

Padmount Sectionalizing Cabinets

Challenge

A road expansion project mandated the removal of numerous overhead riser poles around a main thoroughfare. The surrounding area loads were fed by two separate 15kV circuits from the same substation but branching out into different directions. To minimize outage time and the number of customers affected by a fault, 600A junction bars were designed into the distribution system to provide tap/disconnect points to isolate a faulted circuit. Junction bar locations were placed close to the end user load between longer cable runs utilizing multi-way load break switchgear. Junction bars were typically installed in small underground vaults which were subject to temporary submersion. This particular area had a history of nuisance circuit interruptions with no clear cause determined.

Solution

For a more aesthetically pleasing solution, the utility decided to feed the new roadway area underground instead of replacing the overhead lines. Because of the problem history of that location and to minimize the cost and construction disruption of creating new vaults, the utility decided to install padmount sectionalizing cabinets utilizing three, 3-position junction bars. Each circuit was terminated into separate padmount enclosures which were positioned adjacent to each other. A tap was incorporated to feed local area loads. The padmount sectionalizing cabinets provide a clean solution with easy access by operating personnel if circuit isolation is required.



The compact cabinets incorporated a flip-up, padlockable cover for easy access to elbow connections..



Each of two separate circuits were terminated into padmount enclosures located adjacent to each other.



Sectionalizing cabinet incorporating three, 600A, 3-position junction bars.