LARGE RIB END DETAIL SMALL RIB END DETAIL **CULTEC CONTACTOR® FIELD DRAIN C-4HD SPECIFICATIONS** OPTIONAL 4.0" [102 mm] DIA. — 12.0" [305 mm] **INSPECTION PORT GENERAL** "R" UNIT CULTEC CONTACTOR FIELD DRAIN C-4HD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER MANAGEMENT. THE CHAMBERS MAY BE USED FOR RETENTION, RECHARGING, DETENTION OR CONTROLLING THE FLOW OF ON-SITE STORMWATER RUNOFF. MODEL R STARTER/STAND ALONE SMALL RIB LARGE RIB **CHAMBER PARAMETERS** 1. THE CHAMBERS WILL BE MANUFACTURED IN THE U.S.A. BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832) 2. THE CHAMBER WILL BE VACUUM THERMOFORMED OF BLACK HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE). 48.0" [1219 mm] 3. THE CHAMBER WILL BE ARCHED IN SHAPE. MODEL E END* * MODEL FIELD DRAIN C-4 RHD STARTER UNITS ARE USED TO SMALL RIB LARGE RIB 4. THE CHAMBER WILL BE OPEN-BOTTOMED. BEGIN A LINE OR USED AS SINGLE 5. THE CHAMBER WILL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED STAND ALONE SECTIONS. OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS OR SEPARATE END WALLS. 6. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC CONTACTOR FIELD DRAIN C-4HD SHALL BE 8.5 INCHES (216 MM) TALL, 48 INCHES (1219 MM) WIDE AND 8.5 FEET (2.6 M) LONG. THE INSTALLED LENGTH OF A JOINED CONTACTOR FIELD DRAIN C-4HD *MAY ALSO BE USED AS AN INTERMEDIATE UNIT SHALL BE 8.0 FEET (2.4 M). TO EXTEND THE LENGTH OF A RUN. 7. INLET OPENING ON THE CHAMBER ENDWALL IS 4.5 INCHES (115 MM). 102.0" [2590 mm] -8. THE NOMINAL STORAGE VOLUME OF THE CONTACTOR FIELD DRAIN C-4HD CHAMBER WILL BE 1.692 FT3 / FT (0.16 M3 / M) -"E" UNIT WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A SINGLE CONTACTOR FIELD DRAIN C-4RHD STAND ALONE UNIT SHALL BE - INSTALLED LENGTH = 96.0" [2438 mm] 14.38 FT3 (0.41 M3) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED CONTACTOR FIELD DRAIN C-4EHD AS AN INTERMEDIATE UNIT SHALL BE 13.54 FT3 (0.38 M3) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF THE LENGTH ADJUSTMENT AMOUNT PER RUN SHALL BE 0.846 FT3 (0.02 M3) - WITHOUT STONE. — 3.0" [76 mm] 9. THE CONTACTOR FIELD DRAIN C-4HD CHAMBER WILL HAVE EIGHTY DISCHARGE HOLES BORED INTO THE SIDEWALLS OF THE UNIT'S CORE TO PROMOTE LATERAL CONVEYANCE OF WATER. 10. THE CONTACTOR FIELD DRAIN C-4HD CHAMBER SHALL HAVE 100 CORRUGATIONS. 11. THE ENDWALL OF THE CHAMBER, WHEN PRESENT, WILL BE AN INTEGRAL PART OF THE CONTINUOUSLY FORMED UNIT. SEPARATE LARGE RIB * MODEL FIELD DRAIN C-4 EHD END 8.5" [216 mm] -SMALL RIB UNITS ARE USED IN THE MIDDLE TO END PLATES CANNOT BE USED WITH THIS UNIT. EXTEND THE LENGTH OF A LINE OR 12. THE CONTACTOR FIELD DRAIN C-4RHD STARTER/STAND ALONE UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO FULLY TO END THE LENGTH OF A LINE. FORMED INTEGRAL ENDWALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. INSTALLED LENGTH ADJUSTMENT = 0.5' (0.15 M) 13. THE CONTACTOR FIELD DRAIN C-4EHD MIDDLE/END UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING ONE FULLY FORMED ALL CONTACTOR FIELD DRAIN C-4HD UNITS ARE MARKED WITH A COLORED INTEGRAL ENDWALL AND ONE FULLY OPEN END WALL AND HAVING NO SEPARATE END PLATES OR END WALLS. STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER. 14. CHAMBERS MUST HAVE HORIZONTAL STIFFENING FLEX REDUCTION STEPS BETWEEN THE RIBS. $\left(\frac{C-4HD}{2.0}\right)$ FIELD DRAIN C-4HD HEAVY DUTY THREE VIEW FIELD DRAIN C-4HD HEAVY DUTY DETAIL INFORMATION 15. HEAVY DUTY UNITS ARE DESIGNATED BY A COLORED STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER. 16. THE CHAMBER WILL HAVE A RAISED INTEGRAL CAP AT THE TOP OF THE ARCH IN THE CENTER OF EACH UNIT TO BE USED AS AN OPTIONAL INSPECTION PORT OR CLEAN-OUT. 17. THE UNITS MAY BE TRIMMED TO CUSTOM LENGTHS BY CUTTING BACK TO ANY CORRUGATION ON THE LARGE RIB END. END OF RUN 18. THE CHAMBER SHALL BE MANUFACTURED IN AN ISO 9001:2008 CERTIFIED FACILITY. 19. MAXIMUM ALLOWABLE COVER OVER THE TOP OF THE CHAMBER SHALL BE 12 FEET (3.66 M) FOR THE HEAVY DUTY VERSION. 20. THE CHAMBER WILL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. HIDDEN END 1-2 INCH [25-51 mm] DIA. - CULTEC NO. 410 NON-WOVEN GEOTEXTILE — MIN. 95% COMPACTED FILL WASHED, CRUSHED STONE AROUND STONE. TOP AND SIDES MODEL FD C-4 EHD MANDATORY, BOTTOM PER ENGINEER'S CULTEC CONTACTOR FIELD DRAIN - PAVEMENT OR 8.0" [202 mm] MIN. DESIGN PREFERENCE C-4HD HEAVY DUTY CHAMBER FINISHED GRADE FOR PAVED 10.0" [254 mm] MIN **GENERAL NOTES** FOR UNPAVED 12.0' [3.65 m] MAX. **BURIAL DEPTH** MODEL FD C-4 EHD - MANIFOLD FEED PIPE PER ENGINEER DESIGN 6.0" [152 mm] MIN — INLET STRUCTURE - HEADER PIPE PER 8.5" [216 mm] **ENGINEER DESIGN** MODEL FD C-4 EHD 6.0" [152 mm] MIN MODEL FD C-4 RHD BEGINNING OF RUN - CULTEC FIELD DRAIN C-4HD HEAVY DUTY (C-4HD) 5.0 $\frac{C-4HD}{6.0}$ FIELD DRAIN C-4HD HEAVY DUTY TYPICAL INLET CONNECTION FIELD DRAIN C-4HD HEAVY DUTY TYPICAL INTERLOCK FIELD DRAIN C-4HD HEAVY DUTY TYPICAL CROSS SECTION ___ 24.0" [610 mm] MIN. SQUARE - PAVEMENT OR FINISHED GRADE → 14.5" [368 mm] | 1-2 INCH [25-51 mm] DIA. -- CULTEC NO. 410 NON-WOVEN GEOTEXTILE **PAVEMENT OR** - OPTIONAL INSPECTION PORT WASHED, CRUSHED STONE 10.25" (SEE ZOOM DETAIL (C-4HD) AROUND STONE. TOP AND SIDES MANDATORY, FINISHED GRADE BOTTOM PER ENGINEER'S DESIGN PREFERENCE [260 mm] - PAVEMENT SUB-BASE (WHEN APPLICABLE) PAVEMENT OR FINISHED GRADE -6" [152 mm] MIN. MIN. 95% COMPACTED FILL 8.0" [203 mm] MIN CONTACTOR FIELD DRAIN C-4HD -DEPTH OF 1-2" [25-51 mm] DIA. FOR PAVED WASHED CRUSHED STONE **HEAVY DUTY CHAMBER** 10.0" [254 mm] MIN - MIN. 95% COMPACTED FILL ABOVE AND BELOW CHAMBER 12.0" [305 mm] MIN. FOR