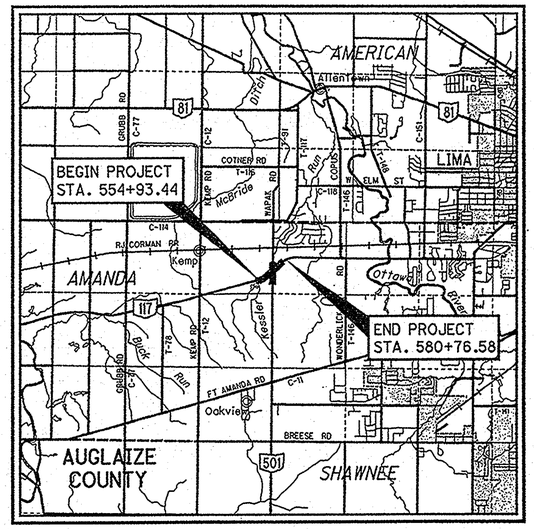
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

ALL-117/501-10.76/4.34

SHAWNEE TOWNSHIP
ALLEN COUNTY



LOCATION MAP

LATITUDE: N40°43'10" LONGITUDE: W84°12'15"

SCALE IN MILES
0 1 2 3 4

N

PORTION TO BE IMPROVED
INTERSTATE HIGHWAY
STATE & FEDERAL ROUTES
COUNTY & TOWNSHIP ROADS
OTHER ROADS

DESIGN DESIGNATION

	SR 117	SR 501	Wapak Rd.
CURRENT ADT (2017)	4800	3200	3600
DESIGN YEAR ADT (2037)	4900	3200	4300
DESIGN HOURLY VOLUME (2037)	440	290	470
DIRECTIONAL DISTRIBUTION	53%	53%	55%
TRUCKS (24 HOUR B&C)	6%	2%	3%
DESIGN SPEED	55 MPH	55 MPH	55 MPH
LEGAL SPEED	55 MPH	55 MPH	55 MPH

DESIGN FUNCTIONAL CLASSIFICATION:
- 04 MINOR ARTERIAL (URBAN) - SR 117 (EAST)
- 05 MAJOR COLLECTOR (RURAL) - SR 117 (WEST)
- 05 MAJOR COLLECTOR (URBAN) - SR 501
- 07 LOCAL (URBAN) - WAPAK RD.

NHS PROJECT ..... NO

DESIGN EXCEPTIONS

DESIGN FEATURE	APPROVAL DATES	SHEET NO.
SHOULDER WIDTH	7-17-15	3, 4, 5
HORIZONTAL ALIGNMENT	7-17-15	47, 65
STOPPING SIGHT DISTANCE	7-17-15	47, 65

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES TWO WORKING DAYS BEFORE YOU DIG.

OHIO Utilities Protection SERVICE — Call Before You Dig 1-800-362-2764
(Non-members must be called directly)

OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE
1-800-925-0988

PLAN PREPARED BY:
DISTRICT NO. 1
OHIO DEPARTMENT OF TRANSPORTATION

ENGINEERS SEAL:

STATE OF OHIO — Eric L Schedelbolt E-63356 — REGISTERED PROFESSIONAL ENGINEER

SIGNED: Eric Schedelbolt
DATE: December 18 2015

INDEX OF SHEETS:

STANDARD CONSTRUCTION DRAWINGS

BP-3.1	7/18/14	PCB-91	1/18/13	TC-65.10	1/17/14		
BP-4.1	7/19/13			TC-65.11	7/18/14		
		MT-95.60	7/19/13	TC-71.10	1/17/14		
CB-1.1	1/18/13	MT-97.10	7/18/14	TC-72.20	7/18/14		
CB-1.2	1/18/13	MT-101.60	7/19/13				
		MT-101.70	1/17/14	HL-10.11	1/17/14		
HW-1.1	1/18/13	MT-101.90	7/17/15	HL-20.11	1/16/15		
HW-2.1	7/17/15	MT-105.10	7/19/13	HL-30.11	1/16/15		
HW-2.2	7/17/15			HL-30.22	1/17/14		
		TC-41.20	10/18/13	HL-40.10	1/17/14		
DM-1.1	1/18/13	TC-41.25	7/17/15	HL-60.11	1/17/14		
DM-1.2	1/18/13	TC-41.30	10/18/13	HL-60.12	1/17/14		
DM-4.3	7/19/13	TC-42.20	10/18/13	HL-60.31	7/17/15		
DM-4.4	7/20/12	TC-52.10	10/18/13				
		TC-52.20	7/18/14				
RM-1.1	7/18/14	TC-64.10	7/17/15				

SUPPLEMENTAL SPECIFICATIONS

800	1/15/16
832	1/17/14
902	12/31/12

SPECIAL PROVISIONS

Waterway Permit Conditions 5-27-15

PROJECT DESCRIPTION

RECONSTRUCTION OF THE S.R. 117 AND S.R. 501/WAPAK RD. INTERSECTION AND WIDENING OF S.R. 117 FOR THE INSTALLATION OF LEFT TURN LANES. THE PROJECT IS 0.49 MILES LONG. IN ADDITION, S.R. 117 WILL BE RESURFACED WITHIN THE PROJECT LIMITS, AND EXISTING DRAINGE SYSTEMS WILL BE RECONSTRUCTED.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: ..... 7.0 ACRES
ESTIMATED CONTRACTOR EARTH DISTRUBED AREA: ..... 1.5 ACRES
NOTICE OF INTENT EARTH DISTRUBED AREA: ..... 8.5 ACRES

2013 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVED THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT AS NOTED ON SHEET 8, AND THAT PROVISIONS FOR THE MAINENTANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED Kurt Fluck
DATE 12/18/15 DISTRICT DEPUTY DIRECTOR

APPROVED Jerry Wray
DATE 12-21-15 DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. E 131 (322)
PID NO. 84063
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE
ALL-117/501-10.76/4.34
1/95

ALL - SR 117/SR 501-10.76/4.34
160132 PID - 84063
Dist 1 3/24/2016

Contract Proposal Available @ www.contracts.dot.state.oh.us/home

18-DEC-2015 1:20PM mmueller

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BENCHMARK #1 (117)
Chiseled Square in West end of South Abutment Wall 556+29, 36.0' Rt Elevation 835.80

BENCHMARK #2 (117)
Mine Spike in Power Pole 561+10, 50.0'Rt Elevation 836.53

BENCHMARK #3 (117)
Spike in Power Pole #896-41 567+55.51, 26.0'Lt Elevation 837.98

BENCHMARK #4 (117)
Chiseled Square in South Corner of Church Step 568+36, 42.0' Lt Elevation 837.97

BENCHMARK #5 (117)
Mine Spike in Power Pole 573+61, 28.0'Rt Elevation 842.67

BENCHMARK #6 (117)
Mine Spike in Power Pole #960-219 579+12, 30.0'Rt Elevation 844.89

BENCHMARK #7 (501)
Mine Spike in Power Pole #896-59 219+43, 31.0'Rt Elevation 845.76

BENCHMARK #8 (501)
Mine Spike in Power Pole #896-57 224+55, 33.0'Rt Elevation 840.42

BENCHMARK #9 (WAPAK)
Mine Spike in Power Pole #896-399 3+09, 19.0'Rt Elevation 832.69

BENCHMARK #10 (WAPAK)
Mine Spike in Wapak Rd 7+81, 18.0'Lt Elevation 832.50

ALL 117 10.52
PID 84063
Basis of Centerline
ALL-117-10.52 R/W Plans,
ALL-117-8.66 R/W Plans,
ALL-I.C.H.-132-Sec. E3,
on file at the Ohio Department of Transportation, Lima, Ohio

Basis of R/W
ALL-117-10.52 R/W Plans,
ALL-117-8.66 R/W Plans,
ALL-I.C.H.-132-Sec. E3,
on file at the Ohio Department of Transportation, Lima, Ohio

Basis of Bearing
Project is on the State Plane Coordinate System, Nad83, Ohio North Zone, 1996 Adj. and established by GPS (VRS)

Basis of Elevation
NAVD 88, Geoid 03 and derived from GPS (VRS)

P.I. Sta. 559+64.92
Δ = 29° 48′ 00″ (LT)
Dc = 4° 00′ 00″
R = 1,432.40′
Ls = 300.65′
θs = 6° 00′ 47″
LT = 200.55′
ST = 100.32′
x = 300.32′
y = 10.51′
k = 150.27′
p = 2.63′
Δc = 17° 46′ 27″ (LT)
Lc = 444.35′
Ts = 532.10′
E = 52.56′
C = 442.57′
Cl = C2 = 300.50′
C.B.1 = N 76° 17′ 40″ E
C.B. = N 63° 23′ 55″ E
C.B.2 = S 50° 30′ 10″ W

P.I. Sta. 1+71.69
Δ = 27° 13′ 01″ (RT)
Dc = 28° 38′ 52″
R = 200.00′
T = 48.42′
L = 95.00′
E = 5.78′
C = 94.11′
C.B. = N 12° 51′ 26″ W

P.I. Sta. 583+19.93
Δ = 42° 30′ 34″ (RT)
Dc = 4° 00′ 00″
R = 1,432.69′
Ls = 300.00′
θs = 5° 59′ 56″
LT = 200.11′
ST = 100.10′
x = 299.67′
y = 10.46′
k = 149.95′
p = 2.62′
Δc = 30° 30′ 43″ (RT)
Lc = 762.80′
Ts = 708.24′

P.I. Sta. 228+16.34
Δ = 42° 20′ 57″ (LT)
Dc = 24° 54′ 40″
R = 230.00′
T = 89.09′
L = 170.00′
E = 16.65′
C = 166.16′
C.B. = N 5° 17′ 28″ W

P.I. Sta. 222+60.59
Δ = 15° 07′ 56″ (RT)
Dc = 3° 44′ 41″
R = 1,530.00′
T = 203.22′
L = 404.08′
E = 13.44′
C = 402.91′
C.B. = N 8° 19′ 02″ E

END WORK
STA 4+80

BEGIN WORK
BEGIN PROJECT
STA. 554+93.44
SLM 10.53 (117)

E131(322)

END WORK
END PROJECT
STA. 580+76.58
SLM 11.00 (117)

BEGIN WORK
STA. 218+72.65
SLM 4.14 (501)

RESIDENTIAL RECREATIONAL POND (DND)

RESIDENTIAL RECREATIONAL POND (203)

36″ TYPE B CB-2-4
12″ TYPE B CB-2-2B
15″ TYPE B CB-2-2B
24″ B CB-2-3
18″ B CB-2-2B
EX. 15″ CPP CB-2-2B
EX. 78″ x 118″ CMP

PT Sta. 248.28
PC Sta. 1+23.27
POT Sta. 568+39.57
POT Sta. 0+00.00
ST Sta. 564+78.47
PI Sta. 564+78.47
Δ = 0°02′ 08″ (RT)
CS Sta. 561+77.82
Sta 229+15.20 BK = Sta 568+39.57 AH
POT Sta. 552+69.71
TS Sta. 554+32.82
SC Sta. 557+33.47
POT Sta. 0+41.45
POT Sta. 229+99.20
PT Sta. 228+97.24
PC Sta. 227+27.24
PT Sta. 224+61.45
PC Sta. 220+57.37
POT Sta. 218+00.00
SC Sta. 579+11.69
TS Sta. 576+11.69

BM #1
BM #2
BM #3
BM #4
BM #5
BM #6
BM #7
BM #8
BM #9
BM #10

℄ CONST & R/W 117
℄ R/W-501
℄ CONST WAPAK RD

N 78° 17′ 55″ E M.N.S.
N 48° 42′ 03″ E
N 0° 45′ 03″ E
N 13° 53′ 00″ E
N 48° 22′ 03″ E

MONUMENT LEGEND

- ○P.K.F. - PK NAIL FOUND
- ⊙I.P.F. - IRON PIN FOUND
- ∅ - RR SPIKE FOUND
- ∅ - RR Spike Set
- •M.N.S. - Magnetic Nail Set
- •P.K.S. - PK Pin Set
- ∅ - Mine Spike Set
- Ⓜ - EX. MONUMENT BOX
- Ⓜ - Prop. Monument Box

PI Sta. 554+32.82 ℄ Constr. SR 117
39.03′, 90.87′, 91.27′

PI Sta. 552+69.71 ℄ Constr. SR 117
55.75′, 75.91′, 71.93′

EAST 1/4 POST SEC 6 SHAWNEE TWP
55.75′, 48.87′, WAPAK RD

SE CORNER SEC 6 SHAWNEE TWP
46.13′, 30.15′, 199.3

PI Sta. 568+39.57 ℄ Constr. SR 117
16.70′, 31.59′, ℄ WAPAK RD, M.N.S., ℄ 501, 37.01′, SE CORNER BOTTOM STEP

PI Sta. 564+78.47 ℄ Constr. SR 117
115.11′, M.N.S., 70.05′

PI Sta. 561+77.52 ℄ Constr. SR 117
84.02′, M.N.S., 84.79′

PI Sta. 557+33.47 ℄ Constr. SR 117
90.87′, M.N.S., 40.30′, 43.63′, SE CORNER WING WALL

PI Sta. 589+74.49 ℄ Constr. SR 117
39.79′, M.N.S., 34.59′

PI Sta. 586+74.49 ℄ Constr. SR 117
43.90′, M.N.S., 16.77′, M.N.S. ON EOP

PI Sta. 579+11.69 ℄ Constr. SR 117
27.65′, M.N.S., 52.68′

PI Sta. 576+11.69 ℄ Constr. SR 117
M.N.S., 36.60′, 28.56′

HORIZONTAL SCALE IN FEET
0, 50, 100, 200

SCHEMATIC PLAN

ALL-117 / 501 - 10.76 / 4.34

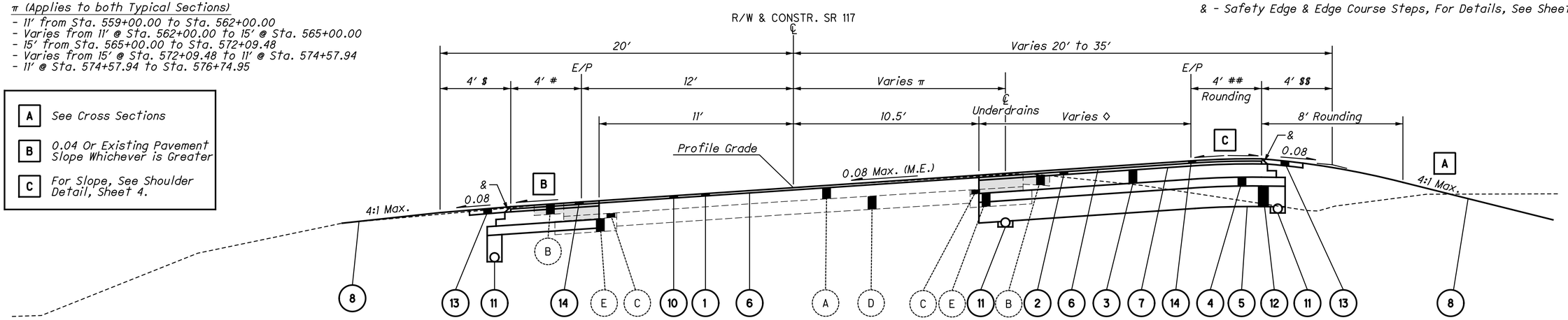
π (Applies to both Typical Sections)
- 11′ from Sta. 559+00.00 to Sta. 562+00.00
- Varies from 11′ @ Sta. 562+00.00 to 15′ @ Sta. 565+00.00
- 15′ from Sta. 565+00.00 to Sta. 572+09.48
- Varies from 15′ @ Sta. 572+09.48 to 11′ @ Sta. 574+57.94
- 11′ @ Sta. 574+57.94 to Sta. 576+74.95

& - Safety Edge & Edge Course Steps, For Details, See Sheet 5.

A — See Cross Sections

B — 0.04 Or Existing Pavement Slope Whichever is Greater

C — For Slope, See Shoulder Detail, Sheet 4.



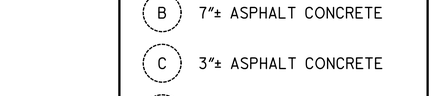
$ - Tapers from 0′ @ Sta. 554+93.44 to 4′ @ Sta. 555+50.00
$ - Tapers from 4′ @ Sta. 580+50.00 to 0′ @ Sta. 580+76.58
# - Tapers from 1.2′ @ Sta. 554+93.44 to 4′ @ Sta. 555+68.44
# - Tapers from 4′ @ Sta 580+16.80 to 3.4′ @ Sta 580+76.58

SUPERELEVATED SECTION
APPLIES

Sta. 554+93.44 to Sta. 564+78.47 = 985.03 Ft
Sta. 576+11.69 to Sta. 580+76.58 = 464.89 Ft
Total = 1,449.92 Ft

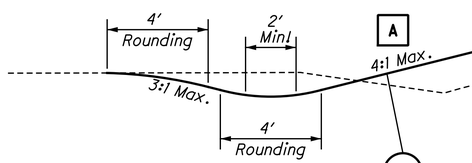
◊ - Tapers from 1.5′ @ Sta. 554+93.44 to 16.2′ @ Sta. 564+78.47
◊ - Tapers from 9.2′ @ Sta. 576+11.69 to 1.5′ @ Sta. 580+76.58
- Tapers from 2′ @ Sta. 554+93.44 to 4′ @ Sta. 555+37.60
- Tapers from 4′ @ Sta. 580+16.80 to 0.6′ @ Sta. 580+76.58
$$ - Tapers from 0′ @ Sta. 554+93.44 to 4′ @ Sta. 555+37.60,
$$ - Tapers from 4′ @ Sta. 580+00.00 to 0′ @ Sta 580+76.58

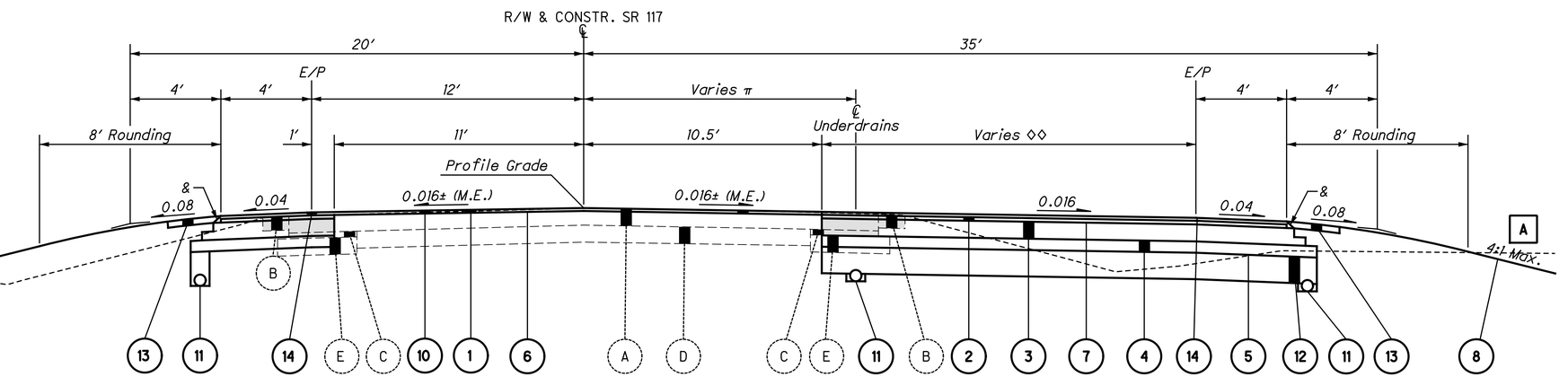
TYPICAL V-DITCH
*SEE TABLE FOR STATIONS



1 - See Cross Sections for Ditch Bottom Width

TYPICAL CUT AND FILL
*SEE TABLE FOR STATIONS





◊◊ - Tapers from 16.2′ @ Sta. 564+78.47 to 16.5′ @ Sta. 565+00.00
◊◊ - 16.5′ @ Sta. 565+00.00 to Sta. 572+09.48
◊◊ - Tapers from 16.5′ @ Sta. 572+09.48 to 9.2′ @ Sta. 576+11.69

NORMAL SECTION
APPLIES
*NOTE: Ditch Sections Apply to Both Lt. and Rt.
Sta. 564+78.47 to Sta. 576+11.69 = 1133.22 Ft
Total = 1133.22 Ft

NORMAL DESIGN CRITERIA - FORESLOPES STEEPER THAN 6:1 REQUIRE A 10′ GRADED SHOULDER. THE PROJECT DESIGN INCLUDES 4:1 FORSLOPES AND AN 8′ GRADED SHOULDER.

*

DITCH SECTIONS S.R. 117			
SECTION	BEGIN STA	END STA	OFFSET
CUT/FILL	568+00	569+00	LT
V-DITCH	569+50	582+50	LT
CUT/FILL	557+50	558+00	RT
V-DITCH	558+50	564+00	RT
CUT/FILL	564+50	582+50	RT

M.E. = MATCH EXISTING

EXISTING LEGEND

- (A) 9″± ASPHALT CONCRETE
- (B) 7″± ASPHALT CONCRETE
- (C) 3″± ASPHALT CONCRETE
- (D) 9″± WATERBOUND MACADAM
- (E) 9″± AGGREGATE BASE

PROPOSED LEGEND

1. ITEM 441 - 1-1/4″ ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 64-22
2. ITEM 441 - 1-3/4″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
3. ITEM 301 - 9″ ASPHALT CONCRETE BASE, PG64-22
4. ITEM 304 - 6″ AGGREGATE BASE
5. ITEM 204 - SUBGRADE COMPACTION
6. ITEM 407 - TACK COAT FOR INTERMEDIATE COURSE (0.075 Gallons per Sq Yd)
7. ITEM 407 - TACK COAT (0.075 Gallons per Sq Yd)
8. ITEM 659 - SEEDING AND MULCHING
9. ITEM 304 - 8″ AGGREGATE BASE
10. ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE (Thickness - ±1 1/4″)
11. ITEM 605 - 6″ BASE PIPE UNDERDRAINS
12. ITEM 204 - EXCAVATION OF SUBGRADE (14″ DEPTH) AND BACKFILL WITH GRANULAR MATERIAL, TYPE C
13. ITEM 617 - 3″ COMPACTED AGGREGATE
14. ITEM 618 - EDGE LINE, RUMBLE STRIPE (ASPHALT CONCRETE)

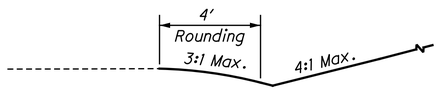
ITEM 202 - PAVEMENT REMOVED

TYPICAL SECTIONS - SR 117

ALL-117/501-10.76/4.34

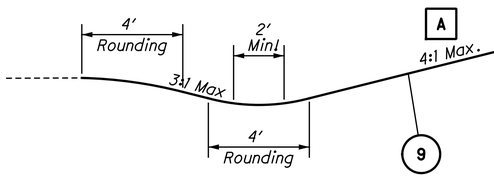
TYPICAL V-DITCH

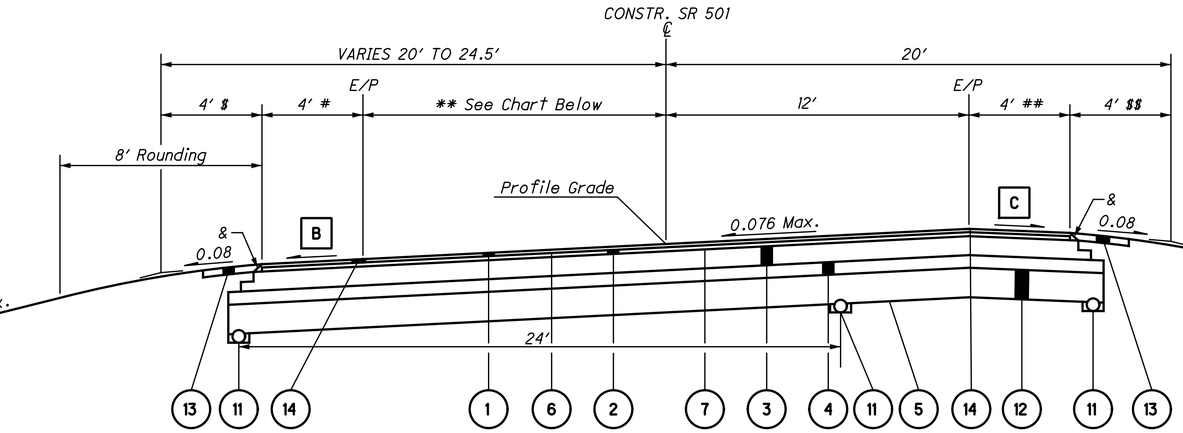
*SEE TABLE FOR STATIONS



TYPICAL CUT AND FILL

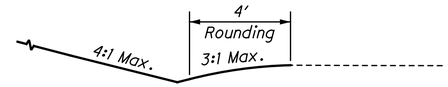
*SEE TABLE FOR STATIONS





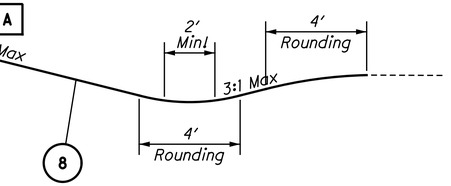
TYPICAL V-DITCH

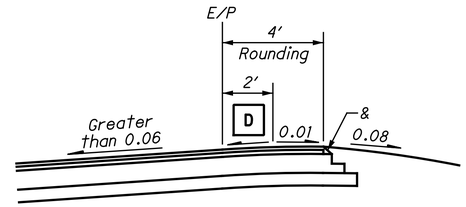
*SEE TABLE FOR STATIONS



TYPICAL CUT AND FILL

*SEE TABLE FOR STATIONS





SHOULDER DETAIL

FOR PAVEMENT SLOPES GREATER THAN 0.06.
SEE CROSS SECTIONS AND SUPER ELEVATION
TABLE FOR DETAILS

*

DITCH SECTIONS S.R. 501			
SECTION	BEGIN STA	END STA	OFFSET
CUT/FILL	219+00	229+50	LT
V-DITCH	219+00	219+50	RT
CUT/FILL	220+00	222+00	RT
V-DITCH	222+50	226+00	RT
CUT/FILL	226+50	229+50	RT

SUPERELEVATED SECTION

APPLIES

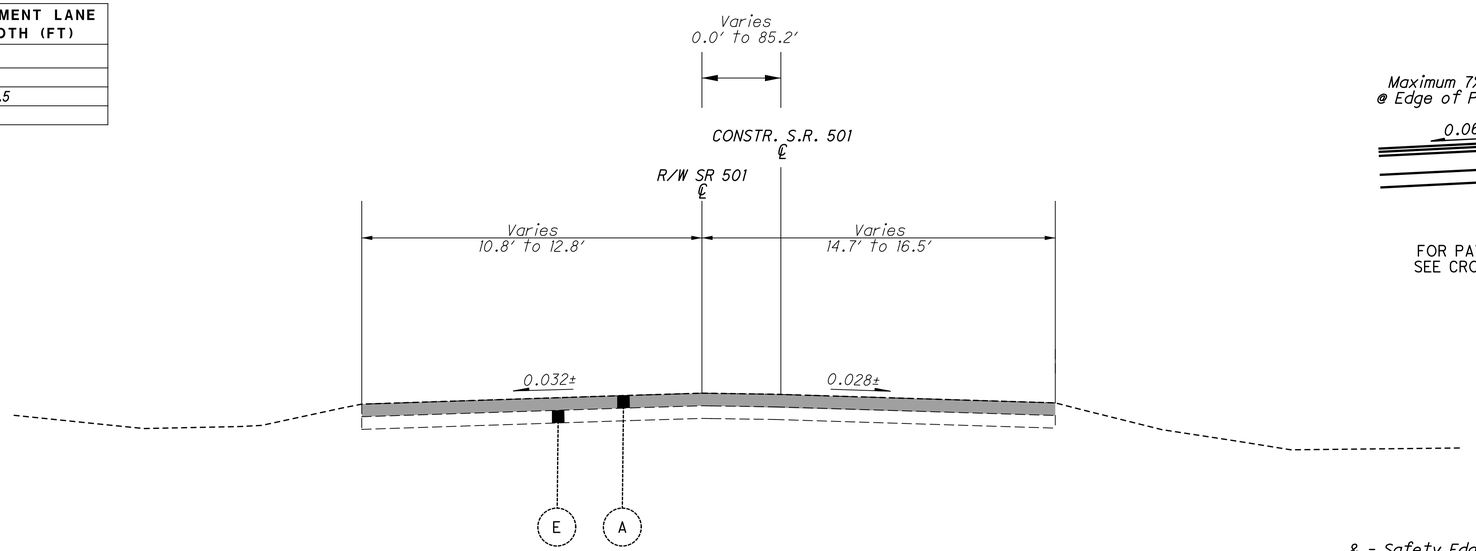
Sta. 218+72.65 to Sta. 229+50 = 1,077.35 Ft
Total = 1,077.35 Ft

$ - Tapers from 0' @ Sta. 218+72.65 to 4' @ Sta. 220+57.37
# - Tapers From 1.9' @ Sta. 218+72.65 to 4' @ Sta. 220+57.37
- Tapers from 1.5' @ Sta. 218+72.65 to 4' @ Sta. 220+57.37
$$ - Tapers from 0' @ Sta. 218+72.65 to 4' @ Sta. 219+00

NORMAL DESIGN CRITERIA - FORESLOPES STEEPER THAN 6:1 REQUIRE A 10' GRADED SHOULDER.
THE PROJECT DESIGN INCLUDES 4:1 FORSLOPES AND AN 8' GRADED SHOULDER.

**

ROUTE	STATION		STATION	PAVEMENT LANE WIDTH (FT)
				LT
S.R. 501	218+72.65	to	226+03.75	12
S.R. 501	226+03.75	to	227+27.24	12 to 16.5
S.R. 501	227+27.24	to	229+64.00	16.5

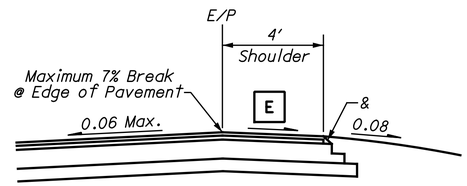


EXISTING SECTION

APPLIES

Sta. 218+72.65 to Sta. 229+00 = 1,027.35 Ft
Total = 1,027.35 Ft

A	See Cross Sections
B	0.04 or Pavement Slope Whichever is Greater
C	For Slope, See Shoulder Detail, This Sheet.
D	Same Superelevation Slope as Existing Pavement
E	Varies 0.01 to 0.04



SHOULDER DETAIL

FOR PAVEMENT SLOPES OF 0.06 OR LESS.
SEE CROSS SECTIONS AND SUPERELEVATION
TABLE FOR DETAILS

& - Safety Edge & Edge Course Steps,
For Details, See Sheet 5.

1 - See Cross Sections for Ditch Bottom Width

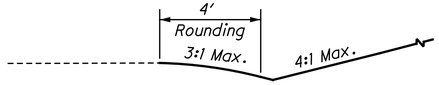
SEE SHEET 3 FOR PROPOSED AND EXISTING LEGENDS

TYPICAL SECTIONS - SR 501

ALL-117/501-10.76/4.34

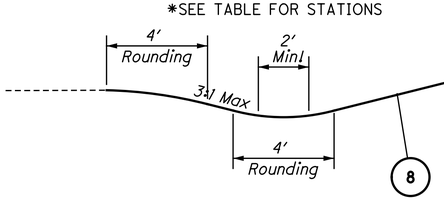
TYPICAL V-DITCH

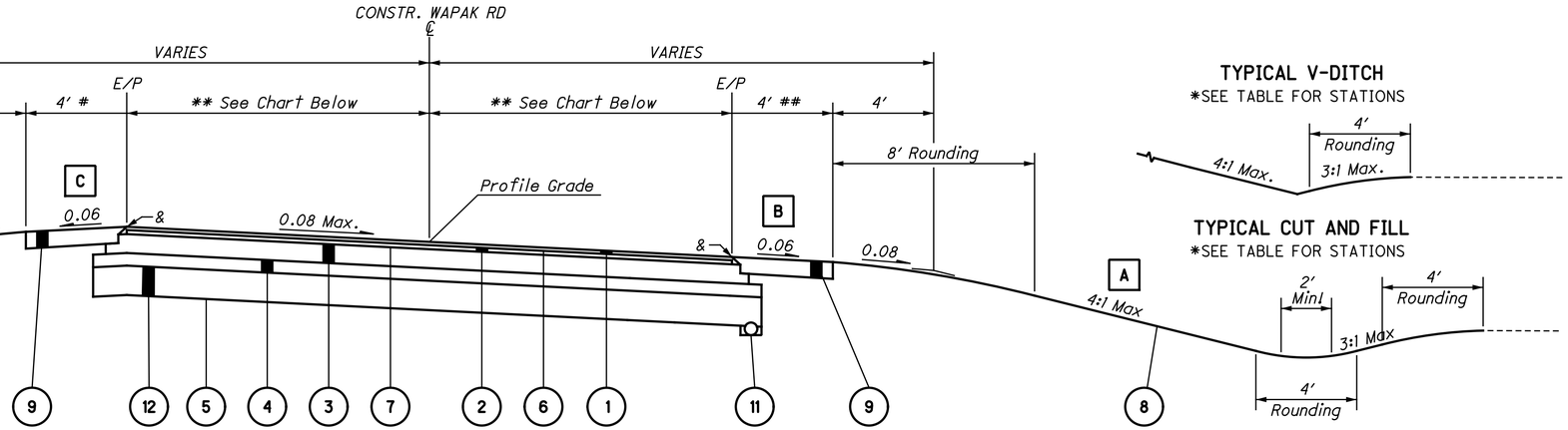
*SEE TABLE FOR STATIONS



TYPICAL CUT AND FILL

*SEE TABLE FOR STATIONS





TYPICAL V-DITCH

*SEE TABLE FOR STATIONS

TYPICAL CUT AND FILL

*SEE TABLE FOR STATIONS

*

DITCH SECTIONS WAPAK RD			
SECTION	BEGIN STA	END STA	OFFSET
CUT/FILL	0+53.86	1+50	LT
CUT/FILL	0+53.86	1+50	RT
V-DITCH	2+00	3+00	RT
CUT/FILL	3+50	4+00	RT

SUPERELEVATED SECTION

APPLIES

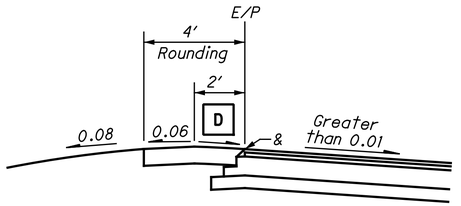
Sta. 0+60 to Sta. 3+35.38 = 275.38 Ft

Total = 275.38 Ft

$ - Tapers from 2' @ Sta. 3+00.00 to 0' @ Sta. 3+35.38
$ - 2' from 2+18.28 to Sta. 3+00.00
$ - Tapers from 4' @ Sta. 1+80.00 to 2' @ Sta. 2+18.28
# - Tapers from 4'@ Sta. 2+18.28 to 2' @ Sta. 2+35.44
# - 2' from Sta. 2+35.44 to Sta. 3+35.38
- Tapers from 4' @ Sta. 2+35.44 to 2' @ 3+35.38

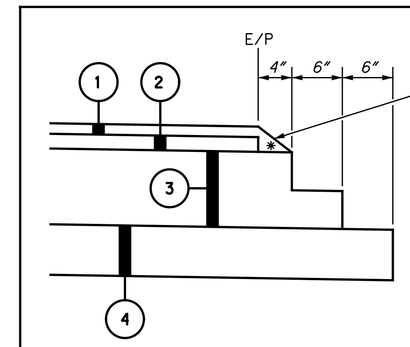
**

Route	Station		Station	Pavement Lane Width (ft)	
				LT	RT
Wapak	0+50.00	to	2+35.44		16.5
Wapak	2+35.44	to	3+35.38		16.5 to 11.4
Wapak	0+50.00	to	2+35.44	12	
Wapak	2+35.44	to	2+50.00	12 to 9.6	
Wapak	2+50.00	to	3+35.38	9.6	



SHOULDER DETAIL

FOR PAVEMENT SLOPES GREATER THAN 0.01
SEE CROSS SECTIONS FOR DETAILS



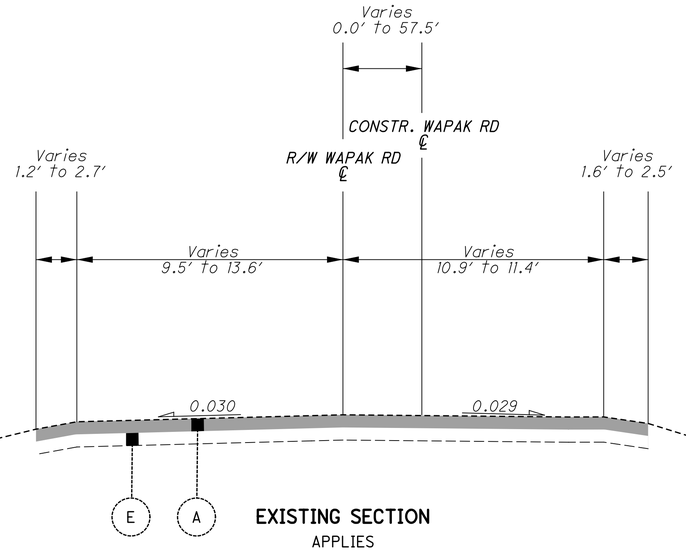
SAFETY EDGE NOTES:

1.) SAFETY EDGES ARE REQUIRED AT THE OUTSIDE EDGES OF PAVED ROADWAY (EDGE TRAVELED LANE OR EDGE OF SHOULDER).

2.) CONSTRUCT THE SAFETY EDGE THE FULL THICKNESS OF THE SURFACE COURSES, NOT TO EXCEED 3.25"

-SEE SHEET 3 FOR LEGEND

& - EDGE COURSE AND SAFETY EDGE DETAIL

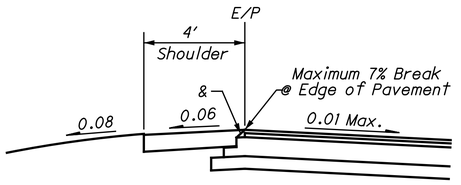


EXISTING SECTION

APPLIES

Sta. 0+53.86 to Sta. 4+00 = 346.14 Ft

Total = 346.14 Ft



SHOULDER DETAIL

FOR PAVEMENT SLOPES OF 0.01 OR LESS
SEE CROSS SECTIONS FOR DETAILS

A	See Cross Sections
B	0.06 or Pavement Slope Whichever is Greater
C	For Slope, See Shoulder Detail, This Sheet.
D	Match Pavement Slope

NORMAL DESIGN CRITERIA - FORESLOPES STEEPER THAN 6:1 REQUIRE A 10' GRADED SHOULDER.
THE PROJECT DESIGN INCLUDES 4:1 FORSLOPES AND AN 8' GRADED SHOULDER.

& - Safety Edge, For Details, See Sheet This Sheet.

1 - See Cross Sections for Ditch Bottom Width

SEE SHEET 3 FOR PROPOSED AND EXISTING LEGENDS

TYPICAL SECTIONS - WAPAK RD.

ALL-117/501-
10.76/4.34

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLY TO ALL CROSS-SECTIONS EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

ELECTRIC	CABLE
American Electric Power	Time Warner
369 East O'Conner	3100 Elida Rd.
Lima, OH 45801	Lima, OH 45805
Robert Moenter	Mark Richhart
419-998-5155	419-996-2249
TELEPHONE	**GAS**
CenturyLink	Dominion East Ohio Gas
122 South Elizabeth	320 Springside Dr. Suite 320
Lima, OH 45801	Akron, OH 44333
Bill Perrin	Brian Dayton
419-226-6220	330-664-2409

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

SURVEYING PARAMETERS

USE THE FOLLOWING VERTICAL POSITIONING AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL WAS ESTABLISHED USING GPS(VRS), 96 ADJUSTMENT

VERTICAL POSITIONING
- ORTHOMETRIC HEIGHT DATUM: NAVD 88
- GEOID: GEOID 03
- BENCHMARK ELEVATIONS AND LOCATIONS ARE SHOWN IN THESE PLANS.

HORIZONTAL POSITIONING
- COORDINATE SYSTEM: NAD 83, OHIO NORTH ZONE
- THE PROJECT WAS SURVEYED USING U.S. SURVEY FEET.

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE IN U.S. SURVEY FEET.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

ITME 201 - CLEARING AND GRUBBING, AS PER PLAN

AS DESCRIBED IN THE ENVIRONMENTAL COMMITMENTS, A TREE IS DEFINED AS A LIVING, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE AND WITH A MINIMUM HEIGHT OF 13 FEET. TREES SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS WILL BE REMOVED BY ODOT FORCES PRIOR TO CONSTRUCTION, BUT THE STUMPS WILL REMAIN. PAYMENT FOR THE REMOVAL OF THESE STUMPS SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR ITEM 201, CLEARING AND GRUBBING, AS PER PLAN. BRUSH AND SHRUBS THAT DO NOT MEET THE DEFINITION OF A TREE AS DESCRIBED ABOVE AND ARE MARKED FOR REMOVAL IN THE PLANS SHALL BE REMOVED BY THE CONTRACTOR. ALL PROVISIONS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM WILL BE INCLUDED IN THE LUMP SUM PRICE FOR ITEM 201, CLEARING AND GRUBBING, AS PER PLAN.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

EXISTING FIELD TILE

ALL EXISTING FIELD TILE, WHICH ARE ENCOUNTERED DURING CONSTRUCTION AND ESPECIALLY WITHIN THE SUBGRADE EXCAVATION LIMITS, SHALL BE PROVIDED WITH UNOBSTRUCTED OUTLETS.

EXISTING COLLECTORS WHICH ARE LOCATED BELOW THE ROADWAY DITCH ELEVATIONS, AND WHICH CROSS THE ROADWAY, SHALL BE REPLACED WITHIN THE CONSTRUCTION LIMITS BY ITEM 611, CONDUIT, TYPE B, ONE COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT.

EXISTING COLLECTORS AND ISOLATED FIELD TILES, WHICH ARE ENCOUNTERED ABOVE THE ELEVATION OF ROADWAY DITCHES, SHALL BE OUTLETTED INTO THE ROADWAY DITCH BY 611, CONDUIT, TYPE F. THE OPTIMUM OUTLET ELEVATION SHALL BE ONE FOOT ABOVE THE FLOWLINE ELEVATION OF THE DITCH. FIELD TILES WHICH RUN LONGITUDINALLY WITH THE ROADWAY SHALL BE REPLACED WITH A 611, CONDUIT, TYPE C, AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER AND PAYMENT SHALL BE MADE ON FINAL MEASUREMENTS.

EROSION CONTROL PADS AND ANIMAL GUARDS SHALL BE PROVIDED AT THE OUTLET END OF ALL 611, CONDUIT, TYPE F, AS PER STANDARD CONSTRUCTION DRAWING DM-1.1.

PAYMENT FOR THE EROSION CONTROL PADS & ANIMAL GUARDS AND ANY NECESSARY BENDS OR BRANCHES SHALL BE INCLUDED FOR PAYMENT IN THE PERTINENT CONDUIT ITEMS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 601 - ROCK CHANNEL PROTECTION, TYPE C WITH FILTER = 5 CY
ITEM 611 - 6" CONDUIT, TYPE B = 40 FT
ITEM 611 - 8" CONDUIT, TYPE B = 40 FT
ITEM 611 - 8" CONDUIT, TYPE C = 40 FT
ITEM 611 - 6" CONDUIT, TYPE F = 25 FT
ITEM 611 - 8" CONDUIT, TYPE F = 25 FT

SEEDING AND MULCHING

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES, AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

ESTIMATED QUANITIES HAVE BEEN INCLUDED IN THE EARTHWORK SUBSUMMARY ON SHEET 16, FOR THE WORK NOTED ABOVE.

REVIEW OF DRAINAGE FACILITIES

BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE STATE.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING

CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

1. SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.

2. EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. THE EXCAVATION LIMITS ARE SHOWN AND LABELED ON THE TYPICAL SECTIONS. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2-5, A-5, A-7-5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO 204.05.

   IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE SHALLOW FILL AND SHAPING THE SUBGRADE.

3. COMPACT THE SUBGRADE ACCORDING TO 204.03.

4. APPROXIMATE LIMITS FOR EXCAVATION OF UNSTABLE SUBGRADE ARE SHOWN AND LABELED ON THE TYPICAL SECTIONS. THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON SOIL BORING RESULTS AND VISUAL OBSERVATIONS.

5. EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO 204.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.

6. PROOF ROLL THE STABILIZED AREAS ACCORDING TO 204.06 TO VERIFY STABILITY. ONCE STABILITY IS ACHIEVED, COMPACT AS PER 204.07.

7. FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

THE QUANTITIES FOR EXCAVATING THE UNSUITABLE SUBGRADE AND UNSTABLE SUBGRADE ARE BOTH PAID UNDER ITEM 204 EXCAVATION OF SUBGRADE.

ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING (CONT)

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING.

ITEM 204 - PROOF ROLLING = 6 HOURS

ITEM 202 - REMOVAL MISC: LANDSCAPING WALL

THIS WORK SHALL CONSIST OF ALL MATERIAL, LABOR, AND EQUIPMENT NECESSARY TO REMOVE AND DISPOSE OF THE LANDSCAPING WALL LOCATED AT RESIDENTIAL DRIVEWAY DR501-01 AND DR501-02 AS SHOWN IN THE PLANS. THE WALL, INCLUDING ANY PORTION LOCATED BELOW GRADE SUCH AS FOOTINGS, SHALL BE REMOVED IN ITS ENTIRETY.

ITEM SPECIAL - MAILBOX SUPPORT

THIS WORK SHALL CONSIST OF FURNISHING AND ERECTING MAILBOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS, AND ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATIONS SPECIFIED IN THE PLAN, OR OTHERWISE ESTABLISHED BY THE ENGINEER.

WOOD POSTS SHALL BE NOMINAL 4" BY 4" SQUARE OR 4 1/2" DIAMETER ROUND, AND CONFORM TO 710.14.

STEEL POSTS SHALL BE NOMINAL PIPE SIZE 2" I.D. O.D., AND CONFORM TO AASHTO M 181.

HARDWARE (PLATES, SCREWS, BOLTS, ETC.) SHALL BE COMMERCIAL-GRADE GALVANIZED STEEL.

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03, AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BE SECURELY AND NEATLY ATTACHED BY THE CONTRACTOR TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS, AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POST MASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

PAYMENT UNDER THIS ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.10. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS SHALL APPLY.

MAILBOX SUPPORTS, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL, MAILBOX SUPPORT.

ITEM SPECIAL - MAILBOX REMOVED AND RESET

THIS WORK SHALL CONSIST OF REMOVING MAILBOXES, MAILBOX SUPPORTS AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, THE CONTRACTOR SHALL SALVAGE THE EXISTING BOX FOR PLACEMENT ON A NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS PART, AS JUDGED AND DIRECTED BY THE ENGINEER.

CALCULATED RSW CHECKED EJS

GENERAL NOTES

ALL-117/501-10.76/4.34

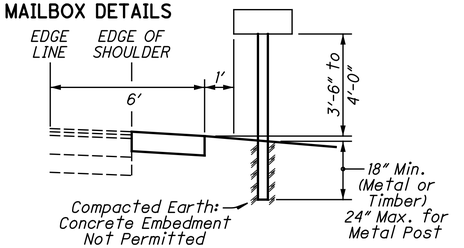
ITEM SPECIAL - MAILBOX REMOVED AND RESET (CONT)

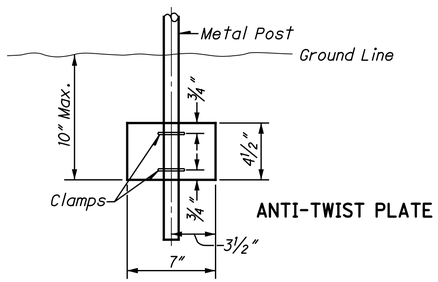
THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF THE REMOVED MAILBOX SUPPORTS AND ANY MAILBOXES AND ASSOCIATED MOUNTING HARDWARE THAT ARE NOT RESET.

THE ABOVE REMOVAL AND ANY SALAVAGING FOR RESET WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH, FOR ITEM SPECIAL, MAILBOX REMOVED AND RESET.

ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE ROADWAY SUBSUMMARY, SHEET 16, FOR THE WORK STATED ABOVE.

MAILBOX DETAILS





ANTI-TWIST PLATE

DRIVEWAY DR501-01 & DR501-02

QUANITIES HAVE BEEN INCLUDED IN THE DRIVEWAY SUBSUMMARY, SHEET 14, TO PAVE THE PROPOSED SHOULDER 3' INTO THE LISTED DRIVEWAYS. THE 3' SHOULDER EXTENSION INTO THE DRIVEWAY SHALL NOT BE PAVED INDEPENTLY OF THE SHOULDER, BUT SHALL BE PAVED AS PART OF THE SHOULDER. THE PAVEMENT BUILD UP SHALL MATCH THAT OF THE SHOULDER.

THE BASE OF THE DRIVEWAYS SHALL BE PREPARED USING SUBGRADE COMPACTION, AS PER CMS 204.03 AND 203.04, FOLLOWED BY 6" OF AGGREGATE BASE, AS PER CMS 304. THE GRADE OF 304 SHALL BE 6" BELOW THE PROPOSED FINISH GRADE. THIS IS TO ACCOMMODATE THE FUTURE PLACEMENT OF 6" OF CONCRETE PAVEMENT BY THE PROPERTY OWNER.

ITEM 203 - EXCAVATION, AS PER PLAN

WHERE EXCAVATION (POND UNDERCUT) IS SPECIFIED (SEE SHEET 16), ALL EXCAVATED MATERIAL SHALL BE WASTED OFF-SITE. THE CONTRACTOR SHALL ADHERE TO ALL CONDITIONS SPECIFIED IN CMS 105.16, INCLUDING HIRING A CULTURAL RESOURCE ENVIRONMENTAL CONSULTANT TO PERFORM A CULTURAL RESOURCE INVESTIGATION FOR ALL WASTE AND BORROW AREAS OUTSIDE THE RIGHT-OF-WAY LIMITS.

THIS ITEM INCLUDES REMOVAL OF ANY FISH IN THE POND. SEE ENVIRONMENTAL COMMITMENTS, THIS SHEET, FOR FISH DISPOSAL REQUIREMENTS (COMMITMENT 5).

ITEM 203 - EMBANKMENT, AS PER PLAN

ALL EMBANKMENT MATERIAL PLACED IN THE POND SHALL CONFORM TO CMS 703.16(A) AND 703.16(B).

SAFETY EDGE

IN ADDITION TO THE REQUIREMENTS OF 401.12, ATTACH A DEVICE TO THE SCREED OF THE PAVER THAT CONFINES THE MATERIAL AT THE END GATE AND EXTRUDE THE ASPHALT MATERIAL IN SUCH A WAY THAT RESULTS IN A COMPACTED WEDGE SHAPE PAVEMENT EDGE OF APPROXIMATELY 30 DEGREES (NOT STEEPER THAN 40 DEGREES). ENSURE THE DEVICE MAINTAINS CONTACT WITH THE EXISTING SURFACE, AND ALLOW FOR AUTOMATIC TRANSITION TO CROSS ROADS, DRIVEWAYS AND OBSTRUCTIONS. DO NOT USE CONVENTIONAL SINGLE PLATE STRIKE OFF.

CONSTRUCTION OF SAFETY EDGE CAN BE OMITTED AT LOCATIONS WHERE EXISTING WIDTH OF GRADED SHOULDER OR BERM IS LESS THAN 12". PROJECTS WITH VARYING CONDITIONS SHOULD USE SAFETY EDGE WHERE POSSIBLE. PLAN PREPERATION HAS MADE EVERY REASONABLE ATTEMPT TO IDENTIFY POSSIBLE SAFETY EDGE LOCATIONS.

USE THE TRANSTECH SHOULDER WEDGE MAKER, THE CARLSON SAFETY EDGE END GATE, THE ADVANT-EDGER, THE TROXLER SAFETSLOPE OR A SIMILAR APPROVED-EQUAL DEVICE THAT PRODUCES THE SAME WEDGE CONSOLIDATION RESULTS. CONTACT INFORMATION FOR THESE WEDGE SHAPE COMPACTION DEVICES IS AS FOLLOWS:

TRANSTECH SYSTEMS, INC.
1594 STATE STREET
SCHNECTADY, NY 12304
WWW.TRANSTECHSYS.COM

CARLSON SAFETY EDGE END GATE
18425 50TH AVE EAST
TACOMA, WA 98446
253-875-8000

ADVANT-EDGE PAVING EQUIPMENT LLC
P.O. BOX 9163
NISKAYUNA, NY 12309-0163
518-280-6090
WWW.ADVANTAEDGEPAVING.COM

TROXLER ELECTRONIC LABORATORIES, INC.
3008 E. CORNWALLIS RD
RESEARCH TRIANGLE PARK, NC 27709
1-877-TROXLER
WWW.TROXLERLABS.COM

IF ELECTING TO USE A SIMILAR DEVICE, PROVIDE PROOF THAT THE DEVICE HAS BEEN USED ON PREVIOUS PROJECTS WITH ACCEPTABLE RESULTS OR CONSTRUCT A TEST SECTION PRIOR TO THE BEGINNING OF WORK AND DEMONSTRATE WEDGE COMPACTION TO THE SATISFACTION OF THE ENGINEER. SHORT SECTIONS OF HANDWORK WILL BE ALLOWED WHEN NECESSARY FOR TRANSITIONS AND TURNOUTS OR OTHERWISE AUTHORIZED BY THE ENGINEER.

IN ADDITION TO THE REQUIREMENTS OF 401.16, MAKE THE FIRST ROLLER PASS 8 TO 12 INCHES (200 TO 300 MM) AWAY FROM THE TAPERED EDGE. DO NOT ROLL THE TAPER.

SAFETY EDGE IS TO BE APPLIED TO S.R. 117, S.R. 501, AND WAPAK RD. IT SHALL SPAN THE ENTIRE LENGTH OF THE PROJECT EXCLUDING PAVED DRIVEWAYS AND INTERSECTIONS.

ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PAVEMENT SUBSUMMARIES, SHEETS 11-13, FOR THE WORK STATED ABOVE.

FENCE LENGTHS

THE LENGTHS OF FENCE SHOWN IN THE PLANS ARE HORIZONTAL DIMENSIONS. MEASUREMENTS OF THE FINAL QUANTITIES WILL BE IN ACCORDANCE WITH ITEM 607.

TEMPORARY EROSION AND SEDIMENT CONTROL

THE FOLLOWING QUANITY HAS BEEN INCUDED IN THE GENERAL SUMMARY FOR TEMPORARY EROSION AND SEDIMENT CONTROL:

ITEM 832 - EROSION CONTROL = 35,000 EACH

PERSONAL PROTECTION EQUIPMENT (PPE)

THE CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS OF SECTIONS III AND X OF THE OHIO DEPARTMENT OF TRANSPORTATION SAFETY & HEALTH STANDARD OPERATING PROCEDURE 220-006(SP) EFFECTIVE: JUNE 1, 2009 (EXCEPT AS AMENDED BELOW) AND ALL SUBSEQUENT UPDATES POSTED AT THE FOLLOWING WEBSITE:

HTTP://WWW.DOT.STATE.OH.US/POLICY/POLICIESANDSOPS/POLICIES/220-006(SP).PDF

AMENDMENTS TO THE REQUIREMENTS OF THIS DOCUMENT ARE:

III. HEAD PROTECTION (HARD HATS)
ALL PERSONS WITHIN THE RIGHT-OF-WAY OF ANY HIGHWAY OR ANY OTHER TYPE OF ROADWAY OR CONSTRUCTION SITE WHO ARE EXPOSED TO EITHER TRAFFIC (VEHICLES USING THE HIGHWAY FOR PURPOSES OF TRAVEL) OR CONSTRUCTION EQUIPMENT WITHIN THE WORK AREA, REGARDLESS OF JOB TYPE, SHALL WEAR APPROPRIATE HEAD PROTECTION. ALL HARD HATS MUST MEET OR EXCEED ANSI Z89.1-2003 TYPE I CLASS E-G REQUIREMENTS.

X. HIGH VISIBILITY SAFETY APPAREL
ALL PERSONS WITHIN THE RIGHT-OF-WAY OF ANY HIGHWAY OR ANY OTHER TYPE OF ROADWAY OR CONSTRUCTION SITE WHO ARE EXPOSED TO EITHER TRAFFIC (VEHICLES USING THE HIGHWAY FOR PURPOSES OF TRAVEL) OR CONSTRUCTION EQUIPMENT WITHIN THE WORK AREA, REGARDLESS OF JOB TYPE, SHALL WEAR A HIGH-VISIBILITY SAFETY VEST THAT MEETS THE PERFORMANCE CLASS 2 OR CLASS 3 REQUIREMENTS OF THE ANSI/ISEA 107-2004 PUBLICATION ENTITLED "AMERICAN NATIONAL STANDARD FOR HIGH-VISIBILITY SAFETY APPAREL AND HEADWEAR."

WORKERS MAY WEAR AN ANSI CLASS II OR ANSI CLASS III APPROVED RAIN SUIT OR JACKET WITHOUT A SAFETY VEST OVER IT. HIGH-VISIBILITY T-SHIRTS, SWEATSHIRTS, OR ZIP UP HOODIES ARE NOT ACCEPTABLE. ALL WORKERS SHALL WEAR A SAFETY VEST OVER THE T-SHIRTS, SWEATSHIRTS, AND ZIP-UP HOODIES, REGARDLESS OF THEIR ANSI RATING.

ENVIRONMENTAL COMMITMENTS

THE ENVIRONMENTAL DOCUMENT WAS APPROVED 4-2-2015 AND CONTAINED THE FOLLOWING CONSTRUCTION RELATED ITEMS THAT THE CONTRACTOR AND PROJECT ENGINEER ARE TO ENSURE ARE CARRIED OUT.

1) ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 9:00 PM AND 7:00 AM. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

2) THIS PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA BAT AND NORTHERN LONG-EARED BAT. NO TREES SHALL BE REMOVED UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE FEDERAL ENDANGEREDSPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVING, DYING, OR DEAD WOODY PLANT, WITH A TRUNK THREE INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.

3) THE CONTRACTOR SHALL ADHERE TO ALL CONDITIONS OUTLINED IN THE WATERWAY PERMIT CONDITIONS, DATED 5-27-2015.

4) A PROPER CONCRETE WASH-OUT AREA MUST BE PROVIDED BY THE CONTRACTOR.

5) UNDER OHIO ADMINISTRATIVE CODE 1501:31-13-01, FISH CANNOT BE RELEASED INTO ANY PUBLIC BODY OF WATER WITHOUT FIRST OBTAINING PERMISSION FROM THE CHIEF OF THE DIVISION OF WILDLIFE.

ENVIRONMENTAL COMMITMENTS (CONT)

6) THIS PROJECT IS LOCATED OVER A PORTION OF THE GREAT MIAMI SOLE SOURCE AQUIFER. IN ORDER TO MINIMIZE THE POTENTIAL FOR A RELEASE IN THIS SENSITIVE AREA, ALL PROJECT RELATED FUELING AND/OR MAINTENANCE ACTIVITES WILL BE CONDUCTED IN AN ENVIRONMENTALLY RESPONSIBLE MANNER. THE CONTRACTOR SHALL UTILIZE PROPER CONTAINMENT AND DIKING IN REFUELING AREAS. FUELS, TOXICS/HAZARDOUS MATERIALS, AND CHEMICALS SHALL NOT BE STORES NEAR ANY DRAINAGE WAYS, DITCHES, OR STREAMS. A SPILL KIT IS TO BE MAINTAINED ON-SITE THROUGHOUT CONSTRUCTION ACTIVITIES. SPILLS OF FUEL, CHEMICALS, OR OTHER MATERIALS THAT POSE A THREAT TO GROUNDWATER SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR. IF THE SPILL IS A REPORTABLE AMOUNT, THE CONTRACTOR SHOULD CONTACT THE LOCAL FIRE DEPARTMENT.

7) BECAUSE OVER 1.0 ACRES OF GROUND DISTURBANCE WILL OCCUR AS A RESULT OF THIS PROJECT, A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORMWATER GENERAL PERMIT WILL BE REQUIRED FROM THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA). THIS NOTICE OF INTENT (NOI), PREPARED BY ODOT, AND OEPA NPDES STORMWATER GENERAL PERMIT SHALL BE PROVIDED TO THE CONTRACTOR BY ODOT PERSONNEL AT THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING THE CO-PERMITTEE NOI FOR COVERAGE UNDER THE OEPA STORMWATER GENERAL PERMIT AND SUBMITTING TO THE OEPA FOR THEIR APPROVAL, ALONG WITH THE DEVELOPMENT OF A STORMWATER POLLUTION PREVENTION PLAN (SWPPP), BEFORE CONSTRUCTION ACTIVITY CAN TAKE PLACE. THE CONTRACTOR SHALL ADHERE TO ALL TERMS AND CONDITIONS OF THE PERMIT.

PAVEMENT RESTORATION FOR PIPE INSTALLATIONS AND/OR REMOVALS

THE FOLLOWING QUANITY HAS BEEN PROVIDED FOR PAVEMENT RESTORATION AND/OR REMOVAL OF PIPES.

ITEM 301 - ASPHALT CONCRETE BASE, PG64-22 - 33 CU. YDS.

THE ABOVE QUANITY IS BASED ON A THICKNESS OF 9 INCHES AND A PAVEMENT RESTORATION WIDTH THAT INDLUDES THE TRENCH WIDTH PLUS TWO FEET ON EACH SIDE OF THE TRENCH.

PROVIDE ANY MATERIALS OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

PAVEMENT RESTORATION FOR MONUMENT ASSEMBLY INSTALLATIONS

THE FOLLOWING QUANTITY IS PROVIDED FOR PAVEMENT RESTORATION FOLLOWING INSTALLATION OF ITEM 604 MONUMENT ASSEMBLIES.

ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 - 14 CU. YDS.

THE ABOVE QUANTITY IS BASED ON A 441 THICKNESS OF 12 INCHES AND A WIDTH OF TWO FEET AROUND THE PERIMETER OF THE MONUMENT ASSEMBLIES.

PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

POST CONSTRUCTION STORM WATER TREATMENT

THIS PLAN UTILIZES POST CONSTRUCTION BEST MANAGEMENT PRACTICES (BMP'S) FOR POST CONSTRUCTION STORM WATER TREATMENT.

CALCULATED RSW CHECKED EJS

GENERAL NOTES

ALL-117/501-10.76/4.34

ITEM 614 - MAINTAINING TRAFFIC, AS PER PLAN

TWO-WAY TRAFFIC ON SR 501 AND WAPAK RD SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT TO EXCEED THIRTY (30) CONSECUTIVE CALENDAR DAYS THAT THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 8A. SR 501 AND WAPAK ROAD MAY BE CLOSED FOR THIRTY (30) DAYS EACH. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL ITEMS IN ACCORDANCE WITH SCD MT-101.60. BOTH SR 501 AND WAPAK RD MAY NOT BE CLOSED CONCURRENTLY. WHEN WAPAK RD IS CLOSED, IN ADDITION TO THE REQUIREMENTS OF SCD MT-101.60, THE CONTRACTOR SHALL PROVIDE AN R11-3a, ROAD CLOSED SIGN, AS DETAILED IN THE OMUTCD, AT THE INTERSECTION OF WAPAK AND AGERTER RD. THE SIGN SHALL BE ERECTED AT OR NEAR THE CENTER OF THE ROADWAY ON OR ABOVE A TYPE III BARRICADE THAT CLOSES THE ROADWAY. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $6,000 PER DAY FOR EACH CALENDAR DAY SR 501 REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $3,500 PER DAY FOR EACH CALENDAR DAY WAPAK RD. REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.THE DETOURS SHALL BE ESTABLISHED, MAINTAINED AND SUBSEQUENTLY REMOVED BY THE STATE OF OHIO.

THE FIRST DAY THAT THE DETOUR IS IN EFFECT SHALL BE CONSIDERED THE STARTING DATE OF THE 30 DAY DETOUR/CLOSURE LIMITATION. THE 30TH DAY OF THE 30 DAY DETOUR/CLOSURE LIMITATION SHALL BE CONSIDERED AS AN INTERIM COMPLETION DATE. ON OR BEFORE THE 30TH DAY, THE ROADWAY SHALL BE OPENED TO THE SAFE AND CONVENIENT USE OF THE TRAVELING PUBLIC. IF THE ROADWAY IS NOT OPENED BY THIS INTERIM COMPLETION DATE, DISINCENTIVES SHALL BE ASSESSED AS PER THE ABOVE SPECIFICATION.

