

LEGAL NOTICE

Geauga County

Notice is hereby given that sealed bids will be received by the Geauga County Board of Commissioners at, 470 Center Street, Building 4, Chardon, Ohio 44024 until 1:45 P.M. official local time on Wednesday, February 20, 2019 for the **Wilson Mills Road Drainage Improvements, CH 8AC**. Bids received will be publicly opened and read aloud the same day at 2:15 P.M. The estimated construction cost for this project is **\$270,000.00**.

Copies of the surveys, plans, profiles, cross sections and specifications are on file with the Board of County Commissioners and may be obtained digitally online at <https://www.co.geauga.oh.us/Departments/Engineers-Office/Online-Plans> or a hardcopy is available at the Geauga County Engineer's Office, 12665 Merritt Road, Chardon, Ohio 44024.

A copy of this legal notice is posted on the county's internet site on the World Wide Web. Go to <https://www.co.geauga.oh.us/Notices/Bids> and click on the project name to view this legal.

A bid guaranty in the amount of one hundred (100%) percent of the bid amount or a certified check, cashier's check or letter of credit pursuant to Chapter 1305 of the Ohio Revised Code in the amount of ten (10%) percent of the total bid amount shall accompany each bid. The bid shall be let upon a unit price basis.

All contractors and subcontractors involved with the project will, to the extent practicable, use Ohio products, materials, services, and labor in the implementation of their project. Bidders must comply with the prevailing wage rates on Public Improvements as determined by the Ohio Department of Industrial Relations.

Bids may be held by the Geauga County Board of Commissioners for a period not to exceed sixty (60) days from the date of opening, for the purpose of reviewing the bids and investigating the qualifications of bidders, prior to awarding the contract.

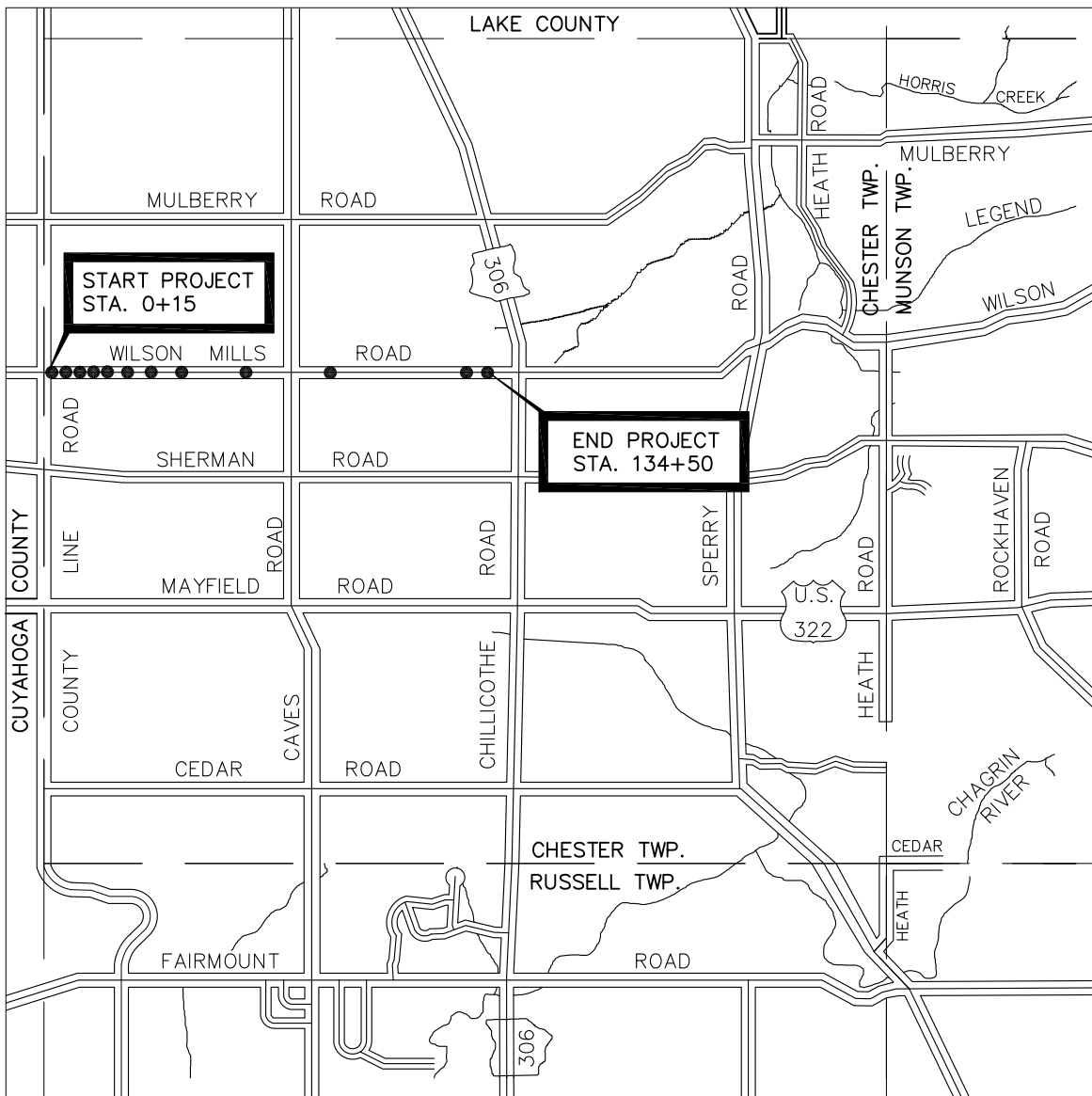
The Geauga County Board of Commissioners reserves the right to reject any and all bids, to waive any informalities or irregularities in the bids received, and to accept any bid or bids which are deemed most favorable to the Board at the time and under conditions stipulated, all in accord with the applicable provisions of laws of the State of Ohio governing the conduct of the Geauga County Board of Commissioners.

BY THE ORDER OF THE GEAUGA COUNTY BOARD OF COMMISSIONERS

Christine Blair, Clerk

Publish: January 31, 2019

LOCATION MAP
CU-0008-AC-2019
WILSON MILLS ROAD
CH 8, SECTIONS A-C
CHESTER TOWNSHIP



● INDICATES CULVERT LOCATIONS

DESCRIPTION OF WORK

Section 1 General

The Construction and Material Specifications dated 2016 published by the Ohio Department of Transportation (ODOT) and the *Modifications to the Ohio Department of Transportation's 2016 Construction and Material Specifications for Geauga County* dated 2019 shall govern this project except where otherwise noted in this Specification Booklet. The *Standard Contract Provisions for Contracts Prepared by the Geauga County Engineer's Office* dated 2019 shall govern the contractual agreement for this project. These Documents are available on the Geauga County Engineer's Web Site, go to <https://www.co.geauga.oh.us/Departments/Engineers-Office/Online-Plans> to view these documents or they may be picked up at the Engineer's Office. The requirements of Section 4115 of the Ohio Revised Code with regards to prevailing wages shall be followed for this project.

The work shall include the replacement of 12 culverts, installation of 16 catch basins and widening of the roadway embankment at select locations. The limits of the project are generally shown on the Location Map.

No loads of any material shall be accepted if the truck is overloaded. The Contractor shall obey all state and local regulations regarding weight limits. Permits will need to be obtained from Geauga County as well as the State of Ohio for any vehicle exceeding the legal weight, width, height or length limits.

The Contractor shall not order materials or perform work for items designated by note to be used "as directed by the Engineer" unless authorized by the Engineer.

The nails shown on the plan sheets shall be set shortly before construction is to begin to minimize the chance of them being disturbed. The elevations shall be determined at that time and provided to the Contractor prior to the start of the project.

Section 2 Inspection and Notification

A pre-construction conference will be scheduled by the Engineer with the Contractor prior to the start of construction. The Contractor shall submit a detailed Schedule of Operations for approval 24 hours prior to the pre-construction meeting. The Contractor shall notify the Engineer at least seven (7) days in advance of the beginning of construction, so the Engineer may schedule the inspection.

The Contractor shall notify the local fire department, police and other appropriate agencies that may require the use of the road during emergency situations. If any area becomes inaccessible at any time, the Contractor shall immediately notify the agencies of these locations. The Contractor shall schedule his work and coordinate with local schools as listed below to accommodate the pick-up and delivery of school students if applicable.

LOCAL AGENCY CONTACT NUMBERS:

Geauga County Sheriff	(440) 279-2009
State Highway Patrol	(440) 286-6612
Geauga Transit	(440) 279-2150
Geauga Metzenbaum	(440) 729-9406
United States Postal Service (Chesterland)	(440) 729-0721
West Geauga School District	(440) 729-5900
Chester Road Department	(440) 729-9110
Chester Fire Department	(440) 729-9951
Chester Police Department	(440) 729-1239

UTILITY OWNERS AND CONTACT PERSONNEL:

The Contractor shall notify all utility companies with facilities within the project area at least two (2) days prior to commencing construction at each location. The Contractor shall be required to contact OHIO811 (formerly OUPS) at (800) 362-2764, a minimum of two (2) working days prior to commencing any work. The utilities listed below may have facilities within the project limits.

Diversified Resources Inc.	Rusty Hutson	(304) 669-8130
Dominion East Ohio Gas	Bryan Dayton	(330) 664-2409
The Illuminating Co.	Tim Denzler	(440) 953-7650
Bakerwell Inc.	Jon Hobby	(440) 285-5474
Charter	Emil Symister	(440) 343-1350
David R. Hill Inc.	Jerry Walsh	(330) 207-0894
AT&T	James Janis	(216) 476-6142
Enervest Operating LLC	Terry Brown	(330) 602-5551
Summit Petroleum	Vaughn Kushner	(330) 487-5494
Alliance Petroleum Corp.	Sandi McCullogh	(330) 493-0440
Cleveland Water Department	William Hunt III	(216) 645-5051
Geauga County Water Resources	Steven Oluic PhD	(440) 285-2222

Section 3 Maintaining Traffic

ODOT Item 614 - Maintaining Traffic

The Contractor shall post the detours as shown in these specifications. The length of the closure shall be kept to a minimum and is subject to approval by the County Engineer.

The Contractor shall complete all required work items for a particular culvert before beginning work on a second culvert, except for Items 301, 659 and 671. Due to the use of LSM, Item 301 will not be able to be placed on the same day, therefore steel road plates will be required to allow passage over the culvert if a second culvert is started that day. Items 659 and 671 may be performed on a weekly basis.

All work and traffic control devices shall be in accordance with ODOT Item 614 as well as The Ohio Manual of Uniform Traffic Control Devices. Payment for all labor, equipment and materials shall be included in the lump sum contract price for Item 614 Maintaining Traffic. All traffic control devices shall be placed to the satisfaction of the Engineer. The sign quantities are the minimum number to be installed. Additional signs may be required and installed as directed by the Engineer.

WILSON MILLS ROAD DETOUR SIGN SHEET

SIGN	QTY
R16-A	1
R16-B	1
D3-1	14
M4-9	6
M4-9L	2
M4-9R	2
W20-2	2
W20-3	2
W20-3A	4
M4-10L	1
M4-10R	1
R11-3A	5
R11-2	6

CULVERT	SIGN 7	SIGN 8	SIGN 9
0.005	1.45	0.0	1.40
0.05	1.40	0.05	1.40
0.10	1.35	0.10	1.40
0.17	1.28	0.17	1.40
0.24	1.21	0.24	1.40
0.37	1.08	0.37	1.40
0.64	0.81	0.64	1.40
0.87	0.58	0.87	1.40
1.13	0.32	1.13	1.40
1.62	1.13	2.85	0.17
2.47	0.28	2.85	1.00
2.54	0.21	2.85	1.10

BARRICADE	QUANTITY-4'	QUANTITY-10'
TYPE III	5	6

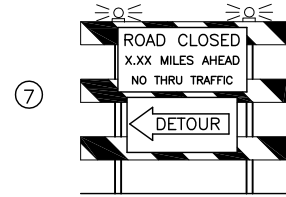
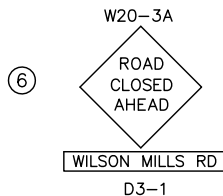
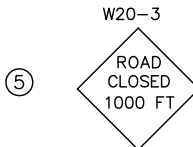
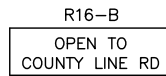
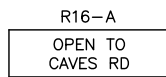
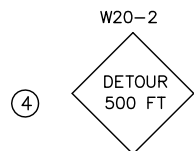
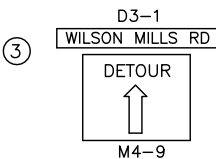
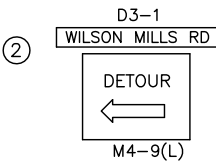
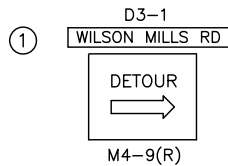
THE CONTRACTOR SHALL UPDATE SIGNS 7, 8 AND 9 TO REFLECT THE MILEAGE TO THE CULVERT THAT IS BEING REPLACED ON ANY GIVEN DAY, AS SHOWN IN THE TABLE ABOVE. THE MILEAGE ON THE BARRICADE AT EASTHILL DRIVE AND MULBERRY ROAD SHALL READ 0.90 AND NOT BE UPDATED.

WHEN THE CONTRACTOR IS WORKING BETWEEN COUNTY LINE ROAD AND CAVES ROAD, THE R16-A SIGN SHALL BE ATTACHED TO THE BARRICADE AT THE INTERSECTION WITH SR 306, AND THE R16-B SIGN SHALL BE ATTACHED TO THE BARRICADE AT CHAGRIN RIVER ROAD. WHEN THE CONTRACTOR IS WORKING BETWEEN CAVES ROAD AND SR 306, THE R16-A SIGN SHALL BE REMOVED FROM THE BARRICADE AT SR 306 AND REPLACE THE R16-B SIGN AT CHAGRIN RIVER ROAD.

