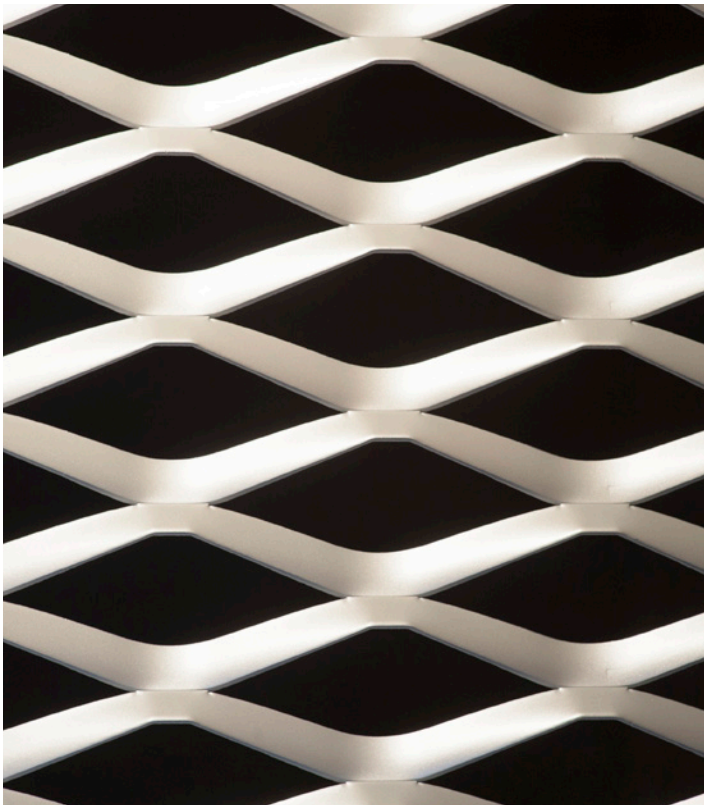
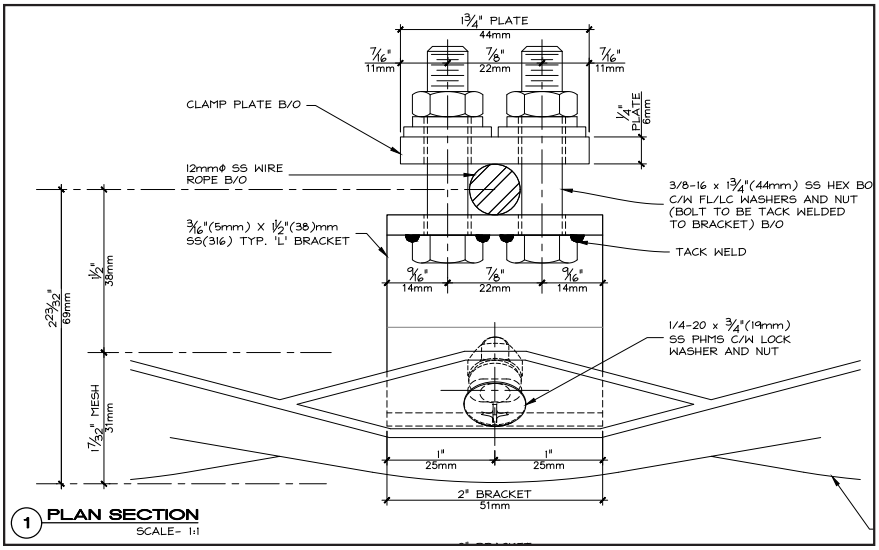
EXPANDED MESH CLAD PARKING GARAGE CASE STUDY - COOKSVILLE GO STATION

