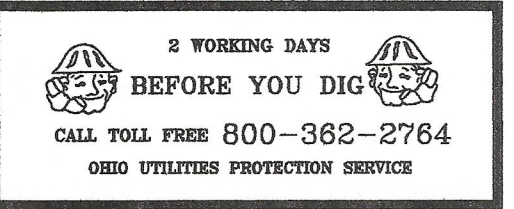


RichMir  
Private Adult Community  
Village of West Jefferson, Madison County,  
Ohio— Sanitary Sewers

GENERAL NOTES  
& ESTIMATED QUANTITIES



The City of Columbus Construction and Material Specifications, (hereafter referred to as C.C.M.S.) current edition, including all supplements thereto, shall govern all construction items that are a part of this plan unless otherwise noted.

Any modifications to the specifications or changes to the work as shown on the drawings must have prior written approval by the Village of West Jefferson.

The Contractor is responsible for the investigation, location, support, protection, and restoration of all existing utilities and appurtenances whether shown on the plans or not, prior to the beginning of his construction operations. The information shown concerning existing utilities is only as accurate as the information provided by the owners of the utility company, and is not represented, warranted or guaranteed to be complete or accurate. The Contractor shall support, protect, and restore all existing utilities and their associated items, and the cost of this work shall be included in the price bid for the various related items. The City of Columbus and the Engineer assume no responsibility for the accuracy or depths of the underground facilities.

The Contractor shall notify the registered utility protection service and all utility owners having facilities in the construction area, in accordance with Section 153.64, Ohio Revised Code, at least two (2) working days prior to commencing construction operations, and shall coordinate his work with them, and shall keep the utility owners apprised of his schedule and requirements until all work is completed.

Notice shall be given to the Ohio Utilities Protection Service (telephone 1-800-362-2764), at least 72 hours prior to construction. The following utilities are known to have underground facilities in the project area and are not members of a registered underground utility protection service:

Access to all adjoining property owners shall be maintained at all times.

All concrete pipe, storm structures, and sanitary structures shall be stamped or have such identification noting that said pipe, storm structures, or sanitary structures have been inspected by the City of Columbus and meets the City specifications. The Village of West Jefferson will not permit installation of pipe and structures without proper identification.

Service risers, Item 914, shall be installed where depths from the wyes to the existing or proposed elevations exceed 10 feet. The tops of risers shall be no more than 9 feet below existing or proposed surface elevation, whichever is higher.

All PVC sewer lines shall be deflection tested after installation, in conformance with requirements of Item 901 of the C.C.M.S. current version.

Erosion and Sediment Control measures are required as part of this project, and are indicated on the plans. Land disturbing activities must comply with all provisions of the City of Columbus Division of Sewerage and Drainage Erosion and Sediment Control Regulation. All land disturbing activities shall be subject to inspection and site investigation by the Village of West Jefferson and/or the Ohio EPA.

The Contractor shall insure that there is a surveyor's level and rod on the project site for use in performing grade checks whenever the sewer structures or pipe are being installed. The Contractor shall make this equipment available for use and assist the Village of West Jefferson inspector in performing grade checks when requested by the inspector. The inspector will make all reasonable attempts to confine requests for assistance in performing grade checks to times convenient to the Contractor.

These checks will be performed to ensure the following:

1. Proper placement of each structure.
2. Proper installation of initial runs of pipe from a structure.
3. Grade, after an overnight or longer shutdown.
4. Grade, at any other time the inspector has reason to question grade of installation.

Grade checks performed by the Village of West Jefferson inspector in no way relieve the contractor of the ultimate responsibility to ensure construction to the plan grade.

The use of compacted granular material per Item 912 of the C.C.M.S. is required in all trenches under pavement within public right-of-way or where the front face of the trench paralleling the pavement is within 24 inches of the face of curb or edge of pavement. The granular material shall extend laterally 36 inches beyond the face of curb or edge of pavement. Elsewhere in the right-of-way, compact as per Item 911 for Storm or Sanitary Sewer.

