HIGHWAYS
JUL 12 1982

RS-167(6)

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO	RS-167(6)	

GAL-160-(5.62-6.93)

STATE OF OHIO
DEPARTMENT OF HIGHWAYS

GAL-160- (5.62-6.93)

SPRINGFIELD TOWNSHIP
GALLIA COUNTY

1971 SPECIFICATIONS

DESIGN DESIGNATION	
1970 Current A.D.T.	1607
1990 Design Year A.D.T.	2861
D.H.V.	241
D.	69%
T.	10%
V.	60 M.P.H.

CONVENTIONAL SIGNS

County Line
Township Line
Section Line
Center Line
Corporation Line
Fence Line
Guard Rail
Property Line — Existing Unfenced / Proposed Fenced
Utility Poles — Telephone / Power
Trees & Stumps
Right-of-Way — Proposed / Existing

INDEX OF SHEETS

	SHEET NUMBER
TITLE SHEET	1
SCHEMATIC LAYOUT PLAN	2
TYPICAL SECTION	3
GENERAL NOTES	4 & 5
ROADWAY & PAVEMENT CALCULATIONS	6
SPECIAL DETAILS	7
GENERAL SUMMARY	8 & 9
PLAN & PROFILE	10-22
CROSS SECTIONS	23-73
APPROACH DETAILS & DRIVE DETAILS	74-89
STRUCTURES 20' SPAN & UNDER	90-104
RIGHT-OF-WAY	105-118

LINE DATA

BEGIN PROJECT	STA. 272 + 00.00
END PROJECT	STA. 378 + 50.00
GROSS LENGTH	10,650.00 Lin. Ft.
ADDITIONS & DEDUCTIONS	NONE
NET LENGTH OF PROJECT	10,650.00 Lin. Ft. or 2.017 Miles
BEGIN WORK	STA. 268+77.00
END WORK	STA. 381+50.00
ADDITIONS: Approach Rt. Sta. 298+00	387.23 Lin. Ft.
Approach Lt. Sta 352+16	197.31 Lin. Ft.
Approach Rt. Sta 352+16	408.45 Lin. Ft.
NET LENGTH OF WORK	12,265.99 Lin. Ft. or 2.323 Miles

LOCATION MAP
SCALE
1000 0 1000 2000

The standard specifications of the State of Ohio Department of Highways including changes and supplemental specifications listed in the proposal shall govern this improvement.

The right-of-way for this improvement will be provided by the State of Ohio.

I hereby approve these plans and declare that the making of this improvement will not require the closing to traffic of the highway and that provisions for the maintenance and safety of traffic will be as set forth on the plans and estimates.

Approved: Max R. Farley
Date: 2-1-71 Division Deputy Director

Approved: C. H. Altwater
Date: 1-20-72 Engineer of Bridges

Approved: E. J. Schafer
Date: 1-20-72 Engineer of Location & Design

Approved: H. L. Kramer
Date: 1-20-72 Deputy Director of Design & Construction

Approved: K. L. Geslinger
Date: 1-27-72 Deputy Director of Right-of-Way

Approved: William Burkley
Date: 1-27-72 Deputy Director of Planning & Programming

Approved: William P. McKenna
Date: 1-27-72 First Assistant Director

Approved: Phillip Ruley
Date: 1/28/72 Director of Highways

PORTION TO BE IMPROVED
STATE ROADS
OTHER ROADS

SCALE
PLAN 0 25 50 100
PROFILE (Horizontal) 0 25 50 100
PROFILE (Vertical) 0 5 10 20
CROSS SECTIONS 0 5 10 20

STANDARD DRAWINGS					
BP-5	1-1-71	L-1	6-1-65		
BP-6	6-1-65				
CB-2-2A & B	6-1-65	MC-1	6-13-69		
CB 2-3 & 2-4	6-1-65	MC-3	6-20-69		
FACI-1	4-20-71	MC-4	6-13-69		
FACI-2	4-20-71	MC-8	12-1-67		
GR-2B	11-9-71	BP-2	12-1-68		
GR-4	11-9-71				
GR-5	1-1-71				
HW-4	1-1-70				

SUPPLEMENTAL SPECIFICATIONS	
1001	1-1-69
941	11-25-70

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ENGINEER DATE

File No.	GAL-160-(5.62-6.93)
	Date of Letting
	Contract No.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

2/118

GAL-160-(5.62-6.93)

SCHEMATIC LAYOUT PLAN

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

3/118

GAL-160 - (5.62 - 6.93)

TYPICAL SECTIONS

TYPE 404 ON 301

DETAIL OF STABILIZED BERM

LIMITING STATIONS

LEFT	RIGHT
STA. 331+50 To 338+50	STA. 331+50 To 338+50
STA. 377+00 To 380+50	STA. 377+00 To 380+50
1050 Lin. Ft.	1050 Lin. Ft.

NOTE: 605 AGGREGATE DRAINS shall be installed prior to the placing of the stabilized berm.

NORMAL SECTION

LIMITING STATIONS

STA 272+00	TO	STA 302+00	=	3000
STA 309+00	TO	STA 354+25	=	4525
STA 362+25	TO	STA 363+75	=	150
STA 375+75	TO	STA 378+50	=	275
				7950 Lin. Ft.

* Unless Otherwise Shown

For edge elevations of superelevation See Plan and Profile Sheets.

SUPERELEVATED SECTION

LIMITING STATIONS

STA 302+00	TO	STA 309+00	=	700
STA 354+25	TO	STA 362+25	=	800
STA 363+75	TO	STA 375+75	=	1200
				2700 Lin. Ft.

LEGEND

1. Item 404 1¼" Asphalt Concrete (70-85 or AC 20)
2. Item 402 1¼" Asphalt Concrete (70-85 or AC 20) **
3. Item 301 5" Bituminous Aggregate Base 702.01 (85-100 OR AC 20) OR 702.09 RT-11 OR RT-12
4. Item Special 6" Lime Stabilized Soil Subgrade - See Note In Proposal
5. Item 659 Seeding and Mulching
6. Item 408 Bituminous Prime Coat, using 0.4 Gal. per Sq. Yd. 702.09 RT-2 or RT-3
7. Item 409 Seal Coat using .008 Cu. Yds. No. 8 Cover Aggregate per Sq. Yd. and Seal Coat Bituminous material 702.09 RT-9 or RT-10 or 702.02 MC-800 or MC 3000 applied at 0.3 gal. per sq. yd.
8. Item 304 8" Aggregate Base
9. Item 605 Aggregate Drains for Stabilized Berms (See Gen. Notes for locations)

** See Proposal Note for the special requirements for the use of pavers having automatic screed control for placing the intermediate course and to the special spreading and surface tolerance requirements.

TYPICAL TOE DITCH FOR EMBANKMENT SECTION

GENERAL NOTES

ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM

LOCATION AND SIZE OF PIPE

The location, type, depth and size of all existing pipes are shown as nearly exact as available information will permit. The state will not be responsible for any variations found during construction.

FIELD OFFICE

The contractor shall provide a suitable field office having a minimum of 300 Sq. Ft. of floor space and in addition to the requirements of item 619, he shall provide and maintain sanitary provisions as per 107.06. All of the above is included in the lump sum price bid for item 619, Field Office.

ROUNDING OF CORNERS

The rounded corners shown on the typical sections, apply to all cross sections even though otherwise shown on these plans.

UNDERGROUND UTILITIES

The location of the underground utilities shown on the plans have been obtained by diligent field checks and searches of available records. It is believed that they are essentially correct, but the State of Ohio does not guarantee accuracy or completeness.

CONSTRUCTION LAYOUT STAKES

See note in proposal describing the work included in this lump sum pay item.

REMOVAL OF EXISTING PIPE

The removal of all existing pipe drains, including concrete end walls, which would normally be removed in various excavation items shall be included for payment in the unit prices bid for the respective excavation items, unless otherwise itemized in the plans.

REMOVAL OF TREES AND STUMPS

All trees and stumps specifically marked for removal within the construction limits at this project shall be removed under the lump sum price bid for item 201 Clearing and Grubbing, except that those trees for which protection and preservation work is indicated elsewhere in these plans shall not be removed.

The following is an approximate estimate of the number of trees and stumps to be removed.

SIZES	NO. TREES	NO. STUMPS
12"-24"	62	
24"-36"	10	
36"-60"	0	NONE
Over 60"	0	

The above estimate is approximate and the State of Ohio reserves the right to order the removal of additional trees or stumps outside the limits of construction but within the right of way and/or easement lines. Payment for the removal of these additional trees or stumps shall be included in the lump sum price bid for item 201 Clearing and Grubbing.

SEEDING

Quantities for seeding are calculated for the soil areas between the work limits, as shown on the cross sections.

DRIVEWAYS

Locations of driveways may be adjusted at the time of construction providing there is no additional cost to the State.

EROSION CONTROL

Items 601, 660 and 667 are provided in these plans for erosion control. Rock of a stable nature will not be removed in order to place any of these items. The Engineer shall check and non-preform quantities or adjust locations and quantities for these items where indicated by field conditions during construction.

MONUMENTS

Monuments shall be constructed in accordance with details shown on Standard Drawing MC-1. For locations see Sheet No. 106.

ESTIMATED QUANTITIES

Specific locations and usage of estimated quantities set up on this plan to be used "as directed by the Engineer" shall be made a matter of record by incorporation into the final change order governing completion of this project. Estimated quantities of materials shall not be ordered for delivery to the project unless authorized by the Engineer.

CONTRACTORS MAINTENANCE RESPONSIBILITY

On this project, the Contractors responsibility for maintenance of the existing pavement per item 614 shall be limited to those portions of the existing pavement lying within the proposed work limits.

COMPUTATION OF EARTHWORK USING CENTROID METHOD IN CURVES

All the earthwork quantities on this project have been calculated with the Ohio Dept. of Highways centroid computer program. On the cross section sheets, areas and location of the areas center of gravity are shown.

EXAMPLE:

Assume a 10° curve, radius 572.96 feet Centroid at station 4+00 is found to be 35 feet from the centerline and the centroid at station 4+50 is found to be 25 feet from the centerline, Correct radius between centroids is therefore 572.96 feet minus (35+25) ÷ 2, or 542.96 feet. Alignment factor is then 572.96 or 0.94764 which is then multiplied by 50 feet and gives a corrected arc length between centroids of 47.38 ft.

PICTURE

The centroids were calculated with an Amsler Integrator

TREATED SANITARY FLOW INTO HIGHWAY DRAINAGE SYSTEMS

Treated sanitary flow may be discharged into highway drainage systems provided the owner has secured the approval of the local health authorities and has acquired from the State Highway Department, the official permit to have the connection made.

Existing pipe or new pipe carrying the flow from any plumbing fixtures including floor drains and sink drains or drains from livestock lots or barns or polluted water of any kind for which there has been no permit issued shall be plugged with class "C" concrete at the right of way line. Payment for said plugging shall be included in the unit price bid of item 203 Excavation.

In each case where a permit has been issued for a sanitary connection to be made into a highway drainage conduit, it shall be provided with an inspection well, in accordance with the detail shown on standard drawing MC-8.

The following estimated quantities have been included in the general summary for use as directed by the Engineer, in making the above described connections.

Item 603, 6" Conduit, type "C" 50 Lin. Ft.

Item 604, Inspection Wells 3 each.

Necessary bends or branches shall be included for payment in the pertinent conduit item.

None of the above materials shall be ordered by the Contractor until authorized by the Engineer.

ITEM SPECIAL, DRILLED WELL ABANDONED

The existing concrete or stone slab well cover and plumbing equipment shall be removed and disposed of. The casing shall be cut off at least one (1) foot below the proposed finished grade outside proposed pavement areas or at least one (1) foot below the proposed subgrade elevation inside proposed pavement areas and capped with class "C" concrete or a standard threaded pipe cap.

The unit price bid for each "Drilled Well Abandoned" shall include payment for all labor, tools, materials, and incidentals necessary to complete this item.

ITEM SPECIAL, CLEANING PRIVY VAULT

Privy vaults shall be emptied and cleaned as directed by the Engineer.

The material removed from these vaults shall be classified as unsuitable and disposed of outside the limits of right of way or easement lines. The privy vaults shall subsequently be backfilled with suitable soil or granular material in accordance with 203.

This item shall be paid for at the unit price bid per each for "Item Special-Cleaning Privy Vault," which price and payment shall constitute full compensation for cleaning, removing and disposing of unsuitable material, backfilling and for all labor, tools, equipment, and incidentals necessary to complete this item.

LOCATIONS OF GUARDRAIL

The locations of guardrail runs as shown in these plans are subject to adjustment to assure that the planned installations will afford maximum protection for traffic.

PIPE ENDS

All culverts, whether terminating in headwalls or endwalls, shall begin and end with pipe ends as normally fabricated by the manufacturer. Ends shall not be cut to fit either skew or slope. If field cutting is found to be necessary to fit an exact length control, the cut end shall be located at an interior joint and cradle, collar or band shall be provided to assure a stable joint. Payment for the joint shall be included in the price bid for the pertinent 603 conduit item

ITEM SPECIAL - CLEANING AND DISPOSING OF SEPTIC TANKS

This item shall include cleaning backfilling and removing of all or any portion of existing septic tanks.

All septic tanks lying within the proposed right of way limits shall be emptied and cleaned. Material removed from these tanks shall be classified as unsuitable and disposed of outside the right of way or easement lines.

When septic tanks are located above the finished pavement or ground lines, they shall be entirely removed and disposed of in accordance with 202.

When the tanks are located below the finished pavement or ground lines, the tops of the tanks shall be removed, and the walls shall be removed to a depth of one (1) foot below the finished subgrade or ground lines. The removed material shall be disposed of as explained above. The tanks shall subsequently be backfilled with suitable soil or granular material in accordance with 203.

This item shall be paid for at the unit price bid per each for "Item Special - Cleaning and Disposing of Septic Tanks," which price and payment shall constitute full compensation for cleaning, removing and disposing of excess materials, backfilling and for all labor, tools, equipment and incidentals necessary to complete this item including incidental excavation.

GENERAL NOTES

FEDERAL AID CONSTRUCTION IDENTIFICATION SIGNS

The contractor shall furnish, erect, maintain and subsequently remove Federal Aid construction identification signs at each of the following approximate locations: (1) Sta. 268+77 Rt.
(2) Sta. 381+50 Lt.
(3) Exist S.R. 554, Sta. 1+00 Lt.
(4) Exist S.R. 554, Sta. 1+00 Rt.

Sign details shall be as specified on Standard Drawing FACI-1 Code N-54(1)-96(2). The signs shall be erected in accordance with Standard Drawing FACI-2. Additional requirements shall be in accordance with notes in the proposal.

PAVEMENT REMOVAL OUTSIDE NORMAL CONSTRUCTION LIMITS

The existing pavement as indicated on the plans shall be removed and disposed of, the old roadway graded to the level of the surrounding ground, the old ditches filled, and the disturbed areas sloped to drain and left in a neat condition ready for seeding. Seeding shall be measured and paid for in accordance with Item 659 Seeding and Mulching. Payment for the above work, except seeding shall be included in the unit price bid for Item 203.

BENCHING OF FOUNDATION SLOPES

Although cross sections on this plan indicate specific widths and depths of proposed benching of the embankment foundation in certain areas, no waiver of the specifications is intended and all other sloped foundation areas shall be benched as set forth in 203.09. No additional payment will be made for benching required by the provisions of 203.09.

605 AGGREGATE DRAINS FOR STABILIZED BERMS, AS PER PLAN

Aggregate drains for the drainage of the stabilized berm shall be placed at the end of each run of stabilized berm and before the stabilized berm intersects a driveway. Three (3) Aggregate drains, twenty-five (25) feet apart, shall be installed at the end of each stabilized berm run. The same number of drains shall be installed before the intersection with a drive. The placing of Aggregate drains shall be at the direction of the Engineer, and the quantity of Aggregate drain material shall not be delivered on the job until directed by the Engineer. The following estimated length of Aggregate drain is included in the General Summary:

605 Aggregate Drains for Stabilized Berm 168 Lin. Ft.

SPRING DRAINS

Reference is made to the detailed drawing on Standard Drawing MC-1 showing the method of draining springs as shown on the plans at Sta. 329+30 Lt. and also encountered during construction as determined by the Engineer. The following estimated quantities have been included in the general summary for this purpose:

ITEM 605 6" Unclassified Pipe Underdrain, 707.01 Type III or 707.12 As Per Plan 200 Lin. Ft.

ITEM 605 Aggregate Drains for Springs, As Per Plan 15 Lin. Ft.

The Contractor shall not order all of the materials for "Spring Drains" until authorized by the Engineer.

SPECIAL REMOVAL & DISPOSAL OF EXISTING UNDERGROUND STORAGE TANKS

This item shall consist of the removal and disposal of underground storage tanks as designated on the plans including excavation and backfill. The tanks shall be removed in their entirety and shall become the property of the Contractor and shall be disposed of by him unless otherwise shown on the plans. The backfilling and compacting of the excavated area shall be done in accordance with the provision of 203. These items shall be paid for at the lump sum price bid for Item Special Removal & Disposal of Existing Underground Storage Tanks which lump sum price and payment shall constitute full compensation for performing all of the requirements of this item including labor, equipment, tools and incidentals necessary to complete this item.

TRAFFIC NOTES

Two way traffic shall be maintained at all times by use of the existing and proposed pavement and temporary roadways, as shown on the cross sections and plan profile sheets, surfaced with 410 Aggregate and stabilized with Item 616 Calcium Chloride.

It is not intended that temporary roadways be used exclusively for maintaining traffic on this project, but that maximum usage be made of existing and proposed pavements.

The limits and duration of use of temporary roadways shall be held to an absolute minimum and in all cases shall be subject to the approval of the Engineer.

An Estimated quantity of:

614	Maintaining Traffic	Lump
410	Traffic Compacted Surface Type A or B	1087 Cu. Yds.
410	Traffic Compacted Surface Type C	725 Cu. Yds.
616	Calcium Chloride	36.2 Tons
615	Temporary Roads	Lump

have been provided in the General Summary for Maintaining Traffic. All the preceeding except 615 and 410 are included in Item 614 for payment.

For Lime-Soil Stabilized Subgrade 6" Thickness See Note in Proposal

ITEM 605 PIPE UNDERDRAINS

A quantity of 500 Lin. Ft. of 605 Pipe Underdrains is included in the General Summary to be used at the direction of the Engineer.

The quantity shall not be delivered on the job until directed by the Engineer.

WATER POLLUTION, SOIL EROSION AND SILTATION CONTROL

The following estimated quantities are to be used as directed by the engineer for erosion and siltation control measures. For details see note in the proposal.

Special, Temporary Seeding and Mulching	29,651 SqYds
659 Commercial Fertilizer (12-12-12)	2.33 Tons
Special, Water	64 M Gals
Special, Temporary Slope Drains	200 Lin Ft
Special, Temporary Benches, Dikes, Dams and Sediment Basins	150 CuYds
Special, Repair Seeding and Mulching	7,400 SqYds
Special, Mowing	333 M SqFt

ROADWAY & PAVEMENT CALCULATIONS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

6 / 118

GAL-160-(5.62-6.93)

Total Lineal Feet From Typical Section Sheet #3 10650.00 Lin. Ft.

404 ASPHALT CONCRETE

10650.00 Lin. Ft. × 24 ÷ 9 =	28400.00	Sq. Yds.
28400.00 Sq. Yds. × 1.25" ÷ 36 =	986.11	Cu. Yds.
Add For Mailbox Turnouts	17.10	Cu. Yds.
Total	1003.21	Cu. Yds.
Use	1004	Cu. Yds.

402 ASPHALT CONCRETE

10650.00 Lin. Ft. × 24 ÷ 9 =	28400.00	Sq. Yds.
28400.00 Sq. Yds. × 1.25" ÷ 36 =	986.11	Cu. Yds.
Use	987	Cu. Yds.

301 BITUMINOUS AGGREGATE BASE

10650.00 Lin. Ft. × 24.83 ÷ 9 =	29,382.17	Sq. Yds.
29,382.17 Sq. Yds. × 5" ÷ 36 =	4,080.86	Cu. Yds.
Use	4,081	Cu. Yds.

SPECIAL 6" DEPTH OF LIME STABILIZED SOIL SUBGRADE

10650.00 Lin. Ft. × 26.83 ÷ 9 =	31,748.83	Sq. Yds.
Deduct Rock Subgrade 332+00 To 334+00 =	596.22	Sq. Yds.
Totals	31,152.61	Sq. Yds.
Use	31,153	Sq. Yds.

