

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO PUBLIC ROADWAY IMPROVEMENTS PLAN FOR STATE ROUTE 18 (DESHLER ROAD) RELOCATION WOO-18-10.19

2010

PROJECT DESCRIPTION

This project consists of the reconstruction and relocation of 0.72 miles of State Route 18 / Deshler Road and intersection improvements along State Route 18 and Liberty Hi Road.

BENCH MARKS (NAVD 1988)

See Sheet No. 2.

UTILITY LISTINGS

See Sheet No. 8.

2010 SPECIFICATIONS

The Standard Specifications of the State of Ohio, Department of Transportation, including changes and supplemental specifications listed in the Proposal shall govern this improvement.

DESIGN EXCEPTIONS

None

BASIS OF BEARING

The bearings shown on this plan are based on the UTM Coordinate System, 17 NORTH, NAD83 (2007). Said bearings originated from a field traverse which was tied (referenced) to said coordinate system by GPS observations and observations of selected NGS monuments P9A, P3, and P3A. The portion of the centerline of State Route 18, having a bearing of South 87° 49' 43" East and monumented as shown hereon, is designated the "basis of bearing" for this plan.

SHEET INDEX

Title Sheet.....	1
Schematic Plan.....	2
Typical Sections.....	3-6
General Notes.....	7-8
Maintenance of Traffic Plan.....	9-11
General Summary.....	12
Erosion and Sediment Control Plan.....	13-15
Plan and Profiles.....	16-24
Cross Sections.....	25-41
Cross Sections - Liberty Hi.....	42
Superelevation Tables.....	43-44
Pavement Details.....	45-48
Intersection Detail.....	49
Pavement Removal Plan.....	50-52
Field Tile and Drainage Plan.....	53
Stormwater Management Basin Plan.....	54
East Side Offsite Drainage.....	55
Master Tributary Map.....	56
SR18 Tributary Map.....	57
Storm Sewer Profiles.....	58
Culvert Details.....	59-68
Traffic Control Plan.....	69-70

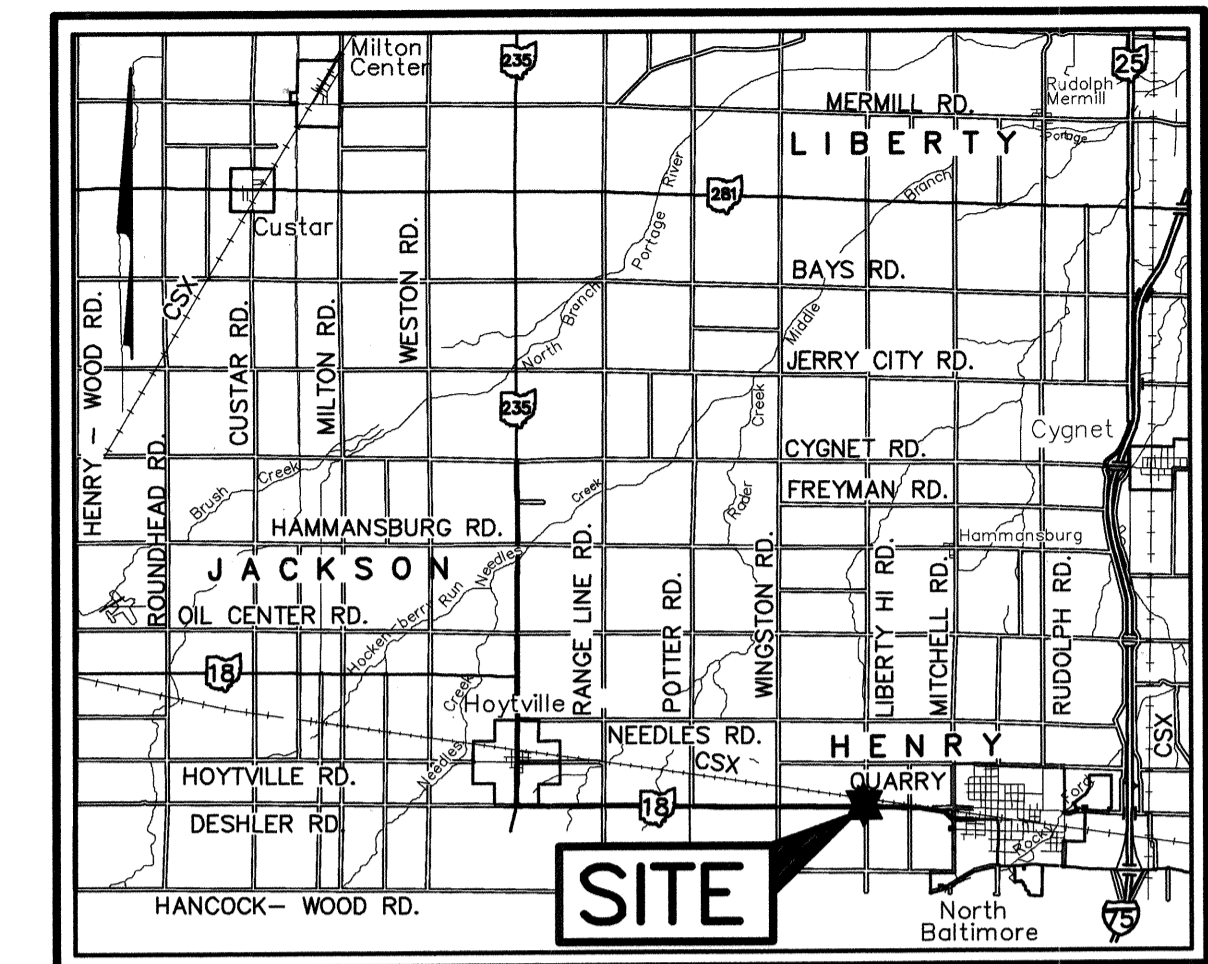
STANDARD CONSTRUCTION DRAWINGS

The Standard Construction Drawings listed on these plans shall be considered a part thereof.

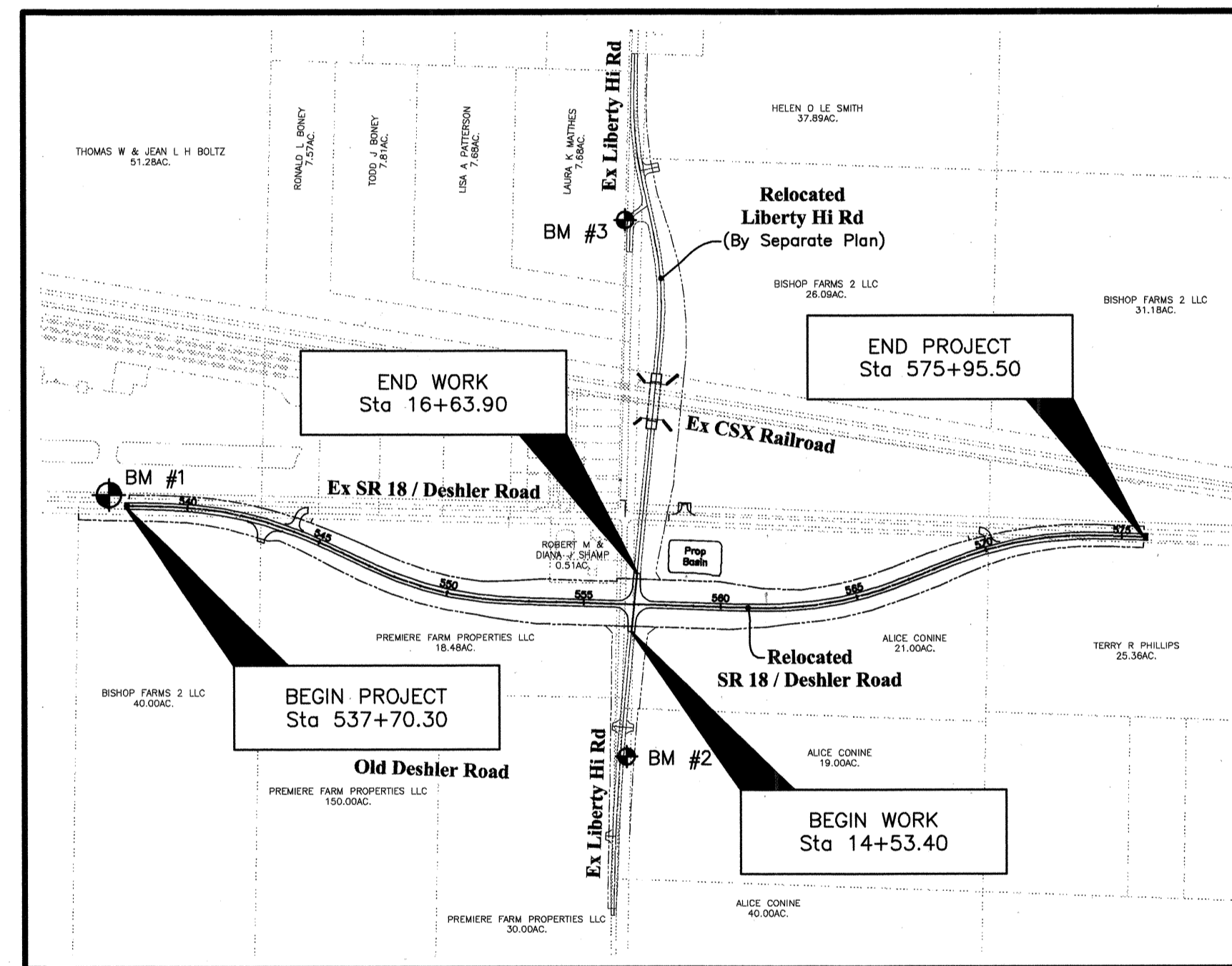
BP-3.1	GR-1.1	DM-1.1	TC-41.20	MT-97.10
BP-4.1	GR-2.1	DM-1.2	TC-41.30	MT-97.11
	GR-5.2	DN-1.4	TC-41.40	MT-99.20
F-2.1	GR-5.3	DM-4.3	TC-42.20	MT-101.60
		DM-4.4	TC-52.10	MT-101.90
CB-1.2	MH-1.1		TC-52.20	MT-105.10
CB-1.3	MH-1.2	WQ-1.1	TC-61.30	MT-110.10
		WQ-1.2	TC-65.10	
HW-1.1			TC-65.11	
HW-2.1		RM-1.1	TC-73.10	
HW-2.2				

SUPPLEMENTAL SPEC

832-2010
861-2010

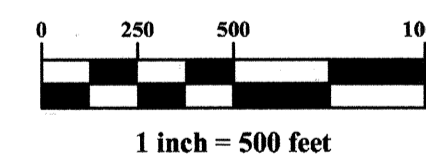


LOCATION MAP
No Scale



INDEX MAP
Scale: 1" = 500'

GRAPHIC SCALE



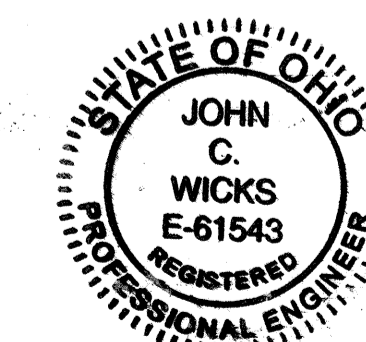
DESIGN DESIGNATION	SR18 / DESHLER ROAD
Current ADT (2010).....	1,930
Design Year ADT (2030).....	3,000
Directional Distribution.....	50%
Trucks (24 hour B&C).....	23%
Design Speed.....	60 MPH
Legal Speed.....	55 MPH
Design Functional Classification.....	Rural Major Collector



Know what's below.
Call before you dig.

PREPARED BY:

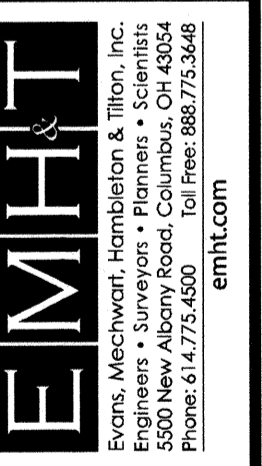
EMHT
Evans, Mechwart, Hambleton & Tilton, Inc.
Engineers • Surveyors • Planners • Scientists
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.4500 Toll Free: 888.773.3648
emht.com



John C. Wicks 61543 9/28/10
Registered Engineer No. Date

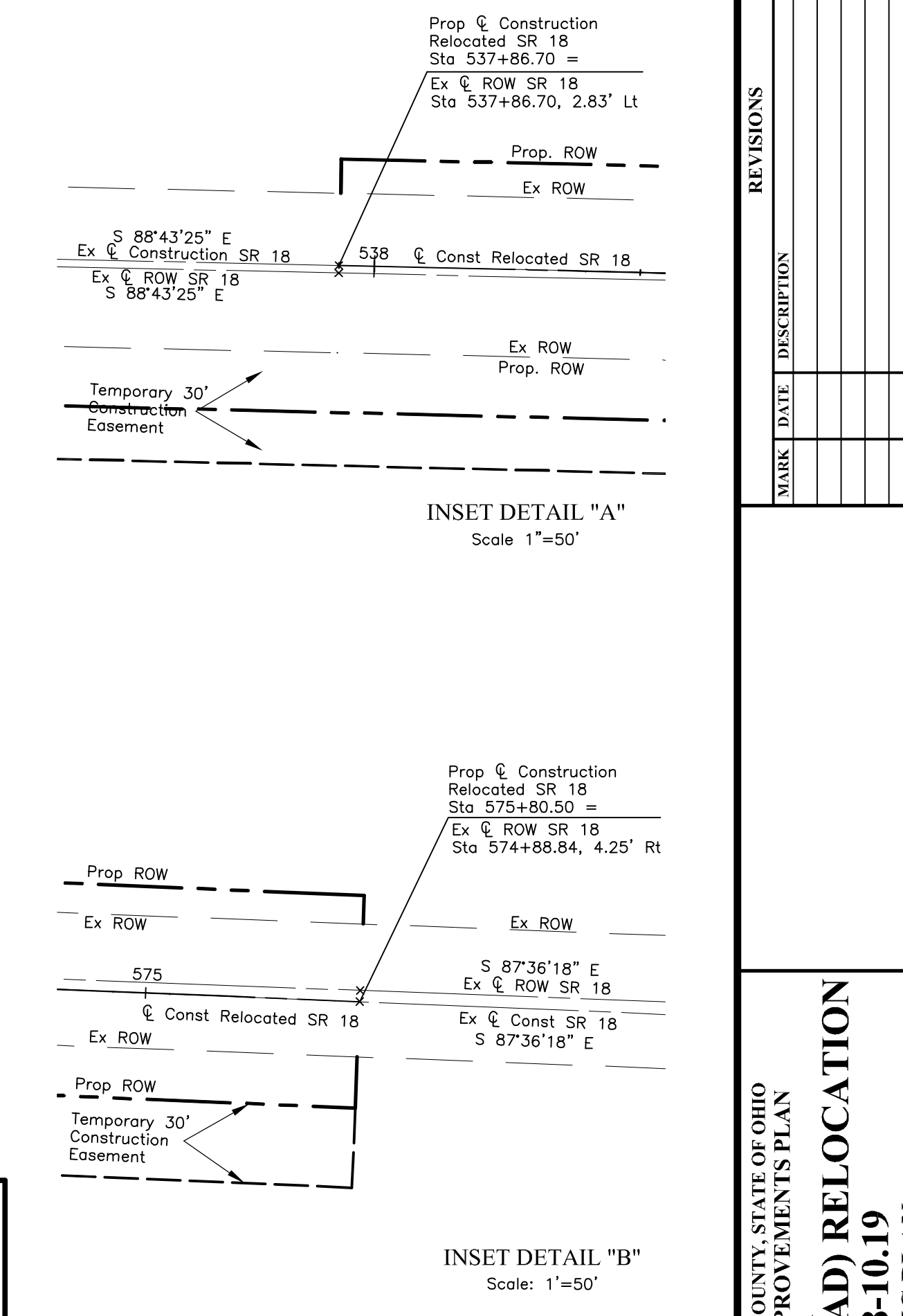
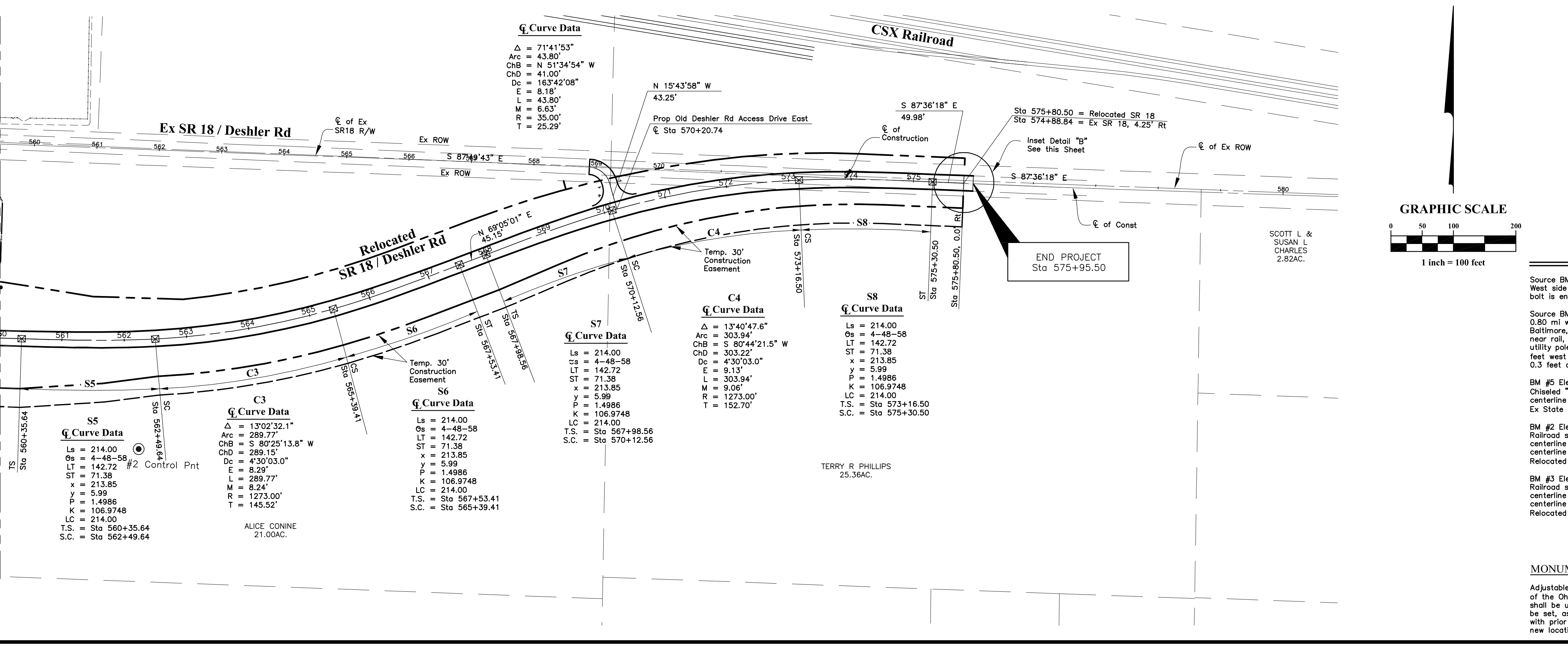
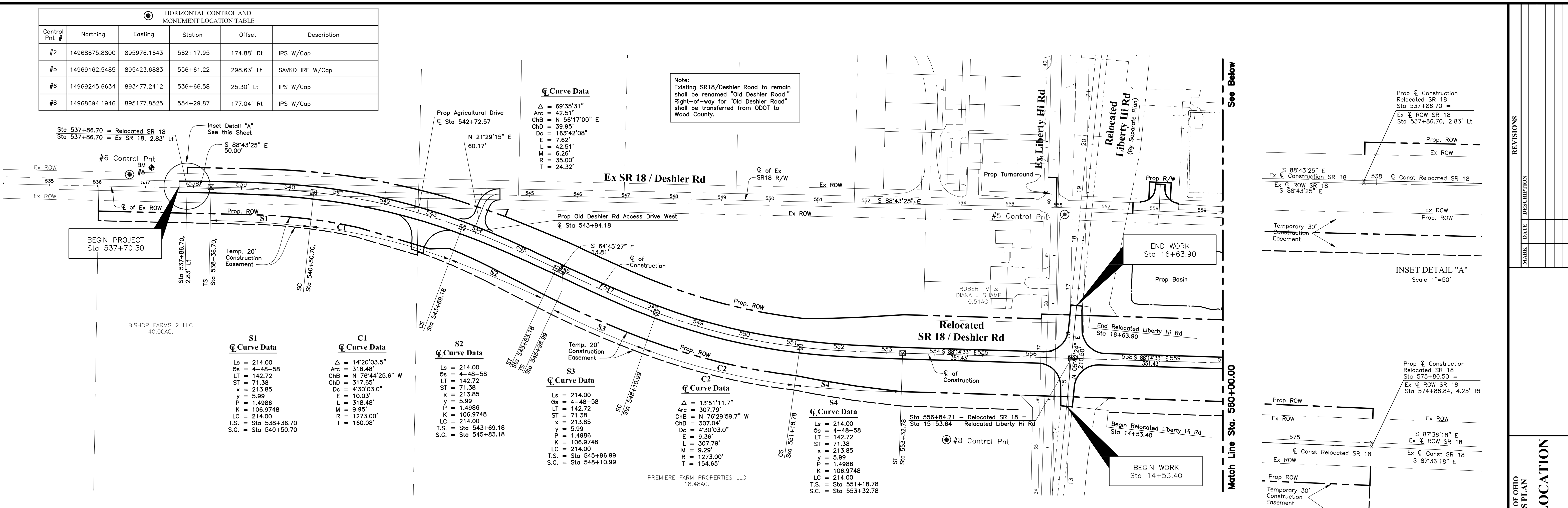
MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
PUBLIC ROADWAY IMPROVEMENTS PLAN
FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10.19
TITLE SHEET



DATE	September 24, 2010
SCALE	As Noted
JOB NO.	20091333
SHEET	1/70

Control Pnt #	Northing	Eastings	Station	Offset	Description
#2	14968675.8800	895976.1643	562+17.95	174.88' Rt	IPS W/Cap
#5	14969162.5485	895423.6883	556+61.22	298.63' Lt	SAVKO IRF W/Cap
#6	14969245.6634	893477.2412	536+66.58	25.30' Lt	IPS W/Cap
#8	14968694.1946	895177.8525	554+29.87	177.04' Rt	IPS W/Cap



GRAPHIC SCALE
1 inch = 100 feet

BENCH MARKS
Based On Wood County NAVD 1988 U.S.G.S. Datum

Source BM M171 Elev=714.94 (NAVD 88)
West side of Liberty Hi Road, north of the railroad by an electric pole. The copper bolt is encased in a PVC tube that has a cap on the end of PVC tube.

Source BM K312 Elev=719.87 (NAVD 88)
0.80 mi westerly along the Chessie Systems Railroad from the station in North Baltimore, 48.2 feet northwest of the north end of a culvert, 33.5 feet south of the near rail, 30.8 feet north of the centerline of State Highway 18, 2.0 feet east of a utility pole with four guy cables, 1.3 feet below the level of the highway, and 1.0 feet west of a witness post. The disk is encased in a 4" metal pipe and projects 0.3 feet above the ground surface.

BM #5 Elev=715.85 (NAVD 88)
Chiseled "X" on the south bolt of a fire hydrant, located 1900 feet west of the centerline of Liberty Hi Road and 35 feet north of the centerline of State Route 18. Ex State Route 18 Centerline of Right-of-Way, Sta 537+12.30, 40.33' Lt.

BM #2 Elev=718.92 (NAVD 88)
Railroad spike in the west side of an electric pole, located 35 feet east of the centerline of existing Liberty Hi Road and 840 feet south of the centerline of existing State Route 18. Relocated Liberty Hi Rd, Sta 9+97.71, 23.11' Rt.

BM #3 Elev=714.84 (NAVD 88)
Railroad spike in the east side of an electric pole, located 20 feet west of the centerline of existing Liberty Hi Road and 1090 feet north of the centerline of existing State Route 18. Relocated Liberty Hi Rd, Sta 29+86.39, 91.27' Lt.

☒ = Monument to be Installed, Per RM-1.1

MONUMENTS:
Adjustable Centerline Monuments are shown on Standard Construction Drawing RM-1.1 of the Ohio Department of Transportation (ODOT). The placing of the monuments shall be under the direction of a surveyor registered in the State of Ohio and are to be set, as shown, by the Contractor at the time of construction. Any alterations, with prior approval of Wood County, shall be noted and they shall be notified of the new location.

REVISIONS

MARK	DATE	DESCRIPTION

**HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
PUBLIC ROADWAY IMPROVEMENTS PLAN
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
SCHEMATIC PLAN**

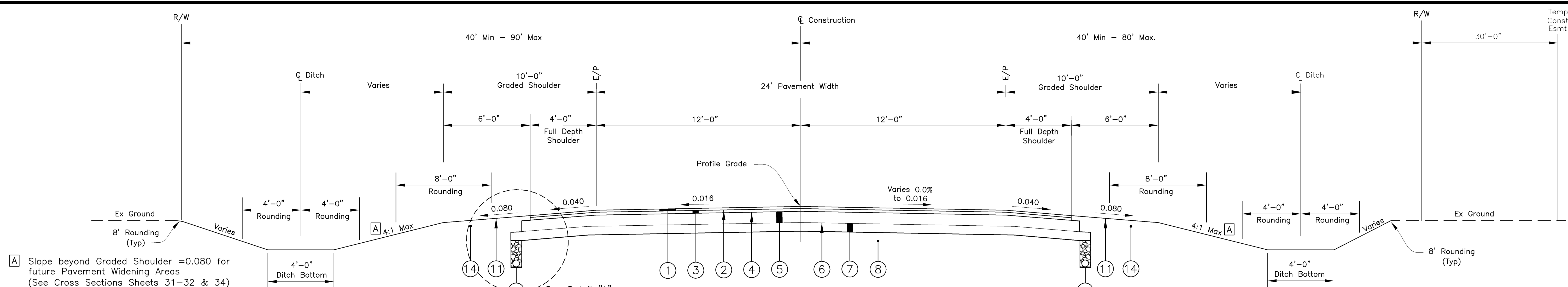
EMMT
Evans, Mechwart, Hamilton & Tilton, Inc.
5500 New Albany Road, Columbus, OH 43254
Phone: 614.775.8000 Fax: 614.775.3446 emmt.com

DATE: September 24, 2010

SCALE: 1" = 100'

JOB NO.: 20091333

SHEET: 2/70



A Slope beyond Graded Shoulder = 0.080 for future Pavement Widening Areas (See Cross Sections Sheets 31-32 & 34) Sta 553+32.78 to Sta 554+89.15 Sta 558+79.28 to Sta 559+92.82

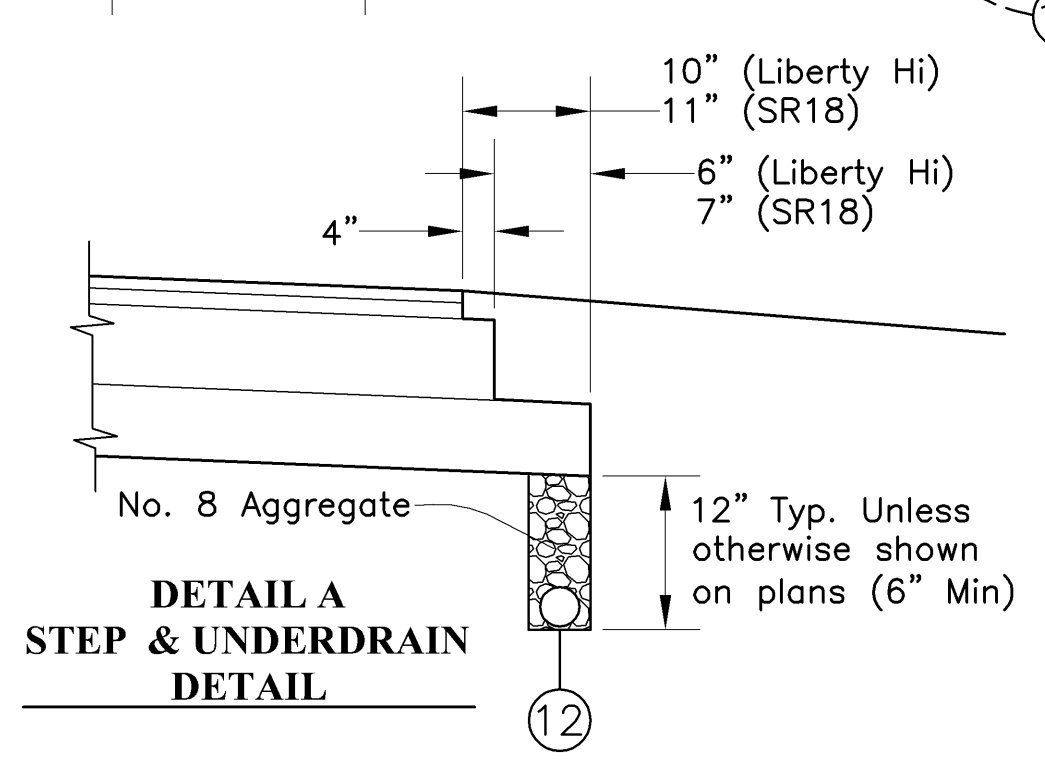
B For pavement cross slope \leq 4%, 4%
For pavement cross slope $>$ 4% match pavement cross slope (See Detail B, This Sheet)

C Same slope as pavement

D Pvmnt cross slope \leq 0.030, 0.040,
Pvmnt cross slope 0.030 to 0.060 varies to maintain 7% break at Edge of Pvmnt

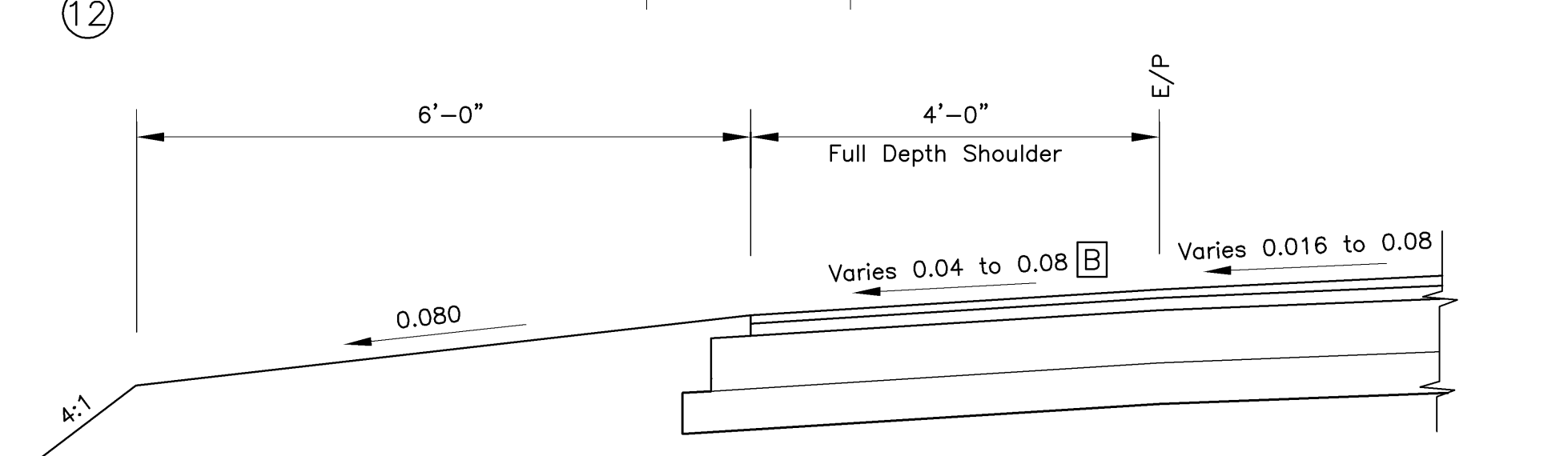
E Pvmnt cross slope varies Sta 14+87.21 to Sta 16+20.07 (See Intersection Detail, Sheet 49)

F Pvmnt width varies (See Intersection Detail, Sheet 49)

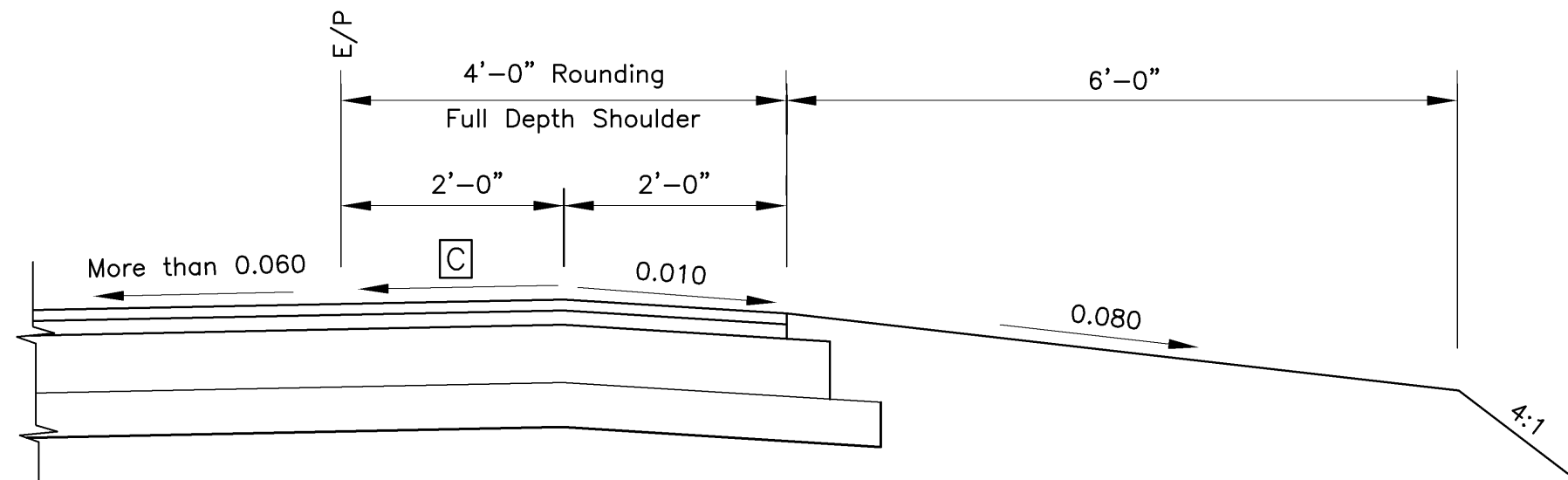


**DETAIL A
STEP & UNDERDRAIN
DETAIL**

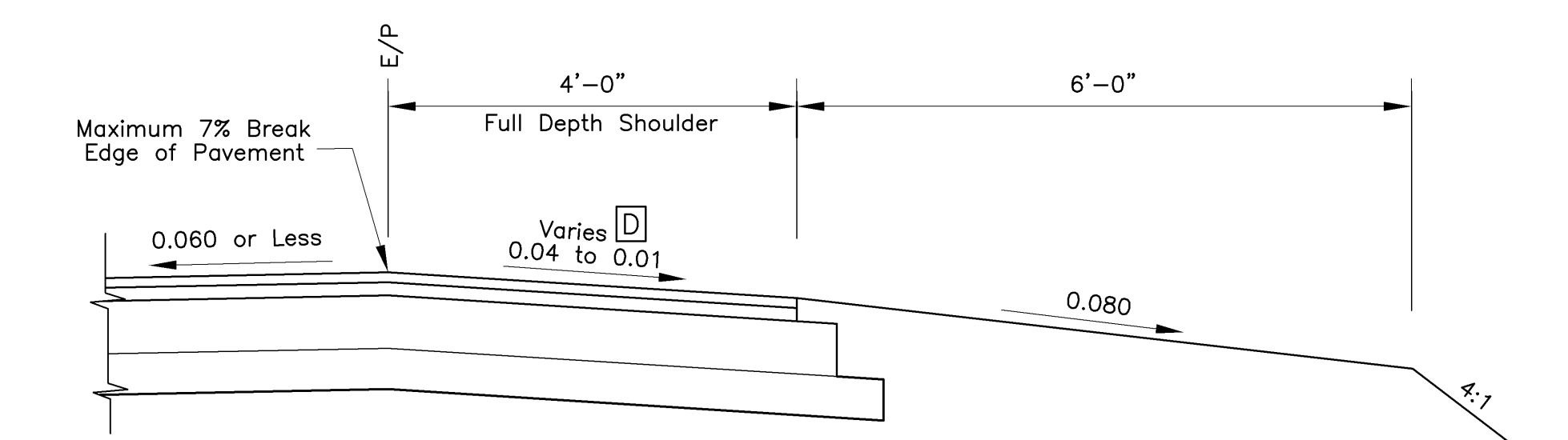
- LEGEND**
- ① = Item 442 - 1 1/2" Asphalt Concrete Surface Course, 12.5 mm, Type A (446)
 - ② = Item 407 - Tack Coat for Intermediate Course (0.04 Gal/sy)
 - ③ = Item 442 - 1 3/4" Asphalt Concrete Intermediate Course, 19 mm, Type A, PG70-22 (448)
 - ④ = Item 407 - Tack Coat (0.075 Gal/sy)
 - ⑤ = Item 301 - 7" Asphalt Concrete Base, PG64-22
 - ⑥ = Item 408 - Prime Coat (0.40 Gal/sy)
 - ⑦ = Item 304 - 6" Aggregate Base
 - ⑧ = Item 204 - Subgrade Compaction
 - ⑨ = Item 304 - 8" Aggregate Base (Min., Variable to slope towards underdrain)
 - ⑩ = Item 422 - Single Chip Seal
 - ⑪ = Item 659 - Seeding and Mulching, Class 2, As Per Plan
 - ⑫ = Item 605 - 6" Base Pipe Underdrain (See Plans for Unclassified Pipe Location)
 - ⑬ = Item 301 - 3" Asphalt Concrete Base, PG64-22
 - ⑭ = Item 652 - 4" Placing Stockpiled Topsoil, As Per Plan
 - ⑮ = Item 304 - 8" Aggregate Base
 - ⑯ = Item 254 - Pavement Planing, Asphalt Concrete Variable Depth (0-1 1/2")
 - ⑰ = Item 407 - Tack Coat for Intermediate Course (0.10 Gal/sy)
 - ⑱ = Item 617 - Shoulder Reconditioning, Miscellaneous: As Per Plan
 - ⑲ = Item 448 - 1 1/2" Asphalt Concrete Surface Course, Type 1H
 - ⑳ = Item 448 - 1 3/4" Asphalt Concrete Intermediate Course, Type 2, PG64-28



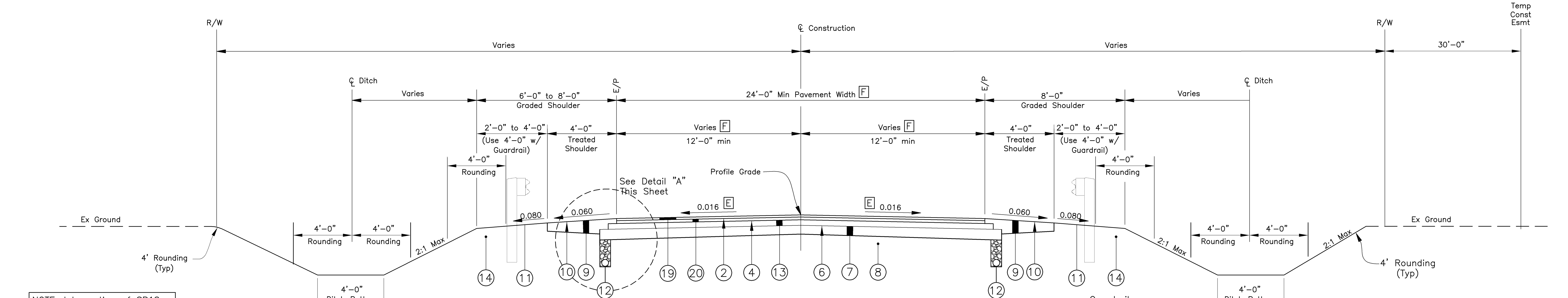
**DETAIL B
SUPER ELEVATED
SHOULDER (Low Side)**



**DETAIL C
SUPER ELEVATED
SHOULDER (High Side)
w/Pvmt Cross Slope Greater Than 0.060**



**DETAIL D
SUPER ELEVATED
SHOULDER (High Side)
w/Pvmt. Cross Slope 0.060 or Less**



NOTE: Intersection of SR18 and Liberty Hi Road shall be constructed using SR18's proposed composition up to radius returns.

**TYPICAL CROWNED SECTION
LIBERTY HI ROAD**

From Sta 14+53.40 to Sta 14+94.17 (Liberty Hi stationing)
From Sta 16+15.02 to Sta 16+63.90 (Liberty Hi stationing)

Sta 14+53.40 to Sta 15+00.65
Sta 16+15.02 to Sta 16+63.90

MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
PUBLIC ROADWAY IMPROVEMENTS PLAN
FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
TYPICAL SECTIONS

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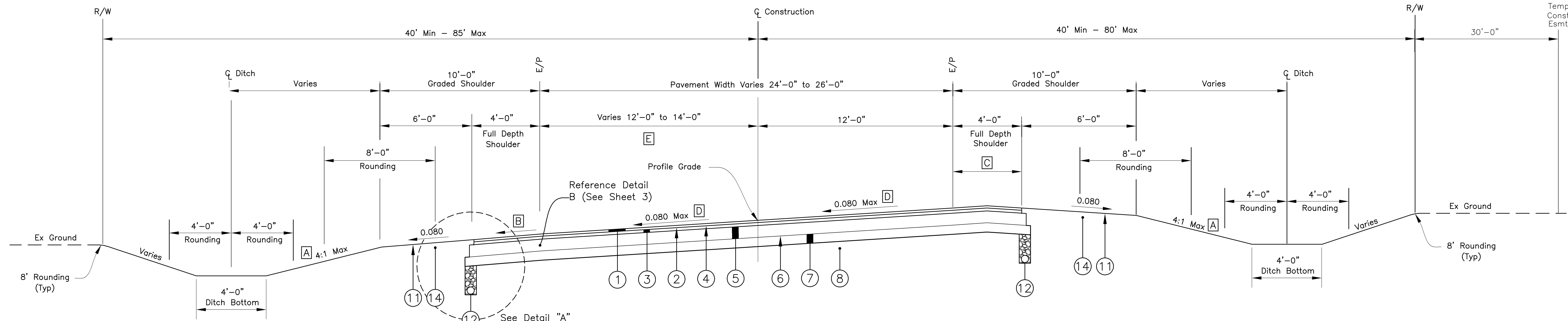
DATE
September 24, 2010

SCALE
None

JOB NO.
20091333

SHEET
3/70

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**TYPICAL SECTION
SUPERELEVATED LEFT
STATE ROUTE 18**

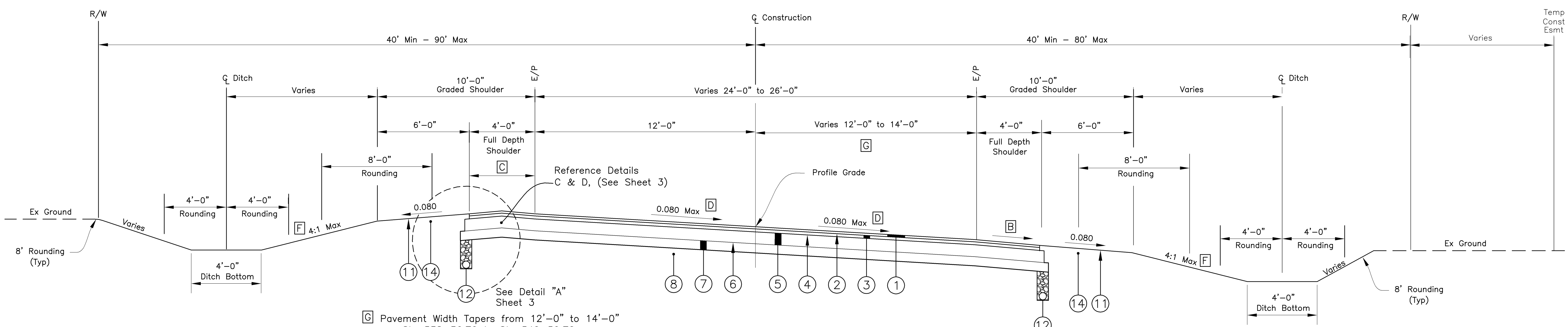
From Sta 545+90.09 to Sta 553+75.60
From Sta 559+92.82 to Sta 567+75.98

- E** Pavement Width Tapers 12'-0" to 14'-0"
Sta 545+96.99 to Sta 548+10.99
Sta 560+35.64 to Sta 562+49.64
Pavement Width Equals 14'-0"
Sta 548+10.99 to Sta 551+18.78
Sta 562+49.64 to Sta 565+39.41
Pavement Width Equals 12'-0"
Sta 553+32.78 to Sta 553+75.60
Sta 559+92.82 to Sta 560+35.64
Sta 567+53.41 to Sta 567+75.98
Pavement Width Tapers 14'-0" to 12'-0"
Sta 551+18.78 to Sta 553+32.78
Sta 565+39.41 to Sta 567+53.41

- A** Slope beyond Graded Shoulder = 0.080 for future Pavement Widening Areas (See Cross Sections Sheets 29-31 and 34-36)
Sta 548+71.71 to Sta 553+32.78
Sta 559+92.82 to Sta 564+96.75
- B** For pavement cross slope ≤ 4%, 4%
For pavement cross slope > 4% match pavement cross slope (See Detail B, Sheet 3)
- C** For high side shoulder slopes on superelevated sections see details C&D (Sheet 3)
- D** Pvmnt Cross-Slope Varies (See Superelevation Tables, Sheets 42-43)

NOTE: Intersection of SR18 and Liberty Hi Road shall be constructed using SR18's proposed pavement composition up to radius returns.