UNPAVED 12.0" [300 mm] SDR-35 / SCH. 40 PVC COLLAR 12.0' [3.65 m] MAX. FIELD PLACED CLASS "C" CONCRETE BURIAL DÉPTH CULTEC NO. 410 NON-WOVEN GEOTEXTILE 6.0" [152 mm] MIN. AROUND STONE. TOP AND SIDES MANDATORY MAINTAIN 6.0" [152 mm] CLEARANCE BETWEEN NEENAH FOUNDRY MODEL BOTTOM PER ENGINEER'S DESIGN PREFERENCE HEAVY DUTY LID AND PVC CLEAN-OUT CAP R-5900-A (OR EQUAL) HEAVY 8.5" [216 mm] DUTY FRAME AND LID 4.0" [100 mm] SDR-35 / SCH. 40 PVC ENDCAP CLEAN-OUT CULTEC FIELD DRAIN C-4HD HEAVY DUTY ADAPTER W/ SCREW-IN CAP 10.0' [3.0 m] MIN. 6.0" [152 mm] MIN. CULTEC NO. 66™ WOVEN 4.0" [100 mm] SDR-35 / SCH. 40 PVC RISER - 4.0" [100 mm] MAX. PIPE GEOTEXTILE BENEATH INLET PIPES TO BE DESIGN BY ENGINEER 4.0" [100 mm] SDR-35 / SCH. 40 PVC COUPLING PIPE MANIFOLD DIA. AND ELEV. -PIPE DESIGN AND ELEVATION TBD BY ENGINEER. ——— 12.0" [305 mm] MIN DETERMINED BY ENGINNER 1-2" [25-51 mm] DIA. WASHED CRUSHED TRIM CHAMBER INSPECTION PORT KNOCK-OUT TO MATCH PIPE TO BE INSERTED 8.0" [203 mm] MIN. INTO STONE BENEATH AND AROUND O.D. OF 4.0" [100 mm] INSPECTION PORT PIPE STRUCTURE AND 8.0" [203 mm] MIN. INTO **HEADER PIPE** CHAMBER BED CHAMBER. 4.0" [100 mm] MAX. PIPE TO BE DESIGN BY ENGINEER 4.0" [100 mm] SDR-35 / SCH 40 PVC (INSERTED 8.0" [203 mm] INTO CHAMBER) C-4HD 8.0 FIELD DRAIN C-4HD HEAVY DUTY PLAN VIEW FIELD DRAIN C-4HD MANIFOLD - OPTIONAL INSPECTION PORT DETAIL **OPTIONAL INSPECTION PORT-ZOOM DETAIL** CULTEC, Inc. **CONTACTOR FIELD DRAIN C-4HD CHAMBER** CONTACTOR FIELD DRAIN C-4HD HEAVY DUTY THIS DRAWING WAS PREPARED TO SUPPORT THE DESIGN ENGINEER FOR THE PROPOSED SYSTEM. IT IS THE Subsurface Stormwater Management Systems ULTIMATE RESPONSIBILITY OF THE DESIGN ENGINEER TO ASSURE THAT THE STORMWATER SYSTEM'S DESIGN IS IN **DETAIL SHEET** PROJECT NO: DATE: 02/2016 FULL COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY PH: (203) 775-4416 P.O. Box 280 TO ENSURE THAT THE CULTEC PRODUCTS ARE DESIGNED IN ACCORDANCE WITH CULTEC'S MINIMUM REQUIREMENTS PH: (800) 4-CULTEC TRAFFIC APPLICATION 878 Federal Road DESIGNED BY: CULTEC, INC **TECH DRAWN BY:** CULTEC INC. DOES NOT APPROVE PLANS, SIZING, OR SYSTEM DESIGNS. THE DESIGNING ENGINEER IS RESPONSIBLE Brookfield, CT 06804 FX: (203) 775-1462 FOR ALL DESIGN DECISIONS. **CULTEC**

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CULTEC CONTACTOR FIELD DRAIN C-4SD STANDARD DUTY CHAMBER SPECIFICATIONS LARGE RIB END DETAIL SMALL RIB END DETAIL OPTIONAL 4.0" [102 mm] DIA. – 12.0" [305 mm] **INSPECTION PORT** CULTEC CONTACTOR FIELD DRAIN C-4 STANDARD DUTY CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER MANAGEMENT. THE CHAMBERS MAY BE USED FOR RETENTION, RECHARGING, DETENTION, AND CONTROLLING THE FLOW OF ON-SITE STORMWATER RUNOFF. MODEL R STARTER/STAND ALONE **CHAMBER PROPERTIES** SMALL RIB LARGE RIB 1. THE CHAMBERS WILL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT (203-775-4416). 