

## Excerpt from Ivy Lane Sewer Project Construction Specifications

### **G8 Restoration of Property**

G8.1 Where pipelines are proposed to be constructed through lawns, gardens, driveways and other improved property, a minimum of such areas shall be disturbed. All improved property and grounds shall be restored to a condition equivalent to that existing prior to construction, including the replacement and/or restoration of all lawns, shrubbery, bushes, trees, sidewalks, fences, ditches and drainage facilities, driveways, septic tanks, septic tank drainage fields and any other structures or facilities encountered during construction. Tree replacement required shall be from nursery stock having a 2-inch diameter. Improved areas are defined as areas regularly maintained by a property owner such as lawns, maintained property boundaries, and all other wooded areas where the property owner regularly maintains the immediate grounds free from scrub brush.

G8.2 So that disputes do not develop over restoration procedures, the entire project along the alignments of the proposed sewers has been videotaped and is on file at the ENGINEER's office. In addition, the CONTRACTOR for the respective Contract is required to take still photographs of all improved areas that will be disturbed by their operations. These still photographs shall be cataloged with a narrative description and furnished to the OWNER.

### **G9 Clearing and Grubbing**

G9.1 Certain work to be performed will require clearing. The Contractor shall cut, clear and remove all brush, sapling, scrub and other wild growth along the route of the pipe lines. No trees shall be cut, however, without the specific approval and prior designation for cutting, by the Authority. It is the intent of these specifications to minimize the removal of trees and, therefore, only those which will positively prevent the application of reasonable construction methods and procedures will be permitted to be removed.

G9.2 Brush, scrub growth, stumps, saplings and tree limbs and trunks so directed to be cut and removed, shall be completely removed from the site of the work. No such debris shall be included in any backfill and as part of the clean-up work shall be required to be removed and transported away from the site to the contractors dump site.

### **G10 Open Excavation and Backfill**

G10.7 The excavated material from the trench may be stored along its alignment on rights-of-way obtained by the Authority for construction purposes. It may not, however, prohibit traffic flow along the streets and roadways, access to private properties, or access to existing utility lines by the respective utility companies. The temporary storage of excavated material shall also not obstruct or alter the flow of surface water runoff to the detriment of the operation of existing surface water drainage facilities and ditches.

G10.11 Trenches at any and all locations where pedestrian or vehicular traffic hazards would result shall not be left open during non-construction hours, unless they are suitably covered with a steel plate which is adequately anchored and reinforced to sustain traffic loads which may be imposed. All excavations within road rights of way shall be closed overnight and over weekends and marked with a flashing traffic marker to warn motorists and pedestrians. Except in cases of emergencies, no roadways, streets, alleys or driveways shall be left impassable overnight.



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### **G19 Commercial Top Soil Required in Cultivated Locations**

G19.1 In lawns and gardens, and in other improved areas (except for streets, roadways and traveled ways), the top of the backfill material shall be placed to an elevation approximately 4" below the finished ground surface. Topsoil shall then be placed and lightly rolled in the top 4" of all excavated areas and other places where construction equipment and activities incur damage to ground surfaces. The CONTRACTOR shall obtain topsoil from a local garden supplier or nurseryman for locations where existing topsoil is not of adequate quantity. The cost of furnishing and placing all such topsoil shall be included in the price bid for the respective pipe items. Required topsoil shall be "loam" and a soil sample grain size analysis and organic content analysis shall be submitted with shop drawings for approval. Organic content shall be 4% minimum. The CONTRACTOR shall also provide samples of topsoil when requested by OWNER.

### **G20 Restoration of Lawns and Other Improved or Cultivated Areas**

G20.1 After the topsoil has been spread, all lawns shall be restored by properly rolling, tilling and hand raking the area disturbed during construction and an application of an approved fertilizer at a rate of 30 lbs. per 1,000 square feet shall be made. Said area shall then be completely covered with peat moss, mushroom manure, or other approved mulch material after which grass seed shall be sown in accordance with the Erosion Sediment Pollution Control Plan Narrative appended hereto. The CONTRACTOR shall be responsible for restoration of all trench settlements and for properly preparing the topsoil, applying fertilizer and mulch and planting the seed. All seeded areas shall be kept constantly wet to a depth of 3 in. for 10 days immediately after seeding. All areas which do not show prompt catch of grass shall then be reseeded as required. In any event, the CONTRACTOR shall insure a good final stand of grass as specified above, and he shall maintain the seeded areas until the lawn, as such, is free from bare spots and off color areas and until final acceptance of the entire project.

G20.2 All shrubbery which is temporarily removed to accommodate construction of the sewer line shall be promptly replaced after the backfilling is completed and shall be fertilized and otherwise treated to insure restoration to a condition existing prior to installation of the sewer. Shrubby which is not successfully removed and replaced, and hence, does not survive, shall be replaced or otherwise made good by the CONTRACTOR with the respective property owner(s).

G20.3 Any trees that die or partially die due to construction within 18 months after completion of construction are to be removed and replaced by the CONTRACTOR under the CONTRACTOR's maintenance warranty.

### **G21 Removal and Replacement of Mail Boxes, Traffic Directional Signs, Sidewalks, etc.**

G21.1 The plans do not show the location of existing mail boxes, traffic signage, certain sidewalks, retaining walls, and other miscellaneous improvements which are visible on the surface of the ground and which may require removal and replacement or, are damaged or destroyed during the course of (or in order to accommodate) construction activities. All such facilities shall be required to be restored as soon as is practicable after removal and/or destruction, in accordance with the directions of the ENGINEER.



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### **G22 Restoration of State Highways and Township Street and Driveway Surfaces**

G22.9 Where the proposed sewer crosses existing concrete driveways all concrete paving shall be restored by neatly replacing the entire concrete slab back to the existing control joint or expansion joint. The concrete shall be reinforced with 6 x 6 x 10 gauge wire mesh.

G22.10 Where the proposed sewer crosses existing stone, slag or gravel driveways the driveway shall be restored by placing a 4" thick lift of crushed limestone for the full width of the disturbed area. The limestone shall consist of hard, tough, durable stone free from slaty texture or cleavage planes. The limestone shall be secured from a PADOT approved supplier. Sandstone, shale, slag etc., will not be an acceptable substitute.

G22.11 The CONTRACTOR is cautioned that damage caused by tracked equipment on any finished road, street, driveway, sidewalk, etc. surface outside of the trench area will be restored by the CONTRACTOR at his cost.

