



**NOTES:**

1. IT IS NECESSARY TO ENSURE MINIMUM DIMENSIONS SHOWN ARE SUITABLE FOR EXISTING GROUND CONDITIONS. *ENGINEERING ADVICE MAY BE REQUIRED.*
2. MINIMUM CONCRETE STRENGTH OF 4,000 PSI IS RECOMMENDED. CONCRETE SHOULD BE VIBRATED TO ELIMINATE AIR POCKETS.
3. EXPANSION AND CONTRACTION CONTROL JOINTS AND REINFORCEMENT ARE RECOMMENDED TO PROTECT CHANNEL AND CONCRETE SURROUND. *ENGINEERING ADVICE MAY BE REQUIRED.*
4. THE FINISHED LEVEL OF THE CONCRETE SURROUND MUST BE APPROX. 1/8" [3mm] ABOVE THE TOP OF THE CHANNEL EDGE.
5. CONCRETE BASE THICKNESS SHOULD MATCH SLAB THICKNESS. ENGINEERING ADVICE MAY BE REQUIRED TO DETERMINE PROPER LOAD CLASS.
6. REFER TO ACO'S LATEST INSTALLATION INSTRUCTIONS FOR FURTHER DETAILS.

**SPECIFICATION CLAUSE**

**DS200 UTILITYDUCT - LOAD CLASS A**

GENERAL

THE SURFACE DRAINAGE SYSTEM SHALL BE ACO UTILITYDUCT DS200 COMPLETE WITH SOLID DUCTILE IRON COVERS SECURED WITH BOLTED LOCKINGS (4 BOLTS PER HALF METER COVER) AS MANUFACTURED BY ACO POLYMER PRODUCTS, INC. OR EQUAL APPROVED.

MATERIALS

DUCT SYSTEM BODIES ARE MANUFACTURED FROM POLYESTER POLYMER CONCRETE WITH MINIMUM PROPERTIES AS SHOWN:  
 COMPRESSIVE STRENGTH: 14,000 PSI  
 FLEXURAL STRENGTH: 4,000 PSI  
 WATER ABSORPTION: 0.07%  
 FROST PROOF YES  
 DILUTE ACID AND ALKALI RESISTANT YES  
 SURFACE BURN CHARACTERISTICS OF THE MATERIAL SHALL COMPLY WITH UL 723

THE NOMINAL CLEAR OPENING SHALL BE 8" (200mm) WITH OVERALL WIDTH OF 10.24" (260mm). MODULAR UNITS SHALL BE MANUFACTURED WITH NEUTRAL INVERT AND HAVE A WALL THICKNESS OF AT LEAST 1.18" (30mm). EACH UNIT WILL FEATURE A FULL RADIUS IN THE TRENCH BOTTOM AND A MALE TO FEMALE INTERCONNECTING END PROFILE. UNITS SHALL HAVE HORIZONTAL CAST IN ANCHORING FEATURES ON THE OUTSIDE WALL TO ENSURE MAXIMUM MECHANICAL BOND TO THE SURROUNDING BEDDING MATERIAL AND PAVEMENT SURFACE. THE DUCTILE IRON EDGE RAIL WILL BE INTEGRALLY CAST IN BY THE MANUFACTURER TO ENSURE MAXIMUM HOMOGENEITY BETWEEN POLYMER CONCRETE BODY AND EDGE RAIL.

COVERS

COVERS ARE MANUFACTURED FROM DUCTILE IRON TO ASTM 536-84-GRADE 65-45-12. COVERS ARE LOCKED IN PLACE WITH 4 QTY M10 HIGH TENSILE STEEL BOLTS WITH FRICTION GRIP WASHERS PER HALF METER (19.69") COVER. COVERS ARE LOAD TESTED TO MEET EN 1433 LOAD CLASS F-4,182 PSI. AFTER REMOVAL OF COVERS THERE SHALL BE UNINTERRUPTED ACCESS TO THE TRENCH TO AID MAINTENANCE.

INSTALLATION

THE TRENCH DRAIN SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS.

DS2-A-ECP

**DS200 - UTILITYDUCT - LOAD CLASS: A**  
Exposed Concrete Pavement

**ACO Polymer Products, Inc.**



DATE: 11/28/16

**INSTALLATION DRAWING - ACO DRAIN**

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