SEE SHEET 3 FOR LEGEND



**TYPICAL SECTION
SUPERELEVATED RIGHT
STATE ROUTE 18**

From Sta 539+50.00 to Sta 545+90.09
From Sta 554+89.15 to Sta 558+79.28
(See Intersection Detail, Sheet 49)
From Sta 567+75.98 to Sta 574+00.00

- G** Pavement Width Tapers from 12'-0" to 14'-0"
Sta 538+36.70 to Sta 540+50.70
Sta 567+98.56 to Sta 570+12.56
Pavement Width Equals 14'-0"
Sta 540+50.70 to Sta 543+69.18
Sta 570+12.56 to Sta 573+16.50
Pavement Width Equals 12'-0"
Sta 545+83.18 to Sta 545+90.09
Sta 554+89.15 to Sta 558+79.28
Sta 567+75.98 to Sta 567+98.56
Pavement Width Tapers from 14'-0" to 12'-0"
Sta 543+69.18 to Sta 545+83.18
Sta 573+16.50 to Sta 575+30.50

- F** Slope beyond Graded Shoulder = 0.080 for future Pavement Widening Areas (See Cross Sections Sheets 32-34)
Sta 554+89.15 to Sta 558+79.28

MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
PUBLIC ROADWAY IMPROVEMENTS PLAN
FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10.19
TYPICAL SECTIONS



DATE
September 24, 2010

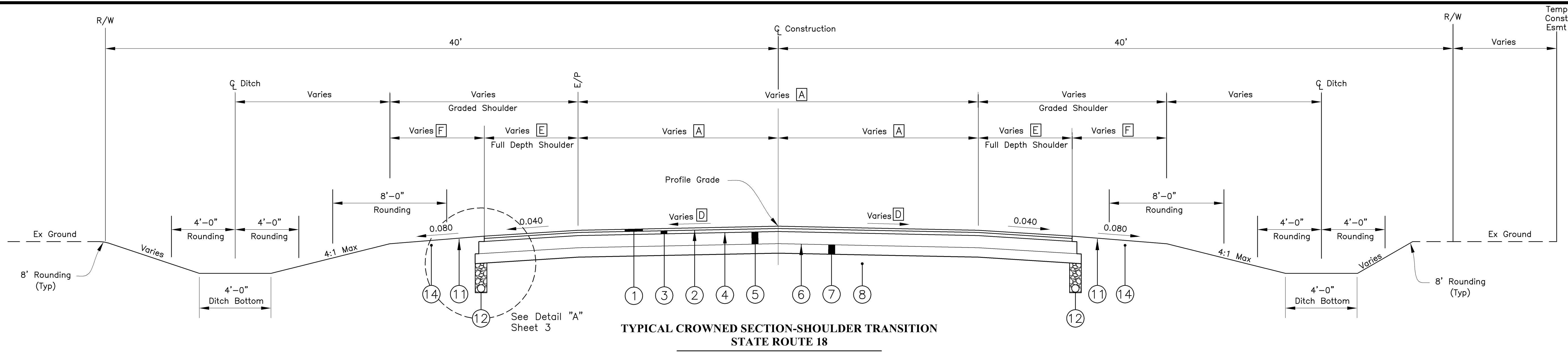
SCALE
None

JOB NO.
20091333

SHEET
4/70

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TYPICAL CROWNED SECTION-SHOULDER TRANSITION
STATE ROUTE 18

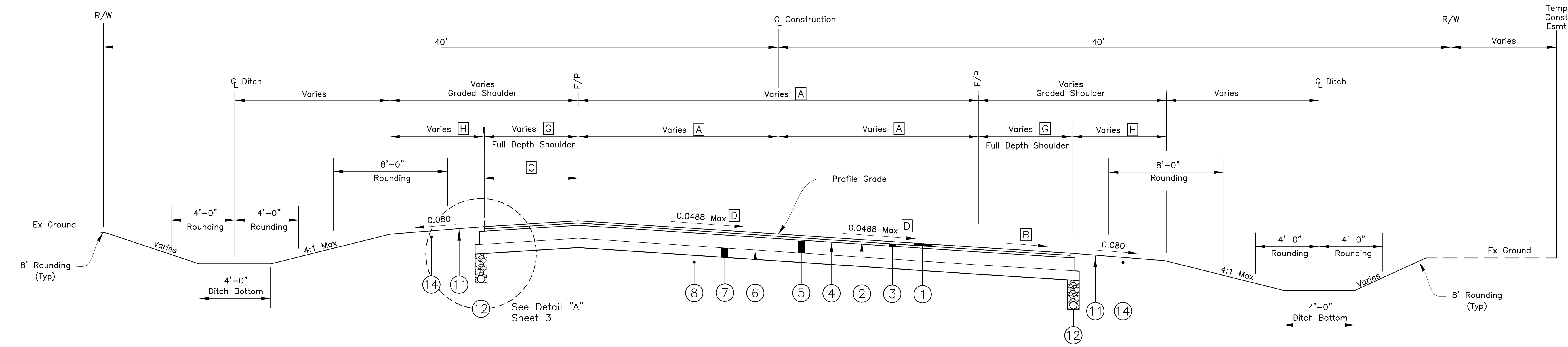
From Sta 537+86.70 to Sta 537+93.88
 From Sta 575+73.32 to Sta 575+80.50

- A** Pmnt Width Varies (See Superelevation Tables, Sheets 43-44)
- B** For pavement cross slope < 4%, 4%
For pavement cross slope > 4% match pavement cross slope (See Detail B, Sheet 3)
- C** For high side shoulder slopes on superelevated sections see detail C&D (Sheet 3)
- D** Pmnt Cross-Slope Varies (See Superelevation Tables, Sheets 42-43)

- E** Varies from 2' to 2.24'
Sta 537+86.70 to Sta 537+93.88 (Lt)
Varies from 2' to 2.25'
Sta 537+86.70 to Sta 537+93.88 (Rt)
Varies from 2.29' to 2'
Sta 575+73.32 to Sta 575+80.50 (Lt & Rt)

- F** Varies from 0' to 0.38'
Sta 537+86.70 to Sta 537+93.88 (Lt)
Varies from 0' to 0.29'
Sta 537+86.70 to Sta 537+93.88 (Rt)
Varies from 0.24' to 0'
Sta 575+73.32 to Sta 575+80.50 (Lt & Rt)

SEE SHEET 3 FOR LEGEND



TYPICAL SECTION
SUPERELEVATED RIGHT-SHOULDER TRANSITION
STATE ROUTE 18

From Sta 537+93.88 to Sta 539+50.00
 From Sta 574+00.00 to Sta 575+73.32

- G** Varies from 2.24' to 4'
Sta 537+93.88 to Sta 538+46.70 (Lt)
Varies from 2.25' to 4'
Sta 537+93.88 to Sta 538+36.70 (Rt)
Varies from 4' to 2.29'
Sta 575+30.50 to Sta 575+73.32 (Lt & Rt)

- H** Varies from 0.38' to 6'
Sta 537+93.88 to Sta 539+50.00 (Lt)
Varies from 0.29' to 6'
Sta 537+93.88 to Sta 539+50.00 (Rt)
Varies from 6' to 0.24'
Sta 574+00.00 to Sta 575+73.32 (Lt & Rt)

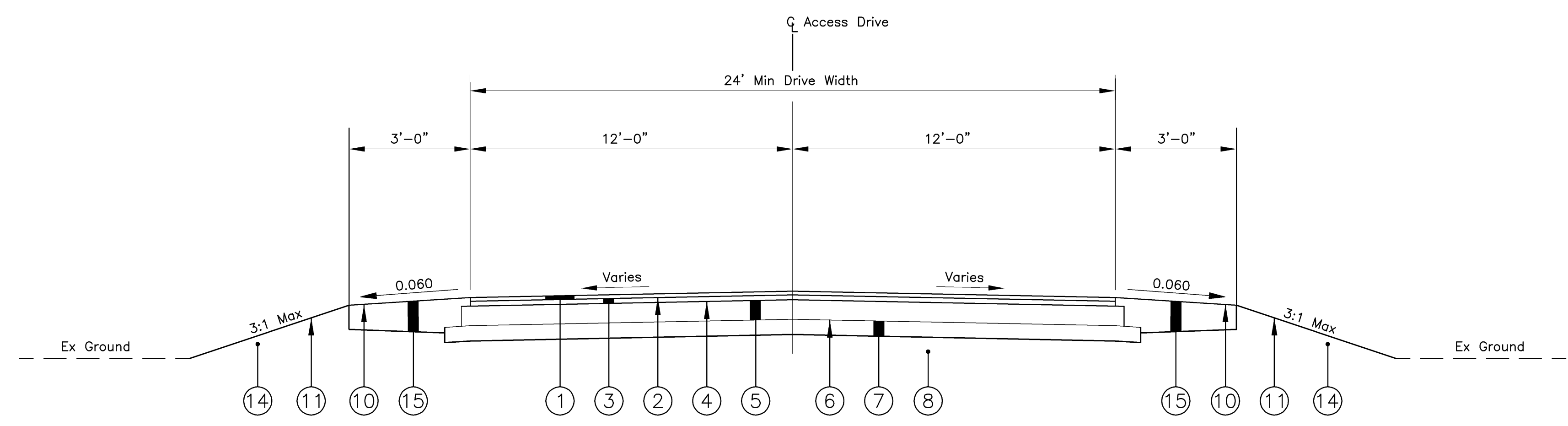
MARK	DATE	DESCRIPTION

SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
TYPICAL SECTIONS

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 Evans, Mechwart, Hambleton & Tibbitt, Inc.
 Engineers • Surveyors • Planners • Geomatics
 644775-6500 • Fax: 644775-3448
 emhit.com

DATE	September 24, 2010
SCALE	None
JOB NO.	20091333
SHEET	5/70

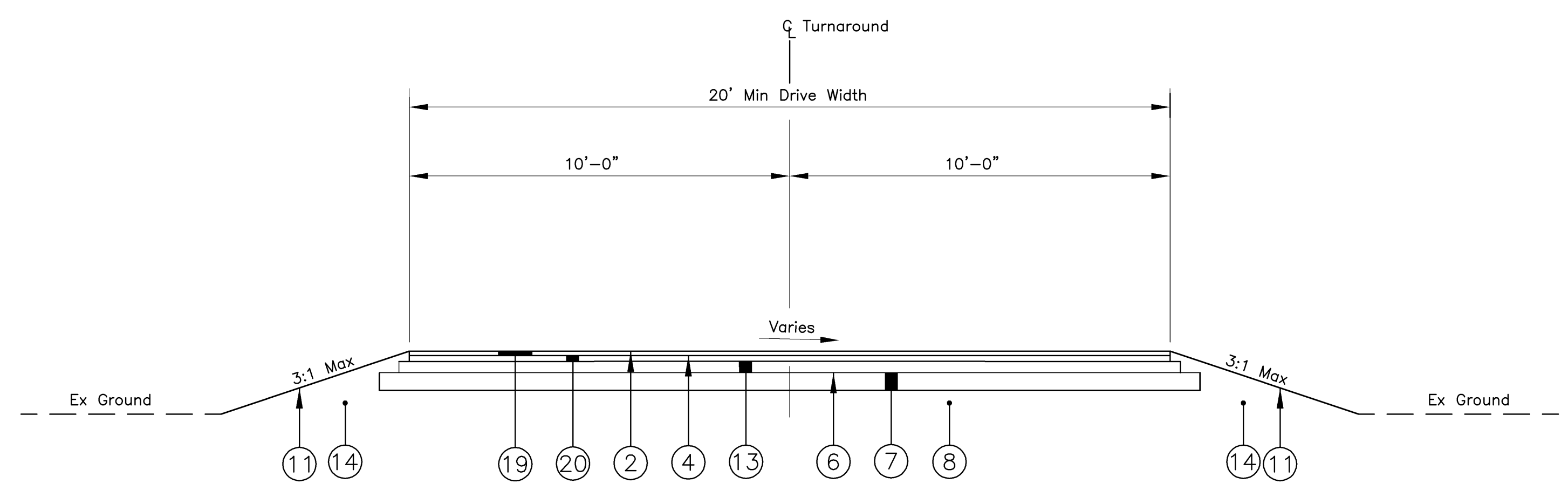
\\CMHDATA01\Project01\20091333\Draws\Roadway_Improvement_Plan\20091333\333\333\Roadway_Improvement_Plan.dwg - Plotted By: JLOWE [9/20/2010 10:36:40 AM]



OLD DESHLER RD ACCESS DRIVE EAST & WEST
 Sta 543+94.18 - Left
 Sta 570+20.74 - Left

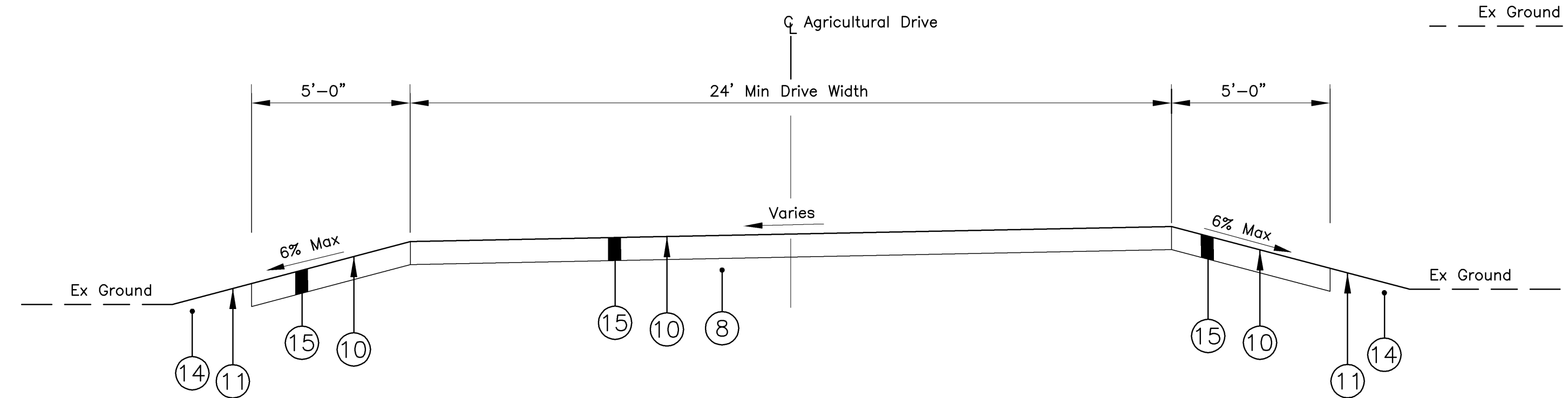
NOTE:
 See Sheets 59 & 63 for Access Drive
 Grading Detail.

SEE SHEET 3 FOR LEGEND



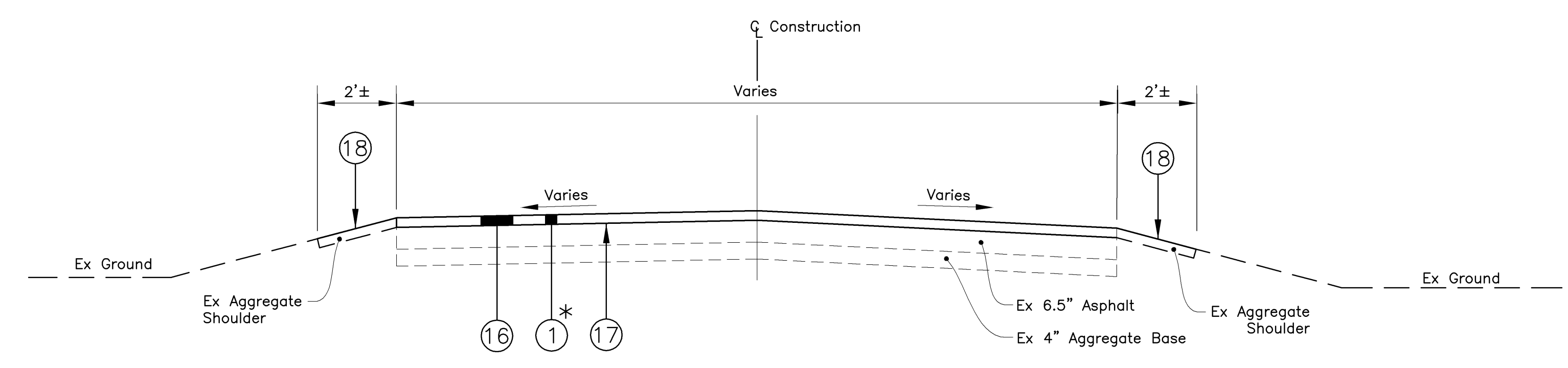
OLD DESHLER RD TURNAROUND
 Ex SR 18 R/W Sta 588+10.94 - Left

NOTE:
 See Sheet 48 for Turnaround Grading
 Detail.



AGRICULTURAL DRIVE
 Sta 542+72.57

NOTE:
 See Sheet 63 for Agricultural Drive
 Grading Detail.



PLANING & RESURFACING
 From Sta 537+70.30 to Sta 537+86.70
 From Sta 575+80.50 to Sta 575+95.50
 * Surface course thickness varies to transition
 from proposed slope to existing slope.

MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
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 TYPICAL SECTIONS

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 Engineers • Surveyors • Planners • Scientists
 644775-4500 • Fax: 644775-3448
 emhit.com

DATE
 September 24, 2010

SCALE
 None

JOB NO.
 20091333

SHEET
 6/70

UNDERGROUND UTILITIES

The identify and locations of existing underground utilities shown on these plans are as obtained from the owners as required by Section 153.64 or Section 3781.27 of the Ohio Revised Code. It is believed that they are essentially correct, but the exact locations shall be the responsibility of the Contractor. The Design Engineer, the Construction Manager and the Wood County Engineer makes no guarantees as to their accuracy or completeness.

UTILITY NOTIFICATION

The Contractor shall notify the Ohio Utilities Protection Service (OUPS 800-362-2764) and the owners of underground utilities shown on the plans who are not members of a registered underground utility protection service at least two (2) working days (excluding Saturdays, Sundays, and legal holidays) prior to commencing construction operations in any area which may involve underground utilities.

UTILITY OWNERSHIP

The following utilities and owners are located within the limits of this project:

Telephone:	Telephone:	Gas:
Embarq Telephone Co. 375 East Riverview Ave. Napoleon, Oh 43545 Phone: (419) 599-4009 Attn: Joe Moss	Verizon Communications 536 Columbus Avenue Fostoria, Oh 44830 Phone: (419) 360-4773 Attn: Dale Sandleben	Columbia Gas Of Ohio 333 South Erie Street Toledo, Oh 43602 Phone: (419) 252-8110 Emergency Phone: (800) 344-4077 Attn: Doug Tamsic or John Soncrant

Electric:	Sewer and Water:
Hancock-Wood Electric Cooperative 1399 Business Park Dr. South N. Baltimore, Oh 45872 Fax: (419) 257-3024 Phone: (419) 257-5015 Attn: Bill Barnhart	Northwestern Water & Sewer District 12560 Middleton Pike P.O. Box 348 Bowling Green, Oh 43402 Phone: (419) 354-9090 Attn: Bennett G. Chambers

ABANDONED UTILITIES

The Contractor shall be responsible for the removal and disposal of any abandoned utility facility that may conflict with any facility or construction activity proposed in these plans, including the installation of proposed conduit, underdrain, storm sewer, structure, waterline, sanitary sewer line, subgrade stabilization, foundations, etc. The Contractor is advised to verify that a utility facility has been abandoned before proceeding with removing it. If it is determined that the utility facility is active and in conflict, then the Contractor shall notify the Construction Manager prior to proceeding with any affected proposed work.

The cost of the operations necessary to remove and dispose of conflicting abandoned utilities shall be included with the price of the affected item(s) for payment. No separate payment shall be made.

COORDINATION WITH UTILITIES

The Contractor is advised that some utility facilities may not be clear of the construction area during the time of construction. These utility facilities may remain in place or be relocated within the construction limits. The Contractor shall not wait on the relocations to be completed, but instead shall cooperate with the utilities including their contractors, and work around the existing facilities. Sections 105.07 and 107.16 of the Ohio Department of Transportation Construction and Material Specifications require that the Contractor cooperate with all utilities located within the limits of this construction project and take responsibility for the protection of the utility property and services. No separate payment shall be made for the Contractor to coordinate with utility companies.

The Contractor shall exercise caution when working in the proximity of existing and/or relocated utility facilities. Costs to expose conduit shall be included in the items of work affected. The Contractor is reminded to keep their OUPS ticket updated according to industry practices.

MANHOLE, CATCH BASIN, HEADWALL AND TILE OUTLET LOCATIONS

Unless otherwise noted, the station/offset shown for manholes and catch basins are to the center of the structure. The station/offset of headwalls are to the centerline of pipe at the face of the headwall. The station/offset of tile outlets are to the centerline of pipe at the end of the pipe.

ITEM 617 - SHOULDER RECONDITIONING, MISCELLANEOUS: AS PER PLAN

Work consists of preparing the existing shoulder, and furnishing and compacting additional aggregate on the prepared shoulder as per Item 617. Costs for labor, materials, including water, and incidentals shall be included in the unit price bid for Item 617 - Shoulder Reconditioning, Miscellaneous: As Per Plan.

COORDINATION BETWEEN CONTRACTORS

This project is being constructed concurrently with the adjacent Liberty Hi Road Relocation Improvements and other utility companies improvement/relocations that will be affected by these projects. The Contractor shall be responsible for coordinating his work schedule, road closures/detours, site access, paving operations, grading, utility connections and extensions with the appropriate contractors, utility companies and property owners. No extra payments shall be made as a result of these coordination efforts.

At all points of connection where the work shown on these plans is to connect to and/or match work that is to be constructed by others, the Contractor shall be responsible for field verifying the existence, location and elevation of the appropriate utility and/or pavement, prior to commencement of construction of the work on these plans.

FULL DEPTH PAVEMENT SAWING

Existing pavement shall be sawcut full depth at all removal limits. The Contractor shall sawcut existing pavement to provide a smooth vertical depth butt joint between the existing pavement and the proposed pavement. Contractor shall locate sound pavement edge and cut and trim pavement to a neat line. Include the cost of sawcutting and pavement removal and disposal under Item 203 Excavation, As Per Plan.

ITEM 204 - PROOF ROLLING

An estimated quantity of 18 Hours has been transferred to the General Summary for Item 204 Proof Rolling.

ITEM 616 - DUST CONTROL, AS PER PLAN

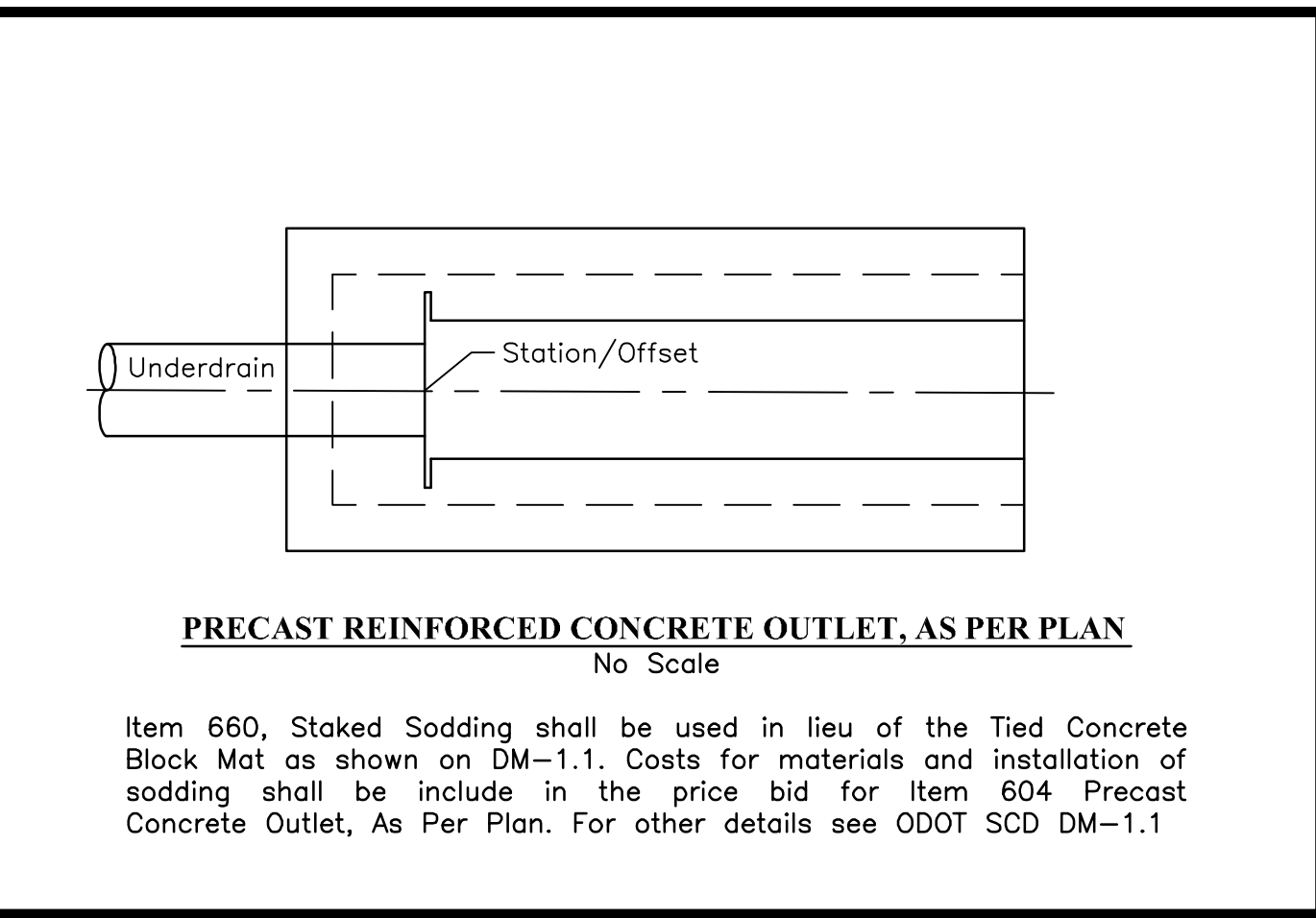
The Contractor shall be responsible for providing dust control measures for the duration of the project in accordance with Item 616. Dust Control operations shall be performed on a periodic basis and/or as directed by the Construction Manager and/or the Engineer to alleviate or prevent the dust nuisance originating within the project work limits. Water shall be included in the Lump Sum price bid for Item 616 Dust Control, As Per Plan.

SANITARY CONVENIENCE FACILITIES

The Contractor shall furnish and maintain sanitary convenience facilities for the workers and inspectors for the duration of the work. Cost shall be included in the price bid for the project improvements.

MONUMENTS

Adjustable Centerline Monuments are shown on Standard Construction Drawing RM-1.1. The placing of all the monuments shall be under the direction of a surveyor registered in the State of Ohio and are to be set as shown by the highway contractor at the time of construction. Any alterations, with prior approval of the Engineer and Wood County, shall be noted and they shall be notified of the new location. Cost for pavement replacement shall be included in the price bid for Item 604 - Monument Assemblies.



\\C:\MPDATA\Project01\20091333\Draw\Sheet\Roadway Improvement\Plan\General Notes.dwg:8 General Notes & Details - No Xrefs - No Images - SheetBy: JTRMJK [9/23/2010 2:26:02 PM] - PlotBy: JLOWE [9/27/2010 12:01:43 PM]

REVISIONS

MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
PUBLIC ROADWAY IMPROVEMENTS PLAN
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
GENERAL NOTES & DETAILS

EMHT
Evans, Mechwart, Hambleton & Tilton, Inc.
5500 New Albany Road, Columbus, OH 43254
Phone: 614.776.6500 Fax: 614.776.6500
www.emht.com

DATE

September 24, 2010

SCALE

None

JOB NO.

20091333

SHEET

8/70

ITEM 614 MAINTAINING TRAFFIC, AS PER PLAN

The Contractor shall maintain traffic at all times on the project in accordance with Item 614 Maintaining Traffic, As Per Plan, as described below, and as detailed in these plans.

All signs, barricades, sign supports, portable concrete barrier, drums, flaggers, detour signing and incidentals shall be furnished, erected, maintained, and removed by the Contractor, under this item of work, in conformance with the most recent revision, current edition of the Ohio Manual of Uniform Traffic Control Devices for Streets and Highways (OMUTCD). All signs used for the maintenance of traffic shall be new or like new subject to the approval of the Wood County Engineer. Devices used to maintain traffic shall be removed immediately after the termination of said work.

Upon completion of the construction initiation and receiving the approved schedule of operations, the Contractor shall obtain all necessary permits required by ODOT and the Wood County Engineer. A copy of all permits shall be kept on site at all times.

All advance signing shall be equipped with type "A" flashing lights and two (2) orange flags (24"x24"). Lights are not required on signs in place during daylight hours.

Construction operations in each Phase shall not begin until all temporary traffic control devices are in place and approved by the Wood County Engineer and ODOT.

All trenches within the road right-of-way shall be backfilled or securely plated during non-working hours only.

Access to adjoining properties shall be maintained at all times.

The safety of pedestrian traffic shall be considered at all times in the provision of traffic control devices required by these plans and notes. It shall be the Contractor's responsibility to provide lights, signs, barricades, and other devices to warn of, and physically separate the pedestrian from hazards incidental to the construction operations such as anchor bolts, open excavation, etc. at all times.

The improvements within the vicinity of any driveway must be constructed in stages or supplemented with Item 410. Access to residential driveways shall be maintained throughout the duration of the project for mail, public water, and emergency vehicles. The Contractor shall coordinate construction activities with the Wood County Engineer and the owners of the abutting properties in advance of any operations which affect access. Payment for the above shall be included in Item 614 Maintaining Traffic, As Per Plan.

Two way, one-lane traffic may be maintained for the purpose of constructing utility/sewer crossings and installation/removal of traffic control devices. Single lane closures shall be performed under flagger control as per ODOT SCD MT-97.10 and MT-97.11.

Permanent striping or Class I temporary striping shall be installed no later than seventy-two (72) hours after the finish paving course is completed. The paving Contractor shall be responsible to notify the striping Contractor to insure the permanent striping is installed within the seventy-two (72) hour limit. All pre-marking materials and associated costs shall be included within Item 614 Maintaining Traffic, As Per Plan.

The Contractor shall provide the Ohio Department of Transportation, the Wood County Engineer and Inspector a 24-hour telephone number with the contact and name to be used in case of an emergency.

The Contractor shall give written notification on the Contractor's letterhead to property owners at least two (2) weeks prior to the first day of work, informing them road work will be done in their area.

The Wood County Engineer and ODOT shall be notified, in writing, a minimum of fourteen (14) working days prior to starting work and/or prior to each phase or major change in traffic patterns either permanent or temporary.

Drop-offs in work zones shall be in accordance with Ohio Department of Transportation Standard Construction Drawing MT-101.90.

The Contractor shall coordinate maintenance of traffic setups with private utility companies conducting relocation work. No payment shall be made for coordination with utilities.

The Contractor shall provide, erect, and maintain standard 48"x30" "Road Closed Local Traffic Only" signs, sign supports, barricades, gates, and lights (as detailed in Standard Construction Drawing MT-101.60) at the locations shown on the maintenance of traffic plan (Sheets 10 and 11), during periods in which the affected roads are closed to traffic.

All work and traffic control devices shall be in accordance with CMS 614 and other applicable portions of the specifications, as well as the Ohio Manual of Uniform Traffic Control Devices. Payment for all labor, equipment, materials and incidentals shall be included in the lump sum contract price for Item 614 Maintaining Traffic, As Per Plan, unless separately itemized in the plan.

Steady-burning, Type "C" lights shall be required on all barricades, drums, and similar traffic control devices in use at night. Cones are not approved for use at night.

Construction signs shall neither conflict with nor obstruct existing traffic control signs. Signage shall be installed with proper spacing between signs and shall be 100% visible from an adequate distance. Construction signs shall be mounted on their own posts. All construction signs shall be installed, covered and approved by the Wood County Engineer and ODOT prior to commencing work on this project.

If existing traffic control signs conflict with the proposed maintenance of traffic signs they can only be removed with the written approval of the Wood County Engineer and ODOT. These signs will be reinstalled at proper height and a approximately the same locations. Regulatory signs removed shall be reinstalled immediately on a temporary sign stand and maintained until final signage is installed, unless approved otherwise. Any existing signs or posts that are damaged as determined by the Wood County Engineer and ODOT, as a result of the Contractor's operations shall be replaced at the Contractor's expense.

All traffic sign material, permanent or for maintenance of traffic, shall be Type G, high intensity.

Should the Wood County Engineer or ODOT determine additional signs are necessary for street maintenance, they shall be installed by the Contractor within 24 hours.

STREET AND LANE CLOSINGS

No street or part of any street shall be permitted to be closed without prior approval. The Contractor shall notify any affected businesses, residents and/or institutions prior to the closing as to the extent, nature and duration of the closure. The Contractor shall be responsible for coordinating with the local Post Master and waste service providers that service the affected businesses, residents and/or institutions. Payment for the above shall be included in Item 614, Maintaining Traffic, As Per Plan.

LAW ENFORCEMENT OFFICER WITH PATROL CAR

Use of Law Enforcement Officers (LEOs) by contractors other than the uses specified below will not be permitted at project cost. LEOs should not be used where the OMUTCD intends that flaggers be used.

In addition to the requirements of CMS 614 and the OMUTCD, a uniformed LEO with an official patrol car (car with top-mounted emergency flashing lights and complete markings of the appropriate law enforcement agency) shall be provided for the following traffic control tasks:

- During the entire advance preparation and closure sequence where complete blockage of traffic is required.

In addition to the requirements of CMS 614 and the OMUTCD, a uniformed LEO with an official patrol car (car with top-mounted emergency flashing lights and complete markings of the appropriate law enforcement agency) should be provided for the following traffic control tasks:

- For lane closures: during initial set-up periods, tear down periods, substantial shifts of a closure point or when new lane closure arrangements are initiated for long-term lane closures/shifts (for the first and last day of major changes in traffic control setup). In general, LEOs should be positioned at the point of lane restriction or road closure and to manually control traffic movements through intersections in work zones.

- When construction vehicles are entering/exiting the zone directly from/into an open lane of traffic. If a lane has been closed to provide an acceleration/deceleration lane for the vehicle, the LEO will not be required.

LEOs should not forgo their traffic control responsibilities to apprehend motorists for routine traffic violations. However, if a motorist's actions are considered to be reckless, then pursuit of the motorist is appropriate.

The LEOs work at the direction of the Contractor. The Contractor is responsible for securing the services of the LEOs with the appropriate agencies and communicating the intentions of the plans with respect to duties of the LEOs. The Engineer shall have final control over the LEOs' duties and placement, and will resolve any issues that may arise between the two parties.

The LEO shall report in to the Contractor prior to the start of the shift, in order to receive instructions regarding specific work assignments during his/her shift. The LEO is expected to stay at the project site for the entire duration of his/her shift. The LEO shall report to the Contractor at the end of his/her shift. Once the LEO has completed the duties described above and still has time remaining on his/her shift, the LEO may be asked to patrol through the work zone (with flashing lights off) or be placed at a location to deter motorists from speeding. Should it be necessary to leave the project site, the LEO shall notify the Engineer. The Contractor shall provide the LEO with a two-way communication device which shall be returned to the Contractor at the end of his/her shift.

LEOs (with patrol car) required by the traffic maintenance tasks above shall be paid for under the lump sum contract price for Item 614, Maintaining Traffic, As Per Plan.

The hours paid shall include any minimum show-up time required by the law enforcement agency involved.

Any additional costs (administrative or otherwise) incurred by the Contractor to obtain the services of an LEO are incidental to the lump sum.

CONSTRUCTION SEQUENCE

Relocation of the SR-18/Liberty Hi Rd intersection shall be completed in four (4) Phases as detailed within. Each phase shall be completed under either full or partial closure of the intersection. All signage related to the closure of Liberty Hi Rd has been included in this plan. All signage associated with the closure of Liberty Hi Rd has been included in the "Liberty Hi Road Relocation" plan. Coordination between the two plans is essential to ensure complete construction and continuous flow of rerouted traffic. Each phase must be completed in order.

The Construction Sequence and Phase Limits shown on these plans are not intended to direct and/or restrict the Contractor as to the sequence of construction operations for installation of underground utilities and/or sewers.

Phase 1

Phase 1 shall construct the majority of the relocated intersection and approaches. SR 18 traffic shall be maintained on existing SR 18 pavement. Work adjacent to maintained SR 18 shall be in accordance with Drop-Off requirements detailed in ODOT SCD MT-101.90. Liberty Hi Rd shall be closed South of SR 18 and detoured as detailed in the "Liberty Hi Road Relocation" plan.

Phase 2

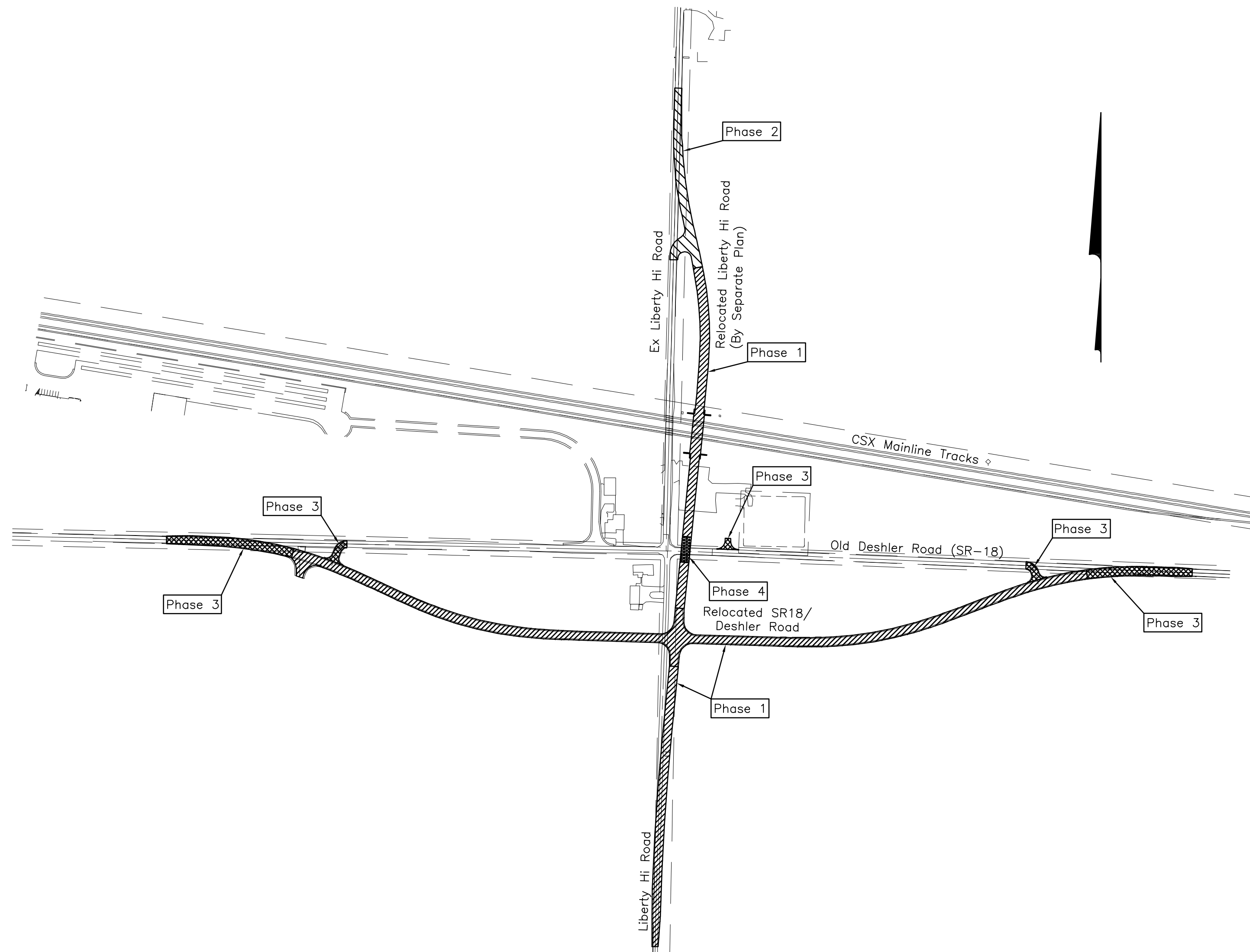
Phase 2 shall continue construction of Relocated Liberty Hi Rd by making the Northern connection to existing Liberty Hi Rd. This work shall also be completed while SR 18 traffic is maintained on existing SR 18 pavement. Liberty Hi Rd shall be closed North and South of SR 18 and detoured as detailed in the "Liberty Hi Road Relocation" plan.

Phase 3

Phase 3 shall construct the East and West connections between relocated and existing SR 18. This phase shall be limited to 14 days. The SR 18 closure and detour shall be as detailed within. Signage related to the local detour route for Deshler Road have been included within. All signage and layouts related to the State Route (Regional) detour shall be provided by ODOT. The Liberty Hi Rd detour from Phase 2 shall remain in place for Phase 3.

Phase 4

Phase 4 shall construct the remaining piece of Liberty Hi Rd in the area of existing SR 18. Phase 4 shall begin concurrently with Phase 3, but shall not extend the closure of SR 18 beyond the 14 day maximum. If Phase 4 work is not complete at the end of the 14 days, SR 18 shall be opened to traffic on newly constructed pavement while the Liberty Hi Rd detour remains in place. The Liberty Hi Rd detour from Phase 2 shall remain in place for Phase 4.



MAINTENANCE OF TRAFFIC PHASING DETAIL
No Scale

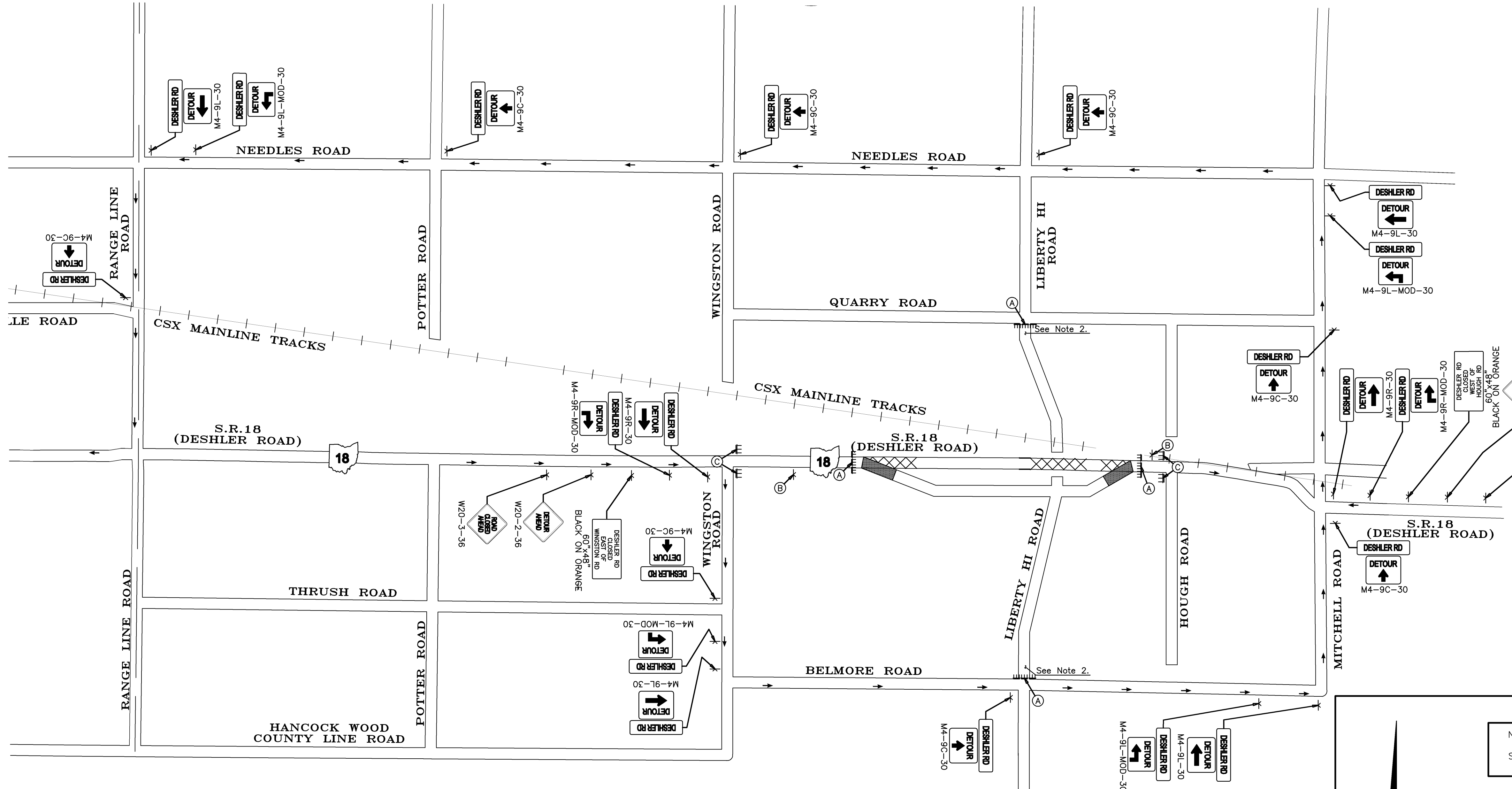
MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
 MAINTENANCE OF TRAFFIC PLAN

EMHT
 E.M.H. Technical, Inc.
 Engineers, Mechanical, Electrical & Plumber, Inc.
 5500 New Albany Road, Columbus, OH 43244
 Phone: 614.735.9300 Fax: 614.735.9309
 emht.com

DATE	September 24, 2010
SCALE	As Noted
JOB NO.	20091333
SHEET	9/70

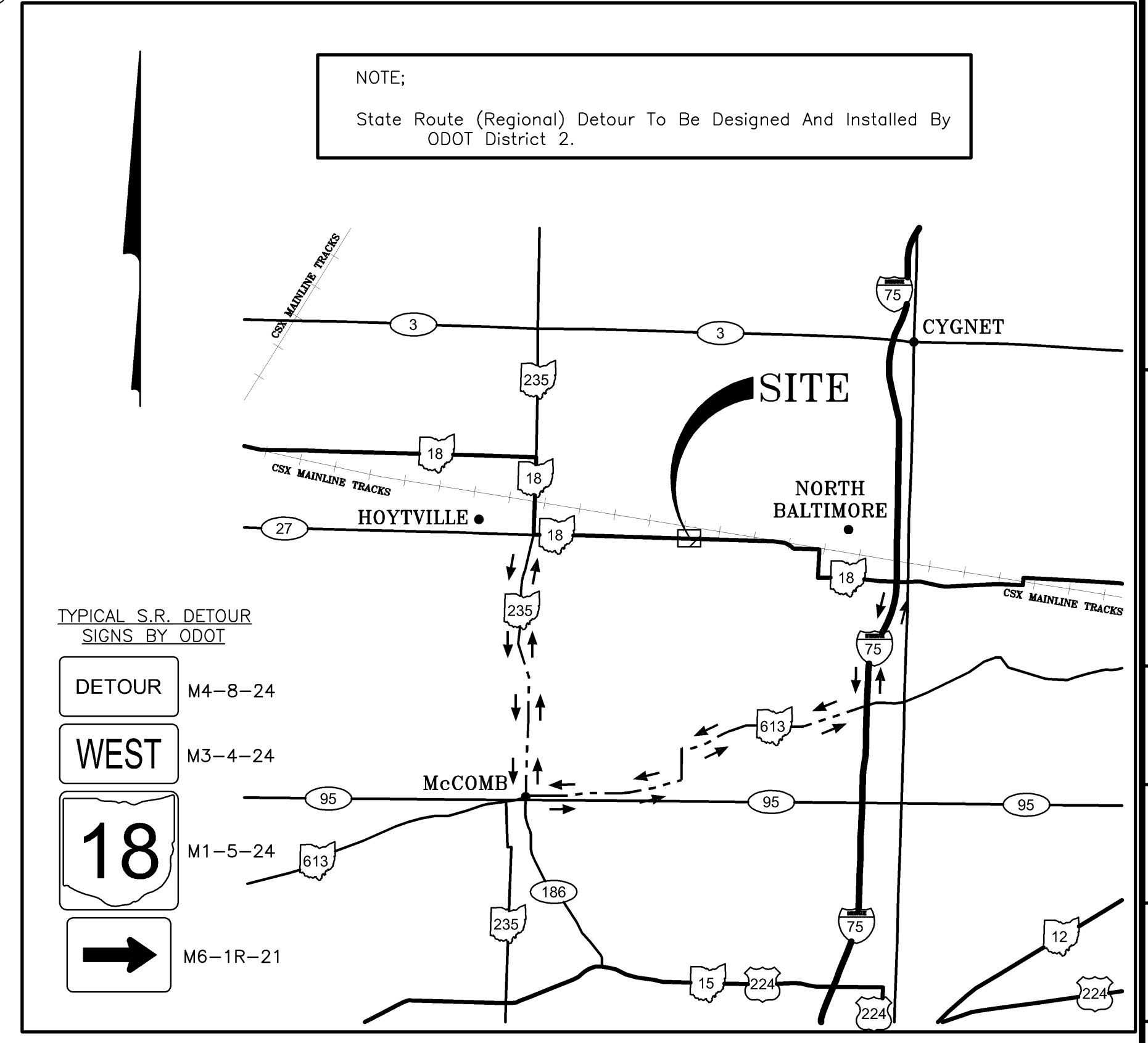
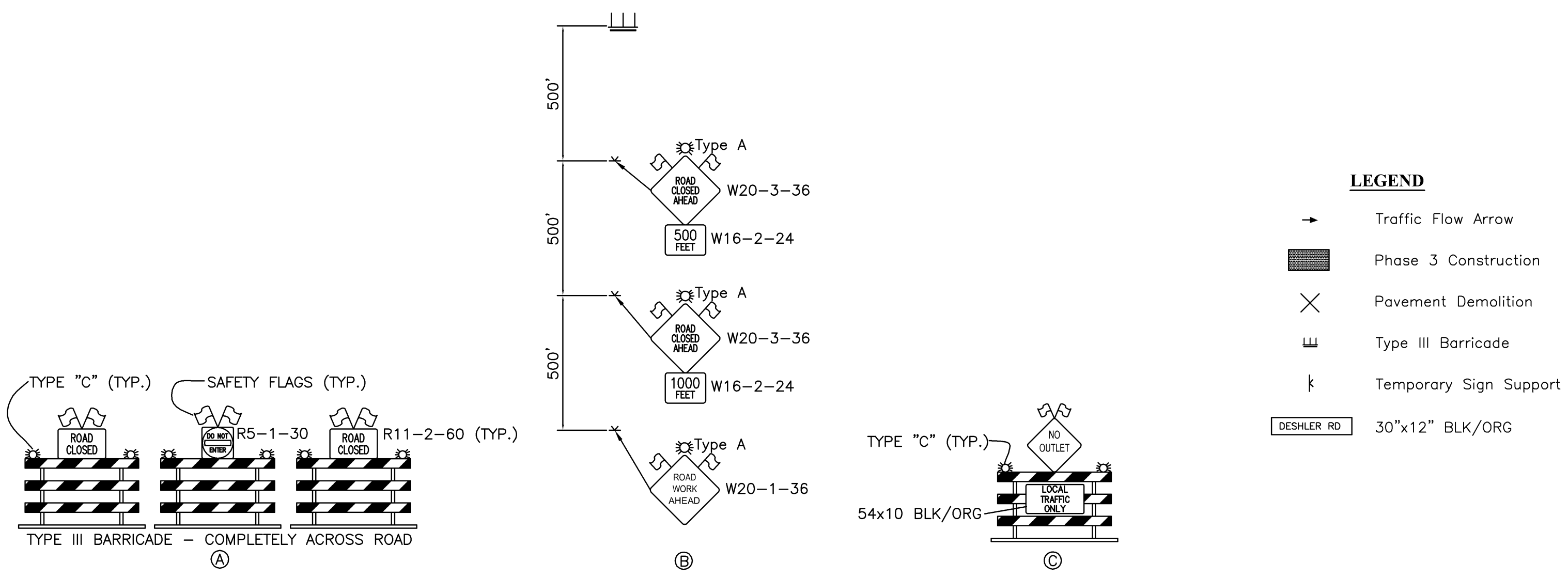
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- NOTES:**
- Phase 3 construction shall be completed under closure of S.R. 18. This closure shall be limited to a maximum of 14 days.
 - Liberty Hi Road shall be closed and detoured in all phases. Liberty Hi Road's detour information is included in the Liberty Hi Road Relocation Plan.
 - The S.R. 18 Detour shall be designed and placed by Ohio Department of Transportation utilizing State Routes and Interstates as shown in the detail. The detour signage provided on this sheet is intended for local Deshler Road traffic only.
 - The Contractor shall give ODOT a minimum of 14 days notice prior to closing S.R. 18.

