FRANKLIN COUNTY, OHIO
OFFICE OF THE COUNTY ENGINEER

LOCKBOURNE ROAD & LONDON-GROVEPORT ROAD (S.R. 317) ROUNDABOUT

C.R. 13 & C.R. 924

HAMILTON TOWNSHIP

LOCATION MAP

LATITUDE: 39°49'52" N LONGITUDE: 82°58'22" W

N

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

DESIGN DESIGNATION

	LOCKBOURNE ROAD	LONDON-GROVEPORT ROAD
CURRENT ADT (2022)	1,610	10,500
DESIGN YEAR ADT (2042)	2,320	13,300
DESIGN HOURLY VOLUME (2022)	161	1,050
DIRECTIONAL DISTRIBUTION	15%	85%
TRUCKS (24 HOUR B&C)	12%	22%
DESIGN SPEED	55 MPH	55 MPH
LEGAL SPEED	55 MPH	55 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	04 MINOR ARTERIAL/ 05 MAJOR COLLECTOR (RURAL)	03 PRINCIPAL ARTERIAL (RURAL)

NHS PROJECT YES

DESIGN VEHICLE: WB-67
INSCRIBED OVAL DIAMETER: MAJOR AXIS 177.56 FT
MINOR AXIS 128.60 FT

DESIGN EXCEPTIONS

NONE

OHIO811.org Before You Dig

PLAN PREPARED BY:

ARCADIS

100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 985-9100
www.arcadis.com

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ENGINEER'S SEAL:

STATE OF OHIO
MATTHEW JOSEPH BURGER
E-72010
REGISTERED PROFESSIONAL ENGINEER

SIGNED: Matthew J. Burger
DATE: 7/30/21

STANDARD CONSTRUCTION DRAWINGS

DM-1.1	7/16/21	HL-30.22	1/15/21	MT-95.30	7/19/19		
DM-1.2	7/16/21	HL-40.20	7/17/20	MT-97.10	4/19/19		
DM-4.2	7/16/21	HL-50.11	1/16/15	MT-97.11	1/20/17		
DM-4.3	7/16/21	HL-60.11	7/21/17	MT-101.60	1/17/20		
DM-4.4	7/16/21	HL-60.31	1/17/20				
				BP-3.1	1/17/20		
		TC-41.20	10/18/13	BP-3.2	1/18/19		
		TC-41.40	10/18/13	BP-5.1	7/16/21		
HL-10.11	1/15/21	TC-41.41	7/19/19				
HL-10.12	1/20/17	TC-41.50	10/18/13				
HL-10.13	4/17/20	TC-42.20	10/18/13				
HL-20.11	1/15/21	TC-52.10	10/18/13				
HL-30.11	1/15/21	TC-52.20	1/15/21				
		TC-71.10	7/16/21				

SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
800-2020	7/16/21	FRANKLIN COUNTY SECTION 100 GEN. PROVISIONS DATED: 06/15/2021
813	10/19/18	
825	1/17/20	
832	10/19/18	
836	1/19/18	
913	4/16/21	

PROJECT DESCRIPTION

Upgrading 0.17 miles of London-Groveport Road (SR 317) and 0.17 miles of Lockbourne Road by constructing a single-lane roundabout. The project will improve drainage, pavement, signing, pavement markings and street lighting at the intersection.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	3.49 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.125 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	4.99 ACRES

SPECIFICATIONS

The 2019 standard specifications of the State of Ohio, Department of Transportation, including changes and supplemental specifications listed in the proposal shall govern this improvement unless otherwise noted.

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

I approve these plans and declare that the making of this improvment will require the closing to traffic of the highway and that provisions for the maintenance and safety of traffic will be as set forth in the plans and estimates.

FRANKLIN COUNTY

BWF

APPROVED Cornell R Robertson
DATE 8/6/2021 FRANKLIN COUNTY ENGINEER

APPROVED W. F. B
DATE 08/04/2021 FRANKLIN COUNTY CHIEF DEPUTY ENGINEER

WE, THE COMMISSIONERS OF FRANKLIN COUNTY IN FORMAL SESSION, HEREBY APPROVE THESE PLANS.

APPROVED
DATE 9/7/2021 FRANKLIN COUNTY COMMISSIONER

APPROVED
DATE 9/7/2021 FRANKLIN COUNTY COMMISSIONER

APPROVED
DATE FRANKLIN COUNTY COMMISSIONER

CITY OF COLUMBUS

APPROVED Ted B. for Danella Pettenski
DATE 10/7/2021 ADMINISTRATOR, DIVISION OF WATER CITY OF COLUMBUS

APPROVED Julie Davis by AWT
DATE 10.7.2021 DIRECTOR, DEPARTMENT OF PUBLIC UTILITIES, CITY OF COLUMBUS

REVISIONS

21-061

REV.	DESCRIPTION	INITIAL	DATE

FEDERAL PROJECT NO. E201 (093)

PID NO. 109581

CONSTRUCTION PROJECT NO. 2021-24

RAILROAD INVOLVEMENT NONE

FRA-317-1.46
LOCKBOURNE ROAD & LONDON-GROVEPORT ROAD

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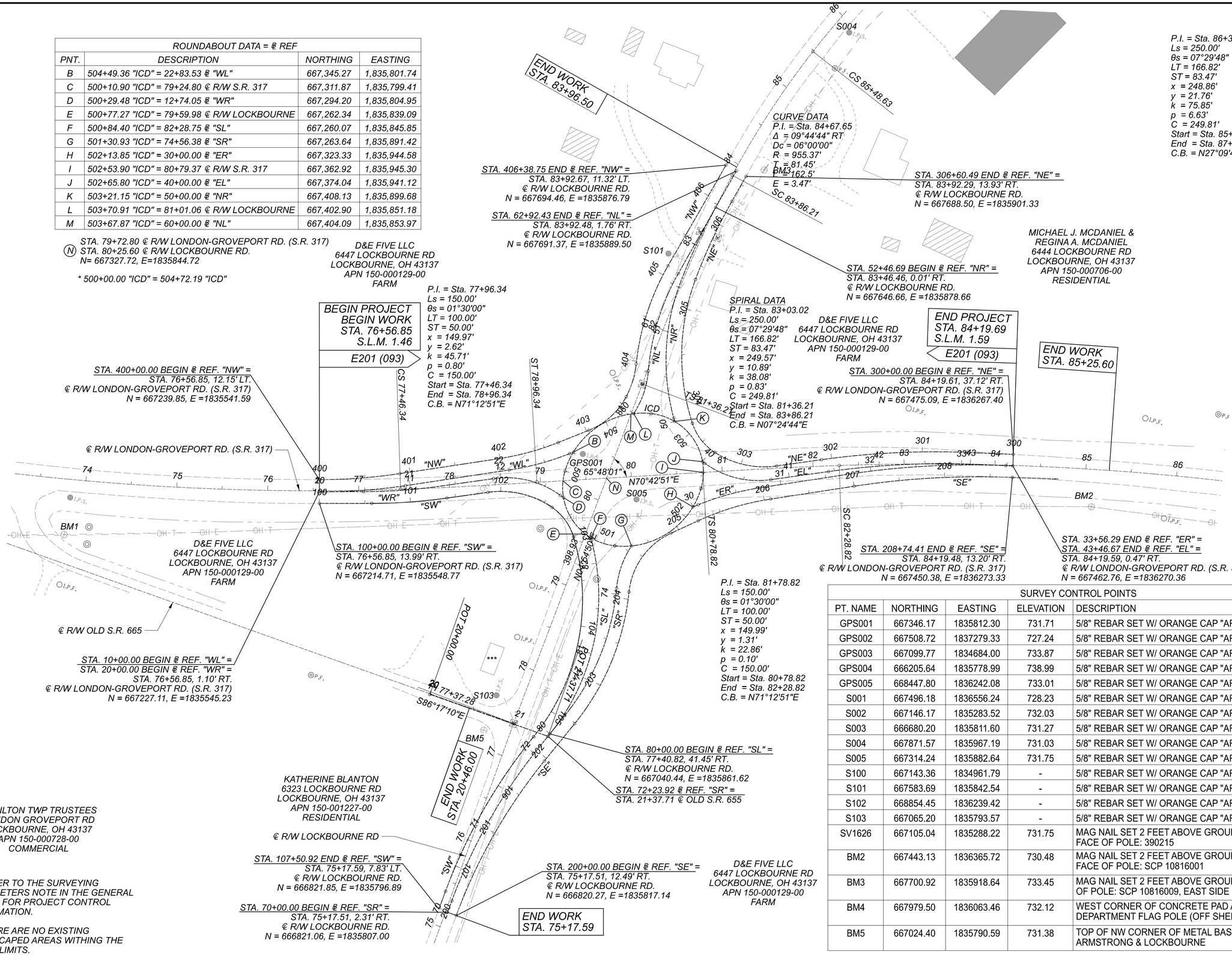
ROUNDABOUT DATA = ℄ REF			
PNT.	DESCRIPTION	NORTHING	EASTING
B	504+49.36 "ICD" = 22+83.53 ℄ "WL"	667,345.27	1,835,801.74
C	500+10.90 "ICD" = 79+24.80 ℄ R/W S.R. 317	667,311.87	1,835,799.41
D	500+29.48 "ICD" = 12+74.05 ℄ "WR"	667,294.20	1,835,804.95
E	500+77.27 "ICD" = 79+59.98 ℄ R/W LOCKBOURNE	667,262.34	1,835,839.09
F	500+84.40 "ICD" = 82+28.75 ℄ "SL"	667,260.07	1,835,845.85
G	501+30.93 "ICD" = 74+56.38 ℄ "SR"	667,263.64	1,835,891.42
H	502+13.85 "ICD" = 30+00.00 ℄ "ER"	667,323.33	1,835,944.58
I	502+53.90 "ICD" = 80+79.37 ℄ R/W S.R. 317	667,362.92	1,835,945.30
J	502+65.80 "ICD" = 40+00.00 ℄ "EL"	667,374.04	1,835,941.12
K	503+21.15 "ICD" = 50+00.00 ℄ "NR"	667,408.13	1,835,899.68
L	503+70.91 "ICD" = 81+01.06 ℄ R/W LOCKBOURNE	667,402.90	1,835,851.18
M	503+67.87 "ICD" = 60+00.00 ℄ "NL"	667,404.09	1,835,853.97



NOTE:
1. REFER TO THE SURVEYING PARAMETERS NOTE IN THE GENERAL NOTES FOR PROJECT CONTROL INFORMATION.

2. THERE ARE NO EXISTING LANDSCAPED AREAS WITHING THE WORK LIMITS.

SURVEY CONTROL POINTS				
PT. NAME	NORTHING	EASTING	ELEVATION	DESCRIPTION
GPS001	667346.17	1835812.30	731.71	5/8" REBAR SET W/ ORANGE CAP "ARCADIS CONTROL"
GPS002	667508.72	1837279.33	727.24	5/8" REBAR SET W/ ORANGE CAP "ARCADIS CONTROL"
GPS003	667099.77	1834684.00	733.87	5/8" REBAR SET W/ ORANGE CAP "ARCADIS CONTROL"
GPS004	666205.64	1835778.99	738.99	5/8" REBAR SET W/ ORANGE CAP "ARCADIS CONTROL"
GPS005	668447.80	1836242.08	733.01	5/8" REBAR SET W/ ORANGE CAP "ARCADIS CONTROL"
S001	667496.18	1836556.24	728.23	5/8" REBAR SET W/ ORANGE CAP "ARCADIS CONTROL"
S002	667146.17	1835283.52	732.03	5/8" REBAR SET W/ ORANGE CAP "ARCADIS CONTROL"
S003	666680.20	1835811.60	731.27	5/8" REBAR SET W/ ORANGE CAP "ARCADIS CONTROL"
S004	667871.57	1835967.19	731.03	5/8" REBAR SET W/ ORANGE CAP "ARCADIS CONTROL"
S005	667314.24	1835882.64	731.75	5/8" REBAR SET W/ ORANGE CAP "ARCADIS CONTROL"
S100	667143.36	1834961.79	-	5/8" REBAR SET W/ ORANGE CAP "ARCADIS CONTROL"
S101	667583.69	1835842.54	-	5/8" REBAR SET W/ ORANGE CAP "ARCADIS CONTROL"
S102	668854.45	1836239.42	-	5/8" REBAR SET W/ ORANGE CAP "ARCADIS CONTROL"
S103	667065.20	1835793.57	-	5/8" REBAR SET W/ ORANGE CAP "ARCADIS CONTROL"
SV1626	667105.04	1835288.22	731.75	MAG NAIL SET 2 FEET ABOVE GROUND IN NORTH FACE OF POLE: 390215
BM2	667443.13	1836365.72	730.48	MAG NAIL SET 2 FEET ABOVE GROUND IN NORTH FACE OF POLE: SCP 10816001
BM3	667700.92	1835918.64	733.45	MAG NAIL SET 2 FEET ABOVE GROUND IN SW FACE OF POLE: SCP 10816009, EAST SIDE OF LOCKBOURNE
BM4	667979.50	1836063.46	732.12	WEST CORNER OF CONCRETE PAD AT FIRE DEPARTMENT FLAG POLE (OFF SHEET)
BM5	667024.40	1835790.59	731.38	TOP OF NW CORNER OF METAL BASE OF SIGN: ARMSTRONG & LOCKBOURNE

HORIZONTAL SCALE IN FEET
0 25 50 100

SCHEMATIC PLAN

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 220
COLUMBUS, OHIO 43235
(614) 895-7100
www.arcadis.com

DESIGNER
EJT

REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 2 TOTAL 91

FRA-317-1.46

MODEL: Plan 5 (Sheet) PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:36:42 AM USER: MBurger
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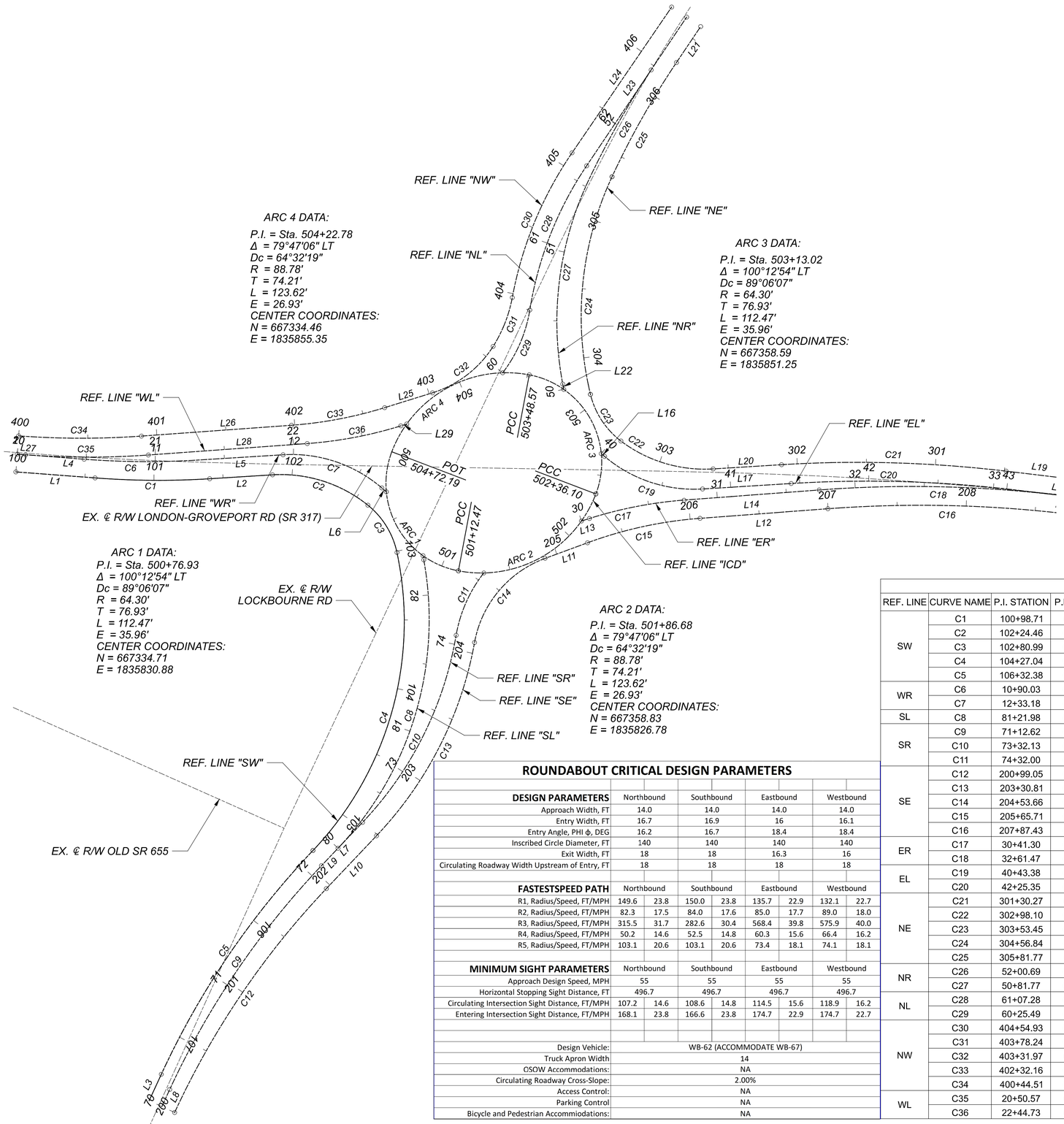

LINE DATA - REFERENCE ALIGNMENTS							
REF. LINE	LINE NAME	START POINT		END POINT		LENGTH	DIRECTION
		NORTHING	EASTING	NORTHING	EASTING		
SW	L1	667,214.70	1,835,548.75	667,230.49	1,835,603.97	57.44	N 74° 02' 31" E
	L2	667,258.71	1,835,681.87	667,277.14	1,835,723.50	45.53	N 66° 07' 37" E
	L3	666,842.82	1,835,798.52	666,821.85	1,835,796.89	21.03	S 04° 26' 53" W
WR	L4	667,227.11	1,835,545.23	667,240.44	1,835,591.86	48.50	N 74° 02' 42" E
	L5	667,268.66	1,835,669.76	667,293.39	1,835,725.64	61.11	N 66° 07' 37" E
	L6	667,295.70	1,835,800.92	667,294.20	1,835,804.95	4.30	S 69° 37' 48" E
SL	L7	667,257.46	1,835,847.41	667,260.07	1,835,845.85	3.04	N 30° 41' 24" W
SR	L8	666,821.06	1,835,807.00	666,834.60	1,835,808.05	13.57	N 04° 26' 53" E
	L9	667,024.39	1,835,854.74	667,064.06	1,835,871.74	43.16	N 23° 11' 46" E
SE	L10	667,010.07	1,835,863.84	667,058.55	1,835,884.61	52.74	N 23° 11' 46" E
	L11	667,288.90	1,835,929.35	667,310.14	1,835,954.18	32.68	N 49° 27' 14" E
	L12	667,354.95	1,836,024.33	667,393.54	1,836,108.62	92.71	N 65° 24' 14" E
ER	L13	667,323.33	1,835,944.58	667,327.08	1,835,949.39	6.09	N 52° 03' 47" E
	L14	667,363.40	1,836,009.15	667,404.09	1,836,098.03	97.74	N 65° 24' 14" E
	L15	667,460.93	1,836,262.73	667,462.76	1,836,270.36	7.84	N 76° 30' 50" E
EL	L16	667,374.04	1,835,941.12	667,372.95	1,835,944.10	3.17	S 69° 50' 35" E
	L17	667,375.47	1,836,018.67	667,401.41	1,836,077.37	64.17	N 66° 09' 36" E
	L18	667,453.38	1,836,231.24	667,462.76	1,836,270.36	40.23	N 76° 30' 50" E
NE	L19	667,475.09	1,836,267.40	667,463.72	1,836,220.01	48.73	S 76° 30' 50" W
	L20	667,411.75	1,836,066.14	667,391.72	1,836,020.80	49.57	S 66° 09' 36" W
	L21	667,658.03	1,835,893.94	667,688.50	1,835,901.33	31.36	N 13° 38' 17" E
NR	L22	667,408.16	1,835,899.59	667,411.47	1,835,897.57	3.87	N 31° 20' 02" W
NL	L23	667,565.43	1,835,858.95	667,691.37	1,835,889.50	129.60	N 13° 38' 17" E
NW	L24	667,570.63	1,835,845.81	667,694.46	1,835,876.79	127.64	N 14° 02' 53" E
	L25	667,350.82	1,835,782.71	667,372.88	1,835,811.40	36.18	N 52° 26' 24" E
	L26	667,270.50	1,835,624.89	667,315.51	1,835,723.95	108.81	N 65° 33' 40" E
WL	L27	667,227.11	1,835,545.23	667,228.78	1,835,551.06	6.06	N 74° 02' 42" E
	L28	667,259.42	1,835,634.36	667,307.08	1,835,739.23	115.19	N 65° 33' 40" E
	L29	667,342.54	1,835,798.20	667,345.27	1,835,801.74	4.47	N 52° 26' 28" E

CURVE DATA - REFERENCE ALIGNMENTS											
REF. LINE	CURVE NAME	P.I. STATION	P.I. NORTHING	P.I. EASTING	DELTA	Dc	TANGENT	LENGTH	RADIUS	BEGIN CURVE	END CURVE
SW	C1	100+98.71	667,241.91	1,835,643.90	07° 55' 05" (LT)	09° 32' 56"	41.524	82.915	600	100+57.44	101+40.35
	C2	102+24.46	667,292.85	1,835,759.01	42° 26' 35" (RT)	57° 17' 46"	38.831	74.077	100	101+85.88	102+59.95
	C3	102+80.99	667,273.70	1,835,816.00	39° 04' 08" (RT)	95° 29' 35"	21.288	40.913	60	102+59.95	103+00.87
	C4	104+27.04	667,148.94	1,835,895.06	55° 33' 22" (RT)	23° 52' 23"	126.419	232.711	240	103+00.87	105+33.58
	C5	106+32.38	666,941.57	1,835,806.20	18° 44' 53" (LT)	09° 32' 56"	99.048	196.326	600	105+33.58	107+29.91
WR	C6	10+90.03	667,251.86	1,835,631.79	07° 55' 05" (LT)	09° 32' 56"	41.524	82.915	600	10+48.50	11+31.42
	C7	12+33.18	667,309.84	1,835,762.82	44° 14' 31" (RT)	57° 17' 46"	40.649	77.217	100	11+92.53	12+69.75
SL	C8	81+21.98	667,152.56	1,835,909.66	53° 53' 06" (LT)	23° 52' 23"	121.984	225.714	240	80+00.00	82+25.71
SR	C9	71+12.62	666,933.35	1,835,815.73	18° 44' 53" (RT)	09° 32' 56"	99.048	196.326	600	70+13.57	72+09.90
	C10	73+32.13	667,136.74	1,835,902.88	33° 49' 48" (LT)	22° 02' 13"	79.067	153.513	260	72+53.06	74+06.57
	C11	74+32.00	667,239.44	1,835,883.60	28° 32' 06" (RT)	57° 17' 46"	25.429	49.803	100	74+06.57	74+56.38
SE	C12	200+99.05	666,919.02	1,835,824.82	18° 44' 53" (RT)	09° 32' 56"	99.048	196.326	600	200+00.00	201+96.33
	C13	203+30.81	667,133.68	1,835,916.81	33° 13' 23" (LT)	20° 54' 40"	81.744	158.881	274	202+49.07	204+07.95
	C14	204+53.66	667,259.19	1,835,894.61	59° 28' 55" (RT)	71° 37' 12"	45.707	83.052	80	204+07.95	204+91.00
	C15	205+65.71	667,337.46	1,835,986.11	15° 56' 56" (RT)	19° 05' 56"	42.027	83.511	300	205+23.68	206+07.19
	C16	207+87.43	667,429.97	1,836,188.21	11° 06' 36" (RT)	06° 21' 58"	87.531	87.531	900	206+99.90	208+74.41
ER	C17	30+41.30	667,348.75	1,835,977.14	13° 23' 17" (RT)	19° 05' 56"	35.209	70.098	300	30+06.09	30+76.19
	C18	32+61.47	667,440.52	1,836,177.62	11° 06' 36" (RT)	06° 21' 58"	87.531	174.513	900	31+73.93	33+48.45
EL	C19	40+43.38	667,359.22	1,835,981.89	43° 48' 40" (LT)	57° 17' 46"	40.211	76.464	100	40+03.17	40+79.64
	C20	42+25.35	667,434.36	1,836,151.95	10° 21' 14" (RT)	06° 21' 58"	81.539	162.634	900	41+43.81	43+06.44
NE	C21	301+30.27	667,444.71	1,836,140.72	10° 21' 14" (LT)	06° 21' 58"	81.539	162.634	900	300+48.73	302+11.37
	C22	302+98.10	667,376.70	1,835,986.81	40° 46' 16" (RT)	57° 17' 46"	37.161	71.159	100	302+60.93	303+32.09
	C23	303+53.45	667,393.74	1,835,930.83	39° 11' 13" (RT)	95° 29' 35"	21.357	41.036	60	303+32.09	303+73.13
	C24	304+56.84	667,480.96	1,835,872.26	38° 27' 25" (RT)	23° 52' 23"	83.71	161.088	240	303+73.13	305+34.22
	C25	305+81.77	667,611.81	1,835,882.73	09° 03' 50" (RT)	09° 32' 56"	47.556	94.914	600	305+34.22	306+29.13
NR	C26	52+00.69	667,601.78	1,835,867.77	08° 48' 11" (RT)	09° 32' 56"	46.183	92.184	600	51+54.51	52+46.69
	C27	50+81.77	667,478.15	1,835,857.31	35° 57' 47" (RT)	23° 52' 23"	77.894	150.639	240	50+03.87	51+54.51
NL	C28	61+07.28	667,509.68	1,835,845.42	24° 52' 59" (LT)	22° 02' 13"	57.362	112.916	260	60+49.92	61+62.84
	C29	60+25.49	667,428.42	1,835,861.58	28° 36' 07" (RT)	57° 17' 46"	25.491	49.92	100	60+00.00	60+49.92
NW	C30	404+54.93	667,514.50	1,835,831.76	23° 50' 49" (RT)	20° 54' 40"	57.858	114.041	274	403+97.07	405+11.11
	C31	403+78.24	667,438.47	1,835,844.90	21° 51' 00" (LT)	57° 17' 46"	19.302	38.136	100	403+58.93	403+97.07
	C32	403+31.97	667,390.81	1,835,834.72	40° 23' 20" (LT)	71° 37' 12"	29.425	56.393	80	403+02.54	403+58.93
	C33	402+32.16	667,329.79	1,835,755.36	34° 30' 07" (LT)	68° 42' 07"	34.502	68.702	300	401+97.65	402+66.36
	C34	400+44.51	667,252.08	1,835,584.38	08° 29' 02" (LT)	09° 32' 56"	44.505	88.847	600	400+00.00	400+88.85
WL	C35	20+50.57	667,241.01	1,835,593.85	08° 29' 02" (LT)	09° 32' 56"	44.505	88.847	600	20+06.06	20+94.91
	C36	22+44.73	667,321.41	1,835,770.76	13° 10' 16" (LT)	19° 05' 56"	34.634	68.964	300	22+10.10	22+79.06

ROUNDABOUT CRITICAL DESIGN PARAMETERS

DESIGN PARAMETERS	Northbound	Southbound	Eastbound	Westbound
Approach Width, FT	14.0	14.0	14.0	14.0
Entry Width, FT	16.7	16.9	16	16.1
Entry Angle, PHI ϕ, DEG	16.2	16.7	18.4	18.4
Inscribed Circle Diameter, FT	140	140	140	140
Exit Width, FT	18	18	16.3	16
Circulating Roadway Width Upstream of Entry, FT	18	18	18	18

FASTESTSPEED PATH	Northbound		Southbound		Eastbound		Westbound	
R1, Radius/Speed, FT/MPH	149.6	23.8	150.0	23.8	135.7	22.9	132.1	22.7
R2, Radius/Speed, FT/MPH	82.3	17.5	84.0	17.6	85.0	17.7	89.0	18.0
R3, Radius/Speed, FT/MPH	315.5	31.7	282.6	30.4	568.4	39.8	575.9	40.0
R4, Radius/Speed, FT/MPH	50.2	14.6	52.5	14.8	60.3	15.6	66.4	16.2
R5, Radius/Speed, FT/MPH	103.1	20.6	103.1	20.6	73.4	18.1	74.1	18.1

MINIMUM SIGHT PARAMETERS	Northbound		Southbound		Eastbound		Westbound	
Approach Design Speed, MPH	55		55		55		55	
Horizontal Stopping Sight Distance, FT	496.7		496.7		496.7		496.7	
Circulating Intersection Sight Distance, FT/MPH	107.2	14.6	108.6	14.8	114.5	15.6	118.9	16.2
Entering Intersection Sight Distance, FT/MPH	168.1	23.8	166.6	23.8	174.7	22.9	174.7	22.7

Design Vehicle:	WB-62 (ACCOMMODATE WB-67)
Truck Apron Width	14
OSOW Accommodations:	NA
Circulating Roadway Cross-Slope:	2.00%
Access Control:	NA
Parking Control	NA
Bicycle and Pedestrian Accommiodations:	NA

HORIZONTAL SCALE IN FEET
0 20 40 80

ROUNDABOUT LAYOUT

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 220
COLUMBUS, OHIO 43235
(614) 895-7100
www.arcadis.com

DESIGNER
EJT

REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 3 TOTAL 91

FRA-317-1.46

MODEL: Schematic Layout-2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:36:56 AM USER: MBurger
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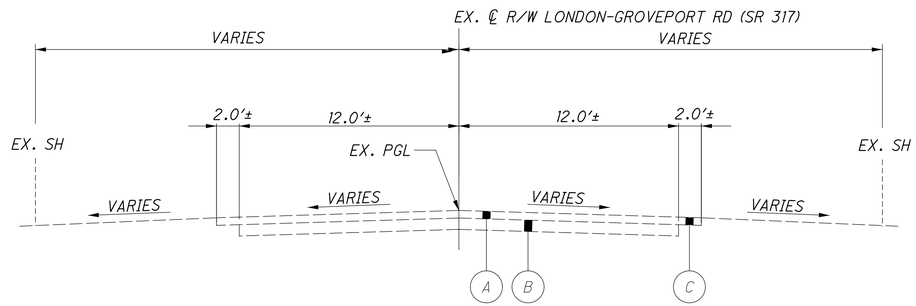
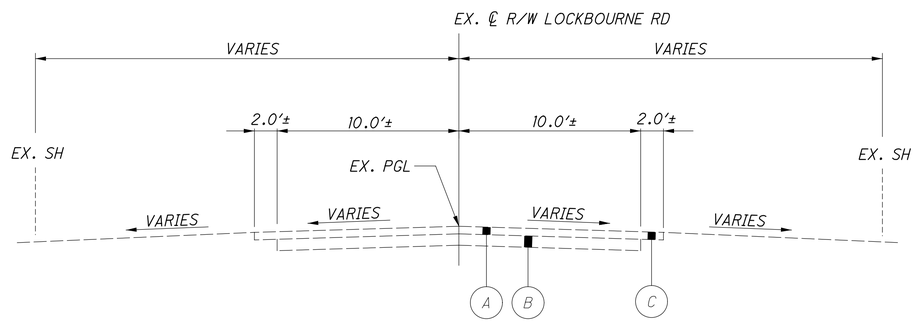


EXISTING TYPICAL SECTION LONDON-GROVEPORT RD (SR 317)



EXISTING TYPICAL SECTION LOCKBOURNE RD

LEGEND

A	8.5" TO 14" ASPHALT CONCRETE
B	4" TO 6" AGGREGATE BASE
C	ASPHALT SHOULDER

TYPICAL SECTIONS

FRA-317-1.46

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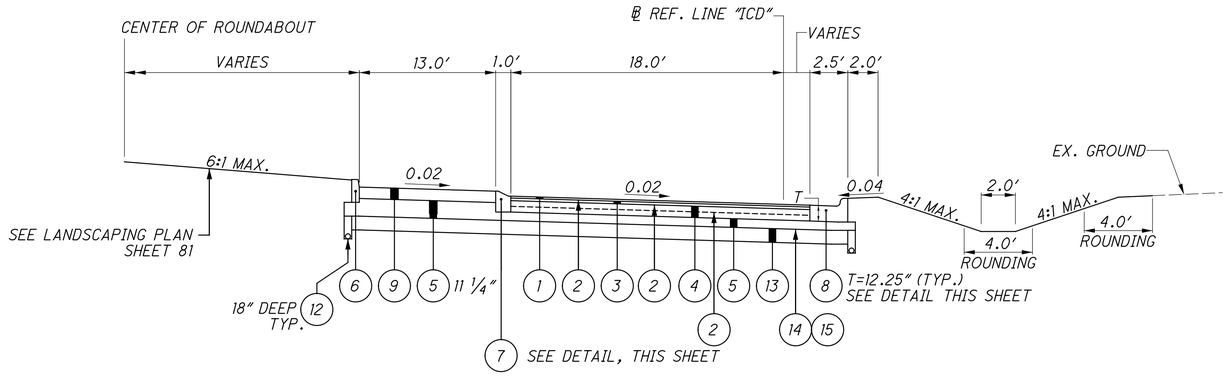
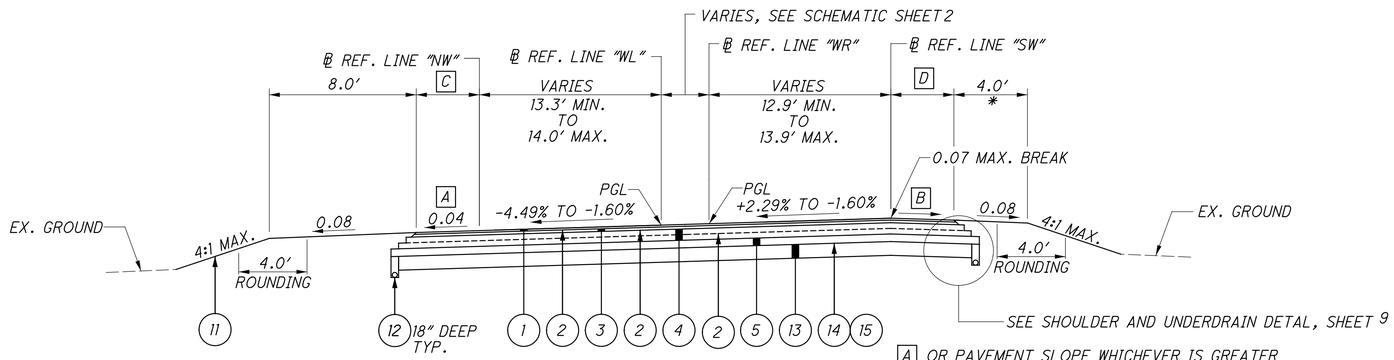
DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 825-2100
www.arcadis.com

DESIGNER	MJB
REVIEWER	BKM 03/18/20
PROJECT ID	109581
SHEET	4
TOTAL	91



INSCRIBED CIRCLE "ICD"



C VAIRES 2.1' TO 4.0'
STA. 20+00.00 "WL" TO STA. 20+50.97 "WL"

4.0' - STA. 20+50.97 "WL TO STA. 21+19.21 "WL"

D VARIES 1.1' TO 4.0'
STA. 10+00.00 "WR" TO STA. 10+49.96 "WR"

4.0' - STA. 10+49.96 "WR" TO STA. 11+19.58 "WR"

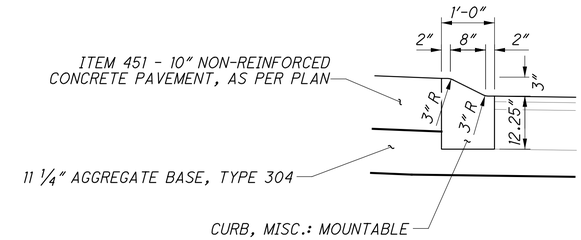
SUPERELEVATED FULL DEPTH SECTION
LONDON-GROVEPORT ROAD (SR 317)

FROM STA. 10+00.00 "WR" TO STA. 11+19.58 "WR" = 119.58 LIN FT.
FROM STA. 20+00.00 "WL" TO STA. 21+19.21 "WL" = 119.21 LIN FT.

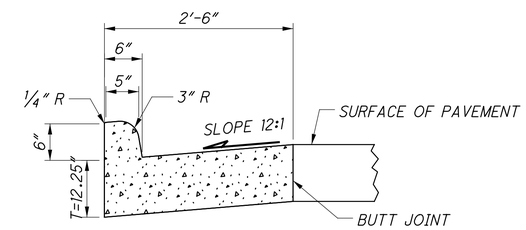
A OR PAVEMENT SLOPE WHICHEVER IS GREATER

B VARIES 0.04 TO 0.01

* UNLESS OTHERWISE SHOWN IN CROSS SECTIONS



CURB, MISC.: MOUNTABLE
TRUCK APRON DETAIL



COMBINATION CURB & GUTTER, TYPE 2

NOTE:

DO NOT CONSTRUCT A LONGITUDINAL JOINT DIRECTLY ABOVE AND IN LINE WITH THE LONGITUDINAL JOINT OF PREVIOUSLY PLACED MATERIAL. CUT BACK ANY LIFT OF ASPHALT A SUFFICIENT AMOUNT TO CREATE A 6-INCH HORIZONTAL STEP.

1. ITEM 442 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)
2. ITEM 407 - NON-TRACKING TACK COAT
3. ITEM 442 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19.0MM, TYPE A (448)
4. ITEM 302 - 9" ASPHALT CONCRETE BASE, PG64-22 (2 EQUAL LIFTS)
5. ITEM 304 - 6" AGGREGATE BASE (6" DEPTH UNLESS SHOWN OTHERWISE)
6. ITEM 609 - CURB, TYPE 6
7. ITEM 609 - CURB MISC.: MOUNTABLE
8. ITEM 609 - COMBINATION CURB & GUTTER, TYPE 2
9. ITEM 452 - 10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN
10. ITEM 452 - 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN
11. ITEM 659 - SEEDING AND MULCHING, AS PER PLAN
12. ITEM 605 - 4" PIPE UNDERDRAINS
13. ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP
14. ITEM 204 - PROOF ROLLING, AS PER PLAN
15. ITEM 206 - CURING COAT (1.0 GAL/ 30.0 SF)

TYPICAL SECTIONS

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 200
COLUMBUS, OHIO 43235
(614) 895-3700
www.arcadis.com
DESIGNER
MJB
REVIEWER
BKM 03/18/20
PROJECT ID
109581

FRA-317-1.46
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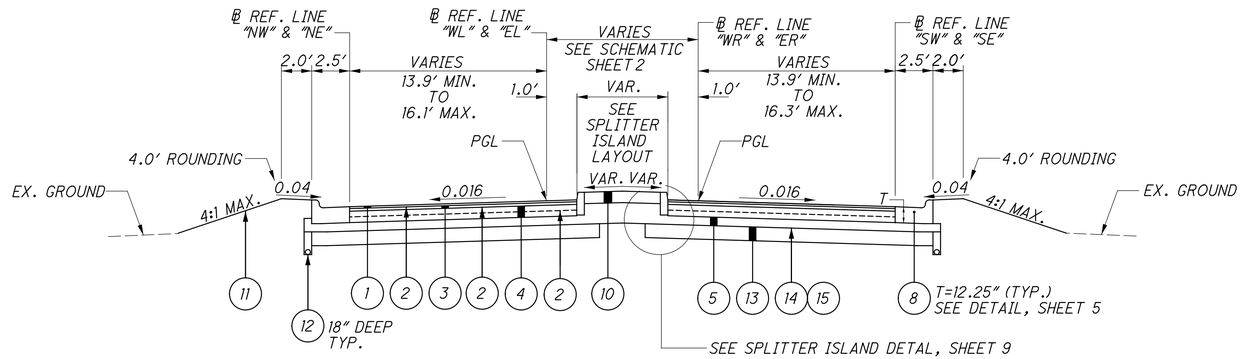
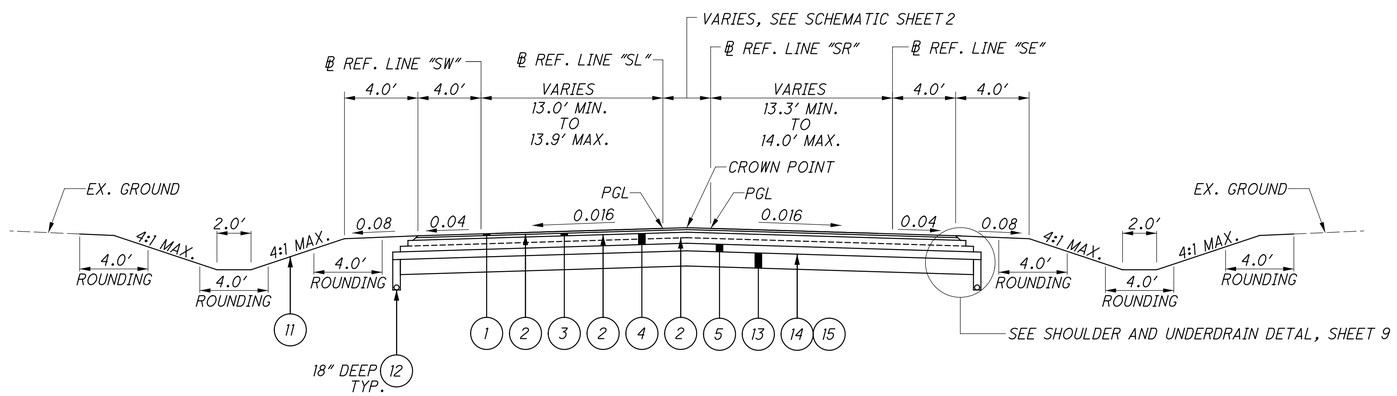


NORMAL FULL DEPTH SECTION
LONDON-GROVEPORT ROAD (SR 317)

FROM STA. 11+19.58 "WR" TO STA. 12+74.05 "WR" = 154.47 LIN FT.
FROM STA. 21+19.21 "WL" TO STA. 22+83.53 "WL" = 164.32 LIN FT.

FROM STA. 30+00.00 "ER" TO STA. 31+62.91 "ER" = 162.91 LIN FT.
FROM STA. 40+00.00 "EL" TO STA. 41+52.76 "EL" = 152.76 LIN FT.



NORMAL FULL DEPTH SECTION
LONDON-GROVEPORT ROAD (SR 317)

FROM STA. 31+62.91 "ER" TO STA. 32+81.29 "ER" = 118.38 LIN FT.
FROM STA. 41+52.76 "EL" TO STA. 42+71.67 "EL" = 118.91 LIN FT.

NOTE:

DO NOT CONSTRUCT A LONGITUDINAL JOINT DIRECTLY ABOVE AND IN LINE WITH THE LONGITUDINAL JOINT OF PREVIOUSLY PLACED MATERIAL. CUT BACK ANY LIFT OF ASPHALT A SUFFICIENT AMOUNT TO CREATE A 6-INCH HORIZONTAL STEP.

1. ITEM 442 - 1 ½″ ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)
2. ITEM 407 - NON-TRACKING TACK COAT
3. ITEM 442 - 1 ¾″ ASPHALT CONCRETE INTERMEDIATE COURSE, 19.0MM, TYPE A (448)
4. ITEM 302 - 9″ ASPHALT CONCRETE BASE, PG64-22 (2 EQUAL LIFTS)
5. ITEM 304 - 6″ AGGREGATE BASE (6″ DEPTH UNLESS SHOWN OTHERWISE)
6. ITEM 609 - CURB, TYPE 6
7. ITEM 609 - CURB MISC.: MOUNTABLE
8. ITEM 609 - COMBINATION CURB & GUTTER, TYPE 2
9. ITEM 452 - 10″ NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN
10. ITEM 452 - 9″ NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN
11. ITEM 659 - SEEDING AND MULCHING, AS PER PLAN
12. ITEM 605 - 4″ PIPE UNDERDRAINS
13. ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP
14. ITEM 204 - PROOF ROLLING, AS PER PLAN
15. ITEM 206 - CURING COAT (1.0 GAL/ 30.0 SF)

TYPICAL SECTIONS

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 895-3100
www.arcadis.com

DESIGNER: MJB
REVIEWER: BKM 03/18/20
PROJECT ID: 109581
SHEET 6 TOTAL 91

FRA-317-1.46

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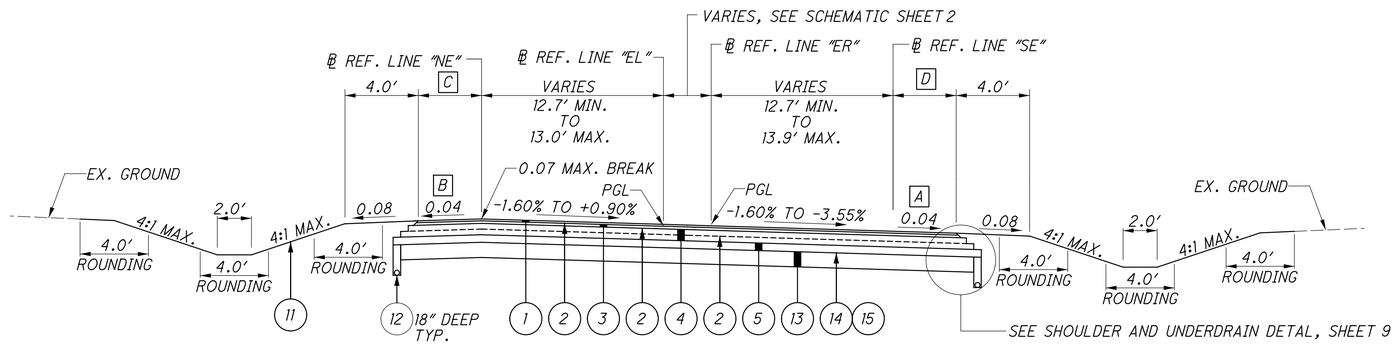


C 4.0′ - STA. 42+71.67 "EL" TO STA. 42+96.87 "EL"

VARIES 4.0′ TO 2.0′
STA. 42+96.87 "EL" TO STA. 43+46.67" EL"

D 4.0′ - STA. 32+81.29 "ER" TO STA. 33+05.71 "ER"

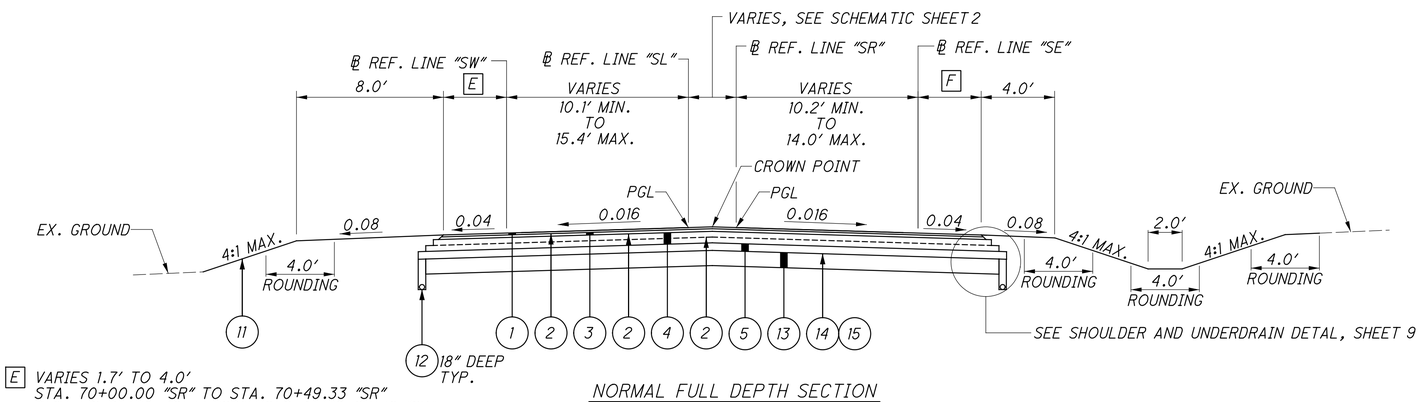
VARIES 4.0′ TO 1.9′
STA. 33+05.71 "ER" TO STA. 33+56.29 "ER"

NORMAL FULL DEPTH SECTION
LONDON-GROVEPORT ROAD (SR 317)

FROM STA. 32+81.29 "ER" TO STA. 33+56.29 "ER" = 75.00 LIN FT.
FROM STA. 42+71.67 "EL" TO STA. 43+46.67 "EL" = 75.00 LIN FT.

A OR PAVEMENT SLOPE WHICHEVER IS GREATER

B VARIES 0.04 TO 0.01



E VARIES 1.7′ TO 4.0′
STA. 70+00.00 "SR" TO STA. 70+49.33 "SR"
4.0′ - STA. 70+49.33 "SR" TO STA. 72+27.36 "SR"

STA. 72+27.36 "SR" = STA. 80+00.00 "SL"
4.0′ - STA. 80+00.00 "SL" TO STA. 80+66.38 "SL"

F VAIRES 1.4′ TO 4.0′
STA. 70+00.00 "SR" TO STA. 70+50.57 "SR"

4.0′ - STA. 70+50.57 "SR" TO STA. 72+94.37 "SR"

NORMAL FULL DEPTH SECTION
LOCKBOURNE ROAD

FROM STA. 70+00.00 "SR" TO STA. 72+94.37 "SR" = 294.37 LIN FT.
FROM STA. 80+00.00 "SL" TO STA. 80+66.38 "SL" = 66.38 LIN FT.

NOTE:

DO NOT CONSTRUCT A LONGITUDINAL JOINT DIRECTLY ABOVE AND IN LINE WITH THE LONGITUDINAL JOINT OF PREVIOUSLY PLACED MATERIAL. CUT BACK ANY LIFT OF ASPHALT A SUFFICIENT AMOUNT TO CREATE A 6-INCH HORIZONTAL STEP.

1. ITEM 442 - 1 ½″ ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)
2. ITEM 407 - NON-TRACKING TACK COAT
3. ITEM 442 - 1 ¾″ ASPHALT CONCRETE INTERMEDIATE COURSE, 19.0MM, TYPE A (448)
4. ITEM 302 - 9″ ASPHALT CONCRETE BASE, PG64-22 (2 EQUAL LIFTS)
5. ITEM 304 - 6″ AGGREGATE BASE (6″ DEPTH UNLESS SHOWN OTHERWISE)
6. ITEM 609 - CURB, TYPE 6
7. ITEM 609 - CURB MISC.: MOUNTABLE
8. ITEM 609 - COMBINATION CURB & GUTTER, TYPE 2
9. ITEM 452 - 10″ NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN
10. ITEM 452 - 9″ NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN
11. ITEM 659 - SEEDING AND MULCHING, AS PER PLAN
12. ITEM 605 - 4″ PIPE UNDERDRAINS
13. ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP
14. ITEM 204 - PROOF ROLLING, AS PER PLAN
15. ITEM 206 - CURING COAT (1.0 GAL/ 30.0 SF)

TYPICAL SECTIONS

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 895-3700
www.arcadis.com

DESIGNER
MJB

REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 7 TOTAL 91

FRA-317-1.46
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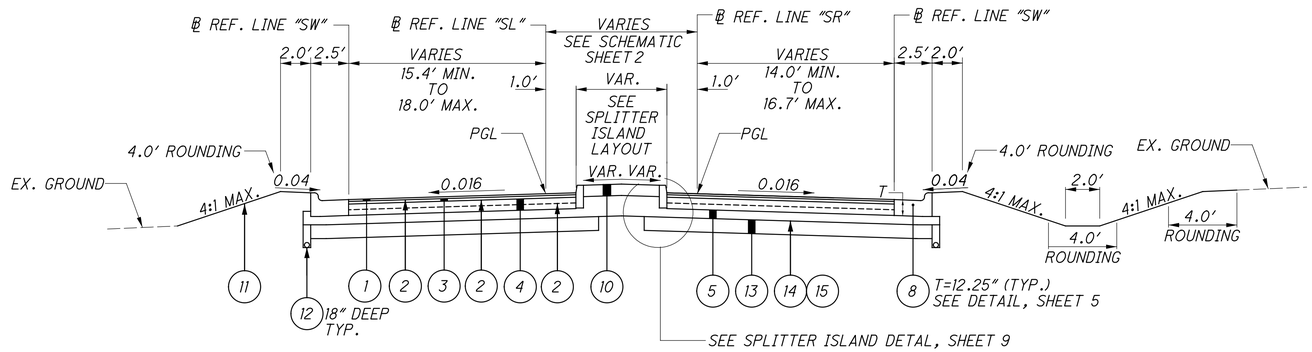
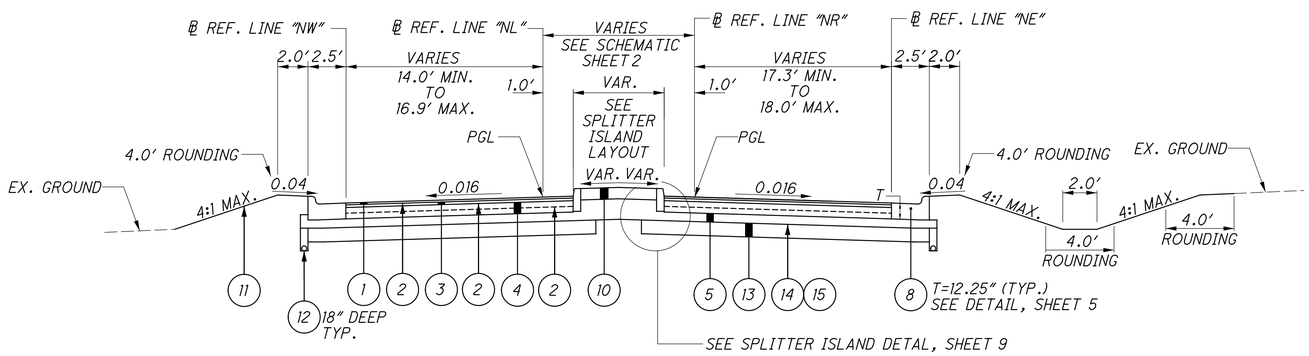


NORMAL FULL DEPTH SECTION
LOCKBOURNE ROAD

FROM STA. 72+94.37 "SR" TO STA. 74+56.38 "SR" = 162.01 LIN FT.
FROM STA. 80+66.38 "SL" TO STA. 82+28.75 "SL" = 66.38 LIN FT.



NORMAL FULL DEPTH SECTION
LOCKBOURNE ROAD

FROM STA. 50+00.00 "NR" TO STA. 50+85.00 "NR" = 85.00 LIN FT.
FROM STA. 60+00.00 "NL" TO STA. 61+31.43 "NL" = 131.43 LIN FT.

NOTE:

DO NOT CONSTRUCT A LONGITUDINAL JOINT DIRECTLY ABOVE AND IN LINE WITH THE LONGITUDINAL JOINT OF PREVIOUSLY PLACED MATERIAL. CUT BACK ANY LIFT OF ASPHALT A SUFFICIENT AMOUNT TO CREATE A 6-INCH HORIZONTAL STEP.

1. ITEM 442 - 1 ½" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)
2. ITEM 407 - NON-TRACKING TACK COAT
3. ITEM 442 - 1 ¾" ASPHALT CONCRETE INTERMEDIATE COURSE, 19.0MM, TYPE A (448)
4. ITEM 302 - 9" ASPHALT CONCRETE BASE, PG64-22 (2 EQUAL LIFTS)
5. ITEM 304 - 6" AGGREGATE BASE (6" DEPTH UNLESS SHOWN OTHERWISE)
6. ITEM 609 - CURB, TYPE 6
7. ITEM 609 - CURB MISC.: MOUNTABLE
8. ITEM 609 - COMBINATION CURB & GUTTER, TYPE 2
9. ITEM 452 - 10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN
10. ITEM 452 - 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN
11. ITEM 659 - SEEDING AND MULCHING, AS PER PLAN
12. ITEM 605 - 4" PIPE UNDERDRAINS
13. ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP
14. ITEM 204 - PROOF ROLLING, AS PER PLAN
15. ITEM 206 - CURING COAT (1.0 GAL/ 30.0 SF)

TYPICAL SECTIONS

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 985-9100
www.arcadis.com

DESIGNER
MJB

REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 8 TOTAL 91

FRA-317-1.46

MODEL: Typical5 PAPERSIZE: 34x22 (in.) DATE: 8/27/2021 TIME: 3:13:12 PM USER: MBurger
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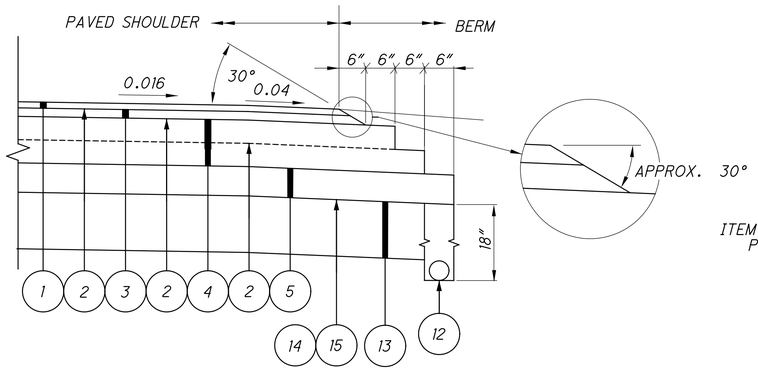
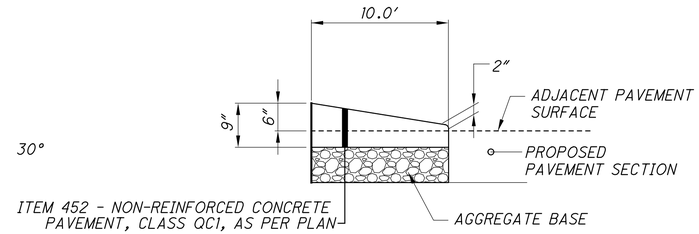
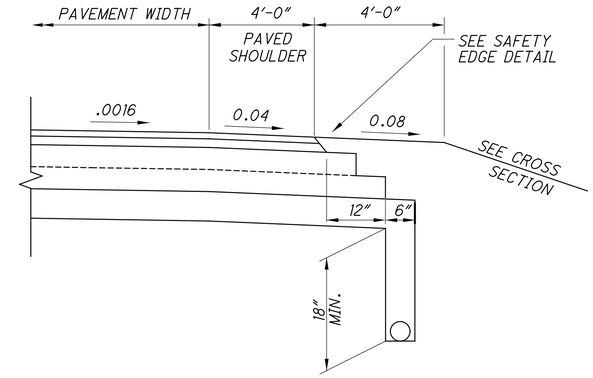


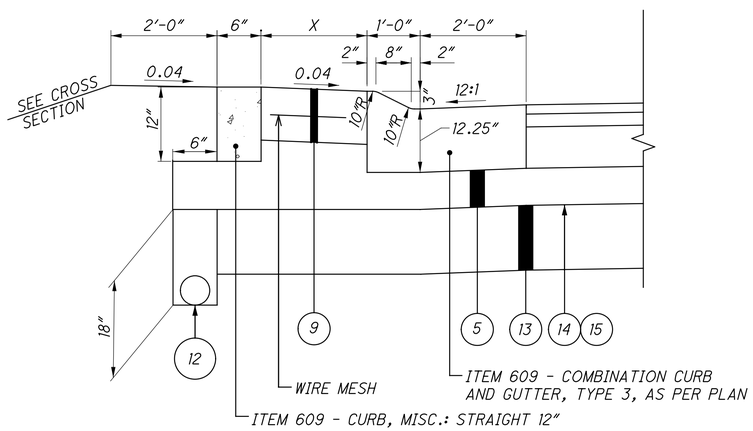
SAFETY EDGE PAVEMENT DETAIL
(INCLUDE WITH ASPHALT ITEMS FOR PAYMENT)
(REFERENCE ODOT SCD BP-3.2)



SPLITTER ISLAND BULLNOSE TYPE 2 DETAIL

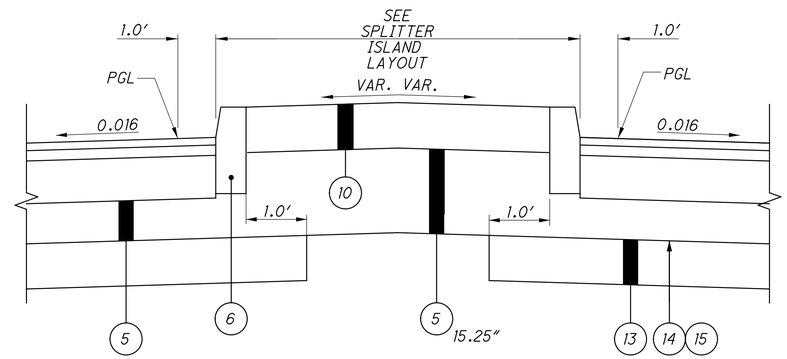


SHOULDER AND UNDERDRAIN DETAIL

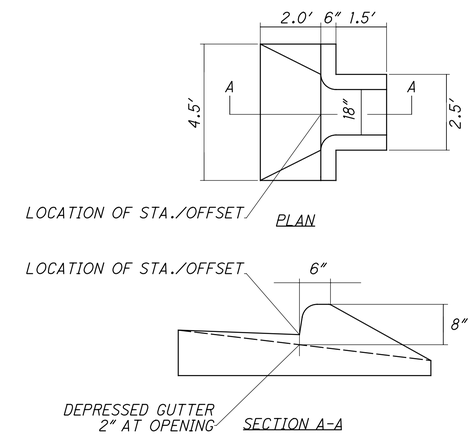


EXTERIOR TRUCK APRON DETAIL

STA. 102+00 REF. "SW" TO STA. 103+25 REF. "SW", X=2.5'
STA. 302+72 rEF. "NE" TO STA. 303+98 REF. "NE", X=2.0'



SPLITTER ISLAND DETAIL



CURB CUT DETAIL

TYPICAL SECTIONS

1	ITEM 442 - 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)	6	ITEM 609 - CURB, TYPE 6	11	ITEM 659 - SEEDING AND MULCHING, AS PER PLAN
2	ITEM 407 - NON-TRACKING TACK COAT	7	ITEM 609 - CURB MISC.: MOUNTABLE	12	ITEM 605 - 4" PIPE UNDERDRAINS
3	ITEM 442 - 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19.0MM, TYPE A (448)	8	ITEM 609 - COMBINATION CURB & GUTTER, TYPE 2	13	ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP
4	ITEM 302 - 9" ASPHALT CONCRETE BASE, PG64-22 (2 EQUAL LIFTS)	9	ITEM 452 - 10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN	14	ITEM 204 - PROOF ROLLING, AS PER PLAN
5	ITEM 304 - 6" AGGREGATE BASE (6" DEPTH UNLESS SHOWN OTHERWISE)	10	ITEM 452 - 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN	15	ITEM 206 - CURING COAT (1.0 GAL/ 30.0 SF)

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 985-9100
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DESIGNER
MJB
REVIEWER
BKM 03/18/20
PROJECT ID
109581
SHEET 9 TOTAL 91

FRA-317-1.46

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SPECIFICATIONS

The 2019 Construction and Material Specifications of the State of Ohio, Department of Transportation, including changes and Supplemental Specifications listed in the proposal, shall govern this improvement, except where noted otherwise.