2. CONTACT CULTEC, INC. AT 203-775-4416 FOR SUBMITTAL PACKAGES AND TO PURCHASE PRODUCT. 48.0" [1219 mm] MODEL E END* 3. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC CONTACTOR FIELD DRAIN C-4 SHALL BE 8.5 INCHES TALL, 48 INCHES WIDE AND 8.5 FEET * MODEL FIELD DRAIN C-4 RSD SMALL RIB LARGE RIB LONG. THE INSTALLED LENGTH OF A JOINED UNIT SHALL BE 8 FEET. STARTER UNITS ARE USED TO BEGIN A LINE OR USED AS SINGLE 4. THE CHAMBER COMES STANDARD WITH A 4.5 INCH INLET/OUTLET OPENING. STAND ALONE SECTIONS. 5. THE CHAMBER WILL HAVE 100 CORRUGATIONS. *MAY ALSO BE USED AS AN INTERMEDIATE UNIT 6. THE NOMINAL STORAGE VOLUME OF THE CONTACTOR FIELD DRAIN C-4 WILL BE 1.692 CF/LF. TO EXTEND THE LENGTH OF A RUN. 7. THE CHAMBERS WILL BE VACUUM THERMOFORMED OF BLACK HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE) IN AN – 102.0" [2590 mm] – ISO-9001:2008 CERTIFIED FACILITY. "E" UNIT 8. CHAMBERS ARE MANUFACTURED WITH AN OPEN BOTTOM, INTEGRALLY FORMED END WALLS AND PERFORATED SIDEWALLS. – INSTALLED LENGTH = 96.0" [2438 mm] -9. THE CHAMBERS MUST HAVE ACHIEVED A MINIMUM OF 5 YEARS INSTALLATION HISTORY WITHOUT STRUCTURAL DEFICIENCIES. 10. THE CHAMBERS WILL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS OR SEPARATE END WALLS. 11. THE CHAMBER'S END WALL WILL BE AN INTEGRAL PART OF THE CONTINUOUSLY FORMED UNIT. SEPARATE INLET OR END PLATES CANNOT BE USED WITH THIS UNIT. - SMALL RIB LARGE RIB 8.5" [216 mm] -* MODEL FIELD DRAIN C-4 ESD END 12. THE CONTACTOR FIELD DRAIN C-4RSD STARTER CHAMBER MUST BE UNIFORMLY FORMED AS A WHOLE PART OF THE ELONGATED CHAMBER UNITS ARE USED IN THE MIDDLE UNIT HAVING TWO FULLY FORMED INTEGRAL END WALLS, AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. TO EXTEND THE LENGTH OF A INSTALLED LENGTH ADJUSTMENT = 0.5' (0.15 M) LINE OR TO END THE LENGTH OF A 13. THE CONTACTOR FIELD DRAIN C-4ESD MIDDLE/END CHAMBER MUST BE UNIFORMLY FORMED AS A WHOLE PART OF THE ELONGATED ALL CONTACTOR FIELD DRAIN C-4HD UNITS ARE MARKED WITH A COLORED LINE. CHAMBER UNIT HAVING ONE FULLY FORMED INTEGRAL END WALL, AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER. 14. ALL CHAMBERS WILL BE ARCHED IN SHAPE AND HAVE EIGHTY 3/4 INCH ROUND DISCHARGE HOLES BORED INTO THE SIDEWALLS OF THE UNIT'S CORE TO PROMOTE INFILTRATION/EXFILTRATION. 15. CHAMBERS MUST HAVE HORIZONTAL STIFFENING FLEX REDUCTION STEPS BETWEEN THE RIBS. FIELD DRAIN C-4SD STANDARD DUTY THREE VIEW FIELD DRAIN C-4SD STANDARD DUTY DETAIL INFORMATION 16. CONTACTOR FIELD DRAIN C-4SD STANDARD DUTY CHAMBERS ARE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. CONTACTOR HEAVY DUTY UNITS ARE DESIGNATED BY A COLORED STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER. END OF RUN 18. POLYETHYLENE CHAMBERS MUST HAVE THE ABILITY TO ACCEPT AND CARRY PIPE THROUGH ITS INTEGRALLY FORMED VERTICAL SUPPORT WALL WITHOUT THE USE OF SEPARATE PIPE HANGERS. 