616 WATER FOR STABILIZED SOIL SUBGRADE

10650.00 Lin. Ft. × 26.83 ÷ 9 =	31,748.83	Sq. Yds.
Deduct Rock Subgrade 332+00 To 334+00 =	596.22	Sq. Yds.
Total	31,152.61	Sq. Yds.
31,152.61 Sq. Yds. × 3 Gal ÷ 1000 =	93.46	M. Gals.
Use	94	M. Gals.

SPECIAL DELIVERED HYDRATED LIME

10650.00 Lin. Ft. × 26.83 ÷ 9 =	31,748.83	Sq. Yds.
Deduct Rock Subgrade 332+00 To 334+00 =	596.22	Sq. Yds.
Total	31,152.61	Sq. Yds.
31,152.61 Sq. Yds. × 25 Lbs. ÷ 2000 =	389.41	Tons
Use	390	Tons

604 CENTERLINE REFERENCE MONUMENTS 52 Each

659 COMMERCIAL FERTILIZER (12-12-12)

659 Seeding	148,263	Sq. Yds.	
660 Sodding	83	Sq. Yds.	
Total	148,186	Sq. Yds. × .00009 =	13.34 Tons

659 AGRICULTURAL LIMING MATERIAL

659 Seeding	148,263	Sq. Yds.	
660 Sodding	83	Sq. Yds.	
Total	148,186	Sq. Yds. × .00045 =	66.68 Tons

304 AGGREGATE BASE

Total Lineal Feet from Sheet #3 2,100.00 Lin. Ft.

2,100 Lin. Ft. × 2.38 ÷ 27 =	185.11	Cu. Yds.
Add For Mailbox Turnouts		
30.8 Sq. Yd. × 6 ÷ 36 × 10 ea.	51.33	Cu. Yds.
Total	236.44	Cu. Yds.
Use	237	Cu. Yds.

408 BITUMINOUS PRIME COAT

2,100 Lin. Ft. × 4 ÷ 9	933.33	Sq. Yds.
933.33 Sq. Yds. × 0.4 gal/sq. yd.	373.33	Gal.
Add For Mailbox Turnouts		
30.8 Sq. Yd. × 0.4 gal × 10 ea.	123.20	Gal.
Total	496.53	Gal.
Use	497	Gal.

409 SEAL COAT COVER AGGREGATE

2,100 Lin. Ft. × 4 ÷ 9	933.33	Sq. Yds.
933.33 Sq. Yds. × .008 Cu. Yds/Sq. Yd.	7.47	Cu. Yds.
Use	8	Cu. Yds.

409 SEAL COAT BITUMINOUS MATERIAL

2,100 Lin. Ft. × 4 ÷ 9	933.33	Sq. Yds.
933.33 Sq. Yds. × 0.3 gal/sq. yd.	279.99	Gal.
Use	280	Gal.

EXCAVATION & EMBANKMENT & SEEDING

From Sheet	From Station	To Station	Excavation (Cu. Yd.)	Embankment (Cu. Yd.)	Seeding (Sq. Yd.)
10	260+00	270+00	—	—	—
11	270+00	280+00	2,360	12,481	9,376
12	280+00	290+00	9,413	10,985	12,330
13	290+00	300+00	9,848	22,913	19,664
14	300+00	310+00	28,908	53	12,879
15	310+00	320+00	6,655	33,002	14,302
16	320+00	330+00	26,829	3,707	13,976
17	330+00	340+00	30,579	8,508	12,128
18	340+00	350+00	11,643	1,386	12,360
19	350+00	360+00	5,969	18,185	15,464
20	360+00	370+00	8,502	3,320	10,187
21	370+00	380+00	2,615	35,149	15,913
22	380+00	380+50	109	5	167
		TOTALS	143,274	149,694	148,263

CALCULATED	CHECKED
BY: J.P.D.	BY: D.S.
DATE: 11-70	DATE: 12-70

SPECIAL DETAILS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

7/118

GAL 160 (5.62-6.93)

MAILBOX APPROACH

Ten (10) Required

* Unless otherwise shown in the plans

EROSION CONTROL AT SWALES

Payment shall be calculated on 24" Depth

601 ROCK CHANNEL PROTECTION

601 Rock Channel Protection for ditches. See Plan and Profile Sheets for widths. See Cross Sections for slopes.

GENERAL SUMMARY

Type Code 6203
Except otherwise shown

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

GAL-160-(5.62-6.93)

ITEM	SHEET NUMBER 4	5	6	7	11	12	13	14	15	16	17	18	19	20	21	22	ITEM	QUANTITY	UNIT	DESCRIPTION
																				ROADWAY
203					2,350	9,413	9,848	28,908	6,655	26,829	30,579	11,643	5,969	8,502	2,615	109	203	143,420	Cu. Yd.	Excavation not including embankment construction
203					12,481	10,985	22,913	53	33,002	3,707	8,508	1,386	18,185	3320	35,149	5	203	149,694	Cu. Yd.	Embankment
201	Lump																201	Lump	Lump	Clearing and Grubbing
615		Lump															615	Lump	Lump	Temporary Roads
202					220	129	146				65			17	90		202	667	Lin. Ft.	Pipe Removed 24" & Under
202							15										202	15	Lin. Ft.	Pipe Removed over 24"
202							Lump				Lump				Lump		202	Lump	Lump	Structure Removed
SPECIAL											1	2					SPECIAL	3	Each	Cleaning of Privy Vault
SPECIAL						1	2				2			1	1		SPECIAL	7	Each	Cleaning and Disposing of Septic Tank
606									300					25	300		606	625	Lin. Ft.	Guard Rail, Type 5
606									2						2		606	4	Each	Anchor Assembly
Special												Lump		Lump			Special	Lump	Lump	Removal & Disposal of Existing Underground Storage Tanks
Special					1							1					Special	2	Each	Drilled Well Abandoned
616		36															616	36	Tons	Calcium Chloride
604			52														604	52	Each	Centerline Reference Monument
410		1087															410	1,087	Cu. Yds.	Traffic Compacted Surface Type A or B
410		725															410	725	Cu. Yds.	Traffic Compacted Surface Type C
202					Lump												202	Lump Sum		Parcel Nº 5 Removal of one 1-Story Frame Residence
202								Lump									202	Lump Sum		Parcel Nº 11 Removal of one Frame Barn
202											Lump						202	Lump Sum		Parcel Nº 16 Removal of one Frame Shed
202											Lump						202	Lump Sum		Parcel Nº 18-WD Removal of one 1-Story Frame Residence, 2 Frame Sheds, Privy
202												Lump					202	Lump Sum		Parcel Nº 20-WD Removal of 2 Pig Pens, 1-Story Block Building
202												Lump					202	Lump Sum		Parcel Nº 21-WD Removal of one Frame Shed
202														Lump			202	Lump Sum		Parcel Nº 26 Removal of one Frame Shed
202												Lump					202	Lump Sum		Parcel Nº 27-WD Removal of one 1½-Story Frame Residence, Concrete Block Shed, Frame Shed, Frame Privy
202														Lump			202	Lump Sum		Parcel Nº 28 Removal of one Frame Shed
202														Lump			202	Lump Sum		Parcel Nº 29-WD Removal of one 1-Story Frame Residence, Frame Garage
																				DRAINAGE
602					1.0	0.9	2.4		1.2	0.6	1.5		9.2	3.0	4.8		602	24.6	Cu. Yds.	Concrete Masonry
604	3																604	3	Each	Inspection Well
603						10											603	10	Lin Ft	6" Conduit Type F
603	50																603	50	Lin Ft.	6" Conduit Type C
603						42											603	42	Lin. Ft.	6" Conduit Type E
603														8			603	8	Lin. Ft.	8" Conduit Type C 706.08
603					108					136							603	244	Lin Ft.	21" Conduit Type A 706.02 or 706.08
603														134			603	134	Lin. Ft.	27" Conduit Type A 706.02 or 706.08
603											226						603	226	Lin. Ft.	27" Conduit Type A 706.02 Class V
603									212								603	212	Lin. Ft.	33" Conduit Type A 706.02 Class V
603															166		603	166	Lin. Ft.	66" Conduit Type A 706.02 Class IV
603							158										603	158	Lin. Ft.	42" Conduit Type A 706.02 Class III
603					74												603	74	Lin. Ft.	12" Conduit Type B
603						116											603	116	Lin. Ft.	21" Conduit Type B
603						136					200						603	336	Lin. Ft.	27" Conduit Type B
603							100										603	100	Lin. Ft.	36" Conduit Type B
603														108			603	108	Lin. Ft.	27" Conduit Type C 706.02 or 706.08
603					28								32		38		603	98	Lin. Ft.	12" Conduit Type D
603								34									603	34	Lin. Ft.	12" Conduit Type D 706.01, 706.02 or 706.08
603												100					603	100	Lin Ft.	15" Conduit Type D
603															60		603	60	Lin. Ft.	18" Conduit Type D
603															42		603	42	Lin. Ft.	24" Conduit Type D
603							56						34				603	90	Lin. Ft.	24" Conduit Type D 706.02 or 706.08
603												82					603	82	Lin. Ft.	30" Conduit Type D
603							50										603	50	Lin. Ft.	36" Conduit Type D
603													126				603	126	Lin. Ft.	36" Conduit Type A 706.02 or 706.08
603													226				603	226	Lin. Ft.	60" Conduit Type A 706.02

CALCULATED	CHECKED
BY: J.P.D.	BY: F.D.B.
DATE: 11-70	DATE: 1-71

GENERAL SUMMARY

Type Code 6203
Except otherwise shown

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

GAL-160-(5.62-6.93)

ITEM	SHEET NUMBER 4	5	6	7	11	12	13	14	15	16	17	18	19	20	21	22	ITEM	QUANTITY	UNIT	DESCRIPTION
																				DRAINAGE
604							1										604	1	Each	Standard Catch Basin 2-4 Modified As Per Plan
604					1			1									604	2	Each	Standard Catch Basin 2-2-B
604											2						604	2	Each	Standard Catch Basin 2-3
604						1											604	1	Each	Standard Catch Basin 2-3 Modified As Per Plan
604						1											604	1	Each	Standard Catch Basin 2-2-A Modified As Per Plan
605		200							10								605	210	Lin. Ft.	6" Unclassified Pipe Underdrains, 707.01 Type III or 707.12
605		15							3								605	18	Lin. Ft.	Aggregate Drains for Springs
605		500															605	500	Lin. Ft.	Pipe Underdrains
605		168															605	168	Lin. Ft.	Aggregate Drains for Stabilized Berms, As Per Plan
																				EROSION CONTROL - Code Y005
Special		29,651															Special	29 651	Sq Yd	Temporary Seeding And Mulching
Special		64															Special	64	MGAL	Water
601															29		601	29	Cu. Yd.	Rock Channel Protection Type A
601					11	5	57	2	84	2	8	6	48	3	12		601	238	Cu. Yd.	Rock Channel Protection Type B
601						9	18		44		15		47	25	6		601	164	Sq. Yd.	Riprap, using 6" Reinforced Concrete Slab
660						17	2		15		8		26	13	2		660	83	Sq. Yd.	Sodding
667					167	205	1089		491	418	532	217	164		413	45	667	3,741	Sq. Yd.	Seeding and Jute Matting
Special		7,400															Special	7,400	Sq Yd	Repair Seeding And Mulching
659			148,263														659	148,263	Sq. Yd.	Seeding and Mulching
659			66.68														659	66.68	Tons	Agricultural Liming
659		2.33	13.34														659	15.67	Tons	Commercial Fertilizer (12-12-12)
Special		200															Special	200	Lin Ft	Temporary Slope Drains
Special		150															Special	150	Cu. Yd.	Temporary Benches, Dikes, Dams And Sediment Basins
Special		333															Special	333	MSqFt	Mowing
																				PAVEMENT
SPECIAL			390														SPECIAL	390	Ton	Delivered Hydrated Lime for Lime Stabilized Soil Mixture
SPECIAL			31,153		497	320	382				565		677		548		SPECIAL	34,142	Sq. Yd.	Spreading, Mixing, Shaping, and Compacting lime Soil Stablized Mixture
616			94		1.5	1.0	1.2				1.7		2.0		1.6		616	103	M. Gal.	Water
404			1,004		28	27	60				28		86	1	30		404	1,264	Cu. Yd.	Asphalt Concrete (70-85 or AC 20)
402			987		16	11	13				18		22		17		402	1,084	Cu. Yd.	Asphalt Concrete (70-85 or AC 20)
301			4,081		64	42	50				74		89		70		301	4,470	Cu. Yd.	Bituminous Aggregate Base 702.01 (85-100 or AC 20) or 702.09 RT-11 or RT-12
304			237		63	152	224	39	19	41	80	109	297	68	100		304	1,429	Cu. Yd.	Aggregate Base
408			497		90	120	340				70		463	1	93		408	1,674	Gals	Bituminous Prime Coat 702.09 RT-2 or RT-3
409			8														409	8	Cu. Yd.	Seal Coat Cover Aggregate No. 8
409			280														409	280	Gals.	Seal Coat Bituminous Material 702.09 RT-9 or RT-10 or 702.02 MC-800 or MC-3000
619	Lump																619	Lump	Lump	Field Office
	Lump																	Lump	Lump	Construction Layout Stakes
614		Lump															614	Lump	Lump	Maintaining Traffic

CALCULATED	CHECKED
BY: J.A.D.	BY: F.D.B.
DATE: 11-70	DATE: 1-71

GAL-160- (5.62 - 6.93)

Calculated	Checked
By: J.P.D.	By: DS
Date: 3-70	Date: 1-71

PLAN & PROFILE STA. 260+00 TO 270+00

GAL-160- (5.62- 6.93)

Same composition as Typical Section
For Quantities See (1-P) this sheet

Profile Grade	739.37	739.62	739.87	740.12	740.37	740.62	740.87	741.12	741.37	741.62	741.87	742.12	742.37	742.62	742.87	743.12	743.37	743.62	743.87	744.12	744.37	Profile Grade

MAINLINE		
203 Excavation	2,333	Cu.Yd.
203 Embankment	12,448	Cu.Yd.
659 Seeding	9,350	Sq.Yd.

APPROACHES & STRUCTURES		
203 Excavation	17	Cu.Yd.
203 Embankment	33	Cu.Yd.
659 Seeding	26	Sq.Yd.

B.M: 738.88 Spike in 10" Sassafras
124' Lt. Sta. 271+83

CALCULATED	CHECKED
BY: J.P.D.	BY: DS
DATE: 4-70	DATE: 1-71

Sta. Sheet No	301 Special Bituminous Lime Stab. Agg. Base Cu.Yd.	402 Asphalt Concrete Sq.Yd.	408 Prime Coat Gal.	404 Asphalt Concrete Cu.Yd.	304 Agg. Base Cu.Yd.	603 Type B 12" L.F.	603 Type A 706.22 or 706.03 21" L.F.	603 Type D 12" L.F.	202 Special Drilled Well Abandoned Each	202 Removing Existing 24" Cylinder L.F.	601 Jute Type "B" Matting Sq.Yd.	602 Masonry C.B. Each Cu.Yd.	604 Rock Type "B" Each Cu.Yd.	607 Jute Sq.Yd.	202 Removing Existing 24" Cylinder L.F.	202 Special Drilled Well Abandoned Each
Roadway																
1-R 272+90 to 273+06 Rt.															33	
2-R 276+87 to 277+01 Rt.															14	
3-R 270+33 to 270+69 Lt.															36	
4-R 275+71 ℄															35	
5-R 275+25 Rt.																1
6-R 279+10 to 279+95 Lt.															102	
Drainage																
1-D 271+13 (Pipe)						90										
2-D 275+63 (Pipe)						90										
3-D 275+70 to 277+00 Lt.																
4-D 273+013 to 273+29 Rt.																
Pavement																
1-P 270+20 to 272+00 Lt.																
2-P 270+50 (Res. Dr.) Rt.																
3-P 273+18 (Res. Dr.) Rt.																
4-P 277+50 (Field Dr.) Rt.																
5-P 270+04 (Res. Dr.) Rt.																

Sta. Sheet No	301 Special Bituminous Lime Stab. Agg. Base Cu.Yd.	402 Asphalt Concrete Sq.Yd.	408 Prime Coat Gal.	404 Asphalt Concrete Cu.Yd.	304 Agg. Base Cu.Yd.	603 Type B 12" L.F.	603 Type A 706.22 or 706.03 21" L.F.	603 Type D 12" L.F.	202 Special Drilled Well Abandoned Each	202 Removing Existing 24" Cylinder L.F.	601 Jute Type "B" Matting Sq.Yd.	602 Masonry C.B. Each Cu.Yd.	604 Rock Type "B" Each Cu.Yd.	607 Jute Sq.Yd.	202 Removing Existing 24" Cylinder L.F.	202 Special Drilled Well Abandoned Each
Roadway																
1-R 272+90 to 273+06 Rt.																
2-R 276+87 to 277+01 Rt.																
3-R 270+33 to 270+69 Lt.																
4-R 275+71 ℄																
5-R 275+25 Rt.																
6-R 279+10 to 279+95 Lt.																
Drainage																
1-D 271+13 (Pipe)						74										
2-D 275+63 (Pipe)																
3-D 275+70 to 277+00 Lt.																
4-D 273+013 to 273+29 Rt.																
Pavement																
1-P 270+20 to 272+00 Lt.																
2-P 270+50 (Res. Dr.) Rt.																
3-P 273+18 (Res. Dr.) Rt.																
4-P 277+50 (Field Dr.) Rt.																
5-P 270+04 (Res. Dr.) Rt.																

Sta. Sheet No	301 Special Bituminous Lime Stab. Agg. Base Cu.Yd.	402 Asphalt Concrete Sq.Yd.	408 Prime Coat Gal.	404 Asphalt Concrete Cu.Yd.	304 Agg. Base Cu.Yd.	603 Type B 12" L.F.	603 Type A 706.22 or 706.03 21" L.F.	603 Type D 12" L.F.	202 Special Drilled Well Abandoned Each	202 Removing Existing 24" Cylinder L.F.	601 Jute Type "B" Matting Sq.Yd.	602 Masonry C.B. Each Cu.Yd.	604 Rock Type "B" Each Cu.Yd.	607 Jute Sq.Yd.	202 Removing Existing 24" Cylinder L.F.	202 Special Drilled Well Abandoned Each
Roadway																
1-R 272+90 to 273+06 Rt.																
2-R 276+87 to 277+01 Rt.																
3-R 270+33 to 270+69 Lt.																
4-R 275+71 ℄																
5-R 275+25 Rt.																
6-R 279+10 to 279+95 Lt.																
Drainage																
1-D 271+13 (Pipe)																
2-D 275+63 (Pipe)																
3-D 275+70 to 277+00 Lt.																
4-D 273+013 to 273+29 Rt.																
Pavement																
1-P 270+20 to 272+00 Lt.	63.4	496.6	15.3	15.3												
2-P 270+50 (Res. Dr.) Rt.				28.4	11.9											
3-P 273+18 (Res. Dr.) Rt.				33.0	24.9											
4-P 277+50 (Field Dr.) Rt.				4.6	14.1											
5-P 270+04 (Res. Dr.) Rt.				28.4	11.9											

Sta. Sheet No	301 Special Bituminous Lime Stab. Agg. Base Cu.Yd.	402 Asphalt Concrete Sq.Yd.	408 Prime Coat Gal.	404 Asphalt Concrete Cu.Yd.	304 Agg. Base Cu.Yd.	603 Type B 12" L.F.	603 Type A 706.22 or 706.03 21" L.F.	603 Type D 12" L.F.	202 Special Drilled Well Abandoned Each	202 Removing Existing 24" Cylinder L.F.	601 Jute Type "B" Matting Sq.Yd.	602 Masonry C.B. Each Cu.Yd.	604 Rock Type "B" Each Cu.Yd.	607 Jute Sq.Yd.	202 Removing Existing 24" Cylinder L.F.	202 Special Drilled Well Abandoned Each
Roadway																
1-R 272+90 to 273+06 Rt.																
2-R 276+87 to 277+01 Rt.																
3-R 270+33 to 270+69 Lt.																
4-R 275+71 ℄																
5-R 275+25 Rt.																
6-R 279+10 to 279+95 Lt.																
Drainage																
1-D 271+13 (Pipe)																
2-D 275+63 (Pipe)																
3-D 275+70 to 277+00 Lt.																
4-D 273+013 to 273+29 Rt.																
Pavement																
1-P 270+20 to 272+00 Lt.																
2-P 270+50 (Res. Dr.) Rt.																
3-P 273+18 (Res. Dr.) Rt.																
4-P 277+50 (Field Dr.) Rt.																
5-P 270+04 (Res. Dr.) Rt.																