COUNTY MONUMENT BOX-OUT

The contractor shall contact the Franklin County Engineer's Office, Survey Department at (614-525-2489) a minimum of 5 working days prior to paving concrete base to coordinate box-outs for resetting county monuments. Contractor will reset the three existing Franklin County Geodetic Monuments shown on the C/L R/W plans under Franklin County Engineer's Survey Dept. supervision.

MONUMENT ASSEMBLY REMOVED AND RESET, AS PER PLAN

Contractor to install Franklin County Engineer's Office (FCEO) monument box assembly under the supervision of the FCEO survey department. FCEO Survey Department to provide monument box assembly (cast iron box) and precast monument. Contractor to provide necessary materials for installation (i.e. concrete, rebar). Location of momument box assembly TO BE DETERMINED & PROVIDED by FCEO Survey Department prior to installation.

The following estimated quantity has been carried to the General Summary:

Item 623 - Monument Assembly Removed and Reset, As Per Plan 3 EACH

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.

HOURS OF OPERATION

Contractor's work hours shall be limited to 7:00 A.M. to 9:00 P.M. Monday through Saturday, unless permission is granted by the Engineer in writing. The Contractor shall be required to adhere to all local noise ordinances.

PRECONSTRUCTION MEETING AND EEO-PREVAILING WAGE SESSION

The contractor shall meet for a preconstruction meeting scheduled by the County as per Franklin County General Provision 108.02. An EEO-prevailing wage session will be held in conjunction with the general preconstruction meeting discussion of contract documents, affected third party concerns, schedule, proposed subcontractors-suppliers submittals, etc.

PREVAILING WAGES

Prevailing Wage paperwork required of the Prime Contractor and Sub-Contractors shall be current and up-to-date for work performed. Pay Estimates will be considered incomplete and unpayable until the associated Prevailing Wage paperwork is submitted to the Franklin County Engineer's Prevailing Wage Coordinator contact Raelynn McCown 614-525-2438 for Federal or State wage rate provisions relating to prevailing wages shall reference:

State: https://www.com.ohio.gov/dico/

Federal: https://beta.sam.gov/

NON-COLLUSION AFFIDAVIT

In accordance with Title 23 United States Code, Section 112 and Ohio Revised Code, Chapter 1331 et. seq: and Sections 2921.11 and 2921.13, the bidder hereby states, under penalty of perjury and under other such penalties as the law provides, that he or his agents or employees have not entered either directly or indirectly into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal. Execution of this proposal on the signature portion thereof shall constitute also signature of this Non-Collusion Affidavit as permitted by title 28 United States Code, Section 1746.

ITEM 619 FIELD OFFICE, AS PER PLAN

The field office shall meet the requirements of ODOT CMS 619, placed and set up, including utility service hookups, prior to the start of Construction. No Contractor operations will be permitted in the field office provided to the County, nor shall any Contractor equipment be stored in the field office provided to the County.

The Contractor shall provide the field office with outdoor sealed containers of the capacity necessary to place field office and project trash. The containers are to be emptied by the contractor by legal means on a weekly basis.

All work listed in this section shall be performed by the Contractor and paid under the unit price bid for ITEM 619, FIELD OFFICE, TYPE A, AS PER PLAN . *All equipment* provided by the Contractor for use by the County under the wording of this section shall remain the property of the Contractor.

The following estimated quantity has been carried to the General Summary:
Item 619 - Field Office, Type B, As Per Plan 9 Months

SAFETY REQUIREMENTS AND RESPONSIBILITIES

The contractor is responsible for ensuring that all work under this contract meets or exceeds the Occupational Safety & Health Administration (OSHA) standards in addition to complying with the recognized best practice within the construction industry.

1.0 Certification Requirements
The manufacturer of safety systems (shoring, protective systems, fall protection) or a professional engineer (PE) must certify that the design of major or critical facilities, equipment, support structures, or systems, embankments, shoring systems, and formwork (false work) is structurally suitable for the intended use. This certification must be in writing and submitted to the FCEO Project Manager before construction or use of such facilities, equipment, or support systems.

2.0 Required Safety Programs and MSDS Submittals
The contractor must submit a comprehensive written safety program covering all aspects of onsite and applicable offsite operations and activities associated with the contract. In addition, the contractor shall submit Material Safety Data Sheets (MSDS) prior to bringing chemicals on site. The Contractor Written Safety Program will be used to evaluate compliance and ensure that the contractor has a program in place to deal with all safety and health related requirements. The contractor is fully responsible for its content and implementation. Onsite work must not begin until the FCEO Project Manager has received the program or appropriate supplementary submittals. The submission of the program in no ways relieves the contractor of the responsibility for providing employees with a safe and healthful work environment or compliance with OSHA standards.

3.0 Required Safety Meetings

3.1 Pre-Construction Safety Program Review
The contractor shall submit the Written Safety Program for review at a Pre-Construction Meeting prior to starting any site activities. The contractor must be prepared to discuss in detail the procedures to control the hazards likely to happen during major phases of the work, and the organizational assignments involved in administering the safety program.

3.2 Progress Meeting Safety
The FCEO Project Manager, the contractor's principal onsite representative, and designated members of respective staffs responsible for safety will review site safety concerns at the Progress Meetings. The safety segment of the meeting will review the contractor's safety effort, resolve health and safety problems relating to current operations, and provide a forum for planning safe future activities.

4.0 Safety and Health Responsibility
The contractor must designate, in writing, a Safety Coordinator to administer the safety program on site and who has supervisory authority over the general contractor, subcontractors, and suppliers. This person shall have responsibility of site safety and worker health, and shall have the authority to correct deficiencies and stop work, if necessary, until deficiencies are corrected.

5.0 Accident and Incident Investigating and Reporting
The contractor's Safety Coordinator shall report all injury accidents and incidents to the FCEO Project Manager as they occur. If a death or injury involving a serious medical condition occurs, the incident shall be reported to the FCEO Project Manager and next of kin within 30 minutes by the contractor's Safety Coordinator. Results of accident investigations and corrective actions shall be provided to FCEO Project Manager as soon as practical following the investigation.

6.0 Safety Orientation.
The contractor must give employees training containing pertinent provisions of the site safety and health program. Additionally, all sub-contractor and their employees are required to have training before working on the site. The contractor is responsible for the content of the training and shall make available the training for FCEO review.

7.0 Refusal to Comply With Occupational Safety and Health Requirements
The contractor must remove employees who refuse or repeatedly fail to comply with safe work practices and standards, or supervisors who fail to enforce compliance, from the associated work assignments.

CONCRETE DELIVERY FOR ALL CONCRETE WORK

The use of dump trucks or any other non-agitating vehicles to deliver concrete to the project site is prohibited. Only concrete mixer trucks with agitating bodies specifically designed to haul concrete and approved for use by the Engineer shall be permitted to deliver concrete to the project site. A concrete washout area shall be constructed per Item 832, 48hrs before delivery.

BUY AMERICA BACKGROUND AND WAIVER REQUEST PROCESS

Buy America Background
FHWA regulations require the use of domestic steel and iron in all projects. All foreign steel and iron materials and products are covered by Buy America, for manufactured products Buy America applies when the product contains more than 90% steel or iron content. All manufacturing processes must take place domestically. Manufacturing begins with the initial melting and mixing, and continues through the coating stage. Any process which modifies the chemical content, the physical size or shape, or the final finish is considered a manufacturing process. These processes include rolling, extruding, machining, bending, grinding, drilling and coating. "Coating" includes epoxy coating, galvanizing, painting, or any other coating that protects or enhances the value of the material.

The practice of making otherwise eligible items nonparticipating for the purpose of circumventing the Buy America requirements is unacceptable and will not be approved in Federal-aid projects. FHWA's policy for Buy America provides for:

- a domestic manufacturing process for any steel or iron products (including protective coatings) that are permanently incorporated in any project funded under Title 23
- alternate bid provisions
- minimal usage criteria for non-domestic products
- a waiver process based on public interest or the availability of domestic products

Before submittal of a Buy America Waiver Request the following questions need to be addressed:

- What is the total cost of the foreign steel or iron to be incorporated into the final project?
  - O The cost is the cost of the steel itself and installation, not the cost of the entire item
- Does the incidental use guideline cover the use of foreign steel or iron?
  - O This is the greater of $2,500 or 0.1% of the total project cost
- Are there equivalent domestic steel or iron parts or items available?
- Are there are suppliers of the item that can meet the Buy America requirements?
- Does the Waiver for Manufactured Products containing less than 90% steel or iron content apply?

The preceding questions form the basis needed to consider whether or not a waiver request could be successful. Discussions should be held with FHWA as soon as possible if meeting Buy America requirements are a project concern. Depending upon the items being considered there may be additional questions that need to be addressed before deciding a waiver request should be developed for the project. If the waiver process must be used it takes a significant amount of time and there is no guarantee that a waiver will be approved. No delay claims for additional time or money will be considered if the contractor elects to pursue the Buy America Waiver process.

Waiver Request Process
The request is prepared in the form of a letter and supporting information. The following information must be provided for all potential Buy America Waiver Requests:

- the PID,
- project description,
- project cost, waiver item,
- cost of waiver item,
- country of origin of the product (if known at the time),
- reasons for the waiver request,
- a description of the efforts made to locate a domestically manufactured product,
- an analysis of re-design of the project using alternate or approved equal domestic product.

The Buy America Waiver Request is submitted to the FHWA Ohio Division for initial review by ODOT along with a letter of concurrence if it is being submitted by a sub-recipient. The Ohio Division is responsible for ensuring that the request includes the necessary information and is acceptable prior to submitting the waiver request to the FHWA Headquarters Office of Program Administration for final review and public comment.

After a review of the waiver is completed a notice of a waiver request is posted on this web site, http://www.fhwa.dot.gov/construction/contracts/waivers.cfm , to solicit public comments on the intent to issue a waiver for a 15-day period. Following this comment period, a notice will be published in the Federal Register documenting the finding regarding the waiver. The effective date of the finding will be the date following publication in the Federal Register. Upon publication of the Federal Register notice, the public may submit comments on this finding to this web site for an additional 15 days following the effective date of the finding. All public comments received in the initial 15-day comment period during the final evaluation of the waiver request will be considered prior to making a finding. Comments received after the 15 day period, but before notice of the finding is published in the Federal Register, will be considered to the extent practical. Follow-up coordination on the comments received may result in a delay in the publication of waiver finding in the Federal Register. Comments received during the 15-day comment period after notice of our finding is published in the Federal Register will be reviewed, but the finding will continue to remain valid. Comments received during the comment period after the effective date of the finding will be reviewed, and may influence the FHWA's decision to terminate or modify a finding.

Additional information is available at http://www.fhwa.dot.gov/construction/contracts/buyam_qa.cfm.

GENERAL NOTES

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ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 895-3000
www.arcadis.com
DESIGNER
MJB
REVIEWER
BKM 03/18/20
PROJECT ID
109581

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ITEM 832, STORM WATER POLLUTION PREVENTION PLAN and ITEM 832, EROSION CONTROL

This contract is subject to National Pollutant Discharge Elimination System (NPDES) and specifically the Ohio EPA Authorization for Storm Water Discharge Associated with Construction Activity under NPDES. Additionally, federal, state, and local regulations pertaining to storm water pollution prevention shall also apply.

An officer of the Contractor's company will be required to co-sign the Ohio EPA permit and Notice of Intent (NOI) as per NPDES requirements (if required). The Contractor shall have a supervisory employee onsite who is competent in proper, current erosion control practices during all earth disturbing activities. It is the Contractor's responsibility to notify his subcontractors of the Ohio EPA requirements, have them sign affidavits that they understand those requirements, and furnish copies to the Franklin County Engineer's Office (FCEO) before their associated work begins.

Once the apparent low bidder has been determined in writing in the form of a letter from the Franklin County Engineer, the Contractor shall submit a Storm Water Pollution Prevention Plan (SWP3) within 15 working days for approval by FCEO. The SWP3 shall be prepared, stamped, and signed by a Professional Engineer experienced and competent in the design and implementation of standard erosion and sediment controls and storm water management practices addressing all phases of construction. The officer of the Contractor's company, who signs the NOI, as mentioned above, shall also sign the SWP3. Submit five half size sets and one electronic PDF set of plans for review to FCEO. FCEO will review/approve or review/return comments within 10 working days. If comments are returned to the Contractor, they shall be incorporated and resubmitted for approval within 5 working days. FCEO will back check the SWP3 within 5 working days and ask for additional changes or approve the SWP3.

The SWP3 shall incorporate at a minimum the following:

- Part III, Section G SWP3 Requirements of the Ohio EPA, Authorization for Storm Water Discharge Associated with Construction Activity under National Pollutant Discharge Elimination System (NPDES).
- Current edition of ODNR's Rainwater & Land Development Manual.
- Detailed description and drawings of all Best Management Practices (BMP's) including plan views, section views, legend, and installation practices the Contractor plans to use.
- Procedure for self-reporting verbally and in writing to FCEO and OEPA when the contractor learns of actual or potential violations.
- Methods the contractor will use to train or inform all of the contractor's employees, subcontractors, and other persons affected by the SWP3 of the requirements of the plan including methods and techniques to be used to ensure implementation of the plan. As stated above, it is the Contractor's responsibility to notify his subcontractors of the Ohio EPA requirements, have them sign affidavits that they understand those requirements, and furnish copies to the Franklin County Engineer's Office (FCEO) before their associated work begins.
- Emergency contact information, the general permit number, a copy of the NOI (if required), and a copy of the approval letter from OEPA (if required).
- Listing of subcontractors and co-permittees.
- Schedule which describes the sequence of major earth moving construction operations; the implementation of erosion, sediment, and storm water management practices; and the removal of During Construction BMP's upon project completion.
- Locations of concrete truck washouts; construction entrances; material storage areas; solid, construction, and hazardous waste storage areas; vehicle maintenance and fueling areas; onsite overburden, borrow, and stockpile areas; stream, creek, or channel crossings; sediment and storm water management basins including their sediment settling volume and contributing drainage area; open burning locations; etc.
- Estimate of BMP's including type and quantities.
- Detailed dewatering plans.

Upon approval, submit five half size sets and one electronic PDF set of the SWP3 to FCEO. No commencement of construction will be allowed until the SWP3 has been approved. The co-permittee/Contractor shall inform FCEO in writing of all amended activities to the SWP3 whenever there is a change in design, construction, operation, or maintenance that has a significant effect on the potential for the discharge of pollutants to Ohio waters or if the SWP3 proves to be ineffective in achieving the general objectives of controlling pollutants in storm water. It is the responsibility of the co-permittee/Contractor to evaluate all sediment and erosion control activities to ensure that no turbid discharge is released to the waters of the State of Ohio. The co-permittee/Contractor shall update the SWP3's at his/her cost as construction progresses to reflect changing conditions and work areas.

The co-permittee/Contractor shall be fully responsible for all compliance activities for all areas outside of the designed FCEO construction site. These areas include locations where soils are stockpiled, excavated for the purpose of fill, or disposed of as fill outside of the work limits in the construction plans. The co-permittee/Contractor shall file an NOI with Ohio EPA regarding these off-project areas and furnish copies to FCEO.

FCEO will closely monitor the implementation of the SWP3 with emphasis on construction and continued maintenance of BMP's. FCEO will provide the co-permittee/Contractor notice of any deficiencies found during required inspections as required by the general permit. The Contractor shall install a rain gauge close to the Field Office, as directed by the engineer. FCEO stipulates the co-permittee/Contractor to make repairs within 24 hours of notification of deficiencies. If the contractor fails to remedy unsatisfactory sediment control and dewatering practices within 24 hours after receipt of such notice, FCEO may invoke the provision of ODOT CMS Section 105.15, correct the problem areas, and deduct the entire cost of the correction from monies due or to become due the contractor on the contract. Failure of the contractor to take corrective measures may result in enforcement actions and penalties as provided by NPDES, federal, state, and local laws. Any fines for non-compliance will be passed onto the contractor.

The Contractor shall submit to FCEO a description of the BMP's that will be employed prior to work beginning, and FCEO reserves the right to deny implementation of any BMP that is determined to be non-effective prior to or during construction activities.

The stipulations of ODOT SS 832 shall apply. The SWP3 for this project will not be Non-Performed and is required before construction can begin. If an SWP3 is required for off-project EDA, then it shall be furnished by the Contractor prior to off-project EDA at no cost to FCEO. Payment for all work associated with EROSION AND SEDIMENT CONTROL for on-project EDA shall follow ODOT SS 832 and will be paid for by FCEO based on field measurements. Work associated with erosion and sediment control for off-project EDA will not be paid for by FCEO.

The Contractor is hereby advised that stricter pollution control standards and enforcement have been imposed by the Ohio EPA since March 10, 2003 and with a revision in April 2018. Also, many private citizen environmental groups, who have been known to file civil legal actions, are present in the area and observe all construction operations. The pay items (silt fences, check dams, sediment basins, etc.) set-up in the contract shall be used to control silt pollution as shown in the plans, directed by the Engineer, and/or ordered by the Ohio EPA.

When a Contractor needs to dam any waterway for dewatering purposes, any dikes placed in the stream must be of clean non-erodible materials. Dams constructed of soil in the stream are not acceptable, even if the stream work area is cordoned off or by-passed. Dams in the stream shall be of durable bags filled with coarse granular sand or clean stone (such as #57 or #2) or other methods acceptable to the EPA that prevent pollution. The labor and material used to install bags of sand or stone for stream dewatering purposes shall be included in the bid price for COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN.

The Contractor will be required to build sediment basins or use equal methods to detain and clean water to acceptable EPA standards before releasing the water back into the stream. Sediment basin(s) shall be detailed in the SWP3 and are a listed item within the Erosion Control pay item.

Stone used for check dams for dewatering purposes in the stream shall be the ROCK CHANNEL PROTECTION (RCP) contingency set-up in the Erosion Controls pay item, the #2 Stone contingency set-up in the Erosion Controls pay item, or a combination of the RCP and #2 Stone contingency. Payment using the RCP and/or the #2 Stone contingency shall be at the measured quantity at the unit bid price for these items.

It is preferred to use permanent erosion control items as shown in the plans to control construction pollution when possible.

All items are to be maintained as per ODOT SS 832. Requirements to maintain sediment and erosion control items will be STRICTLY ENFORCED.

ITEM 832, STORM WATER POLLUTION PREVENTION PLAN AND ITEM 832, EROSION CONTROL

The following quantities have been included in the General Summary for work required by ODOT Supplemental Specification 832:

ITEM 832 - STORM WATER POLLUTION PREVENTION PLAN	LUMP SUM
ITEM 832 - EROSION CONTROL	20,000 EACH

SUBSURFACE INVESTIGATIONS

Subsurface investigation reports prepared for the Franklin County Engineer are used strictly for design purposes. The boring information in these reports represents conditions at the specific locations where the borings were taken and may not be representative of conditions throughout the project limits, or reflective of seasonal changes. Disturbances by other activities conducted between the time borings were taken and bid time may also affect subsurface conditions. To ensure a representative overview of subsurface conditions, bidders may wish to conduct subsurface investigations including borings at their own expense. Contractor's bid prices shall reflect any uncertainty with subsurface soil conditions and existing pavement conditions. The removal of man-made obstructions such as structure foundations, utilities, and pipes not shown on the plans are eligible for extra compensation. The bidder shall take into consideration in his unit bid price, man-made obstructions shown in the plans such as structure foundations, utilities, and pipes. No extra payment shall be made for variable soil conditions, which may be encountered. The bid prices for Pavement Removal and Excavation items shall reflect the removal of all paving materials (asphalt, concrete, brick, stone, wood) at all locations on the project. The Contractor is responsible for determining the existing pavement composition by reviewing his own subsurface investigations, existing plans (if available), and soil reports within proposal notes prior to bidding. Contact the following office for further information:

Attn: Brad Foster, P.E., P.S.
bfoster@franklincountyengineer.org
Franklin County Engineer's Office
970 Dublin Rd.
Columbus, OH 43215
(614) 525-3021

ITEM 659 SEEDING AND MULCHING, AS PER PLAN and ITEM 659 WATER, AS PER PLAN

The Contractor shall maintain all seeded areas until the Engineer accepts a vigorous grass grown area. This includes protection of the area from wind and fire. The areas shall be watered every other day (rain or shine) for three weeks after seeding. Work for eroded areas due to no fault of the Contractor shall be performed as stated in the ODOT-CMS SECTION 659. No payment shall be made for ITEM 659, SEEDING AND MULCHING, AS PER PLAN unless all the watering applications specified herein are made and until the grass exhibits a vigorous growth. Only when all of the above criteria are met, will payment be made for ITEM 659, SEEDING AND MULCHING, AS PER PLAN. All watering costs to be paid under the ITEM 659, WATER, AS PER PLAN.

Seed certification of grass seed shall be provided by seed vendor for each grass-seed mixture stating the botanical and common name, percentage by weight of each species and variety; and percentage of purity, germination, and weed seed. Include the year of production and date of packaging. Furnish National Turfgrass Evaluation Program (NTEP) data for each species to be used. A NTEP score of 6.0 or higher should be used for all turf tall fescue, a NTEP score of 5.8 or higher should be used for all Kentucky Blue Grass and a NTEP score of 6.0 or higher should be used for Perennial Rye Grass.

Grass seed must be fresh, clean, dry, new-crop seed complying with the A.O.S.A. "Journal of Seed Technology" rules for testing seeds for purity and germination tolerances.

Seed species shall be as follows, with not less than 90 percent germination, not less than 90 percent pure seed, and not more than 0.5 percent weed seed. for Kentucky Blue Grass a germination of, not less than 85 percent. The seed used should be a proprietary cultivar of a turf seed producer.

An example of a proprietary cultivar turfgrass seed mix proportioned by weight:

A. ~40% Jamboree Turf Tall Fescue
B. ~35% Essential Turf Tall Fescue
C. ~12.5% Katie Kentucky Blue
D. ~12.5% All* Star 3 Perennial Rye

All proprietary cultivar turfgrass seed mixes shall be approved by the Engineer before seeding and mulching takes place.

SEEDING. Sow seed at a total rate of 7-9 lb. / 1,000 s.f. with a spreader or seeding machine. Rake seed lightly into top 1/8 inch of soil, roll lightly, and water with fine spray.

HYDRO-MULCHING. The use of hydro-mulch (seeding, fertilizer, mulch, and water together) applications may be used only if straw is applied on top of the hydro-mulch at the rate as per ODOT-CMS 659 at no additional cost to the County. The contractor is totally responsible to ensure vigorous growth of the hydro-mulch at his/her own expense.

TURF MAINTENANCE. Maintain and establish turf by watering, fertilizing, weeding, mowing, trimming, and replanting to establish healthy, viable turf. Roll, regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth turf. Provide the same materials and installation as those used in the original installation.

Mow turfgrass seed mix areas as soon as top growth is tall enough to cut. REPEAT Mowing to maintain specified height without cutting more than 1/3 of grass height. Mow areas to a height of 2 to 3 inches.

The contractor shall plant Crown Vetch seed meeting ODOT 659.09 Class 3C and at the specified weight per area in Table 659.09-1 on slopes steeper than 3:1, instead of the above seed mix, as shown in the cross sections.

The following estimated quantities have been include in the General Summary:

ITEM 659 - SEEDING AND MULCHING, AS PER PLAN	10,780 SY
ITEM 659 - WATER, AS PER PLAN	29.1 M.GAL.

ITEM SPECIAL, HYDRO-EXCAVATING UTILITY EXPOSURE

The Contractor shall expose utilities as directed by the Engineer utilizing Hydro-Excavating methods. The unit price bid for this pay item shall include all costs for labor, equipment, backfill of the exposure holes utilizing Flowable Controlled Density Fill as per Columbus 2012 CMS 613.04 Type I or Type III, and any incidentals necessary to complete the work.

This is a special pay item to be used as directed by the Engineer and not to be used for usual utility exposures associated with OUPS tickets and general construction of the project. Costs to expose utilities associated with OUPS tickets and general construction of the project shall be included in the unit bid prices for the items of work affected. The Contractor is reminded to keep his/her OUPS ticket updated according to industry practices.

A contingency quantity of: ITEM SPECIAL HYDRO-EXCAVATING UTILITY EXPOSURE 10 each

GENERAL NOTES

DESIGN AGENCY
ARCADIS
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DESIGNER
MJB

REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 11 TOTAL 91

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UNSUITABLE SOILS/ UNSTABLE SOILS

To account for any unsuitable/unstable soils identified during construction, a contingency quantity has been added to the plan to be used as directed by the engineer.

The contractor shall remove the unsuitable materials or soft soils and replace them with Geotextile Fabric, Geogrid, #2 stone, and 304 aggregate as noted in the sketch below. This work shall consist of removal of unsuitable material, placing geotextile fabric, furnishing, placing, and compacting the #2 stone and 304 aggregate in place. The aggregate shall meet the requirements of 703.01 and 703.04.

The aggregate base shall be placed in accordance with the requirements of pertinent parts of ITEM 304, except that when vibratory equipment is used for compaction, the compacted depth of single layer shall not exceed 12 inches.

If requested by the engineer, Geotextile Fabric shall be Type D. The material shall be placed according to the manufacturer's requirements and then overlaid with 12 inches of #2 stone.

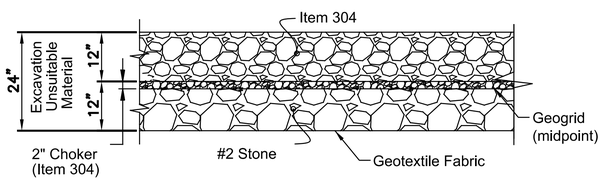
If requested by the engineer, Geogrid shall be sized for #2 Stone and shall meet ODOT SS861. The material shall be placed according to the manufacturer's requirements and then overlaid with 12 inches of #2 stone.

Material placement, depths and thicknesses shall be as directed by the engineer.

If requested by the engineer, subgrades shall be proof rolled with a tandem wheel truck loaded with a maximum legal load while in the presence of the engineer who will determine the number of passes required.

The following contingency quantities have been included in the General Summary to be used as directed by the engineer:

ITEM 204 - EXCAVATION OF SUBGRADE, AS PER PLAN	100 CY
ITEM 204 - GEOTEXTILE FABRIC, AS PER PLAN	150 SY
ITEM 204 - GRANULAR EMBANKMENT, AS PER PLAN, USING #2 STONE	50 CY
ITEM 204 - GRANULAR EMBANKMENT, AS PER PLAN, USING ITEM 304	50 CY
ITEM 204 - GEOGRID, AS PER PLAN	150 SY
ITEM 204 - PROOF ROLLING, AS PER PLAN	5 HOURS



ITEM 452 - 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN

The splitter island shall be stamped with Scofield Systems "New Brick Herringbone Pattern" Order Number 2050 utilizing LITHOCHROME Color Hardener A-53 Arizona Tan and LITHOCHROME Antiquing Release 4388 Russet or an approved equal pattern and color system. The stamped concrete shall conform to ODOT CMS 452 and all applicable manufacturer's requirements. A sample of the pattern and color shall be provided to and approved by the Franklin County Engineer 14 days prior to construction. All materials, labor, equipment, and other expenses associated with stamping and coloring the concrete shall be included in the unit price bid for ITEM 452, 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN. The contact information for Scofield Systems is http://www.scofield.com/stampedconcrete_patterns.html or 1-800-800-9900.

ITEM 452 - 10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN

The truck apron shall be stamped with Scofield Systems "New Brick Herringbone Pattern" Order Number 2050 utilizing LITHOCHROME Color Hardener A-53 Arizona Tan and LITHOCHROME Antiquing Release 4388 Russet or an approved equal pattern and color system. The stamped concrete shall conform to ODOT CMS 452 and all applicable manufacturer's requirements. A sample of the pattern and color shall be provided to and approved by the Franklin County Engineer 14 days prior to construction. All materials, labor, equipment, and other expenses associated with stamping and coloring the concrete shall be included in the unit price bid for ITEM 452, 10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN. The contact information for Scofield Systems is http://www.scofield.com/stampedconcrete_patterns.html or 1-800-800-9900.

EXISTING/UNIDENTIFIED STORM SEWERS

If any existing storm sewers or field tiles are encountered during construction, leave exposed and contact the Franklin County Drainage Engineer's Office at (614) 525-7318 or (614) 525-2787. Contractor to have the existing tile's size, composition, horizontal location, and flowline surveyed.

DRAINAGE CONNECTIONS

All conduits paid for under this item shall be considered and bid as an "As Per Plan" item. See note below.

All drains, which are encountered during construction, shall be provided with unobstructed outlets. Existing drains which are located below the roadway ditch elevation, and which cross the roadway, shall be replaced within construction limits using Item 611 Conduit, Type B, one commercial size larger than the existing conduit.

Existing collectors and isolated farm drains, which are encountered above the elevation of roadway ditches, shall be outletted into the roadway ditch by Item 611 Type C Conduit. The optimum outlet elevation shall be 12" above the flow line elevation of the ditch.

The location, type, size and grade of replacements shall be determined by the Engineer and payment shall be made on final measurements.

Tie-ins to existing conduits shall use a rubber boot connection and hardware as approved by the Engineer. All conduits shall be Schedule 40 Polyvinyl Chloride Plastic Pipe (PVC). Blind tap connections and cutting into curb or drainage structures shall be included in the linear foot price bid for each item.

Erosion control pads and animal guards shall be provided at the outlet end of all drains as per Standard Construction Drawing DM-1.1M, except when they outlet into a drainage structure. Payment for the erosion control pads and animal guards 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 611 - 4" CONDUIT, TYPE B, SCHEDULE 40 PVC, AS PER PLAN	50 LIN FT
ITEM 611 - 6" CONDUIT, TYPE B, SCHEDULE 40 PVC, AS PER PLAN	50 LIN FT
ITEM 611 - 8" CONDUIT, TYPE B, SCHEDULE 40 PVC, AS PER PLAN	50 LIN FT
ITEM 611 - 4" CONDUIT, TYPE C, SCHEDULE 40 PVC, AS PER PLAN	50 LIN FT
ITEM 611 - 6" CONDUIT, TYPE C, SCHEDULE 40 PVC, AS PER PLAN	50 LIN FT
ITEM 611 - 8" CONDUIT, TYPE C, SCHEDULE 40 PVC, AS PER PLAN	50 LIN FT
ITEM 611 - INSPECTION WELL	4 EACH

Necessary bends, branches and rubber boot connectors shall be included in the price bid for each item. The Contractor shall not order any of the above materials unless approved by the Engineer.

ITEM 201, CLEARING AND GRUBBING

All trees, fence posts, rocks, brush, stumps and fence within the construction limits of this project shall be removed unless marked "Do Not Disturb". Unless itemized separately, all of these items shall be removed under the lump sum price bid for item 201, Clearing and Grubbing. Items within the construction limits that are marked "Do Not Disturb" or "DND" shall not be removed or damaged. The County and Cities reserve the right to order the removal of trees or stumps outside of the limits of the right-of-way and/or easement lines but within the work limits. Payment for the removal of these trees or stumps shall be included in the lump sum price bid for item 201, Clearing and Grubbing.

ITEM SPECIAL, CONTINGENCY

This item is a fixed amount for all bidders and is included in the Engineer's Estimate listed on the Bid Blank. It will be utilized for unforeseen conditions and extras encountered during the course of construction. Use of any portion of this item must be approved in writing by the Franklin County Engineer, Chief Deputy Engineer, and Construction Engineer in Change Order format.

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP

Cement shall be utilized as the chemical additive and shall extend to a depth of 14 inches below the proposed subgrade level and 18 inches outside the edge of shoulder, including beneath the curb and gutter.

The following estimated quantities have been carried to the General Summary:

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	8647 SY
ITEM 206 - CURING COAT	8647 SY
ITEM 206 - CEMENT	261 TON

POST CONSTRUCTION STORMWATER TREATMENT

This plan utilizes structural best management practices (BMP's) for post construction storm water treatment.

VEGETATED FILTER STRIP

This plan utilizes vegetated filter strip(s) for post construction storm water treatment. Place either item 660 sodding or item 659 seeding and mulching with a 4-inch lift of topsoil and item 670, slope erosion protection to all disturbed areas designated as vegetated filter strips, the edge of shoulder, and the foreslope as specified in the plans.

ROUNDING

The rounding at slope breakpoints shown on the typical sections applies 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:

WATER
Columbus Dept. of Public Utiltities
Division of Water
Attn: Tim Huffman, P.E.
910 Dublin Road
Columbus, OH 43215
Ph: (614) 645-0856

SANITARY & STORM SEWERS
Columbus Dept. of Public Utilities
Division of Sewerage & Drainage
Attn: Mark Timbrook
1250 Fairwood Avenue
Columbus, OH 43206
Ph: (614) 645-3702

AT&T OHIO
111 North 4th Street
Columbus, Ohio 43215
Attn: Kevin Glaser
Ph: (614) 208-9312
Email: kg1963@att.com

CHARTER COMMUNICATIONS
3760 Interchange Road
Columbus, Ohio 43204
Attn: Anthony Adams
Ph: (614) 827-7971
Email: anthony.adams@charter.com

FRANKLIN COUNTY ENGINEER UTILITIES
Attn: Steve Buskirk
970 Dublin Road
Columbus, OH 43215
Ph: (614) 525-3063

SOUTH CENTRAL POWER
2780 Coonpath Road NE
Lancaster, OH 43130
Attn: Mike Chalfan
Ph: (740) 689-6168
Email: chalfan@southcentralpower.com

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

Primary project control monuments govern all positioning on ODOT projects. See sheet 2 of the plans for a table containing project control information.

Use of the following project control, vertical positioning, and horizontal positioning parameters for all surveying.

Project control

Positioning method: Static network adjustment using ODOT CORS:
COLB Elev. 722.62 & OHLI Elev. 1077.68
Monument type: B

Vertical positioning

Orthometric height datum: NAVD88
Geoid: 18

Horizontal positioning

Reference frame: NAD83(2011)
Ellipsoid: GRS80
Map projection: Lambert Conformal Conic
Coordinate system: Ohio State Plane, South Zone
Combined scale factor: 1.0000634011 (from Grid to Ground)
Origin of coordinate system: 0,0

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.

GENERAL NOTES

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 436-5400
www.arcadis.com

DESIGNER
MJB
REVIEWER
BKM 03/18/20
PROJECT ID
109581
SHEET 12 TOTAL 91

FRA-317-1.46
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PUBLIC DRINKING WATER PROTECTION PLAN

This project is located within a public drinking water protection area as established under Chapter 1115 of the City of Columbus Codes. As such alt construction activities must be done in compliance with Chapter 1115. Prior to construction, the Contractor is required to provide to the Wellfield Protection Coordinator for the City of Columbus plans on how equipment will be refueled and how maintenance of equipment will be performed. In addition, a Spill Prevention Control and Countermeasure (SPCC) Plan must be submitted and approved by Wellfield Protection Coordinator prior to commencement of construction. The Contractor shall be fully responsible for informing alt subcontractors and other agents of the requirements of Chapter 1115. Additionally, the Contractor must immediately report any spills to the Wellfield Protection Coordinator. If a spill is above the State reportable amount, the Contractor should also contact the Franklin County Emergency Management (614-794-0213) and the Ohio EPA Environmental Response and Revitalization (800-282-9378) for cleanup of the spill. The Wellfield Protection Coordinator for the City of Columbus can be reached at the Wellfield Protection Office, Parsons Avenue Water Plant, 5600 Parsons Avenue, Lockbourne, Ohio 43137; Phone 614-645-3227; Email reandrews@columbus.gov.

INDIANA AND NORTHERN LONG-EARED BAT NOTE

Ensure impacts to the federally listed and protected Indiana bat and northern long-eared bat are avoided and minimized. Do not remove trees from April 1 through September 30. Perform all necessary tree removal from October 1 through March 31. Demarcate clearing limits in the field to avoid any unauthorized tree clearing. For the purposes of this note, a tree is defined as a live, 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.

COLUMBUS WATERLINE WORK AND COMPACTED TRENCH BACKFILL

The Contractor is responsible for contacting the affected city water departments before any shutdowns or tie-ins of waterlines at least 48 hours before the work begins, not including Saturdays, Sundays, or legal holidays. The water departments may indicate the time of shutdowns, which may include shutdowns at night or on weekends. The Contractor is expected to cooperate with the water departments in physically passing out standard city approved fliers to affected city water customers. The Contractor shall use a map provided by the city showing customers affected. When passing out fliers, the contractor is responsible for producing enough copies of the fliers to cover the shutdown area. All waterlines located within pavement area and less than 10' deep shall be backfilled with crushed aggregate meeting the requirements of item 304. Aggregate Base, and shall be placed and compacted as set forth under 801.11 of the City of Columbus CMS. The backfill shall extend from the bottom of the trench to the pavement subgrade. The cost of the compacted backfill shall be included in the unit price bid for the waterline items in the contract. Waterlines located within pavement (or the influence line of pavement) and deeper than 10' shall be backfilled with LSMBF up to a point such that the compacted granular backfill the rest of the way up is no deeper than 10'. See Detail "A".

STORM SEWER, WATERLINE & SANITARY SEWER BACKFILL

Trench backfill under all pavements (roadways, driveways, and sidewalks) and under influence lines of said pavements shall be Item 304 or Low Strength Mortar Backfill (LSMB). Recycled 304 may be used as per ODOT CMS 703.11 where permissible for trench backfill only; recycled material cannot be used as 304 Aggregate Base. LSMB shall follow the mix proportioning in ODOT CMS 613.03 Type III.

Backfill shall be placed as follows:

The minimum trench width shall be 3' to allow room for mechanical compaction equipment: hoe tamps, jumping jacks, etc.

Provide compaction equipment that compacts the material under the haunch of the pipe. Use shovel slicing and spud bars in conjunction with the compaction operations to compact the material and to manipulate the material under the haunch of the pipe.

Item 304 shall be used as the granular material and shall extend up to the bottom of the roadway subgrade. Except as noted below.

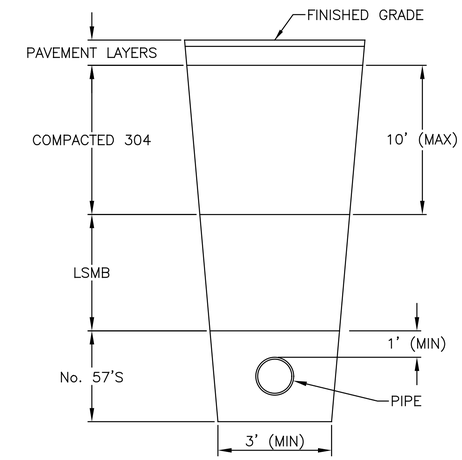
Where the new storm sewer, waterline, or sanitary sewer crosses under an existing utility line, No. 57 Stone or LSMB shall be used vertically from the bottom of the new trench to 6" above the top of the existing utility and horizontally 5' on each side of the existing utility (10' total).

The granular backfill shall be placed and compacted in lifts not to exceed 8" for 304 and 24" for No. 57 Stone.

Watering devices shall be onsite and used on 304 that has moisture content below optimum, as directed by the backfill inspector.

For trenches deeper than 10' use LSMB in the bottom of the trench to a point such that the compacted granular backfill the rest of the way up is no deeper than 10'. See detail "A".

All costs for ITEM 304, NO. 57 STONE, and LSMB backfill shall be included in the unit bid prices of the associated pipe.



DETAIL "A" TRENCHES GREATER THAN 10' DEEP
NOT TO SCALE

IN NO WAY DOES THIS DETAIL INTEND TO SUPERSEDE OR NEGATE GOOD CONSTRUCTION PRACTICE.

GENERAL NOTES

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DESIGNER
MJB

REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 13 TOTAL 91

FRA-317-1.46

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SEQUENCE OF CONSTRUCTION

The intersection is to be constructed during a single phase closure. All lanes of SR 317 London-Groveport Road and Lockbourne Road shall be closed in both directions of construction. The following detour routes shall be used during construction and are detailed on sheet 15 :

Northbound Lockbourne Road traffic shall be detoured by using westbound Rowe Road to northbound US Route 23 to eastbound Rathmell Road.

Southbound Lockbourne Road traffic shall be detoured by using westbound Rathmell Road southbound US Route 23 to eastbound Rowe Road.

Eastbound London-Groveport road traffic shall be detoured by using southbound US Route 23 to eastbound/northbound State Route 762 to northbound Rickenbacker Parkway to northbound Alum Creek Drive.

Westbound London-Groveport road traffic shall be detoured by using southbound Alum Creek Drive to southbound Rickenbacker Parkway to southbound/westbound State Route 762 to northbound US Route 23.

ITEM 614, MAINTAINING TRAFFIC, AS PER PLAN

A minimum of two 10' lanes (one lane of traffic in each direction) shall be maintained at all times, except for a period not to exceed 45 consecutive calendar days, when through traffic shall be detoured as shown on sheet 15. A disincentive shall be assessed in the amount of $5,000 per day for each calendar day the roadway remains closed to traffic beyond the specified limit.

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 or 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.

The Contractor may submit an alternate MOT plan at the preconstruction meeting to show how they plan to maintain traffic in accordance with the OMUTCD and these traffic maintenance notes. These plans will need to be reviewed and approved by the Franklin County Engineer's Office. The Contractor will be advised as to the review results in writing within thirty (30) days.

The Contractor shall notify the County Engineer's Mobility Department at 614-525-6036 two weeks prior to beginning work , and weekly thereafter, to discuss any changes to the maintenance of traffic plan and/or completion date. Before work is started on this project the Contractor shall submit a written schedule of operation and a traffic maintenance control plan for approval. No work will be started that will restrict any lane usage unless it is the intent of the Contractor to work full time with a full force in order to complete work without unnecessary delays.

The following devices must meet NCHRP 350 or MASH-08 before the devices are installed on the project: drums, cones, vertical panels and the panel support, portable sign supports, temporary impact attenuators, temporary concrete barrier, and barricades.

All construction signing shall be installed and covered before construction begins. After construction sign installation, the Contractor shall notify the Franklin Country Engineer's Office Mobility Department at 614-525-6036 three working days before work begins and request an inspection of all signing.

Faces of construction signs and reflective sheeting on barricades shall be Type H (VIP). All orange construction signs shall be fluorescent orange. All sheeting will be tested for reflectivity per ODOT 730.192. vertical panels and drum bands shall be relectorized with Type G (high intensity) sheeting complying with the requirements of 730.19. All signs and barricades, vertical panels, and drums will be like new and in good condition in conformance with "Quality Guidelines for Temporary Traffic Control Devices and Features" published by ATSSA.

Maintenance of all Contractor-supplied signs, barricades, vertical panels and drums is the Contractor's responsibility. If the Contractor fails to correct deficiencies within four hours of notification, Franklin Country shall correct or hire someone to correct the deficiencies. The Contractor shall then be back charged per ODOT Specification 614. In the case that back charging the Contractor is not applicable, the County will rescind and withhold all permits issued to the Contractor to work within County right-of-way until the issue is settled. These provisions shall not in any way relieve the Contractor of any of their legal responsibilities or liabilities for the safety of the public.

All barricades at closures shall have yellow Type A low intensity flashing warning lights and two flags. Reflective material is required on both sides of all barricades.

Cones are approved for daytime use only. Drums shall be used at night and have yellow Type C steady burn lights. Cones and Drums shall be placed as follows: 25' c/c on tangents, 15' c/c on tapers, and 8' c/c in radii, or specified in MT-97.10 or MT-95.30.

All signs nine square feet (36" x 36") and over shall have yellow Type A low intensity flashing warning lights and two flags.

All work and traffic control devices shall be in accordance with ODOT CMS 614 and other applicable portions of the specifications, as well as the latest version of the OMUTCD. 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.

ITEM 614, MAINTAINING TRAFFIC (NOTICE OF CLOSURE SIGN)

Notice of closure signs (W20-H13) shall be erected by the Contractor prior to the scheduled road or ramp closure in accordance with the notice of closure time table below.

The signs shall be erected on the right-hand side of the road/ramp facing traffic. They shall be placed so as not to interfere with the visibility of any other traffic control signs. On roadways, they should be erected at or near the point of closure. The signs may be erected anywhere on ramps as long as they are visible to the motorists using the ramp. On entrance ramps, the sign shall be erected well in advance of the merge area to avoid distracting motorists.

NOTICE OF CLOSURE SIGN TIME TABLE

ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
RAMP & ROAD CLOSURES	>= 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

The sign shall display the date of the closure in MMM-DD format and the number of days of the closure. The last line of the W20-H13 sign lists a phone number (614-525-3074) which a motorist may call for additional information. This is to be a specific office within the district rather than the general switchboard number.

DUST CONTROL

The Contractor shall furnish and apply water for dust control as directed by the Engineer. The following estimated quantities have been included for dust control purposes:

ITEM 616, WATER 1.9 M. GAL

NOTIFICATION OF TRAFFIC RESTRICTIONS

Throughout the duration of the project, the Contractor shall notify the Project Engineer in writing of all traffic restrictions and upcoming maintenance of traffic changes. The Contractor shall ensure the written notification is submitted in a timely manner to allow the Project Engineer to meet the required time frames set forth in the table below to inform the special hauling permits section (hauling.permits@dot.ohio.gov) and the District Public Information Office (PIO). This notification shall be received by the Project Engineer prior to the physical setup of any applicable signs or message boards.

Information should include, but is not limited to, all construction activities that impact or interfere with traffic and shall list the specific location, type of work, road status, date and time of restriction, duration of restriction, number of lanes maintained, number of lanes closed, minimum vertical clearance, minimum width of drivable pavement, detour routes, if applicable, and any other information requested by the Project Engineer.

DETOURS

All work zone traffic control devices required for the detour furnished, erected, maintained and subsequently removed by the contractor. The following quantity has been carried to the general summary:

Item 614 - Detour Signing, As Per Plan

Coordination with the MORPC Paving the way Program (PTWP) and COTA

Paving the Way projects will be entered into the PTWP system by Franklin County. The Contractor shall notify Franklin County's Senior Mobility Technician, and the COTA Senior Service Planner, of all traffic restrictions and upcoming maintenance of traffic changes on a weekly biases. When detours are planned, the notification shall be reported at least 30 days in advance of any road closures. Lane closures of less than two weeks duration and more than two days shall be reported at least 3 working days in advance. For short-term lane closures (2 days or less) notification shall be made at least one day in advance. The report shall be of a format approved by the Project Engineer or one supplied by the Senior Mobility Technician. the Senior Mobility Technician can be reached by phone at 614-525-6036, or by email at kselkinghaus@franklincountyengineer.org and COTA at 614-308-4373, or by email at evanspm1@cota.com.

Projects in the Rickenbacker Area shall include notification of the GREAT Workforce Transportation Director; Bob Dowler at (614)836-7433 ext. 2 or by email at bdowler@groveport.org

NOTIFICATION TIME TABLE

ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS & PIO
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO CLOSURE

Any unforeseen conditions not specified in the plans requiring traffic restrictions shall also be reported to the Project Engineer using the notification time table.

DRIVE ACCESS

Except as noted herein, where private drives exist within the work area, access to the drives shall be maintained. It may be necessary to adjust the work procedures to work around the drives as much as possible and to provide temporary access to the drives when normal access cannot be provided.

LOCAL ACCESS

Ingress and egress shall be maintained to all residential and commercial properties. Driveway closures may be necessary to enable work on, or in front of, a drive. The Contractor will be responsible for notifying owners, residents, or business operators, in writing, at least 48 hours, but not more than 72 hours, prior to closure. The Engineer shall be given a list of the persons that were given notices with the date of notice included. Closure is permitted only during work hours and access must be returned at the end of each working day. Properties with multiple drives may have one drive closed at a time, while work is performed in the area of the closed drive. No weekend closures are permitted.

Individual drive closures shall be kept to the minimum time needed for construction activities. Every effort must be made to accommodate both residential and commercial property owner's need for access.

ITEM 614- LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE, AS PER PLAN

In addition to the requirements of ODOT CMS 614, the OMUTCD, and ODOT SCD MT-97.10 and MT-97.11, a uniformed law enforcement officer (L.E.O.) and offical patrol car with working top mounted emergency flashing lights, shall be provided for the following tasks:
1. For controlling the detour of traffic during the entire advance preperation and closure sequence where complete bloackage of traffic is required. On the day the intersection is closed, one L.E.O. per road for 8 hours. The next four days thereafter, or as directed by the Engineer, one L.E.O. with patrol car shall be posted at each detour point from 6:00 am to 10:00 am and from 2:00 pm and 6:00 pm to ensure that only work zone area residents use the closed roadway.
2. For all lane closures. LEO's shall be used where the OMUTCD intends that flaggers be used.

The L.E.O.s are considered to be employed by the Contractor, and the Contractor shall be responsible for their actions. Although they are employed by the Contractor, the Engineer shall have control of their placement. The offical patrol car shall be a safety vehicle as required by the Ohio Revised Code. L.E.O.s shall contact the Engineer's First Responder Liaison at 614-579-2809 at least 48 hours before starting any work under this item.

All work described above shall be paid for under the following Bid Item:
ITEM 614- LAW ENFORCEMENT WITH PATROL CAR FOR ASSISTANCE, AS PER PLAN 240 Hours

Payment for L.E.O.s used for flagging operations, other than as outlined above, shall not be made under this item, but shall be included in the cost of the bid item for which the flagging is being conducted.

ITEM 614 PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN

The Contractor shall furnish, install, maintain, and remove changeable message signs for the duration of the project. The signs shall be of a type approved by the County.

Each sign shall be trailer mounted and equipped with a functional dimming mechanism to adjust the brightness under varying light conditions and a temper and vandal proof enclosure. Each sign shall have operation instructions to enable on-site operation and troubleshooting. The sign shall also be capable of being powered by an electrical service drop from a local utility company.

PCMS's shall be in place one week prior to construction to advise the public. At least one PCMS shall be located on each approach, in advance of the work area. Other PCMS's may be required in advance of detours. They shall be placed in a highly visible location, as approved by the Engineer, and protected from traffic. The Contractor shall, at the direction of the Engineer, relocate the PCMS to improve visibility or accommodate changed conditions. When not in use, the PCMS shall be off, facing
away from traffic and shall display one of more high intensity yellow reflective sheeting surfaces of 9-inch by 15-inch minimum size facing traffic.

The sign shall have the capacity to store up to 99 messages. Message memory or pre-programed displays shall not be lost as a result of power failures to the on board computer. The message sequence to be displayed for this project shall be shown in the Maintenance of Traffic Plan. The sign legend shall be capable of being changed in the field. The PCMS shall have a full matrix display with the ability to show multiple line formats with up to six message phases. The PCMS shall contain an accurate clock and programming logic which will allow the sign to be activated, deactivated or changed automatically at different times of the day for different days of the week.

The PCMS shall be maintained in good working order by the Contractor. Any failure shall not result in the sign being out of service for more than 12 hours including weekends. Failure to comply may result in an order to stop work and open traffic lanes and/or to have the County take appropriate action to safely control traffic. Any costs accrued by the County will be deducted from moneys due, or to become due the Contractor on their contract.

The Contractor shall be responsible for 24 hours per day operation and maintenance of these signs on the project for the duration of the phases when the plan requires their use. The Contractor is responsible for changing messages within 2 hours following notification from the Engineer.

Payment for Item 614 Portable Changeable Message Sign, As Per Plan shall be made at the contract unit price bid per sign-month, and shall include all labor, materials, equipment, fuel, lubricating oils, software, hardware, and incidentals to perform the above described work.

The following quantity has been carried forward to the general summary:

ITEM 614 - PORTABLE CHANGEABLE MESSAGE SIGN,
AS PER PLAN, 10 SIGN-MONTHS

COORDINATION BETWEEN CONTRACTORS

The contractor will be required to coordinate work with other ODOT projects identified below. It is imperative that the contracors cooperate fully with each other as outlined in Section 105.08 of ODOT Construction and Material SPecifications. All maintenance of traffic shall be coordinated between projects and not be in conflict with one another.

FRA-23-4.19-110380 (Rathmell
FRA-317-109493 (Rhor)
FRA-665-14.00-104949 (Bridge over Scioto River)
Turn lane on 317 @ La Salle Drive

MAINTENANCE OF TRAFFIC GENERAL NOTES

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DESIGNER EJT
REVIEWER BKM 03/18/20
PROJECT ID 109581

FRA-317-1.46

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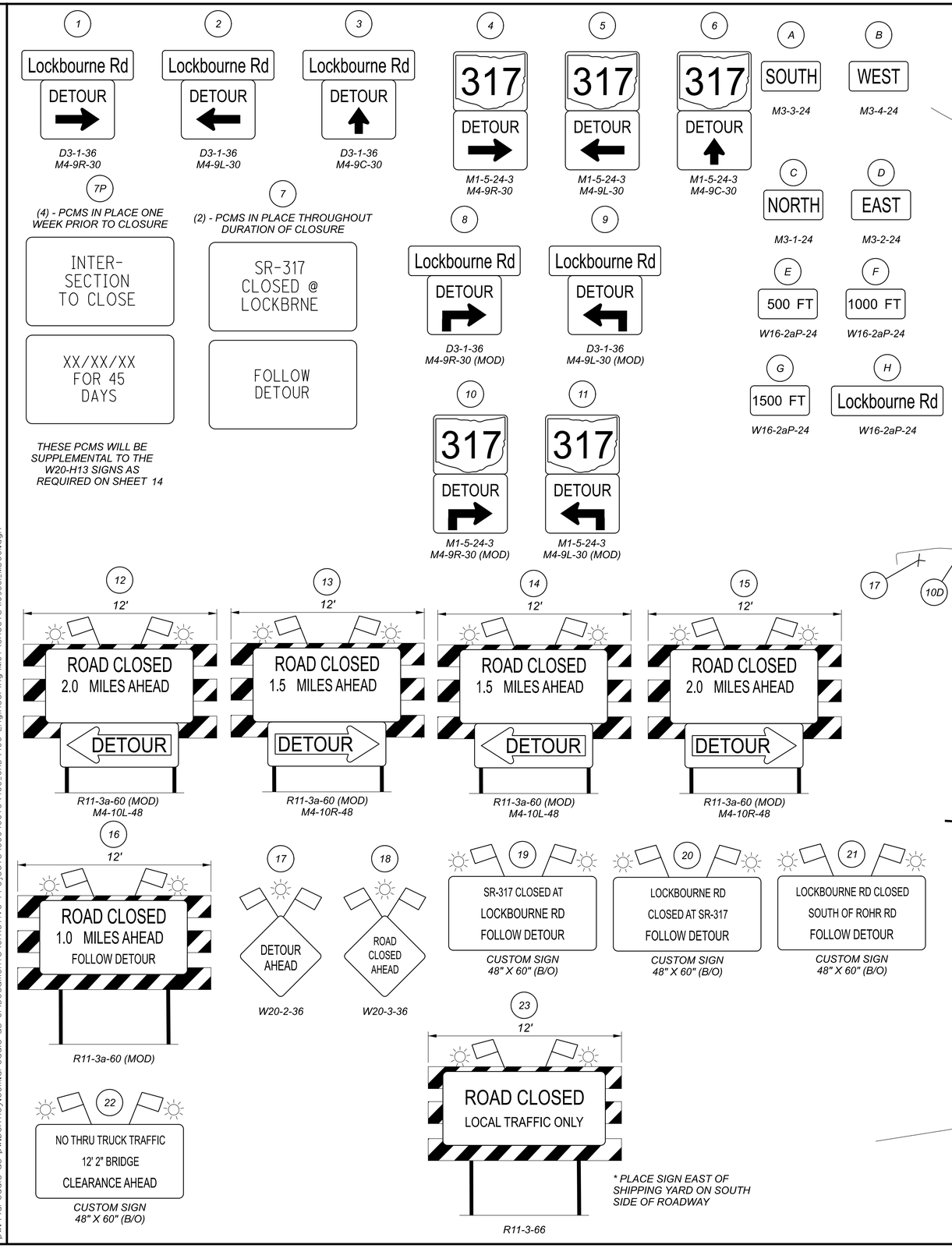

NOTES:

1. SIGNS 12-16 ARE TO BE MOUNTED ON TYPE III BARRICADES WITH YELLOW TYPE A FLASHING LIGHTS AND TWO FLAGS.

2. SIGNS WITH A-G PLAQUES SHALL BE MOUNTED AT THE BOTTOM OF THE SIGN ASSEMBLY.

3. SIGNS MOUNTED ON US-23 SHALL BE PLACED ON BOTH SIDES OF THE MULTI-LANE HIGHWAY WHEN POSSIBLE.

4. IN ADDITION TO THE LEO LOCATIONS NOTED ON SHEET 14, A LEO SHALL BE LOCATED AT THE ROWE ROAD/US-23 INTERSECTION TO DISCOURAGE CUT THROUGH TRAFFIC.