LOCAL DETOUR DETAIL

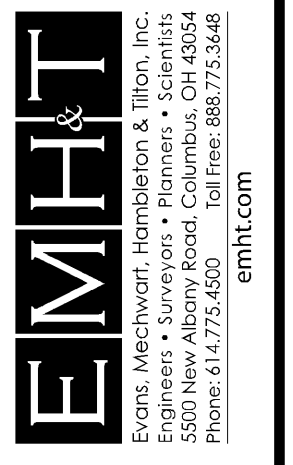
As Required By
Wood County Engineer
N.T.S.



STATE ROUTE (REGIONAL) DETOUR DETAIL - SEE NOTE 3
N.T.S.
FOR REFERENCE ONLY

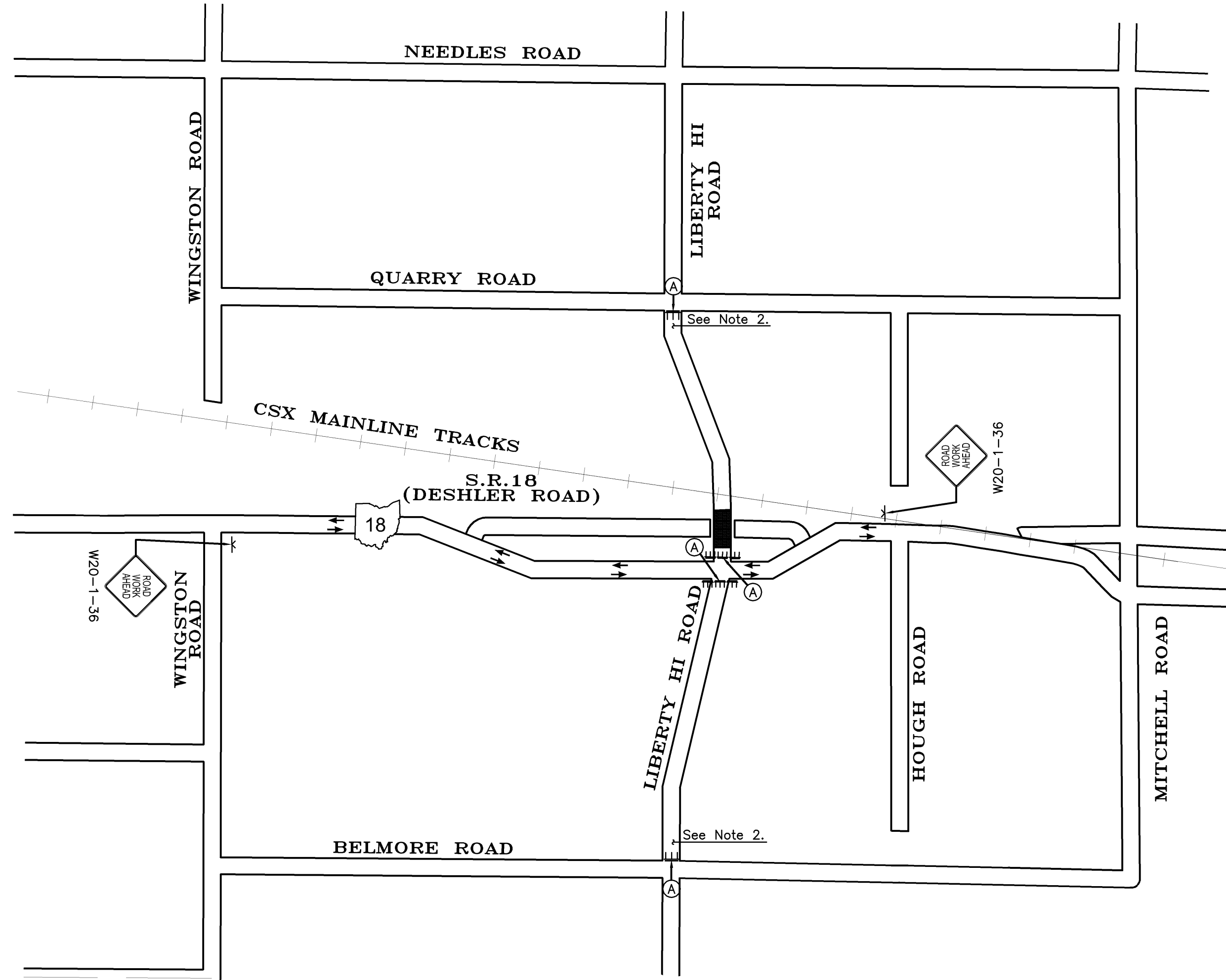
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HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
 MAINTENANCE OF TRAFFIC PLAN PHASE 3



DATE	September 24, 2010
SCALE	None
JOB NO.	20091333
SHEET	10/70

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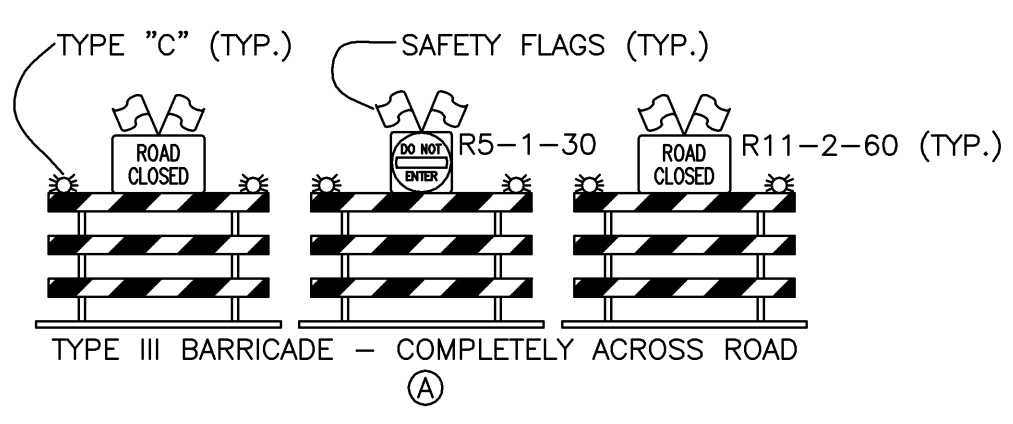


LOCAL DETOUR DETAIL
 As Required By
 Wood County Engineer
 N.T.S.

- NOTES:**
- Phase 4 shall start concurrently with Phase 3, but shall not extend Phase 3 for any reason. Any Phase 4 work that is not completed after the Maximum of 14 days allowed in Phase 3 shall be completed with S.R. 18 traffic maintained on Relocated S.R. 18.
 - Liberty Hi Road shall be closed and detoured in this phase. Liberty Hi Road's detour information is included in the Liberty Hi Road Relocation Plan.

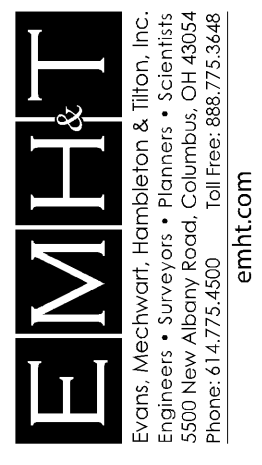
LEGEND

- Traffic Flow Arrow
- ▨ Phase 4 Construction
- ✕ Pavement Demolition
- ⊥ Type III Barricade
- ⋈ Temporary Sign Support
- LIBERTY HI RD 30"x12" BLK/ORG



MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
 MAINTENANCE OF TRAFFIC PLAN PHASE 4



DATE
September 24, 2010

SCALE
None

JOB NO.
20091333

SHEET
11/70

SPEC.	ITEM NO.	ESTIMATED QUANTITY	UNIT	DESCRIPTION	SEE SHEET NO.
ROADWAY					
ODOT	201	Lump	Sum	Clearing & Grubbing, As Per Plan	7
ODOT	202	6,425	LF	Pipe Removed, 24" and Under	
ODOT	202	27	LF	Pipe Removed, Over 24"	
ODOT	203	27,800	CY	Excavation, As Per Plan	7
ODOT	203	30,900	CY	Embankment, As Per Plan	7
ODOT	204	17,013	SY	Subgrade Compaction	
ODOT	204	18	Hour	Proof Rolling	8
ODOT	204	2,670	CY	Excavation of Subgrade	7
ODOT	204	2,670	CY	Embankment	7
ODOT	204	2,670	CY	Granular Embankment	7
ODOT	204	4,000	SY	Geotextile Fabric	
ODOT	604	17	Each	Monument Assemblies	
ODOT	606	2	Each	Anchor Assembly, Type B	
ODOT	606	1	Each	Anchor Assembly, Type E	
ODOT	606	126	LF	Guardrail, Type 5	
ODOT	607	28	LF	Fence, Type 47	
ODOT	651	12,640	CY	Topsoil Stockpiled, As Per Plan	7
ODOT	652	8,085	CY	Placing Stockpiled Topsoil, As Per Plan	7
EROSION CONTROL					
ODOT	207	Lump	Sum	Temporary Sediment and Erosion Controls, As Per Plan	7, 13
ODOT	601	18	SY	Riprap, Using 6" Reinforced Concrete Slab, As Per Plan	66, 67
ODOT	601	18	CY	Rock Channel Protection, Type B with Filter	
ODOT	601	2	CY	Rock Channel Protection, Type C with Filter	
ODOT	616	Lump	Sum	Dust Control, As Per Plan	8
ODOT	659	72,770	SY	Seeding and Mulching, Class 2, As Per Plan	7
PAVEMENT					
ODOT	254	84	SY	Pavement Planing, Asphalt Concrete, Variable Depth	
ODOT	301	2,997	CY	Asphalt Concrete Base, PG64-22	
ODOT	304	2,827	CY	Aggregate Base	
ODOT	407	623	Gal	Tack Coat for Intermediate Course	
ODOT	407	1174	Gal	Tack Coat	
ODOT	408	6468	Gal	Prime Coat	
ODOT	422	593	SY	Single Chip Seal	
ODOT	442	623	CY	Asphalt Concrete Surface Course, 12.5 mm, Type A (446)	
ODOT	442	727	CY	Asphalt Concrete Intermediate Course, 19 mm, Type A, PG70-22 (448)	
ODOT	448	17	CY	Asphalt Concrete Surface Course, Type 1H	
ODOT	448	20	CY	Asphalt Concrete Intermediate Course, Type 2 PG64-28	
ODOT	605	5,513	LF	6" Base Pipe Underdrains	
ODOT	605	2,320	LF	6" Unclassified Pipe Underdrains	
ODOT	617	14	SY	Shoulder Reconditioning, Miscellaneous: As Per Plan	8

SPEC.	ITEM NO.	ESTIMATED QUANTITY	UNIT	DESCRIPTION	SEE SHEET NO.
DRAINAGE					
ODOT	602	6	CY	Concrete Masonry	
ODOT	603	15	LF	15" Conduit, Type C, 706.02	
ODOT	603	98	LF	18" Conduit, Type B, 706.02	
ODOT	603	78	LF	18" Conduit, Type C, 706.02	
ODOT	603	151	LF	24" Conduit, Type A, 706.02	
ODOT	603	87	LF	36" Conduit, Type A, 706.02	
ODOT	603	144	LF	42" Conduit, Type B, 706.02	
ODOT	603	105	LF	42" Conduit, Type C, 706.02	
ODOT	603	170	LF	48" Conduit, Type B, 706.02	
ODOT	603	68	LF	10'x3' Conduit, Type A, 706.05, As Per Plan	66, 67
ODOT	603	155	LF	8" Conduit, Type E, 707.32	
ODOT	603	612	LF	12" Conduit, Type E, 707.32	
ODOT	603	691	LF	15" Conduit, Type E, 707.32	
ODOT	603	2429	LF	18" Conduit, Type E, 707.32	
ODOT	603	370	LF	6" Conduit, Type F, 707.45	
ODOT	603	28	LF	8" Conduit, Type C, 707.45	
ODOT	603	50	LF	18" Conduit, Type E, 707.45	
ODOT	604	2	Each	Manhole No 3	
ODOT	604	1	Each	Catch Basin No. 2-4, As Per Plan	58
ODOT	604	1	Each	Drainage Structure, Miscellaneous: Outlet Control Structure	58
ODOT	604	1	Each	Drainage Structure, Miscellaneous: Cast-in-Place Reinforced Concrete Headwall	68
ODOT	604	15	Each	Precast Reinforced Concrete Outlet, As Per Plan	8
TRAFFIC CONTROL					
ODOT	621	30	Each	Raised Pavement Marker Removed	
ODOT	621	61	Each	Raised Pavement Marker	
ODOT	626	8	Each	Barrier Reflector	
ODOT	630	198	LF	Ground Mounted Support, No. 3 Post	
ODOT	630	59	SF	Sign, Flat Sheet	
ODOT	630	8	Each	Sign Post Reflector	
ODOT	630	3	Each	Street Name Sign Support, No. 3 Post	
ODOT	630	6	Each	Sign, Street Name	
ODOT	644	1.50	MI	Edge Line, 4" White	
ODOT	644	0.90	MI	Center Line, 4" Solid Double Yellow	
ODOT	644	55	LF	Stop Line, 24" White	
ODOT	644	927	LF	Removal of Pavement Marking	
ODOT	614	Lump	Sum	Maintaining Traffic, As Per Plan	9
ODOT	623	Lump	Sum	Construction Layout Stakes	
ODOT	624	Lump	Sum	Mobilization	

REVISIONS

MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
PUBLIC ROADWAY IMPROVEMENTS PLAN
FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10.19
GENERAL SUMMARY



DATE
September 24, 2010

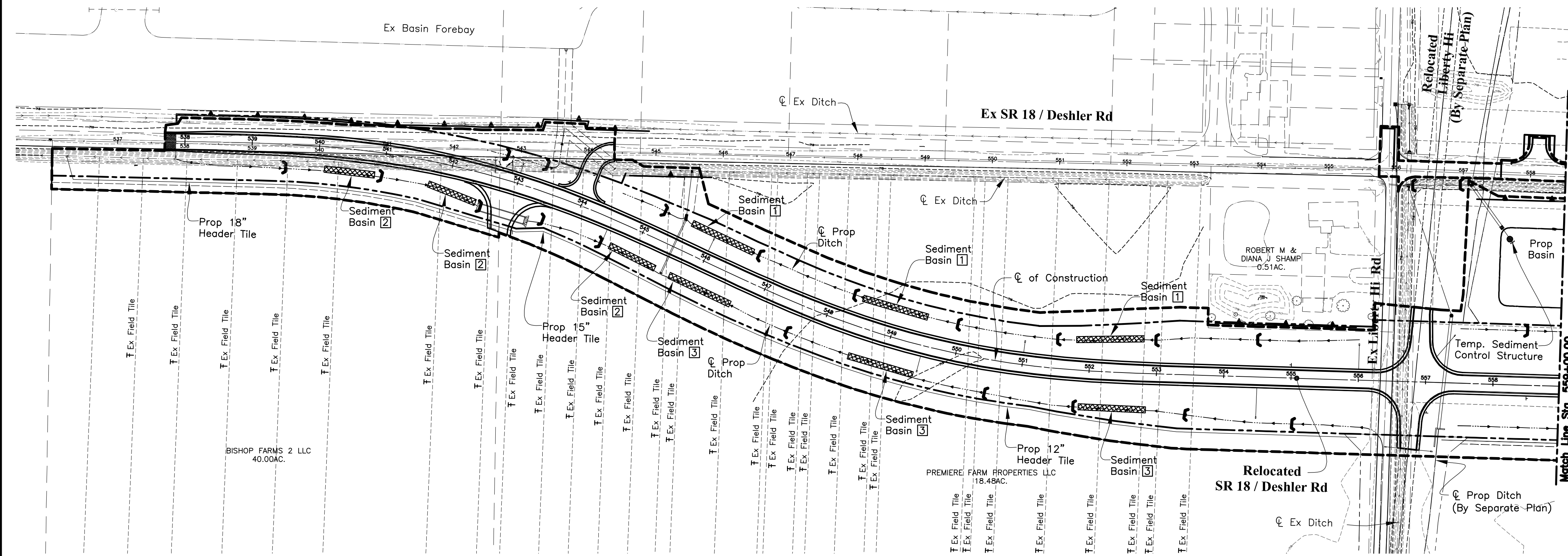
SCALE
None

JOB NO.
20091333

SHEET
12/70

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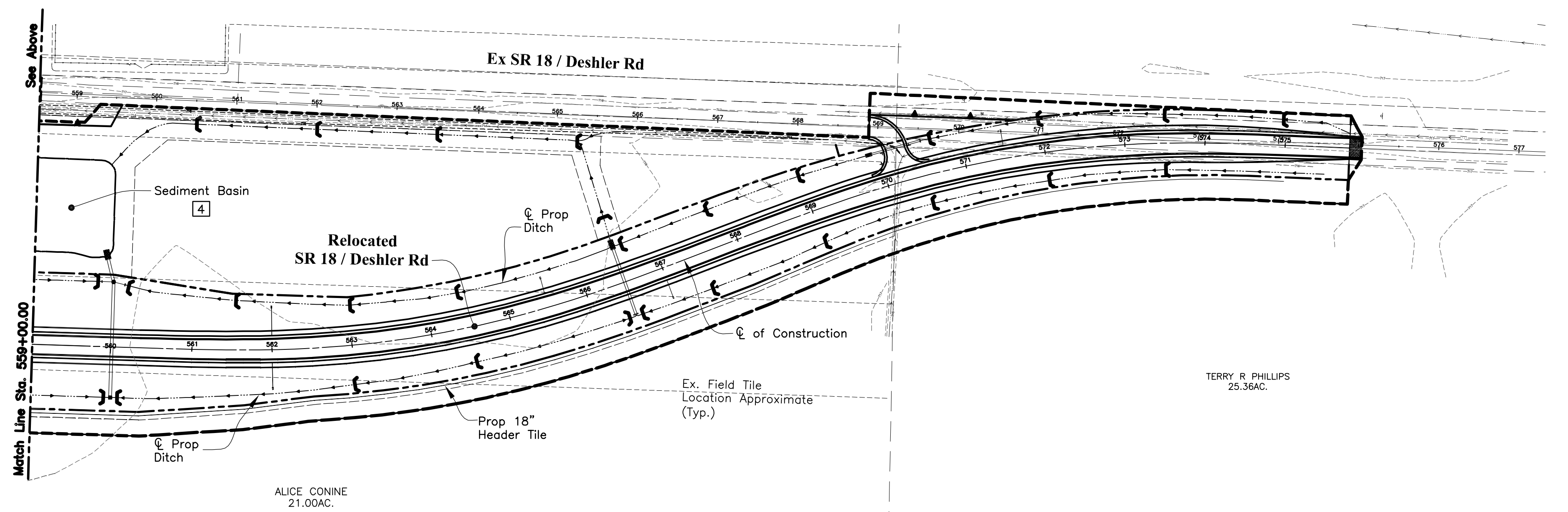
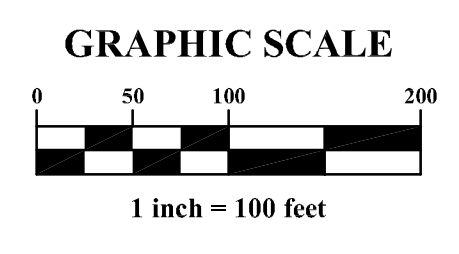
SR 18 PROJECT DATA	
10.5 Ac	Total Area (Right-of-Way)
18.65 Ac	Project Earth Disturbed Area
1.0 Ac	Estimated Contractor Earth Disturbed Area
30.0 Ac	Notice of Intent Earth Disturbed Area *
2.03 Ac	Impervious (Paved) Area for Pre-Construction Site
4.08 Ac	Impervious (Paved) Area for Post-Construction Site
0.47	Runoff Coefficient for Pre-Construction Site
0.54	Runoff Coefficient for Post-Construction Site
93 & 94	Soil and Water Conservation Map
Immediate Receiving Waters	Liberty Hi Road Ditch & Radar Creek
Subsequent Receiving Water	Portage River

* Includes Liberty Hi Road Earth Disturbed Area

USGS Quadrant: North Baltimore, Ohio
 Longitude: 41.1852
 Latitude: -83.7359
 NOTE: Longitude & Latitude to Approx. Center of Project

PROJECT DESCRIPTION
 This project consists of the reconstruction and relocation of 0.72 miles of State Route 18 / Deshler Road and intersection improvements along State Route 18 and Liberty Hi Road. A private tile line will be additionally constructed outside of the public Right-of-Way along the south side of State Route 18. Existing field tile encountered during construction activities will be connected into the new tile line.

POST CONSTRUCTION STORMWATER TREATMENT
 This plan utilizes structural best management practices (BMP's) for post construction stormwater treatment. Controls consist of using the proposed basin and the existing off-site basin associated with the Northwest Ohio Trans-shipment Terminal.
 See Stormwater Management Report for hydraulic and water quality analysis.



CAUTION
 O.S.H.A. CLEARANCE REQUIREMENTS TO BE MAINTAINED DURING CONSTRUCTION BETWEEN EQUIPMENT AND OVERHEAD UTILITY LINES

NOTE:
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 See Field Tile & Drainage Plan, Sheet 53.

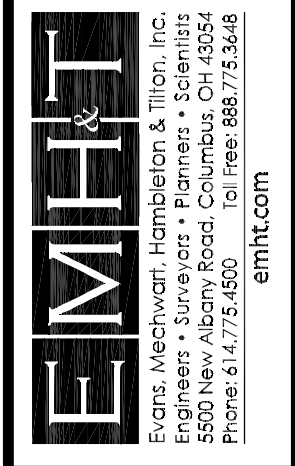
NOTE:
 See Liberty Hi Road Relocation Plan for additional Erosion and Sediment Control Practices to be constructed in conjunction with this plan.

LEGEND

	Disturbed Earth Limit
	Sediment Fence
	Ditch Check
	Sediment Basin Number
	Sediment Basin
	Proposed Ditch
	Existing Ditch
	Existing Drain Tile
	Prop. Right-of-Way

MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10.19
 EROSION AND SEDIMENT CONTROL PLAN



DATE
 September 24, 2010

SCALE
 1" = 100'

JOB NO.
 20091333

SHEET
 13/70

EROSION & SEDIMENT CONTROL

The Contractor shall provide sediment control at all points where stormwater runoff leaves the project including ditches, overland sheet flow, and storm culverts.

Erosion and sediment control shall be provided as per the requirements of the Standards and Specifications of the "Rainwater and Land Development" Manual of the ODNR.

Erosion control measures are to be installed per NPDES permit regulations or as directed by ODOT, Wood County and Henry Township and are to be maintained until such time that they are no longer required by the permit and ODOT, Wood County and Henry Township. Cost for erosion and sedimentation control shall be included in the price bid for various erosion and sedimentation control items.

All land disturbing activities shall be subject to inspection and site investigation by ODOT, Wood County, Henry Township and the Ohio EPA. Failure to comply with these regulations is subject to legal enforcement action.

The Contractor is responsible to notify ODOT, Wood County and Henry Township 48 hours prior to commencement of initial site and land disturbance on an site of one (1) or more acres. This includes site clearing, grubbing, and any earth moving. Primary erosion and sediment control practices are mandated by regulations to be in place from the beginning of the construction activity.

SOIL STOCKPILES

The Contractor shall be responsible for keeping all soil stockpiles, including trench excavation stockpiles, protected from erosion. The areas surrounding the stockpiles are to be protected from sediment with the use of perimeter control devices such as earth or straw bale devices or silt fences. These perimeter control devices shall be maintained for the duration of the project.

GENERAL NOTES

Schedule:
The Contractor shall provide a schedule of operations to the Construction Manager. Sedimentation and erosion control features shall be placed in accordance with this schedule.

CONTRACTOR RESPONSIBILITY: The Contractor is responsible for providing erosion and sediment controls as detailed herein and for providing proper maintenance and inspection of such controls. Details shown on the plan shall be considered a minimum. Deviations from the plan are acceptable upon approval by ODOT, Wood County and Henry Township. Additional or alternative details may be found in the ODNR manual "Rainwater and Land Development."

MAINTENANCE NOTES

The Contractor shall inspect all erosion and sedimentation control measures weekly and within 24 hours after 0.5 inch rain event or greater over a 24-hour period to assure that the measures are functioning properly. The Contractor shall keep inspection reports, copies of which shall be provided to ODOT, Wood County, Henry Township or Ohio EPA upon request.

The Contractor must maintain a document signed by all subcontractors involved in the SWPPP implementation. The document must certify that the subcontractor(s) has read and understands the SWPPP.

Construction Road/Construction Entrance:
Existing paved roads shall be used to access the construction site. 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. Mud accumulation on roads shall be immediately removed. Construction entrances determined to be installed shall be constructed per the detail within the Erosion and Sediment Control Plan.

Filter Fabric Fence:
It may become necessary to remove portions of the barrier during construction to facilitate the grading operations in certain areas. However, the barrier shall be in place in the evening or during any inclement weather.

Filter fabric fences and filter barriers shall be inspected 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 usable life and the barrier is still necessary, the fabric shall be replaced promptly and at no additional cost to the Project.

Sediment deposits should be removed after each storm event. They must 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 dressed to conform with the existing grade, prepared and seeded.

Temporary Sediment Basins
Temporary sediment basins will be utilized within the proposed work limits during the construction of the roadway. The temporary basins will be located near the downstream end of the proposed ditch prior to culvert locations. Sediment laden runoff from the ditch construction will accumulate in the temporary basins. The proposed water quality basin will additionally be used as a sediment basin during construction activities. The basin will contain a temporary riser pipe to manage the runoff and release the calculated dewatering volume over a minimum 48 hour period. Any accumulated sediment will be removed before the completion of the road relocation.

Ditch Check
Ditch Checks will be placed every 150' along proposed ditches indicated on Sheet 13 to prevent sediment laden runoff from flowing into the surface waters.

Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately one-half (1/2) the height of the barrier.

Concrete Washout Area
Concrete trucks shall utilize designated areas determined by the Contractor to washout trucks prior leaving the site. Additional areas shall be provided, as needed, to ensure washout water does not flow into roadside ditches or storm sewers. Accumulated concrete will be removed from the site and disposed of properly.

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 at final grade, within 2 days of reaching final grade.

Temporary stabilization
Areas within 50 ft of a stream and not at final grade. With 2 days of the most recent disturbance if the area will remain idle for more than 21 days.

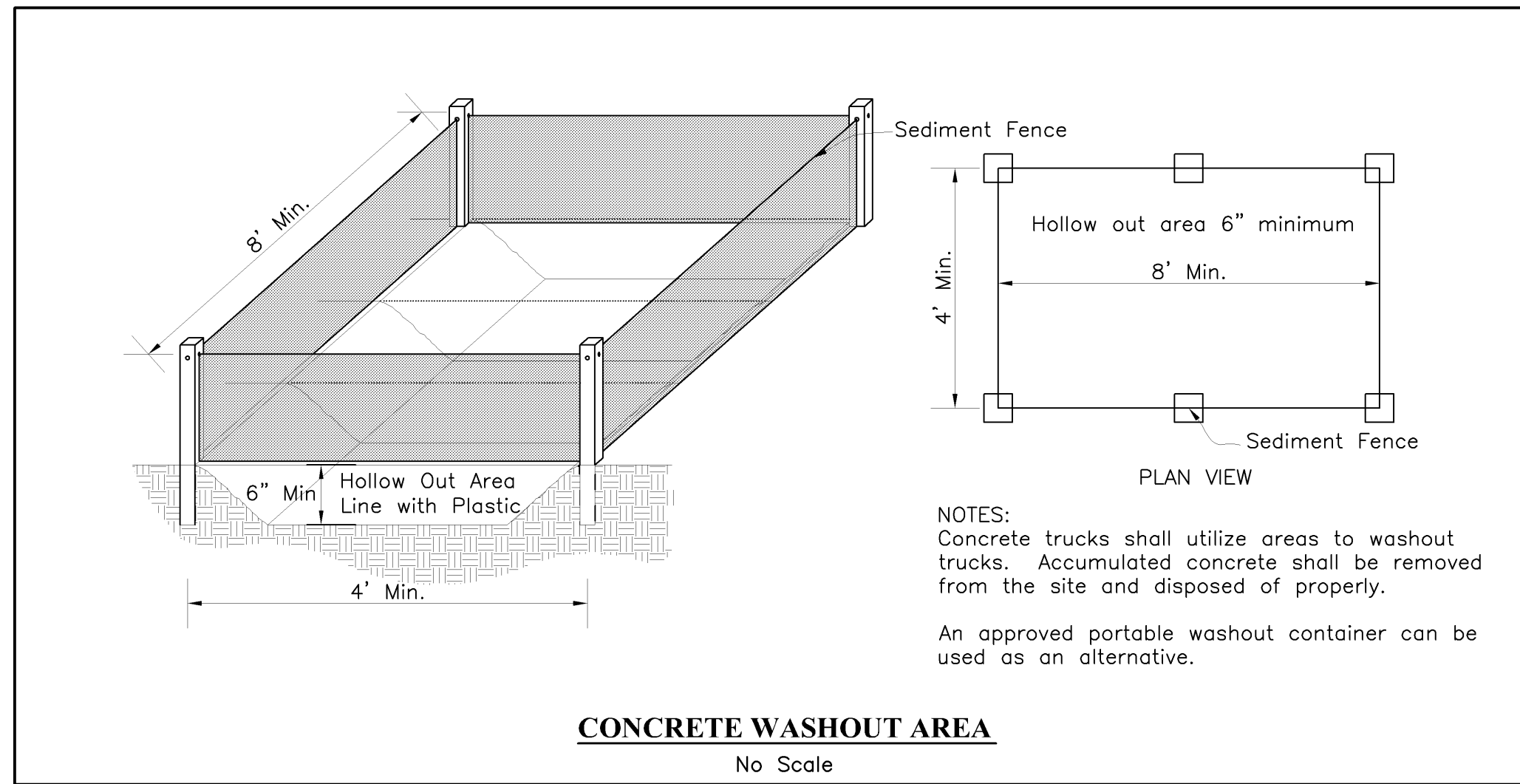
Any disturbed areas that will be dormant for more than 21 days but less than 1 year, and not within 50 ft of a stream, within 7 days of the most recent disturbance within the area. Disturbed areas that will be idle over winter shall be stabilized prior to the onset of winter weather.

All temporary diversions, sediment basin embankments and earth stockpiles shall be seeded 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 at the rate of one (1) ton per acre and over-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.

NOTE:
See Liberty Hi Road Relocation Plan for additional Erosion and Sediment Control Practices to be constructed in conjunction with this plan.



NOTES:
Concrete trucks shall utilize areas to washout trucks. Accumulated concrete shall be removed from the site and disposed of properly.
An approved portable washout container can be used as an alternative.

CONCRETE WASHOUT AREA
No Scale

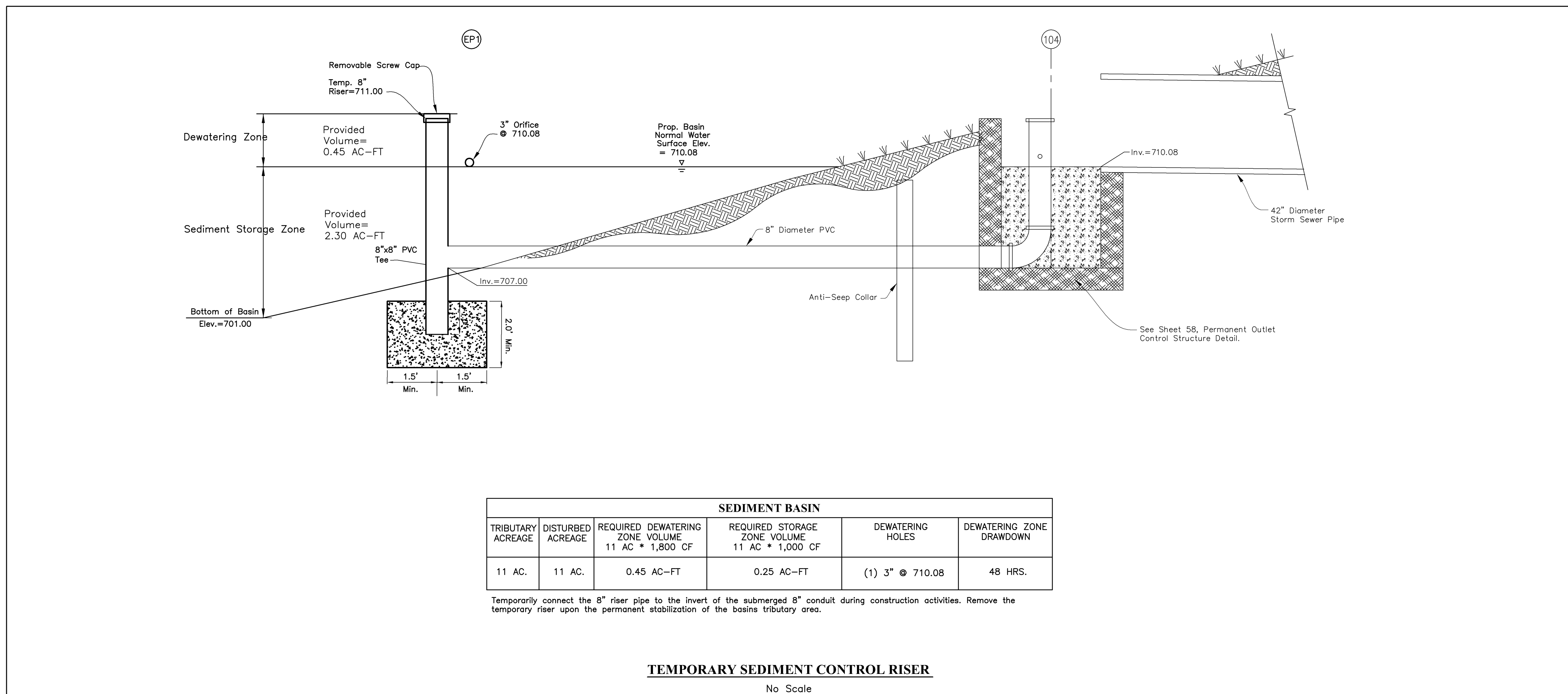
Construction Sequence - Best Management Practice Installation

West of Liberty Hi Road

1. Install perimeter sediment fence.
2. Install culverts to convey runoff from the proposed ditches to the existing culvert that is tributary to the offsite stormwater basin.
3. Excavate the proposed sediment basins that are in-line with the proposed ditches.
4. Establish a designated topsoil stockpile location.
5. Begin clearing vegetation and rough grading activities associated with the proposed roadway and ditches.
6. Temporarily stockpile the topsoil. Install sediment fence around the perimeter of the stockpile area.
7. Grade the proposed ditches and direct runoff into the sediment basins.
8. Install ditch checks within the newly established ditches.
9. Fine grade the proposed road and construct.
10. Fine grade the ditches and stabilize with seed and mulch applications.
11. Remove the temporary sediment controls upon the establishment of vegetation.
12. Fill in the sediment basins that are inline with the ditches. Stabilize the resulting disturbed areas.

East of Liberty Hi Road

1. Install perimeter sediment fence.
2. Excavate the proposed stormwater basin and install the permanent outlet structure and the temporary riser pipe.
3. Rough grade the proposed ditches to convey runoff into the sediment basin during grading activities.
4. Install ditch checks.
5. Establish a temporary topsoil stockpile.
6. Begin clearing the existing vegetation and rough grading activities associated with the proposed road.
7. Temporarily stockpile the topsoil.
8. Install the stormwater culverts and construct the road.
9. Fine grade the ditches and stabilize with seed and mulch applications.
10. Remove the temporary ditch checks and sediment fence upon the establishment of vegetation.
11. Remove the temporary riser pipe from the stormwater basin upon the stabilization of the areas disturbed as a result of the construction activities.



SEDIMENT BASIN					
TRIBUTARY ACREAGE	DISTURBED ACREAGE	REQUIRED DEWATERING ZONE VOLUME	REQUIRED STORAGE ZONE VOLUME	DEWATERING HOLES	DEWATERING ZONE DRAWDOWN
11 AC.	11 AC.	11 AC * 1,800 CF	11 AC * 1,000 CF	(1) 3" @ 710.08	48 HRS.

Temporarily connect the 8" riser pipe to the invert of the submerged 8" conduit during construction activities. Remove the temporary riser upon the permanent stabilization of the basins tributary area.

TEMPORARY SEDIMENT CONTROL RISER
No Scale

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MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
PUBLIC ROADWAY IMPROVEMENTS PLAN
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
EROSION AND SEDIMENT CONTROL PLAN

EMHT
Evans, Mechwart, Hambleton & Tilton, Inc.
1500 New Albany Road, Columbus, OH 43214
Phone: 614.775.4600 Fax: 614.775.3448
emht.com

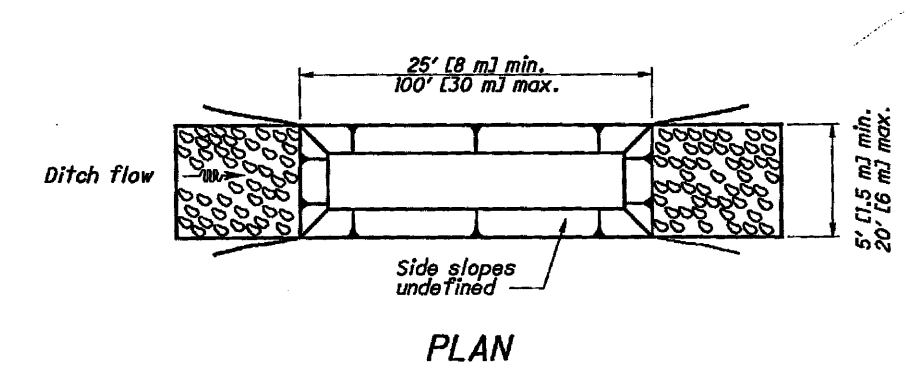
DATE
September 24, 2010

SCALE
As Noted

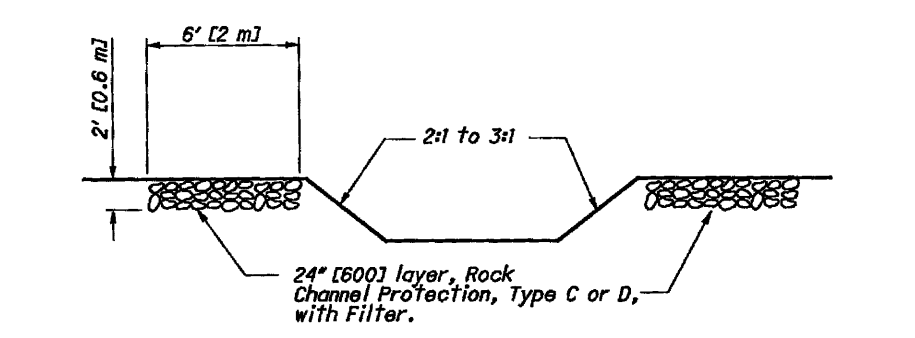
JOB NO.
20091333

SHEET
14/70

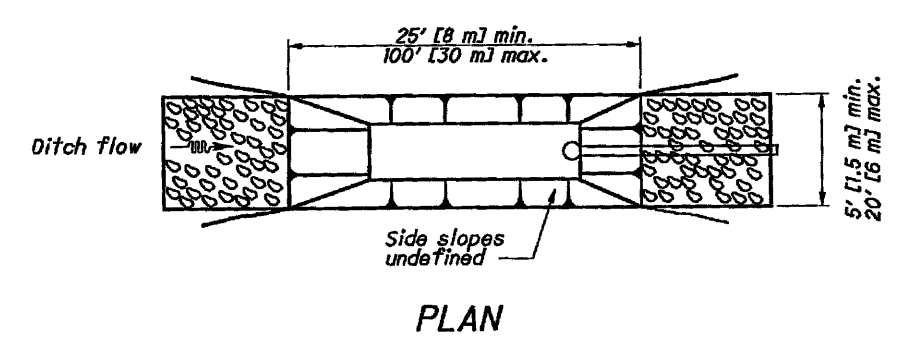
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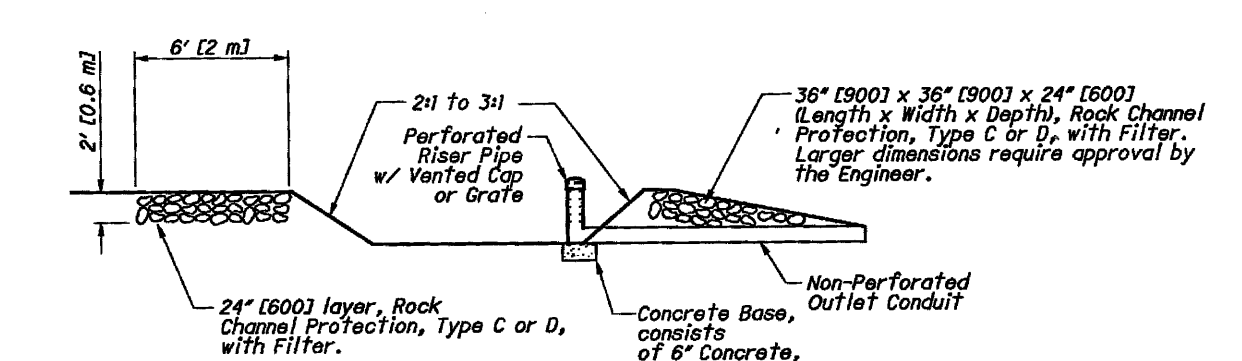
PLAN



PROFILE
SEDIMENT BASIN
(Drainage Area of Less than 5 Acres)



PLAN



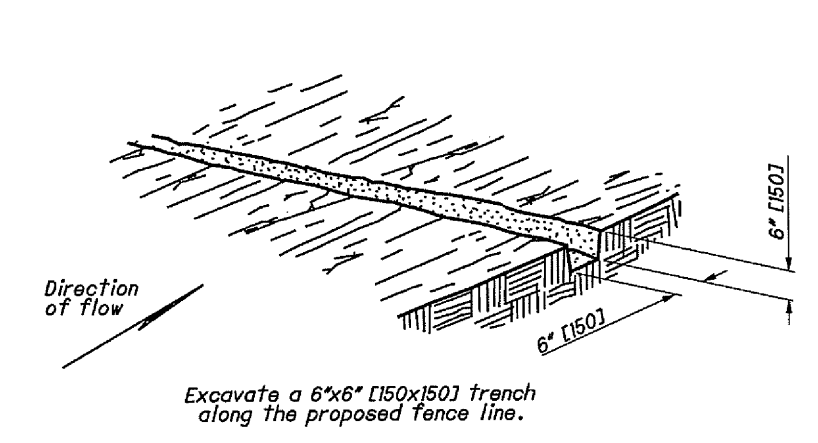
PROFILE
SEDIMENT BASIN
(Drainage Area of 5 Acres or More)

MATERIAL:
Furnish materials conforming to Item 203, Embankment and Item 601, Rock Channel Protection, Type C or D with filter. Furnish construction fence consisting of 4'-0" high plastic fence with 6' long metal fence posts.

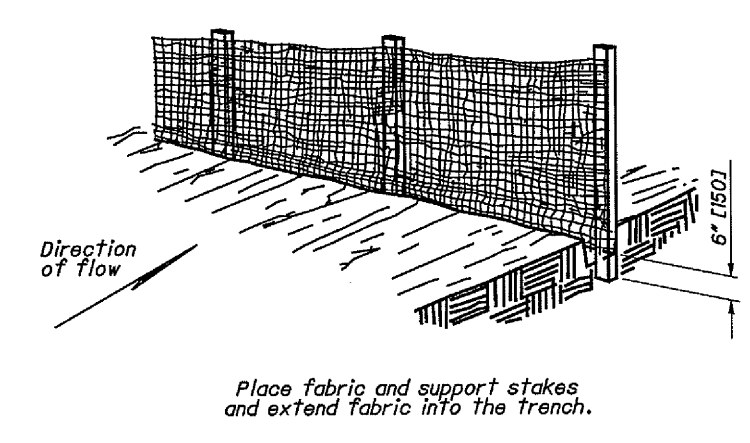
CONSTRUCTION:
Construct the Basin and Dams as detailed. Construct the construction fence in urban areas or in high pedestrian traffic areas. Construct the fence to completely surround the sediment basin or dam. Place the fence post on 8' centers, 2' deep. Securely attach the plastic construction fence to the fence post.

