

2016 Diamags Flash Installation with Hitachi Oasis in Midtown Manhattan

Columbus Circle Station is the seventh busiest station in New York City and is served by four metro lines. This is the location of our most recent Diamags Flash installation with the Hitachi Oasis. When standing in the MRI room, you can hear a train go by every two minutes. A daunting sight for some, this was no match for our active magnetic compensator.

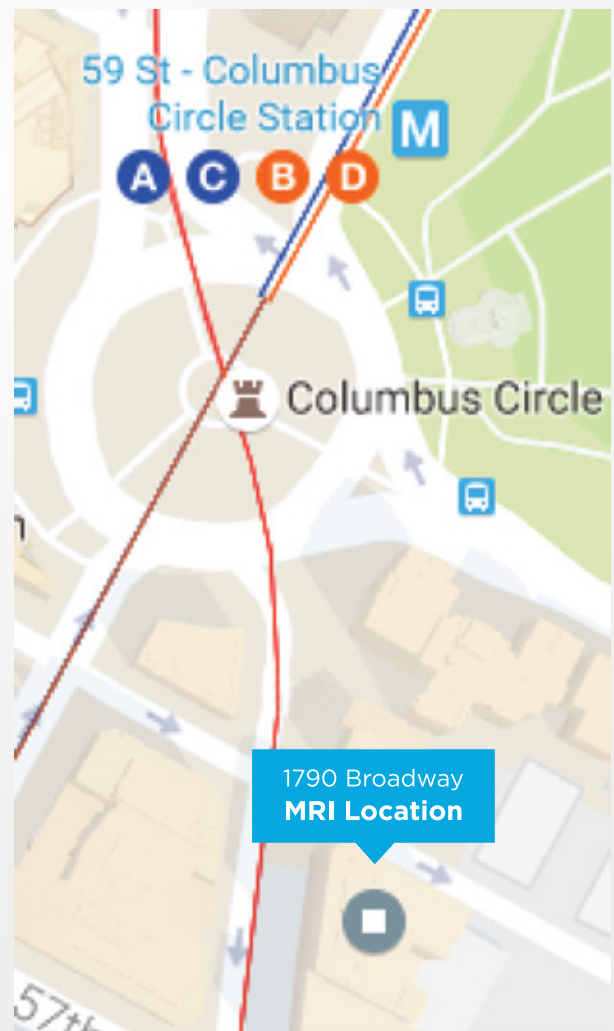
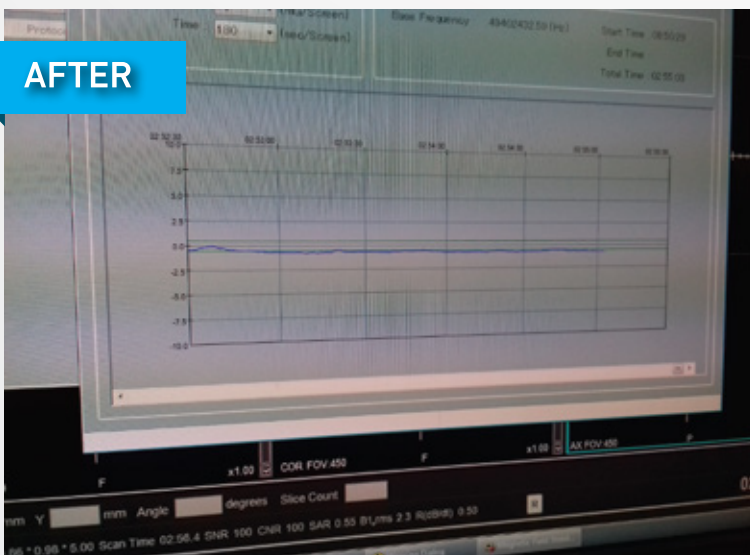
Most MR sites in cities need some form of active compensation because of the random magnetic fields that subways, buses, and cars cause. Columbus Circle was not like many other sites. This was not a problem of random fluctuation; the issue was a constant magnetic field variation caused by the subways. The problem was so severe, even the Hitachi engineers couldn't fine tune the magnet during installation.

Working with the contractor during the planning phase of the new MRI, the coils for the Diamags Flash were laid before the magnet arrived. In September, we installed the Diamags Flash hardware. The installation was tough, due to the many sources of magnetic noise, and we consider it one of our best results ever.