5. WHEN ADVANCE DETOUR SIGNS ARE TO BE PLACED ON US-23, ERECT WITH EXISTING ADVANCE INTERSECTION SIGNS IF APPLICABLE.

HORIZONTAL SCALE IN FEET
0 1125 2250 4500

MAINTENANCE OF TRAFFIC DETOUR PLAN

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 895-3000
www.arcadis.com

DESIGNER
EJT

REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 15 TOTAL 91

FRA-317-1.46

MODEL: Untitled Sheet PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:37:54 AM USER: MBurger
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01Active Projects\30040076\400_CAD\400-Engineering\MOT\Sheets\109581_MD001.dgn

10	11	12			18	19	57												ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
																							ROADWAY	
																			201	11000	LS		CLEARING AND GRUBBING	
						5,393													202	23000	5,393	SY	PAVEMENT REMOVED	
					2,132														203	10000	2,132	CY	EXCAVATION	
					4,315														203	20000	4,315	CY	EMBANKMENT	
		100																	204	13001	100	CY	EXCAVATION OF SUBGRADE, AS PER PLAN	12
		50																	204	21001	50	CY	GRANULAR EMBANKMENT, AS PER PLAN, USING #2 STONE	12
		50																	204	21001	50	CY	GRANULAR EMBANKMENT, AS PER PLAN, USING ITEM 304	12
		5																	204	45001	5	HOUR	PROOF ROLLING, AS PER PLAN	12
		150																	204	50001	150	SY	GEOTEXTILE FABRIC, AS PER PLAN	12
		150																	204	51001	150	SY	GEOGRID FOR SUBBASE STABILIZATION, AS PER PLAN	12
		261																	206	10500	261	TON	CEMENT	
		8,647																	206	11000	8,647	SY	CURING COAT	
		8,647																	206	15020	8,647	SY	CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP	
																			206	30000	LS		MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS	
						161													608	53020	161	SF	DETECTABLE WARNING	
3																			623	40001	3	EACH	MONUMENT ASSEMBLY REMOVED AND RESET, AS PER PLAN	10
																							EROSION CONTROL	
					97														601	21060	97	SY	TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT	
					274														659	00300	274	CY	TOPSOIL	
	10,780																		659	10001	10,780	SY	SEEDING AND MULCHING, AS PER PLAN	11
	29.1																		659	35001	29.1	M. GAL.	WATER, AS PER PLAN	11
					2,455														670	00500	2,455	SY	SLOPE EROSION PROTECTION	
																			832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	11
																			SPEC		LS		PUBLIC DRINKING WATER PROTECTION PLAN APP	13
																			832	30000	20,000	EACH	EROSION CONTROL	11
	20,000																							
																							DRAINAGE	
							903												605	05200	903	FT	4" UNCLASSIFIED PIPE UNDERDRAINS	
							2,341												605	06000	2,341	FT	4" BASE PIPE UNDERDRAINS	
							192												611	00100	192	FT	4" CONDUIT, TYPE B	
		50																	611	00101	50	FT	4" CONDUIT, TYPE B, SCHEDULE 40 PVC, AS PER PLAN	12
		50																	611	00201	50	FT	4" CONDUIT, TYPE C, SCHEDULE 40 PVC , AS PER PLAN	12
																			611	00410	72	FT	4" CONDUIT, TYPE F FOR UNDERDRAIN OUTLET	
							72																	
		50																	611	00901	50	FT	6" CONDUIT, TYPE B, SCHEDULE 40 PVC, AS PER PLAN	12
		50																	611	01101	50	FT	6" CONDUIT, TYPE C, SCHEDULE 40 PVC, AS PER PLAN	12
		50																	611	01801	50	FT	8" CONDUIT, TYPE B, SCHEDULE 40 PVC, AS PER PLAN	12
		50																	611	02001	50	FT	8" CONDUIT, TYPE C, SCHEDULE 40 PVC, AS PER PLAN	12
							5												611	99710	5	EACH	PRECAST REINFORCED CONCRETE OUTLET	
		4																	611	99720	4	EACH	INSPECTION WELL	
																							PAVEMENT	
						2,241													302	46000	2,241	CY	ASPHALT CONCRETE BASE, PG64-22	
						1,737													304	20000	1,737	CY	AGGREGATE BASE	
						1,182													407	20000	1,182	GAL	NON-TRACKING TACK COAT	
						275													442	20000	275	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)	
						320													442	20200	320	CY	ASPHALT CONCRTE INTERMEDIATE COURSE, 19MM, TYPE A (448)	
						678													452	13011	678	SY	9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN	12
						541													452	14011	541	SY	10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN	12
						969													609	12000	969	FT	COMBINATION CURB AND GUTTER, TYPE 2	
						467													609	18001	467	FT	COMBINATION CURB AND GUTTER, TYPE 3, AS PER PLAN	9
						1,760													609	26000	1,760	FT	CURB, TYPE 6	
						359													609	98000	359	FT	CURB MISC.: MOUNTABLE	5
						394													609	98000	394	FT	CURB, MISC.: STRAIGHT 12"	9
						6,506													SPECIAL	139	6,506	SY	ASPHALT REJUVENATING AGENT, AS PER PROPOSAL NOTE	

GENERAL SUMMARY

DESIGN AGENCY
ARCADIS
222 SOUTH MAIN STREET SUITE 200
AKRON, OHIO 44308
(330) 434-8555
www.arcadis.com

DESIGNER
MJB

REVIEWER
BKM 04-16-21

PROJECT ID
109581

SHEET 16 TOTAL 91

FRA-317-1.46

MODEL: GenSum1 PAPERSIZE: 34x22 (in.) DATE: 9/8/2021 TIME: 3:59:50 PM USER: MBurger
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\30040076\400_CAD\400-Engineering\Roadway\Sheets\109581_GG001.dgn

10	11			14				64	65	66	77	78	58						ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
																							WATERWORK	
													20						801	COC	20	FT	12 INCH WATER PIPE & FITTINGS	
													579						801	COC	579	FT	24 INCH WATER PIPE & FITTINGS	
													1						802	COC	1	EACH	12 INCH VALVE & APPURTENANCES	
													2						802	COC	2	EACH	24 INCH BUTTERFLY VALVE & APPURTENANCES	
													2						808	COC	2	EACH	CUT AND PLUG (CAP) 24 INCH MAIN	
													1						808	COC	1	EACH	12 INCH WATER MAIN ABANDONED	
													1						808	COC	1	EACH	24 INCH WATER MAIN ABANDONED	
													1						809	COC	1	EACH	FIRE HYDRANT RELOCATED	
													1						SPECIAL	COC	LS		SURVEY COORDINATES	
																							LIGHTING	
												16							625	00450	16	EACH	CONNECTION, FUSED PULL APART	
												8							625	00460	8	EACH	CONNECTION, UNFUSED PULL APART	
												18							625	00480	18	EACH	CONNECTION, UNFUSED PERMANENT	
												2							625	10490	2	EACH	LIGHT POLE, CONVENTIONAL, AT8B40	
												6							625	10490	6	EACH	LIGHT POLE, CONVENTIONAL, AT12B40	
												8							625	14100	8	EACH	LIGHT POLE FOUNDATION, 24" X 8' DEEP	
												873							625	23302	873	FT	NO. 6 AWG 2400 VOLT DISTRIBUTION CABLE	
												816							625	23400	816	FT	NO. 10 AWG POLE AND BRACKET CABLE	
												492							625	24320	492	FT	1-1/2" DUCT CABLE WITH THREE NO. 6 AWG 2400 VOLT CABLES	
												251							625	25500	251	FT	CONDUIT, 3" 725.04	
												8							625	26253	8	EACH	LUMINARE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, TYPE III	77
												643							625	29002	643	FT	TRENCH, 24" DEEP	
												5							625	30700	5	EACH	PULL BOX, 725.08, 18"	
												1							625	30706	1	EACH	PULL BOX, 725.08, 24"	
												8							625	32000	8	EACH	GROUND ROD	
												1							625	34001	1	EACH	POWER SERVICE, AS PER PLAN	77
												643							625	36000	643	FT	UNDERGROUND WARNING/ MARKING TAPE	
											1								625	76000	1	EACH	ARC FLASH CALCULATIONS AND LABEL, CONTROL CENTER	
																							TRAFFIC CONTROL	
								35											630	02101	35	FT	GROUND MOUNTED SUPPORT, NO. 2 POST, AS PER PLAN	62
								518											630	03101	518	FT	GROUND MOUNTED SUPPORT, NO. 3 POST, AS PER PLAN	62
								1											630	08501	1	EACH	STREET NAME SIGN SUPPORT, AS PER PLAN	62
								16											630	08600	16	EACH	SIGN POST REFLECTOR	
								419											630	80101	419	SF	SIGN, FLAT SHEET, AS PER PLAN	62
								25											630	84900	25	EACH	REMOVAL OF GROUND MOUNTED SIGN & DISPOSAL	
								18											630	86002	18	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT & DISPOSAL	
								4											630	97700	4	EACH	SIGNING, MISC.: ADVANCE ROUNDABOUT WARNING SIGN ASSEMBLY	62
								14											630	97700	14	EACH	SINGING, MISC.: STREET NAME BRACKET	62
								1											630	97700	1	EACH	SINGING, MISC.: REMOVAL OF STREET NAME SIGN SUPPORT AND FOUNDATION	62
								4											630	97700	4	EACH	SIGNING, MISC.: STREET NAME SIGN SUPPORT, ROUNDABOUT	62
									0.67	0.24									644	00105	0.91	MILE	EDGE LINE, 6", AS PER PLAN	62
									0.07	0.18									644	00301	0.25	MILE	CENTER LINE, AS PER PLAN	62
										11									644	00501	11	FT	STOP LINE, AS PER PLAN	62
									45	71									644	00701	116	FT	TRANSVERSE / DIAGONAL LINE, AS PER PLAN	62
									4										644	01301	4	EACH	LANE ARROW, AS PER PLAN	62
									4										644	01411	4	EACH	WORD ON PAVEMENT, 96", AS PER PLAN	62
									183										644	50300	183	FT	PAVEMENT MARKING MISC.: DOTTED LINE, WHITE	62
																							MAINTENANCE OF TRAFFIC	
				240															614	11111	240	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE, AS PER PLAN	14
																			614	12421	LS		DETOUR SIGNING, AS PER PLAN	14
				10															614	18601	10	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	14
				1.9															616	10000	1.9	MGAL	WATER	
																							INCIDENTALS	
																			614	11000	LS		MAINTAINING TRAFFIC , AS PER PLAN	14
9																			619	16011	9	MNTH	FIELD OFFICE, TYPE B, AS PER PLAN	10
																			623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
																			624	10000	LS		MOBILIZATION	
	10																		SPECIAL	035	10	EACH	HYDRO-EXCAVATING UTILITY EXPOSURE	11
																			SPECIAL	033	100,000	DOLL	CONTINGENCY APP	12

GENERAL SUMMARY

DESIGN AGENCY
ARCADIS
222 SOUTH MAIN STREET SUITE 200
AKRON, OHIO 44308
(330) 434-9855
www.arcadis.com

DESIGNER
MJB

REVIEWER
BKM 04-16-21

PROJECT ID
109581

SHEET 17 TOTAL 91

FRA-317-1.46

MODEL: GenSum2 PAPERSIZE: 34x22 (in.) DATE: 9/23/2021 TIME: 10:16:36 AM USER: MBurger
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\30004007\6\400_CAD\400-Engineering\Roadway\Sheets\109581_GG001.dgn

REF NO.	SHEET NO.	STATION FROM	STATION TO	SIDE	601 TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT SY		659 TOPSOIL CY	670 SLOPE EROSION PROTECTION SY	
		REF. "NW"							
EC-1	21	400+00.00	401+03.65	LT.			32	288	
EC-2	22	401+06.40		LT.	16				
EC-3	25	404+70.64		LT.	7				
		REF. "NE"							
EC-4	25	305+94.03	306+60.49	RT.			20	176	
EC-5	22	304+70.10		RT.	12				
EC-6	22	301+85.39		LT.	14				
EC-7	22	301+82.64	300+00.00	LT.			34	304	
		REF. "SE"							
EC-8	22	206+97.31	208+48.12	RT.			32	285	
EC-9	22	206+94.56		RT.	13				
EC-10	24	202+83.87		RT.	12				
EC-11	24	200+00.00	202+81.37	RT.			59	527	
		REF. "SW"							
EC-12	24	107+50.91	20+72.00 ℄ EX. OLD SR 655	LT.			46	415	
EC-13	24	20+72.00 ℄ EX. OLD SR 655	104+70.91	LT.			31	280	
EC-14	24	104+68.16		RT.	10				
EC-15	22	101+10.30		RT.	13				
EC-16	21	100+00.00	101+07.62	RT.			20	180	
TOTALS CARRIED TO GENERAL SUMMARY					97		274	2,455	

EARTHWORK SUBSUMMARY

CROSS SECTION SHEET NO.	203 EXCAVATION CY	203 EMBANKMENT CY	
31	0	0	
32	114	271	
33	2	362	
34	0	1124	
35	324	1015	
36	434	213	
37	254	78	
38	38	18	
39	0	0	
40	67	110	
41	279	72	
42	281	221	
43	45	579	
44	175	218	
45	119	34	
46	0	0	
TOTALS CARRIED TO GENERAL SUMMARY	2132	4315	

EROSION CONTROL & EARTHWORK SUBSUMMARY

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 985-9100
www.arcadis.com

DESIGNER
MJB

REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 18 TOTAL 91

FRA-317-1.46

MODEL: Gen Note I PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 1:57:47 PM USER: MBurger
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PAVEMENT CALCULATIONS & SUBSUMMARY

LOCATION	STATION FROM	STATION TO	SIDE	LENGTH (FT)	AVERAGE PAVEMENT WIDTH	AREA (SF) (CADD GENERATED)	202 PAVEMENT REMOVED		302 ASPHALT CONCRETE BASE, PG64-22	304 AGGREGATE BASE	407 NON-TRACKING TACK COAT	SPECIAL ASPHALT REJUVENATING AGENT, AS PER PLAN	442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19.0MM, TYPE A (448)	452 10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN	452 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN	608 DETECTABLE WARNING	609 CURB, TYPE 6	609 CURB MISC.: MOUNTABLE	609 COMBINATION CURB AND GUTTER, TYPE 2	609 COMBINATION CURB AND GUTTER, TYPE 3, AS PER PLAN	609 CURB, MISC.: STRAIGHT 12"
							SY		CY	CY	GAL	SY	CY	CY	SY	SY	SF	FT	FT	FT	FT	FT
SR 317	76+56.85	84+19.69				22980.6	2553.40															
LOCKBOURNE RD.	75+17.51	83+92.48				25560.3	2840.03															
ROUNDABOUT (ITEM 304)						64647.6				1197.18												
ROUNDABOUT (ITEM 302)						60510.8			2241.17													
ROUNDABOUT (INTERMEDIATE)						59336.4					791.15			320.49								
ROUNDABOUT (SURFACE)						58553.5					390.36	6505.94	271.08									
SPLITTER ISLAND NORTH						1884.0				92.19						209.33	41.00	380				
SPLITTER ISLAND SOUTH						1883.9				92.19						209.32	40.00	380				
SPLITTER ISLAND EAST						1162.6				58.08						129.18	40.00	363				
SPLITTER ISLAND WEST						1175.5				58.72						130.61	40.00	366				
INTERIOR TRUCK APRON						4055.6				152.37					450.62			271	359			
EXTERIOR TRUCK APRON						809.9				71.79					89.99						467	394
REF. LINE "SW"	101+13.19	101+90.00																		77.08		
REF. LINE "SW"	103+35.00	104+65.31																		129.49		
REF. LINE "SE"	202+84.60	204+04.50																		121.05		
REF. LINE "SE"	204+99.50	206+91.71																		191.90		
REF. LINE "NE"	301+88.13	302+62.00																		73.11		
REF. LINE "NE"	304+08.00	304+67.30																		59.03		
REF. LINE "NW"	401+09.18	402+94.50																		185.32		
REF. LINE "NW"	403+84.50	405+16.41																		131.91		
DRIVE (DR-1)	51+97.09 REF. "NR"					181.0				5.03												
DRIVE (DR-1) APRON						223.7				4.14			2.07									
DRIVE (DR-2)	52+03.35 REF. "NR"					40.0				1.11												
DRIVE (DR-2) APRON						224.4				4.16			2.08									
TOTALS CARRIED TO GENERAL SUMMARY							5393		2241	1737	1182	6506	275	320	541	678	161	1760	359	969	467	394

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 825-8100
www.arcadis.com

DESIGNER: MJB

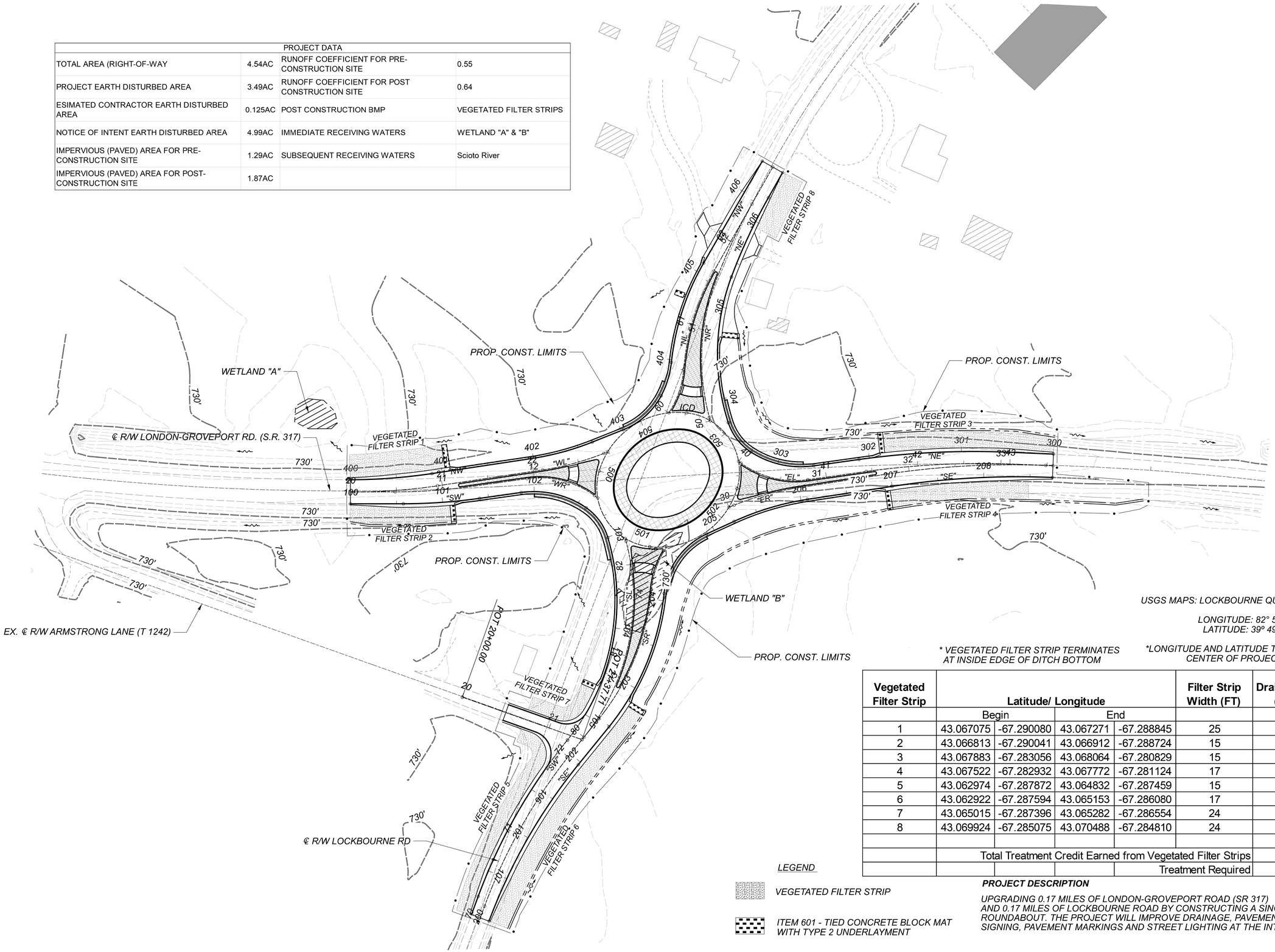
REVIEWER: BKM 03/18/20

PROJECT ID: 109581

FRA-317-1.46

MODEL: Gen Note | PAPERSIZE: 34x22 (in.) DATE: 8/31/2021 TIME: 8:09:36 AM USER: MBurger
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\30040076\400_CAD\400-Engineering\Roadway\Sheets\0958L_GS001.dgn

PROJECT DATA			
TOTAL AREA (RIGHT-OF-WAY	4.54AC	RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE	0.55
PROJECT EARTH DISTURBED AREA	3.49AC	RUNOFF COEFFICIENT FOR POST CONSTRUCTION SITE	0.64
ESIMATED CONTRACTOR EARTH DISTURBED AREA	0.125AC	POST CONSTRUCTION BMP	VEGETATED FILTER STRIPS
NOTICE OF INTENT EARTH DISTURBED AREA	4.99AC	IMMEDIATE RECEIVING WATERS	WETLAND "A" & "B"
IMPERVIOUS (PAVED) AREA FOR PRE-CONSTRUCTION SITE	1.29AC	SUBSEQUENT RECEIVING WATERS	Scioto River
IMPERVIOUS (PAVED) AREA FOR POST-CONSTRUCTION SITE	1.87AC		



USGS MAPS: LOCKBOURNE QUADRANGLE

LONGITUDE: 82° 58'22"
LATITUDE: 39° 49'52"

*LONGITUDE AND LATITUDE TO APPROX. CENTER OF PROJECT

* VEGETATED FILTER STRIP TERMINATES AT INSIDE EDGE OF DITCH BOTTOM

Vegetated Filter Strip	Latitude/ Longitude				Filter Strip Width (FT)	Drainage Area (acres)
	Begin		End			
1	43.067075	-67.290080	43.067271	-67.288845	25	0.13
2	43.066813	-67.290041	43.066912	-67.288724	15	0.06
3	43.067883	-67.283056	43.068064	-67.280829	15	0.14
4	43.067522	-67.282932	43.067772	-67.281124	17	0.13
5	43.062974	-67.287872	43.064832	-67.287459	15	0.26
6	43.062922	-67.287594	43.065153	-67.286080	17	0.18
7	43.065015	-67.287396	43.065282	-67.286554	24	0.07
8	43.069924	-67.285075	43.070488	-67.284810	24	0.08
	Total Treatment Credit Earned from Vegetated Filter Strips					1.05
				Treatment Required		1.01

LEGEND

VEGETATED FILTER STRIP

ITEM 601 - TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT

PROJECT DESCRIPTION

UPGRADING 0.17 MILES OF LONDON-GROVEPORT ROAD (SR 317) AND 0.17 MILES OF LOCKBOURNE ROAD BY CONSTRUCTING A SINGLE-LANE ROUNDABOUT. THE PROJECT WILL IMPROVE DRAINAGE, PAVEMENT, SIGNING, PAVEMENT MARKINGS AND STREET LIGHTING AT THE INTERSECTION.

HORIZONTAL SCALE IN FEET
0 25 50 100

PROJECT SITE PLAN

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 220
COLUMBUS, OHIO 43235
(614) 895-7100
www.arcadis.com

DESIGNER
EJT

REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 20 TOTAL 91

FRA-317-1.46

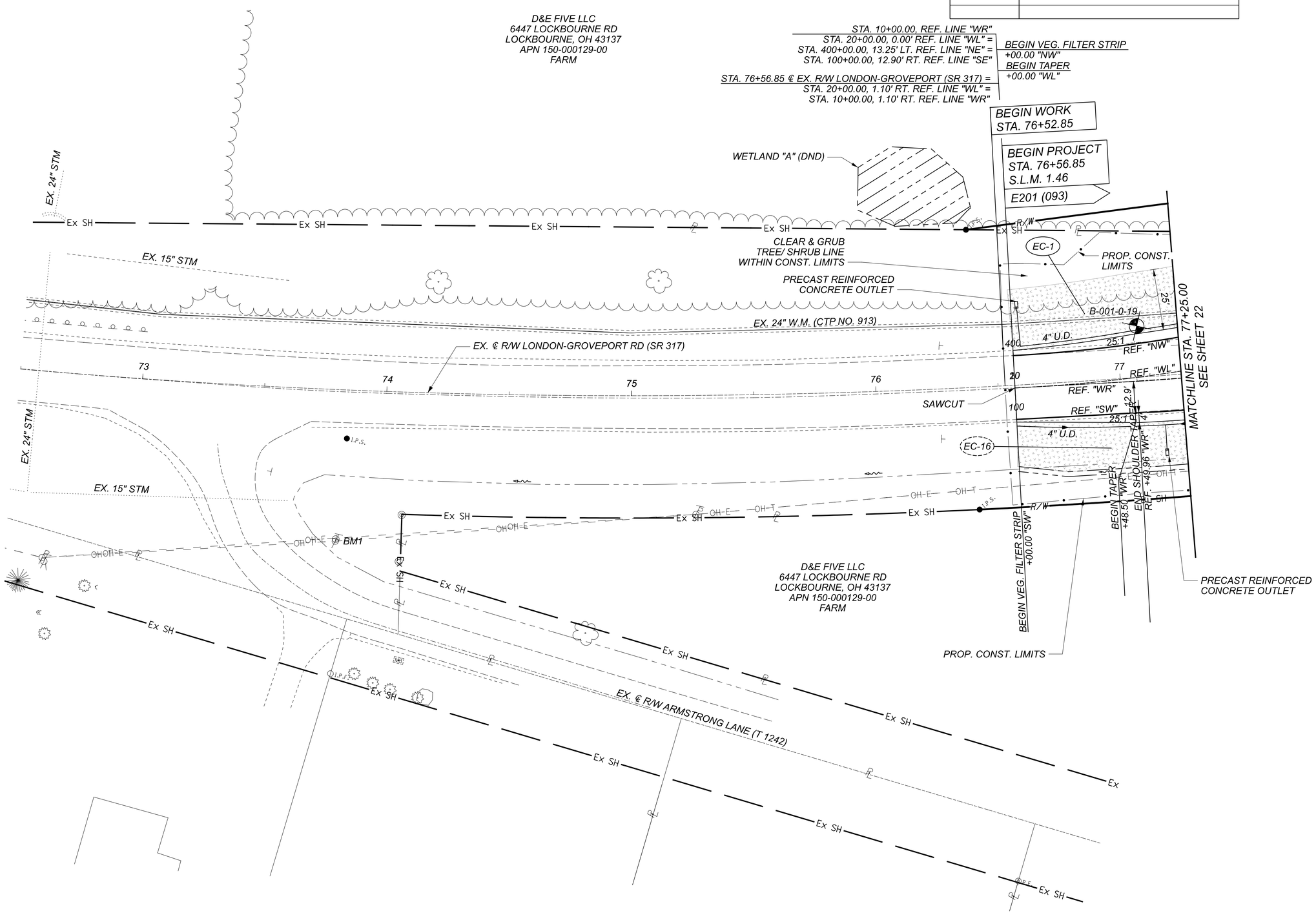
MODEL: Plan 5 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:38:36 AM USER: MBurger
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\30040076\400_CAD\400-Engineering\Roadway\Sheets\109581_DE001.dgn

DND - DO NOT DISTURB
TBR - TO BE REMOVED
TBRR - TO BE REMOVED AND RELOCATED

ITEM 601 - TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT

VEGETATED FILTER STRIP:
ITEM 659 - 4" TOPSOIL
ITEM 670 - SLOPE EROSION PROTECTION

SHEET NO.	CROSS REFERENCES
2 - 3	SCHEMATIC
4 - 9	TYPICALS
26	PROFILES
31 - 32	CROSS SECTIONS (SR317)
67 - 72	TRAFFIC CONTROL



HORIZONTAL
SCALE IN FEET
0 10 20 40

LONDON-GROVEPORT ROAD PLAN SHEET
STA. 72+50.00 TO STA. 77+25.00

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 895-3700
www.arcadis.com

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PROJECT ID
109581

SHEET 21 TOTAL 91

FRA-317-1.46

MODEL: Plan 1[Sheet] PAPERSIZE: 34x22 (in.) DATE: 9/2/2021 TIME: 3:37:37 PM USER: MBurger
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DND - DO NOT DISTURB
TBR - TO BE REMOVED
TBRRBO - TO BE REMOVED AND RELOCATED BY OTHERS

ITEM 601 - TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT

VEGETATED FILTER STRIP:
ITEM 659 - 4" TOPSOIL
ITEM 670 - SLOPE EROSION PROTECTION

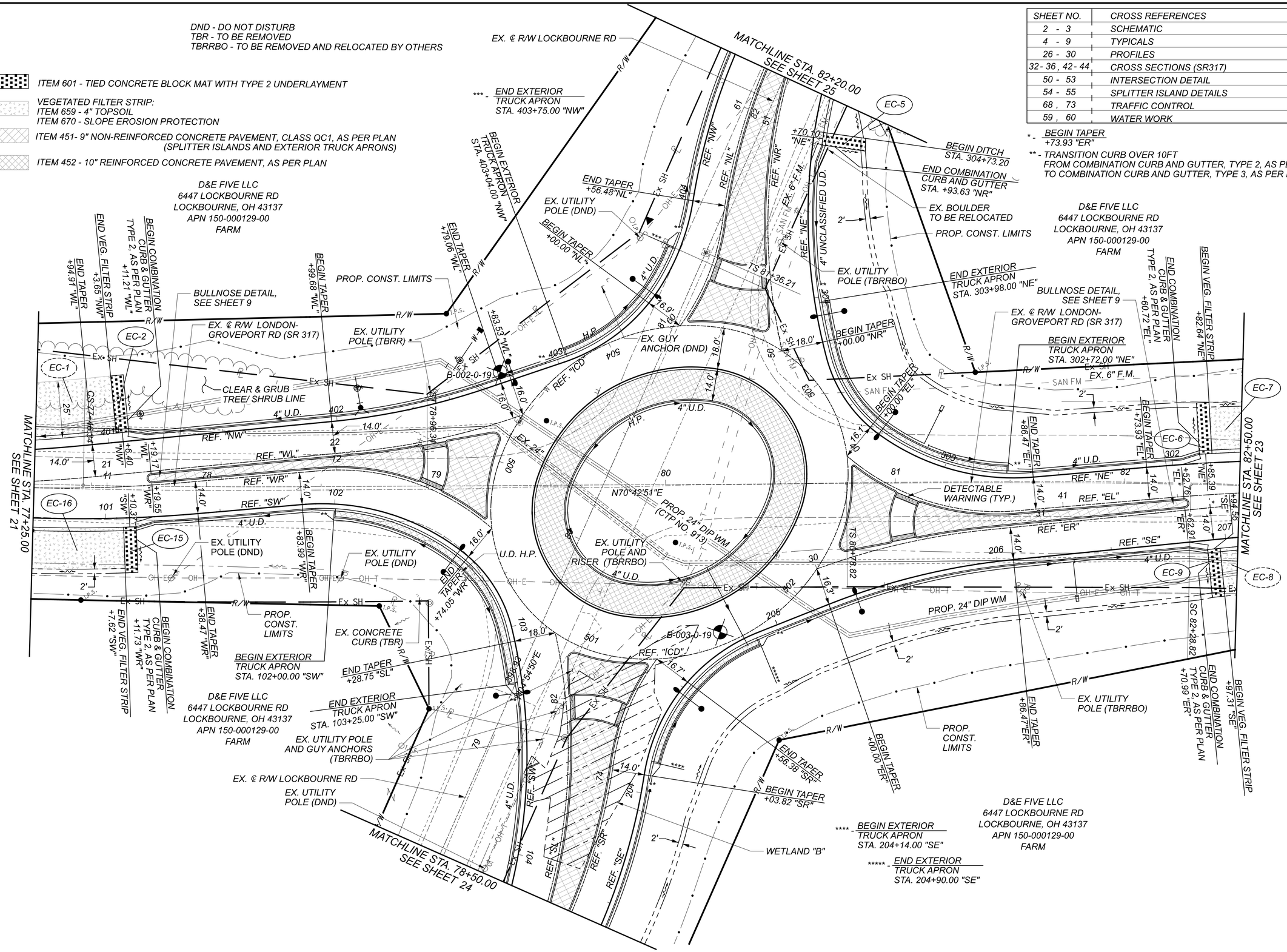
ITEM 451- 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1, AS PER PLAN (SPLITTER ISLANDS AND EXTERIOR TRUCK APRONS)

ITEM 452 - 10" REINFORCED CONCRETE PAVEMENT, AS PER PLAN

SHEET NO.	CROSS REFERENCES
2 - 3	SCHEMATIC
4 - 9	TYPICALS
26 - 30	PROFILES
32- 36 , 42- 44	CROSS SECTIONS (SR317)
50 - 53	INTERSECTION DETAIL
54 - 55	SPLITTER ISLAND DETAILS
68 , 73	TRAFFIC CONTROL
59 , 60	WATER WORK

* - BEGIN TAPER +73.93 "ER"

** - TRANSITION CURB OVER 10FT FROM COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN TO COMBINATION CURB AND GUTTER, TYPE 3, AS PER PLAN



HORIZONTAL SCALE IN FEET 0 10 20 40

LONDON-GROVEPORT ROAD PLAN SHEET
STA. 77+25.00 TO STA. 82+50.00/STA. 78+50.00 TO STA. 82+25.00

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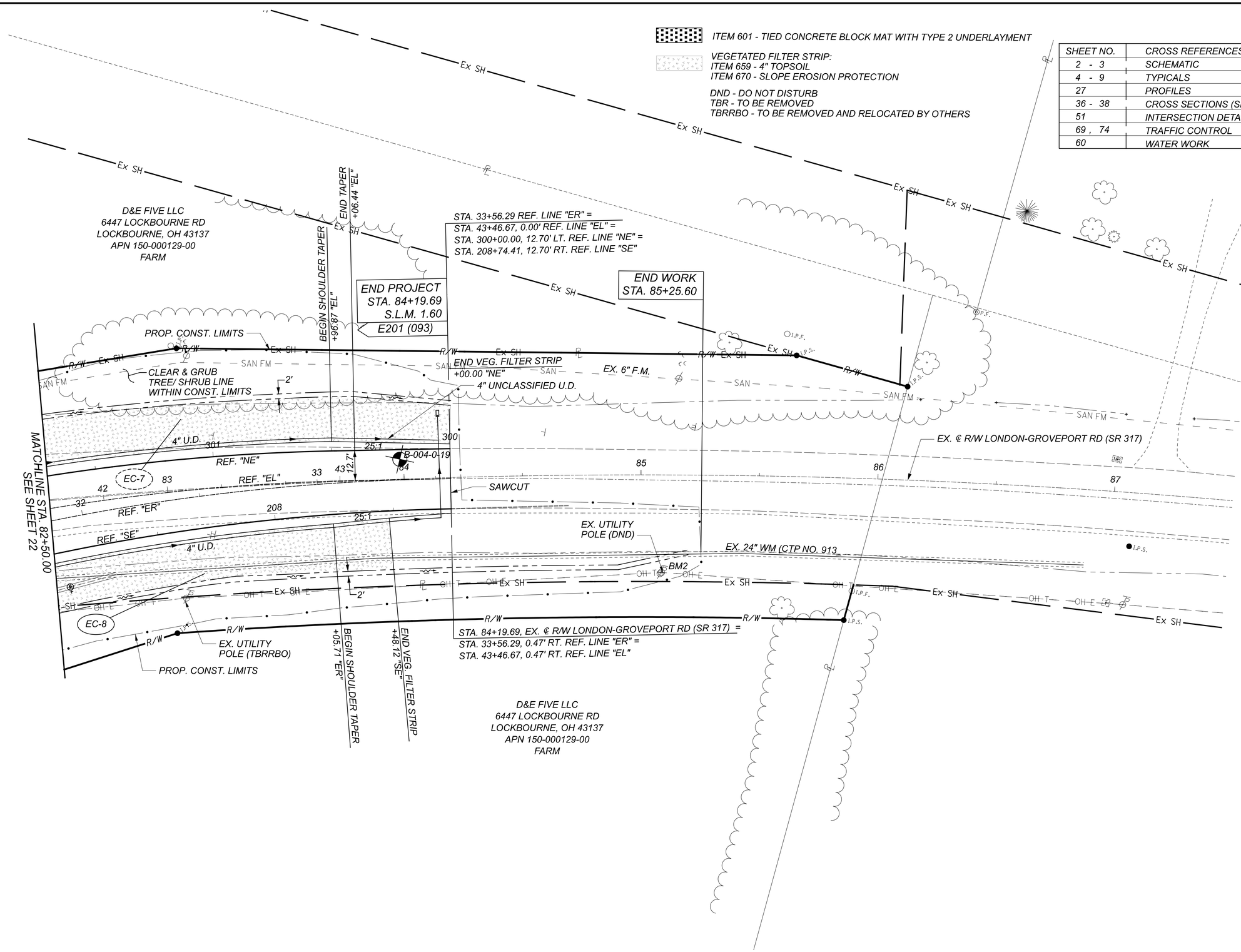
REVIEWER BKM 03/18/20
PROJECT ID 109581
SHEET 22 TOTAL 91

ITEM 601 - TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT

VEGETATED FILTER STRIP:
ITEM 659 - 4" TOPSOIL
ITEM 670 - SLOPE EROSION PROTECTION

DND - DO NOT DISTURB
TBR - TO BE REMOVED
TBRRBO - TO BE REMOVED AND RELOCATED BY OTHERS

SHEET NO.	CROSS REFERENCES
2 - 3	SCHEMATIC
4 - 9	TYPICALS
27	PROFILES
36 - 38	CROSS SECTIONS (SR317)
51	INTERSECTION DETAILS
69 , 74	TRAFFIC CONTROL
60	WATER WORK



HORIZONTAL SCALE IN FEET
0 10 20 40

LONDON-GROVEPORT ROAD PLAN SHEET
STA. 82+50.00 TO STA. 87+50.00

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SHEET 23 TOTAL 91

FRA-317-1.46

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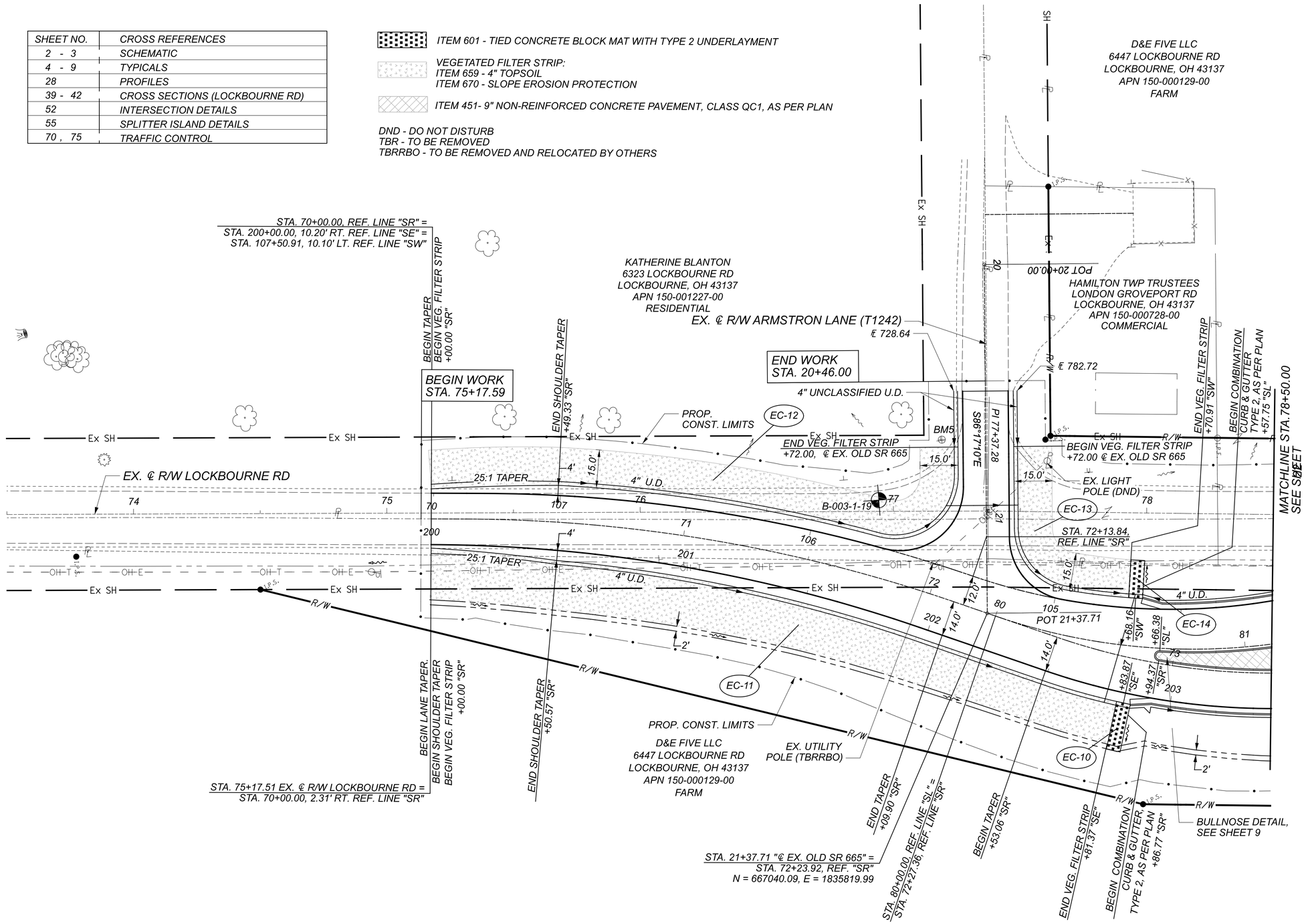
SHEET NO.	CROSS REFERENCES
2 - 3	SCHEMATIC
4 - 9	TYPICALS
28	PROFILES
39 - 42	CROSS SECTIONS (LOCKBOURNE RD)
52	INTERSECTION DETAILS
55	SPLITTER ISLAND DETAILS
70 , 75	TRAFFIC CONTROL

ITEM 601 - TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT

VEGETATED FILTER STRIP:
ITEM 659 - 4" TOPSOIL
ITEM 670 - SLOPE EROSION PROTECTION

ITEM 451- 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1, AS PER PLAN

DND - DO NOT DISTURB
TBR - TO BE REMOVED
TBRRBO - TO BE REMOVED AND RELOCATED BY OTHERS



HORIZONTAL SCALE IN FEET
0 10 20 40

LOCKBOURNE ROAD PLAN SHEET
STA. 73+50.00 TO STA. 78+50.00

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SHEET 24 TOTAL 91

FRA-317-1.46

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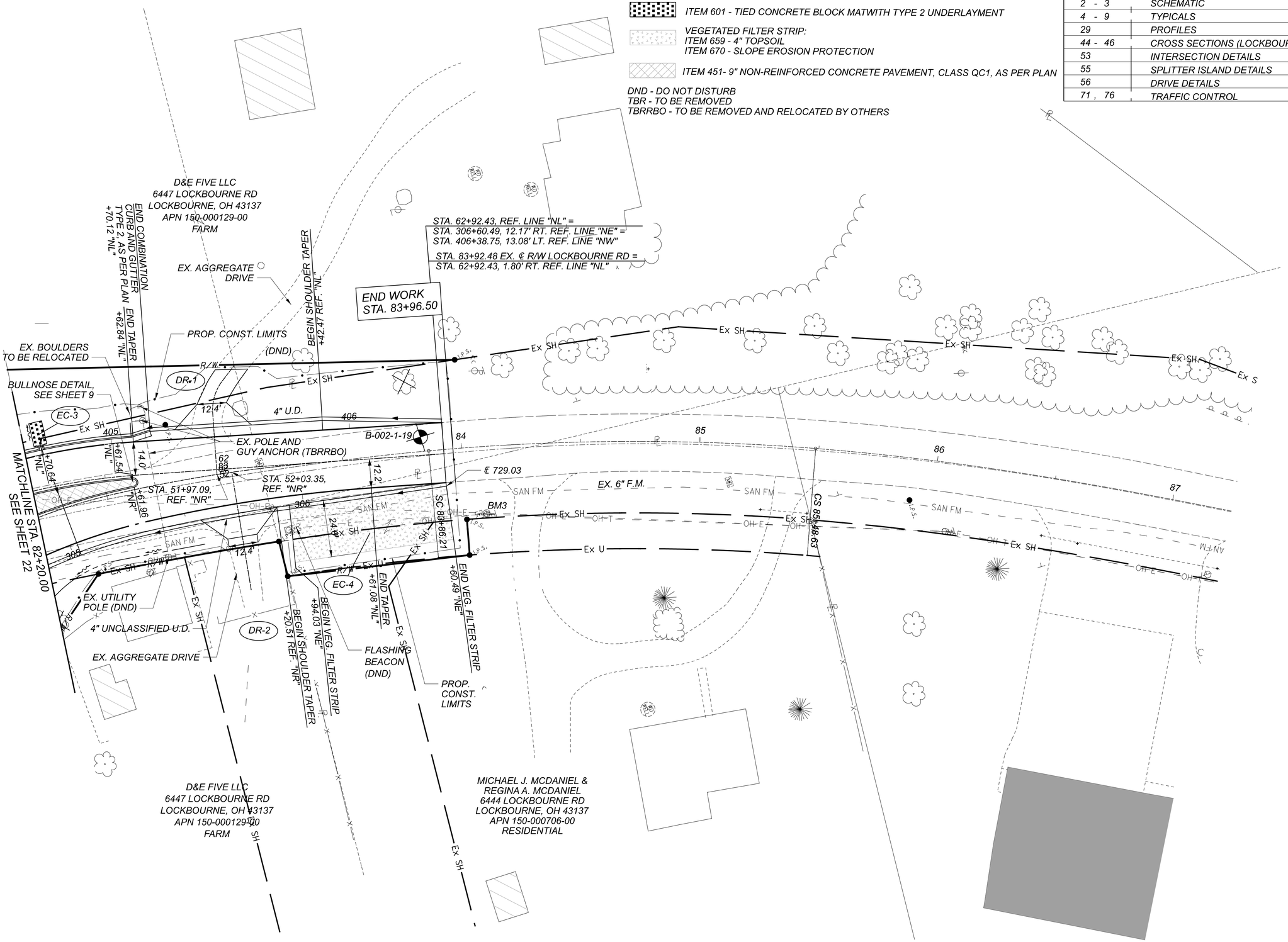
SHEET NO.	CROSS REFERENCES
2 - 3	SCHEMATIC
4 - 9	TYPICALS
29	PROFILES
44 - 46	CROSS SECTIONS (LOCKBOURNE RD)
53	INTERSECTION DETAILS
55	SPLITTER ISLAND DETAILS
56	DRIVE DETAILS
71 , 76	TRAFFIC CONTROL

ITEM 601 - TIED CONCRETE BLOCK MATWITH TYPE 2 UNDERLAYMENT

VEGETATED FILTER STRIP:
ITEM 659 - 4" TOPSOIL
ITEM 670 - SLOPE EROSION PROTECTION

ITEM 451- 9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC1, AS PER PLAN

DND - DO NOT DISTURB
TBR - TO BE REMOVED
TBRRBO - TO BE REMOVED AND RELOCATED BY OTHERS



HORIZONTAL SCALE IN FEET
0 10 20 40

LOCKBOURNE ROAD PLAN SHEET
STA. 82+50.00 TO STA. 87+25.00

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SHEET 25 TOTAL 91

FRA-317-1.46

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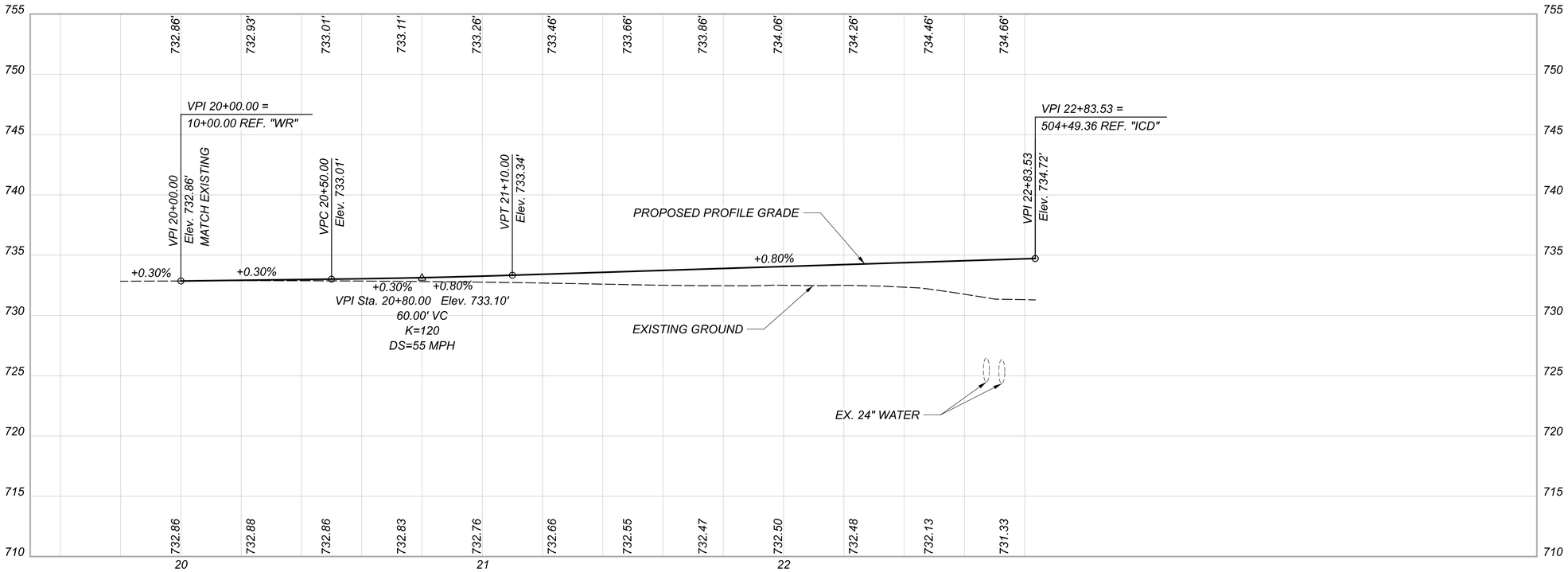

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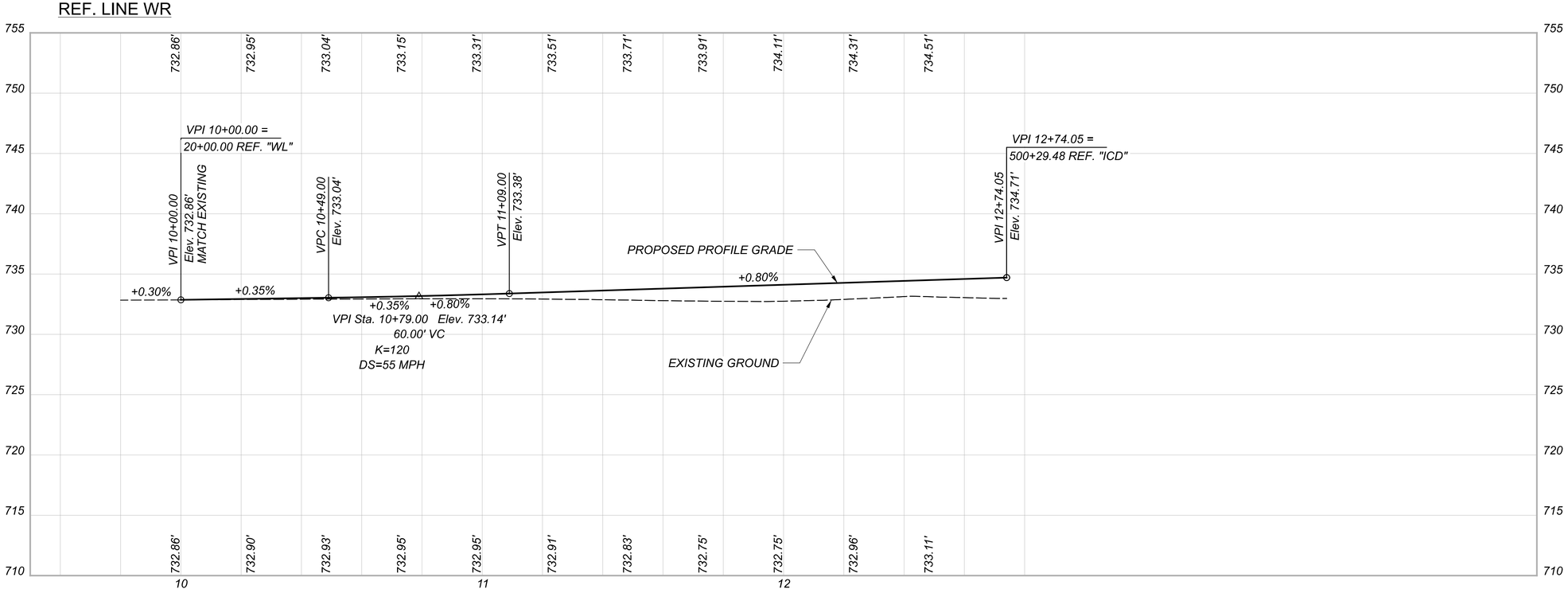

ROUNDABOUT PROFILES
REFERENCE LINES WL/WR

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SHEET 26 TOTAL 91

FRA-317-1.46

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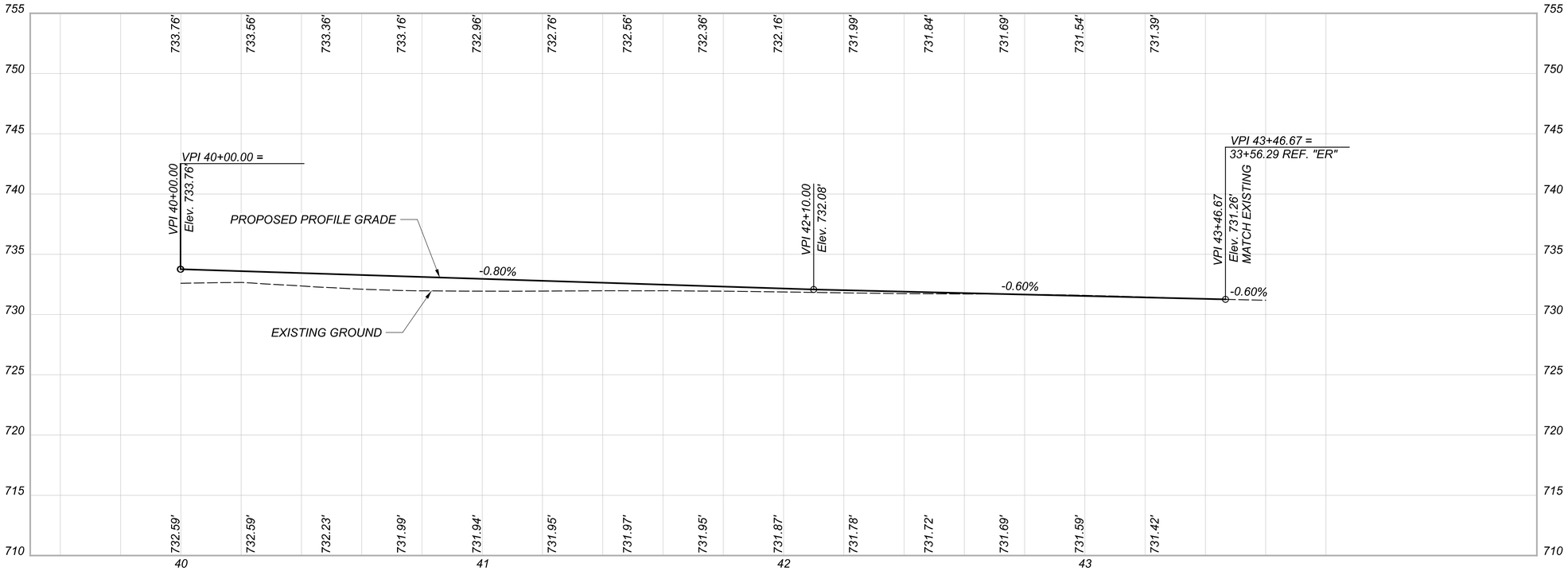

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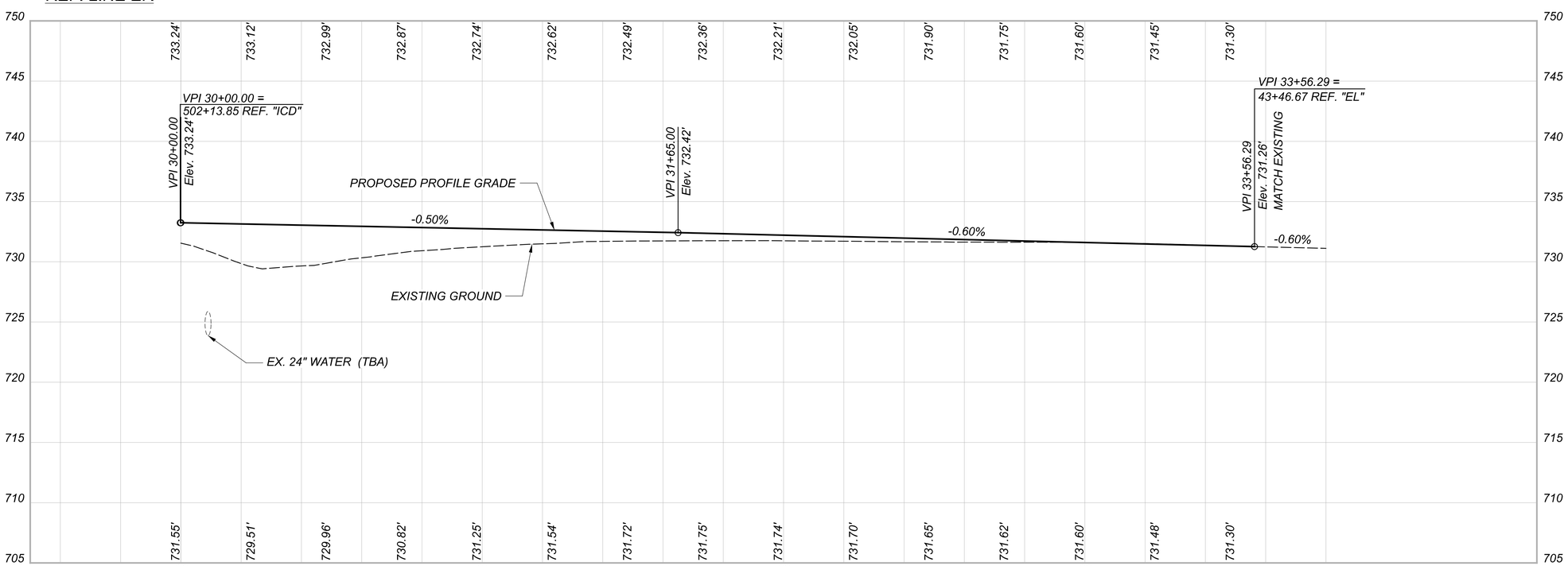