PLAN & PROFILE STA. 270+00 TO 280+00

GAL-160- (5.62 - 6.93)

PROFILE GRADE	744.37	744.62	744.87	745.12	745.37	745.62	745.87	746.12	746.37	746.49	746.57	746.64	746.68	746.74	746.80	746.86	746.92	746.98	747.04	747.10	747.16	747.22	747.28	PROFILE GRADE

MAINLINE			
203	Excavation	9,079	Cu.Yd.
203	Embankment	10,258	Cu.Yd.
659	Seeding	11,749	Sq.Yd.

APPROACHES & STRUCTURES			
203	Excavation	334	Cu.Yd.
203	Embankment	727	Cu.Yd.
659	Seeding	581	Sq.Yd.

B.M. 755.27 Spike in 24" Maple 112' Lt. Sta. 280+78

CALCULATED	CHECKED
BY: J.P.O.	BY: DS
DATE: 5-70	DATE: 1-71

Item	Unit	1-P	2-P	3-P	4-P	5-P	1-D	2-D	3-D	4-D	5-D	6-D	1-R	2-R	3-R	4-R	5-R	Sea Sheet No.
301 Bit. Agg. Base	Cu.Yd.																	
402 Asph. Conc. Surface	Sq.Yd.																	
602 Masonry Mod CB	Each																	
604 Mod. Rock Riprap 2-3	Each																	
202 Remov. 24" Culvert	L.F.																	
607 Junc. Matting	Sq.Yd.																	
601 Rock Type B	Cu.Yd.																	
604 Mod. Rock Type 2-2A	Each																	
Special Disposal Septic Tanks	Each									1								
603 Type F																		
603 Type E	6"																	
603 Type B	27"																	
603 Type E	21"																	
603 Type E	L.F.																	
603 Type F	L.F.																	
304 Abs. Base	Cu.Yd.																	
404 Asphalt Conc.	Cu.Yd.																	
408 Prime Coat	Gal.																	
660 Sodding	Sq.Yd.																	
601 Riprap Reinf. Conc.	Sq.Yds.																	

| | | | | | | | | | | | | | | | | | |

GAL-160-(5.62 - 6.93)

Sta. Sheet No.	301 Bit. Agg. Base	402 Asphalt Concrete	402 Special Lime Sta B.	408 Prime Coat	404 Asphalt Concrete	304 Agg. Base	603 Type D 706.02 or 706.08 24"	603 Type B 36"	603 Type A 706.02 42"	603 Type D 36"	202 Pipe Removal Over 24"	601 Rdwy Ex.	604 Mod. CB 2-4	602 Masonry	667 Jute Matting	601 Rock Type B	202 Special Disposal Septic Tanks	202 Removal Structure 24' & Under	202 Removal Sodding
	Cu. Yd.	Cu. Yd.	Sq. Yd.	Gal.	Cu. Yd.	Cu. Yd.	Lin. Ft.	L.F.	L.F.	L.F.	Lin. Ft.	S.Y.	Each	Cu. Yd.	Sq. Yd.	Cu. Yd.	Each	Lin. Ft.	Sq. Yd.
Roadway																			
1-R 291+09 Lt.																	1		
2-R 293+80 Rt.																	1		
3-R 292+95 to 293+11 Rt.																		16	Lump
4-R 290+88 Rt.																		130	
5-R 293+15 to 294+42 Rt.																			
6-R 294+42 to 294+57 Lt.																			
Drainage																			
1-D 292+50 Pipe Rt.																			2
2-D 292+81.5 to 293+36.5 Rt.																			
3-D 294+24.5 to 294+74.5 Lt.																			
4-D 299+00 Pipe																			
5-D 293+36.5 to 2+00m 140' Appr. Rt.																			
6-D 2+00m 140' Appr. to 298+97 Rt.																			
Pavement (Res. Dr.)																			
1-P 293+30 Rt.																			
2-P 294+45 (Res. Dr.) Lt.																			
3-P 298+00 (Appr. to Ex. 140') Rt.																			
Totals	50	13	382	340	60	224.0	56	100	158	50	15	17.5	1	0.7	1	1.7	28.6 3.1 4.2 20.7 900.1 188.8		2
	50	13	382	340	60	224.0	56	100	158	50	15	17.5	1	0.7	1	1.7	28.6 3.1 4.2 20.7 900.1 188.8	146	Lump 2
			382	340	60	224.0	56	100	158	50	15	17.5	1	0.7	1	1.7	28.6 3.1 4.2 20.7 900.1 188.8	2	57
			382	340	60	224.0	56	100	158	50	15	17.5	1	0.7	1	1.7	28.6 3.1 4.2 20.7 900.1 188.8	1089	2.4
			382	340	60	224.0	56	100	158	50	15	17.5	1	0.7	1	1.7	28.6 3.1 4.2 20.7 900.1 188.8	18	1
			382	340	60	224.0	56	100	158	50	15	17.5	1	0.7	1	1.7	28.6 3.1 4.2 20.7 900.1 188.8	15	
			382	340	60	224.0	56	100	158	50	15	17.5	1	0.7	1	1.7	28.6 3.1 4.2 20.7 900.1 188.8	158	50
			382	340	60	224.0	56	100	158	50	15	17.5	1	0.7	1	1.7	28.6 3.1 4.2 20.7 900.1 188.8	100	
Roadway																			
1-R 291+09 Lt.																			
2-R 293+80 Rt.																			
3-R 292+95 to 293+11 Rt.																			
4-R 290+88 Rt.																			
5-R 293+15 to 294+42 Rt.																			
6-R 294+42 to 294+57 Lt.																			
Drainage																			
1-D 292+50 Pipe Rt.																			
2-D 292+81.5 to 293+36.5 Rt.																			
3-D 294+24.5 to 294+74.5 Lt.																			
4-D 299+00 Pipe																			
5-D 293+36.5 to 2+00m 140' Appr. Rt.																			
6-D 2+00m 140' Appr. to 298+97 Rt.																			
Pavement (Res. Dr.)																			
1-P 293+30 Rt.																			
2-P 294+45 (Res. Dr.) Lt.																			
3-P 298+00 (Appr. to Ex. 140') Rt.																			
Totals	50	13	382	340	60	224.0	56	100	158	50	15	17.5	1	0.7	1	1.7	28.6 3.1 4.2 20.7 900.1 188.8		2
			382	340	60	224.0	56	100	158	50	15	17.5	1	0.7	1	1.7	28.6 3.1 4.2 20.7 900.1 188.8	146	Lump 2
			382	340	60	224.0	56	100	158	50	15	17.5	1	0.7	1	1.7	28.6 3.1 4.2 20.7 900.1 188.8	2	57
			382	340	60	224.0	56	100	158	50	15	17.5	1	0.7	1	1.7	28.6 3.1 4.2 20.7 900.1 188.8	1089	2.4
			382	340	60	224.0	56	100	158	50	15	17.5	1	0.7	1	1.7	28.6 3.1 4.2 20.7 900.1 188.8	18	1
			382	340	60	224.0	56	100	158	50	15	17.5	1	0.7	1	1.7	28.6 3.1 4.2 20.7 900.1 188.8	15	
			382	340	60	224.0	56	100	158	50	15	17.5	1	0.7	1	1.7	28.6 3.1 4.2 20.7 900.1 188.8	158	50
			382	340	60	224.0	56	100	158	50	15	17.5	1	0.7	1	1.7	28.6 3.1 4.2 20.7 900.1 188.8	100	

PLAN & PROFILE STA. 290+00 TO 300+00

	Sta.	300	301	302	303	304	305	306	307	308	309	310
Profile Grade Edge		749.20	749.38	749.56	749.74	749.92	750.01	750.10	750.19	750.00		752.80
Right Edge		749.73	749.88	750.03	750.19	750.39	750.60	750.80	751.01	751.21	751.42	752.62

Sta.	73	82	91	00	09	18	27	36	45	54	63	72	81	90	99	08	17	26	35	44	53	62	71	80	89	98	07	16	25	34
Profile Grade Edge	749.73	749.82	749.91	750.00	750.09	750.18	750.27	750.36	750.45	750.54	750.63	750.72	750.81	750.90	750.99	751.08	751.17	751.26	751.35	751.44	751.53	751.62	751.71	751.80	751.89	751.98	752.07	752.16	752.25	752.34
Right Edge	749.88	750.03	750.19	750.39	750.60	750.80	751.01	751.21	751.42	751.62	751.82	751.94	752.03	752.12	752.21	752.30	752.39	752.45	752.43	752.41	752.38	752.36	752.33	752.31	752.28	752.26	752.28	752.31	752.34	752.53

MAINLINE

203 Excavation	28,892	Cu. Yd.
203 Embankment	2	Cu. Yd.
659 Seeding	12,870	Sq. Yd.

APPROACHES & STRUCTURES

203 Excavation	16	Cu. Yd.
203 Embankment	51	Cu. Yd.
659 Seeding	9	Sq. Yd.

B.M. 764.64 Spike in 18" Walnut 173' Rt. Sta. 302+34

CALCULATED	CHECKED
BY: J.P.O.	BY: DS
DATE: 6-70	DATE: 1-71

ESTIMATED QUANTITIES

Item	Quantity	Unit	See Sheet No.
601 Rock Type B Cu. Yd.	1.9		2.0
604 C.B. 2-2B	1	Each	1
603 Type D 48" x 48" 706.01 or 706.02	34		34
304 Agg. Base 706.02	20.3	Cu. Yd.	39
12" 706.08	18.1	L.F.	34

Ref. No.	Station to Station	Size	Type	Side
1-D	299+81.5 to 300+14.5		DRAINAGE	Lt.
1-P	306+50		PAVEMENT (Field Dr.)	Rt.
2-P	300+00		PAVEMENT (Field Dr.)	Lt.

PLAN & PROFILE STA. 300+00 TO 310+00

MAINLINE		
203 Excavation	6,655	Cu.Yd.
203 Embankment	32,999	Cu.Yd.
659 Seeding	14,270	Sq.Yd.

APPROACHES & STRUCTURES		
203 Excavation	0	Cu.Yd.
203 Embankment	3	Cu.Yd.
659 Seeding	32	Sq.Yd.

B.M. 760.12 Spike in Root of 24" Sycamore 198' Rt. Sta. 310+90

B.M. 754.09 Spike in 15" White Oak 209' Lt. Sta. 318+47

CALCULATED	CHECKED
BY: J.P.D.	BY: DS
DATE: 6-70	DATE: 1-71

ESTIMATED QUANTITIES

Item	Description	Unit	Quantity
606	Guardrail Anchor Assmy Type S	Each	2
609	Sodding	Lin.Ft.	300
601	Riprap	Sq.Yd.	15
607	Jute Mating	Sq.Yd.	44
601	Rock Masonry Type B	Cu.Yd.	1.24
602	Reinf. Conc.	Cu.Yd.	19.64 114.2 69.2 110.8 83.7
605	Pipe Underdrain Type III	Lin.Ft.	10
603	Type A 706.02 Class IV	Lin.Ft.	212
304	AGG. BASE	Cu.Yd.	18.1
605	Adjust Drains to Springs	Lin.Ft.	3

Item	Description	Unit	Quantity
606	Guardrail Anchor Assmy Type S	Each	2
609	Sodding	Lin.Ft.	300
601	Riprap	Sq.Yd.	15
607	Jute Mating	Sq.Yd.	44
601	Rock Masonry Type B	Cu.Yd.	1.2
602	Reinf. Conc.	Cu.Yd.	19.64 114.2 69.2 110.8 83.7
605	Pipe Underdrain Type III	Lin.Ft.	10
603	Type A 706.02 Class IV	Lin.Ft.	212
304	AGG. BASE	Cu.Yd.	18.1
605	Adjust Drains to Springs	Lin.Ft.	3

Sta. Sheet No.	Item	Description	Unit	Quantity
		ROADWAY		
1-R	313+50 to 317+00	Rt.		
		DRAINAGE		
		(Pipe)		95
1-D	314+63	Lt.		
2-D	316+50 to 318+00	Rt.		
3-D	313+50 to 314+80	Rt.		
4-D	313+35 to 313+70	Lt.		
5-D	314+25 to 315+00	Lt.		
6-D	314+80 to 316+00	Rt.		
		PAVEMENT		
		(Field Dr.)		
1-P	311+50	Lt.		

PLAN & PROFILE STA. 310+00 TO STA. 320+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

16
118

GAL-160- (5.62- 6.93)

MAINLINE

203	EXCAVATION	26,825	Cu.Yd.
203	EMBANKMENT	3,670	Cu.Yd.
659	SEEDING	13,900	Sq.Yd.

APPROACHES & STRUCTURES

203	EXCAVATION	4	Cu.Yd.
203	EMBANKMENT	37	Cu.Yd.
659	SEEDING	76	Sq.Yd.

CALCULATED	CHECKED
BY: J.P.D.	BY: DS
DATE: 7-70	DATE: 1-71

Item	Unit	Quantity	Sheet No
202 Masonry Rock Jute Type B Matting	Cu.Yd.	0.62	2
601	Cu.Yd.	65.5	
607	Sq.Yd.	148.5	
603 Type A	L.F.	203.9	
304 AGG. BASE 706.02 or 706.03	Cu.Yd.	18.1	
21"	L.F.	22.5	
DRAINAGE		136	
1-D 322+00 (Pipe)		96	
2-D 329+52 to 330+00	Lt.		
3-D 328+50 to 329+47	Lt.		
4-D 328+50 to 330+00	Rt.		
PAVEMENT		136	
1-P 323+00 (Field Dr.)	Lt.	44	
2-P 323+00 (Field Dr.)	Rt.	44	

PLAN & PROFILE STA. 320+00 TO STA. 330+00

GAL-160-(5.62 - 6.93)

ESTIMATED QUANTITIES

Sta. Sheet No	301 Bit. Agg. Base Cu.Yd.	402 Asph. Conc. Cu.Yd.	SPECIAL Lime Stab. Subgrade Sq.Yd.	G01 Bit. prep. Reinf. Conc. Sq.Yd.	G.O. Sodding Sq.Yd.	304 Agg. Base Cu.Yd.	SPECIAL Special Disposal of Septic Tanks Each	G01 Rock Masonry Type B Each	202 Structure Removal Each	408 Fence Removal Lin.Ft.	404 Hyd. Conc. Cu.Yd.	G02 Masonry Type B Each	G07 Jute Matting Sq.Yd.	604 C.B. 2-3 Each
ROADWAY														
1-R 335+30 Rt.														
2-R 338+00 Rt.														
3-R 338+56 Lt.														
4-R 339+75 ℄														
5-R 339+40 Lt.														
6-R 339+73 Lt.														
7-R 339+77 Rt.														
8-R 339+95 Lt.														
DRAINAGE														
1-D 330+07 (Pipe) 97&97A														
2-D 336+00 to 339+20 Lt. 98														
3-D 339+20 (Pipe) Rt. 99														
4-D 339+20 to 340+20 Rt.														
5-D 339+00 to 339+20 Rt.														
6-D 330+00 to 330+67 Rt.														
PAVEMENT														
1-P 331+42 (Field Dr.) Lt. 48&86						14.9								
2-P 331+42 (Field Dr.) Rt. 79						27.0								
3-P 339+59 (Appr. to S.R.554) Lt. 80	36.8	8.9	282.4			18.9								
4-P 339+59 (Appr. to S.R.554) Rt.	36.8	8.9	282.4			19.1								
Totals	74	18	565	15	8	79.9	226	200	15.0	8	226	100	100	2

Sta. Sheet No	603 Type A Class I 27" Lin.Ft.	603 Type A Class II 27" Lin.Ft.	604 C.B. 2-3 Each	16	17	26	406.6	37.8	86.9	0.98	0.49	Lump Gal. Cu.Yd.	Lump Cu.Yd.	339 13.6	344 13.7	Lump	Lump 70	28	1.47	8	2	1	65	532	2
ROADWAY																									
1-R 335+30 Rt.																									
2-R 338+00 Rt.																									
3-R 338+56 Lt.																									
4-R 339+75 ℄																									
5-R 339+40 Lt.																									
6-R 339+73 Lt.																									
7-R 339+77 Rt.																									
8-R 339+95 Lt.																									
DRAINAGE																									
1-D 330+07 (Pipe) 97&97A																									
2-D 336+00 to 339+20 Lt. 98																									
3-D 339+20 (Pipe) Rt. 99																									
4-D 339+20 to 340+20 Rt.																									
5-D 339+00 to 339+20 Rt.																									
6-D 330+00 to 330+67 Rt.																									
PAVEMENT																									
1-P 331+42 (Field Dr.) Lt. 48&86																									
2-P 331+42 (Field Dr.) Rt. 79																									
3-P 339+59 (Appr. to S.R.554) Lt. 80																									
4-P 339+59 (Appr. to S.R.554) Rt.																									
Totals	27	27	2	16	17	26	406.6	37.8	86.9	0.98	0.49	339 13.6	344 13.7	Lump	Lump 70	28	1.47	8	2	1	65	532	2	226	200

PLAN & PROFILE STA. 330+00 TO 340+00

PROFILE GRADE																					
701.77	701.53	701.13	700.76	700.44	700.15	699.90	699.44	698.98	698.52	698.06	697.60	697.14	696.68	696.22	695.76	695.30	694.84	694.38	693.92	693.46	693.00	692.54	692.08

MAINLINE

203 Excavation	11,580	Cu. Yd.
203 Embankment	845	Cu. Yd.
659 Seeding	12,322	Sq. Yd.

APPROACHES & STRUCTURES

203 Excavation	63	Cu. Yd.
203 Embankment	541	Cu. Yd.
659 Seeding	38	Sq. Yd.

B.M. 695.19 METAL PLATE IN CONC. HEADWALL 500' RT. STA. 341+50

CALCULATED	CHECKED
BY: J.P.D.	BY: JDS
DATE: 8-70	DATE: 1-71

REF. No.	STATION TO STATION	SIDE	Sec. Sheet No.
ROADWAY			
1-R	342 + 43	Lt.	
2-R	342 + 46	Rt.	
3-R	340+20 to 340+30	Rt.	
4-R	341+40	Rt.	
DRAINAGE			
1-D	340+28 to 341+50	Rt.	27
2-D	344+50 to 344+70	Rt.	27
4-D	349+50 to 350+00	Rt.	
5-D	342+85 to 343+15	Lt.	
6-D	342+80 to 343+20	Rt.	26
8-D	344+33 to 344+67	Lt.	
9-D	345+82 to 346+18	Lt.	
PAVEMENT			
1-P	344+50 (Field Dr.)	Lt.	87
2-P	344+50 (Field Dr.)	Rt.	87
3-P	346+00 (Field Dr.)	Lt.	88
4-P	343+00 (Field Dr.)	Lt.	
5-P	343+00 (Field Dr.)	Rt.	

