

### INSTALLATION NOTES

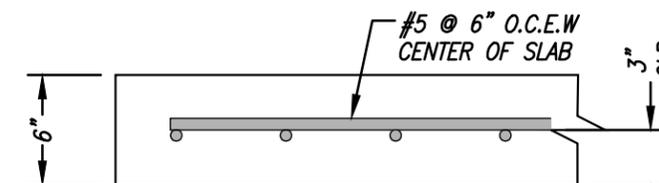
- CONTRACTOR TO PROVIDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS REQUIRED TO OFFLOAD AND INSTALL THE SYSTEM AND APPURTENANCES IN ACCORDANCE WITH THIS DRAWING AND THE MANUFACTURER'S SPECIFICATIONS, UNLESS OTHERWISE STATED IN MANUFACTURER'S CONTRACT.
- UNIT MUST BE INSTALLED ON LEVEL BASE. MANUFACTURER REQUIRES A POURED IN PLACE CONCRETE BASE SLAB. SOIL COMPACTION REQUIREMENTS PER GEOTECHNICAL ENGINEER. CONTRACTOR IS RESPONSIBLE FOR VERIFYING RECOMMENDED COMPACTION AND BASE SPECIFICATIONS.
- CONTRACTOR TO PLACE GROUT BELOW ANY URBANPOND MODULE LEGS/WALLS THAT HAVE GAPS BETWEEN THE BASE SLAB TO PREVENT SPALLING.
- THIS SYSTEM REQUIRES A MEMBRANE LINER, PROVIDED BY OTHERS. THE LINER SHALL BE SANDWICHED BETWEEN AN INNER AND OUTER LAYER OF GEOTEXTILE FABRIC, BY OTHERS, TO PROTECT AGAINST PUNCTURES. THE MEMBRANE LINER AND GEOTEXTILE FABRIC LAYERS SHALL WRAP UP ALL EXTERIOR WALLS ONTO THE TOP OF THE URBAN POND MODULES AND BE SECURED INTO PLACE BY THE BACKFILL. SEE PLAN VIEW FOR LINER AND GEOTEXTILE COUNT.
- CONTRACTOR TO PLACE FIRST LAYER OF GEOTEXTILE FABRIC IN THE EXCAVATED PIT AREA. THEN PLACE MEMBRANE LINER LAYER. THEN PLACE SECOND LAYER OF GEOTEXTILE FABRIC. A GRAVEL OR AGGREGATE LAYER OF SUB-BASE IS RECOMMENDED BELOW THE POURED IN PLACE BASE SLAB. THE GEOTEXTILE FABRIC SHALL WRAP UP AT LEAST 1' ALONG THE OUTER WALLS AND BE SECURED INTO PLACE WITH THE BACKFILL. THE MEMBRANE LINER PREVENTS STORMWATER FROM LEAKING OUT OF THE SYSTEM, AS WELL AS GROUNDWATER OR FINE SOIL PARTICLES FROM ENTERING INTO THE SYSTEM.
- CONTRACTOR TO SUPPLY AND INSTALL ALL EXTERNAL CONNECTING PIPES. ALL PIPES MUST BE FLUSH WITH INSIDE SURFACE OF CONCRETE. PIPES CANNOT INTRUDE BEYOND FLUSH. INVERT OF OUTFLOW PIPE MUST BE FLUSH WITH DISCHARGE CHAMBER FLOOR UNLESS OTHERWISE NOTED. ALL GAPS AROUND PIPES SHALL BE SEALED WATERTIGHT WITH A NON-SHRINK GROUT PER MANUFACTURER'S STANDARD CONNECTION DETAIL AND SHALL MEET OR EXCEED REGIONAL PIPE CONNECTION STANDARDS.
- PIPES OPENINGS THROUGH THE MEMBRANE LINER SHALL BE SEALED USING PIPE BOOTS