ROUNDABOUT PROFILES
REFERENCE LINES EL/ER

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SHEET 27 TOTAL 91

FRA-317-1.46

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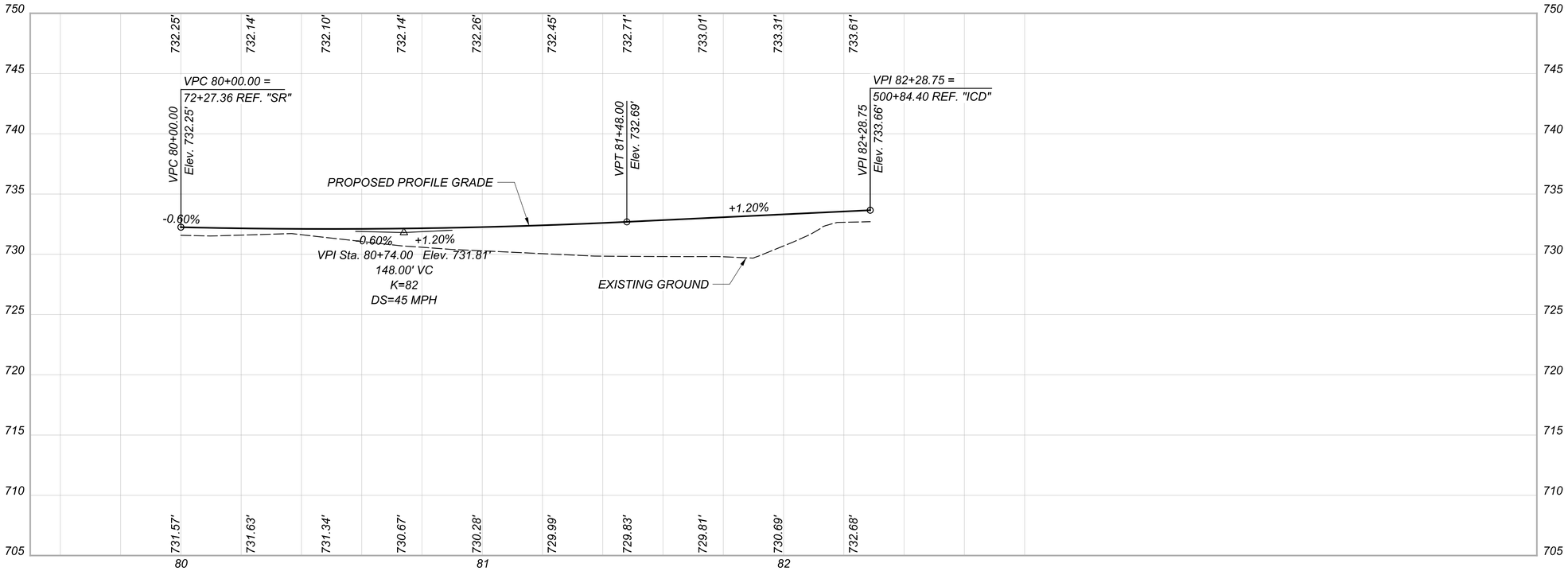

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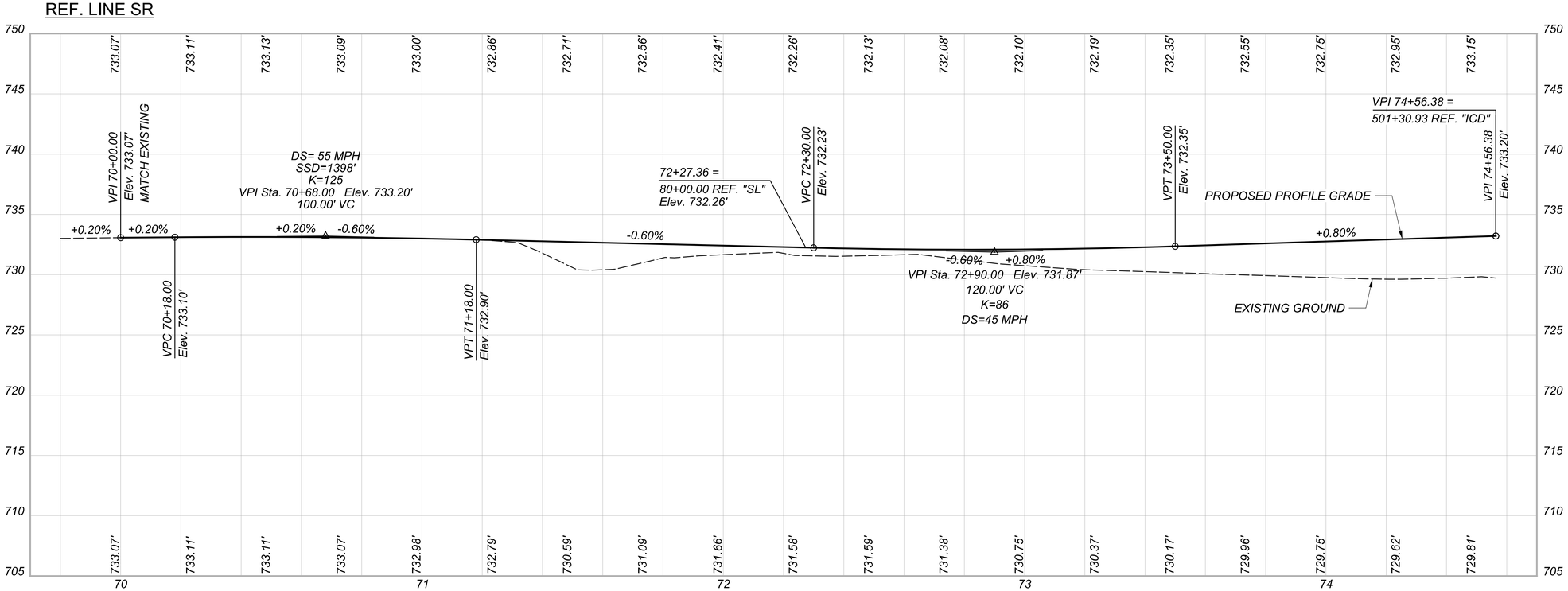

ROUNDABOUT PROFILES
REFERENCE LINES SL/SR

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SHEET 28 TOTAL 91

FRA-317-1.46

MODEL: Profile 6 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:39:22 AM USER: MBurger
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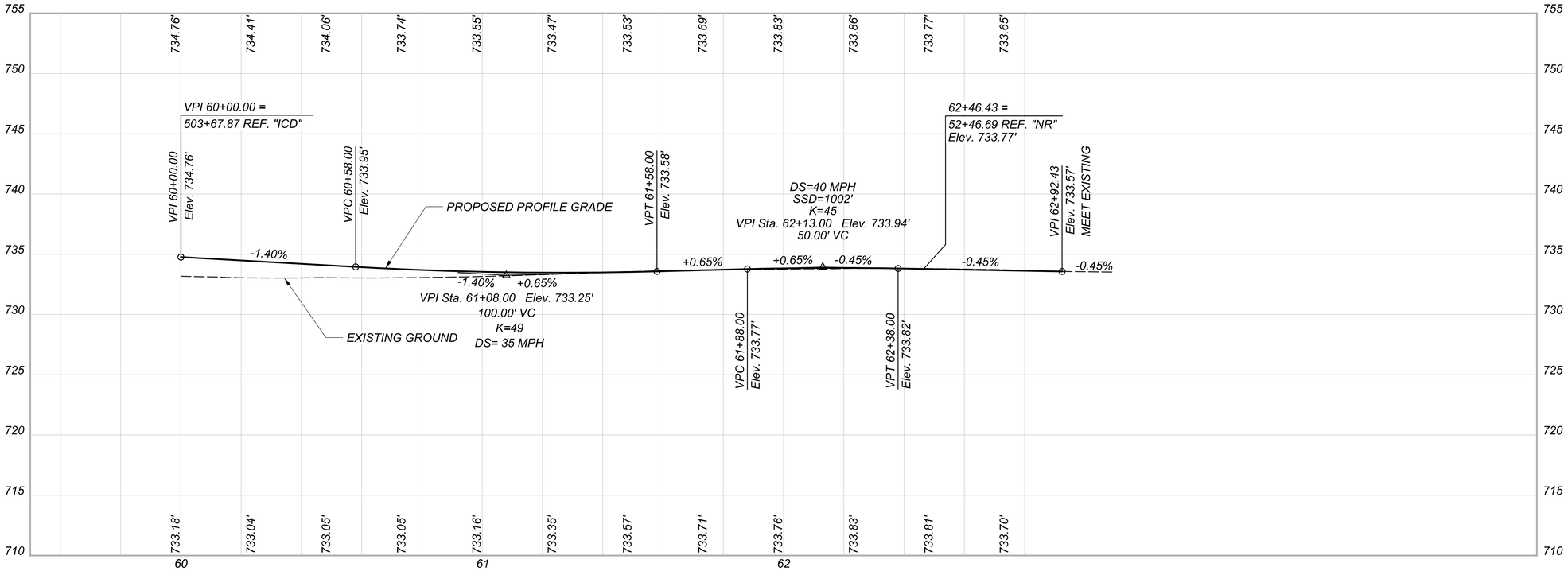

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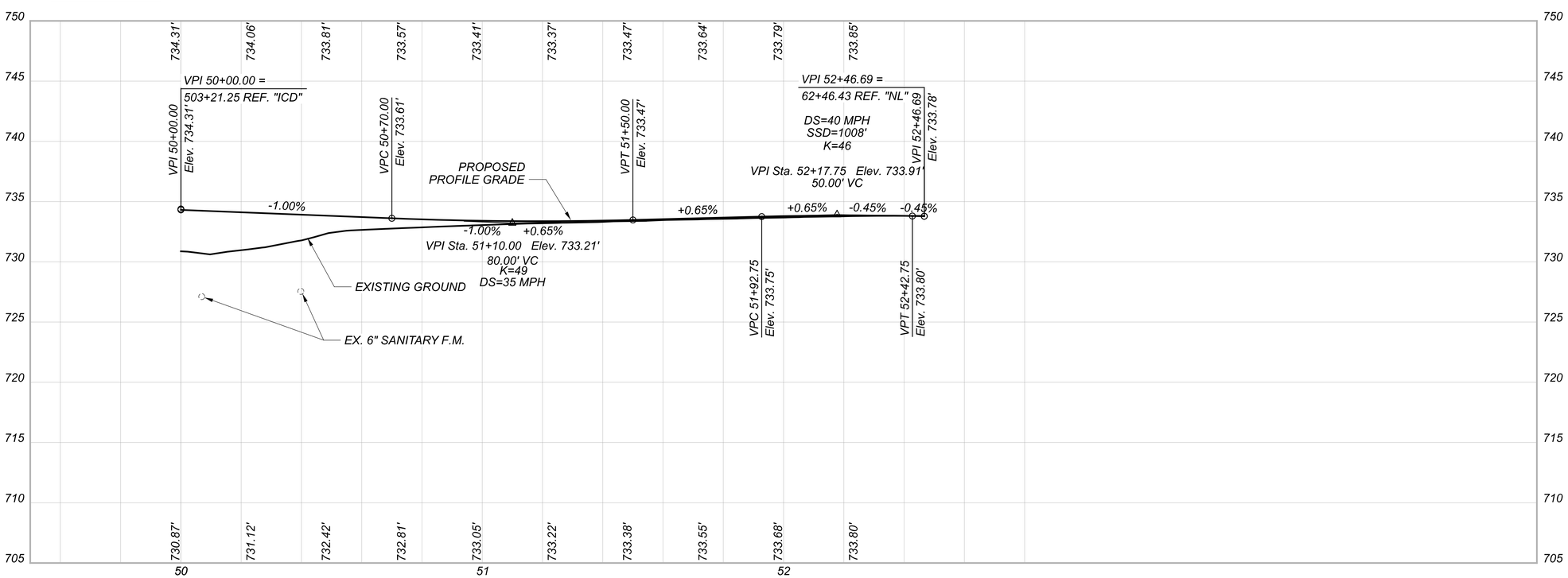

ROUNDABOUT PROFILES
REFERENCE LINES NL/NR

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SHEET 29 TOTAL 91

FRA-317-1.46

MODEL: Profile 8 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:39:23 AM USER: MBurger
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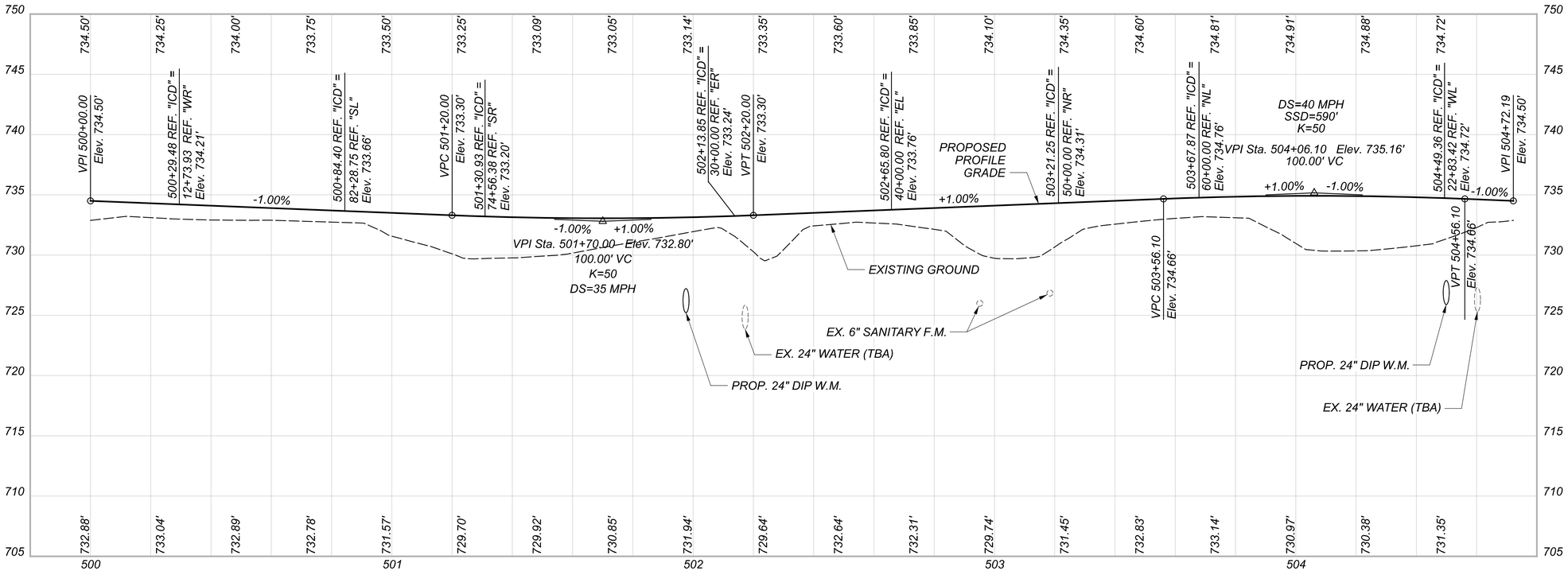

ROUNDABOUT PROFILES
REFERENCE LINE ICD

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PROJECT ID	109581
SHEET	30
TOTAL	91

FRA-317-1.46

MODEL: Profile 10 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:39:23 AM USER: MBurger
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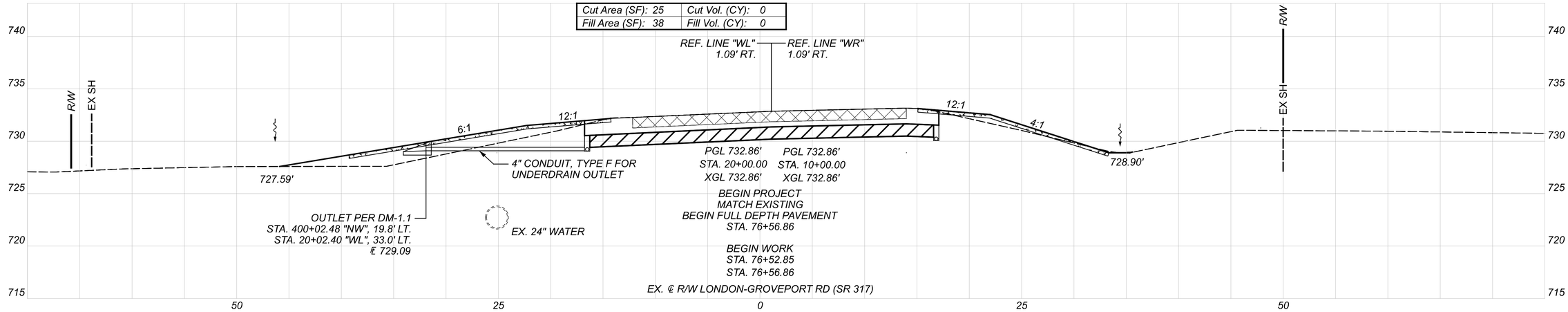

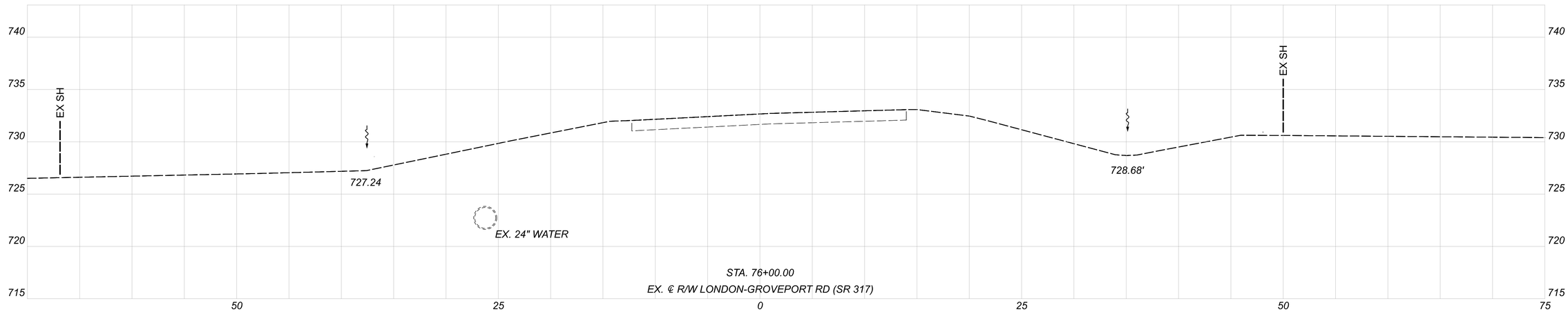

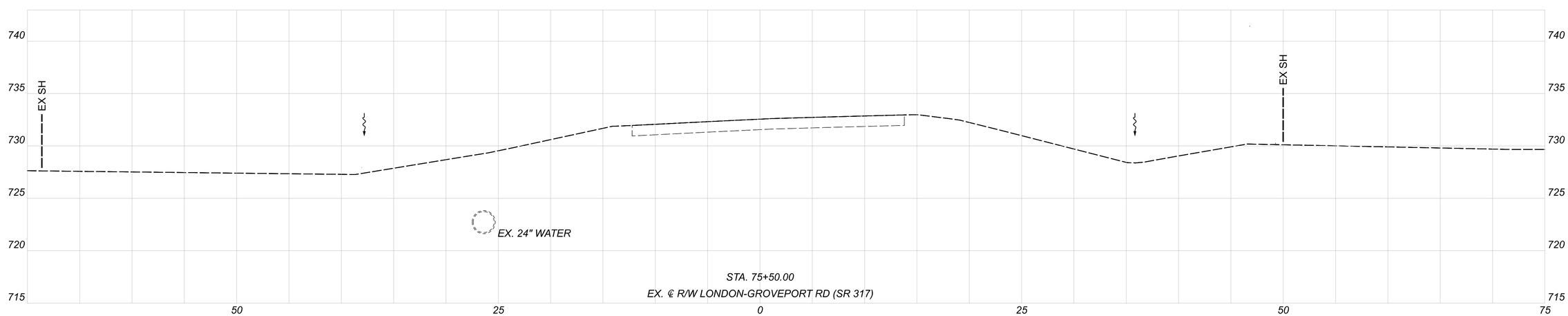

VEGETATED FILTER STRIP
ITEM 659 - 4" TOPSOIL
ITEM 670 - SLOPE EROSION PROTECTION

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP

ITEM 202 - PAVEMENT REMOVED

NOTE: EXTREME CAUTION SHALL OCCUR WHEN PERFORMING CEMENT STABILIZATION WITHIN AREAS OF UNDERGROUND UTILITIES.

Sheet Totals		
Seeding	Cut	Fill
-	0	0

CROSS SECTIONS - LONDON GROVEPORT RD (SR 317)
STA. 75+50.00 TO STA. 76+56.86

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BKM 03/18/20

PROJECT ID
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SHEET	TOTAL
31	91

FRA-317-1.46

MODEL: 75+50.I(Sheet) PAPERSIZE: 34x22 (in.) DATE: 8/30/2021 TIME: 12:41:32 PM USER: MBurger
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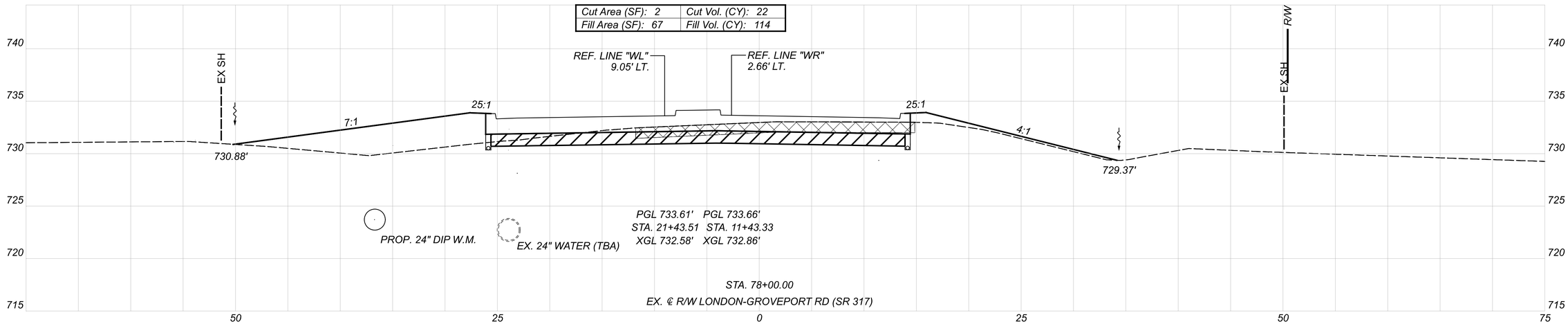

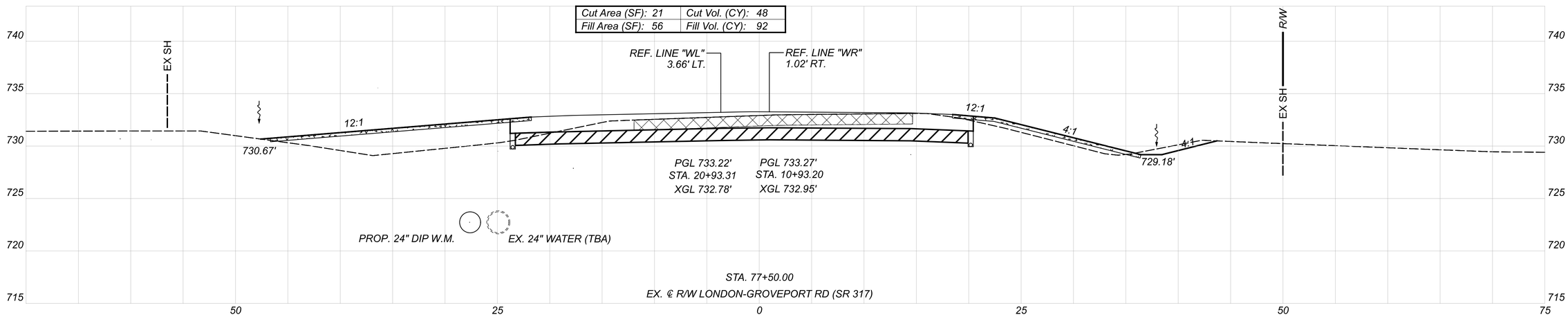

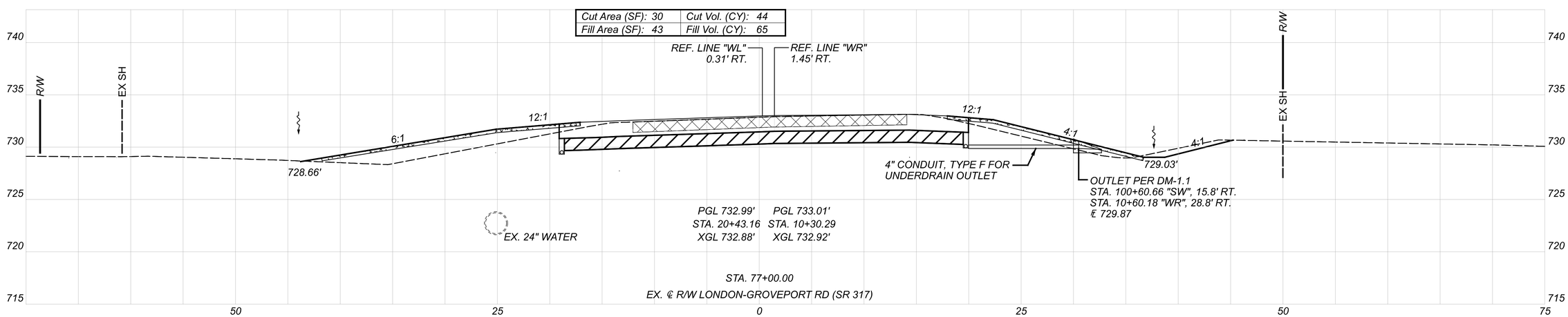

VEGETATED FILTER STRIP
ITEM 659 - 4" TOPSOIL
ITEM 670 - SLOPE EROSION PROTECTION

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP

ITEM 202 - PAVEMENT REMOVED

NOTE: EXTREME CAUTION SHALL OCCUR WHEN PERFORMING CEMENT STABILIZATION WITHIN AREAS OF UNDERGROUND UTILITIES.

Sheet Totals		
Seeding	Cut	Fill
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CROSS SECTIONS - LONDON GROVEPORT RD (SR 317)
STA. 77+00.00 TO STA. 78+00.00

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PROJECT ID
109581

SHEET	TOTAL
32	91

FRA-317-1.46

MODEL: 75+50.4 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/30/2021 TIME: 1:28:48 PM USER: MBurger
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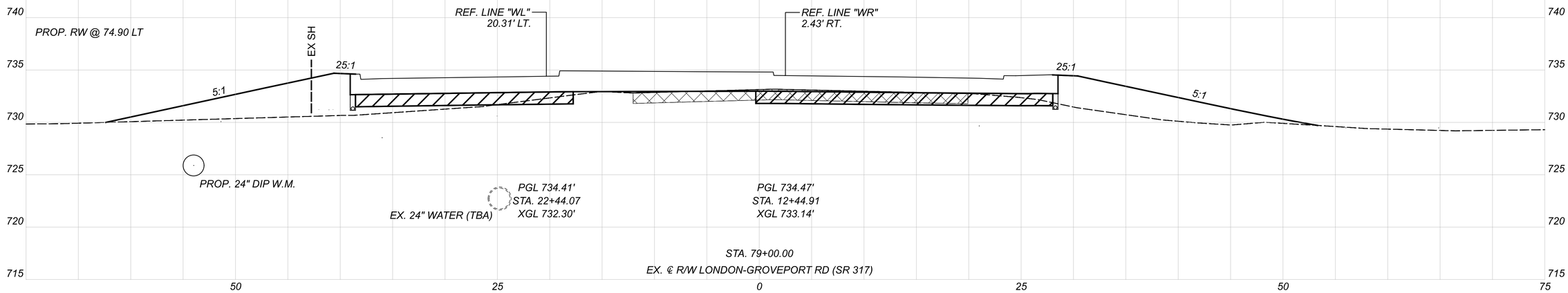

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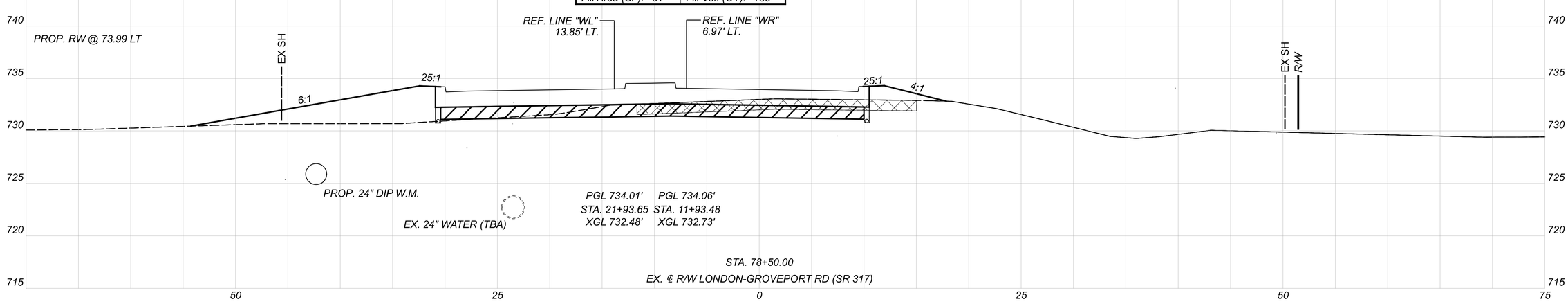

VEGETATED FILTER STRIP
ITEM 659 - 4" TOPSOIL
ITEM 670 - SLOPE EROSION PROTECTION

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP

ITEM 202 - PAVEMENT REMOVED

NOTE: EXTREME CAUTION SHALL OCCUR WHEN PERFORMING CEMENT STABILIZATION WITHIN AREAS OF UNDERGROUND UTILITIES.

Sheet Totals		
Seeding	Cut	Fill
-	2	362

CROSS SECTIONS - LONDON GROVEPORT RD (SR 317)
STA. 78+50.00 TO STA. 79+00.00

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BKM 03/18/20

PROJECT ID
109581

SHEET 33 TOTAL 91

FRA-317-1.46

MODEL: 75+50.7 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/30/2021 TIME: 1:24:52 PM USER: MBurger
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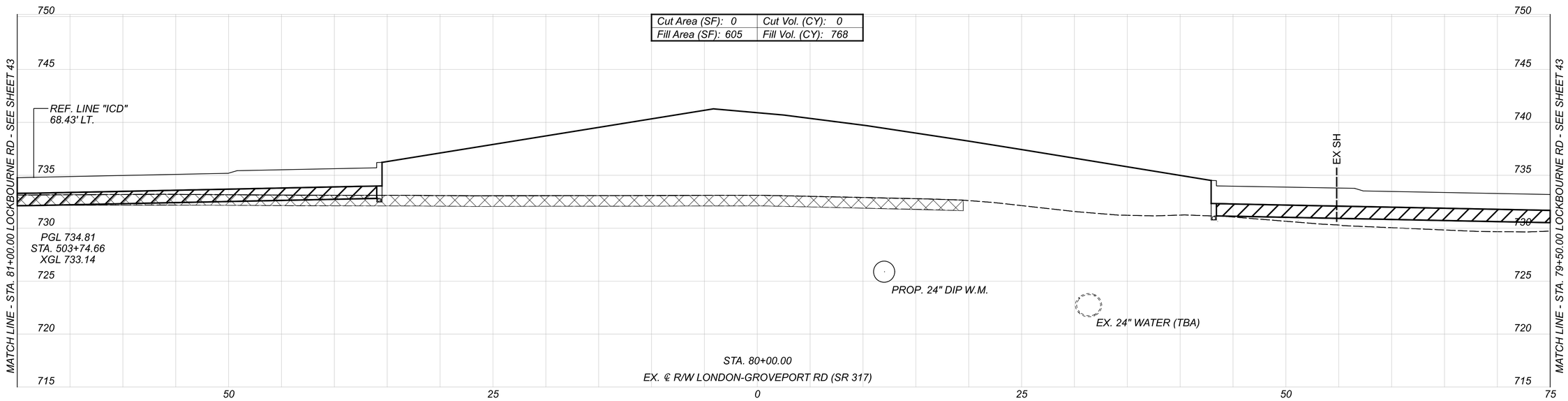

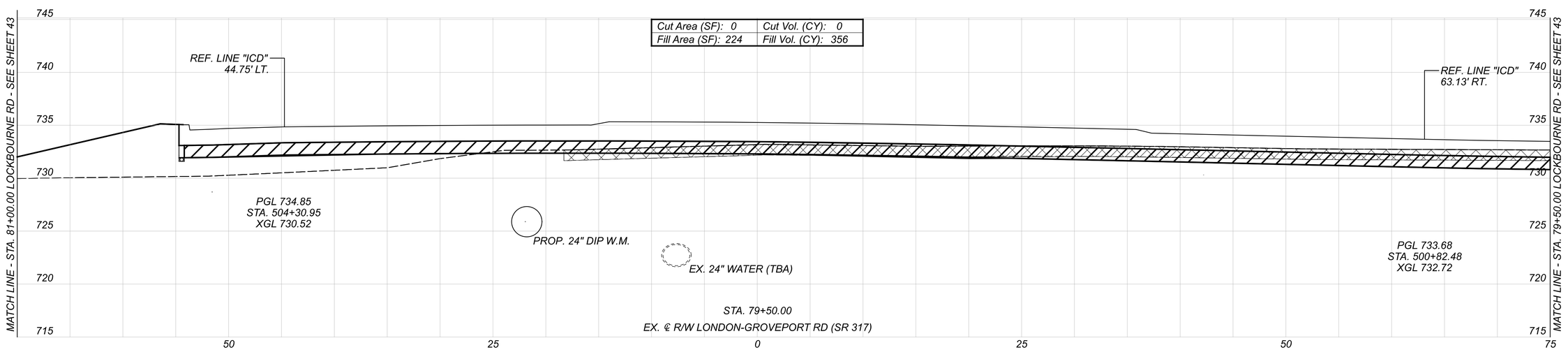

VEGETATED FILTER STRIP
ITEM 659 - 4" TOPSOIL
ITEM 670 - SLOPE EROSION PROTECTION

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP

ITEM 202 - PAVEMENT REMOVED

NOTE: EXTREME CAUTION SHALL OCCUR WHEN PERFORMING CEMENT STABILIZATION WITHIN AREAS OF UNDERGROUND UTILITIES.

Sheet Totals		
Seeding	Cut	Fill
-	0	11:24

CROSS SECTIONS - LONDON GROVEPORT RD (SR 317)
STA. 79+50.00 TO STA. 80+00.00

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DESIGNER
EJT

REVIEWER
BKM 03/18/20

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SHEET 34 TOTAL 91

FRA-317-1.46

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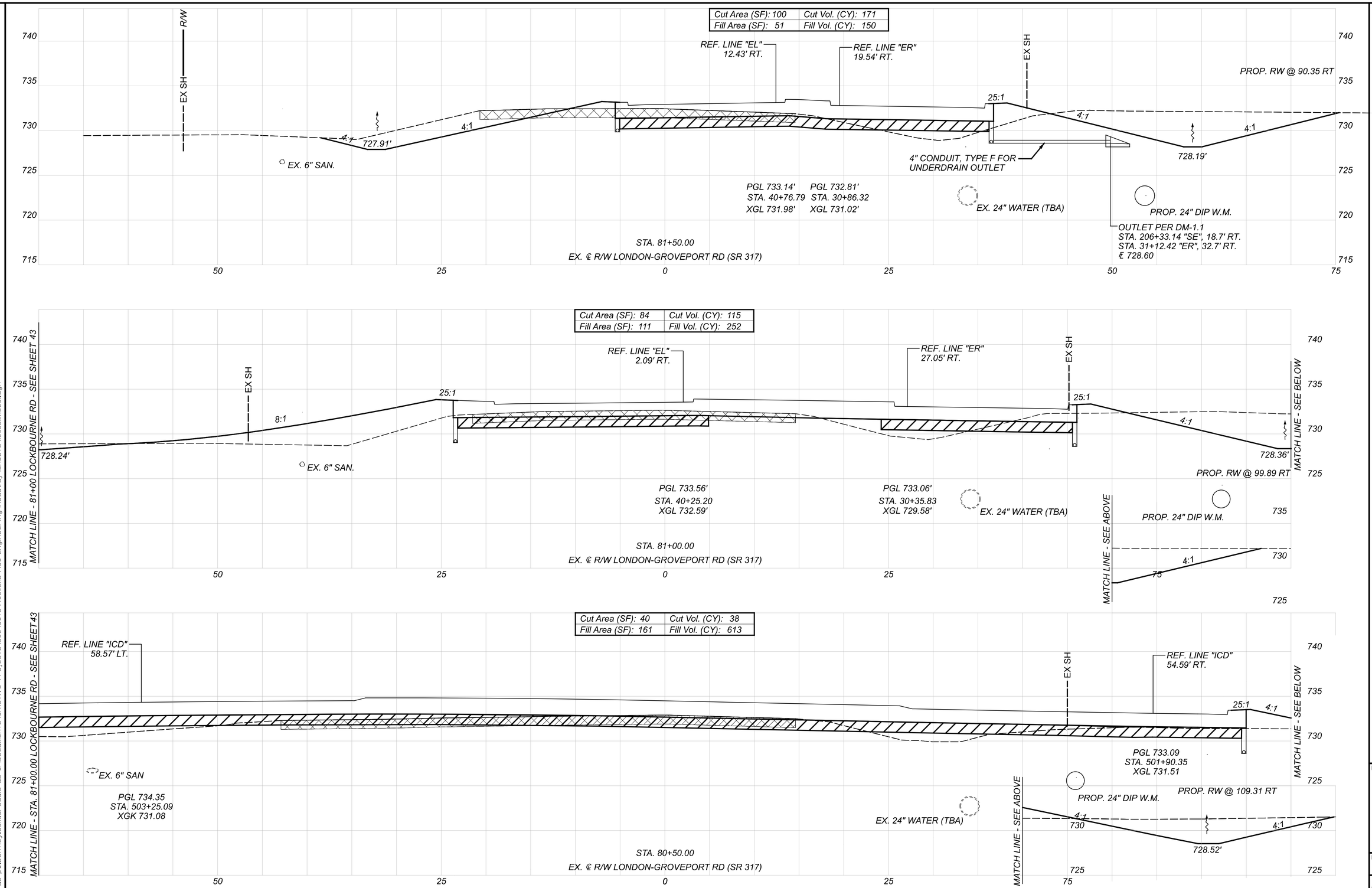

VEGETATED FILTER STRIP
ITEM 659 - 4" TOPSOIL
ITEM 670 - SLOPE EROSION PROTECTION

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP

ITEM 202 - PAVEMENT REMOVED

NOTE: EXTREME CAUTION SHALL OCCUR WHEN PERFORMING CEMENT STABILIZATION WITHIN AREAS OF UNDERGROUND UTILITIES.

Sheet Totals		
Seeding	Cut	Fill
-	324	1015

CROSS SECTIONS - LONDON GROVEPORT RD (SR 317)
STA. 80+50.00 TO STA. 81+50.00

DESIGN AGENCY
ARCADIS
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DESIGNER: EJT
REVIEWER: BKM 03/18/20
PROJECT ID: 109581
SHEET: 35 TOTAL: 91

FRA-317-1.46

MODEL: 75+50.11[Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/30/2021 TIME: 1:47:09 PM USER: MBurger
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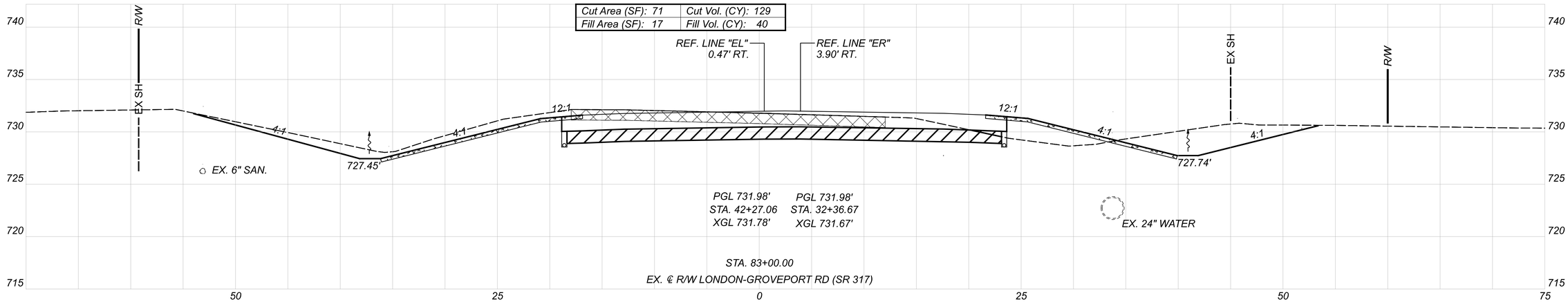

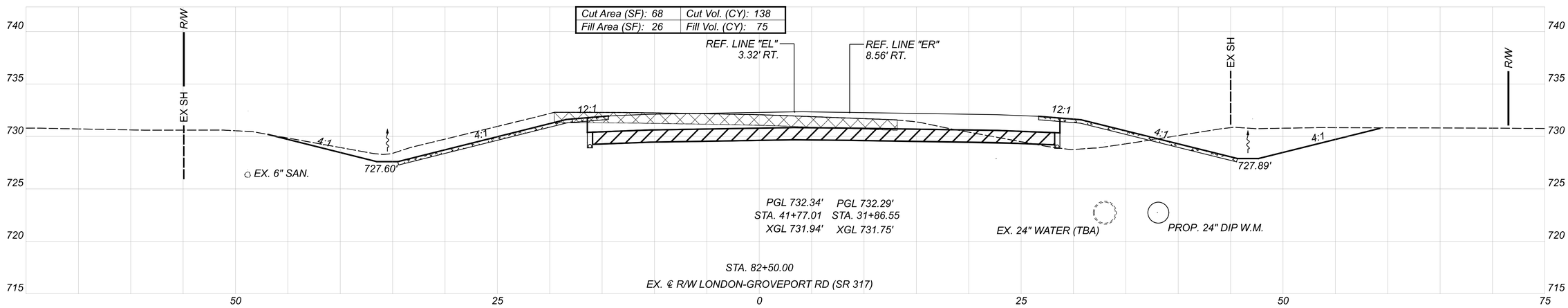

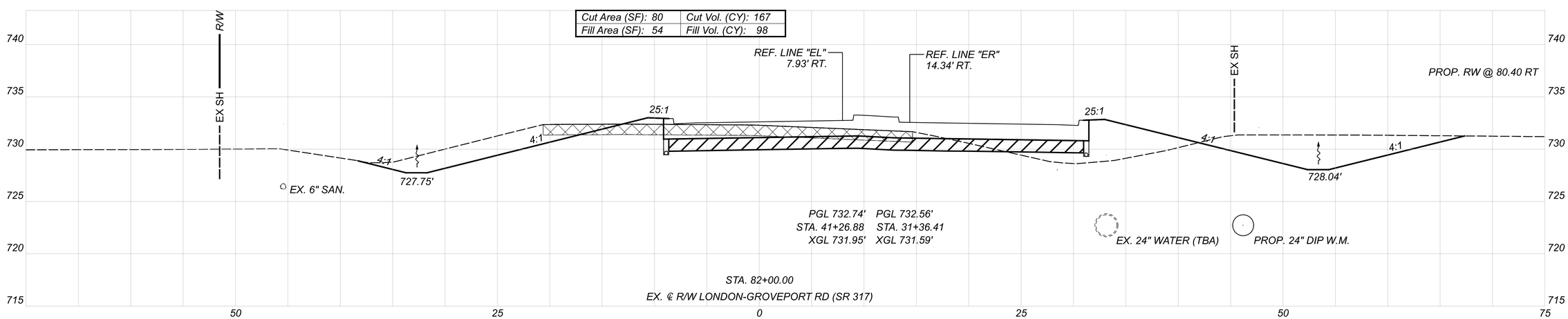

VEGETATED FILTER STRIP
ITEM 659 - 4" TOPSOIL
ITEM 670 - SLOPE EROSION PROTECTION

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP

ITEM 202 - PAVEMENT REMOVED

NOTE: EXTREME CAUTION SHALL OCCUR WHEN PERFORMING CEMENT STABILIZATION WITHIN AREAS OF UNDERGROUND UTILITIES.

Sheet Totals		
Seeding	Cut	Fill
-	434	213

CROSS SECTIONS - LONDON GROVEPORT RD (SR 317)
STA. 82+00.00 TO STA. 83+00.00

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EJT

REVIEWER
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109581

SHEET 36 TOTAL 91

FRA-317-1.46

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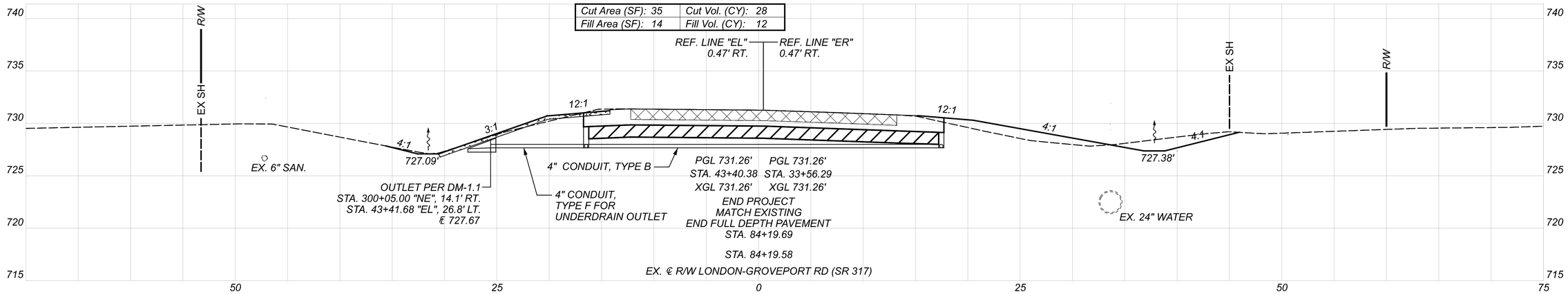

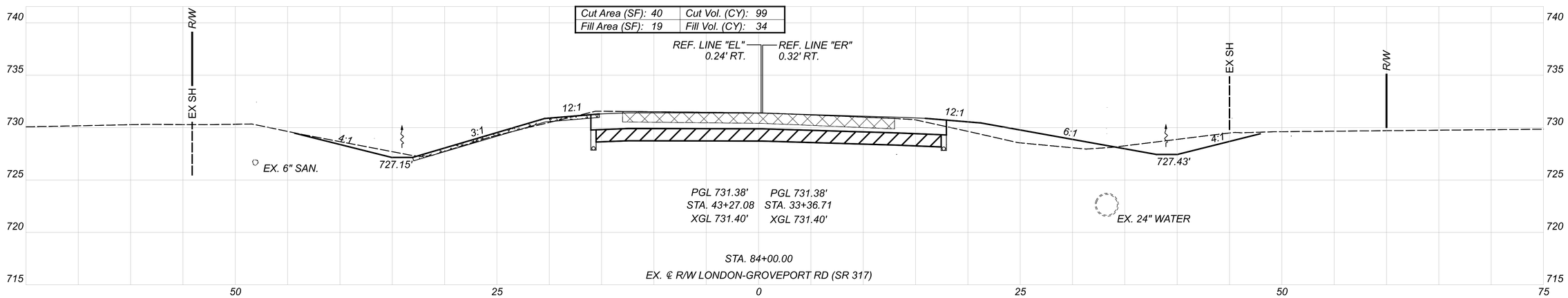

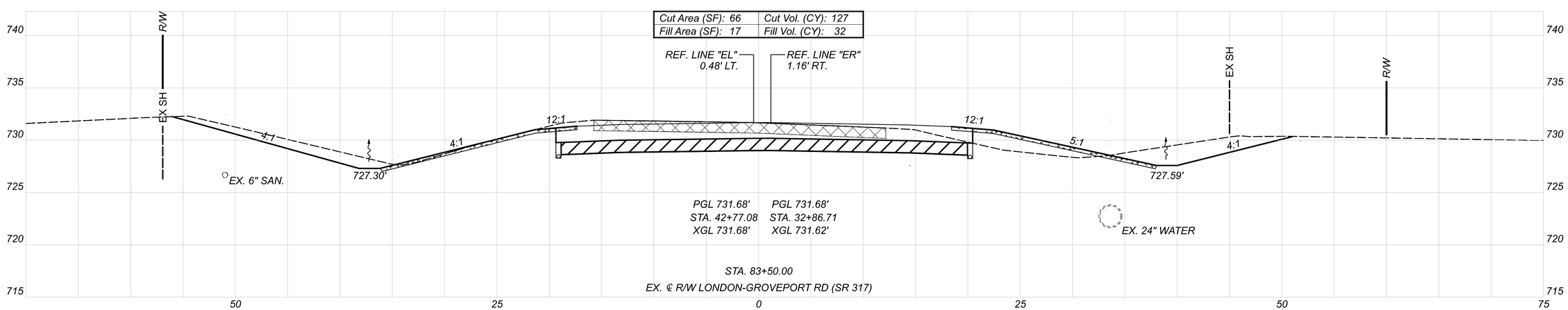

VEGETATED FILTER STRIP
ITEM 659 - 4" TOPSOIL
ITEM 670 - SLOPE EROSION PROTECTION

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP

ITEM 202 - PAVEMENT REMOVED

NOTE: EXTREME CAUTION SHALL OCCUR WHEN PERFORMING CEMENT STABILIZATION WITHIN AREAS OF UNDERGROUND UTILITIES.

Sheet Totals		
Seeding	Cut	Fill
•	254	78

CROSS SECTIONS - LONDON GROVEPORT RD (SR 317)
STA. 83+50.00 TO STA. 84+19.58

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SHEET 37 TOTAL 91

FRA-317-1.46

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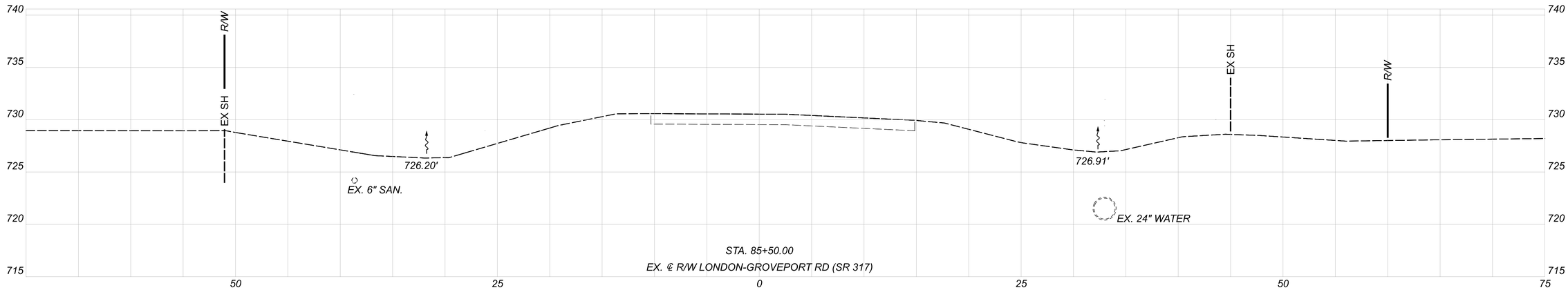

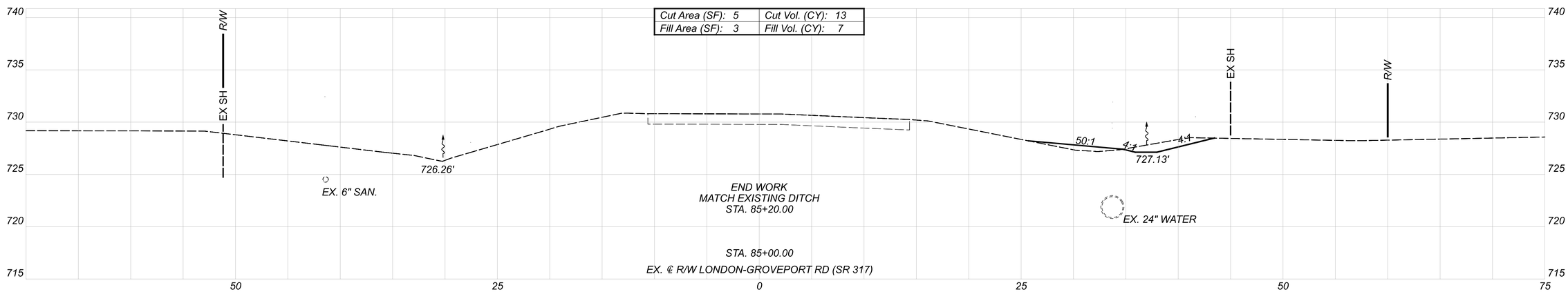

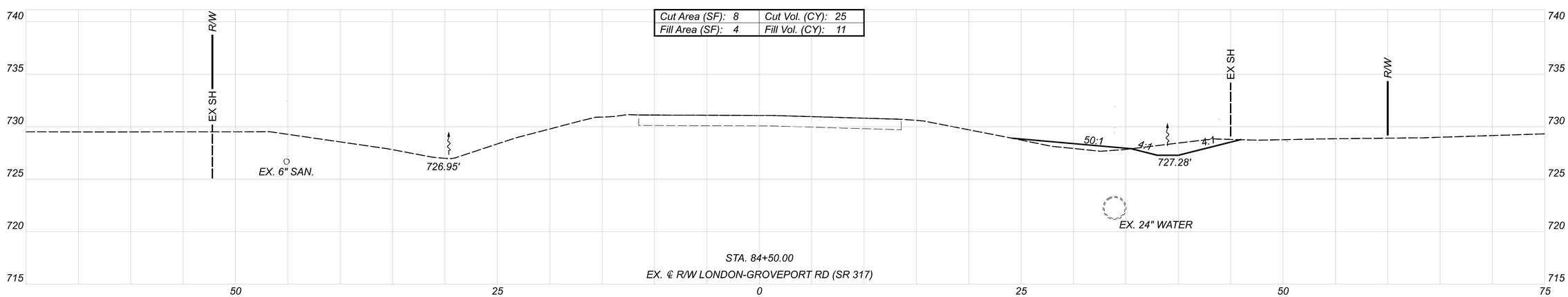

CROSS SECTIONS - LONDON GROVEPORT RD (SR 317)
STA. 84+50.00 TO STA. 85+50.00

FRA-317-1.46

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Sheet Totals		
Seeding	Cut	Fill
-	38	18

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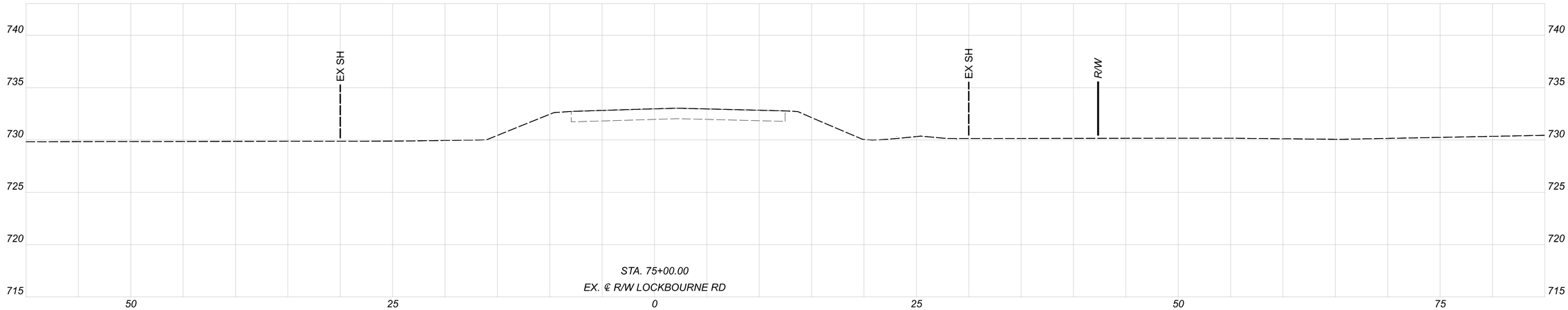
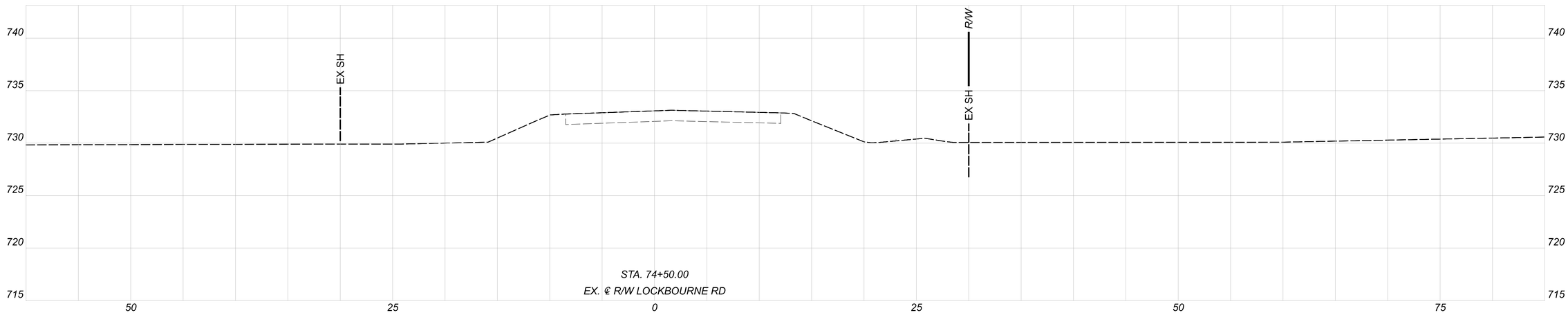
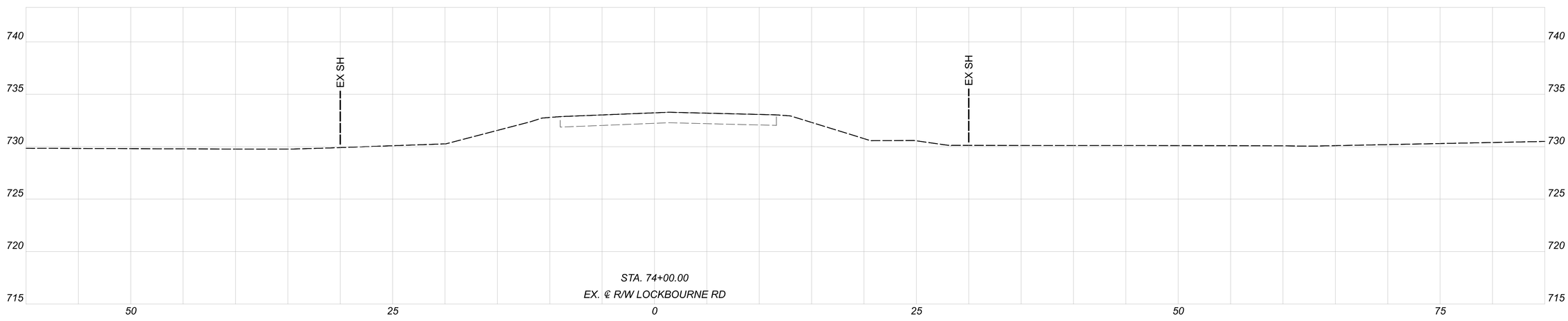
109581

SHEET 38 TOTAL 91







VEGETATED FILTER STRIP
ITEM 659 - 4" TOPSOIL
ITEM 670 - SLOPE EROSION PROTECTION

Sheet Totals		
Seeding	Cut	Fill
-	0	0

CROSS SECTIONS - LOCKBOURNE RD
STA. 74+00.00 TO STA. 75+00.00

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109581

SHEET 39 TOTAL 91

FRA-317-1.46

MODEL: 74+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:40:21 AM USER: MBurger
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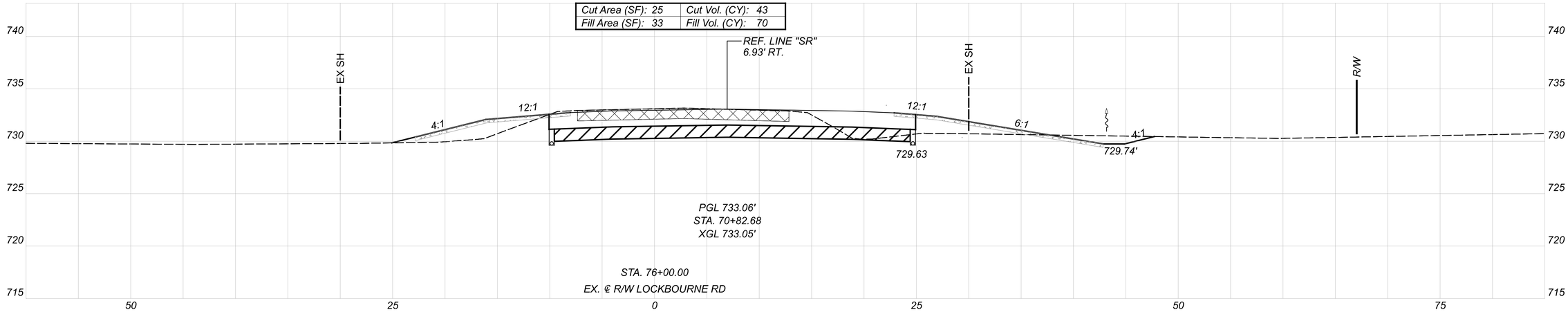

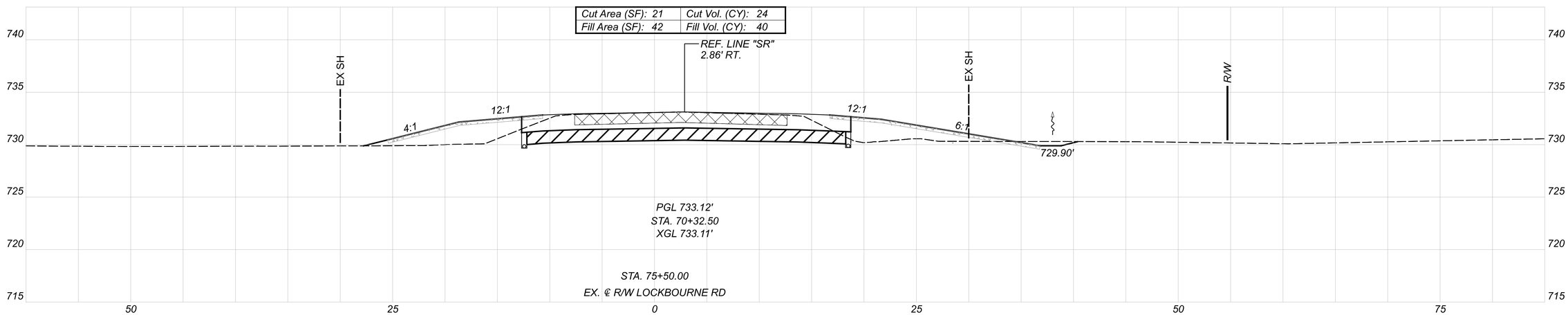

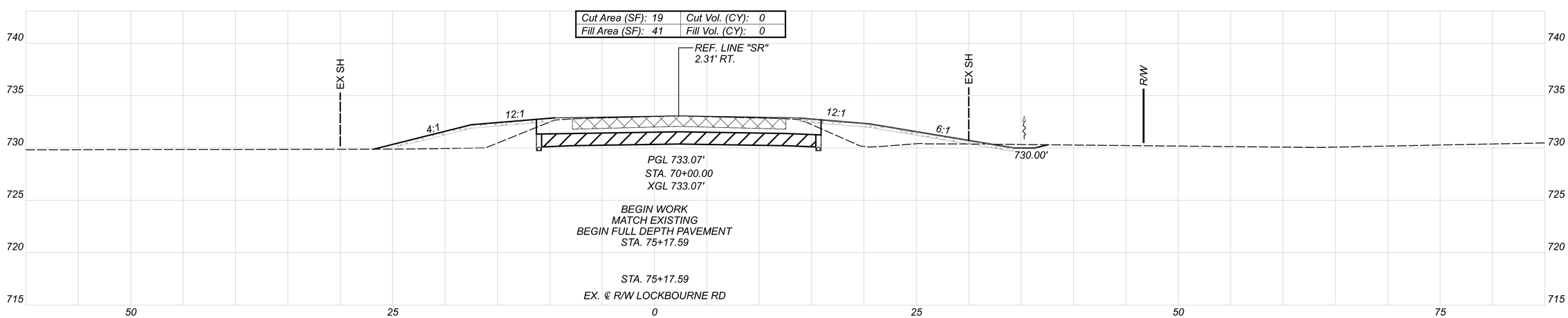

VEGETATED FILTER STRIP
ITEM 659 - 4" TOPSOIL
ITEM 670 - SLOPE EROSION PROTECTION

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP

ITEM 202 - PAVEMENT REMOVED

NOTE: EXTREME CAUTION SHALL OCCUR WHEN PERFORMING CEMENT STABILIZATION WITHIN AREAS OF UNDERGROUND UTILITIES.

