CONTECH®
ENGINEERED SOLUTIONS

Glycol Containment Solutions

THE CONTECH ADVANTAGE

For more than a century, Contech has provided innovative, cost-effective site solutions to engineers, contractors, and developers on projects across North America. With a portfolio that includes bridges, drainage, erosion control, retaining wall, sanitary sewer and stormwater management products, our team is ready to help you to design, build, and support your next project.

Supporting every aspect of your project, from concept to installation, Contech is here to help! Our extensive network of local experts offers you comprehensive project management, technical support, and customer service.

AGENCY/REGULATORY GUIDANCE

Our team is ready to provide you with expert advice and assistance on local regulatory requirements, resulting in faster approvals.

SOLUTION DEVELOPMENT

Our engineers can review your requirements, weigh all options, and recommend the optimal solution to integrate with your site designs.

TECHNICAL EXPERTISE

Our engineers assist by providing product-specific engineering calculations such as hydraulics, buoyancy, foundation reactions, and unit sizing.

COST ESTIMATES

We can quickly provide engineer's cost estimates to assist with your solution selection process.

SITE SPECIFIC DRAWINGS

Our engineers can provide site-specific drawings for proposals, project meetings, and submittals, helping you be more efficient with your time.

ON-SITE ASSISTANCE

Contractors know time is money, so we provide preconstruction meetings, delivery coordination, and on-site installation support to ensure a timely, smooth installation.

GLYCOL RUNOFF CONTAINMENT SOLUTIONS

The aviation industry is a part of our nation's core infrastructure and keeping airports reliable, efficient, safe, and up-to-date is an ongoing task. Airport authorities and their engineering consultants follow strict regulations set forth by the Federal Aviation Administration (FAA) regarding the design and construction of civil airports, heliports, and sea plane bases. These regulations pertain to many aspects of the design such as runway pavement sections, signage systems, radar, deicing facilities, runway and taxiway light fixtures to name a few.

During the winter months, an airport's deicing facility plays an important role in keeping the passengers and flight crew safe. Ice accumulation on aircraft can cause many safety concerns such as:

- Reduced lift ability
- Increased weight
- Reduced controllability
- Decreased aerodynamics
- Sensor and vent obstruction