19. UNITS WILL HAVE A RAISED INTEGRAL CAP AT THE TOP OF THE ARCH IN THE CENTER OF EACH UNIT TO BE USED AS AN OPTIONAL INSPECTION PORT OR CLEAN-OUT. HIDDEN END 1-2 INCH [25-51 mm] DIA. -— 4 OZ. NON-WOVEN FILTER FABRIC 20. THE UNITS MAY BE TRIMMED TO CUSTOM LENGTHS BY CUTTING BACK TO ANY CORRUGATION. NATURALLY COMPACTED FILL WASHED, CRUSHED STONE ALL AROUND STONE. TOP AND SIDES MANDATORY. BOTTOM PER ENGINEER 21. REPEATING SUPPORT PANELS AND END WALLS OF THE ELONGATED CHAMBER SHALL BE SPACED EVERY 8 FEET. FINISHED GRADE CULTEC CONTACTOR FD-C4HD -DESIGN MODEL FD C-4 ESD HEAVY DUTY CHAMBER 6.0" [151 mm] MIN. **GENERAL NOTES** 4.0' [1.22 m] MAX. **BURIAL DEPTH** 6.0" [152 mm] MIN. MODEL FD C-4 ESD - MANIFOLD FEED PIPE PER ENGINEER DESIGN — INLET 8.5" [216 mm] STRUCTURE - HEADER PIPE PER 6.0" [152 mm] MIN. **ENGINEER DESIGN** MODEL FD C-4 ESD 12.0" [305 mm] — 48.0" [1219 mm] — MODEL FD C-4 RSD BEGINNING OF RUN - CULTEC FIELD DRAIN C-4SD STANDARD DUTY (C-4SD) 5.0 $\left(\frac{C-4SD}{6.0}\right)$ FIELD DRAIN C-4SD STANDARD DUTY TYPICAL INLET CONNECTION FIELD DRAIN C-4SD STANDARD DUTY TYPICAL INTERLOCK FIELD DRAIN C-4SD STANDARD DUTY TYPICAL CROSS SECTION 4.0" [100 mm] SDR-35 / SCH. 40 PVC ENDCAP - FINISHED GRADE CLEAN-OUT ADAPTER W/ SCREW-IN CAP 1-2 INCH [25-51 mm] DIA. WASHED, CRUSHED STONE - OPTIONAL INSPECTION PORT (SEE ZOOM DETAIL (SHD) - 4 OZ. NON-WOVEN FILTER FABRIC ALL AROUND STONE. TOP AND SIDES - FINISHED GRADE FINISHED GRADE -6" [152 mm] MIN. DEPTH OF -MANDATORY. BOTTOM PER ENGINEER DESIGN 1-2" [25-51 mm] DIA. - NATURALLY COMPACTED FILL WASHED CRUSHED STONE CULTEC CONTACTOR FD-C4SD -ABOVE AND BELOW STANDARD DUTY CHAMBER COMPACTED FILL CHAMBER 6.0" [152 **j**mm] MIN. 4.0' [1.22 m] MAX. - 4 OZ. NON-WOVEN FILTER FABRIC **BURIAL DEPTH** 6.0" [152 mm] MIN. AROUND STONE. TOP AND SIDES MANDATORY. **BOTTOM PER ENGINEER DESIGN** 8.5" [216 mm] - 4.0" [100 mm] SDR-35 / SCH. 40 PVC RISER - CONTACTOR FIELD DRAIN C-4SD STANDARD DUTY 6.0" [152 mm] MIN. 4.0" [100 mm] MAX. PIPE — TO BE DESIGN BY ENGINEER 4.0" [100 mm] SDR-35 / SCH. 40 PVC PIPE MANIFOLD DIA. AND ELEV. - 1-2" [25-51 mm] DIA. WASHED CRUSHED --- 12.0" [305 mm] MIN DETERMINED BY ENGINNER PIPE TO BE INSERTED 8.0" [203 mm] MIN. INTO STONE BENEATH AND AROUND STRUCTURE AND 8.0" [203 mm] MIN. INTO TRIM CHAMBER INSPECTION PORT KNOCK-OUT TO HEADER PIPE -CHAMBER BED CHAMBER. 