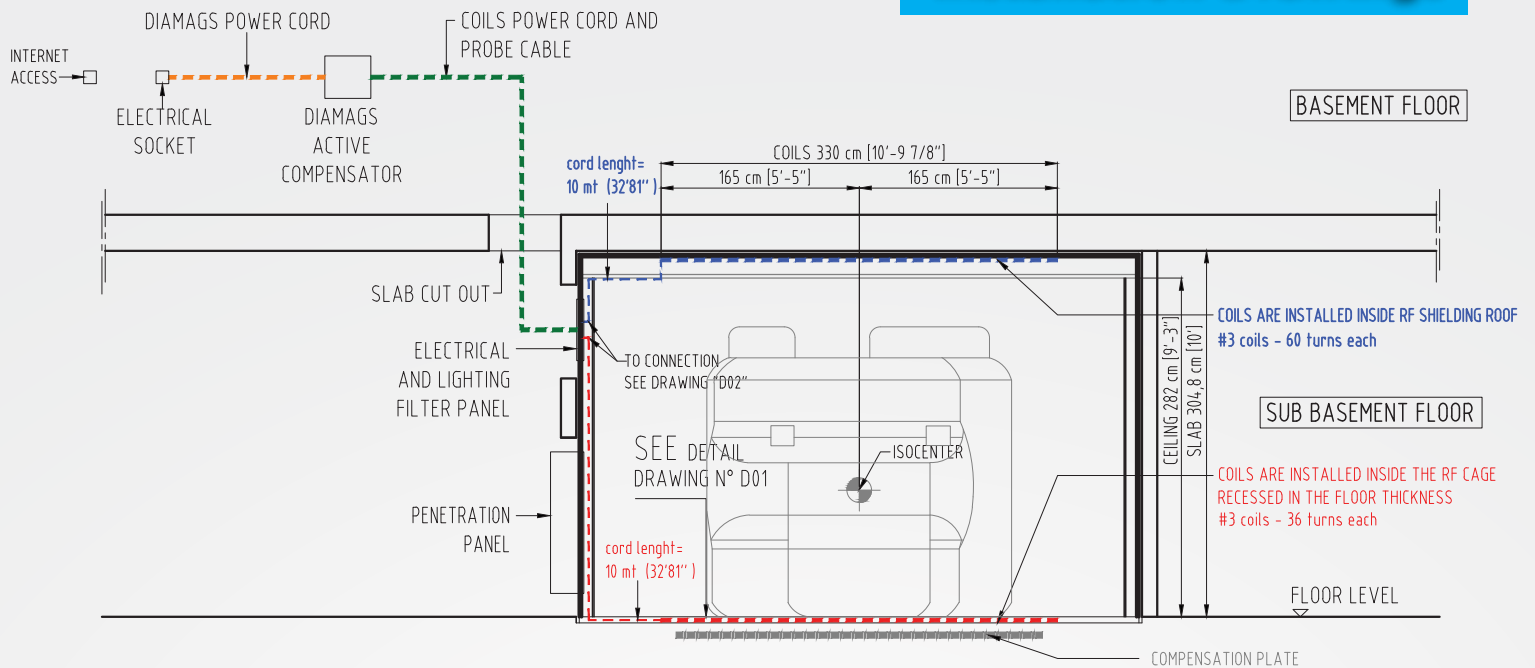
BEFORE



AFTER



Installation Drawings



What is the cost associated with not scanning patients due to ghosting artifacts?

Installing compensation coils before a magnet is installed is a cost-effective option to protect against potential fluctuating magnetic fields in the future. Compensation coils are installed in the MR room, around the the isocenter of the magnet, and are left in the penetration panel. If a problem arises, the Diamags hardware can be installed in a few hours in the control room, without having to do any renovation to the MR room. Compensation coils are inexpensive to install, and far outweigh the cost of not scanning patients and construction to the MR room. Although a site audit might not detect any interferences before a magnet is installed, there are many external forces that can change in the future to cause a change in the magnetic field.

- Real time active compensation of random magnetic fields
- Active shielding against environmental AC/DC magnetic noise
- Compatible with all MRI systems
- All Digital
- Fiber Optic Technology
- Can be installed in new and existing MRI sites
- Self calibrating
- Remote control
- User friendly
- Maintenance free

