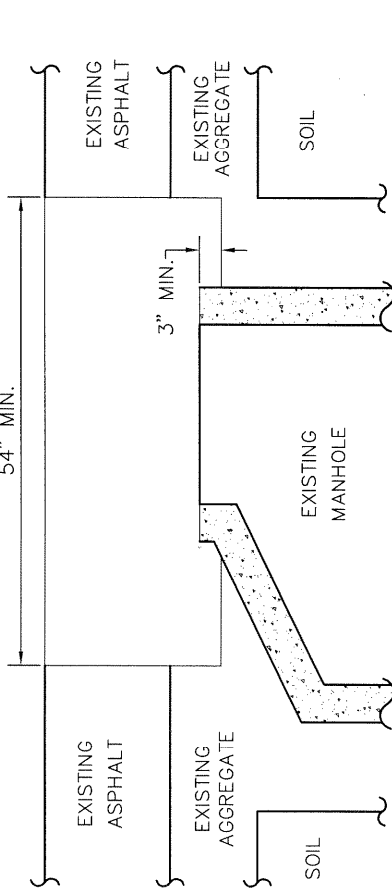
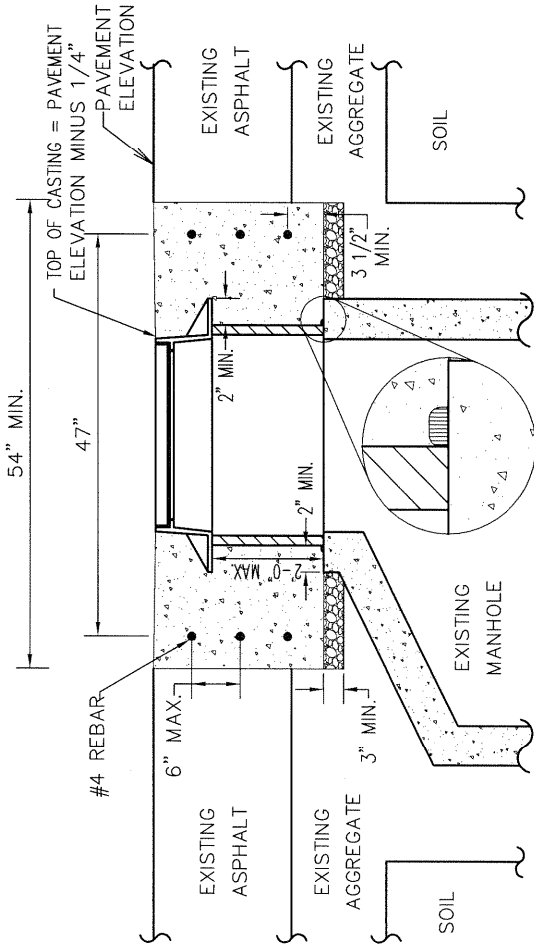


Step #2 - Chimney Reconstruction



Chimney Removed (Sectional View)



Chimney Reconstruction (Sectional View)