4.0" [100 mm] MAX. PIPE TO BE DESIGN BY ENGINEER MATCH O.D. OF 4.0" [100 mm] INSPECTION PORT PIPE 4.0" [100 mm] SDR-35 / SCH 40 PVC (INSERTED 8.0" [203 mm] INTO CHAMBER) C-4SD 8.0 $\left(\frac{C-4SD}{9.0}\right)$ FIELD DRAIN C-4SD STANDARD DUTY PLAN VIEW FIELD DRAIN C-4SD MANIFOLD - OPTIONAL INSPECTION PORT DETAIL **OPTIONAL INSPECTION PORT-ZOOM DETAIL** CULTEC, Inc. **CONTACTOR FIELD DRAIN C-4SD CHAMBER** CONTACTOR FIELD DRAIN C-4SD STANDARD DUTY THIS DRAWING WAS PREPARED TO SUPPORT THE DESIGN ENGINEER FOR THE PROPOSED SYSTEM. IT IS THE Subsurface Stormwater Management Systems ULTIMATE RESPONSIBILITY OF THE DESIGN ENGINEER TO ASSURE THAT THE STORMWATER SYSTEM'S DESIGN IS IN **DETAIL SHEET** PROJECT NO: DATE: 04/2014 FULL COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY PH: (203) 775-4416 P.O. Box 280 TO ENSURE THAT THE CULTEC PRODUCTS ARE DESIGNED IN ACCORDANCE WITH CULTEC'S MINIMUM REQUIREMENTS PH: (800) 4-CULTEC NON-TRAFFIC APPLICATION 878 Federal Road DESIGNED BY: CULTEC, INC **TECH DRAWN BY:** CULTEC INC. DOES NOT APPROVE PLANS, SIZING, OR SYSTEM DESIGNS. THE DESIGNING ENGINEER IS RESPONSIBLE Brookfield, CT 06804 FX: (203) 775-1462 FOR ALL DESIGN DECISIONS.

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LARGE RIB END DETAIL SMALL RIB END DETAIL **CULTEC CONTACTOR® FIELD DRAIN C-4HD SPECIFICATIONS** OPTIONAL 4.0" [102 mm] DIA. - 12.0" [305 mm] **INSPECTION PORT GENERAL** CULTEC CONTACTOR FIELD DRAIN C-4HD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER MANAGEMENT. THE CHAMBERS MODEL R STARTER/STAND ALONE MAY BE USED FOR RETENTION, RECHARGING, DETENTION OR CONTROLLING THE FLOW OF ON-SITE STORMWATER RUNOFF. LARGE RIB SMALL RIB **CHAMBER PARAMETERS** 1. THE CHAMBERS WILL BE MANUFACTURED IN THE U.S.A. BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416 OR 1-800-428-5832) 48.0" [1219 mm] 2. THE CHAMBER WILL BE VACUUM THERMOFORMED OF BLACK HIGH MOLECULAR WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE). MODEL E END* * MODEL FIELD DRAIN C-4 RHD THE CHAMBER WILL BE ARCHED IN SHAPE. SMALL RIB LARGE RIB STARTER UNITS ARE USED TO 4. THE CHAMBER WILL BE OPEN-BOTTOMED. BEGIN A LINE OR USED AS SINGLE STAND ALONE SECTIONS. 5. THE CHAMBER WILL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS OR SEPARATE END WALLS. 6. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC CONTACTOR FIELD DRAIN C-4HD SHALL BE 8.5 INCHES (216 MM) TALL, 48 *MAY ALSO BE USED AS AN INTERMEDIATE UNIT INCHES (1219 MM) WIDE AND 8.5 FEET (2.6 M) LONG. THE INSTALLED LENGTH OF A JOINED CONTACTOR FIELD DRAIN C-4HD TO EXTEND THE LENGTH OF A RUN. SHALL BE 8.0 FEET (2.4 M). 7. INLET OPENING ON THE CHAMBER ENDWALL IS 4.5 INCHES (115 MM). 