CITY OF HILLIARD, OHIO
PUBLIC WATER LINE IMPROVEMENTS
RIGGINS ROAD
2015
HP-876

BENCHMARKS N.A.V.D. 1988
The vertical datum is based on the elevation established by the Franklin County Engineering Department at monument 8847, being
963.094 feet in elevation, at monument 8855, being 977.204 feet in
elevation, and at monument 8856, being 970.904 feet in
elevation. The said monuments being source benchmarks with
elaborations that are based on the North American Vertical Datum of

DESCRIPTION
BENCHMARK
1. Interseion of Wicks Road and extended Hayden Run Road, on
a P/L south, access through Franklin County road monument
box. Monument is on the east line of WMS 5012, the west line
of WMS 5022, and on the Washington/Norwich Township line.
Monument replaced a found 5/8 inch solid iron pin 1 inches
depth.
Elev. = 291.58
PHIRESET
Brass plug on the northeast wingwall of Wicks Road bridge
wa 40-05-25 over Hayden Run, 0.03 miles north of Hayden
Road, 28.9 feet east of the centerline of Wicks Road.
Elev. = 291.58
BM #1
Chiseled square on the east rim of a storm grated manhole, located 10 feet west of the edge of pavement of Wicks
Road, 900 feet north of the intersection of Hayden Run Road and Wicks Road.
Elev. = 291.58
BM #2
Chiseled "K" on the east bolt of a fire hydrant, located on the
First Fire hydrant of Silverton Way on the west
side of Wicks Road.
Elev. = 291.58
BM #3
Chiseled "K" on east flange bolt of fire hydrant, 30 Feet
north of northeast property corner of residence 5087
Every Road, on the west side of Every Road.
Elev. = 291.58
BM #4
Railroad spikes in the east side of the left utility pole north
from the intersection of the railroad tracks and Every
Road, being on the west side of Every Road.
Elev. = 291.58
BM #5
Chiseled "K" on the north bolt of a metal sign pole
located at the southeast corner intersection of Every
Road and Hayden Run Road.
Elev. = 291.58

REVISIONS

<table>
<thead>
<tr>
<th>REV. NO.</th>
<th>DATE OF REV.</th>
<th>SHEETS REVISED</th>
<th>DESCRIPTION OF REVISION</th>
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<th>DATE OF APPROVAL</th>
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STANDARD DRAWINGS

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<th>ODOT</th>
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PLAN PREPARED BY
STRUCTUREPOINT

LOCATION MAP

LATITUDE: 40° 03' 42" N
LONGITUDE: 83° 09' 06" W

CITY OF COLUMBUS APPRAVAL
Approval on the part of the City of Columbus is shown pursuant
to provisions of the water service agreement between the City
of Hilliard and the City of Columbus, Ohio, dated Feb., 09, 1990,
and all subsequent amendments thereof.

APPROVED RE: Director of Public Utilities
City of Columbus, Ohio

APPROVED RE: Director of Public Utilities
City of Columbus, Ohio

DATE: 11/11/1990
GENERAL NOTES

1. The regulations and construction standards of the City of Hilliard, Franklin County, and the Ohio Department of Transportation (ODOT) will govern all construction items that are a part of this plan unless otherwise noted.

2. The Engineer or his authorized representative will perform periodic inspections during the work. The City Engineer will require all 48 hours written notice before any work takes place. Failure to request the necessary inspection may result in the rejection of the work and the project.

3. It is the intention of the plans to provide and require a complete project ready for operation, and any work items omitted from the plans, which are necessary for completion of the work, and its appearance shall be considered a part of each work, though not directly specified or called for in the plans. This includes, but is not limited to: construction of sidewalks, barriers, restriping, and removal and/or resurfacing of signs, aproners, or other miscellaneous items.

4. All items of work called for on the plans for which no specific method of payment is provided shall be performed by the Contractor with the cost to be included in the unit price bid for the various related items.

5. The Contractor shall deposit the total estimated cost for inspections, as determined by the City Engineer, with the City of Hilliard prior to the start of construction.

