

Westfield State University Parenzo Hall

ITS/Telecommunications/Utilities Existing Facilities Information

Overview: Parenzo Hall is a major telecommunications hub for the campus. The main telecommunications room is located in the basement of the building facing Western Ave. Fiber optic, cable TV, and telephone cabling enters the campus through this facility. The building also is a major hub for the campus' fiber optic data network. There are three major facilities and associated conduits/cables that supply service to other campus buildings that need to remain operational during construction in the building. The three facilities are listed below.

Main Telephone/PBX Room:

The main telephone room is located in room 004. The main campus point of entry for communications service is located in the main PBX room. The room contains the campus' main PBX switch and support equipment as well as cabinets owned by Verizon and Westfield Gas & Electric. These cabinets also serve non-Westfield State customers. Phone blocks in this room feed the other buildings on campus. Conduits carry these main trunk cables to ground blocks located in the main steam tunnel and the main electrical room. Additionally fiber optic cables connect to the adjacent Media Services back room. This facility must remain operational with generator backup throughout construction and associated conduits and cables in the basement feeding other campus buildings must be protected during the project.

Media Services:

The equipment room (005a) in the rear of the present Media Services office space includes the main data IDF for the building. The room contains an equipment rack which contains the core network switch for the building. Fiber optic cables feed the other IDFs in the building from this rack and also feed the Dining Commons, Scanlon Banquet facility, Power Plant, and Trades Building radially. Additionally this rack serves as an IDF itself with end station cabling serving the basement and first floor of the building terminating directly on this switch. This rack must remain operational to maintain service to the other buildings fed by this equipment. Additionally this rack contains equipment owned by Access Plus and Comcast which provide network access to several ATMs on campus as well as equipment owned by Windstream that feeds our telecommunications service that also must remain operational.

This room also contains one of the main fiber optic distribution panels for the campus. Main fiber optic trunks from this room extend to Bates Hall, Horace Mann Center, Woodward Center, and down the hall to the other primary hub in room 012b. Additionally to the main trunk lines, Catherine Dower Center, Dining Commons, Banquet Hall, and the Trades Building are served radially by fiber optic cables originating from this panel. This panel and associated fiber cabling/conduits serving other buildings must be protected and preserved. This room must continue to exist in some form in the new building's program regardless of whether Media Services remains in this location.

Residence Hall MDF – Room 012b:

This room contains the main fiber optic and network hub for the Residence Halls as well as a small datacenter which contains a few support servers for the entire campus. This fiber optic hub serves all of the residence halls radially. In addition to the residential buildings this fiber optic panel also feeds Ely, Interfaith Center, mod hall, and the Power Plant radially. This is also used as a storage area for infrastructure material/equipment. The main trunk lines from this panel connect to Wilson Hall and Parenzo Media Services. This room must remain operational throughout construction.

Electrical Needs:

The main telephone room and the media back room critical loads are supplied by panel PBX located in the telephone room. If a long outage of the building's electrical services is required and temporary electric service is needed to this infrastructure, feeding panel PBX with temporary power will supply all required loads in these two spaces.

Room 012b has two critical 208V 30A circuits that are fed from panel NEP in the main electrical room. Maintaining supply to panel NEP would feed the critical circuits and air conditioning system for this room.

Air Conditioning Needs:

The main telephone room is served by a ducted air conditioning system. This system consists of an outdoor condensing unit (R-22 refrigerant) and two indoor unit zones, one of which supplies the telephone/PBX room and the other of which supplies the media services office suite. Temporary cooling will be needed in the telephone room until a permanent replacement unit is installed.

The Media Services back room is supplied by a Bryant ductless split system. It is suggested this R-22 system be replaced by the project. Temporary cooling will be needed in this room if the existing unit is disconnected until a permanent replace unit is operational.

The Parenzo 012b room is served by a Goodman ducted split unit. This unit uses R-410A and has sufficient capacity for the room's requirements. If temporary power has to be supplied to this space during construction, supplying panel NEP with temporary power would power the air conditioning system as well.

Parenzo Hall Main Electrical:

Outside of the building there is a 4160-volt pad mounted combination high voltage which switches transformer feed from our campus 4160 volts C&D feeder system. The Transformer is a 1000KVA /4160 volt step down to 208Y/ 120 volts feeding the main service to the building. There are two 2000 amp 208y/120 volts services located in the basement main electrical room feeding the building. One of the 2000 amp services is also connected with the generator standby system, this feeds normal lighting and normal power to all offices and classroom throughout the building. The other 2000 amp service was installed in 2014; it is connected to most of the window and spilt a/c systems throughout the building.

Generator:

500 KW diesel generator located on north side of building exterior, feeding standby and emergency power to building, installed 2014.

Heating:

The steam 10" line starts at the manifold in the trades building basement and feeds down the tunnel system to Parenzo as high pressure which is 65#. The first take off is for the domestic hot water tanks which is two 4" lines and the pressure is reduced to 15# with a Spence reducing station. The 10" main then runs to the tunnel mechanical room at 65# where it is reduced to 4" and the pressure is reduced to 20# (med pressure) with a Spence reducing station which is for part of the building heat. On a takeoff of the medium pressure the steam is reduced to low pressure 7# for the rest of the building heat using the same 4" pipe size. The 10" main then travels through the tunnel system at 65# feeding the Bates building.

City Water:

The water feed for Parenzo is a 6 " main with the fire protection comes off the same line. The tee is a 6 x 4" with the 4" feeding the Parenzo plumbing fixtures. The fire protection only protects the Banacos Center.

Natural Gas:

No Natural Gas in the building, there is a 2" high presser line on Westside of the building outside.