102.0" [2590 mm] -8. THE NOMINAL STORAGE VOLUME OF THE CONTACTOR FIELD DRAIN C-4HD CHAMBER WILL BE 1.692 FT3 / FT (0.16 M3 / M) -"E" UNIT WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A SINGLE CONTACTOR FIELD DRAIN C-4RHD STAND ALONE UNIT SHALL BE INSTALLED LENGTH = 96.0" [2438 mm] 14.38 FT3 (0.41 M3) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED CONTACTOR FIELD DRAIN C-4EHD AS AN INTERMEDIATE UNIT SHALL BE 13.54 FT3 (0.38 M3) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF THE LENGTH ADJUSTMENT AMOUNT PER RUN SHALL BE 0.846 FT3 (0.02 M3) - WITHOUT STONE. __ 3.0" [76 mm] 9. THE CONTACTOR FIELD DRAIN C-4HD CHAMBER WILL HAVE EIGHTY DISCHARGE HOLES BORED INTO THE SIDEWALLS OF THE UNIT'S CORE TO PROMOTE LATERAL CONVEYANCE OF WATER. 10. THE CONTACTOR FIELD DRAIN C-4HD CHAMBER SHALL HAVE 100 CORRUGATIONS. LARGE RIB SMALL RIB * MODEL FIELD DRAIN C-4 EHD END 11. THE ENDWALL OF THE CHAMBER, WHEN PRESENT, WILL BE AN INTEGRAL PART OF THE CONTINUOUSLY FORMED UNIT. SEPARATE 8.5" [216 mm] UNITS ARE USED IN THE MIDDLE TO END PLATES CANNOT BE USED WITH THIS UNIT. EXTEND THE LENGTH OF A LINE OR 12. THE CONTACTOR FIELD DRAIN C-4RHD STARTER/STAND ALONE UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING TWO FULLY TO END THE LENGTH OF A LINE. FORMED INTEGRAL ENDWALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. INSTALLED LENGTH ADJUSTMENT = 0.5' (0.15 M) 13. THE CONTACTOR FIELD DRAIN C-4EHD MIDDLE/END UNIT MUST BE FORMED AS A WHOLE CHAMBER HAVING ONE FULLY FORMED ALL CONTACTOR FIELD DRAIN C-4HD UNITS ARE MARKED WITH A COLORED STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER. INTEGRAL ENDWALL AND ONE FULLY OPEN END WALL AND HAVING NO SEPARATE END PLATES OR END WALLS. 14. CHAMBERS MUST HAVE HORIZONTAL STIFFENING FLEX REDUCTION STEPS BETWEEN THE RIBS. $\frac{C-4HD}{2.0}$ FIELD DRAIN C-4HD HEAVY DUTY THREE VIEW FIELD DRAIN C-4HD HEAVY DUTY DETAIL INFORMATION 15. HEAVY DUTY UNITS ARE DESIGNATED BY A COLORED STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER. 16. THE CHAMBER WILL HAVE A RAISED INTEGRAL CAP AT THE TOP OF THE ARCH IN THE CENTER OF EACH UNIT TO BE USED AS AN OPTIONAL INSPECTION PORT OR CLEAN-OUT. 17. THE UNITS MAY BE TRIMMED TO CUSTOM LENGTHS BY CUTTING BACK TO ANY CORRUGATION ON THE LARGE RIB END. END OF RUN 18. THE CHAMBER SHALL BE MANUFACTURED IN AN ISO 9001:2008 CERTIFIED FACILITY. 19. MAXIMUM ALLOWABLE COVER OVER THE TOP OF THE CHAMBER SHALL BE 12 FEET (3.66 M) FOR THE HEAVY DUTY VERSION. 20. THE CHAMBER WILL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS. HIDDEN END NATURALLY COMPACTED FILL 1-2 INCH [25-51 mm] DIA. CULTEC NO. 410 NON-WOVEN GEOTEXTILE WASHED, CRUSHED STONE AROUND STONE. TOP AND SIDES — FINISHED GRADE MANDATORY, BOTTOM PER ENGINEER'S CULTEC CONTACTOR FD-C4HD -MODEL FD C-4 EHD DESIGN PREFERENCE 6.0" [151 mm] MIN. HEAVY DUTY CHAMBER **GENERAL NOTES** 12.0' [3.65 m] MAX. **BURIAL DEPTH** 6.0" [152 mm] MIN MODEL FD C-4 EHD - MANIFOLD FEED PIPE PER ENGINEER DESIGN — INLET 8.5" [216 mm] STRUCTURE - HEADER PIPE PER 6.0" [152 mm] MIN. **ENGINEER DESIGN** MODEL FD C-4 EHD 12.0" [305 mm] 48.0" [1219 mm] — MODEL FD C-4 RHD BEGINNING OF RUN - CULTEC