**ENGINEER'S ESTIMATE OF QUANTITIES:** The engineer's estimate of quantities as shown on the construction drawings and contract documents are for information purposes only, and while they are believed to be complete and correct, the Contractor shall be responsible to complete the Project as to the intent shown on the drawings and described in the specifications and contract documents. No additional payment will be made to the Contractor for his failure to include in the total bid price, the cost of all work and materials to complete the Project as proposed.

**WORK LIMITS:** The Contractor shall confine his activities to the Project Site under development, the existing rights-of-way, construction easements, and permanent easements, and shall not trespass upon private property without written consent of the property owner.

**SURPLUS EXCAVATION:** The Contractor shall dispose of all surplus excavation.

**MISCELLANEOUS WORK:** All items of work called for on the plans for which no specific method of payment is provided shall be performed by the Contractor and the cost of the same shall be included in the price bid for the various related items.

**SAFETY REQUIREMENTS AND PRECAUTIONS:** The Contractor and Subcontractors shall be solely responsible for complying with all federal, state, and local safety requirements, together with exercising precautions at all times for the protection of persons (including employees) and property. It is also the sole responsibility of the Contractor and Sub-Contractor to initiate, maintain, and supervise all safety requirements, precautions, and programs in connection with the work.

**TRAFFIC CONTROL:** Adequate lights, signs, flaggers, and barricades shall be used as required in Item 614 C.C.M.S. to safeguard the traveling public at all times. All trenches shall be backfilled or securely plated during non-working hours. Where it is anticipated that work will close a road or street, the Contractor shall inform the residents to be affected, the Police, the Fire Department, and the Division of Traffic as to the extent, nature, and the time of the anticipated work. The Contractor shall submit a plan and schedule for detouring traffic ten (10) days prior to the closing of any road or street. Any temporary closing of a road or street does not relieve the Contractor of the responsibility to provide access to the property by emergency vehicles and the owners. No road or street shall be closed until the schedule is approved by the West Jefferson Police Department.

All temporary traffic control devices shall be furnished, erected, maintained and removed by the Contractor in accordance with the Ohio Manual of Uniform Traffic Control Devices for Construction and Maintenance Operations current edition, copies of which are available from the Ohio Department of Transportation, Bureau of Traffic, 25 South Front Street, Columbus, Ohio 43215.

All permanent traffic controls not in conflict with the temporary traffic controls shall be maintained throughout this project by the Contractor. Permanent traffic controls may be temporarily relocated as approved by the Division of Traffic. The Contractor shall assume responsibility for missing, damaged, and improperly placed signs.

**PERMITS:** The Contractor shall obtain all necessary permits unless otherwise indicated in these documents.

**PROJECT LIMITS:** The Contractor shall confine his activities to the Project Site under development, the existing rights-of-way, construction easements, and permanent easements, and shall not trespass upon private property without written consent of the property owner.

**MISCELLANEOUS WORK:** All items of work called for on the plans for which no specific method of payment is provided shall be performed by the Contractor and the cost of same shall be included in the price bid for the various related items.

**DRAINAGE TILE:** All farm drains, roadway drains, and other drainage tile which are encountered within the trench limits during construction shall be provided with an unobstructed outlet. Existing collector tiles which are located below the proposed finished roadside swale elevation and which cross the trench shall be replaced within the trench limits by Item 603 Conduit. The location, type, size, and grade of required replacement shall be determined by the Project Engineer or his representative during construction. Payment shall be based on final measurements. If tile is encountered of sizes larger than those shown below, the contractor shall not damage or remove the tile, and no compensation shall be made to the Contractor for tile larger than those sizes shown below unless a bid item is provided for a specific size. Necessary bends or fittings, compacted granular backfill, and associated items shall be included in the conduit item price. The following contingency items have been included for the work noted above.