ESTIMATED QUANTITIES				
304 Agg. Base Type D	15"	30"		
Cu. Yd. L.F. L.F.				
1-D			42	
2-D				
4-D				30
5-D				40
6-D				
8-D			34	
9-D			36	
1-P				21.4
2-P				22.5
3-P				21.4
4-P				20.3
5-P				22.5
TOTALS			109	100 82

601 Rock Jute	607 Disposal of Wells	Special Removal	Special Special				
Type B	Mating Privys	Abandon Ground	Tanks				
Cu. Yd.	Sq. Yd.	Each	Each	Each	Lump		
			1	1			
				1			
	153.6						
2.9							
	62.9						
2.9							
6	217	2	1		Lump		

PLAN AND PROFILE STA. 340+00 TO STA 350+00

GAL-160-(5.62-6.93)

CURVE DATA
P.I. = 358+37.974
Δ = 9°-30'-5.53" Rt.
Dc = 2°-00'
Ls = 200.00'
Lc = 275.077'
T = 137.644'
Rc = 2864.789'

	Left Edge	Profile Grade	Right Edge
350	688.32	692.08	688.32
351	688.29	691.62	688.23
352	688.38	691.16	688.18
353	688.34	690.70	688.15
354	688.44	690.24	688.15
355	688.60	689.78	688.17
356	688.78	689.32	688.23
357	688.98	689.10	688.31
358	689.20	688.91	688.41
359	689.45	688.75	688.54
360	689.73	688.62	688.70
	689.99		688.89
	690.22		689.09
	690.42		689.29
	690.62		689.49
	690.82		689.69
	691.01		689.88
	691.18		690.05
	691.34		690.21
	691.47		690.34
	691.59		690.46
	691.68		690.55
	691.73		690.63
	691.72		690.69

MAINLINE

203	Excavation	4,931	Cu. Yd
203	Embankment	11,706	Cu. Yd
659	Seeding	11,379	Sq. Yd

APPROACHES & STRUCTURES

203	Excavation	1,038	Cu. Yd.
203	Embankment	6,479	Cu. Yd
659	Seeding	4,085	Sq. Yd.

B.M. 675.21 + on West Wheel Guard of Br. GAL-160-0719 350' Rt. Sta. 355+00

B.M. 684.32 Spike in 24" Syc. 310' Rt. Sta. 359+50

Calculated By: J.P.H.	Checked By: D.S.
Date: 8-70	Date: 1-71

	Special 402 Lime Sta. Subgrade Conc.	404 Asphalt Conc.	301 Bituminous Agg. Base	304 Agg. Base	G03 "D" Type 706.02 or 706.08 24" L.F.	G03 "A" Type 706.02 or 706.08 36" L.F.	G03 "A" Type 706.02 60" L.F.	G03 "D" Type 12" L.F.	408 Prime Coat Gal.	G67 Jute Matting Sq. Yd.	G02 Masonry Cu. Yd.	G01 Riprap Reinf. Conc. Sq. Yd.	G01 Rock Type "B" Cu. Yd.	660 Sodding Sq. Yd.	See Sheet No.
ROADWAY	Sq. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	L.F.	L.F.	L.F.	L.F.	Gal.	Sq. Yd.	Cu. Yd.	Sq. Yd.	Cu. Yd.	Sq. Yd.	
DRAINAGE															
1-D 350+00 to 351+29															
2-D 351+25 (Pipe)															
3-D 2+03 on Co. Rd. Appr.															
4-D 352+90 (Pipe)															
5-D 353+83 to 354+17															
6-D 353+84 to 354+16															
PAVEMENT															
1-P 352+16 (Co. Rd. Appr.)	380.6	12.1	25.2	49.8	52.1										
2-P 352+16 (Co. Rd. Appr.)	296.2	9.4	60.6	38.5	204.8										
3-P 354+00 (Field Drive)					18.1										
4-P 354+00 (Field Drive)					21.4										
Totals															

PLAN AND PROFILE STA. 350+00 To STA. 360+00

GAL-160- (5.62 - 6.93)

CURVE DATA

P.I. =	369+97.431
Δ	21°-11'-53.43" Lt.
Dc	3°-00'
Ls	350.00'
Lc	356.606'
T	178.823'
Rc	1909.859'

Right Edge	Profile Grade	Left Edge
690.69		691.72
690.73		691.64
690.75		691.54
690.76		691.43
690.74		691.29
690.71		691.14
690.65	690.84	690.96
690.58	690.77	690.77
690.49	690.68	690.61
690.39	690.58	690.45
690.29	690.48	690.29
	690.28	
	690.08	
689.79	689.98	689.79
689.71	689.88	689.69
689.67	689.80	689.61
689.67	689.73	689.54
689.69	689.67	689.48
689.75	689.63	689.44
689.84	689.60	689.41
689.94		689.39
690.05		689.38
690.16		689.37
690.29		689.38
690.44		689.41
690.61		689.46
690.78		689.51
690.97		689.58
691.17		689.66
691.38		689.75
691.53		689.85
691.65		689.95
691.75		690.05
691.85		690.15
691.95		690.25
692.05		690.35
692.15		690.45
692.25		690.55
692.35		690.65

PROFILE GRADE

MAINLINE

203	Excavation	8,328	Cu.Yd.
203	Embankment	3,276	Cu.Yd.
659	Seeding	10,051	Sq.Yd.

APPROACHES & STRUCTURES

203	Excavation	174	Cu.Yd.
203	Embankment	44	Cu.Yd.
659	Seeding	136	Sq.Yd.

B.M. 696.19 NUT ON N.E. LEG OF HIGH POWER TOWER 117' LT. STA 367+00

CALCULATED	CHECKED
BY: J.P.P.	BY: DS
DATE: 1-70	DATE: 1-71

Quantity	Unit	Item	Station	Side
1	LUMP	601 Special Grading Rock Channel Flat Type B	364+33.5	1-D
25	Sq. Yds. Each	601 Special Disposal Tank Septic Tank Replace S	364+33.5	1-D
3	Lin. Ft. Cu. Yds.	602 Sodding Mosaic R.P.M.P.	364+33.5	1-D
3.0	Sq. Yd. Cu. Yds.	603 Type C	364+33.5	1-D
8	LF. LF.	603 Type C	364+33.5	1-D
134	LF. LF.	603 Type A Pipe Removed 24" Culvert 27"	364+33.5	1-D
17	Lin. Ft.	203 Pipe Removed 24" Culvert	364+33.5	1-D
11.9	Cu. Yd.	304 Agg. Base	364+33.5	1-D
34.2	Cu. Yd.	404 Asphalt Concrete	364+33.5	1-D
20.3	Gal.	408 Bitum. Prime Coat	364+33.5	1-D
2				
1	1			
69				
1	1			
17				
134				
108				
25				
3				
25	LUMP			
3.0				
13				
108				
3				

See Sheet No			
	ROADWAY		
1-R	369+26	Lt.	
2-R	369+06 to 369+23	Rt.	
3-R	368+15	Rt.	
4-R	365+16	Rt.	
103	DRAINAGE (Pipe) 364+33.5		
	PAVEMENT		
1-P	361+50 (Field Dr.)	Lt.	86
2-P	367+80 (Cul-de-sac)	Rt.	66
3-P	367+00 (Field Dr.)	Lt.	103
4-P	364+33.5 (Exist. 160)	Rt.	

PLAN AND PROFILE STA. 360+00 TO STA. 370+00

GAL-160-(5.62-6.93)

Right Edge	Profile Grade	Left Edge
692.35		690.65
692.45		690.75
692.55		690.85
692.65		690.95
692.75		691.05
692.85		691.15
692.95		691.25
693.04		691.35
693.07		691.45
693.06		691.55
693.05		691.65
693.04		691.75
693.03		691.85
693.02		691.95
693.01		692.05
693.02		692.17
693.08		692.34
693.19		692.56
693.34		692.82
693.53		693.12
693.77		693.47
694.06	694.06	693.87
694.43	694.50	694.31
694.86	694.99	694.80
695.34	695.53	695.34
	696.11	
	696.73	
	697.40	
	698.12	
	698.89	
	699.70	
	700.55	
	701.45	
	702.40	
	703.37	
	704.43	
	705.51	
	706.64	
	707.82	
	709.04	
	710.40	

Profile Grade

720
710
700
690
680
670

700' V.C.

MAINLINE

203	Excavation	2,427	Cu. Yd.
203	Embankment	34,355	Cu. Yd.
659	Seeding	15,493	Sq. Yd.

APPROACHES & STRUCTURES

203	Excavation	188	Cu. Yd.
203	Embankment	794	Cu. Yd.
659	Seeding	420	Sq. Yd.

Calculated	Checked
By: J.P.D.	By: DS
Date: 9-70	Date: 1-71

ESTIMATED QUANTITIES

Ref. No.	Station to Station	Side	Sec Sheet No.	402 Asph. Conc. Cu. Yd.	408 Prime Coat Gals.	404 Asph. Conc. Cu. Yd.	304 Agg. Base Cu. Yd.	202 Structure Removal Lump	202 Pipe Removal Under 24" Lin. Ft.	603 Type A 706.02 Cl. IV 66" L.F.	603 Type D 12" L.F.	603 Type D 18" L.F.	603 Type D 24" L.F.	Special Disposal of Septic Tank Each	301 Asph. Surf. Treatment Sq. Yd.	Special Grind Subgrade Sq. Yd.	601 Riprap & Reinf. Slab Cu. Yd.	602 Masonry Cu. Yd.	601 Rock Riprap Type "B" Cu. Yd.	667 Jute Matting Sq. Yd.	601 Rock Riprap Type "A" Cu. Yd.	660 Sodding Sq. Yd.	606 Guard Rail Type 5 L.F.	606 Anchor Assy. Each
	ROADWAY																							
1-R	370+50 to 374+00	Rt.									14													
2-R	371+36 to 371+54	Lt.									12													
3-R	374+91 to 375+03	Lt.									12													
4-R	376+44 to 376+64	Lt.									20													
5-R	374+34 to 374+55	Rt.									21													
6-R	379+40 to 379+61	Rt.									21													
7-R	372+34	Lt.						Lump																
8-R	376+15																							
	DRAINAGE (Pipe)																							
1-D	371+97			104							166													
2-D	374+01.6 to 374+61.2	Rt.																						
3-D	376+30 to 376+72	Lt.																						
4-D	376+72 to 380+00	Lt.																						
5-D	379+33.1 to 379+70.8	Rt.																						
	PAVEMENT (Res. Dr.)																							
1-P	376+53	Lt.	84		28.4	4.0	350																	
2-P	374+62 (Res. Dr.)	Rt.	89		36.0	5.0	437																	
3-P	377+51 (Res. Dr.)	Rt.			28.4	4.0	211																	
4-P	378+50 to 380+50			16.9		14.9																		
				17	93	30	100	Lump	90	38	166	42	60	1	70	548	6	4.8	11.	4.13	29	2	300	2

PLAN AND PROFILE STA 370+00 TO STA. 380+00

TYPICAL SECTION OF ADJOINING PAVEMENT
ASPHALT CONCRETE ON TRAFFIC BOUND BASE

667 Jute Mulching Sq. Yd.

44.1

45

PROFILE GRADE

710.40
711.62
712.96

MAINLINE

203	EXCAVATION	109	Cu. Yd.
203	EMBANKMENT	5	Cu. Yd.
659	SEEDING	16.7	Sq. Yd.

CALCULATED	CHECKED
BY: J.P.D.	BY: DS
DATE: 9-70	DATE: 1-71

DRAINAGE
1-D 380+00 to 380+35 LT.

PLAN AND PROFILE STA. 380+00 TO 390+00

GAL-160-(5.62-6.93)

36	4		
60	4		
29	0		
Add for Res. Drive Lt. Sta. 270+50		1	3
29	0		
STA. 270+20		24	0
Add for Res. Dr. Rt. Sta. 270+04		14	0

659 Seeding 202 Sq. Yd.

BEGIN WORK
STA. 268+77.00

CALCULATED	CHECKED
BY: J. P. D.	BY: DS
DATE: 3-70	DATE: 1-71

FROM STA. 269+00 TO STA. 271+00

GAL-160-(5.62-6.93)

36	312	
73	419	
Add for Res. Drive, Rt. Sta. 273+18	2	27
43	140	
118	177	
85	50	
141	61	
Add for filling cistern Rt. Sta. 272+30	5	
67	16	
123	18	
65	4	
94	8	

659 Seeding 1,717 Sq. Yd.

Add for Res. Dr 26 Sq. Yd

CALCULATED	CHECKED
BY: J.P.D.	BY: JDS
DATE: 3-70	DATE: 1-71

FROM STA. 271+50 TO STA. 273+50

GAL-160-(5.62-6.93)

FROM STA. 274+00 TO STA. 276+00

GAL ~160~ (5.62-6.93)

CROSS SECTIONS STA. 276+50 TO STA. 278+50

GAL-160-(5.62-6.93)

FROM STA. 279+00 TO STA. 281+00

GAL-160-(5.62-6.93)

CALCULATED	CHECKED
BY: J.P.D.	BY: DS
DATE: 4-70	DATE: 1-71

FROM STA. 281+50 TO STA. 283+50

GAL-160-(5.62-6.93)

FROM STA. 284+00 TO STA. 286+00

GAL-160-(5.62-6.93)

FROM STA. 286+50 TO STA. 288+50

GAL ~160 ~(5.62 - 6.93)

CROSS SECTIONS STA. 289+00 TO STA. 291+00

GAL-160-(5.62-6.93)

GAL-160-(5.62-6.93)

GAL-160-(5.62-6.93)

35
118
GAL-160-(5.62'-6.93)
749.56
301+00
7519
749.38
300+50
7523
Field Dr. Lt.
Sta. 300+00
End Work 0+60
746.90
3.4%
749.20
0+20
749.20
300+00
7524
741.72
56'
749.02
299+50
7526
745.86
39'
748.84
299+00
7510
36"x100' Conc.
1.2%
℄ Outlet 738.64
745.11
Top C.B.
℄ Inlet 744.19
℄ Inlet 743.69
739.84
Bottom C.B.
Add For Field Drive Lt. Sta. 300+00 14 18
659 Seeding 3291 Sq. Yd.
Add For Fld. Dr. 24 Sq. Yd.
CALCULATED BY: J.P.D. DATE: 8-70
CHECKED BY: DS DATE: 1-71
From Sta. 299+00 To Sta. 301+00

SEEDING
CBR WIDTH
SQ. YDS.
140 120 100 80 60 40 20 ℄ 20 40 60 80 100
GAL-160-(5.62-6.93)
36
118
END AREA
CUT FILL
VOLUME
CUT FILL
110
675
133
775
146
767
130
639
100
522
750.27
750.80
6:1
5:1
303+50
754.7
588 0
1566 0
750.09
750.39
6:1
4:1
303+00
758.5
1103 0
2225 0
749.81
750.03
6:1
4:1
750.10
302+50
759.6
1300 0
2174 0
749.92
750.00
6:1
4:1
302+00
757.5
1048 0
1451 0
749.74
6:1
4:1
301+50
753.3
519 0
802 0
659 Seeding 3378 Sq. Yd.
CALCULATED
BY: J.P.D.
DATE: 8-70
CHECKED
BY: DS
DATE: 1-71
FROM STA. 301+50 TO STA. 303+50

GAL-160-(5.62-6.93)

FROM STA. 304+00 TO STA. 306+00

GAL-160-(5.62-6.93)

659 Seeding 3624 Sq. Yd.
Add for Field Dr., Rt. 9 Sq. Yds.

Add for Field Dr. Rt. Sta. 306+50	2	33

CALCULATED	CHECKED
BY: J.P.D.	BY: DS
DATE: 8-70	DATE: 1-71

FROM STA. 306+50 TO STA. 308+50

GAL-160-(5.62-6.93)

FROM STA. 309+00 TO STA. 311+00

GAL-160-(5.62-6.93)

FROM STA. 311+50 TO STA. 313+50

SEEDING
END WIDTH
SQ. YDS.
140 120 100 80 60 40 20 ℄ 20 40 60 80 100
120 140
15'
740.0
79'
3:1
2:1
754.96
316+00
730.6
739.8
79'
754.78
315+50
729.5
722.3
98'
½"/ft.
1.5'
18"
4'
10'
739.6
79'
754.60
315+00
728.1
730.0
80'
733.6
97'
754.42
314+50
729.4
739.5
70'
22.5'
743.0
62'
754.24
314+00
739.3
160
964
187
997
172
936
165
972
185
889
END AREA
CUT FILL
VOLUME
CUT FILL
2 2698
1534799
163 2485
2624446
120 2317
165 4308
59 2337
127 3853
78 1824
97 2707
41
118
GAL-160 (5.62-6.93)
659 Seeding 4,758 Sq. Yd.
CALCULATED
BY: J.P.D.
DATE: 9-70
CHECKED
BY: JDS
DATE: 1-71
FROM STA. 314+00 TO STA. 316+00

GAL-160-(5.62-6.93)

GAL-160-(5.62-6.93)

FROM STA. 319+00 TO STA. 321+00

GAL-160-(5.62-6.93)

SEEDING
END WIDTH
SQ. YDS.
140 120 100 80 60 40 20 ℄ 20 40 60 80 100
45
118
GAL-160-(5.62-6.93)
168
747
129
681
116
647
117
644
115
653
3:1
6:1
750.71
326+00
762.8
751.79
325+50
761.2
752.75
325+00
759.9
753.61
324+50
759.7
754.35
324+00
760.2
1767 0
2758 0
1212 0
1978 0
924 0
1580 0
783 0
1476 0
811 0
1439 0
659 Seeding 3,422 Sq. Yd.
CALCULATED
BY: J.P.D.
DATE: 9-70
CHECKED
BY: DS
DATE: 1-71
FROM STA. 324+00 TO STA. 326+00

SEEDING
END WIDTH
SQ. YDS.
140 120 100 80 60 40 20 ℄ 20 40 60 80 100
GAL-160-(5.62-6.93)
65
3:1
6:1
743.41
328+50
743.4
120 140
LIN. AREA
VOLUME
CUT FILL CUT FILL
135 0
528
1108 0
126
745.33
328+00
753.1
1062 0
775
2498 0
154
3:1
6:1
1635 0
908
746.84
327+50
758.3
3369 0
173
2003 0
947
748.24
327+00
761.9
659 Seeding 4064 Sq. Yd.
3799 0
168
3:1
6:1
2100 0
906
749.53
326+50
763.7
3580 0
CALCULATED
BY: J.P.D.
DATE: 9-70
CHECKED
BY: DS
DATE: 1-71
140 120 100 80 60 40 20 ℄ 20 40 60 80 100 120 140
FROM STA. 326+50 TO STA. 328+50

GAL-160-(5.62-6.93)

GAL ~ 160 ~ (5.62 - 6.93)

CROSS SECTIONS STA. 331+00 TO STA. 332+50

GAL ~ 160 ~ (5.62 - 6.93)

CROSS SECTIONS STA. 333+00 TO STA. 334+50

GAL-160-(5.62-6.93)

CROSS SECTIONS STA. 335+00 TO STA. 336+50

GAL ~ 160 ~ (5.62 - 6.93)

CROSS SECTIONS STA. 337+00 TO STA. 338+50

GAL-160-(5.62 - 6.93)

		END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		276	0		
Add For Filling in Cistern, Rt. Sta. 340+25				0	3
				288	1
		35	1		
See Detail Sheet # 80				48	4
Add For S.R. 554 Approach, Rt. Sta. 339+59				89	32
Add For S.R. 554 Approach, Lt. Sta. 339+59				139	69
See Detail Sheet # 79					
		17	4		
				231	3
		232	0		
				431	0

659 Seeding 1,130 Sq. Yd.
Add for Appr. on, Lt. 254 Sq. Yds.
Add for Appr. on, Rt. 118 Sq. Yds.

CALCULATED	CHECKED
BY: J.P.D.	BY: DS
DATE: 9-70	DATE: 1-71

CROSS SECTIONS STA. 339+00 TO STA. 340+50

GAL ~160 ~(5.62 - 6.93)

CROSS SECTIONS STA. 341+00 TO STA. 342+50

GAL ~ 160 ~ (5.62 - 6.93)

	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
See Sheet 87	394	0		
Add for Field Dr., Lt. Sta. 344+50			0	97
Add for Field Dr., Rt. Sta. 344+50			1	175
See Sheet 87				
			633	1
	290	1		
			509	2
	260	2		
Add for Field Dr., Lt. Sta. 343+00			60	1
Add for Field Dr., Rt. Sta. 343+00			2	146
See Sheet 86				
			488	3
	268	2		
			453	8

659 Seeding 2 533 Sq. Yd.
Add for Field Dr. 7 Sq. Yds.
Add for Field Dr 9 Sq. Yds.
Add for Field Dr. 11 Sq. Yds.
Add for Field Dr 3 Sq. Yds.