Sediment Basin	Drainage Area	Basin Length	Basin Bottom Width	Depth Below Ditch Bottom
1	1.89 Ac	100'	4'	3'
2	1.41 Ac	75'	4'	3'
3	4.20 Ac	100'	4'	3'

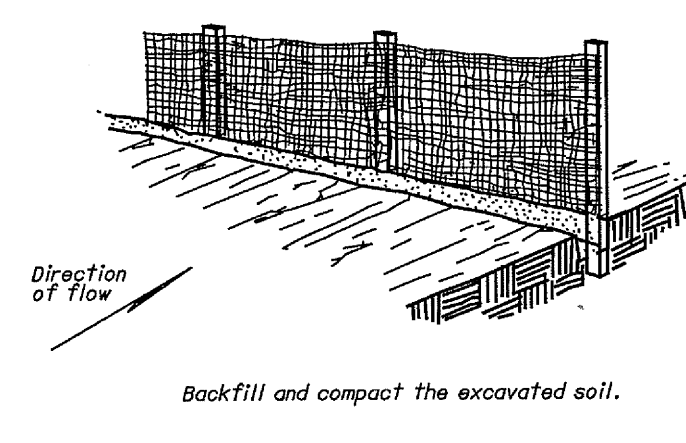
PERIMETER FILTER FABRIC FENCE



STEP 1



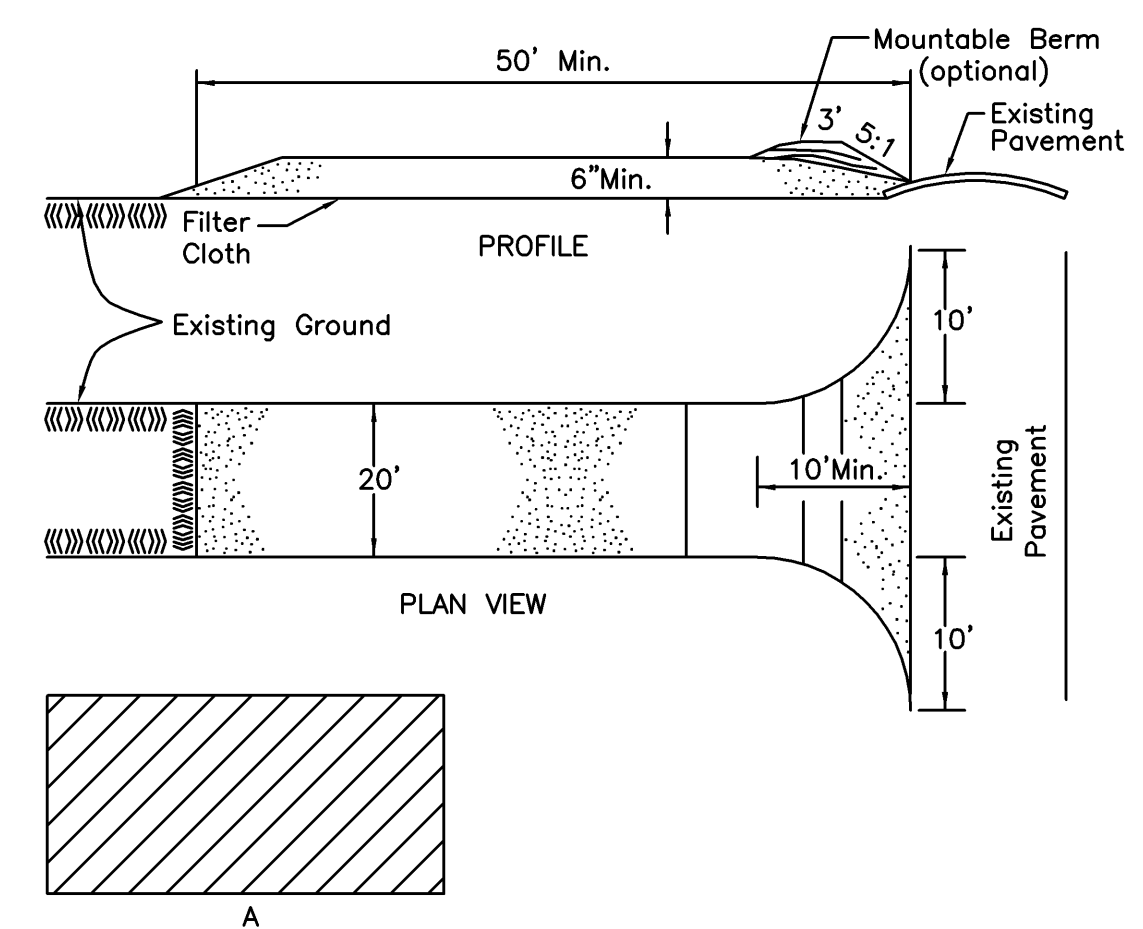
STEP 2



STEP 3

MATERIAL:
Furnish 30" wide filter fabric with sound wood supports with maximum on center spacing of 10'. Use filter fabric conforming to 712.09, Type C.

CONSTRUCTION:
Construct the filter fabric fence as detailed. The Contractor may elect to trench the fence detailed on steps 1 through 3 in one piling operation.



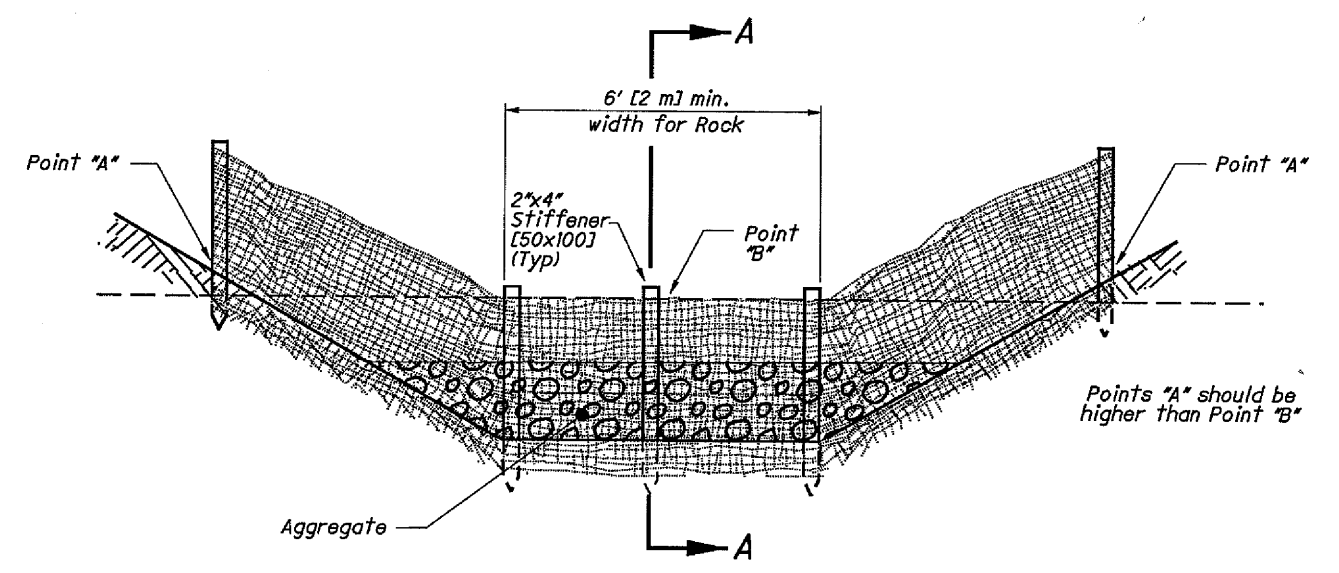
A: Contractor Laydown Area (Dumpster, Cement Truck Washout, Vehicle Fueling)
Location to be determined in the field by Contractor.

- Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
- Length - Fifty (50) foot min.
- Thickness - Not less than six (6) inches.
- Width - Twenty (20) foot minimum, but not less than the full width at points where ingress or egress occurs.
- Filter Cloth - will be placed over the entire area prior to placing of stone.
- Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
- Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public right-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
- Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public right-of-ways. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
- Periodic inspection and needed maintenance shall be provided after each rain.

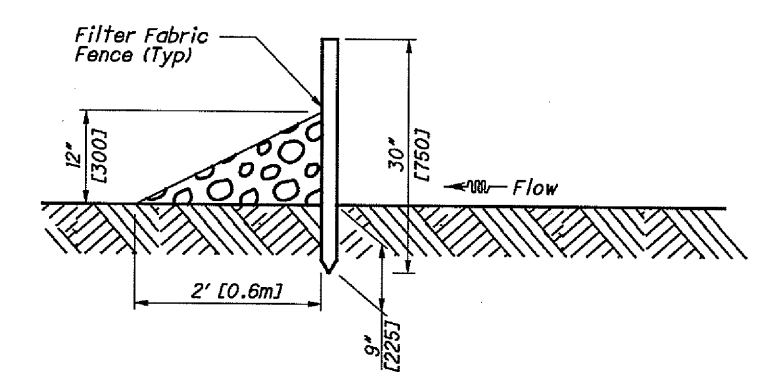
LOCATION OF CONSTRUCTION ENTRANCE TO BE DETERMINED BY THE CONTRACTOR.

STABILIZED CONSTRUCTION ENTRANCE

No Scale



CROSS SECTIONAL VIEW OF FLAT BOTTOM DITCH



PROFILE VIEW OF FLAT BOTTOM AND V DITCH

SECTION A-A
No Scale

NOTES

- MATERIAL:**
Furnish filter fabric ditch checks consisting of the following materials:
- 30" (0.8m) wide filter fabric with sound wood supports with maximum on-center spacing of 10' (3.0m).
 - A vertically driven 2"x4" (50x100) stiffener stake in the center of the ditch.
 - Aggregate conforming to one of the following gradations No. 1 through No. 4 on Table 703.01-1.

When using straw bales, furnish 30" (0.8m) long 2"x2" (50x50) wooden stakes, reinforcing bars or fence posts to stake straw bales in place.

CONSTRUCTION:
Trench the filter fabric fence as per details for Perimeter Filter Fabric Fence. Place a vertical 2"x4" (50x100) stiffener stake in the center of the ditch with the top level with the top of the fence and at least 6" (150) below the bottom of the ditch. Excavate for aggregate and place the aggregate on the downstream side of the ditch checks.

If the Engineer determines that rock should not be used for the filter fabric ditch checks, replace aggregate with straw bales configured with minimal gaps between bales. Tightly place each bale adjacent to one another. Entrench 2" (50 to 75) into the ground prior to staking. Finally stake each bale with at least two stakes.

DITCH CHECK
No Scale

REVISIONS	MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
 EROSION AND SEDIMENT CONTROL PLAN

DATE
September 24, 2010

SCALE
As Noted

JOB NO.
20091333

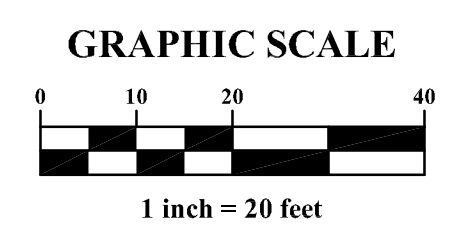
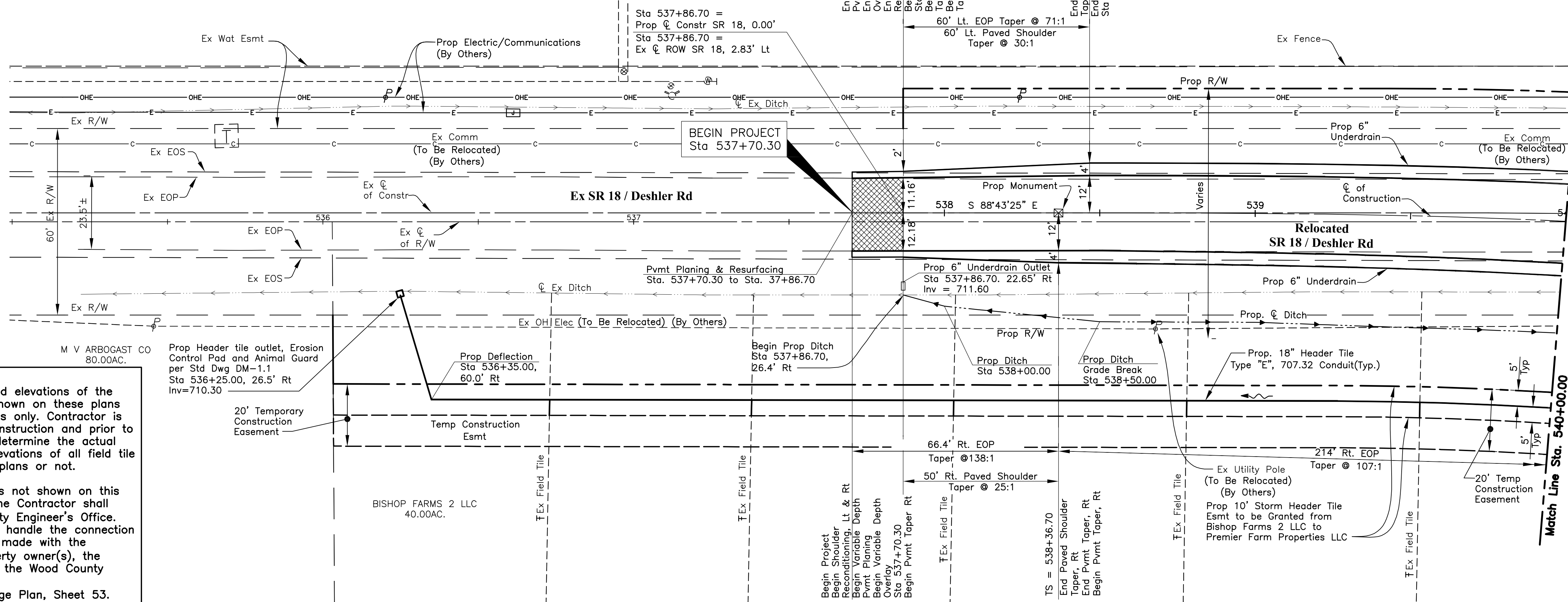
SHEET
15/70

CAUTION
O.S.H.A. CLEARANCE REQUIREMENTS
TO BE MAINTAINED DURING
CONSTRUCTION BETWEEN EQUIPMENT AND
OVERHEAD UTILITY LINES

S1
Curve Data
Ls = 214.00
Os = 4-48-58
LT = 142.72
ST = 71.38
x = 213.85
y = 5.99
P = 1.4986
K = 106.9748
LC = 214.00
T.S. = Sta 538+36.70
S.C. = Sta 540+50.70

NOTE:
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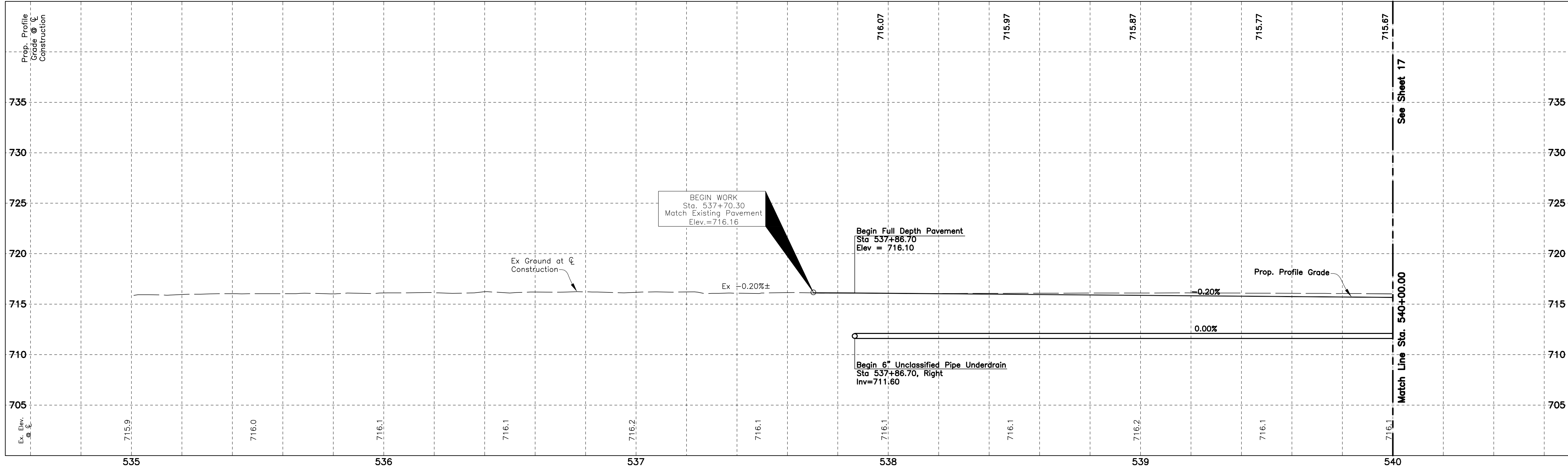
If any existing field tiles not shown on this plan are encountered the Contractor shall contact the Wood County Engineer's Office. The decision of how to handle the connection to new storm shall be made with the assistance of the property owner(s), the Engineer of record and the Wood County Engineer's Office.
See Field Tile & Drainage Plan, Sheet 53.



See Sheet 17

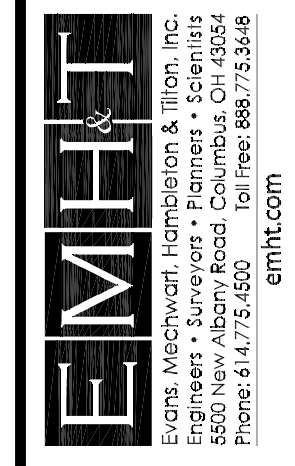
Match Line Sta. 540+00.00

NOTE:
For Ditch Station/Offset/Elevation See Sheets 25 thru 42.
For Existing Pavement Removal See Sheets 50, 51, & 52.
For Existing Field Tile Removal See Sheet 53.



MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
PUBLIC ROADWAY IMPROVEMENTS PLAN
FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
PLAN AND PROFILE STA 537+00 TO 540+00



DATE
September 24, 2010

SCALE
Horiz: 1" = 20'
Vert: 1" = 5'

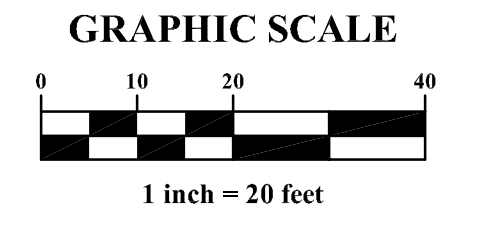
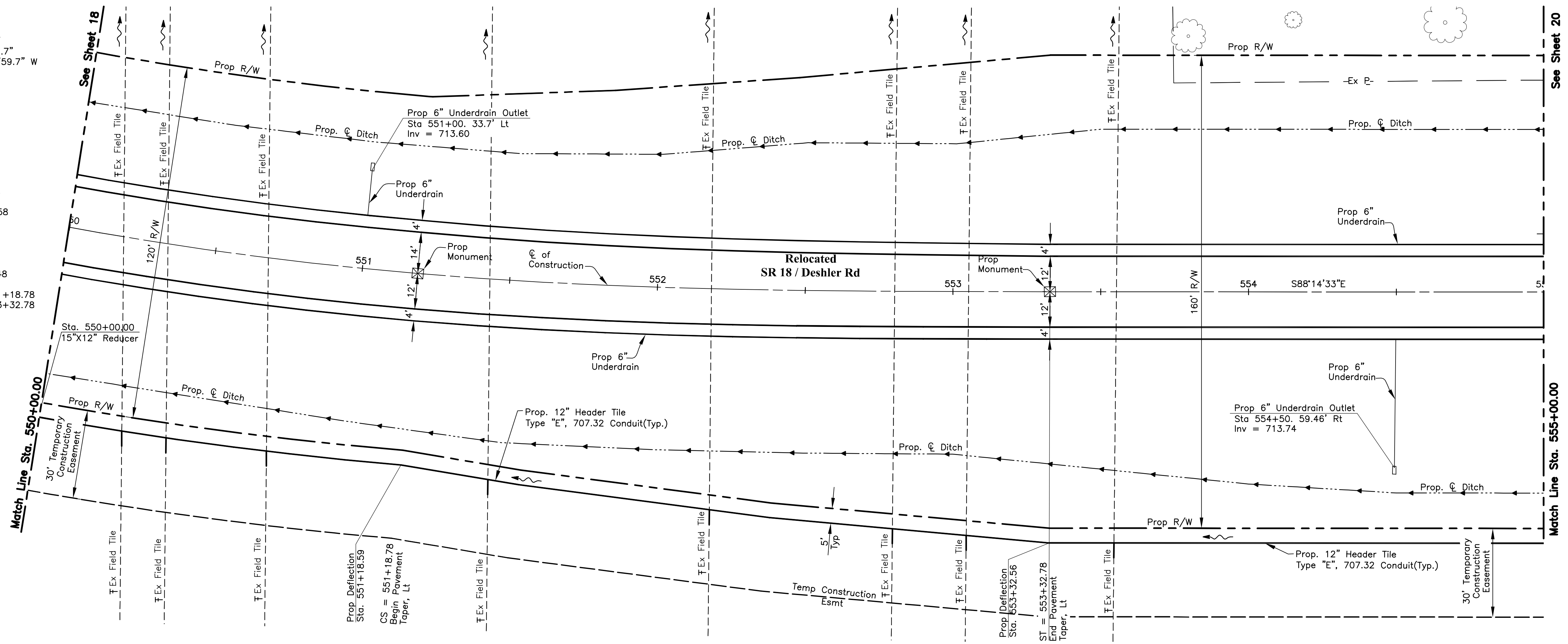
JOB NO.
20091333

SHEET
16/70

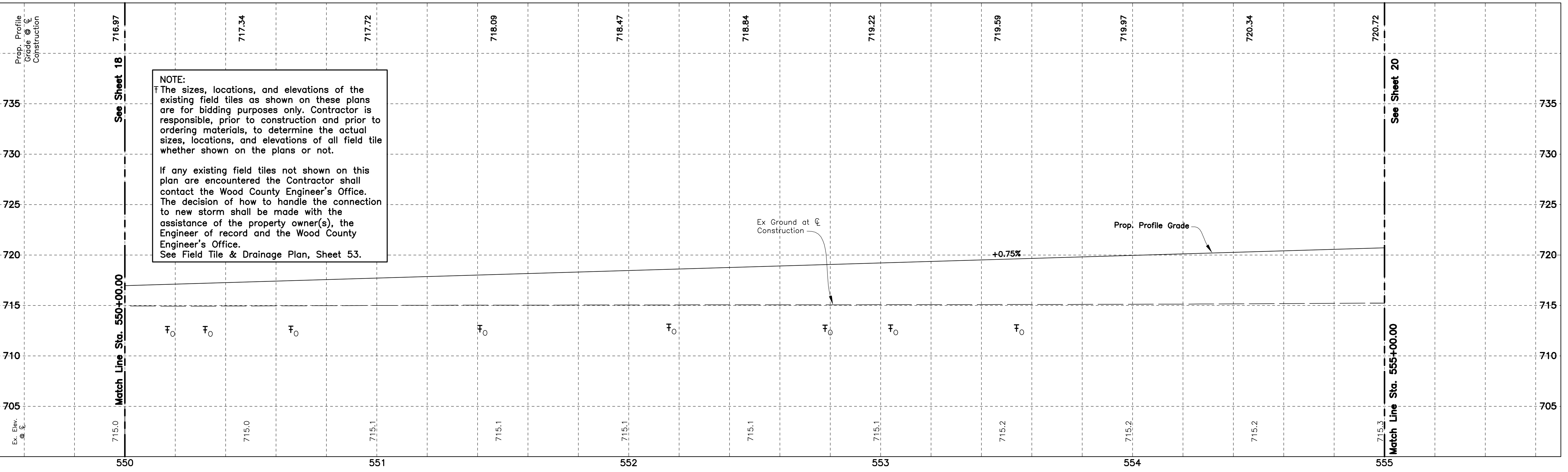
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C2
Curve Data
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 ChB = N 76°29'59.7" W
 ChD = 307.04'
 P.C. = 9.36'
 P.T. = 307.79'
 M = 9.29'
 R = 1273.00'
 T = 154.65'

S4
Curve Data
 Ls = 214.00
 Os = 4-48-58
 LT = 142.72
 ST = 71.38
 x = 213.85
 y = 5.99
 P = 1.4986
 K = 106.9748
 LC = 214.00
 T.S. = Sta 551+18.78
 S.C. = Sta 553+32.78



NOTE:
 For Existing Field Tile Removal See Sheet 53.
 For Ditch Station/Offset/Elevation See Sheets 25 thru 42.



MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
 PLAN AND PROFILE-STA 550+00 TO 555+00



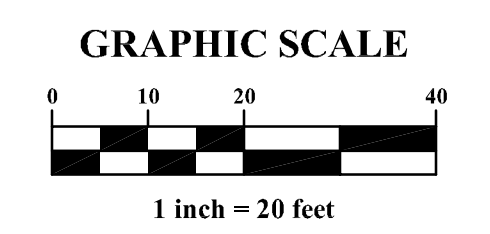
DATE
September 24, 2010

SCALE
 Horiz: 1" = 20'
 Vert: 1" = 5'

JOB NO.
20091333

SHEET
19/70

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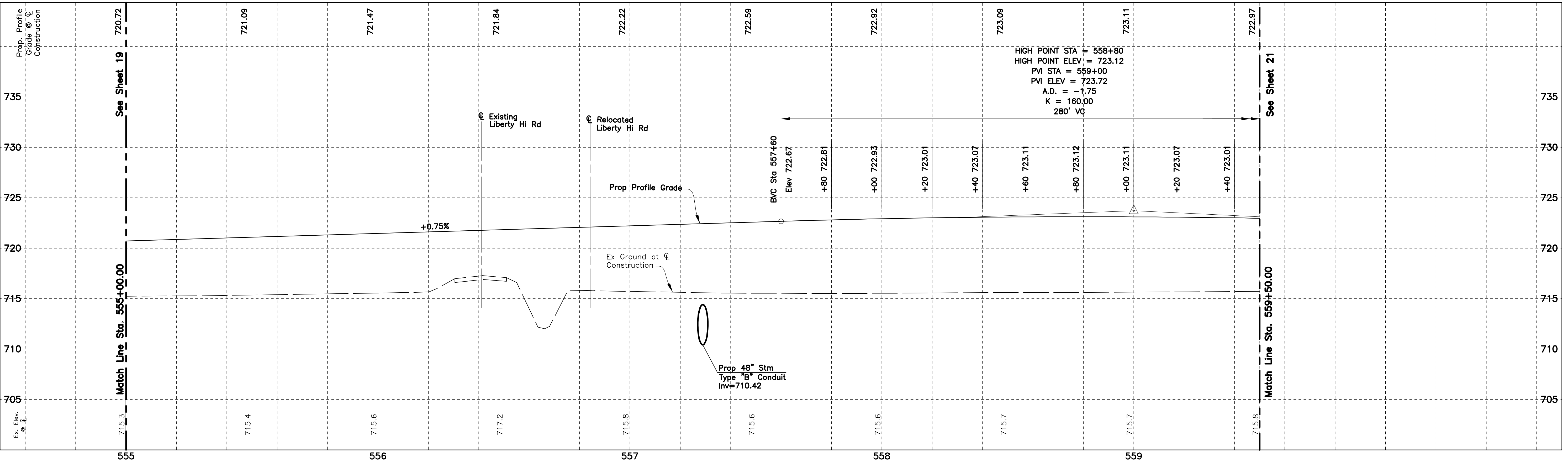
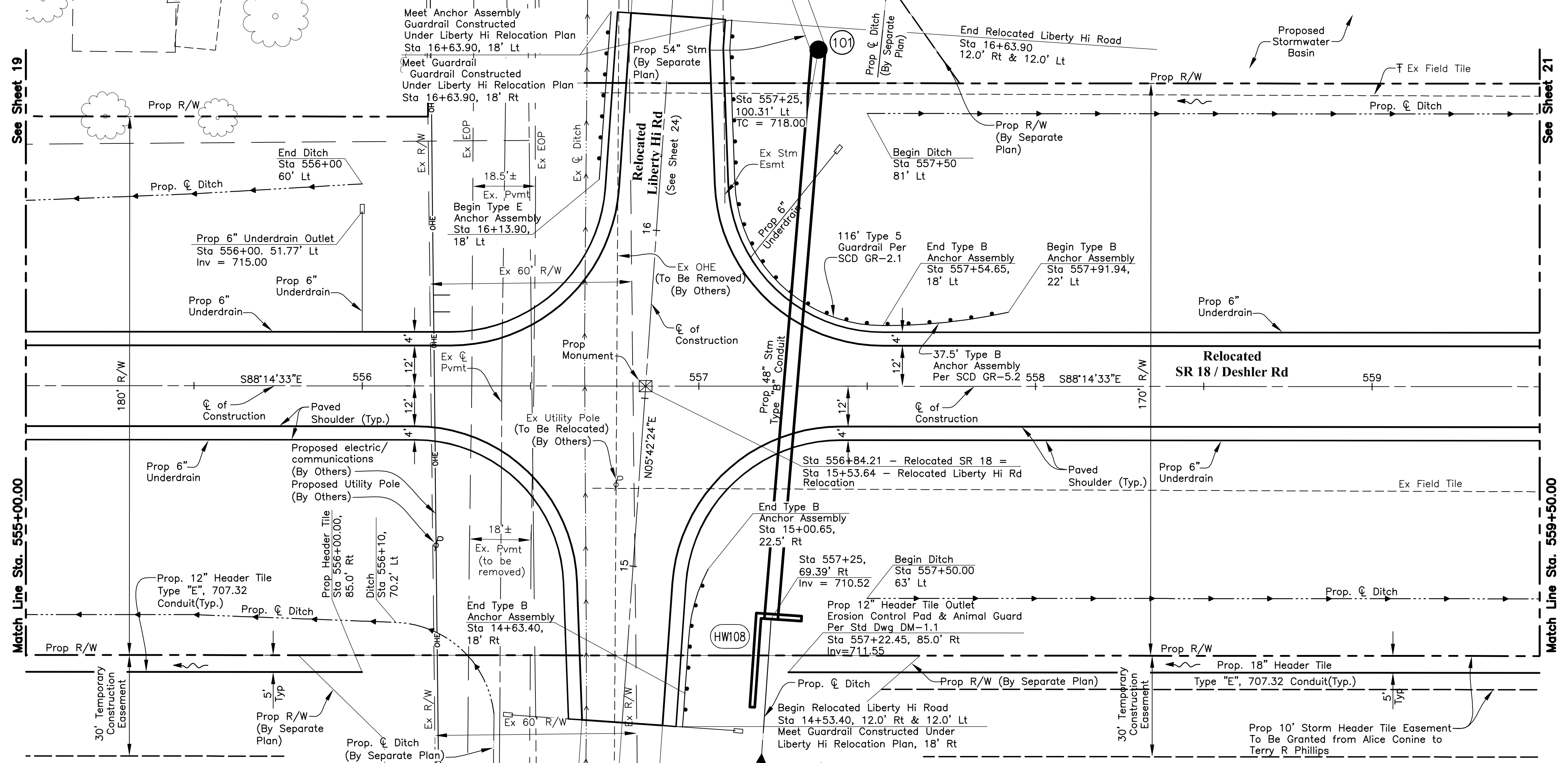


CAUTION
O.S.H.A. CLEARANCE REQUIREMENTS
TO BE MAINTAINED DURING
CONSTRUCTION BETWEEN EQUIPMENT AND
OVERHEAD UTILITY LINES

NOTE:
For Existing Pavement Removed See
Sheets 50, 51, & 52.
For Existing Field Tile Removal See
Sheet 53.
For Liberty Hi Road Plan and Profile
See Sheet 24.
For Proposed Stormwater Basin See
Sheet 54 & 55.
For Intersection Detail See Sheet 49.
For Ditch Station/Offset/Elevation See
Sheets 25 thru 42.

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The decision of how to handle the connection
to new storm shall be made with the
assistance of the property owner(s), the
Engineer of record and the Wood County
Engineer's Office.
See Field Tile & Drainage Plan, Sheet 53.



MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
PUBLIC ROADWAY IMPROVEMENTS PLAN
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
PLAN AND PROFILE STA 555+00 TO 559+50

DATE
September 24, 2010

SCALE
Horiz: 1" = 20'
Vert: 1" = 5'

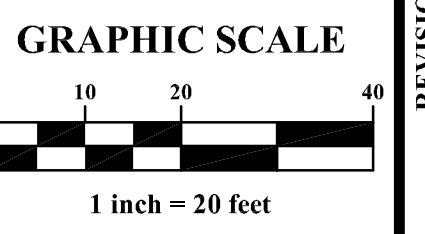
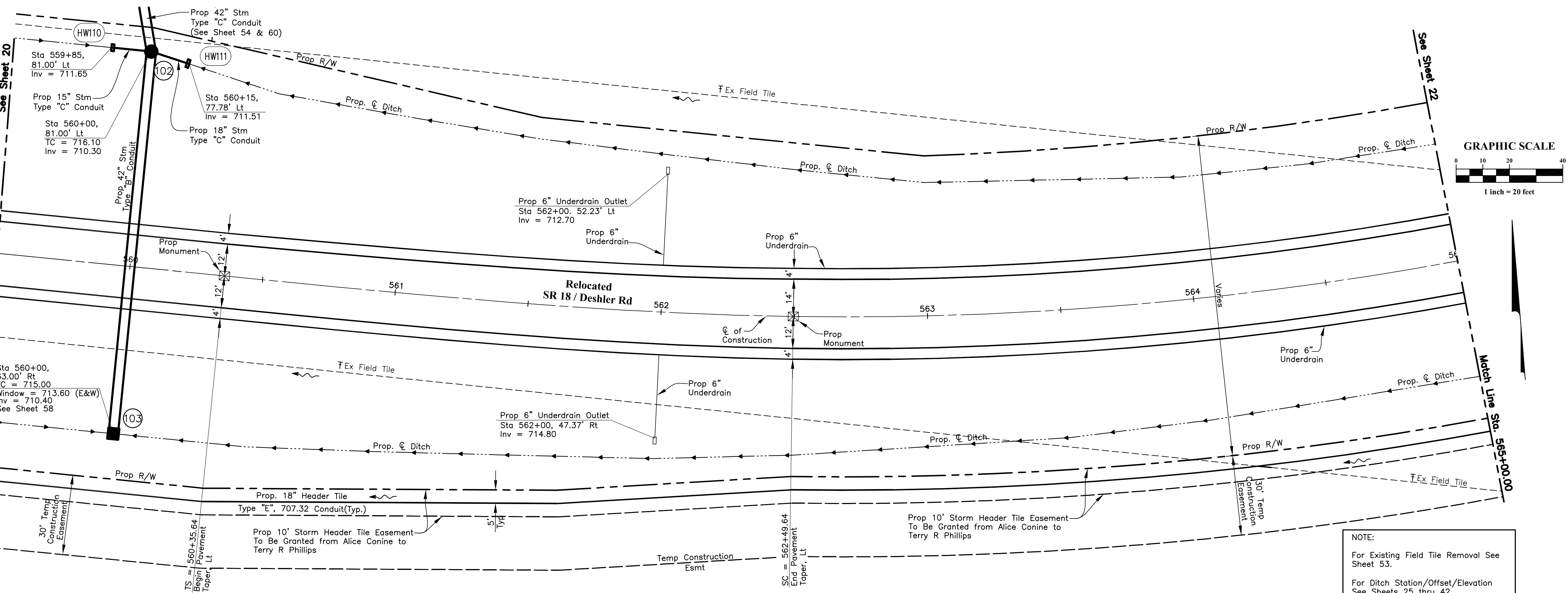
JOB NO.
20091333

SHEET
20/70

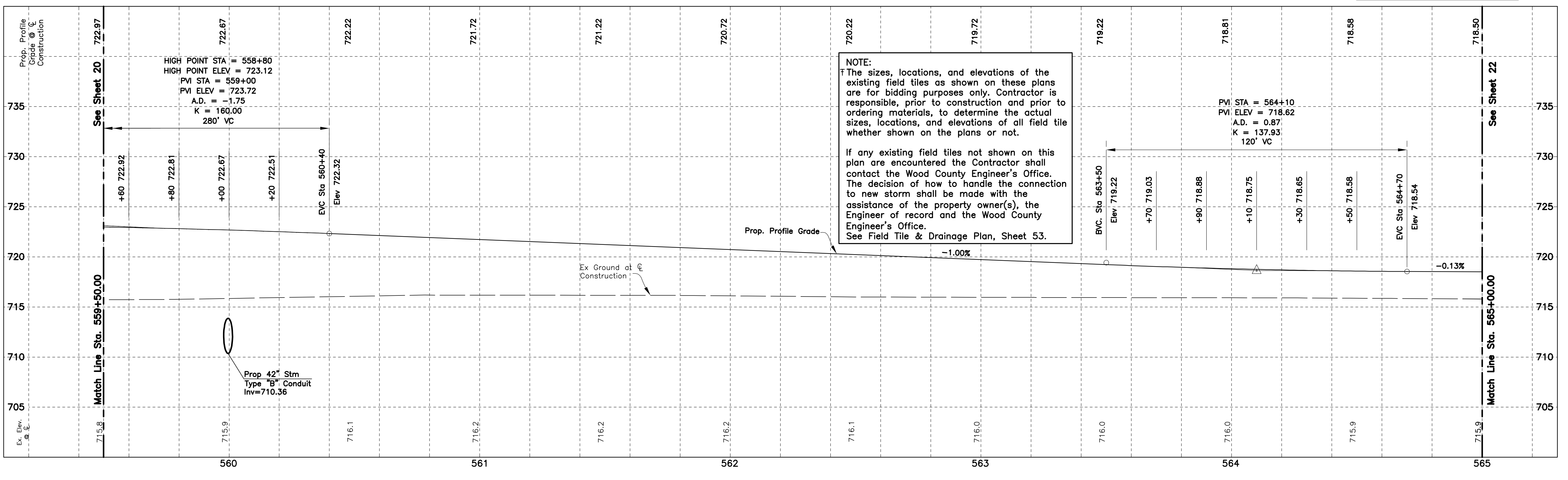
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S5 Curve Data
 Ls = 214.00
 Gs = 4-48-58
 LT = 142.72
 ST = 71.38
 x = 213.85
 y = 5.99
 P = 1.4986
 K = 106.9748
 LC = 214.00
 T.S. = Sta 560+35.64
 S.C. = Sta 562+49.64

C3 Curve Data
 Δ = 13°02'32.1"
 ChB = S 80°25'13.8" W
 ChD = 289.15'
 Dc = 0.0'
 E = 8.29'
 L = 289.77'
 M = 8.24'
 R = 1273.00'
 T = 145.52'



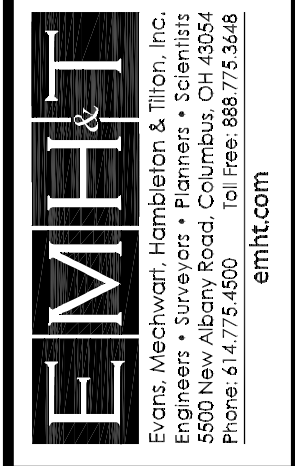
NOTE:
 For Existing Field Tile Removal See Sheet 53.
 For Ditch Station/Offset/Elevation See Sheets 25 thru 42.



NOTE:
 The sizes, locations, and elevations of the existing field tiles as shown on these plans are for bidding purposes only. Contractor is responsible, prior to construction and prior to ordering materials, to determine the actual sizes, locations, and elevations of all field tile whether shown on the plans or not.
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MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESLER ROAD) RELOCATION
WOO-18-10.19
 PLAN AND PROFILE STA 559+50 TO 565+00



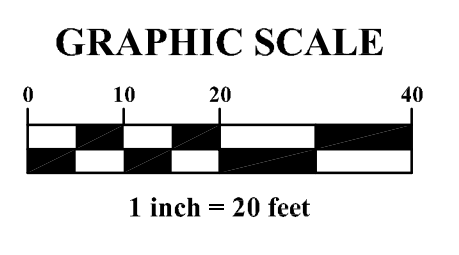
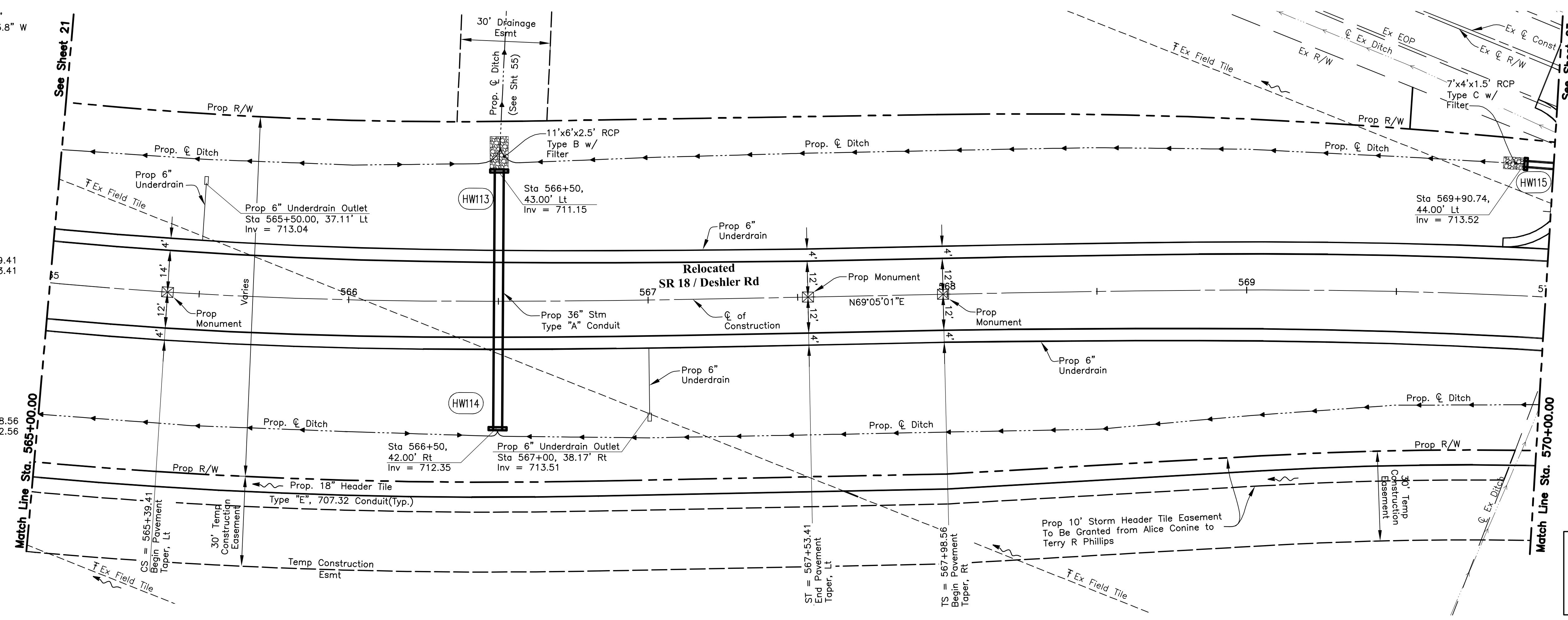
DATE: September 24, 2010
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 Vert: 1" = 5'
 JOB NO.: 20091333
 SHEET: 21/70

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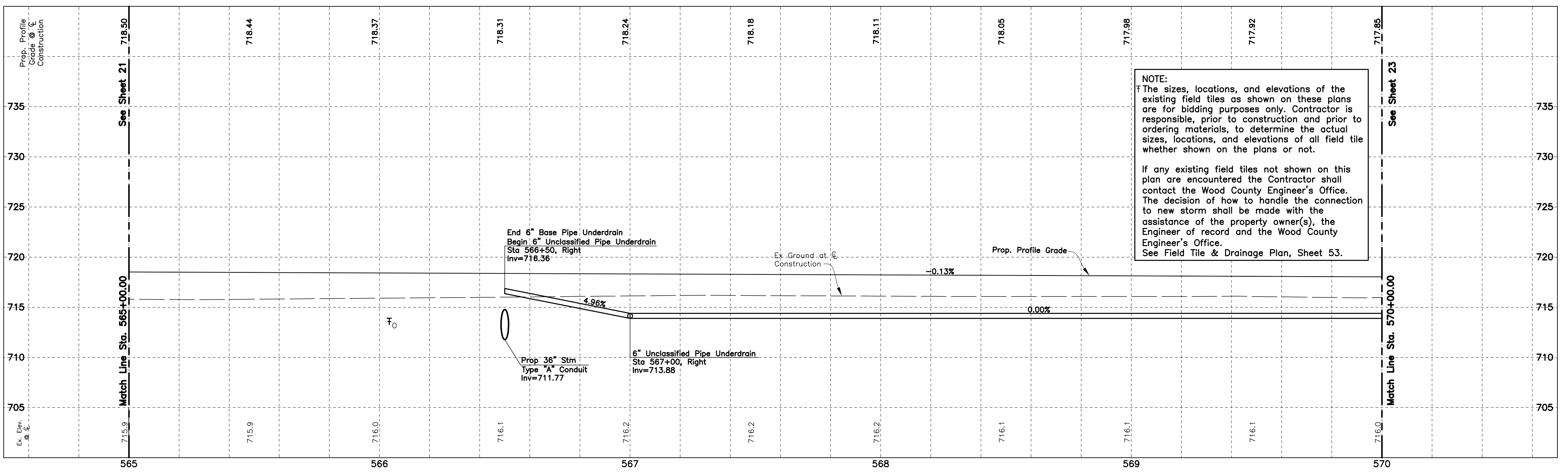
C3
Curve Data
 Δ = 13°02'32.1"
 ChB = S 80°25'13.8" W
 ChD = 289.15'
 Dc = 4°30'03.0"
 E = 8.29'
 L = 289.77'
 M = 8.24'
 R = 1273.00'
 T = 145.52'

S6
Curve Data
 Ls = 214.00
 Os = 4-48-58
 LT = 142.72
 ST = 71.38
 x = 213.85
 y = 5.99
 P = 1.4986
 K = 106.9748
 LC = 214.00
 T.S. = Sta 565+39.41
 S.C. = Sta 567+53.41

S7
Curve Data
 Ls = 214.00
 Os = 4-48-58
 LT = 142.72
 ST = 71.38
 x = 213.85
 y = 5.99
 P = 1.4986
 K = 106.9748
 LC = 214.00
 T.S. = Sta 567+98.56
 S.C. = Sta 570+12.56



NOTE:
 For Existing Field Tile Removal See Sheet 53.
 For Ditch Station/Offset/Elevation See Sheets 25 thru 42.



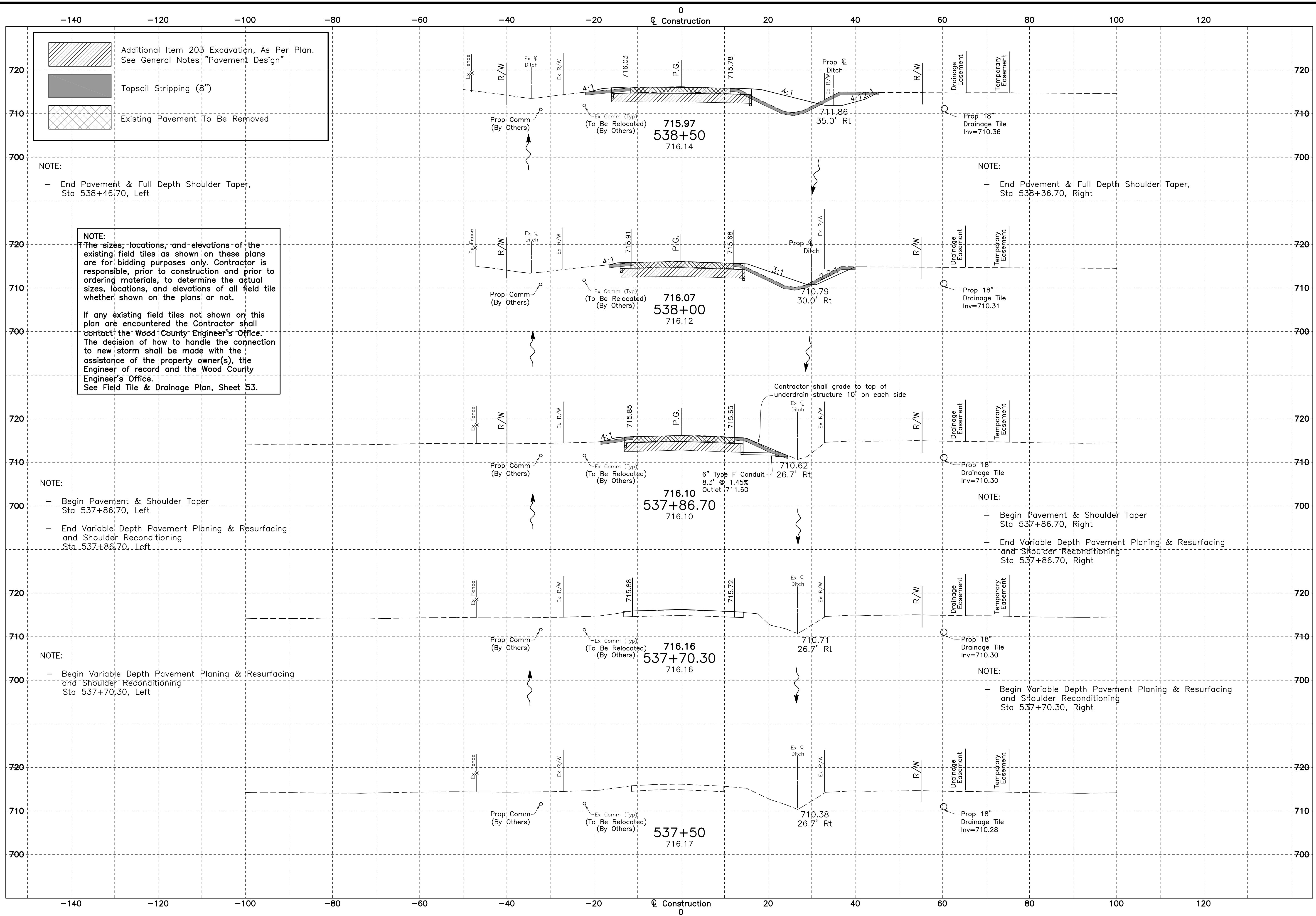
NOTE:
 The sizes, locations, and elevations of the existing field tiles as shown on these plans are for bidding purposes only. Contractor is responsible, prior to construction and prior to ordering materials, to determine the actual sizes, locations, and elevations of all field tile whether shown on the plans or not.
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 See Field Tile & Drainage Plan, Sheet 53.

MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10.19
 PLAN AND PROFILE-STA 565+00 TO 570+00

EMIT
 ENGINEERING & MAPPING
 560 New Albany Road, Columbus, OH 43054
 Phone: 614.775.6500 | Fax: 614.775.3346 | emt.com

DATE: September 24, 2010
 SCALE: Horiz: 1" = 20', Vert: 1" = 5'
 JOB NO.: 20091333
 SHEET: 22/70

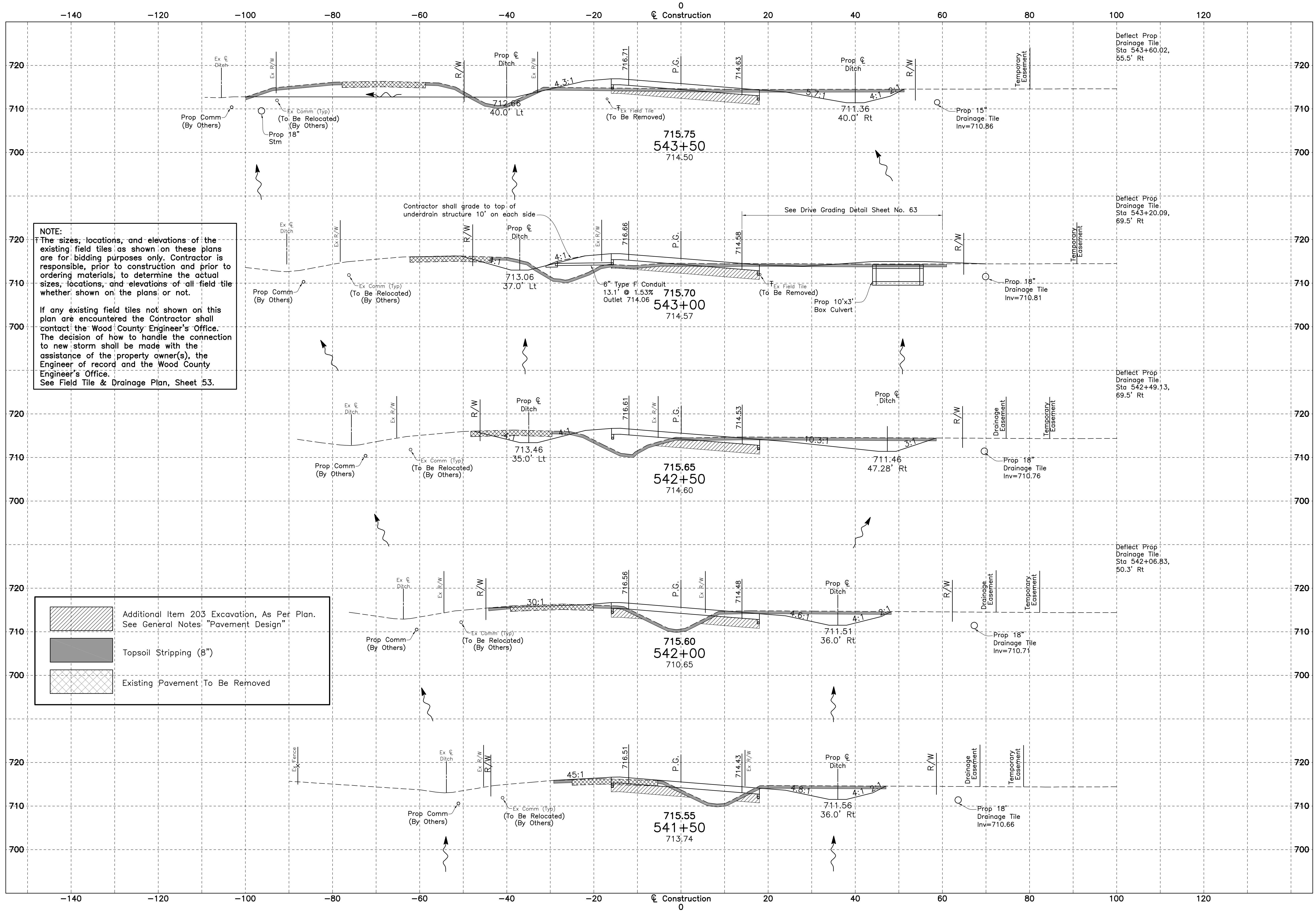


MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10.19
 CROSS SECTIONS



DATE	September 24, 2010
SCALE	Horiz: 1" = 10' Vert: 1" = 10'
JOB NO.	20091333
SHEET	25/70

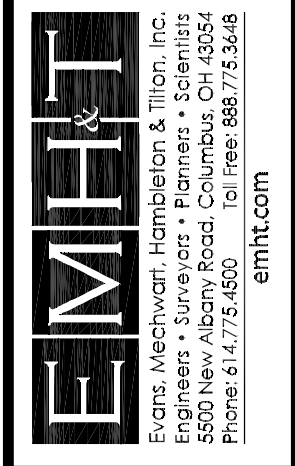


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 See Field Tile & Drainage Plan, Sheet 53.

	Additional Item 203 Excavation, As Per Plan. See General Notes "Pavement Design"
	Topsoil Stripping (8")
	Existing Pavement To Be Removed

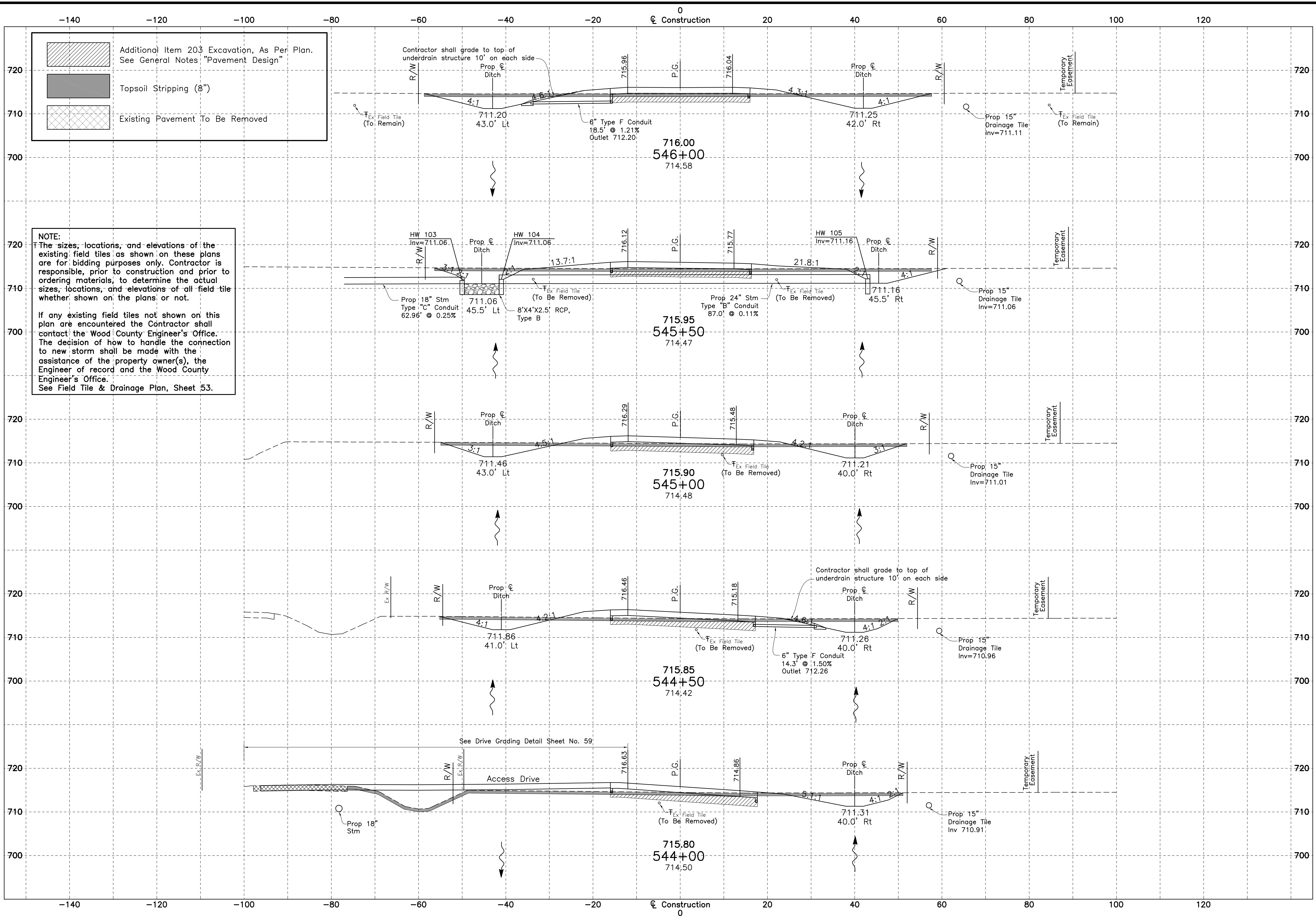
MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
 WOO-18-10-19
 CROSS SECTIONS



DATE	September 24, 2010
SCALE	Horiz: 1" = 10' Vert: 1" = 10'
JOB NO.	20091333
SHEET	27/70

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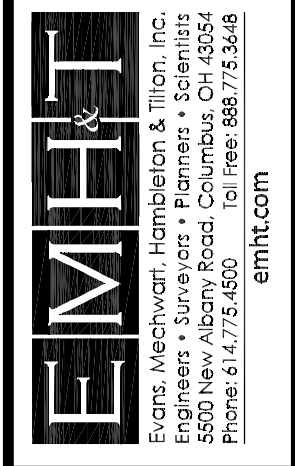
NOTE:
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 See Field Tile & Drainage Plan, Sheet 53.

	Additional Item 203 Excavation, As Per Plan. See General Notes "Pavement Design"
	Topsoil Stripping (8")
	Existing Pavement To Be Removed

MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
 WOO-18-10.19
 CROSS SECTIONS

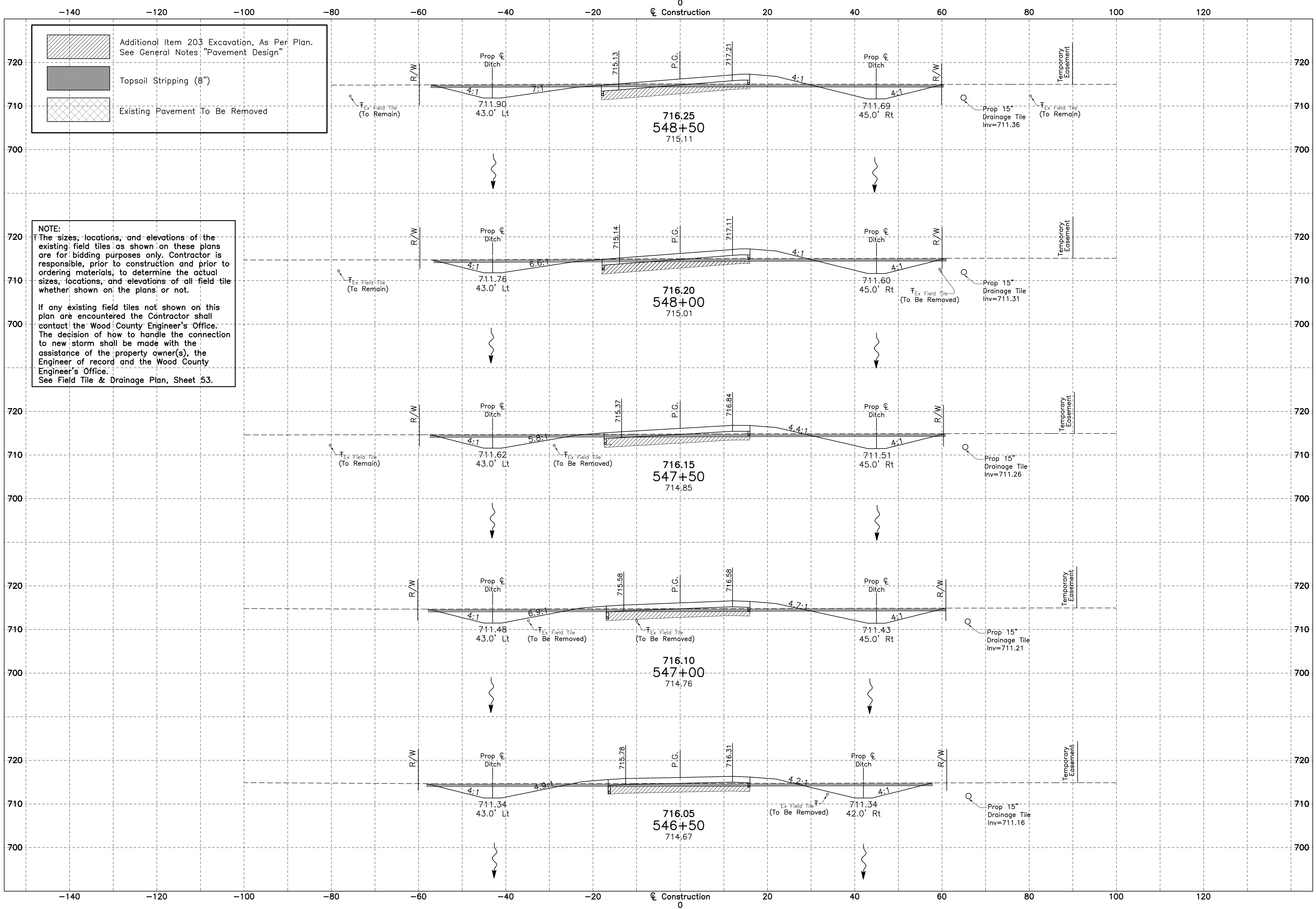


DATE
 September 24, 2010

SCALE
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 Vert: 1" = 10'

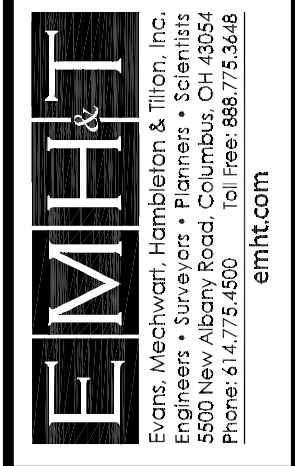
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 20091333

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MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
 CROSS SECTIONS



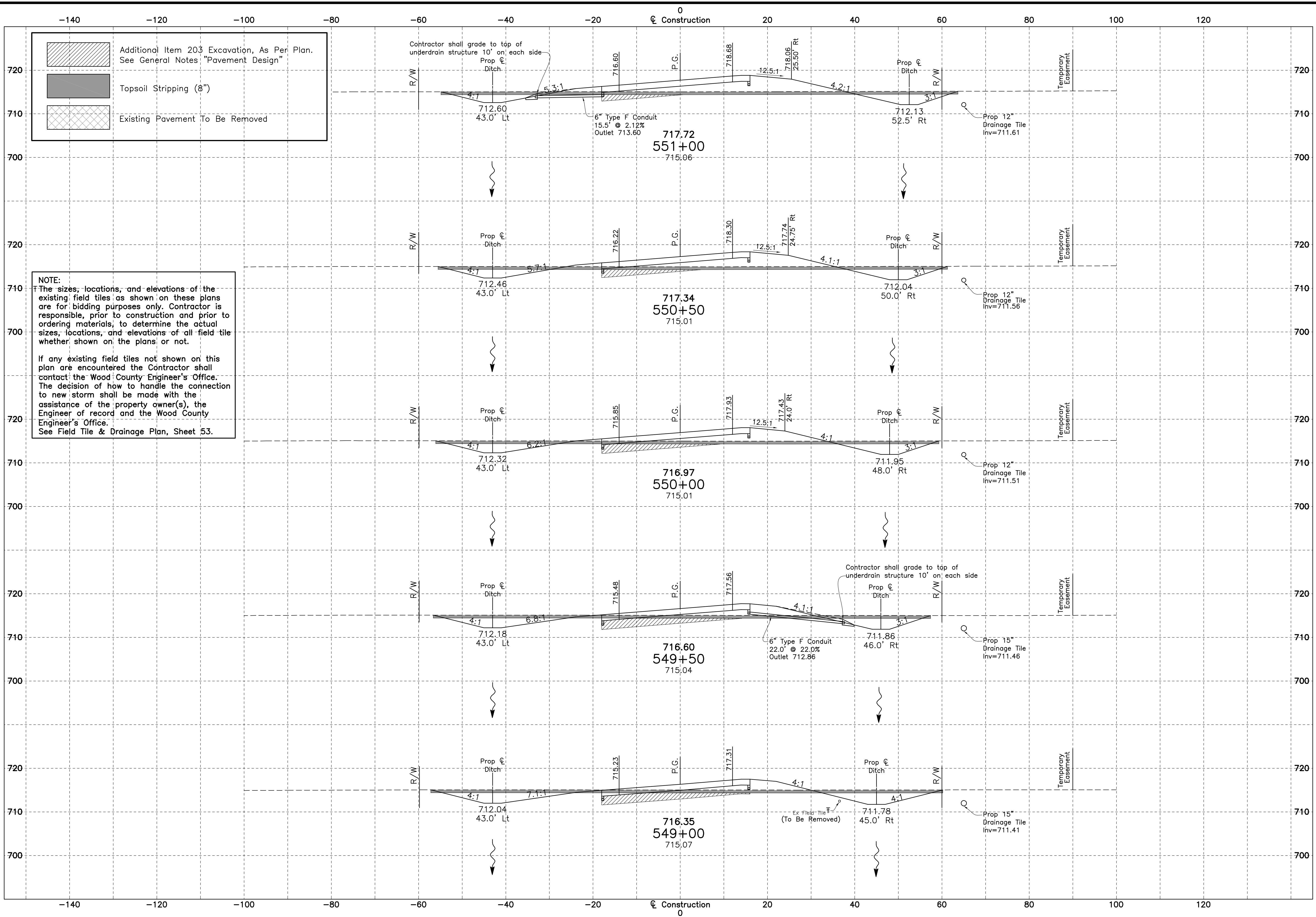
DATE
 September 24, 2010

SCALE
 Horiz: 1" = 10'
 Vert: 1" = 10'

JOB NO.
 20091333

SHEET
 29/70

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MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10.19
 CROSS SECTIONS



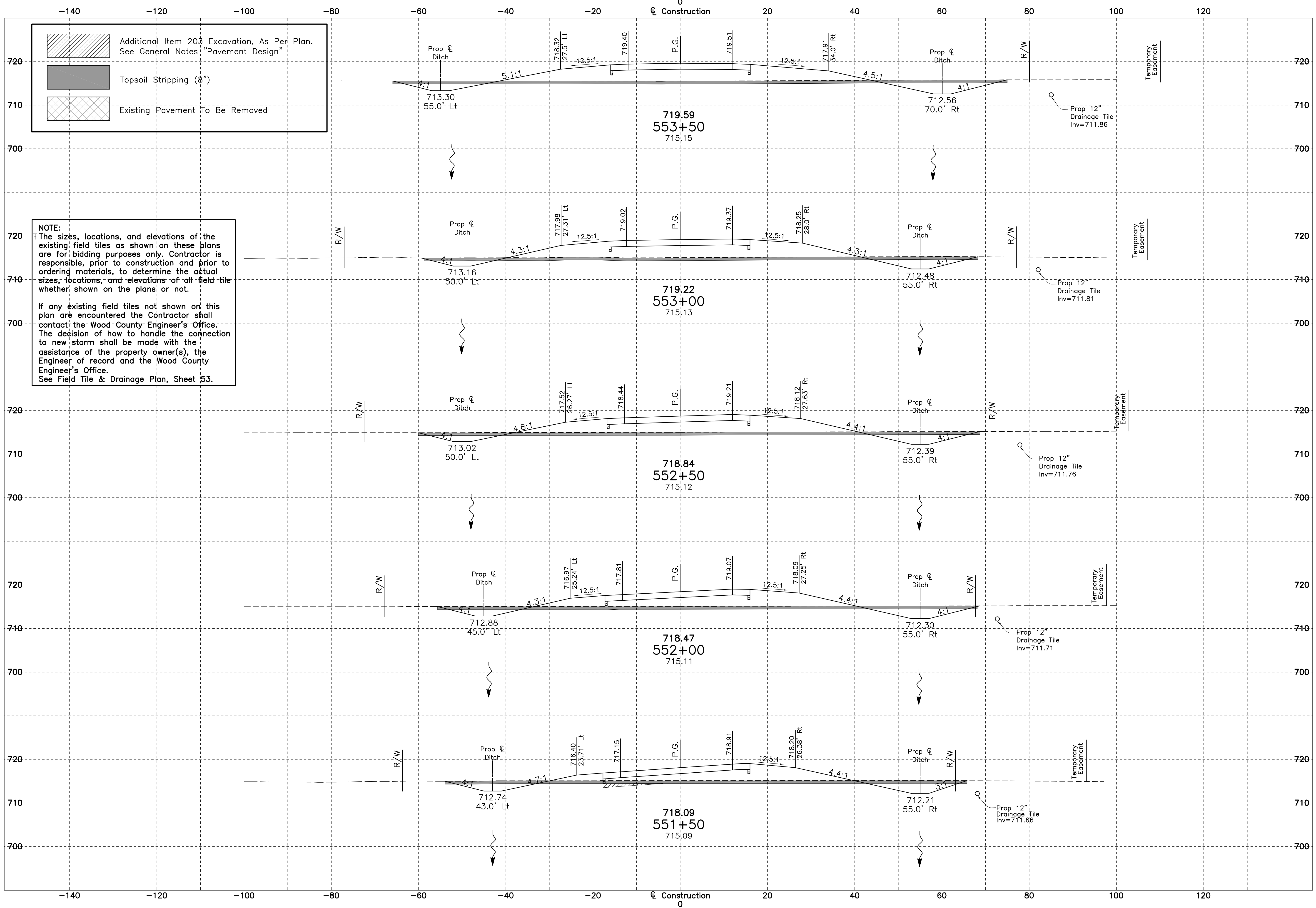
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September 24, 2010

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Horiz: 1" = 10'
Vert: 1" = 10'

JOB NO.
20091333

SHEET
30/70

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NOTE:
 The sizes, locations, and elevations of the existing field tiles as shown on these plans are for bidding purposes only. Contractor is responsible, prior to construction and prior to ordering materials, to determine the actual sizes, locations, and elevations of all field tile whether shown on the plans or not.

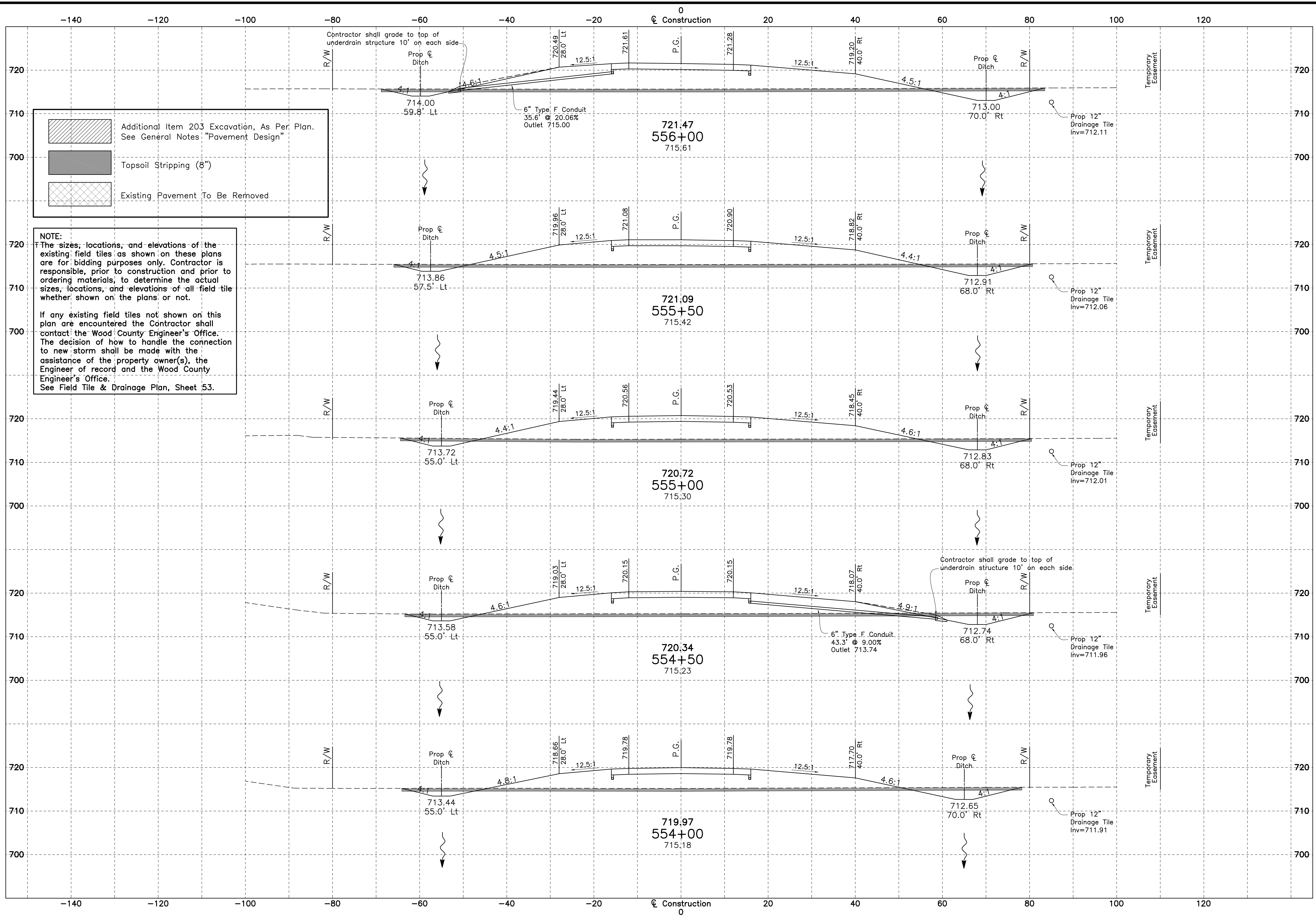
If any existing field tiles not shown on this plan are encountered the Contractor shall contact the Wood County Engineer's Office. The decision of how to handle the connection to new storm shall be made with the assistance of the property owner(s), the Engineer of record and the Wood County Engineer's Office.
 See Field Tile & Drainage Plan, Sheet 53.

MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10.19
 CROSS SECTIONS



DATE	September 24, 2010
SCALE	Horiz: 1" = 10' Vert: 1" = 10'
JOB NO.	20091333
SHEET	31/70



Additional Item 203 Excavation, As Per Plan. See General Notes "Pavement Design"

Topsoil Stripping (8")

Existing Pavement To Be Removed

NOTE:
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 See Field Tile & Drainage Plan, Sheet 53.

MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10.19
 CROSS SECTIONS



DATE
 September 24, 2010

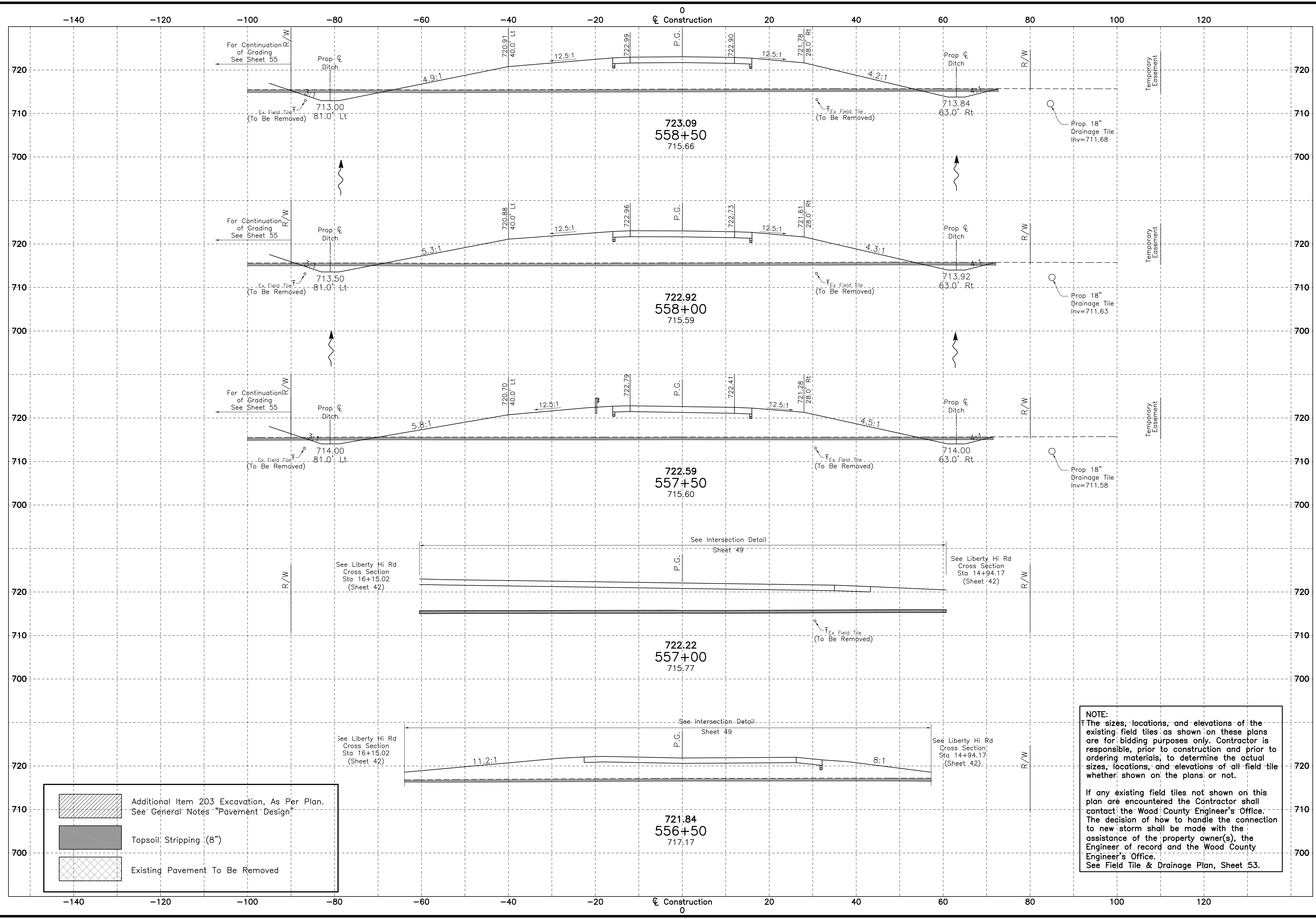
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 Vert: 1" = 10'

JOB NO.
 20091333

SHEET
 32/70

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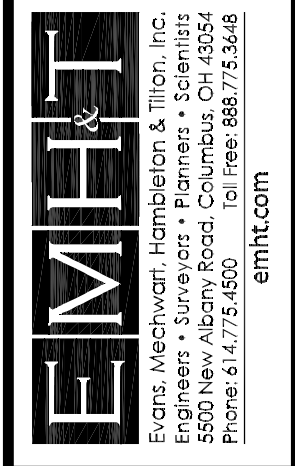
	Additional Item 203 Excavation, As Per Plan. See 'General' Notes 'Pavement Design'
	Topsoil Stripping (8")
	Existing Pavement To Be Removed

NOTE:
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 See Field Tile & Drainage Plan, Sheet 53.

MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10.19
 CROSS SECTIONS



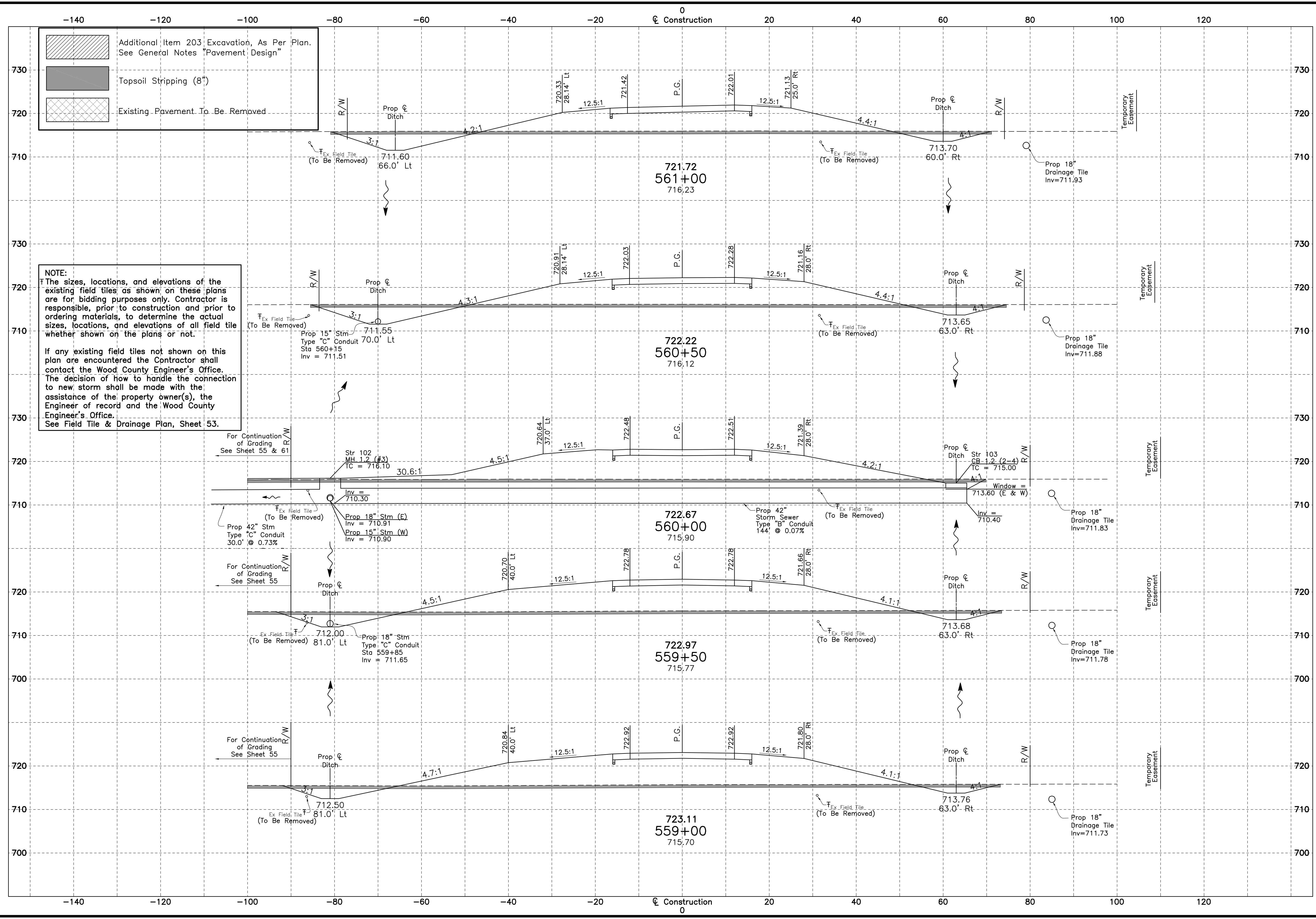
DATE
September 24, 2010

SCALE
Horiz: 1" = 10'
Vert: 1" = 10'

JOB NO.
20091333

SHEET
33/70

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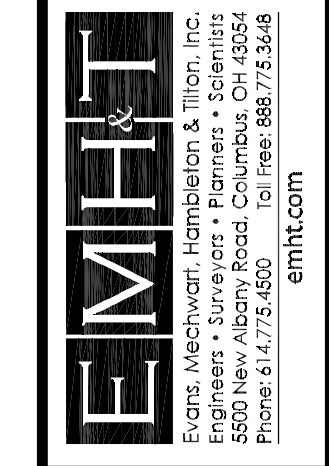


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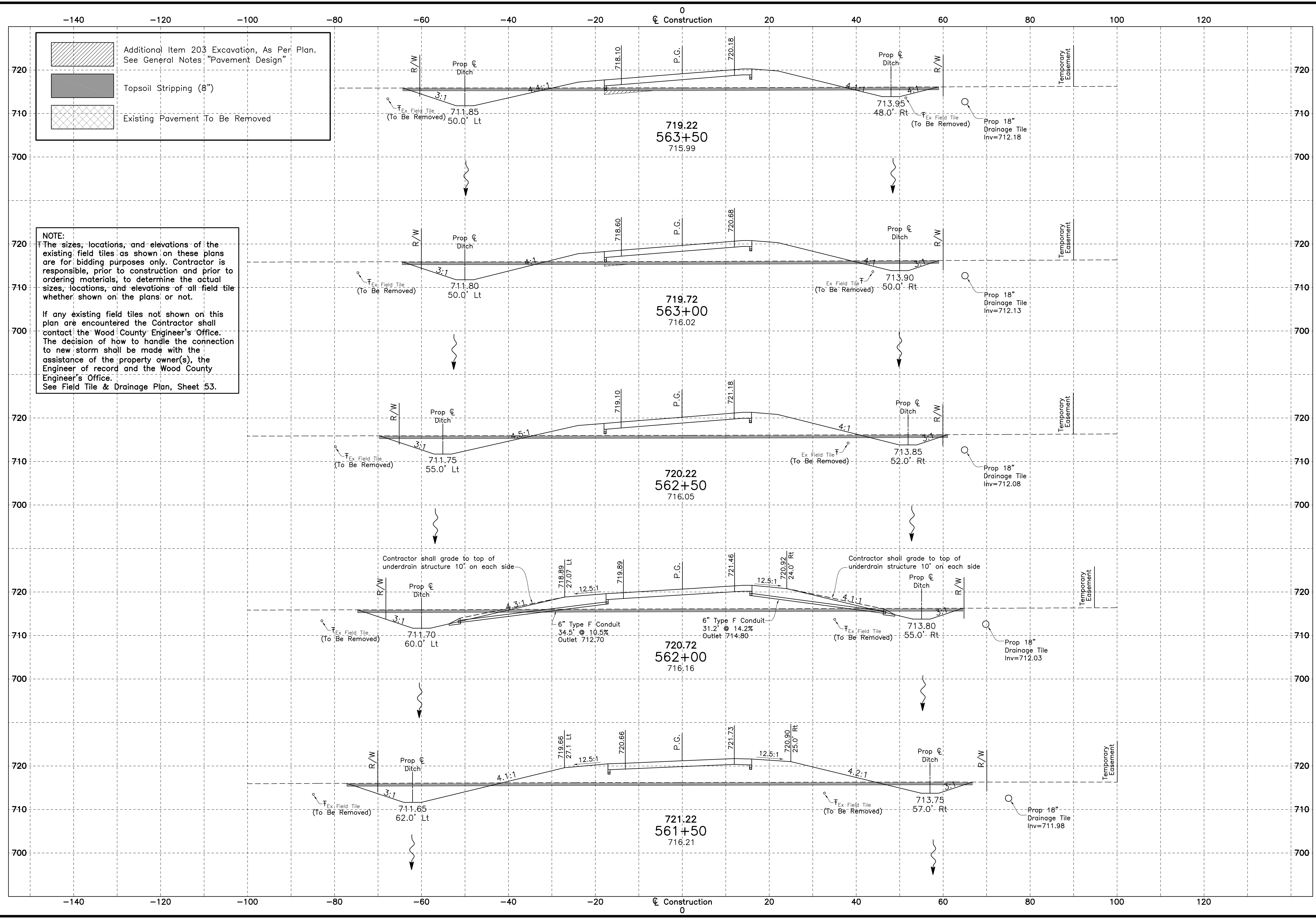
MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
PUBLIC ROADWAY IMPROVEMENTS PLAN
FOR
SR 18 (DESLER ROAD) RELOCATION
WOO-18-10.19
CROSS SECTIONS



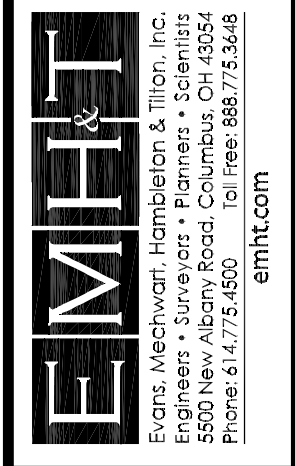
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JOB NO.	20091333
SHEET	34/70

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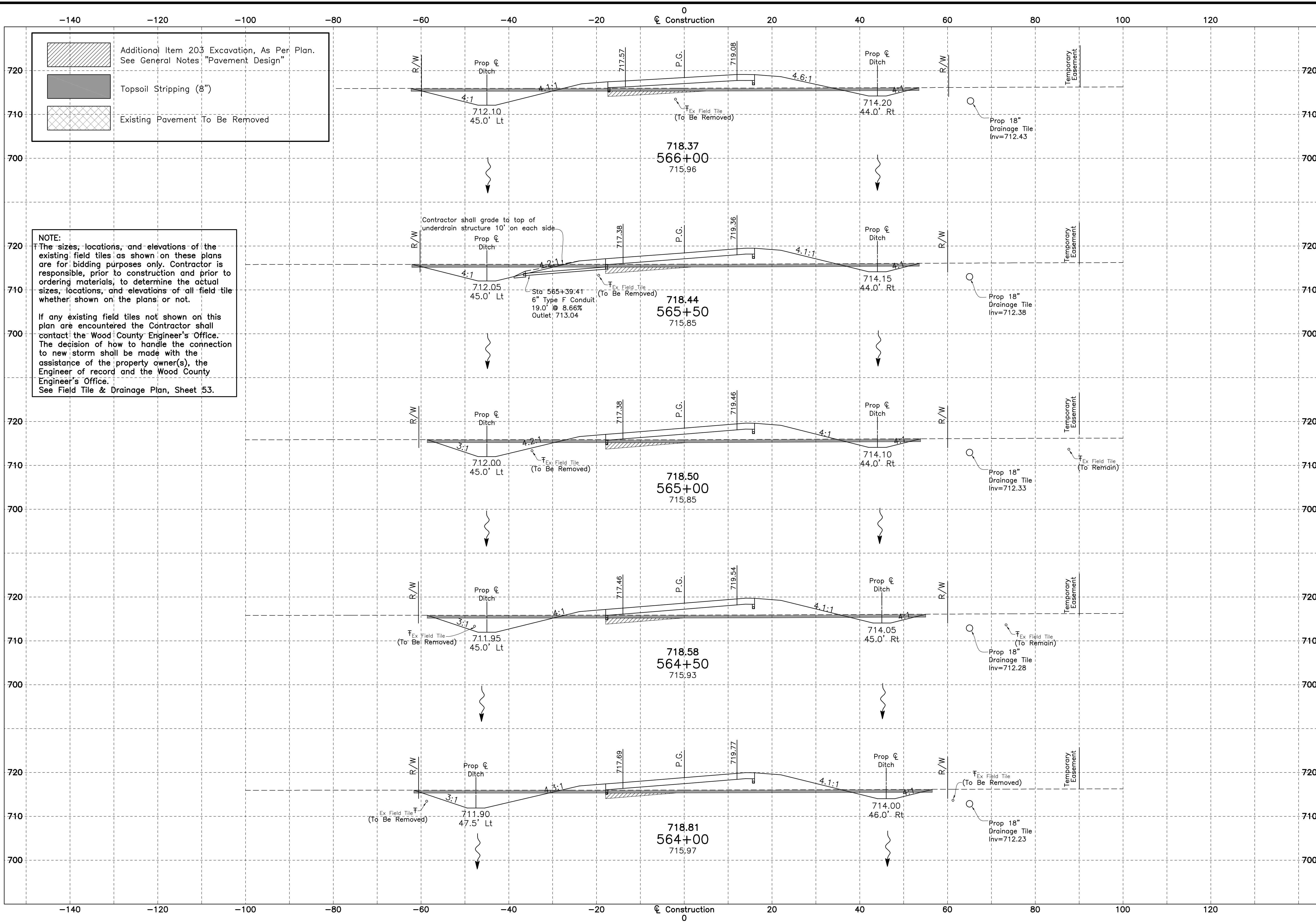


MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
 WOO-18-10.19
 CROSS SECTIONS

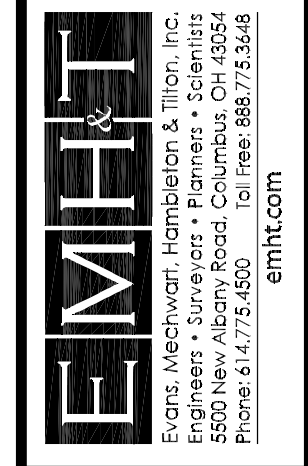


DATE	September 24, 2010
SCALE	Horiz: 1" = 10' Vert: 1" = 10'
JOB NO.	20091333
SHEET	35/70



MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR18 (DESHLER ROAD) RELOCATION
WOO-18-10.19
 CROSS SECTIONS

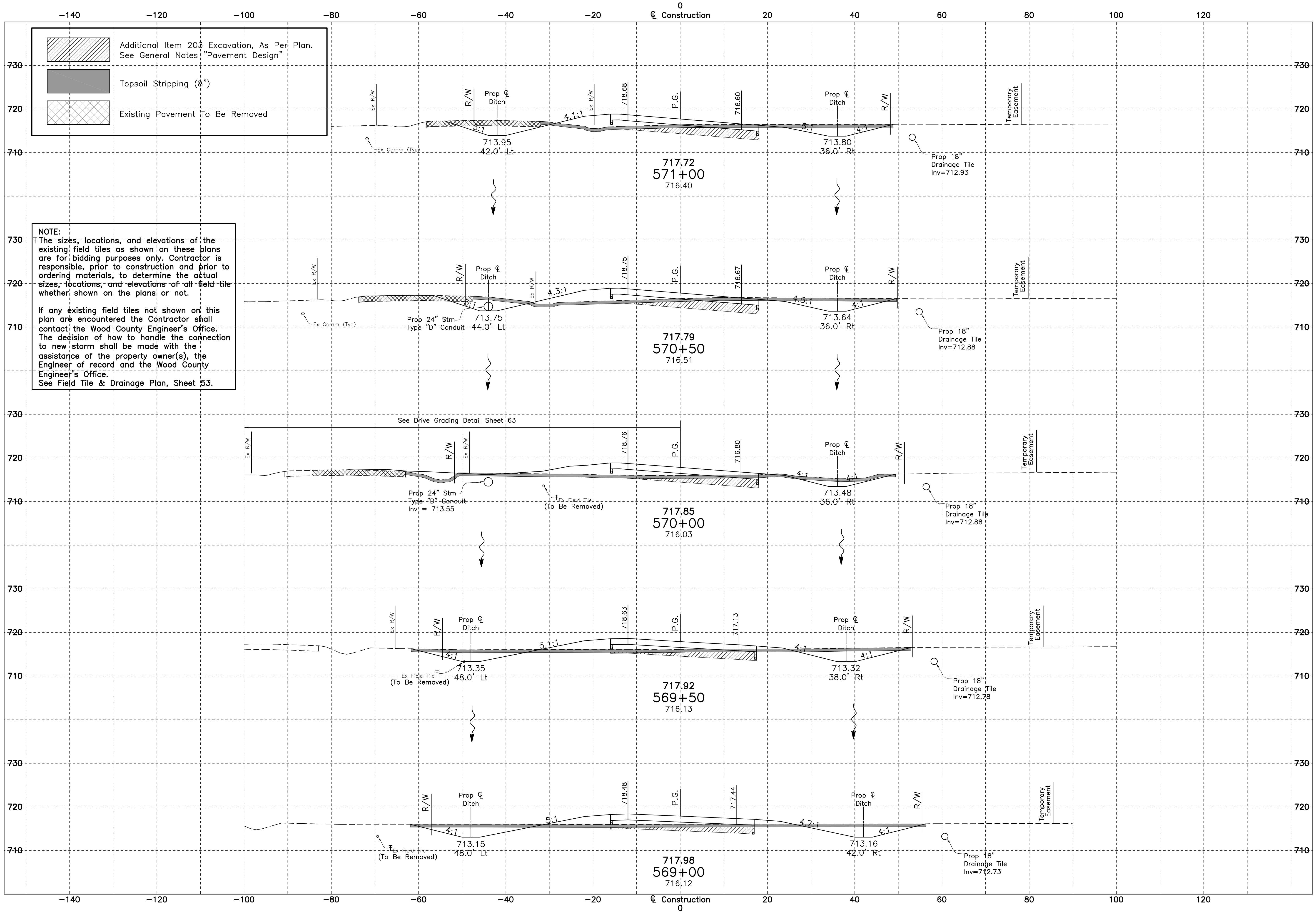





DATE
September 24, 2010

SCALE
Horiz: 1" = 10'
Vert: 1" = 10'

JOB NO.
20091333

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-  Additional Item 203 Excavation, As Per Plan. See General Notes "Pavement Design"
-  Topsoil Stripping (8")
-  Existing Pavement To Be Removed

NOTE:
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 See Field Tile & Drainage Plan, Sheet 53.