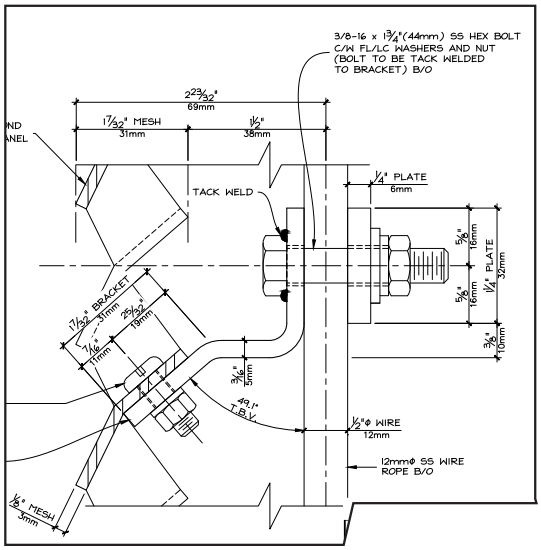
The Cooksville GO Station and Parking Structure are part of a dense, transit-oriented development in suburban Toronto, Canada that includes a new rail station and bus loop, platform facilities, and a civic plaza, as well as residential and commercial properties. Rather than being defined by a sea of parking, like most suburban transit stations, the 1900-space commuter parking structure sits at the center of the new urban plan and helps to densify the area. The parking structure forms one side of a future public park and plaza that will be more defined as development continues. The architects sought to “overcome the mundane nature of the typical parking structure as well as provide a shield from car headlights for the surrounding residential development” by applying a multi-dimensional and multi-layered sculptural veil constructed of expanded aluminum mesh. Expanded aluminum mesh was specified for its high percentage of openness, which allows for better airflow, as well as its visual aesthetics. An anodized finish was chosen for its longevity and appearance. The specific expanded



EXPANDED MESH CLAD PARKING GARAGE CASE STUDY - COOKSVILLE GO STATION

aluminum mesh used on the project is called APEX01 which is produced with a 3.50” Short Way of Diamond Pitch. This job used the Portrait mesh style which is produced with the noted 3-1/16” Short Way of Diamond Pitch, and provides 40% visual open and 73% open air flow. As noted, it’s important in parking structures to attenuate headlights at night, but it’s also imperative to provide enough open area so that the structure permits air transmission for ventilating vehicle emissions. Once the mesh panels were manufactured, they required further fabrication. This included cutting the panels to size, drilling holes into the panels for clip attachment, de-burring all cut edges and drilled holes, and custom fabrication of clips to fasten mesh panels onto a tensioned cable support system. There were some engineering and installation challenges encountered on this project. The mesh and clip attachment to the cable supports, in combination with the multiple layers of mesh at varying angles, proved to be a greater than typical engineering challenge but the team worked very well together to address all of the issues. Ultimately, the accuracy of the mesh panel production and fabrication allowed for the successful installation of the facade.





AMICO ARCHITECTURAL METALS

EXPANDED MESH CLAD PARKING GARAGE CASE STUDY - COOKSVILLE GO STATION

"[This veil] is inflected and fractured by the vehicle entry points, the glass stair towers, and pedestrian bridge. This larger folding texture of the facade is complimented by a finer texture of vertical slot openings that provides visual interest at the pedestrian level and views from within the structure. Inside the sculptural wrapper resides an additional inner skin of woven stainless steel mesh that serves as a guard for pedestrians, while a tension cable system serves as a car barrier." -NORR Architecture

PARKING DECK PROJECT BENEFITS OF USING AMICO'S APEX01

- SUFFICIENT AIRFLOW TO ALLOW VEHICLE EMISSIONS TO DIFFUSE SAFELY
- PROVIDE A WIND BREAK WHILE OFFERING ENOUGH AIRFLOW TO MEET FIRE CODE
- SHIELD VEHICLE LIGHT GLARE FROM NEAR BY RESIDENTIAL AREAS
- CREATE A BEAUTIFUL STRUCTURE PRESENCE FOR FUTURE ADJ ACENT RECREATIONAL AND COMMERCIAL DEVELOPMENT