6. The Contractor shall provide the City of Hilliard, a surety acceptable to the City of Hilliard, equal to 100% of construction costs, the surety shall guarantee the work for acceptance by the City Engineer.

7. The City Engineer will not be responsible for means, methods, procedures, techniques, or sequences of construction that are not specified herein. The City Engineer will not be responsible for safety on the work site, or the failure by the Contractor to perform work according to plans.

8. Approval of these plans is contingent upon all applicable Federal, State and Local safety and material specifications of the City of Columbus and the Ohio Department of Transportation (ODOT), including the requirements for continuous spans over 29 CFP 910.146.

9. The Contractor/Developer shall perform all work in accordance with all applicable Federal, State and Local safety and material specifications of the City of Columbus and the Ohio Department of Transportation (ODOT), including the requirements for continuous spans over 29 CFP 910.146. The Contractor/Developer shall be responsible for the protection of all existing utilities and appurtenances whether shown or not.

10. The Contractor shall complete his operations as soon as possible after the City Engineer has furnished the Contractor with the proper notice. The Contractor shall make all necessary adjustments in location and elevation of the work, and when notified by the City Engineer, shall cease operations for the protection of all existing utilities and appurtenances whether shown or not.

11. The Contractor shall complete his operations as soon as possible after the City Engineer has furnished the Contractor with the proper notice. The Contractor shall make all necessary adjustments in location and elevation of the work, and when notified by the City Engineer, shall cease operations for the protection of all existing utilities and appurtenances whether shown or not.

12. The Contractor shall come to an agreement with the Ohio Professional Surveyor as approved by the City Engineer at the Contractor's expense.

13. Property boundaries, including all applicable Federal, State and Local safety specifications, are shown on the drawings and typical sections.

14. The Contractor shall be responsible for having the finished work conform to the dimensions, grades, elevations and dimensions called for on the drawings and typical sections.

15. Any device shall not be operated at any time in such a manner that it is not substantially effective or manufactured specifically for the reason and necessary to the reasonable and efficient performance of such equipment, pursuant to Hilliard City Code, Section 509.06, construction activity is only permitted between the hours of 7:00 a.m. and 7:00 p.m. any construction activity beyond these hours requires a written request to the Director of Public Service meeting the requirements of Hilliard City Code, Section 509.06.

16. Paving shall be cut in neat, straight lines the full depth of the existing pavement, or as required by the City Engineer.

17. All soil subgrade shall be prepared and compacted in accordance with TTA 904 to a depth of 3 inches below the subgrade surface. Subgrade shall be scarified and contain sufficient moisture to meet or exceed 103 compaction requirements.

18. The Contractor is not permitted to use any reclaimed materials, as specified herein, the contractor shall be responsible for the investigation, best available records and field investigation and all existing utilities and appurtenances whether shown or not.

19. The Contractor shall ensure the protection of all existing utilities and appurtenances whether shown or not.

20. The Contractor shall complete his operations as soon as possible after the City Engineer has furnished the Contractor with the proper notice. The Contractor shall make all necessary adjustments in location and elevation of the work, and when notified by the City Engineer, shall cease operations for the protection of all existing utilities and appurtenances whether shown or not.

21. The Contractor shall complete his operations as soon as possible after the City Engineer has furnished the Contractor with the proper notice. The Contractor shall make all necessary adjustments in location and elevation of the work, and when notified by the City Engineer, shall cease operations for the protection of all existing utilities and appurtenances whether shown or not.

22. The Contractor shall come to an agreement with the Ohio Professional Surveyor as approved by the City Engineer at the Contractor's expense.

23. Any modification of the work as shown on these drawings must have prior written approval by the Hilliard City Engineer.

24. The Contractor shall call toll-free, the Ohio Utilities Protection Service (800) 466-2222 seventy-two (72) hours in advance of the anticipated start of construction, and shall notify all utility companies at least forty-eight (48) hours prior to work in the vicinity of their lines.