Sheet Totals		
Seeding	Cut	Fill
-	67	110

CROSS SECTIONS - LOCKBOURNE RD
STA. 75+17.59 TO STA. 76+00.00

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109581

SHEET 40 TOTAL 91

FRA-317-1.46

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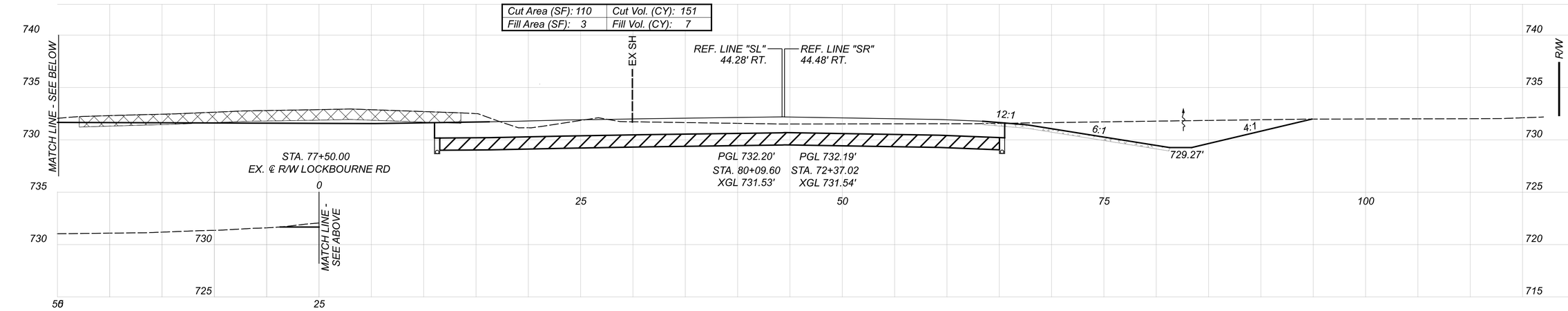

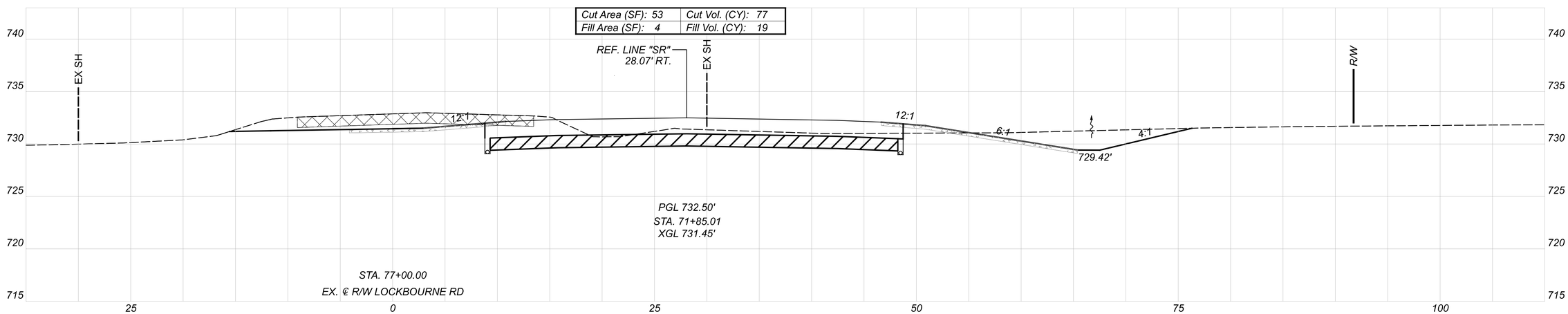

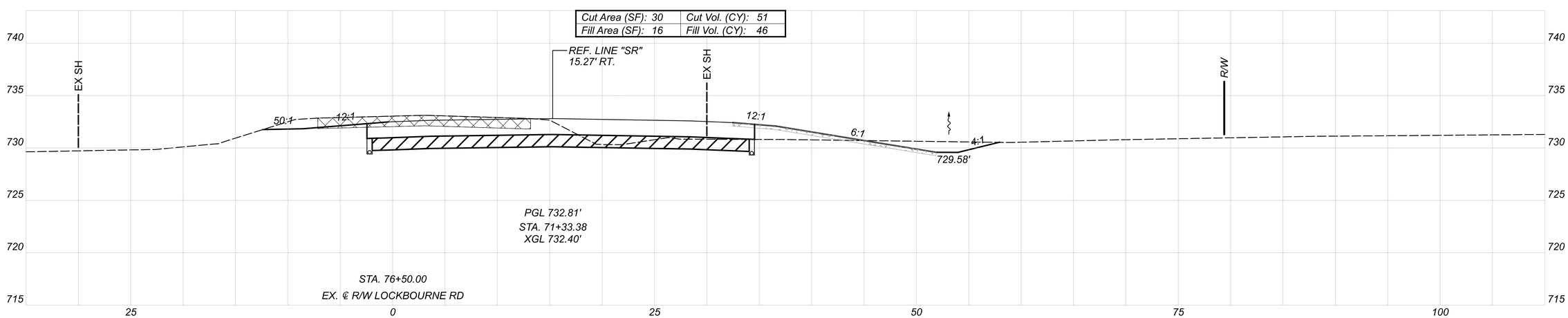

VEGETATED FILTER STRIP
ITEM 659 - 4" TOPSOIL
ITEM 670 - SLOPE EROSION PROTECTION

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP

ITEM 202 - PAVEMENT REMOVED

NOTE: EXTREME CAUTION SHALL OCCUR WHEN PERFORMING CEMENT STABILIZATION WITHIN AREAS OF UNDERGROUND UTILITIES.

Sheet Totals		
Seeding	Cut	Fill
-	279	72

CROSS SECTIONS - LOCKBOURNE RD
STA. 76+50.00 TO STA. 77+50.00

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109581

SHEET 41 TOTAL 91

FRA-317-1.46

MODEL: 76+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:40:35 AM USER: MBurger
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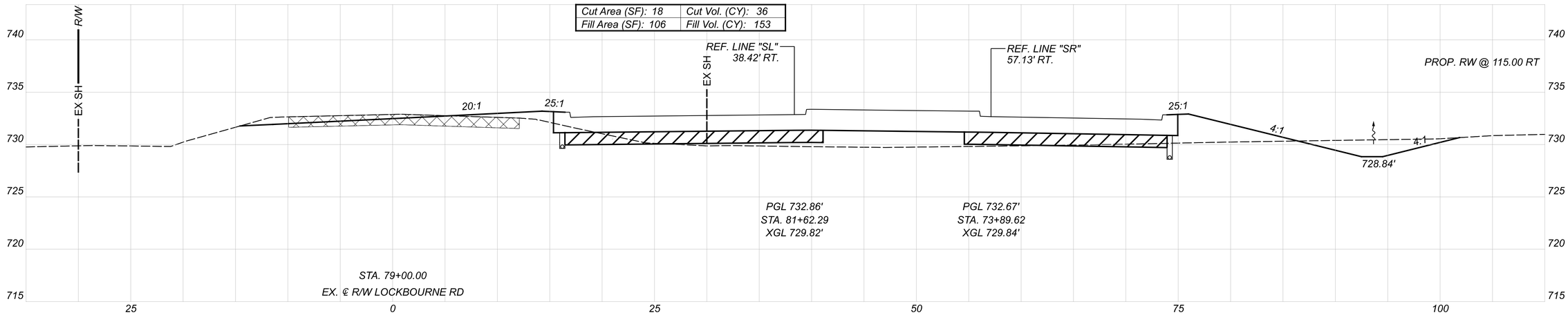

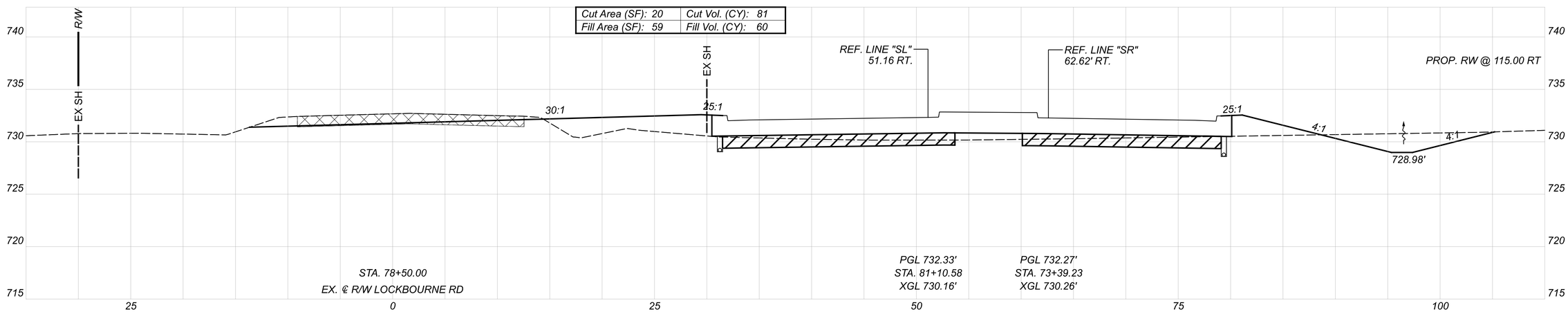

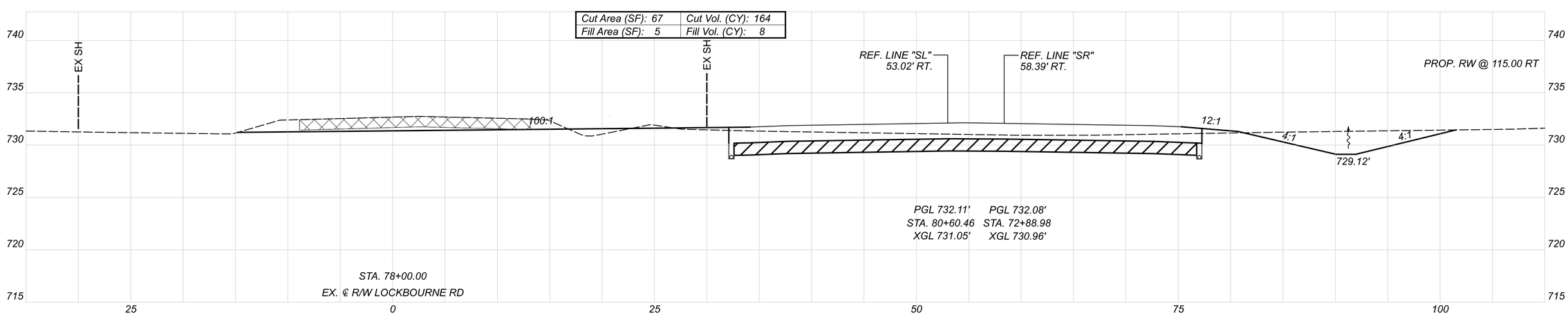

VEGETATED FILTER STRIP
ITEM 659 - 4" TOPSOIL
ITEM 670 - SLOPE EROSION PROTECTION

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP

ITEM 202 - PAVEMENT REMOVED

NOTE: EXTREME CAUTION SHALL OCCUR WHEN PERFORMING CEMENT STABILIZATION WITHIN AREAS OF UNDERGROUND UTILITIES.

Sheet Totals		
Seeding	Cut	Fill
-	281	221

CROSS SECTIONS - LOCKBOURNE RD
STA. 78+00.00 TO STA. 79+00.00

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109581

SHEET 42 TOTAL 91

FRA-317-1.46

MODEL: 78+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:40:41 AM USER: MBurger
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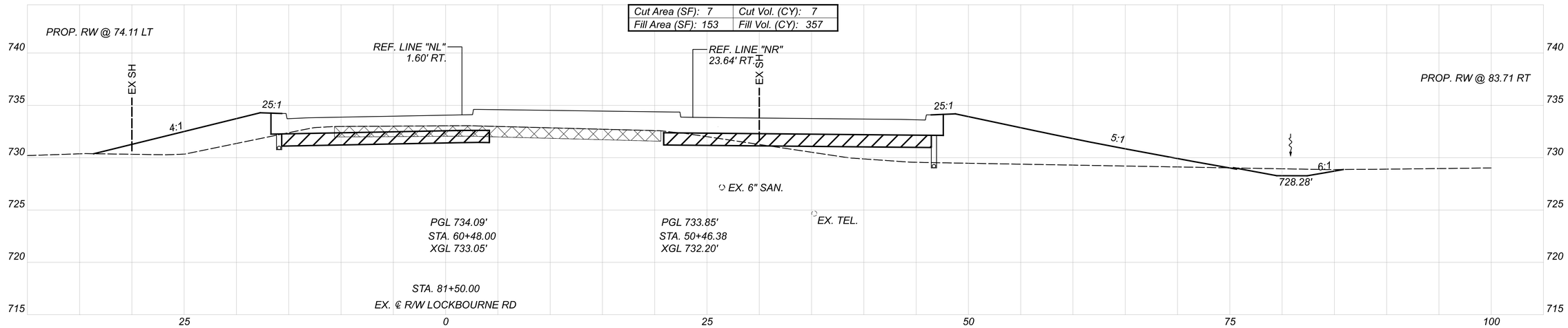

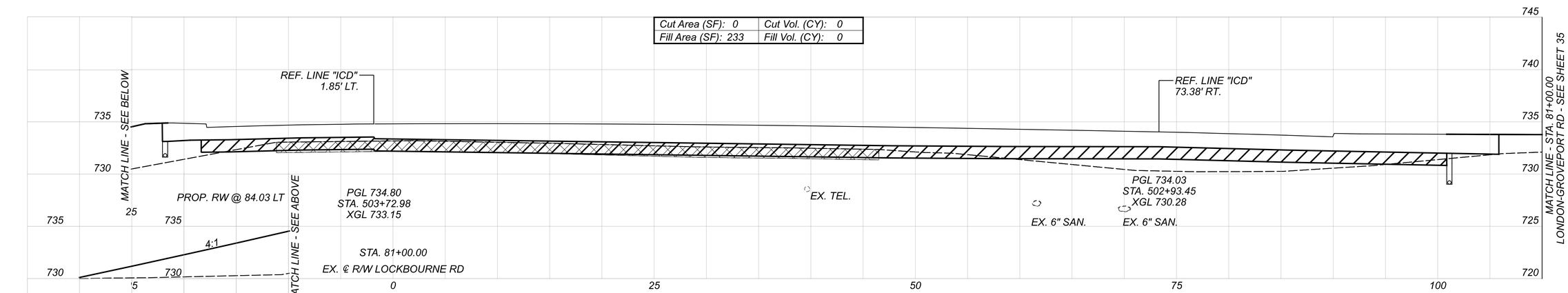

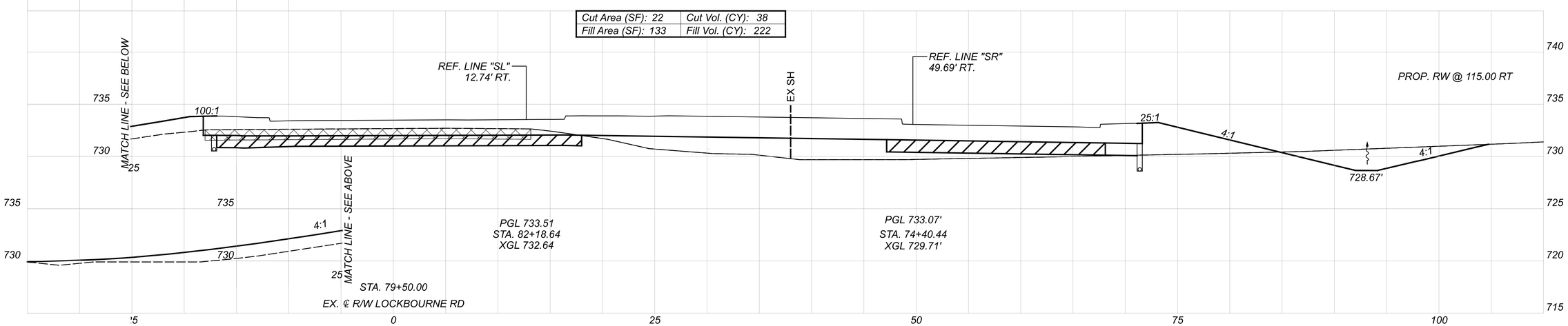

VEGETATED FILTER STRIP
ITEM 659 - 4" TOPSOIL
ITEM 670 - SLOPE EROSION PROTECTION

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP

ITEM 202 - PAVEMENT REMOVED

NOTE: EXTREME CAUTION SHALL OCCUR WHEN PERFORMING CEMENT STABILIZATION WITHIN AREAS OF UNDERGROUND UTILITIES.

Sheet Totals		
Seeding	Cut	Fill
-	45	579

CROSS SECTIONS - LOCKBOURNE RD
STA. 79+50.00 TO STA. 81+50.00

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109581

SHEET 43 TOTAL 91

FRA-317-1.46

MODEL: 79+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:40:47 AM USER: MBurger
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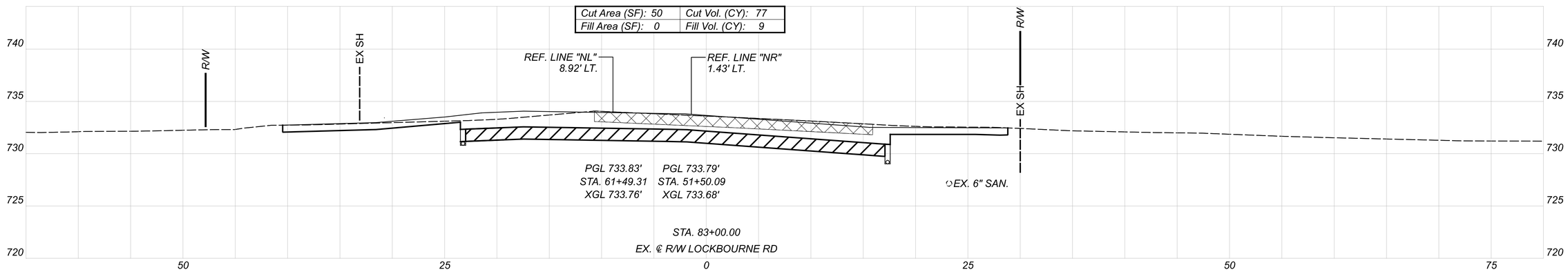

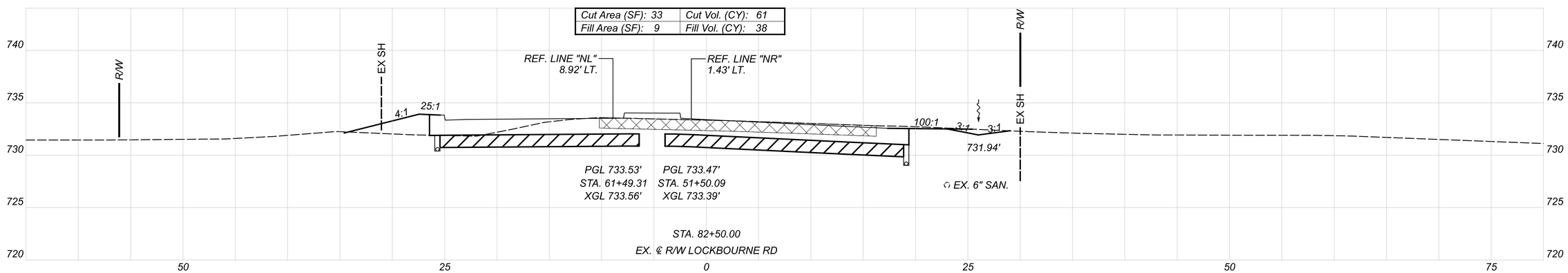

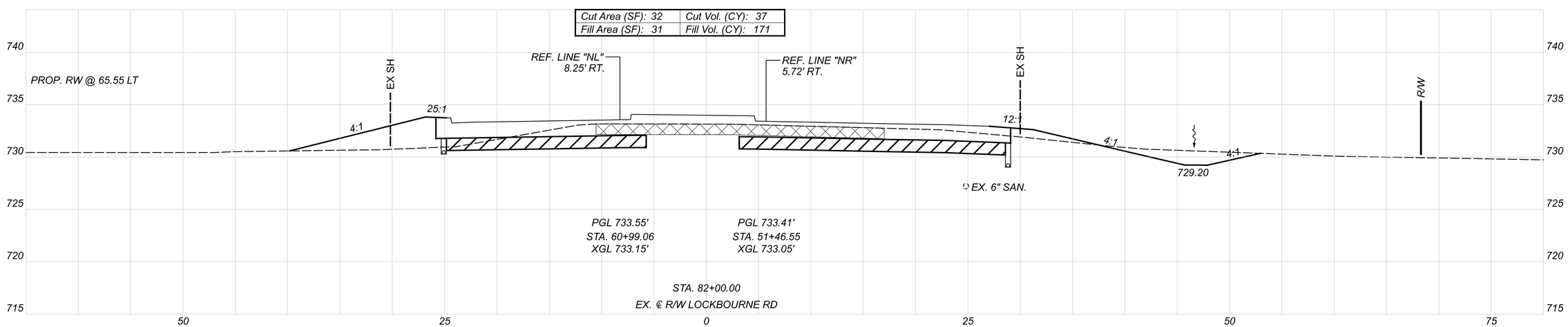

VEGETATED FILTER STRIP
ITEM 659 - 4" TOPSOIL
ITEM 670 - SLOPE EROSION PROTECTION

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP

ITEM 202 - PAVEMENT REMOVED

NOTE: EXTREME CAUTION SHALL OCCUR WHEN PERFORMING CEMENT STABILIZATION WITHIN AREAS OF UNDERGROUND UTILITIES.

Sheet Totals		
Seeding	Cut	Fill
-	175	218

CROSS SECTIONS - LOCKBOURNE RD
STA. 82+00.00 TO STA. 83+00.00

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109581

SHEET 44 TOTAL 91

FRA-317-1.46

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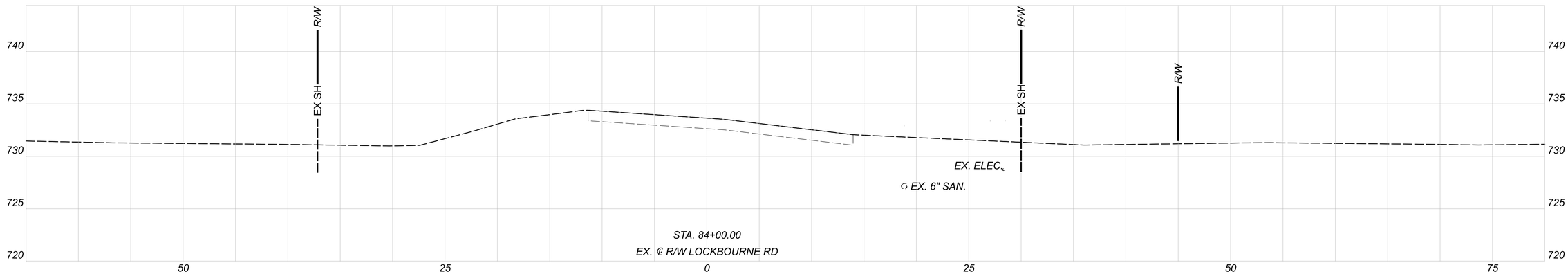
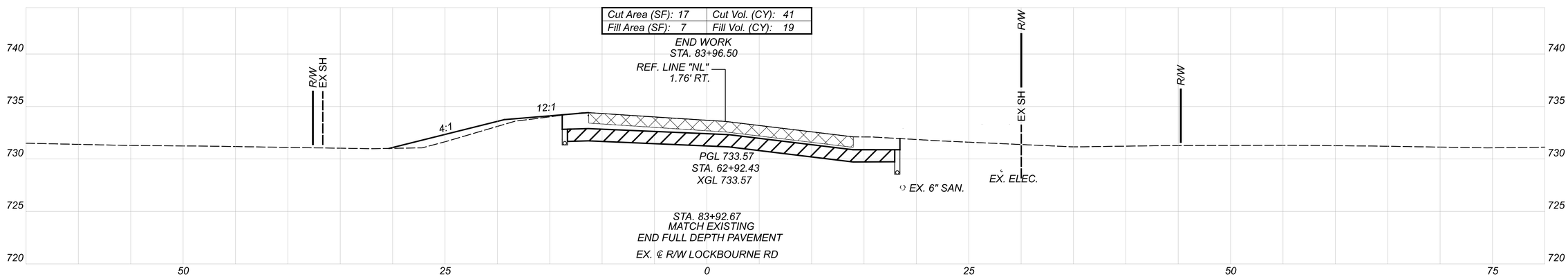
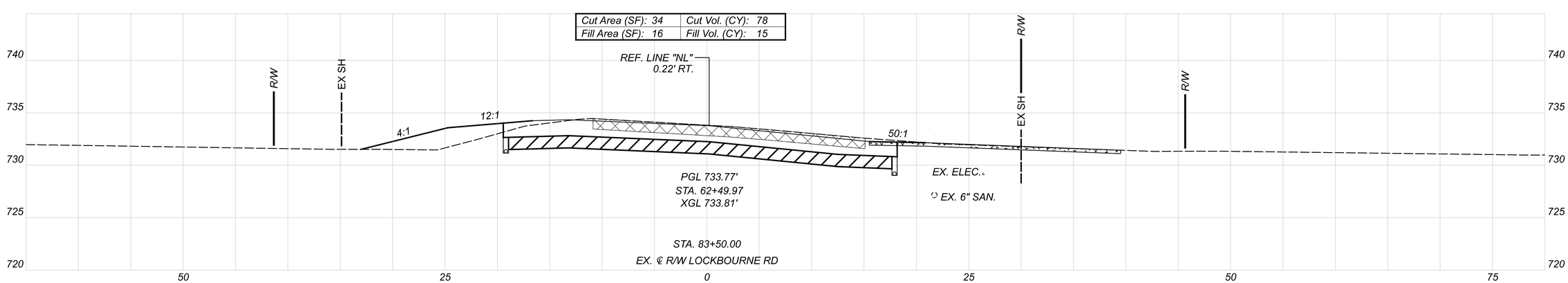






VEGETATED FILTER STRIP
ITEM 659 - 4" TOPSOIL
ITEM 670 - SLOPE EROSION PROTECTION

ITEM 206 - CEMENT STABILIZED SUBGRADE, 14 INCHES DEEP

ITEM 202 - PAVEMENT REMOVED

NOTE: EXTREME CAUTION SHALL OCCUR WHEN PERFORMING CEMENT STABILIZATION WITHIN AREAS OF UNDERGROUND UTILITIES.

Sheet Totals		
Seeding	Cut	Fill
-	119	34

CROSS SECTIONS - LOCKBOURNE RD
STA. 83+50.00 TO STA. 84+00.00

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 985-9100
www.arcadis.com

DESIGNER
EJT

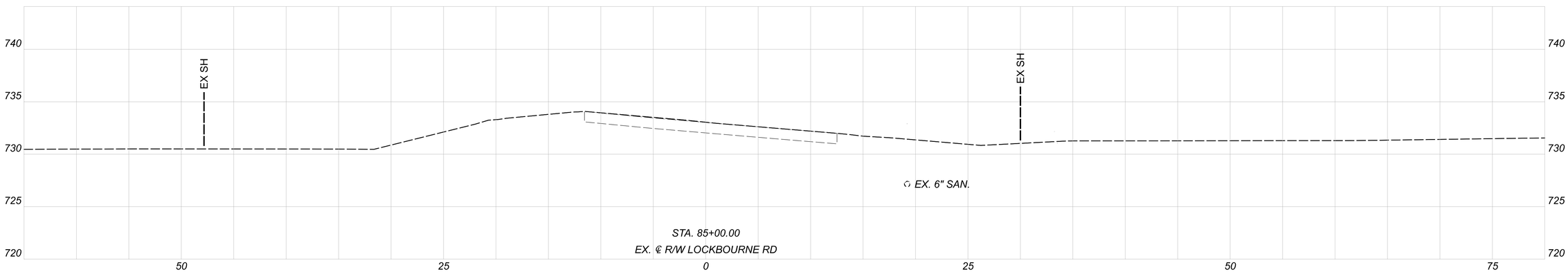
REVIEWER
BKM 03/18/20

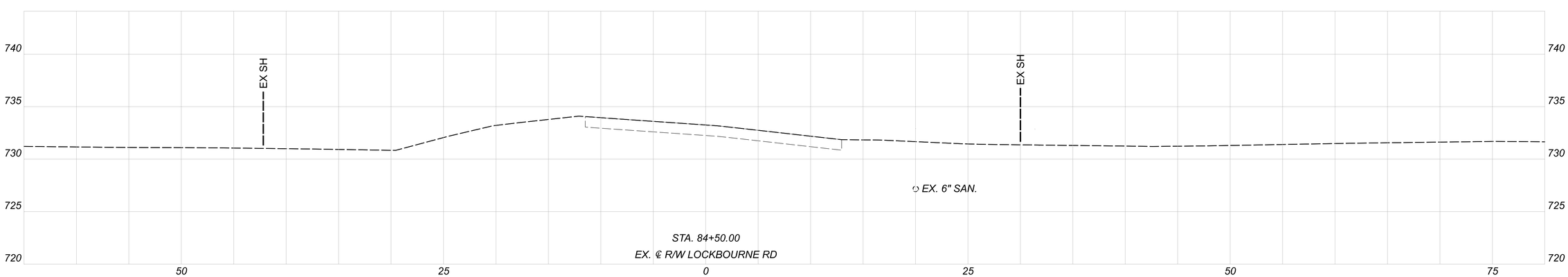
PROJECT ID
109581

SHEET 45 TOTAL 91

FRA-317-1.46

MODEL: 83+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:41:00 AM USER: MBurger
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\30040076\400_CAD\400-Engineering\Roadway\Sheets\109581_XS101.dgn





CROSS SECTIONS - LOCKBOURNE RD
STA. 84+50.00 TO STA. 85+00.00

Sheet Totals		
Seeding	Cut	Fill
-	0	0

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 985-9100
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DESIGNER
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REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 46 TOTAL 91

FRA-317-1.46

MODEL: 84+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:41:06 AM USER: MBurger
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SUPERELEVATION TABLE - SR 317 WEST LEGS

REF "WR"

LEFT SHOULDER			LEFT PAVEMENT						RIGHT PAVEMENT				RIGHT SHOULDER				
EDGE ELEVATION	WIDTH	CROSS SLOPE	EDGE ELEVATION	TRANSITION RATE	WIDTH	CROSS SLOPE	PROFILE GRADE	STATION	CROSS SLOPE	WIDTH	TRANSITION RATE	EDGE ELEVATION	CROSS SLOPE	WIDTH	EDGE ELEVATION	REMARKS	
							732.86	10+00.00	0.0229	12.89	220	733.16	-0.0400	1.10	733.11	MATCH EXISTING	
							732.95	10+25.00	0.0148	12.89	220	733.14	-0.0400	2.55	733.04		
							733.03	10+48.50	0.0070	12.89	220	733.12	-0.0400	3.91	732.97	PC STA.	CURVE C6 DC=9^32'56.4"
							733.04	10+50.00	0.0066	12.89	220	733.12	-0.0400	4.00	732.96		
							733.13	10+70.37	0.0000	13.15	220	733.13	-0.0400	4.00	732.97	FLAT	
							733.15	10+75.00	-0.0016	13.22	220	733.13	-0.0400	4.00	732.97		
							733.31	11+00.00	-0.0096	13.56	220	733.18	-0.0400	4.00	733.02		
							733.47	11+19.58	-0.0160	13.81	220	733.25	CURB			END SUPER	
							733.51	11+25.00	-0.0160	13.88		733.29					
							733.56	11+31.42	-0.0160	13.96		733.34				PT STA.	
							733.71	11+50.00	-0.0160	14.00		733.49					
							733.91	11+75.00	-0.0160	14.00		733.69					
							734.05	11+92.53	-0.0160	14.36		733.82				PC STA.	CURVE C7 DC=57^17'45.6"
							734.11	12+00.00	-0.0160	14.85		733.87					
							734.31	12+25.00	-0.0160	16.06		734.06					
							734.51	12+50.00	-0.0160	16.39	SEE INTERSECTION DETAIL						
							734.71	12+74.05	-0.0160	16.05						PT STA. MATCH "ICD"	

REF "WL"

LEFT SHOULDER			LEFT PAVEMENT						RIGHT PAVEMENT				RIGHT SHOULDER				
EDGE ELEVATION	WIDTH	CROSS SLOPE	EDGE ELEVATION	TRANSITION RATE	WIDTH	CROSS SLOPE	PROFILE GRADE	STATION	CROSS SLOPE	WIDTH	TRANSITION RATE	EDGE ELEVATION	CROSS SLOPE	WIDTH	EDGE ELEVATION	REMARKS	
732.22	2.10	-0.0210	732.26	295	13.25	-0.0449	732.86	20+00.00								MATCH EXISTING	
732.19	2.55	-0.0434	732.30	295	13.28	-0.0434	732.88	20+06.06								PC STA.	CURVE C35 DC=9^32'56.4"
732.29	3.03	-0.0400	732.41	295	13.46	-0.0388	732.93	20+25.00									
732.40	3.96	-0.0400	732.56	295	13.68	-0.0328	733.01	20+50.00									
732.58	4.00	-0.0400	732.74	295	13.88	-0.0267	733.11	20+75.00									
732.76	4.00	-0.0400	732.92	295	14.00	-0.0219	733.23	20+94.91								PT STA.	
732.81	4.00	-0.0400	732.97	295	14.00	-0.0207	733.26	21+00.00									
732.99	5.00	-0.0400	733.19	295	14.00	-0.0160	733.41	21+19.21								END SUPER	
CURB			733.24		14.00	-0.0160	733.46	21+25.00									
			733.43		14.00	-0.0160	733.66	21+50.00									
			733.63		14.00	-0.0160	733.86	21+75.00									
			733.83		14.00	-0.0160	734.06	22+00.00									
			733.91		14.18	-0.0160	734.14	22+10.10								PC STA.	CURVE C36 DC=19^5'56.4"
			734.02		14.66	-0.0160	734.26	22+25.00									
			734.21		15.38	-0.0160	734.46	22+50.00									
			734.40		15.98	-0.0160	734.66	22+75.00									
			734.43		16.00	-0.0160	734.69	22+79.06								PT STA.	
SEE INTERSECTION DETAIL					16.00		734.72	22+83.53									

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 200
COLUMBUS, OHIO 43235
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DESIGNER: BRO
REVIEWER: MJB 03/18/20
PROJECT ID: 109581
SHEET 47 TOTAL 91

FRA-317-1.46
MODEL: Gen Note | PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:41:20 AM USER: MBurger
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SUPERELEVATION TABLE - SR 317 EAST LEGS

REF "ER"

LEFT SHOULDER			LEFT PAVEMENT						RIGHT PAVEMENT				RIGHT SHOULDER				
EDGE ELEVATION	WIDTH	CROSS SLOPE	EDGE ELEVATION	TRANSITION RATE	WIDTH	CROSS SLOPE	PROFILE GRADE	STATION	CROSS SLOPE	WIDTH	TRANSITION RATE	EDGE ELEVATION	CROSS SLOPE	WIDTH	EDGE ELEVATION	REMARKS	
							733.24	30+00.00		16.28		SEE INTERSECTION DETAIL				MATCH "ICD"	
							733.21	30+06.09		16.08		SEE INTERSECTION DETAIL				PC STA.	DC=19^556.4" CURVE C17
							733.12	30+25.00	-0.0160	15.64							
							732.99	30+50.00	-0.0160	14.98		732.75					
							732.87	30+75.00	-0.0160	14.22		732.64					
							732.86	30+76.19	-0.0160	14.18		732.63	CURB			PT STA.	
							732.74	31+00.00	-0.0160	14.00		732.52					
							732.62	31+25.00	-0.0160	14.00		732.39					
							732.49	31+50.00	-0.0160	14.00		732.27					
							732.36	31+73.93	-0.0160	14.00		732.14	-0.0400	4.00	731.98	PC STA.	DC=6^21'57.6" CURVE C18
							732.36	31+75.00	-0.0160	13.99		732.13	-0.0400	4.00	731.97		
							732.21	32+00.00	-0.0160	13.86		731.98	-0.0400	4.00	731.82		
							732.05	32+25.00	-0.0160	13.70		731.84	-0.0400	4.00	731.68		
							731.90	32+50.00	-0.0160	13.53		731.69	-0.0400	4.00	731.53		
							731.75	32+75.00	-0.0160	13.35		731.54	-0.0400	4.00	731.38		
							731.71	32+81.29	-0.0160	13.30	269	731.50	-0.0400	4.00	731.34	BEGIN SUPER	
							731.60	33+00.00	-0.0209	13.16	269	731.33	-0.0400	4.00	731.17		
							731.45	33+25.00	-0.0274	12.96	269	731.10	-0.0400	3.20	730.97		
							731.31	33+48.45	-0.0335	12.76	269	730.88	-0.0400	2.21	730.79	PT STA.	
							731.30	33+50.00	-0.0339	12.75	269	730.87	-0.0400	2.14	730.78		
							731.26	33+56.29	-0.0355	12.73	269	730.81	-0.0400	1.87	730.73	MATCH EXISTING	

REF "EL"

LEFT SHOULDER			LEFT PAVEMENT						RIGHT PAVEMENT				RIGHT SHOULDER				
EDGE ELEVATION	WIDTH	CROSS SLOPE	EDGE ELEVATION	TRANSITION RATE	WIDTH	CROSS SLOPE	PROFILE GRADE	STATION	CROSS SLOPE	WIDTH	TRANSITION RATE	EDGE ELEVATION	CROSS SLOPE	WIDTH	EDGE ELEVATION	REMARKS	
SEE INTERSECTION DETAIL					16.07		733.76	40+00.00								MATCH "ICD"	
					16.07		733.73	40+03.17								PC STA.	DC=57^17'45.6" CURVE C19
CURB			733.30		16.39	-0.0160	733.56	40+25.00									
			733.10		15.96	-0.0160	733.36	40+50.00									
			732.92		14.69	-0.0160	733.16	40+75.00									
			732.89		14.36	-0.0160	733.12	40+79.63								PT STA.	
			732.73		14.00	-0.0160	732.96	41+00.00									
			732.53		14.00	-0.0160	732.76	41+25.00									
			732.38		13.98	-0.0160	732.61	41+43.81								PC STA.	DC=6^21'57.6" CURVE C20
			732.34		13.94	-0.0160	732.56	41+50.00									
731.98	4.00	-0.0400	732.14		13.76	-0.0160	732.36	41+75.00									
731.78	4.00	-0.0400	731.94		13.57	-0.0160	732.16	42+00.00									
731.61	4.00	-0.0400	731.77		13.37	-0.0160	731.99	42+25.00									
731.47	4.00	-0.0400	731.63		13.15	-0.0160	731.84	42+50.00									
731.34	4.00	-0.0400	731.50	214	12.96	-0.0160	731.71	42+71.67								BEGIN SUPER	
731.34	4.00	-0.0400	731.50	214	12.93	-0.0149	731.69	42+75.00									
731.30	3.87	-0.0400	731.46	214	12.70	-0.0066	731.54	43+00.00									
731.30	3.61	-0.0400	731.45	214	12.68	-0.0044	731.50	43+06.44								PT STA.	
731.30	2.87	-0.0400	731.41	214	12.68	0.0018	731.39	43+25.00									
731.30	2.00	-0.0400	731.38	214	12.68	0.0090	731.26	43+46.67								MATCH EXISTING	

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 895-5400
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DESIGNER: BRO
REVIEWER: MJB 03/18/20
PROJECT ID: 109581

FRA-317-1.46
MODEL: Gen Note 2 PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:41:20 AM USER: MBurger
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REF "NR"

LEFT SHOULDER			LEFT PAVEMENT						RIGHT PAVEMENT				RIGHT SHOULDER				
EDGE ELEVATION	WIDTH	CROSS SLOPE	EDGE ELEVATION	TRANSITION RATE	WIDTH	CROSS SLOPE	PROFILE GRADE	STATION	CROSS SLOPE	WIDTH	TRANSITION RATE	EDGE ELEVATION	CROSS SLOPE	WIDTH	EDGE ELEVATION	REMARKS	
							734.31	50+00.00		18.03		SEE INTERSECTION DETAIL				MEET "ICD"	
							734.27	50+03.87		18.00		SEE INTERSECTION DETAIL				PC STA.	
							734.06	50+25.00	-0.0160	17.90		733.78	CURB				
							733.81	50+50.00	-0.0160	17.61		733.53					
							733.57	50+75.00	-0.0160	17.14		733.29					
							733.49	50+85.00	-0.0160	16.90	144	733.22				BEGIN SUPER	DC=23^52'22.8" CURVE C27
							733.41	51+00.00	-0.0234	16.50	144	733.02	-0.0400	4.00	732.86		
							733.37	51+25.00	-0.0359	15.69	144	732.81	-0.0400	4.00	732.65		
							733.39	51+33.30	-0.0400	15.38	144	732.78	-0.0400	4.00	732.62	BEGIN SHDL SUPER	
							733.47	51+50.00	-0.0483	14.72	144	732.76	-0.0483	4.00	732.57		
							733.50	51+54.51	-0.0505	14.53	144	732.77	-0.0505	4.00	732.57	PCC STA.	
							733.64	51+75.00	-0.0607	13.98	144	732.79	-0.0607	4.00	732.54		DC=9^32'56.4" CURVE C26
							733.79	52+00.00	-0.0731	13.43	144	732.81	-0.0731	4.00	732.52		
							733.85	52+25.00	-0.0855	12.86	144	732.75	-0.0855	3.81	732.42		
							733.78	52+46.69	-0.0963	12.35	144	732.59	-0.0963	3.32	732.27	PT STA. MEET "NR"	

REF "NL"

LEFT SHOULDER			LEFT PAVEMENT						RIGHT PAVEMENT				RIGHT SHOULDER				
EDGE ELEVATION	WIDTH	CROSS SLOPE	EDGE ELEVATION	TRANSITION RATE	WIDTH	CROSS SLOPE	PROFILE GRADE	STATION	CROSS SLOPE	WIDTH	TRANSITION RATE	EDGE ELEVATION	CROSS SLOPE	WIDTH	EDGE ELEVATION	REMARKS	
SEE INTERSECTION DETAIL					16.87		734.77	60+00.00								PC STA. MATCH "ICD"	
			734.16		15.94	-0.0160	734.42	60+25.00									DC=57^17'45.6" CURVE C29
			733.84		14.33	-0.0160	734.07	60+49.92								PRC STA.	
			733.84		14.32	-0.0160	734.07	60+50.00									
			733.52		14.00	-0.0160	733.74	60+75.00									
		CURB	733.32		14.00	-0.0160	733.55	61+00.00									
			733.25		14.00	-0.0160	733.48	61+25.00									
			733.25	144	14.00	-0.0160	733.48	61+31.43								BEGIN SUPER	DC=22^2'13.2" CURVE C28
			733.44	144	14.00	-0.0068	733.53	61+50.00									
733.52	2.18	-0.0400	733.60	144	14.00	-0.0004	733.61	61+62.84								PT STA.	
733.61	4.00	-0.0400	733.77	144	13.92	0.0057	733.69	61+75.00									
733.92	4.00	-0.0400	734.08	144	13.74	0.0181	733.83	62+00.00									
734.11	4.00	-0.0400	734.27	144	13.57	0.0300	733.86	62+23.89								BEGIN LT SHLDR ROTATION	
734.12	4.00	-0.0394	734.28	144	13.56	0.0306	733.86	62+25.00									
734.23	3.68	-0.0288	734.34	144	13.41	0.0412	733.78	62+46.43	-0.0963	12.35	144	732.59	-0.0963	4.00	732.21	RT PVM'T MATCH "NR"	
734.25	3.40	-0.0270	734.34	144	13.38	0.0430	733.77	62+50.00	-0.0981	12.28	144	732.56	-0.0981	3.07	732.26		
734.37	1.40	-0.0146	734.39	144	13.20	0.0554	733.65	62+75.00	-0.1105	12.17	144	732.31	-0.1105	1.27	732.17		
			734.41	144	13.08	0.0641	733.57	62+92.43	-0.1192	12.17	144	732.12				MATCH EXISTING	

SUPERELEVATION TABLE - LOCKBOURNE ROAD NORTH LEGS

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 895-6100
www.arcadis.com

DESIGNER
BRO

REVIEWER
MJB 03/18/20

PROJECT ID
109581

FRA-317-1.46
MODEL: Gen Note 3 PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:41:21 AM USER: MBurger
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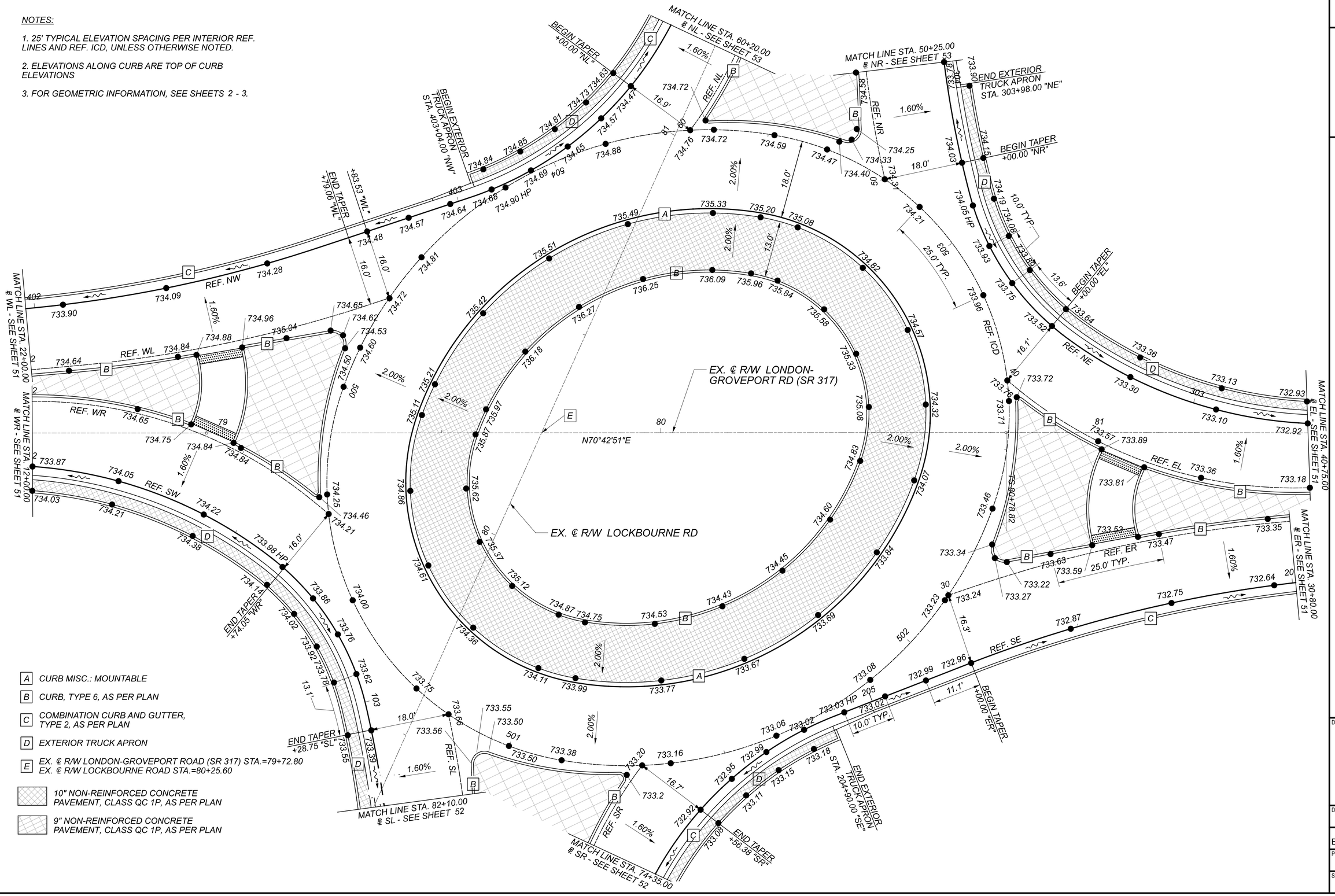
NOTES:

1. 25' TYPICAL ELEVATION SPACING PER INTERIOR REF. LINES AND REF. ICD, UNLESS OTHERWISE NOTED.

2. ELEVATIONS ALONG CURB ARE TOP OF CURB ELEVATIONS

3. FOR GEOMETRIC INFORMATION, SEE SHEETS 2 - 3.



A CURB MISC.: MOUNTABLE

B CURB, TYPE 6, AS PER PLAN

C COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN

D EXTERIOR TRUCK APRON

E EX. ℄ R/W LONDON-GROVEPORT ROAD (SR 317) STA.=79+72.80
EX. ℄ R/W LOCKBOURNE ROAD STA.=80+25.60

10" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN

9" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, AS PER PLAN

HORIZONTAL SCALE IN FEET 0 5 10 20

ROUNDABOUT INTERSECTION DETAIL

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 985-9100
www.arcadis.com

DESIGNER EJT

REVIEWER BKM 03/18/20

PROJECT ID 109581

SHEET 50 TOTAL 91

FRA-317-1.46

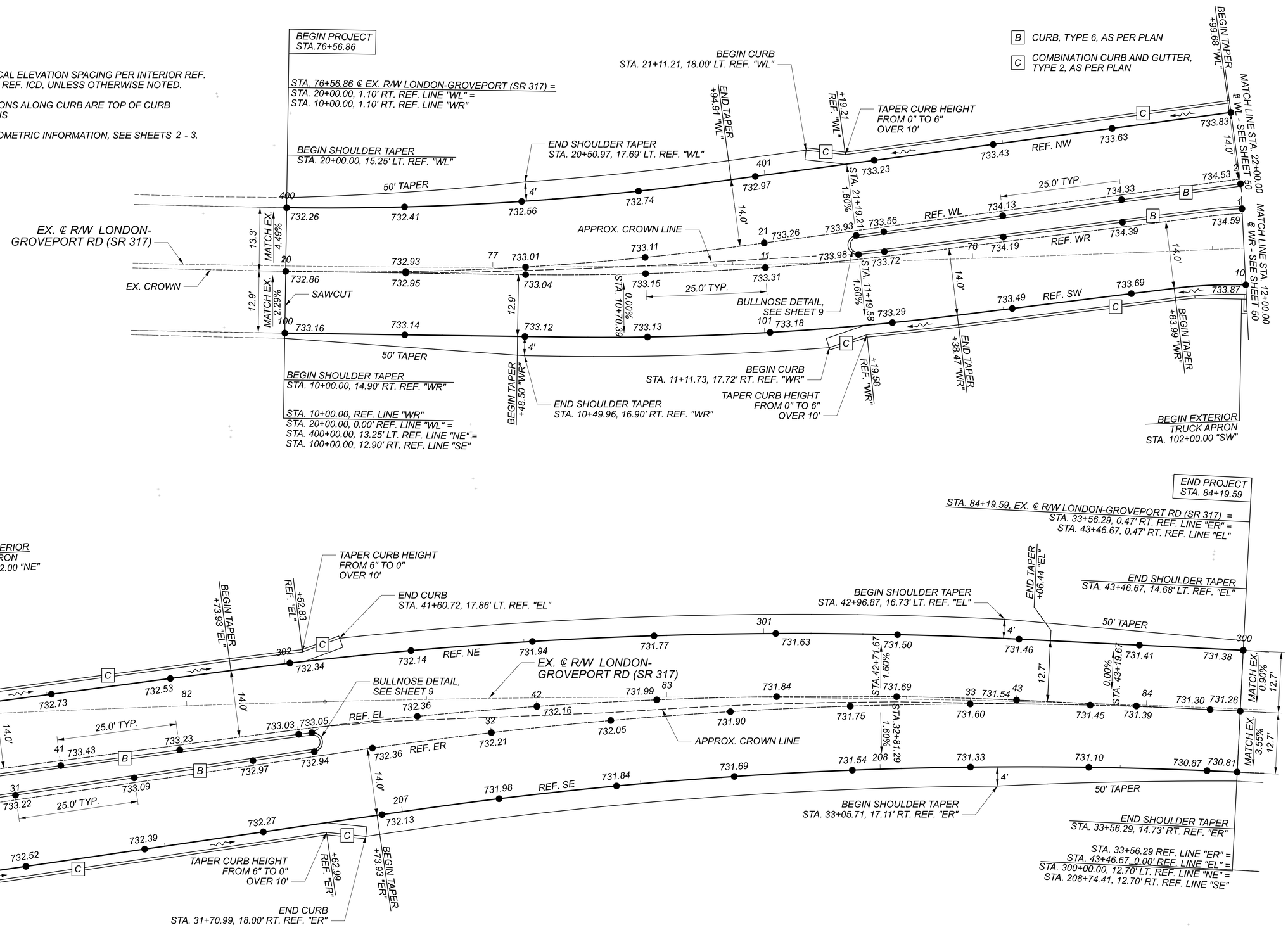
MODEL: Plan [[Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/30/2021 TIME: 5:08:24 PM USER: MBurger
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\30040076\400_CAD\400-Engineering\Roadway\Sheets\109581_GI002.dgn

NOTES:

1. 25' TYPICAL ELEVATION SPACING PER INTERIOR REF. LINES AND REF. ICD, UNLESS OTHERWISE NOTED.

