

NOTES

1. ALL STORM DRAIN STRUCTURES, (INLETS, MANHOLES, ENDWALLS, ETC.) REGARDLESS IF PRECAST OR CONSTRUCTED IN PLACE OF BRICK OR CONCRETE SHALL BE PLACED ON A 6" DEPTH OF AASHTO NO. 57 CLEAN STONE AGITATED IN PLACE AND TO GRADE ON TOP OF FIRM UNDISTURBED SOIL SUBGRADE (SEE NOTE 2.). BACKFILL MATERIAL FOR ALL STRUCTURES IN TRAFFIC BEARING OR STRUCTURAL AREAS SHALL BE MD DEPT. OF TRANS. S.H.A. GRADED AGGREGATE-BASE IN ACCORDANCE WITH NOTE 3. BACKFILL MATERIAL FOR STRUCTURES IN NON-TRAFFIC BEARING AREAS SHALL BE SUITABLE EXCAVATED OR BORROW SOILS IN ACCORDANCE WITH NOTE 4. ALSO REFER TO PLATE SD-040 FOR ADDITIONAL INFORMATION.
2. WHERE SPECIFIED FOR USE AASHTO NO. 57 CLEAN STONE SHALL BE AGITATED, VIBRATED, OR OTHERWISE SETTLED IN PLACE IN LIFTS OF 12" MAXIMUM.
3. WHERE SPECIFIED FOR USE MD DEPT. OF TRANS. S.H.A. GRADED AGGREGATE-BASE, SECTION 901.01 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, SHALL BE COMPACTED BY MECHANICAL MEANS IN 6" LIFTS TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY OF THE MODIFIED PROCTOR (ASTM D1557-78, OR AASHTO T-180) WITH AN IN PLACE MOISTURE CONTENT OF APPROXIMATELY $\pm 2\%$ OF THE OPTIMUM MOISTURE CONTENT.
4. WHERE SPECIFIED FOR USE MATERIAL EXCAVATED ON SITE OR FROM A SOIL BORROW SHALL BE FREE FROM ORGANIC MATERIAL, TRASH, ASH, RUBBISH, CONCRETE, FROZEN MATERIAL OR OTHER OBJECTIONABLE SUBSTANCES AND CONTAIN NO ROCKS GREATER THAN 6" IN ANY DIMENSION. THIS SOIL SHALL BE COMPACTED BY MECHANICAL MEANS IN 6" LIFTS TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY OF THE MODIFIED PROCTOR (ASTM D1557-78, OR AASHTO T-180) WITH AN IN PLACE MOISTURE CONTENT OF APPROXIMATELY $\pm 2\%$ OF THE OPTIMUM MOISTURE CONTENT.
5. WETTING AND DRYING OF SOILS BY THE CONTRACTOR TO ACHIEVE OR MAINTAIN A MOISTURE CONTENT WITHIN THE ACCEPTABLE RANGE WILL BE DONE AT NO ADDITIONAL COST TO THE CITY OF HAGERSTOWN.
6. IF THE CONTRACTOR ELECTS TO WASTE SOIL FROM THE SITE OR IF SOIL IS FOUND TO BE UNSUITABLE FOR BACKFILL IT SHALL BE WASTED IN AN APPROVED MANNER AT AN APPROVED LOCATION AND ANY COSTS INVOLVED WILL BE INCIDENTAL TO THE EXCAVATION COSTS.
7. THE CITY OF HAGERSTOWN MAY PERFORM IN PLACE DENSITY TESTING OF COMPACTED SOILS. IN SUCH CASES THE CONTRACTOR SHALL SUPPLY THE CITY WITH A SOIL SAMPLE IN ADVANCE OF BACKFILL WORK FOR LABORATORY ANALYSIS.
8. THE EXCAVATED SUBGRADE OF ALL STORM DRAIN PIPE AND STRUCTURES SHALL BE TO THE LINES AND GRADES GIVEN ON THE PLANS AND IN THE SPECIFICATIONS. THIS SUBGRADE SHALL BE FIRM UNDISTURBED SOIL. SUBGRADE SOILS FOUND TO BE UNSUITABLE OR TOO WET SHALL BE REMOVED AND WASTED AT AN APPROPRIATE FACILITY BY THE CONTRACTOR. ANY OVER-EXCAVATED SUBGRADE SHALL BE BROUGHT UP TO DESIGN SUBGRADE ELEVATION WITH SUITABLE SOILS.
9. PIPE TRENCHES, TEST PITS, STORM DRAIN STRUCTURE EXCAVATIONS, AND ALL OTHER EXCAVATIONS SHALL BE PERFORMED IN A MANNER SO AS TO PROMOTE SAFETY IN COMPLIANCE WITH M.O.S.H. AND TO ELIMINATE UNDERCUT CAVITIES THAT PREVENT PROPER BACKFILL PLACEMENT AND COMPACTION.
10. ALL CAST IN PLACE CONCRETE STRUCTURES SHALL ATTAIN 70% OF THE DESIGN COMPRESSIVE STRENGTH BEFORE BACKFILL OPERATIONS PROCEED.



CITY OF HAGERSTOWN, MARYLAND – ENGINEERING AND INSPECTIONS DEPARTMENT

STORM DRAIN STANDARD DETAIL BACKFILL AND COMPACTION GENERAL NOTES

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REVISIONS

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