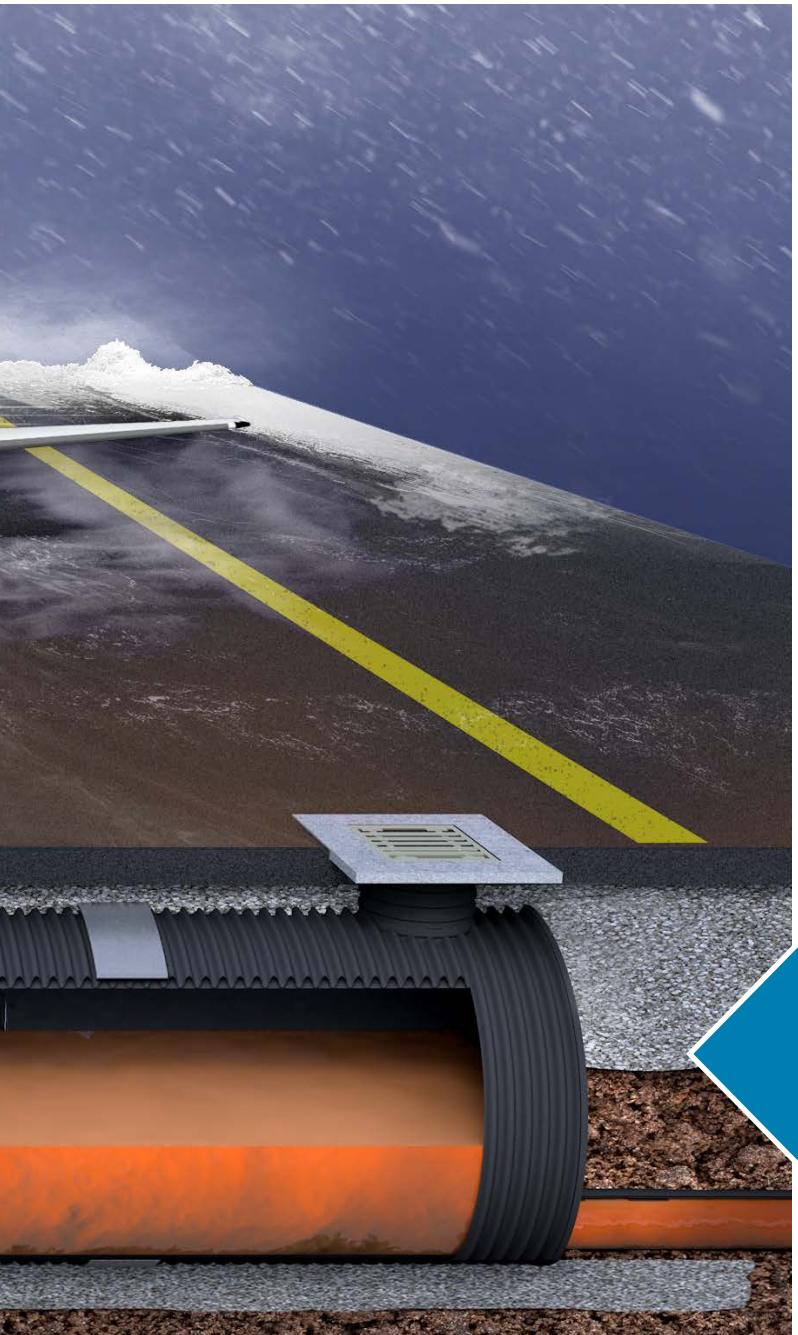
The FAA has established deicing guidelines to ensure aircraft can maximize lift capabilities for takeoff as well as maintain aerodynamic efficiency during flight. The deicing process involves deicing fluids which are sprayed onto the aircraft to ensure all surfaces are clean, smooth, and free of frozen contaminates. Deicing fluid contains either ethylene or propylene glycol – typically, one of these glycols form the base ingredient along with water and other additives.

Glycols are very effective at removing and preventing ice accumulation but are known to exert high levels of biochemical oxygen demand (BOD) during degradation in surface waters and can adversely affect aquatic life along with other toxicity issues. Therefore, the FAA design standards for aircraft deicing facilities require a runoff mitigation structure to collect glycol contaminated runoff and retain it for proper disposal or recycling.

GLYCOL STORAGE OPTIONS, CONSIDERATIONS AND CONCERNS

Designers are tasked with providing an acceptable solution to collect and contain the glycol deicing fluid runoff which meets the appropriate Federal, state, and local environmental requirements. One option which has several advantages is to incorporate an underground storage system to contain the glycol contaminated runoff. This containment system is advantageous for many reasons:

- Available space is maximized by creating usable area above the tank, supporting vehicular and aircraft live loads.
- Issues with open glycol ponds are avoided: no impermeable liner, minimized usage of valuable airside or landside space, and no worries of attracting waterfowl to the airport.
- The containment tank can easily be connected to publicly owned treatment works (POTW) for proper mitigation.
- The tank system can also be used to collect & contain other regulated chemical runoff when the deicing pads are used for washing the exterior of aircraft in warm weather months.