2. ELEVATIONS ALONG CURB ARE TOP OF CURB ELEVATIONS

3. FOR GEOMETRIC INFORMATION, SEE SHEETS 2 - 3.



HORIZONTAL SCALE IN FEET 0 5 10 20

ROUNDABOUT (SR 317) INTERSECTION DETAIL

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 985-9100
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DESIGNER EJT
REVIEWER BKM 03/18/20
PROJECT ID 109581
SHEET 51 TOTAL 91

FRA-317-1.46

MODEL: Plan 3 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 9/23/2021 TIME: 11:44:41 AM USER: MBurger
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\30040076\400_CAD\400-Engineering\Roadway\Sheets\109581_GI002.dgn

NOTES:

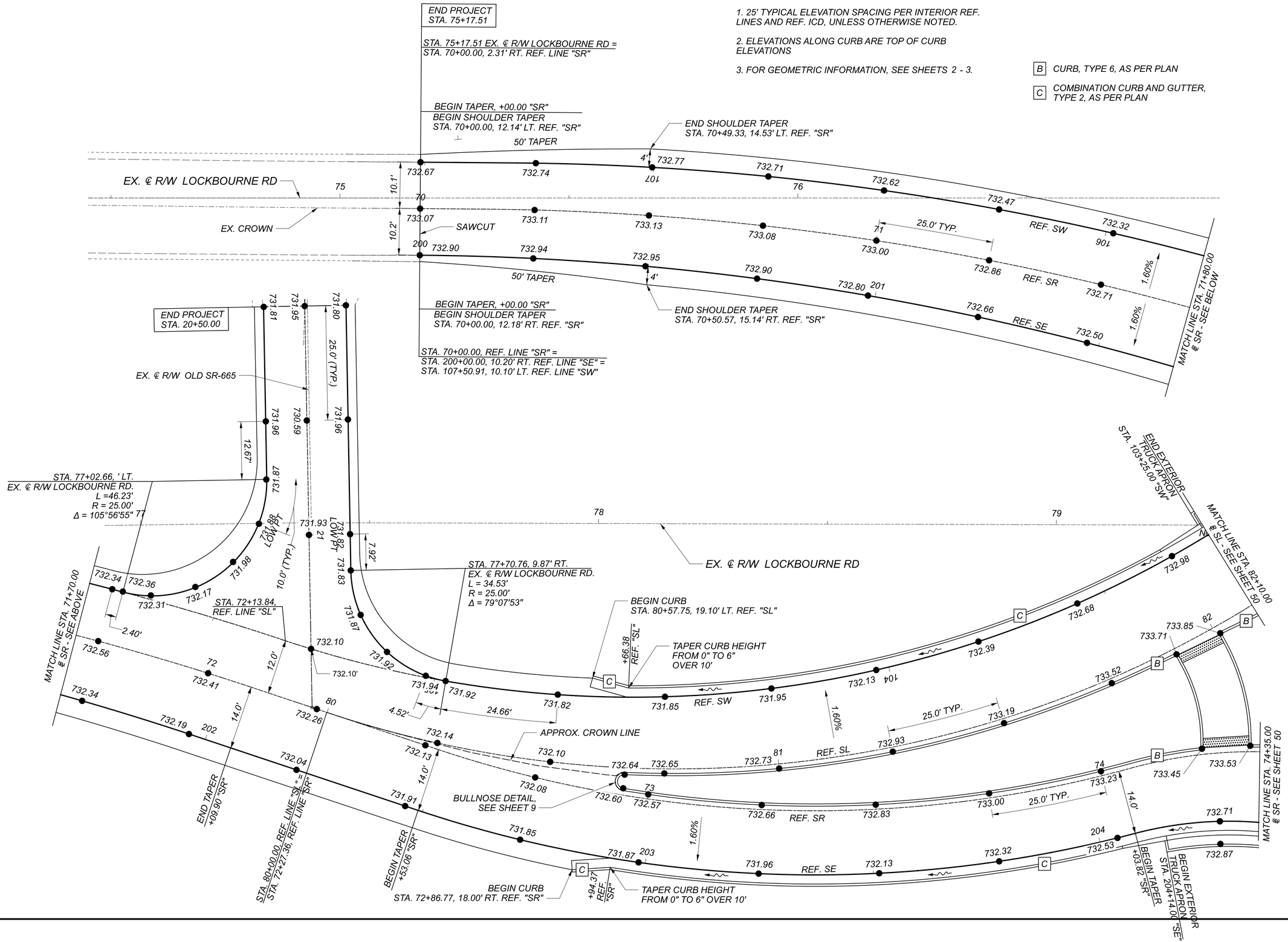
1. 25' TYPICAL ELEVATION SPACING PER INTERIOR REF. LINES AND REF. ICD, UNLESS OTHERWISE NOTED.

2. ELEVATIONS ALONG CURB ARE TOP OF CURB ELEVATIONS

3. FOR GEOMETRIC INFORMATION, SEE SHEETS 2 - 3.

B CURB, TYPE 6, AS PER PLAN

C COMBINATION CURB AND GUTTER, TYPE 2, AS PER PLAN



HORIZONTAL SCALE IN FEET
0 5 10 20

ROUNDABOUT (LOCKBOURNE RD.) INTERSECTION DETAIL

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 895-7100
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DESIGNER
EJT

REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 52 TOTAL 91

FRA-317-1.46

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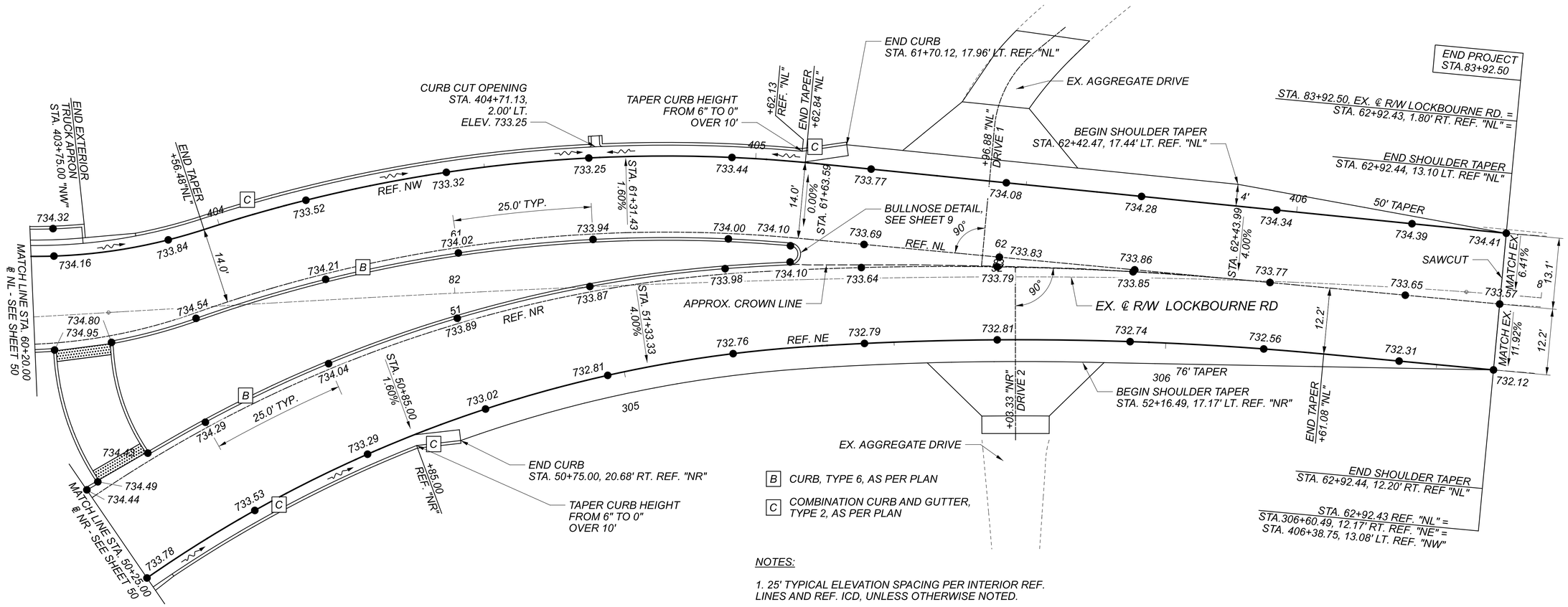

NOTES:

1. 25' TYPICAL ELEVATION SPACING PER INTERIOR REF. LINES AND REF. ICD, UNLESS OTHERWISE NOTED.

2. ELEVATIONS ALONG CURB ARE TOP OF CURB ELEVATIONS

3. FOR GEOMETRIC INFORMATION, SEE SHEETS 2 - 3.

4. FOR DRIVE DETAILS, SEE SHEET 56.

HORIZONTAL SCALE IN FEET 0 5 10 20

ROUNDABOUT (LOCKBOURNE RD.) INTERSECTION DETAIL

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 895-3100
www.arcadis.com

DESIGNER EJT

REVIEWER BKM 03/18/20

PROJECT ID 109581

SHEET 53 TOTAL 91

FRA-317-1.46

MODEL: Plan 10 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:41:44 AM USER: MBurger
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NOTES:

1. ALL STATIONS REFERENCE EX. ℄ R/W LOCKBOURNE RD

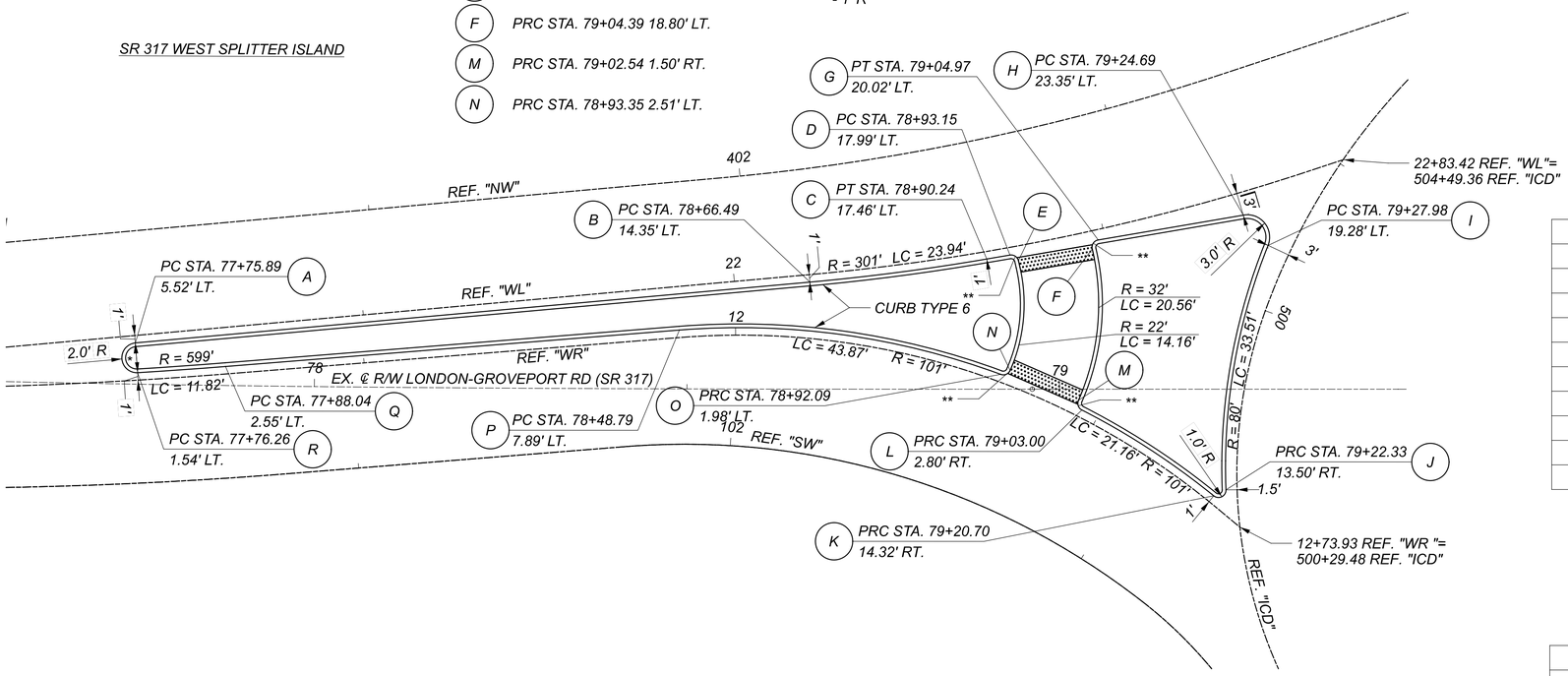
* RAMP NOSE OF SPLITTER ISLAND PER RM-3.1

HORIZONTAL SCALE IN FEET 0 5 10 20

SR 317 WEST SPLITTER ISLAND

LEGEND
** - 1' R

E PRC STA. 78+94.30 17.23' LT.
F PRC STA. 79+04.39 18.80' LT.
M PRC STA. 79+02.54 1.50' RT.
N PRC STA. 78+93.35 2.51' LT.

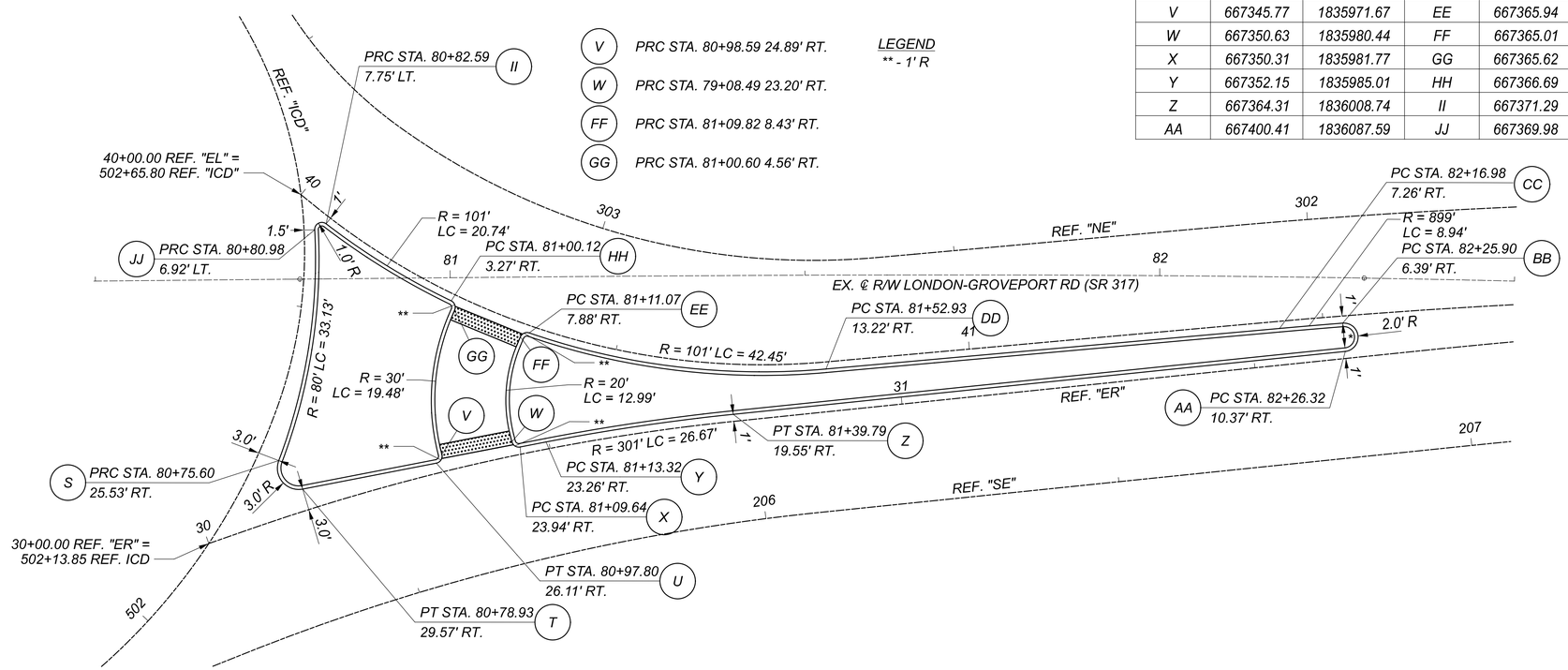


LONDON-GROVEPORT RD (SR 317) WEST LEG					
PNT.	NORTHING	EASTING	PNT.	NORTHING	EASTING
A	667268.56	1835656.90	J	667298.31	1835801.54
B	667306.17	1835739.63	K	667297.00	1835800.27
C	667316.93	1835761.02	L	667302.02	1835779.75
D	667318.45	1835763.78	M	667303.09	1835778.89
E	667318.11	1835765.11	N	667303.85	1835768.92
F	667322.87	1835773.93	O	667302.93	1835767.91
G	667324.28	1835774.29	P	667294.31	1835725.24
H	667333.85	1835791.56	Q	667269.58	1835669.36
I	667331.12	1835796.04	R	667264.90	1835658.50

LONDON-GROVEPORT RD (SR 317) EAST LEG					
PNT.	NORTHING	EASTING	PNT.	NORTHING	EASTING
S	667337.57	1835950.18	BB	667404.06	1836085.96
T	667334.86	1835954.66	CC	667400.49	1836077.77
U	667344.36	1835971.33	DD	667374.55	1836019.07
V	667345.77	1835971.67	EE	667365.94	1835977.83
W	667350.63	1835980.44	FF	667365.01	1835976.83
X	667350.31	1835981.77	GG	667365.62	1835966.84
Y	667352.15	1835985.01	HH	667366.69	1835965.97
Z	667364.31	1836008.74	II	667371.29	1835945.79
AA	667400.41	1836087.59	JJ	667369.98	1835944.54

LEGEND
** - 1' R

V PRC STA. 80+98.59 24.89' RT.
W PRC STA. 79+08.49 23.20' RT.
FF PRC STA. 81+09.82 8.43' RT.
GG PRC STA. 81+00.60 4.56' RT.



ROUNDABOUT SPLITTER ISLAND DETAILS

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 220
COLUMBUS, OHIO 43235
(614) 895-7100
www.arcadis.com

DESIGNER EJT
REVIEWER BKM 03/18/20
PROJECT ID 109581
SHEET 54 TOTAL 91

FRA-317-1.46

MODEL: Plan 3 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:41:55 AM USER: MBurger
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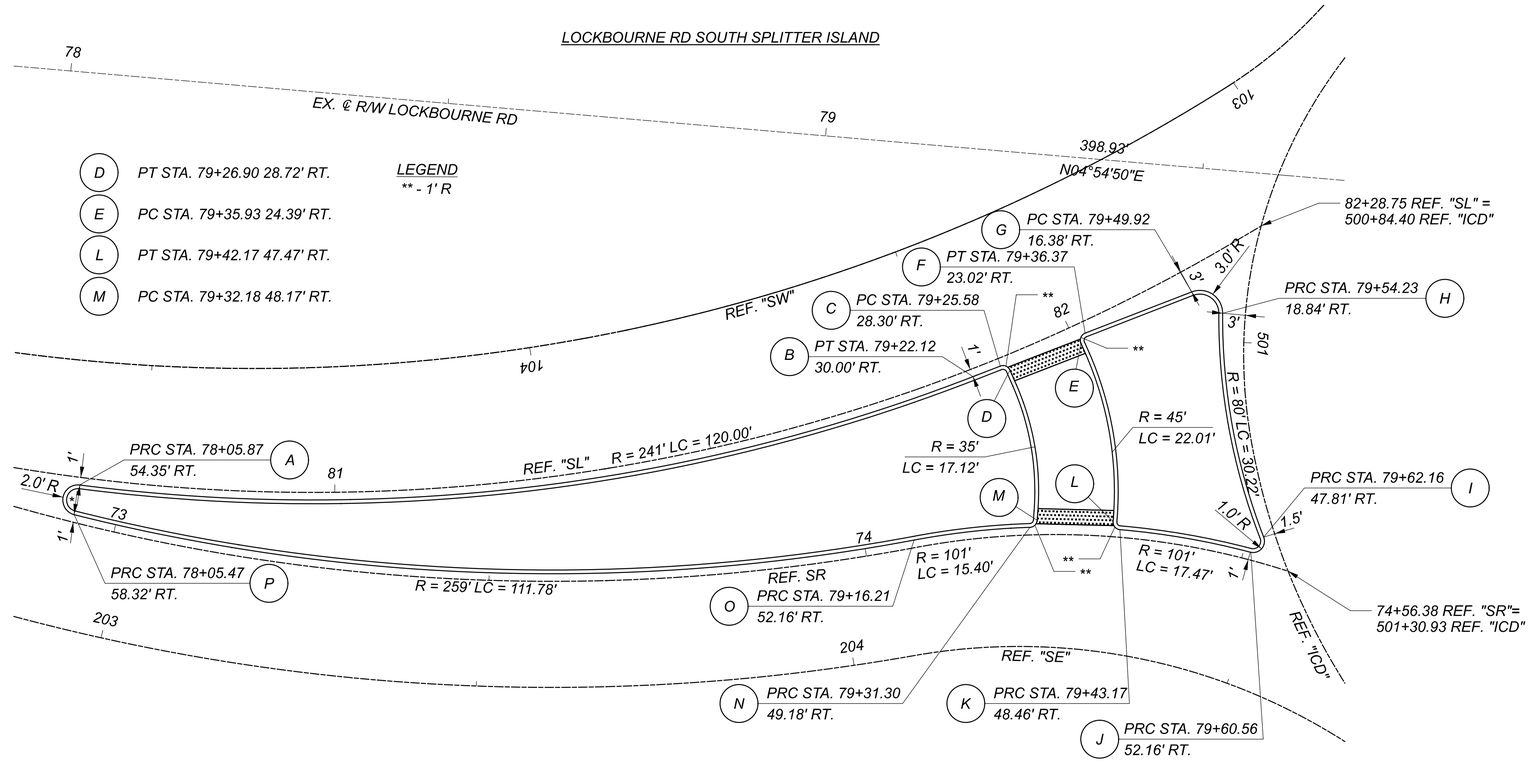
NOTES:

1. ALL STATIONS REFERENCE EX. ℄ R/W LOCKBOURNE RD

* RAMP NOSE OF SPLITTER ISLAND PER RM-3.1

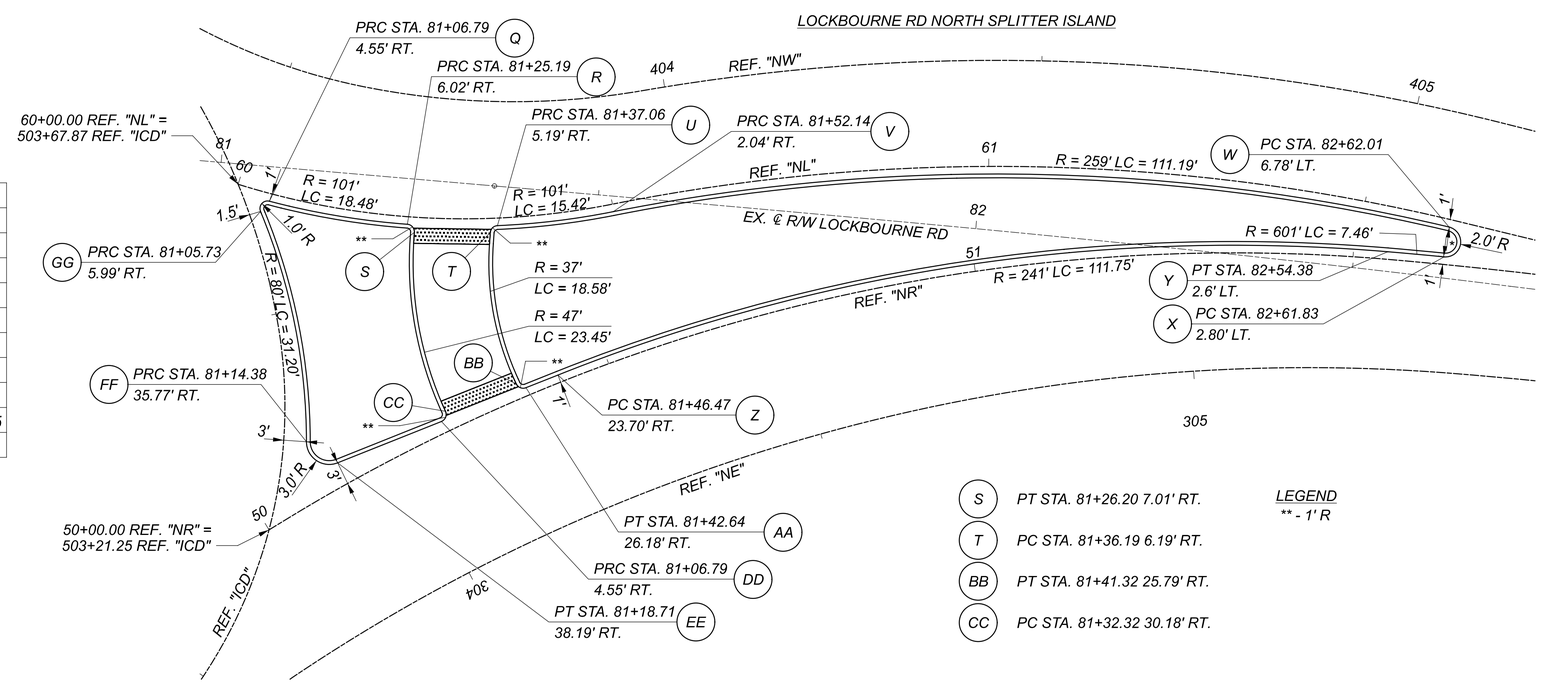
LOCKBOURNE RD SOUTH LEG					
PNT.	NORTHING	EASTING	PNT.	NORTHING	EASTING
A	667104.14	1835880.02	I	667260.41	1835886.92
B	667222.04	1835865.74	J	667256.22	1835888.91
C	667225.64	1835864.34	K	667241.44	1835885.94
D	667226.92	1835864.87	L	667240.53	1835884.87
E	667236.29	1835861.34	M	667230.51	1835884.71
F	667236.84	1835860.00	N	667229.55	1835885.63
G	667250.91	1835854.55	O	667214.26	1835887.31
H	667254.99	1835857.37	P	667103.40	1835883.96

LOCKBOURNE RD SOUTH SPLITTER ISLAND



LOCKBOURNE RD NORTH LEG					
PNT.	NORTHING	EASTING	PNT.	NORTHING	EASTING
Q	667408.22	1835856.20	Z	667446.30	1835879.15
R	667426.43	1835859.25	AA	667442.08	1835880.83
S	667427.35	1835860.31	BB	667440.81	1835880.32
T	667437.37	1835860.36	CC	667431.46	1835883.93
U	667438.32	1835859.43	DD	667430.92	1835885.28
V	667453.61	1835857.59	EE	667417.22	1835890.74
W	667563.93	1835859.62	FF	667413.11	1835887.96
X	667563.28	1835863.55	GG	667407.04	1835857.55
Y	667555.85	1835862.88			

LOCKBOURNE RD NORTH SPLITTER ISLAND



HORIZONTAL SCALE IN FEET
0 5 10 20

ROUNDABOUT SPLITTER ISLAND DETAILS

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 895-3700
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DESIGNER: EJT
REVIEWER: BKM 03/18/20
PROJECT ID: 109581
SHEET 55 TOTAL 91

FRA-317-1.46

MODEL: Plan 9 (Sheet) PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:41:57 AM USER: MBurger
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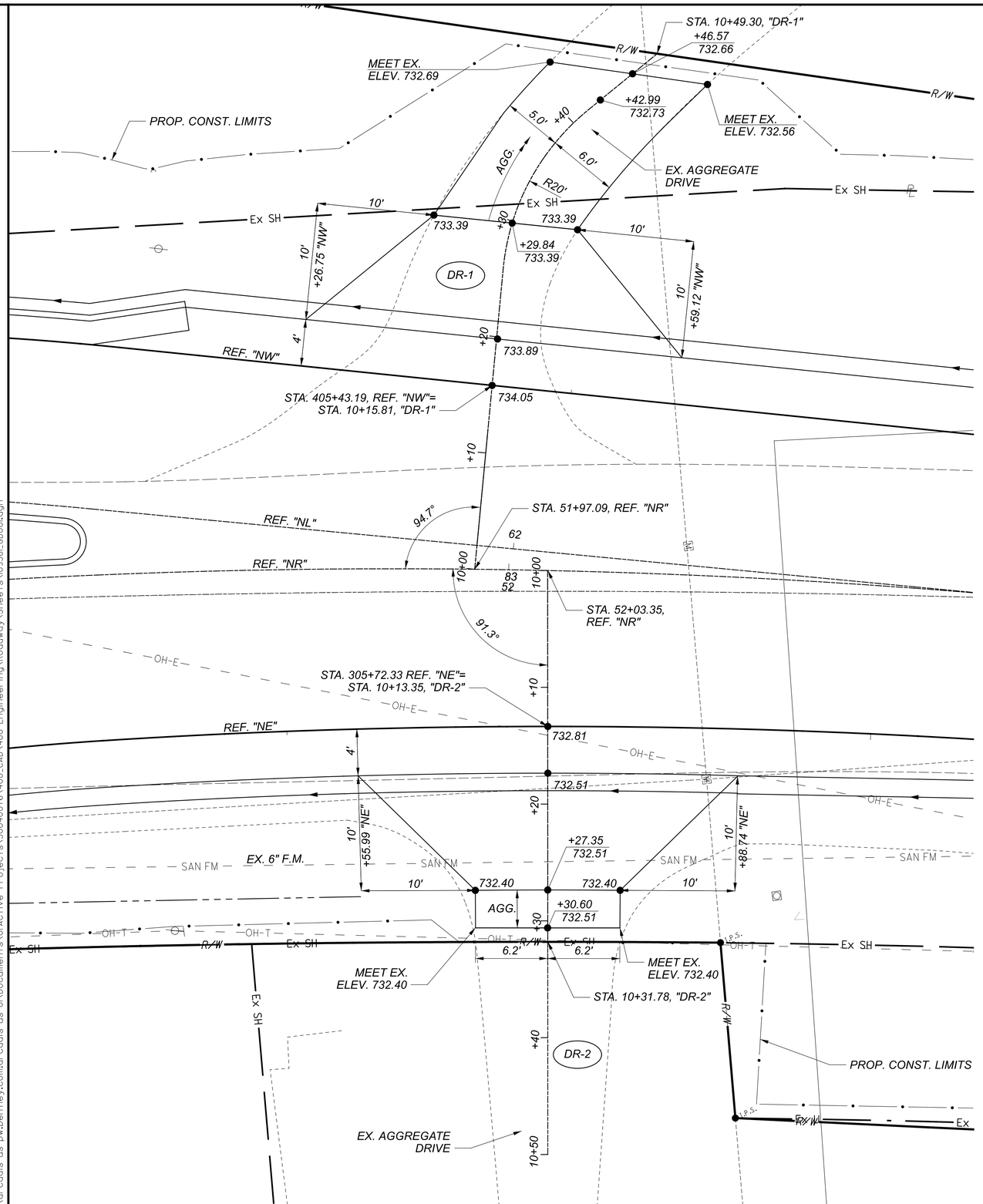

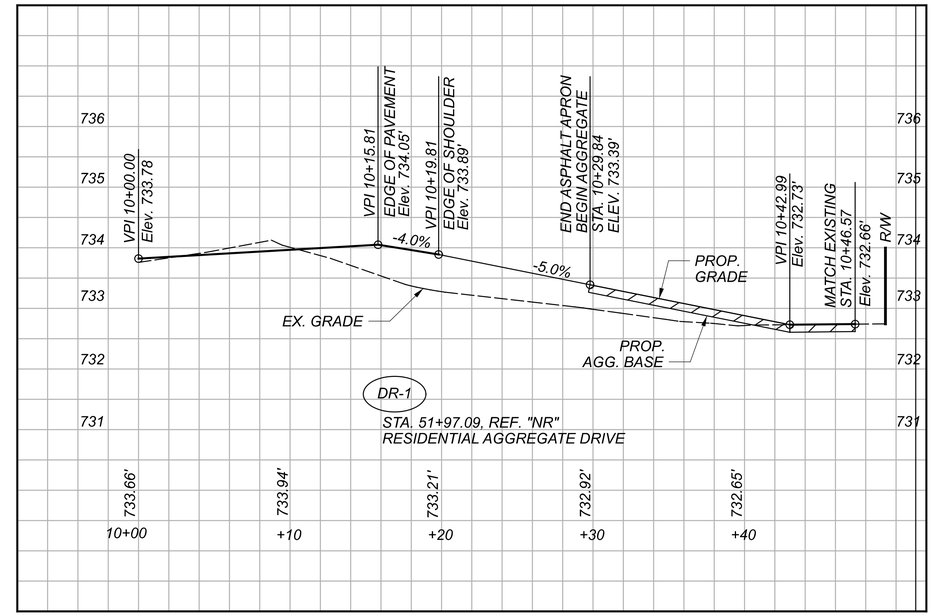

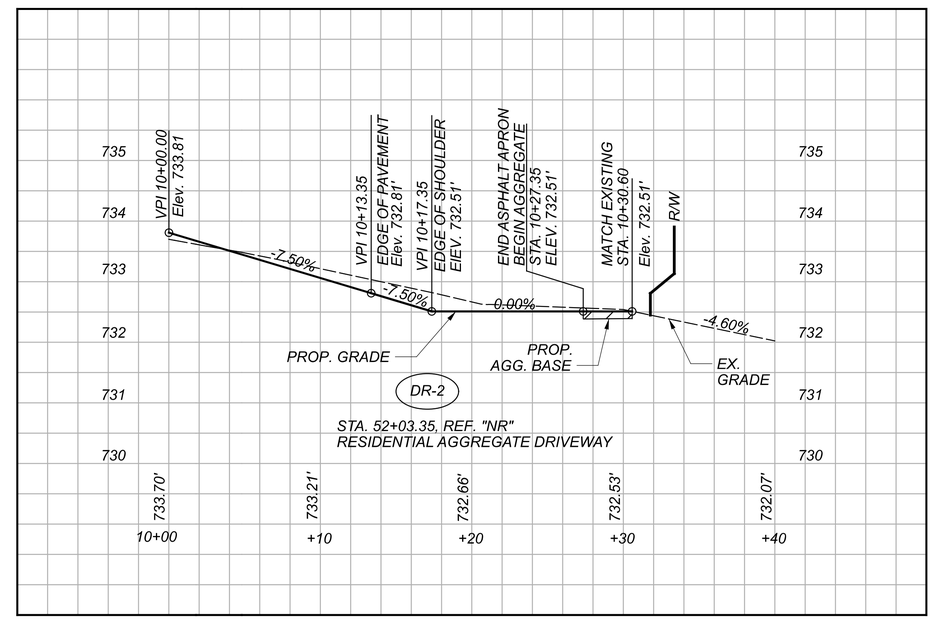

DRIVEWAY DR-1 & DR-2 COMPOSITION
ITEM 441 - 3" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448 DRIVEWAYS) PG64-22
ITEM 304 - 6" AGGREGATE BASE

BEHIND APRON
ITEM 304 - 9" AGGREGATE BASE

HORIZONTAL SCALE IN FEET
0 5 10 20

DRIVE DETAILS
LOCKBOURNE ROAD - NORTH LEG

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
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www.arcadis.com

DESIGNER
EJT

REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 56 TOTAL 91

FRA-317-1.46

MODEL: Plan [(Sheet)] PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:42:09 AM USER: MBurger
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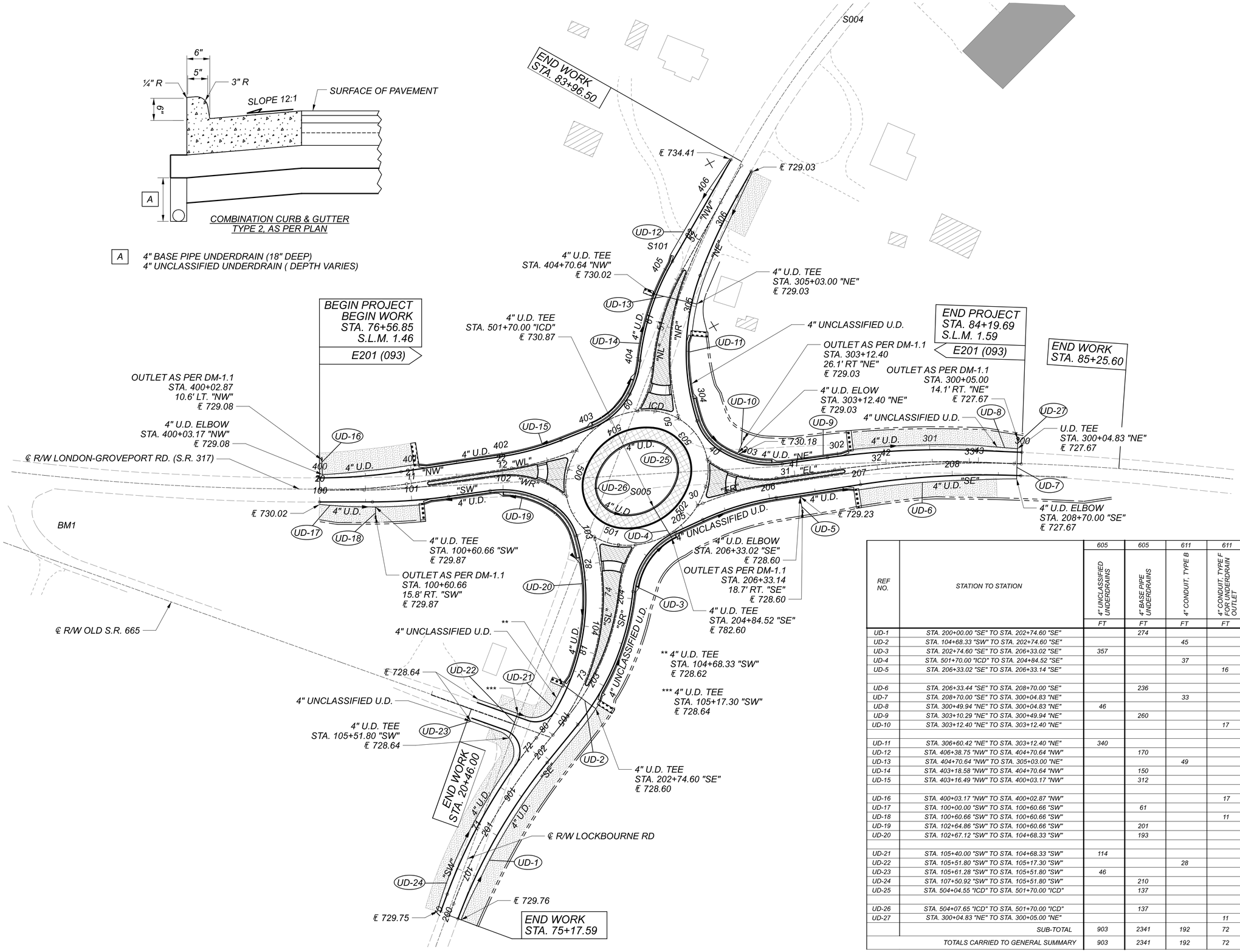

REF NO.	STATION TO STATION	605 4" UNCLASSIFIED UNDERDRAINS	605 4" BASE PIPE UNDERDRAINS	611 4" CONDUIT, TYPE B	611 4" CONDUIT, TYPE F FOR UNDERDRAIN OUTLET	611 PRECAST, REINFORCED CONCRETE OUTLET
		FT	FT	FT	FT	EACH
UD-1	STA. 200+00.00 "SE" TO STA. 202+74.60 "SE"		274			
UD-2	STA. 104+68.33 "SW" TO STA. 202+74.60 "SE"			45		
UD-3	STA. 202+74.60 "SE" TO STA. 206+33.02 "SE"	357				
UD-4	STA. 501+70.00 "ICD" TO STA. 204+84.52 "SE"			37		
UD-5	STA. 206+33.02 "SE" TO STA. 206+33.14 "SE"				16	1
UD-6	STA. 206+33.44 "SE" TO STA. 208+70.00 "SE"		236			
UD-7	STA. 208+70.00 "SE" TO STA. 300+04.83 "NE"			33		
UD-8	STA. 300+49.94 "NE" TO STA. 300+04.83 "NE"	46				
UD-9	STA. 303+10.29 "NE" TO STA. 300+49.94 "NE"		260			
UD-10	STA. 303+12.40 "NE" TO STA. 303+12.40 "NE"				17	1
UD-11	STA. 306+60.42 "NE" TO STA. 303+12.40 "NE"	340				
UD-12	STA. 406+38.75 "NW" TO STA. 404+70.64 "NW"		170			
UD-13	STA. 404+70.64 "NW" TO STA. 305+03.00 "NE"			49		
UD-14	STA. 403+18.58 "NW" TO STA. 404+70.64 "NW"		150			
UD-15	STA. 403+16.49 "NW" TO STA. 400+03.17 "NW"		312			
UD-16	STA. 400+03.17 "NW" TO STA. 400+02.87 "NW"				17	1
UD-17	STA. 100+00.00 "SW" TO STA. 100+60.66 "SW"		61			
UD-18	STA. 100+60.66 "SW" TO STA. 100+60.66 "SW"				11	1
UD-19	STA. 102+64.86 "SW" TO STA. 100+60.66 "SW"		201			
UD-20	STA. 102+67.12 "SW" TO STA. 104+68.33 "SW"		193			
UD-21	STA. 105+40.00 "SW" TO STA. 104+68.33 "SW"	114				
UD-22	STA. 105+51.80 "SW" TO STA. 105+17.30 "SW"			28		
UD-23	STA. 105+61.28 "SW" TO STA. 105+51.80 "SW"	46				
UD-24	STA. 107+50.92 "SW" TO STA. 105+51.80 "SW"		210			
UD-25	STA. 504+04.55 "ICD" TO STA. 501+70.00 "ICD"		137			
UD-26	STA. 504+07.65 "ICD" TO STA. 501+70.00 "ICD"		137			
UD-27	STA. 300+04.83 "NE" TO STA. 300+05.00 "NE"				11	1
	SUB-TOTAL	903	2341	192	72	5
	TOTALS CARRIED TO GENERAL SUMMARY	903	2341	192	72	5

HORIZONTAL SCALE IN FEET
0 25 50 100

UNDERDRAIN DETAIL

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 895-3700
www.arcadis.com

DESIGNER
EJT

REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 57 TOTAL 91

FRA-317-1.46

MODEL: Plan 5 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:42:21 AM USER: MBurger
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GENERAL NOTES

The City of Columbus, Construction and Material Specifications, 2018 edition and all revisions, including all supplements thereto, shall govern all construction items that are a part of this plan, unless otherwise noted.

All water main materials and installations shall be in accordance with the current rules and regulations of the City of Columbus, Division of Water. All City of Columbus, Division of Water Standard Drawings shall apply to the project, unless otherwise noted.

For any emergencies involving the water distribution system, please contact the Division of Water Distribution Maintenance Office at 614-645-7788.

All brass fittings associated with water work, including repairs to the existing system, shall conform to the revised allowable lead extraction limit per the updated NSF/ANSI 61 Standard. The Division of Water's Approved Materials List has been updated to reflect this requirement.

It shall be unlawful for any person to perform any work on City of Columbus water main systems without first securing license to engage in such work, as indicated in Columbus City Code Section 1103.02 and 1103.06. This work includes any attachments, additions to or alterations in any city service pipe or appurtenances (including water service lines and taps). This requirement may be met by utilization of a subcontractor who holds a City of Columbus Water Contractor License or a Combined Water/Sewer Contractor License to perform this work. Utilization of a subcontractor must meet the licensing requirements of City of Columbus Building Code, in particular Section 4114.119 and 4114.529.

The Contractor shall obtain the proper hydrant permit(s), and pay any applicable fees, for any approved hydrant usage deemed necessary for work under this improvement. Permits may be obtained through the Division of Water Permit Office (645-7330). The contractor shall adhere to all rules & regulations governing said permit and must have the original permit on site anytime in which the hydrant is in use. Permits may be obtained by accesing http://portal.columbus.gov/permits/. Cost to be included in the various bid items.

All water mains shall be cleaned and flushed, and any water main 12-inch and larger must be properly pigged, in accordance with section 801.13 of the City of Columbus, Construction and Material Specifications.

All water mains shall be pressure tested in accordance with section 801.14 of the City of Columbus, Construction and Material Specifications. The City may not approve any test lasting less than two hours, regardless of the amount of leakage.

All water mains shall be disinfected in accordance with section 801.15 of the City of Columbus Construction and Material Specifications. Special attention is directed to applicable sections of A.W.W.A. C-651. When the water mains are ready for disinfection, the Inspector shall submit a written request for chlorination of the mains that need disinfected, three (3) sets of "as-built" plans (full size sheets only), the as-built survey coordinates, water service reports and a pressure test to the City of Columbus, Division of Water. The contractor shall be responsible for all costs associated with the disinfection of all water mains constructed under this plan.

Any section of water main that is longer than 20 feet in length shall be chlorinated. Hand swabbing methods will only be permitted for sections less than or equal to 20 feet in length. Use unscented household bleach for hand swabbing of pipe and fittings. Please note that cut-in-tees, sleeves, and any other required fittings or piping shall be taken into account and are included in the total length of the section (cut to cut).

Only one connection to an existing water main is permitted before disinfection of a new water main has been completed. All other connections must be made after the main has been disinfected.

All fire hydrants to be installed in the City of Columbus shall be painted with the color "Safety Orange". The fire hydrants shall be provided with two coats in a gloss enamel of the "Safety Orange" color for the entire hydrant. The tops of the fire hydrants are no longer required to be painted black. After installation of fire hydrants, the Contractor is responsible to apply touch up paint to any damage to the factory applied hydrant paint. Hydrants will not be accepted until any paint damage from shipping or installation has been repaired. Use hydrant touch up paint in accordance with the approved materials list.

All fire hydrants, whether new or relocated, shall be inspected and approved by the Division of Fire prior to being put into service. The contractor shall contact the Division of Fire at 645-7642 ext. 75658 to schedule the inspection of the new or relocated fire hydrants. The City will provide the contractor "OUT OF SERVICE" rings that shall be placed on all new or relocated fire hydrants to clearly identify them as inactive. After written notification of acceptance has been received and final water main connections have occured, the contractor shall remove the "OUT OF SERVICE" rings from the hydrants. All "OUT OF SERVICE" rings shall be returned to the City. All coordination and work required to test and accept the fire hydrant shall be included in the price bid item 809.

Maintain eighteen (18) inches vertical and ten (10) feet horizontal separation between any sanitary or storm sewer piping and all proposed water mains.

When crossing the existing water main, and Low Strength Mortar (Item 613) is to be used as backfill, the Contractor shall provide Size No. 57 Crushed Carbonate Stone (CCS) 1 foot below to 1 foot above the existing water main.

If during excavation, the polyethylene encasement on the existing water main becomes damaged, the contractor shall repair the polyethylene encasement per manufacturer's specifications and DOW Standard Drawings L-1003 and L-1004, at their own expense. Ensure that the entire exposed area is covered with new polyethylene encasement and securely taped, prior to backfilling.

Contractor shall adhere to the requirements of the Ohio Administrative Code Chapter 3745-83-02 Water Disruption of Service Rule. Excavate pits sufficiently below the area to be connected to in order to maintain water levels below the water main. If water from the pit enters the existing main, contact Division of Water immediately. Ensure that sufficiently sized pumps are utilized to remove water from the trench and backup pumps are kept on site for redundancy.

"Survey Coordinates" shall include all material, equipment, and labor necessary to obtain horizontal and vertical (northing, easting, and centerline elevation) survey coordinates for the water main improvements. The survey coordinates shall be obtained for the completed water main construction and shall include all valves, tees, crosses, bends, horizontal deflections, plugs, reducers, tapping sleeves, fire hydrants, air releases, curb stops, and casing pipe termini. Additional survey coordinates are required on the water main **every 200 feet** where no fitting or other water main structure is being installed within that length of the improvement.

All survey coordinates shall be referenced to the applicable County Engineer's Monuments, and shall be based on the North American Datum of 1983 (NAD 83) with the (NSRS2007) adjustment, with further reference made to the Ohio State Plane South Coordinate System, South Zone, with elevations based on NAVD 88 datum. All coordinates (Northing, Easting, Centerline Elevation) shall be referenced to the nearest hundredth (N xxxxxx.xx, E xxxxxx.xx, C/L Elev. xxx.xx). All survey coordinates shall be accurate to within 1.0 foot horizontal and a tenth of a foot (0.10) or less vertical.

The coordinates shall be documented to the Engineer in digital spreadsheet form and shall include the applicable item, station, northing, easting, and centerline elevation. Coordinates shall be submitted to the Engineer on a biweekly basis. Coordinates shall also be required to be submitted to the Division of Water as part of the request for chlorination.

Lump sum payment is full compensation for all work involved in obtaining and documenting the survey coordinates as described in this specification.

All water main valve boxes, water tap boxes, test stations, pitometer tap structures, meter pit covers, and other surface utility structures within the disturbed area shall be adjusted to grade. Any of these structures located within pavement, driveways, or other traveled areas, whether existing or proposed, shall be equipped with a traffic rated, heavy duty valve box and/or cover in accordance with the Standard Drawings. Existing water tap boxes to remain that are encountered within the project limits shall be cleaned out, centered over the curb stop, and adjusted to the proposed grade.

Riser rings will not be permitted on any newly installed valve boxes to bring valves to final grade. The contractor shall ensure that the boxes are installed at the correct grade for final paving operations and that their paving contractor installs pavement correctly at lids during paving operations. Valve lids are not permitted to set above final grade and shall be a maximum of ¼" below final grade.

Where new conduit is proposed to cross an existing or proposed water main or water tap/service line, a minimum of 12-inches of vertical clearance shall be maintained between the conduit and the water main or tap/service line. A minimum of 3-feet of horizontal clearance (out to out) is required at locations where the conduit is parallel to the water main and at locations of water main thrust blocks.

A minimum of 3 feet of horizontal clearance (out to out) shall be maintained between all existing water mains and foundations for poles, pull boxes, push button pedestals, and any other miscellaneous electrical structure.

A minimum of 4 feet of cover is required prior to pressure testing any water main. A sufficient amount of backfill shall be installed to provide the adequate restraint in areas where required.

During construction, the Contractor shall use extreme caution not to damage the existing 24 inch water main due to minimal cover.

Where indicated on the plans, the existing water main shall be abandoned; and any existing water service lines off this main shall be transferred to the new water main. Prior to abandonment of the existing water main, the proposed water main shall be pigged (if required), tested, chlorinated and put in service and then the existing water service lines shall be transferred. The Contractor shall maintain water service to all properties during construction of the new water main and shall notify all customers affected by the transfer of water service lines. To ensure that all existing water service lines are transferred to the new main, no water main shall be abandoned until the new water main has been put in service; all affected water service lines have been transferred; and the existing water main to be abandoned has been shut down for 24 hours. All visible valve boxes, fire hydrants, and water tap boxes on the water main to be abandoned, which will no longer be in service, shall be removed. All water mains to be abandoned shall be made water tight. The required surface restoration shall be paid for under the appropriate bid item(s).

The Contractor shall coordinate his work such that no water customer will have their service disrupted more than two (2) times throughout the duration of this project.

The contractor is required to submit a sequence of construction to the City at the Preconstruction Conference. This sequence ofconstruction should also detail the contractor's plans for testing and chlorination of the new mains, 5 of 6 Version 2020-08-21 including the source of the water and location of temporary chlorination and blow-off taps. The City shall have the right to approve, reject or modify the construction sequence to ensure that the interruptions are held to a minimum. Note: The City may take up to 10 working days to respond to this submittal.

Site is located within the Wellfield Protection Area as established by Chapter 1115 of the City of Columbus Codes. As such, all construction activities must be done in compliance with Chapter 1115. For any questions, contact the Wellfield Protection Coordinator for the City of Columbus located at the Parsons Avenue Water Plant, 5600 Parsons Avenue, Lockbourne, Ohio 43137. Phone: (614) 645-3227; Email: reandrews@columbus.gov.

ITEM SPECIAL - 24" WATER PIPE & FITTINGS

All 24" water pipe and fittings shall conform to Item 801 of the current City of Columbus CMS with the removal of restrained joints, isolation kits, and bonding of the joints.

ESTIMATE OF QUANTITIES

ITEM	DESCRIPTION	TOTAL	UNIT
801	12 INCH WATER PIPE & FITTINGS	20	FT
SPECIAL	24 INCH WATER PIPE & FITTINGS	579	FT
802	12 INCH VALVE & APPURTENANCES	1	EA
802	24 INCH BUTTERFLY VALVE & APPURTENANCES	2	EA
808	CUT AND PLUG (CAP) 24 INCH MAIN	2	EA
808	12 INCH WATER MAIN ABANDONED	1	EA
808	24 INCH WATER MAIN ABANDONED	1	EA
809	FIRE HYDRANT RELOCATED	1	EA
SPECIAL	SURVEY COORDINATES	LUMP	
CARRIED TO GENERAL SUMMARY			

SURVEY COORDINATES

SHEET	DESCRIPTION	STREET	STATION	OFFSET	AS-BUILT NORTHING	AS-BUILT EASTING	C/L ELEV.
59	12-INCH VALVE	LONDON GROVEPORT ROAD	79+10.76	54.65' LT.			
59	24-INCH 11.25° HORIZ. BEND	LONDON GROVEPORT ROAD	77+36.10	24.98' LT.			
59	24-INCH VALVE	LONDON GROVEPORT ROAD	77+70.80	31.52' LT.			
59	24-INCH X 6-INCH ANCHOR TEE	LONDON GROVEPORT ROAD	78+65.06	47.77' LT.			
59	6-INCH VALVE	LONDON GROVEPORT ROAD	78+65.85	42.84' LT.			
59	FIRE HYDRANT	LONDON GROVEPORT ROAD	78+67.37	34.30' LT.			
59	24-INCH HORZ. DEFLECTION	LONDON GROVEPORT ROAD	78+82.55	50.66' LT.			
59	24-INCH 45° HORIZ. BEND	LONDON GROVEPORT ROAD	79+02.21	54.41' LT.			
59	24-INCH X 12-INCH TEE	LONDON GROVEPORT ROAD	79+07.95	50.51' LT.			
60	24-INCH 45° HORIZ. BEND	LONDON GROVEPORT ROAD	80+79.68	66.18' RT.			
60	24-INCH HORZ. DEFLECTION	LONDON GROVEPORT ROAD	81+19.08	58.66' RT.			
60	24-INCH HORZ. DEFLECTION	LONDON GROVEPORT ROAD	81+58.91	52.36' RT.			
60	24-INCH VALVE	LONDON GROVEPORT ROAD	82+55.69	37.03' RT.			
60	24-INCH 11.25° HORIZ. BEND	LONDON GROVEPORT ROAD	82+75.62	33.48' RT.			

WATERLINE INSPECTION

The City of Columbus will provide inspection for the waterline work The contractor shall provide 14 days notice to the Department of Public Utilities (DPU) to arrange inspection. Inspection fees by DUP are waived for this project. Please Contact David Finney at DLZ. dfinney@dlz.com or 614-888-0040 ext 337 (office) 740-709-1614 (cell) to arrange for waterline inspection services.