A MINIMUM OF ONE (1) LANE OF TRAFFIC, A MINIMUM OF 11' WIDE, ON SR 117 IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR TWO (2) INDEPENDENT WEEKEND CLOSURES. A WEEKEND IS DEFINED FROM 6:00PM FRIDAY TO 7:00AM MONDAY, NOTING ALL NOISE RESTRICTIONS OUT-LINED IN THE ENVIRONMENTAL COMMITMENTS MUST BE ADHERED TO AND ACCESS MAINTAINED TO RESIDENTS AND THE CHURCH. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $1,000 PER HOUR FOR EACH HOUR SR 117 REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING TRAFFIC CONTROL ITEMS AS OUTLINED IN SCD MT-101.60. THE DETOURS SHALL BE ESTABLISHED, MAINTAINED AND SUBSEQUENTLY REMOVED BY THE STATE OF OHIO AS SHOWN ON SHEET 8A.

IT IS THE INTENT TO UTILIZE THE SR 117 WEEKEND CLOSURES TO REMOVE AND INSTALL DRAINAGE CROSS-PIPES ALONG SR 117. THE INTERSECTION WITH SR 501 AND WAPAK RD MUST REMAIN OPEN FOR THE DURATION OF THE TWO CLOSURES. ONE CLOSURE IS INTENDED TO PREFORM CROSS-PIPE INSTALLATION TO THE EAST OF THE INTERSECTION AND A SECOND CLOSURE TO PREFORM INSTALLATION TO THE WEST. WORK AND CLOSURES ON THE EAST AND WEST SIDE OF THE INTERSECTION SHALL NOT BE PREFORMED CONCURRENTLY. BOTH CLOSURES SHALL BE PERMITTED ONLY WITH PRIOR APPROVAL FROM THE ENGINEER.

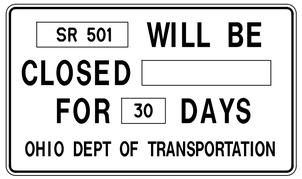
LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES AND RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

ACCESS TO ADJACENT PROPERTY WITHIN THE WORK LIMITS SHALL BE MAINTAINED BY THE CONTRACTOR AT ALL TIMES AS PER 614.02(a).

ITEM 614 - MAINTAINING TRAFFIC, AS PER PLAN (CONT)

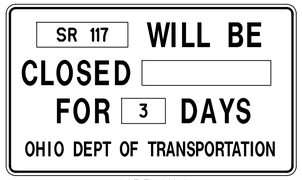
THE CONTRACTOR SHALL ADVISE THE PROJECT ENGINEER A MINIMUM OF FOURTEEN (14) DAYS PRIOR TO THE FOLLOWING: THE START OF CONSTRUCTION ACTIVITIES, LANE CLOSURES AND ROAD CLOSURES. THE PROJECT ENGINEER WILL CONTACT THE DISTRICT TRAFFIC MANAGER TO INITIATE DETOUR SETUP AND WILL ALSO NOTIFY THE PROPER EMERGENCY SERVICES, SCHOOLS AND ANY IMPACTED LOCAL PUBLIC AGENCY. THE PROJECT ENGINEER WILL ALSO FORWARD THIS INFORMATION TO THE DISTRICT PUBLIC INFORMATION OFFICER (PIO) BY EMAIL. THE PIO WILL DISSEMINATE THE INFORMATION TO THE PUBLIC VIA THE LOCAL MEDIA OUTLETS.

THE CONTRACTOR SHALL PROVIDE THE BELOW "NOTICE OF CLOSURE" SIGNS AND THEY SHALL BE ERECTED BY THE CONTRACTOR AT LEAST 14 DAYS IN ADVANCE OF THE SCHEDULED CLOSURE. THE SIGNS SHALL BE ERECTED ON THE RIGHT SIDE OF THE ROAD FACING TRAFFIC. THE SIGNS SHALL BE ERECTED AT THE POINT OF CLOSURE AND BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS.



W20-H14

NOTE: THE CONTRACTOR IS TO SUPPLY DATE.



W20-H14

NOTE: THE CONTRACTOR IS TO SUPPLY DATE.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, AS PER PLAN, UNLESS SEPARATELY ITEMIZED IN THE PLAN. THIS INCLUDES ALL NECESSARY LABOR, EQUIPMENT, AND MATERIALS NEEDED TO MAINTAIN, IN ACCORDANCE WITH SCD MT-101.90, THE VERTICAL DROP OFF CREATED AS A RESULT OF PAVEMENT WIDENING.

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME. THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES AT ALL TIMES, AS PER SCD MT-101.90. PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS. THE LENGTH OF WIDENING TRENCH WHICH IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, AS PER PLAN

PAVEMENT FOR MAINTAINING TRAFFIC IS INCLUDED IN THE PLANS TO PROVIDE A MINIMUM OF 26.5' OF PAVEMENT FOR MAINTAINING TRAFFIC ON SR 117 WHEN TWO LANE, TWO WAY TRAFFIC IS PRESENT. THE FOLLOWING ESTIMATED QUANTITIES FOR TEMPORARY PAVEMENT HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DETERMINED BY THE ENGINEER TO MEET THE MINIMUM WIDTH:

ITEM 615 - PAVEMENT FOR MAINTAINING TRAFFIC, AS PER PLAN
1446 SY

TEMPORARY PAVEMENT SHALL BE IN COMPLIANCE WITH CMS 615. THE PAVEMENT BUILD UP FOR TEMPORARY PAVEMENT SHALL BE:

6" OF ITEM 304, AGGREGATE BASE
6" OF ITEM 301, ASPHALT CONCRETE BASE, PG64-22

SAWCUT A MINIMUM OF ONE (1) FOOT INTO THE EXISTING PAVEMENT, AS MEASURED PERPENDICULAR TO THE EDGE OF EXISTING PAVEMENT, TO PROVIDE A SMOOTH, LONGITUDINAL JOINT WITH A VERTICAL EDGE. SAWCUTTING SHALL BE CONSIDERED INCIDENTAL.

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING DROP OFF SHALL BE IN COMPLIANCE WITH SCD MT-101.90. NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH (25 FEET OR LESS) OF A WORK SECTION AT THE END OF THE TRENCH. IN CASE WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING CONTINGENCY QUANTITY HAS BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616 - WATER = 55 M GAL

ITEM 614 - WORK ZONE PAVEMENT MARKING

WORK ZONE PAVEMENT MARKING SHALL BE COMPLETE AND IN PLACE ON ALL NEW PAVEMENT PRIOR TO EXPOSING IT TO TRAFFIC. THE FOLLOWING ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN PROVIDED FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 614 - WORK ZONE CENTER LINE, CLASS I = 1.47 MILE

DESIGNATED LOCAL DETOUR ROUTE

IN ADDITION TO THE OFFICIAL, SIGNED DETOUR ROUTES, LOCAL ROUTES HAVE BEEN DETERMINED TO BE THE SECONDARY, UNSIGNED DETOUR ROUTES OR "DESIGNATED LOCAL DETOUR ROUTES." THESE ROUTES ARE SHOWN ON SHEET 8A. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THESE ROUTES IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST & STANDING WATER. ONCE THE DETOURS ARE REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTES SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO THEIR USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DETERMINED BY THE ENGINEER. THE REPLACEMENT PAVEMENT FOR ITEM 253 PAVEMENT REPAIR SHALL CONSIST OF 1-1/4" ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 AND ITEM 407, TACK COAT PLACED ON 5" OF ITEM 301, ASPHALT CONCRETE BASE, PG64-22.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DETERMINED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL DETOUR ROUTES.

ITEM 253 - PAVEMENT REPAIR = 20 CY

ITEM 407 - TACK COAT = 20 GAL

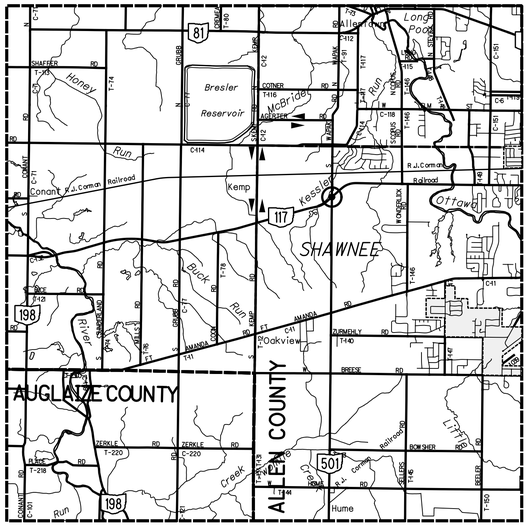
ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 = 10 CY

ITEM 617 - COMPACTED AGGREGATE = 50 CY

CALCULATED RSW CHECKED EJS

MAINTENANCE OF TRAFFIC GENERAL NOTES

ALL-117 / 501-
10.76 / 4.34



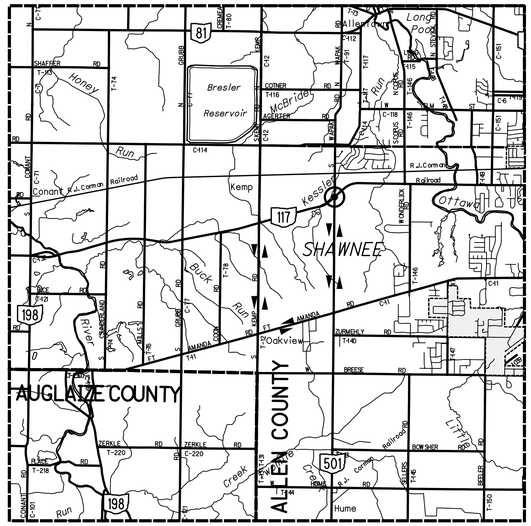
LOCAL DETOUR MAP - WAPAK RD

SCALE IN MILES

0 1 2 3 4

LEGEND

- ⊙ - PROJECT LOCATION
- ▼▲ - DESIGNATED LOCAL DETOUR (AGERTER RD - KEMP RD - SR 117)



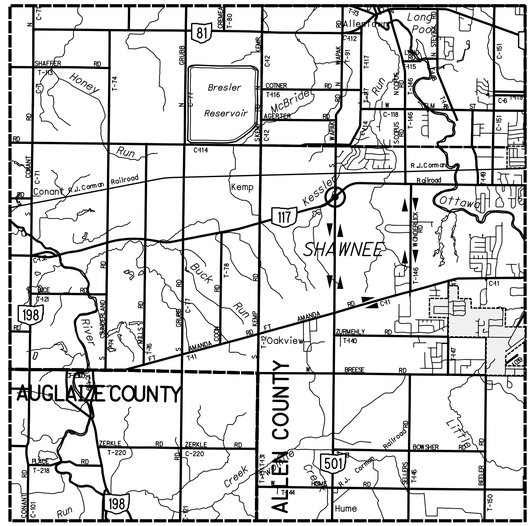
STATE DETOUR MAP - SR 117 RD (CLOSED TO THE WEST)

SCALE IN MILES

0 1 2 3 4

LEGEND

- ⊙ - PROJECT LOCATION
- ▼▲ - OFFICIAL SIGNED DETOUR FOR SR 117 (KEMP RD - FT. AMANDA RD - SR 501)



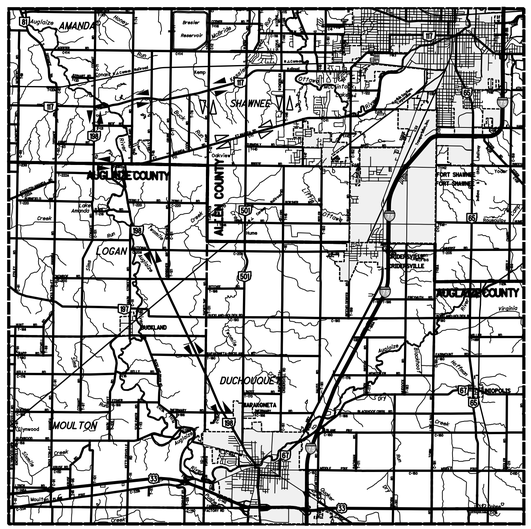
STATE DETOUR MAP - SR 117 RD (CLOSED TO THE EAST)

SCALE IN MILES

0 1 2 3 4

LEGEND

- ⊙ - PROJECT LOCATION
- ▼▲ - OFFICIAL SIGNED DETOUR FOR SR 117 (SR 501 - FT. AMANDA RD - WONDERLICK RD)



STATE DETOUR MAP - SR 501

SCALE IN MILES

0 2 4 6 8

LEGEND

- ⊙ - PROJECT LOCATION
- ▼▲ - OFFICIAL SIGNED DETOUR FOR SR 501 (SR 198 - SR 117)
- ▼▲ - DESIGNATED LOCAL DETOUR (KEMP RD - FT. AMANDA RD - SR 501) (WONDERLICK RD - FT. AMANDA RD - SR 501)

MAINTENANCE OF TRAFFIC GENERAL NOTES

CALCULATED RSW
CHECKED MJM

ALL-117/501-10.76/4.34

8A
95

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SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
6	7	8	13	14	15	16	16A	17	77				01/SAF/OT						
																		ROADWAY	
LS													LS	201	11001	LS		CLEARING AND GRUBBING, AS PER PLAN	6
				479									479	202	23000	479	SY	PAVEMENT REMOVED	
			5667	28									5695	202	23010	5,695	SY	PAVEMENT REMOVED, ASPHALT	
					1634								1634	202	35100	1,634	FT	PIPE REMOVED, 24" AND UNDER	
					6								6	202	58100	6	EACH	CATCH BASIN REMOVED	
							304						304	202	75000	304	FT	FENCE REMOVED	
							1						1	202	98100	1	EACH	REMOVAL MISC.: LANDSCAPING WALL	6
				245		15229							15474	203	10000	15,474	CY	EXCAVATION	
						1072							1072	203	10001	1,072	CY	EXCAVATION, AS PER PLAN	7
				119									119	203	20000	119	CY	EMBANKMENT	
						10919							10919	203	20001	10,919	CY	EMBANKMENT, AS PER PLAN	7
						260							260	203	35120	260	CY	GRANULAR MATERIAL, TYPE C	
			12022	1036									13058	204	10000	13,058	SY	SUBGRADE COMPACTION	6
			3958										3958	204	13000	3,958	CY	EXCAVATION OF SUBGRADE	
			3958										3958	204	30020	3,958	CY	GRANULAR MATERIAL, TYPE C	
6													6	204	45000	6	HOUR	PROOF ROLLING	6
				72									72	608	10000	72	SF	4" CONCRETE WALK	
							15						15	623	38500	15	EACH	MONUMENT ASSEMBLY	
							10						10	SPECIAL	69050350	10	EACH	MAILBOX REMOVED AND RESET	6, 7
																		EROSION CONTROL	
					9								9	601	21050	9	SY	TIED CONCRETE BLOCK MAT, TYPE 1	
					20								20	601	32100	20	CY	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	
5													5	601	32200	5	CY	ROCK CHANNEL PROTECTION, TYPE C WITH FILTER	
							700						700	659	00300	700	CY	TOPSOIL	
						34107							34107	659	10000	34,107	SY	SEEDING AND MULCHING	
						3.07							3.07	659	20000	3.07	TON	COMMERCIAL FERTILIZER	
						184							184	659	35000	184	MGAL	WATER	
							843						843	670	00700	843	SY	DITCH EROSION PROTECTION	
													LS	832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
	35000												35000	832	30000	35,000	EACH	EROSION CONTROL	
																		DRAINAGE	
					2								2	602	20000	2	CY	CONCRETE MASONRY	
					199								199	605	13300	199	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	
					9097								9097	605	14000	9,097	FT	6" BASE PIPE UNDERDRAINS	
					285								285	611	00510	285	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
40													40	611	00900	40	FT	6" CONDUIT, TYPE B	
					259								259	611	01100	259	FT	6" CONDUIT, TYPE C	
					702								702	611	01400	702	FT	6" CONDUIT, TYPE E	
25													25	611	01500	25	FT	6" CONDUIT, TYPE F	
40													40	611	01800	40	FT	8" CONDUIT, TYPE B	
40													40	611	02000	40	FT	8" CONDUIT, TYPE C	
25													25	611	02600	25	FT	8" CONDUIT, TYPE F	
					78								78	611	04400	78	FT	12" CONDUIT, TYPE B	
					60								60	611	04900	60	FT	12" CONDUIT, TYPE D	
					93								93	611	05900	93	FT	15" CONDUIT, TYPE B	
					74								74	611	06400	74	FT	15" CONDUIT, TYPE D	
					83								83	611	07400	83	FT	18" CONDUIT, TYPE B	
					90								90	611	10400	90	FT	24" CONDUIT, TYPE B	
					83								83	611	10900	83	FT	24" CONDUIT, TYPE D	
					137								137	611	16400	137	FT	36" CONDUIT, TYPE B	
					329								329	611	16600	329	FT	36" CONDUIT, TYPE C	
					3								3	611	98470	3	EACH	CATCH BASIN, NO. 2-2B	
					1								1	611	98510	1	EACH	CATCH BASIN, NO. 2-3	
					4								4	611	98540	4	EACH	CATCH BASIN, NO. 2-4	
					3								3	611	99710	3	EACH	PRECAST REINFORCED CONCRETE OUTLET	

CALCULATED RSW
CHECKED EJS

GENERAL SUMMARY

ALL-117/501-
10.76/4.34

SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
6	7	8	13	14	15	16	16A	17	77				01/SAF/OT						
																		PAVEMENT	
			6171										6171	254	01000	6,171	SY	PAVEMENT PLANING, ASPHALT CONCRETE	
	33		2809	3									2845	301	46000	2,845	CY	ASPHALT CONCRETE BASE, PG64-22	
			2034	163									2197	304	20000	2,197	CY	AGGREGATE BASE	
			1268	1									1269	407	10000	1,269	GAL	TACK COAT	
			805	1									806	407	14000	806	GAL	TACK COAT FOR INTERMEDIATE COURSE	
	14		599	4									617	441	50000	617	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
			522	1									523	441	50300	523	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	
				137									137	452	10010	137	SY	6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1	
			130										130	617	10100	130	CY	COMPACTED AGGREGATE	
			1.31										1.31	618	41000	1.31	MILE	EDGE LINE, RUMBLE STRIPE (ASPHALT CONCRETE)	
																		LIGHTING	
									4				4	625	00450	4	EACH	CONNECTION, FUSED PULL APART	
									3				3	625	00480	3	EACH	CONNECTION, UNFUSED PERMANENT	
									2				2	625	10490	2	EACH	LIGHT POLE, CONVENTIONAL, AT15B40	
									2				2	625	14200	2	EACH	LIGHT POLE FOUNDATION, 24" X 10' DEEP	
									738				738	625	23200	738	FT	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE	
									208				208	625	23400	208	FT	NO. 10 AWG POLE AND BRACKET CABLE	
									65				65	625	24320	65	FT	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES	
									153				153	625	25400	153	FT	CONDUIT, 2", 725.04	
									67				67	625	25902	67	FT	CONDUIT, JACKED OR DRILLED, 725.04, 2"	
									2				2	625	26251	2	EACH	LUMINAIRE, CONVENTIONAL, AS PER PLAN, Style B, TYPE II, 240V, HPS	77
									159				159	625	29002	159	FT	TRENCH, 24" DEEP	
									3				3	625	30700	3	EACH	PULL BOX, 725.08, 18"	
									2				2	625	32000	2	EACH	GROUND ROD	
									1				1	625	34001	1	EACH	POWER SERVICE, AS PER PLAN	77
									159				159	625	36000	159	FT	PLASTIC CAUTION TAPE	
																		TRAFFIC CONTROL	
						141							141	621	00100	141	EACH	RPM	
						59							59	621	54000	59	EACH	RAISED PAVEMENT MARKER REMOVED	
								588					588	630	03100	588	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
								8					8	630	08600	8	EACH	SIGN POST REFLECTOR	
								326.3					326.3	630	80100	326.30	SF	SIGN, FLAT SHEET	
								44					44	630	84900	44	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
								4					4	630	85100	4	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
								37					37	630	86002	37	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
								1					1	630	86010	1	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND REERECTION	
						1.35							1.35	642	00090	1.35	MILE	EDGE LINE, 4"	
						1.03							1.03	643	00300	1.03	MILE	CENTER LINE	
						937							937	643	00400	937	FT	CHANNELIZING LINE, 8"	
						54							54	643	00500	54	FT	STOP LINE	
						337							337	643	00700	337	FT	TRANSVERSE/DIAGONAL LINE	
						58							58	643	00720	58	FT	CHEVRON MARKING	
						8							8	643	01300	8	EACH	LANE ARROW	
																		MAINTENANCE OF TRAFFIC	
		20											20	253	02000	20	CY	PAVEMENT REPAIR	
		20											20	407	10000	20	GAL	TACK COAT	
		10											10	441	50000	10	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
		1.47											1.47	614	21000	1.47	MILE	WORK ZONE CENTER LINE, CLASS I	
		1466											1466	615	35001	1,466	SY	PAVEMENT FOR MAINTAINING TRAFFIC, AS PER PLAN	8
		55											55	616	10000	55	MGAL	WATER	
		50											50	617	10100	50	CY	COMPACTED AGGREGATE	
																		INCIDENTALS	
		LS											LS	614	11001	LS		MAINTAINING TRAFFIC, AS PER PLAN	8
													6	619	16000	6	MNTH	FIELD OFFICE, TYPE A	
													LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
													LS	624	10000	LS		MOBILIZATION	

CALCULATED RSW
CHECKED EJS

GENERAL SUMMARY

ALL-117 / 501-10.76 / 4.34

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PAVEMENT SUBSUMMARY - S.R. 117

ROUTE	STATION FROM	STATION TO	SIDE	LENGTH L	AVERAGE WIDTH W	SURFACE AREA A A = L x W	CADD AREA		202 PAVEMENT REMOVED, ASPHALT	204 SUBGRADE COMPACTION	204 EXCAVATION OF SUBGRADE	204 GRANULAR MATERIAL, TYPE C	254 PAVEMENT PLANING	301 ASPHALT CONCRETE BASE, PG64-22	304 6" AGGREGATE BASE	304 8" AGGREGATE BASE	407 TACK COAT	407 TACK COAT FOR INTERMEDIATE COURSE	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 64-22	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	617 COMPACTED AGGREGATE	618 EDGE LINE, RUMBLE STRIPE (ASPHALT CONCRETE)		
											T=14"	T=14"	T=1-1/4"	T=9"	T=6"	T=8"	0.075 GAL/SY	0.075 GAL/SY	T=1-1/4"	T=1-3/4"	T=3"		
	FROM	TO		FT	FT	SF	SF		SY	SY	CY	CY	SY	CY	CY	CY	GAL	GAL	CY	CY	CY	MILE	
S.R 117	554+93.44	565+00.00		1006.56			21632.2						2403.6				180.3		83.5				
			LT				4899.3										40.8	40.8	18.9	26.5			
			LT				5481.7							152.3									
			LT				6230.1								115.4								
			LT				6396.4			710.7													
			LT				2056.6		228.5														
			RT				13074.0										109.0	109.0	50.4	70.6			
			RT				13668.2							379.7									
			RT				14432.4								267.3								
			RT				14602.3			1622.5	631.0	631.0											
			RT				3348.5		372.1														
S.R. 117	565+00.00	572+09.48		709.48			15253.8						1694.9				127.1		58.8				
			LT				3547.4										29.6	29.6	13.7	19.2			
			LT				3961.2							110.0									
			LT				4493.4								83.2								
			LT				4611.6			512.4													
			LT				2096.9		233.0														
			RT				14544.4										121.2	121.2	56.1	78.6			
			RT				14958.3							415.5									
			RT				15490.4								286.9								
			RT				15608.6			1734.3	674.4	674.4											
			RT				1555.8		172.9														
S.R. 117	572+09.48	580+76.58		867.10			18649.3						2072.1				155.4		71.9				
			LT				4293.9										35.8	35.8	16.6	23.2			
			LT				4801.8							133.4									
			LT				5454.9								101.0								
			LT				5600.1			622.2													
			LT				3497.2		388.6														
			RT				10866.8										90.6	90.6	41.9	58.7			
			RT				11370.5							315.8									
			RT				12017.8								222.6								
			RT				12161.7			1351.3	525.5	525.5											
			RT				1219.5		135.5														
S.R. 117	SAFETY EDGE/COMPACTED AGG.		LT	2381.5	2	4763.06													4.0		44.1		
S.R. 117	SAFETY EDGE/COMPACTED AGG.		RT	2418.7	2	4837.34													3.7		44.8		
S.R. 117	554+93.44	580+76.58	LT	2410.9																		0.46	
S.R. 117	554+93.44	580+76.58	RT	2461.7																		0.47	
TOTALS CARRIED TO SHEETS 13									1530.6	6553.4	1830.9	1830.9	6170.6	1506.7	1076.4		889.8	427.0	419.5	276.8	88.9	0.92	

CALCULATED RSW CHECKED MJM

PAVEMENT SUBSUMMARY - SR 117

ALL-117/501-10.76/4.34

PAVEMENT SUBSUMMARY - S.R. 501

ROUTE	STATION FROM	STATION TO	SIDE	LENGTH L	AVERAGE WIDTH W	SURFACE AREA A A = L x W	CADD AREA		202	204			254	301	304		407		441		617	618		
									PAVEMENT REMOVED, ASPHALT	SUBGRADE COMPACTION	EXCAVATION OF SUBGRADE	GRANULAR MATERIAL, TYPE C	PAVEMENT PLANING	ASPHALT CONCRETE BASE, PG64-22	6" AGGREGATE BASE	8" AGGREGATE BASE	TACK COAT	TACK COAT FOR INTERMEDIATE COURSE	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 64-22	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	COMPACTED AGGREGATE	EDGE LINE, RUMBLE STRIPE (ASPHALT CONCRETE)		
											T=14"	T=14"	T=1-1/4"	T=9"	T=6"	T=8"	0.075 GAL/SY	0.075 GAL/SY	T=1-1/4"	T=1-3/4"	T=3"			
				FT	FT	SF	SF		SY	SY			SY	CY	CY	CY	GAL	GAL	CY	CY	CY	MILE		
S.R. 501	218+72.65	228+98.20		1025.55			29872.9		3319.2															
S.R. 501	218+72.65	220+57.37		184.72	29.7	5486.2											45.7	45.7	21.2	29.6				
				184.72	30.9	5707.8								158.6										
				184.72	32.4	5984.9									110.8									
				184.72	32.7	6040.3				671.1	261.0	261.0												
S.R. 501	220+57.37	226+03.75		546.38	32.0	17484.2											145.7	145.7	67.5	94.4				
				546.38	33.2	18139.8								503.9										
				546.38	34.7	18959.4									351.1									
				546.38	35.0	19123.3				2124.8	826.3	826.3												
S.R. 501	226+03.75	227+27.24		123.49	34.3	4235.7											35.3	35.3	16.3	22.9				
				123.49	35.5	4383.9								121.8										
				123.49	37.0	4569.1									84.6									
				123.49	37.3	4606.2				511.8	199.0	199.0												
S.R. 501	227+27.24	228+97.24		170.00	36.5	6205.0											51.7	51.7	23.9	33.5				
				170.00	37.7	6409.0								178.0										
				170.00	39.2	6664.0									123.4									
				170.00	39.5	6715.0				746.1	290.2	290.2												
S.R. 501	228+97.24	229+67.10		69.86			3573.5										29.8	29.8	13.8	19.3				
							3604.8							100.1										
							3644.0								67.5									
							3651.8			405.8	157.8	157.8												
S.R. 501	SAFETY EDGE/COMPACTED AGG.		LT	1098.10	2.0	2196.2													1.7		20.3			
S.R. 501	SAFETY EDGE/COMPACTED AGG.		RT	1097.40	2.0	2194.8													1.7		20.3			
S.R. 501	218+72.65	229+67.10	LT	999.37																		0.19		
S.R. 501	218+72.65	229+67.10	RT	1049.14																		0.20		
TOTALS CARRIED TO SHEET 13									3319.2	4459.6	1734.3	1734.3		1062.4	737.4		308.2	308.2	146.1	199.7	40.6	0.39		

CALCULATED RSW CHECKED MJM

PAVEMENT SUBSUMMARY - SR 501

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PAVEMENT SUBSUMMARY

ROUTE	STATION FROM	STATION TO	SIDE	LENGTH L	AVERAGE WIDTH W	SURFACE AREA A = L x W	CADD AREA	202 PAVEMENT REMOVED, ASPHALT	204 SUBGRADE COMPACTION	204 EXCAVATION OF SUBGRADE T=14"	204 GRANULAR MATERIAL, TYPE C T=14"	254 PAVEMENT PLANING T=1-1/4"	301 ASPHALT CONCRETE BASE, PG64-22 T=9"	304 AGGREGATE BASE T=6"	304 AGGREGATE BASE T=8"	407 TACK COAT 0.075 GAL/SY	407 TACK COAT FOR INTERMEDIATE COURSE 0.075 GAL/SY	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 64-22 T=1-1/4"	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448) T=1-3/4"	617 COMPACTED AGGREGATE T=3"	618 EDGE LINE, RUMBLE STRIPE (ASPHALT CONCRETE)
				FT	FT	SF	SF	SY	SY	CY	CY	SY	CY	CY	CY	GAL	GAL	CY	CY	CY	MILE
WAPAK RD.	0+20.68	3+35.38		314.7			7353.1	817.0													
WAPAK RD.	0+58.02	1+23.27		65.25			2775.1									23.1	23.1	10.7	15.0		
							2812.4						78.1								
							2858.9							52.9							
							2869.0		318.8	124.0	124.0										
	STONE SHOULDERS						630.7								15.6						
WAPAK RD.	1+23.27	2+18.28		95.01	28.5	2707.8										22.6	22.6	10.4	14.6		
				95.01	29.7	2821.8							78.4								
				95.01	31.2	2964.3								54.9							
				95.01	31.5	2992.8			332.5	129.3	129.3										
	STONE SHOULDERS			95.01	8.0	760.1									18.8						
WAPAK RD.	2+18.28	2+35.44		17.16	28.5	489.1										4.1	4.1	1.9	2.6		
				17.16	29.7	509.7							14.2								
				17.16	31.2	535.4								9.9							
				17.16	31.5	540.5			60.1	23.4	23.4										
	STONE SHOULDERS			17.16	7.0	120.1									3.0						
WAPAK RD. (LT)	2+35.44	2+50.00	LT	14.56	10.8	157.2										1.3	1.3	0.6	0.8		
				14.56	11.4	166.0							4.6								
				14.56	12.1	176.2								3.3							
				14.56	12.3	179.1			19.9	7.7	7.7										
	STONE SHOULDER			14.56	2.0	29.1									0.7						
WAPAK RD. (LT)	2+50.00	3+35.38	LT	85.38	9.6	819.6										6.8	6.8	3.2	4.4		
				85.38	10.2	870.9							24.2								
				85.38	10.9	930.6								17.2							
				85.38	11.1	947.7			105.3	41.0	41.0										
	STONE SHOULDER			85.38	2.0	170.8									4.2						
WAPAK RD. (RT)	2+35.44	3+35.38	RT	99.94	14.0	1399.2										11.7	11.7	5.4	7.6		
				99.94	14.6	1459.1							40.5								
				99.94	15.3	1529.1								28.3							
				99.94	15.5	1549.1			172.1	66.9	66.9										
	STONE SHOULDER			99.94	3.0	299.8									7.4						
WAPAK RD.	3+91.55	4+69.31																			
	STONE SHOULDER		RT	77.76	2.0	155.5									3.8						
WAPAK RD.	SAFETY EDGE		LT	297.6														0.5			
WAPAK RD.	SAFETY EDGE		RT	275.4														0.4			
TOTALS FROM THIS SHEET								817.0	1008.7	392.3	392.3		240.0	166.5	53.5	69.6	69.6	33.1	45.0		
TOTALS FROM SHEET 11								1530.6	6553.4	1830.9	1830.9	6170.6	1506.7	1076.4		889.8	427.0	419.5	276.8	88.9	0.92
TOTALS FROM SHEET 12								3319.2	4459.6	1734.3	1734.3		1062.4	737.4		308.2	308.2	146.1	199.7	40.6	0.39
TOTALS CARRIED TO GENERAL SUMMARY, SHEETS 9-10								5667	12022	3958	3958	6171	2809	2034		1268	805	599	522	130	1.31

CALCULATED RSW
CHECKED MJM

PAVEMENT SUBSUMMARY - WAPAK RD

ALL-117/501-10.76/4.34

DRIVEWAY SUBSUMMARY - DR

SHEET NO.	REFERENCE NO.	STATION	CADD AREA		202		203				204	301	304			407		441			452	608	
					PAVEMENT REMOVED, ASPHALT	PAVEMENT REMOVED	EMBANKMENT	EXCAVATION	EXCAVATION (AGG. DRIVE REMOVED)	EXCAVATION (AGG. DRIVE REMOVED)	SUBGRADE COMPACTION	ASPHALT CONCRETE BASE, PG64-22,	AGGREGATE BASE	AGGREGATE BASE	AGGREGATE BASE	TACK COAT FOR INTERMEDIATE COURSE	TACK COAT	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1	4" CONCRETE WALK	
									T=8"	T=10"		T=9"	T=6"	T=8"	T=10"	0.075 GAL/SY	0.075 GAL/SY	T=2"	T=1-1/4"	T=1-3/4"	T=6"	T=4"	
			SF		SY	SY	CY	CY	CY	CY	SY	CY	CY	CY	CY	GAL	GAL	CY	CY	CY	SY	SF	
74	DR117-01	555+08.42, RT	264.2				1.6											1.6					
			278.0										5.1										
			330.8					6.1			36.8												
			251.3		27.9																		
74	DR117-02	560+52.67, RT	771.5				5.4	7.6						19.0									
			915.6								101.7												
			1087.8						26.9														
74	DR117-03	567+34.85, LT	577.2												17.8								
			652.9								72.5												
			2894.4							89.3													
			2068.6				63.8																
74	DR117-04	573+24.98, LT	448.7				4.7	2.9						11.1									
			536.6								59.6												
			582.1						14.4														
74	DR117-05	574+49.94, LT	623.2				1.8	4.9													69.2		
			719.3								79.9												
			477.0			53.0																	
			360.9				8.9		8.9														
74	DR117-06	576+68.16, LT	271.4															1.7					
74	DR117-07	577+25.12, RT	556.6				3.2	7.6						13.7									
			685.4								76.2												
			619.3						15.3														
74	DR117-08	579+48.94, LT	112.6															0.7					
74, 7	DR501-01	225+18.35, RT	1710.0				24.8	40.1						42.2									
74, 7	DR501-02	225+73.95, RT	2081.5								231.3												
			92.4													0.8	0.8		0.4	0.5			
			96.6									2.7											
			102.1										1.9										
			103.4								11.5												
			3379.2			375.5																	
74	DR501-03	226+60.15, LT	1560.2											38.5								71.5	
			1933.4								214.8												
74	DRWPK-01	3+76.22, RT	611.1				2.2	5.1													67.9		
			731.0								81.2												
			453.3			50.4																	
74	DRWPK-02	4+32.86, RT	531.5				2.6	3.1						13.1									
			634.8								70.5												
			505.9						12.5														
SUB-TOTALS								77.4	77.9	89.3			7.0	137.7	17.8			4.0	0.4				
TOTALS CARRIED TO GENERAL SUMMARY, SHEET 9-10					28	479	119	245			1036	3	163			1	1	4		1	137	72	

CALCULATED RSW CHECKED MJM

PAVEMENT SUBSUMMARY - DRIVES

ALL-117/501-10.76/4.34

DRAINAGE SUBSUMMARY - D, UD

SHEET NO.	REFERENCE NO.	LOCATION	STATION		202		601		602	605		611															FOR INFO ONLY
					PIPE REMOVED, 24" AND UNDER	CATCH BASIN REMOVED	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER (T=30")	TIED CONCRETE BLOCK MAT, TYPE 1	CONCRETE MASONRY	6" BASE PIPE UNDERDRAINS	6" UNCLASSIFIED PIPE UNDERDRAINS	6" CONDUIT, TYPE C	6" CONDUIT, TYPE E	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	12" CONDUIT, TYPE B	12" CONDUIT, TYPE D	15" CONDUIT, TYPE B	15" CONDUIT, TYPE D	18" CONDUIT, TYPE B	24" CONDUIT, TYPE B	24" CONDUIT, TYPE D	36" CONDUIT, TYPE B	36" CONDUIT, TYPE C	CATCH BASIN, NO. 2-2B	CATCH BASIN, NO. 2-3	CATCH BASIN, NO. 2-4	PRECAST REINFORCED CONCRETE OUTLET	BENDS AND BRANCHES
			FROM	TO	FT	EACH	CY	SY	CY	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	SIZE-TYPE
21	D-1	117	562+34.18, LT	562+34.48, RT	72	1		1.8	0.3										83					1				
21	D-2	117	564+38.10, LT	564+36.68, RT	169	1		1.8	0.5			79								90					1			6"x45°, 6"x22.5°, 45° WYE, 6" TEE
22	D-3	501	229+25.71, LT	229+50.00, RT													93							1				
22	D-4	WAPAK	1+25.00, LT	1+30.25, RT											78									1				
22	D-5	501/WAPAK	229+50.00, RT	1+30.25, RT	48							109										137				1		6"x30°, 6"x60°
22	D-6	117	569+78.26, RT	569+78.95, LT	64	2																						
22,65	D-7	WAPAK	1+30.25, RT	3+35.38, RT	240							71											186			1		6"x45°
65	D-8	WAPAK	3+35.38, RT	4+25.00, RT	110																		90			1		
65	D-9	WAPAK	4+25.00, RT	4+77.50, RT	91		19.5		0.8														53			1		
22-23	D-10	501/117	299+50.00, RT	576+50.00, RT	630								702															6"x15°, 6"x15°
23	D-11	117	573+04.75, LT	573+34.75, LT	30											30												
23	D-12	117	573+84.73, LT	574+62.56, LT	45											30												
46	D-13	501	224+73.43, LT	225+79.61, RT	135	2																						
46	D-14	501	225+12.00, RT	225+95.00, RT																	83							
46	D-15	501	226+26.15, LT	226+75.15, LT														74										
19-21	UD-1	117	555+00.00, RT	562+06.55, RT						660	57			5														6" TEE, 6"x45°
20-21	UD-2	117	559+00.00, RT	562+00.00, RT						302				55														6" TEE, 6"x45°, 6" WYE
19-20	UD-3	117	556+90.00, LT	562+00.00, LT				1.8		504				20													1	6" TEE
21-22	UD-4	117	562+06.55, RT	568+20.00. RT						616																		
21-22	UD-5	117	562+00.00, RT	568+20.00, RT						621																		
21-22	UD-6	117	562+00.00, LT	568+20.00, LT						619																		
22-23	UD-7	117	568+32.71, RT	577+40.00, RT						840	67			8														6" TEE, 6"x45°
22-23	UD-8	117	568+25.00, RT	576+74.95, RT						775	75			54														6" TEE, 6"x45°, 6" WYE
22	UD-9	117	568+25.00, LT	569+00.00, LT						75				73														6" TEE
22-23	UD-10	117	569+00.00, LT	577+40.00, LT						840																		
65	UD-11	WAPAK	0+75.00, RT	3+35.35, RT						253				16														6"x90°
45-47	UD-12	501	219+00.00, RT	228+94.00, RT				1.8		1002				6													1	6"x90°
45-47	UD-13	501	219+00.00, LT	229+00.00, LT				1.8		989				19													1	6"x90°
45-47	UD-14	501	219+00.00, CTR	229+00.00, CTR						1001				29														6"x45°, 6" WYE
TOTALS CARRIED TO GENERAL SUMMARY, SHEET 9-10					1634	6	20	9	2	9097	199	259	702	285	78	60	93	74	83	90	83	137	329	3	1	4	3	

CALCULATED RSW CHECKED MJM

DRAINAGE SUBSUMMARY

ALL-117/501-10.76/4.34

15/95

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EARTHWORK SUBSUMMARY

SHEET NO.	LOCATION	STATION		203				659		
				EMBANKMENT, AS PER PLAN	EXCAVATION	EXCAVATION, AS PER PLAN	GRANULAR MATERIAL, TYPE C	SEEDING AND MULCHING	COMMERCIAL FERTILIZER	WATER
		FROM	TO	CY	CY	CY	CY	SY	TON	M GAL
25	S.R. 117	554+50.00	555+50.00	17	22			405	0.04	2.2
26	S.R. 117	556+00.00	557+50.00	54	12			474	0.04	2.6
27	S.R. 117	558+00.00	559+50.00	122	15			697	0.06	3.8
28	S.R. 117	560+00.00	561+00.00	80	0			301	0.03	1.6
29	S.R. 117	561+50.00	563+00.00	246	36			650	0.06	3.5
30	S.R. 117	563+50.00	564+50.00	183	51			606	0.05	3.3
31	S.R. 117	565+00.00	566+00.00	113	102			707	0.06	3.8
32	S.R. 117	566+50.00	567+50.00	69	140			517	0.05	2.8
33	S.R. 117	568+00.00	569+50.00	303	649			1223	0.11	6.6
34	S.R. 117	570+00.00	571+50.00	527	150			1203	0.11	6.5
35	S.R. 117	572+00.00	573+22.08	173	349			1023	0.09	5.5
36	S.R. 117	573+50.00	574+49.65	96	244			547	0.05	3.0
37	S.R. 117	574+50.00	576+00.00	167	315			1090	0.10	5.9
38	S.R. 117	576+50.00	577+24.43	52	58			239	0.02	1.3
39	S.R. 117	577+50.00	579+00.00	123	80			656	0.06	3.5
40	S.R. 117	579+48.31	580+50.00	53	33			436	0.04	2.4
41	S.R. 117	580+76.58	581+00.00	13	0			94	0.01	0.5
49	S.R. 501	218+00.00	219+00.00	3	34			42	0.00	0.2
50	S.R. 501	219+50.00	221+00.00	117	217			836	0.08	4.5
51	S.R. 501	221+50.00	223+00.00	135	436			1259	0.11	6.8
52	S.R. 501	223+50.00	224+50.00	70	1220			1519	0.14	8.2
53	S.R. 501	225+00.00	225+47.61	16	522			622	0.06	3.4
54	S.R. 501	225+50.00	225+76.99	6	513			683	0.06	3.7
55	S.R. 501	226+00.00	226+00.00	0	878			990	0.09	5.3
56	S.R. 501	226+50.00	226+50.00	797	1503	119	7	1493	0.13	8.1
57	S.R. 501	227+00.00	227+00.00	1836	1744	252	36	1731	0.16	9.3
58	S.R. 501	227+50.00	227+50.00	2132	1768	272	78	1698	0.15	9.2
59	S.R. 501	228+00.00	228+00.00	2198	1875	284	94	1601	0.14	8.6
60	S.R. 501	228+50.00	229+00.00	976	1370	145	45	2169	0.20	11.7
61	S.R. 501	229+50.00	229+50.00	46	498			718	0.06	3.9
66	WAPAK RD.	0+53.86	2+00.00	105	156			812	0.07	4.4
67	WAPAK RD.	2+35.34	3+35.38	46	103			351	0.03	1.9
68	WAPAK RD.	3+50.00	4+50.00	15	35			190	0.02	1.0
69	WAPAK RD.	4+77.50	4+80.00	0	0			0	0.00	0.0
75	DR501-03	0+00.00	1+00.00	15	101			5666	0.51	30.6
76	DR501-03	1+22.13	1+50.00	15	0			859	0.08	4.6
TOTALS CARRIED TO GENERAL SUMMARY, SHEET 9-10				10919	15229	1072	260	34107	3.07	184

PAVEMENT MARKINGS SUBSUMMARY - CL, EL, IM, SL, LA, TDL

SHEET NO.	REFERENCE NO.	ROUTE	SIDE	621				643						
				RPM, 2 WAY, YELLOW/YELLOW	RPM, 2 WAY, WHITE/RED	RPM, 1 WAY, WHITE	RAISED PAVEMENT MARKERS REMOVED	EDGE LINE, 4"	CENTERLINE	CHANNELIZING LINE, 8"	STOP LINE	TRANSVERSE/DIAGONAL LINE (YELLOW)	CHEVRON MARKING (WHITE)	LANE ARROW
				EACH	EACH	EACH	EACH	MILE	MILE	FT	FT	FT	FT	EACH
78-79	CL-1	117	CTR						0.25					
78-79	CL-2	117	RT						0.20					
79-80	CL-3	117	RT						0.20					
80	CL-4	117	CTR						0.12					
81-82	CL-5	501	CTR						0.21					
82	CL-6	WAPAK	CTR						0.03					
78-79	EL-1	117	LT					0.26						
78-79	EL-2	117	RT					0.25						
79-80	EL-3	117	LT					0.21						
79-80	EL-4	117	RT					0.21						
81-82	EL-5	501	LT					0.21						
81-82	EL-6	501	RT					0.21						
79	CHL-1	117	RT							356.4				
79-80	CHL-2	117	CTR							580.5				
82	SL-1	WAPAK	LT								27.2			
82	SL-2	501	LT								27.2			
79	LA-1	117	RT											1
79	LA-2	117	RT											1
79	LA-3	117	RT											1
79	LA-4	117	RT											1
79	LA-5	117	RT											1
79	LA-6	117	RT											1
79	LA-7	117	RT											1
80	LA-8	117	RT											1
78-79	TDL-1	117	RT									241.6		
80	TDL-2	117	RT									95.4		
79	CVM-1	117	RT										23	
79	CVM-2	117	RT										34.5	
78		117		20			59							
79		117		16	20									
80		117		21	4									
81		501		21	12									
82		501, WAPAK		16	11									
TOTALS CARRIED TO GENERAL SUMMARY, SHEET 9-10				141			59	1.35	1.03	937	54	337	58	8

CALCULATED RSW
CHECKED MJM

EARTHWORK AND PAVEMENT MARKINGS SUBSUMMARIES

ALL-117/501-10.76/4.34

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ROADWAY SUBSUMMARY - R

SHEET NO.	REFERENCE NO.	LOCATION	STATION		202		623	690
					FENCE REMOVED	REMOVAL MISC: LANDSCAPING WALL	MONUMENT ASSEMBLY	MAILBOX REMOVED AND RESET
			FROM	TO	FT	EACH	EACH	EACH
65	R-1	WAP	1+02.91, LT	3+35.38, LT	252.5			
19	R-2	DR117-01	555+08.42					1
20	R-3	DR117-02	560+52.67					1
22	R-4	DR117-03	567+34.85					1
23	R-5	DR117-05	574+49.94					1
23	R-6	DR117-06	576+68.16					1
24	R-7	DR117-08	579+48.94					1
19	R-8	117	554+32.82				1	
20	R-9	117	557+33.47				1	
20	R-10	117	561+77.82				1	
21	R-11	117	564+78.47				1	
21	R-12	117	563+75.20	564+14.88	51.5			
22	R-13	117	569+20.00				1	
23	R-14	117	576+11.69				1	
24	R-15	117	579+11.69				1	
24	R-16	117	586+74.49				1	
24	R-17	117	589+74.49				1	
45	R-18	501	220+57.37				1	
46	R-19	501	224+61.45				1	
46	R-20	DR501-01	225+18.35	225+73.95				1
46	R-21	DR501-01	255+18.35	225+73.95		1		
46	R-22	DR501-03	226+60.15					1
46	R-23	501	227+27.24				1	
47	R-24	501	228+97.24				1	
65	R-25	WAP	1+23.27				1	
65	R-26	WAP	2+18.28				1	
65	R-27	DRWAP-01	3+76.22					1
65	R-28	DRWAP-02	4+32.86					1
TOTALS CARRIED TO THE GENERAL SUMMARY, SHEET 9-10					304	1	15	10

BMP's SUBSUMMARY

SHEET NO.	REFERENCE	ROUTE, SIDE	CADD AREA, FORESLOPE AND GRADED SHOULDER	CADD AREA, DITCH BOTTOM	659	670
					TOPSOIL	DITCH EROSION PROTECTION
			SF	SF	CY	SY
18	VEGETATED BIOFILTER 1	117, RT	7524.8	1987.3	139.3	220.8
18	VEGETATED BIOFILTER 2	WAPAK, LT	3258.7	302.6	60.3	33.6
18	VEGETATED BIOFILTER 3	501, LT	6013.6	713.0	111.4	79.2
18	VEGETATED BIOFILTER 4	501, RT	7268.2	1767.9	134.6	196.4
18	VEGETATED BIOFILTER 5	117, RT	13735.2	2811.7	254.4	312.4
TOTALS CARRIED TO GENERAL SUMMARY, SHEET 9-10					700	843

CALCULATED RSW
CHECKED MJM

ROADWAY AND BMP'S SUBSUMMARIES

ALL-117 / 501-10.76 / 4.34

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SIGN SUBSUMMARY - S

SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT, NO. 3 POST	630 SIGN POST REFLECTOR	630 SIGN, FLAT SHEET	630 REMOVAL OF GROUND MOUNTED SIGN & DISPOSAL	630 REMOVAL OF GROUND MOUNTED SIGN & REERECTION	630 REMOVAL OF GROUND MOUNTED POST SUPPOST AND DISPOSAL	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND REERECTION
							FT	EACH	SF	EACH	EACH	EACH	EACH
78	S-117.1	S.R. 117	556+70.34	LT						2		2	
78	S-117.2	S.R. 117	556+86.79	RT						2	1	2	
78	S-117.3	S.R. 117	557+00.00	RT	M2-1-21	21 x 15	13		2.2				
					M1-5-30-3	30 x 24			5.0				
78	S-117.4	S.R. 117	559+19.30	RT						1		2	
78	S-117.4-1	S.R. 117	559+50.00	RT							1		1
78	S-117.5	S.R. 117	561+00.00	RT	D1-H1a-72	72 x 12	23		6.0				
					D1-H1a-72	72 x 12			6.0				
78	S-117.6	S.R. 117	561+10.64	RT						2		1	
78	S-117.7	S.R. 117	562+50.00	LT	W2-1-36	36 x 36	26	2	9.0				
					W16-H8aP-48	48 x 15			5.0				
78	S-117.8	S.R. 117	562+50.00	RT	W2-1-36	36 x 36	28	2	9.0				
					W16-H8aP-48	48 x 15			5.0				
79	S-117.9	S.R. 117	564+32.48	LT						2		1	
79	S-117.10	S.R. 117	565+00.00	RT	R3-H8bh-36	36 x 30	13		7.5				
79	S-117.11	S.R. 117	566+80.00	LT	M3-4-24	24 x 12	12.5		2.0				
					M1-5-30-3	30 x 24			5.0				
79	S-117.12	S.R. 117	567+50.00	RT	R3-H8bh-36	36 x 30	12.5		7.5				
79	S-117.13	S.R. 117	568+29.50	RT						4		2	
79	S-117.13-1	S.R. 117	569+59.00	RT			16				2	1	
79	S-117.14	S.R. 117	568+94.80	LT						4		2	
79	S-117.15	S.R. 117	569+59.00	RT	M3-2-24	24 x 12	14		2.0				
					M1-5-30-3	30 x 24			5.0				
					M6-3-21	21 x 15			2.2				
					M3-3-24	24 x 12			2.0				
					M1-5-30-3	30 x 24			5.0				
					M6-1-21	21 x 15			2.2				
79	S-117.16	S.R. 117	570+50.00	LT	M3-3-24	24 x 12	14		2.0				
					M1-5-30-3	30 x 24			5.0				
					M6-1-21	21 x 15			2.2				
					M3-4-24	24 x 12	14		2.0				
					M1-5-30-3	30 x 24			5.0				
					M6-3-21	21 x 15			2.2				
79	S-117.17	S.R. 117	571+50.00	LT	R3-H8bh-36	36 x 30	12		7.5				
79	S-117.18	S.R. 117	572+00.00	RT	M3-2-24	24 x 12	12.5		2.0				
					M1-5-30-3	30 x 24			5.0				
80	S-117.19	S.R. 117	573+48.38	RT						2		1	
80	S-117.20	S.R. 117	574+80.00	LT	R3-H8bh-36	36 x 30	13		7.5				
80	S-117.21	S.R. 117	575+88.77	LT						2		1	
80	S-117.22	S.R. 117	576+00.00	LT	W2-1-36	36 x 36	14	2	9.0				
					W16-H8aP-48	48 x 15			5.0				
80	S-117.23	S.R. 117	576+00.00	RT	W2-1-36	36 x 36	14	2	9.0				
					W16-H8aP-48	48 x 15			5.0				
80	S-117.24	S.R. 117	577+79.88	RT						2		2	
80	S-117.25	S.R. 117	578+00.00	LT	D1-H1a-72	72 x 12	12		6.0				
					D1-H1a-72	72 x 12			6.0				
80	S-117.26	S.R. 117	578+07.19	LT						2		2	
80	S-117.27	S.R. 117	578+74.83	LT						1		2	
80	S-117.28	S.R. 117	578+00.00	LT	M2-1-21	21 x 15	13		2.2				
					M1-5-30-3	30 x 24			5				
SUB-TOTALS CARRIED TO THE TABLE TO THE RIGHT							276.5	8	175.2	26	4	21	1

SIGN SUBSUMMARY - S (CONT)

SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT, NO. 3 POST	630 SIGN POST REFLECTOR	630 SIGN, FLAT SHEET	630 REMOVAL OF GROUND MOUNTED SIGN & DISPOSAL	630 REMOVAL OF GROUND MOUNTED SIGN & REERECTION	630 REMOVAL OF GROUND MOUNTED POST SUPPOST AND DISPOSAL	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND REERECTION
							FT	EACH	SF	EACH	EACH	EACH	EACH
81	S-501.1	S.R. 501	219+21.74	LT						1		1	
81	S-501.2	S.R. 501	219+24.83	RT						1		1	
81	S-501.3	S.R. 501	221+00.00	RT	D1-H1a-72	72 x 12	24.0		6.0				
					D1-H1a-72	72 x 12			6.0				
81	S-501.4	S.R. 501	219+00	RT	M2-1-21	21 x 15	13.0		2.2				
					M1-5-30-3	30 x 24			5.0				
81	S-501.5	S.R. 501	222+26.69	RT						2		1	
81	S-501.6	S.R. 501	223+00.00	RT	W1-2AL-36	36 x 36	13.0		9.0				
81	S-501.7	S.R. 501	224+44.91	LT						1		2	
81	S-501.8	S.R. 501	224+50.00	LT	W3-1-36	36 x 36	12.5		9.0				
81	S-501.9	S.R. 501	224+50.00	RT	W3-1-36	36 x 36	12.5		9.0				
81	S-501.10	S.R. 501	225+17.59	LT						2		1	
81	S-501.11	S.R. 501	227+27.00	RT	W1-8L-18	18 x 24	12.0		3.0				
81	S-501.12	S.R. 501	228+00.00	LT	M3-3-24	24 x 12	13.0		2.0				
					M1-5-30-3	30 x 24			5.0				
82	S-501.14	S.R. 501	228+07.00	RT	W1-8L-18	18 x 24	12.0		3.0				
82	S-501.15	S.R. 501	228+87.00	RT	W1-8L-18	18 x 24	12.0		3.0				
82	S-501.16	S.R. 501	229+31.57	LT						2		2	
82	S-501.17	S.R. 501	229+19.51	LT						2		2	
82	S-501.18	S.R. 501	229+25.00	LT	M1-5-30-3	30 x 24	28.0		5.0				
					M6-4-21	21 x 15			2.2				
					R1-1-36	36 x 36			9.0				
					W4-4P-24	24 x 12			2.0				
82	S-501.19	S.R. 501	229+50.00	RT	R1-1-36	36 x 36	28.0		9.0				
					W4-4P-24	24 x 12			2.0				
82	S-WAP.1	WAPAK RD.	0+62.23	LT						3		2	
82	S-WAP.2	WAPAK RD.	0+25.00	LT	R1-1-36	36 x 36	30.0		9.0				
					W4-4P-24	24 x 12			2.0				
82	S-WAP.3	WAPAK RD.	0+50.68	LT						2		2	
82	S-WAP.4	WAPAK RD.	1+00.00	RT	R1-1-36	36 x 36	27.0		9.0				
					W4-4P-24	24 x 12			2.0				
					M1-5-30-3	30 x 24			5.0				
					M6-4-21	21 x 15			2.2				
82	S-WAP.5	WAPAK RD.	1+23.00	LT	W1-8L-18	18 x 24	11.5		3.0				
82	S-WAP.6	WAPAK RD.	2+03.00	LT	W1-8L-18	18 x 24	11.5		3.0				
82	S-WAP.7	WAPAK RD.	2+83.00	LT	W1-8L-18	18 x 24	11.5		3.0				
82	S-WAP.8	WAPAK RD.	4+00.00	LT	W3-1-30	30 x 30	13.5		6.3				
82	S-WAP.9	WAPAK RD.	4+00.00	RT	W3-1-30	30 x 30	13.5		6.3				
82	S-WAP.10	WAPAK RD.	4+79.96	LT						1		1	
82	S-WAP.11	WAPAK RD.	5+14.08	RT						1		1	
82	S-WAP.12	WAPAK RD.	5+00.00	LT	W1-2AL-36	36 x 36	13.0		9.0				
SUB-TOTALS FROM THIS TABLE							311.5		151.1	18		16	
SUB-TOTALS FROM THE TABLE TO THE LEFT							276.5	8	175.2	26	4	21	1
TOTALS CARRIED TO GENERAL SUMMARY, SHEET 9-10							588.0	8	326.3	44	4	37	1

CALCULATED RSW
CHECKED MJM

SIGNING SUBSUMMARY

ALL-117/501-10.76/4.34

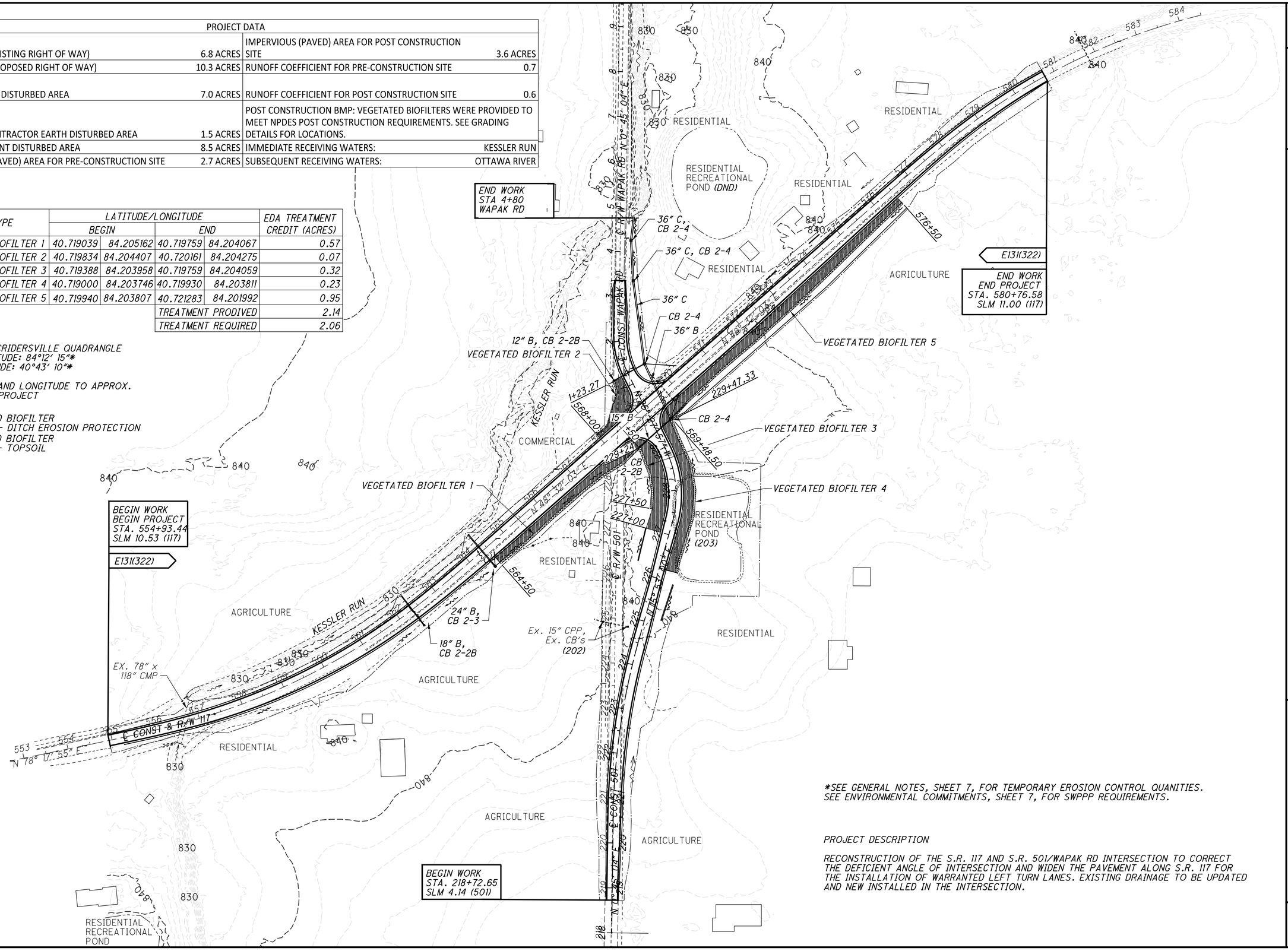
PROJECT DATA			
TOTAL AREA (EXISTING RIGHT OF WAY)	6.8 ACRES	IMPERVIOUS (PAVED) AREA FOR POST CONSTRUCTION SITE	3.6 ACRES
TOTAL AREA (PROPOSED RIGHT OF WAY)	10.3 ACRES	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	0.7
PROJECT EARTH DISTURBED AREA	7.0 ACRES	RUNOFF COEFFICIENT FOR POST CONSTRUCTION SITE	0.6
ESTIMATED CONTRACTOR EARTH DISTURBED AREA	1.5 ACRES	POST CONSTRUCTION BMP: VEGETATED BIOFILTERS WERE PROVIDED TO MEET NPDES POST CONSTRUCTION REQUIREMENTS. SEE GRADING DETAILS FOR LOCATIONS.	
NOTICE OF INTENT DISTURBED AREA	8.5 ACRES	IMMEDIATE RECEIVING WATERS:	KESSLER RUN
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE	2.7 ACRES	SUBSEQUENT RECEIVING WATERS:	OTTAWA RIVER

BMP TYPE	LATITUDE/LONGITUDE BEGIN		LATITUDE/LONGITUDE END		EDA TREATMENT CREDIT (ACRES)
VEGETATED BIOFILTER 1	40.719039	84.205162	40.719759	84.204067	0.57
VEGETATED BIOFILTER 2	40.719834	84.204407	40.720161	84.204275	0.07
VEGETATED BIOFILTER 3	40.719388	84.203958	40.719759	84.204059	0.32
VEGETATED BIOFILTER 4	40.719000	84.203746	40.719930	84.203811	0.23
VEGETATED BIOFILTER 5	40.719940	84.203807	40.721283	84.201992	0.95
			TREATMENT PRODIVED		2.14
			TREATMENT REQUIRED		2.06

USGS MAP: CRIDERSVILLE QUADRANGLE
LONGITUDE: 84°12' 15"*
LATITUDE: 40°43' 10"*

*LATITUDE AND LONGITUDE TO APPROX. CENTER OF PROJECT

VEGETATED BIOFILTER ITEM 670 - DITCH EROSION PROTECTION
VEGETATED BIOFILTER ITEM 659 - TOPSOIL



*SEE GENERAL NOTES, SHEET 7, FOR TEMPORARY EROSION CONTROL QUANITIES.
SEE ENVIRONMENTAL COMMITMENTS, SHEET 7, FOR SWPPP REQUIREMENTS.

PROJECT DESCRIPTION

RECONSTRUCTION OF THE S.R. 117 AND S.R. 501/WAPAK RD INTERSECTION TO CORRECT THE DEFICIENT ANGLE OF INTERSECTION AND WIDEN THE PAVEMENT ALONG S.R. 117 FOR THE INSTALLATION OF WARRANTED LEFT TURN LANES. EXISTING DRAINAGE TO BE UPDATED AND NEW INSTALLED IN THE INTERSECTION.

