T-SLOT

HOLE -

THICK -

(6) CABLE BRACKETS (STAINLESS STEEL)

6"

ELEVATION

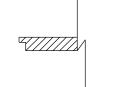
3/8"DIA. X 41/2" BOLT WITH HEX NUT.

JUNCTION BOX MADE OF FIBERGLASS, PLASTIC COMPOSITE MATERIAL,

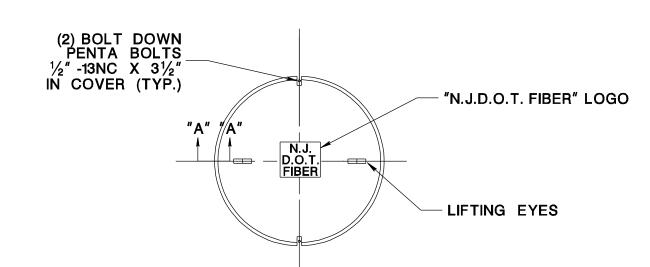
RPM/ FRP COMBINATION OR POLYMER CONCRETE

%" LONG

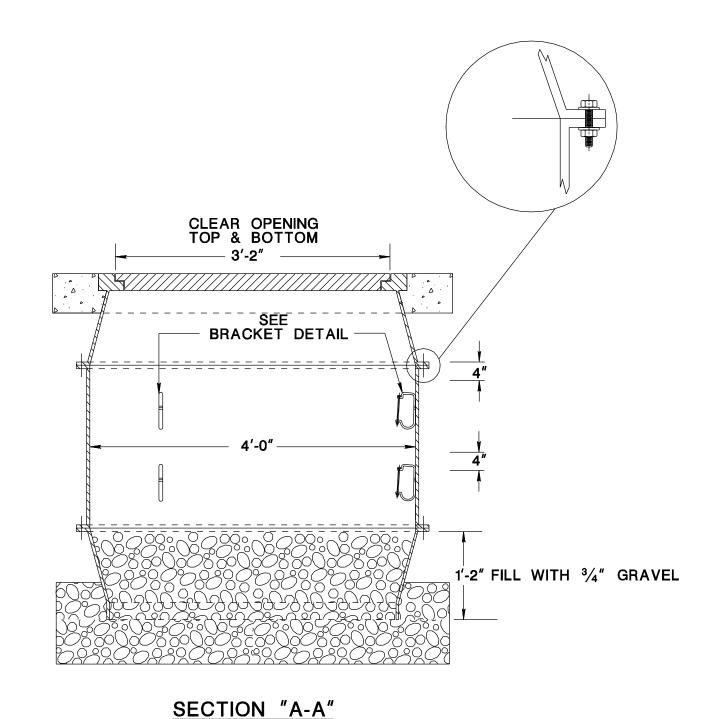
"NYLOCK" STYLE LOCK NUT



SECTION "A-A"



POLYMER CONCRETE COVER



JUNCTION BOX ITS, TYPE A

DO NOT INSTALL THIS BOX IN THE TRAVEL WAY AND SHOULDERS.

NOTES:

- 1. AS A MINIMUM, DESIGN THE BOX ASSEMBLY FOR TIER 22 LOADING AS SPECIFIED IN ANSI/ SCTE 77 2002 "SPECIFICATION FOR UNDERGROUND ENCLOSURE INTEGRITY".
- 2. PROVIDE CERTIFICATION BY A PROFESSIONAL ENGINEER AND INCLUDE TEST RESULTS SHOWING THAT THE JUNCTION BOX AND COVER DESIGN MEETS THE LOADING REQUIREMENT.
- DESIGN THE JUNCTION BOX WITH A MINIMUM SAFETY FACTOR OF 2.0 FOR WHEEL LOADS AND 2.0 FOR SOIL LOADS, SO THAT THE COVER DEFLECTION AT DESIGN LOADS DOES NOT EXCEED 0.5 INCHES PER FOOT OF HEIGHT OF BOX. PERFORM TESTING ACCORDING TO CURRENT WESTERN UNDERGROUND COMMITTEE CHIEF NO 3.6 NON CONCRETE ENCLOSURE GUIDE NO. 3.6 NON-CONCRETE ENCLOSURE.
- 4. ENSURE ANY POINT ON THE COVER OR BOX WITHSTANDS A 70 FT. LBS. IMPACT ADMINISTERED WITH A C-TUP ACCORDING TO ASTM D-2444.
- 5. ENSURE THE MATERIALS UTILIZED IN THE MANUFACTURE OF JUNCTION BOXES AND COVERS ARE RESISTANT TO CHEMICALS COMMONLY FOUND IN THE SOIL OR IN THE OPERATING ENVIRONMENT, AND THEY ARE ALSO RESISTANT TO SUNLIGHT, UV AND ANY CLIMATIC CONDITIONS IN ACCORDANCE WITH ASTM G53, -40°F TO +140°F. DETERMINE CHEMICAL RESISTANCE PROPERTIES USING ASTM D543 AND ASTM D570 FOR WATER ABSORPTION.
- ENSURE THE MATERIALS ARE RESISTANT TO DIRECT FLAME AND HEAT IN ACCORDANCE
- 7. ENSURE ALL HARDWARE IS STAINLESS STEEL.
- 8. MOUNT THREE PAIRS OF CABLE BRACKETS AT 120 DEGREES APART.
- 9. FASTEN EACH CABLE BRACKET WITH A $\frac{1}{2}$ " DIA. X $\frac{1}{2}$ " LONG BOLT AND (1) HEX NUT, (2) FLAT WASHERS.
- 10. FACTORY ASSEMBLE THE JUNCTION BOX AND USE SILICON CAULKING FOR ALL FLANGE JOINTS.
- 11. ENSURE THE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5.
- 12. PERMANENTLY MOLD IDENTIFICATION OF THE COVER ON THE TOP SURFACE WITH "N.J.D.O.T.
- 13. ENSURE THE COLOR OF THE COVER AND THE PART OF THE BOX THAT REMAINS VISIBLE AFTER INSTALLATION IS "CONCRETE GREY".
- 14. SET THE TOP OF THE POLYMER CONCRETE COVER FLUSH WITH THE TOP OF THE JUNCTION BOX AT GRADE.
- 15. PROVIDE AND INSTALL CONCRETE LOCK-IN FEATURE AROUND THE TOP OF THE BOX.
- 16. LIMIT THE GAP FROM THE EDGE OF THE COVER TO THE INSIDE EDGE OF THE BOX TO A MAXIMUM OF $\frac{1}{8}$ " +/- $\frac{1}{16}$ ".
- 17. AS AN ALTERNATE, A SINGLE SECTION OR TWO SECTION JUNCTION BOX MAY BE SUPPLIED.
- 18. VIBRATE AND COMPACT SOIL THOROUGHLY AROUND ENTIRE JB UP TO GRADE PER SECTION 203.03.02D OF NJDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION 2007.
- 19. TERMINATE RIGID NON-METALLIC CONDUITS WITH BELL END FLUSH WITH THE INSIDE WALL OF THE JUNCTION BOX.
- 20. TERMINATE FLEXIBLE NON-METALLIC CONDUIT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND MANUFACTURER'S REQUIREMENTS. LAY FNMC ON THE GRAVEL/BROKEN STONE IN JB. EXTEND CONDUIT ENDS 4" PAST THE INSIDE WALL OF THE JB.
- 21. ENSURE CONDUITS ENTER INTO THE JUNCTION BOX PERPENDICULAR TO WALLS OR AS APPROVED BY THE RE.
- 22. INSTALL A CONCRETE COLLAR AROUND THE TOP OF THE JUNCTION BOX OF CLASS "C"
- 23. FIELD DRILL ALL CONDUIT ENTRANCES INTO THE JUNCTION BOX WITH A HOLE SAW, OR PUNCH OUT USING A HYDRAULIC HOLE PUNCH, UNLESS OTHERWISE DIRECTED BY THE RE.
- 24. SAND ALL CONDUIT OPENINGS. AFTER THE CONDUITS ARE INSTALLED, SEAL ALL CONDUIT ENTRANCES WITH AN EPOXY OR SILICON CAULK.
- 25. PROVIDE AND INSTALL PROTECTIVE COVER WITH THE BOLT ASSEMBLY.
- 26. PROVIDE AND INSTALL COMPACTED 3/4" GRAVEL OR BROKEN STONE.
- 27. PROVIDE AND INSTALL GROUNDING ROD (NOT SHOWN) AS PER NEC.

NOT TO SCALE

ITS-704-07

NEW JERSEY DEPARTMENT OF TRANSPORTATION

ITS DETAILS

JUNCTION BOX ITS TYPE A