MARK	DATE	DESCRIPTION

**HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
 SR 18 (DESLER ROAD) RELOCATION
 WOO-18-10.19
 CROSS SECTIONS**



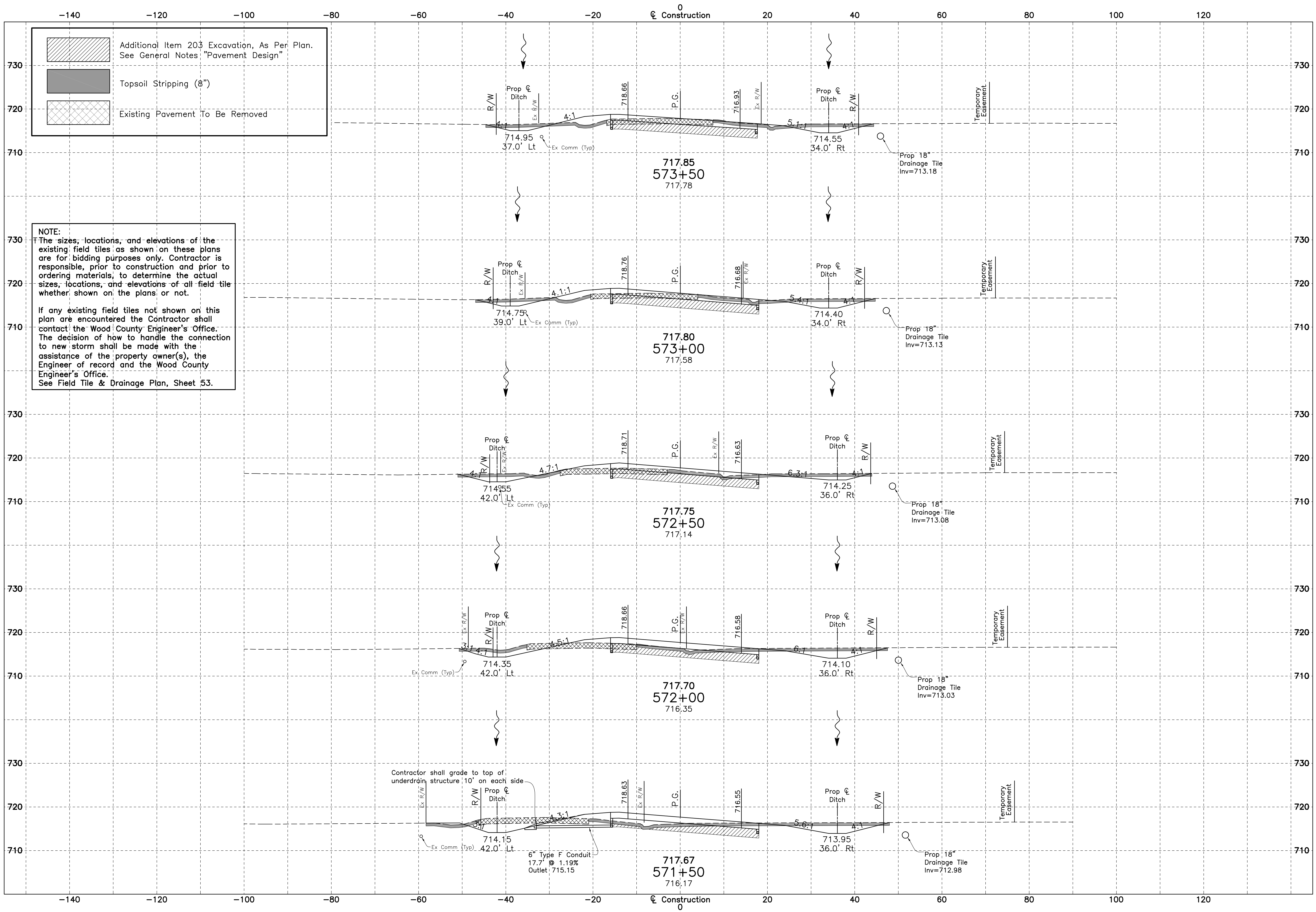
EMIT
 ENGINEERING, MECHANICAL, ELECTRICAL, THERMAL & TYPING, INC.
 ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
 5500 New Albany Road, Columbus, OH 43054
 Phone: 614.775.6500 Fax: 614.775.7348
 www.emit.com

DATE
 September 24, 2010

SCALE
 Horiz: 1" = 10'
 Vert: 1" = 10'

JOB NO.
 20091333

SHEET
38/70



Additional Item 203 Excavation, As Per Plan. See General Notes "Pavement Design"

Topsoil Stripping (8")

Existing Pavement To Be Removed

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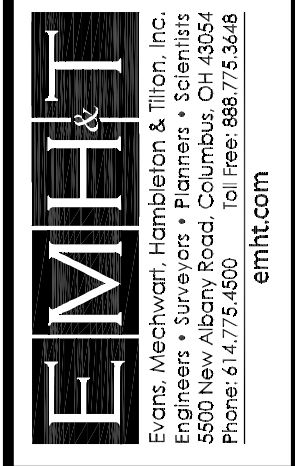
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 See Field Tile & Drainage Plan, Sheet 53.

Contractor shall grade to top of underdrain structure 10' on each side

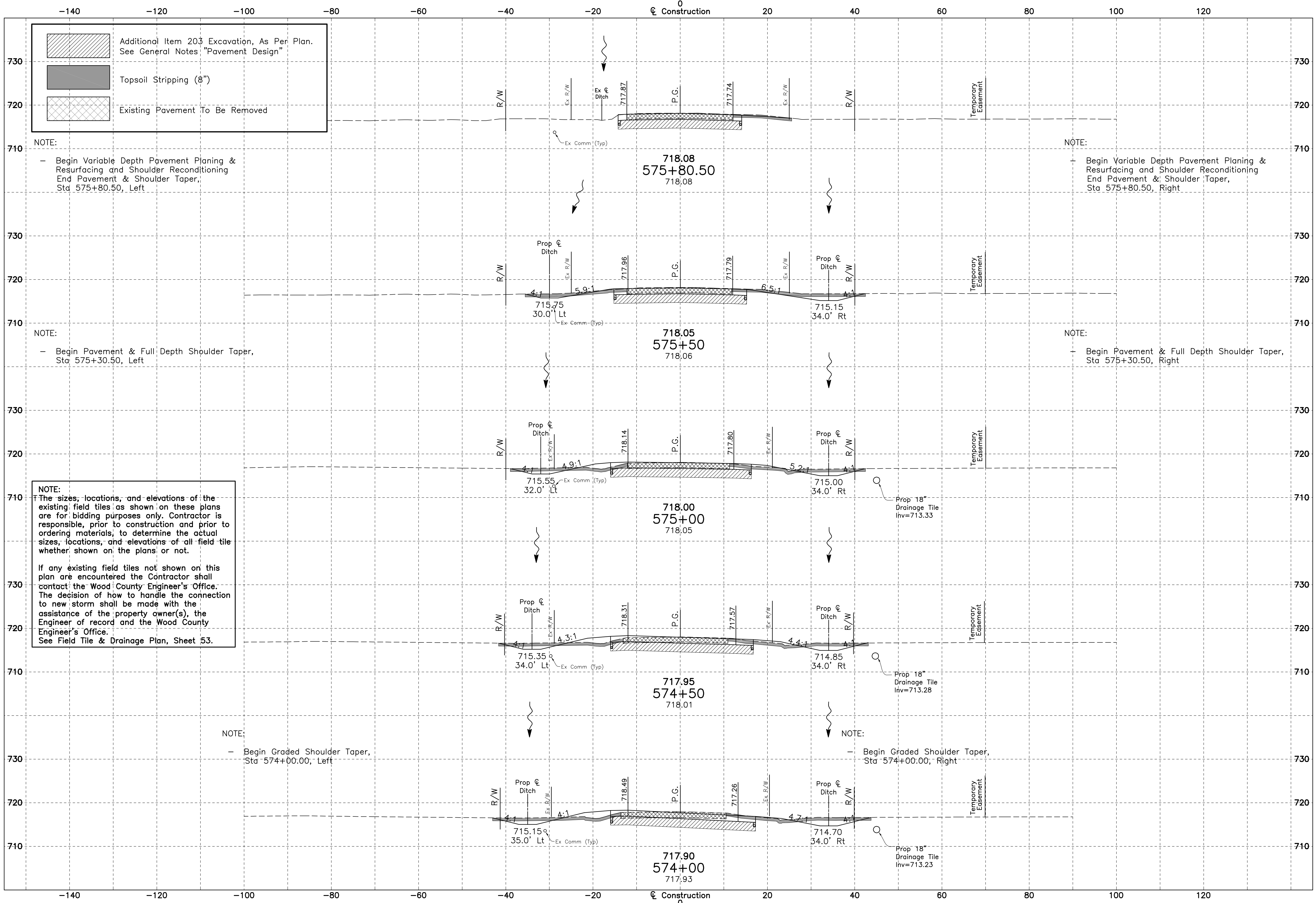
6" Type F Conduit
 17.7' @ 1.19%
 Outlet 715.15

MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10,19
 CROSS SECTIONS



DATE	September 24, 2010
SCALE	Horiz: 1" = 10' Vert: 1" = 10'
JOB NO.	20091333
SHEET	39/70



Additional Item 203 Excavation, As Per Plan. See General Notes "Pavement Design"
 Topsoil Stripping (8")
 Existing Pavement To Be Removed

NOTE:
 - Begin Variable Depth Pavement Planing & Resurfacing and Shoulder Reconditioning End Pavement & Shoulder Taper, Sta 575+80.50, Left

NOTE:
 - Begin Variable Depth Pavement Planing & Resurfacing and Shoulder Reconditioning End Pavement & Shoulder Taper, Sta 575+80.50, Right

NOTE:
 - Begin Pavement & Full Depth Shoulder Taper, Sta 575+30.50, Left

NOTE:
 - Begin Pavement & Full Depth Shoulder Taper, Sta 575+30.50, Right

NOTE:
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 See Field Tile & Drainage Plan, Sheet 53.

NOTE:
 - Begin Graded Shoulder Taper, Sta 574+00.00, Left

NOTE:
 - Begin Graded Shoulder Taper, Sta 574+00.00, Right

MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10.19
 CROSS SECTIONS



DATE
 September 24, 2010

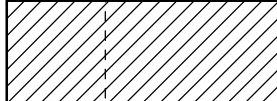


SCALE
 Horiz: 1" = 10'
 Vert: 1" = 10'

JOB NO.
 20091333

SHEET
 40/70

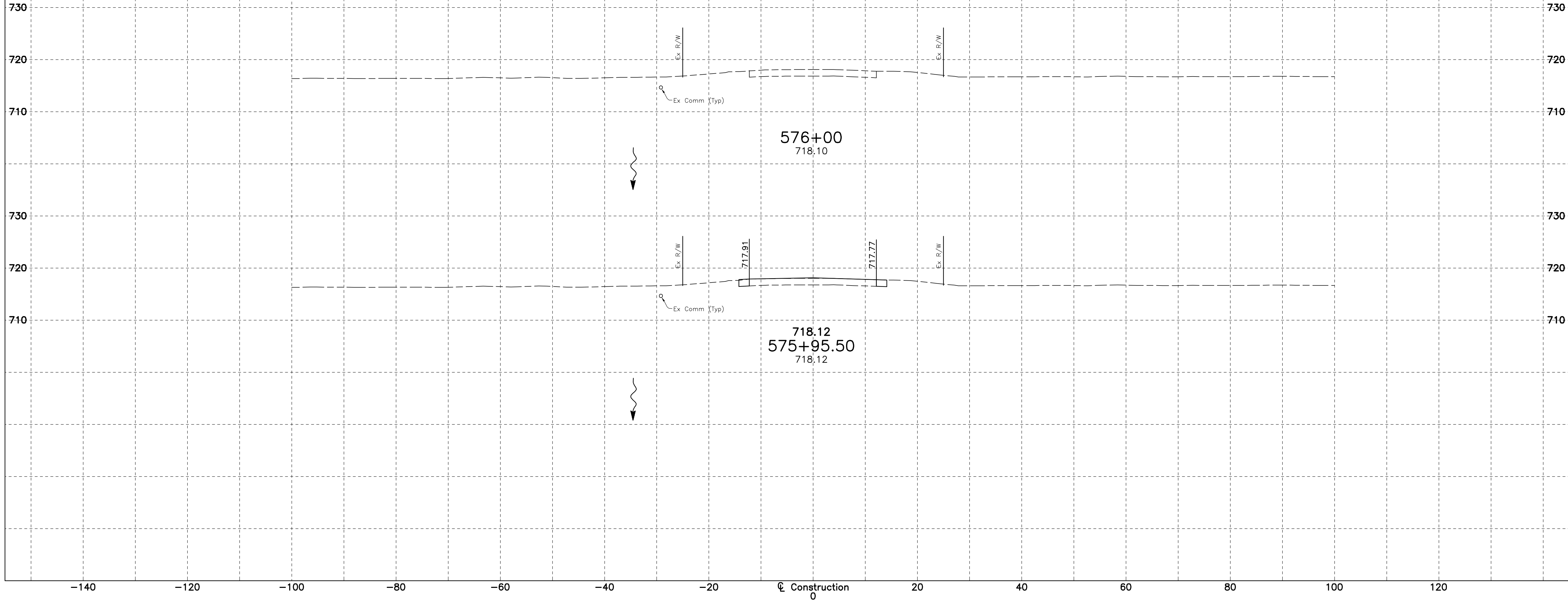
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-140 -120 -100 -80 -60 -40 -20 0 20 40 60 80 100 120

	Additional Item 203 Excavation, As Per Plan. See General Notes "Pavement Design"
	Topsoil Stripping (8")
	Existing Pavement To Be Removed

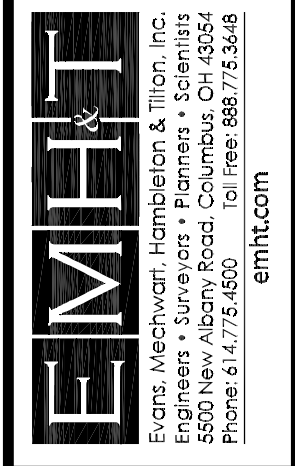
NOTE:
 The sizes, locations, and elevations of the existing field tiles as shown on these plans are for bidding purposes only. Contractor is responsible, prior to construction and prior to ordering materials, to determine the actual sizes, locations, and elevations of all field tile whether shown on the plans or not.

If any existing field tiles not shown on this plan are encountered the Contractor shall contact the Wood County Engineer's Office. The decision of how to handle the connection to new storm shall be made with the assistance of the property owner(s), the Engineer of record and the Wood County Engineer's Office.
 See Field Tile & Drainage Plan, Sheet 53.



MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10.19
 CROSS SECTIONS



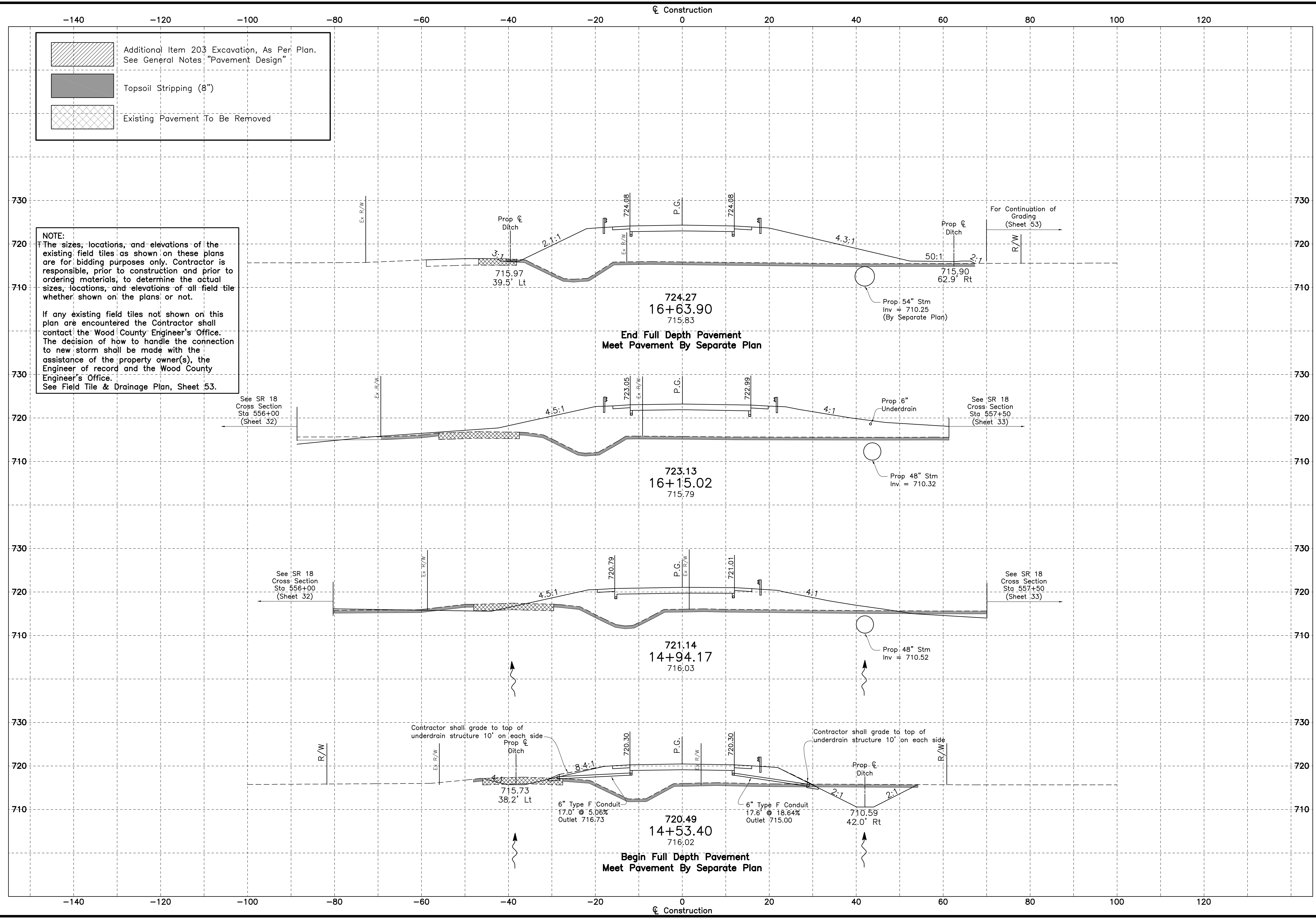
DATE
 September 24, 2010

SCALE
 Horiz: 1" = 10'
 Vert: 1" = 10'

JOB NO.
 20091333

SHEET
 41/70

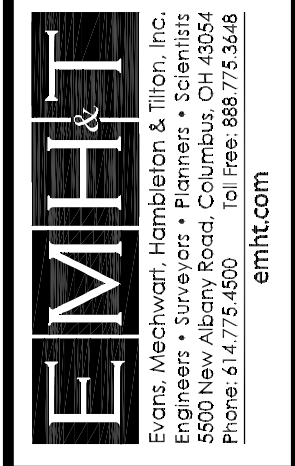
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REVISIONS

MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
 WOO-18-10.19
 CROSS SECTIONS-LIBERTY HI ROAD



DATE
 September 24, 2010

SCALE
 Horiz: 1" = 10'
 Vert: 1" = 10'

JOB NO.
 20091333

SHEET
 42/70

I:\Projects\20091333\Drawings\Roadway Improvement\Plan\20091333\Drawings\Roadway Improvement\SR18.dwg - No Images - Saved By: JLOWE [9/20/2010 13:45:00] - Plotted By: JLOWE [10/16/2010 10:28:07 AM]

SUPERELEVATION TABLE

LEFT SIDE				CENTERLINE CONTROL		RIGHT SIDE					REMARKS	
EDGE OF PAVEMENT ELEVATION	TRANSITION RATE	ELEVATION CORRECTION ^A	CROSS SLOPE	WIDTH (FT)	STATION	PROFILE GRADE	WIDTH (FT)	CROSS SLOPE	ELEVATION CORRECTION ^A	TRANSITION RATE		EDGE OF PAVEMENT ELEVATION
Ex 715.88		-	-0.0256	10.93	537+70.30	Ex 716.16	12.48	-0.0353	-		Ex 715.72	Match Existing Pavement Begin Pvmnt Taper Rt
715.85		-0.25	-0.0227	11.16	537+86.70	716.10	12.18	-0.0369	-0.45		715.65	Begin Pvmnt Taper Lt
715.91		-0.18	-0.0160	11.26	537+93.88	716.09	12.15	-0.0344	-0.42		715.67	
715.91		-0.16	-0.0137	11.35	538+00.00	716.07	12.13	-0.0323	-0.39		715.68	
715.97		-0.05	-0.0044	11.70	538+25.00	716.02	12.04	-0.0236	-0.28		715.74	
716.00		0.00	0.0000	11.86	538+36.70	716.00	12	-0.0195	-0.23		715.77	TS, Begin Pvmnt Taper Rt
716.02		0.04	0.0037	12	538+46.70	715.98	12.09	-0.0160	-0.19		715.79	End Pvmnt Taper Lt
716.03		0.06	0.0050	12	538+50.00	715.97	12.12	-0.0160	-0.19		715.78	
716.09	223:1	0.17	0.0143	12	538+75.00	715.92	12.36	-0.0160	-0.20		715.72	
716.10		0.19	0.0160	12	538+79.52	715.91	12.40	-0.0160	-0.20		715.71	RC
716.15		0.28	0.0237	12	539+00.00	715.87	12.59	-0.0237	-0.30		715.57	
716.21		0.39	0.0330	12	539+25.00	715.82	12.83	-0.0330	-0.42		715.40	
716.28		0.51	0.0424	12	539+50.00	715.77	13.06	-0.0424	-0.55		715.22	
716.34		0.62	0.0517	12	539+75.00	715.72	13.29	-0.0517	-0.69		715.03	
716.40		0.73	0.0610	12	540+00.00	715.67	13.53	-0.0610	-0.83		714.84	
716.46		0.84	0.0704	12	540+25.00	715.62	13.76	-0.0704	-0.97		714.65	
716.53		0.96	0.0797	12	540+50.00	715.57	13.99	-0.0797	-1.12		714.45	
716.53		0.96	0.0800	12	540+50.70	715.57	14	-0.0800	-1.12		714.45	End Pvmnt Taper Lt SC, Full Superlevation
716.49		0.96	0.0800	12	540+75.00	715.53	14	-0.0800	-1.12		714.41	
716.47		0.96	0.0800	12	541+00.00	715.51	14	-0.0800	-1.12		714.39	
716.49		0.96	0.0800	12	541+25.00	715.53	14	-0.0800	-1.12		714.41	
716.51		0.96	0.0800	12	541+50.00	715.55	14	-0.0800	-1.12		714.43	
716.54		0.96	0.0800	12	541+75.00	715.58	14	-0.0800	-1.12		714.46	
716.56		0.96	0.0800	12	542+00.00	715.60	14	-0.0800	-1.12		714.48	
716.59		0.96	0.0800	12	542+25.00	715.63	14	-0.0800	-1.12		714.51	
716.61		0.96	0.0800	12	542+50.00	715.65	14	-0.0800	-1.12		714.53	
716.64		0.96	0.0800	12	542+75.00	715.68	14	-0.0800	-1.12		714.56	
716.66		0.96	0.0800	12	543+00.00	715.70	14	-0.0800	-1.12		714.58	
716.69		0.96	0.0800	12	543+25.00	715.73	14	-0.0800	-1.12		714.61	
716.71		0.96	0.0800	12	543+50.00	715.75	14	-0.0800	-1.12		714.63	
716.73		0.96	0.0800	12	543+69.18	715.77	14	-0.0800	-1.12		714.65	Begin Pvmnt Taper Rt SC, Full Superlevation
716.71		0.93	0.0779	12	543+75.00	715.78	13.95	-0.0779	-1.09		714.69	
716.63		0.83	0.0688	12	544+00.00	715.80	13.71	-0.0688	-0.94		714.86	
716.55		0.72	0.0598	12	544+25.00	715.83	13.48	-0.0598	-0.81		715.02	
716.46		0.61	0.0507	12	544+50.00	715.85	13.24	-0.0507	-0.67		715.18	
716.38		0.50	0.0417	12	544+75.00	715.88	13.01	-0.0417	-0.54		715.34	
716.29		0.39	0.0326	12	545+00.00	715.90	12.78	-0.0326	-0.42		715.48	
716.21		0.28	0.0236	12	545+25.00	715.93	12.54	-0.0236	-0.30		715.63	
716.16		0.22	0.0180	12	545+40.44	715.94	12.40	-0.0180	-0.22		715.72	
716.12		0.17	0.0145	12	545+50.00	715.95	12.31	-0.0145	-0.18		715.77	
716.05		0.07	0.0055	12	545+75.00	715.98	12.08	-0.0055	-0.07		715.91	
716.02	230:1	0.03	0.0025	12	545+83.18	715.99	12	-0.0025	-0.03		715.96	ST, End Pvmnt Taper Rt
715.97		-0.03	-0.0025	12	545+96.99	716.00	12	0.0025	0.03		716.03	TS, Begin Pvmnt Taper Lt
715.96		-0.04	-0.0036	12.03	546+00.00	716.00	12	0.0036	0.04		716.04	
715.87		-0.16	-0.0126	12.26	546+25.00	716.03	12	0.0126	0.15		716.18	
715.82		-0.22	-0.0180	12.40	546+39.73	716.04	12	0.0180	0.22		716.26	
715.78		-0.27	-0.0217	12.50	546+50.00	716.05	12	0.0217	0.26		716.31	
715.69		-0.39	-0.0308	12.73	546+75.00	716.08	12	0.0308	0.37		716.45	
715.58		-0.52	-0.0398	12.96	547+00.00	716.10	12	0.0398	0.48		716.58	
715.49		-0.64	-0.0489	13.20	547+25.00	716.13	12	0.0489	0.59		716.72	
715.37		-0.78	-0.0579	13.43	547+50.00	716.15	12	0.0579	0.69		716.84	
715.26		-0.92	-0.0670	13.66	547+75.00	716.18	12	0.0670	0.80		716.98	
715.14		-1.06	-0.0760	13.90	548+00.00	716.20	12	0.0760	0.91		717.11	
715.09		-1.12	-0.0800	14	548+10.99	716.21	12	0.0800	0.96		717.17	End Pvmnt Taper Lt SC, Full Superlevation
715.11		-1.12	-0.0800	14	548+25.00	716.23	12	0.0800	0.96		717.19	
715.13		-1.12	-0.0800	14	548+50.00	716.25	12	0.0800	0.96		717.21	
715.16		-1.12	-0.0800	14	548+75.00	716.28	12	0.0800	0.96		717.24	
715.23		-1.12	-0.0800	14	549+00.00	716.35	12	0.0800	0.96		717.31	

**SUPERELEVATION TABLE
(CONTINUED)**

LEFT SIDE				CENTERLINE CONTROL		RIGHT SIDE					REMARKS	
EDGE OF PAVEMENT ELEVATION	TRANSITION RATE	ELEVATION CORRECTION ^A	CROSS SLOPE	WIDTH (FT)	STATION	PROFILE GRADE	WIDTH (FT)	CROSS SLOPE	ELEVATION CORRECTION ^A	TRANSITION RATE		EDGE OF PAVEMENT ELEVATION
715.33		-1.12	-0.0800	14	549+25.00	716.45	12	0.0800	0.96		717.41	
715.48		-1.12	-0.0800	14	549+50.00	716.60	12	0.0800	0.96		717.56	
715.66		-1.12	-0.0800	14	549+75.00	716.78	12	0.0800	0.96		717.74	
715.85		-1.12	-0.0800	14	550+00.00	716.97	12	0.0800	0.96		717.93	
716.04		-1.12	-0.0800	14	550+25.00	717.16	12	0.0800	0.96		718.12	
716.22		-1.12	-0.0800	14	550+50.00	717.34	12	0.0800	0.96		718.30	
716.41		-1.12	-0.0800	14	550+75.00	717.53	12	0.0800	0.96		718.49	
716.60		-1.12	-0.0800	14	551+00.00	717.72	12	0.0800	0.96		718.68	
716.74		-1.12	-0.0800	14	551+18.78	717.86	12	0.0800	0.96		718.82	Begin Pvmnt Taper Lt SC, Full Superlevation
716.83		-1.08	-0.0777	13.94	551+25.00	717.91	12	0.0777	0.93		718.84	
717.15		-0.94	-0.0683	13.71	551+50.00	718.09	12	0.0683	0.82		718.91	
717.49		-0.79	-0.0590	13.47	551+75.00	718.28	12	0.0590	0.71		718.99	
717.81		-0.66	-0.0496	13.24	552+00.00	718.47	12	0.0496	0.60		719.07	
718.14		-0.52	-0.0403	13.01	552+25.00	718.66	12	0.0403	0.48		719.14	
718.44		-0.40	-0.0309	12.77	552+50.00	718.84	12	0.0309	0.37		719.21	
718.76		-0.27	-0.0216	12.54	552+75.00	719.03	12	0.0216	0.26		719.29	
718.94		-0.20	-0.0160	12.40	552+89.96	719.14	12	0.0160	0.19		719.33	RC
719.02		-0.20	-0.0160	12.31	553+00.00	719.22	12	0.0122	0.15		719.37	
719.22		-0.19	-0.0160	12.07	553+25.00	719.41	12	0.0029	0.03		719.44	
719.27		-0.19	-0.0160	12	553+32.78	719.46	12	0.0000	0.00		719.46	ST, End Pvmnt Taper Lt
719.40		-0.19	-0.0160	12	553+50.00	719.59	12	-0.0064	-0.08		719.51	
719.59		-0.19	-0.0160	12	553+75.00	719.78	12	-0.0158	-0.19		719.59	
719.60		-0.19	-0.0160	12	553+75.60	719.79	12	-0.0160	-0.19		719.60	Normal Crown
719.78		-0.19	-0.0160	12	554+00.00	719.97	12	-0.0160	-0.19		719.78	Normal Crown
719.97		-0.19	-0.0160	12	554+25.00	720.16	12	-0.0160	-0.19		719.97	Normal Crown
720.15		-0.19	-0.0160	12	554+50.00	720.34	12	-0.0160	-0.19		720.15	Normal Crown
720.34		-0.19	-0.0160	12	554+75.00	720.53	12	-0.0160	-0.19		720.34	Normal Crown
720.45		-0.19	-0.0160	12	554+89.15	720.64	12	-0.0160	-0.19		720.45	Normal Crown
720.56		-0.16	-0.0133	12								

SUPERELEVATION TABLE

SUPERELEVATION TABLE												
LEFT SIDE					CENTERLINE CONTROL		RIGHT SIDE					REMARKS
EDGE OF PAVEMENT ELEVATION	TRANSITION RATE	ELEVATION CORRECTION ^A	CROSS SLOPE	WIDTH (FT)	STATION	PROFILE GRADE	WIDTH (FT)	CROSS SLOPE	ELEVATION CORRECTION ^A	TRANSITION RATE	EDGE OF PAVEMENT ELEVATION	
722.79		0.19	0.0160	12	557+50.64	722.60	12	-0.0160	-0.19		722.41	End Intersection
722.89		0.12	0.0099	12	557+75.00	722.77	12	-0.0160	-0.19		722.58	End Full Superelevation
722.96		0.04	0.0037	12	558+00.00	722.92	12	-0.0160	-0.19		722.73	
722.99		-0.03	-0.0025	12	558+25.00	723.02	12	-0.0160	-0.19		722.83	
722.99	355:1	-0.10	-0.0087	12	558+50.00	723.09	12	-0.0160	-0.19		722.90	
722.94		-0.18	-0.0149	12	558+75.00	723.12	12	-0.0160	-0.19		722.93	
722.93		-0.19	-0.0160	12	558+79.28	723.12	12	-0.0160	-0.19		722.93	Normal Crown
722.92		-0.19	-0.0160	12	559+00.00	723.11	12	-0.0160	-0.19		722.92	Normal Crown
722.87		-0.19	-0.0160	12	559+25.00	723.06	12	-0.0160	-0.19		722.87	Normal Crown
722.78		-0.19	-0.0160	12	559+50.00	722.97	12	-0.0160	-0.19		722.78	Normal Crown
722.65		-0.19	-0.0160	12	559+75.00	722.84	12	-0.0160	-0.19		722.65	Normal Crown
722.53		-0.19	-0.0160	12	559+92.82	722.72	12	-0.0160	-0.19		722.53	Normal Crown
722.48		-0.19	-0.0160	12	560+00.00	722.67	12	-0.0133	-0.16		722.51	
722.27		-0.19	-0.0160	12	560+25.00	722.46	12	-0.0040	-0.05		722.41	
722.17		-0.19	-0.0160	12	560+35.64	722.36	12	0.0000	0.00		722.36	TS, Begin Pvmnt Taper Lt
722.03		-0.19	-0.0160	12.13	560+50.00	722.22	12	0.0054	0.06		722.28	
721.77		-0.20	-0.0160	12.37	560+75.00	721.97	12	0.0147	0.18		722.15	
721.73		-0.20	-0.0160	12.40	560+78.46	721.93	12	0.0160	0.19		722.12	RC
721.42		-0.30	-0.0241	12.60	561+00.00	721.72	12	0.0241	0.29	223:1	722.01	
721.04		-0.43	-0.0334	12.84	561+25.00	721.47	12	0.0334	0.40		721.87	
720.66		-0.56	-0.0427	13.07	561+50.00	721.22	12	0.0427	0.51		721.73	
720.28		-0.69	-0.0521	13.30	561+75.00	720.97	12	0.0521	0.63		721.60	
719.89		-0.83	-0.0614	13.54	562+00.00	720.72	12	0.0614	0.74		721.46	
719.50		-0.97	-0.0708	13.77	562+25.00	720.47	12	0.0708	0.85		721.32	
719.10		-1.12	-0.0800	14	562+49.64	720.22	12	0.0800	0.96		721.18	End Pvmnt Taper Lt
719.10		-1.12	-0.0800	14	562+50.00	720.22	12	0.0800	0.96		721.18	SC, Full Superelevation
718.85		-1.12	-0.0800	14	562+75.00	719.97	12	0.0800	0.96		720.93	
718.60		-1.12	-0.0800	14	563+00.00	719.72	12	0.0800	0.96		720.68	
718.35		-1.12	-0.0800	14	563+25.00	719.47	12	0.0800	0.96		720.43	
718.10		-1.12	-0.0800	14	563+50.00	719.22	12	0.0800	0.96		720.18	
717.87		-1.12	-0.0800	14	563+75.00	718.99	12	0.0800	0.96		719.95	
717.69		-1.12	-0.0800	14	564+00.00	718.81	12	0.0800	0.96		719.77	
717.55		-1.12	-0.0800	14	564+25.00	718.67	12	0.0800	0.96		719.63	
717.46		-1.12	-0.0800	14	564+50.00	718.58	12	0.0800	0.96		719.54	
717.41		-1.12	-0.0800	14	564+75.00	718.53	12	0.0800	0.96		719.49	
717.38		-1.12	-0.0800	14	565+00.00	718.50	12	0.0800	0.96		719.46	
717.35		-1.12	-0.0800	14	565+25.00	718.47	12	0.0800	0.96		719.43	
717.33		-1.12	-0.0800	14	565+39.41	718.45	12	0.0800	0.96		719.41	Begin Pvmnt Taper Lt
717.38		-1.06	-0.0764	13.90	565+50.00	718.44	12	0.0764	0.92		719.36	SC, Full Superelevation
717.47		-0.93	-0.0680	13.67	565+75.00	718.40	12	0.0680	0.82		719.22	
717.57		-0.80	-0.0595	13.43	566+00.00	718.37	12	0.0595	0.71		719.08	
717.67		-0.67	-0.0511	13.20	566+25.00	718.34	12	0.0511	0.61		718.95	
717.76		-0.55	-0.0426	12.97	566+50.00	718.31	12	0.0426	0.51		718.82	
717.84		-0.43	-0.0341	12.73	566+75.00	718.27	12	0.0341	0.41		718.68	
717.92		-0.32	-0.0257	12.50	567+00.00	718.24	12	0.0257	0.31		718.55	
717.96		-0.27	-0.0221	12.40	567+10.67	718.23	12	0.0221	0.27		718.50	
718.00		-0.21	-0.0172	12.27	567+25.00	718.21	12	0.0172	0.21	246:1	718.42	
718.07	246:1	-0.11	-0.0088	12.03	567+50.00	718.18	12	0.0088	0.11		718.29	
718.08		-0.09	-0.0076	12	567+53.41	718.17	12	0.0076	0.09		718.26	ST, End Pvmnt Taper Lt
718.14		0.00	-0.0003	12	567+75.00	718.14	12	0.0003	0.00		718.14	
718.20		0.09	0.0076	12	567+98.56	718.11	12	-0.0076	-0.09		718.02	TS, Begin Pvmnt Taper Rt
718.21		0.10	0.0081	12	568+00.00	718.11	12.01	-0.0081	-0.10		718.01	
718.28		0.20	0.0166	12	568+25.00	718.08	12.25	-0.0166	-0.20		717.88	
718.33		0.27	0.0221	12	568+41.30	718.06	12.40	-0.0221	-0.27		717.79	
718.35		0.30	0.0250	12	568+50.00	718.05	12.48	-0.0250	-0.31		717.74	
718.41		0.40	0.0335	12	568+75.00	718.01	12.71	-0.0335	-0.43		717.58	
718.48		0.50	0.0419	12	569+00.00	717.98	12.95	-0.0419	-0.54		717.44	

SUPERELEVATION TABLE (CONTINUED)

SUPERELEVATION TABLE (CONTINUED)												
LEFT SIDE					CENTERLINE CONTROL		RIGHT SIDE					REMARKS
EDGE OF PAVEMENT ELEVATION	TRANSITION RATE	ELEVATION CORRECTION ^A	CROSS SLOPE	WIDTH (FT)	STATION	PROFILE GRADE	WIDTH (FT)	CROSS SLOPE	ELEVATION CORRECTION ^A	TRANSITION RATE	EDGE OF PAVEMENT ELEVATION	
718.55		0.60	0.0504	12	569+25.00	717.95	13.18	-0.0504	-0.66		717.29	
718.63		0.71	0.0588	12	569+50.00	717.92	13.42	-0.0588	-0.79		717.13	
718.69	246:1	0.81	0.0673	12	569+75.00	717.88	13.65	-0.0673	-0.92		716.96	
718.76		0.91	0.0758	12	570+00.00	717.85	13.88	-0.0758	-1.05	246:1	716.80	
718.80		0.96	0.0800	12	570+12.56	717.84	14	-0.0800	-1.12		716.72	End Pvmnt Taper Rt
718.78		0.96	0.0800	12	570+25.00	717.82	14	-0.0800	-1.12		716.70	SC, Full Superelevation
718.75		0.96	0.0800	12	570+50.00	717.79	14	-0.0800	-1.12		716.67	
718.71		0.96	0.0800	12	570+75.00	717.75	14	-0.0800	-1.12		716.63	
718.68		0.96	0.0800	12	571+00.00	717.72	14	-0.0800	-1.12		716.60	
718.65		0.96	0.0800	12	571+25.00	717.69	14	-0.0800	-1.12		716.57	
718.63		0.96	0.0800	12	571+50.00	717.67	14	-0.0800	-1.12		716.55	
718.63		0.96	0.0800	12	571+75.00	717.67	14	-0.0800	-1.12		716.55	
718.66		0.96	0.0800	12	572+00.00	717.70	14	-0.0800	-1.12		716.58	
718.68		0.96	0.0800	12	572+25.00	717.72	14	-0.0800	-1.12		716.60	
718.71		0.96	0.0800	12	572+50.00	717.75	14	-0.0800	-1.12		716.63	
718.73		0.96	0.0800	12	572+75.00	717.77	14	-0.0800	-1.12		716.65	
718.76		0.96	0.0800	12	573+00.00	717.80	14	-0.0800	-1.12		716.68	
718.77		0.96	0.0800	12	573+16.50	717.81	14	-0.0800	-1.12		716.69	Begin Pvmnt Taper Rt
718.74		0.92	0.0768	12	573+25.00	717.82	13.92	-0.0768	-1.07		716.75	SC, Full Superelevation
718.66		0.81	0.0675	12	573+50.00	717.85	13.69	-0.0675	-0.92		716.93	
718.57		0.70	0.0581	12	573+75.00	717.87	13.45	-0.0581	-0.78		717.09	
718.49		0.59	0.0488	12	574+00.00	717.90	13.22	-0.0488	-0.64	223:1	717.26	
718.39		0.47	0.0394	12	574+25.00	717.92	12.99	-0.0394	-0.51		717.41	
718.31		0.36	0.0301	12	574+50.00	717.95	12.75	-0.0301	-0.38		717.57	
718.22		0.25	0.0207	12	574+75.00	717.97	12.52	-0.0207	-0.26		717.71	
718.17		0.19	0.0160	12	574+87.68	717.98	12.40	-0.0160	-0.20		717.78	RC
718.14		0.14	0.0114	12	575+00.00	718.00	12.29	-0.0160	-0.20		717.80	
718.04		0.02	0.0020	12	575+25.00	718.02	12.05	-0.0160	-0.19		717.83	
718.03		0.00	0.0000	12	575+30.50	718.03	12	-0.0172	-0.21		717.82	End Pvmnt Taper Rt
717.96		-0.09	-0.0073	12.09	575+50.00	718.05	12.04	-0.0215	-0.26		717.79	ST, Begin Pvmnt Taper Lt & Rt
717.87		-0.20	-0.0160	12.21	575+73.32	718.07	12.09	-0.0265	-0.32	379:1	717.75	Normal Crown
717.87		-0.20	-0.0160	12.21	575+75.00	718.07	12.09	-0.0269	-0.33		717.74	Normal Crown
717.87	374:1	-0.21	-0.0172	12.24	575+80.50	718.08	12.10	-0.0281	-0.34		717.74	NC, End Pvmnt Taper Lt & Rt
Ex 717.91		-	-0.0173	12.14	575+95.50	718.12	12.22	-0.0286	-		Ex 717.77	Match Existing Pavement

^A Negative elevation corrections are below profile grade.
Positive elevation corrections are above profile grade.

REVISIONS

MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
PUBLIC ROADWAY IMPROVEMENTS PLAN
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
SUPERELEVATION TABLE

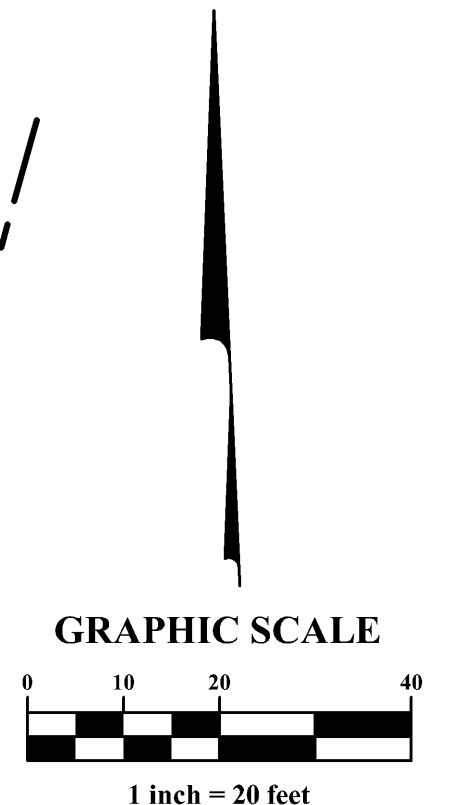
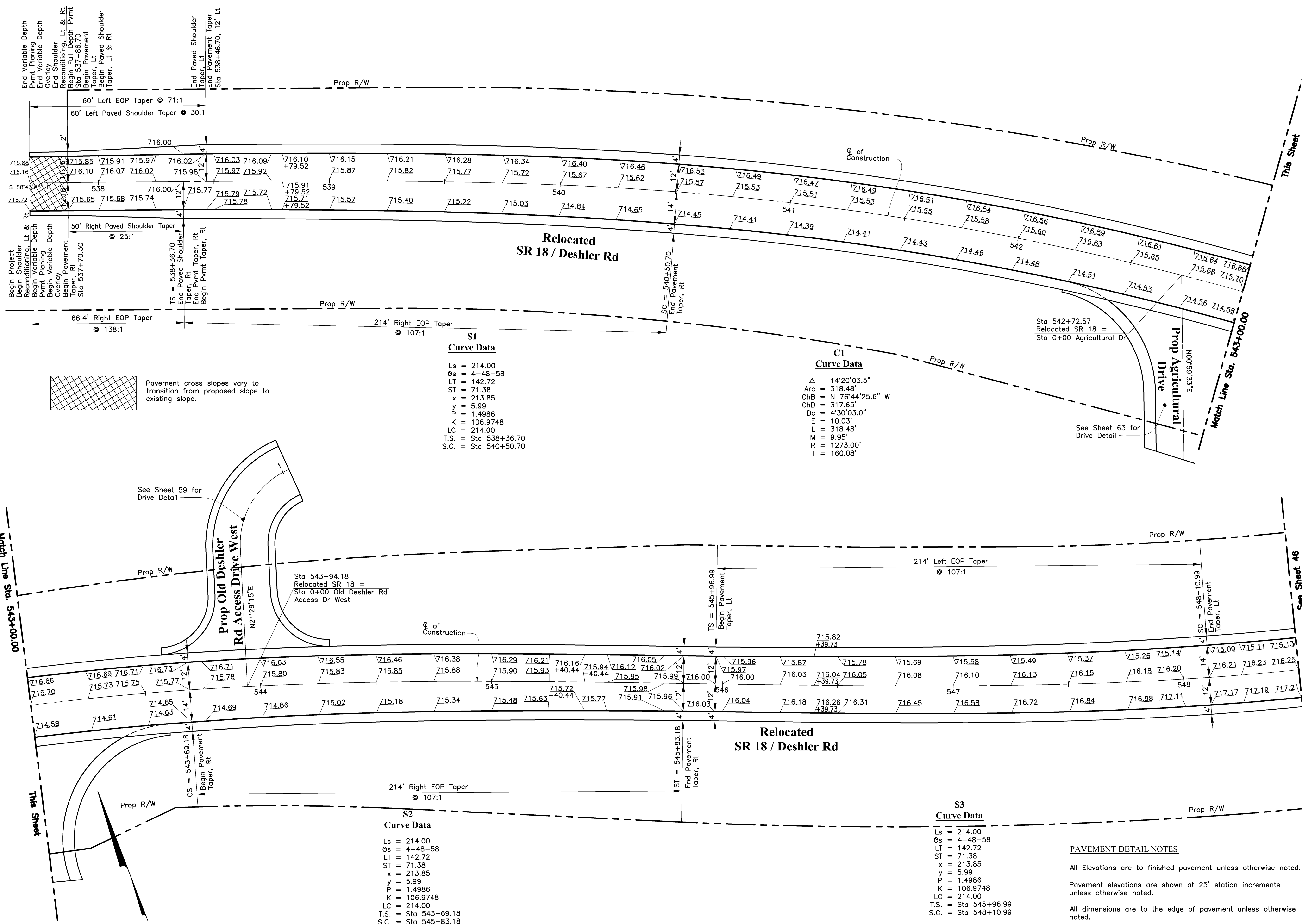
EMHT
Evans, Mechwart, Hambleton & Tillon, Inc.
Surveyors • Engineers • Planners • Designers
5090 East Avenue • Suite 400 • Columbus, OH 43230
Phone: 614.775.4500 • Fax: 614.775.4504 • www.emht.com

DATE
September 24, 2010

SCALE
None

JOB NO.
20091333

\\C:\Users\j_dow\Documents\Projects\20091333\SR18\SR18-10-19\SR18-10-19-PAVEMENT DETAILS.dwg - No Image - SavedBy: j_dow (9/17/2010 8:04:18 AM) - Printed: j_dow (9/20/2010 4:42:42 PM)



MARK	DATE	DESCRIPTION

SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
PAVEMENT DETAILS

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR

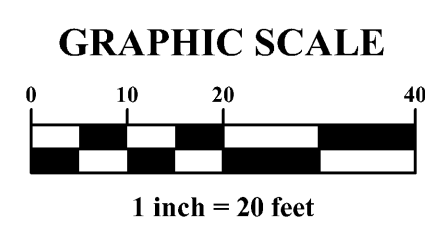
DATE	September 24, 2010
SCALE	1" = 20'
JOB NO.	20091333
SHEET	45/70

PAVEMENT DETAIL NOTES

All Elevations are to finished pavement unless otherwise noted.