- BRING THE AREA AROUND THE CONE BACK TO FLUSH WITH THE TOP OF THE CONE USING ODOT #57 AGGREGATE. THIS AGGREGATE LAYER IS INTENDED TO LESSEN THE EFFECTS OF FREEZE/THAW ON THE CONCRETE COLLAR BY PROVIDING VOIDS FOR EXCESS WATER TO EXPAND INTO IF SUBJECTED TO FREEZING CONDITIONS. MANHOLES WITH EXCESSIVE FREE WATER AROUND THEM MUST BE REMEDIATED ON A CASE BY CASE BASIS TO FURTHER PREVENT FREEZE/THAW PROBLEMS FROM OCCURRING.
- A VYLON PIPE SHALL BE USED AS A CHIMNEY LINER AND MUST BE CUT TO THE EXACT PROFILE OF THE ROAD IN ALL DIRECTIONS SUCH THAT WHEN THE MANHOLE RIM AND COVER ARE RESTING ON TOP OF THE LINER, THE TOP OF THE CASTING SHALL BE EXACTLY 0.25" BELOW FLUSH WITH THE PAVEMENT SURFACE IN ALL DIRECTIONS.
- THE LINER SHALL BE MARKED IN SUCH A WAY, UPON COMPLETION OF THE CUTTING PROCESS, THAT ROTATION DOES NOT OCCUR, WHICH COULD BE DETRIMENTAL TO THE END PRODUCT. THE TOP AND/OR BOTTOM OF THE LINER SHALL ALSO BE MARKED TO PREVENT THE LINER FROM BEING INSTALLED UP SIDE DOWN, WHICH COULD BE DETRIMENTAL TO THE END PRODUCT.
- APPLY A LIBERAL AMOUNT OF WHITE SOLAR SEAL #900 ADHESIVE/SEALANT OR EQUIVALENT PRODUCT TO THE BOTTOM OF THE LINER AND SET IN PLACE ON TOP OF THE CONCRETE CONE WHILE MAKING SURE IT IS PROPERLY ALIGNED. SOLAR SEAL IS MANUFACTURED BY NPC COLORED SEALANTS. THIS WILL CREATE A WATER TIGHT SEAL BETWEEN THE LINER AND THE CONCRETE CONE.
- APPLY A LIBERAL AMOUNT OF WHITE SOLAR SEAL #900 ADHESIVE/SEALANT TO THE TOP OF THE LINER. SET THE MANHOLE RIM CASTING ON THE LINER WHILE MAKING SURE IT IS PROPERLY ALIGNED. THIS WILL CREATE A WATER TIGHT SEAL BETWEEN THE LINER AND THE MANHOLE RIM CASTING.
- PLACE THE MANHOLE LID ON THE RIM CASTING TO LESSEN THE POSSIBILITY OF DEBRIS ENTERING THE MANHOLE.
- PLACE EPOXY COATED #4 REBARS AS SHOWN BELOW. THE CIRCULAR SHAPED REBARS SHALL HAVE A 6" MAXIMUM OVERLAP.
- APPLY WATERSTOP AS SHOWN BELOW AND SPECIFIED ON SHEET 3 OF 3. THIS WILL ADD AN ADDITIONAL WATER TIGHT SEAL WHERE THE LINER MEETS THE CONCRETE CONE.
- UTILIZE ODOT-CLASS C CONCRETE WITH BLACK DYE TO CAST A CONCRETE COLLAR AROUND THE RIM CASTING AND LINER. THE SURFACE OF THE CONCRETE SHALL BE FINISHED FROM FLUSH WITH THE PAVEMENT TO FLUSH WITH THE RIM CASTING. THE EDGE OF THE CONCRETE SHALL BE ROUNDED (1/4" RADIUS) WHERE IT MEETS THE ASPHALT. THIS WILL CREATE A SMALL GROOVE FOR A JOINT SEALER AT THIS LOCATION.
- FILL THE GROOVE WITH A COLD POUR CRACK SEALER SUCH AS BREWER COTE BRAND LIQUID CRACK FILLER OR EQUIVALENT. THIS WILL PREVENT WATER FROM ENTERING THE CIRCULAR SEAM WHERE THE CONCRETE COLLAR MEETS THE ASPHALT. BREWER COTE LIQUID CRACK FILLER IS AVAILABLE FROM THE BREWER COMPANY OF MARKHAM, ILLINOIS.
- APPLY AN ACRYLIC POLYMER CONCRETE CURING AND SEALING COMPOUND, SUCH AS REZ-SEAL, TO THE SURFACE OF THE CONCRETE COLLAR. REZ-SEAL IS AVAILABLE FROM THE EUCLID CHEMICAL COMPANY (WWW.EUCLIDCHEMICAL.COM).
- BARRICADE THE AREA AROUND THE CONCRETE TO PROTECT IT UNTIL THE CONCRETE ATTAINS A MODULUS OF RUPTURE OF 400 POUNDS PER SQUARE INCH. A CHEMICAL ADMIXTURE THAT ACTS AS A CONCRETE ACCELERATOR MAY BE USED TO SPEED UP THE PROCESS IF THE ROADWAY NEEDS TO BE OPENED SOONER.
- IN ORDER TO MINIMIZE INCONVENIENCE TO MOTORISTS, THE CONTRACTOR PERFORMING THE WORK DESCRIBED IN THIS SPECIFICATION MUST BE CAPABLE OF PERFORMING ALL OF BOTH STEPS OF THIS SPECIFICATION IN 1.5 HOURS OR LESS.
- THE CONTRACTOR SHALL WARRANT THE RECONSTRUCTED MANHOLE CHIMNEY TO BE LEAK FREE AND STRUCTURALLY SOUND FOR A MINIMUM OF 5 YEARS FROM THE DATE OF RECONSTRUCTION.
- THE MUNICIPALITY SHALL MAINTAIN THE CRACK SEALER OVER TIME TO PREVENT WATER FROM ENTERING THE SEAM WHERE THE CONCRETE COLLAR MEETS THE ASPHALT.

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REVISIONS: **MANHOLE CHIMNEY RECONSTRUCTION**

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OCT. 2008

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