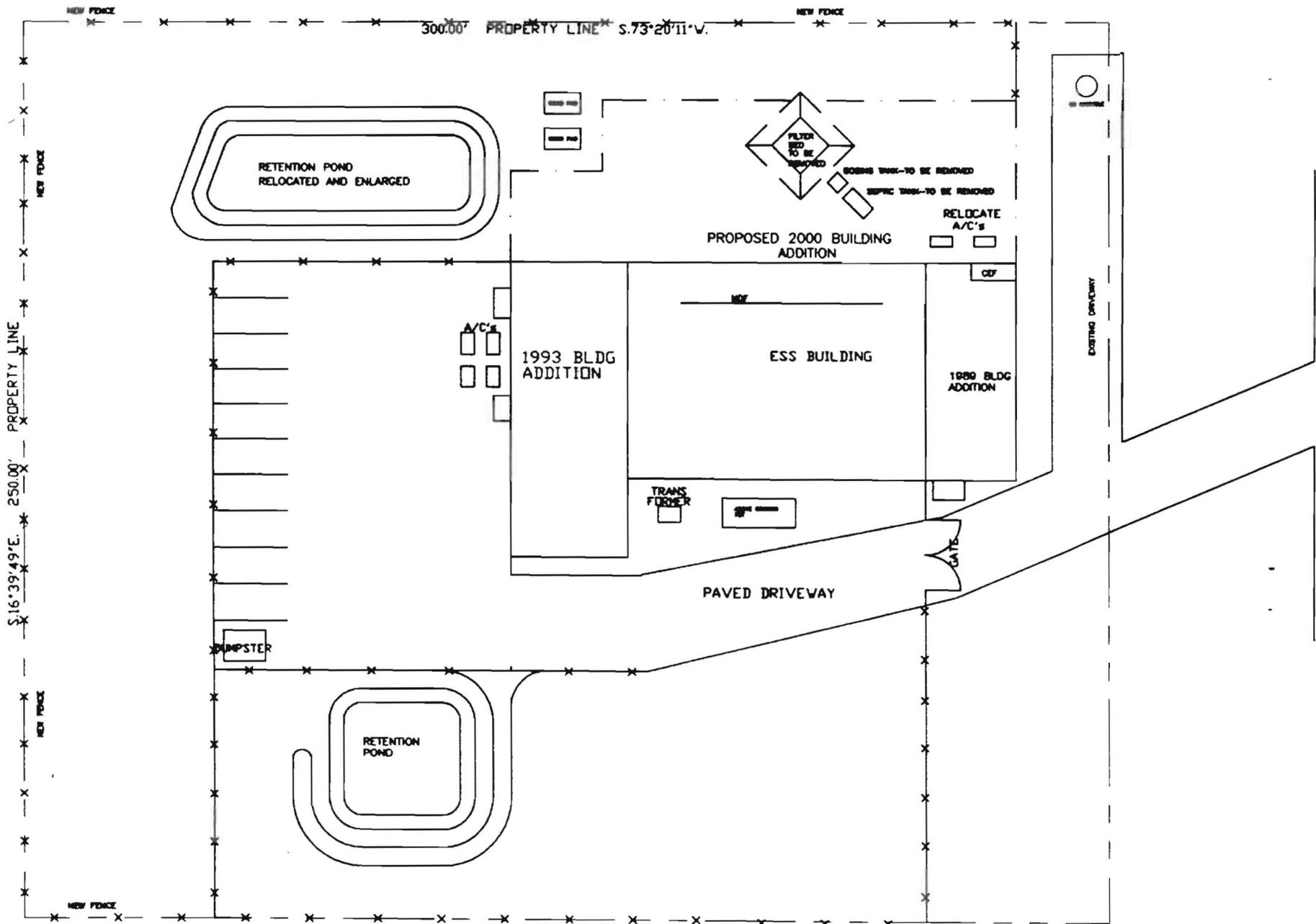
RESTROOMS 22
MECHANICAL ROOM 142
POWER ROOM 104
TOTAL RESERVED SPACE 168

D SWITCH 19 X 3.5 = 66.5
TOLL 23 X 3.5 = 80.5
TOTAL RESERVED SPACE 147



31040 MANDARIN LORETTO FLOOR PLAN
 YEAR 2000 BUILDING ADDITION
 PSC WAIVER ITEM 4 G-H





31040 MANDARIN LORETTO