

UNDERGROUND UTILITIES
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1-800-362-2764
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MUST BE CALLED DIRECTLY

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SERVICE CALL: **1-800-925-0988**

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CITY OF HILLIARD, OHIO
PUBLIC SANITARY SEWER IMPROVEMENTS
RIGGINS ROAD
2015
HP-875

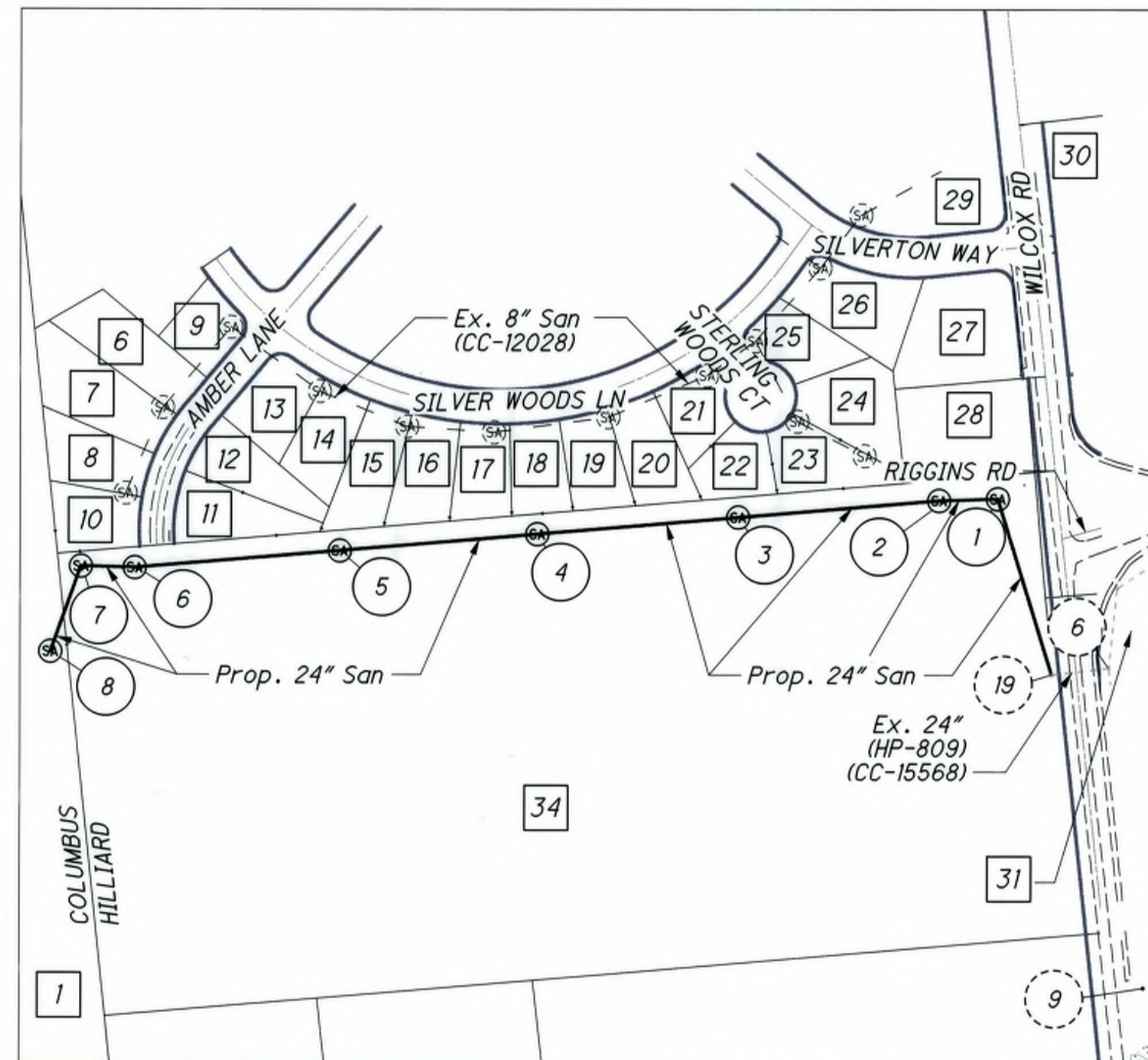
BENCHMARKS N.A.V.D. 1988

The vertical datum is based on the elevation established by the Franklin County Engineering Department, at monument 8847, being 923.094 feet in elevation, at monument 8855, being 927.054 feet in elevation, and at monument p14reset, being 895.249 feet in elevation. The said monuments being source benchmarks with elevations that are based on the North American Vertical Datum of 1988.

DESCRIPTION

- BENCH MARK** Aluminum cap in concrete monument, at the centerline intersection of Wilcox Road and relocated Hayden Run Road, on a P/L south, access through Franklin County road monument box. Monument is on the east line of VMS 3012, the west line of VMS 3022, and on the Washington/Norwich Township line. Monument replaced a found 5/8 inch solid iron pin 3 inches deep.
Elev. = 911.58
- PI4RESET** Brass plug on the northeast wingwall of Wilcox Road bridge was 40-00.05 over Hayden Run, 0.05 miles north of Hayden Run Road, 29.5 feet east of the centerline of Wilcox Road.
Elev. = 895.25
- BM #1** Chiseled square on the east rim of a storm grated manhole, located 10 feet west of the edge of pavement of Wilcox Road, 900 feet north of the intersection of Hayden Run Road and Wilcox Road.
Elev. = 910.39
- BM #4** Chiseled "X" on the east bolt of a fire hydrant, located on the first fire hydrant north of Silverton Way on the west side of Wilcox Road.
Elev. = 914.42
- BM #8** Chiseled "X" on east flange bolt of fire hydrant, 30 Feet north of northeast property corner of residence 5067 Avery Road, on the west side of Avery Road.
Elev. = 927.61
- BM #14** Railroad spike in the east side of the 1st utility pole north from the intersection of the railroad tracks and Avery Road, being on the west side of Avery Road.
Elev. = 931.16
- BM #16** Chiseled "X" on the north bolt of a metal signal pole located at the southwest corner intersection of Avery Road and Hayden Run Road.
Elev. = 921.61