HORIZONTAL SCALE IN FEET
0 50 100 200

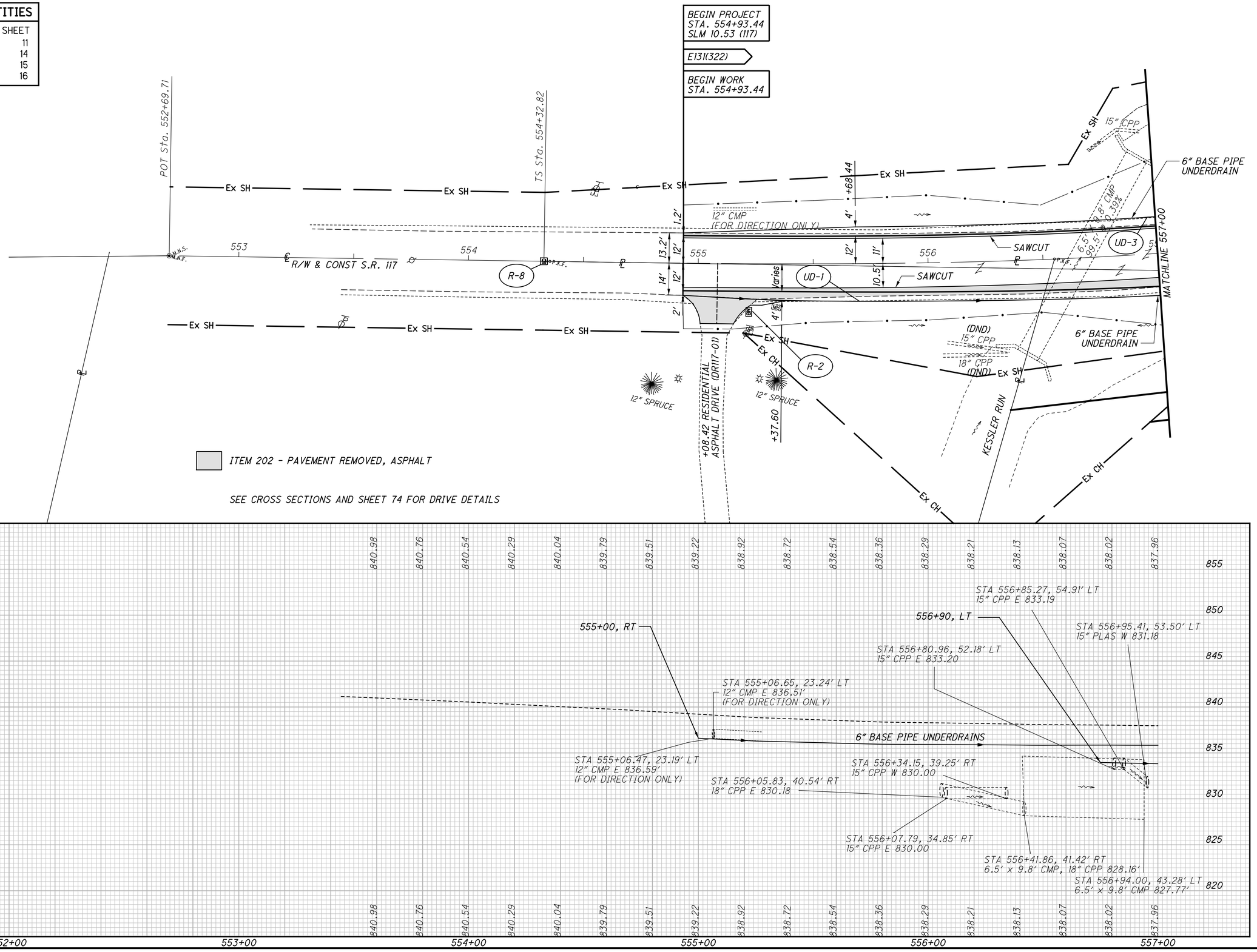
PROJECT SITE PLAN
S.R. 117, S.R. 501, & WAPAK RD

ALL-117 / 501-
10.76 / 4.34

18
95

ESTIMATED QUANTITIES	
ITEM	SHEET
PAVEMENT	11
DRIVEWAY-DR	14
DRAINAGE-D,UD	15
ROADWAY-R	16

P.I. Sta. 559+64.92
Δ = 29° 48′ 00″ (LT)
Dc = 4° 00′ 00″
R = 1,432.40′
Ls = 300.65′
θs = 6° 00′ 47″
LT = 200.55′
ST = 100.32′
x = 300.32′
y = 10.51′
k = 150.27′
p = 2.63′
Δc = 17° 46′ 27″ (LT)
Lc = 444.35′
Ts = 532.10′
E = 52.56′
C = 442.57′
C1 = C2 = 300.50′
C.B.1 = N 76° 17′ 40″ E
C.B. = N 63° 23′ 55″ E
C.B.2 = S 50° 30′ 10″ W



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HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED RSW
CHECKED EJS

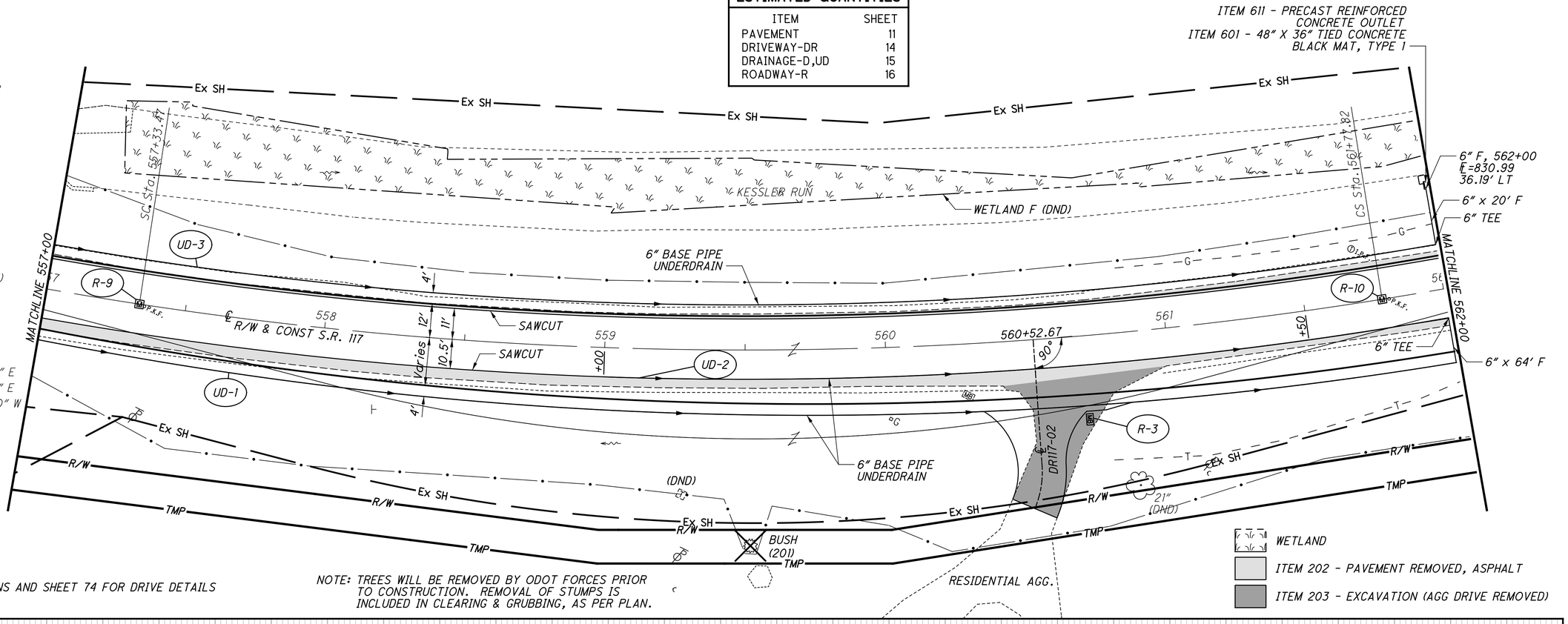
PLAN AND PROFILE S.R. 117
STA 552+00 TO 557+00

ALL-117/501-10.76/4.34

ESTIMATED QUANTITIES

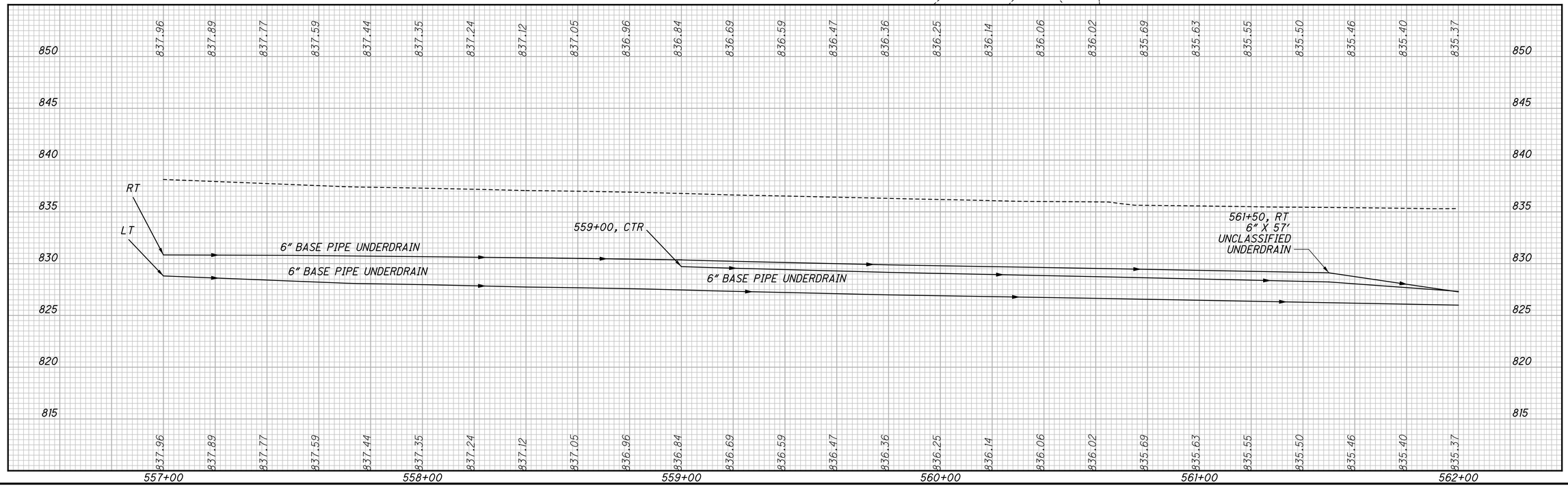
ITEM	SHEET
PAVEMENT	11
DRIVEWAY-DR	14
DRAINAGE-D,UD	15
ROADWAY-R	16

P.I. Sta. 559+64.92
Δ = 29° 48′ 00″ (LT)
Dc = 4° 00′ 00″
R = 1,432.40′
Ls = 300.65′
θs = 6° 00′ 47″
LT = 200.55′
ST = 100.32′
x = 300.32′
y = 10.51′
k = 150.27′
p = 2.63′
Δc = 17° 46′ 27″ (LT)
Lc = 444.35′
Ts = 532.10′
E = 52.56′
C = 442.57′
C1 = C2 = 300.50′
C.B.1 = N 76° 17′ 40″ E
C.B. = N 63° 23′ 55″ E
C.B.2 = S 50° 30′ 10″ W



SEE CROSS SECTIONS AND SHEET 74 FOR DRIVE DETAILS

NOTE: TREES WILL BE REMOVED BY ODOT FORCES PRIOR TO CONSTRUCTION. REMOVAL OF STUMPS IS INCLUDED IN CLEARING & GRUBBING, AS PER PLAN.



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED RSW
CHECKED EJS

PLAN AND PROFILE S.R. 117
STA 557+00 TO 562+00

ALL-117/501-10.76/4.34

20
95

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* 6" C 45° BEND WITH COUPLING BAND
# 6" C 45° WYE WITH COUPLING BAND
& 6" C 22.5° BEND WITH COUPLING BAND
π 6" C TEE WITH COUPLING BAND

ESTIMATED QUANTITIES

ITEM	SHEET
PAVEMENT	11
DRAINAGE-D,UD	15
ROADWAY-R	16

P.I. Sta. 559+64.92
Δ = 29° 48' 00" (LT)
Dc = 4° 00' 00"
R = 1,432.40'
Ls = 300.65'
θs = 6° 00' 47"
LT = 200.55'
ST = 100.32'
x = 300.32'
y = 10.51'
k = 150.27'
p = 2.63'
Δc = 17° 46' 27" (LT)
Lc = 444.35'
Ts = 532.10'
E = 52.56'
C = 442.57'
C1 = C2 = 300.50'
C.B.1 = N 76° 17' 40" E
C.B. = N 63° 23' 55" E
C.B.2 = S 50° 30' 10" W

Ex SH
PRECAST REINFORCED CONCRETE OUTLET AND 48" X 36" TIED CONCRETE BLOCK MAT, TYPE 1
WETLAND E (DND)
6" X 20' F
48"X48" TIED CONCRETE BLOCK MAT, TYPE 1
HW 2.1 OR 2.2
6" BASE PIPE UNDERDRAIN
48"X48" TIED CONCRETE BLOCK MAT, TYPE 1
HW 2.1 OR 2.2
ST Sta. 564+78.47
KESSLER RUN
WETLAND E (DND)
6" TEE
D-1
D-2
MATCHLINE 562+00
MATCHLINE 567+00
R/W & CONST S.R. 117
UD-6
UD-5
UD-4
R-11
R-12
SAWCUT
SAWCUT
12" X 72' CMP (202)
18" X 83' B
24" X 90' B
24" X 75' CMP (202)
Varies
4'
12'
10.5'
11'
27'
6" X 35' (202)
6" CPP
6" CPP
6" X 55' F
6" TEE
6" X 60° WYE
6" X 15' (202)
6" X 44' (202)
6" X 33' C
6" X 42' C
6" X 4' C
6" CPP
6" BASE PIPE UNDERDRAIN
6" X 60°
R/W
TMP
(DND)
LEACH BED (TO BE REMOVED BY OTHERS)
SEPTIC
RES
CB 2-2B (202)
CB 2-3 (202)

WETLAND
ITEM 202 - PAVEMENT REMOVED, ASPHALT

STA 562+34.18, 29.92' RT
EX. CB, GRATE ELEV 834.40' (202)
12" CMP ((NW) (202)

STA 562+34.18, 43.50' RT
CB-2-2B, GRATE ELEV 833.50
18" B (NW) 830.10
6" F (SW) 832.60

RT
CTR
LT
6" X 55' F
6" BASE PIPE UNDERDRAINS

STA 564+36.68, 44.50' RT
CB-2-3, GRATE ELEV 833.40
6" C (NE) 830.25
6" C (E) 830.15
6" C (NW) 830.15
24" B (NW) 829.00

STA 564+37.33, 27.10' RT
24" CMP NW 831.06

STA 564+36.68, 28.28' RT
EX. CB, GRATE ELEV 833.65'
24" CONC NW 828.55 (202)
6" CPP NE 830.05
6" CPP NE 830.05
6" CPP E 830.15
6" CPP E 830.15

STA 564+37.92, 28.13' RT
6" CCP NE 830.37

STA 564+47.64, 19.64' RT
6" CCP NE 830.47

STA 565+30.02, 65.47' RT
6" SPP WSW 831.72

STA 564+62.81, 38.68' RT
6" C 830.70

STA 564+36.89, 28.95' RT
6" CPP SE 830.37

STA 565+30.60, 65.66' RT
6" SPP ENE 831.69'

STA 564+46.09, 26.08' RT
6" CCP NE 830.47

STA 564+37.78, 27.95' RT
6" CCP NE 830.37

STA 564+37.72, 28.67' RT
6" CPP ENE 830.32

850 845 840 835 830 825 820 815
835.37 835.40 835.42 835.51 835.59 835.66 835.71 835.75 835.78 835.85 835.91 835.99 836.11 836.25 836.42 836.59 836.80 837.01 837.22 837.39 837.52 837.66 837.75 837.84 837.93 838.05
562+00 563+00 564+00 565+00 566+00 567+00

HORIZONTAL SCALE IN FEET
0 10 20 40
CALCULATED RSW
CHECKED EJS

PLAN AND PROFILE S.R. 117
STA. 562+00 TO 567+00

ALL-117/501-10.76/4.34

21
95

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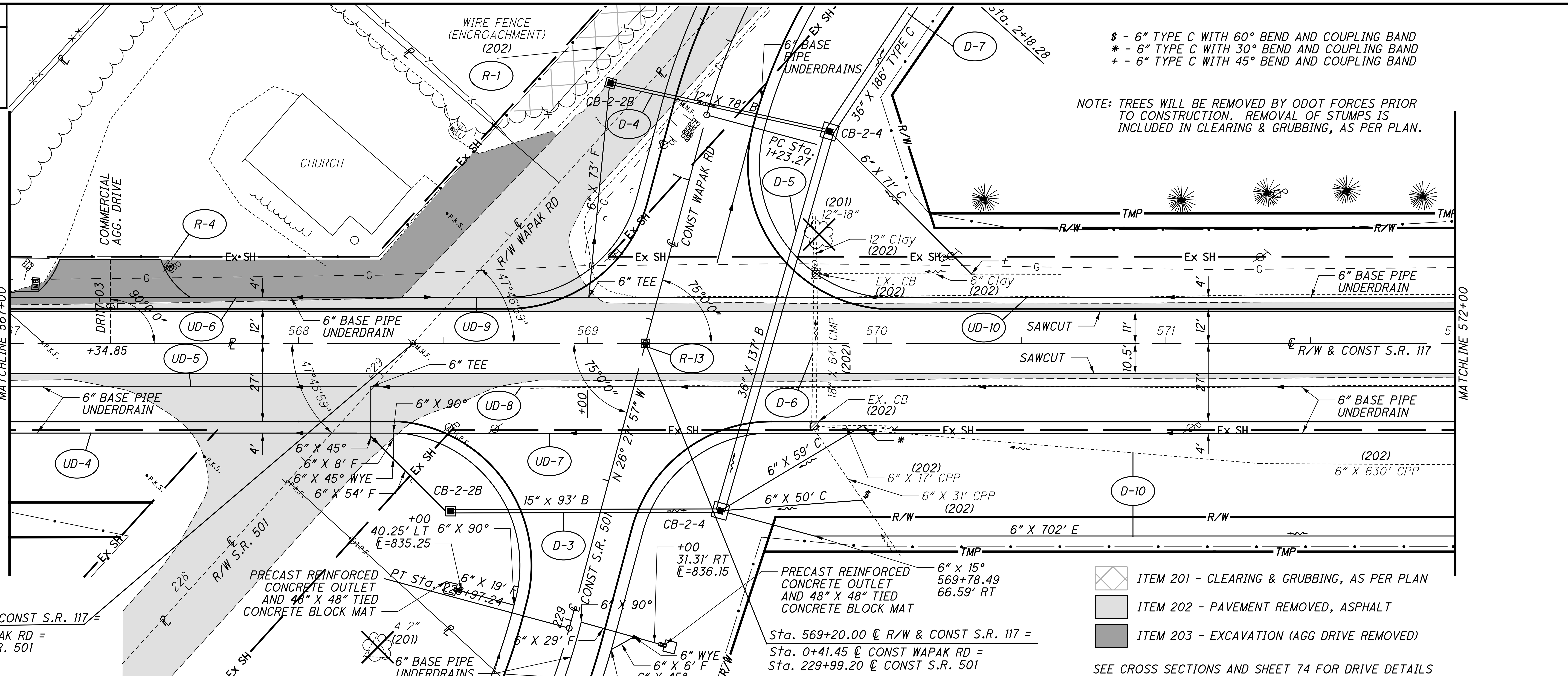
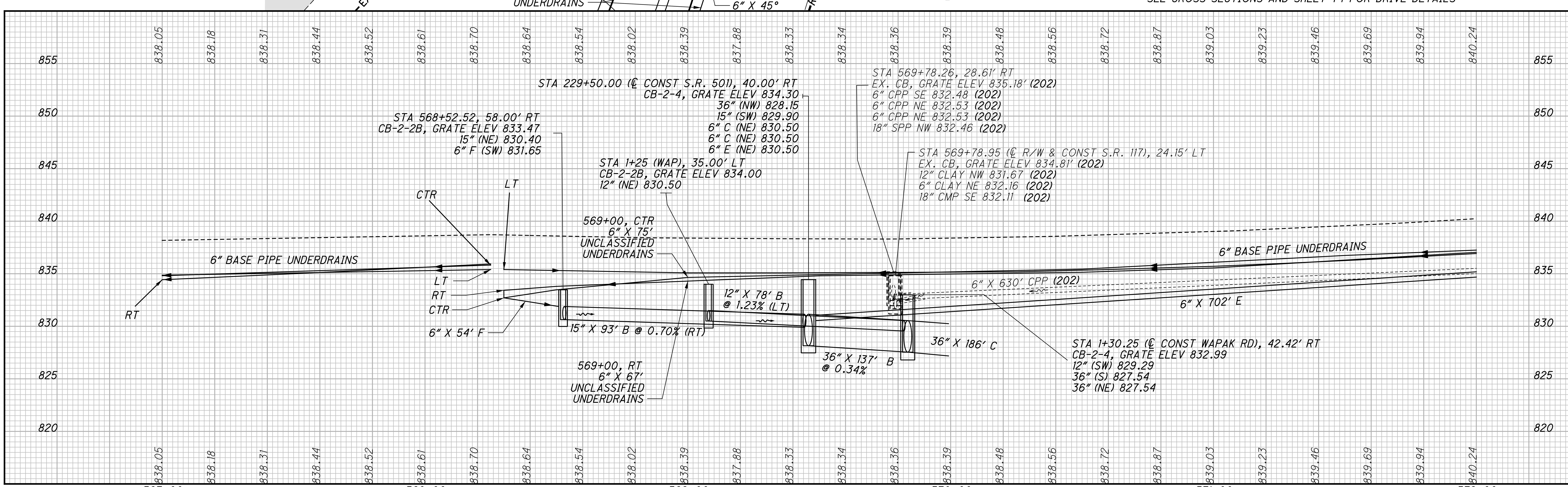
ESTIMATED QUANTITIES

ITEM	SHEET
PAVEMENT	11
DRIVEWAY-DR	14
DRAINAGE-D,UD	15
ROADWAY-R	16



$ - 6" TYPE C WITH 60° BEND AND COUPLING BAND
* - 6" TYPE C WITH 30° BEND AND COUPLING BAND
+ - 6" TYPE C WITH 45° BEND AND COUPLING BAND
NOTE: TREES WILL BE REMOVED BY ODOT FORCES PRIOR TO CONSTRUCTION. REMOVAL OF STUMPS IS INCLUDED IN CLEARING & GRUBBING, AS PER PLAN.
WIRE FENCE (ENCROACHMENT) (202)
CHURCH
COMMERCIAL AGG. DRIVE
MATCHLINE 567+00
MATCHLINE 572+00
℄ R/W & CONST S.R. 117
℄ R/W WAPAK RD
℄ CONST WAPAK RD
℄ CONST S.R. 501
℄ R/W S.R. 501
CB-2-2B
CB-2-4
CB-2-2B
CB-2-4
12" X 78' B
36" X 186' TYPE C
36" X 137' B
15" x 93' B
PC Sta. 1+23.27
PT Sta. 1+97.24
6" BASE PIPE UNDERDRAINS
6" BASE PIPE UNDERDRAIN
6" TEE
6" X 90°
6" X 45°
6" X 8' F
6" X 45° WYE
6" X 54' F
6" X 73' F
6" X 71' C
6" X 59' C
6" X 50' C
6" X 17' CPP
6" X 31' CPP
6" X 630' CPP
6" X 702' E
6" X 19' F
6" X 29' F
6" WYE
6" X 6' F
18" X 64' CMP (202)
12" Clay (202)
6" Clay (202)
EX. CB (202)
SAWCUT
N 26° 27' 57" W
+00 40.25' LT ℄=835.25
+00 31.31' RT ℄=836.15
6" x 15° 569+78.49 66.59' RT
PRECAST REINFORCED CONCRETE OUTLET AND 48" X 48" TIED CONCRETE BLOCK MAT
Sta. 568+39.57 ℄ R/W & CONST S.R. 117 =
Sta. 0+00.00 ℄ R/W WAPAK RD =
Sta. 229+15.20 ℄ R/W S.R. 501
Sta. 569+20.00 ℄ R/W & CONST S.R. 117 =
Sta. 0+41.45 ℄ CONST WAPAK RD =
Sta. 229+99.20 ℄ CONST S.R. 501
R-1 R-4 R-13 D-3 D-4 D-5 D-6 D-7 D-10 UD-4 UD-5 UD-6 UD-7 UD-8 UD-9 UD-10
ITEM 201 - CLEARING & GRUBBING, AS PER PLAN
ITEM 202 - PAVEMENT REMOVED, ASPHALT
ITEM 203 - EXCAVATION (AGG DRIVE REMOVED)
SEE CROSS SECTIONS AND SHEET 74 FOR DRIVE DETAILS
HORIZONTAL SCALE IN FEET



STA 229+50.00 (℄ CONST S.R. 501), 40.00' RT
CB-2-4, GRATE ELEV 834.30
36" (NW) 828.15
15" (SW) 829.90
6" C (NE) 830.50
6" C (NE) 830.50
6" E (NE) 830.50
STA 568+52.52, 58.00' RT
CB-2-2B, GRATE ELEV 833.47
15" (NE) 830.40
6" F (SW) 831.65
STA 1+25 (WAP), 35.00' LT
CB-2-2B, GRATE ELEV 834.00
12" (NE) 830.50
STA 569+78.26, 28.61' RT
EX. CB, GRATE ELEV 835.18' (202)
6" CPP SE 832.48 (202)
6" CPP NE 832.53 (202)
6" CPP NE 832.53 (202)
18" SPP NW 832.46 (202)
STA 569+78.95 (℄ R/W & CONST S.R. 117), 24.15' LT
EX. CB, GRATE ELEV 834.81' (202)
12" CLAY NW 831.67 (202)
6" CLAY NE 832.16 (202)
18" CMP SE 832.11 (202)
569+00, CTR
6" X 75'
UNCLASSIFIED UNDERDRAINS
569+00, RT
6" X 67'
UNCLASSIFIED UNDERDRAINS
6" BASE PIPE UNDERDRAINS
12" X 78' B @ 1.23% (LT)
15" X 93' B @ 0.70% (RT)
36" X 137' B @ 0.34%
36" X 186' C
6" X 630' CPP (202)
6" X 702' E
6" X 54' F
STA 1+30.25 (℄ CONST WAPAK RD), 42.42' RT
CB-2-4, GRATE ELEV 832.99
12" (SW) 829.29
36" (S) 827.54
36" (NE) 827.54
CTR LT RT
567+00 568+00 569+00 570+00 571+00 572+00

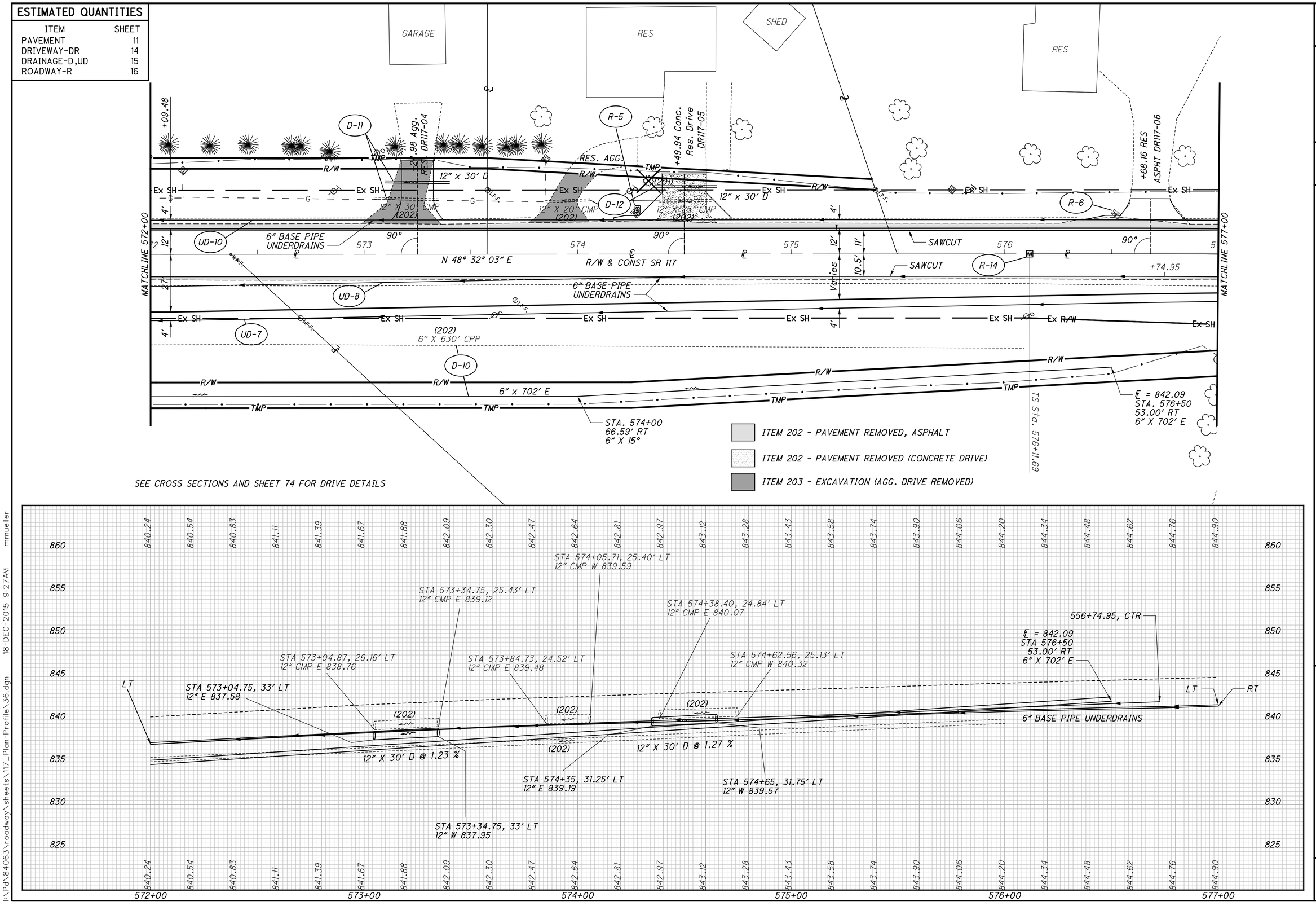
PLAN AND PROFILE S.R. 117
STA 567+00 TO 572+00

ALL-117/501-10.76/4.34

CALCULATED RSW
CHECKED EJS

ESTIMATED QUANTITIES

ITEM	SHEET
PAVEMENT	11
DRIVEWAY-DR	14
DRAINAGE-D,UD	15
ROADWAY-R	16



SEE CROSS SECTIONS AND SHEET 74 FOR DRIVE DETAILS

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED RSW
CHECKED EJS

PLAN AND PROFILE S.R. 117
STA 572+00 TO 577+00

ALL-117/501-10.76/4.34

23
95

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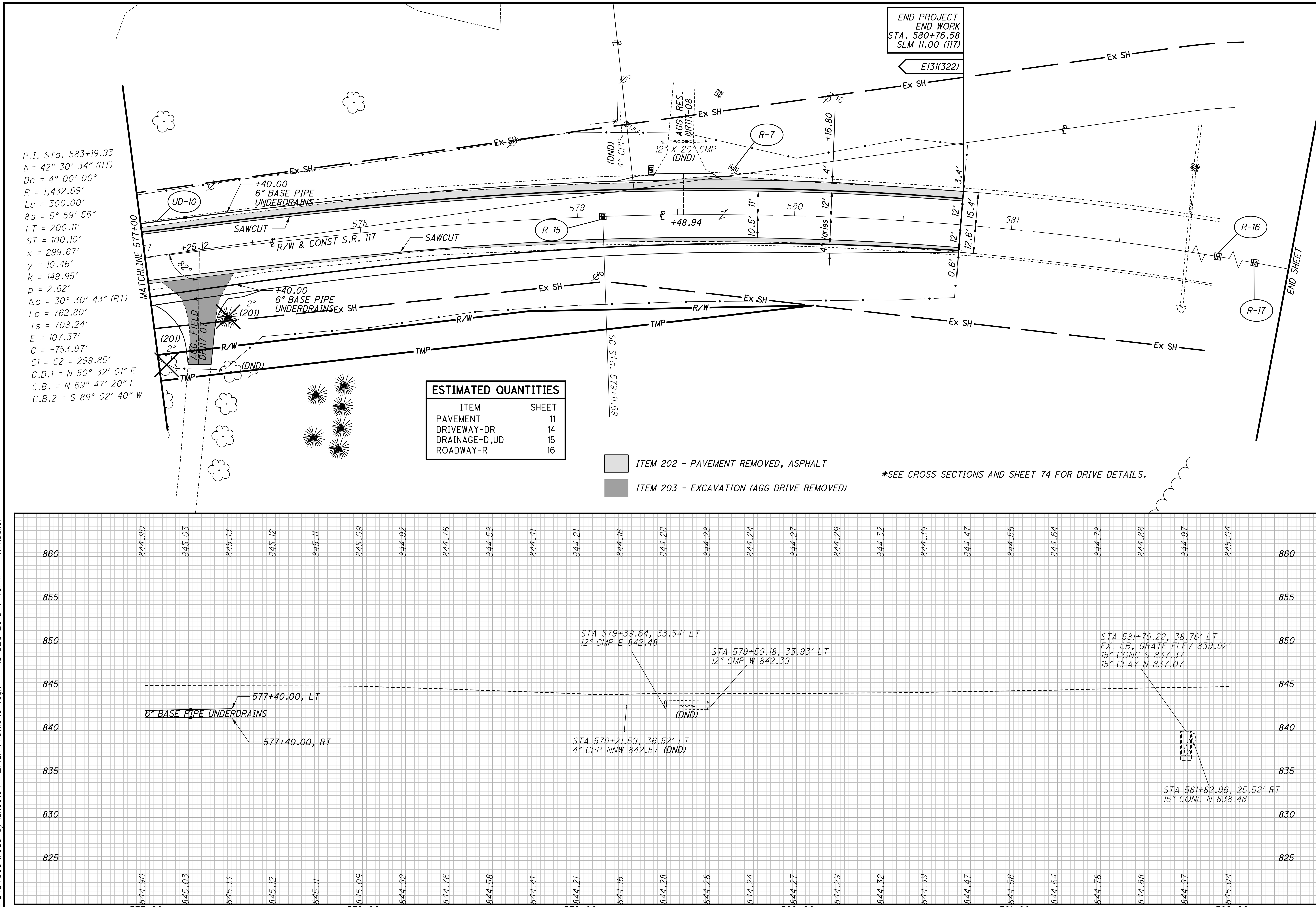

END PROJECT
END WORK
STA. 580+76.58
SLM 11.00 (117)
E131(322)
P.I. Sta. 583+19.93
Δ = 42° 30′ 34″ (RT)
Dc = 4° 00′ 00″
R = 1,432.69′
Ls = 300.00′
θs = 5° 59′ 56″
LT = 200.11′
ST = 100.10′
x = 299.67′
y = 10.46′
k = 149.95′
p = 2.62′
Δc = 30° 30′ 43″ (RT)
Lc = 762.80′
Ts = 708.24′
E = 107.37′
C = -753.97′
C1 = C2 = 299.85′
C.B.1 = N 50° 32′ 01″ E
C.B. = N 69° 47′ 20″ E
C.B.2 = S 89° 02′ 40″ W
MATCHLINE 577+00
UD-10
+40.00
6″ BASE PIPE
UNDERDRAINS
SAWCUT
℄ R/W & CONST S.R. 117
+25.12
82°
AGG. FIELD
DA117-01
(201)
2″
(DND)
R-15
R-7
R-16
R-17
(DND)
4″ CPP
AGG. RES.
DR117-08
12″ X 20″ CMP
(DND)
+48.94
+16.80
Varies
SC Sta. 579+11.69
Ex SH
R/W
TMP
END SHEET
ITEM 202 - PAVEMENT REMOVED, ASPHALT
ITEM 203 - EXCAVATION (AGG DRIVE REMOVED)
*SEE CROSS SECTIONS AND SHEET 74 FOR DRIVE DETAILS.
844.90 845.03 845.13 845.12 845.11 845.09 844.92 844.76 844.58 844.41 844.21 844.16 844.28 844.28 844.24 844.27 844.29 844.32 844.39 844.47 844.56 844.64 844.78 844.88 844.97 845.04
STA 579+39.64, 33.54′ LT
12″ CMP E 842.48
STA 579+59.18, 33.93′ LT
12″ CMP W 842.39
STA 581+79.22, 38.76′ LT
EX. CB, GRATE ELEV 839.92′
15″ CONC S 837.37
15″ CLAY N 837.07
577+40.00, LT
6″ BASE PIPE UNDERDRAINS
577+40.00, RT
(DND)
STA 579+21.59, 36.52′ LT
4″ CPP NNW 842.57 (DND)
STA 581+82.96, 25.52′ RT
15″ CONC N 838.48
577+00
578+00
579+00
580+00
581+00
582+00

ESTIMATED QUANTITIES

ITEM	SHEET
PAVEMENT	11
DRIVEWAY-DR	14
DRAINAGE-D,UD	15
ROADWAY-R	16

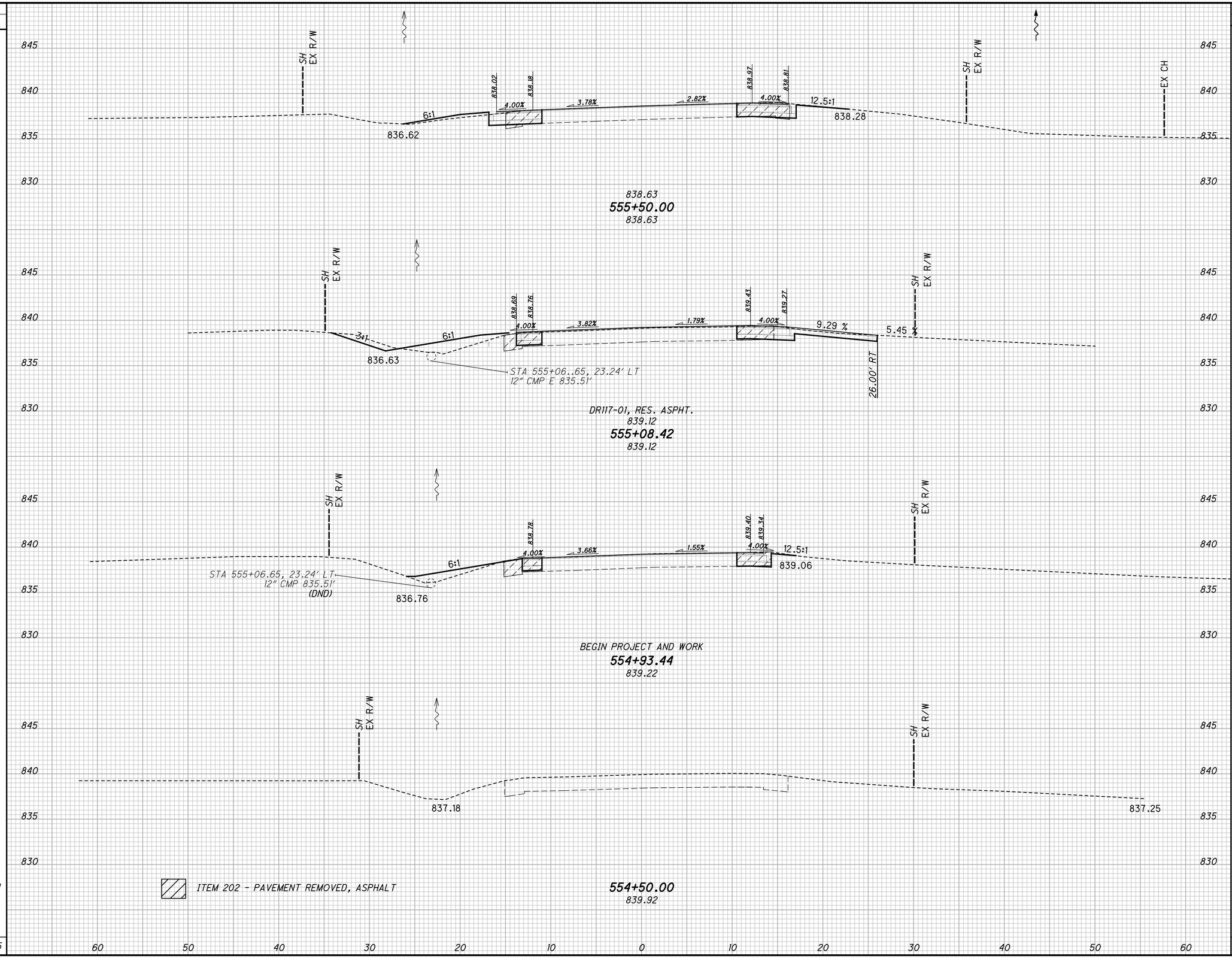
HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED RSW
CHECKED EJS

PLAN AND PROFILE S.R. 117
STA 577+00 TO 582+00

ALL-117/501-10.76/4.34

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
17.1	91	1	3	3	13
20.9	14	4	14	1	2
16.5	0	1	6	0	0
8.5	391	10	1	18	2
	405			22	17



CALCULATED RSW
CHECKED EJS

CROSS SECTIONS S.R. 117
STA. 554+50.00 TO STA. 555+50.00

ALL-117/501-10.76/4.34

25
95

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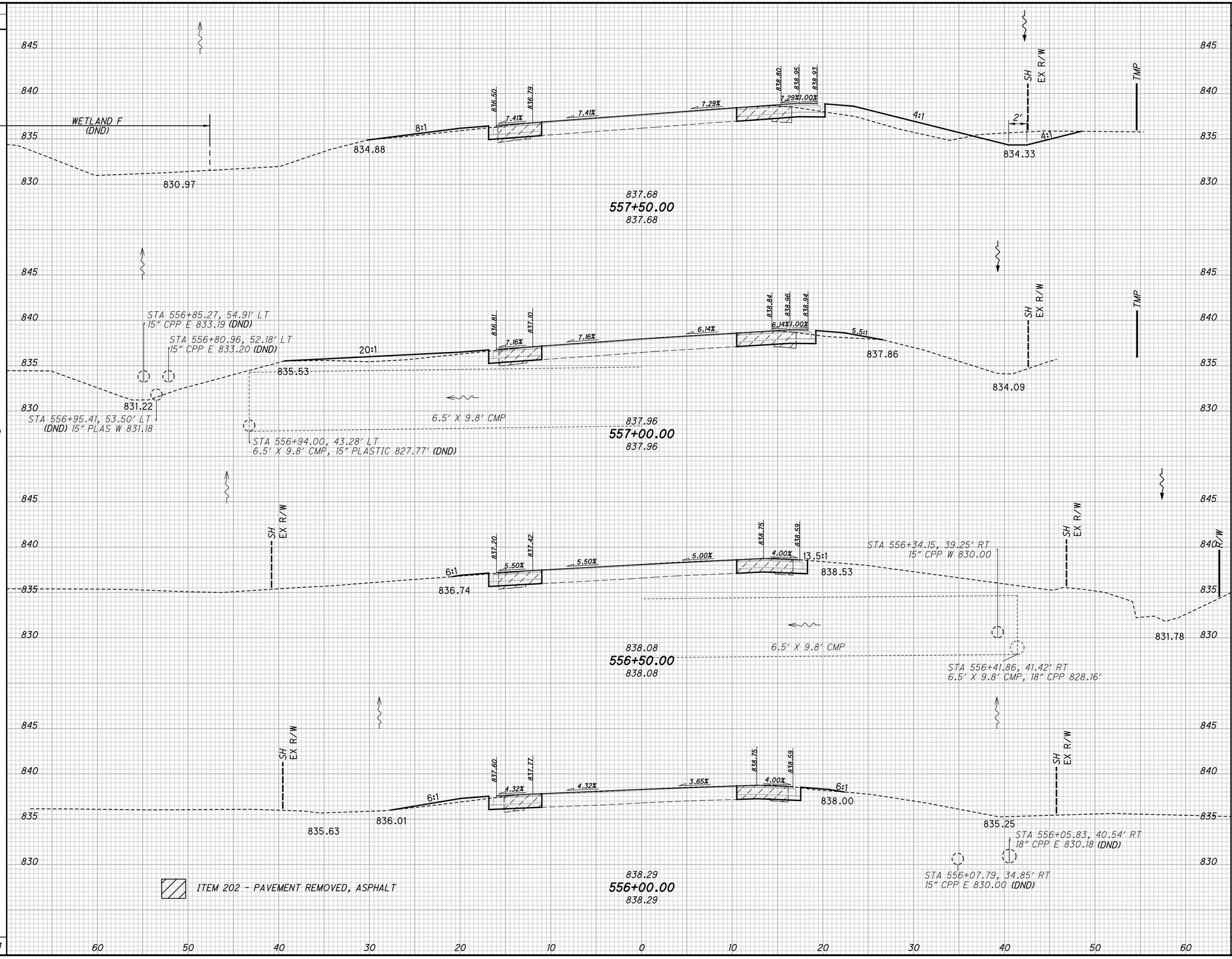
SEEDING END WIDTH	SEEDING SQ. YDS.
44.1	211
31.7	104
5.8	64
17.4	95
	474

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
10	23	10	32
0	12	0	12
0	1	1	4
0	4	1	6
		12	54

CALCULATED RSW
CHECKED EJS

CROSS SECTIONS S.R. 117
STA. 556+00.00 TO STA. 557+50.00

ALL-117/501-10.76/4.34



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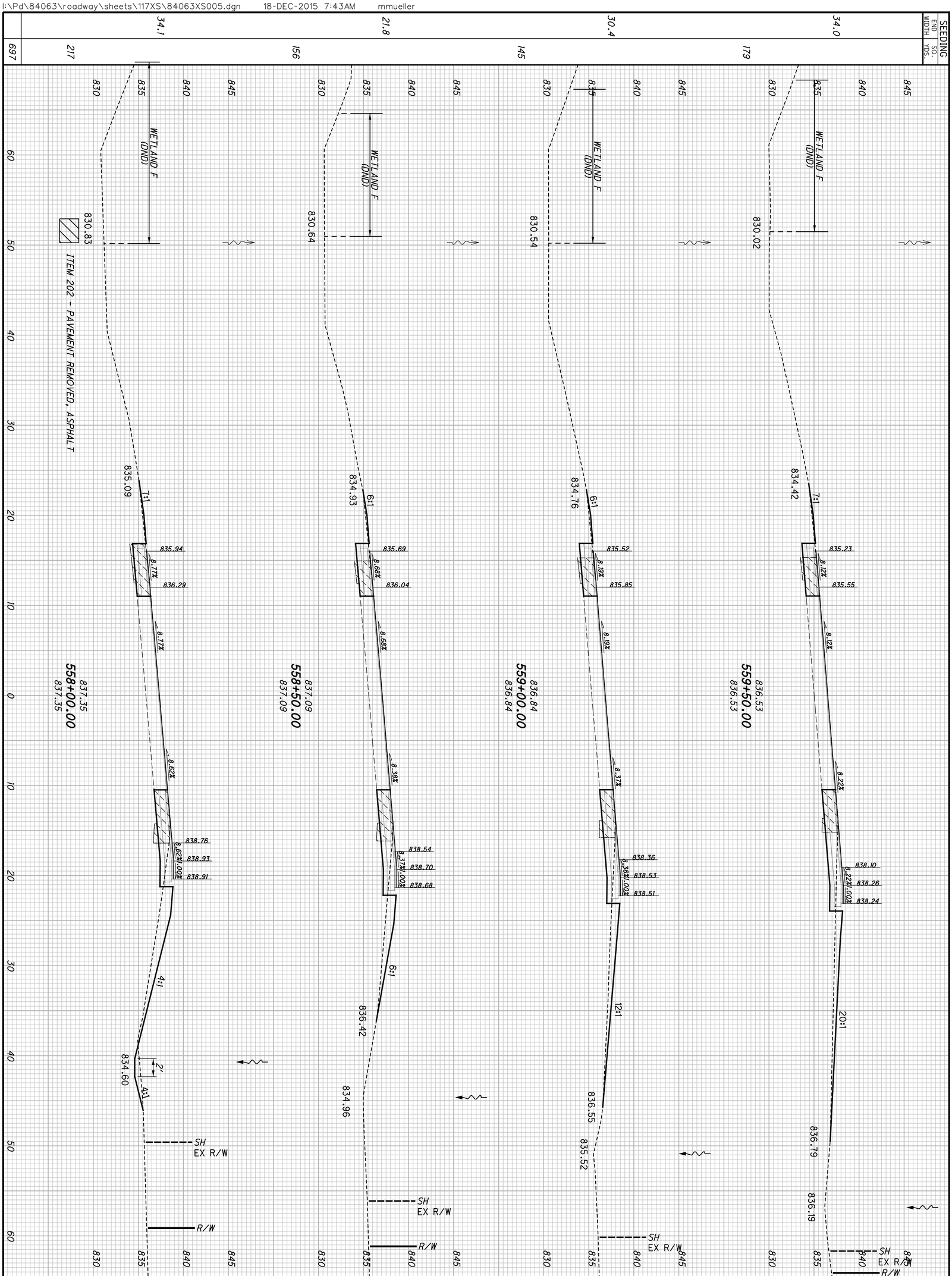
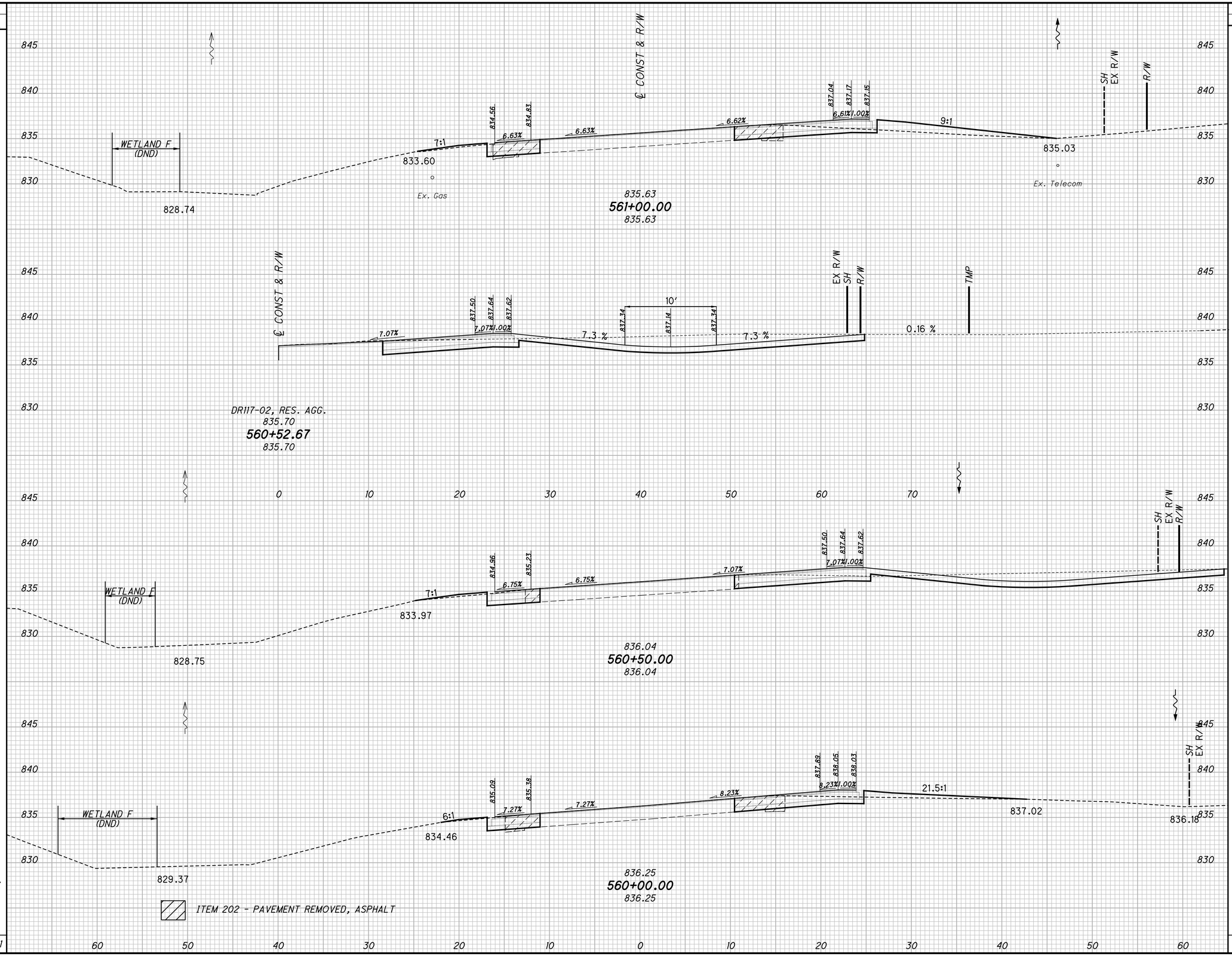


27 / 95	ALL-117/501-10.76/4.34	CROSS SECTIONS S.R. 117 STA. 558+00.00 TO STA. 559+50.00	CALCULATED RSW CHECKED EJS

SEEDING	
END WIDTH	SQ. YDS.
29.4	24
16.1	114
24.8	163
	301



END AREA		VOLUME	
CUT	FILL	CUT	FILL
	TMP		
0	22		
		0	33
		0	23
0	13		
	TMP		
		0	24
0	12		
		0	80

CALCULATED RSW
CHECKED EJS

CROSS SECTIONS S.R. 117
STA. 560+00.00 TO STA. 561+00.00

ALL-117/501-10.76/4.34

28
95

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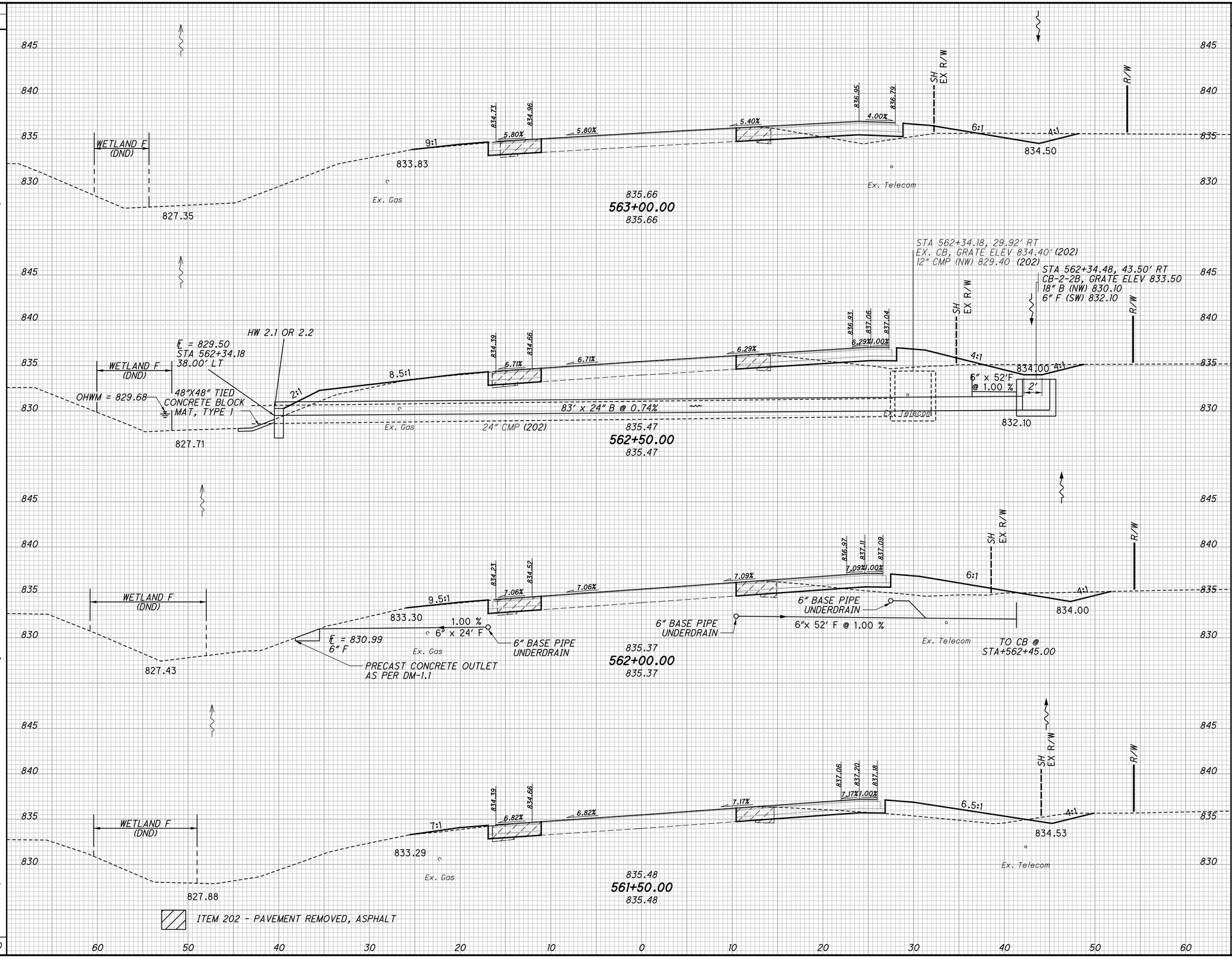
SEEDING END WIDTH	SEEDING SQ. YDS.
29.8	213
46.8	70
35.4	192
33.7	175
	650



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
TMP 6	30		
		13	65
TMP 8	40		
		12	70
TMP 5	36		
		8	62
TMP 4	31		
		3	49
		36	246

CALCULATED RSW
CHECKED EJS

CROSS SECTIONS S.R. 117
STA. 561+50.00 TO STA. 563+00.00

ALL-117/501-10.76/4.34

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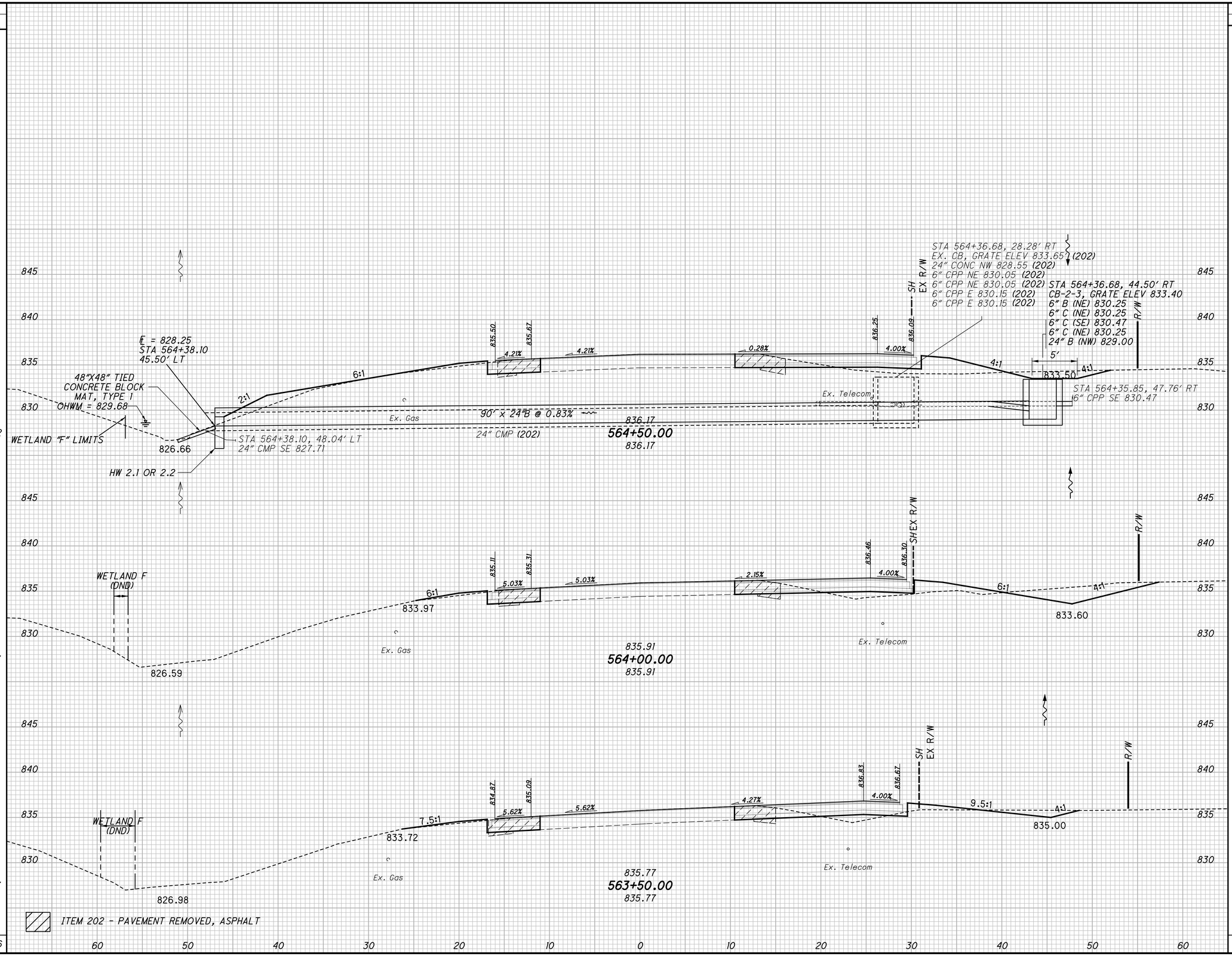
SEEDING	
END WIDTH	SQ. YDS.
53.6	252
37.2	187
30.3	167
	606



END AREA		VOLUME	
CUT	FILL	CUT	FILL
7 TMP	47		
		22	75
17 TMP	34		
		19	56
4 TMP	27		
		10	52
		51	183

CALCULATED RSW
CHECKED EJS

CROSS SECTIONS S.R. 117
STA. 563+50.00 TO STA. 564+50.00

ALL-117/501-10.76/4.34

30
95

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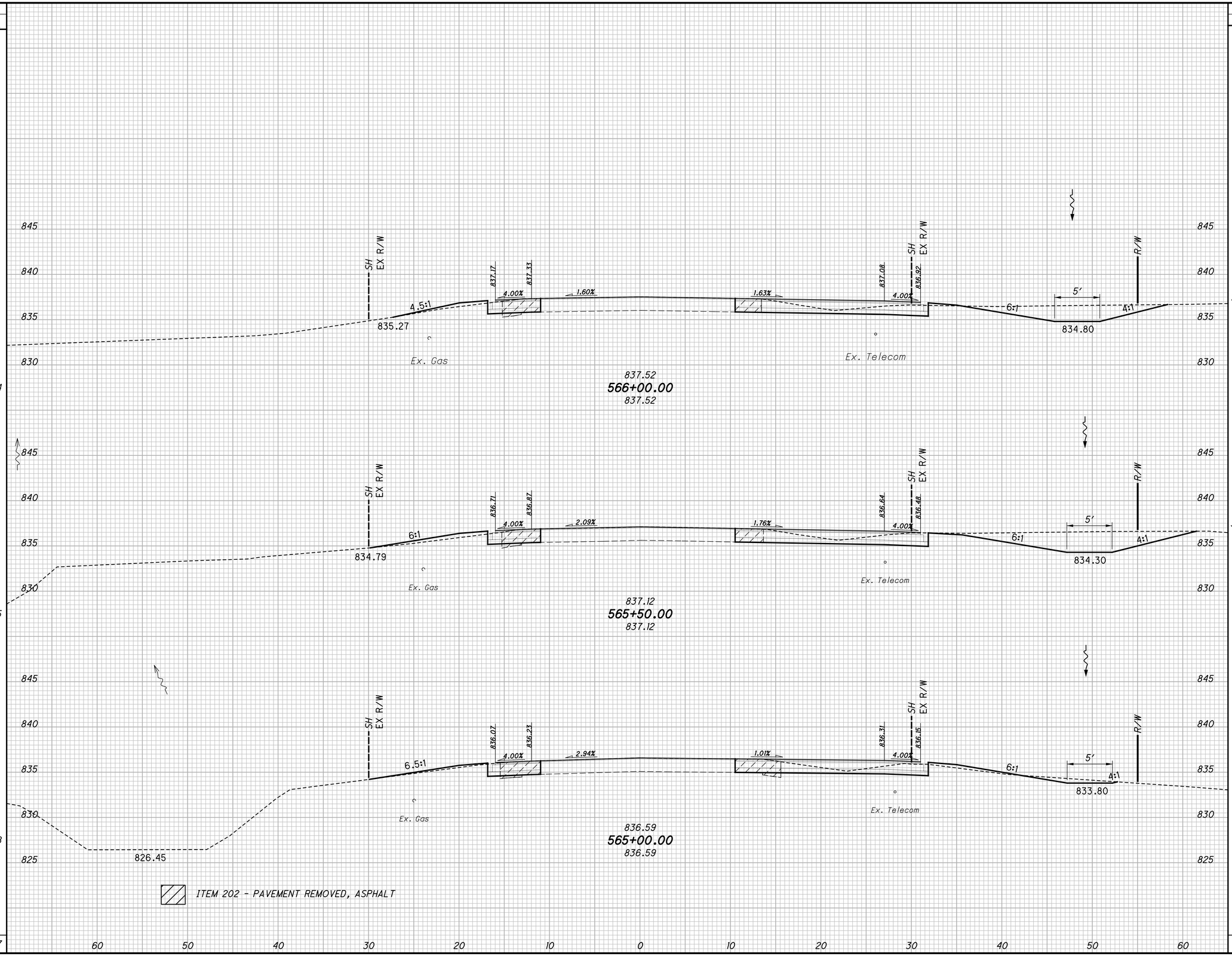
SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
39.2	234	24 TMP	15	56	27
44.9	225	36 TMP	14	37	28
36.0	248	3 TMP	16	9	58
	707			102	113