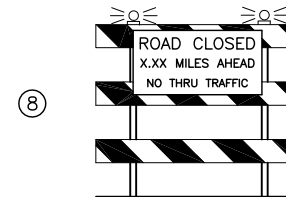
SIGNS DESIGNATED WITH THE LETTER D SHALL BE WHITE LETTERS ON A GREEN BACKGROUND.

SIGNS DESIGNATED WITH THE LETTER R SHALL BE BLACK LETTERS ON A WHITE BACKGROUND.

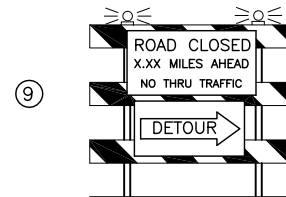
SIGNS DESIGNATED WITH THE LETTER W SHALL BE BLACK LETTERS ON AN ORANGE BACKGROUND.



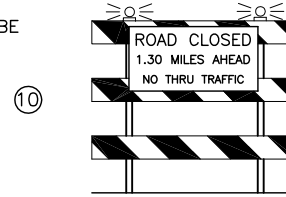
4' TYPE III BARRICADE WITH M4-10L AND R-11-3A ON FRONT



4' TYPE III BARRICADE WITH R-11-3A



4' TYPE III BARRICADE WITH M4-10R AND R-11-3A



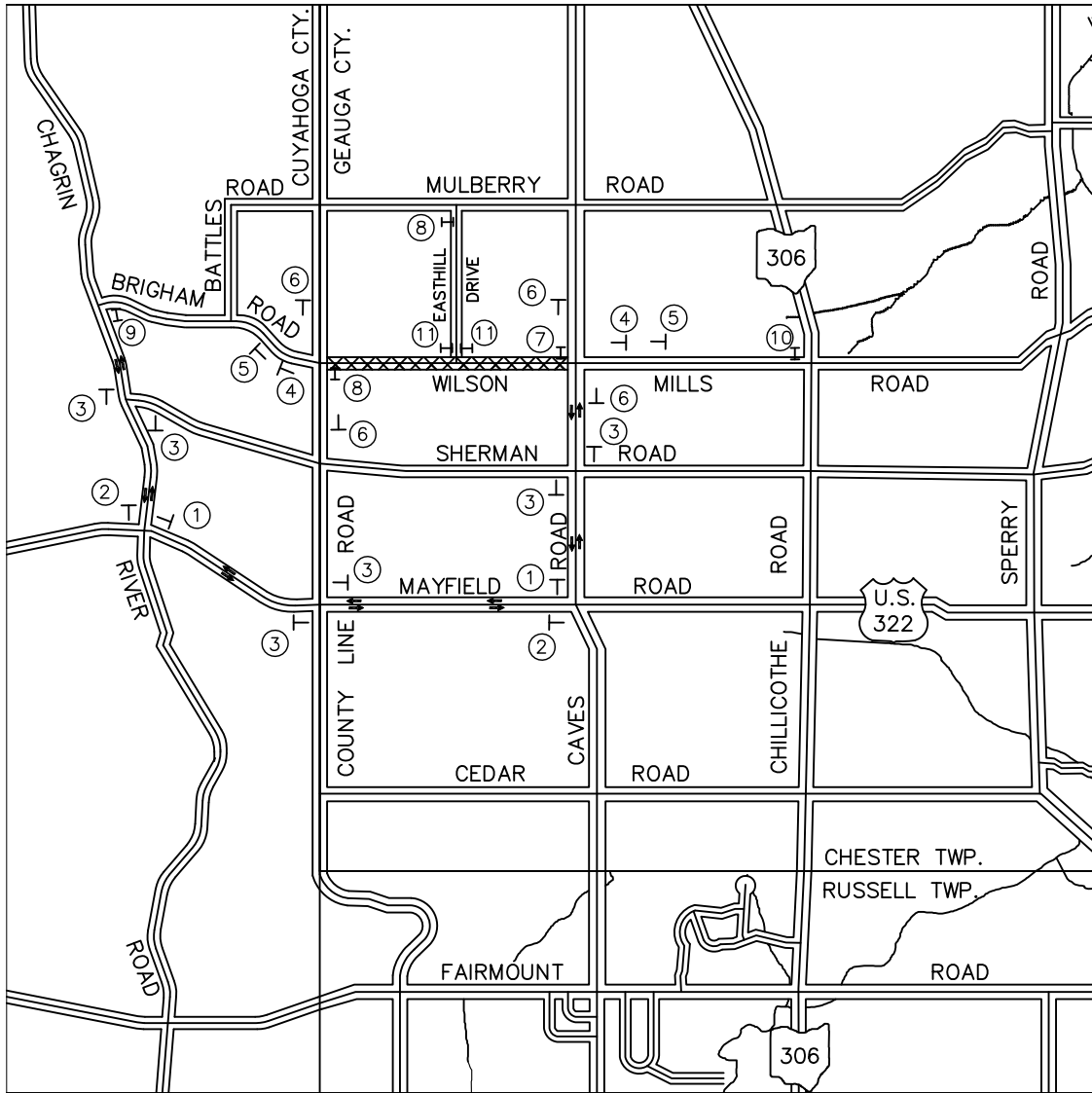
4' TYPE III BARRICADE WITH R-11-3A



10' TYPE III BARRICADE

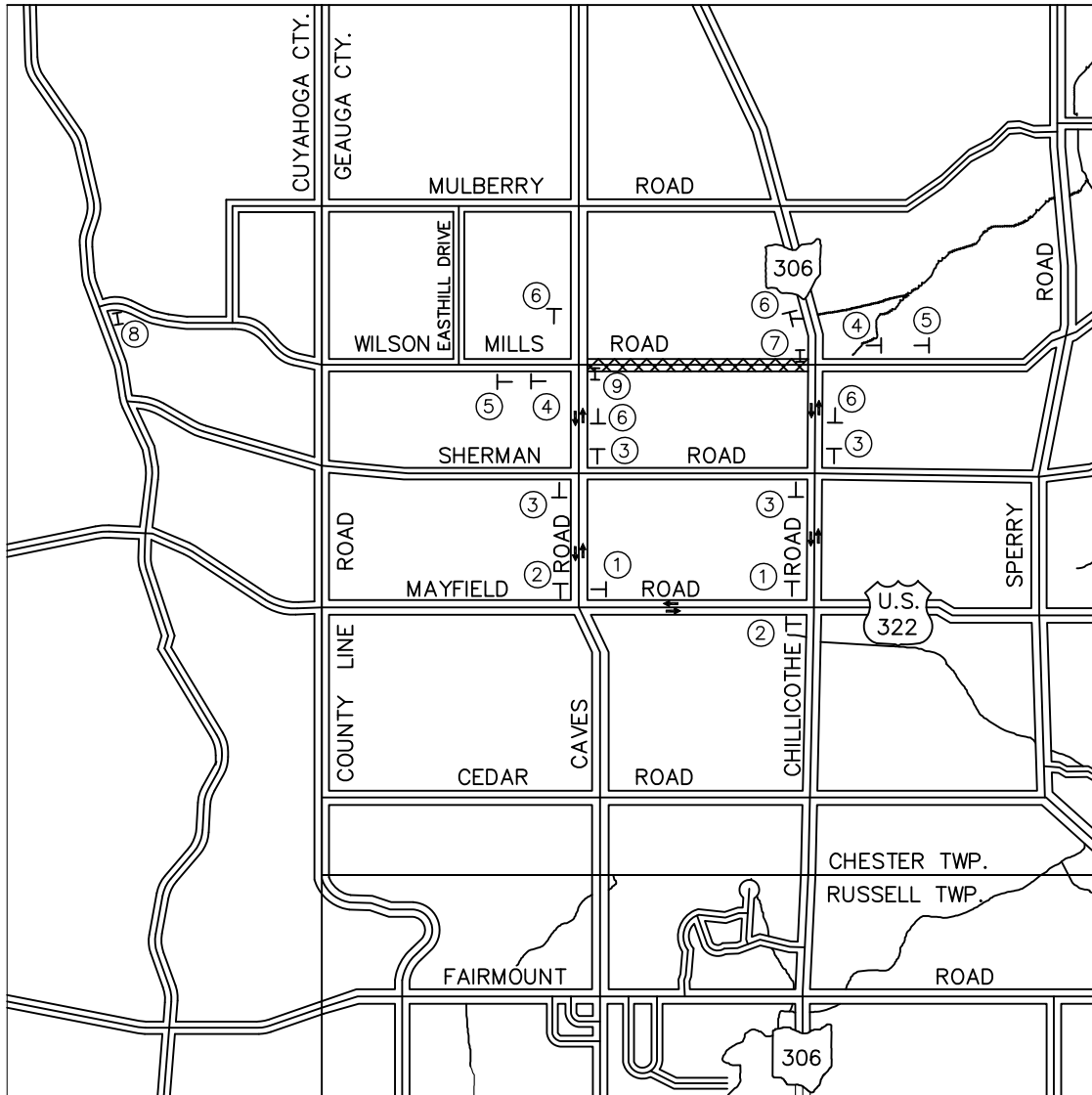
EACH TYPE III PORTABLE AND FIXED BARRICADES SHALL BE EQUIPPED WITH TWO TYPE B2 BI-DIRECTIONAL FLASHING WARNING LIGHTS. ALL SIGNS SHALL MEET THE REFLECTIVE REQUIREMENTS OF O.D.O.T. SPEC. 630. REFLECTIVE MATERIAL SHALL BE ON BOTH FACES.

WILSON MILLS ROAD DETOUR ROUTE SECTIONS A&B COUNTY LINE ROAD TO CAVES ROAD



XXXXXXXXXXXXXXXXXXXX INDICATES WORK ZONE

WILSON MILLS ROAD DETOUR ROUTE SECTION C CAVES ROAD TO CHILLICOTHE ROAD



XXXXXXXXXXXXXXXXXXXX INDICATES WORK ZONE

Section 4 Construction

ODOT Item 201 - Clearing and Grubbing

This item shall include all costs associated with any clearing and grubbing required for the culverts, and shall be paid for as a lump sum.

ODOT Item 202 – Guardrail Removed

This item shall include backfilling and compacting the guardrail post holes with suitable material as directed by the Engineer.

ODOT Item 202 – Structure Removed

This item shall include the removal and disposal of the concrete box culvert at 8-0.37, including wingwalls and foundations.

ODOT Item 202 - Pavement Removed, As Per Plan

Historical records indicate concrete pavement, at a width of 16', was present throughout the length of this project, but that as a result of previous construction projects, much of the concrete pavement has been removed. Exact locations of the remaining concrete pavement are unknown. This item shall include the removal and disposal of any concrete pavement encountered during the replacement of the culverts, as directed by the Engineer. The Contractor will not be required to replace the concrete pavement with concrete.

ODOT Item 202 - Pipe Removed, 24” and Under

This item shall include all costs associated with the removal of these pipes as well as any headwalls and catch basins that may be encountered. Seven of these culverts are concrete encased vitrified clay pipe. Asphalt pavement depth varies from 8” to 20”. The asphalt pavement is considered incidental to the removal of the culverts and shall be included in the unit price bid for this item.

ODOT Item 202 - Pipe Removed, Over 24”

This item shall include all costs associated with the removal of these pipes, headwalls and related items. Asphalt pavement depth varies from 8” to 20”. The asphalt pavement is considered incidental to the removal of the culverts and shall be included the unit price bid for this item.

ODOT Item 203 - Borrow

This item shall consist of supplying additional embankment material when there is insufficient or unsuitable material generated during the removal of the existing culverts, and shall only be used as directed by the Engineer. The material shall be used in the widening of the roadway embankments at the culverts, and shall be approved by the Engineer prior to its use. The areas to be filled shall be stripped of vegetation and any unsuitable material prior to placement of the borrow. Topsoil shall be stockpiled and replaced on top of the borrow.

ODOT Item 301 - Asphalt Concrete Base, PG64-22

Existing pavement along the sides of the trench shall be sawcut to provide a smooth, straight surface, 6" beyond the edge of the excavation. The Contractor shall place 12" of asphalt concrete base in the culvert trenches as shown on the plans.

Asphalt in driveway areas shall be a minimum of 3" and a maximum that matches the existing asphalt depth. The asphalt shall be placed in lifts not to exceed 3" in thickness. Compaction equipment and methods shall be approved by the Engineer.

ODOT Item 441 - Asphalt Concrete Surface Course, Type 1, (448) PG64-22

The Contractor shall place this item, at a depth of 1.5", in the driveways at 7124 and 8343 Wilson Mills Road. Compaction equipment and methods shall be approved by the Engineer.

ODOT Item 503 - Cofferdams and Excavation Bracing

All costs associated with control of the water for all of the culverts shall be included in this item.

ODOT Item 601 - Rock Channel Protection, Type C

Rock channel protection shall be placed at the locations shown on the plans. This Item shall be measured by the cubic yard, completed and accepted in place according to the dimensions shown in the plans.

ODOT Item 602 - Concrete Masonry, As Per Plan

This Item shall include the installation of headwalls, and the extensions of the existing concrete pads at culverts 1.62 and 2.47. A quantity of 4.0 CY has been included for the concrete pad extensions.

ODOT Item 611 - General

The culverts are located by straight line mileage and will be clearly marked in the field by the Engineer. Mileage 0.00 is the intersection with County Line Road, 0.85 is the intersection with East Hill Drive, 1.445 is the intersection with Caves Road and 2.75 is the intersection with SR 306 Chillicothe Road.