25. Approval of these plans is contingent upon all applicable Federal, State and Local safety specifications, and material specifications of the City of Columbus and the Ohio Department of Transportation (ODOT) and the Ohio Department of Transportation (ODOT). The Contractor/Developer shall complete the work items as shown on the drawings and typical sections.

26. All water lines must be constructed with a minimum ten (10) feet horizontal and one & one-half (1 1/2) feet vertical separation. All existing drain lines encountered during construction shall be reconnected or connected to the storm sewer system by the Contractor, as approved by the City Engineer.

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28. NOT USED

29. Survey coordinates shall be referenced to the applicable City Engineer's monuments, and shall be based on the North American Datum of 1983 (NAD83) and the NGVD29. Additional survey coordinates are required on the water main every 500 feet where an improvement. Survey Coordination shall include the following:

30. The City of Columbus, Division of Water shall be responsible for the repair and maintenance of the water line within the easement area. Backfilling of any water line trenches or other water main structure is being installed within 3 feet of the trench 3 feet or closer to the back of curb or edge of pavement or located under a pedestrian path, shall be Compacted Granular Material, COLS Item 80.4, to 6 inches of finished grade. Backfill for all other water line trenches within the right-of-way parallel to the pavement, shall be Compacted Backfill, COLS Item 80.5. Prior to construction of the streets, the City Engineer may require soil test on the backfill. Where test results indicate that the backfill does not meet compaction requirements, the backfill shall be removed, replaced, and re-tested until meeting those requirements.

31. The Contractor shall give written notice to all City of Columbus Utilities workers at least three (3) working days prior to any test results indicate that the backfill does not meet compaction requirements, the backfill shall be removed, replaced, and re-tested until meeting those requirements.

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CITY OF HILLIARD FIRE HYDRANT SPECIFICATIONS


2. Main valve shall be compression type opening against the pressure, and closing with a slight pressure. Main valve seat shall be made of bronze and shall be designed to allow easy replacement in the field. The design shall eliminate the contact of dissimilar metals in areas of the hydrant that are subject to the continuous presence of moisture.

3. All internal working parts shall be removable from the top of the hydrant, with simple tools, and without disturbing the ground line joint or the upper section of the hydrant barrel.

4. Breakaway traffic features shall be provided, and shall include a breakaway safety flange on the ground line joint, and a breakaway coupling on the main valve seats of the ground line joint. The design shall assure that on heavy impact, the upper and lower sections of the hydrant will break apart cleanly without damage to any other hydrant parts. The ground line joint shall be designed to allow the nozzle section of the hydrant to be rotated 360 degrees.

5. Nozzles shall be bronze and replaceable, designed for easy removal from the hydrant barrel, in the field, with simple tools.

6. Main valve opening shall be 4½ inches in diameter for use in residential areas and 6 inches in diameter for use in commercial areas and multi-family developments as defined by the Ohio Building Code.

7. One (1) gate nozzle, 2½ inches inside diameter with National Standard threads.

8. One (1) pop-up nozzle, 4½ inches inside diameter with National Standard threads.

9. Main valve shall open counterclockwise (Right).

10. Operating nut shall be pentagon shaped, measuring 4½ inches from point to opposite flat.

11. Bury shall be five (5) feet unless otherwise specified.

12. Draining devices shall be eliminated or the drain holes plugged.

13. The shoe shall have a six (6) inch diameter inlet and a mechanical joint connection with accessories.

14. For publicly maintained hydrants (located in public street right-of-way or an abutting easement), the color of the hydrant body and cap shall be Royal Blue, Sherman Williams #6910 or approved equal, and the color of the barrel shall be white.

15. For privately maintained hydrants (located on private property), the color of the barrel and cap shall be red, and the color of the barrel shall be white.

CITY OF MILTON WATER NOTES

Only one connection to an existing water line is permitted. The discharge of a new water line has been completed. All other connections must be made after this line has been disinfected.