- SUPPLIED BY THE LINER MANUFACTURER.
- CONTRACTOR RESPONSIBLE FOR INSTALLATION OF ALL RISERS, MANHOLE FRAMES AND COVERS. CONTRACTOR TO GROUT ALL FRAMES AND COVERS TO MATCH FINISHED SURFACE UNLESS SPECIFIED OTHERWISE.
- THE URBANPOND MODULE SYSTEM IS TO BE INSTALLED IN ACCORDANCE WITH ASTM C891-90, INSTALLATION OF UNDERGROUND PRECAST UTILITY STRUCTURES. PROJECT PLAN AND SPECIFICATIONS MUST BE FOLLOWED ALONG WITH ANY APPLICABLE REGULATIONS.
- DESIGNATED EMBEDDED LIFTERS MUST BE USED. USE PROPER RIGGING TO ASSURE ALL LIFTERS ARE EQUALLY ENGAGED WITH A MINIMUM 60 DEGREE ANGLE ON SLINGS AS NOTED AND IN ACCORDANCE WITH MANUFACTURER'S LIFTING PROCEDURES. USE RIGGING THAT EQUALIZES THE LOAD BETWEEN ALL LIFTERS.
- CONTECH RECOMMENDS BEGINNING INSTALLATION WITH THE OUTLET MODULE.
- MODULES MUST BE PLACED AS CLOSE TOGETHER AS POSSIBLE, AND GAPS SHALL NOT BE GREATER THAN 3/4".
- ALL EXTERIOR SYSTEM JOINTS NOT COVERED BY THE LINER (SIDES AND TOP) SHALL BE COVERED WITH 12" JOINT WRAP CENTERED ON THE JOINT.
- INSTALL PANEL WALLS AT DESIGNATED LOCATIONS ON THE PLAN VIEW DRAWING. SECURE PANEL WALLS WITH 2 BOLTS ON TOP.
- THE FILL PLACED AROUND THE URBANPOND MODULES MUST BE DEPOSITED EVENLY, AT APPROXIMATELY THE SAME ELEVATION, AROUND ALL SIDES. AT NO TIME SHALL THE FILL BEHIND ONE SIDE BE MORE THAN 1'-0" HIGHER THAN THE FILL ON THE OPPOSITE SIDE. BACKFILL SHALL BE COMPACTED AND/OR VIBRATED TO ENSURE THAT BACKFILL MATERIAL IS WELL SEATED AND PROPERLY INTERLOCKED. CARE SHALL BE TAKEN TO PREVENT ANY WEDGING ACTION AGAINST THE STRUCTURE, AND ALL SLOPES WITHIN THE AREA TO BE BACKFILLED MUST BE STEPPED OR SERRATED TO PREVENT WEDGING ACTION. CARE SHALL ALSO BE TAKEN SO AS NOT TO DISRUPT THE JOINT WRAP FROM THE JOINT DURING THE BACKFILL PROCESS. BACKFILL MATERIAL CAN BE NATIVE MATERIAL UNLESS OTHERWISE SPECIFIED IN GEOTECHNICAL REPORT. IF NATIVE MATERIAL IS SUSCEPTIBLE TO MIGRATION, CONFIRM WITH GEOTECHNICAL ENGINEER AND PROVIDE PROTECTION AS REQUIRED.

- AT NO TIME SHALL MACHINERY OR VEHICLES GREATER THAN THE DESIGN HS-20 LOADING CRITERIA TRAVEL ON TOP OF THE SYSTEM WITHOUT THE MINIMUM DESIGN COVERAGE. IF TRAVEL IS NECESSARY OVER THE SYSTEM PRIOR TO ACHIEVING THE MINIMUM DESIGN COVER, IT MAY BE NECESSARY TO REDUCE THE ULTIMATE LOAD/BURDEN OF THE OPERATING MACHINERY SO AS NOT TO EXCEED THE CAPACITY OF THE SYSTEM. IN SOME CASES HAND OPERATED COMPACTION EQUIPMENT MAY BE NECESSARY IN ORDER TO NOT EXCEED THE ALLOTTED DESIGN LOADING.
- A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO PLACEMENT OF URBANPOND.

### GENERAL NOTES

- MANUFACTURER TO PROVIDE ALL MATERIALS UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS, ELEVATIONS, SPECIFICATIONS AND CAPACITIES ARE SUBJECT TO CHANGE. FOR PROJECT SPECIFIC DRAWINGS DETAILING EXACT DIMENSIONS, WEIGHTS AND ACCESSORIES PLEASE CONTACT MANUFACTURER.
- ANY VARIATION FOUND DURING CONSTRUCTION FROM THE SITE AND SYSTEM ANALYSIS MUST BE REPORTED TO THE PROJECT DESIGN ENGINEER.
- FOR USE ONLY IN SEISMIC DESIGN CATEGORY A AND B.
- ALLOWABLE LOAD HS20 DIRECT TRAFFIC.
- CONCRETE BASE SLAB F'C = 4,000 PSI AT 28 DAYS  
FY = 60,000 PSI
- GROUT (NON-SHRINK) FM = 6,500 PSI



**POURED IN PLACE BASE SLAB DETAIL**

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**URBANPOND**  
PRECAST CONCRETE STORMWATER DETENTION  
GENERAL ELEVATION DETAILS