The Contractor shall construct the drainage improvements and provide all other improvements in conformity with the lines and grades shown on the plan sheets in these specifications. The excavation limits for the pipe, as depicted in the plans are approximate and will vary depending on the means and methods that the Contractor chooses to use to perform his work. All cost for loading, transporting, placement and compaction of the excavated material as shown on the plans and disposal of any surplus material shall be included in the corresponding 611 Item.

Low strength mortar (LSM) backfill is required from half way up the sides of the pipe and to within 12" of the pavement surface. It shall extend 2' beyond the edge of the 1' shoulders. The estimated quantity of this material shown in the construction plans is based on the lines, slopes and excavation limits shown. This quantity may vary depending on the Contractors excavation methods. The

Contractor, at no additional expense to Geauga County, shall provide additional LSM if the excavation limits exceed those shown on the plans.

Trench width shall be 2.5' greater than the outside diameter of the culvert, 15" on each side, to allow sufficient room for the use of compaction equipment on the bedding. Conduit bedding material shall be #57 washed aggregate and backfill material shall be ODOT Item 613 Type 2 LSM within the roadway limits. The cost of the conduit bedding and the LSM shall be included in the bidder's 611 conduit item unit price.

Several of the proposed culverts will be longer than the existing culverts. If insufficient material is generated from the excavation for the culvert replacement or is deemed unsuitable for embankment widening, material shall be provided under Item 203 Borrow, As Per Plan, as directed by the Engineer.

All pipes installed as ditch enclosures shall be perforated and backfilled with #57 aggregate to 6" above the pipe. Remaining required backfill shall be material excavated for the installation of the pipes or material from Item 203 Borrow.

The Contractor shall adjust the existing stream channels and ditches, as shown in the plans, to ensure positive drainage of the new culverts in each direction, as directed by the Engineer.

Where plans provide for a proposed conduit or ditch to cross over or under an underground utility, the Contractor shall locate the existing utilities as to line and grade before starting to lay the proposed conduit or excavate the ditch. If it is determined that the elevation of the existing utility conflicts with the proposed plan elevation of the ditch or conduit and results in a change in the plan slope, the Engineer shall be notified before starting construction of any portion of the proposed conduit which will be affected by the variance in existing elevations.

All catch basin unit prices shall include the basins, required grates, pouring of concrete inverts, reconnection of existing pipes and routing all miscellaneous piping into the basin as directed by the Engineer. A quantity of 4" and 6" PVC pipe has been included in the proposal for the miscellaneous piping.

ODOT Item 617 - Compacted Aggregate

The material for this item shall be limestone. The Contractor shall place the stabilized shoulder back up material in a minimum of 2 lifts at an average width of one foot (1') along the sides of the roadway at the culverts. The lifts shall be placed at a maximum depth of 6". The Contractor shall use a compaction method approved by the Engineer.

ODOT Item 653 - Topsoil Furnished and Placed

This item shall include placing topsoil at a depth of 2" at locations as directed by the Engineer.

ODOT Item 659 - Seeding and Mulching, Class 1

Commercial fertilizer shall be applied at all seeding and mulching areas in accordance with ODOT Spec. 659.04. The Contractor shall include the cost of the commercial fertilizer in the unit price bid for 659 Seeding and Mulching, Class 1. No

Commercial fertilizer shall be applied at all seeding and mulching areas in accordance with ODOT Spec. 659.04. The Contractor shall include the cost of the commercial fertilizer in the unit price bid for 659 Seeding and Mulching, Class 1. No final graded area shall be left bare for more than one week without seeding and mulching.

ODOT Item 671 - Erosion Control Mat, Type C

This item includes providing the seed and mulch as well as the erosion control mat as per section 671.01 of ODOT's CMS manual. It shall be placed in ditch bottoms and on steeper slopes as directed by the Engineer.

Culvert 8-0.005

Due to the proximity of this culvert to the intersection of Wilson Mills Road and County Line Road, a flagger will be required to control traffic.

The utility pole supporting the overhead cable for the traffic lights will need to be supported during the excavation for the outlet catch basin and pipes. The Contractor shall remove the existing concrete pipes and catch basin. The trench shall be backfilled with LSM up to within 12" of the pavement surface within the limits of the roadway. The proposed conduit shall be installed at a new location with a 2-2B catch basin at each end, and two 20' lengths of 15" conduit tied into them as shown on plan sheet 1. The majority of the material generated from the replacement of the culvert will need to be removed from the site. The asphalt between the two culvert trenches shall be removed and replaced with Item 301, Asphalt Concrete Base. The 1' berms shall be reconstructed with Item 617 Compacted Aggregate. All disturbed areas shall be seeded and mulched.

ITEM 202	Pipe Removed, 24" and Under	118	FEET
ITEM 301	Asphalt Concrete Base, PG 64-22	20.0	CY
ITEM 611	Catch Basin, 2-2B	2	EACH
ITEM 611	15" Conduit, Type A, 706.02	49.0	FEET
ITEM 611	15" Conduit, Type C, 707.33	80.0	FEET
ITEM 617	Compacted Aggregate	1.5	CY
ITEM 659	Seeding and Mulching, Class 1	50	SY

Culvert 8-0.05

The Contractor shall remove the existing concrete encased vitrified clay pipe, headwalls and catch basin and install the new conduit with a 2-2A catch basin at the outlet. The window shall face away from the roadway and have dimensions of 6" in height and 12" in width. The existing ditches shall be relocated as shown on plan sheet 2. The 6" PVC pipe at the inlet of the culvert shall be cut off flush with the backslope of the ditch. The existing fence shall be removed and reset as required, the cost to do so incorporated into the unit price bid for the 15" conduit. Excess material generated from the replacement of the culvert, if suitable, shall be used in widening the embankment. The 1' berms shall be reconstructed with Item 617 Compacted Aggregate. All disturbed areas shall be seeded and mulched.

ITEM 202	Pipe Removed, 24" and Under	40	FEET
ITEM 203	Ditch Relocation	165	FEET
ITEM 203	Borrow	50	CY
ITEM 301	Asphalt Concrete Base, PG 64-22	6.0	CY
ITEM 602	Concrete Masonry, As Per Plan	0.25	CY
ITEM 611	Catch Basin, 2-2A	1	EACH
ITEM 611	15" Conduit, Type A, 706.02	44.0	FEET
ITEM 617	Compacted Aggregate	0.5	CY
ITEM 659	Seeding and Mulching, Class 1	200	SY

Culvert 8-0.10

The location of the outlet of the existing pipe has been assumed from historical records. Prior to sawcutting the pavement, the Contractor shall locate the outlet. Upon removal of the existing concrete encased vitrified clay pipe and headwalls, the proposed conduit, headwall and outlet catch basin shall be installed. A property pin is present in close proximity to the proposed catch basin location. The Contractor shall locate the pin and take care not to disturb it if possible. The existing ditches shall be relocated as shown on plan sheet 3. The existing fence shall be removed and reset as required, the cost to do so incorporated into the unit price bid for the 18" conduit. Excess material generated from the replacement of the culvert, if suitable, shall be used in widening the embankment. The 1' berms shall be reconstructed with Item 617 Compacted Aggregate. All disturbed areas shall be seeded and mulched.

ITEM 202	Pipe Removed, 24" and Under	52	FEET
ITEM 203	Ditch Relocation	190	FEET
ITEM 203	Borrow	50	CY
ITEM 301	Asphalt Concrete Base, PG 64-22	6.0	CY
ITEM 602	Concrete Masonry, As Per Plan	0.31	CY
ITEM 611	Catch Basin, 2-2B	1	EACH
ITEM 611	18" Conduit, Type A, 706.02	48.0	FEET
ITEM 617	Compacted Aggregate	0.5	CY
ITEM 659	Seeding and Mulching, Class 1	200	SY

Culvert 8-0.17

The Contractor shall remove the existing concrete encased vitrified clay pipe and headwalls and install the new conduit with a 2-3 catch basin at the inlet and outlet. The existing drivepipe shall be replaced and relocated with a 2-2B catch basin at the inlet as shown on plan sheet 4. The backfill material shall be 304 Limestone and shall be included in the unit price for the 15" conduit. The asphalt shall be removed from the new drivepipe trench to the edge of the roadway pavement. A portion of the existing 10" ditch enclosure shall be removed and redirected into the basin using a 12" HDPE pipe. The 12" pipe shall be slipped over the 10" pipe and a concrete collar constructed around the joint. The existing 4" and 6" pipes shall be redirected into the 2-2B catch basins north side. The same procedure shall be followed with the 10" ditch enclosure east of catch basin CB 0.17L and for the 15" ditch enclosure at the outlet of catch basin CB 0.17R. The cost of the concrete collars shall be included in the unit price bid for the respective conduit item. The existing ditches shall be relocated as shown. The existing fence shall be removed as required, the cost to do so incorporated into the unit price bid for the 21" conduit. Excess material generated from the replacement of the culvert, if suitable, shall be used in widening the embankment. The 1' berms shall be reconstructed with Item 617 Compacted Aggregate. All disturbed areas shall be seeded and mulched.

ITEM 202	Pipe Removed, 24" and Under	154	FEET
ITEM 203	Ditch Relocation	100	FEET
ITEM 203	Borrow	50	CY
ITEM 301	Asphalt Concrete Base, PG 64-22	18.0	CY
ITEM 441	Asphalt Concrete Surface Course, Type 1 (448) PG 64-22	3.0	CY
ITEM 611	Catch Basin, 2-2B	1	EACH
ITEM 611	Catch Basin, 2-3	2	EACH
ITEM 611	12" Conduit, Type C, 707.33	70.0	FEET
ITEM 611	15" Conduit, Type D, 707.33	74.0	FEET
ITEM 611	18" Conduit, Type D, 707.33	20.0	FEET
ITEM 611	21" Conduit, Type A, 706.02	48.0	FEET
ITEM 617	Compacted Aggregate	0.5	CY
ITEM 659	Seeding and Mulching, Class 1	200	SY

Culvert 8-0.24

The Contractor shall remove the existing concrete encased vitrified clay pipe, catch basin and headwalls and install the new conduit with a 2-3 catch basin at the inlet and outlet as shown on plan sheet 5. A portion of the existing ditch enclosures shall be exposed and redirected into the basins. If possible, the existing pipe may be reused. A concrete collar may need to be constructed around the joint between the existing and proposed pipes. The cost of the concrete collars, if required, shall be included in the unit price bid for the respective conduit item. The majority of the material generated from the replacement of the culvert will need to be removed from the site. The 1' berms shall be reconstructed with Item 617 Compacted Aggregate. All disturbed areas shall be seeded and mulched.

ITEM 202	Pipe Removed, 24" and Under	85	FEET
ITEM 301	Asphalt Concrete Base, PG 64-22	6.0	CY
ITEM 611	Catch Basin, 2-3	2	EACH
ITEM 611	12" Conduit, Type C, 707.33	20.0	FEET
ITEM 611	15" Conduit, Type C, 707.33	20.0	FEET
ITEM 611	24" Conduit, Type A, 706.02	40.0	FEET
ITEM 617	Compacted Aggregate	0.5	CY
ITEM 659	Seeding and Mulching, Class 1	100	SY

Culvert 8-0.37

The Contractor shall remove the existing concrete box culvert and wing walls and install the new conduit with a 2-4 catch basin at the inlet as shown on plan sheet 6. The existing fence shall be removed and reset outside the right of way. A 20' section of 36" HDPE pipe and headwall shall be installed on the upstream side of the 2-4 catch basin. The existing drivepipe at 7212 Wilson Mills Road shall be removed and replaced to outlet into the catch basin. A 30 degree bend shall be installed on the end of the drivepipe in the catch basin to limit backflow from the 36" pipe during storm events, to be included in the conduit bid price. A 6" PVC pipe shall also be redirected into the catch basin. The backfill material shall be 304 Limestone and shall be included in the unit price for the 15" conduit. The existing drivepipe extension at 7181 Wilson Mills Road shall be removed, a 2-2B catch basin set and 20' of pipe extended to the stream. Rock channel protection shall be installed at the outlet of the 36" conduit. The existing ditches shall be relocated as shown. The fence shall be relocated to the top of the backslope. The Contractor shall be responsible for replacing any damaged fence materials resulting from removal or installation. The 4" PVC septic bed drain line shall be cut flush with the ditch backslope. Excess material generated from the replacement of the culvert, if suitable, shall be used in widening the embankment. The 1' berms shall be reconstructed with Item 617 Compacted Aggregate. All disturbed areas shall be seeded and mulched.

ITEM 202	Structure Removed	1	LUMP
ITEM 202	Pipe Removed, 24" and Under	90	FEET
ITEM 203	Ditch Relocation	110	FEET
ITEM 203	Borrow	100	CY
ITEM 301	Asphalt Concrete Base, PG 64-22	9.0	CY
ITEM 601	Rock Channel Protection, Type C	4.0	CY
ITEM 602	Concrete Masonry, As Per Plan	1.38	CY
ITEM 607	Fence Removed and Relocated	110	FEET
ITEM 611	Catch Basin, 2-4	1	EACH
ITEM 611	Catch Basin, 2-2B	1	EACH
ITEM 611	15" Conduit, Type C, 707.33	20.0	FEET
ITEM 611	15" Conduit, Type D 707.33	80.0	FEET
ITEM 611	36" Conduit, Type A, 706.02	48.0	FEET
ITEM 611	36" Conduit, Type C, 707.33	20.0	FEET
ITEM 617	Compacted Aggregate	0.5	CY
ITEM 659	Seeding and Mulching, Class 1	300	SY

Culvert 8-0.64

The Contractor shall remove the existing concrete encased vitrified clay pipe and headwalls and install the new conduit and headwalls. The existing ditches shall be relocated as shown on plan sheet 7. Excess material generated from the replacement of the culvert, if suitable, shall be used in widening the embankment. The 1' berms shall be reconstructed with Item 617 Compacted Aggregate. All disturbed areas shall be seeded and mulched.