Water service boxes shall be placed 1½ feet from the edge of the proposed or existing sidewalk between the sidewalk and the curb, or if there is no sidewalk present or proposed. Refer to Standard Drawing L-899 for additional information.

When controlled density fill (item C) is to be used as backfill, the contractor shall provide size No. 17 Crushed Concrete Stone (CCS) 3 feet below to 1 foot above the existing water line.

No two (2) adjacent fire hydrants shall be taken out of service concurrently.

The contractor shall coordinate his work such that no water customer will have their service interrupted more than two (2) times during the duration of the project.

PLUG & THRUST BLOCK

In addition to the requirements of section 800 of the Columbus CMS and Columbus Std. Dwg. L-7001, the payment for all plug & thrust blocks shall include tools, labor, and material necessary. Payment shall be included within the price of the waterline. No separate payment shall be made.

CONCRETE SUPPORTS

Concrete supports shall be provided at all horizontal and vertical bends, tees, plugs, valves, joint definitions, fittings and hydrants and as designated on the plans and/or as required by the governing specifications.

The Contractor is fully responsible for providing backfill sufficient to guarantee the operation of the pipe under both the test and design pressures. All costs shall be included within the price of waterline items.

SHUTDOWN

If required, hours of shutdown for all water facilities shall be coordinated 72 hours in advance of work with the City of Columbus.

USE OF CONTROL DENSITY FILL FOR WATERLINE BACKFILL

The Contractor may use controlled density fill in accordance with section 600 of the CMS, conditioned upon approval by the City of Columbus and at the Contractor's expense. No separate payment shall be made for controlled density fill and the casing pipe required as defined in 601.08. No separate payment shall be made.

Some City of Columbus water notes are not shown if they are duplicated in the City of Milton Water Notes section. City of Milton water notes have been modified to include City of Columbus language wherever applicable.

WATER LINE NOTES QUANTITIES & SERVICE TABLE

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<tr>
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<th>UNIT</th>
<th>DESCRIPTION</th>
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<td>Lamp</td>
<td>Clearing and grubbing</td>
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<td>207</td>
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<td>L.F.</td>
<td>Perimeter Filter Fabric Fans</td>
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The intent is to construct this public water line under the same construction contract as the public sanitary sewer as shown designated CC-4471, FW 180, and NF-875. Quantities that are needed for both plans have been included in this plan set.
Sta 148 + 35.00, 80.0' Lt 16" Plug & Thrust Block 5' to M=33.00, 80.0' LT
Sta 148 + 15.00, 80.0' Lt 16" Valve | Elev = 905.80
Future basin by others

Sta 146 + 85.00, 80.0' Lt 16" X 6" Anchoring Tee | Elev = 906.65
Future roadway by others

Profile Scale: 1"=20' Horiz, 1"=5' Vert
GENERAL NOTES FOR EROSION CONTROL

Site data
Owner:
City of Hilliard
3820 Municipal Way
Hilliard, Ohio 43026
614-676-7561

Developers
Franklin County Engineer
970 Dublin Road
Columbus, Ohio 43216
614-525-3030

Plan designer:
American Structurepoint
2950 Corporate Exchange Drive
Columbus, Ohio 43231
614-901-2235

Development type Public Utility
Site coverage 20 Acres
Disturbed acreage 0.60 Acres
Site vegetation Farmstead

Adjacent areas: The site is bounded to the north by Silverton Farm, to the west by Farmland, to the east by Willow Rd, and to the Hilliard Grand development.

Receiving waters: The site drains south and to the East to Hayden Run.

Storm water management: Silt fences will be installed around disturbed areas to prevent runoff from construction. There are no storm inlets on site.

Storm water quality? There are currently no stormwater elements of these construction plans.

Sequence of construction
- Installation of the silt fence, construction entrance, and erosion control measures will occur before construction begins.

Maintenance notes:
The contractor's representative will inspect all erosion and sedimentation control measures weekly and within 24 hours after each rainfall event to assure that the measures are functioning properly. The contractor shall keep inspection report, copies of which shall be provided to the City of Hilliard or Ohio EPA upon request.

