

Zeta South Bronx School

Lindapter Girder Clamps provided a solution for the installation of a rooftop play area enclosure.

Project Background

Location: Bronx, New York, USA

Product: Type AAF and Type CF Girder Clamps

Client: Zeta Charter Schools

Specifier: Ysrael A Seinuk P.C.

Steel Contractor: Brothers In Iron, Inc.

Zeta South Bronx School is the anchor of a brand new 10-storey, 13,650 square metre mixed-use development in the South Bronx known as 425 Westchester Avenue. Construction began in 2019 and was completed in 2022, with the state-of-the-art inner city charter school occupying the floors 2 to 6 for teaching space, the 10th floor for a gymnasium, and a rooftop play area.

Client Requirement

Ysrael A Seinuk (YAS) were appointed as the structural engineers for this development and were tasked with designing a rooftop enclosure to provide permanent protection from falls or objects exiting the play area.

Lindapter had previously worked with YAS on other school projects and were once again approached by them for a suitable method of connecting wire mesh panels to the steel frame of the enclosure.



Type AAF clamps used to connect the straps



Type CF clamps used with threaded rod to connect the straps

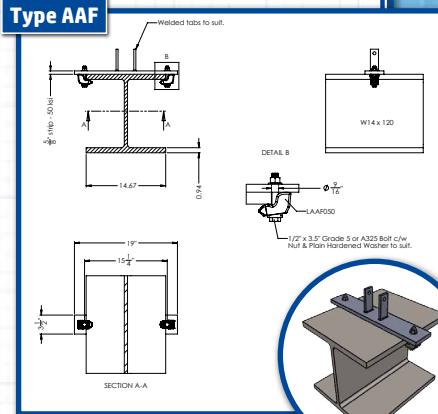
Zeta South Bronx School

Design Solution

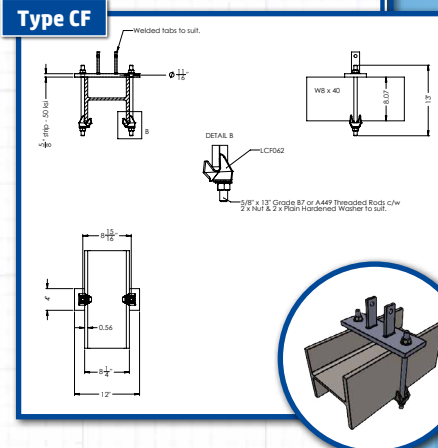
Originally specified as Lindapter Type F9 and Type F3 the design solution was revised to accommodate on-site conditions. After design team meetings Lindapter technical support recommended changing the design to Type AAF and Type CF high slip resistance girder clamps with a strap arrangement around the steel sections.

The contractor also determined that clamping the mesh panels to the steel frame would be quicker, safer and more cost effective than welding. The girder clamps would provide the necessary clamping force to secure the enclosure and the hot dip galvanised (HDG) finish would provide a high level of corrosion protection.

Type AAF



Type CF



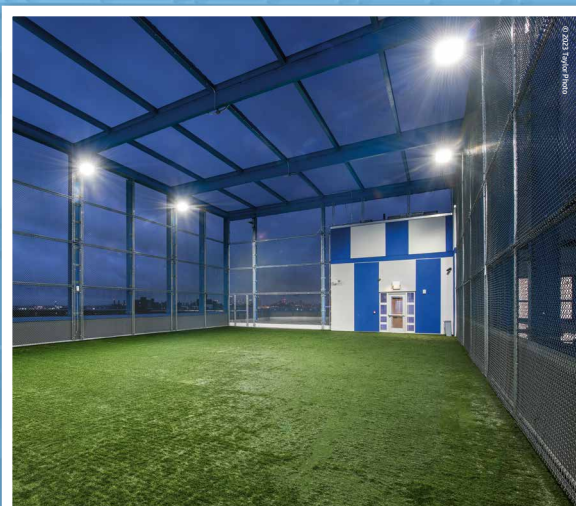
Installation

Steel columns and beams were used to construct a frame on top of the building and around the play area. Once the frame had been erected the next step was for steel straps with pre-welded tabs to be connected at multiple locations on the beams and columns using the girder clamps.

Type AAF clamps were installed on the flat part of the beam and column flanges and in areas where this was not possible the Type CF clamps were used with threaded rod to hook over the flanges and strap around the width of the steel sections. Pre-fabricated wire safety mesh panels were then connected to the tabs on the straps to create an enclosure around the play area. Installation of over 350 clamps was quick and easy as only simple hand tools were required to tighten each connection to the recommended torque.

Result

Lindapter girder clamps provided the contractor with a drilling and weld free connection on-site that was quick and easy to install. The clamps are fully adjustable which gave the contractor the ability during installation to manoeuvre the wire mesh panels into their final positions before fully tightening them. The cost effective solution delivered a successful installation of the enclosure which allows students to enjoy the play area safely.



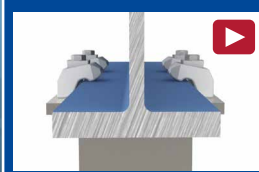
Completed steel enclosure with mesh panels

Key Benefits



- ✓ Adjustable in the field for easy installation
- ✓ No drilling or welding required
- ✓ Hot Dipped Galvanised finish offers a cost effective and low maintenance solution

Watch the **Type AAF** installation video



Watch the **Type CF** installation video