CALCULATED RSW
CHECKED EJS

CROSS SECTIONS S.R. 117
STA. 565+00.00 TO STA. 566+00.00



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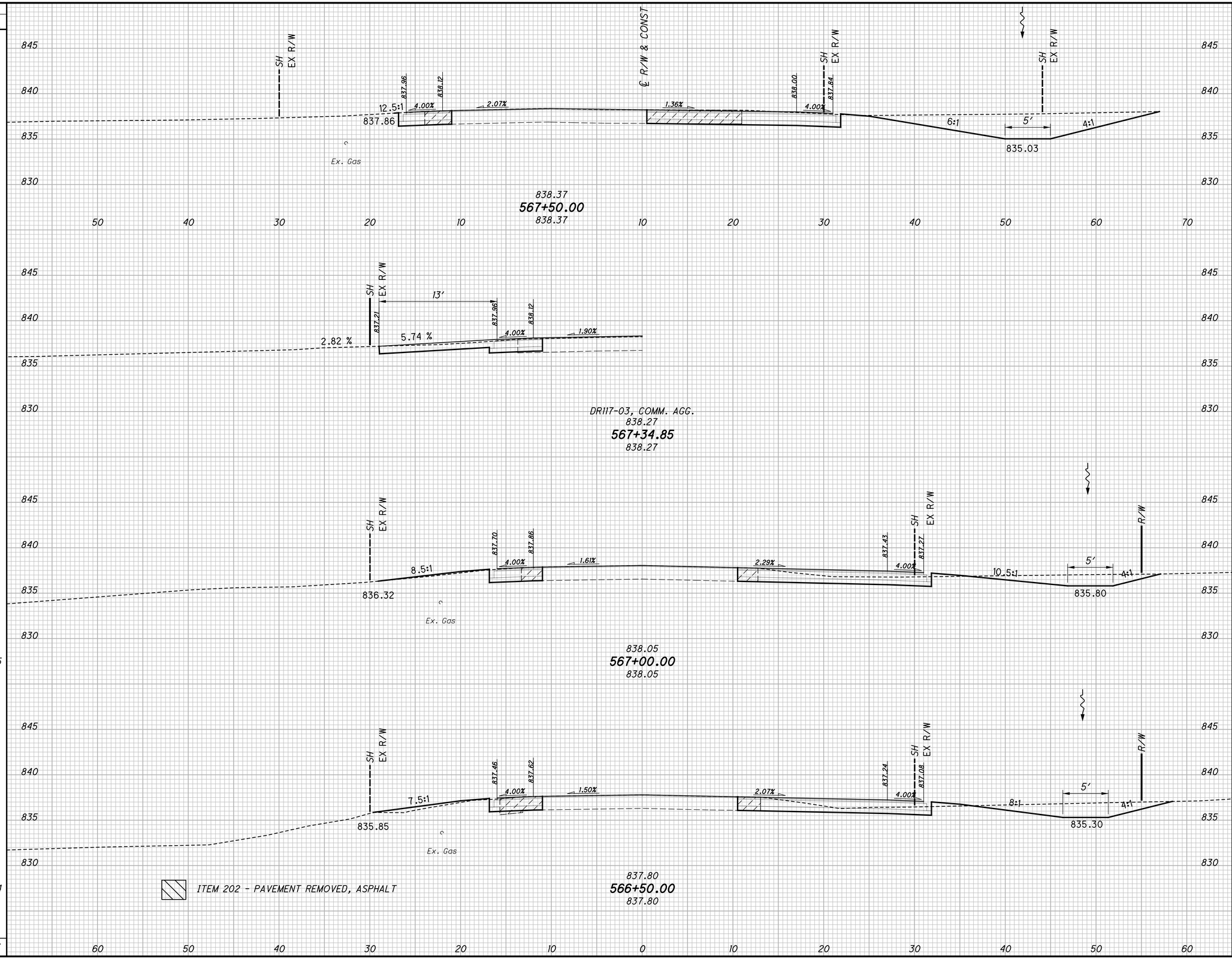
ALL-117 / 501-10.76 / 4.34

SEEDING	
END WIDTH	SQ. YDS.
37.82	68
39.5	225
41.4	224
	517



END AREA		VOLUME	
CUT	FILL	CUT	FILL
52	1		
16	13		
35	27		
21	17		
42	30		
140	69		

CALCULATED RSW
CHECKED EJS

CROSS SECTIONS S.R. 117
STA. 566+50.00 TO STA. 567+50.00

ALL-117/501-10.76/4.34

32
95

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SEEDING	
END WIDTH	SQ. YDS.
37.2	192
32.1	316
81.66	419
68.90	296
	1223

END AREA	
CUT	FILL
28	190
0	61
146	7
165	0

VOLUME	
CUT	FILL
26	232
135	63
287	7
201	1
649	303

CALCULATED RSW
CHECKED EJS

CROSS SECTIONS S.R. 117
STA. 568+00.00 TO STA. 569+50.00

ALL-117/501-10.76/4.34

STA 229+50.00 (℄ SR 501), 40.00' RT
CB-2-4, GRATE ELEV 834.30
15" B (SW) 829.90
36" B (NW) 828.15
6" B (NE) 830.50
6" C (NE) 830.50
6" E (NE) 830.50

** WAPAK RD - SEE INTERSECTION DETIALS SHEET 73 FOR ELEVATIONS.

137' x 36"B @ 0.45%

838.32
569+50.00
838.32

* S.R. 501 - SEE INTERSECTION DETIALS SHEET 73 FOR ELEVATIONS

15" Type B

838.39
569+00.00
838.39

STA 568+52.52, 58.00' RT
CB-2-2B, GRATE ELEV 833.47
15" B (NE) 830.40
6" F (SW) 831.65

835.00

8.50 %

6" x 54' F

836.90

6" x 77' F

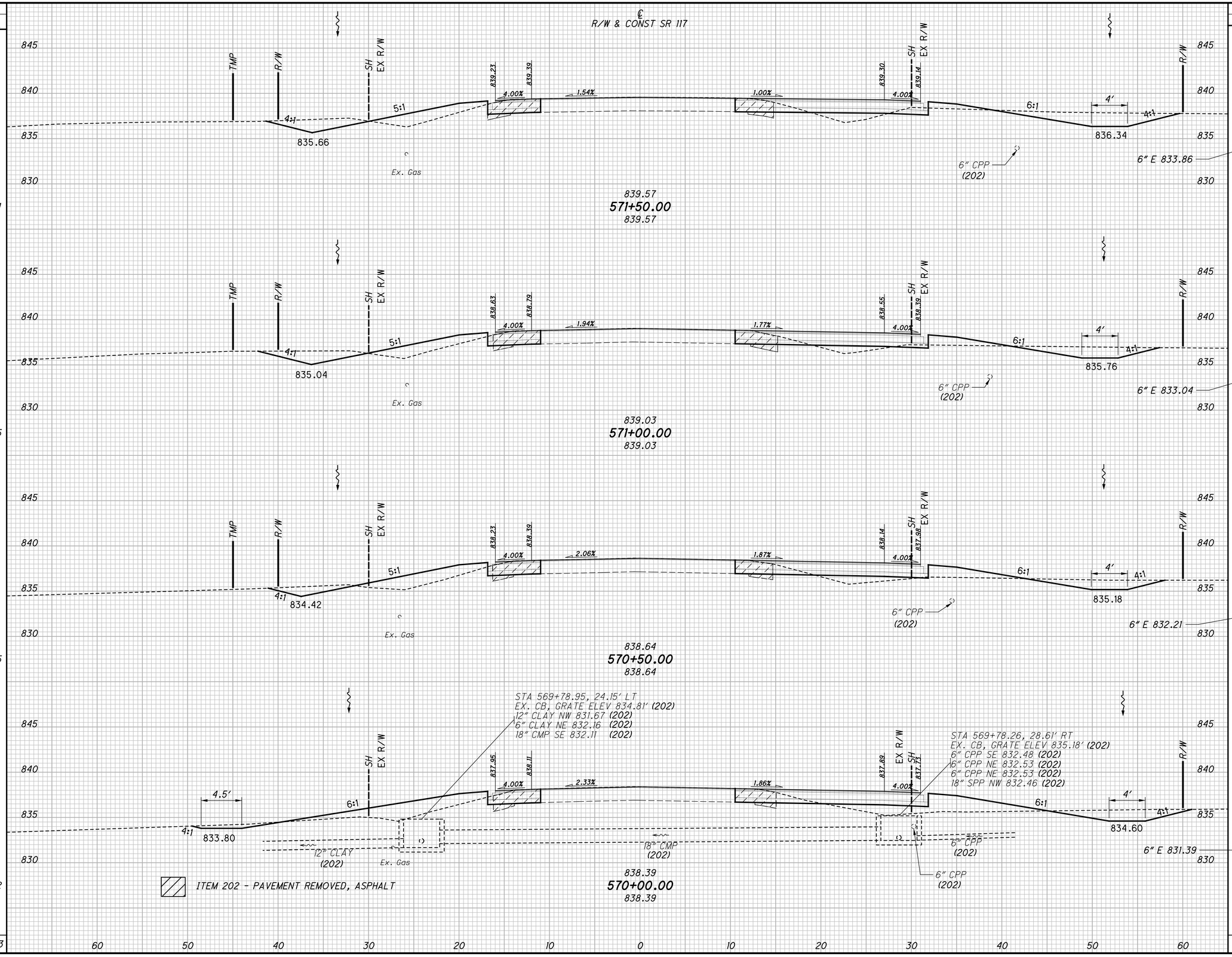
3.00 %

838.59
568+50.00
838.59

ITEM 202 - PAVEMENT REMOVED, ASPHALT

838.61
568+00.00
838.61

SEEDING END WIDTH	SEEDING SQ. YDS.
54.8	301
53.5	295
52.9	325
64.2	282
	1203



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
28	42	46	81
22	46	35	92
16	53	29	114
15	70	40	240
		150	527

CALCULATED RSW
CHECKED EJS

CROSS SECTIONS S.R. 117
STA. 570+00.00 TO STA. 571+50.00

ALL-117/501-10.76/4.34

34
95

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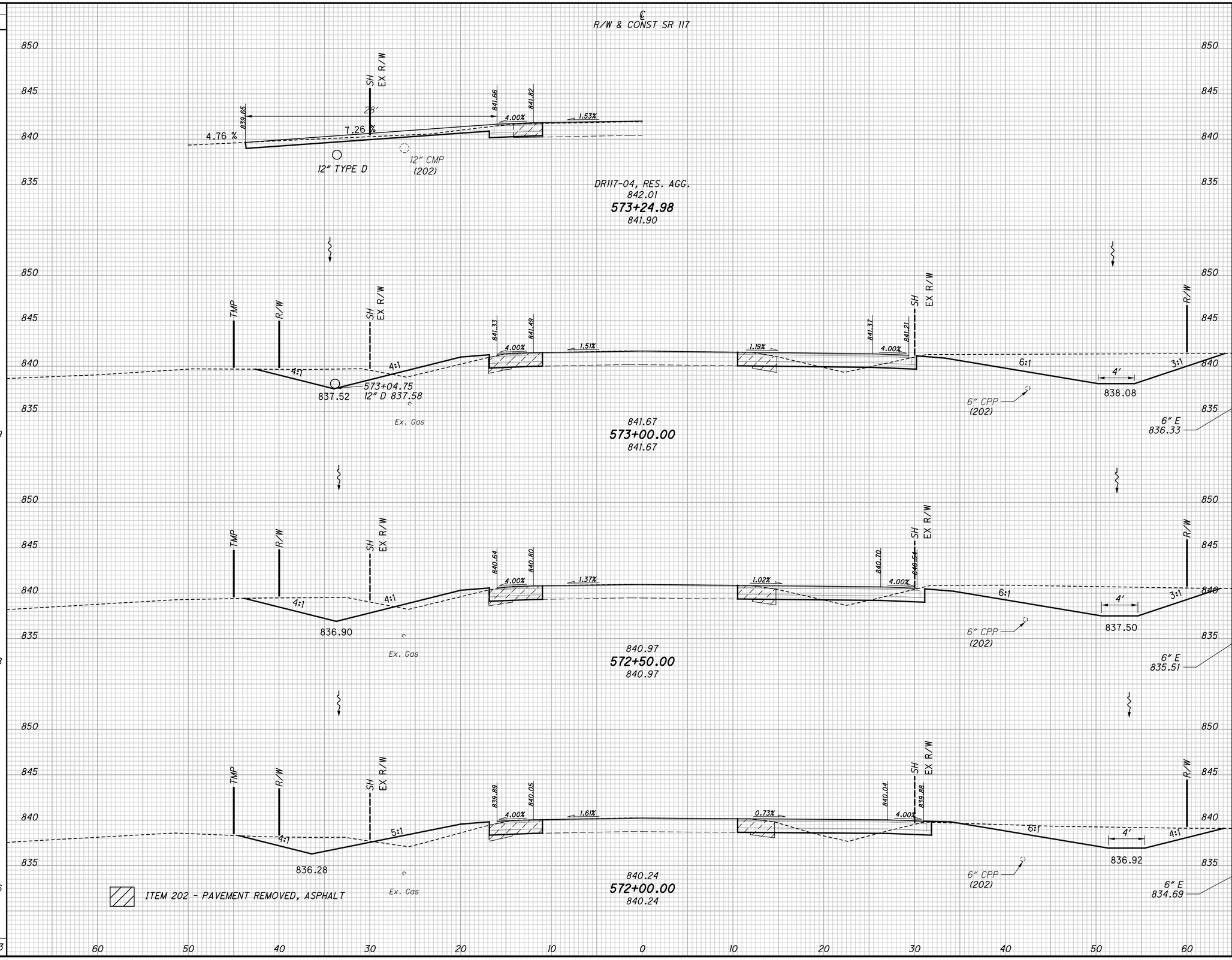
60 50 40 30 20 10 0 10 20 30 40 50 60

SEEDING END WIDTH	SEEDING SQ. YDS.
62.9	349
62.7	348
62.6	326
	1023



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
78	26	TMP	
150	47		
83	25	TMP	
125	55		
52	35	TMP	
74	71		
349	173		

CALCULATED RSW
CHECKED EJS

CROSS SECTIONS S.R. 117
STA. 572+00.00 TO STA. 573+22.08

ALL-117/501-
10.76/4.34

35
95

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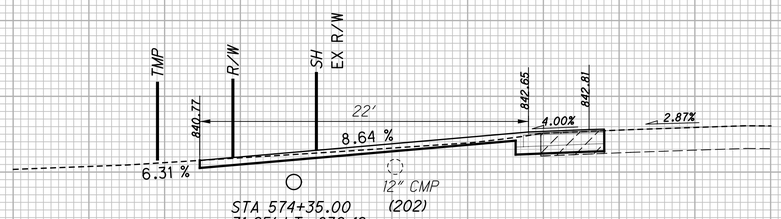
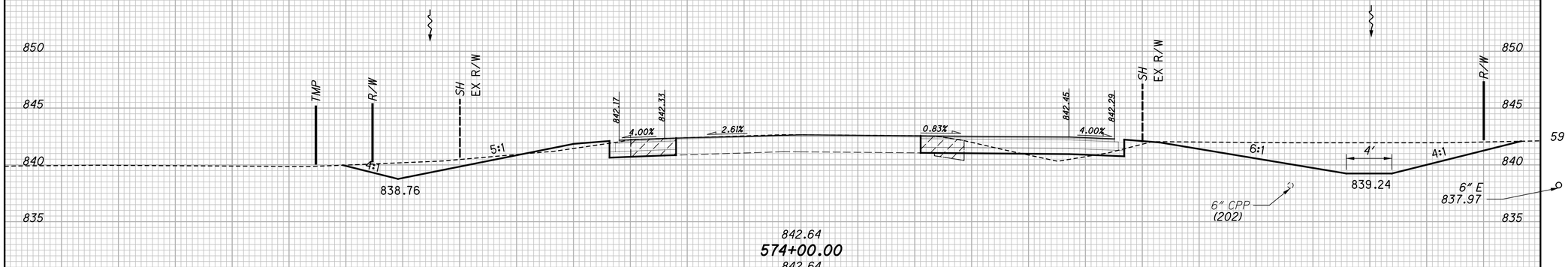
SEEDING END WIDTH	SEEDING SQ. YDS.
61.1	207
59.3	340
	547

℄
R/W & CONST SR 117

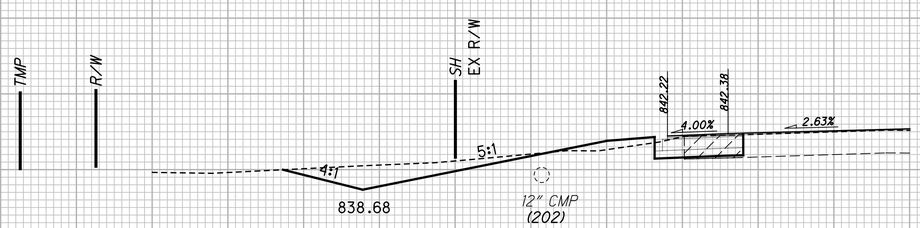


STA 574+35.00
31.25' LT, 839.19
12" TYPE D

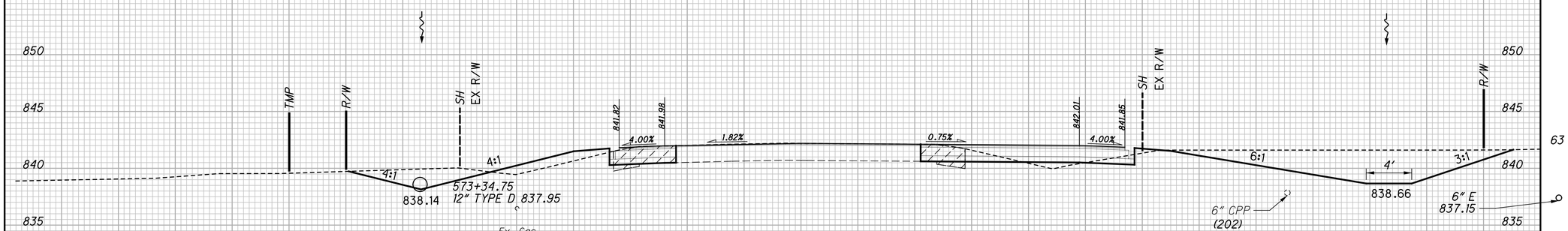
DR117-05, RES. CONC.
843.15
574+49.94
843.05



842.64
574+00.00
842.64



AGG. DRIVE REMOVED (203)
842.70
573+93.77
842.59



842.20
573+50.00
842.20

ITEM 202 - PAVEMENT REMOVED, ASPHALT

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
59	23	TMP	
		113	47
63	27	TMP	
		131	49
		244	96

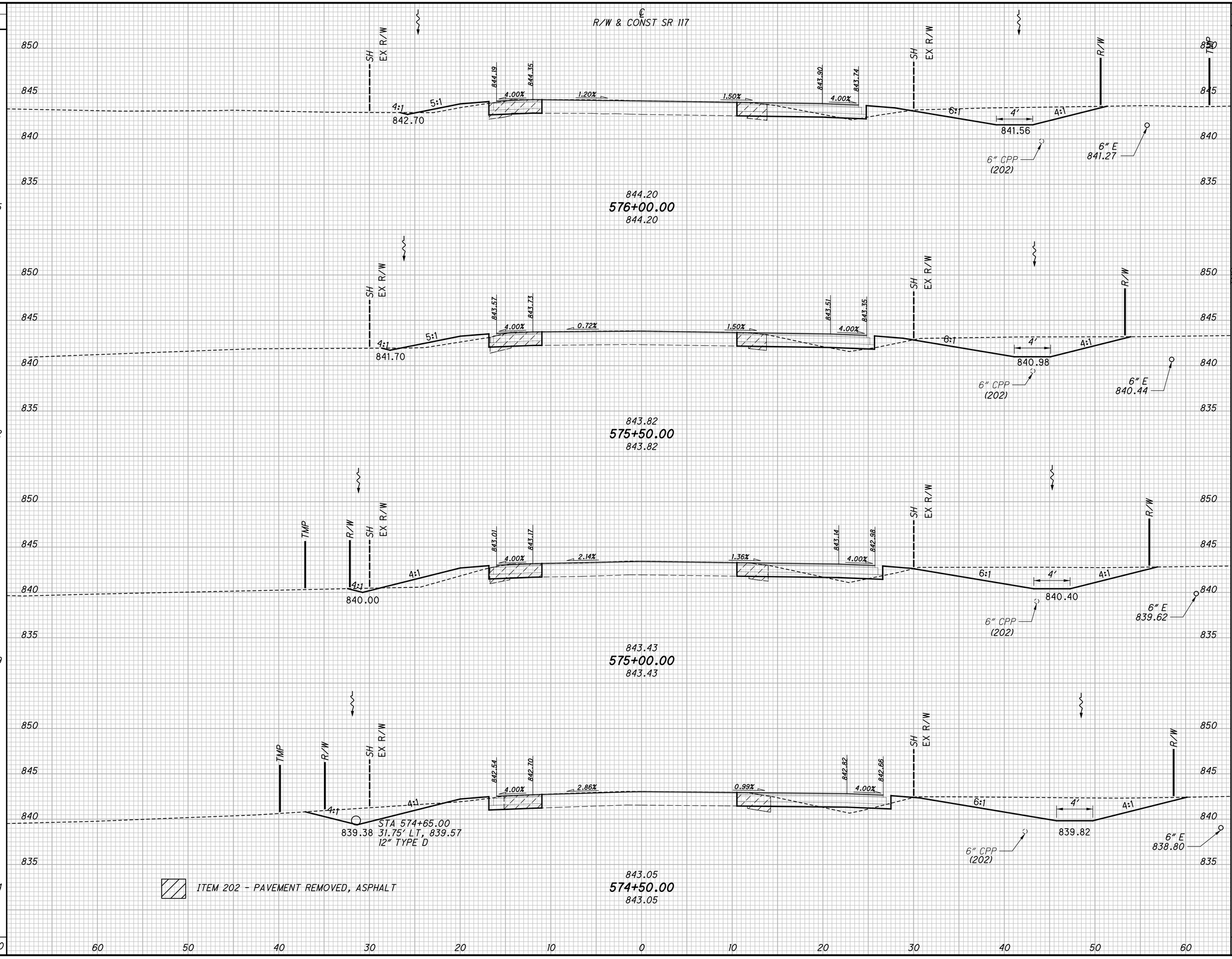
CALCULATED RSW
CHECKED EJS

CROSS SECTIONS S.R. 117
STA. 573+50.00 TO STA. 574+49.65

ALL-117/501-10.76/4.34

36
95

SEEDING END WIDTH	SEEDING SQ. YDS.
38.6	225
42.4	252
48.4	289
55.6	324
	1090



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
25	17		
		53	37
32	22		
		65	45
38	27		
		89	44
58	21		
		108	41
		315	167

CALCULATED RSW
CHECKED EJS

CROSS SECTIONS S.R. 117
STA. 574+50.00 TO STA. 576+00.00

ALL-117/501-10.76/4.34

37
95

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SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
29.1		6	14		
	35			20	25
34.6		16	12		
	204			38	27
	239			58	52

℄
R/W & CONST SR 117

DR117-07, AGG. FIELD
845.17
577+25.12
845.06

SH EX R/W
844.66
844.50
2.85%
4.00%
7.19 %
843.71
843.51
843.71
7.19 %
844.21
1.12 %
10' VC
SH EX R/W
TMP
31'

844.90
577+00.00
844.90

SH EX R/W
845.14
845.30
4.00%
3.37%
4:1
842.82
2.10%
844.52
844.36
4.00%
SH EX R/W
R/W
TMP
6:1
4:1
842.74

DR117-06, RES. ASPHT. (APRON)
844.78
576+68.16
844.68

SH EX R/W
845.03
845.19
4.00%
3.38%
12.84 %
8.41 %
13'
BUTT JOINT
29.05' LT

SH EX R/W
844.10
841.86
4.00%
2.53%
4:1
5:1
843.40
1.83%
844.20
844.04
4.00%
SH EX R/W
R/W
TMP
6:1
4'
4:1
842.14
6" E
842.09

844.55
576+50.00
844.55

ITEM 202 - PAVEMENT REMOVED, ASPHALT

CALCULATED RSW
CHECKED EJS

CROSS SECTIONS S.R. 117
STA. 576+50.00 TO STA. 577+24.43

ALL-117/501-10.76/4.34

38
95

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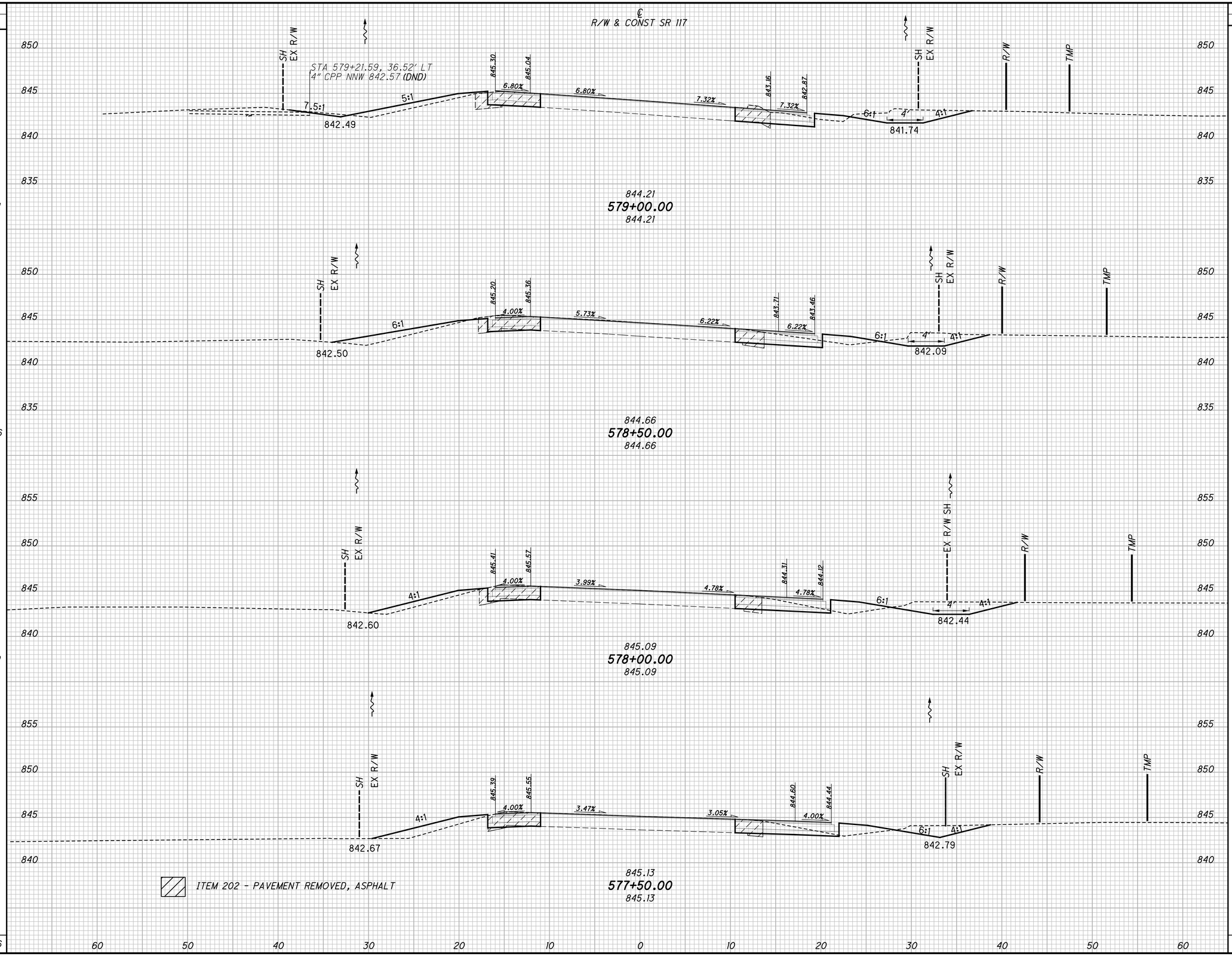
SEEDING END WIDTH	SEEDING SQ. YDS.
41.5	221
37.8	206
36.1	189
31.8	40
	656



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
14	12		
12	16	24	25
13	18	23	31
8	20	20	35
		13	32
		80	123

CALCULATED RSW
CHECKED EJS

CROSS SECTIONS S.R. 117
STA. 577+50.00 TO STA. 579+00.00

ALL-117/501-10.76/4.34

39
95

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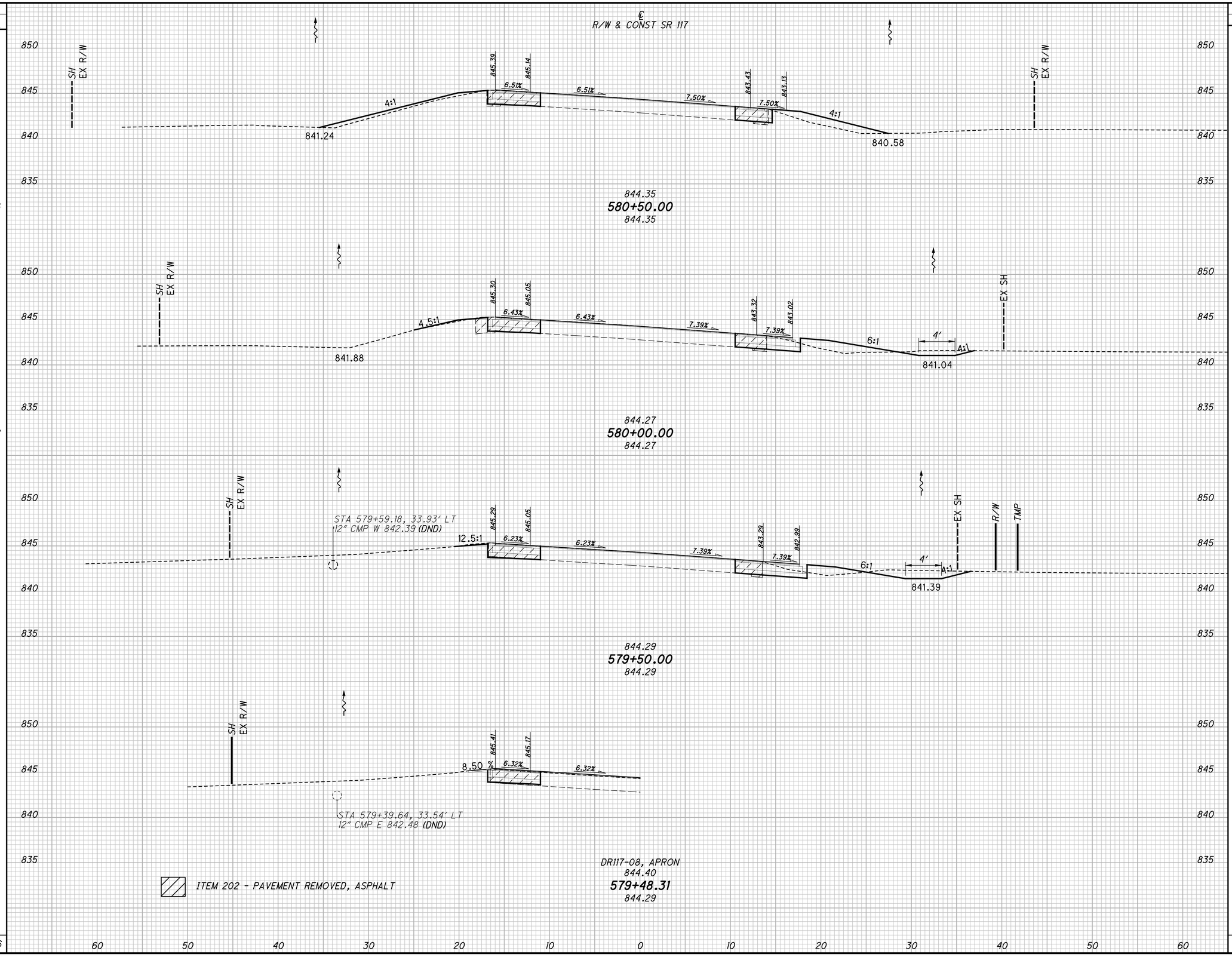
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
33.9	176	0	14	3	21
29.4	148	4	9	10	15
23.7	112	8	7	20	17
	436			33	53



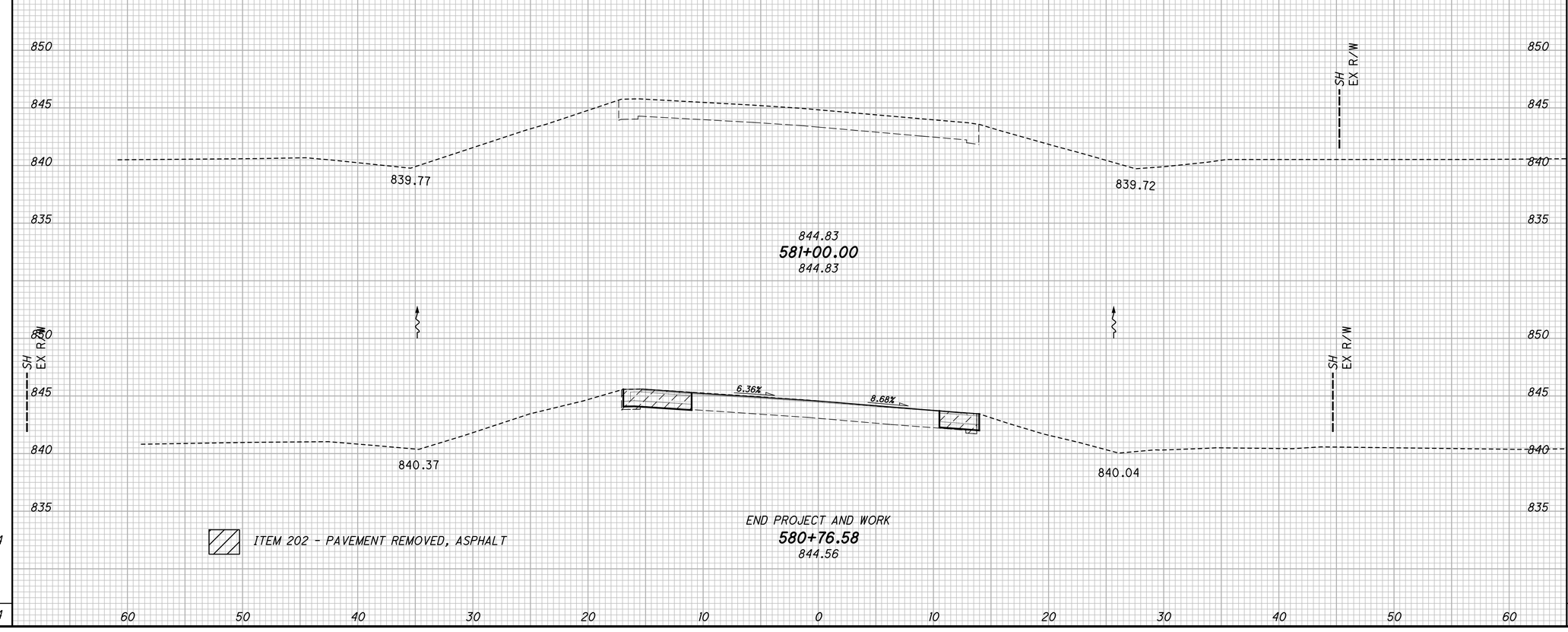
CALCULATED RSW
CHECKED EJS

CROSS SECTIONS S.R. 117
STA. 579+48.31 TO STA. 580+50.00

ALL-117/501-10.76/4.34

SEEDING	
END WIDTH	SQ. YDS.
	94
	94

℄
R/W & CONST SR 117



END AREA	
CUT	FILL
0	0
0	13

VOLUME	
CUT	FILL
	13

CALCULATED RSW
CHECKED EJS

CROSS SECTIONS S.R. 117
STA 580+76.58 TO 581+00

ALL-117/501-10.76/4.34

41
95

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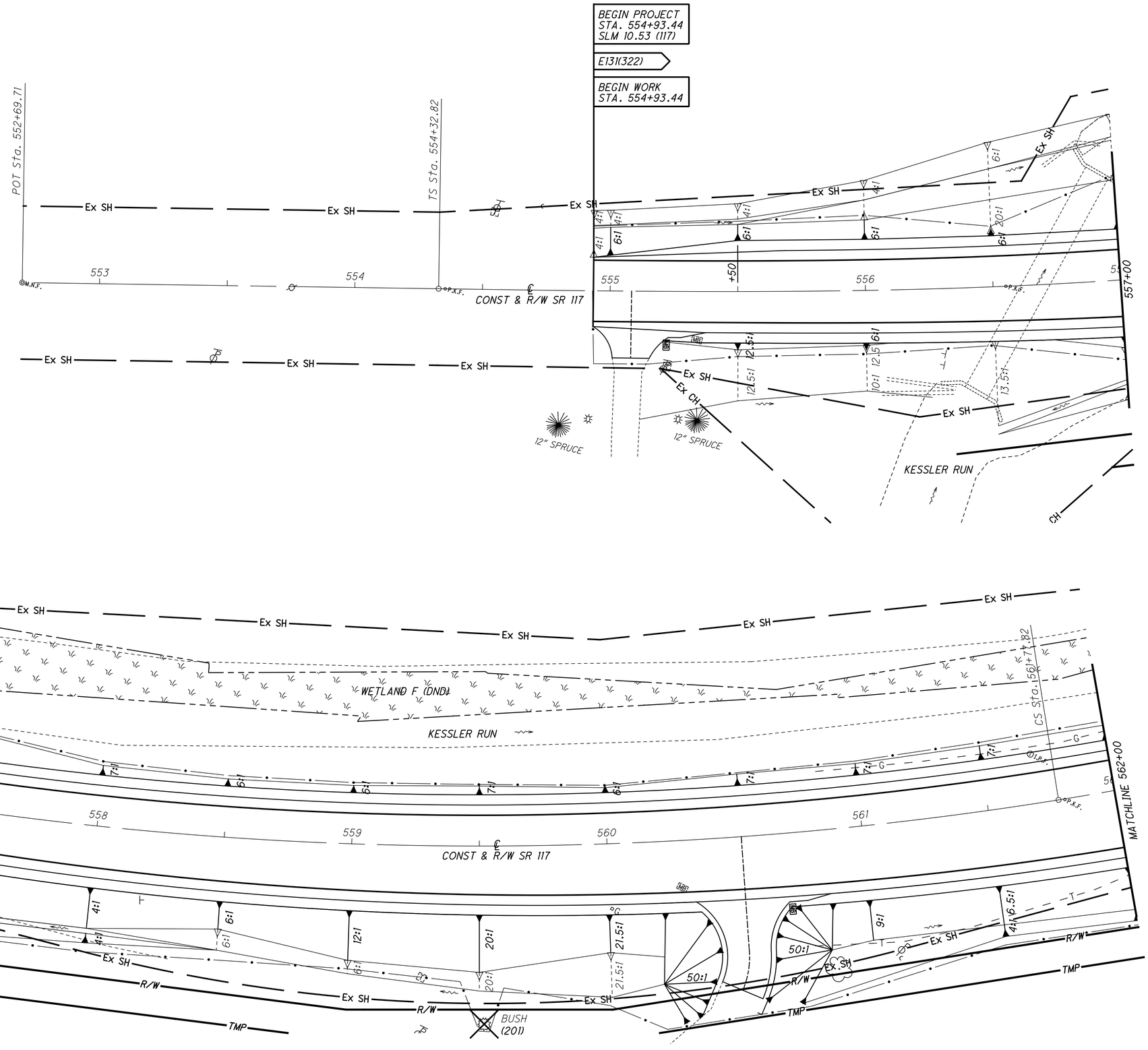
WETLAND



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED RSW
CHECKED EJS

GRADING DETIALS SR 117
STA 552+00 TO 562+00

ALL-117/501-10.76/4.34

42
95

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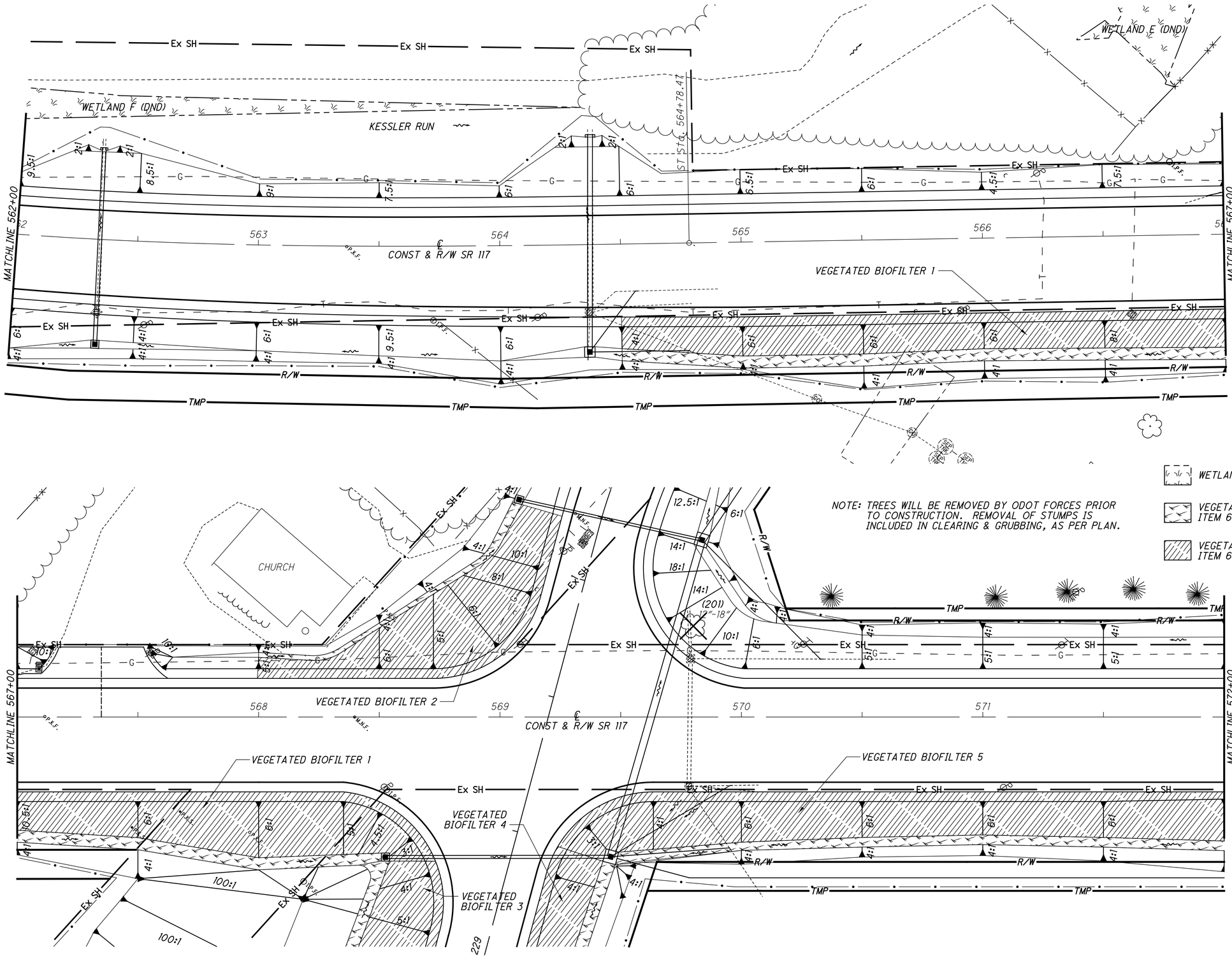


HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED RSW
CHECKED EJS

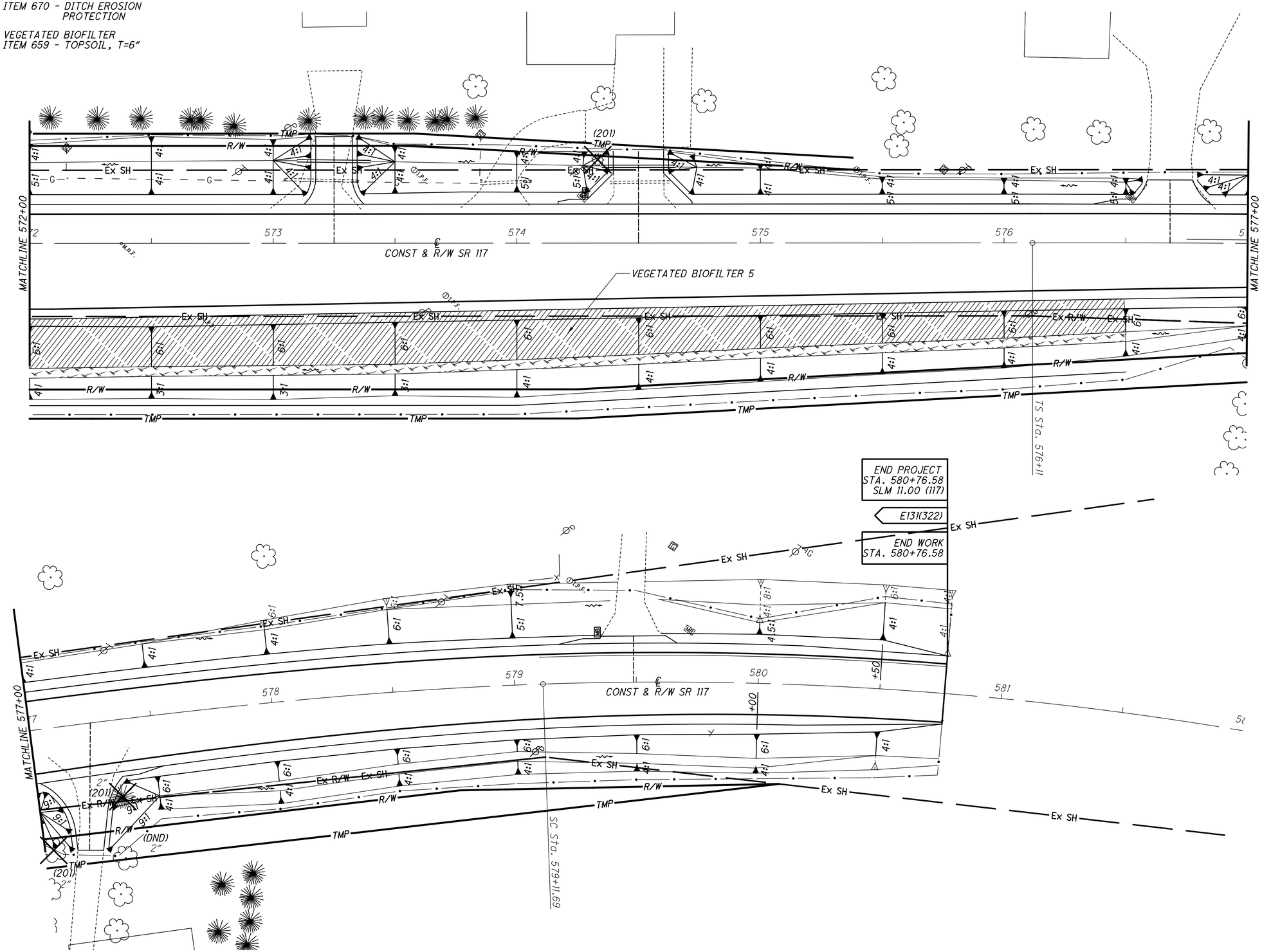
GRADING DETAILS SR 117
STA 562+00 TO 572+00

ALL-117/501-10.76/4.34

43
95

VEGETATED BIOFILTER
ITEM 670 - DITCH EROSION PROTECTION

VEGETATED BIOFILTER
ITEM 659 - TOPSOIL, T=6"



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED RSW
CHECKED EJS

GRADING DETAILS SR 117
STA 572+00 TO 582+00

ALL-117/501-
10.76/4.34

44
95

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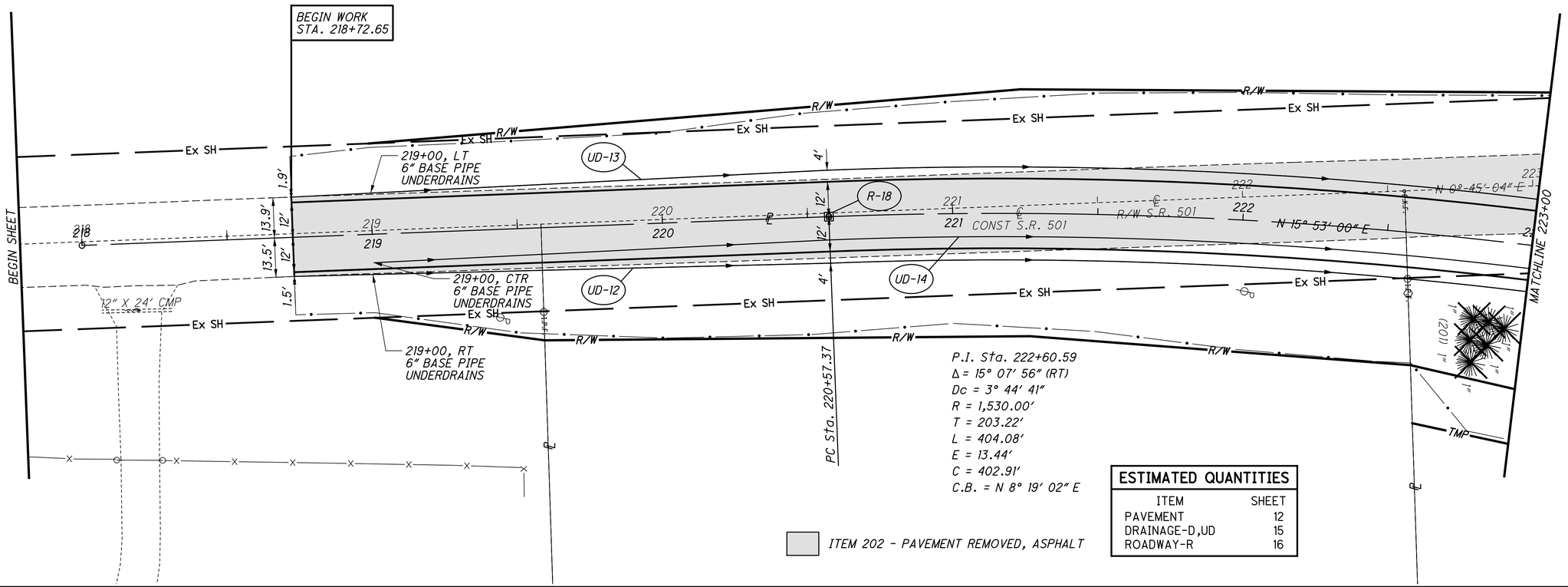
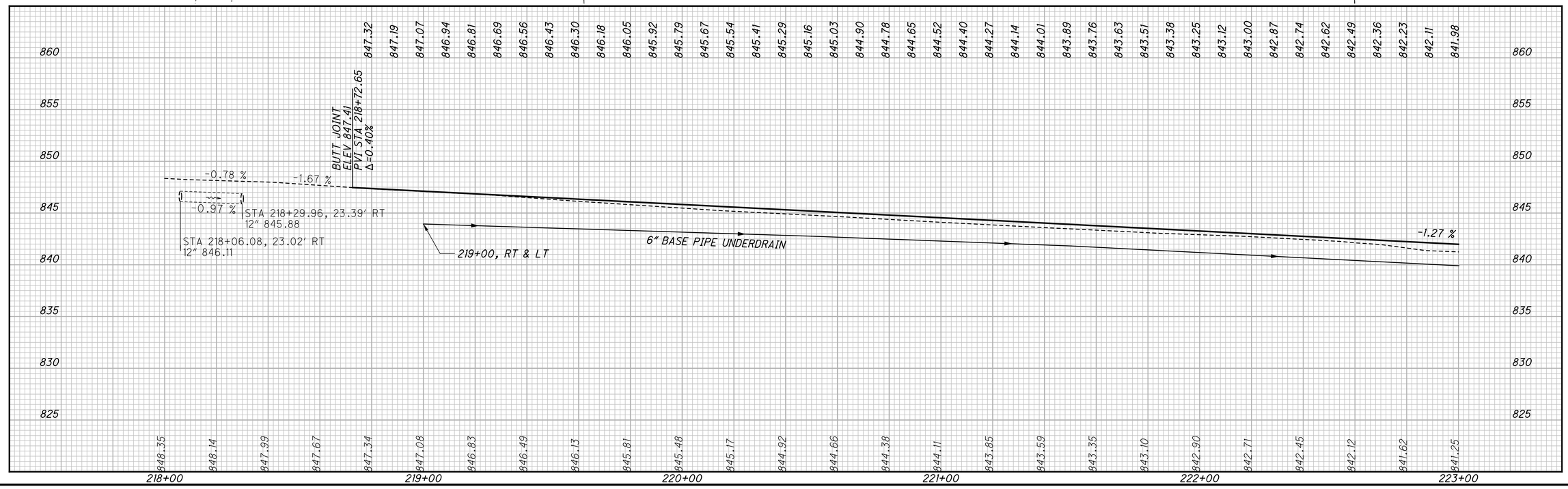


ESTIMATED QUANTITIES

ITEM	SHEET
PAVEMENT	12
DRAINAGE-D,UD	15
ROADWAY-R	16



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED RSW
CHECKED EJS

PLAN AND PROFILE S.R. 501
STA 218+00 TO 223+00

ALL-117/501-10.76/4.34

45
95

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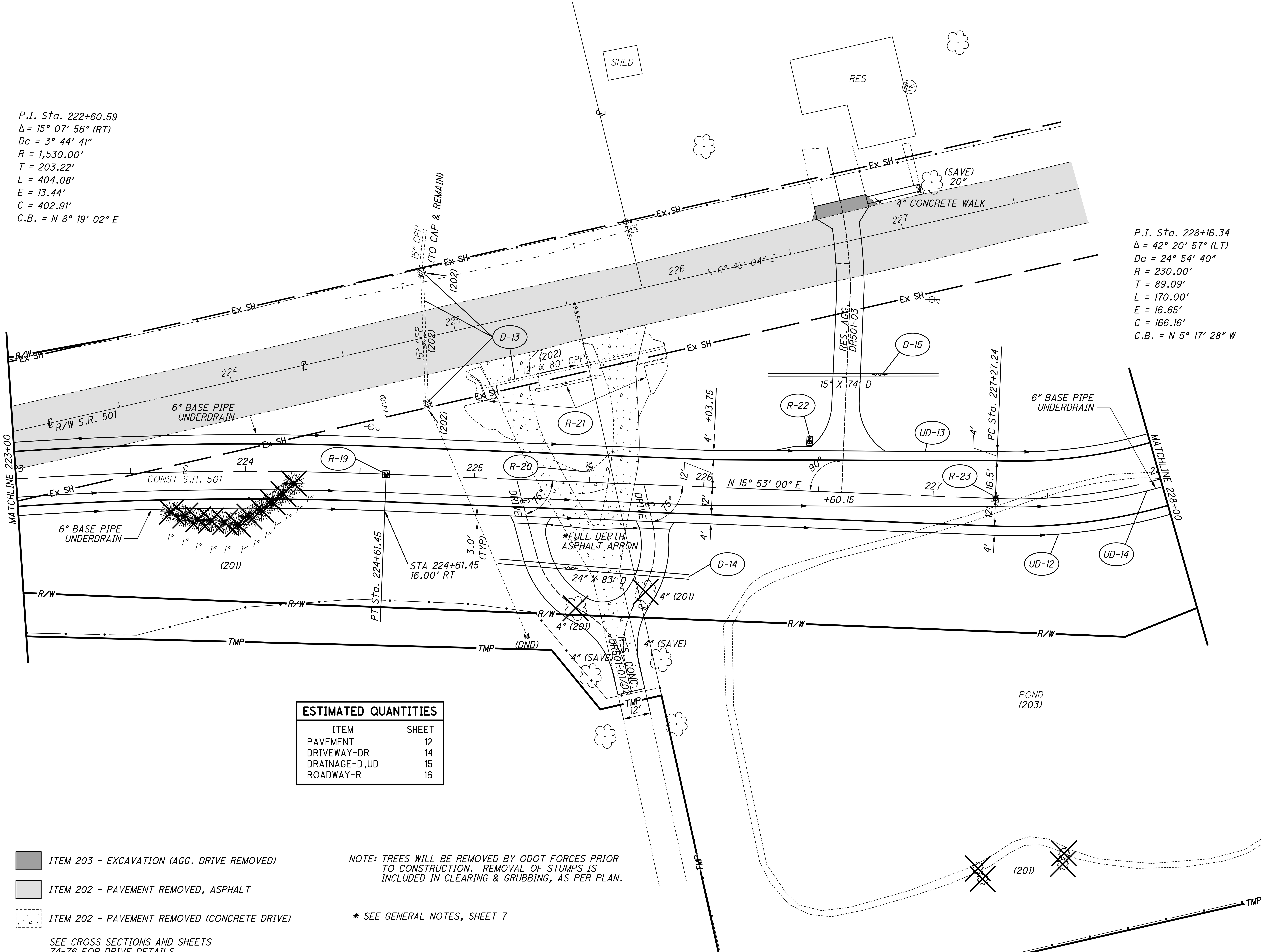


P.I. Sta. 222+60.59
Δ = 15° 07' 56" (RT)
Dc = 3° 44' 41"
R = 1,530.00'
T = 203.22'
L = 404.08'
E = 13.44'
C = 402.91'
C.B. = N 8° 19' 02" E
P.I. Sta. 228+16.34
Δ = 42° 20' 57" (LT)
Dc = 24° 54' 40"
R = 230.00'
T = 89.09'
L = 170.00'
E = 16.65'
C = 166.16'
C.B. = N 5° 17' 28" W
SHED
RES
(SAVE) 20"
4" CONCRETE WALK
15" CPP (TO CAP & REMAIN)
(202)
D-13
D-14
D-15
R-19
R-20
R-21
R-22
R-23
UD-12
UD-13
UD-14
12" X 80' CPP
15" X 74' D
24" X 83' D
N 0° 45' 04" E
N 15° 53' 00" E
R/W S.R. 501
CONST S.R. 501
6" BASE PIPE UNDERDRAIN
MATCHLINE 223+00
MATCHLINE 228+00
PT Sta. 224+61.45
STA 224+61.45 16.00' RT
PC Sta. 227+27.24
+60.15
+03.75
*FULL DEPTH ASPHALT APRON
RES. AGG. DR501-03
RES. CONC. DR501-01/02
3.0' (TYP)
4" (201)
4" (SAVE)
(DND)
(201)
POND (203)
TMP
R/W
Ex SH

ESTIMATED QUANTITIES	
ITEM	SHEET
PAVEMENT	12
DRIVEWAY-DR	14
DRAINAGE-D,UD	15
ROADWAY-R	16

ITEM 203 - EXCAVATION (AGG. DRIVE REMOVED)

ITEM 202 - PAVEMENT REMOVED, ASPHALT

ITEM 202 - PAVEMENT REMOVED (CONCRETE DRIVE)

SEE CROSS SECTIONS AND SHEETS 74-76 FOR DRIVE DETAILS

NOTE: TREES WILL BE REMOVED BY ODOT FORCES PRIOR TO CONSTRUCTION. REMOVAL OF STUMPS IS INCLUDED IN CLEARING & GRUBBING, AS PER PLAN.

* SEE GENERAL NOTES, SHEET 7

HORIZONTAL SCALE IN FEET 0 10 20 40

CALCULATED RSW CHECKED EJS

PLAN S.R. 501
STA 223+00 TO 228+00

ALL-117/501-10.76/4.34

*NDC - FOR A DESIGN SPEED OF 55 MPH, THE MAX DEGREE OF CURVATURE IS 6 DEGREES. A 24°54' 40" DEGREE OF CURVATURE IS PROPOSED.

$ - 6" TYPE C WITH 60° BEND AND COUPLING BAND
* - 6" TYPE C WITH 30° BEND AND COUPLING BAND
+ - 6" TYPE C WITH 45° BEND AND COUPLING BAND

P.I. Sta. 228+16.34
Δ = 42° 20' 57" (LT)
Dc = 24° 54' 40"
R = 230.00'
T = 89.09'
L = 170.00'
E = 16.65'
C = 166.16'
C.B. = N 5° 17' 28" W

ITEM 203 - EXCAVATION (AGG DRIVE REMOVED)

ITEM 201 - CLEARING & GRUBBING, AS PER PLAN

ITEM 202 - PAVEMENT REMOVED, ASPHALT

WETLAND

FOR INTERSECTION DETAILS, SEE SHEET 73

NOTE: TREES WILL BE REMOVED BY ODOT FORCES PRIOR TO CONSTRUCTION. REMOVAL OF STUMPS IS INCLUDED IN CLEARING & GRUBBING, AS PER PLAN.

