

# FOUNDATION FOR UNSTABLE SOILS & FLOOD PLAINS

## **RESIDENTIAL**

is situated on weak, unstable, variable soils or in flood prone regions. By providing a rigid platform to build on, insurance costs. Making it economical in terms of both MULTIPOINT acts as a floating slab, so racking of the home and resulting damage to building is eliminated.

MULTIPOINT has been developed for any structure that This effectively extends building life and so maximizes the value of material used, reduces maintenance and initial and life cycle costs.



The Multipoint Foundation (MPF) system bearing on native soil.



MPF can integrate stairs and landings.

## THE MOST USED AND **PREFERRED SYSTEM**

- Permafrost & unstable soil
- Structural beam framing can be included in foundation design
- Retrofits for existing foundation issues
- Home Relocation from problematic sites
- Minimal site preparation & can be placed on native soil
- Gravel pad and timber pads are not required in most circumstances



Typical foundation height 3'-0', to avoid thermal transfer into permafrost.



MPF supports multi-story residential.



Tremendous bridging strength is key to Multipoint Foundation.



Nunavut Housing 5-plex and 10-plex foundations.



Typical small residential home supported by MPF.

## **COMMERCIAL**

dimensional, reinforced space frame. MPF provides structures that have been built with our system. With uniform support to any building, regardless of most soil a capacity of 33,000 lbs. per base plate, MULTIPOINT conditions. A galvanized finish gives long life corrosion Foundation can support heavy commercial multi story protection to tubing, base plates, saddle brackets and buildings. washers. Hotels, Maintenance Garages, Hospitals

MULTIPOINT is a galvanized steel and aluminum, 3 and Power generating equipment are just a few of the



The Multipoint Foundation (MPF) system supporting five heavy industrial generators.



MPF consists of galvanized steel frame which is torsionally stable.

## **NO LIMITATIONS**

- No heavy equipment required
- Can be assembled with simple hand tools
- Compact shipping, shipped in crates to
- remote areas.
- Installation is undertaken by local labor.
- Designed as a floating slab
- Frame can be extended in any direction



The MPF frame gives strength to the building and is adjustable to suit the uneven terrain.



MPF supports multi-storey commercial buildings.



Turn key solutions, integrating stairs and railing with MPF.



Alaska Housing Finance Corporation.

## **MODULAR**

A flat and level platform is the key to setting up modular in 1 day, using simple hand tools. The frame is delivered being delivered. A typical modular unit foundation of 1500 sqft to 2000 sqft can be assembled by 3 workers

units, MULTIPOINT provides a perfect base to rest to site as a compact kit for easy hand assembly. Now modular buildings on and with our quick assembly the the Foundation is part of the cost of the Modular unit crews can build the foundation just prior to the home and not an issue as far as installation timing and quality.



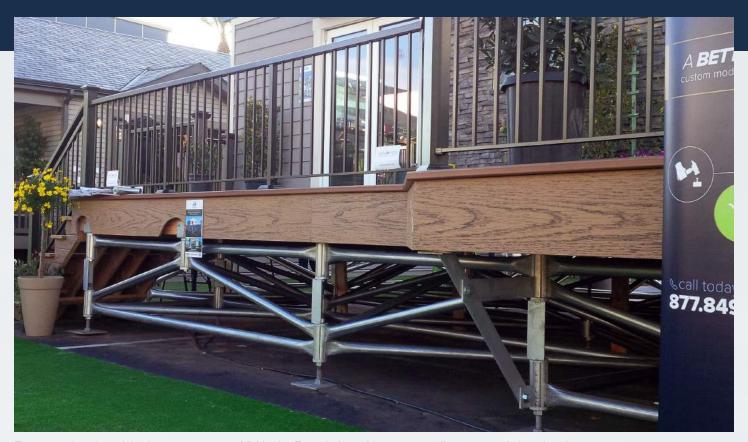
The Multipoint Foundation (MPF) system supporting Modular buildings.



One day installation of MPF, ready for modular unit.

#### **NO LIMITATIONS**

- Triodetic MPF system can accommodate any shape and design layout.
- The MPF is a perfect solution for sloped terrain & can be installed above or below grade.



Easy transfer of modular homes to rest on Multipoint Foundations, by crane or roller system. Ask us how!



MPF provides, perfectly level foundations for modular frames.

## **FLOOD PLAINS**

Elevating your structure above the flood plain is a key be custom designed to the require flood level but will factor in reducing the risk of flood damage. MPF can also add to the rigidity of the system for the structure be used in new construction or existing retrofits to and give comfort to the home owner that they will be reinstate deteriorated foundations where concrete or protected if or when a flood occurs. piles have been used. Foundation frame heights can



The Multipoint Foundation (MPF) system elevates the structure above the flood plain.



MPF can protect homes from devastating flood waters, by raising dwelling up to 10' or more.

## **IDEAL FOR FLOOD PLAIN APPLICATION**

- Depth of frame to suit flood plain criteria
- Concrete slab (used in flood plain regions only)
- Structural frame and building become one homogeneous unit
- Multipoint frame is designed to resist wind and seismic activity



MPF structures are designed to resist wind forces in access of Category 5 hurricane (190mph)



Multipoint Foundations are FEMA and HUD approved, as well as CMHC.



San Francisco MPF installation. Four men, one day for 1800 sqft, on 1' to 3' flood plain.

## **RETROFIT**

ground leveling, piling and/or concrete and masonry construction. The system can be used to replace many cases, no delay in waiting for special equipment deteriorated conventional concrete foundations or in remote areas, and no damage to the surrounding where piles have been used with minimal disruption. environment by heavy equipment or alterations to the Jacking or elevating the existing structure, then fast natural topography. assembly of MULTIPOINT below, can turn a deteriorating

MULTIPOINT avoids the need for site excavation, home back into a valuable structure. Other benefits include lower foundation cost and faster construction in



The Multipoint Foundation (MPF) replaced deteriorated wood piles on sloped terrain.



Relocating homes with special skis designed to permit the dwellings to be pulled away from the edge of the sea, to another site.

#### **WE PROVIDE**

- We provide conceptual design & proposal drawings
- Preliminary costing of viable alternatives
- Detailed design and construction drawings



Installing MPF below elevated home is manageable for local labor.



Completed home after relocation in Shishmaref, Alaska.



Home elevated on cribbing prior to MPF installation.



MPF allows owners to reuse existing structures, by providing a new foundation along with ability for relocation.





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