Healthcare and hospital facility management is constantly needed to maintain a clean and healthy environment. It is important for medical facilities to ensure service requests are responded to quickly and efficiently and preventive maintenance schedules are set up in order to maintain operations without interruption.

Often, repairs in hospitals must be done with no to minimal downtime and with no interruption to the operation of the facility.

Belzona has been showing success and reliability in the repair and maintenance of the healthcare facilities in the areas including but not limited to:

- Roofs and roofing elements: skylights, gutters, parapet walls
- Wall
- Floors, stairs, ramps, parking lots, sidewalks, entryways, expantion joints
- HVAC: boilers, air handlers, diesel engines, fans, pumps, condensers, generators, compressors
- Plumbing, water filtration and purification
- Elevator systems, curbside appeal
- Auxiliary systems: waste management, wastewater management, power generation, data storage

Examples of Belzona Applications at Healthcare Facilities





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ASSET INTEGRITY AND HIGH PERFORMANCE IN HEALTHCARE





This diagram of a typical hospital facility is designed based upon data retrieved from various sources. It is to be used as general guidance only. It describes the most common repair and maintenance problems found in healthcare facilities together with Belzona solutions which could potentially help mitigate such problems. It does not aim to supersede any drafted process flow charts in use at these facilities. It is strongly recommended that each user of this guide contact the local Belzona representative to discuss the specific needs and operation conditions of their healthcare facility.

ROOFS

TYPICAL PROBLEMS: Weathering and/or physical damage to roofs and roof parts: joints, seams, edges, glazing sections, gutters, flashings, skylights, parapet walls and copings, pipes and pipe supports. The damage is typically caused by weather and freeze-thaw cycles, failure of roof materials, substrate movement or impact.

POTENTIAL SOLUTIONS: Belzona 3000 series fluid-grade membranes for weatherproofing, waterproofing, repair and protection of all roof types and roof parts.

FLOORS

TYPICAL PROBLEMS: Damage of concrete floors and structures due to weather fluctuations, chemical attack or physical impact, slippery transit areas, expansion joints failure.

POTENTIAL SOLUTIONS: Belzona 1000, 2000, 4000, and 5000 series paste- and fluid-grade materials for floor slip resistance, safety markings, concrete restoration and levelling, expansion joints repairs, replacement and installment of new "smooth ride" joints, new floor installation in kitchens, dining halls, patient waiting rooms, operation rooms, entryways, parking lots, laundry facilities, mechanical rooms, loading docks, waste and water management facilities.

HVAC SYSTEMS

WALLS

TYPICAL PROBLEMS: Erosion-corrosion and chemical attack damage to components of HVAC units.

TYPICAL PROBLEMS: Deterioration of concrete and stonework,

and construction joints failure due to erosion, corrosion, chemi-

POTENTIAL SOLUTIONS: Belzona 2000, 4000 and 5000 series paste and fluid grade materials for waterproofing, concrete and

stonework rebuilding and protection of the external and internal

walls, and for the repair, replacement or installation of construc-

cal attack, physical impact, and structural movement.

POTENTIAL SOLUTIONS: Belzona 1000, 2000, 3000, 4000 and 5000 series paste- and fluid-grade materials for the metal rebuilding, concrete restoration and erosion-corrosion protection of boilers, air handlers, diesel engines, fans, pumps, condensers, generators, compressors, basins of cooling towers and basins

PLUMBING, WATER FILTRATION AND PURIFICATION

TYPICAL PROBLEMS: Erosion-corrosion and chemical attack related to the use of water filtration chemicals: chlorine, charcoal, water softeners on pipes, pipework, pumps, filtration systems and storage tanks.

POTENTIAL SOLUTIONS: Belzona 1000 series 100% solids pasteand fluid-grade materials for metal rebuild and corrosion protection of the pipes, pipework and storage tanks. Belzona 5000 series fluidgrade materials for the chemical resistance in chemical containment areas and corrosion protection of (non) potable water storage tanks and pipes, and RO water bunds.

ELEVATOR SYSTEMS

TYPICAL PROBLEMS: Corrosion, physical impact from patient and medical equipment transport, heavy foot traffic, and movement.

POTENTIAL SOLUTIONS: Belzona 1000,2000,4000,and 5000 series paste- and fluid -grade for metal rebuilding, leak sealing, concrete damage restoration, corrosion, floor and elevator pit protection.

DATA STORAGE FACILITIES

TYPICAL PROBLEMS: Corrosion-erosion damage to the components of air-conditioning units and power generators.

POTENTIAL SOLUTIONS: Belzona 1000 series 100% solids pasteand fluid-grade materials for metal rebuilding and erosion-corrosion protection of the air-conditioning units and power generators.

POWER GENERATION (IF APPLICABLE)

TYPICAL PROBLEMS: Mostly corrosion problems related to elevated pressure and temperature on boilers, steam turbines, heat exchangers, pipework and generators.

POTENTIAL SOLUTIONS: Belzona 1000 and 5000 series pasteand fluid-grade materials for metal rebuild and erosion-corrosion protection on solar panels, transformers, generators. Belzona 6111 fluid-grade material for the cathodic protection on solar panels supports and other metal screens.

WASTEWATER MANAGEMENT (IF APPLICABLE)

TYPICAL PROBLEMS: : Erosion-corrosion on sedimentation and flotation clarifiers, aeration tanks, holding tanks, pipework, pumps, and centrifuges

POTENTIAL SOLUTIONS: Belzona 1000, 2000, and 5000 series pasteand fluid-grade materials for the metal rebuilding and erosion-corrosion protection. Belzona 4000 series paste- and fluid-grade materials for the concrete rebuilding, concrete protection under immersion and corrosion and chemical attack resistance on clarifiers and other tanks. Belzona 3111 fluid-grade material for protection and sealing of tank bases suffering from water ingress.

WASTE MANAGEMENT

TYPICAL PROBLEMS: Erosion-corrosion to metal structures, and concrete damage due to freeze-thaw cycle, physical impact, chemical attack and bio-hazard waste disposal.

POTENTIAL SOLUTIONS: Belzona 1000, 4000 and 5000 series paste- and fluid-grade materials for the metal rebuild and corrosion protection of metal railings, tracks, platforms, lifts, and trucks, and concrete restoration, leveling, and protection of trash pads, floors and secondary containment areas in bio-hazard waste storage.

CURBSIDE APPEAL

TYPICAL PROBLEMS: Concrete damage due to weather fluctuations, freeze-thaw cycle, physical impact.

POTENTIAL SOLUTIONS: Belzona 4000 and 5000 series paste- and fluid-grade materials for the concrete restoration and protection on decorative structures and bases (fountains, waterfalls and monuments) concrete levelling, floor protection and slip-resistance on pedestrian walkways and at the base and around stop bollards and other safety structures.