ESTIMATED QUANTITIES	
ITEM	SHEET
PAVEMENT	12
DRAINAGE-D,UD	15
ROADWAY-R	16

Sta. 568+39.57 ℄ R/W & CONST S.R. 117 =
Sta. 0+00.00 ℄ R/W WAPAK RD =
Sta. 229+15.20 ℄ R/W S.R. 501

Sta. 569+20.00 ℄ R/W & CONST S.R. 117 =
Sta. 0+41.45 ℄ CONST WAPAK RD =
Sta. 229+99.20 ℄ CONST S.R. 501

P.I. Sta. 1+71.69
Δ = 27° 13' 01" (RT)
Dc = 28° 38' 52"
R = 200.00'
T = 48.42'
L = 95.00'
E = 5.78'
C = 94.11'
C.B. = N 12° 51' 26" W

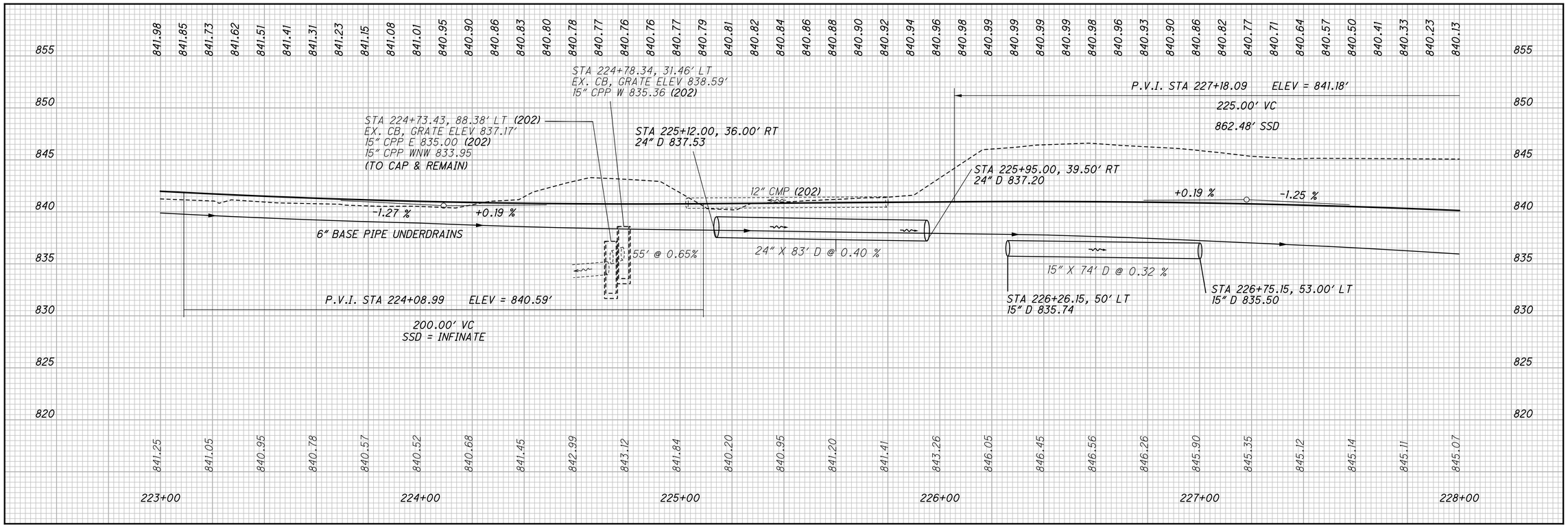
END SHEET

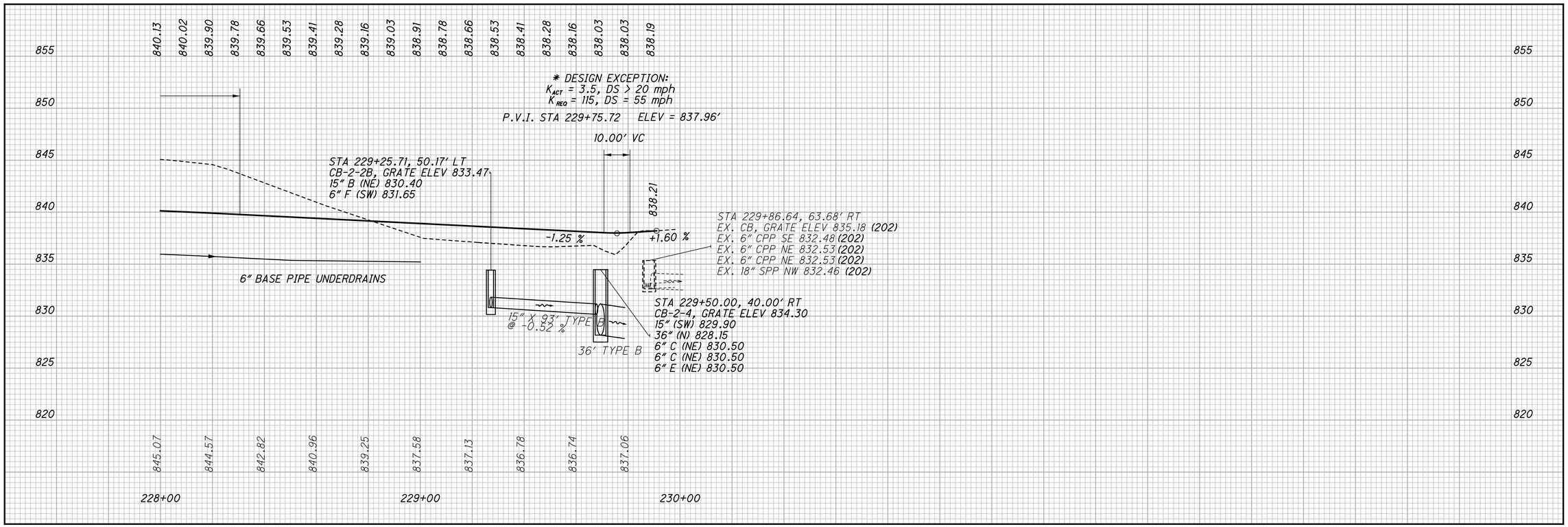
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED RSW
CHECKED EJS

PLAN S.R. 501
STA 228+00 (501) TO 3+61.68 (WAPAK)

ALL-117/501-10.76/4.34





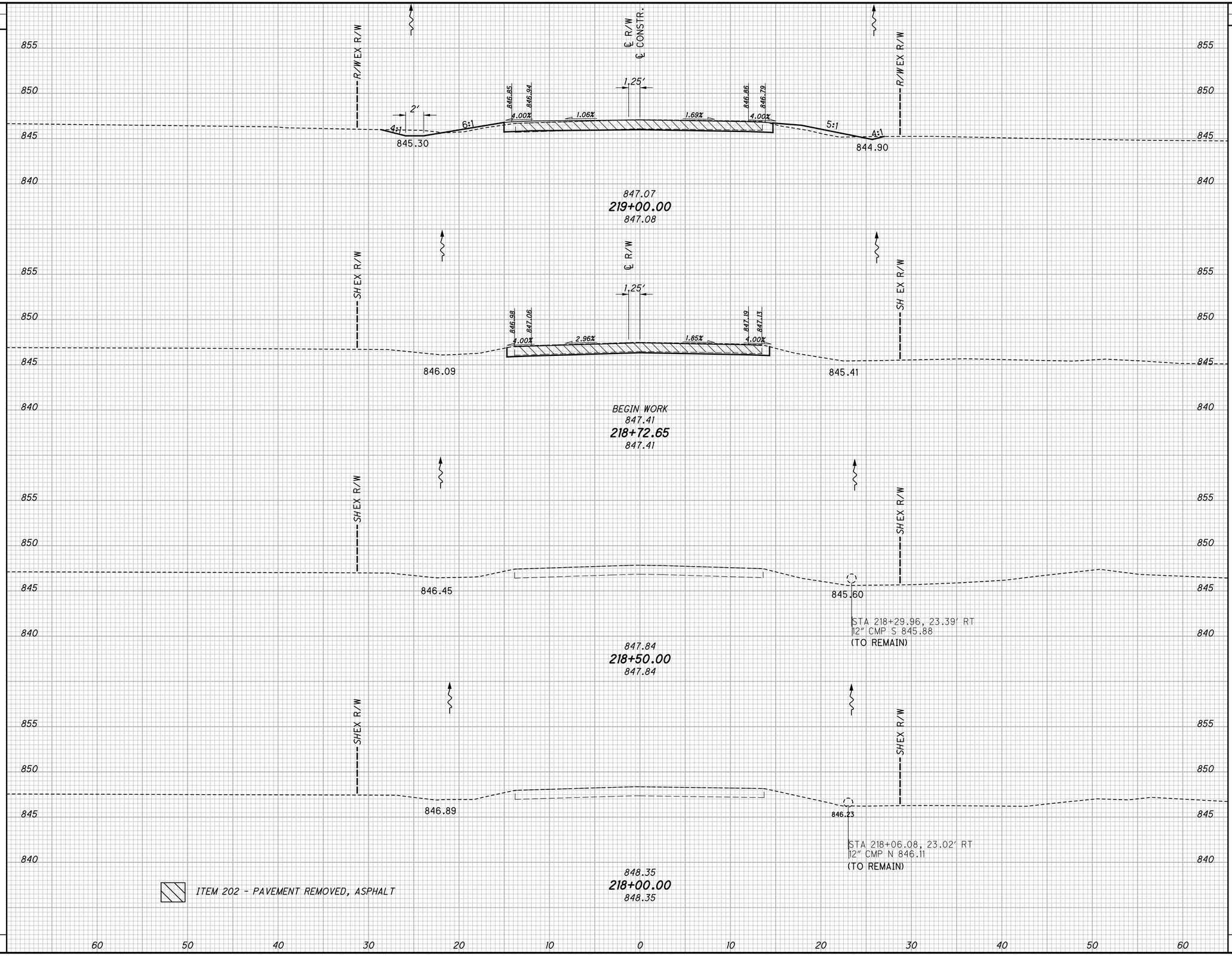
CALCULATED RSW
CHECKED EJS

PROFILE S.R. 501
STA 223+00 TO 230+00

ALL-117/501-10.76/4.34

48
95

SEEDING	
END WIDTH	SQ. YDS.
28.0	42
0.0	0
	42



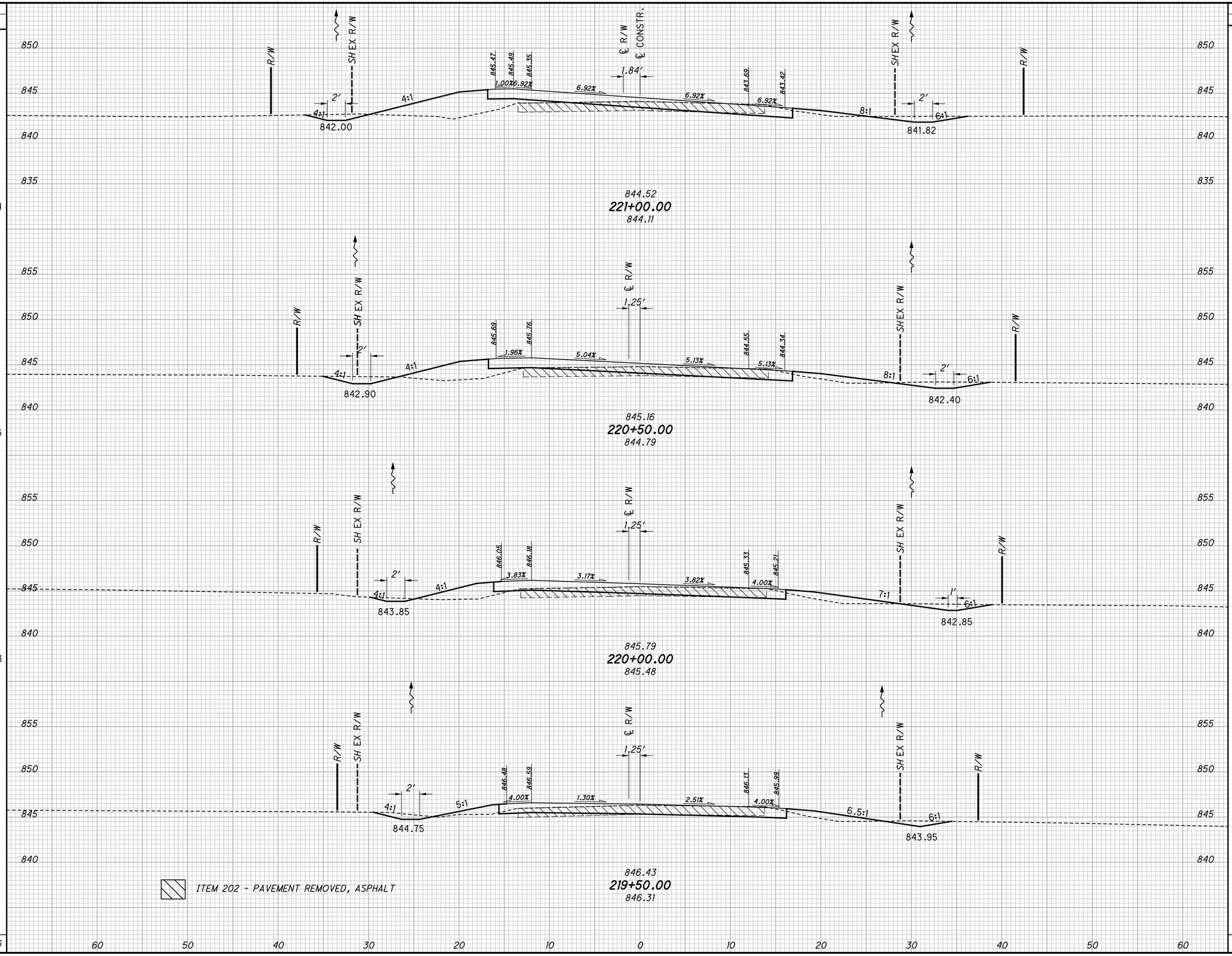
END AREA		VOLUME	
CUT	FILL	CUT	FILL
34	5		
33	0	34	3
		0	0
		34	3

CALCULATED RSW
CHECKED EJS

CROSS SECTIONS S.R. 501
STA. 218+00.00 TO STA. 219+00.00

ALL-117/501-10.76/4.34

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
41.8	234	26	30	51	47
42.4	226	29	21	51	34
38.6	203	26	16	54	23
34.3	173	32	9	61	13
	836			217	117



CALCULATED RSW
CHECKED EJS

CROSS SECTIONS S.R. 501
219+50.00 TO STA. 221+00.00

ALL-117/501-10.76/4.34

50
95

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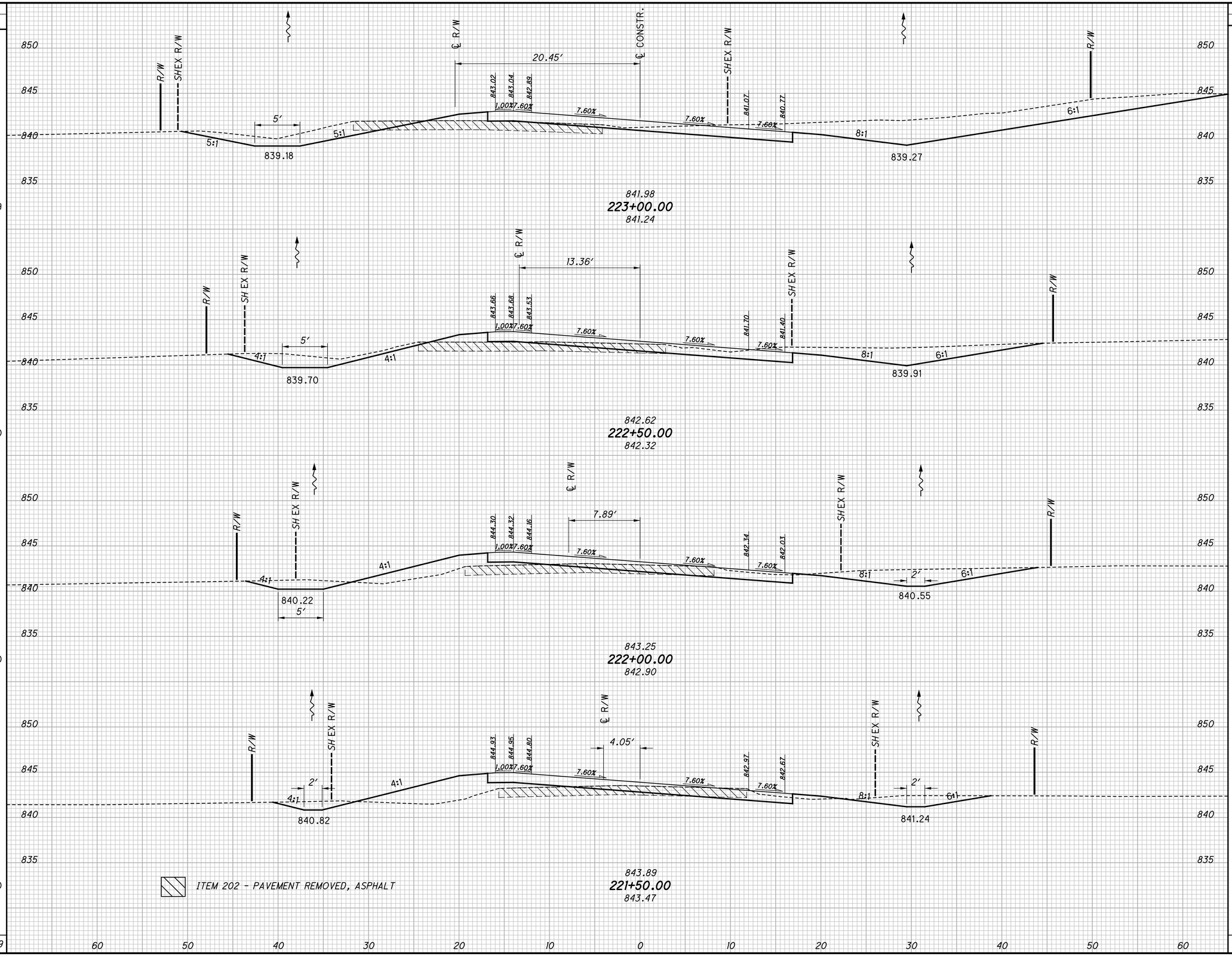
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
84.7	399	130	4	183	8
59.0	320	69	5	114	23
56.3	290	54	20	82	47
48.1	250	35	31	57	57
	1259			436	135

TMP



CALCULATED RSW
CHECKED EJS

CROSS SECTIONS S.R. 501
STA. 221+50.00 TO STA. 223+00.00

ALL-117/501-10.76/4.34

51
95

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SEEDING END WIDTH	SEEDING SQ. YDS.
04.66	554
94.5	496
83.9	469
	1519

MATCH LINE (70' LT)

℄ R/W 60 50 40 30 20 10 ℄ CONSTR. 10 20 30 40 50 60 R/W

SH EX R/W

53.10'

841.44 841.49

1.24% 5.76% 5.76% 5.76%

840.11 839.88

6:1 8:1 6:1

1.00 % 837.35 5'

840.80
224+50.00
842.51

838.00

STA 224+73.43, 88.38' LT
(202) EX. CB, GRATE ELEV 837.17'
(202) 15" CPP E 835.00
(CAP) 15" CPP WNW 833.95

15" CPP (CAP AND REMAIN)

15" CPP (202)

120 110 100 90 80

39.45'

842.06 842.08 841.92

1.00% 7.60% 7.60% 7.60% 7.60%

840.10 839.79

4:1 6:1 8:1 6:1

1.00 % 838.15 5'

838.31

841.01
224+00.00
840.52

29.14'

842.45 842.47 842.32

1.00% 7.60% 7.60% 7.60% 7.60%

840.49 840.19

5' 4:1 6:1 8:1 6:1

1.00 % 838.66

838.70

841.41
223+50.00
840.84

ITEM 202 - PAVEMENT REMOVED, ASPHALT

60 50 40 30 20 10 0 10 20 30 40 50 60

END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
295	11	492	27
238	18	414	28
213	12	314	15
		1220	70

MATCH LINE (70' LT) — TMP — TMP

CALCULATED RSW CHECKED EJS

CROSS SECTIONS S.R. 501 STA. 223+50.00 TO STA. 224+50.00

ALL-117/501-10.76/4.34

52
95

SEEDING	
END WIDTH	SQ. YDS.
MATCH LINE (65' RT)	
119.32	622
MATCH LINE (70' LT)	
622	

END AREA	
CUT	FILL
MATCH LINE (65' RT)	
268	6
MATCH LINE (70' LT)	
522	16

VOLUME	
CUT	FILL
522	16

CALCULATED RSW
CHECKED EJS

60 50 40 30 20 10 ℄ CONSTR. 10 20 30 40 50 60

845 840 835

TMP
1.92 %

70 80 90 100

841.00 841.17 4.00% 2.68% 2.30% 840.46 4.00% 840.29 10.00′ VC 840.01 840.29 8.00 % 10.00 % 840.94 10′ VC 841.32 841.47 R/W 0.50 %

840.01

24" TYPE D

DR501-01, RES. CONC.
840.82
225+18.35
840.81

SH EX R/W

STA 224+78.34, 31.46′ LT
EX. CB, GRATE ELEV 838.59′ (202)
15" CPP W 835.36 (202)

841.11 841.24 3.12% 3.88% 3.88% 840.31 840.15 4.00%

5′ 6:1 7:1 6:1 R/W

836.90

15" CPP
(202)

837.70
STA 225+14.00
24" TYPE D
36.00′ RT, 837.53

840.77
225+00.00
841.84

℄ R/W

66.58′

SH EX R/W

1.00 %

ITEM 202 - PAVEMENT REMOVED, ASPHALT

100 90 80

CROSS SECTIONS - S.R. 501
STA. 225+00.00 TO STA. 225+35.38

ALL-117/501-10.76/4.34

53
95

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SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED RSW

CHECKED EJS

MATCH LINE (65' RT)

MATCH LINE (70' LT)

4.80 %

DR501-02, RES. CONC.
840.91
225+73.95
841.37

840.88 841.04 840.81 840.65 840.42 840.57 840.89 841.16 841.28

4.00% 1.03% 0.80% 4.00% 8.00 % 6.82 % 1.00 %

10.00' VC

10.00' VC

R/W

24" TYPE D

SH EX R/W

840.94 841.10 840.59 840.43

4.00% 2.01% 2.01% 4.00% 8.00 %

6:1 6:1 6' 103:1 2:1

R/W

24" TYPE C

840.86
225+50.00
841.09

SH EX R/W

℄ R/W

15.17'

1.00 %

ITEM 202 - PAVEMENT REMOVED, ASPHALT

℄ CONSTR.

26.84

683

286 1

513 6

513 6

CROSS SECTIONS - S.R. 501
STA. 225+50 TO STA. 225+76.99

ALL-117/501-10.76/4.34

54
95

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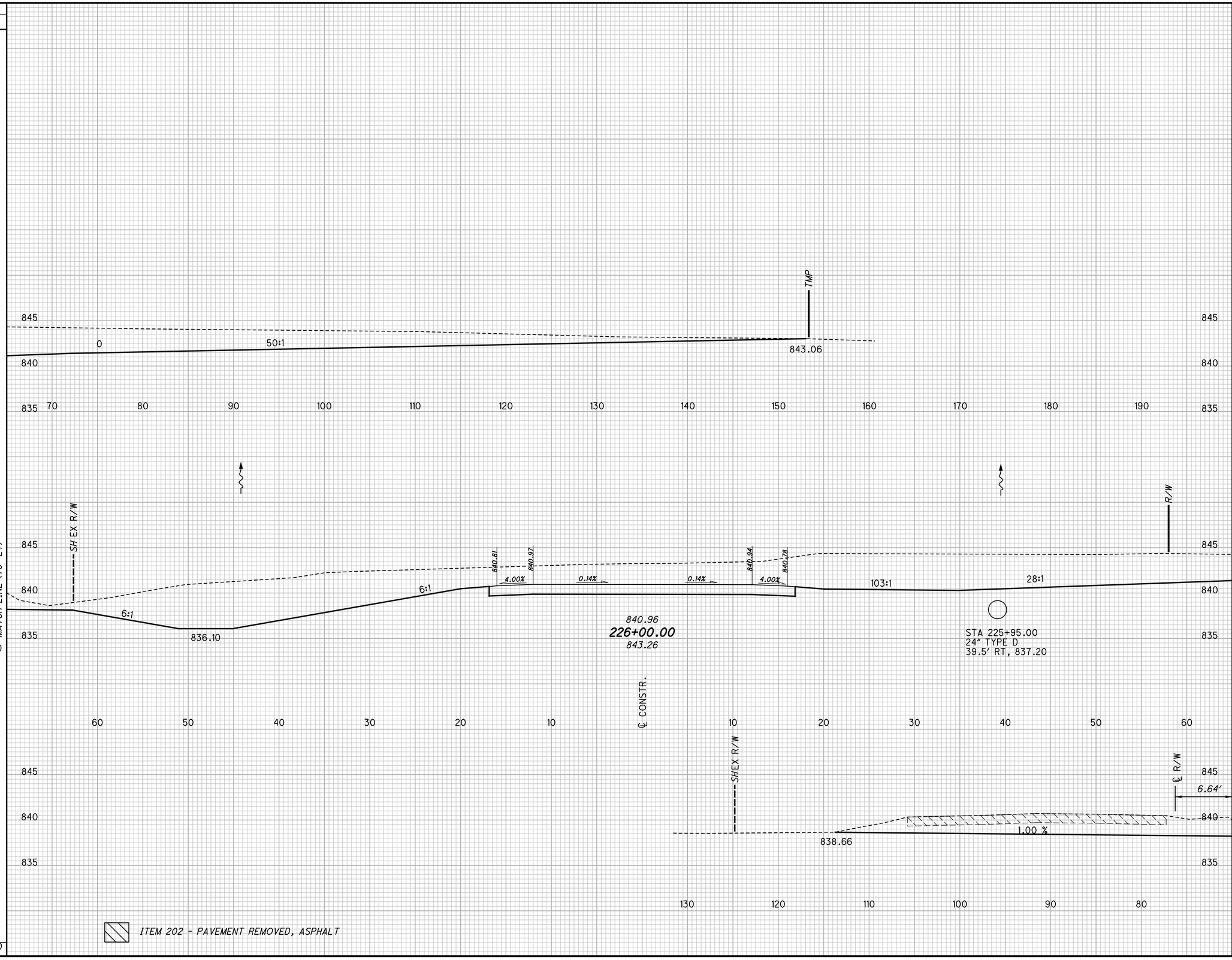
SEEDING	
END WIDTH	SQ. YDS.
229.56	990

END AREA		VOLUME	
CUT	FILL	CUT	FILL
662	0	878	0

CALCULATED RSW
CHECKED EJS

CROSS SECTIONS - S.R. 501
STA. 226+00.00



ALL-117 / 501-
10.76 / 4.34

55
95

SEEDING	
END WIDTH	SQ. YDS.
	307.83
	1493
	1493

MATCH LINE (200' RT)

MATCH LINE (65' RT)

MATCH LINE (70' LT)

TMP

843.10

845 840 835

210 220 90 230 240

50:1

EXISTING POND

12"

70 80 90 100 110 120 130 140 150 160 170 180 190

1' UNDERCUT TO BE WASTED AND PAID AS ITEM 203, EXCAVATION, AS PER PLAN

107.18'

6:1 6' 6:1

835.70

15" TYPE D
F=835.74
STA. 226+26.15
50' LT

840.57 840.73 4.00% 1.86% 1.86% 4.00% 841.21 841.05

840.99
226+50.00
846.54

℄ CONSTR

6:1 4:1 5' 6:1

836.80

R/W

12"

60 50 40 30 20 10 10 20 30 40 50 60

SH EX R/W

℄ R/W

107.18'

SH EX R/W

840.06

1.00 %

140 130 120 110 100 90 80

SEE ENVIRONMENTAL COMMITMENTS, SHEET 7, FOR FISH REMOVAL REQUIREMENTS

ITEM 203 - EXCAVATION, AS PER PLAN AND BACKFILL WITH TYPE C GRANULAR MATERIAL (SEE SHEET 16 FOR QUANTITIES)

ITEM 202 - PAVEMENT REMOVED, ASPHALT

END AREA		VOLUME	
CUT	FILL	CUT	FILL
833	868		
1503	797		

MATCH LINE (200' RT)

MATCH LINE (65' RT)

MATCH LINE (70' LT)

CALCULATED	CHECKED
RSW	EJS

CROSS SECTIONS - S.R. 501
STA. 226+50.00 TO STA. 226+50.00

ALL-117 / 501-10.76 / 4.34

56
95

SEEDING	
END WIDTH	SQ. YDS.
	315.37
	1731

END AREA	
CUT	FILL
778	1154
1744	1836

VOLUME	
CUT	FILL

CALCULATED RSW
CHECKED EJS

MATCH LINE (200' RT)
MATCH LINE (65' RT)
MATCH LINE (70' LT)

TMP
844.05
845
840
835
210
220
230

841.28
50:1
EXISTING POND
12"
1' UNDERCUT TO BE WASTED AND PAID AS ITEM 203, EXCAVATION, AS PER PLAN
70 80 90 100 110 120 130 140 150 160 170 180 190
R/W

15" TYPE D
E=835.50
STA. 227+00.15
6' 53' LT
835.30
6:1
840.10
840.26
4.00%
3.87%
3.87%
841.33
841.20
3.13%
840.86
227+00.00
845.90
4:1
5'
836.50
6:1
12"
120.76'
℄ CONSTR.
1731
60 50 40 30 20 10 10 20 30 40 50 60

EX SH
SH EX R/W
1.00 %
6:1
120.76'
℄ R/W
170 160 150 140 130 120 110 100 90 80

SEE ENVIRONMENTAL COMMITMENTS, SHEET 7, FOR FISH REMOVAL REQUIREMENTS

ITEM 203 - EXCAVATION, AS PER PLAN AND BACKFILL WITH TYPE C GRANULAR MATERIAL (SEE SHEET 16 FOR QUANTITIES)

ITEM 202 - PAVEMENT REMOVED, ASPHALT

CROSS SECTIONS - S.R. 501
STA. 227+00.00 TO STA. 227+00.00

ALL-117/501-10.76/4.34

57
95

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SEEDING	
END WIDTH	SQ. YDS.
	295.8
	1698

END AREA	
CUT	FILL

VOLUME	
CUT	FILL
719	1058
1768	2132

CALCULATED RSW
CHECKED EJS

MATCH LINE (65' RT)

845
840
835

6:1
843.51
50:1
845.43
TMP
EXISTING POND
1' UNDERCUT TO BE WASTED AND PAID AS ITEM 203, EXCAVATION, AS PER PLAN
1'
70 80 90 100 110 120 130 140 150 160 170 180 190

MATCH LINE (70' LT)

845
840
835

6.5:1
6'
834.90
6.5:1
839.28
839.54
6.29%
6.29%
6.29%
840.57
227+50.00
845.12
841.33
841.46
841.44
6.29%
1.00%
4:1
5'
836.20
6:1
R/W
99.89'
℄ CONSTR.
60 50 40 30 20 10 10 20 30 40 50 60

MATCH LINE (65' RT)

845
840
835

EX SH
SH EX R/W
℄ R/W SR 501
1.00 %
6.5:1
99.89'
160 150 140 130 120 110 100 90 80

MATCH LINE (70' LT)

845
840
835

170

SEE ENVIRONMENTAL COMMITMENTS, SHEET 7, FOR FISH REMOVAL REQUIREMENTS

ITEM 203 - EXCAVATION, AS PER PLAN AND BACKFILL WITH TYPE C GRANULAR MATERIAL (SEE SHEET 16 FOR QUANTITIES)

ITEM 202 - PAVEMENT REMOVED, ASPHALT

1698 1768 2132

CROSS SECTIONS S.R. 501 STA. 227+50.00

ALL-117 / 501-10.76 / 4.34

58
95

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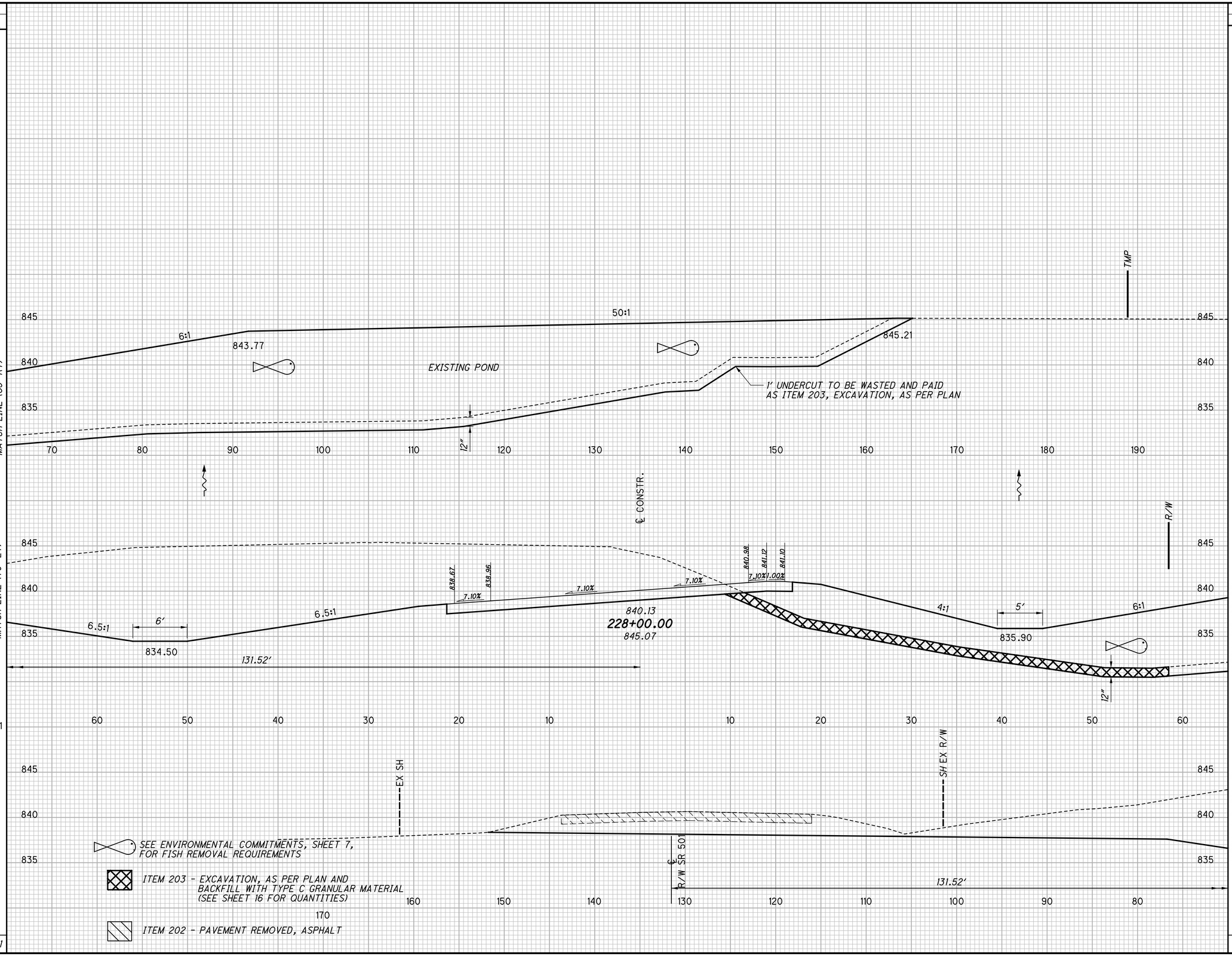
SEEDING	
END WIDTH	SQ. YDS.
280.5	1601

END AREA	
CUT	FILL
798	1127

VOLUME	
CUT	FILL
1875	2198

CALCULATED RSW
CHECKED EJS



CROSS SECTIONS - S.R. 501
STA. 228+00.00

ALL-117/501-10.76/4.34

59
95

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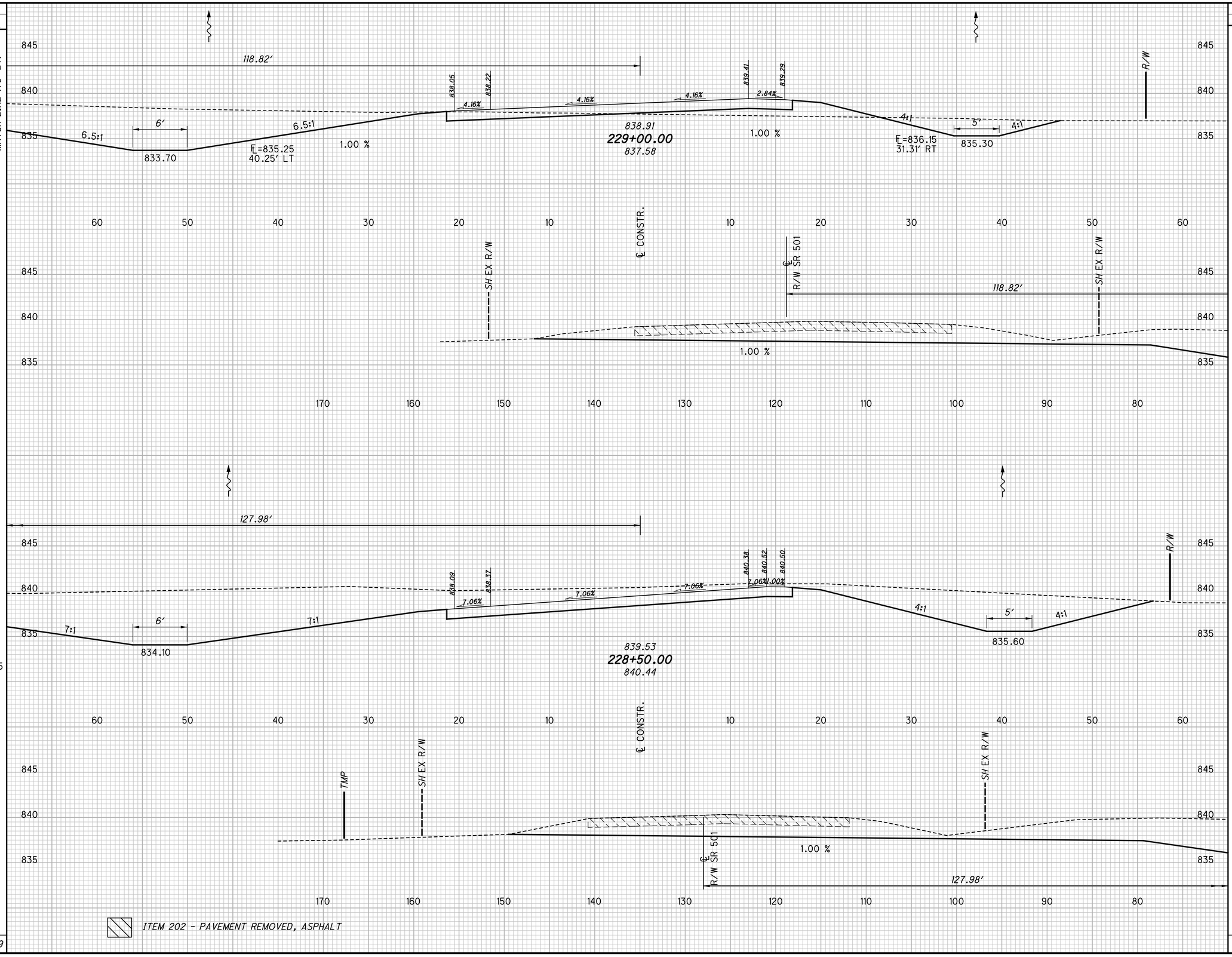
SEEDING	
END WIDTH	SQ. YDS.
157.9	914
171.2	1255
	2169



END AREA		VOLUME	
CUT	FILL	CUT	FILL
299	20	621	14
554	0	1370	976
		1991	990

MATCH LINE (70' LT)

MATCH LINE (70' LT)

CALCULATED RSW

CHECKED EJS

CROSS SECTIONS - S.R. 501
STA. 228+50.00 TO STA. 229+00.00

ALL-117/501-10.76/4.34

60
95

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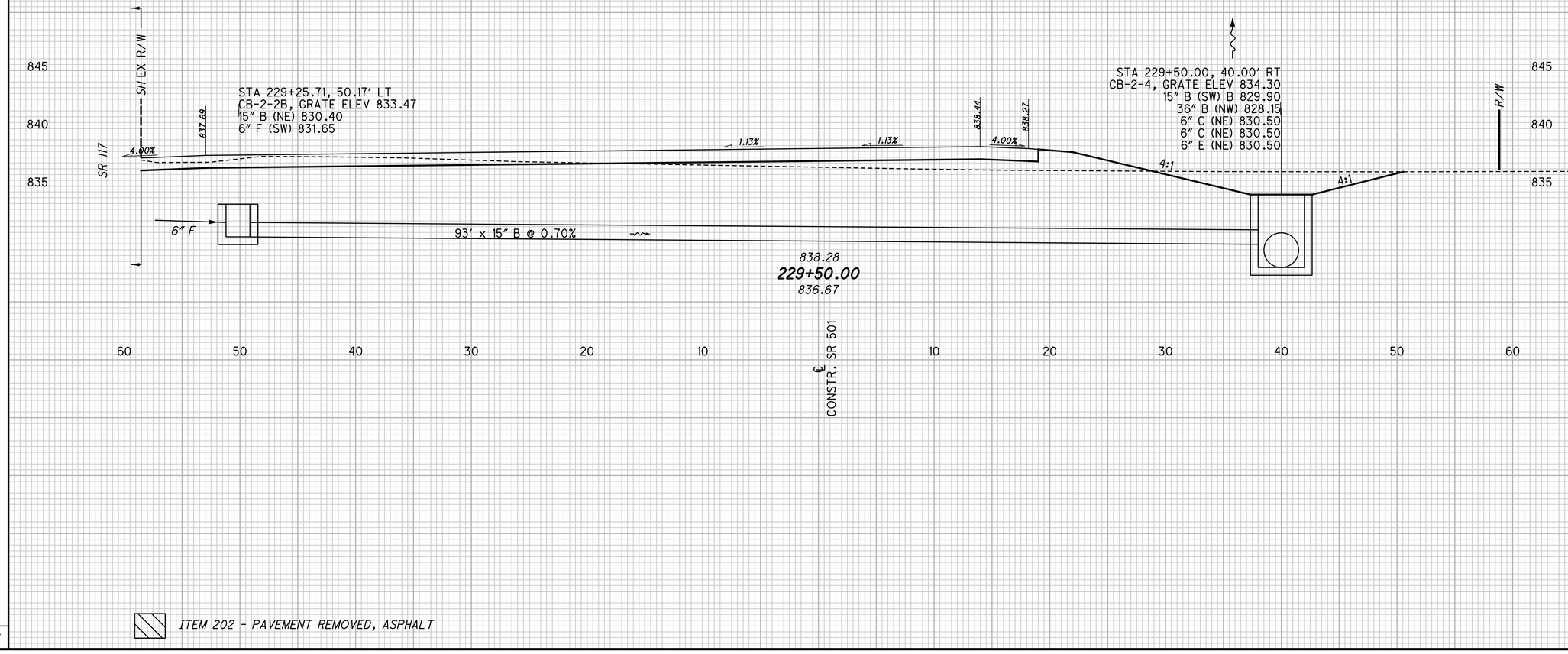
SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED RSW
CHECKED EJS

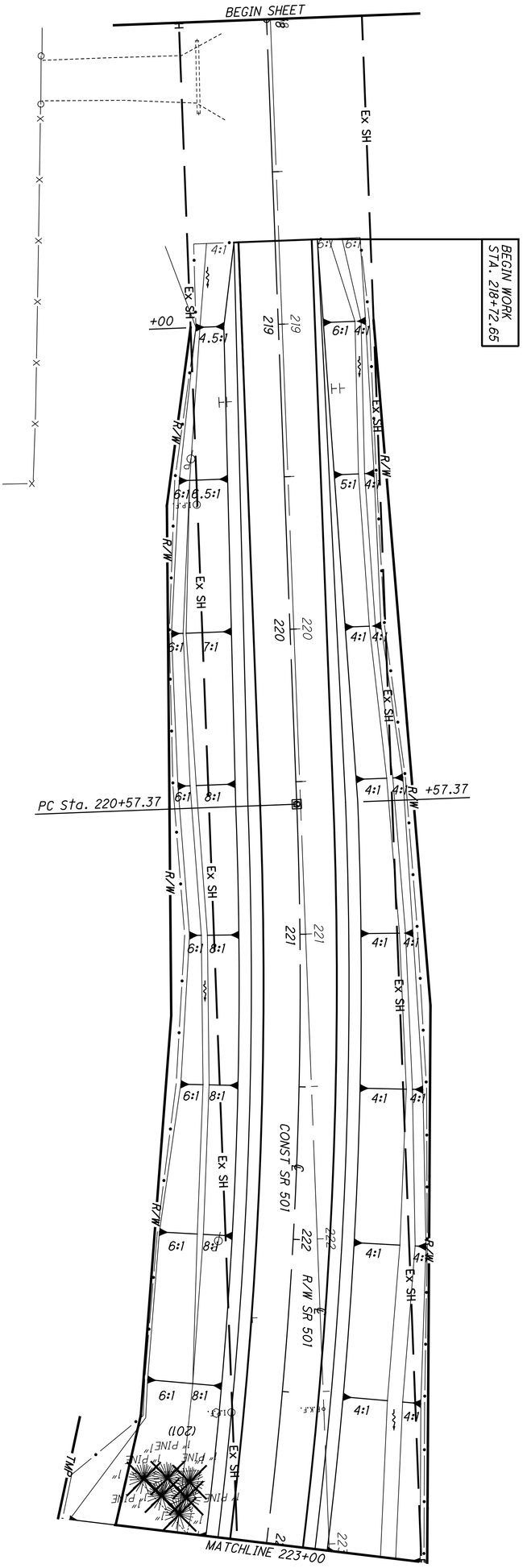


100.6	718	239	30
	718	498	46

CROSS SECTIONS - S.R. 501
STA. 229+50.00

ALL-117/501-10.76/4.34

61
95



62 / 95	ALL-117/501-10.76/4.34	GRADING DETAILS SR 501 STA 218+00 TO 223+00	CALCULATED RSW CHECKED EJS	0 10 20 40 HORIZONTAL SCALE IN FEET

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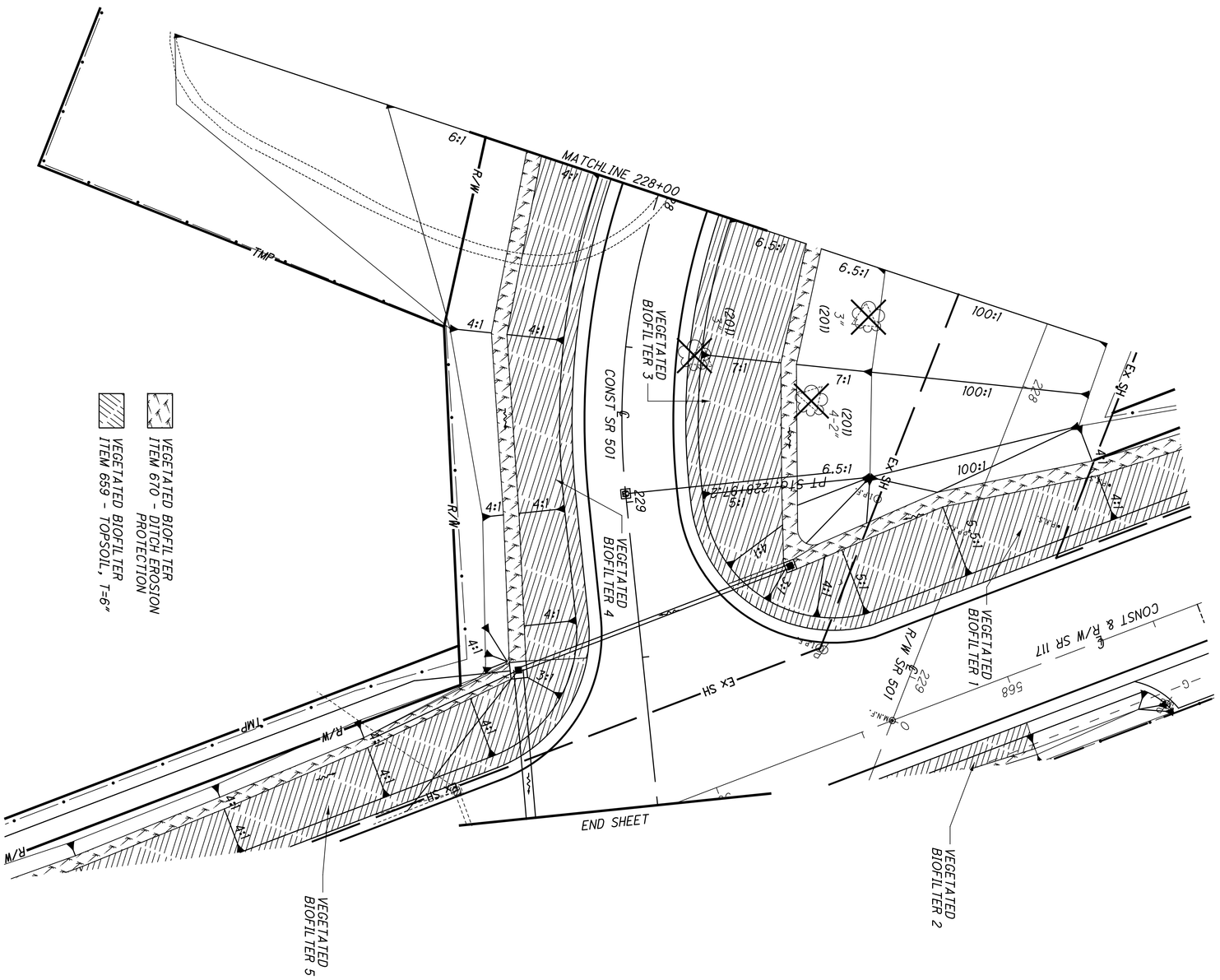
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED RSW
CHECKED EJS

GRADING DETAILS SR 501
STA 223+00 TO 228+00

ALL-117/501-10.76/4.34

63
95



64 / 65	ALL-117/501-10.76/4.34	GRADING DETAILS SR 501 STA 228+00 TO 230+00	CALCULATED RSW CHECKED EJS	0 20 10 40 HORIZONTAL SCALE IN FEET

SEE SHEET 73 FOR INTERSECTION DETAILS
SEE CROSS SECTIONS AND SHEET 74 FOR DRIVE DETAILS

Sta. 568+39.57 ℄ R/W & CONST S.R. 117 =
0+41.45 ℄ CONST WAPAK RD =
Sta. 229+99.20 ℄ CONST S.R. 501

BEGIN SHEET WAPAK RD

℄ R/W WAPAK RD
℄ CONST WAPAK RD
℄ CONST & R/W S.R. 117
℄ CONST & R/W WAPAK RD

WIRE FENCE (ENCROACHMENT) (202)
R-1
Ex SH
6" TEE
6" X 77' F
CB-2-2B
STONE SHOULDER
D-4
R-26
12" X 78' B
R-25
UD-11
D-5
D-6
D-7
D-8
D-9
R-27
R-28
CB-2-4
CB 2-4
CB-2-3 (202)
PC Sta. 1+23.27
12" CLAY (202)
12"-18" (201)
36" X 137' B
6" X 702' E
6" X 15° 569+78.49 66.59' RT
6" X 59' C
6" X 50' C
8" X 64' CMP (202)
6" CLAY
6" BASE PIPE UNDERDRAIN
6' BASE PIPE UNDERDRAIN
6" X 71' C
6" X 16' F
36" X 186' C
36" X 90' C
1" (201)
P.I. Sta. 1+71.69
Δ = 27° 13' 01" (RT)
Dc = 28° 38' 52" *NDC
R = 200.00'
T = 48.42'
L = 95.00'
E = 5.78'
C = 94.11'
C.B. = N 12° 51' 26" W
P.T. Sta. 2+18.28
*NDC - FOR A DESIGN SPEED OF 55 MPH, THE MAX DEGREE OF CURVATURE IS 6°. A CURVATURE OF 28°38' 52" IS PROPOSED.
+18.28
+35.44
+50
+35.38
3+35.38 FENCE (TO REMAIN)
WETLAND D (DND)
WETLAND B (DND)
KESSLER RUN
END WORK STA. 4+80
END SHEET
6" x 90°
90°
125°
8" CMP 202
+32.86 DRMP (202) RES.
+38.25 CONC DRMP (202) RES.
3-12" (DND)
12" X 38' CMP (202)
12" CMP (202)
53' x 36' C
Ex. 4" Plastic
RES
TMP
8.9'
21.5'
9.6'
12'
2'
4'
16.5'
11.4'
3

ITEM 203 - EXCAVATION (AGG. DRIVE REMOVED)
ITEM 202 - PAVEMENT REMOVED (CONCRETE DRIVE)
WETLAND
ITEM 201 - CLEARING & GRUBBING, AS PER PLAN
ITEM 202 - PAVEMENT REMOVED, ASPHALT
ITEM 601 - RCP TYPE B W/ FABRIC FILTER (30" DEPTH)

NOTE: TREES WILL BE REMOVED BY ODOT FORCES PRIOR TO CONSTRUCTION. REMOVAL OF STUMPS IS INCLUDED IN CLEARING & GRUBBING, AS PER PLAN.

$ - 6" TYPE C WITH 60° BEND AND COUPLING BAND
* - 6" TYPE C WITH 30° BEND AND COUPLING BAND
+ - 6" TYPE C WITH 45° BEND AND COUPLING BAND

ESTIMATED QUANTITIES

ITEM	SHEET
PAVEMENT	13
DRIVEWAY-DR	14
DRAINAGE-D,UD	15
ROADWAY-R	16

HORIZONTAL SCALE IN FEET
0 10 20 40
CALCULATED RSW
CHECKED EJS

PROFILE WAPAK RD
STA 0+41 TO 5+66

ALL-117/501-10.76/4.34

65
95

STA 0+80.04, 50.69' RT
EX. CB, GRATE ELEV 834.81' (202)
12" CLAY NW 831.67 (202)
6" CLAY NE 832.16 (202)
18" CMP SE 832.11 (202)

STA 1+25.00, 35.00' LT
CB-2-2B, GRATE ELEV 834.00
12" B (NE) 830.75
6" F (SE) 832.72

STA 1+30.25, 42.42' RT
CB-2-4, GRATE ELEV 832.99
12" TYPE B (SW) 829.54
36" TYPE B (S) 827.54
36" TYPE C (N) 827.54

STA 4+25.00, 24.00' RT
CB-2-4, GRATE ELEV 830.30
36" TYPE C (N) 826.20
36" TYPE C (S) 826.20

STA 3+35.38, 30.00' RT
CB-2-4, GRATE ELEV 830.80
36" TYPE C (N) 826.65
36" TYPE C (S) 826.65
6" TYPE F (W) 828.98

STA 4+77.50, 30.00' RT
ELEV 825.95'

STA 4+63.54, 24.88' LT
8" CMP N 826.00

STA 4+76.97, 24.73' RT
12" CMP S 825.50 (202)

STA 4+98.55, 43.40' RT
4" PLAS SE 827.49'

STA 4+77.50, 30.00' RT
HW 2.1 OR 2.2

BUTT JOINT
ELEV 832.91
PVI STA 3+35.38
Δ = 0.20%

-3.10 %
-1.39 %
-1.39 %
-0.40 %
0.78 %
12" x 78' B @ -1.55 %
36" x 137' B @ -0.44 %
36" x 186' C @ -0.56 %
36" X 90' C @ -0.33%
36" X 53' C @ -0.47%
6" BASE PIPE UNDERDRAIN, RT

100.00' VC
P.V.I. STA 1+51.19
ELEV = 835.00'
* DESIGN EXCEPTION:
K ACT = 58.5, DS = 38 mph
K REQ = 115, DS = 55 mph

P.V.I. STA 2+88.12
97.25' VC
ELEV = 833.10'
* DESIGN EXCEPTION:
K ACT = 98.2, DS = 50 mph
K REQ = 115, DS = 55 mph

850 845 840 835 830 825 820 815
838.15 837.82 837.36 837.20 836.89 836.58 836.28 836.00 835.73 835.47 835.24 835.02 834.82 834.64 834.47 834.32 834.19 834.05 833.91 833.77 833.64 833.52 833.40 833.30 833.21 833.13 833.05 832.99 832.94
837.19 834.79 834.57 834.35 834.05 834.87 834.51 834.19 833.89 833.63 833.41 833.19 833.05 832.97 832.89 832.81 832.88 833.04 833.20 833.35 833.40 833.38 833.20 833.02 832.84 832.74
0+75.00
1+00 2+00 3+00 4+00 5+00

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21-DEC-2015 8:07AM
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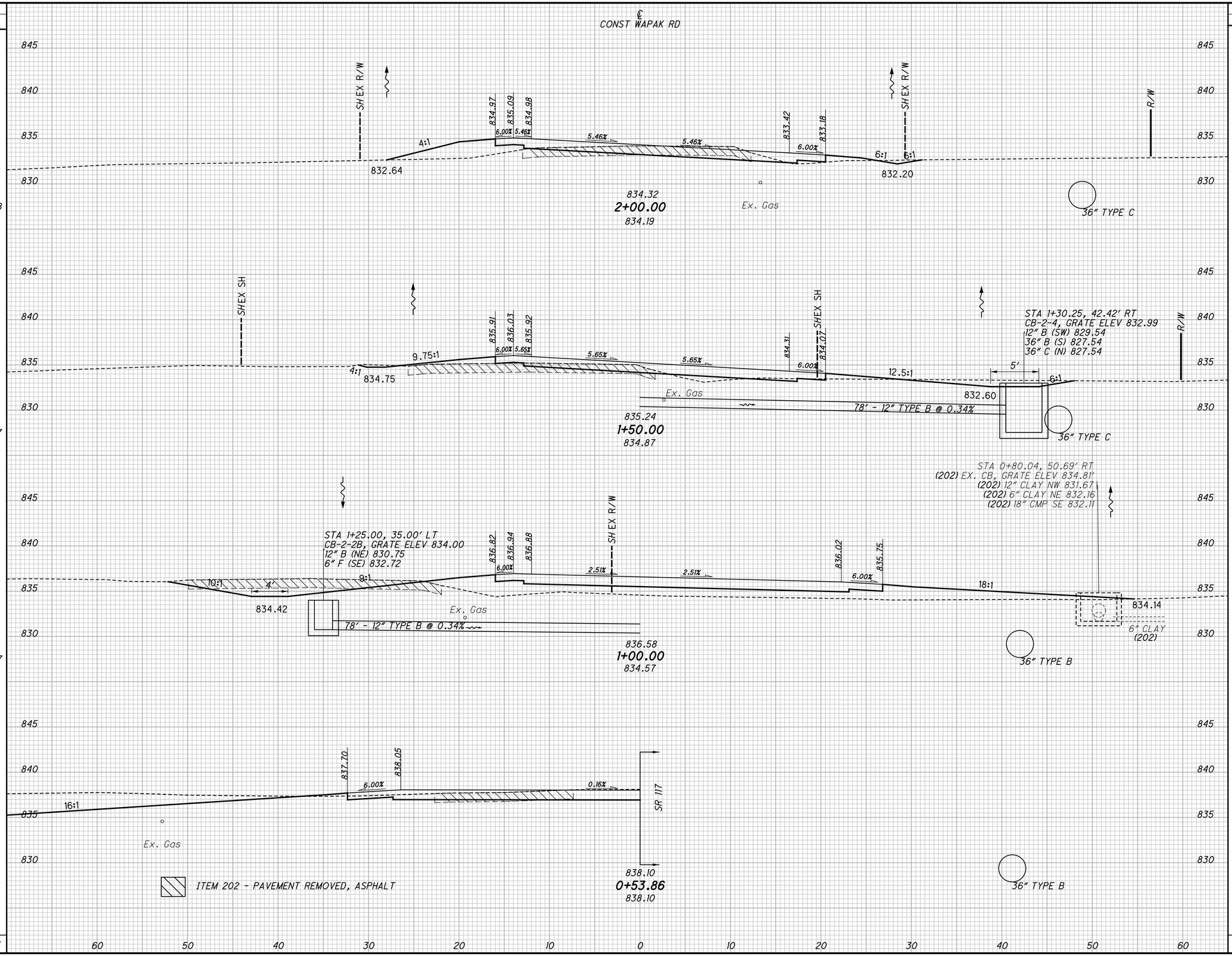
SEEDING END WIDTH	SEEDING SQ. YDS.
32.0	208
42.8	297
64.3	307
30.0	0
	812



END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
39	27		
		24	20
48	77		
		19	10
96	64		
		33	74
0	0		
		80	1
		156	105

CALCULATED RSW
CHECKED EJS

CROSS SECTIONS WAPAK RD
STA. 0+53.86 TO STA. 2+00.00

ALL-117/501-
10.76/4.34

66
95

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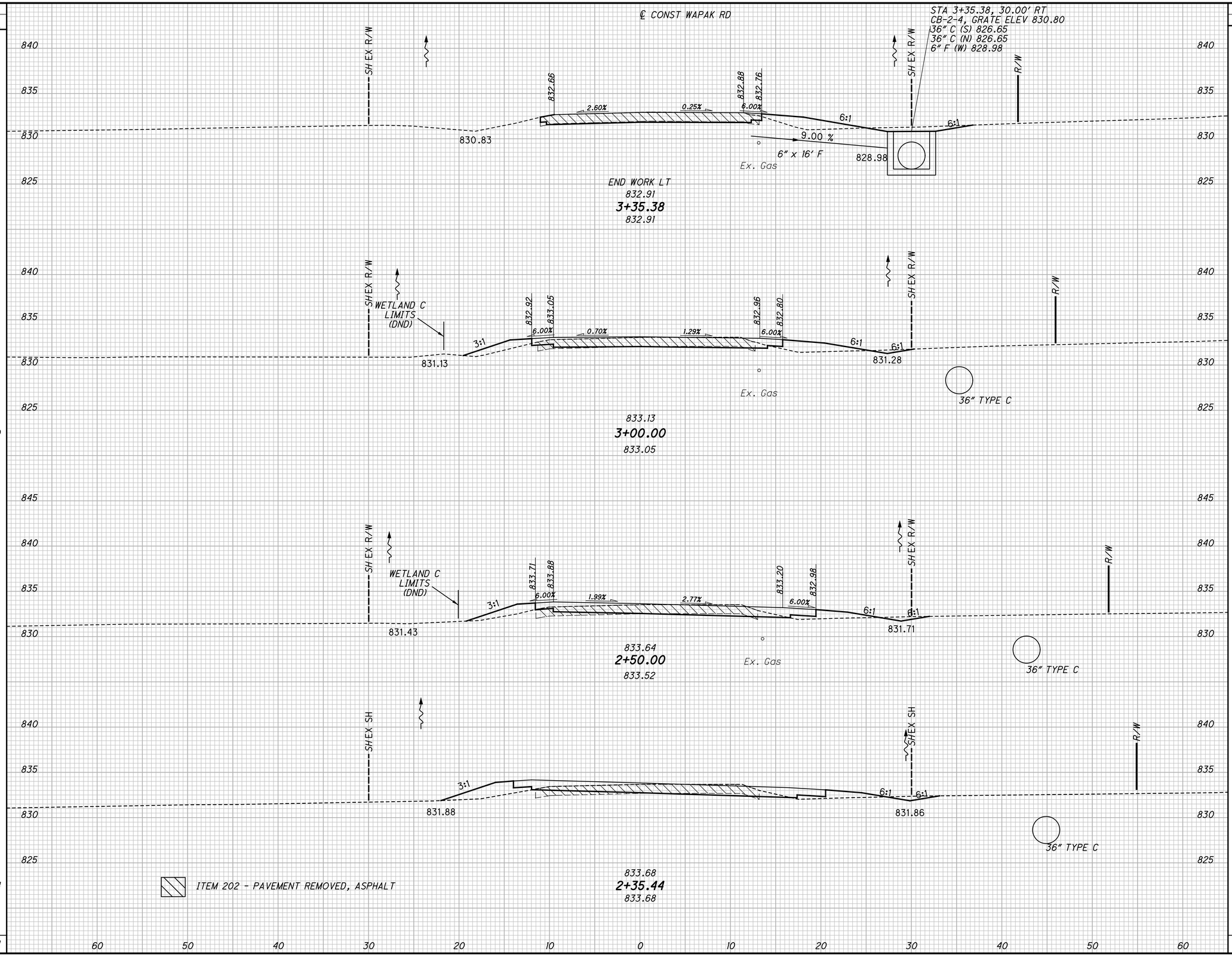

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
25.1	93	36	14	30	9
22.5	120	46	22	25	13
20.6	34	13	6	24	10
21.1	104	31	22	24	14
	351			103	46

CALCULATED RSW
CHECKED EJS

CROSS SECTIONS WAPAK RD
STA. 2+35.44 TO STA. 3+35.38

ALL-117/501-
10.76/4.34

67
95

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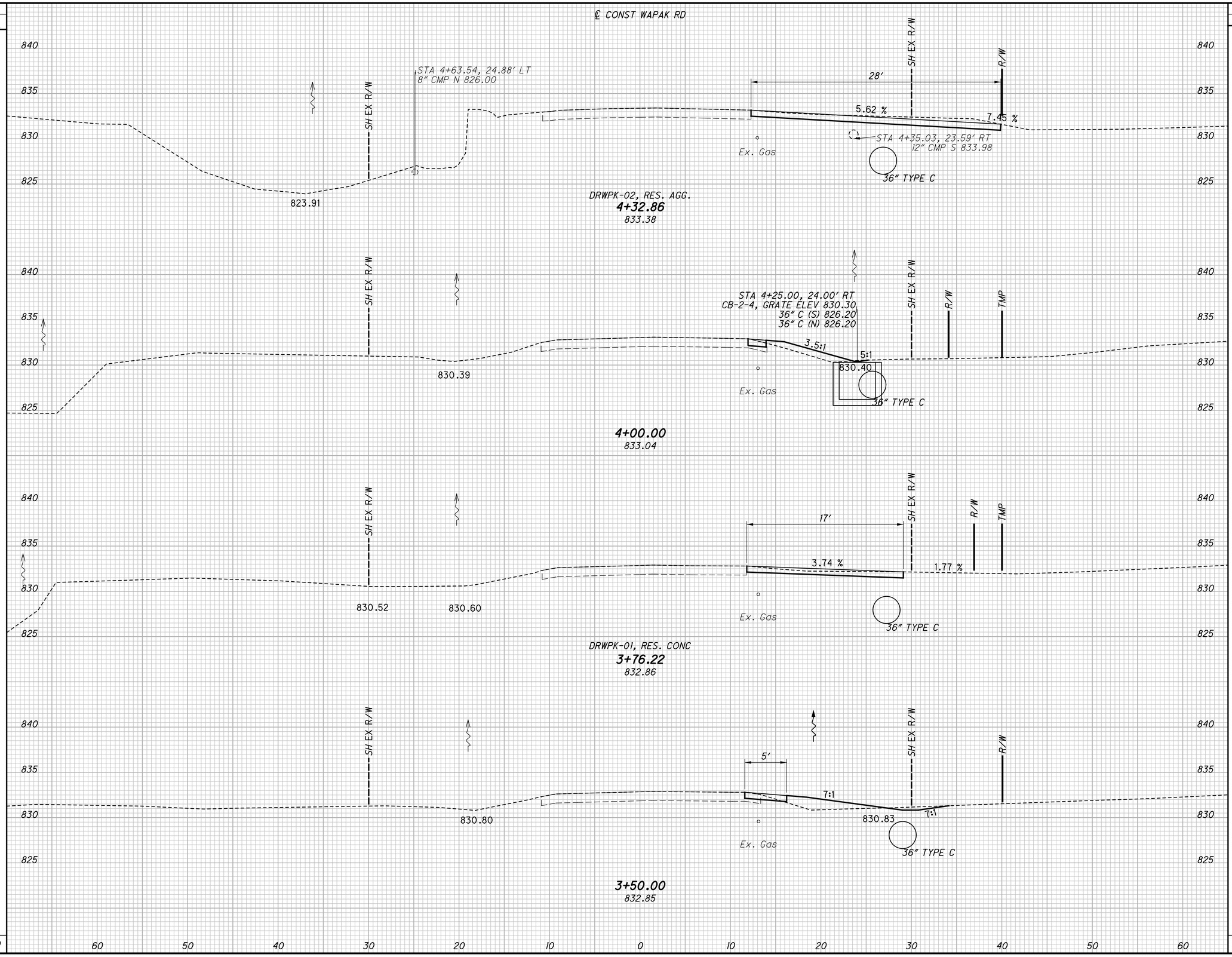
℄ CONST WAPAK RD
SEEDING
END WIDTH
SQ. YDS.
END AREA
CUT
FILL
VOLUME
CUT
FILL
CALCULATED RSW
CHECKED EJS
SH EX R/W
R/W
TMP
STA 4+63.54, 24.88' LT
8" CMP N 826.00
28'
5.62 %
7.45 %
STA 4+35.03, 23.59' RT
12" CMP S 833.98
Ex. Gas
36" TYPE C
823.91
DRWPK-02, RES. AGG.
4+32.86
833.38
0.0
15
20
0
22
0
STA 4+25.00, 24.00' RT
CB-2-4, GRATE ELEV 830.30
36" C (S) 826.20
36" C (N) 826.20
3.5:1
5:1
830.40
830.39
12.6
4
3
4+00.00
833.04
82
17'
3.74 %
1.77 %
830.52
830.60
0.0
30
1
9
0
DRWPK-01, RES. CONC
3+76.22
832.86
58
5'
7:1
830.83
830.80
18.1
9
5
3+50.00
832.85
35
3
9
190
840
835
830
825
60
50
40
30
20
10
0
10
20
30
40
50
60
CROSS SECTIONS WAPAK RD
STA. 3+50.00 TO STA. 4+50.00
ALL-117/501-
10.76/4.34
68
95
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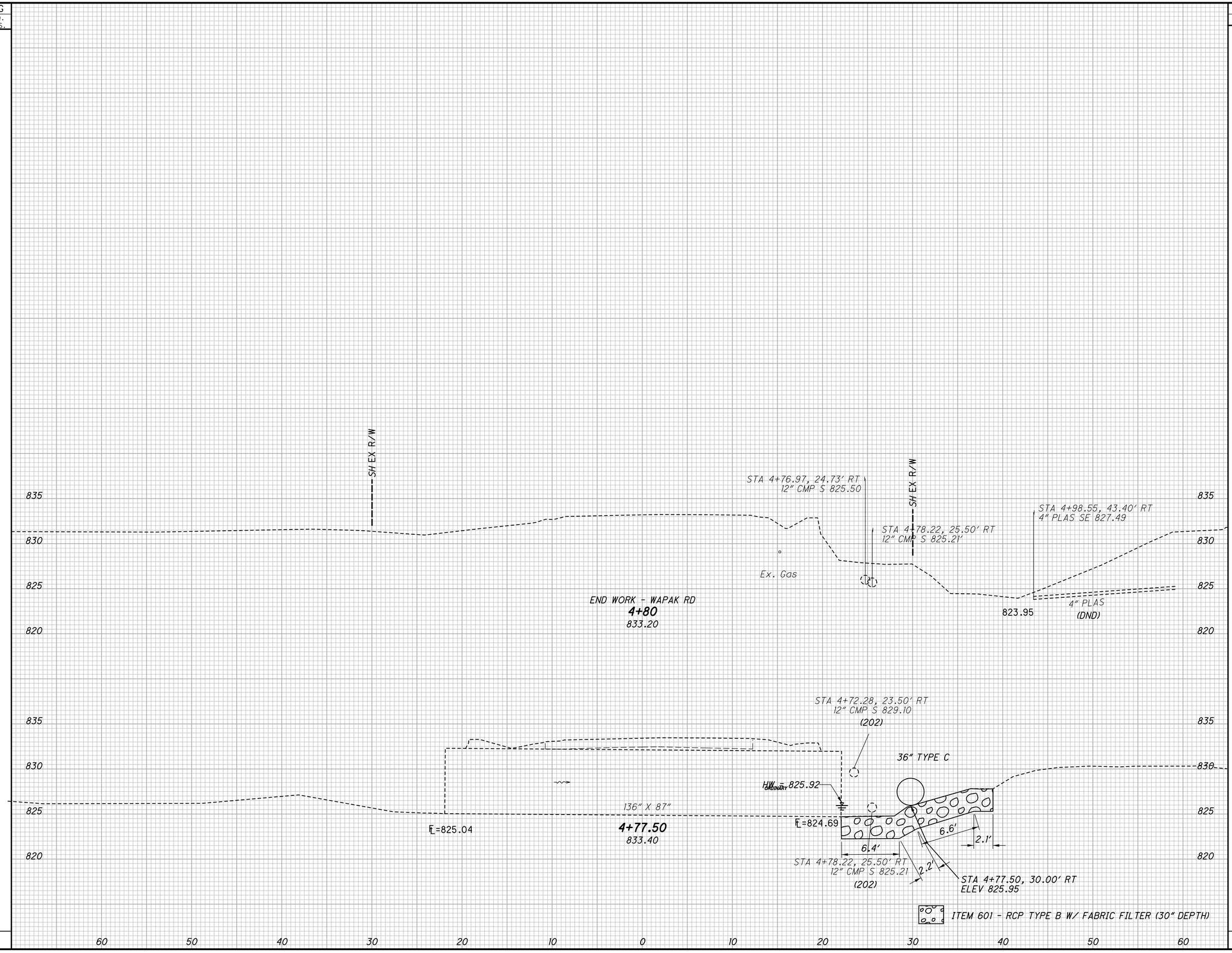
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL

CALCULATED RSW
CHECKED EJS

CROSS SECTIONS WAPAK RD
STA 4+77.50 TO 4+80.00



ALL-117/501-10.76/4.34

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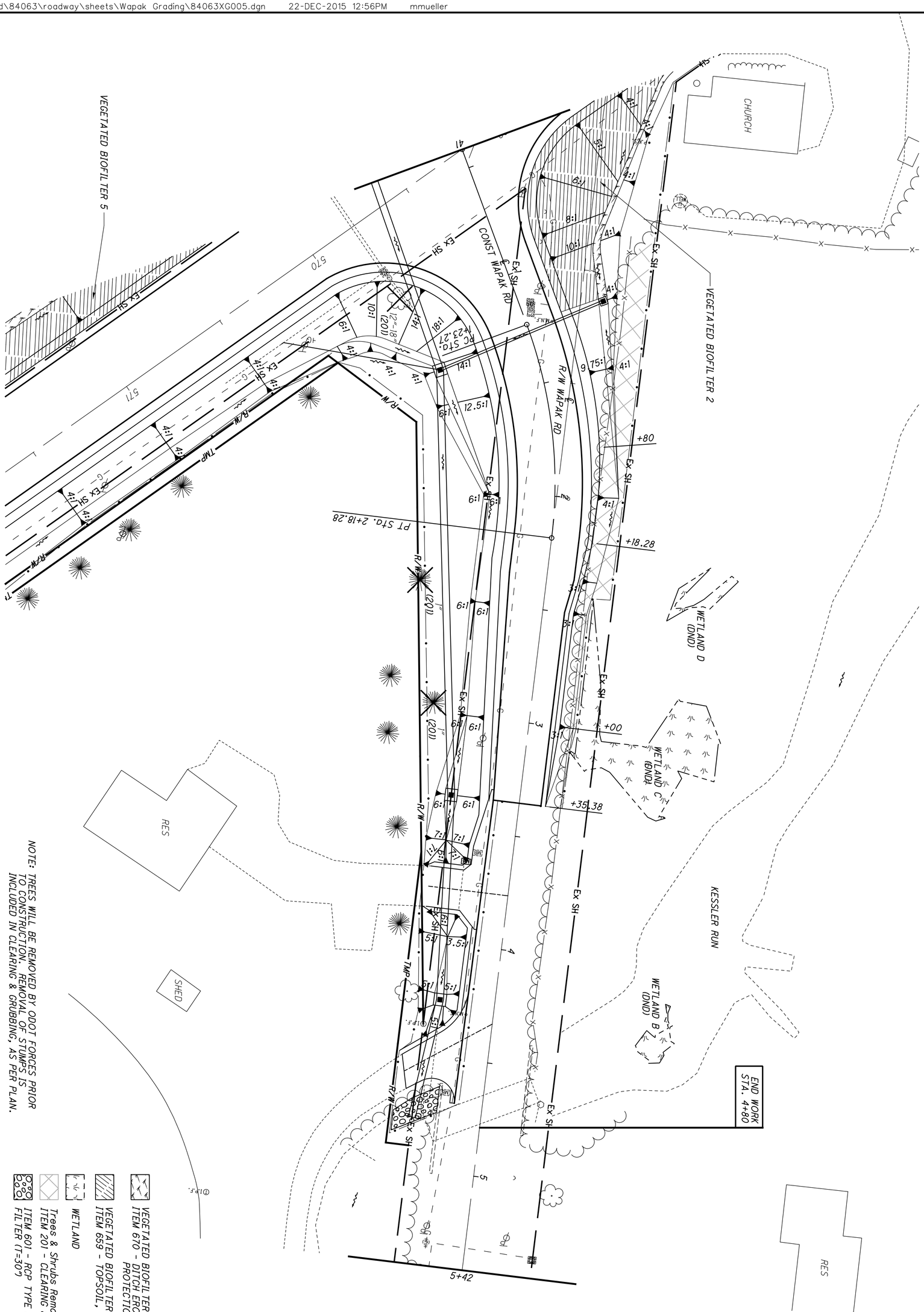

NOTE: TREES WILL BE REMOVED BY ODOT FORCES PRIOR TO CONSTRUCTION. REMOVAL OF STUMPS IS INCLUDED IN CLEARING & GRUBBING, AS PER PLAN.