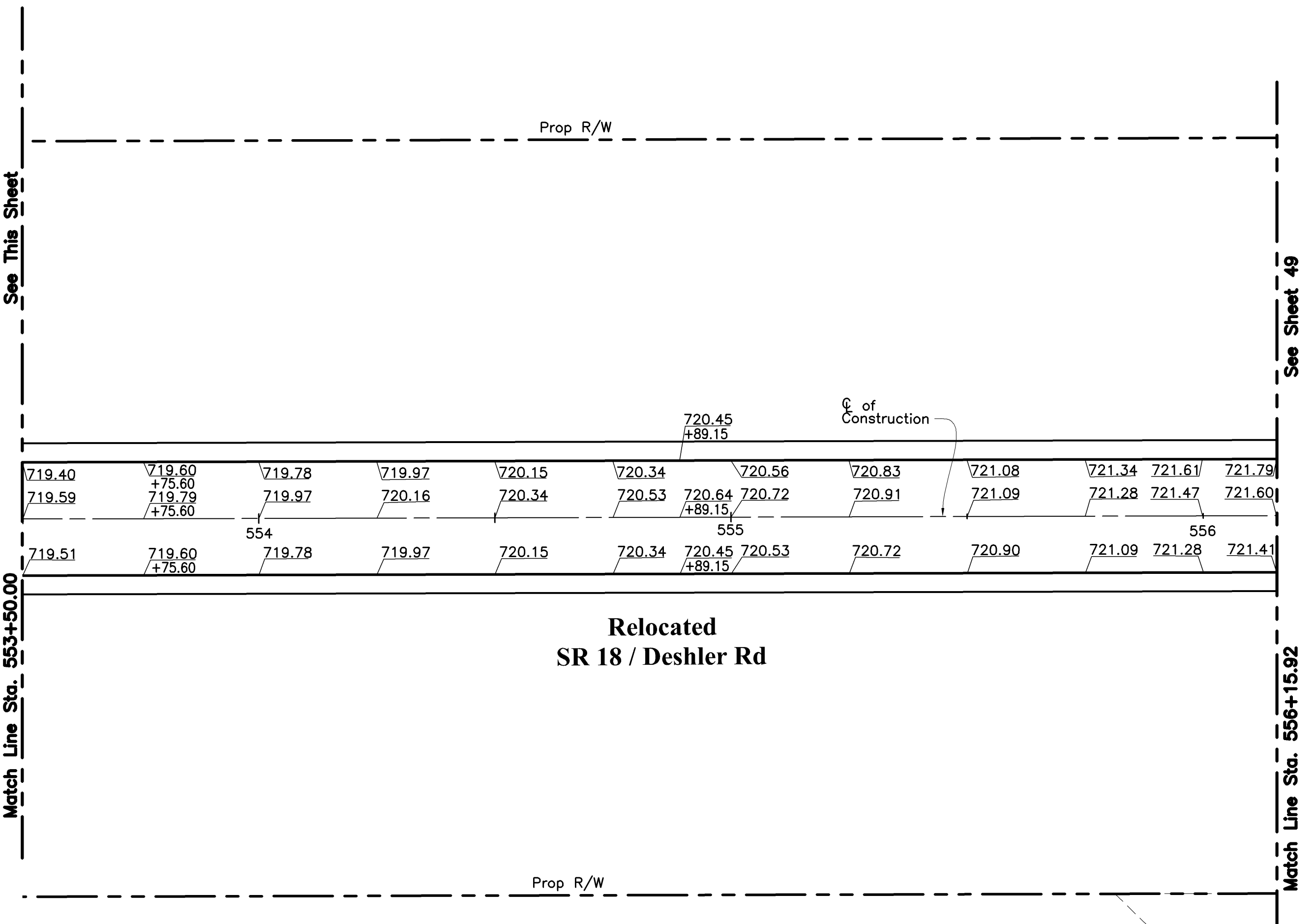
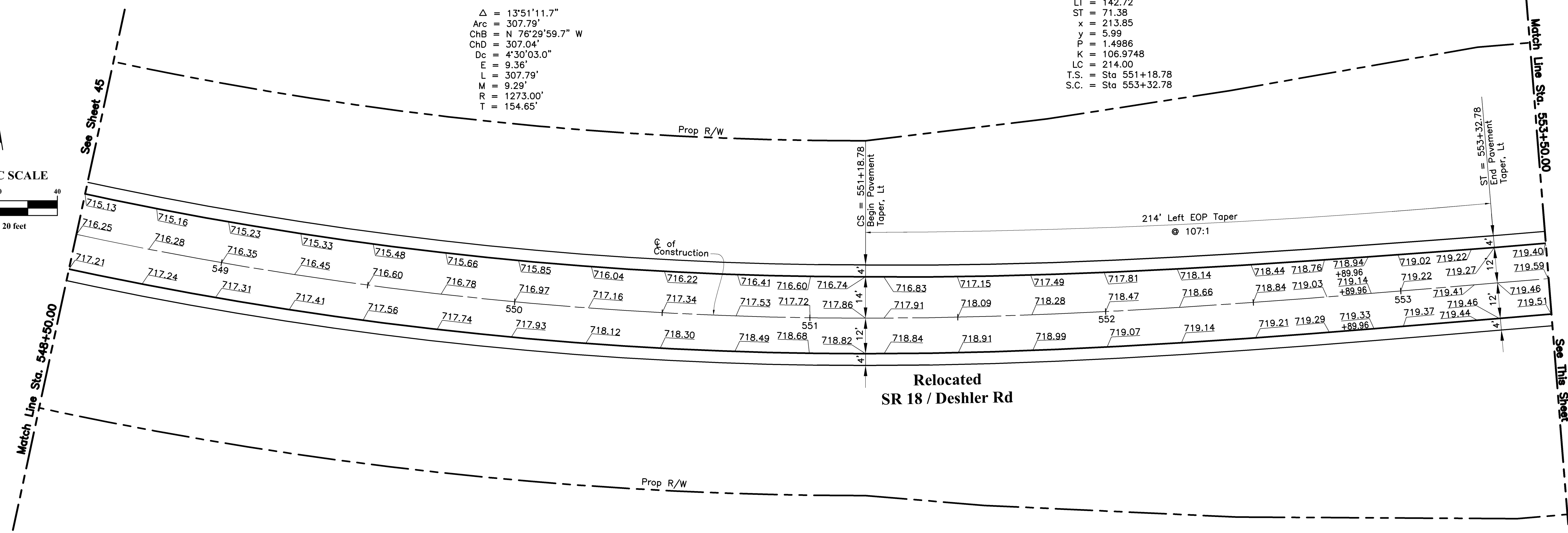
Pavement elevations are shown at 25' station increments unless otherwise noted.

All dimensions are to the edge of pavement unless otherwise noted.



C2
Curve Data
 Δ = 13°51'11.7"
 Arc = 307.79'
 ChB = N 76°29'59.7" W
 ChD = 307.04'
 Dc = 4°30'03.0"
 E = 9.36'
 L = 307.79'
 M = 9.29'
 R = 1273.00'
 T = 154.65'

S4
Curve Data
 Ls = 214.00
 Os = 4-48-58
 LT = 142.72
 ST = 71.38
 x = 213.85
 y = 5.99
 P = 1.4986
 K = 106.9748
 LC = 214.00
 T.S. = Sta 551+18.78
 S.C. = Sta 553+32.78



PAVEMENT DETAIL NOTES

All Elevations are to finished pavement unless otherwise noted.

Pavement elevations are shown at 25' station increments unless otherwise noted.

All dimensions are to the edge of pavement unless otherwise noted.

MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10.19
 PAVEMENT DETAILS



DATE
 September 24, 2010

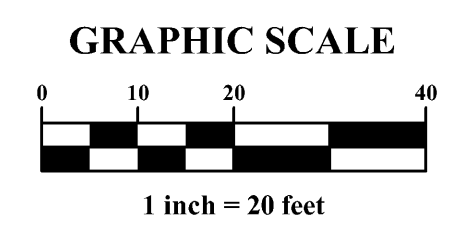
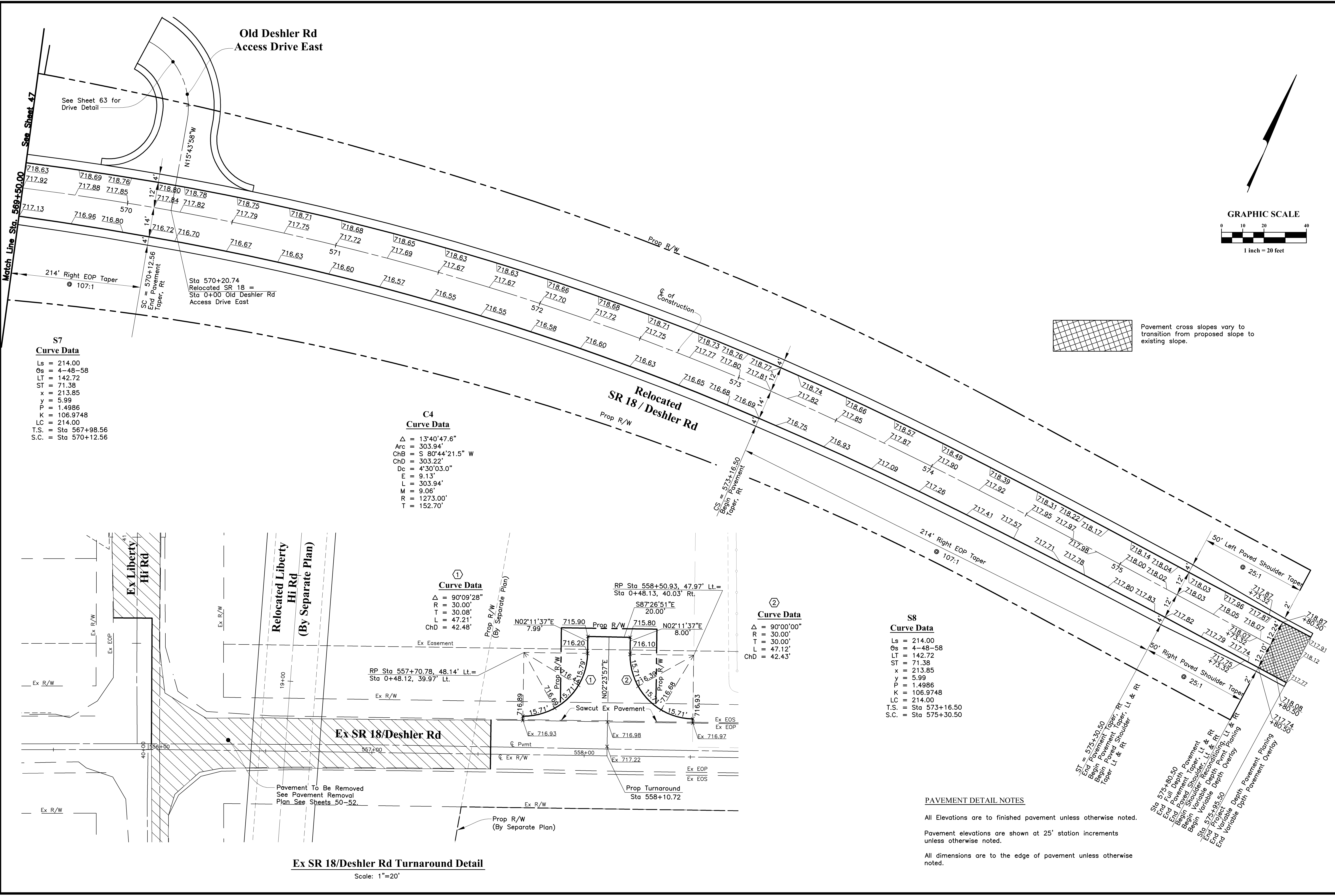
SCALE
 1" = 20'

JOB NO.
 20091333

SHEET
 46/70

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Pavement cross slopes vary to transition from proposed slope to existing slope.

PAVEMENT DETAIL NOTES

All Elevations are to finished pavement unless otherwise noted.

Pavement elevations are shown at 25' station increments unless otherwise noted.

All dimensions are to the edge of pavement unless otherwise noted.

MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
 PAVEMENT DETAILS



DATE	September 24, 2010
SCALE	1" = 20'
JOB NO.	20091333
SHEET	48/70

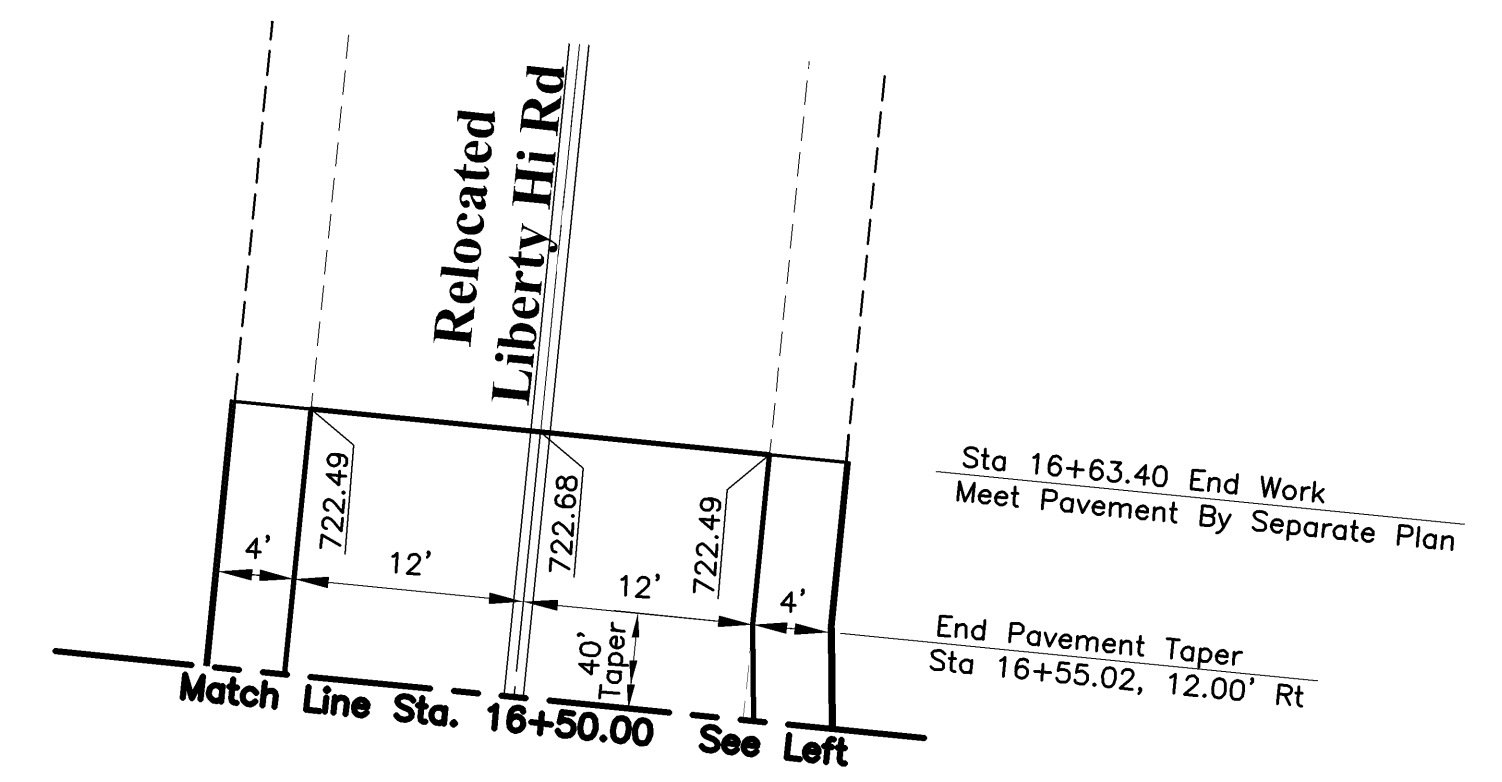
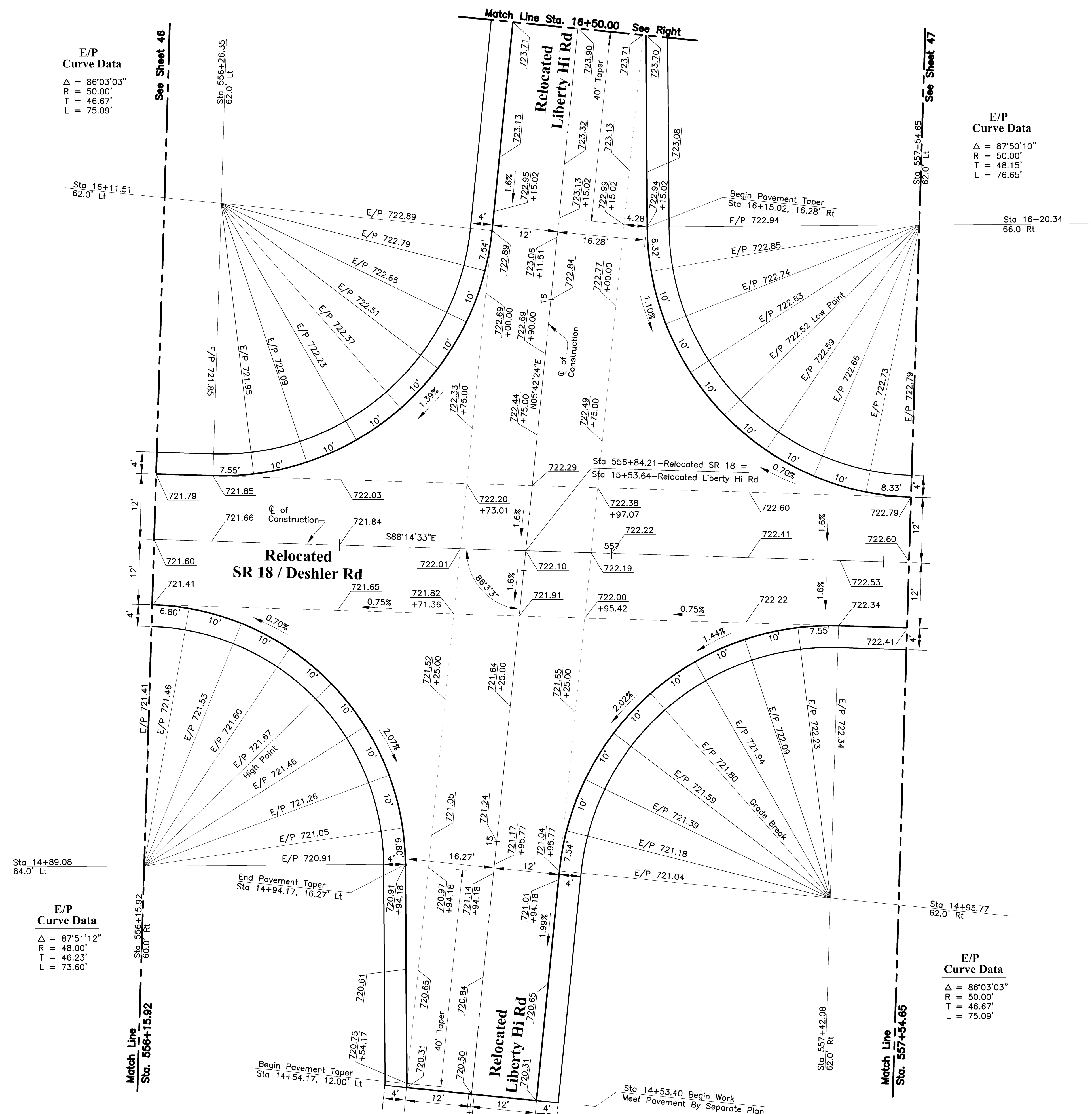
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E/P Curve Data
 $\Delta = 86^{\circ}03'03''$
 $R = 50.00'$
 $T = 46.67'$
 $L = 75.09'$

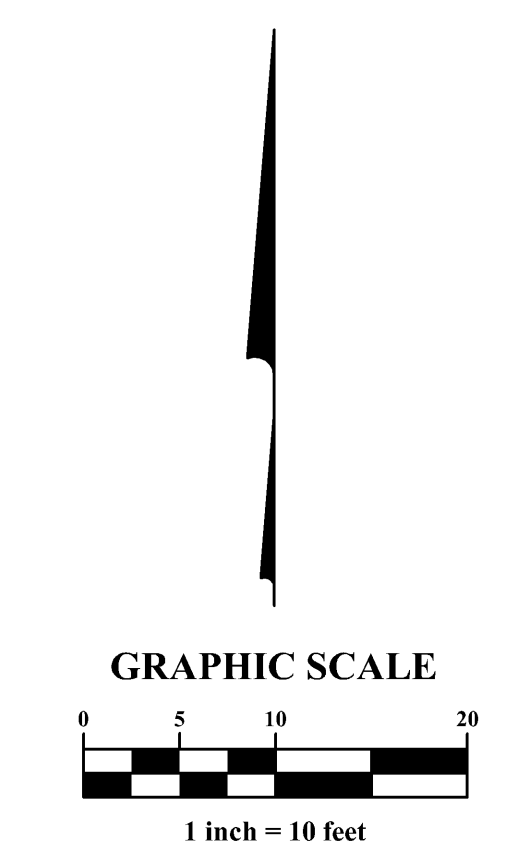
E/P Curve Data
 $\Delta = 87^{\circ}51'12''$
 $R = 48.00'$
 $T = 46.23'$
 $L = 73.60'$

E/P Curve Data
 $\Delta = 87^{\circ}50'10''$
 $R = 50.00'$
 $T = 48.15'$
 $L = 76.65'$

E/P Curve Data
 $\Delta = 86^{\circ}03'03''$
 $R = 50.00'$
 $T = 46.67'$
 $L = 75.09'$



Pavement Detail Notes
 All Elevations are to finished pavement unless otherwise noted.
 Pavement elevations are shown at 25' station increments unless otherwise noted.
 All dimensions are to the edge of pavement unless otherwise noted.



MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
PUBLIC ROADWAY IMPROVEMENTS PLAN
FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
INTERSECTION DETAIL

EMHT
 Engineering & Mapping, Inc.
 Engineers • Surveyors • Planners • Scientists
 5500 New Albany Road, Columbus, OH 43054
 Phone: 614.775.6500 • Toll Free: 888.775.3448
 emht.com

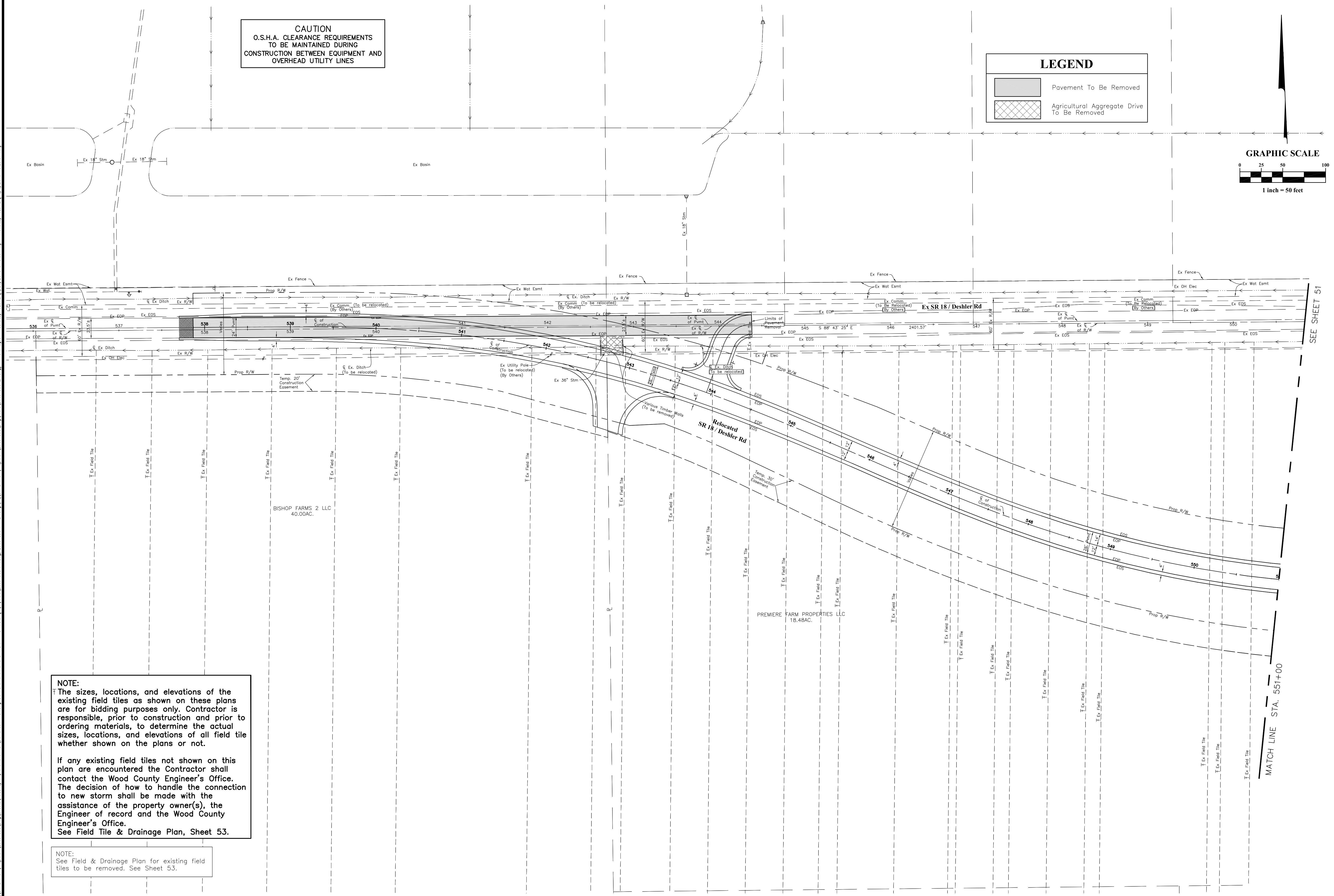
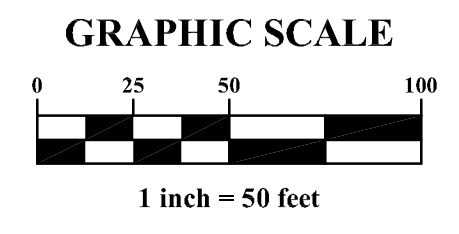
DATE	September 24, 2010
SCALE	1" = 10'
JOB NO.	20091333
SHEET	49/70

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CAUTION
 O.S.H.A. CLEARANCE REQUIREMENTS
 TO BE MAINTAINED DURING
 CONSTRUCTION BETWEEN EQUIPMENT AND
 OVERHEAD UTILITY LINES

LEGEND

	Pavement To Be Removed
	Agricultural Aggregate Drive To Be Removed



SEE SHEET 51

MATCH LINE STA. 551+00

NOTE:
 The sizes, locations, and elevations of the existing field tiles as shown on these plans are for bidding purposes only. Contractor is responsible, prior to construction and prior to ordering materials, to determine the actual sizes, locations, and elevations of all field tile whether shown on the plans or not.

If any existing field tiles not shown on this plan are encountered the Contractor shall contact the Wood County Engineer's Office. The decision of how to handle the connection to new storm shall be made with the assistance of the property owner(s), the Engineer of record and the Wood County Engineer's Office.
 See Field Tile & Drainage Plan, Sheet 53.

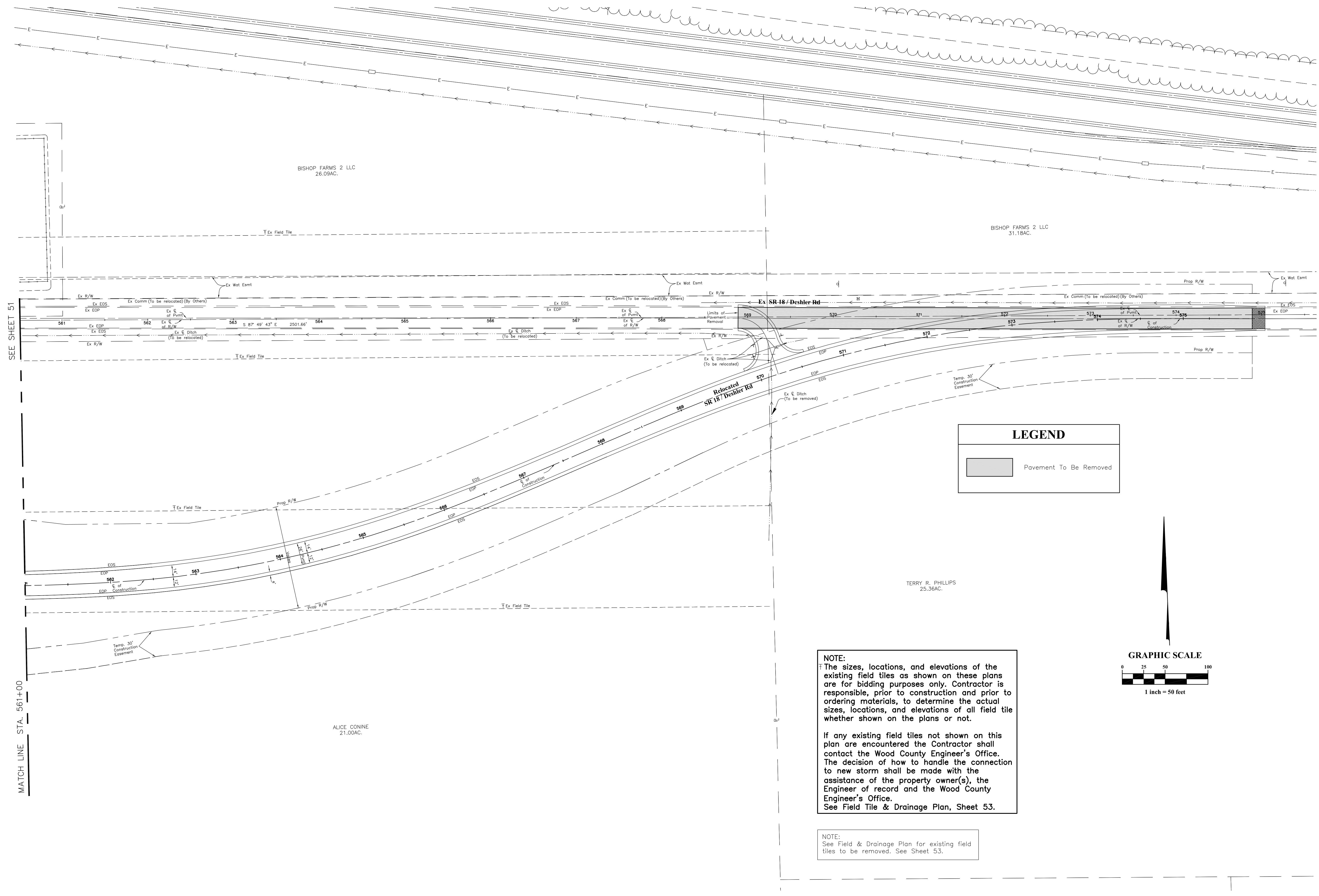
NOTE:
 See Field & Drainage Plan for existing field tiles to be removed. See Sheet 53.

MARK	DATE	DESCRIPTION	REVISIONS

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
 PAVEMENT REMOVAL PLAN

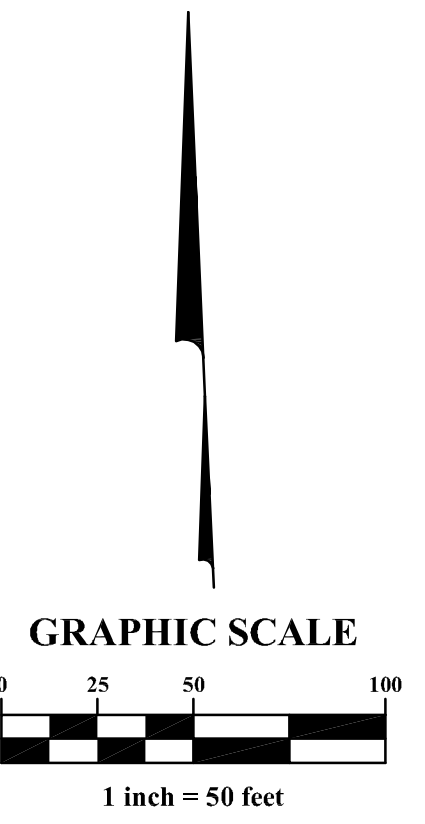
DATE	September 24, 2010
SCALE	1" = 50'
JOB NO.	20091333
SHEET	50/70

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LEGEND

Pavement To Be Removed



NOTE:
 † The sizes, locations, and elevations of the existing field tiles as shown on these plans are for bidding purposes only. Contractor is responsible, prior to construction and prior to ordering materials, to determine the actual sizes, locations, and elevations of all field tile whether shown on the plans or not.

If any existing field tiles not shown on this plan are encountered the Contractor shall contact the Wood County Engineer's Office. The decision of how to handle the connection to new storm shall be made with the assistance of the property owner(s), the Engineer of record and the Wood County Engineer's Office.
 See Field Tile & Drainage Plan, Sheet 53.

NOTE:
 See Field & Drainage Plan for existing field tiles to be removed. See Sheet 53.

MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
PAVEMENT REMOVAL PLAN

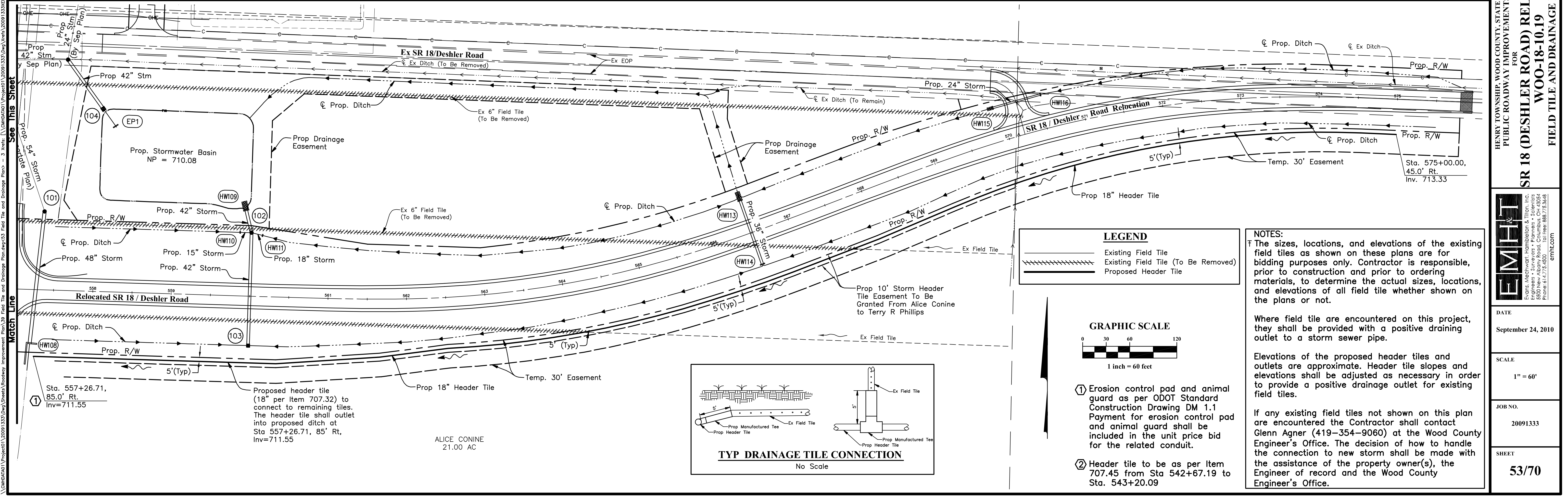
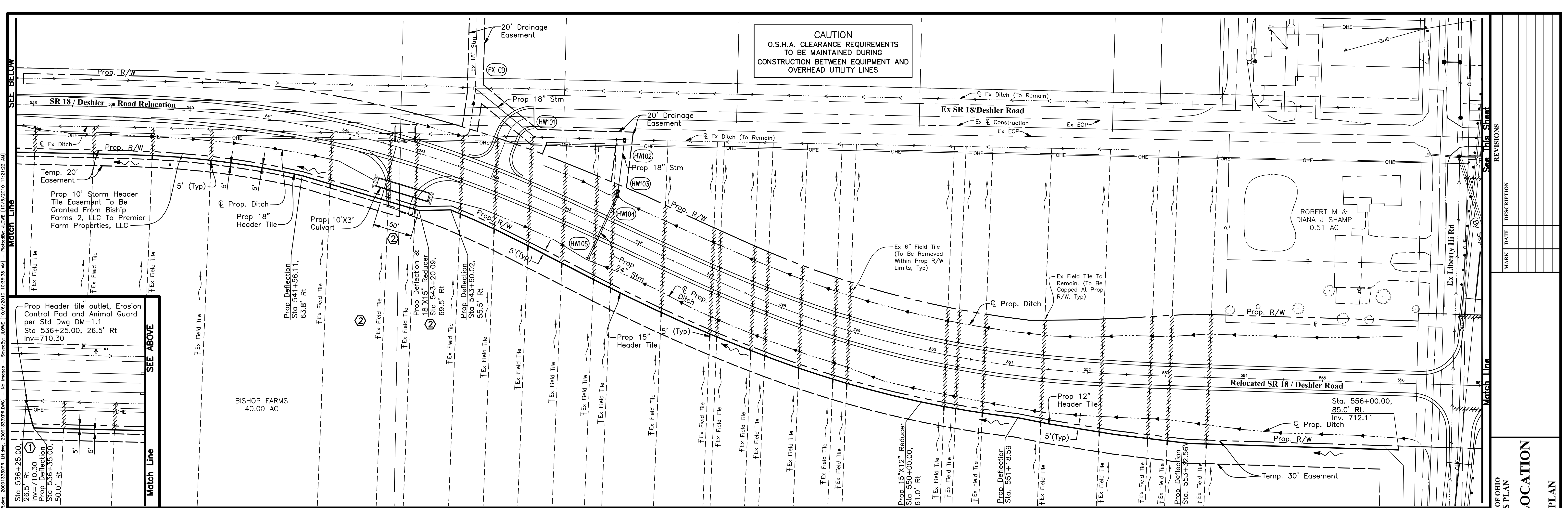
Evans, Mechwart, Hambleton & Tilton, Inc.
 5500 New Albany Road, Columbus, OH 43254
 Phone: 614.775.6500 Fax: 614.775.3448
 emht.com

DATE
 September 24, 2010

SCALE
 1" = 50'

JOB NO.
 20091333

SHEET
 52/70



CAUTION
 O.S.H.A. CLEARANCE REQUIREMENTS
 TO BE MAINTAINED DURING
 CONSTRUCTION BETWEEN EQUIPMENT AND
 OVERHEAD UTILITY LINES

SEE BELOW
 Match Line
 SEE ABOVE
 Match Line
 See This Sheet
 Match Line
 See This Sheet

MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10.19
 FIELD TILE AND DRAINAGE PLAN

DATE
 September 24, 2010

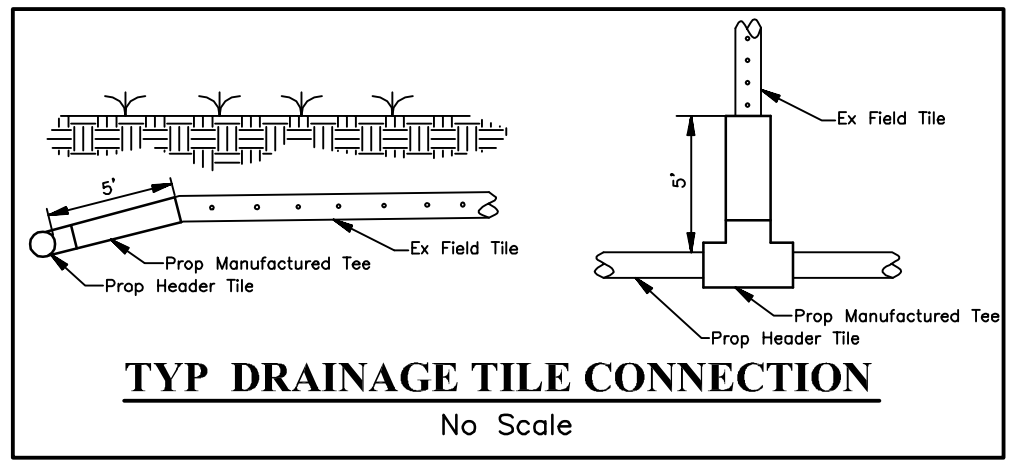
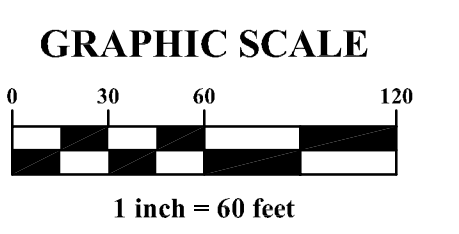
SCALE
 1" = 60'

JOB NO.
 20091333

SHEET
53/70

LEGEND

- Existing Field Tile
- Existing Field Tile (To Be Removed)
- Proposed Header Tile



NOTES:

1 The sizes, locations, and elevations of the existing field tiles as shown on these plans are for bidding purposes only. Contractor is responsible, prior to construction and prior to ordering materials, to determine the actual sizes, locations, and elevations of all field tile whether shown on the plans or not.

Where field tile are encountered on this project, they shall be provided with a positive draining outlet to a storm sewer pipe.

Elevations of the proposed header tiles and outlets are approximate. Header tile slopes and elevations shall be adjusted as necessary in order to provide a positive drainage outlet for existing field tiles.

If any existing field tiles not shown on this plan are encountered the Contractor shall contact Glenn Agner (419-354-9060) at the Wood County Engineer's Office. The decision of how to handle the connection to new storm shall be made with the assistance of the property owner(s), the Engineer of record and the Wood County Engineer's Office.

