



- | NO. | DESCRIPTION: |
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| 1. | 1/2" DIAMETER ZINC PLATED OR HOT DIP GALVANIZED THREADED ROD, 2 NUTS AND 2 DOUBLE WIDE WASHERS. |
| 2. | CEMENT MORTAR GROUT. INSTALL AFTER BOLT APPROVAL BY THE INSPECTOR. |
| 3. | FINISH GRADE. |
| 4. | EPOXY ADHESIVE ANCHORING SYSTEM WITH 5" MINIMUM EMBEDMENT. CLEAN HOLE PER ADHESIVE MANUFACTURING REQUIREMENTS. |
| 5. | 6" (MIN.) WIDE BUTYL RUBBER JOINT WRAP REQUIRED ON ALL EXTERIOR JOINTS. |
| 6. | BUTYL RUBBER JOINT SEALANT-2 FULL CIRCLES EACH JOINT COMPRESSED (TYP.). USED ONLY BETWEEN PRECAST SECTIONS AND FRAME. |
| 7. | CONE SECTION. |
| 8. | CONCRETE GRADE RING (2" MIN. HEIGHT) TO CONTAIN ONE RING OF REBAR (STEEL AREA = 0.07 SQ IN PER VERTICAL FOOT) BUT NOT LESS THAN 0.024 SQ IN ANY ONE GRADE RING. |
| 9. | RECYCLED RUBBER OR EXPANDED POLYPROPYLENE (EPP) ADJUSTMENT GRADE RING - FLAT, WITH KEYWAY (GROOVE) FOR VERTICAL ALIGNMENT, WITH ADHESIVE TRENCH, AND/OR WITH TAPER-ROTATE FOR SLOPE ADJUSTMENT - OR USE BRICK AND MORTAR OVER PRECAST RING. SEE DETAIL ON THIS SHEET. |
| 10. | 2", 4", 6", OR 8" TALL PRECAST GRADE RING SECTIONS. |
| 11. | 8" MAXIMUM HEIGHT OF RUBBER OR EXPANDED POLYPROPYLENE ADJUSTMENT RINGS, OTHERWISE USE CONCRETE. |
| 12. | EPOXY ADHESIVE USED BETWEEN RUBBER/RUBBER, EXPANDED POLYPROPYLENE/EXPANDED POLYPROPYLENE, FRAME/RUBBER OR EXPANDED POLYPROPYLENE, AND PRECAST SECTIONS/RUBBER OR EXPANDED POLYPROPYLENE. IF CONCRETE GRADE RING, USE BUTYL RUBBER JOINT SEALANT. |
| 13. | STANDARD NCDOT CONCRETE BRICK OR FLOOR TILE PAVERS. |
| 14. | FILL ALL VOIDS SOLID WITH MORTAR. |

- NOTES:**
- A. MINIMUM 8" WIDTH OF ALL GRADE RINGS.
 24" COVER = 40" (GROUND TO O.D.).
 30" COVER = 46" (GROUND TO O.D.).
- B. NO MORE THAN 3 GRADE RINGS (21" MAXIMUM) INCLUDING FRAME HEIGHT.