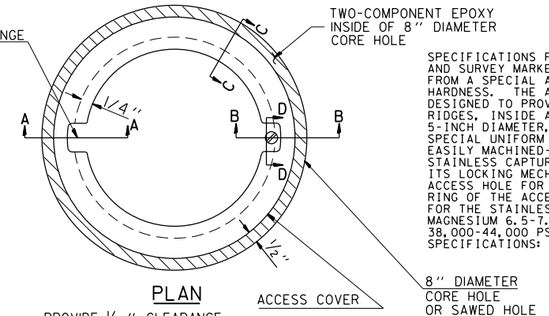
DETAIL OF PERMANENT SURVEY MARKER VAULT

FOR RESET LAND SURVEY MONUMENTS IN RIGID AND COMPODSITE PAVEMENTS



PLAN

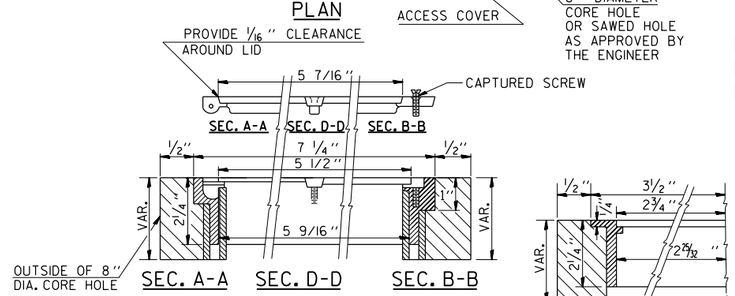
SPECIFICATIONS FOR ACCESS COVER FOR USE WITH SURVEY MARKER VAULT(S) AND SURVEY MARKER COVER ASSEMBLY(S): THE ACCESS COVER WILL BE CAST FROM A SPECIAL ALUMINUM ALLOY THAT IS COMPARABLE TO BRONZE IN HARDNESS. THE ACCESS COVER SHALL BE SPECIALLY ENGINEERED AND DESIGNED TO PROVIDE A SNUG FIT, INCORPORATING EQUIDISTANT LOCKING RIDGES, INSIDE A STANDARD 6-INCH DIAMETER, OR INSIDE A STANDARD 5-INCH DIAMETER, SCHEDULE 40 PVC PIPE. THE ACCESS COVER SHALL HAVE SPECIAL UNIFORM 1-INCH THICK TOP SURFACE TO PERMIT INFORMATION TO BE EASILY MACHINED-STAMPED INTO IT. THE ACCESS COVER SHALL INCLUDE A STAINLESS CAPTURED SCREW AND AN OPPOSING RECESSED HINGE ASSEMBLY AS ITS LOCKING MECHANISM. THE ACCESS COVER SHALL INCORPORATE A SPECIAL ACCESS HOLE FOR CLEANING AND DRAINAGE, DRILLED AT 30o INSIDE THE RING OF THE ACCESS COVER, TO THE DRILLED AND TAPPED HOLE PROVIDED FOR THE STAINLESS CAPTURED SCREW. COMPOSITION: ALUMINUM 92-93%; MAGNESIUM 6.5-7.5%. STRENGTH: YIELD - 19,000-21,000 PSI; TENSILE - 38,000-44,000 PSI; ELONGATION - 10-15% (IN TWO INCHES). SPECIFICATIONS: ALMAG 35; ALLOY 535.0; QQ-A-601ES. NO EXCEPTIONS.

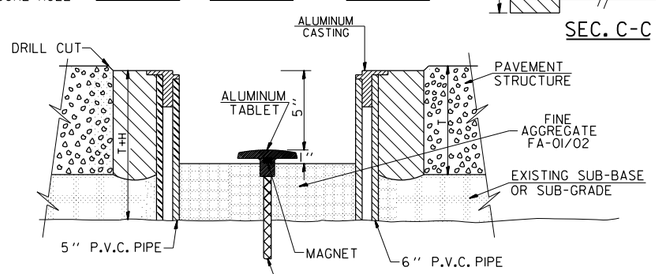
LEGEND

- ALUMINUM CASTING
- 5" OR 6" P.V.C. PIPE
- TWO-COMPONENT EPOXY

T = THICKNESS OF PAVEMENT STRUCTURE

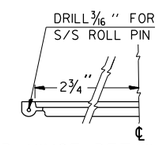
H = THE THICKNESS OF THE SUB-BASE GRANULAR + 1"





ELEVATION

RE-BAR -SURVEY MARKER TYPE I(SPECIAL) TO BE FURNISHED BY THE CONTRACTOR AND SET BY AN ILLINOIS PROFESSIONAL LAND SURVEYOR (SEE SPECIAL DETAIL SHEET FOR ALUMINUM TABLET AND RE-BAR SPECIFICATIONS).



LID HINGE DETAIL

GENERAL NOTES

1. ALUMINUM CASTING SHALL BE EITHER PLACED OVER A 5" P.V.C. PIPE OR INSIDE OF A 6" P.V.C. PIPE.
2. BACKFILL WITH SELECT MATERIAL AS DIRECTED BY THE ENGINEER.
3. TO PREVENT DAMAGE TO THE TOP OF THE 5/8" Ø RE-BAR, AN APPROVED RE-BAR DRIVER SHALL BE USED.
4. WORK SHALL NOT START ON THIS ITEM UNTIL THE FINAL LIFT OF CLASS I HAS BEEN COMPLETED.
5. SEE SPECIAL PROVISION "PRESERVATION OF LAND SURVEY MONUMENTS".
5. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR SURVEY MARKER VAULT WHICH PRICE SHALL INCLUDE ALL LABOR AND MATERIAL AS SPECIFIED INCLUDING DRILLING, EPOXY AND BACKFILL AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
6. THE 8" DIAMETER CASTING SHALL BE ANCHORED IN THE CORE HOLE WITH TWO-COMPONENT EPOXY CONFORMING TO APPLICABLE PORTIONS OF ARTICLE 718.08 OF THE STANDARD SPECIFICATIONS.
7. ALL PERMANENT SURVEY MARKERS (SPECIAL) SHALL BE PLACED 1/4"(±) BELOW THE FINAL SURFACE.
8. THE 8" DIAMETER CORE HOLE SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

BILL OF MATERIAL
ALUMINUM CASTING OF THE DIMENSIONS SHOWN OR OTHER SUBJECT TO ENGINEER'S APPROVAL OF SHOP DRAWINGS, 5" OR 6" Ø P.V.C. PIPE, SCHEDULE 40, ALUMINUM TABLET, STAMPED IN ACCORDANCE WITH STANDARD 2135. 5/8" Ø x 48" RE-BAR, EPOXY, BACKFILL.