Sta. 536+25.00, 26.5' Rt, R/W=10.30, Prop. Deflection Sta. 536+25.00, 26.5' Rt, Inv.=710.30

Sta. 541+56.11, Prop. Deflection Sta. 541+56.11, 63.8' Rt, Inv.=710.30

Sta. 543+60.02, Prop. Deflection Sta. 543+60.02, 69.5' Rt, Inv.=710.30

Sta. 557+26.71, 85.0' Rt, Inv.=711.55

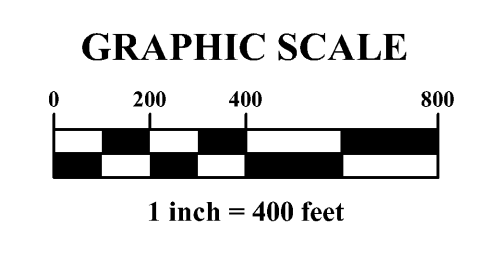
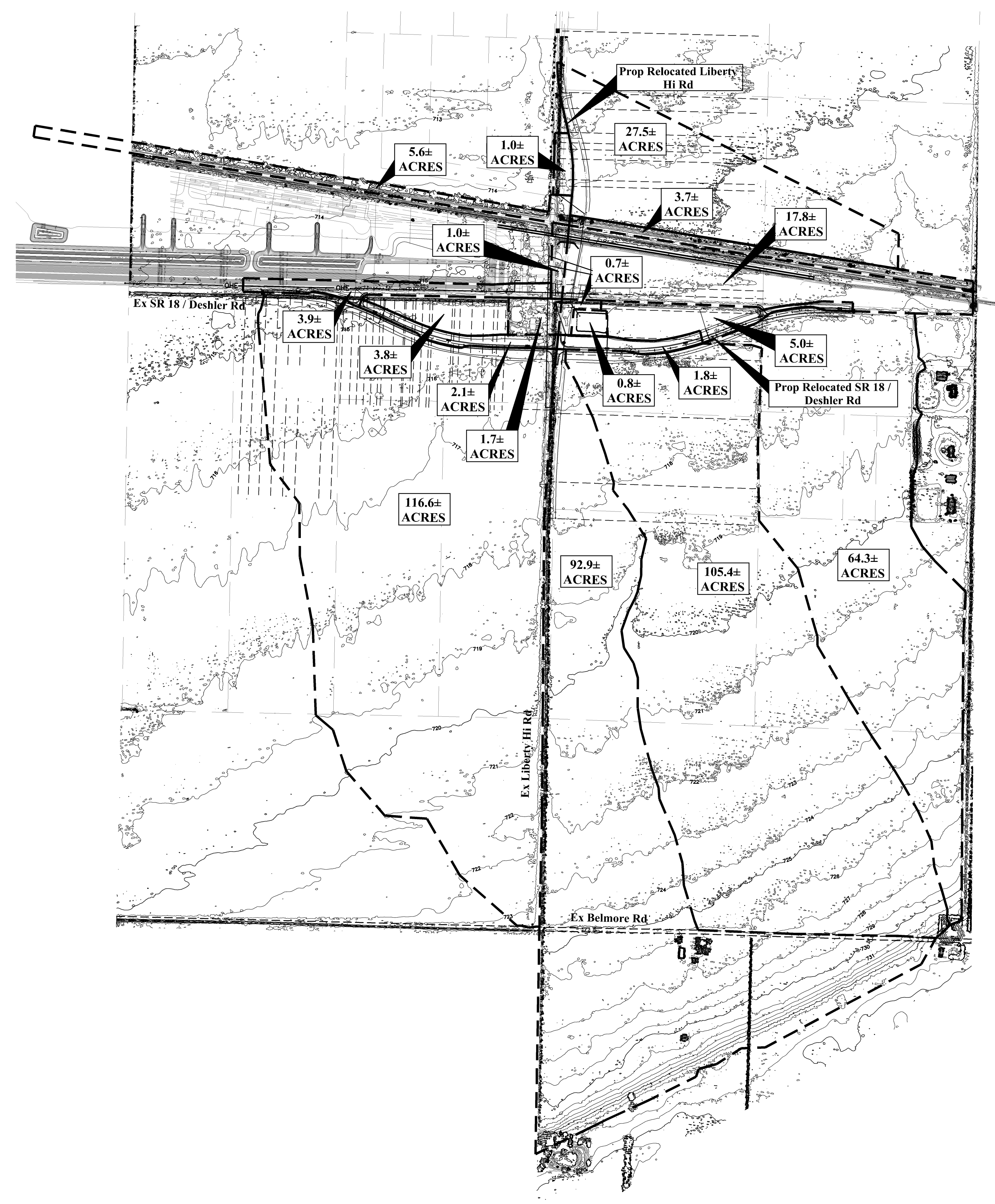
Prop. Header tile outlet, Erosion Control Pad and Animal Guard per Std Dwg DM-1.1 Sta. 536+25.00, 26.5' Rt, Inv.=710.30

Prop. Header tile outlet, Erosion Control Pad and Animal Guard per Std Dwg DM-1.1 Sta. 541+56.11, 63.8' Rt, Inv.=710.30

Prop. Header tile outlet, Erosion Control Pad and Animal Guard per Std Dwg DM-1.1 Sta. 543+60.02, 69.5' Rt, Inv.=710.30

Prop. Header tile outlet, Erosion Control Pad and Animal Guard per Std Dwg DM-1.1 Sta. 557+26.71, 85.0' Rt, Inv.=711.55

\\C:\DATA\Projects\20091333\Drawings\Roadway_Improvement_Plan\SR18\SR18_Plan\SR18_Plan.dwg - 5 Xrefs: [C:\Users\jw\Documents\Projects\20091333\SR18\SR18_Plan.dwg] - No Images - SavedBy: LAMOVER [5/10/2010 8:31:37 AM] - PlottedBy: GPHL [5/10/2010 12:24:40 PM]



MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10.19
 MASTER TRIBUTARY MAP

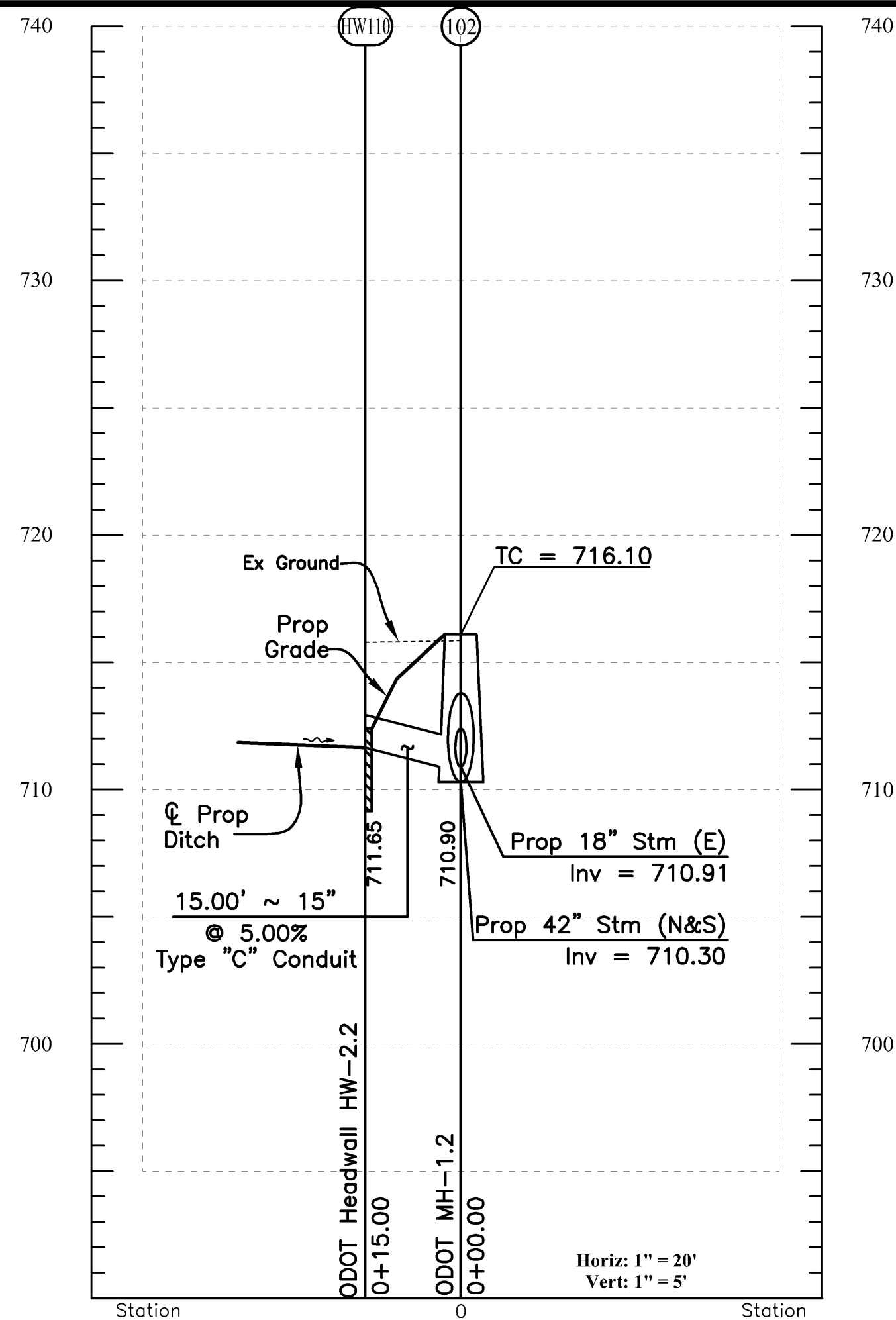


DATE
September 24, 2010

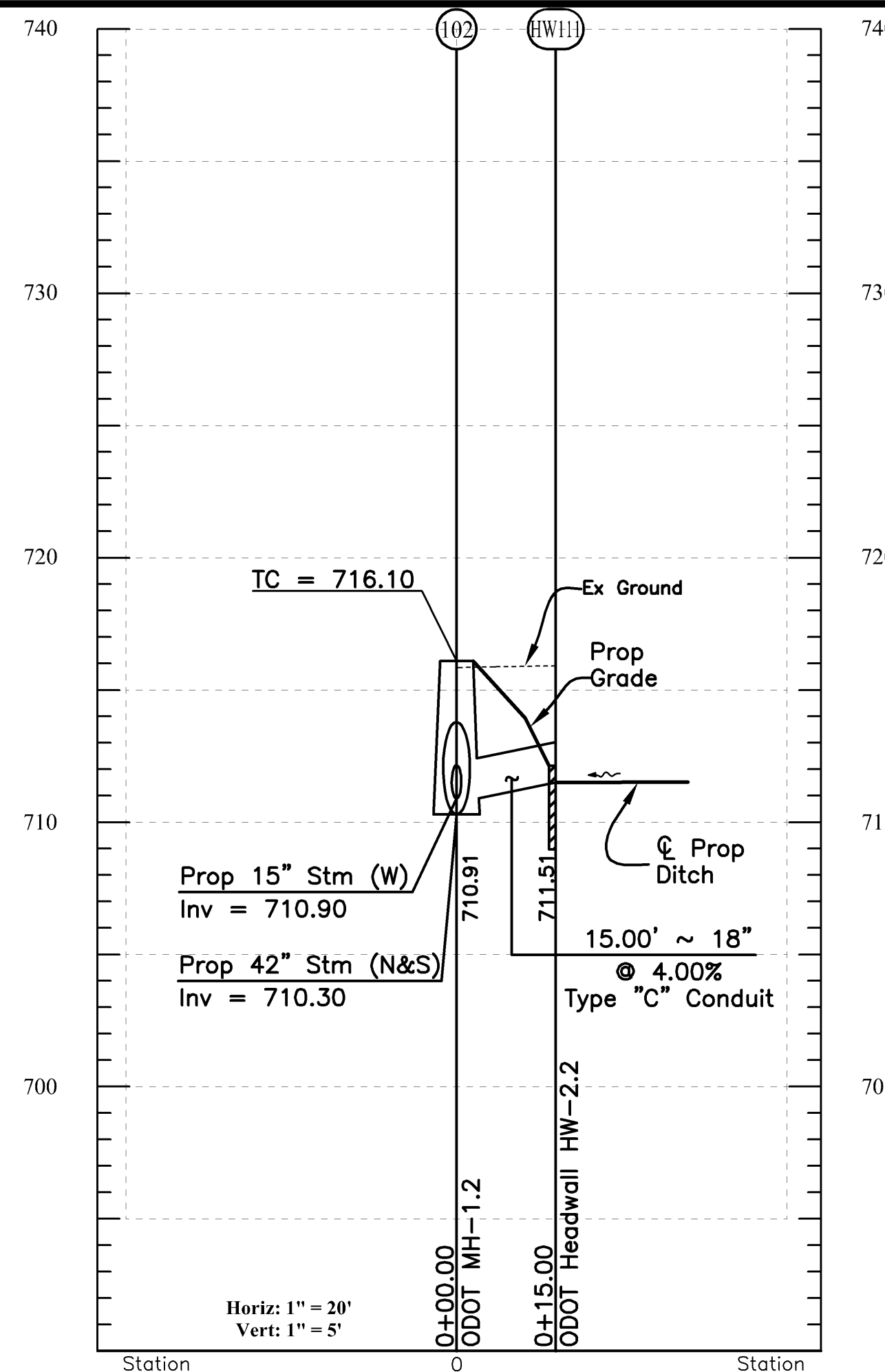
SCALE
1" = 400'

JOB NO.
20091333

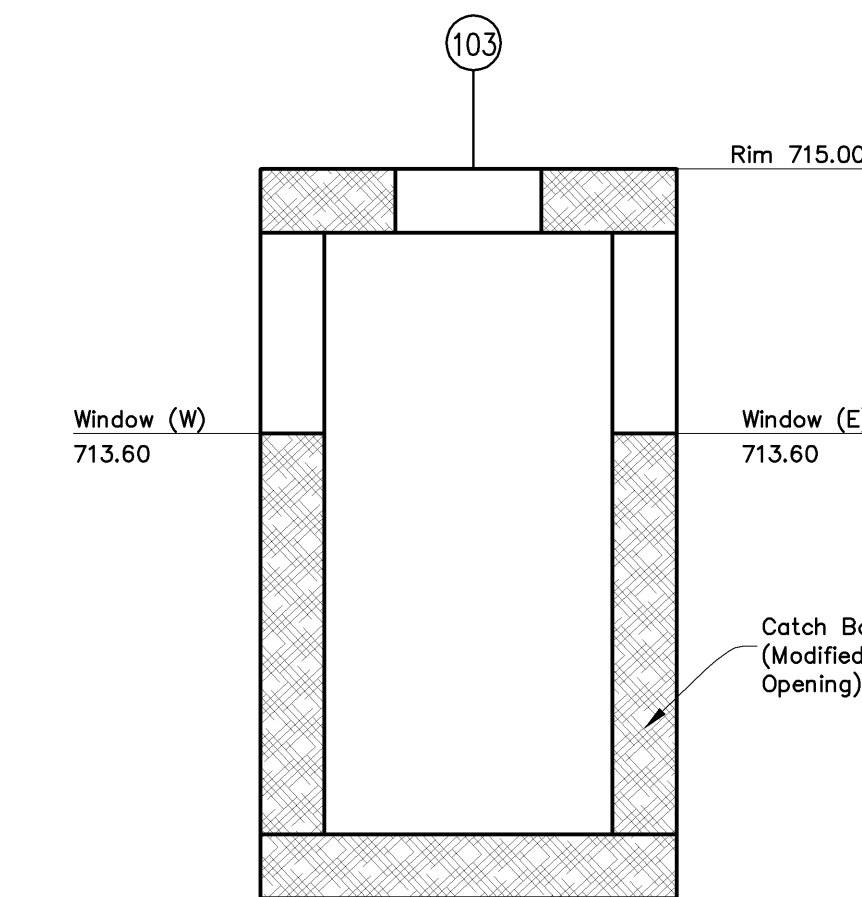
SHEET
56/70



STRUCTURE MH102-HW110 HYDRAULIC DESIGN DATA	
Contributing Area	= 0.648 Ac.
Impervious Area	= 0.154 Ac.
Weighted "C"	= 0.52
Q ₁₀	= 2.20 cfs
Q ₂₅	= 2.67 cfs

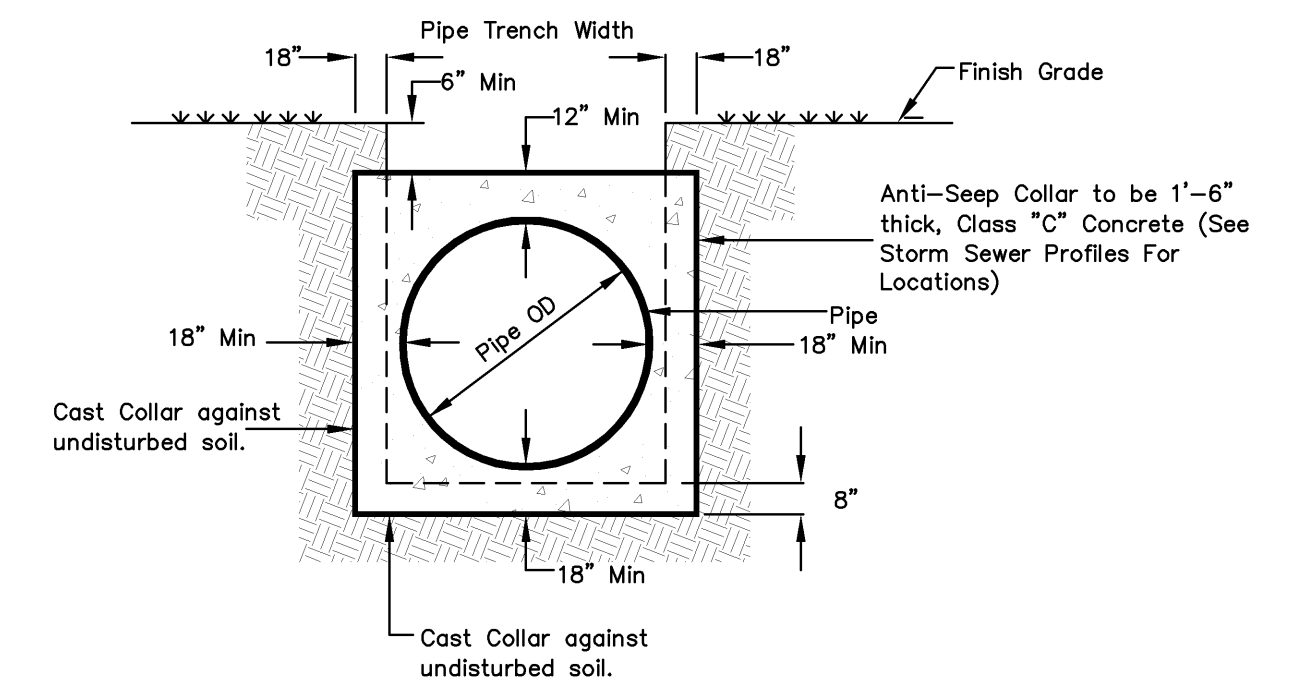


STRUCTURE MH101-HW111 HYDRAULIC DESIGN DATA	
Contributing Area	= 1.129 Ac.
Impervious Area	= 0.405 Ac.
Weighted "C"	= 0.58
Q ₁₀	= 4.28 cfs
Q ₂₅	= 5.10 cfs



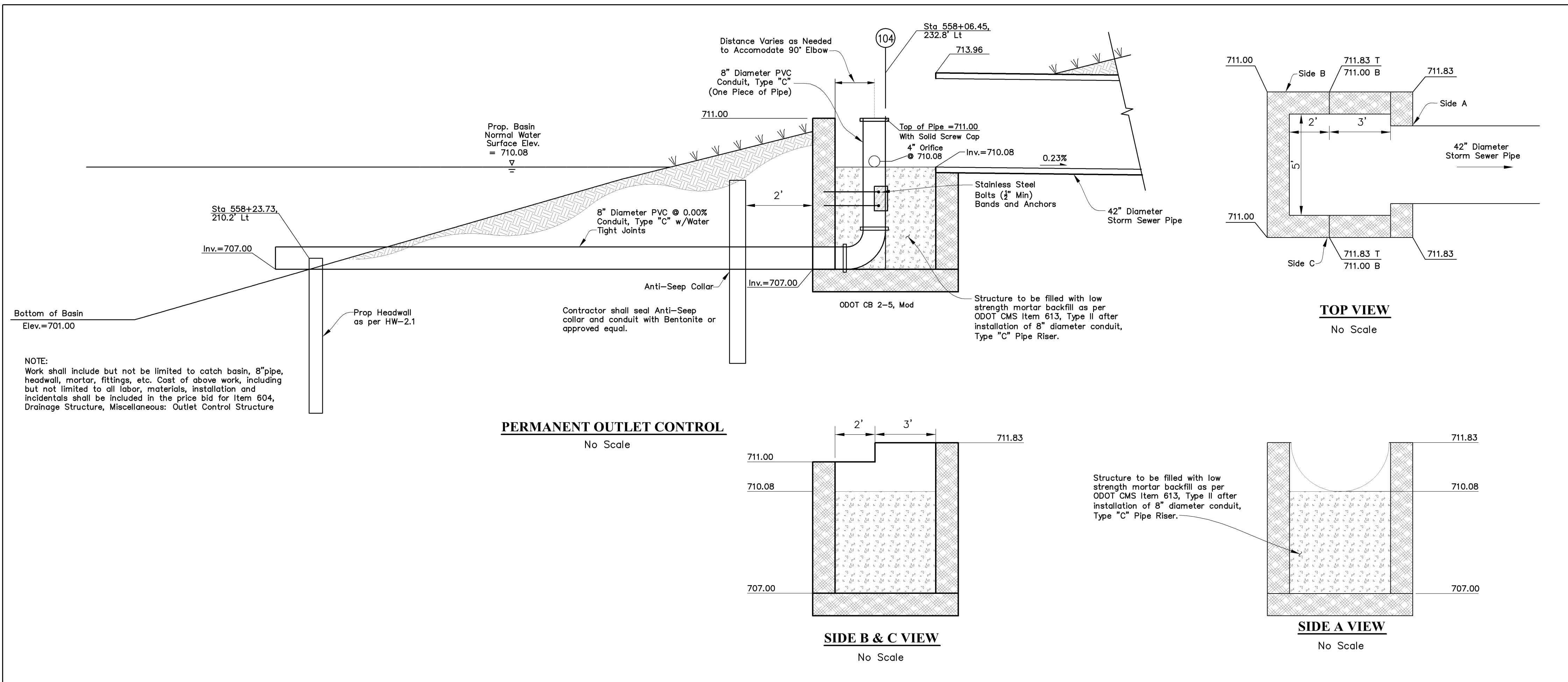
DETAIL CATCH BASIN No. 2-4, AS PER PLAN

No Scale
See Sheet 54, 55, and 61



ANTI-SEEP COLLAR DETAIL

No Scale
Std Dwg WQ-1.2 Modified
Anti-Seep Collar and Connections
Shall Be Watertight.
Cast To Be Included in Price Bid For Item 603.



PERMANENT OUTLET CONTROL
No Scale

TOP VIEW
No Scale

SIDE B & C VIEW
No Scale

SIDE A VIEW
No Scale

NOTE:
See Stormwater Management Report for Hydraulic & Water Quality Analysis.

MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
PUBLIC ROADWAY IMPROVEMENTS PLAN
FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
STORM SEWER PROFILES

EMHT
Engineering & Construction
5500 New Albany Road, Columbus, OH 43054
Phone: 614.775.6500, Toll Free: 888.775.3648
emht.com

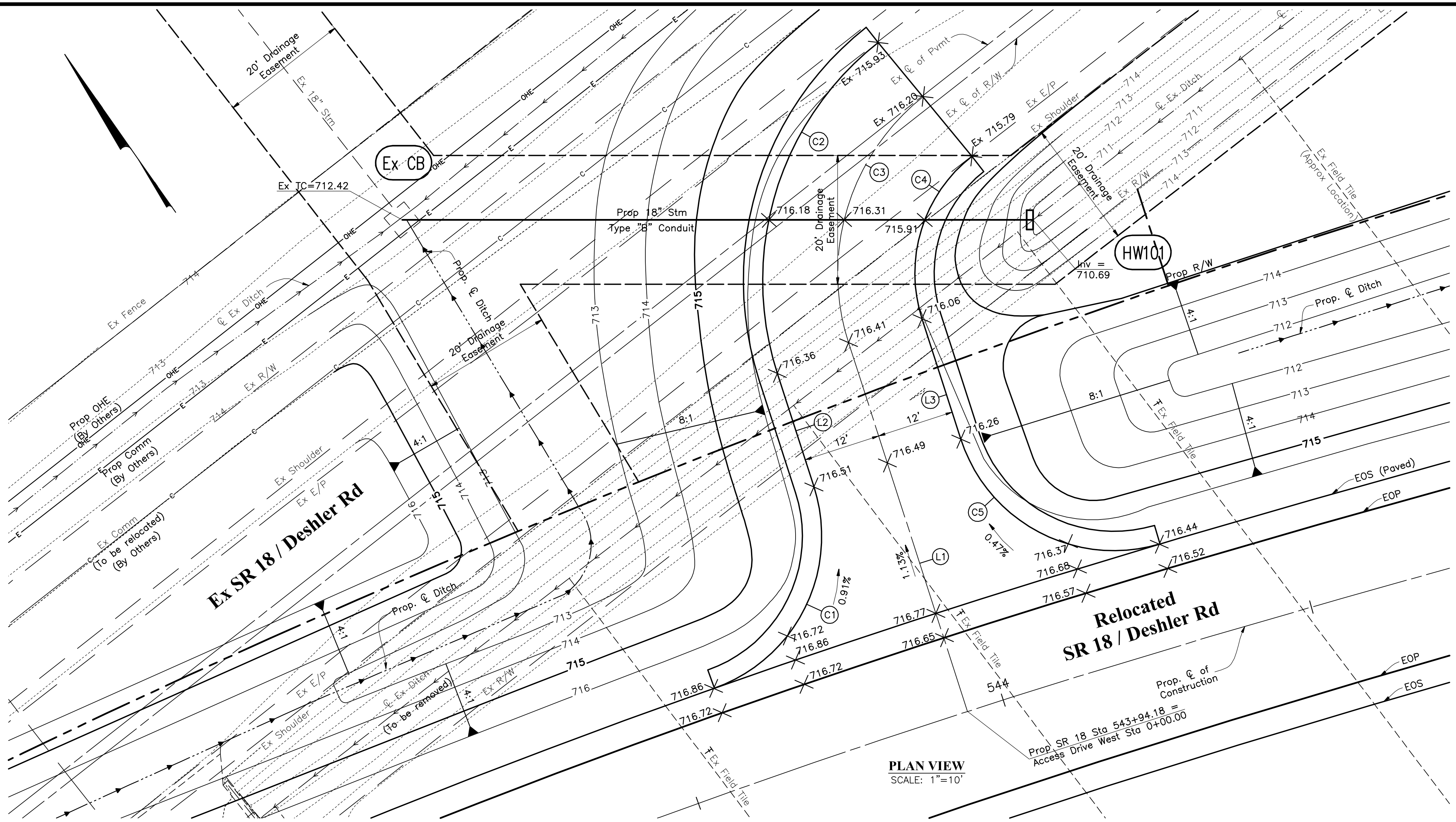
DATE
September 24, 2010

SCALE
As Noted

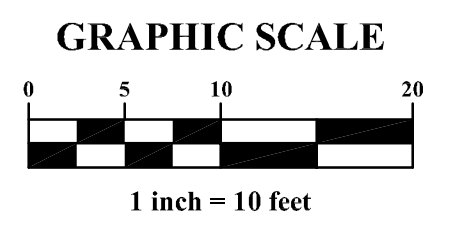
JOB NO.
20091333

SHEET
58/70

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HYDRAULIC DESIGN DATA	
Contributing Area	= 122.5 Ac.
Impervious Area	= 0.260 Ac.
Weighted "C"	= 0.40
Q10	= 6.89 cfs
Q25	= 7.71 cfs



NOTE:
 See Field & Drainage Plan for existing field tiles to be removed. See Sheet 53.

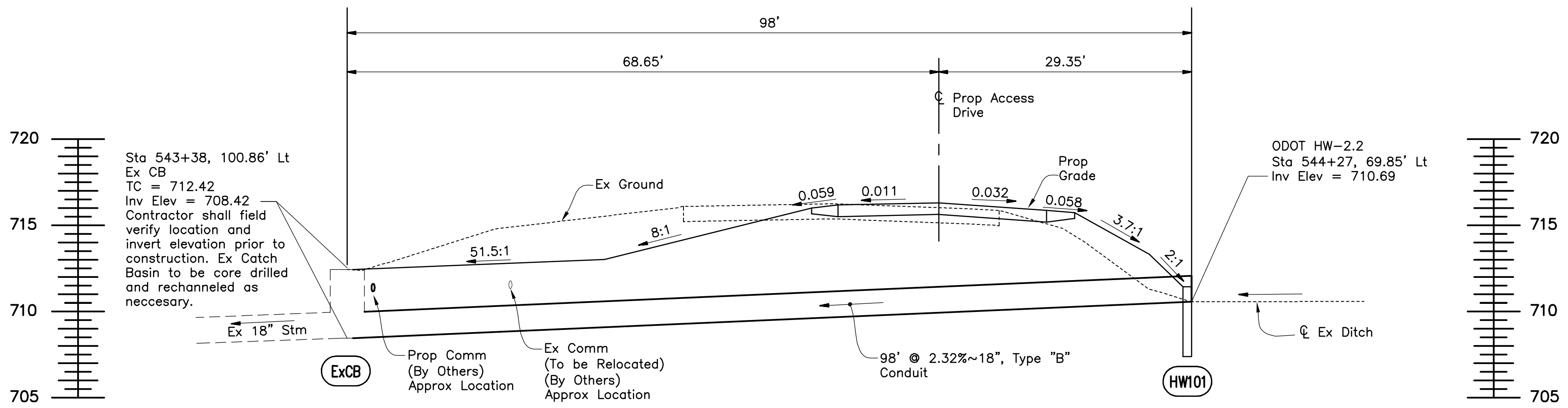
CAUTION
 O.S.H.A. CLEARANCE REQUIREMENTS TO BE MAINTAINED DURING CONSTRUCTION BETWEEN EQUIPMENT AND OVERHEAD UTILITY LINES

CURVE TABLE							
CURVE	LENGTH	RADIUS	DELTA	TANGENT	CHORD	CHD. BEAR.	Center Point
C1	38.59	25.00	88°26'56"	24.33	34.87	N65°42'43"E	Sta 543+58.29, 41.0' Lt.
C2	57.17	47.00	69°41'28"	32.72	53.71	N56°19'59"E	Sta 544+27.92, 59.4' Lt.
C3	42.51	35.00	69°35'31"	24.32	39.95	N56°17'00"E	Sta 544+27.92, 60.6' Lt.
C4	28.10	23.00	69°59'31"	16.10	26.38	N56°29'00"E	Sta 544+27.92, 60.6' Lt.
C5	38.70	25.00	88°42'08"	24.44	34.95	N22°51'49"W	Sta 544+30.25, 41.0' Lt.

LINE TABLE		
LINE	LENGTH	BEARING
L1	60.17	N21°29'15"E
L2	18.52	N21°29'15"E
L3	19.65	N21°29'15"E

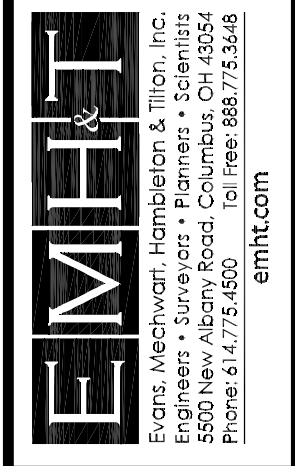
NOTE:
 † The sizes, locations, and elevations of the existing field tiles as shown on these plans are for bidding purposes only. Contractor is responsible, prior to construction and prior to ordering materials, to determine the actual sizes, locations, and elevations of all field tiles whether shown on the plans or not.

If any existing field tiles not shown on this plan are encountered the Contractor shall contact the Wood County Engineer's Office. The decision of how to handle the connection to new storm shall be made with the assistance of the property owner(s), the Engineer of record and the Wood County Engineer's Office.
 See Field Tile & Drainage Plan, Sheet 53.



MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
CULVERT DETAILS

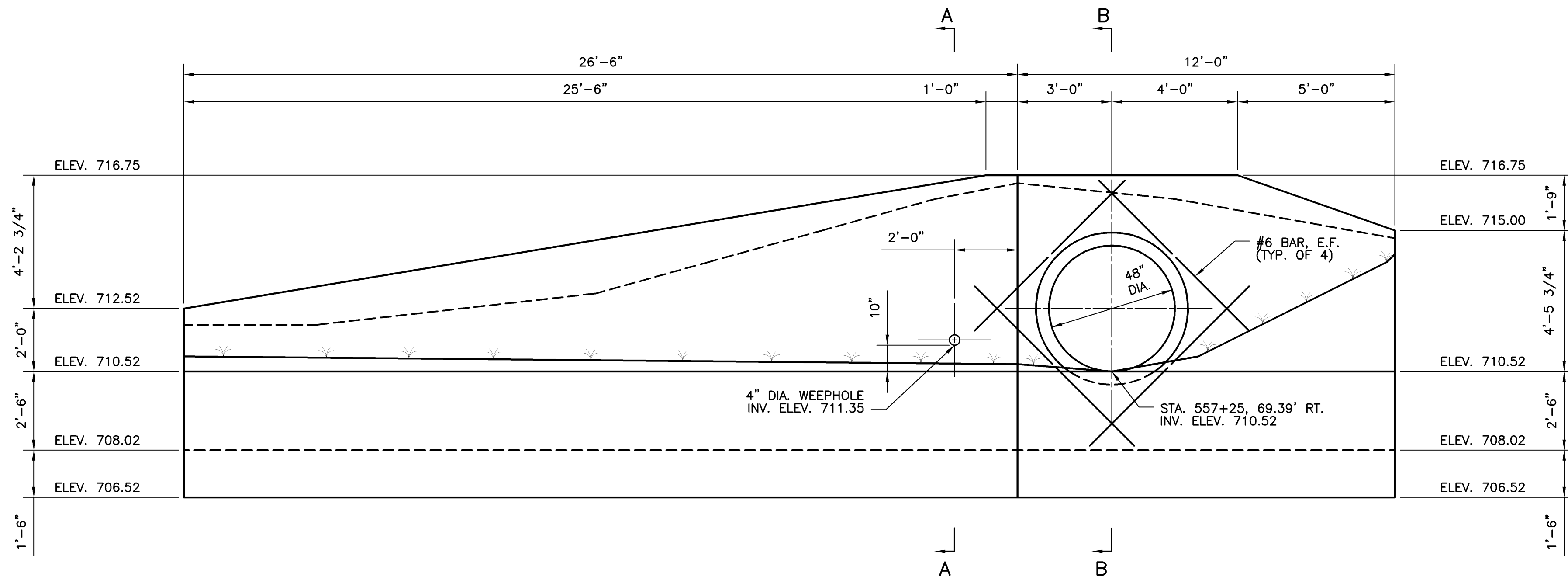


DATE
 September 24, 2010

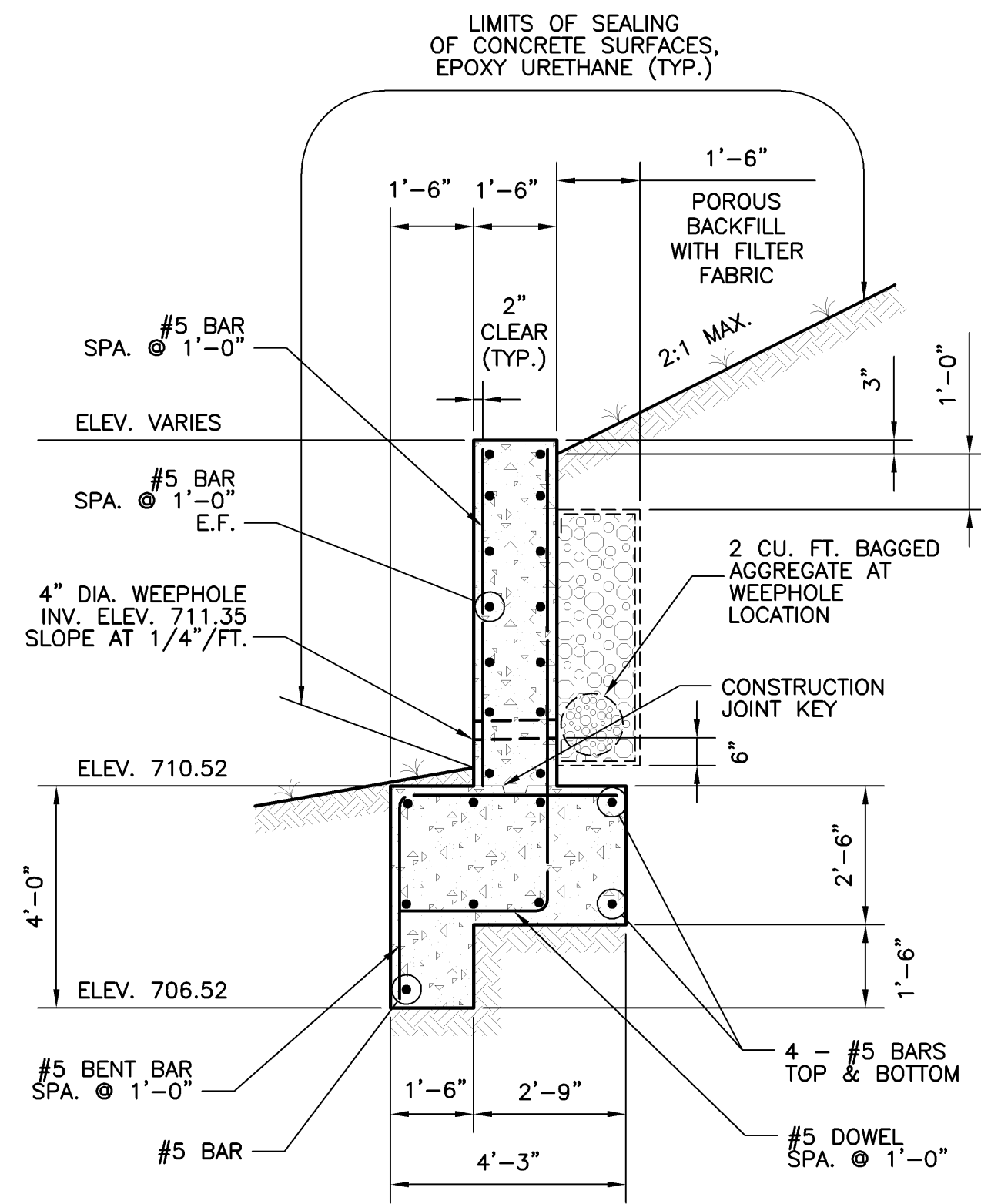
SCALE
 As Noted

JOB NO.
 20091333

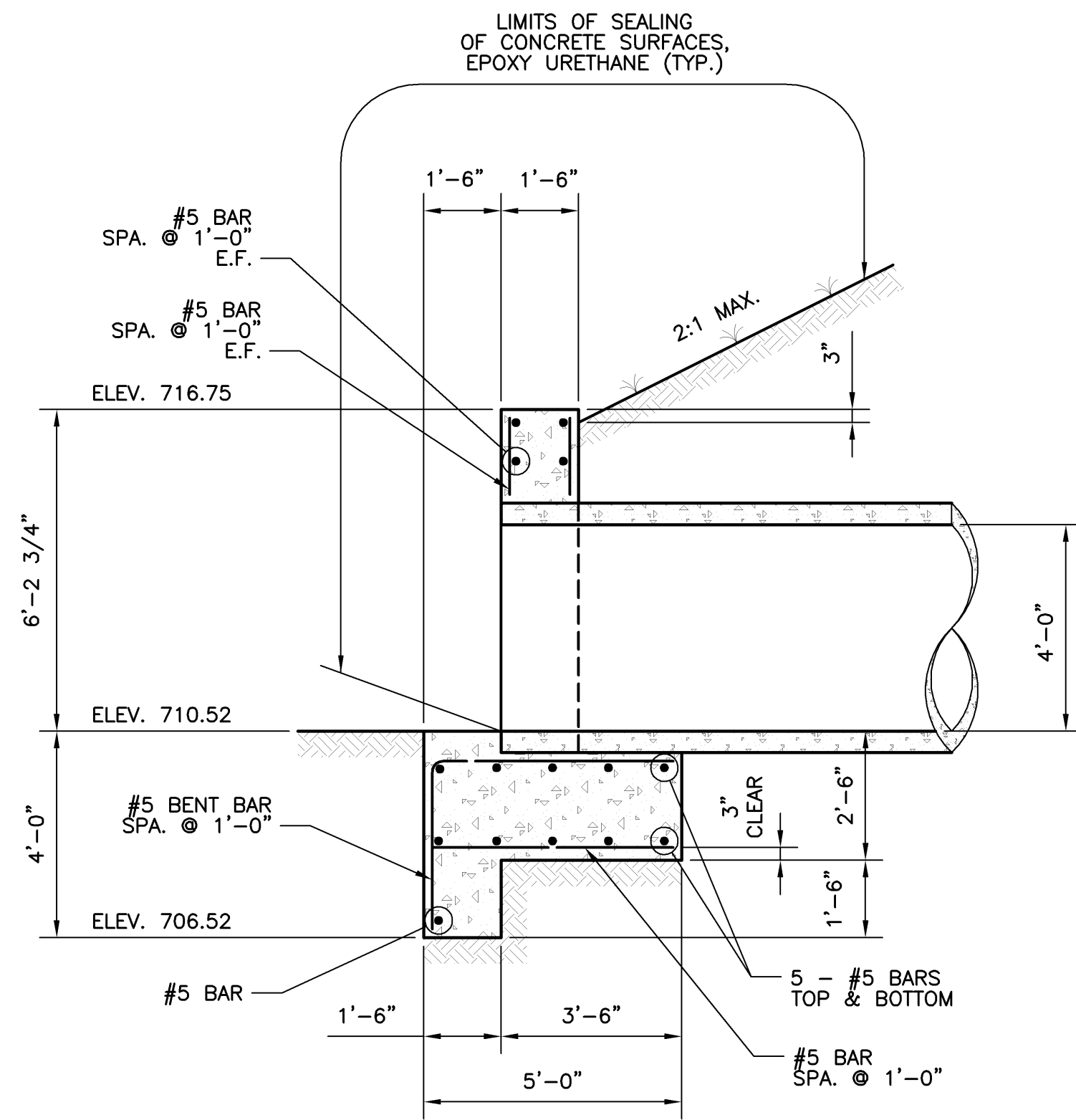
SHEET
 59/70



CAST IN PLACE HEADWALL 108
MEASURED ALONG FACE OF HEADWALL



SECTION A-A



SECTION B-B

ESTIMATED QUANTITIES (FOR INFORMATION ONLY)				
ITEM	ITEM EXT.	TOTAL	UNIT	DESCRIPTION
509	25000	1780	POUND	REINFORCING STEEL
511	46500	20	CU. YD.	CLASS C CONCRETE, FOOTING
511	46600	9	CU. YD.	CLASS C CONCRETE, HEADWALL
512	10100	25	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)
518	21200	7	CU. YD.	POROUS BACKFILL WITH FILTER FABRIC

CIP REINFORCED CONCRETE HEADWALL

All labor, material, and equipment necessary to construct the headwall, and footings as detailed on these plans, including but not limited to excavation, backfill, concrete, reinforcement, joints, and drainage, shall be included in the price bid for Item 604, Drainage Structure, Miscellaneous: Cast-In-Place Reinforced Concrete Headwall.

All existing drainage courses shall be maintained during construction and placement of the proposed structure. The Contractor shall submit to ODOT District 2 a Schedule of Sequence and Method of maintaining the watercourse. Special attention shall be observed to insure that all erosion control features are installed and maintained throughout the duration of the project.

Concrete shall conform to ODOT Construction and Materials Specifications Item 511, Class C, compressive strength = 4000 psi.

Plain Reinforcing Steel shall conform to ODOT Construction Specifications Item 509, ASTM A615, A616, or A617, Grade 60.

Minimum reinforcement, unless otherwise shown, shall be #5 @ 1'-0" each way, each face. Minimum reinforcement lap length, unless otherwise shown, shall be 2'-5" for #5 bar.

The Contractor shall supply six (6) sets of reinforcing steel shop drawings to ODOT District 2 for a plan conformance review. Five (5) sets of the reviewed drawings will be returned to the Contractor for distribution.

The foundation, as designed, will produce a bearing pressure of 0.85 ton per square foot (1700 psf). Bottom of footings shall be cast against undisturbed earth. If unsuitable bearing material occurs at the bottom of the footing elevation, the footing shown shall be deepened or widened to accommodate the changed condition. A registered soil engineer hired by the Contractor and approved by ODOT District 2 shall verify the suitability of the bearing material prior to placement of any concrete for the footing. ODOT must approve any changes in the footing.

Backfill shall not be placed and the structure shall not impound water until concrete has achieved 3600 psi. Water shall not be impounded against the structure until backfill is in place.

Construction joints shall be provided as shown on the plans. Additional joints requested by the Contractor shall be submitted for review and approval by EMH&T.

All exposed non-reentrant corners of concrete shall be cast with a 3/4" x 3/4" chamfer as per ODOT Construction and Material Specifications Item 508.

POROUS BACKFILL WITH FILTER FABRIC:
Porous Backfill with Filter Fabric, 2 feet thick shall extend from 1 foot below the embankment surface to 6" below the weephole locations, and laterally to the ends of the wingwalls. Place two cubic feet of bagged No. 3 aggregate at each weephole.

MARK	DATE	DESCRIPTION

REVISIONS

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
PUBLIC ROADWAY IMPROVEMENTS PLAN
FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10.19
HEADWALL DETAIL

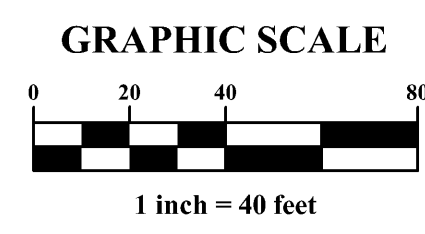
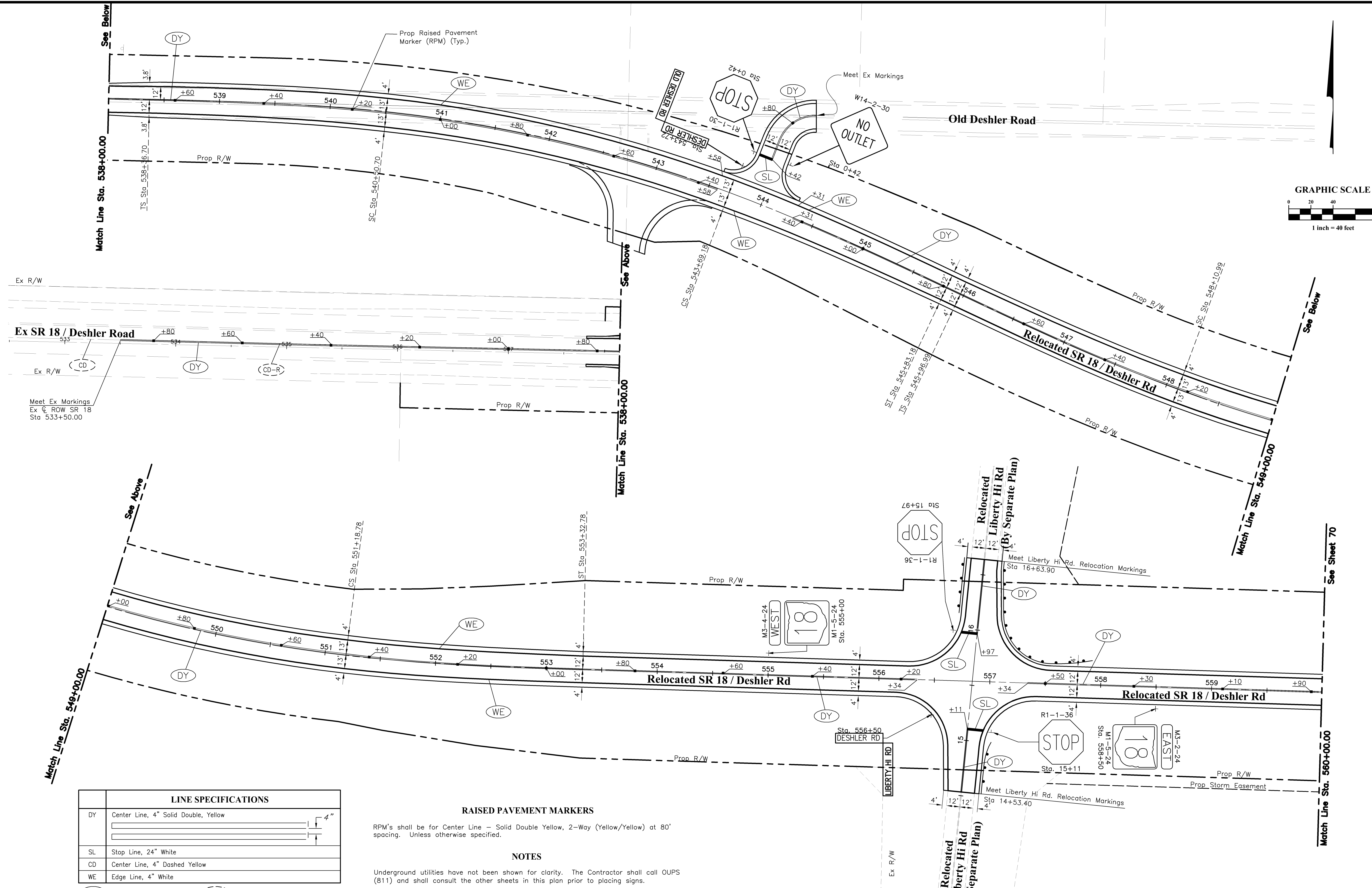
DATE
September 24, 2010

SCALE
None

JOB NO.
20091333

SHEET
68/70

\\\C:\Users\jlowe\Documents\Projects\20091333\Traffic Control Plan\Traffic Control Plan.dwg - 3 Verbs: [\\s:\Users\jlowe\Documents\Projects\20091333\Traffic Control Plan\Traffic Control Plan.dwg] - No Images - SavedBy: jlowe [9/24/2010 4:04:43 PM] - PlotBy: jlowe [9/24/2010 11:04:38 AM]



LINE SPECIFICATIONS	
DY	Center Line, 4" Solid Double, Yellow
SL	Stop Line, 24" White
CD	Center Line, 4" Dashed Yellow
WE	Edge Line, 4" White

RAISED PAVEMENT MARKERS

RPM's shall be for Center Line - Solid Double Yellow, 2-Way (Yellow/Yellow) at 80' spacing. Unless otherwise specified.

NOTES

Underground utilities have not been shown for clarity. The Contractor shall call OUPS (811) and shall consult the other sheets in this plan prior to placing signs.

- Prop. Pvmt. Markings
- Ex. Pvmt. Markings
- Ex. Pvmt. Markings To Be Removed

MARK	DATE	DESCRIPTION

HENRY TOWNSHIP, WOOD COUNTY, STATE OF OHIO
 PUBLIC ROADWAY IMPROVEMENTS PLAN
 FOR
SR 18 (DESHLER ROAD) RELOCATION
WOO-18-10-19
 TRAFFIC CONTROL PLAN

EMHT
 ENGINEERS & SURVEYORS
 5500 New Albany Road, Columbus, OH 43254
 Phone: 614.775.6500, Toll Free: 888.775.3448
 emht.com

DATE	September 24, 2010
SCALE	1" = 40'
JOB NO.	20091333
SHEET	69/70