- Item 603 - 4" Conduit
- Item 603 - 6" Conduit
- Item 603 - 8" Conduit
- Item 603 - 10" Conduit
- Item 603 - 12" Conduit

**SURPLUS EXCAVATION:** The Contractor shall dispose of all surplus excavation.

Notice shall be given to the Ohio Utilities Protection Service (1-800-362-2764), for the member utilities. The following utilities are known to have underground facilities in the project area and are members of O.U.P.S.:

Columbia Gas Transmission 1440 McNaughten Rd. Columbus, OH 43232 614-863-0197	Qwest Communications 4650 Lakehurst Court Columbus, OH 43232 614-791-9441
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The following provided information which is shown on the plans to the same degree of accuracy as that provided to the Engineer. Some are members of O.U.P.S., and some are not:

Columbia Gas Transmission  
1440 McNaughten Rd.  
Columbus, OH 43232  
614-863-0197

The following companies replied to our O.U.P.S. request stating that their facilities are not affected by the project:

Sprint Long Distance Co. 545 Metro Place South Columbus, Ohio 43232 800-521-0579	MCI Worldcom 5000 Britton Road Columbus, OH 43085 800-950-5555	Madison County Engineer 222 Garfield Avenue London, OH 43140 740-852-9404
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The following companies did NOT reply to our O.U.P.S. request, but still may have facilities in the project area:

Ameritech 150 East Gay Street Columbus, OH 43215 800-558-1644	Columbus Gas 200 Civic Center Drive Columbus, OH 43215 800-440-6111	Time Warner 1125 Chambers Road Columbus, OH 43212 888-333-0520
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**STREET UNDERCUTTING:** In the event excavation for the street is from 0" to 6" below that called for on the plans, the Contractor will be required to replace this excess excavated material with compacted granular material, Item 304 (C.C.M.S.) as directed and at no extra cost to the Owner.

**INSTALLATION IN EMBANKMENT:** Where sewers or water mains are to be installed in embankment areas, the embankment shall be placed and compacted in accordance with the specifications to a minimum of two feet above the pipe but sufficiently above the pipe to protect the pipe from damage due to further construction activities prior to the installation of the water main or sewer.

**TEMPORARY PAVEMENT:** Temporary Pavement Replacement shall be provided on permanent pavement damaged or removed by the Contractor in the performance of the work. As soon as the trench has been backfilled, temporary pavement shall be installed. The Engineer may require that all materials and equipment incidental to providing the temporary pavement be on the job site prior to removing the existing pavement. The temporary pavement shall consist of 2 inches of compacted bituminous material Item 405, (C.C.M.S.) placed upon 6 inches of compacted Item 304, (C.C.M.S.) aggregate base. Temporary pavement shall be maintained by the Contractor until permanent pavement is installed.

**PERMANENT PAVEMENT:** Where damaged or removed, the pavement shall be replaced by first removing the temporary pavement down to the clean granular material and removing the existing pavement for at least 12 inches beyond the trench limits on each side. The pavement to be removed shall be neatly sawed, not more than 72 hours prior to the placing of permanent pavement materials. The permanent pavement replacement materials and workmanship shall be as shown on the construction drawings or the City of Columbus Standard Construction Drawings, Item 407 (C.C.M.S.) Tack Coat shall be applied to the exposed existing pavement edges, when either the existing or new pavement is bituminous material, and Item 407 (C.C.M.S.) Tack Coat or 408 (C.C.M.S.) Prime Coat shall be applied to the base material, depending upon the base material, when the permanent pavement is bituminous material, prior to the placing of the permanent pavement.

**MANHOLE TOPS:** Where manholes are located within public or private pavement, sidewalk, concrete pad, or paved shoulder, the tops shall be built to existing pavement elevations. Elsewhere manholes shall be built or subsequently adjusted to provide positive drainage away from the manhole. The cost of adjustment is to be included in the price bid for the manhole.

**FINAL GRADING AND CLEAN-UP:** The Contractor shall clean up all debris and materials resulting from his operation and restore all surfaces, structures, ditches, and property to its original condition to the satisfaction of the Engineer. All signs, mailboxes, fences, guardrails, roadside ditches, or other physical features disturbed or damaged during work under this contract shall be restored to their original condition by the Contractor. The cost of all such work shall be included with the various related items.

**SEEDING AND MULCHING:** All areas disturbed during construction shall be restored to their original condition and elevation, and proper drainage shall be provided. After final grading, the seed bed shall be raked and all stones, clods, lumps, etc. greater than 1" in diameter shall be removed prior to seeding and mulching. All areas shall be seeded as per the urban seed mix of Section 659.09 (C.C.M.S.). Contractor shall re-seed and mulch as necessary until an acceptable stand of grass is achieved.