CALCULATED	CHECKED
BY: J. P. D.	BY: DS
DATE: 9-70	DATE: 1-71

CROSS SECTIONS STA. 343+00 TO STA. 344+50

GAL-160-(5.62-6.93)

END AREA		VOLUME	
CUT	FILL	CUT	FILL

659 Seeding 2794 Sq. Yd.
Add for Field Dr. 8 Sq. Yds.

CALCULATED	CHECKED
BY: J. P. D.	BY: DS
DATE: 9-70	DATE: 1-71

CROSS SECTIONS STA. 345+00 TO STA. 346+50

GAL ~ 160 ~ (5.62 - 6.93)

CROSS SECTIONS STA. 347+00 TO STA. 348+50

GAL-160- (5.62 - 6.93)

CROSS SECTIONS STA. 349+00 TO STA. 350+50

GAL ~ 160 ~ (5.62 - 6.93)

Add for Appr., Rt. Sta. 352+16 — 308 5502
See Sheet 82 & 83

See Sheet 100
Add for Chan. Exc., Rt. Sta. 351+25 — 101 0

659 Seeding 2,853 Sq. Yd.
Add for Channel 126 Sq. Yds.
Add for Appr. 2,935 Sq. Yds.
Add for Appr. 770 Sq. Yds.

See Sheet 81 & 83
Add for Appr., Lt Sta. 351+16 — 492 854

CALCULATED	CHECKED
BY: J.P.D.	BY: DS
DATE: 10-70	DATE: 1-71

CROSS SECTIONS STA. 351+00 TO STA. 352+50

GAL - 160 - (5.62 - 6.93)

CROSS SECTIONS STA. 353+00 TO STA. 354+50

GAL ~160 ~(5.62-6.93)

CROSS SECTIONS STA. 355+00 TO STA. 356+50

GAL ~ 160 ~ (5.62 - 6.93)

CROSS SECTIONS STA. 357+00 TO STA. 358+50

CROSS SECTIONS STA. 359+00 TO STA. 360+50

GAL-160-(5.62-6.93)

CROSS SECTIONS STA. 361+00 TO STA. 362+50

CROSS SECTIONS STA. 363+00 TO STA. 364+50

GAL-160-(5.62-6.93)

CALCULATED	CHECKED
BY: J.P.O.	BY: DS
DATE: 10-70	DATE: 1-71

CROSS SECTIONS STA. 365+00 TO STA. 366+50

GAL-160-(5.62-6.93)

CALCULATED	CHECKED
BY: J.P.P.	BY: DS
DATE: 10-70	DATE: 1-71

CROSS SECTIONS STA. 367+00 TO STA. 368+50

GAL-160-(5.62-6.93)

CROSS SECTIONS STA. 369+00 TO STA. 370+50

SEEDING
END WIDTH
SQ. YDS.
GAL-160-(5.62-6.93)
68
118
Embankment for Culvert at Sta. 371+97
372+33
676.2
691.58
693.06
℄ Temp. Rd. 50'
669.66
89'
372+00
676.4
691.45
693.07
675.20
84'
℄ Temp. Rd. 50'
669.0
89'
371+50
677.4
691.25
692.95
15'
678.3
74'
℄ Temp. Rd. 50'
676.0
75'
371+00
677.9
691.05
692.75
22.5'
681.40
64'
℄ Temp. Rd. 55'
680.0
70'
END AREA
ASSUMED
CUT
FILL
16 2284
15 2481
9 1784
Add For Structure Sta. 371+97 178 116
See Sheet 104 41 2790
36 1230
96 1937
659 Seeding 3,006 Sq. Yd.
Add For Structure 236 Sq. Yds.
66 860
121 1254
CALCULATED
BY: J.P.P.
DATE: 10-70
CHECKED
BY: DS
DATE: 1-71
CROSS SECTION STA. 371+00 TO STA. 372+33

GAL-160-(5.62-6.93)

CROSS SECTIONS STA. 372+50 TO STA. 374+00

GAL-160-(5.62 - 6.93)

Add For Res. Dr. Rt. Sta. 374+62	0 440
See Sheet 89	46 2825

659 Seeding 3,617 Sq. Yd.
Add For Res. Dr. 104 Sq. Yds.

CALCULATED	CHECKED
BY: J.P.A.	BY: DS
DATE: 10-70	DATE: 1-71

FROM STA. 374+50 TO STA. 376+00

GAL-160 (5.62 - 6.93)

FROM STA. 376+50 TO STA. 378+00

GAL-160 (5.62-6.93)

		92	6
		204	13
Add For Res. Dr., Rt. Sta. 379+51		10	51
		129	8
		248	41
		139	36
		224	105
		104	77
		171	211

659 Seeding 1,914 Sq. Yd.
Add For Res. Dr. 23 Sq. Yds.

CALCULATED	CHECKED
BY: J.P.D.	BY: DS
DATE: 10-70	DATE: 1-71

FROM STA. 378+50 TO STA. 380+00

GAL-160 - (5.62 - 6.93)

0 STA. 380+50

167

STA. 380+50 26 0

659 Seeding 167 Sq. Yd.

109 5

CALCULATED	CHECKED
BY: J.P.D	BY: DS
DATE: 10-70	DATE: 1-71

FROM STA. 380+50 TO STA. 382+00

GAL - 160 - (5.62 - 6.93)

Limiting Stations: 0+12.19 to 0+73.64 - 3, 4, 5, 6, 2
Limiting Stations: 0+73.64 to 2+00 - 1, 2

Note: Quantities Carried To
Plan Profile Sheet No. 12
℄ Cross Section Sheet No. 29 & 75

LEGEND

1. 304 9" Aggregate Base
2. 659 Seeding & Mulching
3. 404 1¼" Asphalt Concrete (70-85 or AC 20)
4. 402 1¼" Asphalt Concrete (70-85 or AC 20)
5. 301 5" Bituminous Aggregate Base (See Sheet 3)
6. Special Lime Stabilized Soil Subgrade (See Sheet 3)

203	Embankment	= 481 Cu. Yd.
203	Excavation	= 68 Cu. Yd.
659	Seeding	= 398 Sq. Yd.

Calculated	Checked
By: J.P.D.	By: DS
Date: 5-70	Date: 1-71

Quantities Carried To Plan Profile Sheet No. 12
Typical Section of Adjoining Pavement - See Sta. 2+00 Sheet # 75

	301 Bit. Agg. Cu. Yd.	304 Agg. Base Cu. Yd.	402 Asp. Conc. Cu. Yd.	404 Asp. Conc. Cu. Yd.	Special Lime Sq. Yd.
4-P 284+93 Pavement (Twp. Road)	41.7	57.0	10.1	10.1	319.7

APPROACH 4-P TWP. RD. #28 APPR. RT. STA. 284+93

SEEDING	
END WIDTH	SQ. YDS.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

75
118

GAL - 160 - (5.62 - 6.93)

END AREA		VOLUME	
CUT	FILL	CUT	FILL

659 SEEDING		
STA.	E.A.	Sq.Yd.
0+55	71	
		190
0+90	27	
		28
1+00	24	
		122
1+50	20	
		43
1+75	11	
		15
2+00	0	
TOTAL		398

CUT			FILL		
EARTHWORK QUANTITIES					
STA.	E.A.	Cu.Yd.	STA.	E.A.	Cu.Yd.
0+43	0		0+12.19	0	
		1			35
0+50	5		0+26	62	
		10			62
1+00	6		0+55	211	
		31			263
1+50	28		1+00	111	
		26			112
2+00	0		1+50	10	
					9
			2+00	0	
TOTAL		68	TOTAL		481 Cu.Yd.

STA. 2+00 TYPICAL SECTION OF ADJOINING PAVEMENT ON EXISTING GRAVEL ROAD

203	EMBANKMENT	481	Cu. Yd.
203	EXCAVATION	68	Cu. Yd.
659	SEEDING	398	Sq. Yd.

CALCULATED	CHECKED
BY: J.P.D.	BY: DS
DATE: 5-70	DATE: 1-71

CROSS SECTIONS TWP. RD. # 28 RT. STA. 284+93

SEEDING	
END WIDTH	SQ. YDS.

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

GAL-160-(5.62-6.93)

76
118

END AREA		VOLUME	
CUT	FILL	CUT	FILL

ESTIMATED QUANTITIES

* 404	ASPHALT CONCRETE (70-85 or AC20)	= 4.0 CU. YDS.
* 304	AGGREGATE BASE	= 31.9 CU. YDS.
* 408	PRIME COAT	= 28.6 GAL
** 203	EMBANKMENT	= 133 CU. YDS.
** 659	SEEDING	= 16 SQ. YDS.

* QUANTITIES CARRIED TO PLAN PROFILE SHEET # 13
** QUANTITIES CARRIED TO CROSS SECTION SHEET # 33

SCALE
0 5 10

659 SEEDING		
STA.	END WIDTH	SQ. YD.
0+87	14	
		16
1+00	8	
TOTAL		16 SQ. YD.

FILL

EARTHWORK		
STA.	E. A.	CU. YD.
0+200S	0	
		12
0+42	30	
		133
0+72	2.10	
		46
0+78	200	
		60
0+93	15	
		2
1+00	0	
TOTAL		133 CU. YD.

CALCULATED	CHECKED
BY: J.P.D.	BY: DS
DATE: 7-70	DATE: 1-71

GAL - 160 - (5.62 - 6.93)

NOTE: PAVEMENT QUANTITIES CARRIED TO PLAN PROFILE SHEET # 13
NOTE: EARTHWORK & SEEDING CARRIED TO CROSS SECTION SHEET # 34
NOTE: SEE CROSS SECTION SHEET # 78 FOR TYPICAL SECTION OF ADJOINING PAVEMENT

203 EMBANKMENT	=	52 CU. YD.
203 EXCAVATION	=	2,767 CU. YD.
659 SEEDING	=	2,392 SQ. YD.

CALCULATED	CHECKED
BY: J.P.D	BY: DS
DATE: 6-70	DATE: 1-71

	301 BIT. AGG. Cu. Yd.	304 AGG. BASE Cu. Yd.	402 ASPHALT CONC Cu. Yd.	404 ASPHALT CONC Cu. Yd.	SPECIAL LIME Sq. Yd.	408 PRIME COAT GAL.
PAVEMENT 3-P 298+00 (APPR. to Exist. 160)	49.8	152.6	12.1	50.3	381.2	274.6

Quantities Carried To Plan Profile Sheet # 13

APPROACH 3-P APPROACH TO EXIST. S.R. 160 RT. STA 298+00

T.I.D. NO. DIVISION	STATE	PROJECT
2	OHIO	

GAL -160-(5.62-6.93)

CROSS SECTIONS FOR APPROACH RT. STA. 298+00

GAL-160-(5.62-6.93)

TYPICAL SECTION

LIMITING STATIONS: 0+12 TO 0+63.64 - 1,2,3,4,5
LIMITING STATIONS: 0+63.64 TO 1+00 - 5,6,7,8

LEGEND

① 404 1¼" ASPHALT CONCRETE (70-85 or AC 20)
② 402 1¼" ASPHALT CONCRETE (70-85 or AC 20)
③ 301 5" BITUMINOUS AGGREGATE SEE SHEET #3
④ SPECIAL 6" LIME STABILIZED SOIL SUBGRADE SEE SHEET #3
⑤ 659 SEEDING & MULCHING
⑥ 404 2" ASPHALT CONCRETE (70-85 or AC 20)
⑦ 304 8" AGGREGATE BASE
PAVEMENT QUANTITIES CARRIED TO PLAN & PROFILE SHEET # 17
EARTHWORK QUANTITIES CARRIED TO CROSS SECTION SHEET # 52
⑧ 408 PRIME COAT using 0.4 gal/sq. yd SEE SHEET #3

659 SEEDING		
STA.	END WIDTH	SQ. YD.
0+52	81	
		162
0+75	58	
		92
1+00	8	
Total		254 SQ. YDS.

CUT

EARTHWORK		
STA.	E.A.	CU. YD.
0+12	0	
		12
0+25	50	
		71
0+75	103	
		56
1+00	18	
Total		139 CU. YDS.

FILL

EARTHWORK		
STA.	E.A.	CU. YD.
0+12	0	
		31
0+30	92	
		11
0+33	98	
		27
0+48	0	
Total		69 CU. YDS.

203	EMBANKMENT	=	69 CU. YD.
203	EXCAVATION	=	139 CU. YD.
659	SEEDING	=	254 SQ. YD.

SCALE
0 5 10

CALCULATED	CHECKED
BY: J.P.D	BY: DS
DATE: 7-70	DATE: 1-71

APPROACH 3-P

APPROACH TO S.R. 554 LT. STA. 339+59

GAL-160-(5.62-6.93)

203	EMBANKMENT	=	32 CU. YD.
203	EXCAVATION	=	89 CU. YD.
659	SEEDING	=	118 SQ. YD.

TYPICAL SECTION

LIMITING STATIONS: 0+12 TO 0+63.64 - 1,2,3,4,5
LIMITING STATIONS: 0+63.64 TO 1+00 - 5,6,7

LEGEND

① 404 1¼" ASPHALT CONCRETE (70-85 or AC20)
② 402 1¼" ASPHALT CONCRETE (70-85 or AC20)
③ 301 5" BITUMINOUS AGGREGATE - SEE SHEET #3
④ SPECIAL 6" LIME STABILIZED SOIL SUBGRADE - SEE SHEET #3
⑤ 659 SEEDING & MULCHING
⑥ 404 2" ASPHALT CONCRETE (70-85 or AC20)
⑦ 304 8" AGGREGATE BASE - SEE SHEET #3
⑧ 408 PRIME COAT 0.4 GAL/SQ. YD. - SEE SHEET #3

NOTE: QUANTITIES CARRIED TO:
PLAN PROFILE SHEET # 17
CROSS SECTION SHEET # 52

CUT EARTHWORK			FILL EARTHWORK		
STA.	E.A.	CU. YD.	STA.	E.A.	CU. YD.
0+43	0		0+12	0	
		3			12
0+50	22		0+30	35	
		48			4
0+75	81		0+33	40	
					7
		38	0+43	0	
					1
1+00	0		0+50	8	
					6
Total		89	0+75	5	
					2
			1+00	0	
			Total		32

659 SEEDING		
STA.	END WIDTH	SQ. YD.
0+68.5	60	
		39
0+75	49	
		79
1+00	8	
Total		118

CALCULATED	CHECKED
BY: J.P.O.	BY: DS
DATE: 7-70	DATE: 1-71

APPROACH TO S.R. 554 RT. STA. 339+59

GAL - 160 - (5.62 - 6.93)

CALCULATED	CHECKED
BY: J.P.D.	BY: DS
DATE: 8-70	DATE: 1-71

ESTIMATED QUANTITIES

SIDE	STATION TO STATION	301 Bit. Agg. Cu. Yd.	304 Agg. Base Cu. Yd.	402 Asph. Conc. Cu. Yd.	404 Asph. Conc. Cu. Yd.	SPECIAL Lime Sq. Yd.	408 Prime Coat GAL.
PAVEMENT 1-P 352+16 (Co. Rd. Appr.)	LT.	49.8	52.1	12.1	25.2	380.6	93.9

QUANTITIES CARRIED TO PLAN PROFILE SHEET No. 19

FOR CROSS SECTIONS - SEE SHEET # 83

APPROACH 1-P APPROACH TO Co. Rd. #32 LT. STA 352+16

Calculated	Checked
By: J.P.P.	By: DS
Date: 9-70	Date: 1-71

	301 Bit. Agg.	304 Agg. Base	402 Asp. Conc.	404 Asp. Conc.	Special Lime	408 Prime Coat
	Cu. Yd.	Cu. Yd.	Cu. Yd.	Cu. Yd.	Sq. Yd.	Gal.
Pavement 2-P 352+16 (Co. Rd. Appr.) Rt.	38.5	204.8	9.4	60.6	296.2	368.5

Quantities Carried To Plan & Profile Sheet No. 19

For Cross Sections See Sheet # 83

APPROACH 2-P APPROACH to Co. Rd. #32 Rt. STA. 352+16

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

83
118

GAL-160-(5.62-6.93)

SEEDING	
END WIDTH	SQ. YDS.
0	
	32
57	
	311
55	
	389
85	
	38
85	
	770 Total Sq. Yd.

G59 SEEDING		
STA.	END WIDTH	SQ. YD.
0+73	78	
		234
1+00	78	
		472
1+50	92	
		503
2+00	89	
		497
2+50	90	
		478
3+00	82	
		372
3+50	52	
		239
4+00	34	
		140
4+20.50	89	

Total = 2935 Sq. Yd.

FOR APPROACH RT. STA. 352+16 →

NOTE: EARTHWORK & SEEDING QUANTITIES CARRIED TO CROSS SECTION SHEET # 58

NOTE: STA. 4+20.50 - TYPICAL SECTION OF ADJOINING PAVEMENT

SEEDING FOR APPROACH LT. STA. 352+16

END APPR. SEEDING STA. 2+10

NOTE: STA. 2+10 - TYPICAL SECTION OF ADJOINING PAVEMENT

END WORK STA. 2+10

BEGIN APPR. SEEDING STA. 0+96

CUT EARTHWORK		
STA.	E.A.	CU. YD.
0+12.69	0	
		0
0+44.4	0	
		0
0+50	0	
		92
1+00	99	
		178
1+50	93	
		195
2+00	118	
		25
2+10	16	

Total 492 Cu. Yd.

FILL EARTHWORK		
STA.	E.A.	CU. YD.
0+12.69	0	
		80
0+44.4	136	
		40
0+50	246	
		432
1+00	220	
		250
1+50	50	
		51
2+00	5	
		1
2+10	0	

Total 854 Cu. Yd.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
4+20.50	77	0	
			55
4+00	68	0	
			89
3+50	28	41	
			51
3+00	27	242	
			47
2+50	24	480	
			49
2+00	24	640	
			22
1+50	0	629	
			0
1+00	0	645	
			0
0+63	0	645	
			0
0+50	0	415	
			0
ZERO STATION 0+20	0	0	
			308
			5502

CALCULATED	CHECKED
BY: J.P.D.	BY: L.R.
DATE: 9-28-70	DATE: 10-4-70

ESTIMATED QUANTITIES

* 404	Asphalt Concrete (70-85 or AC20)	=	4.0 Cu. Yd.
* 304	Bituminous Aggregate Base	=	35.0 Cu. Yd.
* 408	Prime Coat	=	28.4 Gal.
** 203	Embankment	=	182 Cu. Yd.
** 659	Seeding	=	57 Sq. Yd.

* Carried To Plan Profile Sheet # 21
** Carried To Cross Section Sheet # 71

Seeding	
End Width	Sq. Yds.
19	
	34
13	
	23
8	
57	Total Sq. Yd.

Earthwork		
Sta.	E. A.	Cu. Yd.
0+20	0	
		12
0+42	29	
		22
0+50	119	
		32
0+55.7	184	
		37
0+61.3	172	
		43
0+71.5	57	
		27
0+90	23	
		9
1+10	0	
Total		182

Calculated	
By: P.J.O.	Date: 9-70
Checked	
Date: JS	Date: 1-71

* 404	Asphalt Conc. (70-85 or AC20)	= 4.6	Cu. Yd.
* 304	Aggregate Base	= 32.7	Cu. Yd.
* 408	Prime Coat	= 33.2	Gal.
** 203	Excavation	= 266	Cu. Yd.
** 203	Embankment	= 40	Cu. Yd.
** 659	Seeding	= 107	Sq. Yd.

* Carried To Plan Profile Sheet # 12
** Carried To Cross Section Sheet # 28

Seeding	
End Width	Sq. Yds.
0	
	52
35	
	55
36	

End Area		Volume	
Cut	Fill	Cut	Fill
0	0		
		79	
158	0		
		136	
251	0		
		51	
0	0		10
0	66		14
0	72		16
0	0		

RES. DRIVE
LT. STA. 281+08

RES. DRIVES LT. STA. 281+08 ℄ STA. 376+53

GAL-160-(5.62-6.93)

ESTIMATED QUANTITIES

* 404	2" Asp. Conc. (70-85 or AC20)	= 5.1	Cu. Yd.
* 304	6" & 8" Agg. Base	= 39.5	Cu. Yd
* 408	Prime Coat	= 36.2	Gal
* 603	24" Conduit Type "D" 706.02 or 706.08	= 56	Lin. Ft.
* 601	Rock Channel Protection Type "B"	= 3.1	Cu. Yd.
** 203	Embankment	= 401	Cu. Yd.
** 659	Seeding	= 50	Sq. Yd.

* See Plan Profile Sheet # 13
** See Cross Section Sheet # 32

Seeding		
End Width	Sq. Yd.	
8		1+25
	50	
19		0+92

D.A. = 12 Acres
Q5 = 24 cfs

FILL

Sta.	End Area Cut	End Area Fill	Volume Cut	Volume Fill
0+20.81		0		4
0+43.69		10		8
0+50		62		140
0+70.4		308		64
0+76.2		288		155
1+00		64		30
1+25		0		

Total = 401

659 Seeding		
Sta.	End Width	Sq. Yd.
0+58.5	34	59
0+75	30	
Total		59

Earthwork		
Sta.	E.A.	Cu. Yd.
0+12.15	0	117
0+51	162	72
0+75	0	
Total		189

℄ of 81° Skewed Drive

ESTIMATED QUANTITIES

* 404	2" Asphalt Concrete	= 8.1	Cu. Yd.
* 304	6" & 8" Aggregate Base	= 42.1	Cu. Yd.
* 408	Prime Coat	= 58.4	Gal.
** 203	Embankment	= 189	Cu. Yd.
** 659	Seeding	= 59	Sq. Yd.