ITEM 202	Pipe Removed, 24" and Under	33	FEET
ITEM 203	Ditch Relocation	135	FEET
ITEM 203	Borrow	50	CY
ITEM 301	Asphalt Concrete Base, PG 64-22	6.0	CY
ITEM 602	Concrete Masonry, As Per Plan	0.86	CY
ITEM 611	24" Conduit, Type A, 706.02	48.0	FEET
ITEM 617	Compacted Aggregate	0.5	CY
ITEM 659	Seeding and Mulching, Class 1	150	SY

Culvert 8-0.87

The Contractor shall remove the existing concrete encased vitrified clay pipe and headwalls and install the new conduit and headwalls. The existing ditches shall be relocated as shown on plan sheet 8. Excess material generated from the replacement of the culvert, if suitable, shall be used in widening the embankment. The 1' berms shall be reconstructed with Item 617 Compacted Aggregate. All disturbed areas shall be seeded and mulched.

ITEM 202	Pipe Removed, 24" and Under	38	FEET
ITEM 203	Ditch Relocation	300	FEET
ITEM 203	Borrow	100	CY
ITEM 301	Asphalt Concrete Base, PG 64-22	7.0	CY
ITEM 602	Concrete Masonry, As Per Plan	0.50	CY
ITEM 611	15" Conduit, Type A, 706.02	48.0	FEET
ITEM 617	Compacted Aggregate	0.5	CY
ITEM 659	Seeding and Mulching, Class 1	300	SY

Culvert 8-1.13

The Contractor shall remove the existing concrete encased vitrified clay pipe and PVC pipe, and install the new conduit, catch basins and headwall as shown on plan sheet 9. A portion of the existing ditch enclosure shall be exposed and redirected into the new basin. If a watertight joint can't be achieved between the existing and proposed pipes, a concrete collar will need to be constructed around the joint. The cost of the concrete collar shall be included in the unit price bid for the conduit item. Rock channel protection shall be placed at the outlet. Excess material generated from the replacement of the culvert, if suitable, shall be used in widening the embankment. Additional borrow material will be required. The 1' berms shall be reconstructed with Item 617 Compacted Aggregate. All disturbed areas shall be seeded and mulched. Erosion Control Mat shall be installed on the steeper slopes as directed by the Engineer.

ITEM 202	Pipe Removed, 24" and Under	49	FEET
ITEM 203	Borrow	150	CY
ITEM 301	Asphalt Concrete Base, PG 64-22	7.0	CY
ITEM 601	Rock Channel Protection, Type C	2.0	CY
ITEM 602	Concrete Masonry, As Per Plan	0.25	CY
ITEM 611	12" Conduit, Type C, 707.33	30.0	FEET
ITEM 611	15" Conduit, Type A, 706.02	48.0	FEET
ITEM 611	15" Conduit, Type C, 707.33	20.0	FEET
ITEM 611	Catch Basin, 2-2B	2	EACH
ITEM 617	Compacted Aggregate	0.5	CY
ITEM 659	Seeding and Mulching, Class 1	200	SY
ITEM 671	Erosion Control Mat, Type C	200	SY

Culvert 8-1.62

The Contractor shall remove the existing corrugated metal pipe and headwalls and install the new conduit and headwalls as shown on plan sheet 10. The inlet concrete pad shall remain and be extended to meet the new conduit headwall. The concrete shall be poured at a minimum thickness of 6" and be shaped to transition from the existing pad to the top of the inlet headwalls, as directed by the Engineer. The proposed inlet invert is approximately 15" higher than the existing invert. The Contractor shall raise the flowline of the existing inlet channel over a distance of approximately 30' to provide positive drainage to the inlet of the proposed culvert. The material used to raise the flowline shall be clay, either generated from the excavation for the culvert or from Item 203 Borrow. Rock channel protection shall be place at the outlet of the culvert at a depth of 18". The majority of the material generated from the replacement of the culvert may need to be removed from the site. The 1' berms shall be reconstructed with Item 617 Compacted Aggregate. All disturbed areas shall be seeded and mulched.

ITEM 202	Pipe Removed, Over 24"	82	FEET
ITEM 203	Borrow	20	CY
ITEM 301	Asphalt Concrete Base, PG 64-22	13.0	CY
ITEM 601	Rock Channel Protection, Type C	13.0	CY
ITEM 602	Concrete Masonry, As Per Plan	2.5	CY
ITEM 611	30" Conduit, Type A, 706.02	80.0	FEET
ITEM 617	Compacted Aggregate	0.5	CY
ITEM 659	Seeding and Mulching, Class 1	200	SY

Culvert 8-2.47

The Contractor shall remove the existing culvert and headwalls and install the new conduit and headwalls as shown on plan sheet 11. Rock channel protection shall be placed at the outlet. The existing guardrail shall be removed. The drivepipe at 8362 Wilson Mills Road shall be removed and replaced as shown, as well as the drivepipe at 8343 Wilson Mills Road. Backfill for the drivepipes shall be 304 Limestone and shall be included in the unit price bid for the respective conduit items. The existing concrete inlet pad shall be extended to the inlet of the proposed culvert. The concrete extension shall be a minimum of 6" thick and shall transition from the existing concrete pad to the top of the proposed headwalls, as directed by the Engineer. Excess material generated from the replacement of the culvert, if suitable, shall be used in widening the embankment. Additional material, if required, shall be provided under Item 203 Borrow. The existing ditches shall be relocated as shown. The 1' berms shall be reconstructed with Item 617 Compacted Aggregate.

Additionally, the Contractor shall replace the two 15" pipes under the driveway that are the outlet for the pond with a 36" conduit and inlet catch basin as shown on plan sheet 12. Backfill for the drivepipe shall be 304 Limestone and shall be included in the unit price bid for the conduit item. The channel between the 36" driveway conduit and culvert 2.47 shall be cleared of all brush and debris and shall be included in the unit price bid for the 36" conduit item. A portion of the upstream end of the existing concrete inlet pad will need to be removed in order to lower the stream channel. The required elevation shall be determined in the field after the 36" conduit has been set. The cost of removing a portion of the inlet pad shall be included in the 36" conduit item. Erosion Control Mat shall be installed as directed by the Engineer. All disturbed areas shall be seeded and mulched.

ITEM 202	Pipe Removed, 24" and Under	160	FEET
ITEM 202	Pipe Removed, Over 24"	80	FEET
ITEM 203	Borrow	100	CY
ITEM 301	Asphalt Concrete Base, PG 64-22	17.0	CY
ITEM 441	Asphalt Concrete Surface Course, Type 1, (448) PG 64-22	2.0	CY
ITEM 601	Rock Channel Protection, Type C	8.0	CY
ITEM 602	Concrete Masonry, As Per Plan	5.0	CY
ITEM 611	15" Conduit, Type C, 707.33	100.0	FEET
ITEM 611	24" Conduit, Type D, 707.33	50.0	FEET
ITEM 611	36" Conduit, Type D, 707.33	30.0	FEET
ITEM 611	42" Conduit, Type A, 706.02	80.0	FEET
ITEM 611	Catch Basin, 2-4	1	EACH
ITEM 617	Compacted Aggregate	0.5	CY
ITEM 659	Seeding and Mulching, Class 1	300	SY
ITEM 671	Erosion Control Mat, Type C	200	SY

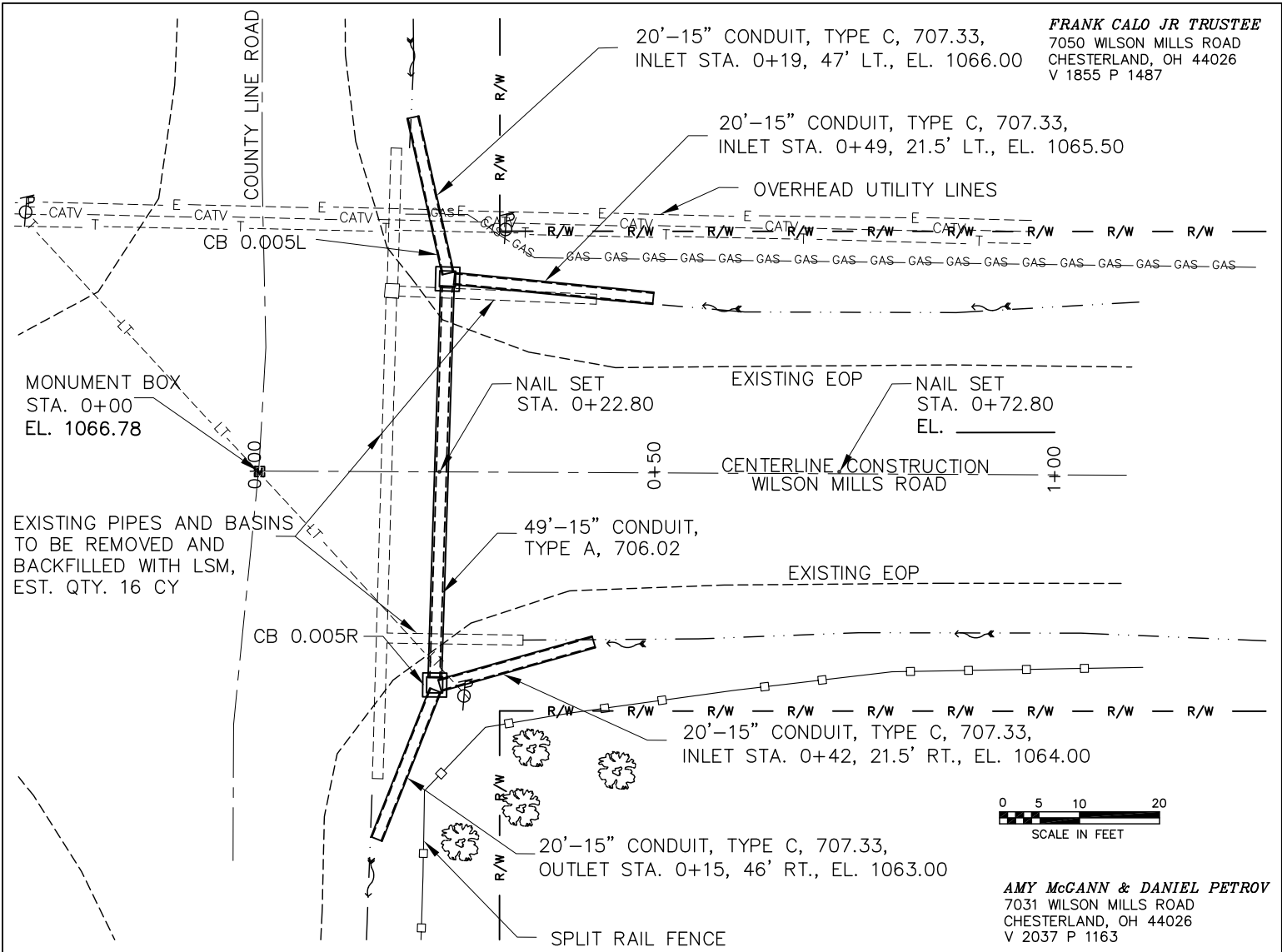
Culvert 8-2.54

The Contractor shall remove the existing corrugated metal pipe, headwall and inlet basin and install the proposed conduit, headwall and inlet basin. The majority of the excess material generated from the replacement of the culvert will need to be removed from the site. The 1' berms shall be reconstructed with Item 617 Compacted Aggregate. All disturbed areas shall be seeded and mulched.