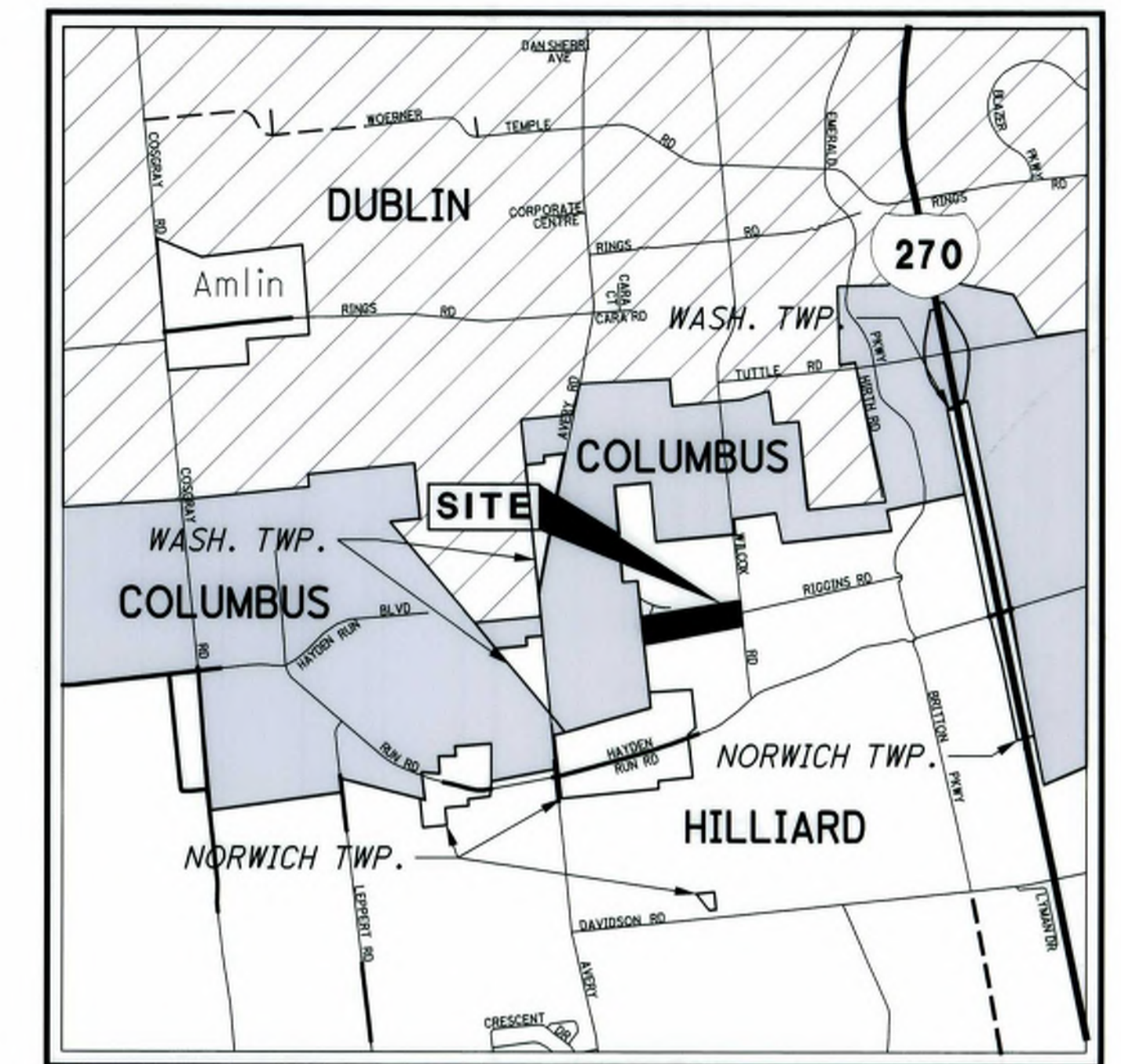
| REVISIONS | | | | | |
|-----------|--------------|----------------|-------------------------|-------------|------------------|
| REV. NO. | DATE OF REV. | SHEETS REVISED | DESCRIPTION OF REVISION | APPROVED BY | DATE OF APPROVAL |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |



Index Map
Scale: 1"=200'

For addresses and property owner information, see sheet 4

| STANDARD DRAWINGS | | | |
|-------------------|----------|---------|------|
| HILLIARD | COLUMBUS | | ODOT |
| | AA-S102 | AA-S111 | |
| | AA-S106 | AA-S149 | |
| | AA-S107 | AA-S150 | |
| | AA-S110 | AA-S151 | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |



LOCATION MAP

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



PLAN PREPARED BY:
AMERICAN
STRUCTUREPOINT
INC.

2550 CORPORATE EXCHANGE DR, STE 300
COLUMBUS, OH 43231
TEL 614.901.2235 FAX 614.901.2236
www.structurepoint.com

ENGINEERS SEAL:

STATE OF OHIO
VALERIE D. KLINGMAN
#E-62732
REGISTERED PROFESSIONAL ENGINEER

SIGNED: *Valerie D. Klingman*
DATE: 11-2-15

The signatures below signify only concurrence with the purpose and general location of the project. All technical details remain the responsibility of the engineer preparing the plans.

Reviewed By: *Alga R. Suder*
Date: 11/2/2015 Director Of Public Service/City Engineer
City Of Hilliard

CITY OF COLUMBUS APPROVAL
Approval on the part of the City of Columbus is given pursuant to provisions of the sanitary sewer service agreement between The City of Hilliard and the City of Columbus, Ohio, dated Oct. 27 1994, and all subsequent amendments thereof.
This sanitary sewer meets or exceeds City of Columbus design Standards (including per capita flow, peaking factor, and I/I Allowance) and material specification.

Approved: *Dax J. Blake*
Date: 11/30/2015 Administrator, Division Of Sewerage And Drainage
City Of Columbus, Ohio

Approved: *Greg J. Davis*
Date: 12-3-2015 Director Of Public Utilities
City Of Columbus, Ohio

HP-875
CIP S-40
CC-17147
PM 290

TITLE SHEET

PUBLIC SANITARY SEWER
IMPROVEMENTS RIGGINS ROAD

1
10

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GENERAL NOTES

1. The regulations and construction standards of the City of Hilliard, together with the current construction and material specifications of the City of Columbus (Cols) and the Ohio Department of Transportation (ODOT), including all supplements thereto, shall govern all construction items that are a part of this plan unless otherwise noted.
2. The City Engineer or his authorized representative will make inspection of the work. The City Engineer will require at least 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 completed project ready for operation. any work items omitted from the plans, which are clearly necessary for completion of the work, and its appurtenances shall be considered a part of such work, though not directly specified or called for in the plans. This includes, but is not limited to such incidental items as relocation of mailboxes, saw cutting, and removal and/or relocation of signs, sprinklers, 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 escost 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 one year after acceptance by the city.
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 easements required for construction of the work being secured and submitted to the City of Hilliard for recording prior to commencement of work. No work, which requires an easement, will be allowed to proceed until this is done.
9. The contractor shall perform all work in accordance with all applicable Federal, State and Local safety requirements including the Occupational Safety and Health Act of 1970. The contractor shall exercise precaution always for the protection of persons (including employees) and property. It shall also be the sole responsibility of the contractor to initiate, maintain and supervise all safety requirements, precaution and programs in connection with the work, including the requirements for confined spaces per 29 CFR 1910.146.
10. The Contractor/Developer shall be responsible to obtain all necessary permits.