* Quantities Carried To Plan Profile Sheet # 12
** Quantities Carried To Cross Section Sheet # 31

Calculated By: P.P.D. Date: 7-70
Checked By: DS Date: 1-71

RES. DRIVES Lt. Sta. 289+56 & Rt. Sta. 293+30

GAL-160-(5.62-6.93)

Ohio

FED. RD. DIVISION	STATE	PROJECT
2	OHIO	

GAL-160-(5.62-6.93)

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
0	18		7
3	52		12
0	0		0
0	0		0
		19	90

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	16	0	
0	0	2	
	166		49
			37
	166		37
	57		23
0			
Total		2	146

659 SEEDING		
END WIDTH	SQ. YD.	STATION
8	36	1+00
27	37	0+80
29	39	0+68
11		0+52
	Total = 112	SQ. YD.

SEEDING	
END WIDTH	SQ. YD.
0+74	12
0+80	8
	7

* 304 6" AGGREGATE = 22.5 CU. YD.
** 203 EMBANKMENT = 146 CU. YD.
** 203 EXCAVATION = 2 CU. YD.
** 659 SEEDING = 7 SQ. YD.
* 601 ROK CHAN. PORT. TYPE 'B' = 2.9 CU. YD.
* CARRIED TO PLAN PROFILE SHEET # 18
** CARRIED TO CROSS SECTION SHEET # 54

** NOTE: EARTHWORK QUANTITIES CARRIED TO CROSS SECTION SHEET # 66

FOR FURTHER DETAILS SEE SHEET # 20

* 304 8" AGG. BASE = 34.2 CU. YDS.
** 203 EXCAVATION = 29 CU. YDS.

* QUANTITIES CARRIED TO PLAN PROFILE SHEET # 20

CALCULATED	CHECKED
BY: J.P.D.	BY: DS
DATE: 7-70	DATE: 1-71

CUL-de-sac Rt. STA. 367+80 & FIELD DRIVES: Rt. STA. 331+42 & Rt. STA. 343+00

End Area Cut	End Area Fill	Volume Cut	Volume Fill	
				0+64
	0		30	0+50.3
	118		26	0+43.7
	98		6	0+42
	83		34	0+20
	0			
Total			96	Cu. Yd.

	End Area Cut	End Area Fill	Volume Cut	Volume Fill
0+20		0		27
0+42		67		42
0+51		182		41
0+57		186		65
0+76	0	0		
			0	
0+77	16		1	
0+80	0			
				175

	Seeding End Width	Seeding Sq. Yd.	Seeding End Width	Seeding Sq. Yd.	
0+75	8		10		0+77.5
		11		3	
0+65	12		8		0+80

Estimated Quantities For Field Dr. Lt. Sta. 344+50

* 304	6" Aggregate Base	= 21.4	Cu. Yd
** 203	Embankment	= 96	Cu. Yd.
** 659	Seeding	= 11	Sq Yd.

Quantities For Field Dr. Rt. Sta. 344+50

Estimated Quantities

* 304	6" Aggregate Base Course	= 22.5	Cu. Yd.
** 203	Embankment	= 175	Cu. Yd.
** 203	Excavation	= 1	Cu. Yd
** 659	Seeding	= 3	Sq. Yd.
* 601	Rock Channel Protection Type "B"	= 2.9	Cu. Yd.

* Quantities Carried To Plan Profile Sheet # 18
** Quantities Carried To Cross Section Sheet # 54

Field Drives Lt. & Rt. Sta. 344+50

Calculated	Checked
By: RLD	By: DS
Date: 7-70	Date: 1-71

Ohio
GAL-160-(5.62-6.93)

87/118

	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
0+20		0		37
0+42		92		6
0+43.7		111		30
0+50.3		131		41
0+67		0		
Total =				114 Cu. Yd.

	SEEDING END WIDTH	SEEDING SQ. YD.
0+68	12	8
0+75	8	
Total =		8 Sq. Yd.

ESTIMATED QUANTITIES

* 304 AGGREGATE BASE = 21.4 CU. YD.
** 203 EMBANKMENT = 114 CU. YD.
** 659 SEEDING = 8 SQ. YD.

* QUANTITIES CARRIED TO PLAN PROFILE SHEET = 18
** QUANTITIES CARRIED TO CROSS SECTION SHEET = 55

CALCULATED	CHECKED
BY: RPO	BY: DS
DATE: 7-70	DATE: 1-71

FIELD DRIVE LT. STA. 346+00

END AREA CUT FILL
VOLUME CUT FILL

PROJECT GAL-160-(5.62-6.93)
STATE OHIO
DIVISION 2

88/118

SEEDING		
END WIDTH	SQ. YD.	
8		1+40
	104	
40		1+01

ESTIMATED QUANTITIES

*	404	Asphalt Conc.	= 5.0 Cu. Yds.
*	304	Agg. Base	= 43.7 Cu. Yds.
*	408	Prime Coat	= 36.0 Gal.
**	203	Embankment	= 440 Cu. Yds.
**	659	Seeding	= 104 Sq. Yds.

* QUANTITIES CARRIED TO PLAN PROFILE SHEET # 21
** QUANTITIES CARRIED TO CROSS SECTION SHEET # 70

EARTHWORK

	END AREA		VOLUME	
	CUT	FILL	CUT	FILL
1+40		0		
				14
1+25		52		
				133
1+00		235		
				72
0+92		252		
				211
0+50		19		
				10
0+21.28		0		
			Total	440

CALCULATED	CHECKED
BY: J.P.A.	BY: DS
DATE: 10-70	DATE: 1-71

RES. DRIVE RT. STA. 374+62

GAL-160-(562-693)

89
118

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

90/118

GAL - 160 - (5.62 - 6.93)

STRUCTURE No. GAL-160-0569

REF. No. 2-D SHEET # 11

STA. 275 + 63

D.A. = 5.6 ACRES
Q25 = 20 cfs

ESTIMATED QUANTITIES

603	21" CONDUIT TYPE "A" 706.02, OR 706.08	= 108 LIN. FT.
602	CONCRETE MASONRY	= 0.74 CU. YD.
601	ROCK CHANNEL PROTECTION TYPE "B"	= 10.1 CU. YD.

STANDARD DRAWING HW-4

STRUCTURE No. GAL-160-0560

REF. No. 1-D SHEET # 11

STA. 271 + 13

D.A. = 0.5 ACRES
Q25 = 2.6 cfs

ESTIMATED QUANTITIES

603	12" CONDUIT TYPE "B"	= 74 LIN. FT.
602	CONCRETE MASONRY	= 0.25 CU. YD.
604	CATCH BASIN STD. 2-2-B	= 1 EACH

STANDARD DRAWING HW-4 & C.B. 2-2-B

CALCULATED	CHECKED
BY: M.W.M.	BY: DS
DATE: 04-70	DATE: 1-71

CULVERT STA. 271 + 13
CULVERT STA. 275 + 63

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

GAL-160-(5.62 - 6.93)

STRUCTURE No. GAL-160-0583

REF. No. 1-D SHEET # 12

STA. 283+30

D.A. = 14.5 ACRES
Q_{25} = 36 cfs

ESTIMATED QUANTITIES

603	27" CONDUIT TYPE "B"	= 136 LIN. FT.
602	CONCRETE MASONRY	= 0.49 CU. YD.
601	ROCK CHANNEL PROTECTION TYPE "B"	= 3 CU. YD.
604	CATCH BASIN (MOD.) 2-3	= 1 EACH
660	SODDING	= 9 SQ. YD.

STANDARD DRAWING HW-4 & C.B. (MOD.) 2-3

CALCULATED	CHECKED
BY: MWM	BY: DS
DATE: 04-70	DATE: 1-71

CULVERT STA. 283+30

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

92/118

GAL-160-(5.62-6.93)

STRUCTURE No. GAL-160-0593

REF. No. 2-D SHEET # 12

STA. 288+30

D.A. = 4.8 ACRES
Q25 = 17 cfs

603	21" CONDUIT TYPE B"	=	116	LIN. FT.
602	CONCRETE MASONRY	=	0.37	CU. YD.
601	ROCK CHANNEL PROTECTION TYPE "B"	=	2	CU. YD.
604	CATCH BASIN (MODIFIED) # 2-2-A	=	1	EACH
601	6" RIPRAP REINFORCED CONCRETE	=	9	SQ. YD.
660	SODDING	=	8	SQ. YD.

STANDARD DRAWING HW-4 & C.B. (MOD.) 2-2-A

CALCULATED	CHECKED
BY: M.W.M.	BY: DS
DATE: 04-70	DATE: 1-71

CULVERT STA. 288+30

STRUCTURE No. GAL-160-0601

REF. No. 1-D SHEET No. 13

STA. 292 +50

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

GAL - 160 - (5.62 - 6.93)

ESTIMATED QUANTITIES

* 603	42" CONDUIT TYPE "A" 706.02	= 158 LIN. FT.
* 602	CONCRETE MASONRY	= 1.7 CU. YDS.
* 601	ROCK CHAN. PROT TYPE "B"	= 28.6 CU. YDS.
* 601	6" RIPRAP REINF. CONC. SLAB	= 17.5 SQ. YDS.
* 660	SODDING	= 2 SQ. YDS.
** 659	SEEDING	= 478 SQ. YDS.
** 203	EXCAVATION	= 403 CU. YDS.

* QUANTITIES CARRIED TO PLAN PROFILE SHEET # 13

** QUANTITIES CARRIED TO CROSS SECTION SHEET # 32

CUT

EARTHWORK			659 SEEDING		
STA.	EA.	CU. YD.	STA.	END WIDTH	SQ. YD.
0+81	90		0+81	30	
		58			58
0+98.5	90		0+98.5	30	
		153			160
1+50	70		1+50	26	
		120			133
2+00	60		2+00	22	
		65			100
2+50	10		2+50	14	
		7			27
2+75	5		2+75	5	
TOTAL 403			TOTAL 478		

CALCULATED	CHECKED
BY: J.P.D.	BY: DS
DATE: 06-70	DATE: 1-71

CULVERT STA. 292+50

STRUCTURE NO. GAL-160-0611
REF. NO. 4-D SHEET # 13
STA. 299+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

94/118

GAL-160-(5.62 - 6.93)

* 602 CONCRETE MASONRY (1-ENDWALL) = 0.7 CU. YDS.
* 603 36" CONDUIT TYPE "B" = 100 LIN. FT.

* 604 MODIFIED CB. 2-4 = 1 EACH
* 601 ROCK CHANNEL PROT. TYPE "B" = 20.7 CU. YDS.

STD. DRAWING HW-4

* QUANTITIES CARRIED TO PLAN PROFILE SHEET # 13

CALCULATED	CHECKED
BY J.P.D	BY DS
DATE 06-70	DATE 1-71

CULVERT STA. 299+00

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

95/118

GAL-160-(5.62-6.93)

STRUCTURE No. GAL-160-0643
Ref. No. 1-D SHEET # 15
STA. 314+63

ESTIMATED QUANTITIES

* 603	33" Conduit Type "A" 706.02 Class V	=	212	Lin. ft.
* 602	Concrete Masonry	=	1.24	Cu. Yd.
* 601	Riprap 6" Reinf. Conc.	=	44	Sq. Yd.
* 660	Sodding	=	15	Sq. Yd.

Standard Drawing HW-4 & MC-1

* QUANTITIES CARRIED TO PLAN PROFILE SHEET # 15

* 605	6" Unclassified Pipe Underdrain, 707.01 Type III or 707.12	=	10	Lin. Ft.
* 605	Aggregate Drains for Springs	=	3	Lin. Ft.

D.A. = 28.5 Acres
Q_{25} = 57 c.f.s.

CALCULATED	CHECKED
BY: M.W.M.	BY: DS
DATE: 6-70	DATE: 1-71

CULVERT STA. 314+63

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

96
118

GAL-160-(5.62-6.93)

STRUCTURE No. GAL-160-0657
REF. No. 1-D SHEET # 16
STA. 322+00

ESTIMATED QUANTITIES

* 603 21" CONDUIT TYPE "A" 706.02, 706.08	= 136	LIN. FT.
* 602 CONCRETE MASONRY	= 0.62	CU. YD.
* 601 ROCK CHANNEL PROTECTION TYPE "B"	= 2	CU. YD.

STANDARD DRAWING HW-4

* QUANTITIES CARRIED TO PLAN PROFILE SHEET # 16

D.A. = 2.7 ACRES
Q_{25} = 11 cfs

CALCULATED	CHECKED
BY J.P.D.	BY DS
DATE 06-70	DATE 1-71

CULVERT STA. 322+00

STRUCTURE No. GAL-160-0672
REF. No. 1-D SHEET # 17
STA. 330+07

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

97/118

GAL-160-(5.62-6.93)

ESTIMATED QUANTITIES

* 603	27" CONDUIT TYPE "A" 706.02 CLASS V	=	226	LIN. FT.
* 602	CONCRETE MASONRY	=	0.98	CU. YD.
* 601	ROCK CHANNEL PROTECTION TYPE "B"	=	5	CU. YD.
* 601	RIPRAP 6" REINF. CONCRETE	=	15	SQ. YD.
* 660	SODDING	=	8	SQ. YD.

* QUANTITIES CARRIED TO PLAN PROFILE SHEET # 17
STANDARD DRAWING HW-4

CALCULATED	CHECKED
BY: MWM	BY: DS
DATE: 4-70	DATE: 1-71

CULVERT STA. 330+07

659 SEEDING			EARTHWORK		
STATION	END AREA	SQ. YD.	STATION	END AREA	CU. YD.
1+36	5		1+36	0	
		18			4
1+55	12		1+55	9	
		55			13
2+00	10		2+00	6	
		56			11
2+50	10		2+50	6	
		53			13
3+00	9		3+00	8	
		67			15
3+50	15		3+50	8	
		83			28
4+00	15		4+00	22	
		64			26
4+50	8		4+50	6	
		44			13
5+00	8		5+00	8	
		22			6
5+25	8		5+25	5	
		31			6
5+50	14		5+50	7	
		40			14
5+75	15		5+75	8	
		29			5
6+00	6		6+00	2	
		8			1
6+25	0		6+25	0	
	TOTAL	570		TOTAL	155

CHANNEL EXCAVATION RT. STA. 330+07

STRUCTURE No. GAL~160~0689
Ref. No. 3-D Sheet No. 17
Sta. 339+20

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

98
118

GAL~160~(5.62 - 6.93)

ESTIMATED QUANTITIES

* 603 27" TYPE "B" CONDUIT = 100 Lin Ft.
* 604 Std 2-3 Catch Basin = 2 Each

Standard Drawing 2-3 Catch Basin

* QUANTITIES CARRIED TO PLAN & PROFILE SHEET # 17

DA = 95 Acres
Q25 = 28 cfs

CALCULATED	CHECKED
By M.W.M.	By DB
DATE 03-70	DATE 1-71

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

99
118

GAL~160~(5.62-6.93)

Ref. No. 4-D Sheet No. 17
Sta. 0+54.02

* 603 - 27" Conduit type "B" = 100 Lin. ft.
* 602 Concrete Masonry = 0.49 Cu. Yd.
* 601 Rock Channel Protection type "B" = 3.0 Cu. Yd.

Standard Drawing HW-4

* QUANTITIES CARRIED TO PLAN & PROFILE SHEET # 17

D.A. = 10 Acres
Q_{25} = 29 cfs.

CALCULATED	CHECKED
BY M.W.M	BY DS
DATE 03-70	DATE 1-71

CULVERT STA. 0+54.02 ON S.R. 554
APPR RT STA. 339+59

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

100/118

GAL-160-(5.62-6.93)

STRUCTURE NO. GAL-160-0712
STA. 351+25
REF. NO. 2-D SHEET 19

SCALE
0 5 10

ESTIMATED QUANTITIES

660	SODDING	=	10 SQ. YD.
*603	60" CONDUIT TYPE "A" 706.02	=	136 LIN. FT.
*602	CONCRETE MASONRY	=	3.9 CU. YD.
*601	RIPRAP 6" REINF. CONC. SLAB	=	18.1 SQ. YD.
*601	ROCK CHAN. PROT. TYPE "B"	=	17.8 CU. YD.
**203	CHANNEL EXCAVATION	=	101 CU. YD.
**659	CHANNEL SEEDING	=	126 SQ. YD.

* QUANTITIES CARRIED TO PLAN & PROFILE SHEET NO. 19
** QUANTITIES CARRIED TO CROSS SECTION SHEET NO. 58
STANDARD DRAWING HW-4

CHANNEL EXCAVATION		
0+00	26	
		24
0+25	26	
		23
0+50	24	
		23
0+75	25	
		14
0+92	19	
		17
1+16.25	19	
TOTAL	C.U. YDS.	101

CALCULATED	CHECKED
BY: J.P.D	BY: DS
DATE: 07-70	DATE: 1-71

CULVERT STA. 351+25

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

101
118

GAL-160-(5.62 - 6.93)

STRUCTURE ON Co. RD. 32 RT.
STA. 2+03
REF 3-D Sheet 19

ESTIMATED QUANTITIES

** 203	EXCAVATION ~ SEE NOTE BELOW		
* 603	60" CONDUIT TYPE "A" 706.02	= 90	LIN. FT.
* 602	CONCRETE MASONRY	= 3.9	CU. YD.
* 601	RIPRAP 6" REINF. CONC. SLAB	= 16.2	SQ. YD.
* 601	ROCK CHANNEL PROTECTION TYPE "B"	= 18.9	CU. YD.
* 660	SODDING	= 10	SQ. YD.

STANDARD DRAWING HW-4
* QUANTITIES CARRIED TO PLAN & PROFILE SHEET # 19
** QUANTITIES CARRIED TO CROSS SECTION SHEET # 59

NOTE: CHANNEL EXC.
SHOWN ON STRUCTURE NO. GAL-160-0712
SHEET NO. 100 & 102 STRUCTURE NO. GAL-160-0715

CALCULATED	CHECKED
BY J.P.D.	BY DS
DATE 07-70	DATE 1-71

CULVERT STA. 2+03 ON Co. Rd. 32 APPR. RT. STA. 352+16

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

102/118

GAL-160-(5.62-6.93)

STRUCTURE No. GAL-160-0715

STA. 352+90

REF. No. 4-D SHEET 19

* 603 CONDUIT 36" TYPE "A" 706.02 or 706.08 = 126 LIN. FT.
* 601 RIPRAP 6" REINF. CONC. = 12.7 SQ. YD.
* 601 ROCK CHANNEL PROTECTION TYPE "B" = 8.8 CU. YD.
* 602 CONCRETE MASONRY = 1.4 CU. YD.
** 203 CHANNEL EXCAVATION = 137 CU. YD.
** 659 CHANNEL SEEDING = 250 SQ. YD.
* 660 SODDING = 6 SQ. YD.
* QUANTITIES CARRIED TO PLAN PROFILE SHEET No. 19
** QUANTITIES CARRIED TO CROSS SECTION SHEET No. 59

CHANNEL SEEDING			CHANNEL EXCAVATION		
STA.	E.A.	SQ. YD.	STA.	E.A.	CU. YD.
0+70	17	19	0+65	33	18
0+80	17	37	0+80	32	22
1+00	16	83	1+00	28	46
1+50	14	75	1+50	22	36
2+00	13	29	2+00	17	12
2+20.5	13	7	2+20.5	16	3
2+30.5	0		2+30.5	0	
TOTAL 250 SQ. YD.			TOTAL 137 CU. YD.		