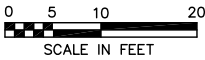
ITEM 202	Pipe Removed, 24" and Under	72	FEET
ITEM 301	Asphalt Concrete Base, PG 64-22	7.0	CY
ITEM 601	Rock Channel Protection, Type C	2.0	CY
ITEM 602	Concrete Masonry, As Per Plan	0.43	CY
ITEM 611	Catch Basin, 2-3	1	EACH
ITEM 611	24" Conduit, Type A, 706.02	64.0	FEET
ITEM 617	Compacted Aggregate	0.5	CY
ITEM 659	Seeding and Mulching, Class 1	100	SY

Section 5 Quantity Breakdown

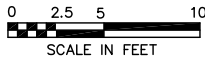
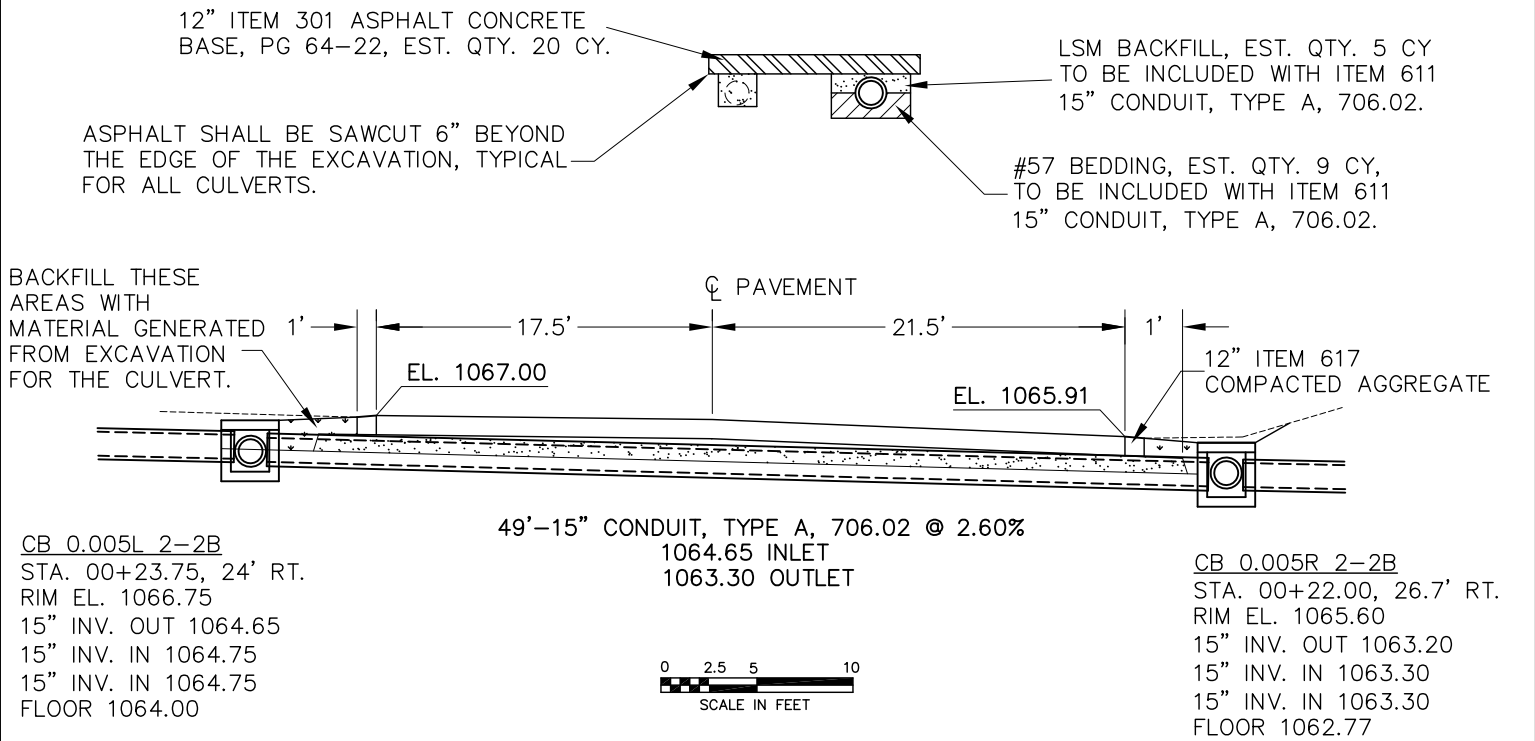
ITEM 103	Contract Performance Bond and Premium	1 LUMP
ITEM 201	Clearing and Grubbing	1 LUMP
ITEM 202	Structure Removed	1 EACH
ITEM 202	Guardrail Removed	150 FEET
ITEM 202	Pavement Removed, Concrete, As Per Plan	75.0 SY
ITEM 202	Pipe Removed, 24" and Under	891 FEET
ITEM 202	Pipe Removed, Over 24"	162 FEET
ITEM 203	Borrow	700 CY
ITEM 203	Ditch Relocation	1000 FEET
ITEM 301	Asphalt Concrete Base, PG 64-22	122.0 CY
ITEM 441	Asphalt Concrete, Surface Course, Type 1 (448) PG 64-22	5.0 CY
ITEM 503	Cofferdams and Excavation Bracing	1 LUMP
ITEM 601	Rock Channel Protection, Type C	29.0 CY
ITEM 602	Concrete Masonry, As Per Plan	11.5 CY
ITEM 607	Fence Removed and Relocated	110.0 FEET
ITEM 611	4" Conduit, Type E, 707.45	50.0 FEET
ITEM 611	6" Conduit, Type E, 707.45	50.0 FEET
ITEM 611	12" Conduit, Type C, 707.33	120.0 FEET
ITEM 611	15" Conduit, Type A, 706.02	189.0 FEET
ITEM 611	15" Conduit, Type D, 707.33	394.0 FEET
ITEM 611	18" Conduit, Type A, 706.02	48.0 FEET
ITEM 611	18" Conduit, Type D, 707.33	20.0 FEET
ITEM 611	21" Conduit, Type A, 706.02	48.0 FEET
ITEM 611	24" Conduit, Type A, 706.02	152.0 FEET
ITEM 611	24" Conduit, Type D, 707.33	50.0 FEET
ITEM 611	30" Conduit, Type A, 706.02	80.0 FEET
ITEM 611	36" Conduit, Type A, 706.02	48.0 FEET
ITEM 611	36" Conduit, Type D, 707.33	50.0 FEET
ITEM 611	42" Conduit, Type A, 706.02	80.0 FEET
ITEM 611	Catch Basin, No. 2-2B	9 EACH
ITEM 611	Catch Basin, No. 2-3	5 EACH
ITEM 611	Catch Basin, No. 2-4	2 EACH
ITEM 614	Maintaining Traffic	1 LUMP
ITEM 617	Compacted Aggregate	7.0 CY
ITEM 624	Mobilization	1 LUMP
ITEM 653	Topsoil Furnished and Placed	30 CY
ITEM 659	Seeding and Mulching, Class 1	2300 SY
ITEM 671	Erosion Control Mat, Type C	500.0 SY



FRANK CALO JR TRUSTEE
 7050 WILSON MILLS ROAD
 CHESTERLAND, OH 44026
 V 1855 P 1487



AMY McGANN & DANIEL PETROV
 7031 WILSON MILLS ROAD
 CHESTERLAND, OH 44026
 V 2037 P 1163



	DESIGNED ASP	REVIEWED SEH
	CHECKED	DATE 11/18

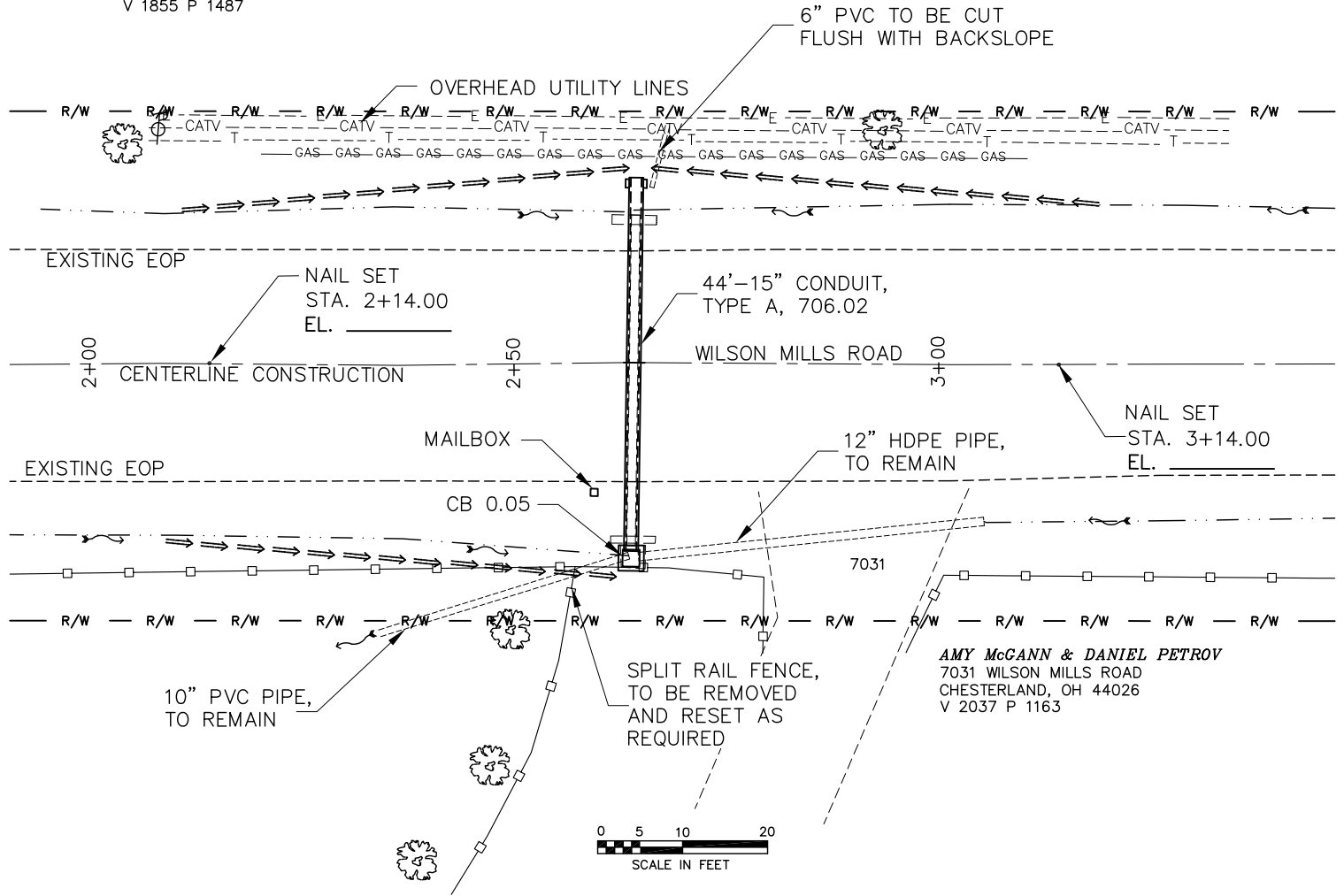
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13

GEA-8 WILSON MILLS ROAD CULVERTS

8-0.005

FRANK CALO JR TRUSTEE
 7050 WILSON MILLS ROAD
 CHESTERLAND, OH 44026
 V 1855 P 1487

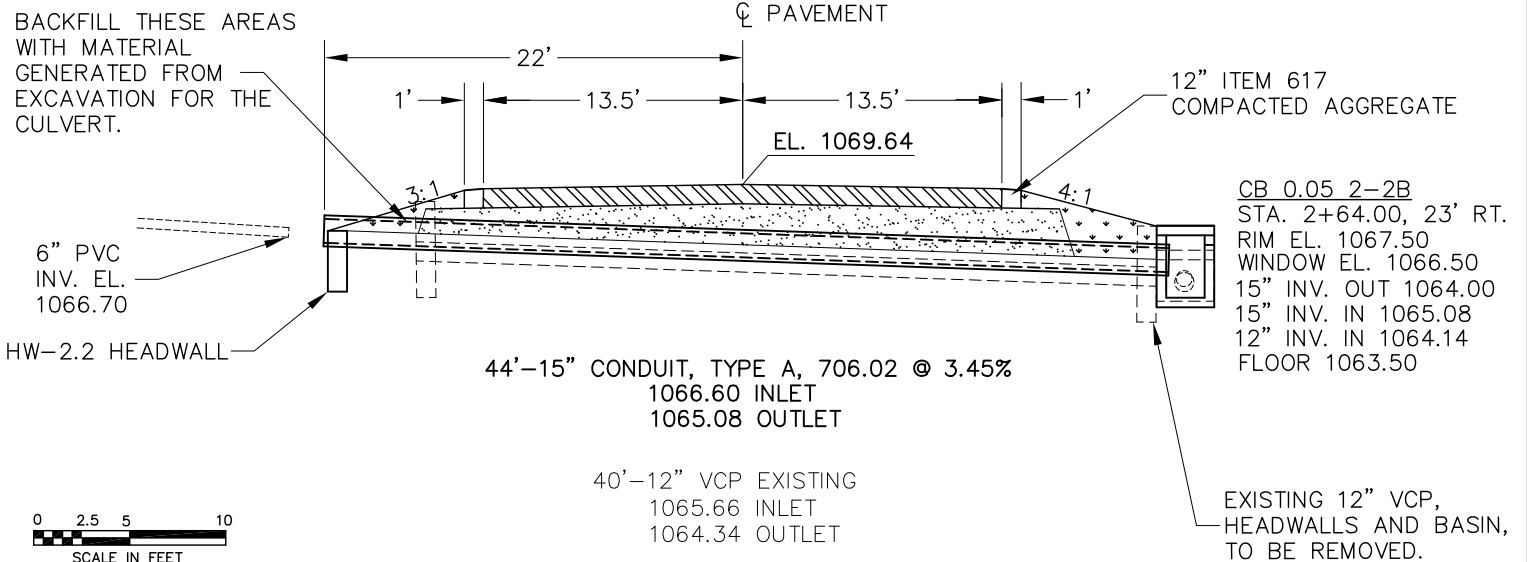
←←←← RELOCATED DITCH
 ——— EXISTING DITCH



12" ITEM 301 ASPHALT CONCRETE BASE, PG 64-22, EST. QTY. 6 CY.