11. The Contractor shall confine his activities to the project site, existing right-of-ways, temporary and permanent easements, and shall not enter upon other properties without written permission of the owner. if the proposed work requires entering easements upon other properties, the contractor shall notify the owner(s) in writing no less than 72 hours in advance of the commencement of the work, and copy the City on all correspondence. Failure to notify affected property owners may subject the contractor to the penalties associated with the violation of Hilliard City Code, Section 541.05, Criminal Trespass.
12. The Contractor shall carefully preserve benchmarks, property corners, reference points, stakes and other survey reference monuments or markers. In cases of willful or careless destruction, the contractor shall be responsible. Resetting the markers shall be performed by an Ohio Professional Surveyor as approved by the City Engineer at the Contractor's expense.
13. Property boundaries, including property lines and road right-of-way, are shown from the best information available and are not necessarily complete or correct.
14. The Contractor shall be responsible for having the finished work conform to the lines, 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 the noise created substantially exceeds the noise customarily and necessarily attendant to the reasonable and efficient performance of such equipment. pursuant to Hilliard City Code, Section 509.08, construction activity is only permitted between the hours of 7:30 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 509.08(b).
16. Pavements 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 item 204 to a depth of 12 inches below the subgrade surface. Subgrade shall be scarified and contain sufficient moisture to meet Item 203 compaction requirements.
18. The Contractor is not permitted to use any reclaimed materials in Item 304.
19. Non-rubber tired vehicles shall not be moved on or across public streets or highways without the written permission of the City Engineer.
20. Tracking or spilling mud, dirt, or debris upon streets, residential or commercial drives, sidewalks or bike paths is prohibited per Hilliard City Code, Section 905.12 and any such occurrence shall be cleaned up immediately by the Contractor. If the Contractor fails to remove said mud, dirt, debris, or spillage, the City of Hilliard reserves the right to remove these materials and clean affected areas, the cost of which shall be paid by the Contractor/Developer per Hilliard City Code, Section 905.13.
21. During construction the contractor shall provide adequate drainage and proper soil erosion control measuros for protection of all adjacent roads and lands, per Cols Item 207.

22. The Contractor shall restore all disturbed areas to equal or better than existed before construction. Drainage ditches or watercourses that are disturbed by construction shall be restored to the grades and cross-sections that existed before construction.
23. The Contractor shall conduct his operations so as to maintain at all times sewer, drain, and ditch flows through existing facilities to remain in place and through existing facilities to be replaced until new facilities are completed and put into service. The Contractor, to a condition satisfactory to the City Engineer, shall restore the flow of all sewers, drains, and other watercourses disturbed during the prosecution of the work.
24. Any modification of the work as shown on these drawings must have prior written approval by the Hilliard City Engineer.
25. The Contractor shall call toll free, the Ohio Utilities Protection Service (OUPS) at 1-800-362-2764 seventy-two (72) hours in advance of the anticipated start of construction, and shall notify all utility companies at least forth-eight (48) hours prior to work in the vicinity of their lines.
- | Utility | Owner | Telephone # |
|-----------------|------------------------|----------------|
| Sanitary Sewer | City of Hilliard | (614) 876-7361 |
| Storm Sewer | 3800 Municipal Way | |
| Street Lighting | Hilliard, OH 43206 | |
| Water mains | City of Hilliard | (614) 876-7361 |
| | 3800 Municipal Way | |
| | Hilliard, OH 43206 | |
| Telephone | AT&T | (614) 223-7162 |
| | Tom Ziomek | |
| | 111 N. 4th St., Rm 802 | |
| | Columbus, OH 43215 | |
| | Qwest | (614) 215-5606 |
| | Chris Strayer | |
| | 4650 Lakehurst Ct | |
| | Dublin, OH 43016 | |
| Electric | AEP Distribution | (614) 883-6831 |
| | Paul Paxton | |
| | 850 Tech Center Drive | |
| | Gahanna, OH 43230-6805 | |
| Gas/Pipe Line | Columbia Gas | (614) 481-1057 |
| | Rob Caldwell | |
| | 1600 Dublin Road | |
| | Columbus, OH 43215 | |
| | Marathon Pipe Line | (419) 421-2211 |
| | David Wisner | |
| | 539 South Main Street | |
| | Findlay, Ohio 45840 | |
| Cable TV | Time Warner cable | (614) 481-5262 |
| | Ray Maurer | |
| | 3760 Interchange Drive | |
| | Columbus, OH 43204 | |
26. Exieting utilities shown on the plan are from the best available records and field investigation and are not necessarily complete or correct. The Contractor is responsible for the investigation,

- location, support, protection and restoration of all existing utilities and appurtenances whether shown or not.
27. The contractor shall expose and verify the location and elevation of any utilities within the limits of the proposed conduit path, prior to starting any excavation. In case of conflict, adjustments in location and elevation of the proposed utilities may be made if approved per general note #24, or arrangements shall be made to move the existing utility to provide adequate clearance.
28. All water lines must be constructed with a minimum ten (10) feet horizontal and one & one-half (1.5) foot vertical separation from all sewer lines. all non-water line utilities must be constructed with a minimum three (3) feet horizontal and one (1) foot vertical separation.
29. Existing drain tiles encountered during construction shall be reconnected or connected to the storm sewer system by the contractor, as approved by the city engineer. The cost of said work to be included in the unit price bid for the various related items.
30. All trenches within pavement, berm, and shoulder limits shall be backfilled or securely plated during non-working hours.
31. Access to all adjoining properties shall be maintained at all times. areas with multiple drives shall have at least half of the drives open at all times. Properties with a single access will require staged construction; short-term full closure of a single access will be permitted with the property owner and/or tenants agreement. Such full closures shall be scheduled and coordinated with the property owner/tenant.
32. At all storm sewer and sanitary sewer crossings, the trench backfill shall consist of Compacted Granular Material, COLS Item 912, between the deeper and shallower pipe. For water line crossings, see water line general note #13.
33. Compacted granular material, Cols Item 912 shall consist of natural, broken or crushed stone, crushed gravel, or crushed slag. Synthetic or man-made materials are unacceptable.
34. Backfill for storm sewer and sanitary sewer trenches under pavement and within the right-of-way shall be Compacted Granular Material, COLS Item 912, to the pavement subgrade. Where storm sewer and sanitary sewer trenches cross the pavement, COLS Item 912 shall extend the full width of the right-of-way, and to within 6 inches of finished grade where not under pavement. For backfill for water line trenches under pavement and within the right-of-way, see water line general note #14.