FIELD DRAIN C-4HD HEAVY DUTY C-4HD 5.0 $\frac{C-4HD}{6.0}$ FIELD DRAIN C-4HD HEAVY DUTY TYPICAL INLET CONNECTION FIELD DRAIN C-4HD HEAVY DUTY TYPICAL INTERLOCK FIELD DRAIN C-4HD HEAVY DUTY TYPICAL CROSS SECTION - FINISHED GRADE 4.0" [100 mm] SDR-35 / SCH. 40 PVC ENDCAP CLEAN-OUT ADAPTER W/ SCREW-IN CAP 1-2 INCH [25-51 mm] DIA. WASHED, CRUSHED STONE OPTIONAL INSPECTION (SEE ZOOM DETAIL (C-4HD) 8.0 OPTIONAL INSPECTION PORT - CULTEC NO. 410 NON-WOVEN GEOTEXTILE - FINISHED GRADE AROUND STONE. TOP AND SIDES MANDATORY, FINISHED GRADE -BOTTOM PER ENGINEER'S DESIGN PREFERENCE - NATURALLY COMPACTED FILL 6" [152 mm] MIN. -CULTEC CONTACTOR FD-C4HD -DEPTH OF 1-2" [25-51 mm] DIA. - NATURALLY HEAVY DUTY CHAMBER COMPACTED FILL WASHED CRUSHED STONE ABOVE AND BELOW CHAMBER 6.0" [152 **j**mm] MIN. 12.0' [3.65 m] MAX. **BURIAL DEPTH** 6.0" [152 mm] MIN. - CULTEC NO. 410 NON-WOVEN GEOTEXTILE AROUND STONE. TOP AND SIDES MANDATORY BOTTOM PER ENGINEER'S DESIGN PREFERENCE 8.5" [216 mm] - 4.0" [100 mm] SDR-35 / SCH. 40 PVC RISER - CONTACTOR FIELD DRAIN C-4HD HEAVY DUTY 6.0" [152 mm] MIN. 10.0' [3.0 m] MIN. CULTEC NO. 66™ WOVEN GEOTEXTILE BENEATH INLET PIPES 4.0" [100 mm] SDR-35 / SCH. 40 PVC — 4.0" [100 mm] MAX. PIPE PIPE MANIFOLD DIA. AND ELEV. TO BE DESIGN BY ENGINEER —- 12.0" [305 mm] MIN DETERMINED BY ENGINNER PIPE TO BE INSERTED 8.0" [203 mm] MIN. INTO STRUCTURE AND 8.0" [203 mm] MIN. INTO TRIM CHAMBER INSPECTION PORT KNOCK-OUT TO - 1-2" [25-51 mm] DIA. WASHED CRUSHED CHAMBER. 4.0" [100 mm] MAX. PIPE MATCH O.D. OF 4.0" [100 mm] INSPECTION PORT PIPE STONE BENEATH AND AROUND HEADER PIPE -CHAMBER BED TO BE DESIGN BY ENGINEER 4.0" [100 mm] SDR-35 / SCH 40 PVC (INSERTED 8.0" [203 mm] INTO CHAMBER) C-4HD 8.0 C-4HD 9.0 FIELD DRAIN C-4HD HEAVY DUTY PLAN VIEW FIELD DRAIN C-4HD MANIFOLD - OPTIONAL INSPECTION PORT DETAIL **OPTIONAL INSPECTION PORT-ZOOM DETAIL** CULTEC, Inc. **CONTACTOR FIELD DRAIN C-4HD CHAMBER** CONTACTOR FIELD DRAIN C-4HD HEAVY DUTY THIS DRAWING WAS PREPARED TO SUPPORT THE DESIGN ENGINEER FOR THE PROPOSED SYSTEM. IT IS THE Subsurface Stormwater Management Systems ULTIMATE RESPONSIBILITY OF THE DESIGN ENGINEER TO ASSURE THAT THE STORMWATER SYSTEM'S DESIGN IS IN **DETAIL SHEET** PROJECT NO: DATE: 02/2016 FULL COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY PH: (203) 775-4416 P.O. Box 280 TO ENSURE THAT THE CULTEC PRODUCTS ARE DESIGNED IN ACCORDANCE WITH CULTEC'S MINIMUM REQUIREMENTS PH: (800) 4-CULTEC NON-TRAFFIC APPLICATION 878 Federal Road DESIGNED BY: CULTEC, INC **TECH DRAWN BY:** CULTEC INC. DOES NOT APPROVE PLANS, SIZING, OR SYSTEM DESIGNS. THE DESIGNING ENGINEER IS RESPONSIBLE Brookfield, CT 06804 FX: (203) 775-1462 FOR ALL DESIGN DECISIONS.

SHEET NO:

2 OF 2

SCALE:

N.T.S.

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