Construction roads/construction entrances:
Both temporary and permanent roads and parking areas may require periodic top dressing with new gravel. Seeded areas adjacent to the roads and parking areas should be checked periodically to ensure that a vigorous stand of vegetation is maintained. Roadside ditches and other drainage structures should be checked regularly to ensure that they do not become clogged with silt or other debris.

Filter fabric fences:
Filter fabric fences and filter barriers shall be inspected by the contractor immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately.

Sediment that is collected will be distributed on the protected portion of the site and stabilized. All stockpiles of earth and topsoil will be protected with temporary seeding or other means to prevent erosion. Should the fabric on a silt fence or filter barrier decompose or become ineffective prior to the end of the expected useful life and the barrier is still necessary, the fabric shall be replaced promptly.

Sediment deposits should be removed after each storm event. They may be removed when deposits reach approximately one-half (1/2) the height of the barrier. Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dredged to conform with the existing grade, prepared and seeded.

Inlet protection:
All storm sewer inlets shall be protected by sediment traps (inlet protection), which will be maintained and modified as required as construction progresses. The structure shall be inspected after each rainfall and repairs made as needed.

Sediment shall be removed and the trap restored to its original dimensions when the sediment has accumulated to one-half (1/2) the design of the trap. Removed sediment shall be deposited in a suitable area in such a manner that it will not erode. Any sediment blocking drainage at inlets that creates standing water on roadways and/or driveways shall be removed immediately.

Inlet protection structures shall be removed and the area stabilized when the remaining drainage area has been properly stabilized.

General land conservation notes:
All structural erosion and sediment control practices shall be placed prior to or as the first step in grading for all sites.

Permanent or temporary soil stabilization shall be applied according to the following Ohio EPA criteria:
- Permanent stabilization:
  - areas that will be dormant for more than a year.
  - within 7 days of the most recent disturbance.
  - areas within 50 ft of a stream and at final grade.
  - within 2 days of reaching final grade.
  - any other areas of final grade. Within 2 days of reaching final grade.

- Temporary stabilization:
  - areas within 50 ft of a stream and not at final grade.
  - within 2 days of the most recent disturbance. If the area will remain idle for more than 10 days,
  - any disturbed areas that will be dormant for more than 21 days but less than 1 year, and not within 50 ft of a stream. Within 7 days of the most recent disturbance within the area.
  - disturbed areas that will be idle over winter shall be stabilized prior to the onset of winter weather.

All temporary diversions, sediment basin endemements and earth stockpiles shall be stabilized and mulched for temporary vegetative cover within 7 days after grading.

Any disturbed area not stabilized with seeding, sodding, paving or built upon by November 1st, or areas disturbed after that date, shall be mulched immediately with hydro mulch of the rate of one (1) ton per acre and re-seeded by April 15th.

At the completion of construction, all denuded areas shall be stabilized and temporary sedimentation & erosion controls shall be removed once the site has been stabilized.
1. Stone size - use 2 inch stone.

2. Length - as required (Minimum of 50 feet).

3. Thickness - not less than 6 inches.

4. Width - 10 foot minimum, but not less than the full width at points where ingress or egress occurs.

5. Filter fabric - will be placed over the entire subgrade prior to placing of stone.

6. Surface water - all surface water flowing or diverted toward construction entrances shall be piped across the entrance.

7. Maintenance - The entrance shall be maintained in a condition that its function satisfies the intent described herein as a standard for ingress and egress from the construction site as needed for specific site conditions provided that its function satisfies the intent described herein as determined by the city engineer. The cost for this work shall be included in the various items of the contract.

8. Washing - wheels shall be cleaned to remove mud prior to spilled, dropped, washed, or tracked onto public rights-of-way which will prevent tracking or flowing of sediment onto public rights-of-way, post spacing shall not exceed 6 feet.

9. Silt fences shall be removed when they have served their useful purpose, but not before the up slope area has been permanently stabilized.

10. This work shall be paid at the unit price per linear foot for Item 207, stabilized.