CALCULATED	CHECKED
BY: JPD	BY: DB
DATE: 07-70	DATE: 1-71

CULVERT STA. 352+90

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

103
118

GAL-160 (5.62 - 6.93)

STRUCTURE NO. GAL-160-0737
Sta. 364+33.5
Ref. No. 1-D Sheet #20

PLAN
Scale
0 5 10

Q_{25} = 27 cfs.
A = 9 Acres

EARTH WORK			659 SEEDING		
Sta	E. A.	Cu. Yds.	Sta.	E. W.	Sq. Yds.
0+00	0		0+00	3	
		26			28
0+17	81		0+17	27	
		23			20
0+23	130		0+23	34	
		39			30
0+31	130		0+31	34	
		57			54
0+50	31		0+50	17	
Total		145	Total		132

QUANTITIES

* 203	Excavation	145	Cu. Yds.
603	27" Conduit Type "A" 706.02 or 706.08	134	L.F.
603	27" Conduit Type "C" 706.02 or 706.08	108	L.F.
603	8" Conduit Type "C" 706.08	8	L.F.
602	Concrete Masonry	3.0	Cu. Yds.
601	Riprap 6" Reinforced Concrete	25	Sq. Yds.
601	Rock Channel Protection, Type "B"	3	Cu. Yds.
660	Sodding	13	Sq. Yds.
** 659	Seeding	132	Sq. Yds.
304	Aggregate Base	2	Cu. Yds.
404	Asphalt Concrete	1	Cu. Yds.
408	Bituminous Prime Coat	1	Gallon

* QUANTITIES To Plan Sheet 20
** QUANTITIES To Cross Section Sheet 64

Paving Detail
EXIST. SR. 160

Detail - Not Drawn to Scale
Paving Legend
① 2" 404 Asphalt Concrete
② 5" - 304 Aggregate Base
③ Prime Coat @ 0.4 Gal / sq Yds.

Calculated	Checked
By: C.J.S.	By: J.P.D.
Date 09-23-71	Date: 09-24-71

CULVERT STA. 364+33.5

BRUNING 44-560 10943

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

GAL-160-(5.62-6.93)

104/118

STRUCTURE No. GAL-160-0751
STA. 371+97
REF. No. 1-D SHEET # 21

ESTIMATED QUANTITIES

* * 203 Excavation	= 178	Cu. Yd.
* * 203 Embankment	= 116	Cu. Yd.
* 603 66" Conduit Type "A" 706.02 Class IV	= 166	Lin. Ft.
* 602 Concrete Masonry (2 endwalls)	= 4.84	Cu. Yd.
* 601 Rock Channel Protection Type "A"	= 29	Cu. Yd.
* 601 Riprap 6" Reinf. Conc. Slab	= 6	Sq. Yd.
* 660 Sodding	= 2	Sq. Yd.
* * 659 Seeding	= 236	Sq. Yd.

* Quantities To Plan Profile Sheet # 21
* * Quantities To Cross Section Sheet # 68

EARTHWORK

CUT			FILL		
Sta.	E.A.	Cu.Yd.	Sta.	E.A.	Cu.Yd.
0+75	0	3	0+75	0	6
0+90	10	23	0+90	21	22
1+08	60		1+08	45	
2+74	100	87	2+74	95	67
3+00	80	51	3+00	45	21
3+25	30	14	3+25	0	
3+50	0				
Total		178	Total		116

D.A. = 227 Acres
Q25 = 230 c.f.s.

659 Seeding

Sta.	End Width	Sq.Yd.
0+75	5	27
0+90	28	64
1+08	36	
Pipe		
2+74	68	178
3+00	55	97
3+25	15	30
3+50	7	

Total = 236 Sq.Yd.

Calculated	Checked
By: F.D.B.	By: DS
Date: 08-70	Date: 1-71

CULVERT STA. 371+97

CENTERLINE PLAT

Now GAL-160 - 8.37 - 10.48

R/W Acquired as GAL-160-5.59

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

105/118

1/14

GALLIA COUNTY

Built As; GAL-160-(5.62-6.93)

SPRINGFIELD TWP. SECTIONS 22,23&24

VILLAGE OF PORTER (UNINCORPORATED)

T6N, R15W

400 0 400 800

Date Received May 10, 1971
Date Recorded May 10, 1971
Book 1 Page 35
Signed Evalu Meyers
County Recorder
Date 5-10-1971

I here by certify that this plat is a true delineation of a survey made for the Ohio Department of Highways in 1970.
Signed William D. Lacey
Registered Surveyor No. 5116
Date March 11, 1971

SURVEYORS SEAL

Coordinate Points

S.E. Corner of Sec. 23 N 330739.26, E 2063475.52
N.E. Corner of Sec. 23 N 336007.218, E 2063852.885
P.I. 305+62.66 N 334121.228, E 2062727.168
P.I. 358+37.97 N 339203.868, E 2061312.269
P.I. 369+97.43 N 340358.031, E 2061189.851

Coordinate Values are Ohio State Plane (South Zone)

Now GAL-160 - 8.37 - 10.48

R/W Acquired as GAL-160-5.59

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

106/118

2/14

CENTERLINE REFERENCE MONUMENTS

GALLIA COUNTY Built As; GAL-160-(5.62-6.93)

SPRINGFIELD TWP. SECTIONS 22,23&24

VILLAGE OF PORTER (UNINCORPORATED)

T6N, R15W

Item 604 Center Line Reference Monuments, shall be set by the Contractor as per sketch below Accuracy Tolerance shall be ± 0.02

℄ REFERENCE MONUMENT

Date Received May 10 1971

Date Recorded May 10, 1971

Book ____ Page 26

Signed Evelyn S. Myers
County Recorder

Date 5-10-1971

I here by certify that this plat is a true delineation of a survey made for the Ohio Department of Highways in 1970.

Signed William D. Lacy

Registered Surveyor No. 5116

Date March 11-1971

SURVEYORS SEAL

2/14

CENTERLINE REFERENCE MONUMENTS

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

107-A
118

Built As; GAL-160-(5.62-6.93)
Now GAL-160 - 8.37 - 10.48

3-A
14

R/W Acquired as
GAL-160-5.59

JOB NO. 106810
TYPE FUND STATE

3-A
14

PROPERTY PLAN

PROPERTY PLAN

R/W Acquired as GAL-160-5.59

Built As;

GALLIA COUNTY GAL-160-(5.62-6.93)

SPRINGFIELD TWP. SECTIONS 22,23&24

VILLAGE OF PORTER (UNINCOPPORATED)

T6N, R15W

400 0 400 800

107/118

3/14

1. David R. Mitchell & Emily Mitchell
2. Carl Landers & Betty Landers
3. Wesley Ely
4. Wallace E. Kemper & Olive Mae Kemper
5. Carl Landers & Betty Landers
6. Harold Lookado & Margaret Lookado
7. Bob Evans Hidden Valley Ranch Inc.
8. Vaughn Glassburn & Thena Glassburn
9. Thomas F. Pitchford & Joan Pitchford
10. Erma Robie
11. Paul Phillips & Dorothy Phillips
12. Walter Neal & Myrtle Neal
13. Herman Theiss & Hattie Theiss
14. Arnold E. Eubanks & Dorothy E. Eubanks
15. Dudley W. Eggleton & Janet R. Eggleton
16. Glen Roush & Jennie Roush
17. Raymond Roush & Evelyn Roush
18. Hubert Smith & Mary Smith
19. William F. Hogan & Martha Hogan
20. Franklin E. Beach
21. Connie L. Beach
22. Thomas Daniels & Elizabeth Daniels
23. Charles B. Berry & Frances D. Berry
24. John Guilett
25. Cornelia Mc Daniel & Jean Mc Daniel
26. Lave M. Duncan & Jewell Duncan
27. Larry Smith & Marvella Smith
28. Harold V. Lookado, Jr & Mary Lookado
29. Trustees of the Methodist Episcopal Parsonage Bidwell Circuit
30. Nellie M. Mossman et. al.
31. Jack L. Adams & Carole Ann Adams
32. Worthy Cremeans & Opal Cremeans
33. Paul E. Hollingshead & Betty J Hollingshead

Now GAL-160 - 8.37 - 10.48

Built As: GAL-160-(5.62-6.93)

Date | Drawn By C.P.D.

Revisions		
5-24-71	Changed location of Sell out's from (12) Property	
6-7-71	Change Ownership Parcel 31	
7-12-71	Change Ownership & Property Lines Parcel 23	
7-23-71	Changed Property Lines on Parcel 30	CPD
8-21-73	Changed Total Deed Acreage (See Note) See Sheet 3-A	
8-23-05	ADDED PARCEL 28V	

JOB NO	3
106810	
TYPE FUND	14
STATE	

PROPERTY PLAN

SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

R/W Acquired as GAL-160-5.59

STATE JOB NO.	FED. RD. DIVISION	STATE	PROJECT	
	2	OHIO		

Built As: GAL.160 (5.62 - 6.93)
Now GAL-160 - 8.37 - 10.48

108/118

4/14

TOTAL NO. OWNERS- 29 TOTAL NO. COMPLETE TAKES- 4 TOTAL OWNERS WITH STRUCTURES INVOLVED- 11

PARCEL NO.	OWNER	DEED RECORD BOOK	DEED RECORD PAGE	DEED RECORD DATE	DEED AREA	TOTAL PRO	TOTAL TAKE	PRO IN TAKE	NET TAKE	NET RES. LT.	NET RES. RT.	BLDG'S TO BE ACQ'D	SHEET NO.	REMARKS	OTHER DESIGNATED EASEMENTS	TYPE FUND
4	Wallace E. Kemper & Olive May Kemper	173	703	8-4-67	4.21 ac	0.20 ac.	0.25 ac.	0.20 ac.	0.05 ac.	3.96 ac.	—		6			
5	Carl Landers & Betty Landers	174	769	11-6-67	1.50 ac.	0.13 ac.	0.44 ac.	0.13 ac.	0.31 ac.	—	1.06 ac	Yes	6			
6	Harold Lookado & Margaret Lookado	125	196	11-2-42	81.86 ac.	1.16 ac.	2.70 ac.	1.16 ac.	1.54 ac.	79.16 ac.	—		6, 7			
6-T							0.08 ac.	—	0.08 ac							
7	Bob Evans Hidden Valley Ranch Inc.	168	356		941.813 ac 941.813 ac	1.65 ac.	2.37 ac.	0.77 ac.	1.60 ac.	—	938.513 ac 938.513 ac		6, 7			
7-1							0.08 ac.	0.03	0.05 ac							
8	Vaughn Glassburn & Thena Glassburn	169	35	6-24-66	58.00 ac.	1.64 ac.	1.59 ac	0.70 ac	0.89 ac	—	55.35		7, 8			
8-1							0.18 ac.	0.06 ac	0.12 ac							
9	Thomas F. Pithford & Joan Pithford	173	709	8-4-67	1.14 ac.	—	0.29 ac.	—	0.29 ac.	0.85 ac	—		7			
10	Erma Robie	160	69	12-20-61	46.00 ac.	0.92 ac.	4.56 ac.	0.92 ac.	3.64 ac.	41.44 ac	—	Yes	7, 8			
11	Paul Phillips & Dorothy Phillips	124 167	658 523	5-3-42 2-8-66	50.84 ac.	0.48 ac.	3.68 ac.	0.19 ac.	3.49 ac.	44.92 ac	1.95 ac	Yes	8, 9			
12	Walter Neal & Myrtle Neal	155	335	1-9-60	48.46 ac.	0.56 ac	7.76 ac.	—	7.76 ac.	29.02 ac.	11.12 ac		9, 10			
13	Herman Theiss & Hattie Theiss	168	193	12-20-65	14.62 ac.	0.21 ac	1.85 ac.	—	1.85 ac	7.92 ac	4.64 ac.		10			
* 14	Arnold E. Eubanks & Dorothy E. Eubanks	183	235	3-17-70	8.00 ac	—	1.21 ac.	—	1.21 ac	0.58 ac.	6.21 ac.		10	* Parcel 14-A Cemetery Inclusive in Parcel 14		
15	Dudley W. Eggleton & Janet R. Eggleton	173	665	8-4-67	10.37 ac.*	—	1.91 ac	—	1.91 ac	4.22 ac.	3.92 ac.		10	* Lots 43, 44, 51 + 52 = 1.35 ac.		
15-1							0.32 ac.	—	0.32 ac				10			
15-T							0.01 ac	—	0.01 ac.				10			
15T-1							0.01 ac.	—	0.01 ac.				10			
15-X							0.13 ac	—	0.13 ac.				10			
15X-1							0.23 ac	—	0.23 ac				10			
16	Glen Roush & Jennie Roush	160	121	1-20-62	1.34 ac.*	—	0.42 ac	—	0.42 ac	—	0.53 ac	Yes	10, 11	* Lots 47, 48, 49 + 50 = 1.34 ac.		
16-1							0.39 ac.	—	0.39 ac.				11			
17	Raymond Roush & Evelyn Roush	126	152	6-29-43	1.50 ac.	—	0.64 ac	—	0.64 ac	0.86 ac.	—		10, 11			
18WD	Hubert Smith & Mary Smith	155	168	9-9-59	0.33 ac.*	—	0.33 ac.	—	0.33 ac.	—	—	Yes	11	*Lot 46 less 3' off E. Side. Total Take		
19	William F. Hogan & Martha Hogan	172	607	4-22-67	0.35 ac *	—	0.10 ac	—	0.10 ac.	—	0.25 ac.		11	*Lot 45 plus 3' off E. Side of 46. Total Take		

UTILITIES

Ohio Bell Telephone Co.——Columbus O.
Columbus & Southern Ohio Elect.—Columbus O.
Gallia County Water Association-Cheshire, O.

CENTERLINE-REFERENCE-MONUMENTS

SYMBOLS

TYPE FENCE QUANTITIES

GENERAL NOTES

COMPLETION DATE

DATE	REVISION DESCRIPTION
5-24-71	Changed Total PRO. + Rt. Res. Parcel 11
6-4-71	Changed Quantities Parcels 6 + 9
6-18-71	Changed Totals on Parcel 12 G.P.D.
7-16-71	Changed Totals on Parcel 13 G.P.D.
10-1-71	Added Parcel 15X-1 ; Changed Parcels 15 + 15-T + 0.28 ac. G.P.D.
10-5-71	Changed Parcel 15 to original area T.K.S.
3-21-73	Changed Deed Acreage + Residue Acreage Rep. Parcel 3-A

SURVEYED	DRAWN BY	DESIGN	CHECKED	SUPERVISED

JOB NO 106810

TYPE FUND STATE

4/14

LD 0305
4-1-68

R/W SUMMARY SHEET

SUMMARY OF ADDITIONAL RIGHT OF WAY REQUIRED

R/W Acquired as GAL-160-5.59

STATE JOB NO.	FED. RD. DIVISION	STATE	PROJECT	
	2	OHIO		

Built As: GAL.160 (5.62 - 6.93)
Now GAL-160 - 8.37 - 10.48

109/118

5/14

TOTAL NO. OWNERS- 29 TOTAL NO. COMPLETE TAKES- 4 TOTAL OWNERS WITH STRUCTURES INVOLVED- 11

PARCEL NO.	OWNER	DEED RECORD BOOK	DEED RECORD PAGE	DEED RECORD DATE	DEED AREA	TOTAL PRO	TOTAL TAKE	PRO IN TAKE	NET TAKE	NET RES. LT.	NET RES. RT.	BLDG'S TO BE ACQ'D	SHEET NO.	REMARKS	OTHER DESIGNATED EASEMENTS	TYPE FUND
20 WD	Franklin E Beach	178	301	10-23-68	0.30 ac.*	—	0.30 ac	0.00	0.30 ac	—	—	Yes	11	* Lot 64 Total Take		
20-1					2.02 ac.*	—	0.34 ac.	—	0.34 ac	0.94 ac.	0.74 ac.	Yes	11	* Lots 65 & 68 plus 1.42 ac.		
20-1-T							0.01 ac.	—	0.01 ac.				11			
21 WD	Connie L. Beach	177	351	7-31-68	0.34 ac*	—	0.34 ac.	—	0.34 ac	—	—	Yes	11	* Lot 67 Total Take		
22	Thomas Daniels et al	165	146	4-27-64	3.01 ac.	—	0.90 ac.	—	0.90 ac.	1.20	0.91		11			
23	Charles B. & Frances D. Berry	189	765	6-1-71	29.43 ac.	0.63 ac.	2.74 ac.	0.10 ac.	2.64 ac.	22.20	3.77		11, 12	* Lots 59 & 60 plus 28.75 acres		
23-1							0.17 ac.	0.06 ac	0.11 ac.				12			
23-2							0.14 ac.	0.06 ac	0.08 ac.				12			
24	John Gulleft	134	490	12-23-47	38.00 ac.	1.92 ac.	3.08 ac	0.10 ac.	2.98 ac.	26.34 ac	5.81 ac		12			
24-1							0.10 ac.	0.03 ac	0.07 ac.				12			
24-2							1.19 ac.	0.31 ac	0.88 ac.				12			
25	Cornlia Mc Daniels & Jean Mc Daniels	179	625	3-7-69	1.52 ac.	0.19 ac.	0.03 ac.	—	0.03 ac.	—	1.30 ac.		12			
26	Lave M. Duncan & Jewell Duncan	*	*	*	109.34	1.12 ac.	0.92 ac	—	0.92 ac.	104.15 ac.	0.28 ac.	Yes	12, 13, 14	* Vol 163 P 594 Vol 138 P. 104 Vol 144 P 229 Vol 128 P. 322 Vol 144 P. 396		
26-1							0.69 ac	—	0.69 ac.				13			
26-2							3.00 ac.	0.82 ac.	2.18 ac.				13			
26-T							0.03 ac	—	0.03 ac.				13			
27 WD	Larry Smith & Marvella Smith	183	89	2-24-70	0.30 ac.*	—	0.30 ac	—	0.30 ac.	—	—	Yes	11	* Lot 63 Total Take		
28	Harold V. Lookado Jr. & Mary Lookado	167	584	12-15-65	1.87 ac	0.17 ac.	1.23 ac.	—	1.23 ac		0.47 ac.	Yes	12, 13			
28-X							0.06 ac	—	0.06 ac.				12			
28V														VACATE EASEMENT BACK TO GRANTORS REAL ESTATE VOL. 318 P.557		
29 WD	Trustee of the Methodist Episcopal Parsonage Bidwell Circuit	134	516	1-14-48	*0.80 ac.	—	* 0.80 ac	—	0.80 ac	—	—	Yes	13	* Bad Deed and acerage. Occupation Area Used. Total Take		
30	Nellie M. Mossman et al.	140	222	10-3-50	27.41 ac	0.58 ac.	0.34 ac.	0.19 ac	0.15 ac	26.68 ac.	—		13			
30-T							0.14 ac	—	0.14 ac.				13			
31	Jack L. Adams & Carole Ann Adams	189	293	4-27-71	13.95 ac	0.32 ac.	1.13 ac.	0.32 ac.	0.81 ac.	—	12.82 ac		13			
31-X							0.09 ac	—	0.09 ac				13			
31-T							0.04 ac	—	0.04 ac.				13			
32	Worthy Cremeans & Opal Cremeans				190.43 ac	2.38 ac.	1.03 ac.	0.38 ac.	0.65 ac	—	187.40		13, 14			
					190.43						187.40					

UTILITIES	CENTERLINE-REFERENCE-MONUMENTS	SYMBOLS	TYPE FENCE QUANTITIES	GENERAL NOTES

COMPLETION DATE

DATE	REVISION DESCRIPTION	
5-18-71	Corrected Net Take Parcel 24-1 & 24-2	T.W.L.
6-7-71	Change Ownership Parcel 31	
6-15-71	Changed Totals on Parcel 32	D.P.D.
7-12-71	Changed Ownership & Acreages Parcel 23 Tks	
8-23-05	ADDED PAR 28V & INFO.	RGT

JOB NO 106810

TYPE FUND STATE

SURVEYED	DRAWN BY	DESIGN	CHECKED	SUPERVISED

5/14

LD 0305
4-1-68

R/W SUMMARY SHEET

R/W Acquired as GAL-160-5.59

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

110/118

Built As: GAL. 160 (5.62 - 6.93)

Now GAL-160 - 8.37 - 10.48

6/14

4	Cont.	0.25 ac.
	P.R.O.	0.20 ac.
	T.B.A.	0.05 ac.
5	Cont.	0.44 ac.
	P.R.O.	0.13 ac.
	T.B.A.	0.31 ac.

GAL.160 -(5.62 6.93)

Date | Drawn by: G.P.D.

Revisions

12-6-71 Changed location of water line G.S.