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35. Backfill for storm sewer and sanitary sewer trenches parallel to the pavement and within the right-of-way, with the top of the trench 3 feet or closer to the back of curb or edge of pavement or located under a pedestrian pathway, shall be Compacted Granular Material, COLS Item 912, to within 6 inches of finished grade. Backfill for all other storm sewer and sanitary sewer trenches within the right-of-way parallel to the pavement, shall be Compacted Backfill, COLS Item 911, except that compaction shall be to a minimum 95 percent maximum dry density. Prior to construction of the streets, the City Engineer may require soil tests 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. For backfill for water line trenches parallel to the pavement, see water line general note #15.

36. NOT USED

37. NOT USED.

38. All seeding shall be applied at the rate of 8 pounds (lb.) per 1,000 square feet (sf) and shall use the following seed mixture:

- 40% Titian tall fescue
- 40% Tarheel tall fescue
- 10% Denim kentucky bluegrass
- 10% Renaissance perennial rye grass

39. Commercial-grade complete fertilizer of neutral character, consisting of fast, and slow release nitrogen, 50% derived from natural organic sources of urea-form, phosphorous, and potassium and with the following composition shall be applied: composition: 13% nitrogen, 26% phosphorous, and 12% potassium by weight. Fertilizer should be applied at the rate of 6 pounds (lb.) per 1,000 square feet (sf).

40. All signs, landscaping, structures or other appurtenances disturbed or damaged during construction shall be replaced or repaired to the satisfaction of the city engineer. The contractor shall pay for the

41. At no point during construction shall Wilcox Road be closed. Construction traffic shall enter the site at the designated construction entrance off of Wilcox Rd. No construction traffic shall enter the site from Silverton Way, Silver Woods Lane, or Amber Lane.

SANITARY SEWER

1. Any modification of the work as shown on these drawings must have prior written approval by the Hilliard city engineer and the Administrator, Division of Sewerage and Drainage, City of Columbus.

2. Roof drains, foundation drains and other clean water connections to the sanitary sewer system are prohibited.

3. Temporary bulkheads shall be placed where indicated on the plans and shall remain in place until the city engineer directs removal.

4. All A.B.S. Composite wall sewer pipe wye fittings shall have a two-foot (minimum) service extension installed prior to the service being capped and backfill being placed over the mainline sewer.

5. Service risers, cols item 914, shall be installed where depths from the wyes to the existing or proposed ground elevation exceed 10 feet. The tops of risers shall be 9 feet +/- below the existing or proposed surface elevation, whichever is higher.

6. The contractor shall furnish and place as directed, approved wye poles made of 2"x2" lumber at all wye locations, ends of services, or at the end of each riser where risers are required. Wye poles shall be visible for each wye before acceptance by the city. The cost of these poles shall be included in the price bid for the various sewer items.

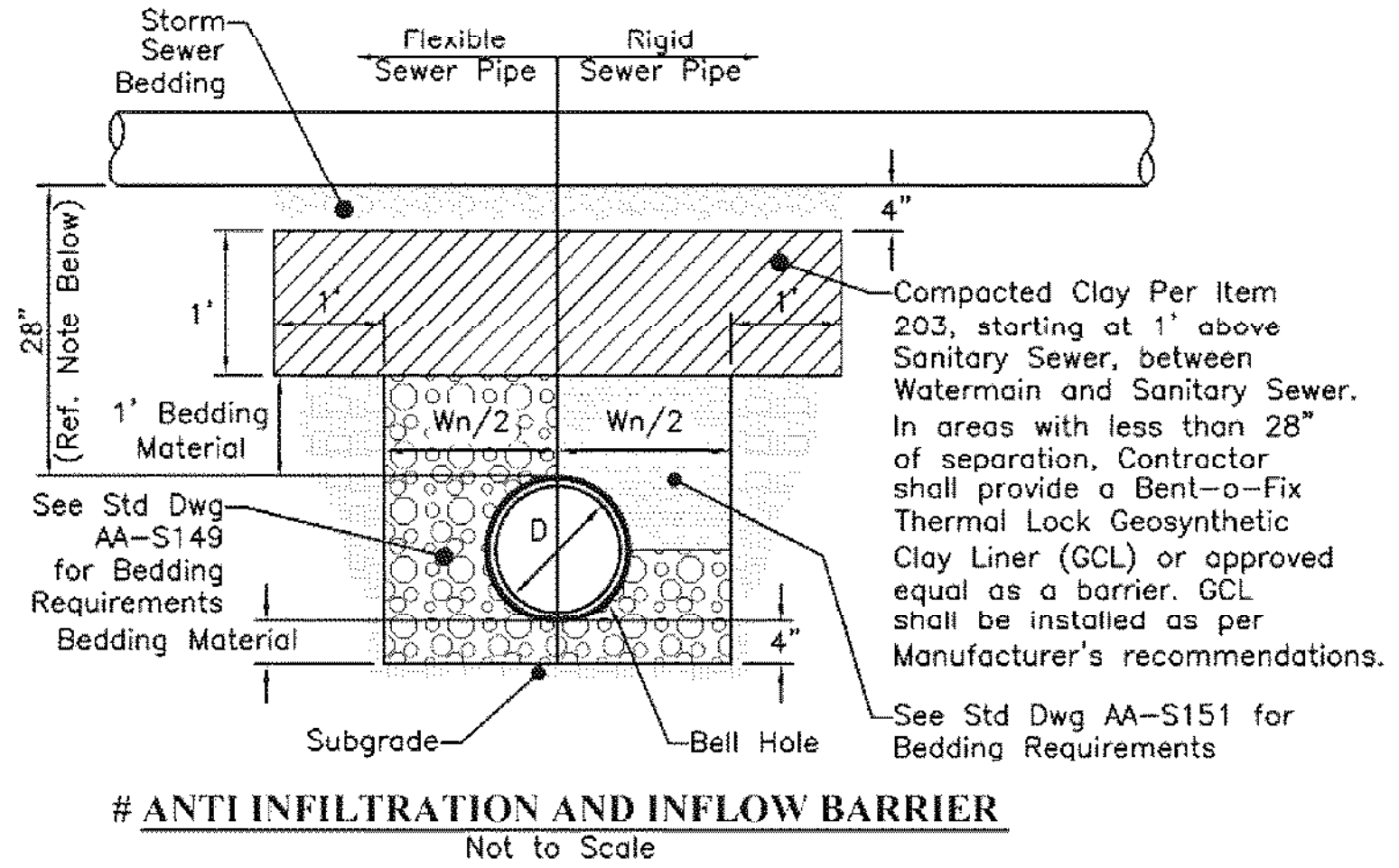
7. All pvc sewer lines shall be deflection tested after installation, in accordance with the requirements of item 901 of the City of Columbus, Construction and Material Specifications, current edition, and any supplements thereto.