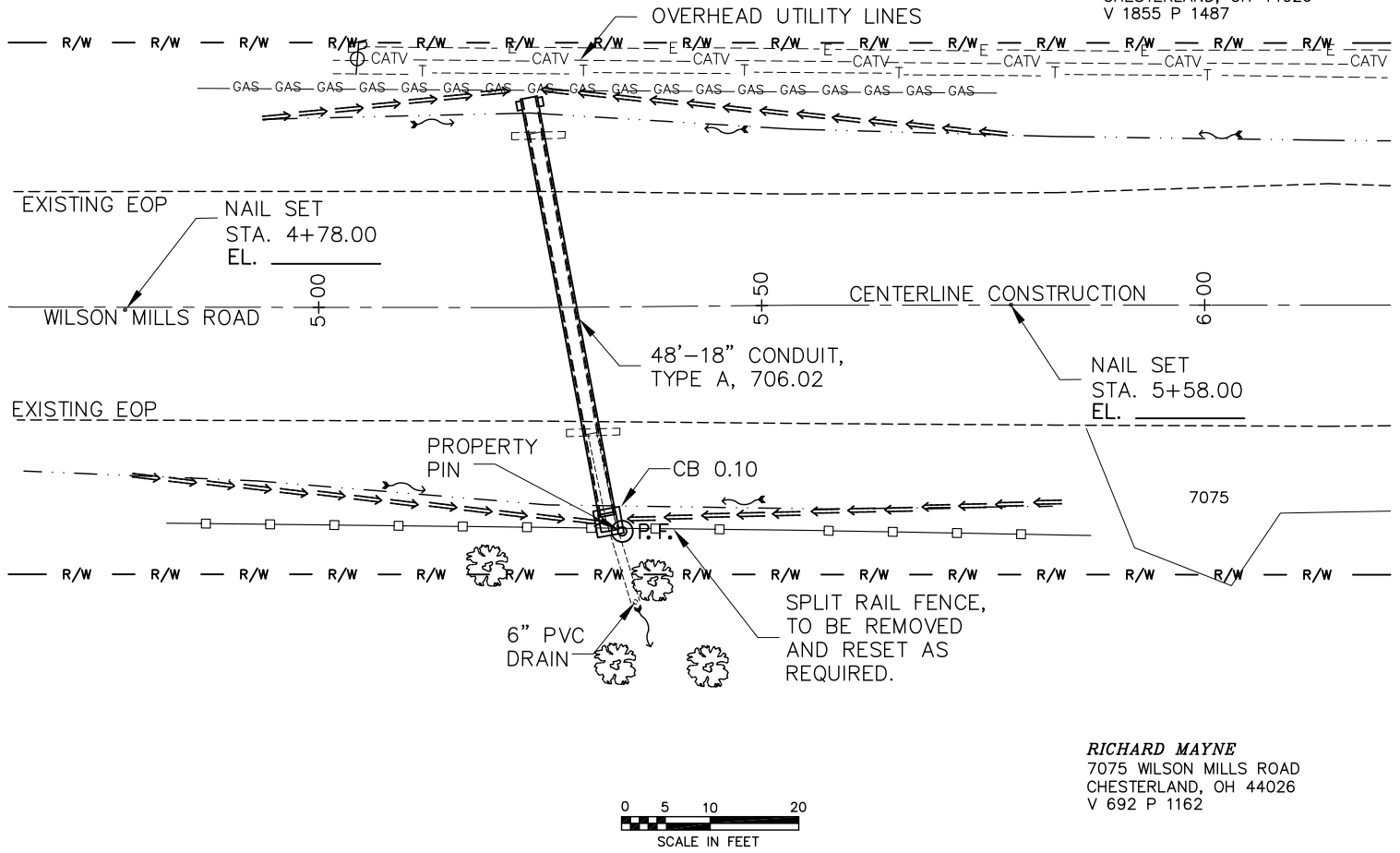
#57 BEDDING, EST. QTY. 11 CY, TO BE INCLUDED WITH ITEM 611
 15" CONDUIT, TYPE A, 706.02.

LSM BACKFILL, EST. QTY. 10 CY TO BE INCLUDED WITH ITEM 611
 15" CONDUIT, TYPE A, 706.02.

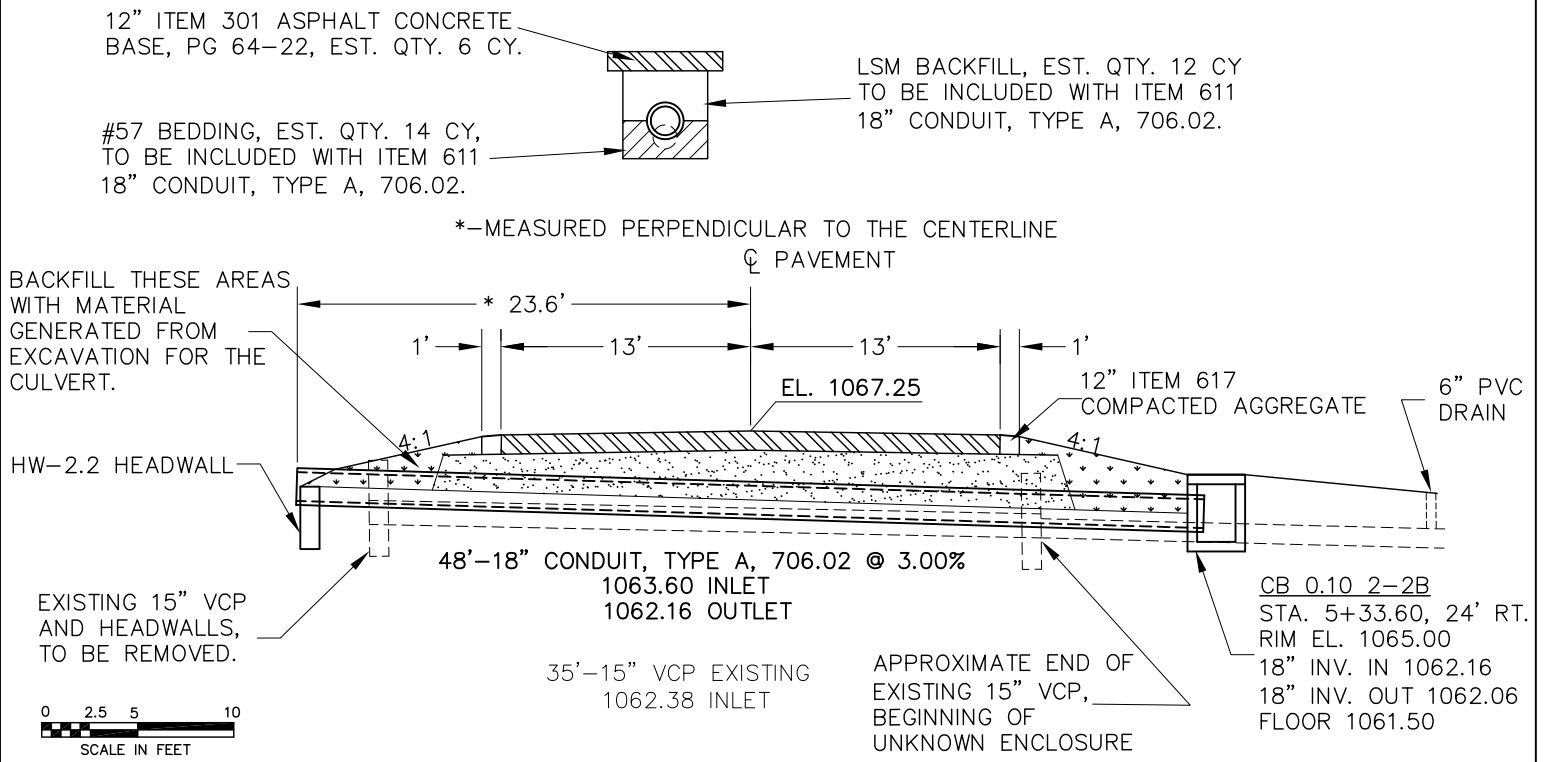


RELOCATED DITCH
 EXISTING DITCH

FRANK CALO JR TRUSTEE
 7050 WILSON MILLS ROAD
 CHESTERLAND, OH 44026
 V 1855 P 1487



RICHARD MAYNE
 7075 WILSON MILLS ROAD
 CHESTERLAND, OH 44026
 V 692 P 1162



	DESIGNED ASP CHECKED	REVIEWED SEH DATE 11/18
	3 13	

GEA-8 WILSON MILLS ROAD CULVERTS

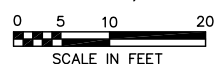
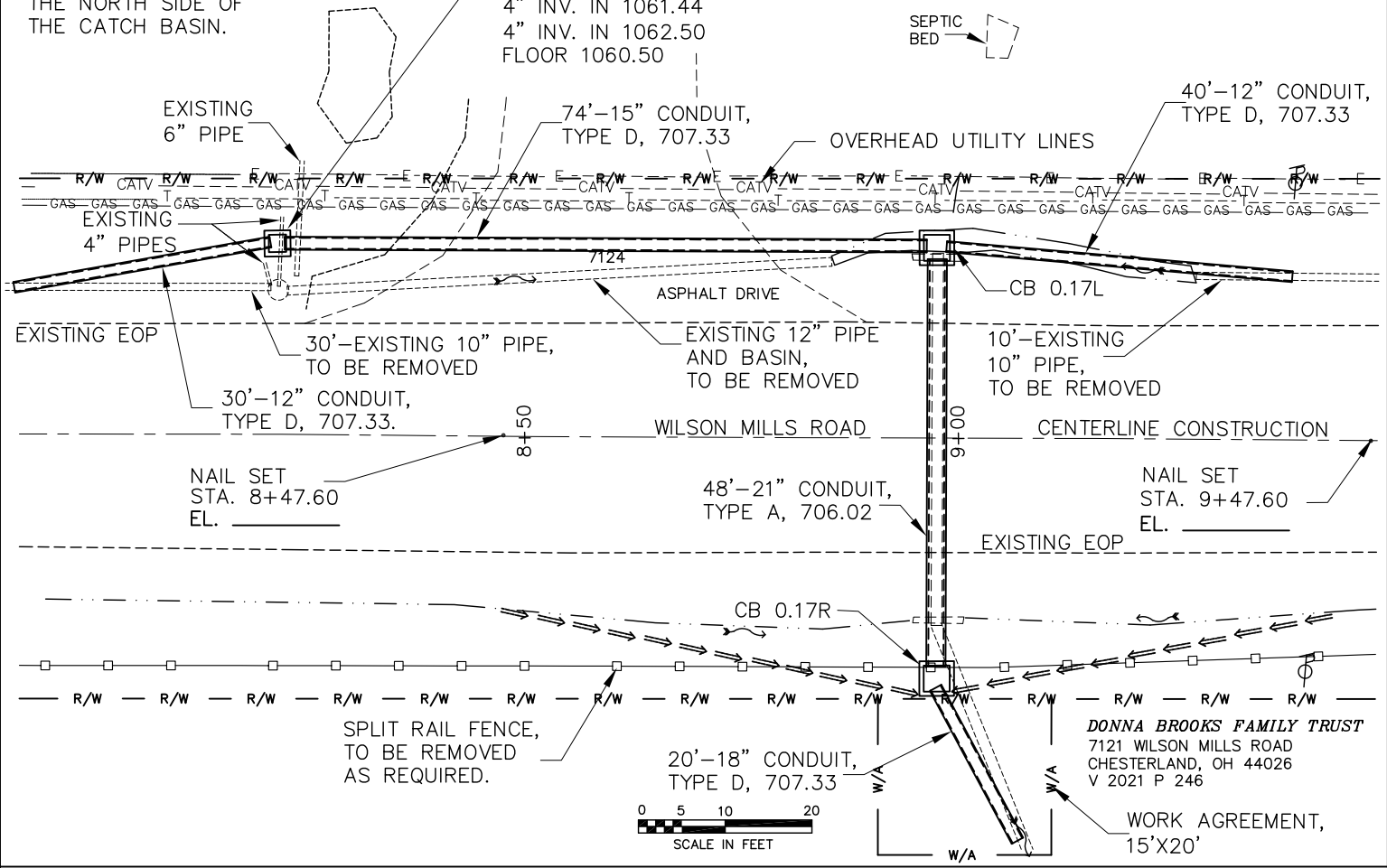
8-0.10

←←← RELOCATED DITCH
 --- EXISTING DITCH

CB 0.17 2-2B-1
 STA. 8+21.00, 22' LT.
 RIM EL. 1063.50
 12" INV. IN 1061.16
 15" INV. OUT 1061.06
 6" INV. IN 1062.50
 4" INV. IN 1061.44
 4" INV. IN 1062.50
 FLOOR 1060.50

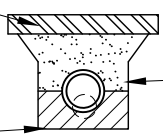
ALISON GEE & DAVID EICHENMILLER
 7124 WILSON MILLS ROAD
 CHESTERLAND, OH 44026
 V 817 P 822

REDIRECT EXISTING 6"
 AND 4" PIPES INTO
 THE NORTH SIDE OF
 THE CATCH BASIN.



12" ITEM 301 ASPHALT CONCRETE
 BASE, PG 64-22, EST. QTY. 8 CY.

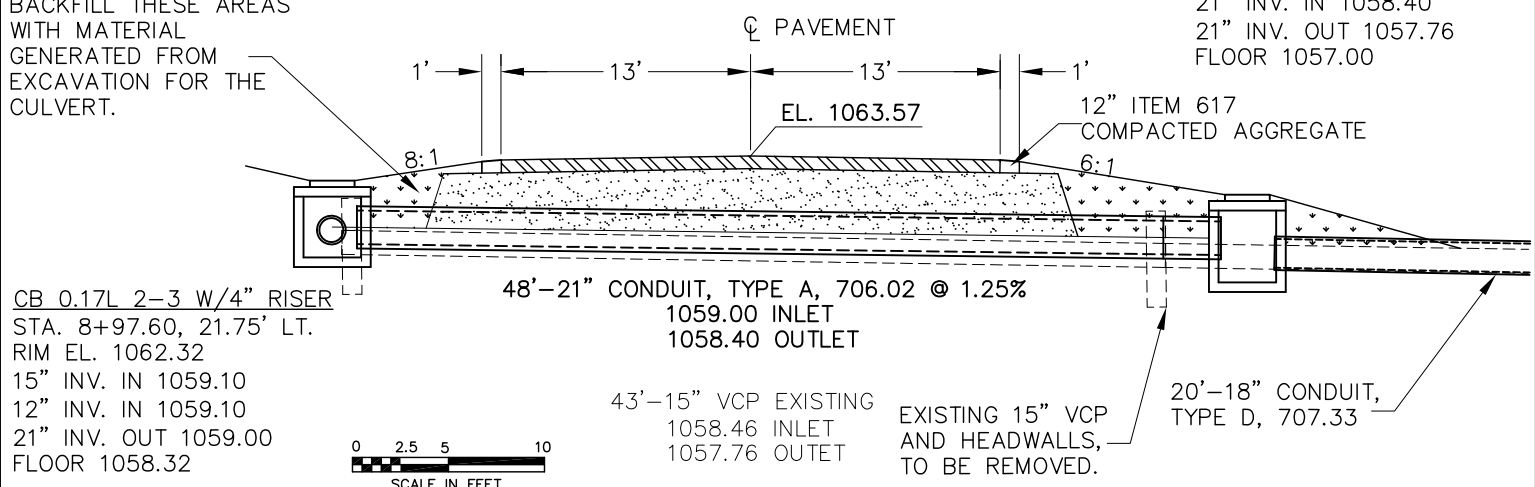
#57 BEDDING, EST. QTY. 12 CY,
 TO BE INCLUDED WITH ITEM 611
 21" CONDUIT, TYPE A, 706.02.