JOB NO	6
TYPE FUND	14

SPRINGFIELD TWP. SEC'S 22 & 23 T6N. R 15 W

STA. 260+00 TO STA. 275+00 R/W

R/W Acquired as GAL-160-5.59

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

111/118

Built As: GAL. 160 (5.62 - 6.93)
Now GAL-160 - 8.37 - 10.48

2062500 7/14

SPRINGFIELD TWP., SEC. 23. T 6 N, R 15 W

GAL. 160 (5.62 - 6.93)

Date	Drawn By: G.P.D.	
	Revisions	
6-4-71	Changed Property line on Parcel 9 & Parcel 6 This changes PRO quantities in Par. 6 & Par. 9	
12-6-71	Changed location of water line	G.S.
12-22-75	Parcels 7-1 & 8-1 transferred to Gallia County Twp	

JOB NO	
106810	7
TYPE FUND STATE	14

STA. 275+00 TO STA. 290+00 R/W

R/W Acquired as GAL-160-5.59

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

112/118

Built As: GAL. 160 (5.62 - 6.93)
Now GAL-160 - 8.37 - 10.48

8/14

SPRINGFIELD TWP., SEC. 23, T6N, R15W

GAL. 160 (5.62 - 6.93)

Date	Drawn by: G.P.D.	
12-6-71	Changed location of water line	G.S.
12-22-75	Part of Parcels 10 & 11 transferred to Gallia Co	TWS

JOB NO		
106810		8
TYPE FUND		14
STATE	2063250	

STA. 290+00 TO STA. 305+00 R/W

R/W Acquired as GAL-160-5.59

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

113/118

Built As: GAL. 160 (5.62 - 6.93)
Now GAL-160 - 8.37 - 10.48

9/14

GAL. 160 (5.62 - 6.93)

Date | Drawn by: G.P.D.

Revisions

JOB NO	
106810	9
TYPE FUND STATE	14

SPRINGFIELD TWP., SEC 23, T5N, R15W

STA. 305+00 TO STA. 320+00 R/W

R/W Acquired as GAL-160-5.59

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

114/118

Built As: GAL. 160 (5.62 - 6.93)
Now GAL-160 - 8.37 - 10.48

10/14

SPRINGFIELD TWP, SEC. 23 & 24, T. 6 N., R. 15 W

GAL. 160 (5.62 - 6.93)

Date | Drawn by G.P.D.

Revisions

6-4-71	Added water line & well on Par 15
10-1-71	Added Parcel 15X-1; Changed Parcels 15 + 15-T + acreage
10-5-71	Parcel 15 changed to original size; Parcel 15X-1 & 15-T changed to Lightfoot
11-1-71	Added fence - Parcel 13

JOB NO 106810

TYPE FUND STATE

10/14

STA. 320+00 TO STA. 335+00 R/W

R/W Acquired as GAL-160-5.59

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

115/118

Built As: GAL. 160 (5.62 - 6.93)
Now GAL-160 - 8.37 - 10.48

11/14

19	Cont. 0.10 ac.	20-1	Cont. 0.34 ac.
	P.R.O. 0.00		P.R.O. 0.00
	T.B.A. 0.10 ac.		T.B.A. 0.34 ac.
22	Cont. 0.90 ac.	18 WD	Cont. 0.33 ac
	P.R.O. 0.00		P.R.O. 0.00
	T.B.A. 0.90 ac.		T.B.A. 0.33 ac
20 WD	Cont. 0.30 ac.	21 WD	Cont. 0.34 ac.
	P.R.O. 0.00		P.R.O. 0.00
	T.B.A. 0.30 ac.		T.B.A. 0.34 ac.
27 WD	Cont. 0.30 ac		
	P.R.O. 0.00		
	T.B.A. 0.30 ac.		

SPRINGFIELD TWP., SEC 24, T6N, R15W

GAL. 160 (5.62 - 6.93)

Date | Drawn by C.P.D.

Revisions

7-12-71	Changed Ownership Parcel 23	T.W.S.
12-6-71	Changed location of water line	G.S.

JOB NO 106810

TYPE FUND STATE

11/14

STA. 335+00 TO STA. 350+00 R/W

R/W Acquired as GAL-160-5.59

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

116/118

12/14

Built As: GAL. 160 (5.62 - 6.93)
Now GAL-160 - 8.37 - 10.48

NOTE: CROSS-HATCHED AREA, PAR 28V TO VACATE EASEMENT PER VOL. 192 P. 201 TO MARY LOOKADO LIFE ESTATE 4-13-03, BEING PART OF GRANTORS REAL ESTATE VOL. 318 P. 557.

GAL. 160 (5.62 - 6.93)

Date | Drawn by: G.P.D.

Revisions		
7-12-71	Added Lt. to Rt. residue Parcel 23	T.W.S.
12-6-71	Changed location of water line	G.S.
12-22-75	Parcels 23-1 24-1 23-2 24-2 transferred to Gallia Co	T.W.S.
8-23-05	ADDED PAR 28V & NOTE	

JOB NO 106810

TYPE FUND STATE

12

14

STA. 350+00 TO STA. 365+00 R/W

R/W Acquired as GAL-160-5.59

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

117/118

Built As: GAL. 160 (5.62 - 6.93)
Now GAL-160 - 8.37 - 10.48

13/14

NOTE: CROSS-HATCHED AREA PAR 28V. TO VACATE EASEMENT PER VOL 192 P 201 TO MARY LOOKADO LIFE ESTATE 4-13-03, BEING PART OF GRANTORS REAL ESTATE VOL. 318 P.557.

GAL. 160 (5.62 - 6.93)

Date | Drawn by: G.P.D.

Date	Revisions	
6-7-71	Changed Ownership Parcel 31	T.W.S.
10-14-71	Added Deed Dimensions - Parcel 29	
12-6-71	Changed location of Water line G.S.	
8-23-05	ADDED PAR 28V & NOTE	RST

JOB NO 106810

TYPE FUND STATE

13/14

STA. 365+00 TO STA. 380+00 R/W

R/W Acquired as GAL-160-5.59

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

118/118

Built As: GAL. 160 (5.62 - 6.93)
Now GAL-160 - 8.37 - 10.48

14/14

GAL. 160 (5.62 - 6.93)		
Date	Drawn by: G.P.D.	
	Revisions	
12-6-71	Changed location of water line	G.S.
JOB NO. 106810		14
TYPE FUND STATE		14

SPRINGFIELD TWP. & MORGAN TWP. SEC'S. 24 & 19, T 6 N, R 15 W

STA. 380+00 TO STA. 390+00 R/W

TE-65
500-7-68

GENERAL INFORMATION

INTRODUCTION

THE PROJECT CONSISTS OF THE SOILS INVESTIGATION OF 2.09 MILES OF PROPOSED SR 160, BEGINNING APPROXIMATELY 0.25 MILE NORTH OF THE EXISTING SR 160-COUNTY ROAD 46 INTERSECTION, EXTENDING NORTHWARD AND TERMINATING 0.57 MILE NORTH OF THE EXISTING SR 160-COUNTY ROAD 32 (FLOYD CLARK ROAD) INTERSECTION.

PROPOSED GRADE INDICATES MAXIMUM PROPOSED 30-FOOT CUTS AND 30-FOOT FILL EMBANKMENTS.

GEOLOGY AND OBSERVATIONS OF THE PROJECT

THE PROJECT IS LOCATED ON THE DISSECTED ALLEGHENY PLATEAU, IN AN AREA WHERE THIN RESIDUAL SOILS OVERLIE SHALE BEDROCK, OF PENNSYLVANIAN AGE. SHALE WAS OBSERVED AND MEASURED IN EXISTING ROADWAY DITCHES AND SMALL TRIBUTARIES THROUGHOUT THE PROJECT. SPRING HORIZONS WERE OBSERVED IN THE VICINITIES OF STATIONS 314+00 AND 330+00. SMALL FARM PONDS ARE LOCATED THROUGHOUT THE PROJECT.

EXPLORATION

EXPLORATORY BORINGS WERE MADE BY MEANS OF TRUCK-MOUNTED MECHANICAL SOIL AUGER, HAND AUGER (IN DIFFICULT ACCESS AREAS) AND ROTARY-TYPE DRILL RIG BETWEEN MAY 18 AND 22, AND ON JUNE 18, 1970.

INVESTIGATIONAL FINDINGS

MATERIALS ENCOUNTERED ON THE PROJECT WERE COMPRISED OF SANDY SILT (A-4a), SILT CLAYS (A-6a AND A-6b) AND CLAY (A-7-6), GENERALLY HAVING LOW MOISTURE CONTENTS AND MOISTURE CONTENTS IN THE LOWER PORTIONS OF THE PLASTIC RANGE.

SHALE BEDROCK IS ANTICIPATED IN THE FOLLOWING EXCAVATION AREAS:

STATIONS 306+50 TO 310+00 - POSSIBLY AT GRADE AND IN THE DITCHES.

STATIONS 323+50 TO 328+00 - AT GRADE AND IN THE DITCHES AND LOWER PORTIONS OF THE BACKSLOPES.

STATIONS 332+00 TO 334+00 - AT GRADE AND IN THE DITCHES AND BACKSLOPES.

WET MATERIALS WERE ENCOUNTERED AT STATIONS 284+00, 292+00, 315+00 AND 352+00.

LEGEND FOR PROJECT AVERAGE RESULTS OF TESTS— 86 SAMPLES TESTED

DESCRIPTION	H.R.B. CLASS	OHIO CLASS	% AGG.	% C. SAND	% F. SAND	% SILT	% CLAY	LIQUID LIMIT	PLASTICITY INDEX	WATER CONTENT	SAMPLES TESTED
SANDY SILT	A-4(5)	A-4a	5	5	31	28	31	25	6	16	11
SILT AND CLAY	A-6(9)	A-6a	5	2	18	35	40	32	13	18	15
SILTY CLAY	A-6(11)	A-6b	3	2	12	34	49	37	18	20	21
CLAY	A-7-6(18)	A-7-6	1	2	5	26	66	52	29	23	32
WEATHERED SHALE			VISUAL CLASSIFICATION								5
SHALE			VISUAL CLASSIFICATION								2
VARIOUS OTHER MATERIALS			VISUAL CLASSIFICATION								

SOD AND/OR TOPSOIL=X'=APPROXIMATE DEPTH.

BERM MATERIAL.

AUGER BORING-PLAN VIEW.

DRIVE SAMPLE AND/OR CORE BORING-PLAN VIEW.

AUGER BORING PLOTTED TO VERTICAL SCALE ONLY.

DRIVE SAMPLE AND/OR CORE BORING PLOTTED TO VERTICAL SCALE ONLY.

WATER CONTENT NEARLY EQUAL TO OR GREATER THAN LIQUID LIMIT.

INDICATES A NON-PLASTIC MATERIAL WITH A HIGH WATER CONTENT.

W FREE WATER.

NUMBER OF BLOWS FOR "STANDARD PENETRATION" TEST.
X=NUMBER OF BLOWS FOR FIRST 6 INCHES.
Y=NUMBER OF BLOWS FOR SECOND 6 INCHES.

NOTE: FIGURES BESIDE BORINGS INDICATE WATER CONTENT IN PERCENT.E.G. 15

SOIL PROFILE
GALLIA COUNTY
GAL - 160 - 5.59

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS, OHIO 43223

1/5

NOTE: INFORMATION SHOWN BY THIS SUBGRADE PROFILE WAS OBTAINED SOLELY FOR USE IN ESTABLISHING DESIGN CONTROLS FOR THE PROJECT. THE STATE OF OHIO DOES NOT GUARANTEE THE ACCURACY OF THIS DATA AND IT IS NOT TO BE CONSTRUED AS A PART OF THE PLANS GOVERNING CONSTRUCTION OF THE PROJECT.

LOCATION MAP

Recon—J.S.M. — 4/30/70
Drilling — Auger — L.M.D.— 5/18/70 to 5/22/70; Core— W.L.T.— 6/18/70
Drafting—D.E.N., R.A.W.— 7/6/70

SUMMARY OF SOIL TEST DATA

NOTE: NP SHOWN IN LIQUID LIMIT AND PLASTICITY INDEX COLUMNS INDICATE THAT THE MATERIAL IS NON-PLASTIC.
*DENOTES SAMPLE TAKEN AT OR NEAR GRADE.

STATION & OFFSET	DEPTH FROM TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
272+65 15'Lt	0.0-4.0	0	1	20	29	50	37	19	16	A-6b*
	4.0-6.0	0	0	3	30	67	48	26	22	A-7-6
	6.0-10.0	0	2	9	41	48	35	15	12	A-6a
275+00 10'Rt	0.0-1.5	24	11	18	21	26	24	9	13	A-4a
	1.5-4.0	0	1	32	35	32	25	9	18	A-4a
	4.0-10.0	0	4	23	30	43	30	11	22	A-6a
279+00 12'Rt	0.0-5.0	0	1	6	43	50	36	17	23	A-6b*
	5.0-8.0	0	2	9	28	60	44	23	17	A-7-6
	8.0-10.0	0	1	5	32	62	40	19	19	A-6b
281+50 10'Rt	0.6-4.0	0	1	11	26	62	45	29	22	A-7-6
	4.0-7.0	0	1	9	23	67	56	38	18	A-7-6*
	7.0-11.0	0	2	20	27	51	34	16	18	A-6b*
	11.0-16.0	0	2	2	17	79	54	31	16	A-7-6
284+00 30'Rt	0.0-3.0	0	1	28	29	42	28	13	25	A-6a
	3.0-6.0	0	0	31	23	46	40	23	20	A-6b
288+00 10'Rt	0.6-5.0	0	7	35	22	36	24	9	14	A-4a
	5.0-10.0	0	1	21	29	49	39	19	19	A-6b
292+00 CL	0.7-4.0	0	3	26	35	36	27	9	26	A-4a
	4.0-8.0	15	3	16	26	40	38	19	20	A-6b
	8.0-9.5	20	2	8	24	46	60	39	23	A-7-6
295+50 CL	0.5-5.0	0	1	6	37	56	49	25	25	A-7-6
	5.0-8.0	0	3	11	31	55	47	27	24	A-7-6
	8.0-9.5	(9	6	22	21	42	41	23	14)	
	BROWN WEATHERED SANDY SHALE									VISUAL
298+60 CL	0.3-3.0	0	1	31	28	40	29	11	16	A-6a*
	3.0-8.0	0	1	2	16	81	68	41	23	A-7-6*
	8.0-11.0	21	0	3	27	49	50	26	19	A-7-6
300+50 30'Rt	0.3-5.0	0	4	18	36	42	36	17	15	A-6b
	5.0-8.5	0	2	41	27	30	28	13	13	A-6a*
302+50 CL	0.3-4.0	0	2	10	26	62	60	34	23	A-7-6
	4.0-9.0	0	1	9	27	63	45	24	24	A-7-6
	9.0-14.5	0	1	9	32	58	46	25	17	A-7-6*
	14.5-16.0	0	1	9	23	67	54	32	17	A-7-6
305+50 CL	0.3-3.0	0	5	10	40	45	33	11	24	A-6a*
	3.0-6.0	0	5	11	36	48	34	15	27	A-6a*
	6.0-8.5	0	2	8	30	60	45	23	37	A-7-6
308+00 CL	0.3-6.5	0	1	12	34	53	47	27	22	A-7-6
308+75 CL	0.3-5.0	0	3	46	22	29	23	8	10	A-4a
311+50 CL	0.3-5.0	0	2	8	44	46	33	15	17	A-6a*
	5.0-9.0	0	5	16	36	43	36	16	18	A-6b
	9.0-12.5	0	1	2	23	74	46	23	20	A-7-6
315+00 CL	0.3-4.0	11	5	24	27	33	NP	NP	20	A-4a
	4.0-6.0	0	5	23	40	32	23	8	17	A-4a
	6.0-7.5	(36	5	12	22	25	30	12	11)	
	GRAY WEATHERED SHALE									VISUAL
319+00 CL	0.3-4.0	0	1	1	20	78	48	19	26	A-7-6*
	4.0-7.0	28	2	6	26	38	39	15	12	A-6a*
	7.0-13.0	0	0	1	42	57	39	16	13	A-6b
	13.0-15.0	11	2	2	18	67	40	17	13	A-6b
322+00 CL	0.3-3.0	0	1	2	10	87	67	38	29	A-7-6
	3.0-6.0	3	2	2	24	69	44	21	18	A-7-6
	6.0-9.0	16	7	5	21	51	38	18	9	A-6b
324+35 15'Rt	0.7-5.0	0	3	15	34	48	36	17	23	A-6b*
	5.0-8.0	(36	4	8	24	28	34	13	9)	
	BROWN WEATHERED SHALE									VISUAL*
326+50 CL	0.6-5.0	0	1	28	24	47	35	14	22	A-6a
	5.0-8.5	(20	5	12	35	28	11	11	7)	
	BROWN WEATHERED SHALE									VISUAL
328+50 CL	0.2-5.0	8	4	39	22	27	NP	NP	17	A-4a*
	5.0-7.5	0	2	51	21	26	NP	NP	10	A-4a
330+00 CL	0.2-4.0	0	3	18	30	49	32	11	20	A-6a
	4.0-9.0	0	1	1	20	78	53	31	24	A-7-6
	9.0-15.0	0	1	3	32	64	45	27	23	A-7-6
331+60 CL	0.3-4.0	16	1	10	39	34	33	14	19	A-6a*
333+30 CL	0.2-4.0	0	1	9	40	50	41	25	13	A-7-6
	4.0-8.0	16	2	22	38	22	28	11	11	A-6a
	8.0-11.0	(20	3	17	38	22	30	13	21)	
	BROWN WEATHERED SANDY SHALE									VISUAL
335+00 10'Lt	0.3-5.0	8	6	15	37	34	28	12	16	A-6a
	5.0-10.0	15	8	9	28	40	36	19	18	A-6b*
	10.0-15.0	16	11	26	19	28	26	10	15	A-4a*
	15.0-18.0	0	1	15	45	39	29	12	16	A-6a
337+00 CL	0.3-5.0	0	1	6	47	46	37	19	22	A-6b*
	5.0-10.0	0	0	6	33	61	37	17	19	A-6b
339+75 8'Rt	0.0-2.0	0	1	6	45	48	33	17	25	A-6b*
	2.0-4.0	0	1	6	46	47	37	19	20	A-6b*
343+50 CL	0.7-5.0	0	3	3	33	61	43	21	21	A-7-6*
347+50 CL	0.0-4.5	0	2	2	35	61	41	22	23	A-7-6*
352+00 CL	0.0-3.0	0	6	8	39	47	35	17	37	A-6b
	3.0-4.5	0	4	11	38	47	33	16	26	A-6b
	4.5-8.0	0	3	14	40	43	34	17	26	A-6b
356+00 CL	0.0-4.5	0	3	3	35	59	44	23	23	A-7-6*
360+00 CL	0.3-4.0	0	2	3	29	66	50	26	26	A-7-6*
365+00 CL	0.3-5.5	0	2	9	24	65	57	31	28	A-7-6
368+00 CL	0.5-4.0	0	5	6	5	84	77	48	31	A-7-6
	4.0-5.6	0	0	0	6	94	66	39	24	A-7-6*
372+00 15'Lt	0.0-2.2	0	4	23	39	34	24	7	19	A-4a
375+00 18'Rt	0.0-3.5	0	3	11	28	58	45	24	32	A-7-6
379+40 16'Rt	0.0-4.4	0	2	3	21	74	74	47	30	A-7-6*

DRIVE SAMPLE SOIL TEST DATA

STATION & OFFSET	DEPTH FROM TO	% AGG.	% C.S.	% F.S.	% SILT	% CLAY	L.L.	P.I.	% W.C.	SHTL CLASS.
333+50 40'Lt	2.5-3.0	(0	0	13	48	39	32	14	12)	
	BROWN CLAY SHALE									VISUAL
	5.0-5.4	(0	2	28	38	32	NP	NP	11)	
	BROWN SANDY SHALE									VISUAL

TE - 127
1500-12.66

SOIL PROFILE

GALLIA COUNTY

GAL - 160 - 5.59

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS, OHIO 43223

2/5

TC - 127
1500-12-66

SOIL PROFILE

GALLIA COUNTY

GAL - 160 - 5.59

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS, OHIO 43223

3/5

A. Shale, brownish-gray, medium-firm, arenaceous, fissile in part, very badly broken in upper 2.0', broken and jointed in remainder. No core loss.

B. Shale, dark-gray, firm, carbonaceous, fissile, broken and jointed. No core loss.

SOIL PROFILE

GALLIA COUNTY

GAL - 160 - 5.59

OHIO STATE HIGHWAY TESTING LABORATORY

1620 W. BROAD ST. COLUMBUS, OHIO 43223

4/5

TE - 127
1990-12-06

SOIL PROFILE

GALLIA COUNTY

GAL - 160 - 5.59

OHIO STATE HIGHWAY TESTING LABORATORY
1620 W. BROAD ST. COLUMBUS, OHIO 43223

5/5