8. Upon completion of construction for each phase of sanitary sewer work, the contractor, through its engineer, shall furnish the city engineer a tabulation of structure numbers, the elevation of the top of casting as proposed on the plans, and the elevation of the top of casting, as built. The city engineer will determine adjustments, if any, that are necessary and all necessary adjustments shall be done prior to submittal of "as built" drawings.

9. The original tracings, revised "as built", and two sets of prints shall be given to the city prior to any tap permits being issued, or acceptance by the city for the one year maintenance period. The information shown on the "as built" plans shall be from field measurements. Wye locations and the distance between manholes, for each section of sewer, shall be shown as measured from the nearest downstream manhole. Top of casting elevations for all manholes and any variance in the horizontal location of the sewer from that shown on the approved plans, shall be shown.

10. After sewers have been cleaned, passed all tests, and before acceptance, all main line sewers shall be video taped on CD or DVD with a notation of manhole numbers, an accurate distance between manholes and location of all wye branches from the nearest downstream manhole shall be shown on the video tapes. Copies of the video tapes shall be given to the city engineer prior to acceptance of the sewers.

| Flexible Sewer Pipe | | | | Rigid Sewer Pipe | | | |
|---------------------|------------------|-----|------------------|------------------|------------------|-----|------------------|
| * Inches | | | | * Inches | | | |
| D * | W _n * | D * | W _n * | D * | W _n * | D * | W _n * |
| 6 | 30 | 24 | 48 | 6 | 24 | 30 | 57 |
| 8 | 30 | 27 | 52 | 8 | 27 | 33 | 61 |
| 10 | 30 | 30 | 56 | 10 | 30 | 36 | 64 |
| 12 | 32 | 36 | 64 | 12 | 32 | 42 | 71 |
| 15 | 36 | 42 | 72 | 15 | 36 | 48 | 78 |
| 18 | 40 | 48 | 80 | 18 | 40 | 54 | 87 |
| 21 | 44 | | | 21 | 44 | 60 | 96 |
| | | | | 24 | 48 | 66 | 105 |
| | | | | 27 | 52 | | |



| ESTIMATE OF QUANTITIES | | | |
|------------------------------------|----------|------|-----------------------------|
| ITEM | QUANTITY | UNIT | DESCRIPTION |
| 604 | 8 | EACH | MANHOLE, TYPE "C" (AA-S102) |
| 901 | 2,085 | LF | 24" PIPE W/ TYPE 1 BEDDING |
| CALCULATED BY: AJR DATE:08/26/2015 | | | |
| CHECKED BY: VDK DATE:08/26/2015 | | | |

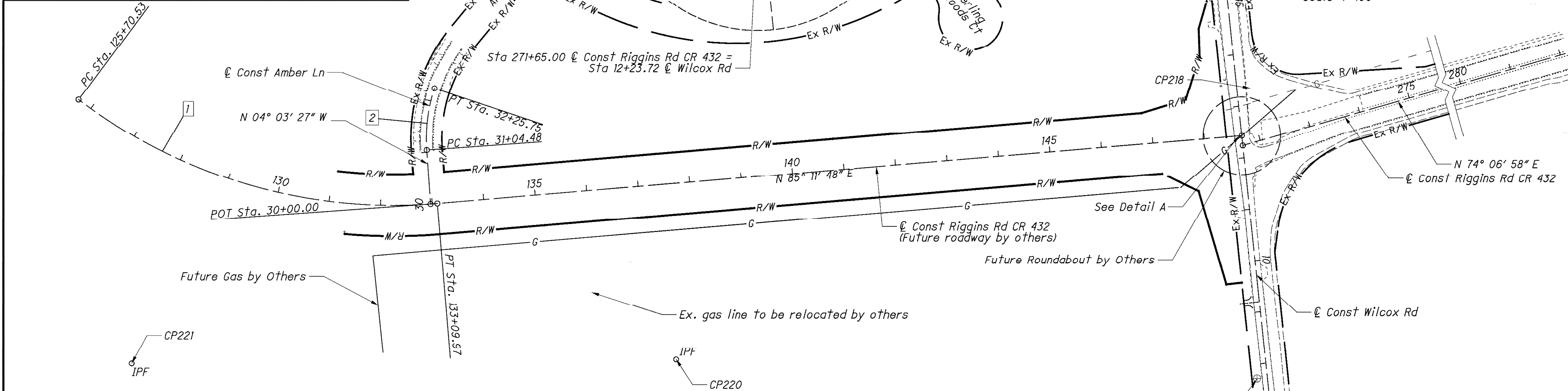
The intent is to construct this public sanitary sewer under the same construction contract as the public water line detailed in plan designated #14-152 and HP-876. Quantities that are needed for both plans have been included in the public water line plans.

All necessary dewatering measures shall be included in the cost of Item 901 24" Pipe. See the subsurface investigation report dated 08/2014 by S&ME for soil boring details.

HP-875

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| Control Points | | | |
|----------------|-----------|------------|------------------------------------|
| Point | Northing | Easting | Description |
| 22 | 751610.66 | 1783541.00 | IPIN - Not shown on sheet |
| 24 | 750411.25 | 1783697.70 | IPIN - Not shown on sheet |
| 216 | 749173.97 | 1783766.88 | IPIN - Not shown on sheet |
| 217 | 751396.67 | 1787087.54 | IPIN |
| 218 | 752068.80 | 1787055.28 | IPIN |
| 219 | 752445.48 | 1783516.94 | IPIN - Not shown on sheet |
| 220 | 751543.87 | 1785944.43 | IPIN |
| 221 | 751536.27 | 1784890.31 | IPIN |
| 600 | 750597.07 | 1787184.92 | FCGS5542RESET - Not shown on sheet |
| 601 | 751270.36 | 1787114.29 | FCGS6649 |
| 602 | 753386.24 | 1786890.07 | FCGS4461 - Not shown on sheet |
| 604 | 752402.12 | 1783488.75 | FCGS8855 - Not shown on sheet |