**EROSION CONTROL:** The Contractor shall install and maintain silt fences, ditch checks, temporary seeding, and other measures as necessary to control soil erosion per the Ohio E.P.A. Storm Water Regulations. The Contractor shall use "Verti-pro" and "Dandy-bag" by Alpine Stormwater Management 888-539-8240 or other approved equivalent products for inlet protection.

**TRENCHES:** All trenches for flexible storm sewers or sanitary sewers that are parallel or crossing existing or proposed streets or roads shall be backfilled with type B backfill from the top of the bedding material up to a line of influence at a 1:1 slope down from the edge of the street or road.

**GRAVITY SEWER PIPE:**

(1) Polyvinyl Chloride Pipe, ASTM D 3034, SDR 35 up to 15 inches in diameter, with joints conforming to ASTM - D 3212.

**MANHOLES:** Manholes shall be pre-cast concrete in accordance with ASTM C-478.

**SEWER TESTING:** The Contractor shall furnish all labor, equipment, and materials which are required to test the sections of the sanitary sewer conduit for tightness. Either the infiltration test or exfiltration test will be performed and all tests shall be conducted under supervision of the Engineer. The tests for leakage shall include all portions of the sanitary sewer system including service lines that are installed by the Contractor. The sewer shall be tested in sections, each section extending between two consecutive manholes or from the end of the sewer to the nearest manhole. The allowable leakage shall not exceed 100 gallons per day per mile of pipe per inch of pipe diameter tested, or the computed equivalent for shorter periods of time. In lieu of a hydrostatic test, the Contractor may use an air test as described in the Construction and Material Specifications. Manholes shall be tested by vacuum if the sewers are tested utilizing the air test.

**WYE POLES:** The Contractor shall furnish and place, as directed, approved wye poles made of 2" x 2" lumber at all wye locations, ends of extended services or at the end of each riser where risers are required. The cost of these poles shall be included in the price bid for the various sewer items.

**SERVICE CONNECTIONS:** Services or house connections shall not be connected to the lateral or main line sewers shown hereon until full approval of said lateral or main line sewer has been received.

**STORM WATER CONNECTIONS:** No foundation drain, roof drain, or other storm water drain of any kind will be allowed to connect into the sanitary sewer.

**MANHOLES IN DITCHES:** The sanitary sewer alignment shown on these plans is intended to avoid placement of manholes in the flow lines of existing ditches. If it becomes necessary to locate a manhole in an existing ditch line, the Contractor shall set the top casting of the manhole at an elevation to prevent it from being submerged.

**TABLE OF ESTIMATED QUANTITIES**

ITEM	TOTAL	UNIT	DESCRIPTION
901	3077	L.F.	8" SANITARY SEWER PIPE
901	1983	L.F.	10" SANITARY SEWER PIPE
901	1919	L.F.	6" SANITARY SEWER SERVICE
604	31	Each	TYPE 'C' MH AA-S102
SPEC	7	Each	10"x6" WYE
SPEC	92	Each	8"x6" WYE

**STANDARD CONSTRUCTION DRAWINGS**

**CITY OF COLUMBUS**

Item	Description
AA-S102	Type "C" Manhole
AA-S106	Typical Assembly Combinations for Precast Manholes
AA-S107	Miscellaneous Items, Precast Manholes
AA-S111	Standard Dimensions for Manhole Frame and Cover Casting
AA-S117	Precast Manhole Base Channelization Detail
AA-S119	Manhole Steps Detail
AA-S149	Type I Bedding for Flexible Sewer Pipes 6" to 48" Diameter
AA-S160	Typical Sanitary House Connection Service
AA-S161	Typical Wye Riser (for Sewers 27" and Under) and Typical Cleanout
1441 DR. A	Pavement & Utility Cut Repair Standards

**SANDS DECKER LTD.**  
ENGINEERS PLANNERS

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Columbus, Ohio 43220

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**SCALE:**  
AS NOTED

**REVISIONS:**

PROJECT #: 1156