VEGETATED BIOFILTER ITEM 670 - DITCH EROSION PROTECTION

VEGETATED BIOFILTER ITEM 659 - TOPSOIL, T=6"

WETLAND

Trees & Shrubs Removed ITEM 201 - CLEARING & GRUBBING

ITEM 601 - RCP TYPE B W/FABRIC FILTER (T=30")

70/95	ALL-117/501-10.76/4.34	GRADING DETAILS WAPAK RD STA 0+41 TO 5+42	CALCULATED RSW / CHECKED EJS	0 20 / 10 40 HORIZONTAL SCALE IN FEET

SUPERELEVATION TABLE

P.I. STA. 222+60.59 | D_e = 3°-44′-41.36″

LEFT SIDE					CENTERLINE CONTROL		RIGHT SIDE					REMARKS
EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	
847.70		0.00	-0.0296	12.00	218+72.65	847.70	12.00	-0.0185	0.00		847.70	
847.05		-0.34	-0.0280	12.00	218+75.00	847.38	12.00	-0.0184	-0.22		847.16	
846.94		-0.13	-0.0106	12.00	219+00.00	847.07	12.00	-0.0169	-0.20		846.86	
846.87		0.00	0.0000	12.00	219+15.27	846.87	12.00	-0.0160	-0.19		846.68	½ LEVEL
846.79		0.04	0.0036	12.00	219+25.00	846.75	12.00	-0.0185	-0.22		846.41	
846.59		0.16	0.0130	12.00	219+50.00	846.43	12.00	-0.0251	-0.30		846.13	
846.38		0.27	0.0224	12.00	219+75.00	846.11	12.00	-0.0316	-0.38		845.73	
846.18	122:1	0.38	0.0317	12.00	220+00.00	845.79	12.00	-0.0382	-0.46	56:1	845.33	
845.97		0.49	0.0411	12.00	220+25.00	845.48	12.00	-0.0447	-0.54		844.94	
845.76		0.61	0.0504	12.00	220+50.00	845.16	12.00	-0.0513	-0.62		844.55	
845.70		0.64	0.0532	12.00	220+57.37	845.07	12.00	-0.0532	-0.64		844.42	P.C.
845.56		0.72	0.0598	12.00	220+75.00	844.84	12.00	-0.0598	-0.72		844.12	
845.35		0.83	0.0692	12.00	221+00.00	844.52	12.00	-0.0692	-0.83		843.69	
845.20		0.91	0.0760	12.00	221+18.27	844.29	12.00	-0.0760	-0.91		843.43	F.S.
845.12		0.91	0.0760	12.00	221+25.00	844.21	12.00	-0.0760	-0.91		843.33	
844.80		0.91	0.0760	12.00	221+50.00	843.89	12.00	-0.0760	-0.91		842.97	
844.48		0.91	0.0760	12.00	221+75.00	843.57	12.00	-0.0760	-0.91		842.66	
844.16		0.91	0.0760	12.00	222+00.00	843.25	12.00	-0.0760	-0.91		842.34	
843.85		0.91	0.0760	12.00	222+25.00	842.93	12.00	-0.0760	-0.91		842.02	
843.53		0.91	0.0760	12.00	222+50.00	842.62	12.00	-0.0760	-0.91		841.70	
843.21		0.91	0.0760	12.00	222+75.00	842.30	12.00	-0.0760	-0.91		841.39	
842.89		0.91	0.0760	12.00	223+00.00	841.98	12.00	-0.0760	-0.91		841.07	
842.58		0.91	0.0760	12.00	223+25.00	841.67	12.00	-0.0760	-0.91		840.78	
842.32		0.91	0.0760	12.00	223+50.00	841.41	12.00	-0.0760	-0.91		840.49	
842.10		0.91	0.0760	12.00	223+75.00	841.19	12.00	-0.0760	-0.91		840.30	
841.92		0.91	0.0760	12.00	224+00.00	841.01	12.00	-0.0760	-0.91		840.10	
841.92		0.91	0.0760	12.00	224+00.75	841.01	12.00	-0.0760	-0.91		840.10	F.S.
841.69		0.80	0.0669	12.00	224+25.00	840.88	12.00	-0.0669	-0.80		840.11	
841.49		0.69	0.0576	12.00	224+50.00	840.80	12.00	-0.0576	-0.69		840.11	
841.42		0.64	0.0533	12.00	224+61.45	840.78	12.00	-0.0533	-0.64		840.16	P.T.
841.34		0.58	0.0482	12.00	224+75.00	840.76	12.00	-0.0482	-0.58		840.21	
841.24	211:1	0.47	0.0388	12.00	225+00.00	840.77	12.00	-0.0388	-0.47	168:1	840.31	
841.17		0.35	0.0295	12.00	225+25.00	840.81	12.00	-0.0295	-0.35		840.45	
841.10		0.24	0.0201	12.00	225+50.00	840.86	12.00	-0.0201	-0.24		840.59	
841.04		0.13	0.0108	12.00	225+75.00	840.91	12.00	-0.0108	-0.13		840.77	
840.97		0.02	0.0014	12.00	226+00.00	840.96	12.00	-0.0014	-0.02		840.94	
840.96		-0.00	-0.0000	12.00	226+03.75	840.96	12.00	-0.0000	-0.00		840.96	LEVEL
840.88		-0.11	-0.0086	12.77	226+25.00	840.99	12.00	0.0086	0.10		841.09	
840.73		-0.25	-0.0186	13.69	226+50.00	840.99	12.00	0.0186	0.22		841.21	
840.53		-0.42	-0.0287	14.60	226+75.00	840.94	12.00	0.0287	0.34		841.29	
840.26	119:1	-0.60	-0.0387	15.51	227+00.00	840.86	12.00	0.0387	0.46	445:1	841.33	
839.94		-0.80	-0.0488	16.42	227+25.00	840.74	12.00	0.0488	0.59		841.32	
839.90		-0.82	-0.0497	16.50	227+27.24	840.72	12.00	0.0497	0.60		841.32	P.C.
839.54		-1.04	-0.0629	16.50	227+50.00	840.57	12.00	0.0629	0.76		841.33	
839.30		-1.17	-0.0710	16.50	227+63.84	840.47	12.00	0.0710	0.85		841.32	F.S.
839.20		-1.17	-0.0710	16.50	227+75.00	840.41	12.00	0.0710	0.85		841.22	
838.96		-1.17	-0.0710	16.50	228+00.00	840.13	12.00	0.0710	0.85		840.98	
838.75		-1.17	-0.0710	16.50	228+25.00	839.78	12.00	0.0710	0.85		840.78	
838.37		-1.17	-0.0710	16.50	228+49.24	839.54	12.00	0.0710	0.85		840.39	F.S
838.37	288:1	-1.16	-0.0706	16.50	228+50.00	839.53	12.00	0.0706	0.85	52:1	840.38	

SUPERELEVATION TABLE

P.I. STA. 228+16.34 | D_e = 24°-54′-40.35″

LEFT SIDE					CENTERLINE CONTROL		RIGHT SIDE					REMARKS
EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTION	TRANSITION RATE	EDGE ELEVATION	
838.35		-0.93	-0.0561	16.50	228+75.00	839.28	12.00	0.0561	0.67		839.95	
838.23	288:1	-0.71	-0.0433	16.50	228+97.24	838.94	12.00	0.0433	0.52	52:1	839.46	P.T.
838.22		-0.69	-0.0416	16.52	229+00.00	838.91	12.00	0.0416	0.50		839.41	
837.99		-0.56	-0.0251	22.19	229+25.00	838.60	12.00	0.0265	0.32		838.91	
837.69		-0.26	-0.0113	52.96	229+50.00	838.28	13.97	0.0113	0.16		838.44	
838.00		0.00	0.0000	0.00	229+75.00	838.00	0.00	0.0000	0.00		838.00	

CALCULATED RSW | CHECKED EJS

SUPERELEVATION TABLE
S.R. 501

ALL-501/117-10.76/4.34

71
95

SUPERELEVATION TABLE

P.I. STA. 1+71.69 | D_e = 28°-38′-52″

LEFT SIDE					CENTERLINE CONTROL		RIGHT SIDE					REMARKS
EDGE ELEVATION	TRANSITION RATE	ELEVATION CORRECTION	CROSS SLOPE	WIDTH	STATION	PROFILE GRADE	WIDTH	CROSS SLOPE	ELEVATION CORRECTON	TRANSITION RATE	EDGE ELEVATION	
837.53		0.17	0.0124	14.01	0+75.00	837.36	53.45	-0.0124	-0.66		837.80	
836.88	50:1	0.30	0.0251	12.00	1+00.00	836.58	22.24	-0.0251	-0.56		836.02	
836.18		0.44	0.0370	12.00	1+23.27	835.74	16.50	-0.0370	-0.61	27:1	835.21	P.C.
836.36		0.46	0.0383	12.00	1+25.00	835.73	16.50	-0.0383	-0.63		835.22	
835.92		0.68	0.0565	12.00	1+50.00	835.24	16.50	-0.0565	-0.93		834.31	
835.64		0.89	0.0740	12.00	1+73.87	834.75	16.50	-0.0740	-1.22		833.53	F.S.
835.62		0.89	0.0740	12.00	1+75.00	834.73	16.50	-0.0740	-1.22		833.51	
835.53		0.89	0.0740	12.00	1+79.88	834.64	16.50	-0.0740	-1.22		833.42	F.S.
834.98		0.66	0.0546	12.00	2+00.00	834.32	16.50	-0.0546	-0.90		833.42	
834.51		0.44	0.0370	12.00	2+18.28	834.07	16.50	-0.0370	-0.61		833.46	P.T.
834.38	52:1	0.40	0.0334	12.00	2+25.00	833.98	16.50	-0.0350	-0.58		833.40	
833.88		0.24	0.0199	12.00	2+50.00	833.64	15.76	-0.0277	-0.44	293:1	833.20	
833.43		0.08	0.0065	12.00	2+75.00	833.35	14.50	-0.0203	-0.29		833.06	
833.05		-0.08	-0.0070	12.00	3+00.00	833.13	13.23	-0.0129	-0.17		832.96	
832.74		-0.22	-0.0204	10.80	3+25.00	832.96	11.96	-0.0056	-0.07		832.89	
832.66		-0.25	-0.0260	9.50	3+35.38	832.91	11.43	-0.0025	-0.03		832.88	

CALCULATED RSW
CHECKED EJS

SUPERELEVATION TABLE
WAPAK RD

ALL-117/501-
10.76/4.34

72
95

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Sta. 568+72.43, 62' Lt. ℄ R/W & CONST S.R. 117 =
Sta. 0+89.03, 62' Lt. ℄ CONST WAPAK RD
Δ = 75° 00' 00"
R = 50.00'
L = 65.45'

Sta. 568+39.57 ℄ R/W & CONST S.R. 117 =
Sta. 0+41.45 ℄ CONST WAPAK RD =
Sta. 229+99.20 ℄ CONST S.R. 501

POT Sta. 568+39.57

STONE SHOULDER

PT Sta. 2+18.28

P.I. Sta. 1+71.69
Δ = 27° 13' 01" (RT)
Dc = 28° 38' 52"
R = 200.00'
T = 48.42'
L = 95.00'
E = 5.78'
C = 94.11'
C.B. = N 12° 51' 26" W

PC Sta. 1+23.27

℄ CONST WAPAK RD

N 26° 27' 57" W

Sta. 1+23.27, 66.5' Rt. ℄ CONST WAPAK RD =
Sta. 570+05.41, 61.82' LT. ℄ R/W & CONST S.R. 117
Δ = 99° 22' 57"
R = 50.00'
L = 86.73'

PAVED SHOULDER

℄ R/W & CONST S.R. 117

75°

Sta. 568+30.55, 76.79' Rt. ℄ R/W & CONST S.R. 117 =
Sta. 229+01.88, 66.52' LT. ℄ CONST S.R. 501
Δ = 100° 43' 58"
R = 50.00'
L = 87.91'

PT Sta. 228+97.24

P.I. Sta. 228+16.34
Δ = 42° 20' 57" (LT)
Dc = 24° 54' 40"
R = 230.00'
T = 89.09'
L = 170.00'
E = 16.65'
C = 166.16'
C.B. = N 5° 17' 28" W

PC Sta. 221+21.24

℄ CONST S.R. 501

Sta. 229+36.09, 62' Rt. ℄ CONST S.R. 501 =
Sta. 569+63.56, 77' Rt. ℄ R/W & CONST S.R. 117
Δ = 75° 00' 00"
R = 50.00'
L = 65.45'

INTERSECTION DETAIL - S.R. 117 & S.R. 501 & WAPAK RD

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED RSW
CHECKED EJS

ALL-117/501-10.76/4.34

73
95

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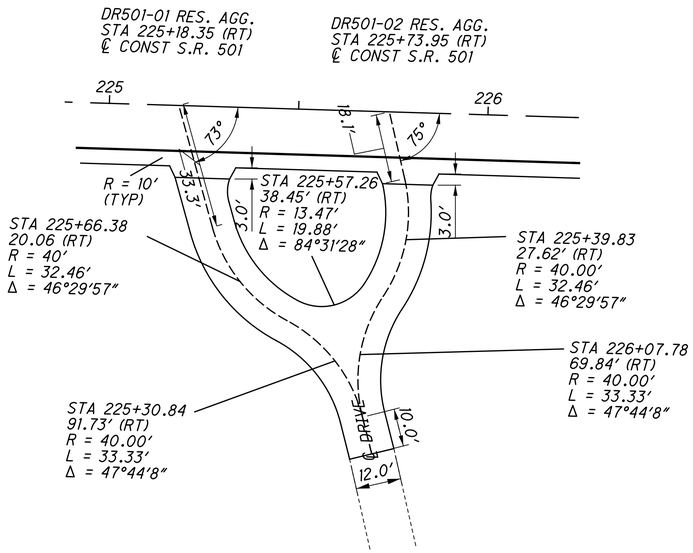
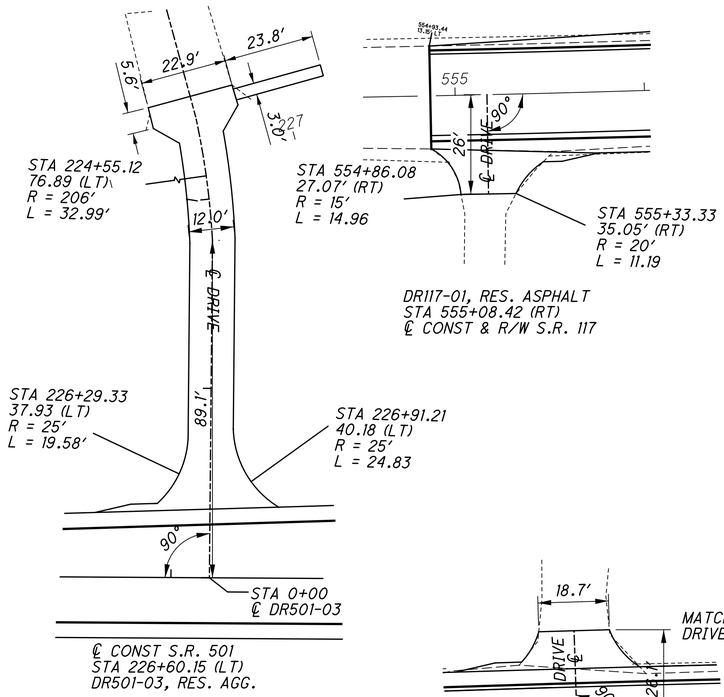
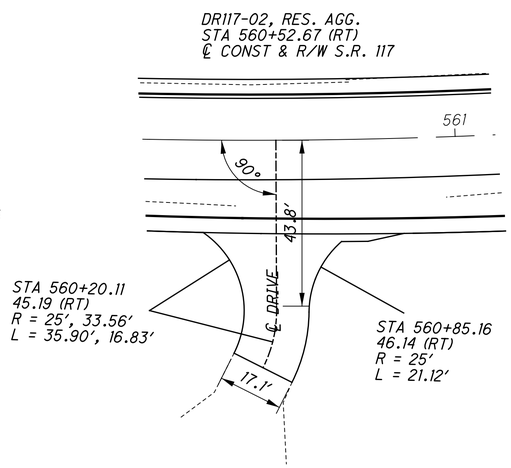
* SEE PLAN NOTE, SHEET 7, FOR DR501-01 & DR501-02





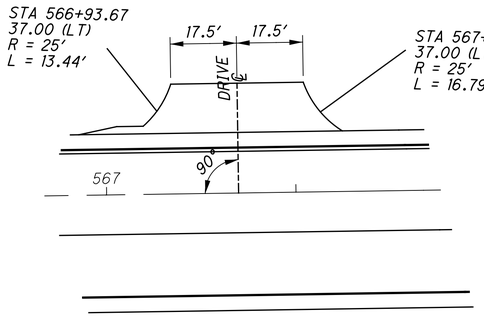
DR117-01, RES. ASPHALT
STA 555+08.42 (RT)
℄ CONST & R/W S.R. 117



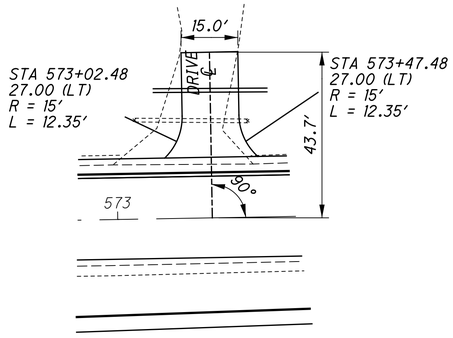
DR117-02, RES. AGG.
STA 560+52.67 (RT)
℄ CONST & R/W S.R. 117

STA 560+20.11
45.19 (RT)
R = 25', 33.56'
L = 35.90', 16.83'

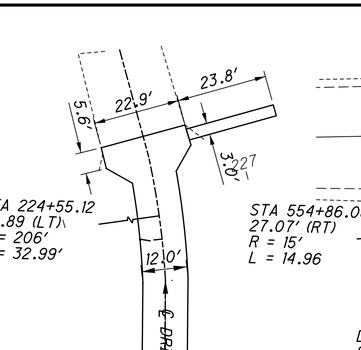
STA 560+85.16
46.14 (RT)
R = 25'
L = 21.12'



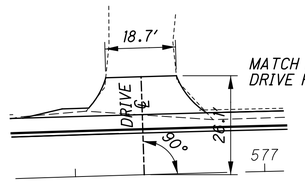
DR117-03, COMM. AGG.
℄ CONST & R/W S.R. 117
STA 567+35.85



DR117-04, RES. AGG.
℄ CONST & R/W S.R. 117
STA 573+24.98

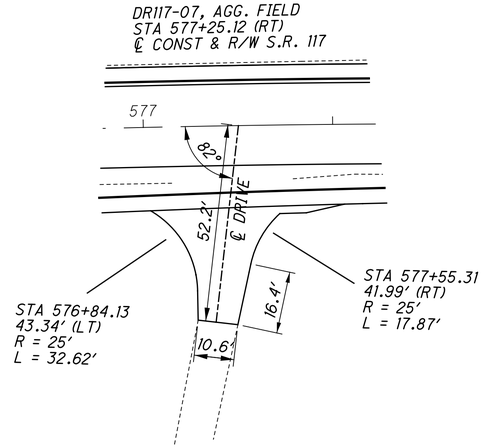


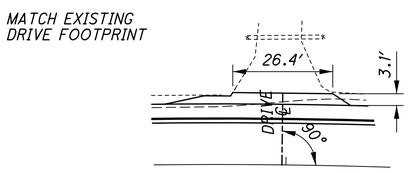
DR117-05, RES. CONC.
℄ CONST & R/W S.R. 117
STA 574+49.94 (LT)



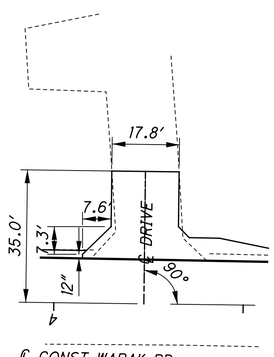
DR117-06, RES. ASPHT.
℄ CONST & R/W S.R. 117
STA 576+68.16 (LT)

DR117-07, AGG. FIELD
STA 577+25.12 (RT)
℄ CONST & R/W S.R. 117

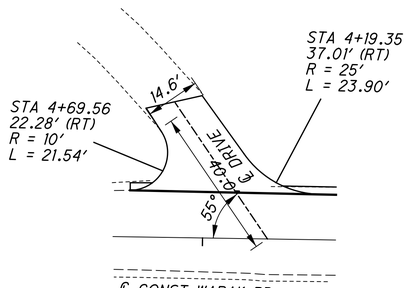




DR117-08, RES. AGG.
℄ CONST & R/W S.R. 117
STA 579+48.94



℄ CONST WAPAK RD
DRWPK-01 RES. CONC.
STA. 3+76.22 RT



℄ CONST WAPAK RD
DRWPK-02 RES. AGG.
STA. 4+32.86 RT

DRIVE TYPE	EXISTING SURFACE	PROPOSED BUILD-UP (INCHES) 304 AGGREGATE BASE	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1 (448), PG64-22	452 NON-REINFORCED CONCRETE PAVEMENT
RESIDENTIAL	STONE (AGG.)	8		
RESIDENTIAL	ASPHALT	6	2	
RESIDENTIAL	CONCRETE			6
COMMERICAL	STONE (AGG.)	10		

NOTE: FOR MAILBOX TURNOUT DETAILS, SEE STD DRWG BP-4.1.

HORIZONTAL SCALE IN FEET
0 10 20 40

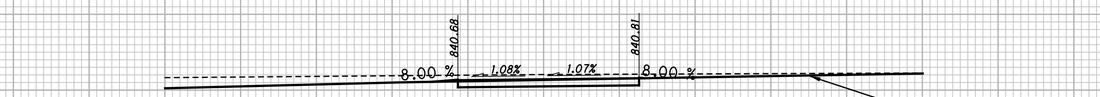
CALCULATED RSW
CHECKED EJS

DRIVE DETAILS
S.R. 117, S.R. 501, & WAPAK RD.

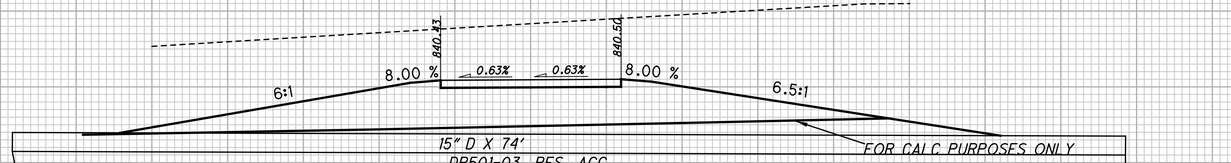
ALL-117 / 501-
10.76 / 4.34

74
95

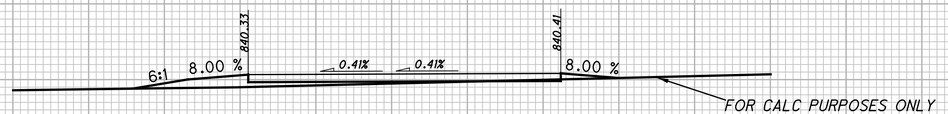
SEEDING	
END WIDTH	SQ. YDS.
27.66	2902
88.41	1622
41.34	1142
50.01	0
	5666



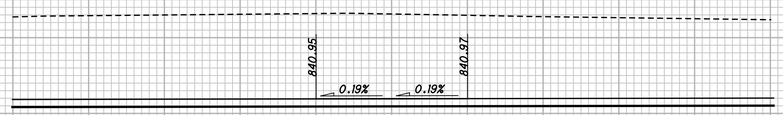
DR501-03, RES. AGG.
840.74
1+00.00
841.02



DR501-03, RES. AGG.
840.47
0+50.00
844.17



DR501-03, RES. AGG.
840.37
0+25.00
846.10



DR501-03, RES. AGG.
840.96
0+00.00
846.56

END AREA	
CUT	FILL
90	7
47	0
2	4
0	0

VOLUME	
CUT	FILL
0	7
97	0
4	1
0	7
101	15

CALCULATED RSW
CHECKED EJS

CROSS SECTIONS DRIVEWAY DR501-03
STA. 0+00.00 TO STA. 1+00.00

ALL-117/501-10.76/4.34

75
95

mmueller
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SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
50.00		0	9		
	859			0	15
	859			0	15

DR501-03, RES. AGG.
839.52
1+50.00
839.52

DR501-03, RES. AGG.
839.54
1+49.29
839.54

DR501-03, RES. AGG.
840.72
1+22.66
840.72

DR501-03, RES. AGG.
840.79
1+22.13
840.79

60 50 40 30 20 10 0 10 20 30 40 50 60

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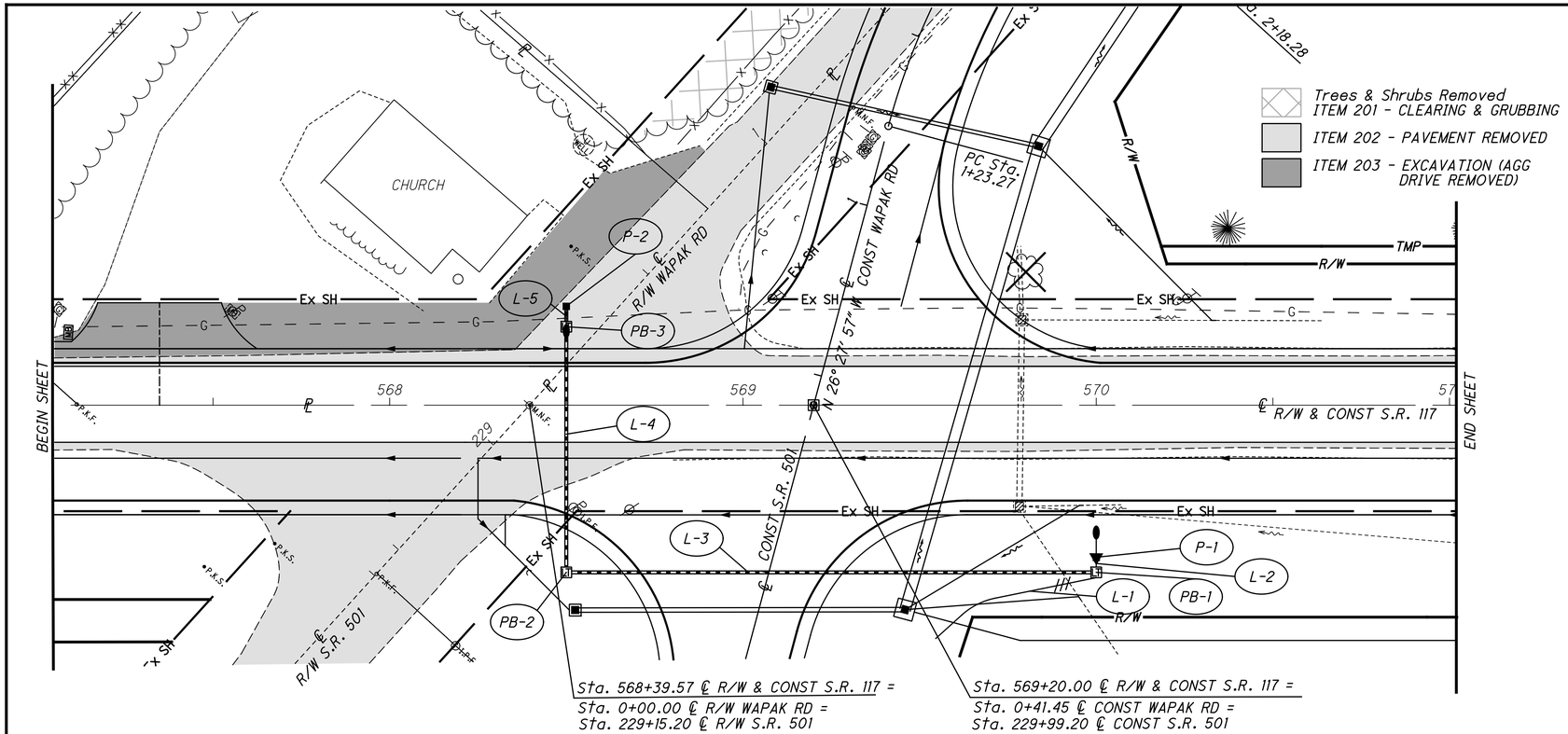
CALCULATED RSW
CHECKED EJS

CROSS SECTIONS DRIVEWAY DR501-03
STA. 1+22.13 TO STA. 1+50.00

ALL-117/501-
10.76/4.34



CONTROL CENTER DATA									
Control Center	Line Volts	Connected Load (KVA)	Service Entrance Conductor Size-AWG	Enclosure Rating (AMPS)	Circuit No.	Circuit Load AMPS	Circuit Fuse Size AMPS	Circuit Cable Size AWG	Maintaining Agency
CC-A	240	0.78	4	60	1	2.2	30	4	ODOT
Note: For Additional Control Center Details, See Standard Construction Drawings									

LEGEND

- LIGHT POLE, CONVENTIONAL, AT15B40
- CONTROL CENTER
- 2" CONDUIT, 725.04
- PULL BOX, 725.08, 18"
- 1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES

REFERENCE NO.	ROADWAY	SIDE	STATION	625														
				CONNECTION, FUSED PULL APART	CONNECTION, UNFUSED, PERMANENT	LIGHT POLE, CONVENTIONAL, AT15B40	LIGHT POLE FOUNDATION, 24" X 10' DEEP	NO. 4 AWG 5000 VOLT DISTRIBUTION CABLE	NO. 10 AWG POLE AND BRACKET CABLE	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 5000 VOLT CABLES	CONDUIT, 2", 725.04	CONDUIT, JACKED OR DRILLED, 725.04, 2"	LUMINAIRE, CONVENTIONAL, AS PER PLAN, Style B, TYPE II, 240V, HPS	TRENCH, 24" DEEP	PULL BOX, 725.08, 18"	GROUND ROD	POWER SERVICE, AS PER PLAN	PLASTIC CAUTION TAPE
				EACH	EACH	EACH	EACH	FT	FT	FT	FT	FT	EACH	FT	EACH	EACH	EACH	FT
L-1	SR 117	RT								50								
L-2	SR 117	RT			3					15				5				5
L-3	SR 117	RT						459			148			148				148
L-4	SR 117	LT&RT						216				67						
L-5	SR 117	LT						63			5			6				6
P-1	SR 117	43.05' RT	570+00	2		1	1		104				1			1	1	
P-2	SR 117	28.00' LT	568+50	2		1	1		104				1			1		
PB-1	SR 117	48.00' RT	570+00												1			
PB-2	SR 117	40.00' RT	568+50												1			
PB-3	SR 117	22.00' LT	568+50												1			
TOTALS CARRIED TO GENERAL SUMMARY				4	3	2	2	738	208	65	153	67	2	159	3	2	1	159

ITEM 625, LUMINAIRE, CONVENTIONAL, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS SHALL BE AS FOLLOWS:

LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS WITH AN IES II-M-SC DISTRIBUTION AND 200 WATT HIGH PRESSURE SODIUM LAMPS SHALL BE AMERICAN ELECTRIC "SERIES 126" WITH PHOTOMETRIC DISTRIBUTION AE38491, COOPER "OVD" WITH PHOTOMETRIC DISTRIBUTION OVD2S2F, GENERAL ELECTRIC "M-400" WITH PHOTOMETRIC DISTRIBUTION 1014, OR EQUAL AS APPROVED BY THE ENGINEER.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH C&MS ITEM 625, "LUMINAIRE, CONVENTIONAL, AS PER PLAN (ADD SUPPLEMENTAL DESCRIPTION)" FOR EACH LUMINAIRE WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625, POWER SERVICE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF THE SPECIFICATIONS, THE FOLLOWING IS ADDED.

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

American Electric Power
369 East O'Conner
Lima, OH 45801
Robert Moenter
419-998-5155

THE ENGINEER SHALL ENSURE THAT EACH POWER SERVICE ELECTRICAL ENERGY ACCOUNT IS IN THE NAME OF AND THAT THE BILLING ADDRESS IS TO THE MAINTAINING AGENCY NOTED IN THE PLANS. THIS SHALL BE DONE NOT ONLY FOR EACH NEW POWER SERVICE ESTABLISHED BY THIS PROJECT BUT ALSO FOR EACH EXISTING POWER SERVICE, SINCE THERE MAY BE A REASSIGNMENT OF THE RESPONSIBILITY FOR AN EXISTING SERVICE AS A RESULT OF THE WORK PERFORMED BY THIS PROJECT.

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH C&MS ITEM 625, "POWER SERVICE, AS PER PLAN" WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

LAMPS

HIGH PRESSURE SODIUM LAMPS SHALL BE GENERAL ELECTRIC "LUCALOX," OSRAM SLYVANIA "LUMALUX," PHILIPS "CERAMALUX," OR EQUAL APPROVED BY THE ENGINEER.

HORIZONTAL SCALE IN FEET
0 10 20 40
CALCULATED RSW CHECKED MJM

LIGHTING - SR 117
STA 657+00 TO STA 571+00

ALL-117/501-
10.76/4.34

LEGEND

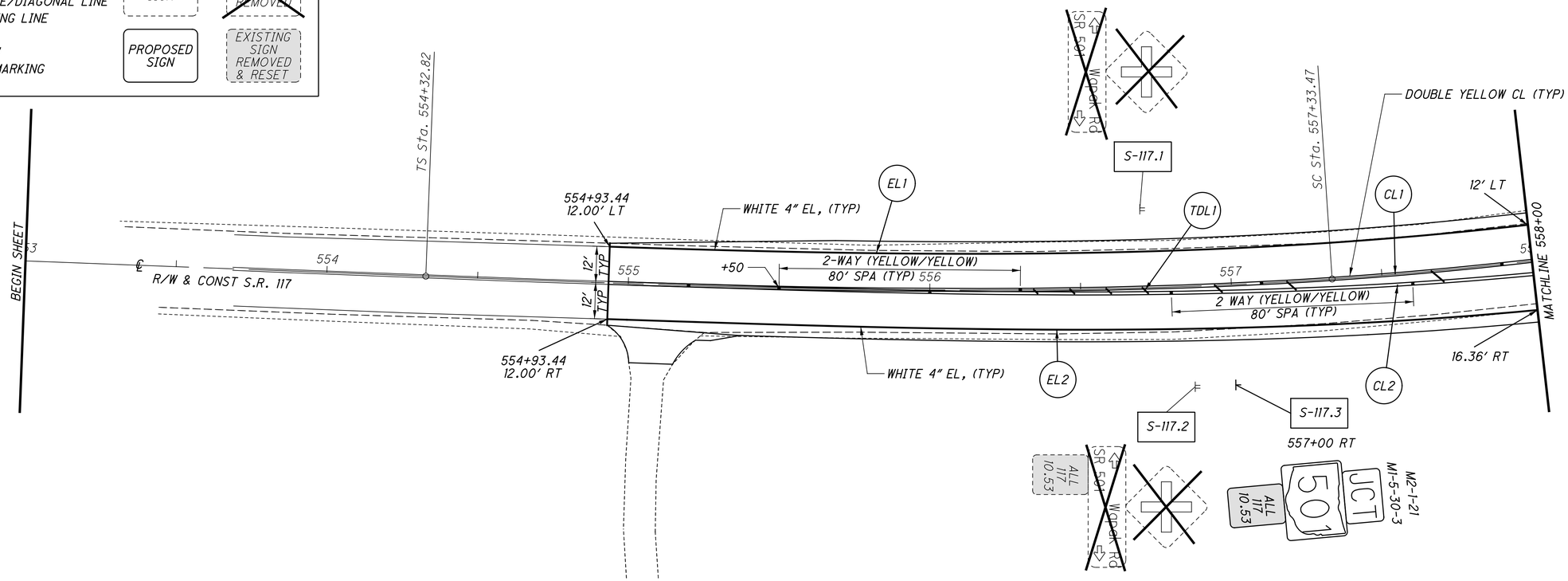
EL - EDGE LINE
CL - CENTER LINE
TDL - TRANSVERSE/DIAGONAL LINE
CHL - CHANNELIZING LINE
SL - STOP LINE
LA - LANE ARROW
CVM - CHEVRON MARKING

EXISTING SIGN

EXISTING SIGN REMOVED

PROPOSED SIGN

EXISTING SIGN REMOVED & RESET



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED RSW
CHECKED EJS

SIGNING AND PAVEMENT MARKING PLAN - S.R. 117
STA. 553+00 TO STA. 563+00

ALL-117/501-10.76/4.34

78
95

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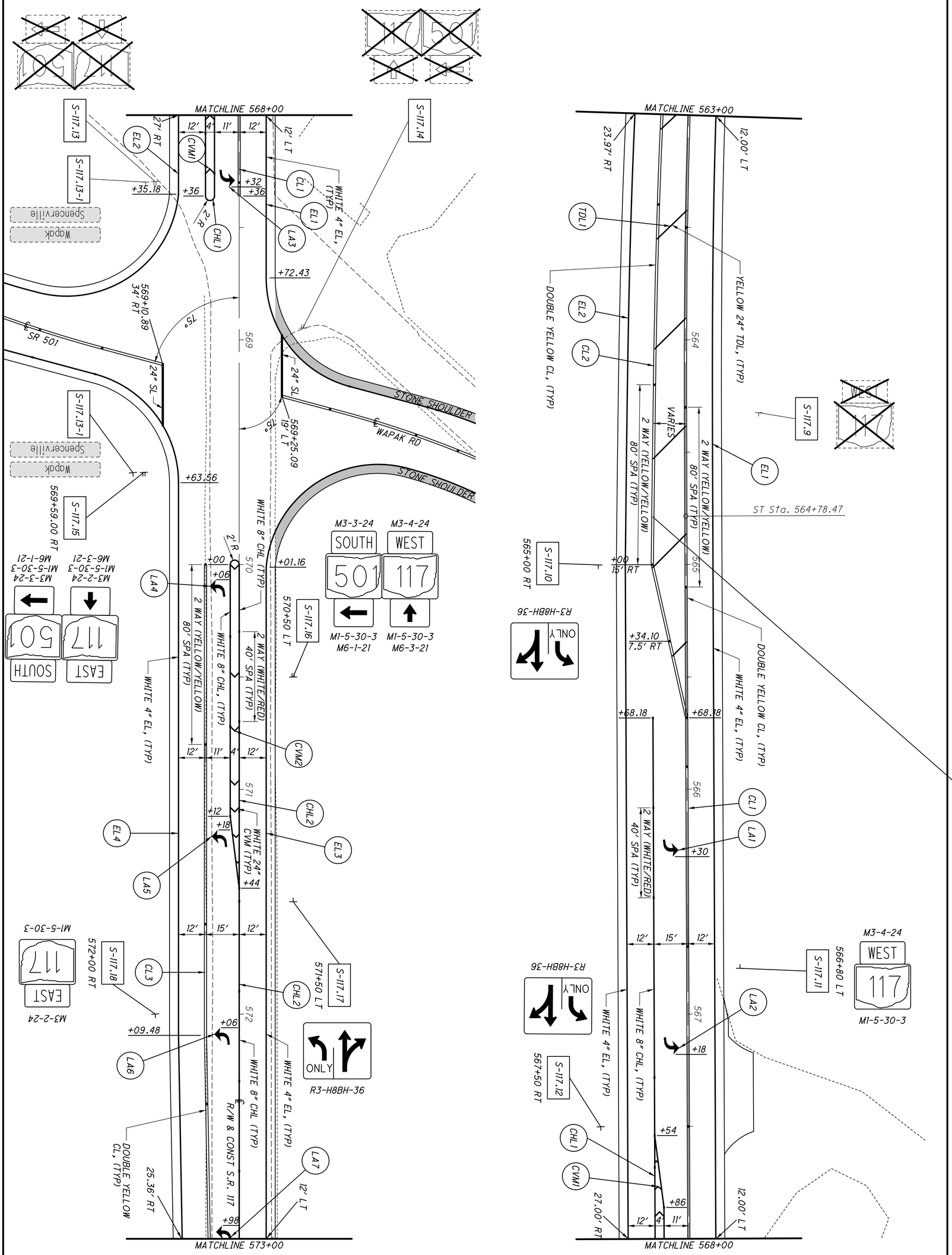
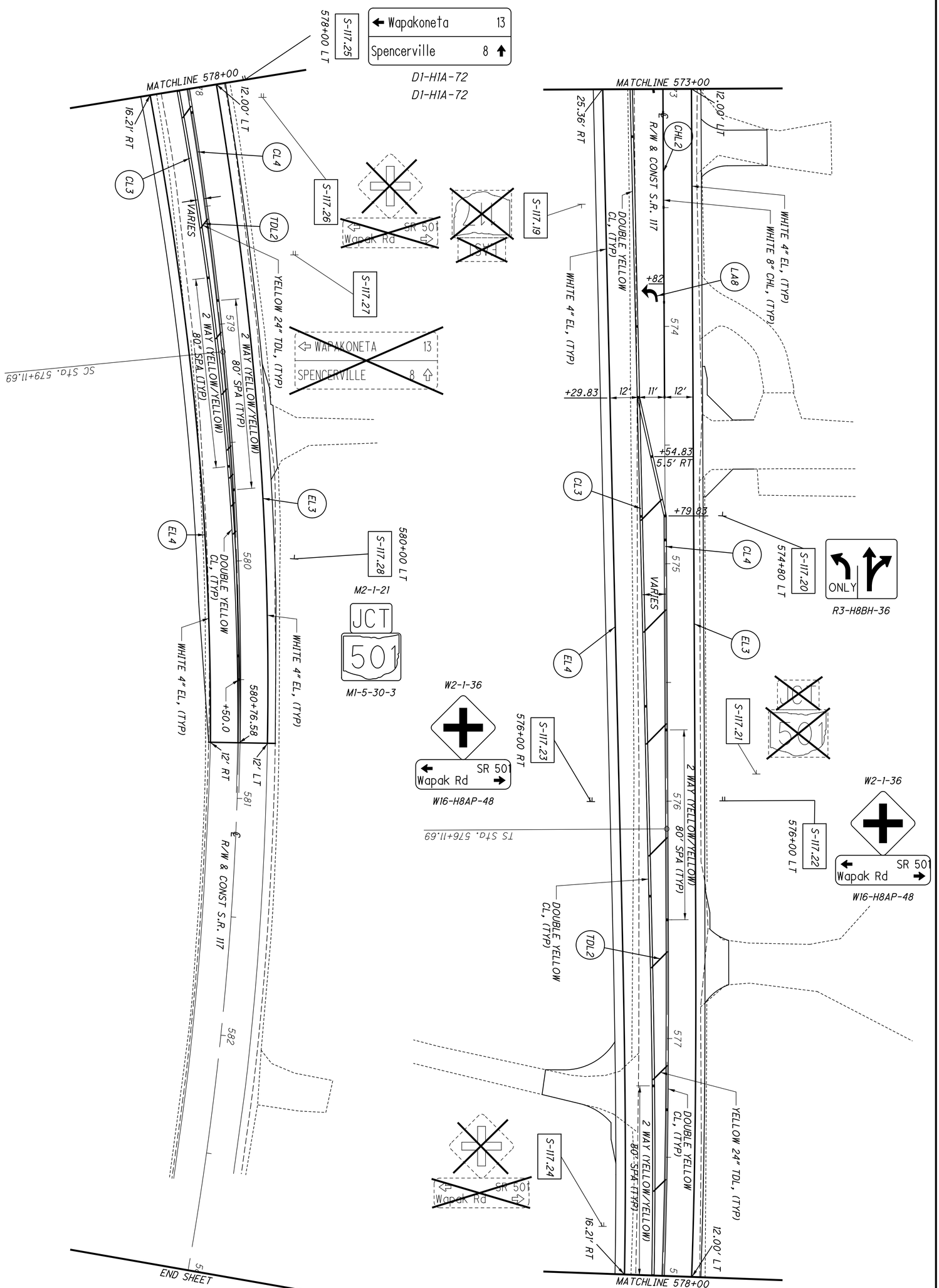


79/95	ALL-117/501-10.76/4.34	SIGNING AND PAVEMENT MARKING PLAN - S.R 117 STA. 563+00 TO STA. 573+00	CALCULATED RSW CHECKED EJS	0 20 10 40 HORIZONTAL SCALE IN FEET



80 95	ALL-117/501-10.76/4.34	SIGNING AND PAVEMENT MARKING PLAN - S.R. 117 STA. 573+00 TO STA. 583+00	CALCULATED RSW CHECKED EJS	0 20 10 40 HORIZONTAL SCALE IN FEET

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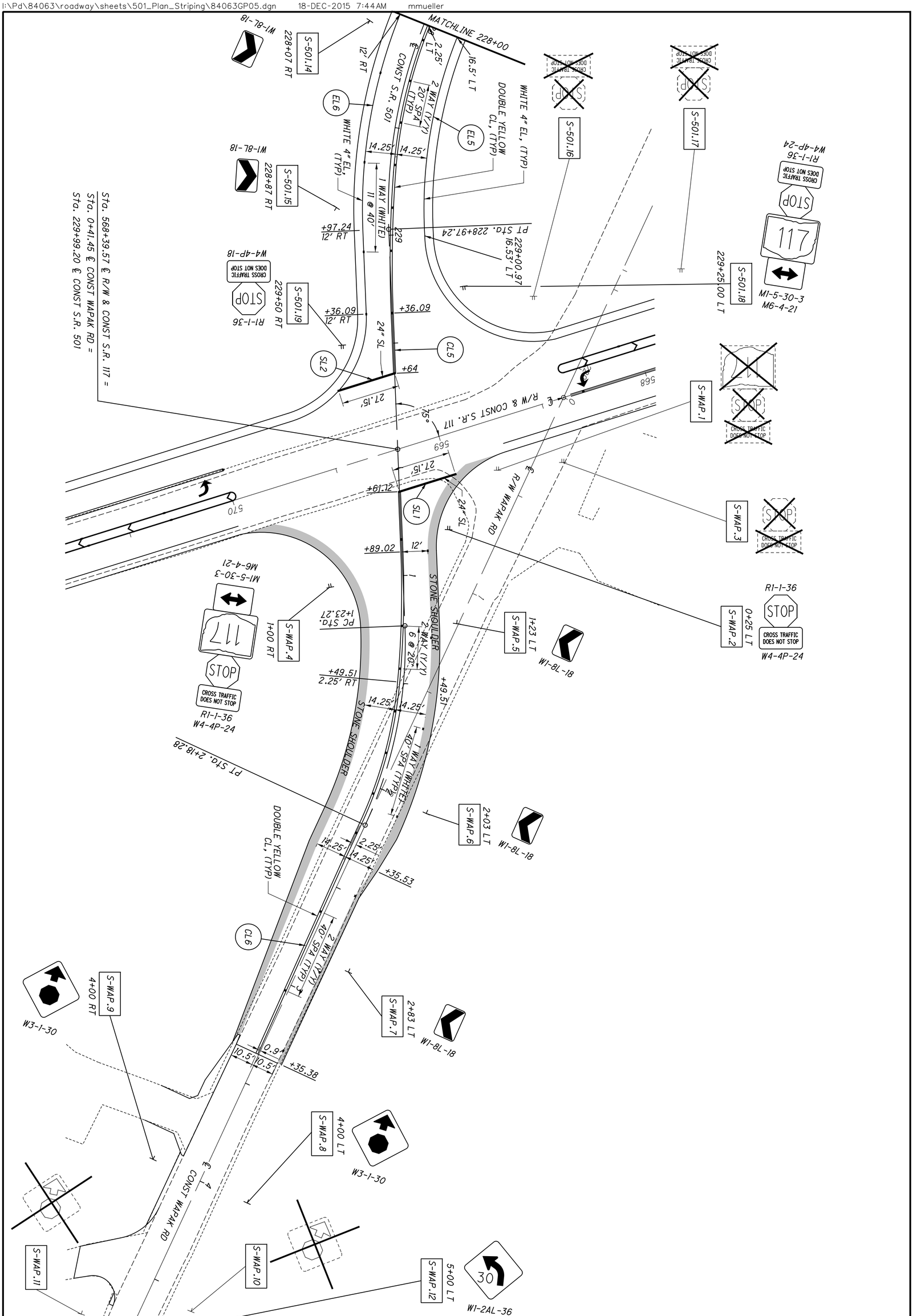
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED RSW
CHECKED EJS

SIGNING AND PAVEMENT MARKING PLAN - SR 501

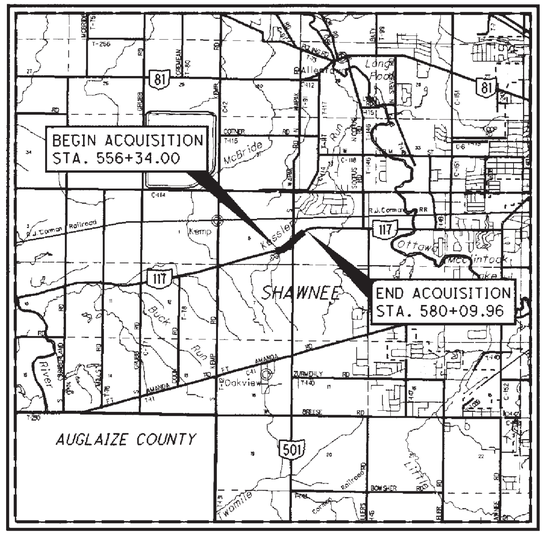
STA. 218+00 TO STA. 228+00

ALL-117/501-10.76/4.34



82 / 95	ALL-117/501-10.76/4.34	SIGNING & PAVEMENT MARKINGS PLANS - SR 501 & WAPAK RD. STA. 228+00 (SR 501) TO STA. 3+61.65 (WAPAK RD.)	CALCULATED RSW / CHECKED EJS	0 20 / 10 40 HORIZONTAL SCALE IN FEET

RIGHT OF WAY
LEGEND SHEET
ALL-117/501-10.76/4.34



LOCATION MAP

LATITUDE: 40°43'11" LONGITUDE: 84°12'15"

SCALE IN MILES

0 1 2 3 4

ALLEN COUNTY
SHAWNEE TOWNSHIP
SEC. 5 & 6
T.4S. - R.6E.

PROJECT DESCRIPTION

RECONSTRUCTION OF THE S.R. 117 AND S.R. 501/WAPAK RD. INTERSECTION AND WIDEN PAVEMENT ALONG S.R. 117 FOR THE INSTALLATION OF LEFT TURN LANES. WITH THE WIDENING WORK, THE PROJECT IS 0.49 MILES LONG. IN ADDITION, S.R. 117 WILL BE RESURFACED WITHIN THE PROJECT LIMITS, AND EXISTING DRAINGE SYSTEMS WILL BE RECONSTRUCTED.

INDEX OF SHEETS:

STRUCTURE KEY

- RESIDENTIAL
- CHURCH
- OUT-BUILDING

TYPES OF TITLE LEGEND:
WL = FEE SIMPLE WITH LIMITATION OF ACCESS
WD = WARRANTY DEED
PRW = PROPERTY RIGHT FEE SIMPLE
SH = STANDARD HIGHWAY EASEMENT
LA = LIMITED ACCESS EASEMENT
T = TEMPORARY EASEMENT
CH = CHANNEL EASEMENT
A = AERIAL EASEMENT
SL = SLOPE EASEMENT
PRE = PROPERTY RIGHT EASEMENT

CONVENTIONAL SYMBOLS

County Line
Township Line
Section Line
Corporation Line or
Fence Line (Ex) (Pr)
Center Line
Right of Way (Ex) Ex R/W
Right of Way (Pr) R/W
Standard Highway Ease.(Ex) Ex SH
Temporary Right of Way TMP
Channel Ease. (Pr) CH
Utility Ease. (Ex) Ex U
Railroad or
Guardrail (Ex) (Pr)
Construction Limits
Edge of Pavement (Ex)
Edge of Pavement (Pr)
Edge of Shoulder (Ex)
Edge of Shoulder (Pr)
Ditch / Creek (Ex)
Ditch / Creek (Pr)
Tree Line (Ex)
Ownership Hook Symbol , Example
Property Line Symbol , Example
Break Line Symbol , Example
Tree (Pr) , Tree (Ex) , Shrub (Ex)
Tree (Remove) , Shrub (Remove)
Evergreen (Ex) , Stump
Evergreen (Remove) , Stump (Remove)
Wetland (Pr) , Grass (Pr) , Aerial Target
Post (Ex) , Mailbox (Ex) , Mailbox (Pr)
Light (Ex) , Telephone Marker (Ex) TEL
Fire Hydrant (Ex) , Water Meter (Ex)
Water Valve (Ex) , Utility Valve Unknown (Ex.)
Telephone Pole (Ex) , Power Pole (Ex)
Light Pole (Ex)

UTILITY OWNERSHIP

TYPE	NAME & ADDRESS
ELECTRIC	AMERICAN ELECTRIC POWER 369 EAST O'CONNER LIMA, OH 45801 ROBERT MOENTER 419-998-5155
TELEPHONE	CENTURYLINK 122 SOUTH ELIZABETH LIMA, OH 45801 BILL PERRIN 419-226-6220
CABLE	TIME WARNER 3100 ELIDA RD. LIMA, OH 45805 MARK RICHHART 419-996-2249
GAS	DOMINION EAST OHIO GAS 320 SPRINGSIDE DR. SUITE 320 AKRON, OH 44333 BRIAN DAYTON 330-664-2409

NOTE: THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE OBTAINED FROM THE OWNER OF THE UTILITIES AS REQUIRED BY SECTION 153.64 O.R.C.

PLANS PREPARED BY:

FIRM NAME : OHIO DEPARTMENT OF TRANSPORTATION - DISTRICT ONE
R/W DESIGNER: Nick Vonderembse
R/W REVIEWER: Evan Anders
FIELD REVIEWER: Shell Miller, Scott Recker & Darrin Ike
PRELIMINARY FIELD REVIEW DATE: 1-30-15
OWNERSHIP UPDATED BY: Scott Recker
DATE COMPLETED: 3-2-15
PLAN COMPLETION DATE: 3-3-15

STATE OF OHIO
EVAN ANDERS
S-7635
REGISTERED PROFESSIONAL SURVEYOR

I HEREBY CERTIFY THAT THIS PLAT IS A TRUE DELINEATION OF A SURVEY MADE FOR THE OHIO DEPARTMENT OF TRANSPORTATION IN LIMA, OHIO BY THE ODOT DISTRICT 1 SURVEY DEPARTMENT.

THE ESTABLISHMENT OF THE PROPERTY LINES AND EXISTING RIGHT OF WAY LINES SHOWN ON THIS PLAN AS OF THIS DATE WERE PERFORMED BY ME OR UNDER ~~MY DIRECT~~ SUPERVISION.

BY Evan Anders
EVAN ANDERS
SURVEYOR NO. 7635 DATE 3/3/15

FEDERAL PROJECT NO. E(131)322
PID NO. 84063
R/W DESIGNER NJV
R/W REVIEWER EAA
RIGHT OF WAY LEGEND SHEET
ALL-117/501-10.76/4.34
1 / 13
83 95

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Previously Recorded in OR 2015, Pg. 1300

ALLEN COUNTY
SHAWNEE TOWNSHIP
SEC. 5 & 6 T-4-S R-6-E

PROJECT CONTROL

STATE PLANE COORDINATE SYSTEM - OHIO NORTH ZONE NAD83, 1996 ADJUSTMENT

BASIS OF EXISTING ℄ AND R/W

THE CENTERLINE OF R/W AND EXISTING RIGHT OF WAY ARE BASED ON ALL-117-10.52 R/W PLANS, ALL-117-8.66 R/W PLANS AND ALL-ICH-132 SEC. E3 PLANS.