For parcel locations see sheet 1

| Lot No. | PID | Owner Name(s) | Address | Lot No. | PID | Owner Name(s) | Address |
|---------|---------------|-----------------------------------|----------------------|---------|---------------|---|-------------------------|
| 1 | 010-265649 | WHITE FAMILY FARM LTD | 5730 HAYDEN RUN ROAD | 21 | 050-010040-00 | METRO PROPERTY INC | PO BOX 243 |
| 6 | 050-010159-00 | JOHN KASHUBECK, ASMA MOBIN-UDDIN | 4949 AMBER LN | 22 | 050-010041-00 | LMR PROPERTIES LTD | 1 CORELOGIC DR |
| 7 | 050-010160-00 | FATMA KHOUJA, MOHAMED HAMZA | 4937 AMBER LN | 23 | 050-010042-00 | MARIA BLACK | 4914 STERLING WOODS CT |
| 8 | 050-010161-00 | MOHD A AND SAFA B ABURAYYAN | 4931 AMBER LN | 24 | 050-010043-00 | JAMAL AND TAHSEEN NAIYER | 4924 STERLING WOODS CT |
| 9 | 050-010158-00 | STACEY SAYLOR-VANDENBARK | 4953 SILVER WOODS LN | 25 | 050-010044-00 | FUAD AND HODA ALSHAMI | 4934 STERLING WOODS CT |
| 10 | 050-010162-00 | LAITH SAWALHA, DANA CUBIC-SAWALHA | 4921 AMBER LN | 26 | 050-010045-00 | GALA A KATABAY | 190 RED BLUFF LN |
| 11 | 050-010163-00 | ZAKI AHMED KHAN | 7913 WILTSHIRE DR | 27 | 050-010047-00 | CITY OF HILLIARD | 3800 MUNICIPAL WAY |
| 12 | 050-010164-00 | MUHAMMAD A AND BARI BARI | 4938 AMBER LN | 28 | 050-009945-00 | NOOR MEADOWS LLC | 5129 SILVER WOODS LN |
| 13 | 050-010165-00 | NUR AND JAMILA BADSHAH | 4937 AMBER LN | 29 | 050-010046-00 | AMERICAN ISLAMIC WAQF | PO BOX 20828 |
| 14 | 050-010166-00 | MAHMOUD QADOOM, FADYAH ALI | 5081 SILVER WOODS LN | 30 | 050-009940-80 | HILLIARD GRAND APARTMENTS LLC | 5399 GRAND DR |
| 15 | 050-010167-00 | RACHEL M HUGHES, ANDREW COOK | 5075 SILVER WOODS LN | 31 | 050-009958-90 | HILLIARD GRAND APARTMENTS LLC | 2 EASTON OVAL STE 510 |
| 16 | 050-010168-00 | ZAHD LATIF | 5065 SILVER WOODS LN | 34 | 050-009948-00 | NORTHERN TRUST COMPANY (TR) TRUEMAN, BARBARA | 545 METRO PL SOUTH #400 |
| 17 | 050-010169-00 | NADEEM A, SAMEERA SIDDIQI | 40626 BLUESPRINGS CT | | 050-009951-00 | | |
| 18 | 050-010037-00 | MOUIN KURDI | 5043 SILVER WOODS LN | | 050-009956-00 | | |
| 19 | 050-010038-00 | ZAHD LATIF | 5031 SILVER WOODS LN | | 050-009942-00 | | |
| 20 | 050-010039-00 | MOUNIR (TR), SANAA (TR) SANHAJI | 5023 SILVER WOODS LN | | | | |

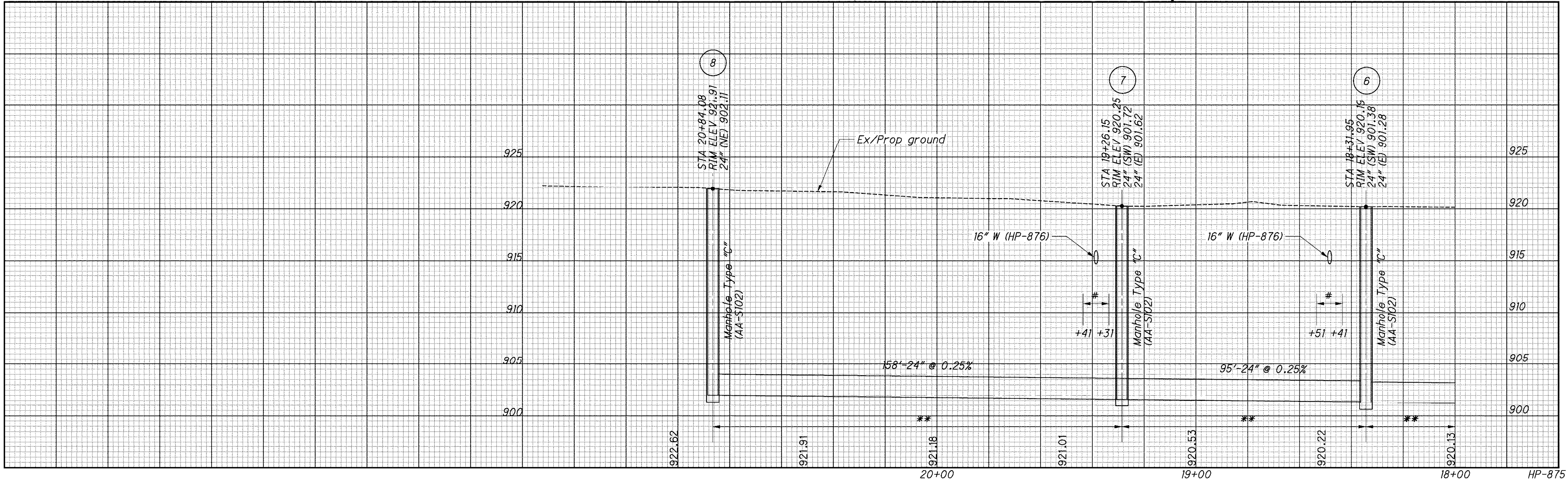
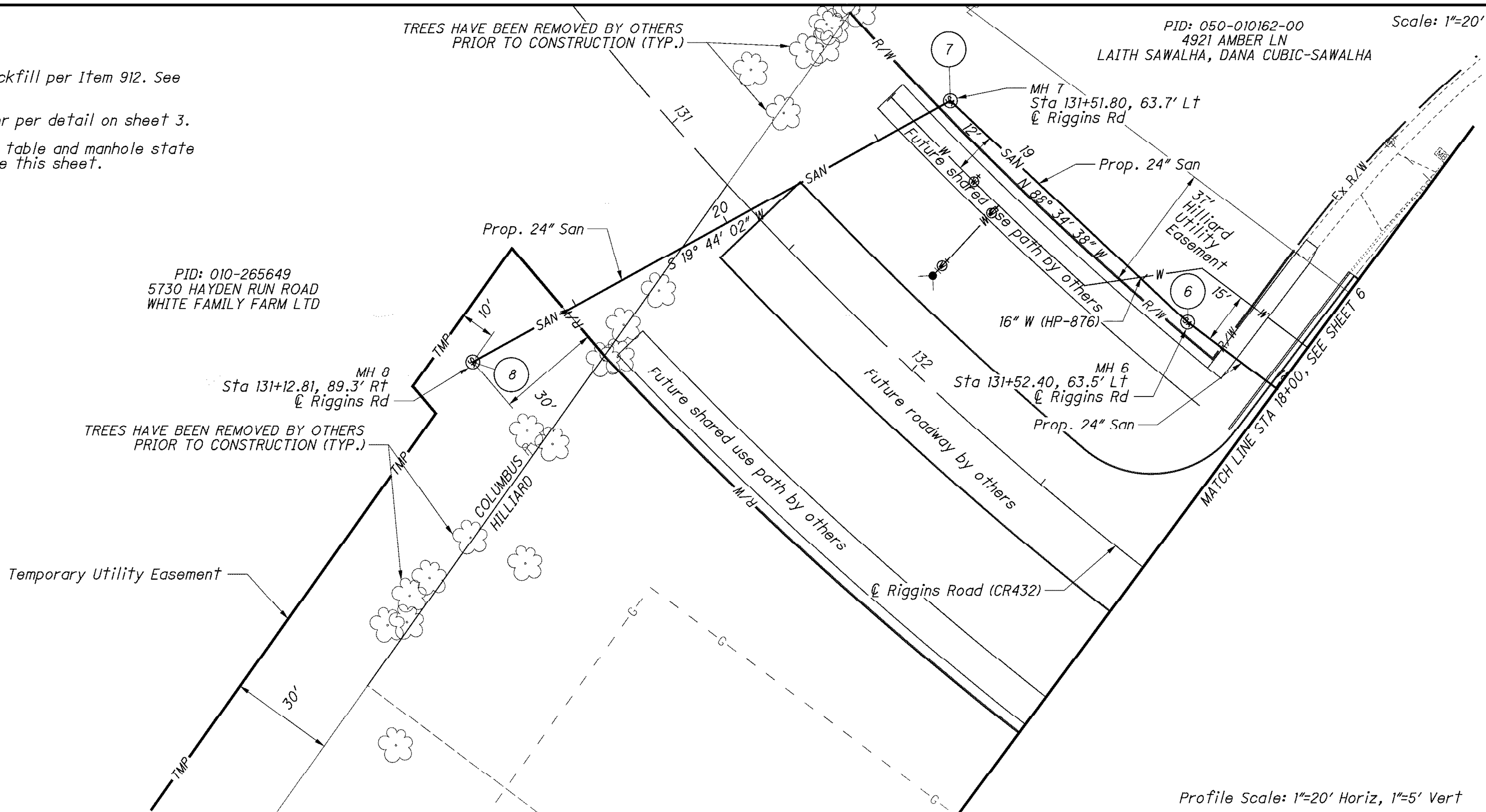
| 1 | Curve Data Riggins Rd | 2 | Curve Data Amber Ln |
|---|-----------------------------------|---|-----------------------------------|
| | P.I.Sta. 129+57.63 | | P.I.Sta. 31+65.90 |
| | $\Delta = 41^\circ 51' 53''$ (LT) | | $\Delta = 22^\circ 24' 53''$ (RT) |
| | $Dc = 5^\circ 39' 42''$ | | $Dc = 18^\circ 28' 57''$ |
| | $R = 1,012.00'$ | | $R = 310.00'$ |
| | $T = 387.10'$ | | $T = 61.42'$ |
| | $L = 739.44'$ | | $L = 121.27'$ |
| | $E = 71.51'$ | | $E = 6.03'$ |
| | $C = 723.10'$ | | $C = 120.50'$ |
| | C.B. - $S 73^\circ 52' 16'' E$ | | C.B. - $N 7^\circ 08' 59'' E$ |

