

The Steps, Downtown Crossing, Boston, USA

[Photo: John Horner ©.]

The recently completed Millennium Tower in Boston's Downtown Crossing anchors the neighbourhood with a 600ft (180m) residential tower, new commercial spaces, and new pedestrian-oriented public spaces. The new residents and retail stores have transformed the neighbourhood into an active 24-hour city. Locals and tourists stroll along Washington Street and many gather on the new amphitheatre built over the Downtown Crossing subway entrance. The Steps, as they are known to locals, have become a new type of public space in the city: a stage for live music performances; a popular lunchtime gathering place; and a perch where people can observe the theatre of daily urban life.

Eric Höweler, Howeler + Yoon Architecture, Boston, USA

Downtown Crossing and Washington Street form Boston's historic shopping district and pedestrian mall anchored by Filene's and Jordan Marsh department stores. The Filene's Department Store, designed by Daniel Burnham, occupied the corner of Washington Street and Summer Street, forming a major crossroads of retail activity in the heart of Boston. In 2008, the economic recession brought construction to a halt nationwide, and Downtown Crossing suffered from large sections sitting vacant, and a large empty pit on the corner of Washington and Franklin Street. Following years of stalled development, the Filene's site reopened with Millennium Tower as a new residential and commercial centre.

The new public spaces surrounding the new Millennium Tower, designed by Höweler + Yoon Architecture, transform the streetscape of Downtown Crossing into a shared-surface pedestrian plaza. The triangular parcel formerly known as Shoppers' Park has been transformed into a terraced plaza for outdoor seating, a new amphitheatre, and a turnaround for cars servicing the new residential tower. As part of the negotiations with the City of Boston, the Millennium Tower project rebuilt the street

intersection and the new amphitheatre in exchange for use of the turnaround.

New amphitheatre

The new amphitheatre occupies the space above the existing Downtown Crossing subway entrance, with the slope of the amphitheatre matching the slope of the stairs and escalators below. The new wedge-shaped amphitheatre provides almost 1000ft² (93m²) of public space on the site. The stepped plaza over the subway entrance creates a new type of public space – one that seems to peel up from the plaza and extend over the stairs. Sitting on the amphitheatre, the city becomes a stage with the nearby ornamental façades of adjacent buildings becoming backdrops and sets.

The new amphitheatre was constructed over one of the busiest subway entrances in the city, with hundreds of users passing through it every day. The design team opted for a precast construction system to minimise the disruption of operations to the subway entrance. This method enabled the concrete portion of the structure to be erected in just a few days. The precast planks span

The amphitheatre was constructed with pre-cast concrete for an *in situ* assembly.
[Photo: Howeler + Yoon Architecture, LLP.]



The amphitheatre faces the busy pedestrian thoroughfare, providing a cultural spot for informal street performances and a space to simply observe city life. [Photo: John Horner ©.]



Concrete step profile. [Photo: John Horner ©.]

Precast Concrete



Downtown Crossing and Washington Street intersect to form the new triangular plaza. (Photo: John Horner.)

between steel raker beams to create the amphitheatre surface. Each plank consists of the horizontal tread and the vertical riser portion, which acts as an upturned beam to create the sectional depth needed to span. This structural technique eliminates vertical joints and encourages drainage.

The subway entrance under the amphitheatre is infilled

with a glass store front system; the detailing of the amphitheatre emphasises the precast section profiles by lowering the glass guard rail support and setting back the cladding beneath each beam. The precast planks for the amphitheatre were custom-mixed to match the colour pallet of the surrounding landscape pavers.

Second phase

The second phase of the designed plaza introduces a shared surface of new pavers that extend the plaza across Franklin and Washington Streets to create an expanded pedestrian space on the north side of the tower. The plaza design incorporates a colour gradient in the mix of pavers to create a graphic pattern that delineates the anticipated uses. The background palette of colours includes greys and tan-coloured pavers. Red pavers are mixed in at building entrances and pedestrian pathways to signify pedestrian activities. Black and dark grey pavers are mixed in at the residential turnaround and where vehicles are expected. Most importantly, the plaza design blurs the lines between pedestrian and vehicular zones by replacing curbs with bollards, extending foot traffic areas from building face to building face. The plaza surface is also unfamiliar as a driving surface – namely, it doesn't look like asphalt – so drivers are aware that they are on an atypical surface. This shared surface for traffic calming pioneers a model of public space design that eliminates curbs in a counterintuitive approach that reduces driver speeds and improves traffic safety. The precast concrete for the project was manufactured by BPD. ■

A new subway entrance design that doubles as an amphitheatre at the plaza level (Photo: John Horner ©.)