BASIS OF BEARING

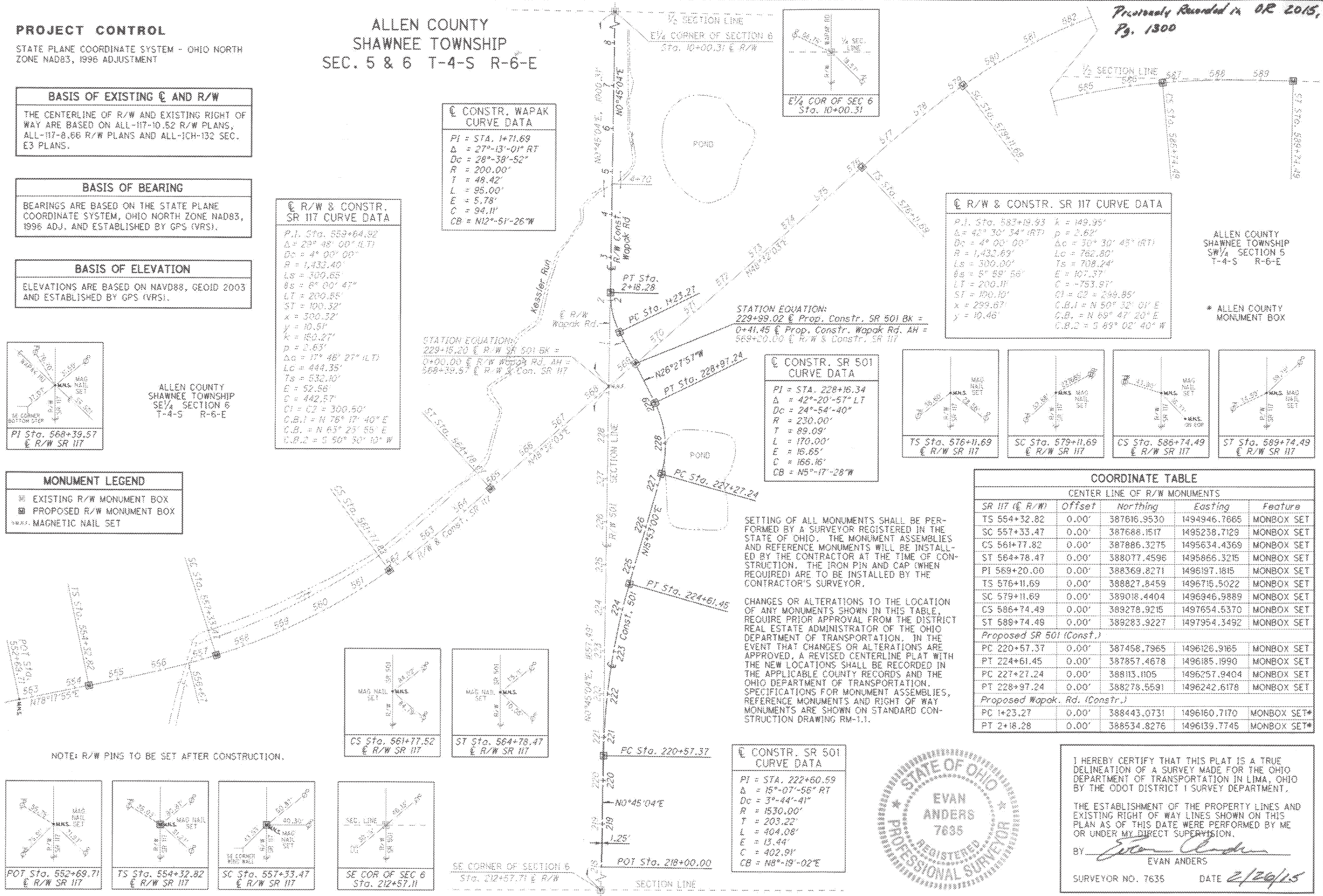
BEARINGS ARE BASED ON THE STATE PLANE COORDINATE SYSTEM, OHIO NORTH ZONE NAD83, 1996 ADJ. AND ESTABLISHED BY GPS (VRS).

BASIS OF ELEVATION

ELEVATIONS ARE BASED ON NAVD88, GEOID 2003 AND ESTABLISHED BY GPS (VRS).

MONUMENT LEGEND

- EXISTING R/W MONUMENT BOX
- PROPOSED R/W MONUMENT BOX
- MAGNETIC NAIL SET



NOTE: R/W PINS TO BE SET AFTER CONSTRUCTION.

℄ CONSTR. WAPAK CURVE DATA

PI = STA. 1+71.69
Δ = 27°-13'-01" RT
Dc = 28°-38'-52"
R = 200.00'
T = 48.42'
L = 95.00'
E = 5.78'
C = 94.11'
CB = N12°-51'-26"W

℄ R/W & CONSTR. SR 117 CURVE DATA

P.I. Sta. 559+64.92
Δ = 29° 48' 00" (LT)
Dc = 4° 00' 00"
R = 1,432.40'
Ls = 300.65'
θs = 6° 00' 47"
LT = 200.85'
ST = 100.32'
x = 300.32'
y = 10.51'
k = 150.27'
p = 2.63'
Δc = 17° 46' 27" (LT)
Lc = 444.35'
Ts = 532.10'
E = 52.56'
C = 442.57'
C1 = C2 = 300.50'
C.B.1 = N 76° 17' 40" E
C.B. = N 63° 25' 55" E
C.B.2 = S 50° 30' 10" W

℄ CONSTR. SR 501 CURVE DATA

PI = STA. 228+16.34
Δ = 42°-20'-57" LT
Dc = 24°-54'-40"
R = 230.00'
T = 89.09'
L = 170.00'
E = 16.65'
C = 166.16'
CB = N5°-17'-28"W

℄ R/W & CONSTR. SR 117 CURVE DATA

P.I. Sta. 583+19.93	k = 149.95'
Δ = 42° 30' 34" (RT)	p = 2.62'
Dc = 4° 00' 00"	Δc = 30° 30' 45" (RT)
R = 1,432.69'	Lc = 762.80'
Ls = 300.00'	Ts = 708.24'
θs = 5° 59' 56"	E = 107.37'
LT = 200.11'	C = -753.97'
ST = 100.10'	C1 = C2 = 299.85'
x = 299.67'	C.B.1 = N 50° 32' 01" E
y = 10.46'	C.B. = N 69° 47' 20" E
	C.B.2 = S 89° 02' 40" W

℄ CONSTR. SR 501 CURVE DATA

PI = STA. 222+60.59
Δ = 15°-07'-56" RT
Dc = 3°-44'-41"
R = 1530.00'
T = 203.22'
L = 404.08'
E = 13.44'
C = 402.91'
CB = N8°-19'-02"E

SETTING OF ALL MONUMENTS SHALL BE PERFORMED BY A SURVEYOR REGISTERED IN THE STATE OF OHIO. THE MONUMENT ASSEMBLIES AND REFERENCE MONUMENTS WILL BE INSTALLED BY THE CONTRACTOR AT THE TIME OF CONSTRUCTION. THE IRON PIN AND CAP (WHEN REQUIRED) ARE TO BE INSTALLED BY THE CONTRACTOR'S SURVEYOR.

CHANGES OR ALTERATIONS TO THE LOCATION OF ANY MONUMENTS SHOWN IN THIS TABLE, REQUIRE PRIOR APPROVAL FROM THE DISTRICT REAL ESTATE ADMINISTRATOR OF THE OHIO DEPARTMENT OF TRANSPORTATION. IN THE EVENT THAT CHANGES OR ALTERATIONS ARE APPROVED, A REVISED CENTERLINE PLAT WITH THE NEW LOCATIONS SHALL BE RECORDED IN THE APPLICABLE COUNTY RECORDS AND THE OHIO DEPARTMENT OF TRANSPORTATION. SPECIFICATIONS FOR MONUMENT ASSEMBLIES, REFERENCE MONUMENTS AND RIGHT OF WAY MONUMENTS ARE SHOWN ON STANDARD CONSTRUCTION DRAWING RM-1.1.

COORDINATE TABLE

CENTER LINE OF R/W MONUMENTS				
SR 117 (℄ R/W)	Offset	Northing	Easting	Feature
TS 554+32.82	0.00'	387616.9530	1494946.7665	MONBOX SET
SC 557+33.47	0.00'	387688.1517	1495238.7129	MONBOX SET
CS 561+77.82	0.00'	387886.3275	1495634.4369	MONBOX SET
ST 564+78.47	0.00'	388077.4596	1495866.3215	MONBOX SET
PI 569+20.00	0.00'	388369.8271	1496197.1815	MONBOX SET
TS 576+11.69	0.00'	388827.8459	1496715.5022	MONBOX SET
SC 579+11.69	0.00'	389018.4404	1496946.9889	MONBOX SET
CS 586+74.49	0.00'	389278.9215	1497654.5370	MONBOX SET
ST 589+74.49	0.00'	389283.9227	1497954.3492	MONBOX SET
Proposed SR 501 (Const.)				
PC 220+57.37	0.00'	387458.7965	1496126.9165	MONBOX SET
PT 224+61.45	0.00'	387857.4678	1496185.1990	MONBOX SET
PC 227+27.24	0.00'	388113.1105	1496257.9404	MONBOX SET
PT 228+97.24	0.00'	388278.5591	1496242.6178	MONBOX SET
Proposed Wapok. Rd. (Constr.)				
PC 1+23.27	0.00'	388443.0731	1496160.7170	MONBOX SET*
PT 2+18.28	0.00'	388534.8276	1496139.7745	MONBOX SET*

STATE OF OHIO ★ EVAN ANDERS 7635 ★ REGISTERED PROFESSIONAL SURVEYOR

I HEREBY CERTIFY THAT THIS PLAT IS A TRUE DELINEATION OF A SURVEY MADE FOR THE OHIO DEPARTMENT OF TRANSPORTATION IN LIMA, OHIO BY THE ODOT DISTRICT 1 SURVEY DEPARTMENT.

THE ESTABLISHMENT OF THE PROPERTY LINES AND EXISTING RIGHT OF WAY LINES SHOWN ON THIS PLAN AS OF THIS DATE WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION.

BY *[signature]*
EVAN ANDERS

SURVEYOR NO. 7635 DATE *2/26/15*

HORIZONTAL SCALE IN FEET

PID NO. 84063

NJV EAA

CENTERLINE PLAT

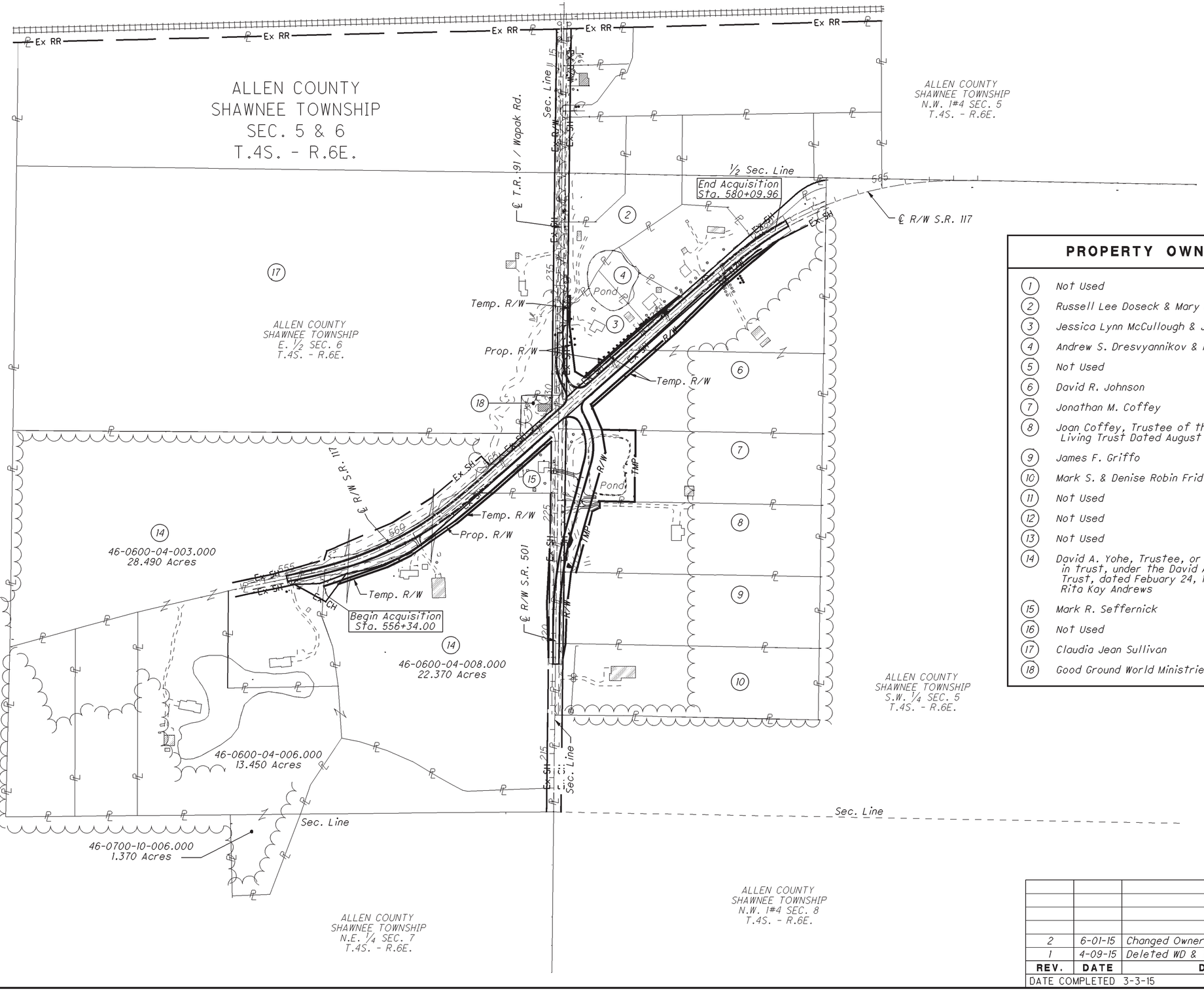
ALL-117/501-10.76/4.34

2 / 13

84 / 95

Instr: 201503050001889 03/05/2015
P:1 of 1 F: $44.00 9:08:16AM T20150003403
Mona S Losh V:2015 P:01889
Allen County

26-FEB-2015 8:37AM



PROPERTY OWNERS LIST

1. Not Used
2. Russell Lee Doseck & Mary Jane Doseck
3. Jessica Lynn McCullough & John Arthur McCullough IV
4. Andrew S. Dresvyannikov & Natalia Dresvyannikov
5. Not Used
6. David R. Johnson
7. Jonathan M. Coffey
8. Joan Coffey, Trustee of the Joan Coffey Living Trust Dated August 28, 1997
9. James F. Griffo
10. Mark S. & Denise Robin Fridley
11. Not Used
12. Not Used
13. Not Used
14. David A. Yohe, Trustee, or his successors in trust, under the David A. Yohe Living Trust, dated Febuary 24, 1999 & Rita Kay Andrews
15. Mark R. Seffernick
16. Not Used
17. Claudia Jean Sullivan
18. Good Ground World Ministries, Inc.

REV.	DATE	DESCRIPTION
2	6-01-15	Changed Owner Name for Parcel 4
1	4-09-15	Deleted WD & Temporary in Parcel 18

DATE COMPLETED 3-3-15

HORIZONTAL SCALE IN FEET
0 100 200 400

PID NO. 84063

R/W DESIGNER DJS
R/W REVIEWER EAA

PROPERTY MAP

ALL-117/501-10.76/4.34

3 / 13

85 / 95

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TOTAL NUMBER OF:
11 OWNERSHIPS 0 TOTAL TAKES
21 PARCELS 0 OWNERSHIP W/STRUCTURES INVOLVED

NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

ALL AREAS IN ACRES

PARCEL NO.	OWNER	SHEET NO.	OWNER'S REC. BOOK	OWNER'S REC. PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS	AS ACQUIRED BOOK	AS ACQUIRED PAGE
1	*Not Used*																
2-SHV	*Russell Lee Doseck and Mary Jane Doseck*	13	*710*	*576*	*46-0503-01-003.001*	*4.140*	*0.248*	*0.048*	*0.037*	*0.011*			*3.881*	*State*	*Purchased in the name of Board of Allen County Commissioners, Allen County, Ohio*		
3-WD	*Jessica Lynn McCullough and*	8-9,13	*2007*	*12175*	*46-0503-01-003.004*	*2.690*	*0.611*	*0.626*	*0.431*	*0.195*				*State*			
3-SHV	*John Arthur McCullough IV*							*0.285*	*0.180*	*0.105*					*Purchased in the name of Board of Allen County Commissioners, Allen County, Ohio*		
					TOTAL	*2.690*	*0.611*	*0.911*	*0.611*	*0.300*		*1.779*					
3-T1								*0.039*		*0.039*					*For Grading*		
3-T2								*0.010*		*0.010*					*For Grading*		
4-WD	*Andrew S. Dresvyannikov and*	9	*2006*	*14221*	*46-0503-01-003.003*	*1.090*	*0.128*	*0.149*	*0.128*	*0.021*		*0.941*		*State*			
	Natalia Dresvyannikov	9															
4-T								*0.021*		*0.021*					*For Drive and Grading*		
5	*Not Used*																
6-WD	*David R. Johnson*	8-10	*2008*	*7691*	*46-0503-01-005.000*	*14.250*	*1.485*	*1.722*	*0.918*	*0.804*			*11.961*	*State*			
6-T								*0.270*		*0.270*					*For Equipment Access*		
7-WD	*Jonathon M. Coffey*	12	*945*	*362*	*46-0503-01-005.003*	*7.500*	*0.205*	*1.188*	*0.205*	*0.983*			*6.312*	*State*			
7-T								*0.998*		*0.998*					*For Pond Removal and Grading*		
8-WD	*Joan Coffey, Trustee of the Joan Coffey Living Trust dated August 28, 1997*	11-12	*945*	*358*	*46-0503-01-005.004*	*7.500*	*0.205*	*0.684*	*0.205*	*0.479*			*6.816*	*State*			
8-T								*0.140*		*0.140*					*For Drive and Grading*		
9-WD	*James F. Griffo*	11	*951*	*082*	*46-0503-01-005.005*	*7.500*	*0.205*	*0.320*	*0.205*	*0.115*			*7.180*	*State*			
10-WD	*Mark S. and Denise Robin Fridley*	11	*2012*	*1529*	*46-0503-01-005.006*	*7.500*	*0.205*	*0.047*	*0.040*	*0.007*			*7.288*	*State*			

LEGEND
WD = WARRANTY DEED
SH = STANDARD HIGHWAY EASEMENT
T = TEMPORARY EASEMENT
SL = SLOPE EASEMENT
S = SEWER EASEMENT
CH = CHANNEL EASEMENT

NOTE: RECORD AREAS SHOWN ARE FROM COUNTY AUDITOR'S RECORDS.

NOTE: ALL TEMPORARY PARCELS TO BE OF 12 MONTH DURATION.

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

GRANTEE:
ALL RIGHT OF WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

REV.	DATE	DESCRIPTION
2	6-01-15	Changed Owner Name for Parcel 4
1	4-09-15	Changed Ownership & Parcel Totals

FIELD REVIEW BY: *Miller, Recker & Ike* DATE: *1-30-15*
OWNERSHIP VERIFIED BY: *Scott Recker* DATE: *3-2-15*
DATE COMPLETED: *3-3-15*

FEDERAL PROJECT NO. E131(322)
PID NO. 84063
STATE JOB NO. 416682
R/W DESIGNER NJV
R/W REVIEWER EAA

SUMMARY OF ADDITIONAL RIGHT OF WAY

ALL-117/501-10.76/4.34

NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

* DENOTES RIGHT OF WAY ENCROACHMENT

ALL AREAS IN ACRES

PARCEL NO.	OWNER	SHEET NO.	OWNER'S REC. BOOK	OWNER'S REC. PAGE	AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC -TURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	TYPE FUND	REMARKS	AS ACQUIRED BOOK	AS ACQUIRED PAGE
11-13	*Not Used*																
14-WD1	*David A. Yohe, Trustee, or his successors*	6-7,11-12	*951*	*452*	*46-0600-04-008.000*	*22.370*	*1.518*	*0.720*	*0.514*	*0.206*			*20.594*	*State*	*0.035 Ac. of Channel Easement Converted to WD*		
14-WD2	*in trust, under the David A. Yohe Living*							*0.362*	*0.310*	*0.052*							
	Trust, dated February 24, 1999 and				*46-0600-04-003.000*	*28.490*	*1.638*	*0*	*0*	*0*		*26.852*					
	Rita Kay Andrews				*46-0600-04-006.000*	*13.450*	*0.258*	*0*	*0*	*0*			*13.192*				
					46-0700-01-006.000	*1.370*	*0*	*0*	*0*	*0*			*1.370*				
					TOTAL	*65.680*	*3.414*	*1.082*	*0.824*	*0.258*		*26.852*	*35.156*				
14-T								*0.202*		*0.202*					*For Equipment Access*		
15-WD	*Mark R. Seffernick*	7-8	*2015*	*01376*	*46-0600-04-009.000*	*1.410*	*0.516*	*0.572*	*0.357*	*0.215*	*Y*		*0.679*	*State*	*38' Fence Removed in WD; 19' Fence Removed in Temp.*		
															Leach Field - to be Impacted by Take		
15-T								*0.094*		*0.094*					*For Equipment Access*		
16	*Not Used*																
17-WD	*Claudia Jean Sullivan*	8,13	*862*	*497*	*46-0600-04-002.000*	*89.000*	*1.050*	*0.069*	*0.069*	*0*		*87.950*		*State*	*0.142 Ac. of P.R.O. Converted to WD; * Wire Fence*		
18	*Good Ground World Ministries, Inc.*	8	*2010*	*13829*	*46-0600-04-001.000*	*0.506*	*0.142*								*No Take*		

LEGEND

WD = WARRANTY DEED
SH = STANDARD HIGHWAY EASEMENT
T = TEMPORARY EASEMENT
SL = SLOPE EASEMENT
S = SEWER EASEMENT
CH = CHANNEL EASEMENT

NOTE: RECORD AREAS SHOWN ARE FROM COUNTY AUDITOR'S RECORDS.

NOTE: ALL TEMPORARY PARCELS TO BE OF 12 MONTH DURATION.

NOTE: UNDER NO CIRCUMSTANCES ARE TEMPORARY EASEMENTS TO BE USED FOR STORAGE OF MATERIAL OR EQUIPMENT BY THE CONTRACTOR UNLESS NOTED OTHERWISE.

GRANTEE:

ALL RIGHT OF WAY ACQUIRED IN THE NAME OF STATE OF OHIO UNLESS OTHERWISE SHOWN.

REV.	DATE	DESCRIPTION
2	4-28-15	Changed Owners Book & Page in Parcel 14
1	4-09-15	Added Y to Structure Column in Parcel 15
		Deleted WD & Temp Takes from Parcel 18

FIELD REVIEW BY: *Miller, Recker & Ike* DATE: *1-30-15*
OWNERSHIP VERIFIED BY: *Scott Recker* DATE: *3-2-15*
DATE COMPLETED: *3-3-15*

FEDERAL PROJECT NO. E131(322)
PID NO. 84063
STATE JOB NO. 416682
R/W DESIGNER NJV
R/W REVIEWER EAA

SUMMARY OF ADDITIONAL RIGHT OF WAY

ALL-117/501-10.76/4.34

5 / 13

87 / 95

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ALLEN COUNTY
SHAWNEE TOWNSHIP
SEC. 5 & 6 T-4-S R-6-E

SR 117 CURVE DATA
P.I. Sta. 559+64.92
Δ = 29° 48′ 00″ (LT)
Dc = 4° 00′ 00″
R = 1,432.40′
Ls = 300.65′
θs = 6° 00′ 47″
LT = 200.55′
ST = 100.32′
x = 300.32′
y = 10.51′
k = 150.27′
p = 2.63′
Δc = 17° 46′ 27″ (LT)
Lc = 444.35′
Ts = 532.10′
E = 52.56′
C = 442.57′
Cl = C2 = 300.50′
C.B.1 = N 76° 17′ 40″ E
C.B. = N 63° 23′ 55″ E
C.B.2 = S 50° 30′ 10″ W

BEGIN PROJECT
STA. 554+93.44
S.L.M. 10.53

E 131 (322)

BEGIN WORK
STA. 554+93.44

BEGIN ACQUISITION
STA. 556+34.00

BEGIN SHEET STA. 553+85

TS Sta. 554+32.82

SC Sta. 557+33.47

STA. 559+60

MATCH LINE

AGRICULTURAL

(14)

46-0600-04-003.000
28.490 Acres

Kessler Run

6.5'X10' CMP

Constr. & R/W SR 117

+53.64,4.19'Rt

N78°17'32"E, 151.42'

+59.9 16' Rest. Dr. Asphalt

N3°31'02"E 64.01'

+03.13
19.72'Rt

HISTORICAL SIGN
(To be Re-erected)

(C1)

(14 WD1)

+34.00
65.00'Rt

S70°51'09"W, 77.02'

N36°00'49"E, 21.15'

+08.30
60.12'Rt

+92.19
73.00'Rt

S70°51'09"W, 276.96'

N70°51'09"E, 199.94'

(14T)

S70°49'03"W, 218.39'

+00.00
65.00'Rt

+00.00
77.00'Rt

S63°37'28"W
104.52'

S63°37'28"W
105.35'

(201) BUSH

47.6'

LAWN

RES.

SHED

Ex SH

Ex CH

TMP

R/W

(14)

David A. Yohe, Trustee
and Rita Kay Andrews

AGRICULTURAL

46-0600-04-008.000
22.370 Acres

NOTE: R/W PINS TO BE SET AFTER CONSTRUCTION.

REV.	DATE	DESCRIPTION
2	4-09-15	Changed Hist. Sign to be Reerected Par 14
1	3-19-15	Added Bearing & Distance Parcel 14-WD1

DATE COMPLETED: 3-3-15

CURVE TABLE

Curve	Delta	Radius	Tangent	Length	Chord	Bearing
C1	29°47'21"	600.40′	159.69′	312.16′	308.66′	N63°24'15"E

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 84063

R/W DESIGNER NJV
R/W REVIEWER EAA

RIGHT OF WAY PLAN - SR 117
STA. 553+85 TO STA. 559+60

ALL-117/501-
10.76/4.34

6 / 13

88
95

ALLEN COUNTY
SHAWNEE TOWNSHIP
SEC. 5 & 6 T-4-S R-6-E

NOTE: R/W PINS TO BE SET AFTER CONSTRUCTION.

SR 117 CURVE DATA
P.I. Sta. 559+64.92
Δ = 29° 48′ 00″ (LT)
Dc = 4° 00′ 00″
R = 1,432.40′
Ls = 300.65′
θs = 6° 00′ 47″
LT = 200.55′
ST = 100.32′
x = 300.32′
y = 10.51′
k = 150.27′
p = 2.63′
Δc = 17° 46′ 27″ (LT)
Lc = 444.35′
Ts = 532.10′
E = 52.56′
C = 442.57′
Cl = C2 = 300.50′
C.B.1 = N 76° 17′ 40″ E
C.B. = N 63° 23′ 55″ E
C.B.2 = S 50° 30′ 10″ W

46-0600-04-003.000
28.490 Acres

14

AGRICULTURAL

WOODS

MATCH LINE STA. 559+60

Ex SH

Kessler Run

CS Sta. 561+77.82

560 561 562 563 564 565

℄ Constr. & R/W SR 117

24"B

ST Sta. 564+78.47

STA. 565+40

MATCH LINE

30'

N48°29'38"E, 231.63'

T.P.O.B. 14-WD1
+37.71, 1.09'Rt

N48°29'38"E, 140.78'

LI 14-WD1

+78.47
℄ R/W

N48°32'03"E, 361.10'

S89°51'56"W, 83.13'

+08.17
19.75'Rt

14 WD1

C1

Res. Dr.
17.1' Stone

+00.00
65.00'Rt

+00.00
77.00'Rt

52.7'

21' (DND)

S54°41'53"W, 234.26'

S54°43'03"W, 236.11'

R/W

TMP

14T

+25.00
55.00'Rt

+25.00
67.00'Rt

S50°32'50"W, 179.16'

S50°31'49"W, 194.19'

WIRE FENCE (202)

+00.47
55.14'Rt

+14.54
67.50' Rt

S89°51'56"W, 18.83'

15T

S48°32'03"W, 349.04'

S48°27'25"W, 324.02'

(DND)

15 WD

30'

69.7'

LAWN

GARAGE

AGRICULTURAL

14

David A. Yohe, Trustee and Rita Kay Andrews

46-0600-04-008.000
22.370 Acres

LAWN

15

Mark R. Seffernick

46-0600-04-009.000
1.410 Acres

CURVE TABLE						
Curve	*Delta*	*Radius*	*Tangent*	*Length*	*Chord*	*Bearing*
C1	29°47′21″	600.40′	159.69′	312.16′	308.66′	N63°24′15″E

LEAD-IN COURSE	
From Existing Monument Box Found @ SE COR OF SECTION 6	
LI 14-WD1	N0°45′04″E, 1657.49′ TO
	S48°32′03″W, 361.10′ TO
	S48°29′38″W, 140.78′ TO T.P.O.B.

REV.	DATE	DESCRIPTION

DATE COMPLETED: *3-3-15*

HORIZONTAL SCALE IN FEET
0 10 20 40

PID NO. 84063

R/W DESIGNER NJV
R/W REVIEWER EAA

RIGHT OF WAY PLAN - SR 117
STA. 559+60 TO STA. 565+40

ALL-117/501-10.76/4.34

7 / 13

89 / 95

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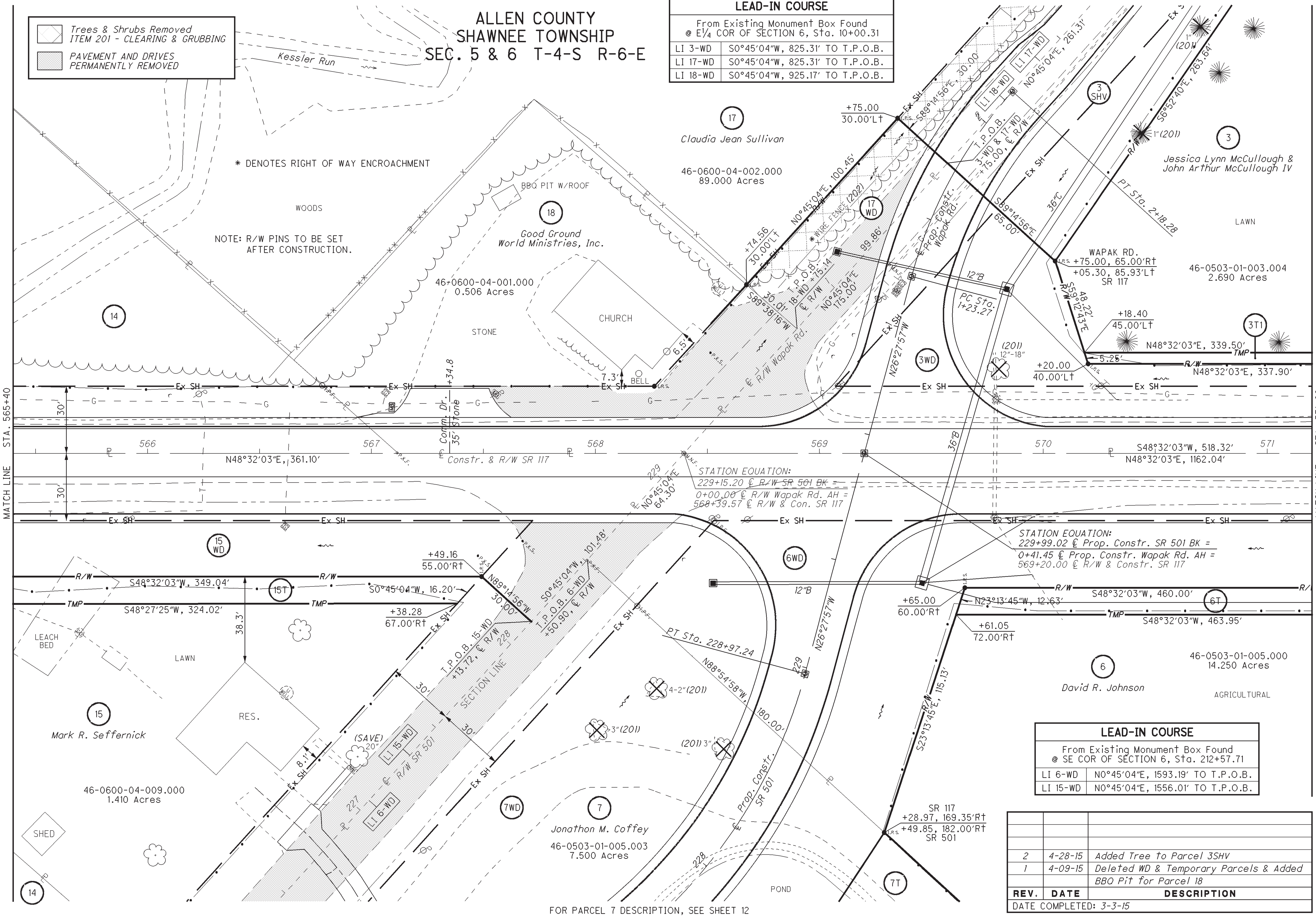
ALLEN COUNTY
SHAWNEE TOWNSHIP
SEC. 5 & 6 T-4-S R-6-E

(hatched)	Trees & Shrubs Removed ITEM 201 - CLEARING & GRUBBING
(shaded)	PAVEMENT AND DRIVES PERMANENTLY REMOVED

LEAD-IN COURSE	
From Existing Monument Box Found @ E1/4 COR OF SECTION 6, Sta. 10+00.31	
LI 3-WD	S0°45'04"W, 825.31' TO T.P.O.B.
LI 17-WD	S0°45'04"W, 825.31' TO T.P.O.B.
LI 18-WD	S0°45'04"W, 925.17' TO T.P.O.B.

* DENOTES RIGHT OF WAY ENCROACHMENT

NOTE: R/W PINS TO BE SET AFTER CONSTRUCTION.



Kessler Run
WOODS
14
18
Good Ground World Ministries, Inc.
46-0600-04-001.000
0.506 Acres
BBQ PIT W/ROOF
CHURCH
STONE
BELL
17
Claudia Jean Sullivan
46-0600-04-002.000
89.000 Acres
3
Jessica Lynn McCullough & John Arthur McCullough IV
46-0503-01-003.004
2.690 Acres
LAWN
3SHV
3T1
3WD
17 WD
WAPAK RD.
+75.00, 65.00'Rt
+05.30, 85.93'Lt
SR 117
+75.00
30.00'Lt
+74.56
30.00'Lt
N0°45'04"E, 100.45'
S89°14'56"E, 30.00'
N0°45'04"E, 261.31'
S56°52'40"E, 263.64'
S89°14'56"E
65.00'
PT Sta. 2+18.28
PC Sta. 1+23.27
S59°12'43"E
48.22'
+18.40
45.00'Lt
N48°32'03"E, 339.50'
N48°32'03"E, 337.90'
5.25'
+20.00
40.00'Lt
N26°27'57"W
99.86'
N0°45'04"E 175.00'
S89°38'16"W 30.01'
T.P.O.B. 18-WD +15.14 ℄ R/W
T.P.O.B. 3-WD & 17-WD +75.00, ℄ R/W
WIRE FENCE (202)
℄ Prop. Constr. Wapak Rd.
℄ R/W Wapak Rd.
6.5'
7.3'
℄ Comm. Dr. +34.8 35' Stone
STA. 565+40
MATCH LINE
STA. 571+20
566
567
568
569
570
571
N48°32'03"E, 361.10'
℄ Constr. & R/W SR 117
S48°32'03"W, 518.32'
N48°32'03"E, 1162.04'
STATION EQUATION:
229+15.20 ℄ R/W SR 501 BK =
0+00.00 ℄ R/W Wapak Rd. AH =
568+39.57 ℄ R/W & Con. SR 117
STATION EQUATION:
229+99.02 ℄ Prop. Constr. SR 501 BK =
0+41.45 ℄ Prop. Constr. Wapak Rd. AH =
569+20.00 ℄ R/W & Constr. SR 117
N0°45'04"E 64.30'
30'
30'
15 WD
15T
+49.16
55.00'Rt
S48°32'03"W, 349.04'
S0°45'04"W, 16.20'
S48°27'25"W, 324.02'
+38.28
67.00'Rt
N89°14'56"W 30.00'
S0°45'04"W, 101.48'
T.P.O.B. 6-WD +50.90, ℄ R/W
T.P.O.B. 15-WD +13.72, ℄ R/W
SECTION LINE
38.3'
LEACH BED
LAWN
RES.
15
Mark R. Seffernick
46-0600-04-009.000
1.410 Acres
SHED
(SAVE) 20"
LI 15-WD
LI 6-WD
℄ R/W SR 501
8.1'
6WD
12"B
PT Sta. 228+97.24
N88°54'58"W, 180.00'
4-2"(201)
3"(201)
(201) 3"
7WD
7
Jonathon M. Coffey
46-0503-01-005.003
7.500 Acres
Prop. Constr. SR 501
POND
7T
+65.00
60.00'Rt
N23°13'45"W, 12.63'
S48°32'03"W, 460.00'
S48°32'03"W, 463.95'
6T
+61.05
72.00'Rt
S23°13'45"E, 115.13'
6
David R. Johnson
46-0503-01-005.000
14.250 Acres
AGRICULTURAL
SR 117
+28.97, 169.35'Rt
+49.85, 182.00'Rt
SR 501

LEAD-IN COURSE	
From Existing Monument Box Found @ SE COR OF SECTION 6, Sta. 212+57.71	
LI 6-WD	N0°45'04"E, 1593.19' TO T.P.O.B.
LI 15-WD	N0°45'04"E, 1556.01' TO T.P.O.B.

REV.	DATE	DESCRIPTION
2	4-28-15	Added Tree to Parcel 3SHV
1	4-09-15	Deleted WD & Temporary Parcels & Added BBQ Pit for Parcel 18

DATE COMPLETED: 3-3-15

HORIZONTAL SCALE IN FEET 0 10 20 40

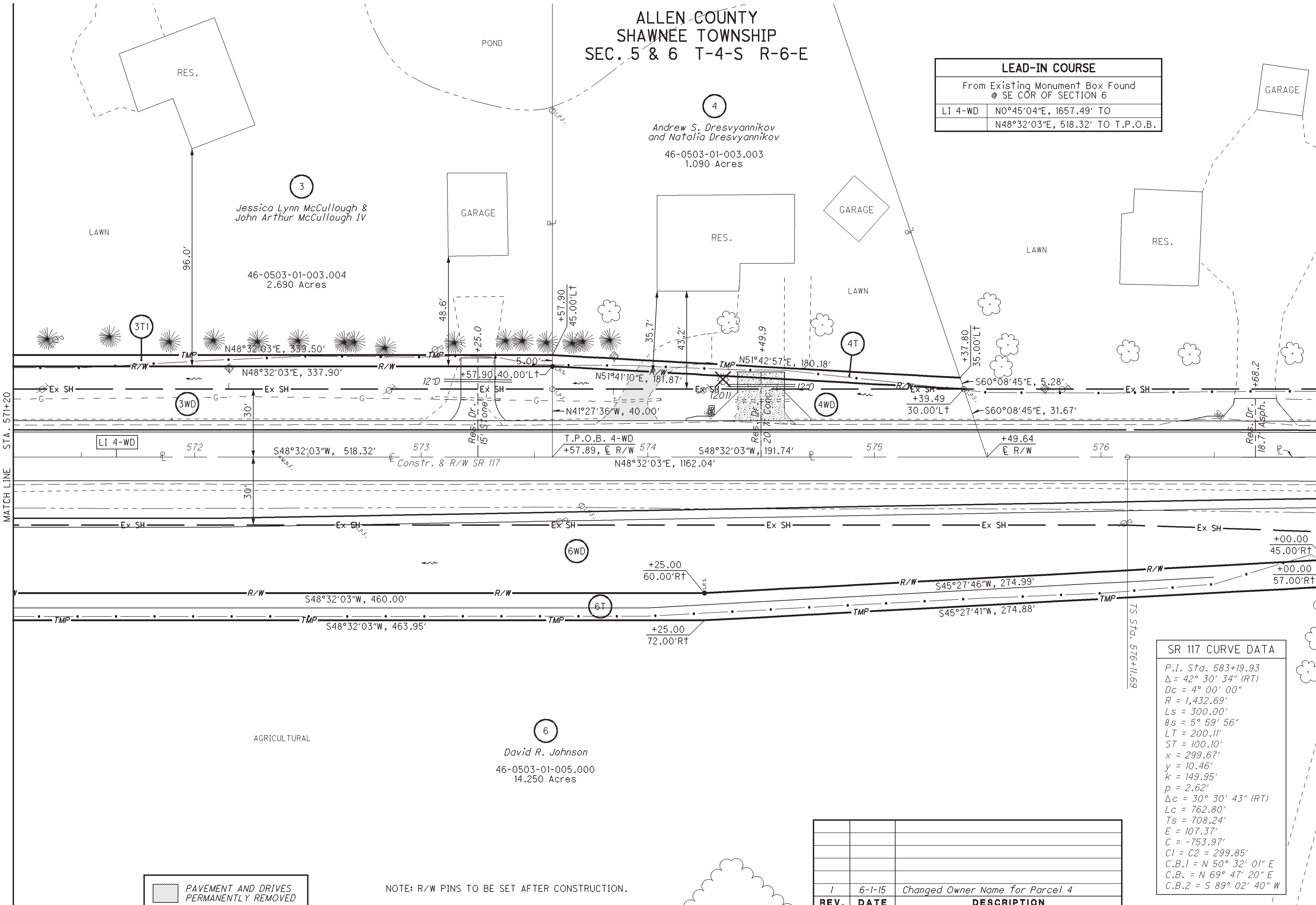
PID NO. 84063

R/W DESIGNER NJV
R/W REVIEWER EAA

RIGHT OF WAY PLAN - SR 117
STA. 565+40 TO STA. 571+20

ALL-117/501-10.76/4.34

ALLEN COUNTY
SHAWNEE TOWNSHIP
SEC. 5 & 6 T-4-S R-6-E



POND
RES.
GARAGE
LAWN
AGRICULTURAL
3
Jessica Lynn McCullough &
John Arthur McCullough IV
46-0503-01-003.004
2.690 Acres
4
Andrew S. Dresvyannikov
and Natalia Dresvyannikov
46-0503-01-003.003
1.090 Acres
6
David R. Johnson
46-0503-01-005.000
14.250 Acres
3T1
3WD
4T
4WD
6WD
6T
LI 4-WD
N48°32'03"E, 339.50'
N48°32'03"E, 337.90'
N51°41'10"E, 181.87'
N51°42'57"E, 180.18'
N41°27'36"W, 40.00'
S60°08'45"E, 5.28'
S60°08'45"E, 31.67'
+57.90 40.00'Lt
+57.90 45.00'Lt
+37.80 35.00'Lt
+39.49 30.00'Lt
+49.64 ℄ R/W
T.P.O.B. 4-WD
+57.89, ℄ R/W
S48°32'03"W, 518.32'
S48°32'03"W, 191.74'
N48°32'03"E, 1162.04'
℄ Constr. & R/W SR 117
S48°32'03"W, 460.00'
S48°32'03"W, 463.95'
S45°27'46"W, 274.99'
S45°27'41"W, 274.88'
+25.00 60.00'Rt
+25.00 72.00'Rt
+00.00 45.00'Rt
+00.00 57.00'Rt
96.0'
48.6'
35.7'
43.2'
30'
5.00'
12'D
Res. Dr. 15' Stone
Res. Dr. 20' Conc.
Res. Dr. 18.7' Asph.
Ex SH
R/W
TMP
572
573
574
575
576
STA. 571+20
STA. 577+00
MATCH LINE
TS Sta. 576+11.69

LEAD-IN COURSE	
From Existing Monument Box Found @ SE COR OF SECTION 6	
LI 4-WD	N0°45'04"E, 1657.49' TO
	N48°32'03"E, 518.32' TO T.P.O.B.

SR 117 CURVE DATA

P.I. Sta. 583+19.93
Δ = 42° 30' 34" (RT)
Dc = 4° 00' 00"
R = 1,432.69'
Ls = 300.00'
θs = 5° 59' 56"
LT = 200.11'
ST = 100.10'
x = 299.67'
y = 10.46'
k = 149.95'
p = 2.62'
Δc = 30° 30' 43" (RT)
Lc = 762.80'
Ts = 708.24'
E = 107.37'
C = -753.97'
C1 = C2 = 299.85'
C.B.1 = N 50° 32' 01" E
C.B. = N 69° 47' 20" E
C.B.2 = S 89° 02' 40" W

PAVEMENT AND DRIVES PERMANENTLY REMOVED

NOTE: R/W PINS TO BE SET AFTER CONSTRUCTION.

REV.	DATE	DESCRIPTION
1	6-1-15	Changed Owner Name for Parcel 4

DATE COMPLETED: 3-3-15

HORIZONTAL SCALE IN FEET 0 10 20 40

PID NO. 84063

R/W DESIGNER NJV
R/W REVIEWER EAA

RIGHT OF WAY PLAN - SR 117
STA. 571+20 TO STA. 577+00

ALL-117/501-
10.76/4.34

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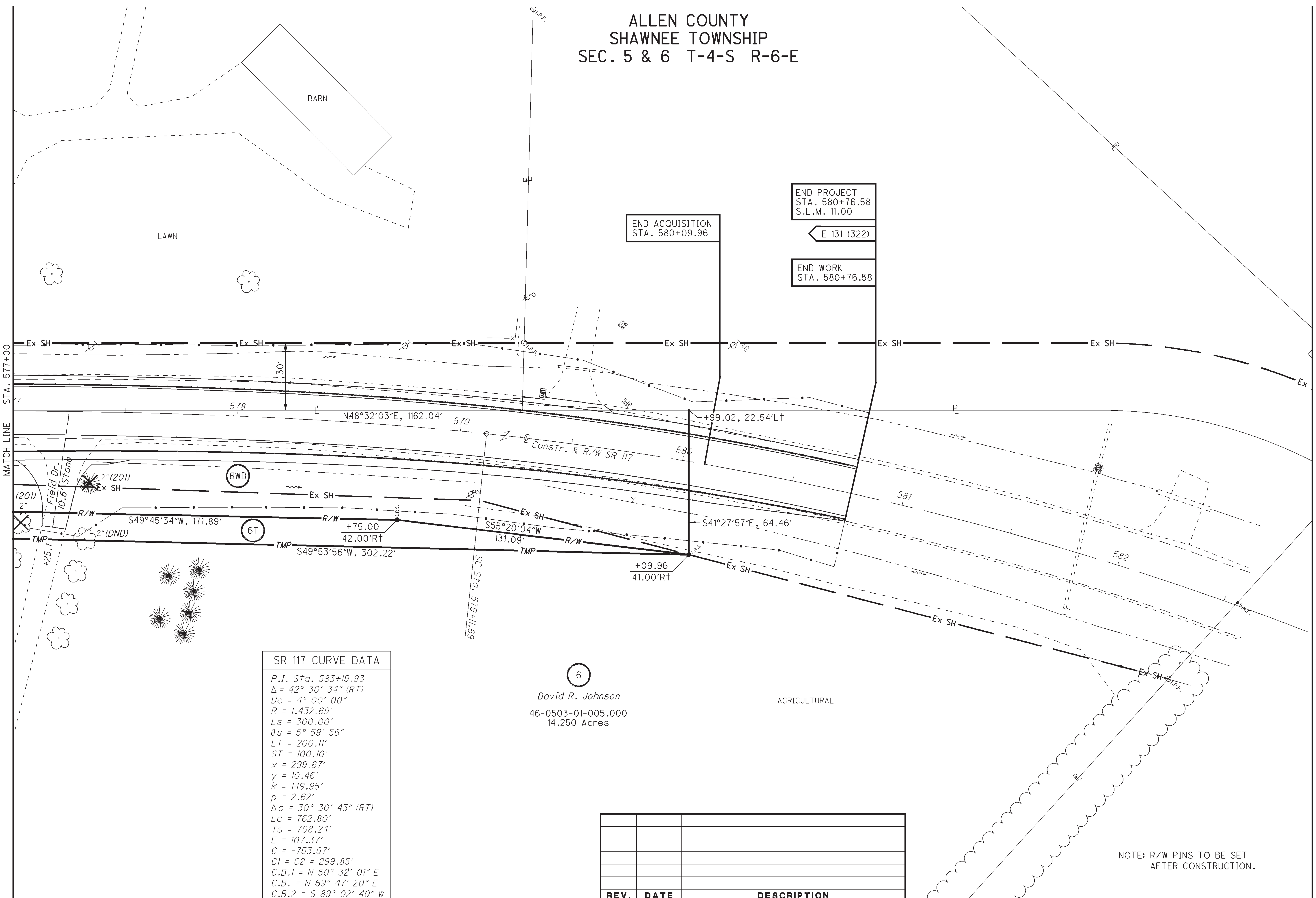
ALLEN COUNTY
SHAWNEE TOWNSHIP
SEC. 5 & 6 T-4-S R-6-E
BARN
LAWN
MATCH LINE STA. 577+00
END ACQUISITION
STA. 580+09.96
END PROJECT
STA. 580+76.58
S.L.M. 11.00
E 131 (322)
END WORK
STA. 580+76.58
Ex SH
30'
578
579
580
581
582
N48°32'03"E, 1162.04'
℄ Constr. & R/W SR 117
+99.02, 22.54'Lt
S41°27'57"E, 64.46'
S49°45'34"W, 171.89'
S55°20'04"W
131.09'
S49°53'56"W, 302.22'
+75.00
42.00'Rt
+09.96
41.00'Rt
6WD
6T
2"(201)
(201)
2"
2"(DND)
Field Dr. 10.6' Stone
R/W
TMP
+25.1
SC Sta. 579+11.69
6
David R. Johnson
46-0503-01-005.000
14.250 Acres
AGRICULTURAL
END SHEET STA. 582+90
NOTE: R/W PINS TO BE SET
AFTER CONSTRUCTION.

SR 117 CURVE DATA
P.I. Sta. 583+19.93
Δ = 42° 30' 34" (RT)
Dc = 4° 00' 00"
R = 1,432.69'
Ls = 300.00'
θs = 5° 59' 56"
LT = 200.11'
ST = 100.10'
x = 299.67'
y = 10.46'
k = 149.95'
p = 2.62'
Δc = 30° 30' 43" (RT)
Lc = 762.80'
Ts = 708.24'
E = 107.37'
C = -753.97'
C1 = C2 = 299.85'
C.B.1 = N 50° 32' 01" E
C.B. = N 69° 47' 20" E
C.B.2 = S 89° 02' 40" W

REV.	DATE	DESCRIPTION

DATE COMPLETED: 3-3-15

HORIZONTAL SCALE IN FEET 0 10 20 40

PID NO. 84063

R/W DESIGNER NJV
R/W REVIEWER EAA

RIGHT OF WAY PLAN - SR 117
STA. 577+00 TO STA. 582+90

ALL-117/501-
10.76/4.34

10/13

92/95

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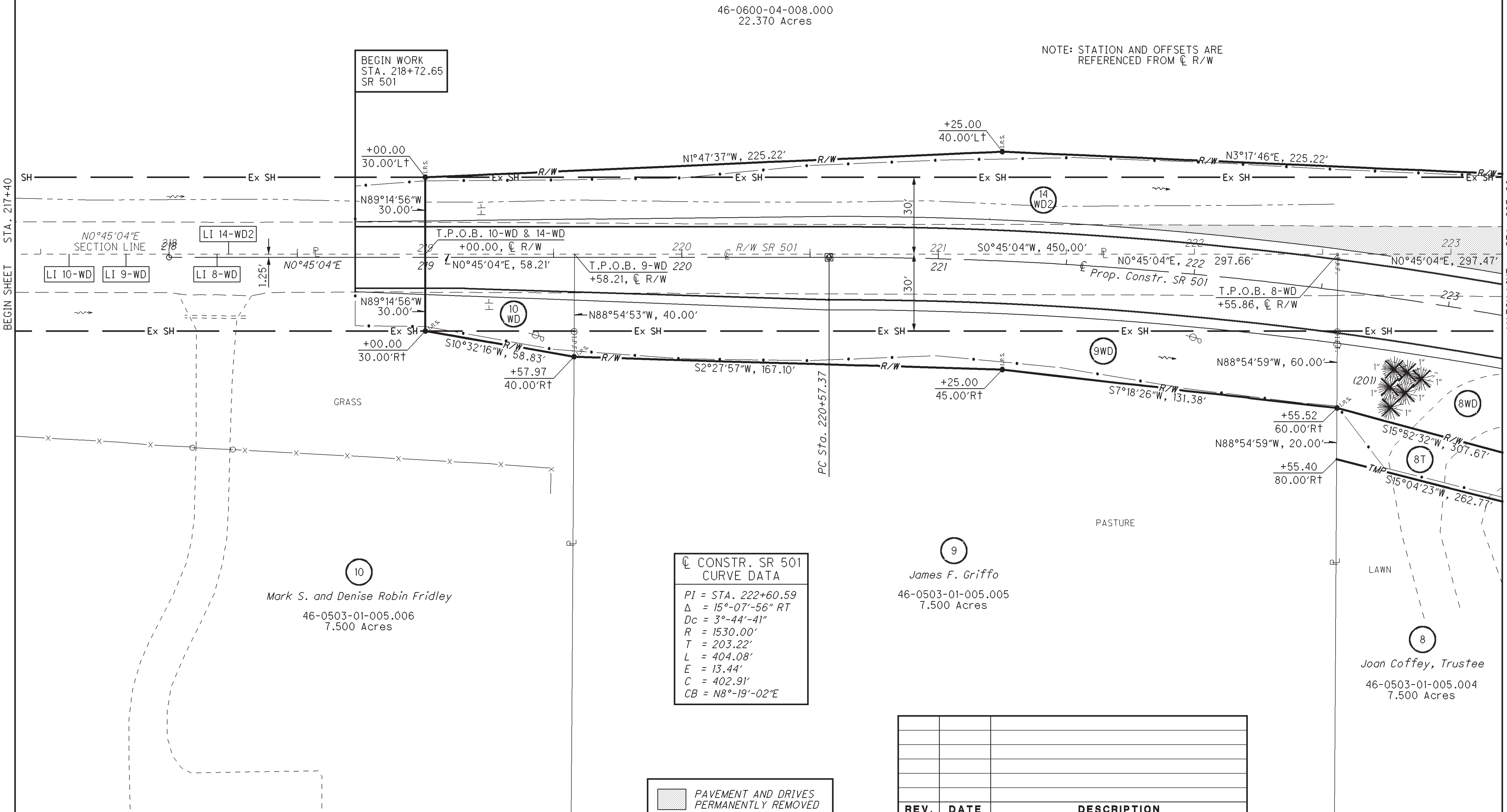
ALLEN COUNTY
SHAWNEE TOWNSHIP
SEC. 5 & 6 T-4-S R-6-E

NOTE: R/W PINS TO BE SET AFTER CONSTRUCTION.

NOTE: STATION AND OFFSETS ARE REFERENCED FROM ℄ R/W

LEAD-IN COURSE	
From Existing Monument Box Found @ SE COR OF SECTION 6, Sta. 212+57.71	
LI 14-WD2	N0°45'04"E, 642.29' TO T.P.O.B.
LI 10-WD	N0°45'04"E, 642.29' TO T.P.O.B.
LI 9-WD	N0°45'04"E, 700.50' TO T.P.O.B.
LI 8-WD	N0°45'04"E, 998.15' TO T.P.O.B.



14
David A. Yohe, Trustee
& Rita Kay Andrews
46-0600-04-008.000
22.370 Acres
AGRICULTURAL
BEGIN WORK
STA. 218+72.65
SR 501
+00.00
30.00'Lt
+25.00
40.00'Lt
N1°47'37"W, 225.22'
N3°17'46"E, 225.22'
R/W
Ex SH
SH
14 WD2
N89°14'56"W
30.00'
30'
N0°45'04"E
SECTION LINE
LI 14-WD2
LI 10-WD
LI 9-WD
LI 8-WD
1.25'
T.P.O.B. 10-WD & 14-WD
+00.00, ℄ R/W
N0°45'04"E, 58.21'
T.P.O.B. 9-WD
+58.21, ℄ R/W
R/W SR 501
S0°45'04"W, 450.00'
N0°45'04"E, 297.66'
N0°45'04"E, 297.47'
℄ Prop. Constr. SR 501
T.P.O.B. 8-WD
+55.86, ℄ R/W
STA. 217+40
BEGIN SHEET
STA. 223+20
MATCH LINE
10 WD
N89°14'56"W
30.00'
N88°54'53"W, 40.00'
+00.00
30.00'Rt
S10°32'16"W, 58.83'
+57.97
40.00'Rt
S2°27'57"W, 167.10'
+25.00
45.00'Rt
9WD
S7°18'26"W, 131.38'
N88°54'59"W, 60.00'
+55.52
60.00'Rt
S15°52'32"W, 307.67'
N88°54'59"W, 20.00'
+55.40
80.00'Rt
TMP
S15°04'23"W, 262.77'
8WD
8T
(201)
PC Sta. 220+57.37
GRASS
PASTURE
LAWN
10
Mark S. and Denise Robin Fridley
46-0503-01-005.006
7.500 Acres
9
James F. Griffo
46-0503-01-005.005
7.500 Acres
8
Joan Coffey, Trustee
46-0503-01-005.004
7.500 Acres

℄ CONSTR. SR 501 CURVE DATA
PI = STA. 222+60.59
Δ = 15°-07'-56" RT
Dc = 3°-44'-41"
R = 1530.00'
T = 203.22'
L = 404.08'
E = 13.44'
C = 402.91'
CB = N8°-19'-02"E

PAVEMENT AND DRIVES PERMANENTLY REMOVED

REV.	DATE	DESCRIPTION

DATE COMPLETED: 3-3-15

HORIZONTAL SCALE IN FEET 0 10 20 40

PID NO. 84063

R/W DESIGNER NJV
R/W REVIEWER EAA

RIGHT OF WAY PLAN - SR 501
STA. 217+40 TO STA. 223+20

ALL-117/501-10.76/4.34

11/13

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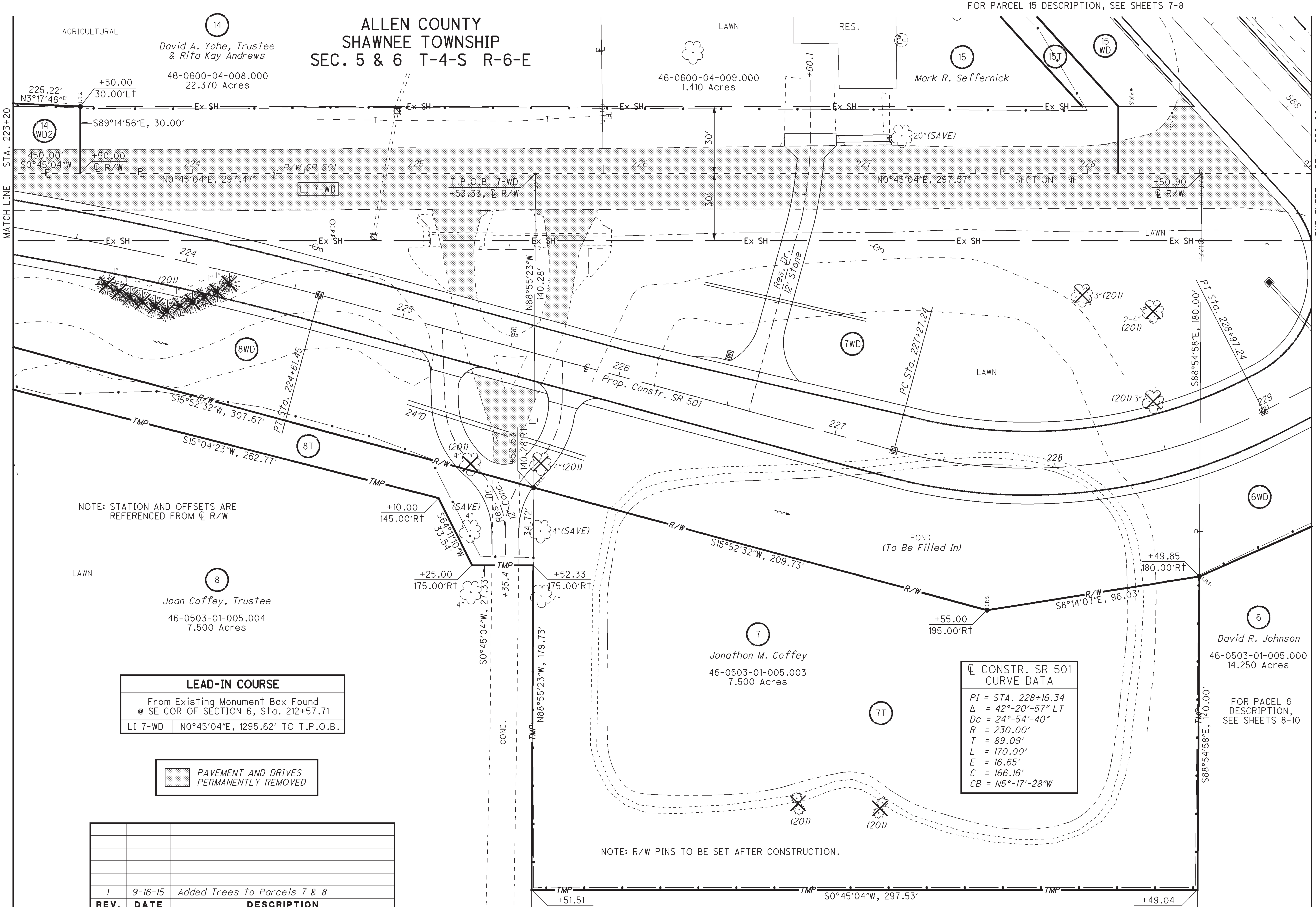
ALLEN COUNTY
SHAWNEE TOWNSHIP
SEC. 5 & 6 T-4-S R-6-E

FOR PARCEL 15 DESCRIPTION, SEE SHEETS 7-8



AGRICULTURAL
14
David A. Yohe, Trustee
& Rita Kay Andrews
46-0600-04-008.000
22.370 Acres
LAWN
RES.
46-0600-04-009.000
1.410 Acres
15
Mark R. Seffernick
15T
15 WD
225.22'
N3°17'46"E
+50.00
30.00'Lt
14 WD2
S89°14'56"E, 30.00'
450.00'
S0°45'04"W
+50.00
℄ R/W
N0°45'04"E, 297.47'
R/W SR 501
LI 7-WD
T.P.O.B. 7-WD
+53.33, ℄ R/W
N0°45'04"E, 297.57'
SECTION LINE
+50.90
℄ R/W
20" (SAVE)
MATCH LINE
STA. 223+20
STA. 229+00
END SHEET
Ex SH
+60.1
30'
30'
N88°55'23"W
140.28'
Res. Dr.
12' Stone
8WD
7WD
LAWN
PT Sta. 224+61.45
PC Sta. 227+27.24
PT Sta. 228+97.24
S88°54'58"E, 180.00'
℄ Prop. Constr. SR 501
24'D
S15°52'32"W, 307.67'
8T
S15°04'23"W, 262.77'
(201)
4"
+52.53
140.28'Rt
4"(201)
Res. Dr.
12' Conc.
34.72'
4"(SAVE)
(SAVE)
NOTE: STATION AND OFFSETS ARE
REFERENCED FROM ℄ R/W
+10.00
145.00'Rt
S64°11'10"W
33.54'
POND
(To Be Filled In)
S15°52'32"W, 209.73'
3"(201)
2-4"
(201)
(201) 3"
6WD
+49.85
180.00'Rt
R/W
S8°14'07"E, 96.03'
+55.00
195.00'Rt
LAWN
8
Joan Coffey, Trustee
46-0503-01-005.004
7.500 Acres
+25.00
175.00'Rt
+52.33
175.00'Rt
TMP
S0°45'04"W, 27.33'
+35.4
N88°55'23"W, 179.73'
7
Jonathon M. Coffey
46-0503-01-005.003
7.500 Acres
6
David R. Johnson
46-0503-01-005.000
14.250 Acres
FOR PACEL 6
DESCRIPTION,
SEE SHEETS 8-10
CONC.
7T
S88°54'58"E, 140.00'
(201)
(201)
NOTE: R/W PINS TO BE SET AFTER CONSTRUCTION.
+51.51
320.00'Rt
S0°45'04"W, 297.53'
+49.04
320.00'Rt

LEAD-IN COURSE	
From Existing Monument Box Found @ SE COR OF SECTION 6, Sta. 212+57.71	
LI 7-WD	N0°45'04"E, 1295.62' TO T.P.O.B.