NOTES:

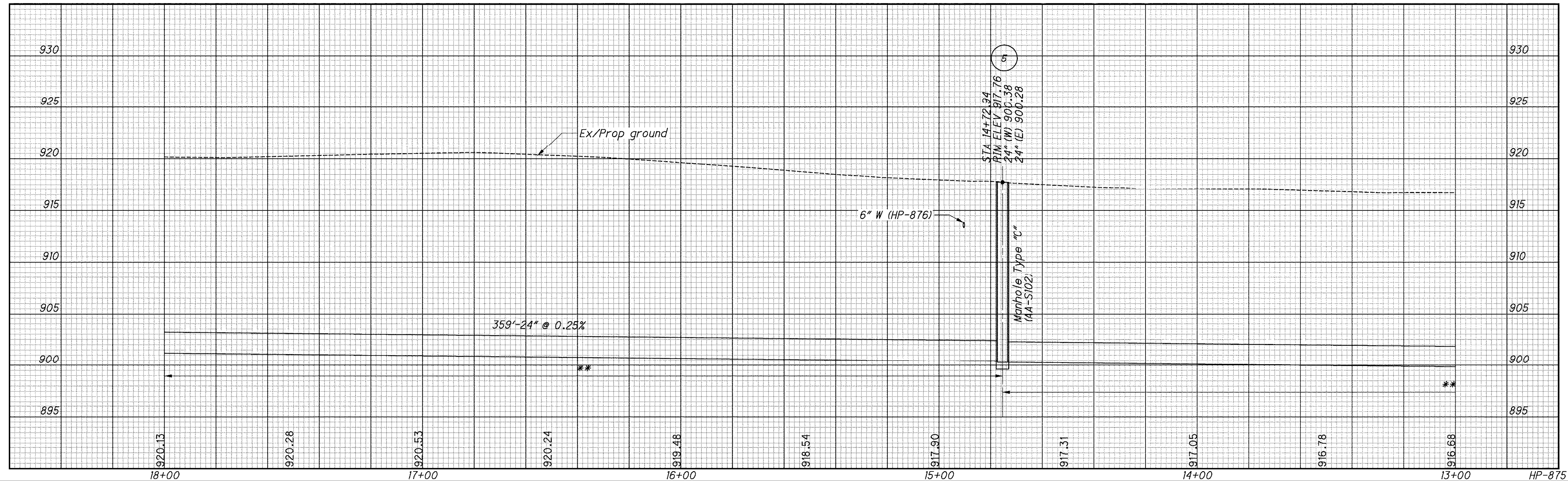
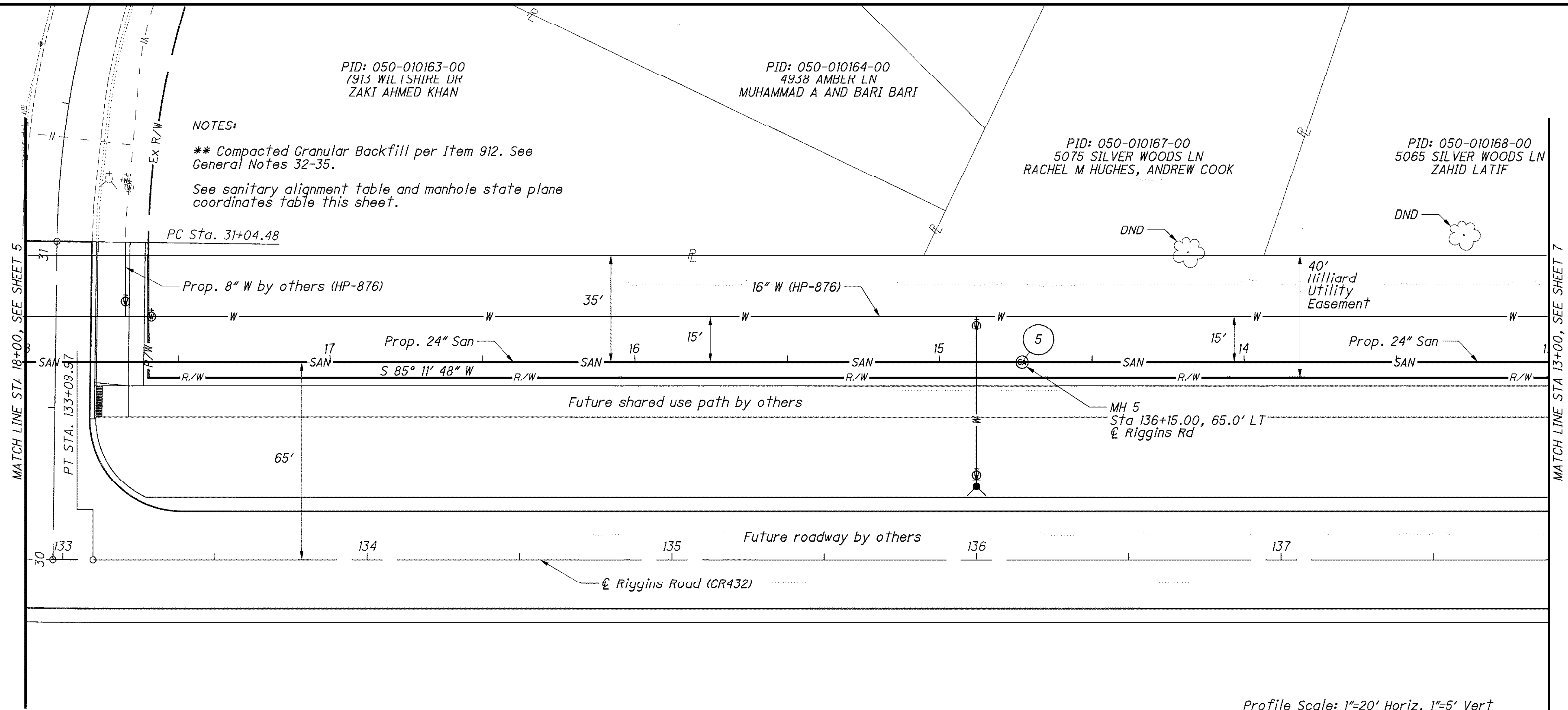
- ** Compacted Granular Backfill per Item 912. See General Notes 32-35.
- # Anti-Infiltration Barrier per detail on sheet 3.
- See sanitary alignment table and manhole state plane coordinates table this sheet.