LSM BACKFILL, EST. QTY. 16 CY
 TO BE INCLUDED WITH ITEM 611
 21" CONDUIT, TYPE A, 706.02.

CB 0.17R 2-3 W/4" RISER
 STA. 8+97.60, 27' RT.
 RIM EL. 1061.60
 21" INV. IN 1058.40
 21" INV. OUT 1057.76
 FLOOR 1057.00

BACKFILL THESE AREAS
 WITH MATERIAL
 GENERATED FROM
 EXCAVATION FOR THE
 CULVERT.



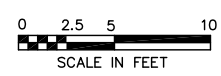
CB 0.17L 2-3 W/4" RISER
 STA. 8+97.60, 21.75' LT.
 RIM EL. 1062.32
 15" INV. IN 1059.10
 12" INV. IN 1059.10
 21" INV. OUT 1059.00
 FLOOR 1058.32

48'-21" CONDUIT, TYPE A, 706.02 @ 1.25%
 1059.00 INLET
 1058.40 OUTLET

43'-15" VCP EXISTING
 1058.46 INLET
 1057.76 OUTLET

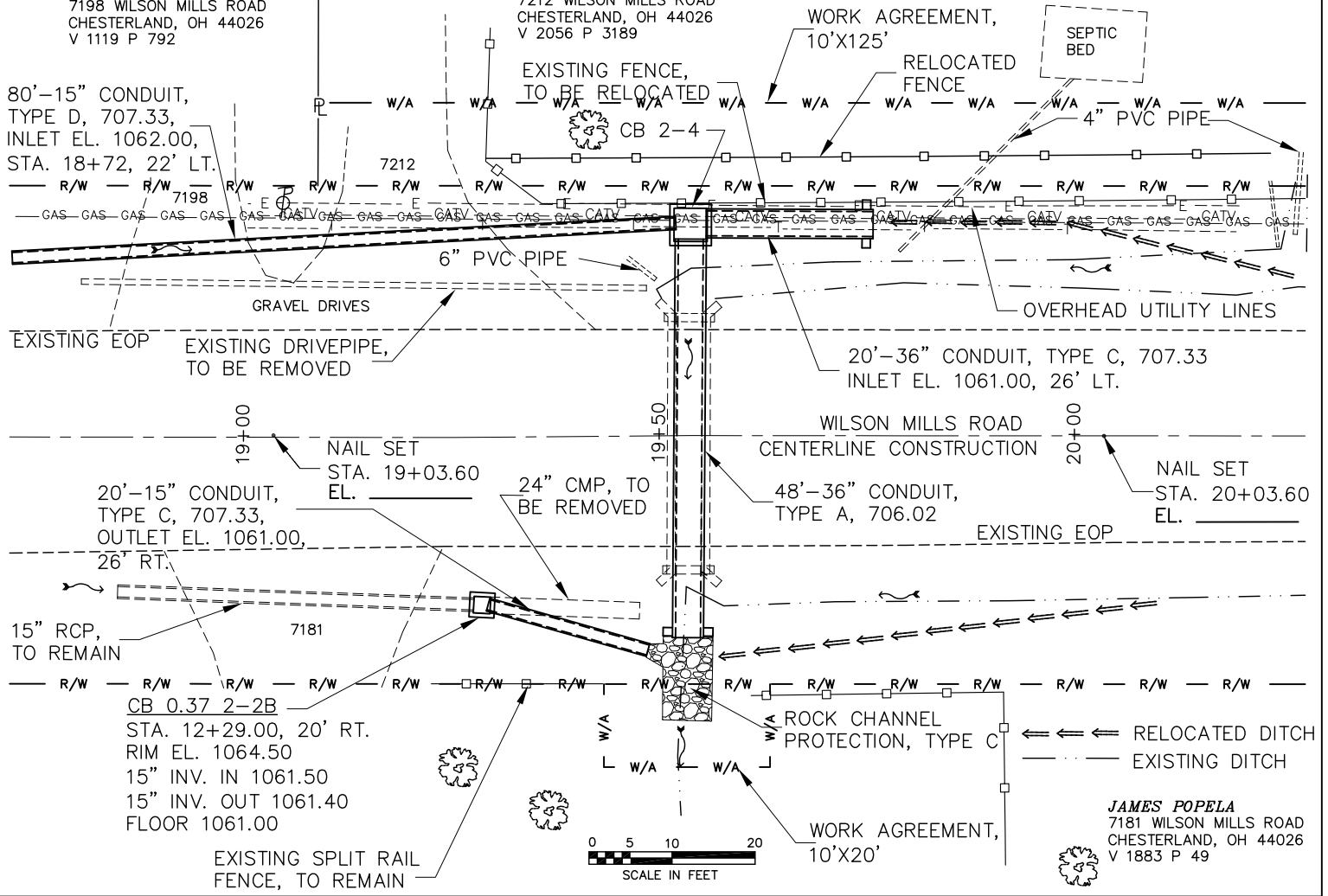
EXISTING 15" VCP
 AND HEADWALLS,
 TO BE REMOVED.

20'-18" CONDUIT,
 TYPE D, 707.33



JOHN & KATHLEEN BADEN
 7198 WILSON MILLS ROAD
 CHESTERLAND, OH 44026
 V 1119 P 792

MICHELE NICASTRO & NICHOLAS KEGLOVIC
 7212 WILSON MILLS ROAD
 CHESTERLAND, OH 44026
 V 2056 P 3189

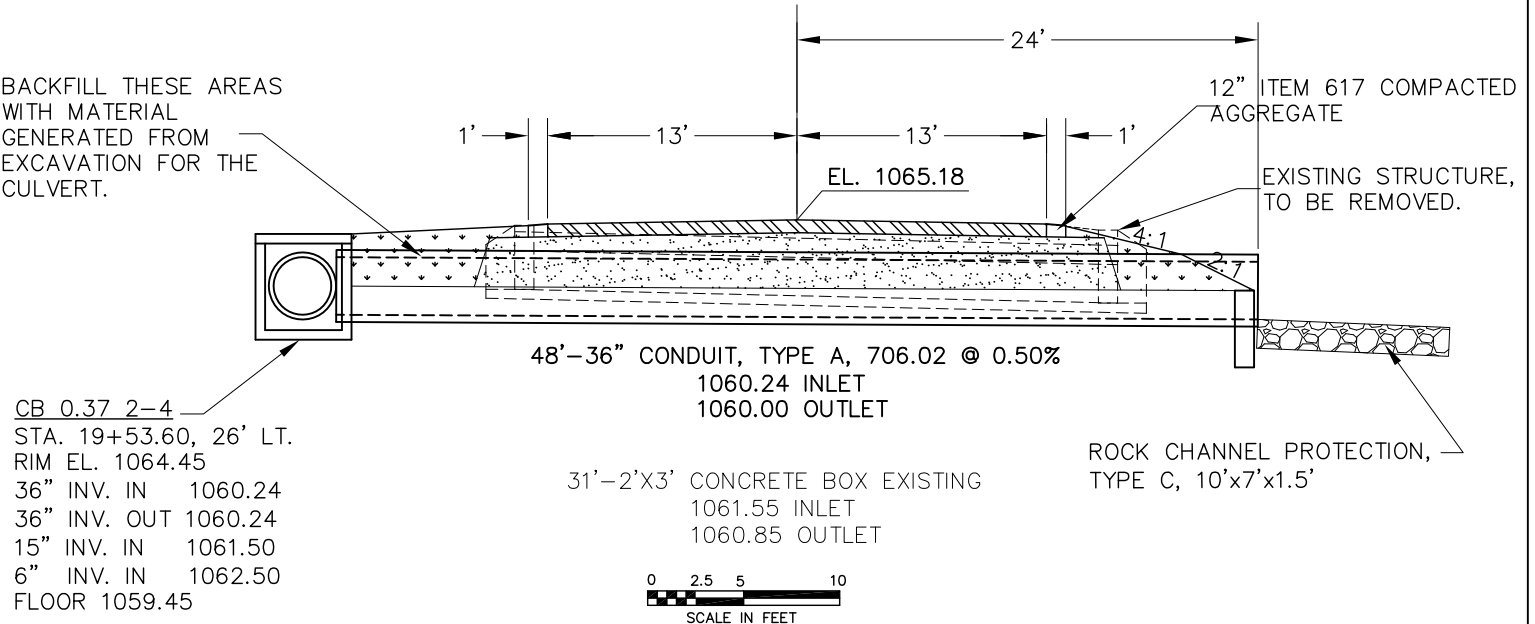


JAMES POPELA
 7181 WILSON MILLS ROAD
 CHESTERLAND, OH 44026
 V 1883 P 49

12" ITEM 301 ASPHALT CONCRETE BASE, PG 64-22, EST. QTY. 9 CY.

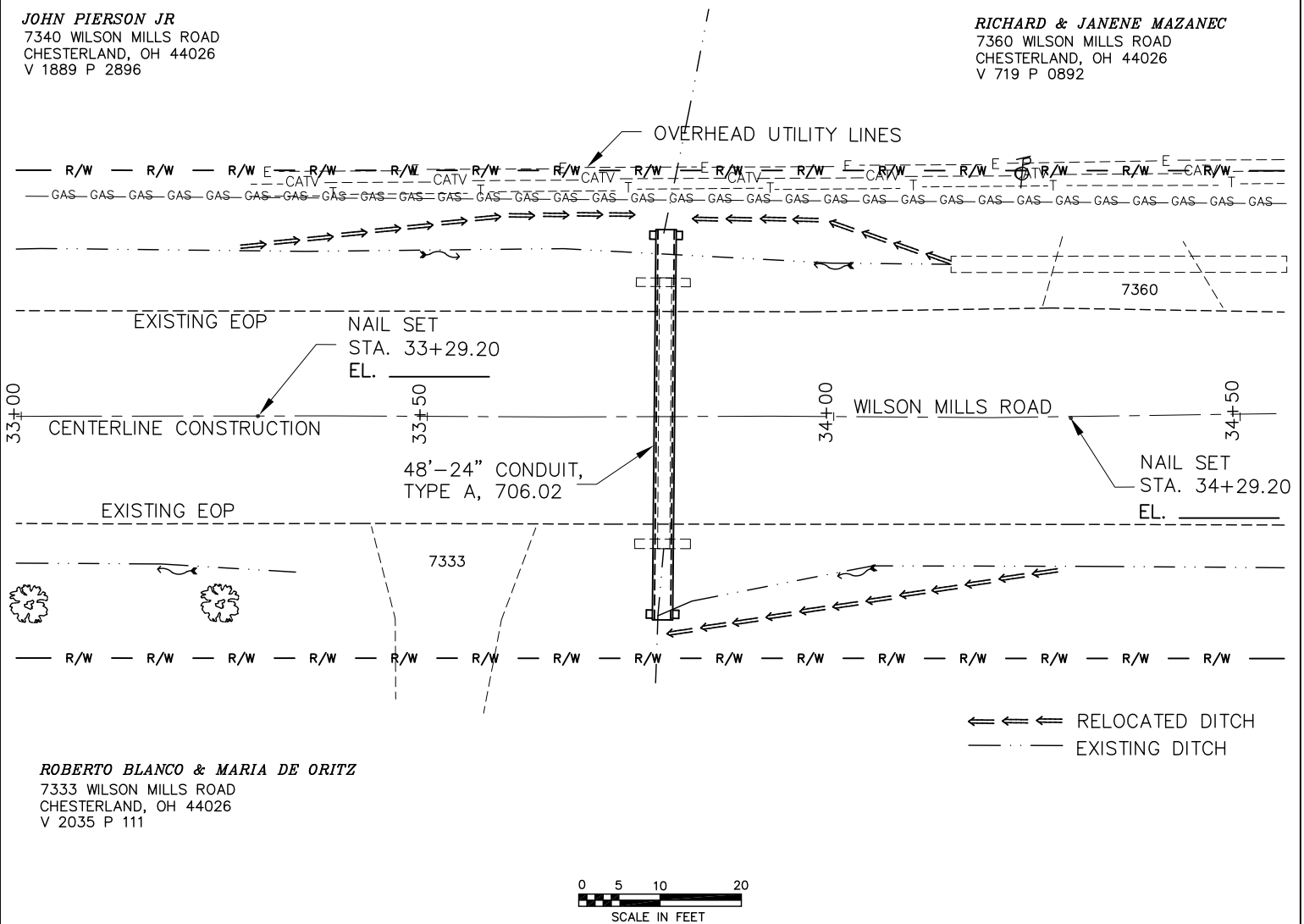
#57 BEDDING, EST. QTY. 18 CY, TO BE INCLUDED WITH ITEM 611 36" CONDUIT, TYPE A, 706.02.

