

Newsworthy

Union City High School Opens with New Rooftop Athletic Facility

When Union City, NJ, needed a new high school, it was hard to find a space in the urban area that was big enough for the facility. To solve the problem, the Board of Education teamed with Cliffside Park, NJ-based RSC Architects to transform the 3.9-acre site of the old Roosevelt Stadium into the new high school with a unique solution for space planning. John Capazzi, principal of RSC Architects, explains the benefits and challenges of the high school's rooftop athletic facility.

Buildings: *What benefits does having an athletic facility on the roof provide?*

Capazzi: It's an efficient use of space because we're not taking additional property for an athletic facility, which would displace lots of people. There's an energy efficiency to it because, between the concrete, the waterproof membrane, the drainage mats, the crushed stone, and the turf system, we have a high R-value on the roof. Plus, the field is somewhat controlled in an urban environment because it's above passersby and vehicles, so you don't have the distraction of people walking and driving by. When you're up there, it's like an oasis; it's a nice feeling.

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— John Capazzi, Principal.

Buildings: *What challenges does having the athletic facility on the roof create in terms of designing the building and maintenance and operation?*

Capazzi: In terms of design, we needed to create a level that was large enough to accommodate baseball and football requirements without putting it up too high. [We didn't want] access to be too difficult, especially for emergency vehicles.

One of the other concerns was keeping water out. We put the turf on the roof, and we want to make sure we don't have leaks because it acts as the roof; once the field is on it, it would be difficult. So we put in a very extensive waterproofing system. We sloped the structure; we had long-span steel structures to span the gymnasium and the cafeteria components. And we put in an electric field vector mapping system so we can pinpoint leaks immediately.

Buildings: *Were there any safety concerns in terms of having students participating in athletics up there?*

Capazzi: We tried to address those concerns. It's only open on two sides. On one side, there's a 4-story educational component; on the opposite side, there are bleachers. We put up an 8-foot welded wire mesh fence [around the open portions of the field], and there's 20-foot netting above that.

We provided a ramp for life safety. I would definitely recommend that, on rooftop facilities, there be a ramp to allow emergency vehicles and maintenance vehicles in case of problems. We also provided a standpipe system so we don't have to get a fire vehicle up there, but there are standpipes throughout so they can fight a fire.

Buildings: *Would you recommend this model or other uses for a rooftop for other high schools; if so, why?*

Capazzi: If space is a concern (like it was here), it's definitely an alternative. There are some additional costs, but it's a great space saver. And, when you're up there, you really don't feel like you're on a roof because it's a large area. You see the two stories of the building on one side, and you have the grandstands on the other side. You really feel like you're on a field, and you don't feel like you're on a roof. And, it also separates you from the noise of the city.

Buildings: *What response has the rooftop athletic facility received from the community?*

Capazzi: Everybody's very excited about it. We've had all positives. The mayor is very happy with it; the football players are enjoying their season on it so far, and the students are very excited about it.



The rooftop athletic facility at the new high school in Union City, NJ, creates energy efficiency and saves space in a densely populated area. - COURTESY OF RSC ARCHITECTS