| SANITARY ALIGNMENT TABLE | | |
|--------------------------|---------|-------------|
| LINE | LENGTH | BEARING |
| EX 19 - 1 | 320.75' | N17°02'45"W |
| 1-2 | 102.47' | S88°18'11"W |
| 2-3 | 352.00' | S85°11'48"W |
| 3-4 | 352.00' | S85°11'48"W |
| 4-5 | 345.72' | S85°11'48"W |
| 5-6 | 359.00' | S85°11'48"W |
| 6-7 | 94.20' | N88°34'38"W |
| 7-8 | 157.93' | S19°44'02"W |

| SANITARY MANHOLE COORDINATES | | | | |
|------------------------------|-------------|--------------|-------------|--------------|
| M.H. NO. | PLAN | | AS-BUILT | |
| | NORTHING | EASTING | NORTHING | EASTING |
| EX. 19 | | | 751720.7540 | 1787023.0740 |
| 1 | 752027.4112 | 1786929.0515 | | |
| 2 | 752024.3764 | 1786826.6202 | | |
| 3 | 751994.9014 | 1786475.8564 | | |
| 4 | 751965.4264 | 1786125.0926 | | |
| 5 | 751936.4775 | 1785780.5899 | | |
| 6 | 751906.4158 | 1785422.8441 | | |
| 7 | 751908.7548 | 1785328.6751 | | |
| 8 | 751760.1000 | 1785275.3500 | | |

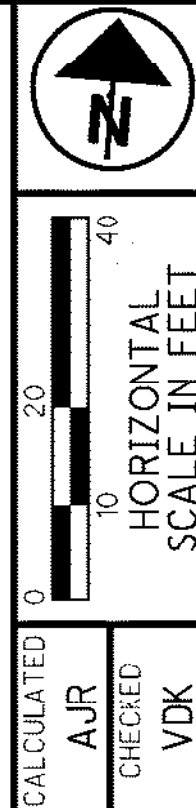


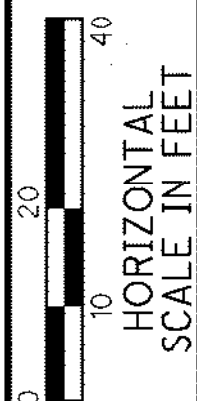
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SANITARY SEWER PLAN AND PROFILE
STA 13+00.00 - STA 18+00.00

PUBLIC SANITARY
IMPROVEMENTS RIGGINS
ROAD (CIP S-40)






| | |
|------------|-----|
| CALCULATED | AJR |
| CHECKED | MDK |

SANITARY SEWER PLAN AND PROFILE
STA 8+00.00 - STA 13+00.00

**PUBLIC SANITARY
IMPROVEMENTS RIGGINS
ROAD (CIP S-40)**



930

925

920

915

910

905

900

895

13+00

12+00

11+00

10+00

9+00

8+00

HP-873

916.68

916.52

916.25

916.08

915.91

915.84

915.63

915.52

915.26

914.94

914.58

346'-24" @ 0.25%

352'-24" @ 0.25%

6" W (HP-876)

Ex/Prop ground

Manhole Type "C"
(AA-5102)

STA 11+27.22
RIM ELEV 916.06
24" (W) 899.42
24" (E) 899.32

4

NOTES:
 ** Compacted Granular Backfill per Item 912. See General Notes 32-35.
 See sanitary alignment table and manhole state plane coordinates table this sheet.

NOTES:

**** Compacted Granular Backfill per Item 912. See General Notes 32-35.**

See sanitary alignment table and manhole state plane coordinates table this sheet.

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