LSM BACKFILL, EST. QTY. 17 CY TO BE INCLUDED WITH ITEM 611 36" CONDUIT, TYPE A, 706.02.



JOHN PIERSON JR
 7340 WILSON MILLS ROAD
 CHESTERLAND, OH 44026
 V 1889 P 2896

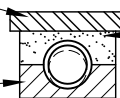
RICHARD & JANENE MAZANEC
 7360 WILSON MILLS ROAD
 CHESTERLAND, OH 44026
 V 719 P 0892



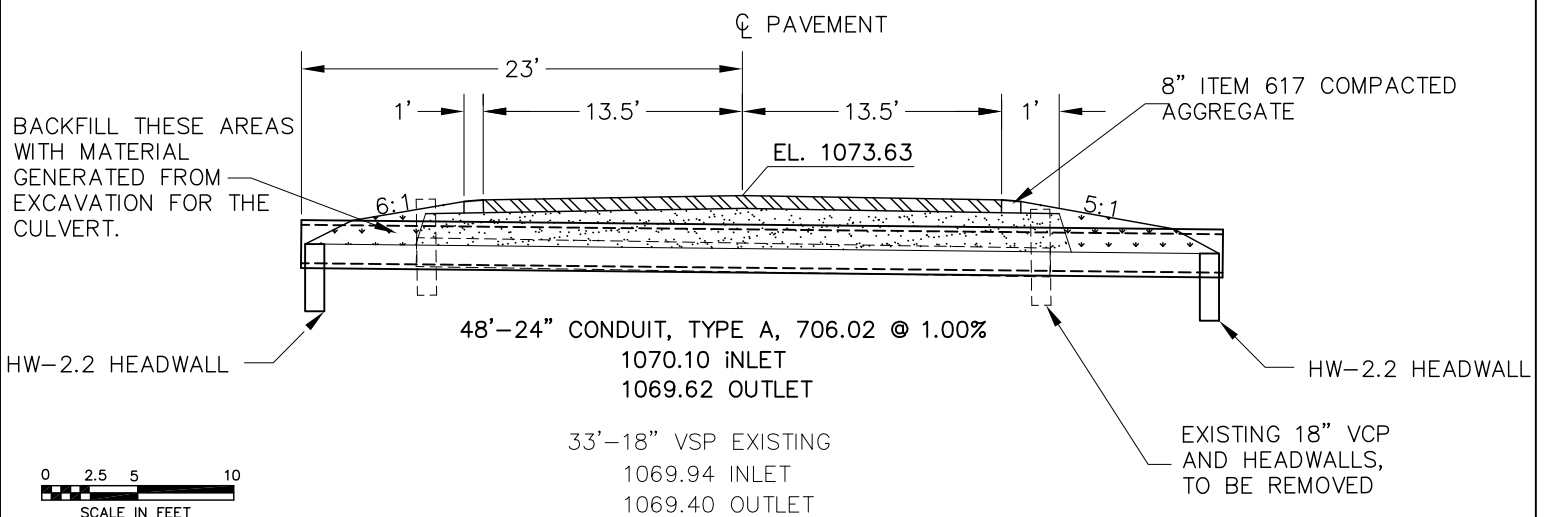
ROBERTO BLANCO & MARIA DE ORITZ
 7333 WILSON MILLS ROAD
 CHESTERLAND, OH 44026
 V 2035 P 111

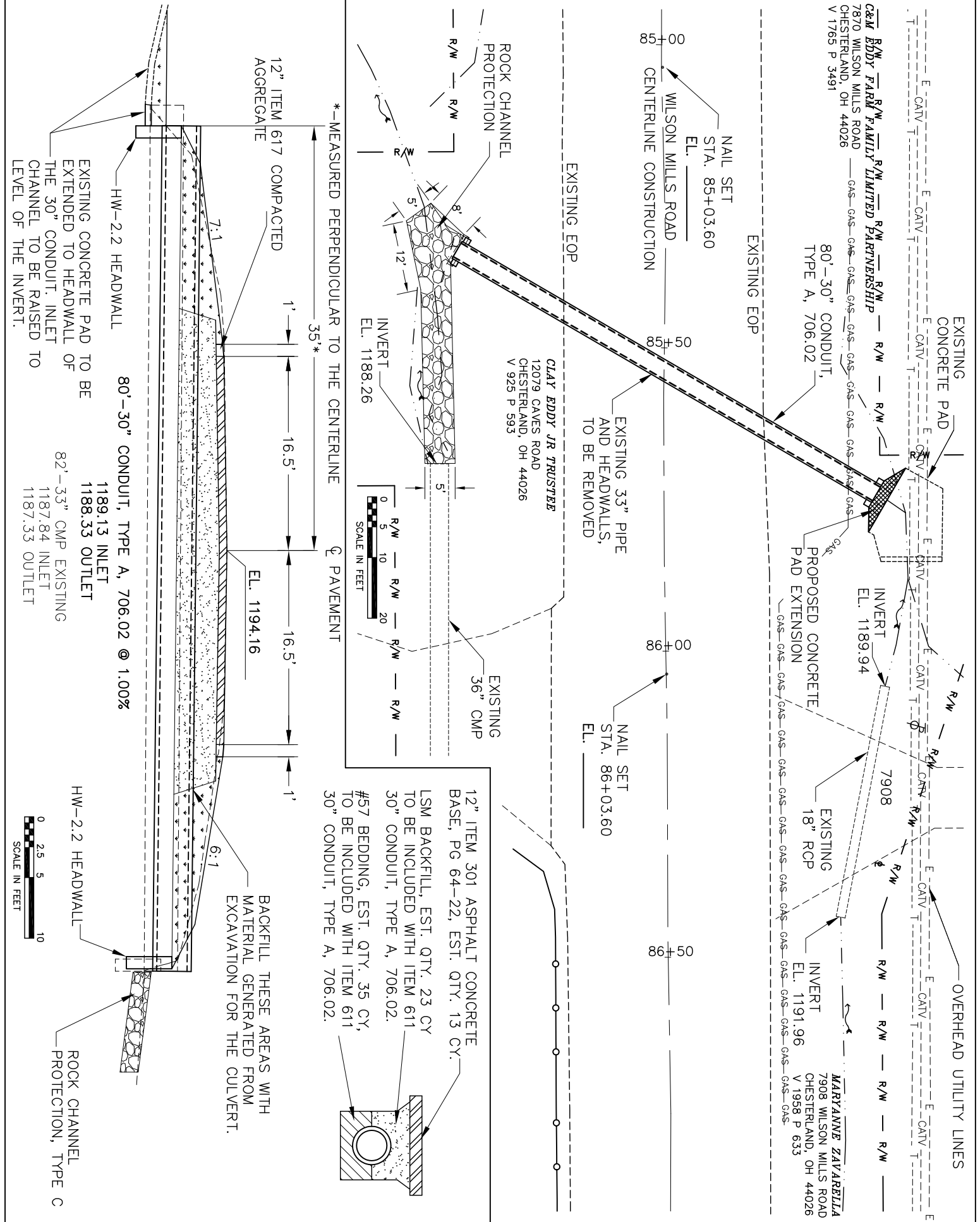
12" ITEM 301 ASPHALT CONCRETE
 BASE, PG 64-22, EST. QTY. 6 CY.

#57 BEDDING, EST. QTY. 12 CY,
 TO BE INCLUDED WITH ITEM 611
 24" CONDUIT, TYPE A, 706.02.



LSM BACKFILL, EST. QTY. 8 CY
 TO BE INCLUDED WITH ITEM 611
 24" CONDUIT, TYPE A, 706.02.





GEA-8 WILSON MILLS ROAD CULVERTS

8-1.62

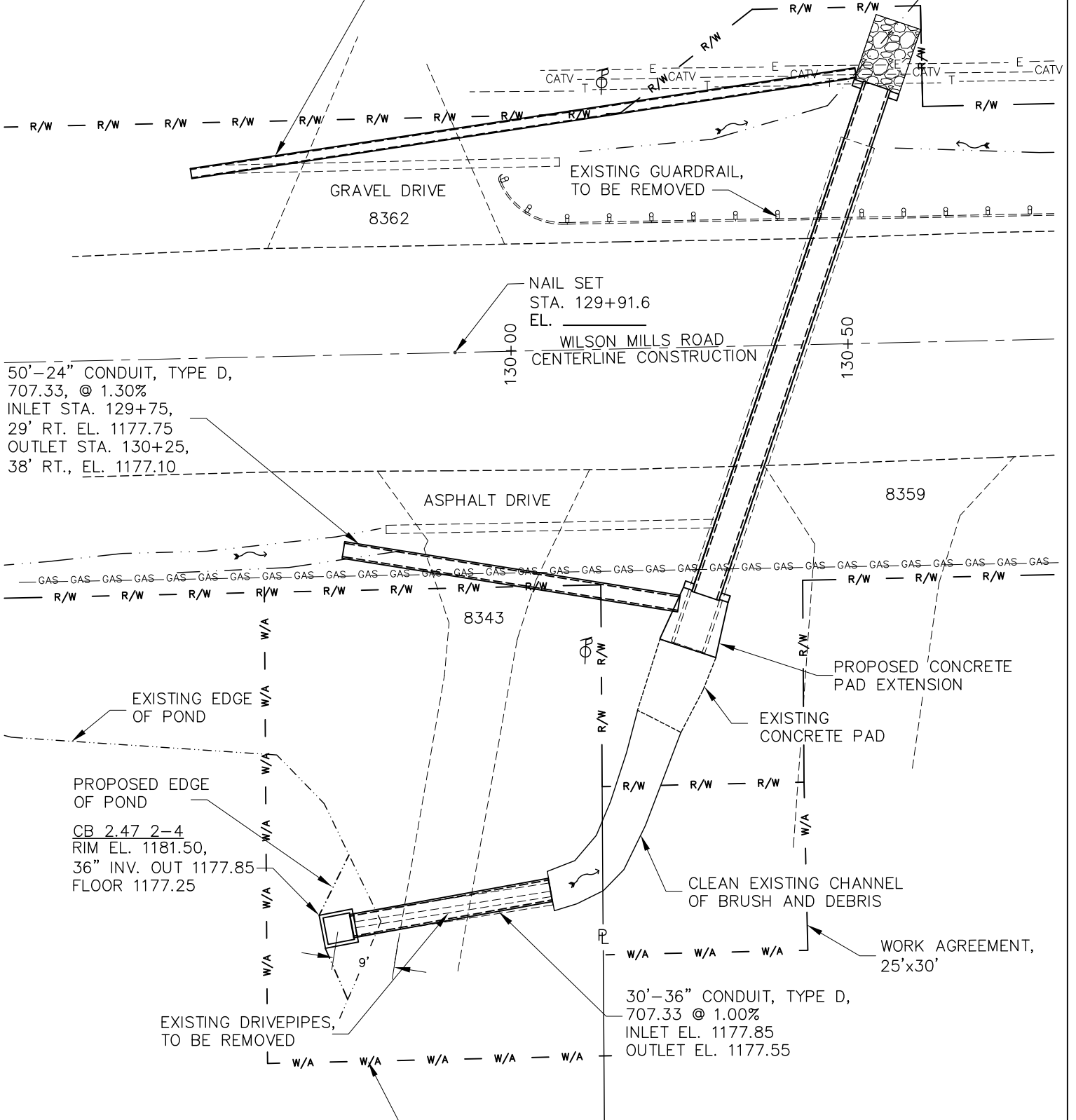
ASP CHECKED

SEH DATE 11/18



BONNIE GIBBS
 8362 WILSON MILLS ROAD
 CHESTERLAND, OH 44026
 V 1494 P 438

100'-15" CONDUIT, TYPE D, 707.33, @ 3.00%
 INLET STA. 129+53, 28' LT., EL. 1177.50
 OUTLET STA. 130+52, 41' LT., EL. 1174.50



50'-24" CONDUIT, TYPE D,
 707.33, @ 1.30%
 INLET STA. 129+75,
 29' RT. EL. 1177.75
 OUTLET STA. 130+25,
 38' RT., EL. 1177.10

NAIL SET
 STA. 129+91.6
 EL. _____

WILSON MILLS ROAD
 CENTERLINE CONSTRUCTION

ASPHALT DRIVE

8343

8359

PROPOSED CONCRETE
 PAD EXTENSION

EXISTING
 CONCRETE PAD

EXISTING EDGE
 OF POND

PROPOSED EDGE
 OF POND

CB 2.47 2-4
 RIM EL. 1181.50,
 36" INV. OUT 1177.85
 FLOOR 1177.25

CLEAN EXISTING CHANNEL
 OF BRUSH AND DEBRIS

WORK AGREEMENT,
 25'x30'

EXISTING DRIVEPIPES,
 TO BE REMOVED

30'-36" CONDUIT, TYPE D,
 707.33 @ 1.00%
 INLET EL. 1177.85
 OUTLET EL. 1177.55

WORK AGREEMENT,
 50'x70'

CARMELINE WORLEY
 8343 WILSON MILLS ROAD
 CHESTERLAND, OH 44026
 V 1261 P 141

DOROTHY KELLERHALL
 8359 WILSON MILLS ROAD
 CHESTERLAND, OH 44026
 V 2025 P 1625

12
 13

GEA-8 WILSON MILLS ROAD CULVERTS

8-2.47
 POND OUTLET CONTROL

DESIGNED
 ASP
 CHECKED
 SEH



JAMES BEIDLE
 8400 WILSON MILLS ROAD
 CHESTERLAND, OH 44026
 V 1199 P 191

