

# PRECAST CONCRETE TANK WITH 4" OR THINNER FLOOR INSTALLATION GUIDELINES/INSTRUCTIONS

THE ITEMS LISTED HERE ARE BASIC GUIDELINES/INSTRUCTIONS. THE EXCAVATOR/INSTALLER MUST PERFORM THE WORK, BUT ONLY IN AREAS OF THEIR OWN COMPETENCE. IF ANY PORTION OF THE PROCESS OR CRITERIA FALLS OUTSIDE OF YOUR AREA OF COMPETENCE, PLEASE CONSULT WITH A REGISTERED ENGINEER.

## SITE CONDITIONS

THE SITE MUST BE ACCESSIBLE TO LARGE, HEAVY TRUCKS.

THE SITE MUST BE FREE OF ITEMS LIKE TREES, OVERHEAD WIRES & BUILDINGS THAT COULD INTERFERE WITH ACCESS TO THE EXCAVATION. PLACEMENT OF THE TANK REQUIRES THE BACK OF OUR DELIVERY TRUCKS TO BE ON STABLE GROUND AND WITHIN THE FOLLOWING REACHES:

- MONORAIL TRUCK DELIVERIES: 7'-6" FROM THE BACK OF OUR MONORAIL TRUCK ON STABLE GROUND TO THE CENTER OF THE EXCAVATION
  - BOOM TRUCK DELIVERIES: 12'-0" FROM THE BACK OF OUR BOOM TRUCK ON STABLE GROUND TO THE CENTER OF THE EXCAVATION
- ALL TANKS MUST SET DIRECTLY OFF THE BACK OF OUR TRUCKS. EACH DELIVERY TRUCK IS APPROXIMATELY 45 FT. LONG AND 14 FT. HIGH.

## EXCAVATION

EXCAVATION SHOULD ALLOW FOR APPROXIMATELY 8" (MINIMUM) TO 18" OF CLEARANCE ON EACH SIDE OF THE TANK TO ALLOW FOR REMOVAL OF OUR LIFTING APPARATUS. THIS MAY VARY WITH SOIL CONDITIONS. NEVER ENTER AN UNSAFE EXCAVATION.

ONCE THE EXCAVATION HAS BEEN COMPLETED AND THE OUTSIDE PERIMETER OF THE TANK HAS BEEN LOCATED AND LEVELLED, IT IS NECESSARY THAT THE EXCAVATION DIRECTLY BELOW THE TANK SLOPES DOWNWARD UNIFORMLY APPROXIMATELY 1"- 1½" FROM THE OUTSIDE PERIMETER OF THE TANK TO THE CENTER OF THE TANK TO PREVENT UNDUE PRESSURE AT THE CENTER OF THE TANK FLOOR.

## BEDDING

PROPER USE OF BEDDING MATERIAL IS IMPORTANT TO ENSURE SERVICE LIFE OF THE TANK. BEDDING AND SOIL BENEATH THE TANK MUST BE STABLE AND CAPABLE OF BEARING THE WEIGHT OF THE TANK, ITS CONTENTS AND THE SOIL AND OTHER ITEMS COVERING THE TOP OF THE TANK. BEDDING

MATERIALS SHALL HAVE THE ABILITY TO 100% PASS THROUGH A ¾" SCREEN. BEDDING THICKNESS SHALL BE A MINIMUM OF 4" COMPACTED. THICKNESS MAY NEED TO BE INCREASED DEPENDANT UPON EXISTING SOIL CONDITIONS. IT IS THE EXCAVATOR/INSTALLER'S RESPONSIBILITY TO HAVE A SOIL ANALYSIS AND ENGINEERING DONE IF THEY ARE UNSURE IF THE SOIL IS SUITABLE. IT IS CRITICAL THAT THE BEDDING DOES NOT HAVE ANY HIGH SPOTS IN THE CENTER THAT WOULD CAUSE UNDUE STRESS AT ANY POINT ON THE TANK FLOOR.

## JOINT SEALANT (IF USED)

JOINT SURFACE NEEDS TO BE CLEAN AND SEALANT NEEDS TO BE PLACED ACCORDING TO MANUFACTURERS RECOMMENDATIONS. IT IS IMPERATIVE TO OVERLAP THE JOINTS OF THE SEALANT, ONE DIRECTLY ON TOP OF THE OTHER AT LEAST 1½" (NOT SIDE BY SIDE) TO ENSURE A WATER TIGHT SEAL.

## WATER TABLE

TANKS PLACED WHERE WATER LEVELS CAN POTENTIALLY BE HIGHER THAN THE ELEVATION OF THE TANK FLOOR OR TOP, MUST BE BROUGHT TO THE ATTENTION OF VAUGHN CONCRETE PRODUCTS, INC. PRIOR TO ORDERING THE TANK. ADDITIONAL INSTALLATION INSTRUCTIONS SUCH AS BALLAST AND COATING MAY BE REQUIRED.

## WATER LEAK OR VACUUM TESTING

TO ENSURE THAT THE TANK IS WATER TIGHT, IT MUST BE WATER OR VACUUM TESTED PRIOR TO BACKFILL.

## BACKFILL MATERIAL

THE SIDE WALLS OF TANKS REQUIRE DRY BACKFILL MATERIALS THAT HAVE THE ABILITY TO 100% PASS THROUGH A 2" SCREEN. A MINIMUM OF 8" OF SUITABLE BACKFILL MATERIAL ON ALL SIDES IS REQUIRED FROM THE BOTTOM TO THE TOP OF THE TANK. EXPANSIVE BACKFILL MATERIAL SHOULD NOT BE USED. BACKFILL MATERIAL SHALL BE PLACED WITH A BACKHOE OR OTHER MEANS THAT WILL AVOID IMPACT LOADS ON THE SIDE WALLS OF THE TANK. MINIMAL COMPACTION OF BACKFILL MATERIAL IS PERMITTED ON THE SIDE WALLS OF THE TANK. CARE MUST BE USED AS COMPACTING OR WHEEL COMPACTING CAN CAUSE EXCESSIVE PRESSURES TO THE SIDE WALLS OF THE TANK AND CAN CAUSE FAILURE. IF MORE THAN 85% PROCTOR COMPACTION IS REQUIRED, USE ¾" OR ¾" GRAVEL OR OTHER SELF-COMPACTING MATERIAL FOR YOUR BACKFILL MATERIAL.

## COVER MATERIAL

COVER MATERIAL SHALL BE DRY SOIL, SAND OR GRAVEL MATERIAL THAT HAS THE ABILITY TO 100% PASS THROUGH A 2" SCREEN. CARE MUST BE USED AS COMPACTING OR WHEEL COMPACTING CAN CAUSE EXCESSIVE PRESSURES TO THE TOP OF THE TANK AND CAN CAUSE FAILURE. COVER MATERIALS SHALL BE MOUNDED OVER THE TANK AND AROUND RISERS TO DIRECT RUN-OFF AWAY FROM BOTH.

PLEASE CONSULT WITH A VAUGHN CONCRETE PRODUCTS REPRESENTATIVE WITH ANY QUESTIONS OR CONCERNS TOLL FREE @ 1-877-827-8255

VISIT US ON THE WEB @ [www.vaughnconcreteproducts.com](http://www.vaughnconcreteproducts.com)

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**concrete products, inc.**

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