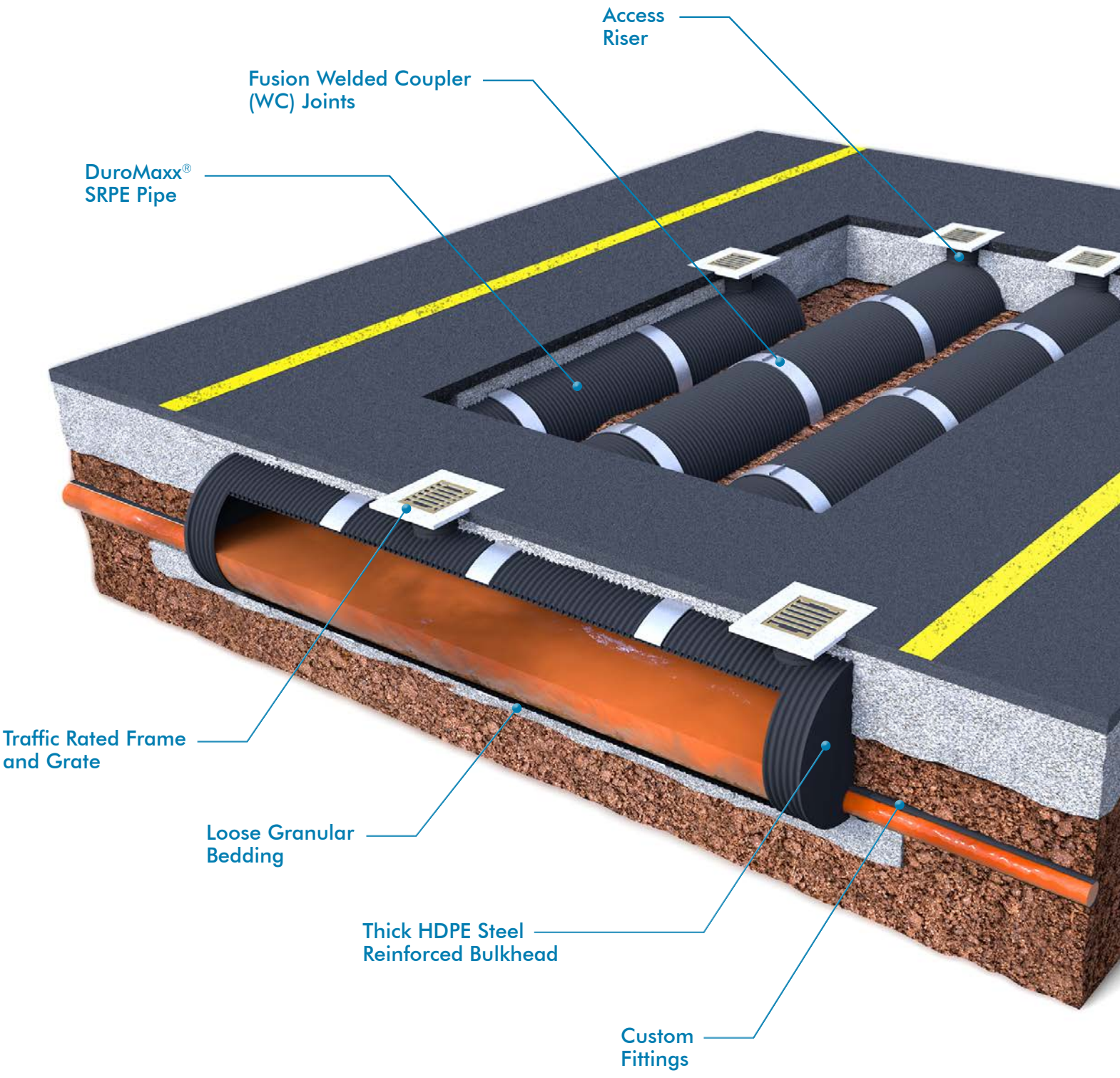
When faced with designing an underground glycol runoff containment system, some engineers will default to a traditional concrete vault – however, this type of design presents other challenges such as:

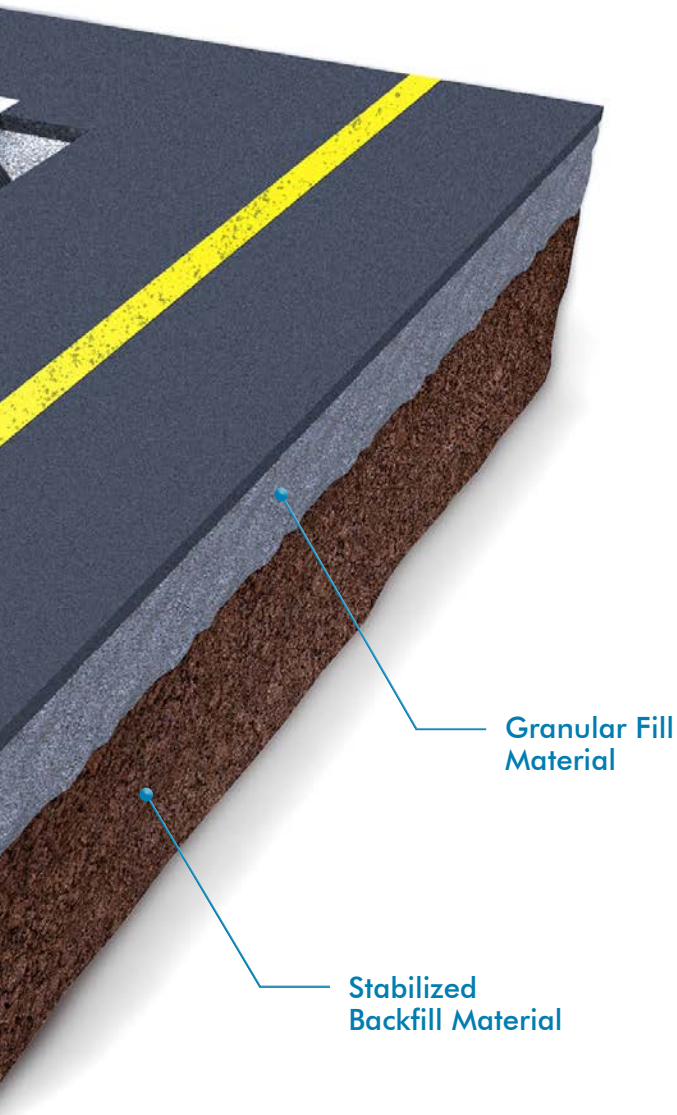
- Waterproofing
- Expensive budget constraints
- Large cranes mobilized at the airport
- Overall impact on project installation time schedule (forms, rebar, pouring, curing, striping, sealing and backfilling)

A better option to consider for underground containment of deicing runoff is to utilize a DuroMaxx® system solution

DUROMAXX® SRPE CONTAINMENT TANKS - THE ULTIMATE SOLUTION

DuroMaxx® is a reinforced polyethylene pipe with a smooth waterway wall and exterior profile that is reinforced with high strength, 80 ksi galvanized steel ribs - the continuous reinforcing ribs are completely encased within a polyethylene profile. The high quality HDB rated PE resin used in the manufacture of DuroMaxx® is a virgin stress-rated material conforming to the minimum requirements of cell classification 345464C as defined and described in the latest version of ASTM D3350.





DUROMAXX® CHECKS ALL THE BOXES FOR A STRONG, EFFICIENT, AND SUCCESSFUL DESIGN:

- ☑ High strength steel reinforcement to handle heavy aircraft loading and high cover applications
- ☑ Sizes from 30" to 120" diameter to store multiple millions of gallons within a surprisingly small site footprint
- ☑ Inclusion in FAA drainage standards and a long history of successful airport installations across the U.S.
- ☑ Made in America and meets Buy American requirements for Federally funded projects
- ☑ Custom fittings (elbows, tees, access risers, manifolds, stubs, etc.) for difficult site layouts and easy future inspection and maintenance
- ☑ Long, lightweight section lengths for fast installation without special equipment or cranes
- ☑ Field fusion welded watertight joints meeting ASTM D3212
- ☑ High quality HDB pressure rated PE resin for excellent resistance from corrosive chemicals (including glycol, aqueous film forming foams (AFFF) fire suppression runoff, sanitary sewers, etc.) for a long 100 year+ service life

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STORMWATER SOLUTIONS

PIPE SOLUTIONS

STRUCTURE SOLUTIONS

FOR MORE INFORMATION CALL:

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