One major decision we made was the placement of the Telecommunications Rooms (TRs). On each floor, both TRs are in the same position on all floors. This was possible as there were generic closets located on each floor in the same position. As such, a riser connection has been implemented from the first floor all the way to the fifth floor. This riser connection has allowed us to greatly reduce the amount of backbone cabling required. Additionally, due to the relatively central location of both closets, all Work areas are well within the required TIA/EIA wiring length standards, all far less than 90 m. All access switches have been placed in the closets which is physically closest to their respective departments.

In all floor plans the North wiring closet is labelled with the suffix “A”, and the South wiring closet is labelled with the suffix “B”. The number signifies which floor the wiring closet is located on. For example, TR4B is the southern wiring closet on the fourth floor, whereas TR1A is the northern wiring closet on the first floor.

A blueprint of a building

Description automatically generated

Figure : First Floor

On the first floor, the have located the Entrance Facility on the East wall. This is where the local ISP cabling will connect to our Firewall (F1). Using a riser located in the room, the Firewall will be connected vertically upward. Additionally, should your company choose to pursue Wi-Fi connectivity, a single LAP has been placed approximately at the same place on each floor. This LAP will be used for the purposes of a comprehensive site survey, should you choose to purse this.

A blueprint of a house

Description automatically generated

Figure : Second Floor

On the second floor, we have placed the Equipment Room along the East wall. The ER will contain all major enterprise servers as well as the core switch. The ER is located inside a room containing members of the IT department. Using a riser on the first floor, the network traffic has been sent upwards directly into the ER. The decision was made to store the Distribution switches in the second floor TRs. Authorization for this decision was given by the client on December 2nd. The main benefit of this decision is the reduction in high speed cable lengths. If D1 and D2 were in the ER, this would result in upwards of 300 m of additional high quality fibre cabling. This results in more capital cost as well as a greater probability of wire damage. Therefore, only two connections are required from the wiring closets to the ER, rather than 16+. Distribution switch 1 (left trunk) was placed in the north wiring closet, and D2 was placed in TR2B.

A blueprint of a building

Description automatically generated

Figure : Third Floor

The third floor has a simple configuration, with two TRs, 4 access switches and an optional LAP and wireless access switch.

A screenshot of a computer

Description automatically generated

Figure : Fourth Floor

Similar to previous floors, 2 TRs, 3 Access switches and optional LAP and wireless access point switch

A white paper with black text

Description automatically generated with medium confidence

The fifth floor contains 3 access switches, all located in the north wiring closet. The south wiring can optionally contain the access switch which will be used for future LAPs.