PAVEMENT AND DRIVES PERMANENTLY REMOVED

℄ CONSTR. SR 501 CURVE DATA
PI = STA. 228+16.34
Δ = 42°-20'-57" LT
Dc = 24°-54'-40"
R = 230.00'
T = 89.09'
L = 170.00'
E = 16.65'
C = 166.16'
CB = N5°-17'-28"W

REV.	DATE	DESCRIPTION
1	9-16-15	Added Trees to Parcels 7 & 8

DATE COMPLETED: 3-3-15

HORIZONTAL SCALE IN FEET 0 10 20 40

PID NO. 84063

R/W DESIGNER NJV
R/W REVIEWER EAA

RIGHT OF WAY PLAN - SR 501
STA. 223+20 TO STA. 229+00

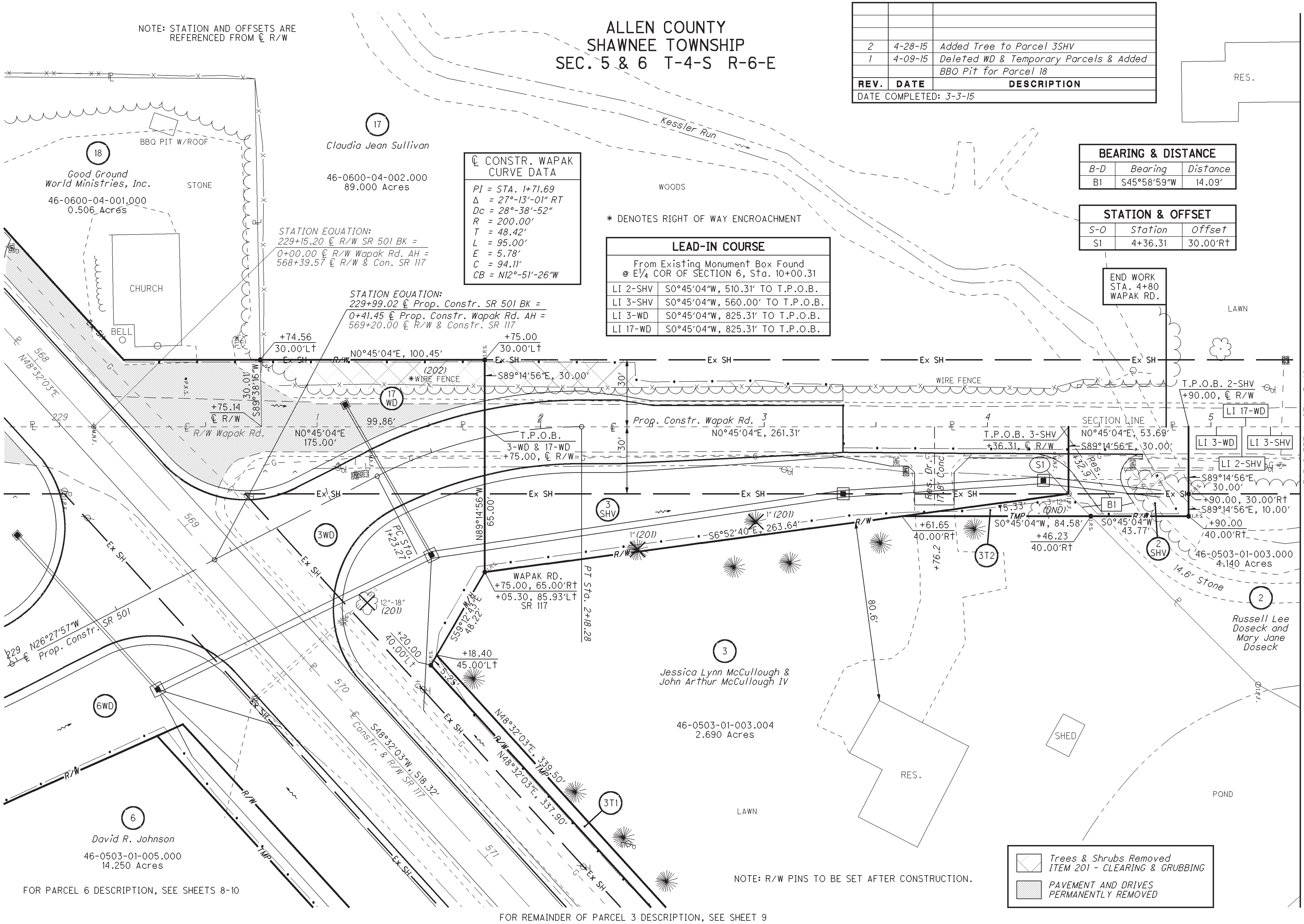
ALL-117/501-10.76/4.34

ALLEN COUNTY
SHAWNEE TOWNSHIP
SEC. 5 & 6 T-4-S R-6-E

NOTE: STATION AND OFFSETS ARE REFERENCED FROM ℄ R/W

2	4-28-15	Added Tree to Parcel 3SHV
1	4-09-15	Deleted WD & Temporary Parcels & Added BBQ Pit for Parcel 18
REV.	DATE	DESCRIPTION

DATE COMPLETED: 3-3-15



RES.
Kessler Run
WOODS
LAWN
(17) Claudia Jean Sullivan
46-0600-04-002.000
89.000 Acres
(18) Good Ground World Ministries, Inc.
46-0600-04-001.000
0.506 Acres
BBQ PIT W/ROOF
STONE
CHURCH
BELL
STATION EQUATION:
229+15.20 ℄ R/W SR 501 BK =
0+00.00 ℄ R/W Wapak Rd. AH =
568+39.57 ℄ R/W & Con. SR 117
STATION EQUATION:
229+99.02 ℄ Prop. Constr. SR 501 BK =
0+41.45 ℄ Prop. Constr. Wapak Rd. AH =
569+20.00 ℄ R/W & Constr. SR 117
* DENOTES RIGHT OF WAY ENCROACHMENT
END WORK
STA. 4+80
WAPAK RD.
+74.56
30.00'Lt
+75.00
30.00'Lt
N0°45'04"E, 100.45'
S89°14'56"E, 30.00'
S89°38'16"W
30.01'
*WIRE FENCE
WIRE FENCE
17 WD
99.86'
+75.14
℄ R/W
R/W Wapak Rd.
N0°45'04"E
175.00'
T.P.O.B.
3-WD & 17-WD
+75.00, ℄ R/W
Prop. Constr. Wapak Rd.
N0°45'04"E, 261.31'
T.P.O.B. 3-SHV
+36.31, ℄ R/W
SECTION LINE
N0°45'04"E, 53.69'
S89°14'56"E, 30.00'
T.P.O.B. 2-SHV
+90.00, ℄ R/W
LI 17-WD
LI 3-WD
LI 3-SHV
LI 2-SHV
S89°14'56"E
30.00'
+90.00, 30.00'Rt
S89°14'56"E, 10.00'
+90.00
40.00'Rt
S1
B1
STA. 5+40
END SHEET
Ex SH
N48°32'03"E
3WD
3 SHV
PC Sta. 1+23.27
N89°14'56"W
65.00'
WAPAK RD.
+75.00, 65.00'Rt
+05.30, 85.93'Lt
SR 117
PT Sta. 2+18.28
S6°52'40"E, 263.64'
+61.65
40.00'Rt
+46.23
40.00'Rt
S0°45'04"W, 84.58'
S0°45'04"W
43.77'
3T2
2 SHV
46-0503-01-003.000
4.140 Acres
14.6' Stone
(2) Russell Lee Doseck and Mary Jane Doseck
80.6'
12"-18" (201)
S59°12'43"E
48.22'
+20.00
40.00'Lt
+18.40
45.00'Lt
229 N26°27'57"W
℄ Prop. Constr. SR 501
6WD
(3) Jessica Lynn McCullough & John Arthur McCullough IV
46-0503-01-003.004
2.690 Acres
SHED
RES.
LAWN
POND
N48°32'03"E, 339.50'
N48°32'03"E, 337.90'
S48°32'03"W, 518.32'
℄ Constr. & R/W SR 117
3T1
(6) David R. Johnson
46-0503-01-005.000
14.250 Acres

℄ CONSTR. WAPAK CURVE DATA
PI = STA. 1+71.69
Δ = 27°-13'-01" RT
Dc = 28°-38'-52"
R = 200.00'
T = 48.42'
L = 95.00'
E = 5.78'
C = 94.11'
CB = N12°-51'-26"W

LEAD-IN COURSE

From Existing Monument Box Found @ E1/4 COR OF SECTION 6, Sta. 10+00.31

LI 2-SHV	S0°45'04"W, 510.31' TO T.P.O.B.
LI 3-SHV	S0°45'04"W, 560.00' TO T.P.O.B.
LI 3-WD	S0°45'04"W, 825.31' TO T.P.O.B.
LI 17-WD	S0°45'04"W, 825.31' TO T.P.O.B.

BEARING & DISTANCE

B-D	Bearing	Distance
B1	S45°58'59"W	14.09'

STATION & OFFSET

S-O	Station	Offset
S1	4+36.31	30.00'Rt

Trees & Shrubs Removed ITEM 201 - CLEARING & GRUBBING	
PAVEMENT AND DRIVES PERMANENTLY REMOVED	

NOTE: R/W PINS TO BE SET AFTER CONSTRUCTION.

FOR PARCEL 6 DESCRIPTION, SEE SHEETS 8-10

FOR REMAINDER OF PARCEL 3 DESCRIPTION, SEE SHEET 9

HORIZONTAL SCALE IN FEET 0 10 20 40

PID NO. 84063

R/W DESIGNER NJV
R/W REVIEWER EAA

RIGHT OF WAY PLAN-WAPAK RD STA. 0+00 TO STA. 5+40

ALL-117/501-10.76/4.34

PROJECT DESCRIPTION

RECONSTRUCTION OF THE S.R. 117 AND S.R. 501/WAPAK RD. INTERSECTION AND WIDENING OF S.R. 117 FOR THE INSTALLATION OF LEFT TURN LANES. THE PROJECT IS 0.49 MILES LONG. IN ADDITION, S.R. 117 WILL BE RESURFACED WITHIN THE PROJECT LIMITS, AND EXISTING DRAINGE SYSTEMS WILL BE RECONSTRUCTED.

HISTORIC RECORDS

NO HISTORIC RECORDS WERE FOUND FOR THIS PROJECT.

GEOLOGY

THE PROJECT IS LOCATED WITHIN THE CENTRAL OHIO CLAYEY TILL PLAIN WITHIN THE INTERIOR PLAINS. THE AREA IS CHARACTERIZED BY MODERATE RELIEF WITH WELL-DEFINED MORAINES WITH INTERVENING FLAT-LYING GROUND MORAINE AND INTERMORAINAL LAKE BASINS. THE OVERBURDEN SOILS ARE REPORTED AS BEING COMPRISED OF THIN TO THICK CLAYEY, HIGH-LIME WISCONSINAN-AGE TILL DEPOSITS. GLACIALLY DERIVED SOILS ARE UNDERLAIN BY DOLOMITE AND SHALE UNITS OF SILURIAN AGE.

RECONNAISSANCE

FIELD RECONNAISSANCE WAS COMPLETED ON JUNE 17, 2013 BY PERSONNEL FROM THE DISTRICT OFFICE. THE ASPHALT PAVEMENT WAS NOTED AS BEING IN GOOD CONDITION ON BOTH STATE ROUTES 117 AND 501. A RESIDENTIAL POND IS LOCATED NEAR THE SOUTHEAST CORNER OF THE INTERSECTION. THE ADJACENT LAND USE TO THE INTERSECTION IS PREDOMINATELY AGRICULTURAL LAND USE MIXED WITH RURAL RESIDENTIAL.

SUBSURFACE EXPLORATION

SIXTEEN (16) BORINGS, B-001 THRU B-016, WERE COMPLETED AS PART OF THE SUBSURFACE EXPLORATION. BORINGS B-001 THROUGH B-004; B-006 THROUGH B-009; AND B-013 THROUGH B-015 WERE DRILLED ON JULY 22, 2015. BORINGS; B-005; B-010 THROUGH B-012 AND B-016 WERE DRILLED ON JULY 23, 2015. ALL BORINGS WERE DRILLED WITH A TRUCK MOUNTED ROTARY DRILL RIG, USING 3-1/4 INCH I.D. HOLLOW STEM AUGERS TO ADVANCE THE BORINGS THROUGH THE SOIL. DISTURBED SAMPLES WERE COLLECTED IN ACCORDANCE WITH THE STANDARD PENETRATION TEST (AASHTO T206) AT EITHER CONTINUOUS OR 2.5-FOOT INTERVALS WITH THE OVERBURDEN SOILS. THE HAMMER SYSTEM USED WAS LAST CALIBRATED ON AUGUST 11, 2015, AND THE AVERAGE DRILL ROD ENERGY RATIO (ER) IS 80%.

EXPLORATION FINDINGS

SUBSURFACE CONDITIONS REVEALED BY THE BORINGS INDICATED THAT THE SITE CONTAINS OVERBURDEN CONSISTING OF COHESIVE SOILS. COHESIVE SOILS ENCOUNTERED RANGED FROM SANDY SILT (A-4a) TO SILT AND CLAY (A-6a) TO SILTY CLAY (A-6b) TO CLAY (A-7-6). THESE SOILS WERE STIFF TO HARD IN CONSISTENCY AND MOIST IN CONDITION. BORINGS B-005 AND B-016 ENCOUNTERED 9 INCHES OF ASPHALT UNDERLAIN BY AN AGGREGATE BASE RANGING IN DEPTH FROM 4 TO 6 INCHES. TOPSOIL WAS NOTED IN B-004 AND B-006 THROUGH B-015 RANGING IN THICKNESS BETWEEN 9 AND 18 INCHES. BEDROCK WAS NOT ENCOUNTERED IN ANY OF THE BORINGS. FREE WATER WAS RECORDED IN BORING B-002 AT ELEVATION 833.7 FEET. STATIC WATER WAS NOT RECORDED IN ANY OF THE BORINGS.

THREE POND SOUNDINGS WERE COMPLETED AT APPROXIMATE THIRD POINTS IN THE CENTER OF THE POND. THESE SOUNDINGS REVEALED BETWEEN 2 AND 4 INCHES OF MUCK IN THE BASE OF THE POND.

SPECIFICATIONS

THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, OFFICE OF GEOTECHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNICAL EXPLORATIONS, DATED JANUARY 20, 2012.

AVAILABLE INFORMATION

ALL AVAILABLE SOIL AND BEDROCK INFORMATION THAT CAN BE CONVENIENTLY SHOWN ON THE GEOTECHNICAL EXPLORATION SHEETS HAS BEEN SO REPORTED. ADDITIONAL EXPLORATIONS MAY HAVE BEEN MADE TO STUDY SOME SPECIAL ASPECT OF THE PROJECT. COPIES OF THIS DATA, IF ANY, MAY BE INSPECTED IN THE DISTRICT DEPUTY DIRECTOR'S OFFICE OR THE OFFICE OF GEOTECHNICAL ENGINEERING AT 1980 WEST BROAD STREET.

LEGEND

DESCRIPTION	ODOT CLASS	CLASSIFIED MECH./VISUAL	
GRAVEL AND/OR STONE FRAGS. WITH SAND & SILT	A-2-4	1	-
SANDY SILT	A-4a	1	-
SILT AND CLAY	A-6a	14	16
SILTY CLAY	A-6b	9	9
CLAY	A-7-6	7	6
	TOTAL	32	31
PAVEMENT OR BASE = X = APPROXIMATE THICKNESS	VISUAL		
SOD AND TOPSOIL = X = APPROXIMATE THICKNESS	VISUAL		

BORING LOCATION - PLAN VIEW.

DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZONTAL BAR INDICATES A CHANGE IN STRATIGRAPHY.

WC INDICATES WATER CONTENT IN PERCENT.

N_{60} INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.

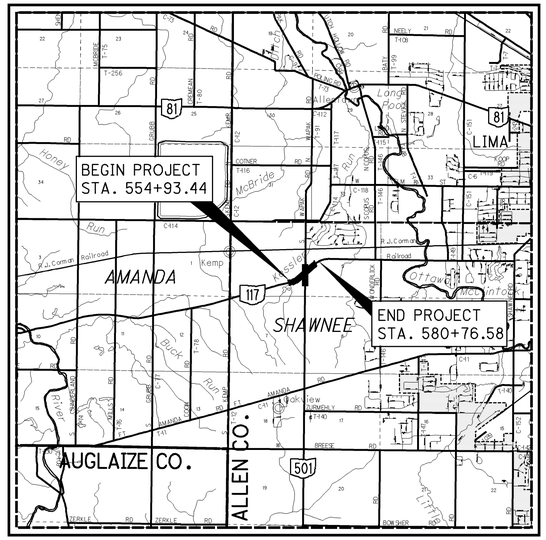
W— INDICATES FREE WATER ELEVATION.

● INDICATES A PLASTIC MATERIAL WITH A MOISTURE CONTENT EQUAL TO OR GREATER THAN THE LIQUID LIMIT MINUS 3.

* INDICATES A SAMPLE TAKEN WITHIN 3 FT OF PROPOSED GRADE.

SS INDICATES A SPLIT SPOON SAMPLE.

NP INDICATES A NON-PLASTIC SAMPLE.



LOCATION MAP

SCALE IN MILES

0 1 2 3 4

N

PARTICLE SIZE DEFINITIONS

12"	3"	2.0 mm	0.42 mm	0.074 mm	0.005 mm
BOULDERS	COBBLES	GRAVEL	COARSE SAND	FINE SAND	SILT	CLAY
		No. 10 SIEVE	No. 40 SIEVE	No. 200 SIEVE		

RECON. - DISTRICT 1 06/17/13
DRILLING - BMI 07/22 - 07/23/2015
DRAWN - GLM 10/2015
REVIEWED - SAT 10/2015

DESIGN AGENCY
OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF GEOTECHNICAL ENGINEERING
1980 W. BROAD ST. COLUMBUS, OH 43223

PID NO. 84063

SOIL PROFILE

ALL-117/501-10.76/4.34

1/8

EXPLORATION NO., STATION & OFFSET	FROM - TO	SAMPLE ID	N60	% REC	tsf HP	% GR	% CS	% FS	% SILT	% CLAY	LL	PL	PI	% WC	ODOT CLASS (GI)
B-001-0-15	0.00 - 1.50	SS-1A	8	78	2.00	4	4	11	38	43	36	22	14	17	A-6a (10)
STA. 553+12, 13 RT.	1.50 - 3.00	SS-2A	7	78	1.50	1	3	14	43	39	30	18	12	23	A-6a (9)
LATITUDE = 40.717909	3.00 - 4.50	SS-3A	15	78	2.00			SAME AS SS-2A						30	A-6a (VISUAL)
LONGITUDE = -84.208067	4.50 - 6.00	SS-4A	13	89	2.50			SAME AS SS-2A						23	A-6a (VISUAL)
B-002-0-15	0.00 - 1.50	SS-1A	12	67	-	34	13	11	23	19	31	20	11	6	A-6a (2)
STA. 556+00, 15' RT.	1.50 - 3.00	SS-2A	13	78	2.00	17	9	14	27	33	33	19	14	23	A-6a (7)
LATITUDE = 40.717939	3.00 - 4.50	SS-3A	11	78	3.00			SAME AS SS-2A						23	A-6a (VISUAL)
LONGITUDE = -84.207882	4.50 - 6.00	SS-4A	8	67	3.00			SAME AS SS-2A						32	A-6a (VISUAL)
B-003-0-15	0.00 - 1.50	SS-1A	8	78	-	25	11	12	25	27	33	19	14	12	A-6a (5)
STA. 560+00, 17' RT.	1.50 - 3.00	SS-2A	16	78	-	11	4	15	35	35	34	20	14	20	A-6a (9)
LATITUDE = 40.718342	3.00 - 4.50	SS-3A	17	78	3.50			SAME AS SS-2A						22	A-6a (VISUAL)
LONGITUDE = -84.206528	4.50 - 6.00	SS-4A	21	89	2.50			SAME AS SS-2A						21	A-6a (VISUAL)
B-004-0-15	1.00 - 2.50	SS-1A	13	89	-	20	10	14	28	28	26	18	8	8	A-4a (4)
STA. 564+00, 19' RT.	3.50 - 5.00	SS-2A	8	78	2.50	0	3	19	33	45	36	19	17	20	A-6b (11)
LATITUDE = 40.719000	6.00 - 7.50	SS-3A	15	89	2.50			SAME AS SS-2A						24	A-6b (VISUAL)
LONGITUDE = -84.205360	8.50 - 10.00	SS-4A	7	89	3.00			SAME AS SS-2A						19	A-6b (VISUAL)
B-005-0-15	1.50 - 3.00	SS-1A	16	78	>4.50	2	3	5	34	56	39	21	18	20	A-6b (11)
STA. 568+00, 20' RT.	3.00 - 4.50	SS-2A	15	89	>4.50	4	6	11	33	46	36	19	17	23	A-6b (11)
LATITUDE = 40.719742	4.50 - 6.00	SS-3A	16	89	>4.50			SAME AS SS-2A						19	A-6b (VISUAL)
LONGITUDE = -84.204296															
B-006-0-15	1.00 - 2.50	SS-1A	7	78	1.50	4	6	11	37	42	33	19	14	23	A-6a (10)
STA. 572+00, 20' RT.	3.50 - 5.00	SS-2A	11	89	-	3	4	9	30	54	36	21	15	19	A-6a (10)
LATITUDE = 40.720486	6.00 - 7.50	SS-3A	29	89	>4.50			SAME AS SS-2A						22	A-6a (VISUAL)
LONGITUDE = -84.203234	8.50 - 10.00	SS-4A	28	56	>4.50			SAME AS SS-2A						17	A-6a (VISUAL)
B-007-0-15	1.00 - 2.50	SS-1A	5	89	-	4	5	10	35	46	37	20	17	25	A-6b (11)
STA. 576+00, 16' RT.	3.50 - 5.00	SS-2A	12	78	2.50	6	3	9	29	53	36	21	15	23	A-6a (10)
LATITUDE = 40.721236	6.00 - 7.50	SS-3A	12	78	>4.50			SAME AS SS-2A						21	A-6a (VISUAL)
LONGITUDE = -84.202180	8.50 - 10.00	SS-4A	29	89	>4.50			SAME AS SS-2A						19	A-6a (VISUAL)
B-008-0-15	0.00 - 1.50	SS-1A	5	78	-	6	6	12	29	47	33	20	13	9	A-6a (9)
STA. 580+00, 13' RT.	1.50 - 3.00	SS-2A	13	67	-	0	3	11	35	51	42	20	22	25	A-7-6 (13)
LATITUDE = 40.721935	3.00 - 4.50	SS-3A	16	89	>4.50			SAME AS SS-2A						20	A-7-6 (VISUAL)
LONGITUDE = -84.201080	4.50 - 6.00	SS-4A	15	89	>4.50			SAME AS SS-2A						17	A-7-6 (VISUAL)
B-009-0-15	0.00 - 1.50	SS-1A	12	67	3.00	6	6	11	31	46	36	19	17	17	A-6b (11)
STA. 582+50, 12' RT.	1.50 - 3.00	SS-2A	15	78	3.00	1	3	8	35	53	40	21	19	24	A-6b (12)
LATITUDE = 40.722255	3.00 - 4.50	SS-3A	13	78	3.00			SAME AS SS-2A						23	A-6b (VISUAL)
LONGITUDE = -84.200292	4.50 - 6.00	SS-4A	20	78	>4.50			SAME AS SS-2A						17	A-6b (VISUAL)
B-010-0-15	0.00 - 1.50	SS-1A	7	78	1.50	4	4	11	44	37	42	22	20	32	A-7-6 (12) *
STA. 218+73, 13' RT.	1.50 - 3.00	SS-2A	15	89	>4.50	2	4	11	36	47	39	19	20	23	A-6b (12)
LATITUDE = 40.716994	3.00 - 4.50	SS-3A	17	89	>4.50			SAME AS SS-2A						14	A-6b (VISUAL)
LONGITUDE = -84.204164	4.50 - 6.00	SS-4A	23	89	>4.50			SAME AS SS-2A						15	A-6b (VISUAL)
B-011-0-15	1.00 - 2.50	SS-1A	7	89	1.50	2	5	16	28	49	38	21	17	24	A-6b (11) *
STA. 223+00, CL	3.50 - 5.00	SS-2A	15	89	>4.50	3	4	10	36	47	32	19	13	17	A-6a (9)
LATITUDE = 40.718165	6.00 - 7.50	SS-3A	16	78	>4.50			SAME AS SS-2A						16	A-6a (VISUAL)
LONGITUDE = -84.204151	8.50 - 10.00	SS-4A	16	89	>4.50			SAME AS SS-2A						15	A-6a (VISUAL)
B-012-0-15	1.00 - 2.50	SS-1A	12	89	1.00	1	3	12	47	37	36	22	14	19	A-6a (10) *
STA. 225+00, CL	3.50 - 5.00	SS-2A	7	89	1.50	0	3	13	35	49	44	22	22	24	A-7-6 (14)
LATITUDE = 40.718701	6.00 - 7.50	SS-3A	7	78	3.00			SAME AS SS-2A						27	A-7-6 (VISUAL)
LONGITUDE = -84.203997	8.50 - 10.00	SS-4A	12	89	>4.50			SAME AS SS-2A						18	A-7-6 (VISUAL)
B-013-0-15	1.00 - 2.50	SS-1A	5	89	1.25	0	2	10	38	50	41	22	19	27	A-7-6 (12) *
STA. 227+00, CL	3.50 - 5.00	SS-2A	15	78	1.50	2	3	11	41	43	38	20	18	25	A-6b (11)
LATITUDE = 40.719231	6.00 - 7.50	SS-3A	13	78	3.00			SAME AS SS-2A						24	A-6b (VISUAL)
LONGITUDE = -84.203813	8.50 - 10.00	SS-4A	21	89	>4.50			SAME AS SS-2A						17	A-6b (VISUAL)
B-014-0-15	1.00 - 2.50	SS-1A	11	89	2.25	1	4	14	35	46	41	21	20	24	A-7-6 (12) *
STA. 229+00, CL	3.50 - 5.00	SS-2A	12	78	>4.50	2	7	16	39	36	29	17	12	15	A-6a (9)
LATITUDE = 40.719764	6.00 - 7.50	SS-3A	19	78	>4.50			SAME AS SS-2A						17	A-6a (VISUAL)
LONGITUDE = -84.203860	8.50 - 10.00	SS-4A	36	89	>4.50			SAME AS SS-2A						14	A-6a (VISUAL)
B-015-0-15	1.00 - 2.50	SS-1A	9	78	1.75	0	3	12	35	50	41	22	19	23	A-7-6 (12) *
STA. 1+00, CL	3.50 - 5.00	SS-2A	13	78	>4.50	4	5	11	38	42	31	19	12	17	A-6a (9)
LATITUDE = 40.720147	6.00 - 7.50	SS-3A	25	89	>4.50			SAME AS SS-2A						16	A-6a (VISUAL)
LONGITUDE = -84.204123	8.50 - 10.00	SS-4A	27	78	>4.50			SAME AS SS-2A						15	A-6a (VISUAL)
B-016-0-15	0.00 - 1.50	SS-1A	-	-	-	33	25	13	21	8	NP	NP	NP	6	A-2-4 (0) *
STA. 3+35, 12' RT.	1.50 - 3.00	SS-2A	9	78	2.00	0	2	12	39	47	41	22	19	16	A-7-6 (12)
LATITUDE = 40.720780	3.00 - 4.50	SS-3A	8	89	3.00			SAME AS SS-2A						23	A-7-6 (VISUAL)
LONGITUDE = -84.204200	4.50 - 6.00	SS-4A	21	67	3.75			SAME AS SS-2A						22	A-7-6 (VISUAL)

SOIL PROFILE
STA. 554+50 TO STA. 568+50

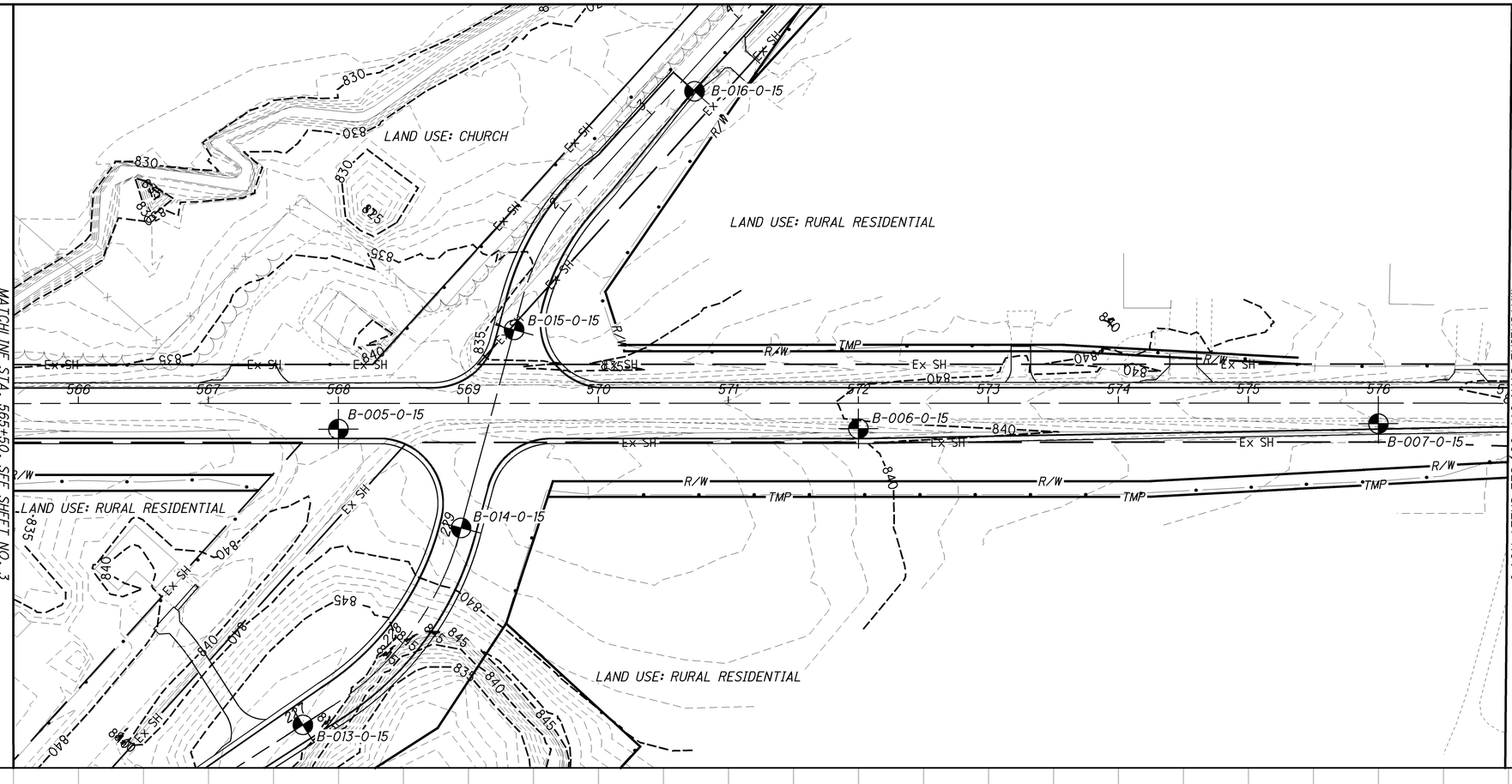
ALL-117/501-
10.76/4.34

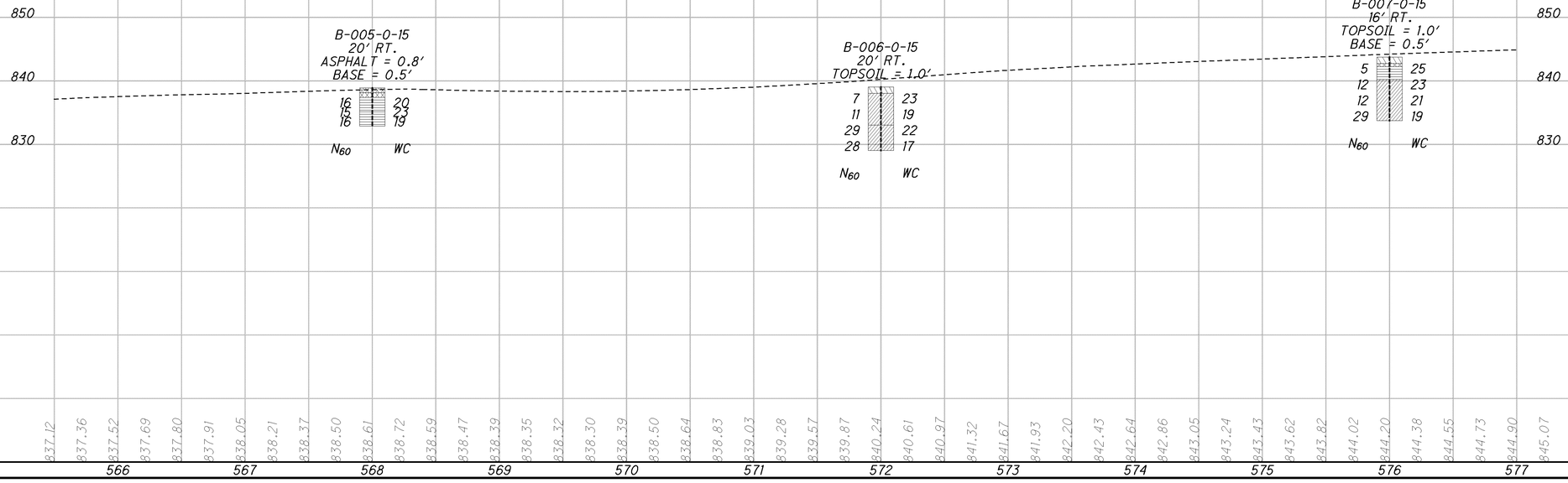
3/8

HORIZONTAL
SCALE IN FEET
0 25 50 100

DRAWN GLM
CHECKED SAT

I:\gt\Projects\D01\Allen\ALL-117_501-10.76_4.34\geotechnical\sheets\84063IP001.dgn 02-NOV-2015 2:01PM gmcginni





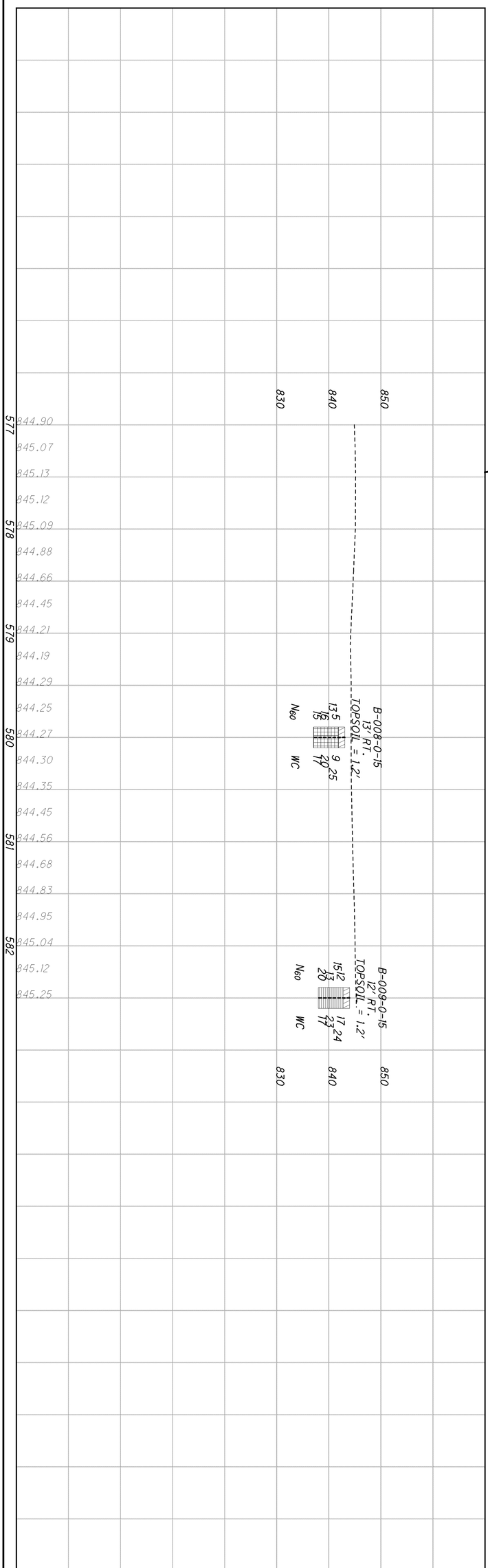
HORIZONTAL SCALE IN FEET
0 25 50 100

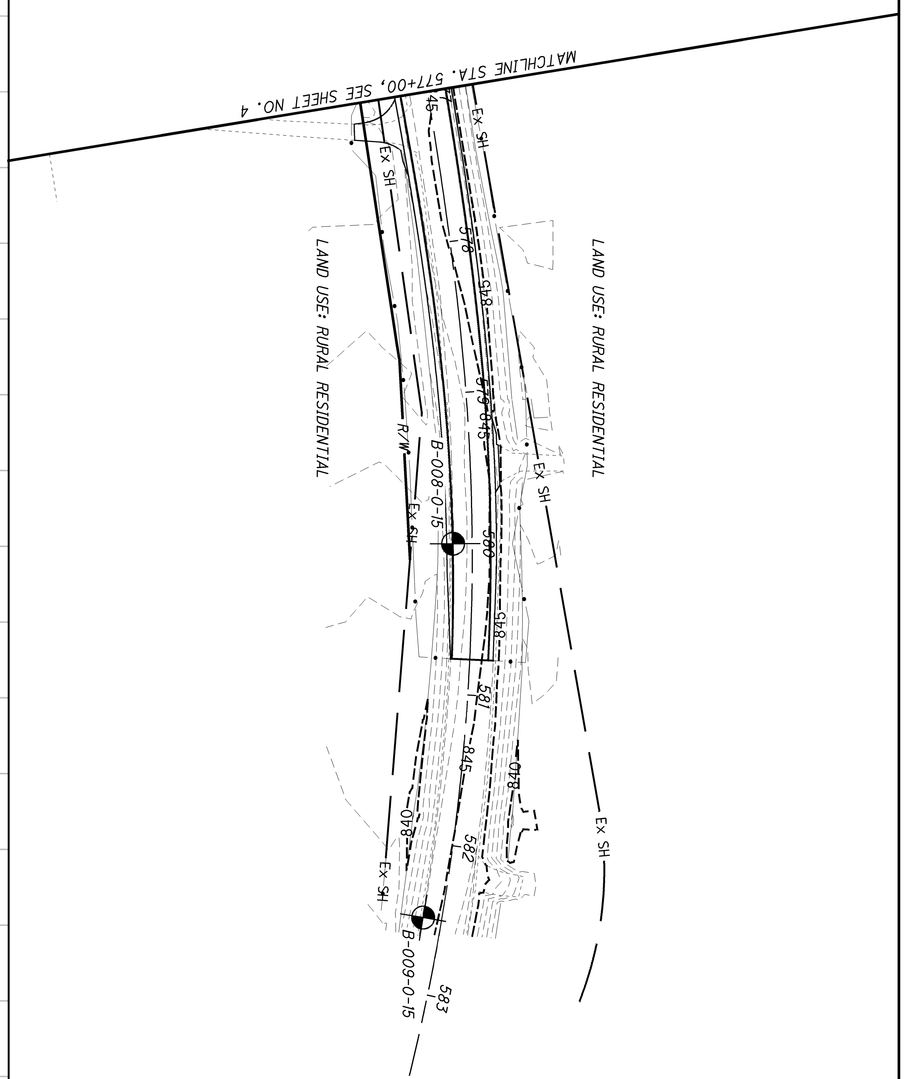
DRAWN GLM
CHECKED SAT

SOIL PROFILE
STA. 568+50 TO STA. 582+50

ALL-117/501-10.76/4.34

4/8





5/8	ALL-117/501-10.76/4.34	SOIL PROFILE STA. 577+00 TO STA. 583+00	DRAWN GLM CHECKED SAT	0 50 25 100 HORIZONTAL SCALE IN FEET	

LAND USE: AGRICULTURAL

845
840
Ex SH
218
219
220
221
222
223
B-010-0-15
B-011-0-15
R/W
MATCHLINE STA 224+00 SEE SHEET NO. 7

LAND USE: AGRICULTURAL

848.35 848.08 847.83 847.58 847.32 847.07 846.81 846.56 846.30 846.05 845.79 845.54 845.29 845.03 844.78 844.52 844.27 844.01 843.76 843.51 843.25 843.00 842.74 842.49 842.23 841.98 841.73 841.51 841.31 841.15 841.01

B-010-0-15
13' RT.
TOPSOIL = 1.5'
15 7 32 23
17 17 14
23 15
N_{60} WC

B-011-0-15
℄
TOPSOIL = 1.5'
7 24
15 17
16 16
16 15
N_{60} WC

850
840
830

848.35 848.14 847.99 847.67 847.34 847.08 846.83 846.49 846.13 845.81 845.48 845.17 844.92 844.66 844.38 844.11 843.85 843.59 843.35 843.10 842.90 842.71 842.45 842.12 841.62 841.25 841.05 840.95 840.78 840.57 840.52

218 219 220 221 222 223 224

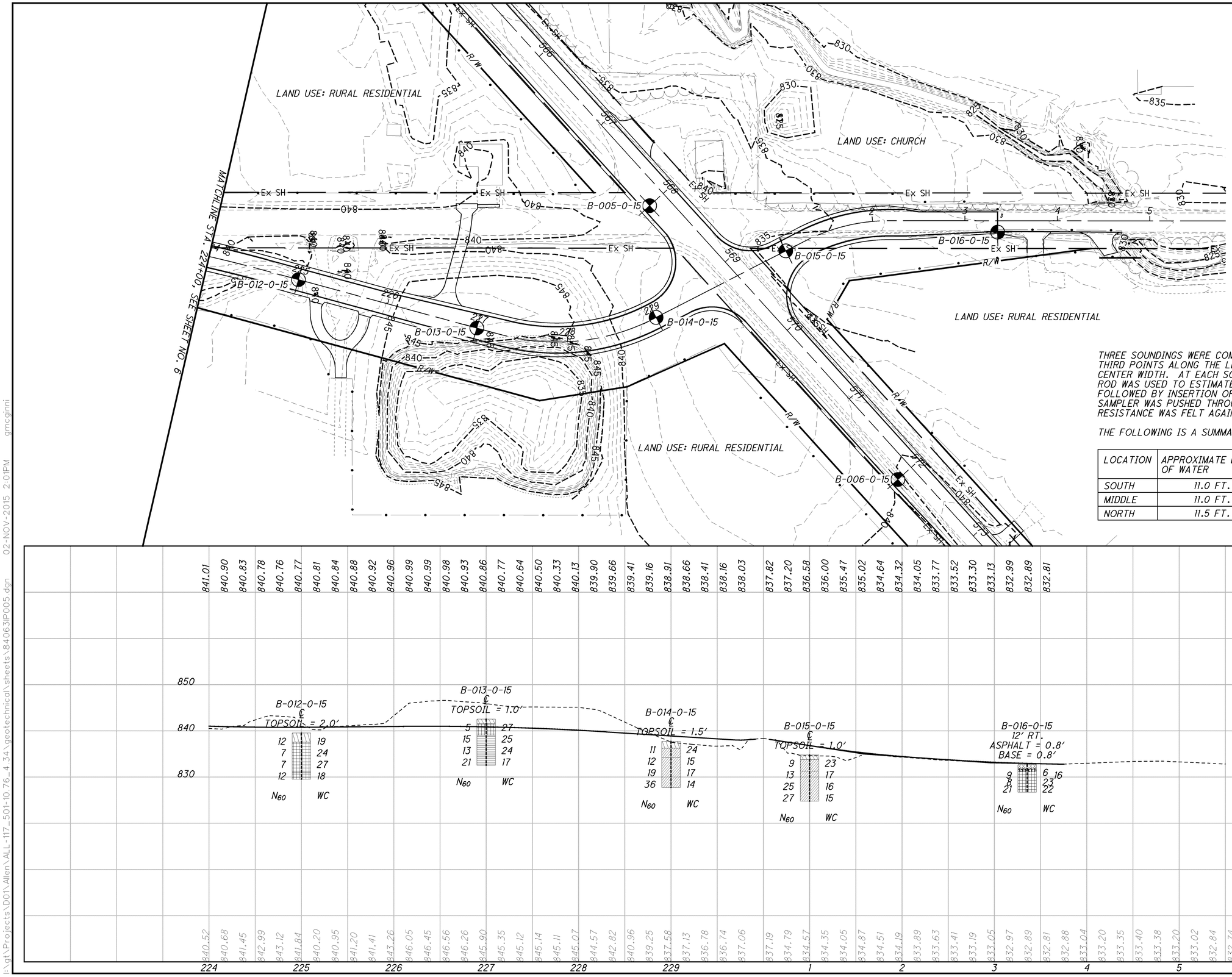
HORIZONTAL SCALE IN FEET
0 25 50 100

DRAWN GLM
CHECKED SAT

SOIL PROFILE
STA. 218+00 TO STA. 224+00

ALL-117/501-10.76/4.34

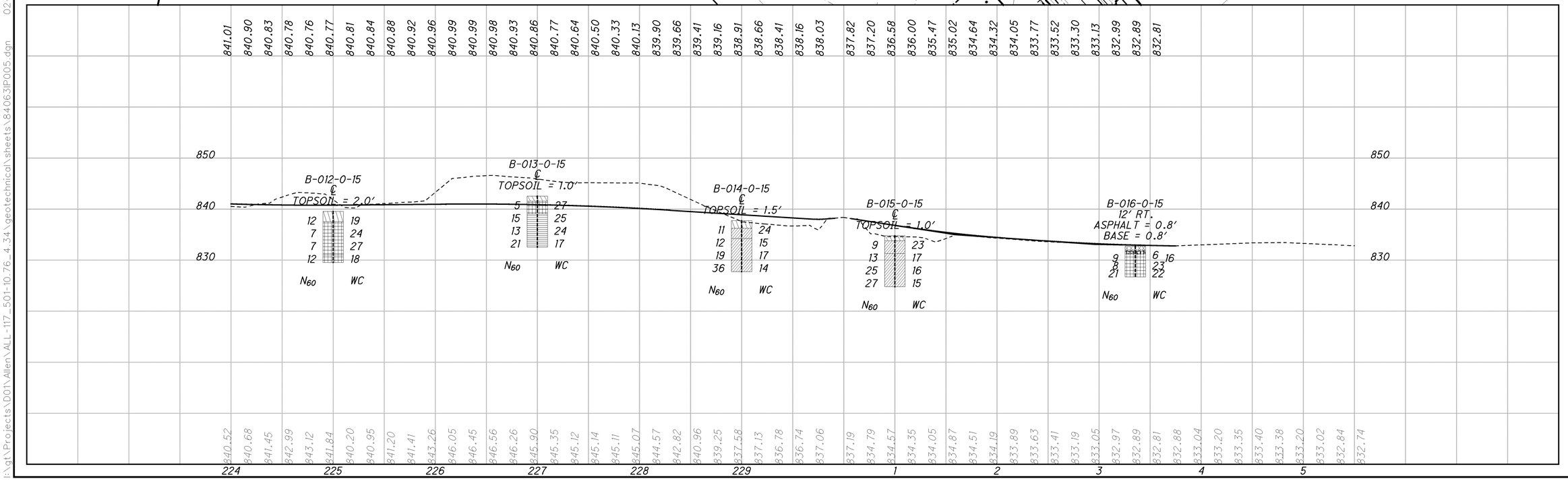
6/8



THREE SOUNDINGS WERE COMPLETED AT APPROXIMATELY THIRD POINTS ALONG THE LENGTH OF THE POND AT THE CENTER WIDTH. AT EACH SOUNDING LOCATION, A SURVEY ROD WAS USED TO ESTIMATE THE DEPTH OF WATER FOLLOWED BY INSERTION OF THE PEAT SAMPLER. THE PEAT SAMPLER WAS PUSHED THROUGH THE SOFT MUCK UNTIL FIRM RESISTANCE WAS FELT AGAINST THE PEAT SAMPLER.

THE FOLLOWING IS A SUMMARY OF FINDINGS:

LOCATION	APPROXIMATE DEPTH OF WATER	APPROXIMATE DEPTH OF MUCK
SOUTH	11.0 FT.	2 IN.
MIDDLE	11.0 FT.	3 IN.
NORTH	11.5 FT.	4 IN.



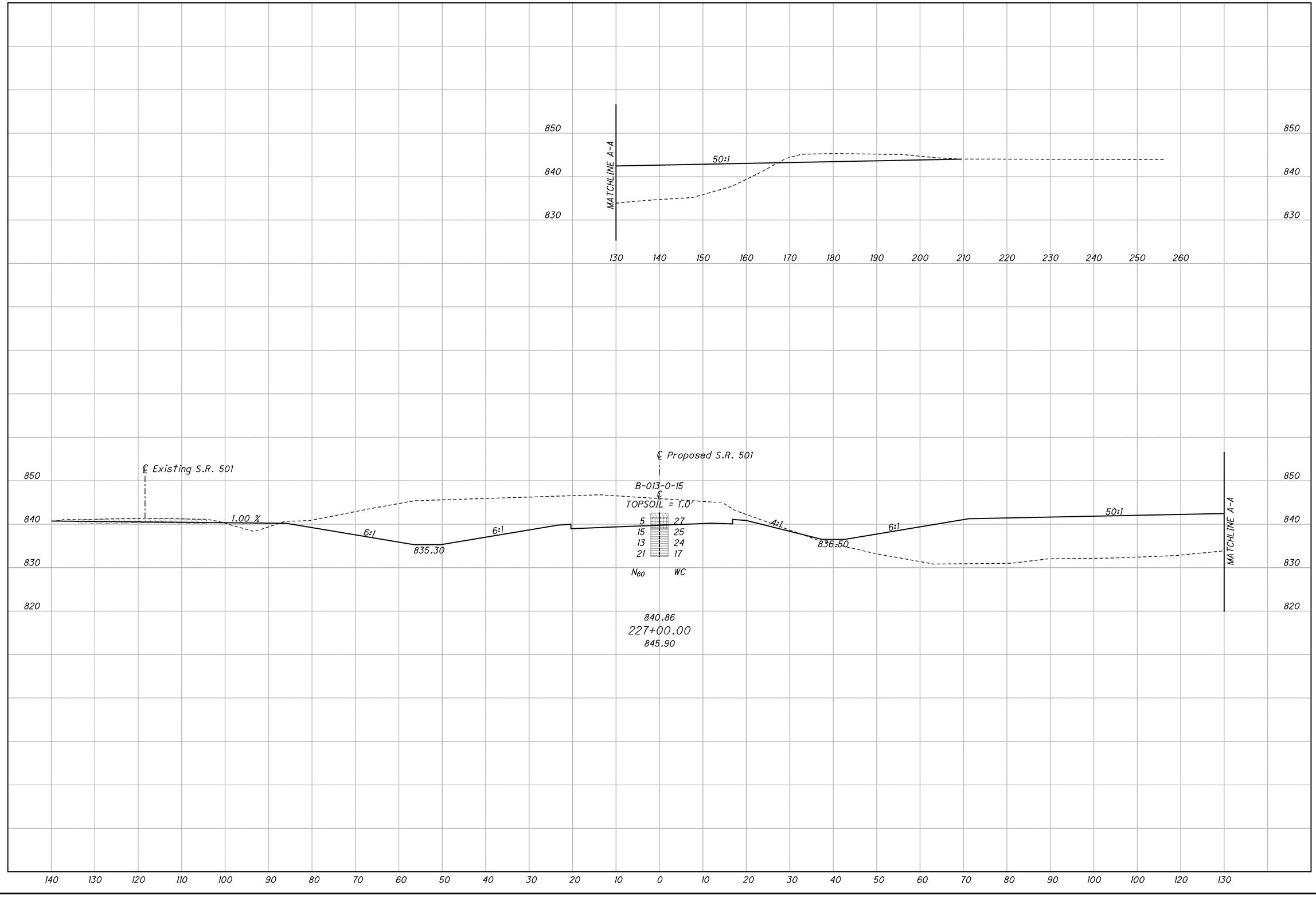
HORIZONTAL SCALE IN FEET
0 25 50 100

DRAWN GLM
CHECKED SAT

SOIL PROFILE
STA. 224+00 TO STA. 5+00

ALL-117/501-10.76/4.34

7/8



HORIZONTAL SCALE IN FEET

DRAWN | CHECKED

SOIL PROFILE
S.R. 501 - CROSS SECTION STA. 227+00

ALL-117/501-10.76/4.34

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SPECIAL PROVISIONS

WATERWAY PERMITS CONDITIONS

C-R-S: ALL-117/501-10.76/4.34

PID: 84063

Date: 05/27/2015

1. Waterway Permit Time Restrictions:

Regional General Permit (RGP) Section A (Linear Transportation) is authorized for ALL-117/501-10.76/4.34, PID 84063. A copy of the RGP shall be kept at the work site at all times and made available to all contractors and subcontractors. The permit is effective starting: **May 27, 2015**. The permit expires: **October 24, 2019.**

For permitted work in aquatic resources (including, but not limited to: streams, wetlands, jurisdictional ditches, captured streams, lakes, ponds), the Department will consider the Contractor's submission of a reauthorization to the waterway permit end date based on project constraints. In order to be considered, the Contractor must submit a justification to the Engineer at least 90 days prior to the waterway permit end date. The Engineer will submit the request for a time extension to ODOT-OES-WPU for consideration and coordination with the U.S. Army Corps of Engineers (USACE), Ohio Environmental Protection Agency (OEPA), U.S. Coast Guard (USCG), U.S. Fish and Wildlife Service (USFWS), and Ohio Department of Natural Resources (ODNR).

2. Deviations From Permitted Construction Activities

No deviation from the requirements for work in aquatic resources depicted in the plans, Special Provisions, and/or working drawings may be made unless a modification has been submitted to ODOT-OES-WPU and approved by the appropriate agencies (i.e., USACE, OEPA, USCG, ODNR, and USFWS).

For emergency situations resulting in unanticipated impacts to aquatic resources, provide notification (verbal or written) to the Engineer as soon as possible following discovery of the situation. Written notification to the Engineer and notification to the ODOT-OES-WPU (614-466-7100) must be made within 24 hours.

For non-emergency situations, notify the Engineer in writing for submission to the ODOT-OES-WPU (614-466-7100) for consideration and coordination with the appropriate agencies. Notification must be made at least 90 days prior to planned, non-permitted activities. Consideration of the requested deviation is at the discretion of the Director and must be coordinated with the appropriate regulatory agencies.

3. In-Stream Work Restrictions

Work in the following aquatic resources is further restricted as follows:

Stream Name /Description	Location	Work restriction dates (No in-stream work permitted)
Kessler Run	STA 562+34.18	None
Kessler Run	STA 564+38.10	None
Kessler Run	STA 4+77.50	None

In-stream work has been defined as the placement and/or removal of fill materials (temporary or permanent) below ordinary high water of a stream. Examples of "fill" include, but are not limited to: bridge piers, abutments, culverts, rock channel protection, scour protection and temporary work pads.

Fills placed within a stream identified in the above table (outside of the work restriction dates) can continue to be worked from during the work restriction dates, but cannot be expanded, removed, or otherwise modified (below ordinary high water) until once again outside of the work restriction dates.

4. Materials:

Materials utilized in or adjacent to aquatic resources on this project for temporary or permanent fill or bank protection shall consist of suitable material free from toxic contaminants in other than trace quantities. Broken asphalt is specifically excluded. Chromated Copper Arsenate (CCA), creosote, and other pressure treated lumber shall not be used in structures that are placed in aquatic resources.

5. Cultural Resources

If archeological sites or human remains are discovered, cease all work in the immediate area and notify the Engineer who will immediately contact the ODOT-District Environmental Coordinator and ODOT-OES-Cultural Resource Section at 614-466-7100. In the event of human remains are identified by OES-Cultural Resources Section the Engineer shall also contact the Allen County Sheriff's Office at (419) 993-1400.

6. Aquatic Resource Demarcation:

All aquatic resources indicated on the plans shall be demarcated in the field as per SS 832 prior to site disturbance. Specifically, only 75 feet of Kessler Run at Station 4+77.50 can be impacted temporarily and 29.5 feet of Kessler Run at Station 4+77.50 can be impacted permanently; 15 feet of Kessler Run at Station 564+38.10 can be impacted permanently; 10 feet of Kessler Run at Station 562+34.18 can be impacted permanently. No temporary impacts are authorized for Kessler Run at Stations 562+34.18 and 564+38.10. **No impacts to wetlands are authorized.**

The remainder of the aquatic resources (Wetlands B, C, D, E, and F) must be demarcated as to ensure avoidance. The fence shall remain in place and be maintained throughout the construction process. Following the completion of the project, the fence and posts shall be removed.

7. Spill containment:

Provide and Maintain an Oil Spill Kit with a minimum capacity of 65 gallons. The Spill Kit shall contain:

- 6 - 3 in. X 8 ft. Oil only socks
- 4 - 18 in. X18 in. Oil only pillows
- 2 - 5 in. X 10ft. Booms
- 50 - 16in. X 20 in. Oil only pads
- 10- Disposable Bags
- 1- 65 Gallon drum with lid
- 25 pounds of Granular Oil Absorbent

The Oil Spill Kit shall be located within 150 feet of any equipment working in a stream or wetland. The oil Spill Kit shall be maintained for the life of the contract. Any materials utilized during the project will be replaced within 48 hours. All costs associated with furnishing and maintaining the above referenced spill containment kit is incidental to work.

8. Blasting:

State law requires notification to the Ohio Department of Natural Resources should blasting be required within or near stream channels (See ORC 1533.58 & CMS 107.09). Notify Engineer, in writing, for submission to ODOT-OES-WPU (614-466-7100) for coordination with ODNR.

9. Bridge Inspection:

Prior to the removal of bridge structures, the underside must be carefully examined for the presence of birds and bats. Should any birds or bats be found roosting on the underside of the bridge, the Contractor is required to notify the Engineer for coordination with ODOT-OES-WPU (614-466-7100).

10. Project Inspection:

Inspection of Work may include inspection by representatives of other government agencies or railroad corporations that pay a portion of the cost of the Work or regulate the Work through State and Federal law. Comments from the representatives of these agencies shall be directed to the Engineer. Please forward a copy to ODOT-OES-WPU (614-466-7100).

11. Temporary Access Fills (Stream and River Crossings and Fills)

Special Provisions Notes:
Regional General Permit (RGP) for the State of Ohio Department of Transportation

Definitions:

Hydraulic Opening
The cross sectional area allowing an unimpeded discharge equal to twice the highest monthly flow without producing a rise in the backwater above the Ordinary High Water Mark (OHWM)*.

Standard Temporary Discharge
The hydraulic opening providing a capacity for a discharge equal to twice the *highest monthly flow* without producing a rise in the backwater above the OHWM shall be known as the Standard Temporary Discharge. The U.S. Geologic Service publication "Techniques for estimating Selected Streamflow Characteristics of Rural Unregulated Streams in Ohio" provides equations that estimate monthly flow for Ohio Waterways These flows are also available in a web application by USGS StreamStats, (http//water.usgs.gov/osw/streamstat/ohi.html).

Average Monthly Flow
The average monthly flow represents the estimated "normal" flow.

Temporary Access Fills (TAFs)
In Streams and Rivers may include, but are not limited to, causeways, cofferdams (as described by other items of work), access pads, temporary bridges, etc. The Contractor will make every attempt minimize disturbance to water bodies, stream banks, stream beds, and approach sections during the construction, maintenance, and removal of the TAFs. Fording of streams and rivers is prohibited. Construct TAFs in such a manner that will maintain flows, minimize upstream flooding, and avoid overtopping the TAF on a regular basis. ***TAFs shall be designed and constructed so that the hydraulic opening provides capacity for a discharge equal to twice the highest monthly flow without producing a rise in the backwater above the Ordinary High Water Mark (OHWM)*.***

Requirements
21 calendar days prior to the initiation of any in-stream work, provide the Engineer with working drawings that include:

- Plan view drawing (200 scale or less) showing the location of all jurisdictional temporary fill proposed for use on the project.
- Scaled Cross section and profile drawing showing the OHWM and the proposed compliant hydraulic opening.

- A description of the installation and staging of all temporary jurisdictional fill over the life of the contract.
- A description of the removal of all jurisdictional temporary fill and restoration of the channel and all areas impacted by the jurisdictional temporary fill.
- A schedule outlining the timing of the placement and removal of all TAF.
- Have an Ohio Registered Engineer prepare, sign, seal, and date the working drawings. Have a second Ohio Registered Engineer check, sign, and seal and date the working drawings. The preparer and checker are two different Engineers. Include the following statement on the working drawings:
  "These working drawings were prepared in compliance with the terms of the Regional General Permit and all contract documents."
- Include supporting hydraulic calculations developed by the engineer(s) who sealed the working drawings.
- Do not begin in-stream work until the Engineer has accepted the working drawings.

If the OHWM is not shown on the plans, the Department will establish the OHWM based on the definition of OHWM (as defined in SS 832) or the peak discharge from the 2 year event, using the method described in the most current version of the Department's Location and Design Manual Volume II.

If the Contractor proposes a TAF which does not provide for the Standard Temporary Discharge (discharge equal to twice the highest monthly flow without producing a rise in the backwater), the Contractor is required to coordinate the request for the contractor's proposed TAF with the Engineer and the ODOT Office of Environmental Services (OES). The Department makes no guarantee to grant the request. The contractor's proposed TAF request will be coordinated by OES with the USACE and the OEPA, as appropriate.

In addition to the requirements described in SS 832, supply the Engineer/OES with the following:

1. A plan and profile showing the temporary access fill(s) with the OHWM.
2. Cross section showing the hydraulic opening and the anticipated discharge flow.
3. A restoration plan for the area affected by the temporary access fill(s).
4. A schedule outlining the timing of the placement and removal of the temporary access fill(s).

The time frame allowed for the coordination of the contractor's proposed TAF will be a minimum of 60 days. Installation of any jurisdictional fill without a 404 Permit authorized by the USACE is strictly prohibited. All direct coordination with the USACE and/or OEPA will be performed through OES.

TAFs Construction and Payment

Begin planning and installing causeways and access fills as early in construction as possible to avoid conflicts with 404/401 permits or other environmental commitments that have been included in the construction plans.

TAFs in Streams and Rivers may include, but are not limited to, causeways, cofferdams, access pads, temporary bridges, etc. Make every attempt minimize disturbance to water bodies, stream banks, stream beds, and approach sections during the construction, maintenance, and removal of the TAFs. Make every attempt to minimize disturbance to water bodies during construction, maintenance, and removal of the causeway and access fills. Construct the causeway and access fills as narrow as practical. Install in-stream conduits parallel to the stream banks. Make the causeway and access fills in shallow areas rather than deep pools where possible. Minimize clearing, grubbing, and excavation of stream banks, bed, and approach sections. Construct the causeway and access fills as to not erode stream banks or allow sediment deposits in the channel.

Prior to the initiation of any in-stream work, establish a monument upstream of proposed temporary crossing or temporary construction access fill to visually monitor the water elevation in the waterway where the fill is permitted. Maintain the monument throughout the project. Provide a visual mark on the monument that identifies the elevation 1 foot above the OHWM. If the OHWM is not shown on the plans, the Department will establish the OHWM based on the definition of OHWM (SS 832.02) or the peak

discharge from the 2 year event, using the method described in the most current version of the Department's Location and Design Manual Volume II.

Ensure that the monument can be read from the bank of the waterway. Have this elevation set and certified by an Ohio Registered Surveyor.

TAFs placed by the contractor above the OHWM are not subject to the 404/401 permit constraints. All costs associated with furnishing and maintaining the above referenced monument is incidental to the work.

Should the water elevation of the waterway, exceed the elevation 1 foot above OHWM, the Department will compensate the Contractor for repair of any resulting damage to the permitted temporary access fill up to the elevation of 1 foot above the OHWM, except as noted. Follow the requirements in Item 502 for Structures for Maintaining Traffic and in Item 503 for Cofferdams and any modifications to these items as shown in the plans. The Department will not pay for repair and maintenance of temporary access structures that are related to the construction access fill.

Should the water elevation of the waterway exceed the elevation shown on the monument, the Department will recognize this event as an excusable, non-compensable delay in accordance with Section 108.06 of the Construction & Materials Specifications.

Construct the causeway and fills, not including cofferdams and temporary bridges, to a water elevation at least 1 foot (0.3 m) above the OHWM. If more than one-third the width of the stream is filled, then use culvert pipes to allow the movement of aquatic life. Ensure that any ponding of water behind the causeway and access fills will not damage property or threaten human health and safety.

The following minimum requirements apply to TAFs where culverts are used.

A. Furnish culverts on the existing stream bottom.
B. Avoid a drop in water elevation at the downstream end of the culvert.
C. Furnish a sufficient number of culverts in addition to stream openings to providing a discharge equal to twice the highest monthly flow without producing a rise in the backwater above the OHWM.
D. Furnish culverts with a minimum diameter of 18 inches (0.5 m).

For all fill and surface material placed in the channel, around the culverts, or on the surface of the causeway and access fills furnish clean, non-erodible, nontoxic dumped rock fill, Type B, C, or D, as specified in C&MS 703.19.B. Extend rock fill up the slope from original stream bank for 50 feet (10 m) to catch and remove erodible material from equipment.

When the work requiring the TAFs is complete all portions of the TAF (including all rock and culverts) will be removed in its entirety. The material will not be disposed in other waters of the US or isolated wetland. The stream bottom affected by the causeway and access fills will be restored to its pre-construction elevations. The TAF will not be paid as a separate item but will be included by the Contractor as part of the total project cost.

Unless specific TAFs compensation is included in the plans, all environmental protection and control associated with the 404/401 permit activities, including but not limited to TAFs, are incidental to the work within the boundaries of the 404/401 permit or as otherwise identified in the 404/401 permit application.

12. Excavation Activities:

Excavated material will be placed at the upland site and disposed of in such a manner that sediment and runoff to streams and other waters is controlled and minimized. If any changes to the proposed work are deemed necessary, you must notify and coordinate with the ODOT-OES-WPU (614-466-7100).

13. Bridge Demolition Debris:

Demolition debris from bridge removal activities is considered a fill activity by the USACE and Ohio EPA and placement must not exceed 72 hours within waters of the US. If removal of debris material cannot be achieved within 72 hours, please contact ODOT- Office of Environmental Services - Waterway Permits Unit at 614-466-7100.