WATERLINE GENERAL NOTES

DESIGN AGENCY
ARCADIS
222 SOUTH MAIN STREET SUITE 200
AKRON, OHIO 44308
(330) 434-1455
www.arcadis.com

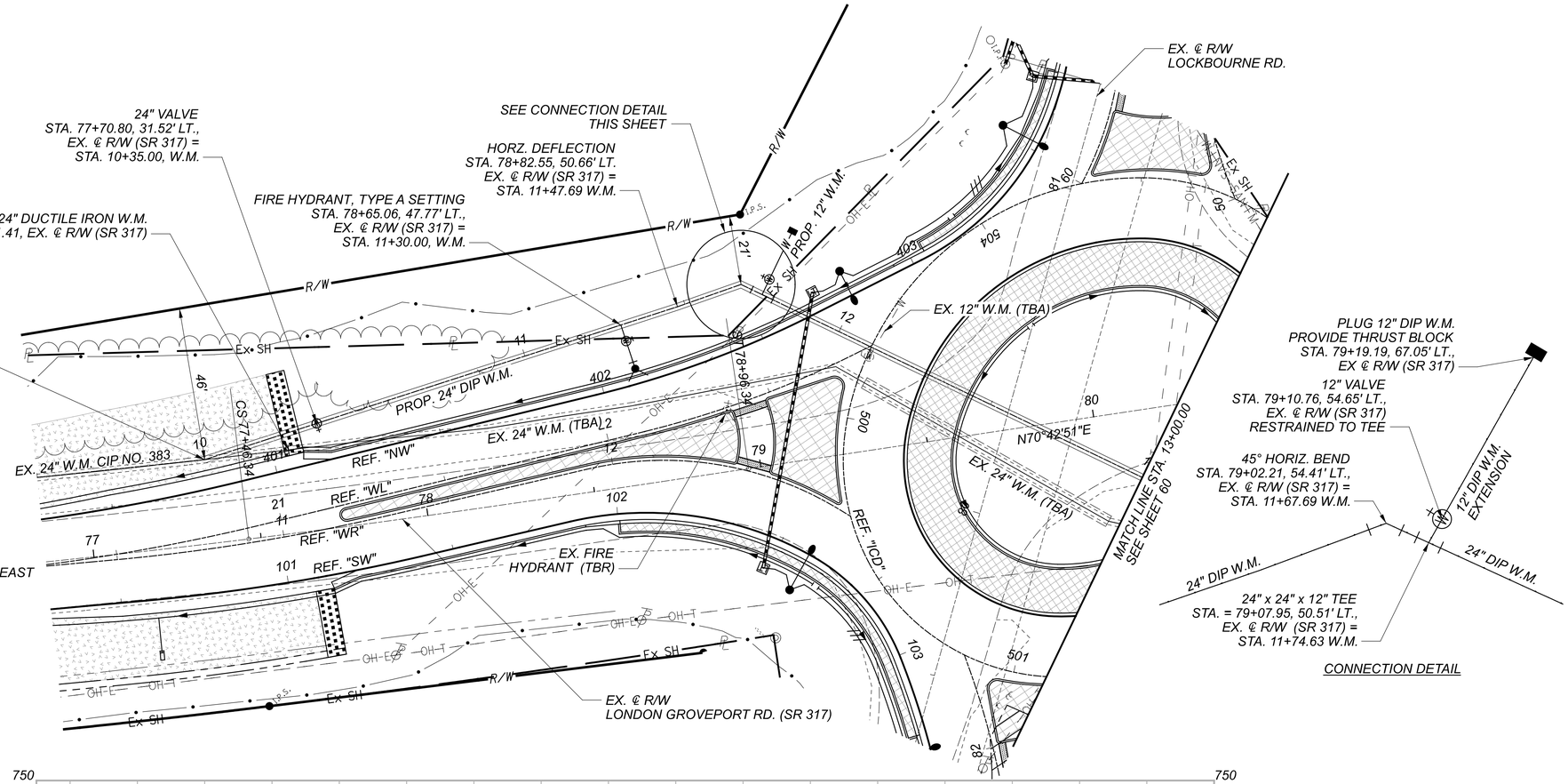
DESIGNER
TR

REVIEWER
MJB 04-01-21

PROJECT ID
109581

SHEET 58 TOTAL 91

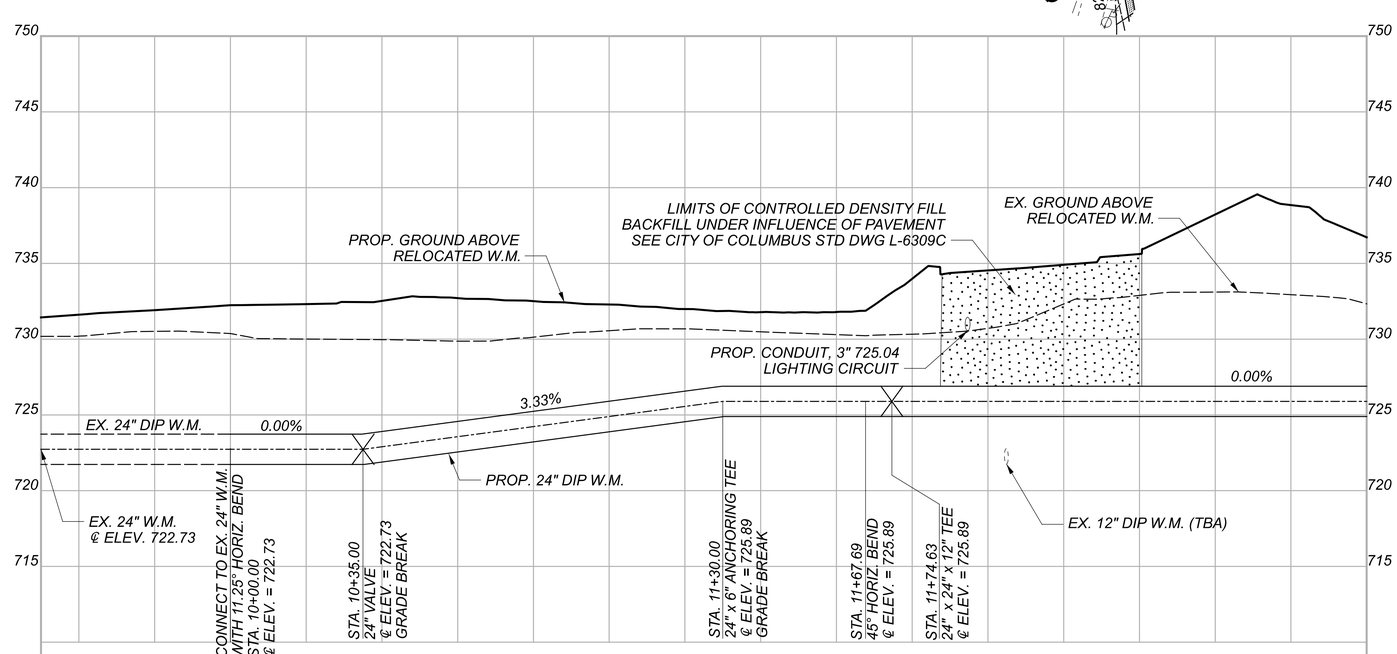
LEGEND
(TBR) - TO BE REMOVED
(TBA) - TO BE ABANDONED



CONNECTION DETAIL

NOTE

1. NEW WATER MAIN MUST BE BUILT, TESTED, AND CHLORINATED, WITHOUT ANY CONNECTIONS. ONCE PASSED, BOTH TIE-INS MUST BE MADE WITHIN THE SAME SHUT DOWN.
2. NEAREST VALVES OUTSIDE PROJECT LIMITS FOR EXISTING WATER LINE SHUTDOWN LOCATED APPROXIMATELY AT THE FOLLOWING LOCATIONS:
   A. NEAR PARSONS AVE. TO THE WEST
   B. ALONG ACCESS DRIVE JUST WEST OF RAILROAD TO THE EAST



W.M. STATION	10+00.00	10+50.00	11+00.00	11+50.00	12+00.00	12+50.00
EX. GROUND	730.37	729.92	730.56	730.39	730.71	733.09
C/L PIPE	722.73	722.73	725.35	725.89	725.89	725.89
CUT	9.14	8.69	6.71	6.00	6.32	8.70
	10		11		12	

HORIZONTAL SCALE IN FEET
0 10 20 40

WATER WORKS PLAN AND PROFILE

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 985-9100
www.arcadis.com

DESIGNER
TR

REVIEWER
MJB 04-01-21

PROJECT ID
109581

SHEET 59 TOTAL 91

FRA-317-1.46

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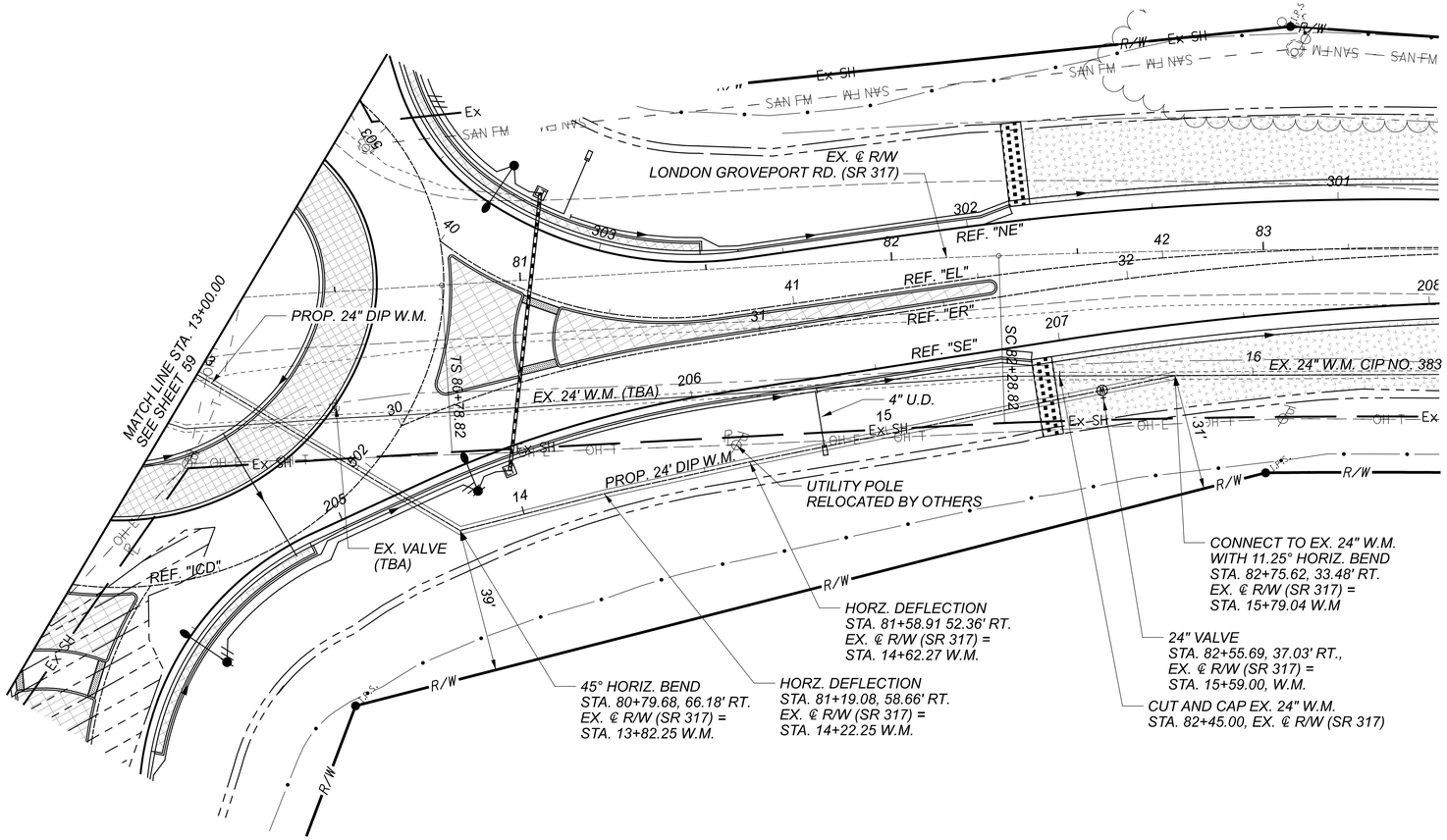

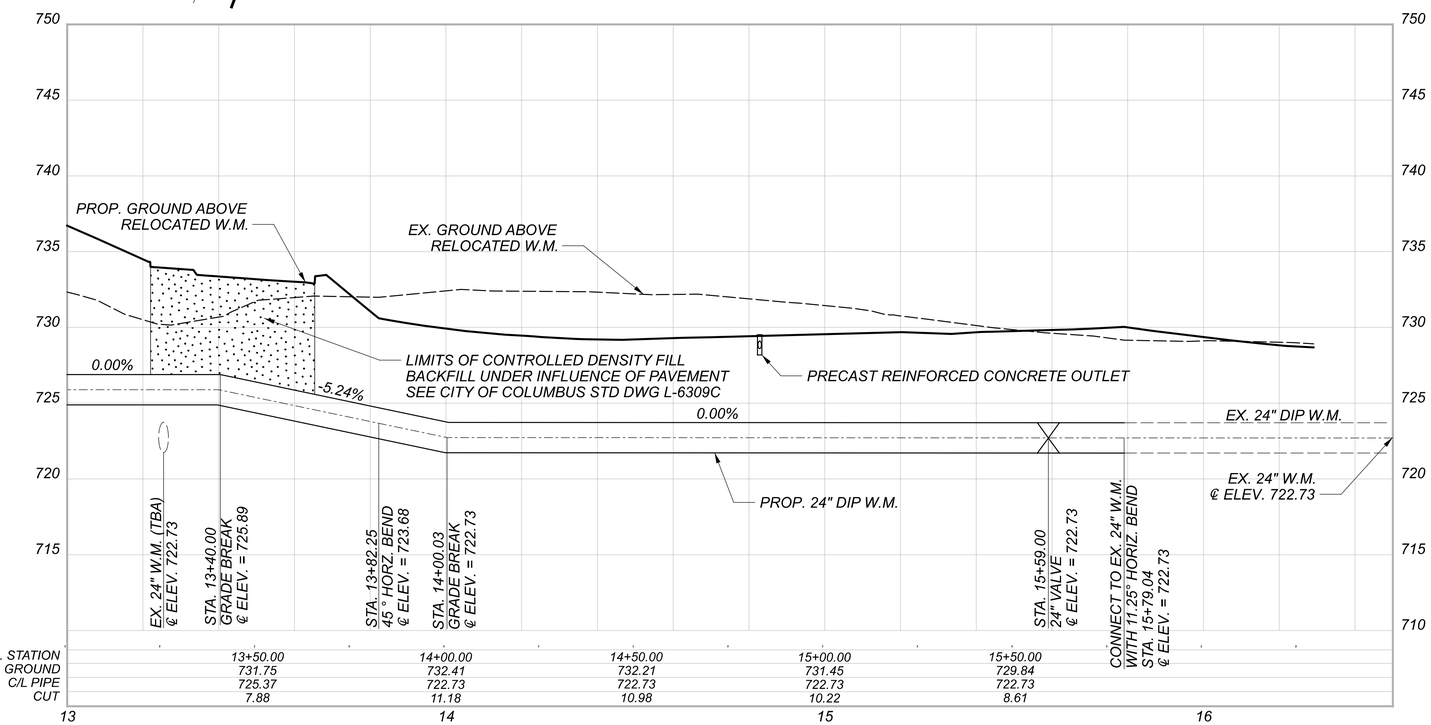

HORIZONTAL SCALE IN FEET
0 10 20 40

WATER WORKS PLAN AND PROFILE

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 985-9100
www.arcadis.com

DESIGNER
TR

REVIEWER
MJB 04-01-21

PROJECT ID
109581

SHEET 60 TOTAL 91

FRA-317-1.46

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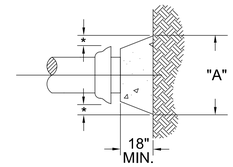
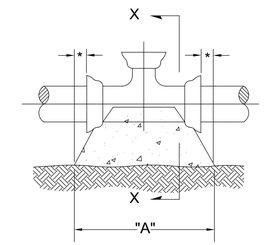
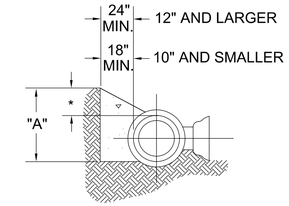


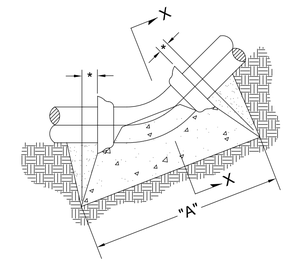
PLUG



PLAN VIEW OF TEE



SECTION VIEW X-X



HORIZONTAL BEND
VERTICAL BEND (UPWARD)

"A" (IN INCHES) FOR HORIZONTAL BENDS

	DEGREE OF BEND			
SIZE	11 1/4°	22 1/2°	45°	TEE/PLUG
24"	33"	46"	64"	74"

* 6" MINIMUM

NOTE - DIMENSIONS CALCULATED ASSUMING A WATER PRESSURE OF 250 PSI.

TYPICAL CONCRETE THRUST BLOCKING

WATERLINE DETAILS

DESIGN AGENCY
ARCADIS
222 SOUTH MAIN STREET SUITE 200
AKRON, OHIO 44308
(330) 434-1850
www.arcadis.com

DESIGNER
TR

REVIEWER
MJB 04-01-21

PROJECT ID
109581

SHEET 61 TOTAL 91

FRA-317-1.46

MODEL: Sheet 1 PAPERSIZE: 34x22 (in.) DATE: 9/9/2021 TIME: 10:38:10 AM USER: MBurger
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ITEM 630 GROUND MOUNTED SUPPORT, AS PER PLAN

Ground mounted post supports shall be a square post with anchor base as per detail on ODOT Standard Drawing TC-41.20. All posts shall be 2"x2" 12 gauge square tubing with open holes and all anchor bases shall be 2¼"x2¼" 12 gauge square tubing with open holes.

ITEM 630 SIGN, FLAT SHEET, AS PER PLAN

In addition to 630, all reflective sign sheet material shall be 3M Diamond Grade DG3, Avery Dennison Omnicube or approved equal. The material shall meet ASTM Type XI Specifications. No signs shall be digitally printed. All shall use either reverse silk screen transparent ink, or transparent acrylic electronic cuttable film or direct applied reflective copy. Whatever methodology is used, all must be part of a matched component system.

ITEM 630 SIGNING, MISC.: REMOVAL OF STREET NAME SIGN SUPPORT AND FOUNDATION

The Contractor shall remove the street name sign poles and anchor foundations as shown in the plans. The Contractor shall deliver the poles and foundations to the Franklin County Engineer's Office at 970 Dublin Rd, Columbus, OH, 43215. The Contractor shall notify the County's Mobility Department (614-525-5318) 2 days in advance of delivering the signs.

ITEM 630 STREET NAME SIGN SUPPORT, AS PER PLAN

The sign support shall be a HAPCO 16', 6" to 4" tapered aluminum pole, model #TT64DA162018190, 0.188" wall thickness, satin finish with cap, base flange #73407 with bolt covers, 9" to 10" dia. bolt circle, or approved equal. Approximately 15 shims shall be provided with each pole.

The foundation shall be a chance model #C11232JG4VL or approved equal. Installation shall be achieved by the use of a digger/derrick truck that meets the foundation manufacturer's specification. Care must be taken at the beginning of installation to keep the foundation plumb. If objects are encountered that make this impossible, the foundation shall be removed and relocated.

Payment for Item 630 Street Name Sign Support, As Per Plan includes furnishing and installing the sign supports, foundations, and all miscellaneous hardware needed to completely install the assembly.

ITEM 630 SIGNING, MISC.: STREET NAME BRACKET

Each street name sign will require two cantilever brackets (one for top and one for the bottom of each sign) varying from sizes 36" up to 72" in length.

Each 36", 42", or 48" cantilever bracket shall be a signfix HDTE (heavy-duty double tee), or equal, and shall include one offset banding plate attached to the cantilever bracket, and one banding strap.

Each 54", 60", 66" or 72"cantilever bracket shall be a signfix RHDTE (ribbed heavy-duty double tee), or equal, and shall include two offset banding plates, mounted back-to-back, and attached to the cantilever bracket, and two banding straps.

All banding material used to install the street name signs shall be stainless steel (bands and banding plates). The bands shall be ultra-lok 200 series, ¾" width with a thickness of 0.030" or approved equal.

Payment for Item 630 Signing Misc.: Street Name Bracket, As Per Plan includes all labor, material, and hardware needed to attach the street name signs to the sign supports. A quantity of two street name brackets are required to attach each street name sign.

ITEM 644 THERMOPLASTIC PAVEMENT MARKING (BY TYPE), AS PER PLAN

This work shall conform to ODOT Item 644 Thermoplastic Pavement Markings with the following exceptions:

1. *The Contractor shall provide a TE-24 certification for thermoplastic used on County projects.*
2. *The Contractor shall lay out the locations of all lines, words and symbols to ensure their proper placement.*
3. *The layout and pre-marking of all pavement marking shall be submitted to the County Mobility Engineer for approval a minimum of 5 business days before striping operations begin. Contact Mobility Engineer @ 614-525-6158.*
4. *Damage resulting from the daily operations of the work outlined in this contract to pavement markings on roadways outside of the designated work area shall be corrected at the contractors expense.*
5. *The application of thermoplastic material under this item shall begin no sooner than 14 days, or later than 21 days after the completion of asphalt paving operations on each individual roadway.*

ITEM 644 - PAVEMENT MARKING, MISC.: DOTTED LINE, WHITE

The dotted line shall be 12" wide and have a 2' segment. There shall be a 2' gap between each segement.

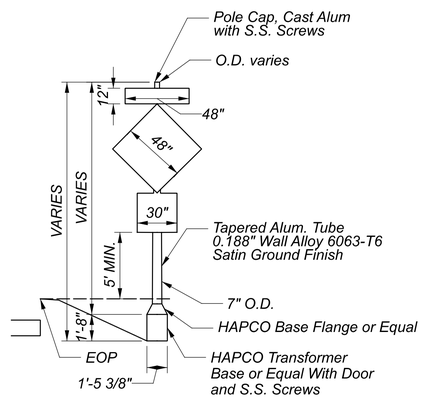
ITEM 630 SIGNING, MISC.: ADVANCE ROUNDABOUT WARNING SIGN ASSEMBLY

The sign support shall be a variable height, 7" to 4½" tapered aluminum pole, 0.188" wall thickness, satin finish with cap, 15" bolt circle base flange with bolt covers, and transformer base with door and stainless steel screws, as manufactured by HAPCO Poles (Dwg. No. A18808), P&K Tubular Products, or approved equal.

The foundation shall be galvanized tubular steel, 72" long, 8.63" dia., and .25" wall thickness, with baseplate, 2.5"x18" access slots, helix auger with pilot point, as manufactured by CHANCE (Hubbell Power Systems) Cat. # T112-0426, Pelco Products Inc., or approved equal. Installation shall be achieved by the use of a digger/derrick truck that meets the foundation manufacturers specification.

Advance roundabout warning signing shall be attached via the following:
- *48" x 48" warning sign secured to pole via 4 attachment assemblies.*
- *30" x 30" speed plaque secured to pole via 2 attachment assemblies.*
- *xx" x 12" street name plaque secured to pole via 2 attachment assemblies.*

Each attachment assembly shall consist of the following hardware:
- *1½" SS brackets*
- *¾" X .044" SS banding*
- *5" x 4" x 0.100 aluminum bearing plate with each bracket (between the bracket and the sign)*
- *5/16" SS bolts attaching the sign to the bracket*



Galv. Steel Connecting Hardware:

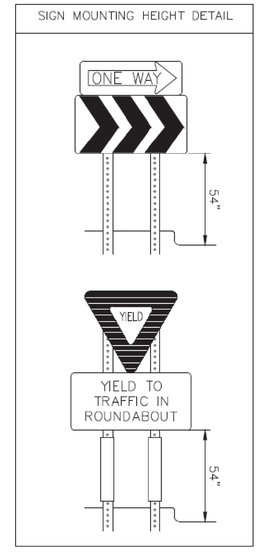
(4) 1" - 8NC X 3 3/4" Long Hex Hd. Bolts
(4) 1" - 8NC Hex Nuts
(4) 1" Lockwashers
(4) 1" Flatwashers

ADVANCE ROUNDABOUT WARNING SIGNAGE SHALL BE ATTACHED VIA THE FOLLOWING:

- *48" x 12" signage secured to HAPCO pole via 2 attachment assemblies.*
- *48" x 48" signage secured to HAPCO pole via 4 attachment assemblies.*
- *30" x 30" signage secured to HAPCO pole via 2 attachment assemblies.*

EACH ATTACHMENT ASSEMBLY SHALL CONSIST OF THE FOLLOWING HARDWARE:

- *1 1/2" SS brackets*
- *Banded to the pole with ¾" x .044" SS banding*
- *Include a 5" x 4" x 0.100 aluminum bearing plate with each bracket (between the bracket and the sign)*
- *5/16" SS bolts attaching the sign to the bracket*



NOTE: CONTRACTOR SHALL FIELD VERIFY LOCATION OF PROPOSED SIGNS LOCATED IN ROUNDABOUT. THE CONTRACTOR SHALL ADJUST LOCATIONS IF SIGNS DETERMINED TO BE BLOCKED AS DETERMINED BY THE ENGINEER.

ITEM 630 SIGNING, MISC.: STREET NAME SIGN SUPPORT, ROUNDABOUT

The sign support shall be an 8'-6" long, 6" to 4" tapered aluminum pole, 0.188" wall thickness, satin finish with cap, and 9" to 10" dia. bolt circle base flange with bolt covers, as manufactured by HAPCO Poles, Cat. # TT64DA072018100 (Dwg. # A30128), P&K Tubular Products, or approved equal. Approximately 15 shims shall be provided with each pole. The sign shall have a minimum vertical clearance of 7' above the edge of the travelled way.

The foundation shall be galvanized tubular steel, 60" long, 6.63" dia., and .28" wall thickness, with baseplate, 2.5"x12" access slots, helix auger with pilot point, as manufactured by CHANCE (Hubbell Power Systems) Cat. # C11232JG4VL, Pelco Products Inc., or approved equal. Installation shall be achieved by the use of a digger/derrick truck that meets the foundation manufacturers specification. Care must be taken at the beginning of installation to keep the foundation plumb. If objects are encountered that make this impossible, the foundation shall be removed and relocated.

Payment for furnishing and installing the sign supports, foundations, and all miscellaneous hardware needed to completely install the assembly shall be included in the unit price bid per each for Item 630 Street Name Sign Support, Roundabout, As Per Plan.

TRAFFIC CONTROL GENERAL NOTES

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO, 43235
(614) 895-3700
www.arcadis.com

DESIGNER: EJT
REVIEWER: BKM 03/18/20
PROJECT ID: 109581
SHEET 62 TOTAL 91

SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	SIGN, FLAT SHEET, AS PER PLAN (630)	GROUND MOUNTED SUPPORT, NO. 2 POST, AS PER PLAN	GROUND MOUNTED SUPPORT, NO. 3 POST, AS PER PLAN	STREET NAME SIGN SUPPORT, AS PER PLAN	SIGN POST REFLECTOR	SIGNING, MISC.: REMOVAL OF STREET NAME SIGN SUPPORT AND FOUNDATION	REMOVAL OF GROUND MOUNTED SIGN & DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT & DISPOSAL	SIGNING, MISC.: ADVANCE ROUNDABOUT WARNING SIGN ASSEMBLY	SIGNING, MISC.: STREET NAME BRACKET	SIGNING MISC.: STREET NAME SIGN SUPPORT, ROUNDABOUT		
							SQ. FT.	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH		
67	R-1	LONDON-GROVEPORT RD	76+27.00	LT./RT.									4	2					
68	R-1	LOCKBOURNE RD	80+63.00	LT.									1	1					
68	R-2	LOCKBOURNE RD	80+63.00	LT.								1	2						
68	R-3	LOCKBOURNE RD	79+65.00	LT.									1	1					
68	R-4	LOCKBOURNE RD	79+83.00	RT.									1	1					
68	R-5	LOCKBOURNE RD	81+40.00	RT.									1	1					
68	R-6	LOCKBOURNE RD	81+98.00	RT.									1	1					
69	R-1	LONDON-GROVEPORT RD	83+17.00	RT.									2	1					
69	R-2	LONDON-GROVEPORT RD	83+19.00	RT.									1	1					
69	R-3	LONDON-GROVEPORT RD	83+21.00	LT.									2	1					
69	R-4	LONDON-GROVEPORT RD	85+20.00	LT.									1	2					
70	R-1	LOCKBOURNE RD	77+19.00	LT.									3	1					
70	R-2	LOCKBOURNE RD	76+80.00	LT.									1	1					
70	R-3	LOCKBOURNE RD	77+77.00	LT.									1	1					
70	R-4	LOCKBOURNE RD	77+67.00	RT.									1	1					
70	R-5	LOCKBOURNE RD	76+10.00	RT.									1	1					
71	R-1	LOCKBOURNE RD	84+49.00	LT.									1	1					
67	S-1	LONDON-GROVEPORT RD	74+30.00	RT.	W2-6-48	48" X 48"	16.0								1				
					W16-8P-48	8" X 48"	2.7												
					W13-1P-30	30" X 30"	6.3												
67	S-2	LONDON-GROVEPORT RD	77+25.00	RT.	CUSTOM	36" X 36"	9.0		30.0										
					D1-1bL-48	12" X 48"	4.0												
68	S-1	LONDON-GROVEPORT RD	77+76.00	LT.	R4-7-24	24" X 30"	5.0		13.2										
					OM1-1-18	18" X 18"	2.3												
68	S-2	LONDON-GROVEPORT RD	76+60.00	RT.	R6-1R-54	54" X 18"	6.8		30.0										
					R6-4A-48	48" x 24"	8.0												
68	S-3	LONDON-GROVEPORT RD	79+19.33	RT.	R1-2-36	36" X 36"	9.0		27.0		2								
					CUSTOM	24" X 30"	5.0												
			79+01.91		R1-2-36	36" X 36"	9.0		27.0		2								
					CUSTOM	24" X 30"	5.0												
68	S-4	LOCKBOURNE RD	79+58.15	RT.	R1-2-36	36" X 36"	9.0		27.0		2								
					CUSTOM	24" X 30"	5.0												
			79+52.23		R1-2-36	36" X 36"	9.0		27.0		2								
					CUSTOM	24" X 30"	5.0												
68	S-5	LOCKBOURNE RD	80+01.00	RT.	R6-1R-54	54" X 18"	6.8		30.0										
					R6-4A-48	48" x 24"	8.0												
68	S-6	LONDON-GROVEPORT RD	82+26.00	RT.	R4-7-24	24" X 30"	5.0		13.2										
					OM1-1-18	18" X 18"	2.3												
68	S-7	LONDON-GROVEPORT RD	80+84.40	LT.	R1-2-36	36" X 36"	9.0		27.0		2								
					CUSTOM	24" X 30"	5.0												
			81+01.29		R1-2-36	36" X 36"	9.0		27.0		2								
					CUSTOM	24" X 30"	5.0												
68	S-8	LONDON-GROVEPORT RD	80+43.00	LT.	R6-1R-54	54" X 18"	6.8		30.0										
					R6-4A-48	48" x 24"	8.0												
68	S-9	LOCKBOURNE RD	81+15.10	LT.	CUSTOM	24" X 30"	5.0		27.0		2								
					R1-2-36	36" X 36"	9.0												
			81+01.17	RT.	CUSTOM	24" X 30"	5.0		27.0		2								
					R1-2-36	36" X 36"	9.0												
68	S-10	LONDON-GROVEPORT RD	80+02.00	LT.	R6-1R-54	54" X 18"	6.8		30.0										
					R6-4A-48	48" x 24"	8.0												
68	S-11	LONDON-GROVEPORT RD	79+22.56	LT.	STREET NAME SIGN	16" X 72"	8.0									2	1		
68	S-12	LOCKBOURNE RD	79+50.30	RT.	STREET NAME SIGN	16" X 72"	8.0									2	1		
68	S-13	LONDON-GROVEPORT RD	80+81.00	RT.	STREET NAME SIGN	16" X 72"	8.0									2	1		
68	S-14	LOCKBOURNE RD	81+18.65	RT.	STREET NAME SIGN	16" X 72"	8.0									2	1		
69	S-1	LONDON-GROVEPORT RD	85+72.00	LT.	W2-6-48	48" X 48"	16.0								1				
					W16-8P-48	8" X 48"	2.7												
					W13-1P-30	30" X 30"	6.3												
69	S-2	LONDON-GROVEPORT RD	82+84.00	LT.	CUSTOM	36" X 36"	9.0		14.5										
SUBTOTALS CARRIED TO NEXT SHEET							289.8	0.0	406.9		16	1	25	18	2	8	4		

TRAFFIC CONTROL SIGNING SUBSUMMARY

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 200
COLUMBUS, OHIO 43235
(614) 895-3700
www.arcadis.com

DESIGNER: EJT
REVIEWER: BKM 03/18/20
PROJECT ID: 109581
SHEET 63 TOTAL 91

SHEET NO.	REFERENCE NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630 SIGN, FLAT SHEET, AS PER PLAN	GROUND MOUNTED SUPPORT, NO. 2 POST, AS PER PLAN	GROUND MOUNTED SUPPORT, NO. 3 POST, AS PER PLAN	STREET NAME SIGN SUPPORT, AS PER PLAN	SIGN POST REFLECTOR	SIGNING, MISC.: REMOVAL OF STREET NAME SIGN SUPPORT AND FOUNDATION	REMOVAL OF GROUND MOUNTED SIGN & DISPOSAL	REMOVAL OF GROUND MOUNTED POST SUPPORT & DISPOSAL	SIGNING, MISC.: ADVANCE ROUNDABOUT WARNING SIGN ASSEMBLY	SIGNING, MISC.: STREET NAME BRACKET	SIGNING MISC.: STREET NAME SIGN SUPPORT, ROUNDABOUT		
							SQ. FT.	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH		
69	S-3	LONDON-GROVEPORT RD	83+22.00	RT.	M3-1-24	12" X 24"	2.0		11.5										
					M1-5-24-3	24" X 24"	4.0												
69	S-4	LONDON-GROVEPORT RD	87+50.00	LT.	D1-1bL-48	12" X 48"	4.0		21.0										
69	S-5	LONDON-GROVEPORT RD	76+92.00	LT.	CUSTOM	24"X36"	6.0		11.5										
70	S-1	LOCKBOURNE RD	74+72.00	RT.	W2-6-48	48" X 48"	16.0								1				
					W16-8P-48	8" X 48"	2.7												
					W13-1P-30	30" X 30"	6.3												
70	S-2	LOCKBOURNE RD	77+62.00	RT.	CUSTOM	36" x 36"	9.0		14.5										
70	S-3	LOCKBOURNE RD	78+05.00	RT.	R4-7-24	24" X 30"	5.0		13.2										
					OM1-1-18	18" X 18"	2.3												
70	S-4	LOCKBOURNE RD	76+92.00	RT.	CUSTOM	24" X 36"	6.0		11.5										
70	S-5	OLD SR-665	20+70.00	RT.	D3-1-36	12" X 36"	3.0			1						6			
					D3-1-36	12" X 36"	3.0												
					R1-1-30	30" X 30"	6.3												
70	S-6	LOCKBOURNE RD	77+80.00	RT.	CUSTOM	24" X 48"	8.0	23.0											
70	S-7	LOCKBOURNE RD	76+81.00	RT.	R5-H2b-24	24" X 24"	4.0	11.5											
71	S-1	LOCKBOURNE RD	84+98.00	LT.	W2-6-48	48" X 48"	16.0								1				
					W16-8P-48	8" X 48"	2.7												
					W13-1P-30	30" X 30"	6.3												
71	S-2	LOCKBOURNE RD	83+08.00	LT.	CUSTOM	36" x 36"	9.0		14.5										
71	S-3	LOCKBOURNE RD	82+62.00	LT.	R4-7-24	24" X 30"	5.0		13.2										
					OM1-1-18	18" X 18"	2.3												
		SUBTOTALS FROM PREVIOUS SHEET					289.8	0.0	406.9		16	1	25	18	2	8	4		
		SUBTOTALS FROM THIS SHEET					128.9	34.5	110.9	1					2	6			
		TOTALS CARRIED TO GENERAL SUMMARY					419	35	518	1	16	1	25	18	4	14	4		

TRAFFIC CONTROL SIGNING SUBSUMMARY

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 985-9100
www.arcadis.com

DESIGNER
EJT

REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 64 TOTAL 91

FRA-317-1.46

MODEL: Sheet 2 PAPERSIZE: 34x22 (in.) DATE: 9/23/2021 TIME: 11:33:19 AM USER: MBurger
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\30040076\400_CAD\400-Engineering\Traffic\Sheets\109581_TS001.dgn

SHEET NO.	REFERENCE NO.	LOCATION	STATION FROM	STATION TO	SIDE	EDGE LINE, 6",AS PER PLAN (644)	CENTER LINE, AS PER PLAN	STOP LINE, AS PER PLAN	TRANSVERSE / DIAGONAL LINE, AS PER PLAN	PAVEMENT MARKING, MISC.: DOTTED LINE, WHITE	LANE ARROW, AS PER PLAN	WORD ON PAVEMENT, 96", AS PER PLAN
						MILE	MILE	FT	FT	FT	EACH	EACH
72	ELW-1	LONDON-GROVEPORT RD	76+57	77+50	LT.	0.02						
72	ELW -2	LONDON-GROVEPORT RD	76+57	77+50	RT	0.02						
72	CL-1	LONDON-GROVEPORT RD	76+57	77+50	RT		0.02					
72	CL-2	LONDON-GROVEPORT RD	76+57	77+50	LT./RT.		0.02					
72	TL-1	LONDON-GROVEPORT RD	76+57	77+50	LT./RT.				15			
73	CL-1	LONDON-GROVEPORT RD	77+50	77+76	LT.		0.01					
73	CL-2	LONDON-GROVEPORT RD	77+50	77+76	RT.		0.01					
73	CL-3	LONDON-GROVEPORT RD	82+26	82+50	RT.		0.01					
73	CL-4	LONDON-GROVEPORT RD	82+26	82+50	RT.		0.01					
73	ELY-1	LONDON-GROVEPORT RD	77+76	79+38	LT.	0.02						
73	ELY-2	LONDON-GROVEPORT RD	77+76	79+24	LT./RT.	0.02						
73	ELY-3	LOCKBOURNE RD	78+50	79+58	RT.	0.02						
73	ELY-4	LOCKBOURNE RD	78+50	79+66	RT.	0.02						
73	ELY-5	LONDON-GROVEPORT RD	80+66	82+26	RT.	0.03						
73	ELY-6	LONDON-GROVEPORT RD	80+79	82+26	LT./RT.	0.03						
73	ELY-7	LOCKBOURNE RD	81+10	82+50	LT./RT.	0.03						
73	ELY-8	LOCKBOURNE RD	81+02	82+50	LT./RT.	0.03						
73	ELY-9	LONDON-GROVEPORT RD & LOCKBOURNE RD			LT./RT.	0.07						
73	ELW-1	LONDON-GROVEPORT RD & LOCKBOURNE RD	77+50	78+50	LT./RT.	0.06						
73	ELW-2	LONDON-GROVEPORT RD	80+66	80+79	LT./RT.	0.01						
73	ELW-3	LOCKBOURNE RD	81+02	81+10	RT.	0.01						
73	ELW-4	LONDON-GROVEPORT RD	79+24	79+38	LT./RT.	0.01						
73	ELW-5	LOCKBOURNE RD	79+58	79+66	RT.	0.01						
73	ELW-6	LONDON-GROVEPORT RD & LOCKBOURNE RD	78+50	82+50	RT.	0.07						
73	ELW-7	LONDON-GROVEPORT RD & LOCKBOURNE RD	82+50	82+50	LT./RT.	0.07						
73	ELW-8	LONDON-GROVEPORT RD & LOCKBOURNE RD	77+50	82+50	LT.	0.08						
73	TL-1	LONDON-GROVEPORT RD	77+50	77+76	LT./RT.				15			
73	TL-2	LONDON-GROVEPORT RD	82+26	82+50	RT.				15			
73	W-1	LONDON-GROVEPORT RD	79+20		RT.							1
73	W-2	LOCKBOURNE RD	79+62		RT.							1
73	W-3	LONDON-GROVEPORT RD	80+81		LT.							1
73	W-4	LOCKBOURNE RD	81+10		LT.							1
73	DL-1	LONDON-GROVEPORT RD	79+24		RT.					41		
73	DL-2	LOCKBOURNE RD	79+66		RT.					49		
73	DL-3	LONDON-GROVEPORT RD	80+79		LT.					47		
73	DL-4	LOCKBOURNE RD	81+02		LT.					46		
73	A-1	LONDON-GROVEPORT RD	80+18		LT.						1	
73	A-2	LOCKBOURNE RD	80+05		LT.						1	
73	A-3	LONDON-GROVEPORT RD	79+86		RT.						1	
73	A-4	LOCKBOURNE RD	80+64		RT.						1	
74	ELW-1	LONDON-GROVEPORT RD	82+50	84+19	LT.	0.03						
74	ELW-2	LONDON-GROVEPORT RD	82+50	84+19	RT.	0.03						
TOTALS CARRIED TO GENERAL SUMMARY						0.67	0.07		45	183	4	4

TRAFFIC CONTROL PAVEMENT MARKING SUBSUMMARY

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 200
COLUMBUS, OHIO 43235
(614) 895-3000
www.arcadis.com

DESIGNER
EJT

REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 65 TOTAL 91

FRA-317-1.46
MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 9/23/2021 TIME: 11:19:02 AM USER: MBurger
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01Active Projects\30040076\400_CAD\400-Engineering\Traffic\Sheets\10958I_TS002.dgn

TRAFFIC CONTROL PAVEMENT MARKING SUBSUMMARY

SHEET NO.	REFERENCE NO.	LOCATION	STATION FROM	STATION TO	SIDE	644 EDGE LINE, 6",AS PER PLAN (MILE)	CENTER LINE, AS PER PLAN (MILE)	STOP LINE, AS PER PLAN (FT)	TRANSVERSE / DIAGONAL LINE, AS PER PLAN (FT)	PAVEMENT MARKING, MISC.: DOTTED LINE, WHITE (FT)	LANE ARROW, AS PER PLAN (EACH)	WORD ON PAVEMENT, 96", AS PER PLAN (EACH)
74	CL-1	LONDON-GROVEPORT RD	82+50	84+19	RT.		0.03					
74	CL-2	LONDON-GROVEPORT RD	82+50	84+19	RT.		0.03					
74	TL-1	LONDON-GROVEPORT RD	82+50	84+19	RT.				38			
75	CL-1	LOCKBOURNE RD	75+17	77+05	RT.		0.06					
75	CL-2	LOCKBOURNE RD	77+40	77+06	RT.		0.01					
75	CL-3	OLD SR 665	20+50	20+95			0.01					
75	ELW-1	LOCKBOURNE RD	480+50	480+68	LT.	0.05						
75	ELW-2	LOCKBOURNE RD	480+50	481+89	RT.	0.06						
75	ELW-3	LOCKBOURNE RD	906+61	907+52	LT.	0.03						
75	ELY-1	LOCKBOURNE RD	906+61	907+52	RT.	0.01						
75	ELY-2	LOCKBOURNE RD	78+06	78+50	RT.	0.01						
75	SL-1	OLD SR 665	20+95		RT.			11				
75	TL-1	LOCKBOURNE RD			RT.				17			
76	ELW-1	LOCKBOURNE RD	82+50	83+92	LT.	0.03						
76	ELW-2	LOCKBOURNE RD	82+50	83+92	RT.	0.03						
76	ELY-1	LOCKBOURNE RD	82+50	92+63	LT.	0.01						
76	ELY-2	LOCKBOURNE RD	82+50	82+62	LT.	0.01						
76	CL-1	LOCKBOURNE RD	82+63	83+92	LT.		0.02					
76	CL-2	LOCKBOURNE RD	82+62	83+46	RT.		0.02					
76	TL-1	LOCKBOURNE RD	82+62	83+46	LT.				16			
TOTALS CARRIED TO GENERAL SUMMARY						0.24	0.18	11	71			

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 985-9100
www.arcadis.com

DESIGNER
EJT

REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 66 TOTAL 91

FRA-317-1.46

MODEL: Sheet 2 PAPERSIZE: 34x22 (in.) DATE: 9/23/2021 TIME: 11:19:02 AM USER: MBurger
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LEGEND

PROPOSED SIGN

EXISTING SIGN TO REMAIN

EXISTING SIGN TO BE REMOVED

SIGN, SINGLE POST

SIGN, TWO POST

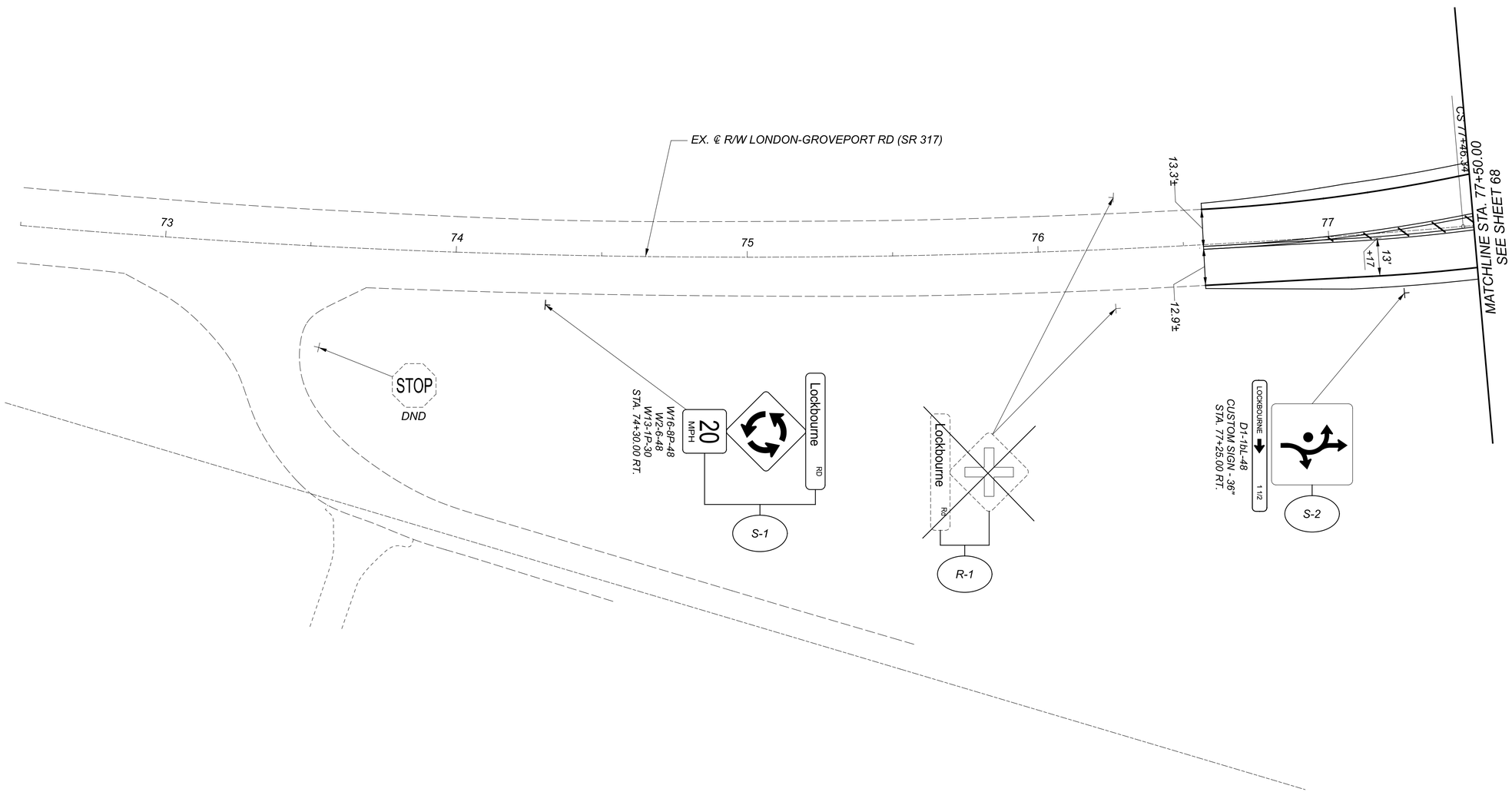
S-# SIGN INSTALLATION

R-# SIGN REMOVAL

NOTES:

1. STATIONING AND OFFSET IS BASED ON EX. ℄ R/W LOCKBOURNE RD AND EX. ℄ R/W LONDON-GROVEPORT RD (SR 317).

2. S-1 SHALL BE MOUNTED ON AN ITEM 630 SIGNING, MISC.: ADVANCE ROUNDABOUT WARNING SIGN ASSEMBLY. SEE SHEET 62 FOR DETAILS.



HORIZONTAL SCALE IN FEET

0 10 20 40

SIGNING PLAN
STATE ROUTE 317 - STA. 72+50.00 TO STA. 77+50.00

DESIGN AGENCY

ARCADIS

100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 985-9100
www.arcadis.com

DESIGNER
EJT

REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 67 TOTAL 91

FRA-317-1.46

MODEL: Plan [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/27/2021 TIME: 2:11:21 PM USER: MBurger
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NOTES:

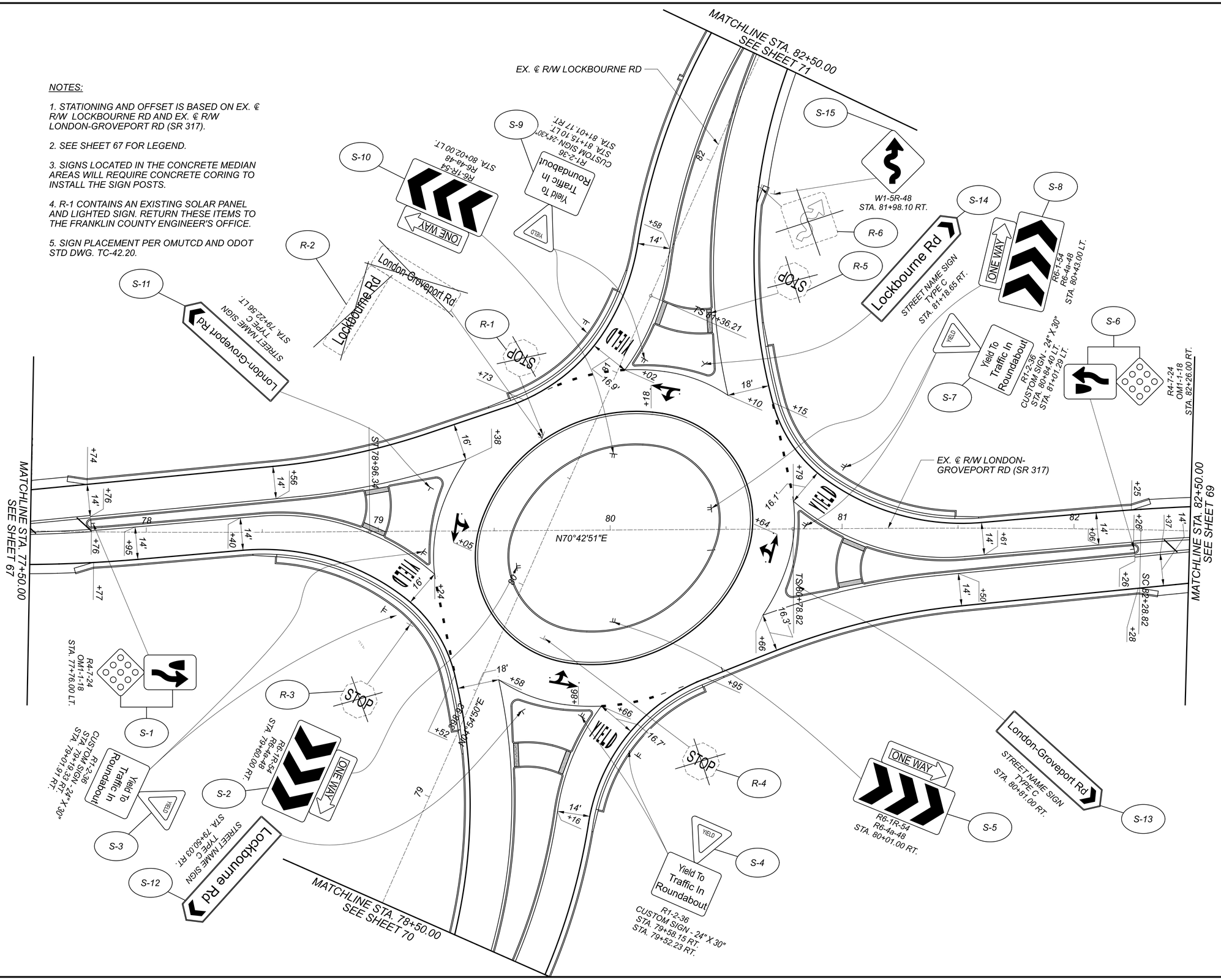
1. STATIONING AND OFFSET IS BASED ON EX. ℄ R/W LOCKBOURNE RD AND EX. ℄ R/W LONDON-GROVEPORT RD (SR 317).

2. SEE SHEET 67 FOR LEGEND.

3. SIGNS LOCATED IN THE CONCRETE MEDIAN AREAS WILL REQUIRE CONCRETE CORING TO INSTALL THE SIGN POSTS.

4. R-1 CONTAINS AN EXISTING SOLAR PANEL AND LIGHTED SIGN. RETURN THESE ITEMS TO THE FRANKLIN COUNTY ENGINEER'S OFFICE.

5. SIGN PLACEMENT PER OMUTCD AND ODOT STD DWG. TC-42.20.



HORIZONTAL SCALE IN FEET
0 10 20 40

SIGNING PLAN
STATE ROUTE 317 - STA. 77+50.00 TO STA. 82+50.00

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 825-8100
www.arcadis.com

DESIGNER	EJT
REVIEWER	BKM 03/18/20
PROJECT ID	109581
SHEET	68
TOTAL	91

FRA-317-1.46

MODEL: Plan 2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/27/2021 TIME: 2:11:21 PM USER: MBurger
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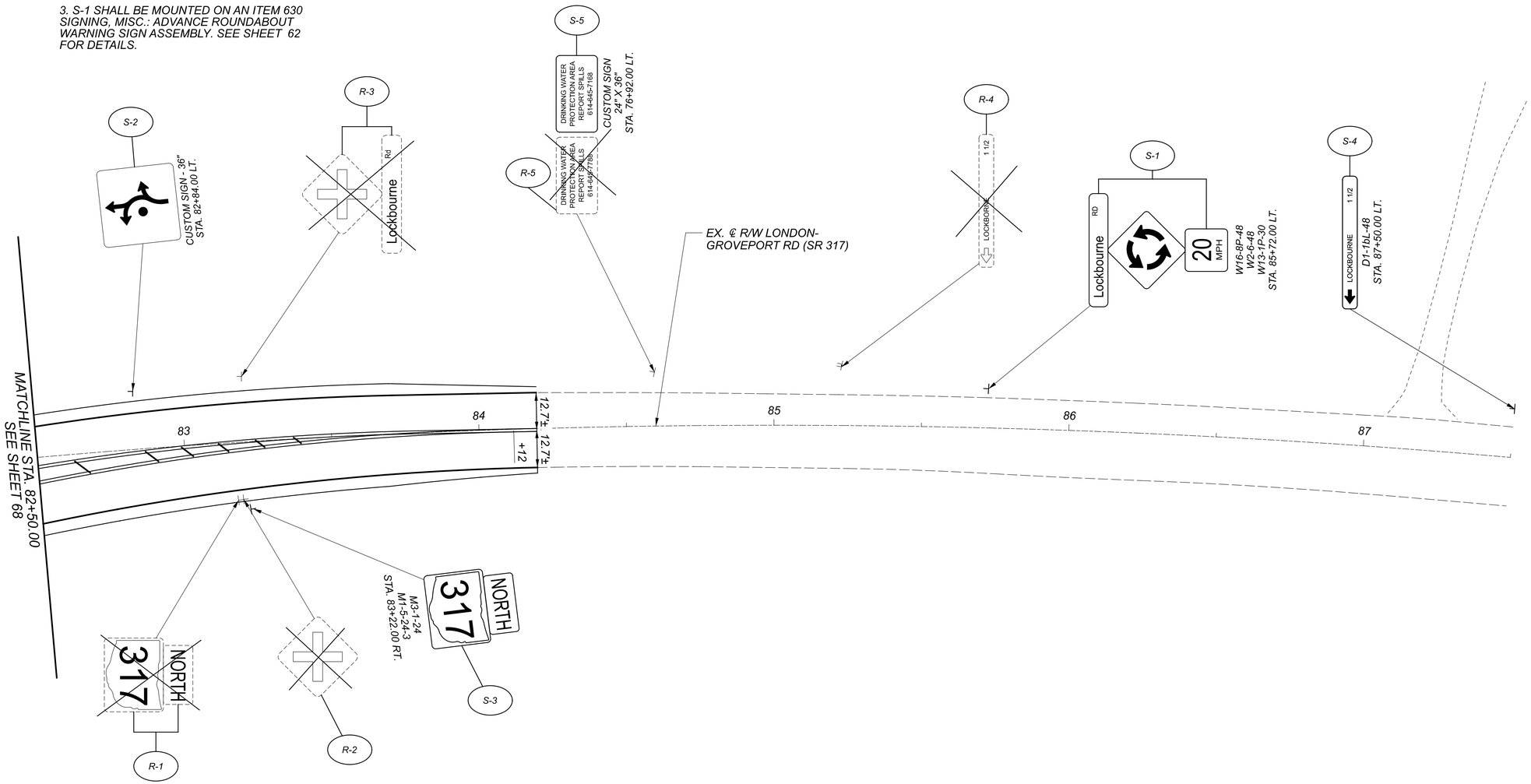
NOTES:

1. STATIONING AND OFFSET IS BASED ON EX. ℄ R/W LOCKBOURNE RD AND EX. ℄ R/W LONDON-GROVEPORT RD (SR 317).

2. SEE SHEET 67 FOR LEGEND.

3. S-1 SHALL BE MOUNTED ON AN ITEM 630 SIGNING, MISC.: ADVANCE ROUNDABOUT WARNING SIGN ASSEMBLY. SEE SHEET 62 FOR DETAILS.



HORIZONTAL SCALE IN FEET
0 10 20 40

SIGNING PLAN
STATE ROUTE 317 - STA. 82+50.00 TO STA. 87+50.00

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 220
COLUMBUS, OHIO 43235
(614) 895-6100
www.arcadis.com

DESIGNER
EJT

REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 69 TOTAL 91

FRA-317-1.46

MODEL: Plan 3 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/27/2021 TIME: 2:11:22 PM USER: MBurger
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FRA-317-1.46

MODEL: Plan 4 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/27/2021 TIME: 2:59:23 PM USER: MBurger
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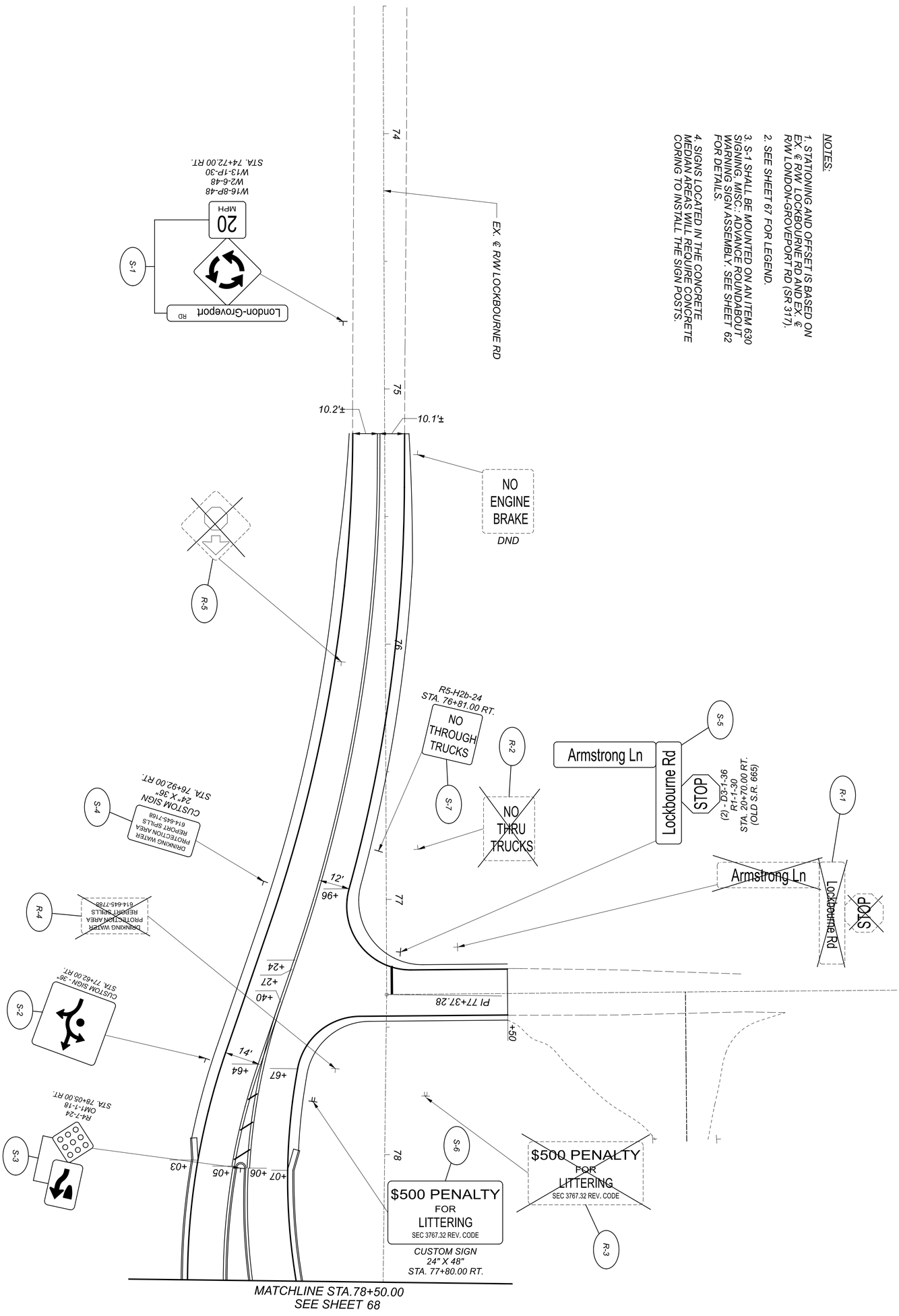
NOTES:

1. STATIONING AND OFFSET IS BASED ON EX. ℄ R/W LOCKBOURNE RD AND EX. ℄ R/W LONDON-GROVEPORT RD (SR 317).
2. SEE SHEET 67 FOR LEGEND.
3. S-1 SHALL BE MOUNTED ON AN ITEM 630 SIGNING, MISC.: ADVANCE ROUNDABOUT WARNING SIGN ASSEMBLY. SEE SHEET 62 FOR DETAILS.
4. SIGNS LOCATED IN THE CONCRETE MEDIAN AREAS WILL REQUIRE CONCRETE CORING TO INSTALL THE SIGN POSTS.



SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
70	91	109581	BKM 03/18/20	EJT	ARCADIS 100 E CAMPUS VIEW BLVD SUITE 230 COLUMBUS, OHIO 43235 (614) 985-9100 www.arcadis.com

SIGNING PLAN
LOCKBOURNE ROAD - STA. 73+50.00 TO STA. 78+50.00

HORIZONTAL SCALE IN FEET
0 10 20 40

FRA-317-1.46

MODEL: Plan 5 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/27/2021 TIME: 2:11:23 PM USER: MBurger
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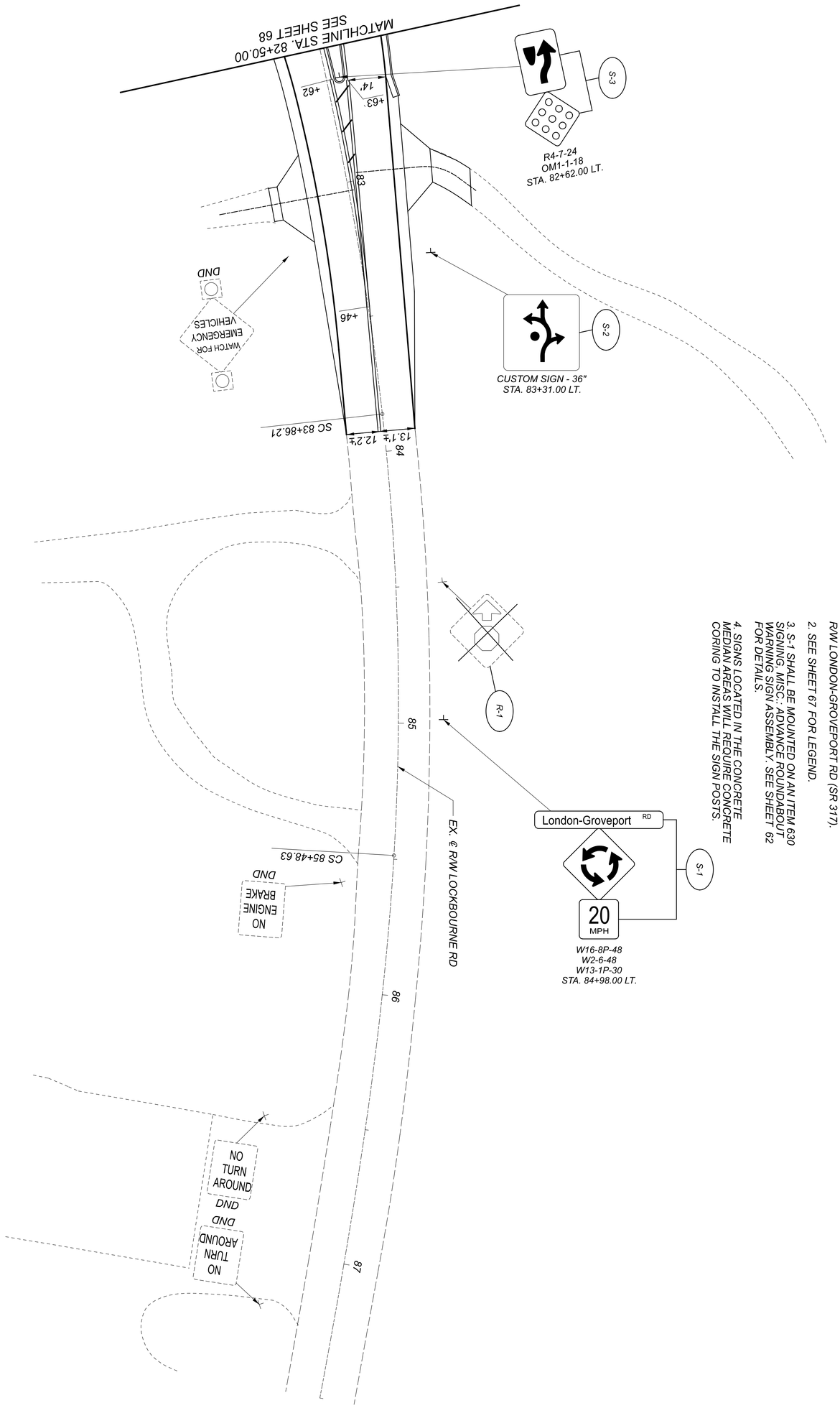


NOTES:

1. STATIONING AND OFFSET IS BASED ON EX. ℄ R/W LOCKBOURNE RD AND EX. ℄ R/W LONDON-GROVEPORT RD (SR 317).
2. SEE SHEET 67 FOR LEGEND.
3. S-1 SHALL BE MOUNTED ON AN ITEM 630 SIGNING, MISC.: ADVANCE ROUNDABOUT WARNING SIGN ASSEMBLY. SEE SHEET 62 FOR DETAILS.
4. SIGNS LOCATED IN THE CONCRETE MEDIAN AREAS WILL REQUIRE CONCRETE CORING TO INSTALL THE SIGN POSTS.

SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
71	91	109581	BKM 03/18/20	EJT	ARCADIS 100 E CAMPUS VIEW BLVD SUITE 230 COLUMBUS, OHIO 43235 (614) 985-9100 www.arcadis.com

SIGNING PLAN
LOCKBOURNE ROAD - STA. 82+50.00 TO STA. 87+50.00

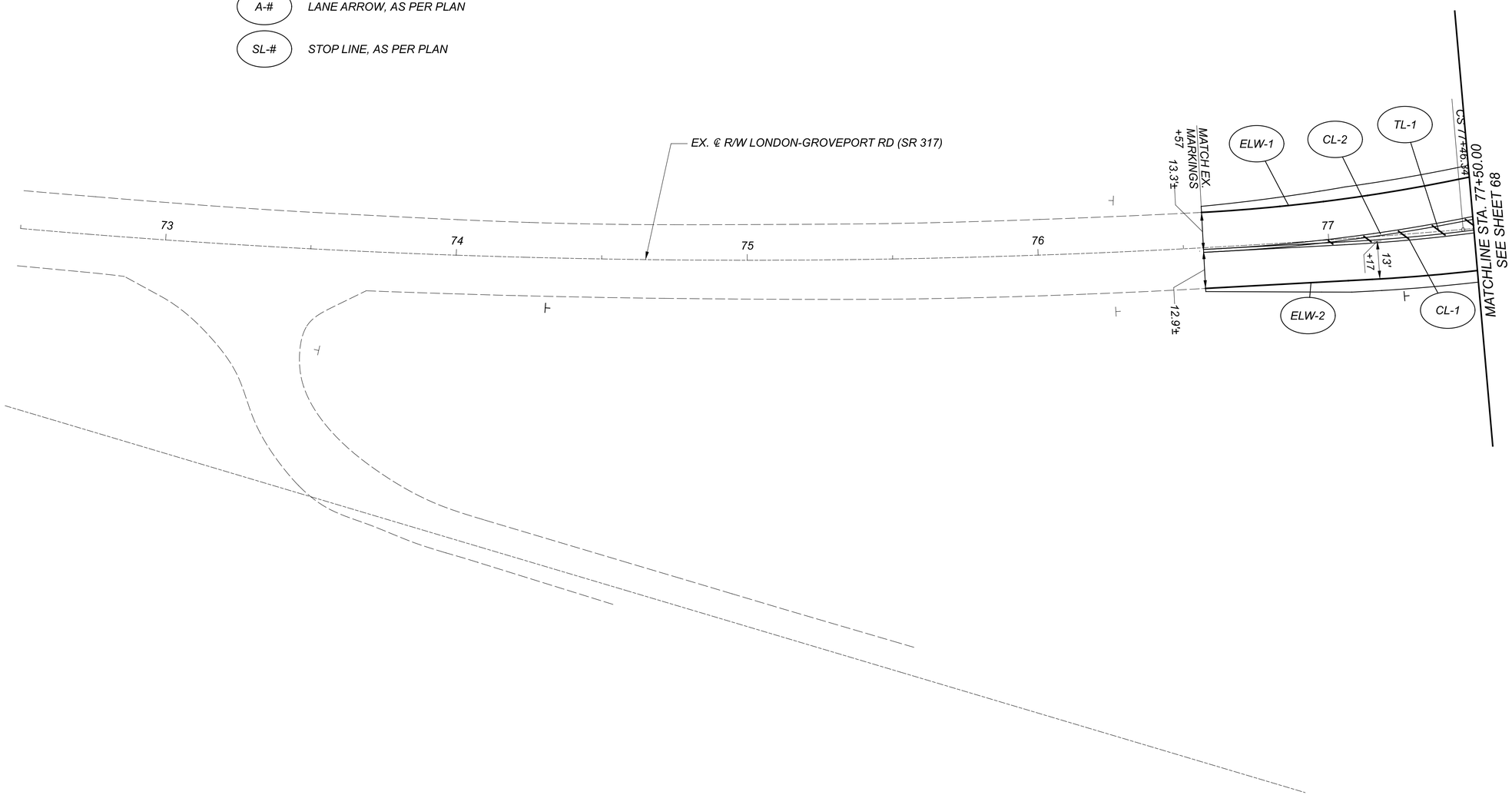
HORIZONTAL SCALE IN FEET
0 10 20 40

LEGEND

CL-#	CENTER LINE, AS PER PLAN
ELW-#	EDGE LINE, 6", AS PER PLAN (WHITE)
ELY-#	EDGE LINE, 6", AS PER PLAN (YELLOW)
TL-#	TRANSVERSE/DIAGONAL LINE, AS PER PLAN (YELLOW)
DL-#	PAVEMENT MARKING MISC.: DOTTED LINE, WHITE
W-#	WORD ON PAVEMENT, 96", AS PER PLAN
A-#	LANE ARROW, AS PER PLAN
SL-#	STOP LINE, AS PER PLAN

NOTES:

1. STATIONING AND OFFSET IS BASED ON EX. ℄ R/W LOCKBOURNE RD AND EX. ℄ R/W LONDON-GROVEPORT RD (SR 317).



HORIZONTAL SCALE IN FEET
0 10 20 40

PAVEMENT MARKING PLAN
STATE ROUTE 317 - STA. 72+50.00 TO STA. 77+50.00

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 895-6700
www.arcadis.com

DESIGNER
EJT

REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 72 TOTAL 91

FRA-317-1.46

MODEL: Plan [\Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/27/2021 TIME: 2:17:15 PM USER: MBurger
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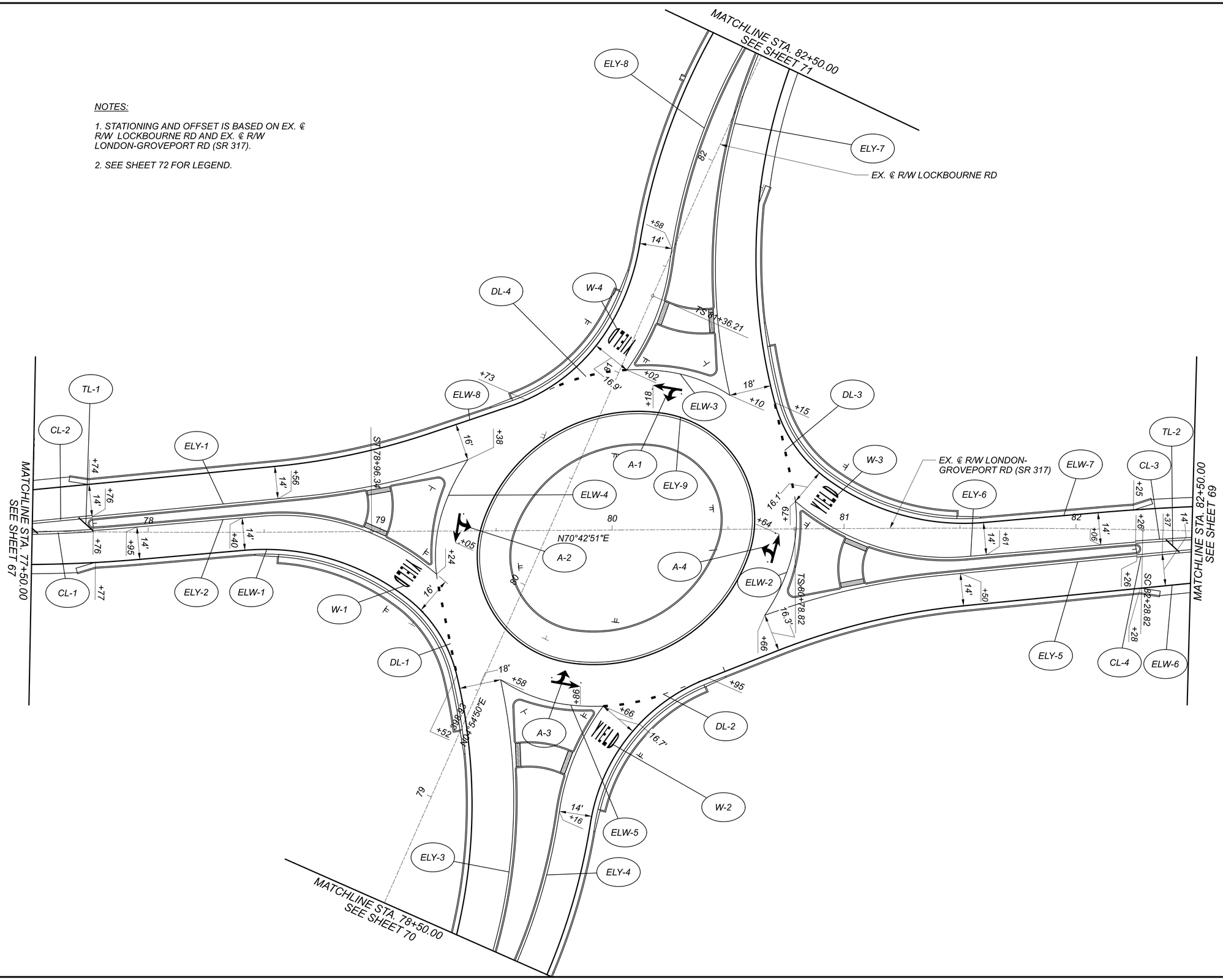
NOTES:

1. STATIONING AND OFFSET IS BASED ON EX. ℄ R/W LOCKBOURNE RD AND EX. ℄ R/W LONDON-GROVEPORT RD (SR 317).

2. SEE SHEET 72 FOR LEGEND.



HORIZONTAL SCALE IN FEET
0 10 20 40

PAVEMENT MARKING PLAN
STATE ROUTE 317 - STA. 77+50.00 TO STA. 82+50.00

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 825-4500
www.arcadis.com

DESIGNER	EJT
REVIEWER	BKM 03/18/20
PROJECT ID	109581
SHEET	73
TOTAL	91

FRA-317-1.46

MODEL: Plan 2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/27/2021 TIME: 2:17:16 PM USER: MBurger
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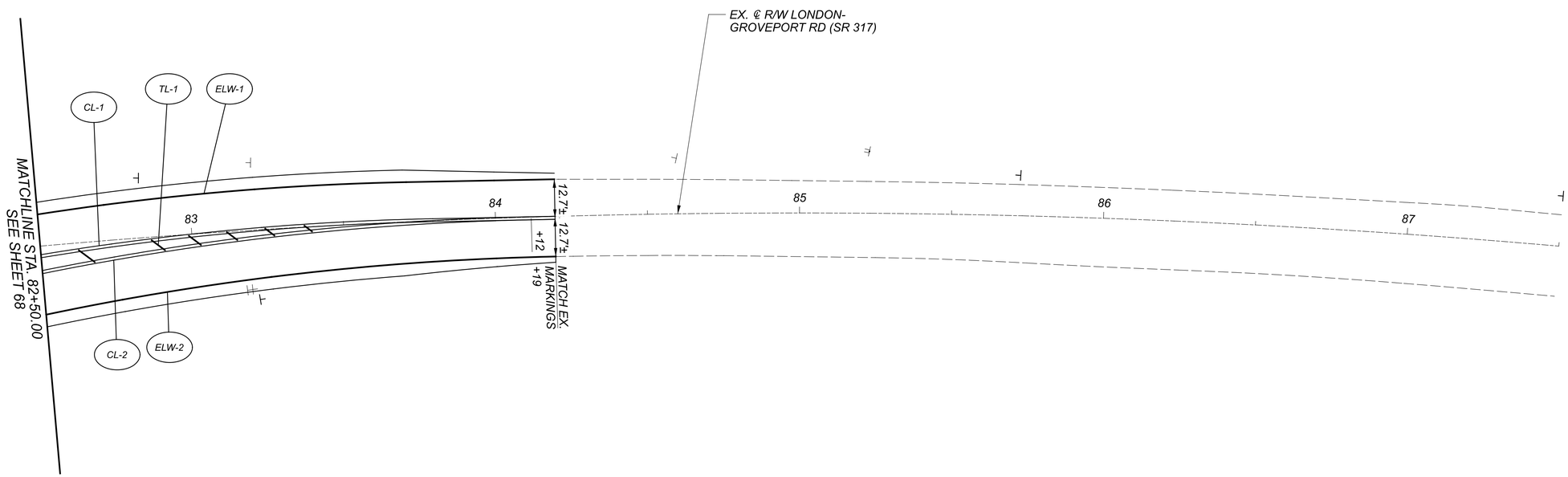
NOTES:

1. STATIONING AND OFFSET IS BASED ON EX. ℄ R/W LOCKBOURNE RD AND EX. ℄ R/W LONDON-GROVEPORT RD (SR 317).

2. SEE SHEET 72 FOR LEGEND.



HORIZONTAL SCALE IN FEET
0 10 20 40

PAVEMENT MARKING PLAN
STATE ROUTE 317 - STA. 82+50.00 TO STA. 87+50.00

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
PH 614.895.3700
www.arcadis.com

DESIGNER
EJT

REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 74 TOTAL 91

FRA-317-1.46

MODEL: Plan 3 [Sheet] PAPERSIZE: 34x22 (in) DATE: 8/27/2021 TIME: 2:17:16 PM USER: MBurger
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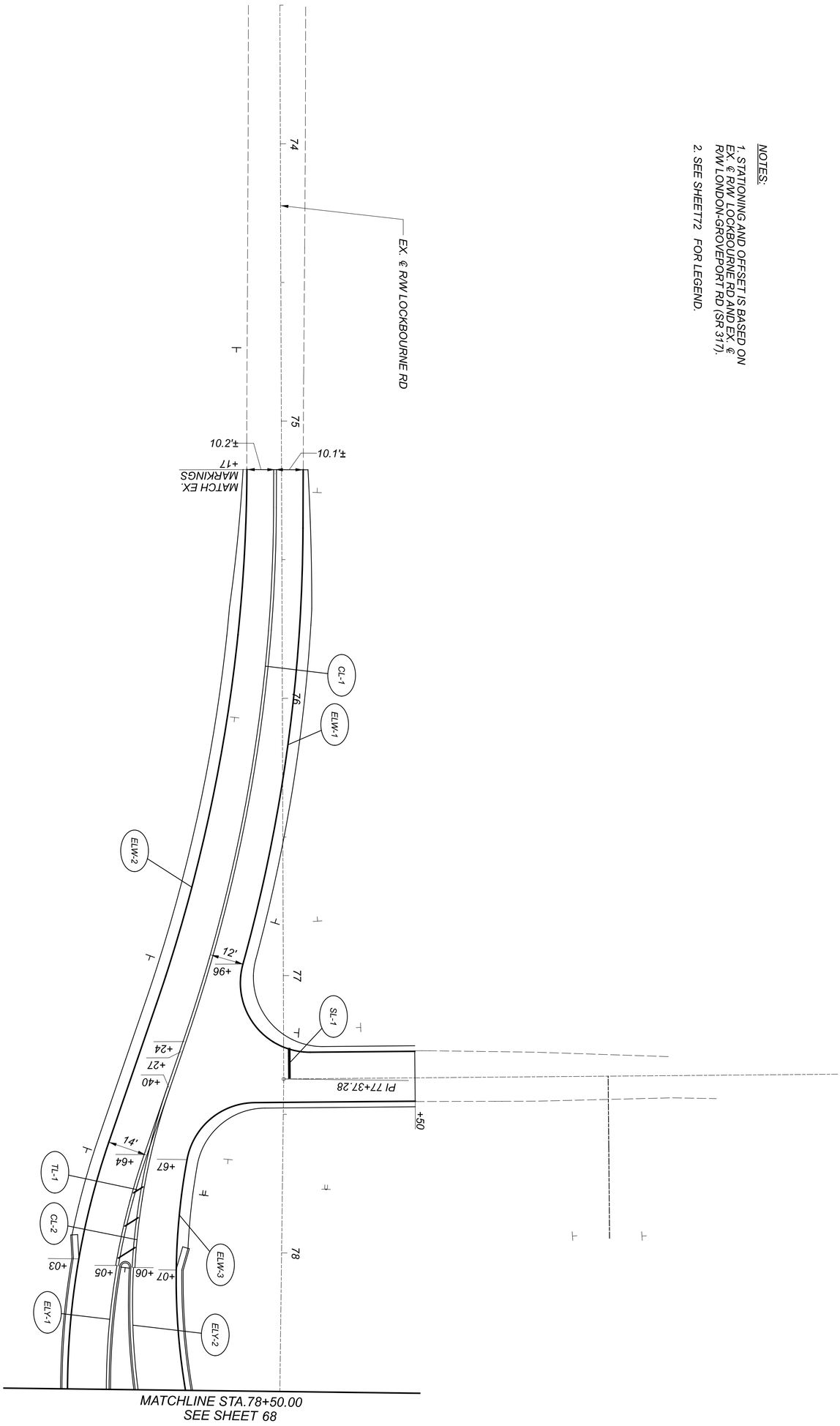
NOTES:

1. STATIONING AND OFFSET IS BASED ON EX. ℄ R/W LOCKBOURNE RD AND EX. ℄ R/W LONDON-GROVEPORT RD (SR 317).
2. SEE SHEET72 FOR LEGEND.



SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
75	91	109581	BKM 03/18/20	EJT	ARCADIS 100 E CAMPUS VIEW BLVD SUITE 230 COLUMBUS, OHIO 43235 (614) 985-9100 www.arcadis.com

PAVEMENT MARKING PLAN
LOCKBOURNE ROAD - STA. 73+50.00 TO STA. 78+50.00

HORIZONTAL SCALE IN FEET
0 20 10 40

NOTES:

1. STATIONING AND OFFSET IS BASED ON EX. ℄ R/W LOCKBOURNE RD AND EX. ℄ R/W LONDON-GROVEPORT RD (SR 317).

2. SEE SHEET 72 FOR LEGEND.

HORIZONTAL SCALE IN FEET
0 10 20 40

PAVEMENT MARKING PLAN
LOCKBOURNE ROAD - STA. 82+50.00 TO STA. 87+50.00

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 220
COLUMBUS, OHIO 43235
(614) 895-6100
www.arcadis.com

DESIGNER
EJT

REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 76 TOTAL 91

FRA-317-1.46
MODEL: Plan 5 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/27/2021 TIME: 2:17:18 PM USER: MBurger
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625, POWER SERVICE, AS PER PLAN

In addition to the requirements of the specifications, the following is added.

The power supply agency for this project is:

South Central Power
2780 Coonpath Road NE
Lancaster, OH 43130
740-689-6168x
attn: Mike Chalfan
chalfan@southcentralpower.com

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.

The contractor shall coordinate with south central power the location of the lighting control center with their proposed power service location between sta 403+50 and sta 404+00 (ref. "NW") along Lockbourne Rd. in a flat area.

The contractor shall also provide a concrete work pad for the lighting control center.

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.

ITEM 625 - LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, TYPE III

In addition to the requirements of odot's construction and material specifications, luminaires for conventional lighting units shall be as follows:

This item consists of installing a luminaire on a light pole at the position indicated on the plans. Furnish new materials and equipment of first quality, of current design, and free from defects. ensure the luminaire is level and aligned vertically and horizontally to the roadway as specified. the luminaire supplied shall be Eaton model, NAV-AF-02E-U-T3R-10K-7030, GE Evolve ERLH-3-10-C3-30-A-GRAY, American Electric ATBM-P20-MVOLT-R3-3K, or equal as approved by the engineer.

Payment will be made at the unit bid price for each c&ms ITEM 625, LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN 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.

MAINTAINING AGENCY

ODOT District 6
Roadway Services
Attn: David Carlin
400 E William St.
Delaware Oh 43015
Ph: 740-833-8267

PADLOCKS AND KEYS

Padlocks furnished shall be either brass or bronze, equal to Master No. 4BKA or Wilson Bohannan 660a, and shall be keyed in accordance with c&ms 631.06. payment shall be included in the bid for the item(s) being locked.

ITEM 625 - ARC FLASH CALCULATIONS AND LABEL, CONTROL CENTER

This item consists of calculating the arc flash hazard for installed new or existing electrical enclosures, providing doscumentation of the calculations, and applying the appropriate external arc flash hazard label to meet established industry standards.

See odot supplemental specification 825.

Payement will be made by the number of units, each complete, with deliverables accepted and label installed, for each separate installed electrical enclosure with voltage levels 50 volts or over.

ITEM 625 - ARC FLASH CALULCATIONS AND LABEL, CONTROL CENTER 1 each

DUCT-CABLE

Provide #6 awg 752.02 wire, 2400 volt, with grounding cable insulation green, or black with a green stripe.

LIGHTING NOTES

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 985-9100
www.arcadis.com

DESIGNER
JAH
REVIEWER
MJB 07/24/20
PROJECT ID
109581
SHEET 77 TOTAL 91

FRA-317-1.46

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 8/27/2021 TIME: 9:30:37 AM USER: MBurger
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REFERENCE NO.	SHEET NO.	SIDE	ROADWAY	STATION TO STATION	625 CONNECTION, FUSED PULLAPART	625 CONNECTION, UNFUSED PERMANENT	625 CONNECTION, UNFUSED PULLAPART	625 LIGHT POLE, CONVENTIONAL, AT8B40	625 LIGHT POLE, CONVENTIONAL, AT12B40	625 LIGHT POLE FOUNDATION, 24"X8' DEEP	625 NO. 6 AWG 2400 VOLT DISTRIBUTION CABLE	625 NO. 10 AWG POLE AND BRACKET CABLE	625 1-1/2" DUCT CABLE WITH THREE NO. 6 AWG 240 VOLT CABLES	625 CONDUIT, 3", 725.04	625 LUMINARE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, TYPE III	625 TRENCH, 24" DEEP	625 UNDERGROUND WARNING/ MARKING TAPE	625 PULLBOX, 725.08, 18"	625 PULLBOX, 725.08, 24"	625 GROUND ROD	625 POWER SERVICE, AS PER PLAN
					EACH	EACH	EACH	EACH	EACH	EACH	LF	LF	LF	LF	EACH	LF	LF	EACH	EACH	EACH	EACH
L-2	79	RT.	REF. "SW"	STA. 103+29.20	2		1		1	1		104			1					1	
	79			STA. 103+29.20 TO STA. 102+59.04									77			67	67				
L-1	79	RT.	REF. "SW"	STA. 102+59.04	2		1		1	1		104			1					1	
	79			STA. 102+59.04 TO STA. 102+47.97									22			12	12				
PB-1	79	RT.	REF. "SW"	STA. 102+47.97		3												1			
	79			STA. 102+47.97 TO STA. 402+69.39							282			84		84	84				
PB-6	79	LT.	REF. "NW"	STA. 402+69.39		3												1			
	79			STA. 402+39.39 TO STA. 402+79.39									25			15	15				
L-8	79	LT.	REF. "NW"	STA. 402+79.39	2		1	1		1		96			1					1	
	79			STA. 402+79.39 TO STA. 403+52.44									90			80	80				
L-7	79	LT.	REF. "NW"	STA. 403+52.44	2		1		1	1		104			1					1	
	79			STA. 403+52.44 TO STA. 403+71.48									33			23	23				
PB-5	79	LT.	REF. "NW"	STA. 403+71.48		3													1		
L-3	79	RT.	REF. "SE"	STA. 202+47.47	2		1		1	1		104			1					1	
	79	RT.	REF. "SE"	STA. 202+47.47 TO STA. 205+36.74									106			96	96				
L-4	79	RT.	REF. "SE"	STA. 205+36.74	2		1	1		1		96			1					1	
	79			STA. 205+36.74 TO STA. 205+46.94									25			15	15				
PB-2	79	RT.	REF. "SE"	STA. 205+46.94		3												1			
	79			STA. 205+46.94 TO STA. 303+21.11							258			76		76	76				
PB-3	79	RT.	REF. "NE"	STA. 303+21.11		3												1			
	79			STA. 303+21.11 TO STA. 303+32.09									23			13	13				
L-5	79	RT.	REF. "NE"	STA. 303+32.09	2		1		1	1		104			1					1	
	79			STA. 303+32.09 TO STA. 303+91.99									68			58	58				
L-6	79	RT.	REF. "NE"	STA. 303+91.99	2		1		1	1		104			1					1	
	79			STA. 303+91.99 TO STA. 303+21.11									23			13	13				
PB-4	79	RT.	REF. "NE"	STA. 303+21.11		3												1			
	79			STA. 303+21.11 TO STA. 403+71.48							258			76		76	76				
	79			STA. 403+71.48 TO STA. 403+89.29							75			15		15	15				
LCC	79	LT.	REF. "NW"	STA. 403+89.29																	1
TOTALS CARRIED TO GENERAL SUMMARY					16	18	8	2	6	8	873	816	492	251	8	643	643	5	1	8	1

LIGHTING SUBSUMMARY

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 895-3000
www.arcadis.com

DESIGNER
JAH

REVIEWER
MJB 03/18/20

PROJECT ID
109581

SHEET 78 TOTAL 91

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 9/1/2021 TIME: 10:06:58 AM USER: MBurger
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NOTES:

1. SOUTH CENTRAL POWER WILL PROVIDE 120/240 V 1-PHASE, 3-WIRE GROUNDED NEUTRAL TO THE PROPOSED LIGHTING CONTROL CENTER. CONTACT MIKE CHALFAN AT SOUTH CENTRAL POWER TO INITIATE NEW SERVICE AT (740) 689-6168.

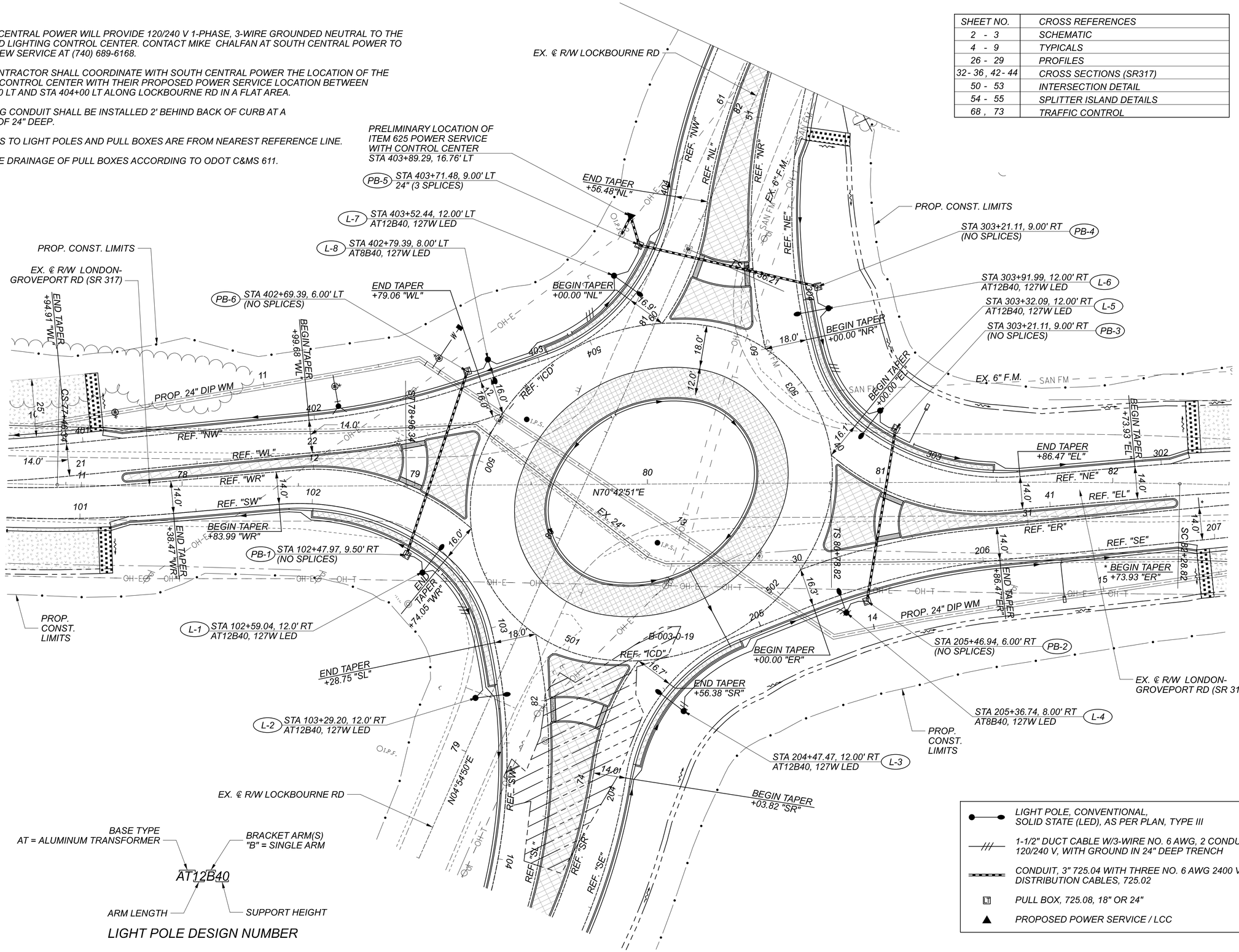
2. THE CONTRACTOR SHALL COORDINATE WITH SOUTH CENTRAL POWER THE LOCATION OF THE LIGHTING CONTROL CENTER WITH THEIR PROPOSED POWER SERVICE LOCATION BETWEEN STA 403+50 LT AND STA 404+00 LT ALONG LOCKBOURNE RD IN A FLAT AREA.

3. LIGHTING CONDUIT SHALL BE INSTALLED 2' BEHIND BACK OF CURB AT A MINIMUM OF 24" DEEP.

4. OFFSETS TO LIGHT POLES AND PULL BOXES ARE FROM NEAREST REFERENCE LINE.

5. PROVIDE DRAINAGE OF PULL BOXES ACCORDING TO ODOT C&MS 611.

SHEET NO.	CROSS REFERENCES
2 - 3	SCHEMATIC
4 - 9	TYPICALS
26 - 29	PROFILES
32 - 36 , 42 - 44	CROSS SECTIONS (SR317)
50 - 53	INTERSECTION DETAIL
54 - 55	SPLITTER ISLAND DETAILS
68 , 73	TRAFFIC CONTROL



LIGHT POLE DESIGN NUMBER

- LIGHT POLE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, TYPE III
- 1-1/2" DUCT CABLE W/3-WIRE NO. 6 AWG, 2 CONDUCTORS, 120/240 V, WITH GROUND IN 24" DEEP TRENCH
- CONDUIT, 3" 725.04 WITH THREE NO. 6 AWG 2400 VOLT DISTRIBUTION CABLES, 725.02
- PULL BOX, 725.08, 18" OR 24"
- PROPOSED POWER SERVICE / LCC

HORIZONTAL SCALE IN FEET 0 10 20 40

LONDON-GROVEPORT ROAD PLAN SHEET
ROUNDABOUT LIGHTING

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 985-9100
www.arcadis.com

DESIGNER	JAH
REVIEWER	MJB 03/18/20
PROJECT ID	109581
SHEET	79
TOTAL	91

FRA-317-1.46

MODEL: Plan 2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 9/2/2021 TIME: 1:52:04 PM USER: MBurger
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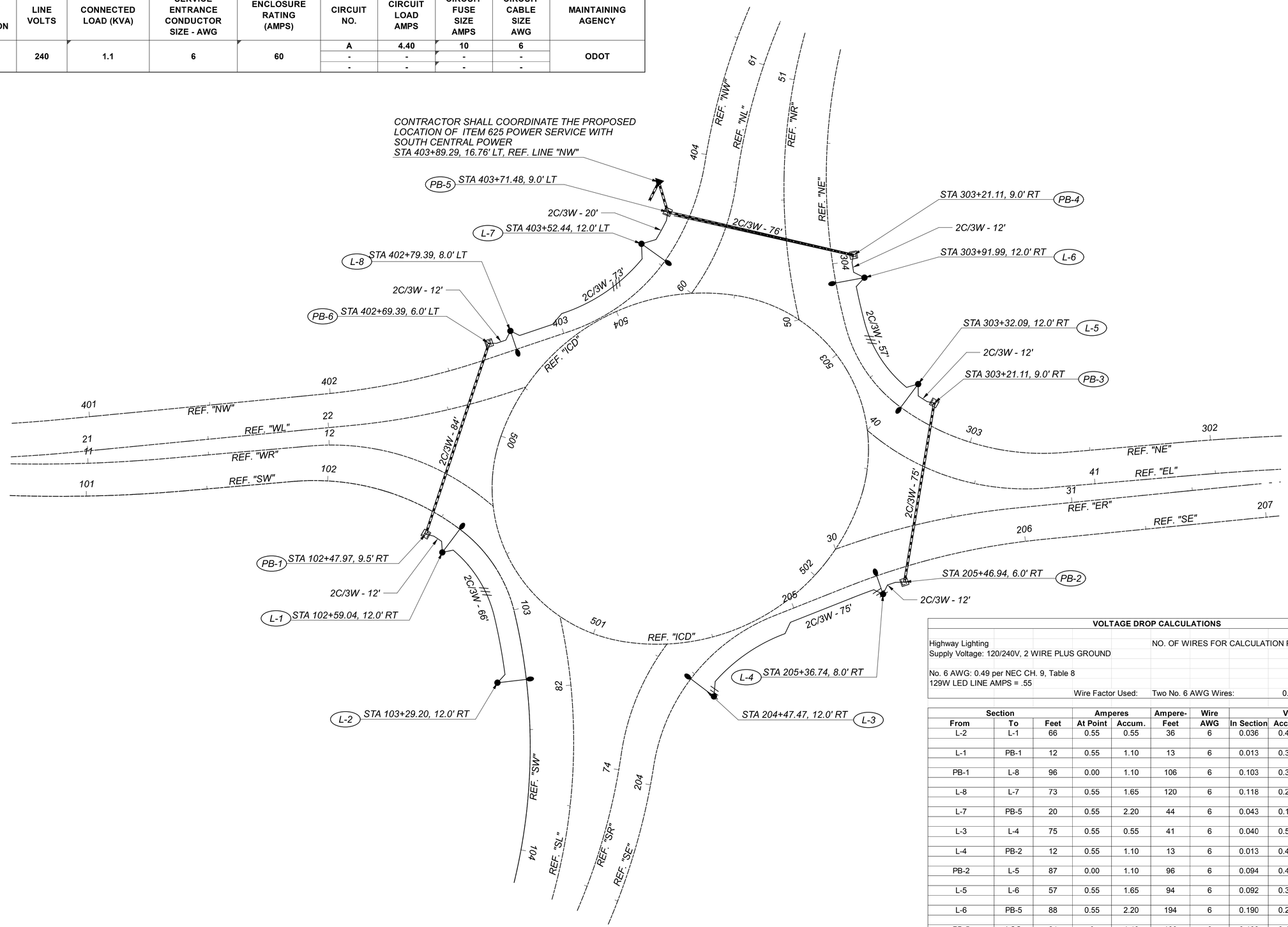
CONTROL CENTER DATA									
CONTROL CENTER DESIGNATION	LINE VOLTS	CONNECTED LOAD (KVA)	SERVICE ENTRANCE CONDUCTOR SIZE - AWG	ENCLOSURE RATING (AMPS)	CIRCUIT NO.	CIRCUIT LOAD AMPS	CIRCUIT FUSE SIZE AMPS	CIRCUIT CABLE SIZE AWG	MAINTAINING AGENCY
LCC	240	1.1	6	60	A	4.40	10	6	ODOT
					-	-	-	-	
					-	-	-	-	



VOLTAGE DROP CALCULATIONS										
Highway Lighting Supply Voltage: 120/240V, 2 WIRE PLUS GROUND No. 6 AWG: 0.49 per NEC CH. 9, Table 8 129W LED LINE AMPS = .55					NO. OF WIRES FOR CALCULATION PURPOSES: 2					
			Wire Factor Used:		Two No. 6 AWG Wires:			0.9800 ohms/mft/1000		
Section			Amperes		Ampere-	Wire	Voltage Drop			
From	To	Feet	At Point	Accum.	Feet	AWG	In Section	Accum.	% Drop	At Point
L-2	L-1	66	0.55	0.55	36	6	0.036	0.417	**0.17**	L-1
L-1	PB-1	12	0.55	1.10	13	6	0.013	0.381	0.16	PB-1
PB-1	L-8	96	0.00	1.10	106	6	0.103	0.368	0.15	L-8
L-8	L-7	73	0.55	1.65	120	6	0.118	0.265	0.11	L-7
L-7	PB-5	20	0.55	2.20	44	6	0.043	0.147	0.06	PB-5
L-3	L-4	75	0.55	0.55	41	6	0.040	0.533	**0.22**	L-3
L-4	PB-2	12	0.55	1.10	13	6	0.013	0.492	0.21	L-4
PB-2	L-5	87	0.00	1.10	96	6	0.094	0.479	0.20	PB-2
L-5	L-6	57	0.55	1.65	94	6	0.092	0.385	0.16	L-5
L-6	PB-5	88	0.55	2.20	194	6	0.190	0.293	0.12	L-6
PB-5	LCC	24	0	4.40	106	6	0.103	0.103	0.04	BP-5

HORIZONTAL SCALE IN FEET
0 10 20 40

LONDON-GROVEPORT ROAD PLAN SHEET
LIGHTING CIRCUIT PLAN

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 985-9100
www.arcadis.com

DESIGNER JAH
REVIEWER MJB 03/18/20
PROJECT ID 109581
SHEET 80 TOTAL 91

FRA-317-1.46

MODEL: Plan 2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/26/2021 TIME: 7:45:13 AM USER: MBurger
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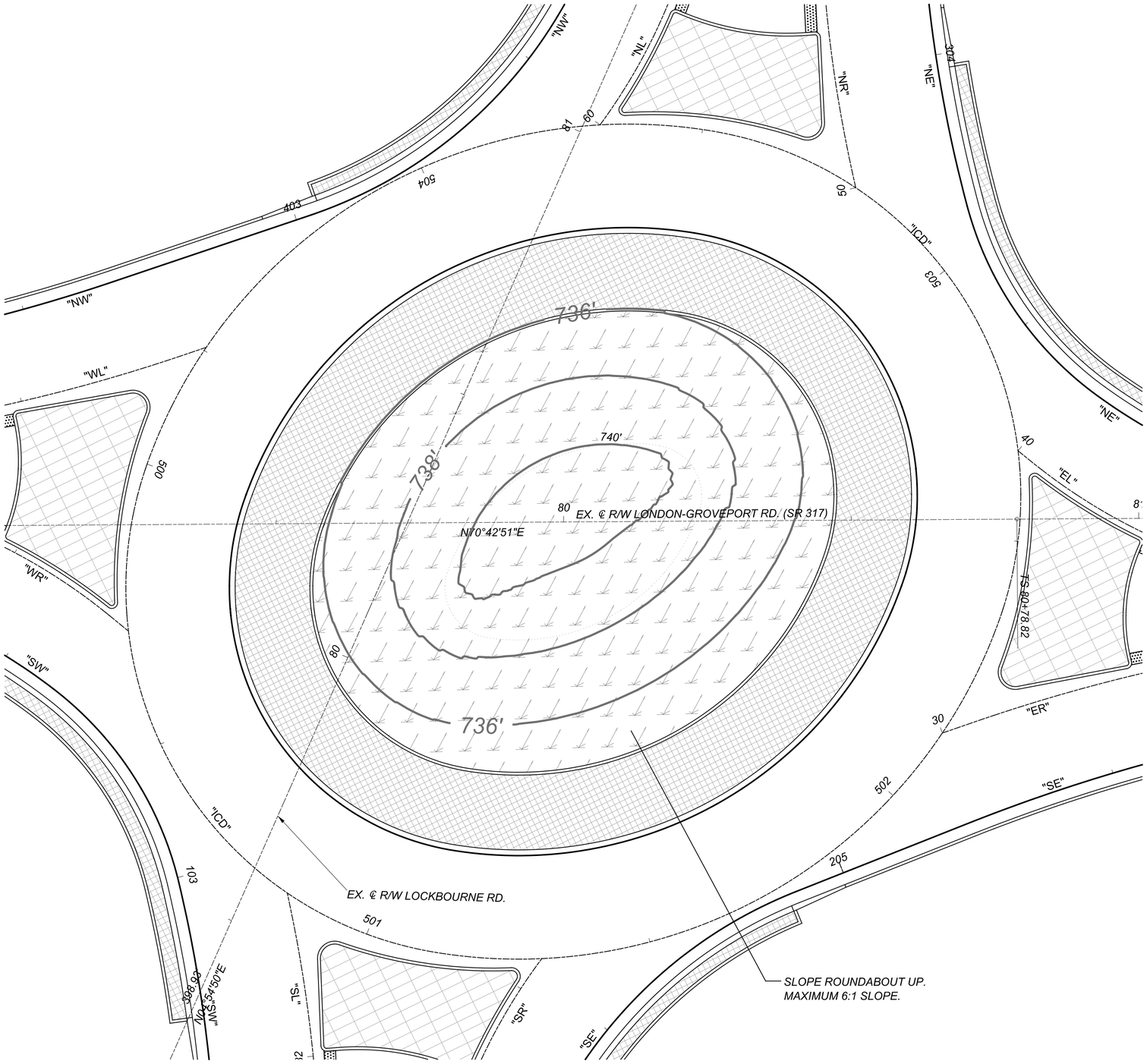

LEGEND:

ITEM 659 - SEEDING AND MULCHING, AS PER PLAN

HORIZONTAL SCALE IN FEET
0 5 10 20

ROUNDABOUT LANDSCAPING PLAN

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 895-3700
www.arcadis.com

DESIGNER
EJT

REVIEWER
BKM 03/18/20

PROJECT ID
109581

SHEET 81 TOTAL 91

FRA-317-1.46

MODEL: Plan 2 [Sheet] PAPERSIZE: 34x22 (in) DATE: 8/26/2021 TIME: 7:45:39 AM USER: MBurger
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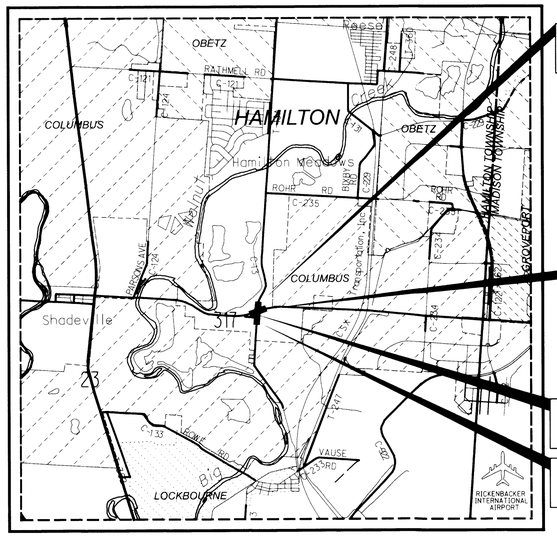


END ACQUISITION
STA. 84+00.00 C.R. 13

END ACQUISITION
STA. 86+11.03 S.R. 317

BEGIN ACQUISITION
STA. 76+40.00 S.R. 317

BEGIN ACQUISITION
STA. 74+50.00 C.R. 13

CITY OF COLUMBUS
VILLAGE OF LOCKBOURNE
VILLAGE OF OBETZ
CITY OF GROVEPORT

LOCATION MAP

LATITUDE: 39 °49' 52" LONGITUDE: 82 °58' 22"

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

FRANKLIN COUNTY, OHIO
OFFICE OF THE COUNTY ENGINEER
LOCKBOURNE ROAD AT LONDON-GROVEPORT ROAD (S.R. 317) IMPROVEMENTS

ESTABLISHING, ALTERING & WIDENING RIGHT-OF-WAY
COUNTY ROAD NO. 13 & COUNTY ROAD NO. 924
FRANKLIN COUNTY
HAMILTON TOWNSHIP

SECTIONS 2 & 3, T3N, R22W
SECTIONS 34 & 35, T4N, R22W
MATTHEW'S SURVEY OF THE CONGRESS LANDS EAST OF THE SCIOTO

PROJECT DESCRIPTION

Upgrading 0.17 miles of London-Groveport Road (SR 317) and 0.17 miles of Lockbourne Road by constructing a single-lane modern roundabout. The project will improve drainage, pavement, signing, pavement markings and street lighting at the intersection.

The existing and proposed right of way shall be referenced from the centerline of right of way.

SPECIFICATIONS

The 2019 Standard Specifications of the State of Ohio, Department of Transportation, including changes and supplemental specifications listed in the proposal shall govern this improvement unless otherwise noted.

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

I approve these plans and declare that the making of this improvement will require the closing to traffic of the highway and that provisions for the maintenance and safety of traffic will be as set forth in the plans and estimates.

FRANKLIN COUNTY

BWF

APPROVED DATE 2/18/2021 FRANKLIN COUNTY ENGINEER

APPROVED DATE 02/18/2021 FRANKLIN COUNTY CHIEF DEPUTY ENGINEER

We, the Commissioners of Franklin County in formal session, hereby approve these plans.

APPROVED DATE 03/16/2021 FRANKLIN COUNTY COMMISSIONER

APPROVED DATE 03/16/2021 FRANKLIN COUNTY COMMISSIONER

APPROVED DATE 03/16/2021 FRANKLIN COUNTY COMMISSIONER

INDEX OF SHEETS:

LEGEND SHEET	1
CENTERLINE PLAT	2 - 3
PROPERTY MAP	4
SUMMARY OF ADDITIONAL R/W	5
R/W DETAIL SHEET	6 - 10

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
Standard Highway Ease.(Pr) 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)
Fire Hydrant (Ex), Water Meter (Ex)
Water Valve (Ex), Utility Valve Unknown (Ex.)
Telephone Pole (Ex), Power Pole (Ex)
Light Pole (Ex)

PARCEL IDENTIFIER LEGEND

WD = WARRANTY DEED

STRUCTURE KEY

RESIDENTIAL
GOVERNMENTAL
OUT-BUILDING
HISTORICAL

OHIO811.org Before You Dig

UTILITIES

COLUMBUS DEPT. OF PUBLIC UTILITIES
DIVISION OF WATER
ATTN: TIM HUFFMAN, P.E.
910 DUBLIN ROAD
COLUMBUS, OH 43215
614-645-0856

COLUMBUS DEPT. OF PUBLIC UTILITIES
DIVISION OF SEWERAGE & DRAINAGE
ATTN: JASON SANSON
1250 FAIRWOOD AVENUE
COLUMBUS, OH 43206
614-645-3702

AT&T OHIO
ATTN: GARY VAN ALMSICK
111 NORTH 4TH STREET
COLUMBUS, OH 43215
614-223-7276
GV2758@ATT.COM

CHARTER COMMUNICATIONS
ATTN: ANTHONY ADAMS
3760 INTERCHANGE ROAD
COLUMBUS, OH 43204
614-827-7971
ANTHONY.ADAMS@CHARTER.COM

SOUTH CENTRAL POWER
ATTN: MIKE CHALFAN
2780 COONPATH ROAD NE
LANCASTER, OH 43130
740-689-6168
CHALFAN@SOUTHCENTRALPOWER.COM

FRANKLIN COUNTY ENGINEER UTILITIES
ATTN: STEVE BUSKIRK
970 DUBLIN ROAD
COLUMBUS, OH 43215
614-525-3063

NOTES: 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.

PLAN PREPARED BY:
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 985-9100
www.arcadis.com

I, Robert G. Hoy, P.S. have conducted a survey of the existing conditions for Franklin County, Ohio in December 2019. The results of that survey are contained herein. Underground utility locations are shown for informational purposes only.

The horizontal coordinates expressed herein are based on the Ohio State Plane Coordinates System, North Zone, NAD83(2011) datum. All coordinates listed are Project Ground Coordinates (US Survey Feet) to convert to State Plane Grid Coordinates, multiply the Ground Coordinates by the Project Adjustment Factor of 0.9999366029.

As a part of this project I have reestablished the locations of the existing property lines and centerline of existing Right of Way for property takes contained herein, established the proposed property lines, calculated the Gross Take, present roadway occupied (PRO), Net Take and Net Residue as well as prepared the legal descriptions necessary to acquire the parcels as shown herein.

All of my work contained herein was conducted in accordance with Ohio Administrative Code 4733-37 Standards for Boundary Surveys unless so noted. The words "I" as used herein are to mean either myself or someone working under my direct supervision.

Arcadis U.S., Inc.
Robert G. Hoy, Ohio Professional Surveyor No. 8142

SURVEYOR'S SEAL

STATE OF OHIO ROBERT G. HOY 8142 REGISTERED PROFESSIONAL SURVEYOR

PLANS PREPARED BY:

FIRM NAME: ARCADIS, U.S., INC.
R/W DESIGNER: BRIAN WALLACE
R/W REVIEWER: ROBERT HOY
FIELD REVIEWER: BRIAN WALLACE
PRELIMINARY FIELD REVIEW DATE: 7/27/20
TRACINGS FIELD REVIEW DATE: 02/08/21
OWNERSHIP UPDATED BY: BRIAN WALLACE
DATE COMPLETED: 02/08/21
PLAN COMPLETION DATE:

REVISIONS

REV.	DESCRIPTION	INITIAL	DATE

FEDERAL PROJECT NO. E201 (093)
PID NO. 109581
CONSTRUCTION PROJECT NO.

RIGHT-OF-WAY TITLE SHEET

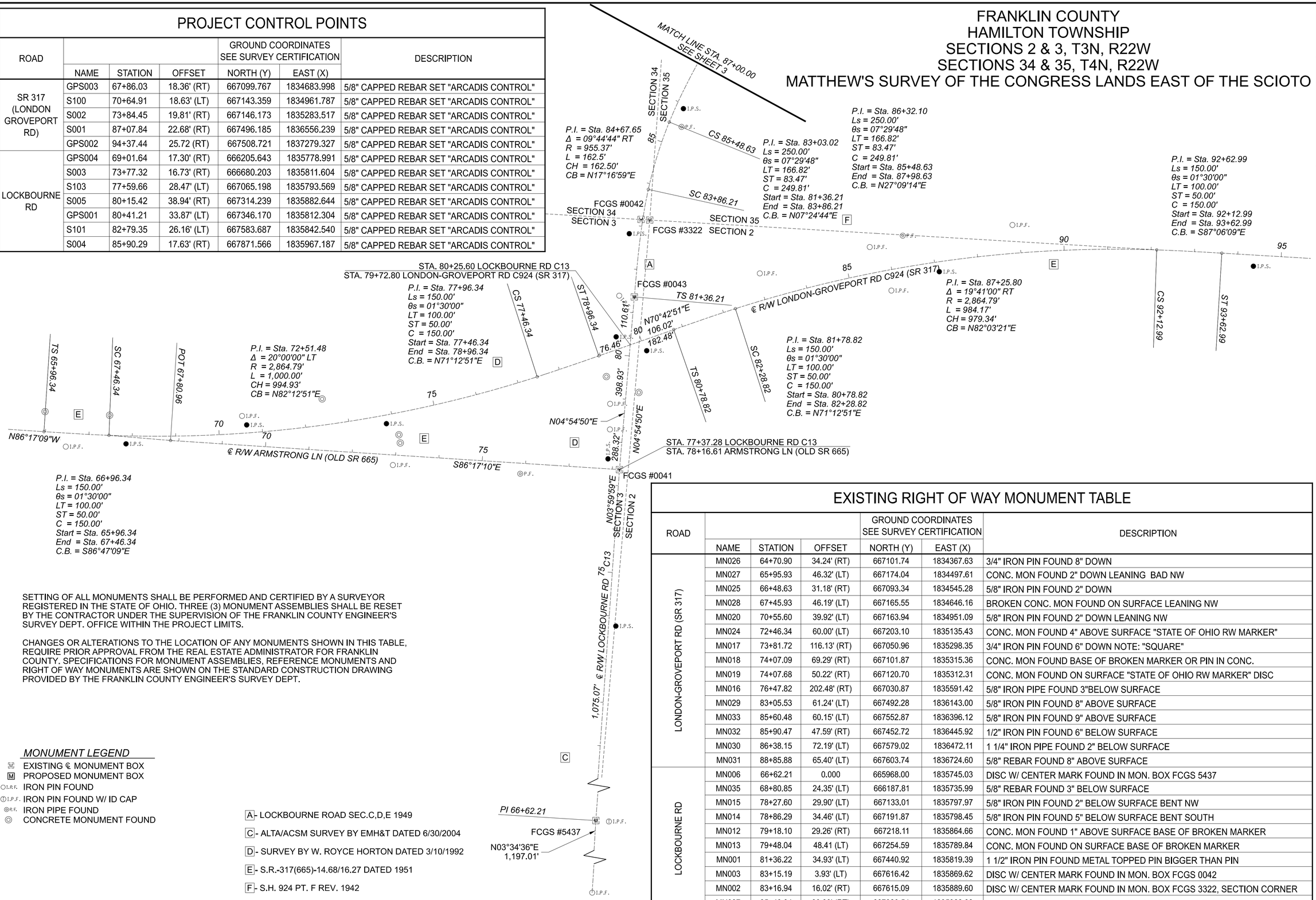
LOCKBOURNE RD C13 AT LONDON-GROVEPORT RD (SR 317) C924

pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\30040076\400_CAD\400-Engineering\RW\Sheets\10958LRL001.dgn Sheet 2/11/2021 7:45:40 PM RHoy

FRANKLIN COUNTY
HAMILTON TOWNSHIP
SECTIONS 2 & 3, T3N, R22W
SECTIONS 34 & 35, T4N, R22W
MATTHEW'S SURVEY OF THE CONGRESS LANDS EAST OF THE SCIOTO

PROJECT CONTROL POINTS

ROAD	NAME	STATION	OFFSET	GROUND COORDINATES SEE SURVEY CERTIFICATION NORTH (Y)	EAST (X)	DESCRIPTION
SR 317 (LONDON GROVEPORT RD)	GPS003	67+86.03	18.36' (RT)	667099.767	1834683.998	5/8" CAPPED REBAR SET "ARCADIS CONTROL"
	S100	70+64.91	18.63' (LT)	667143.359	1834961.787	5/8" CAPPED REBAR SET "ARCADIS CONTROL"
	S002	73+84.45	19.81' (RT)	667146.173	1835283.517	5/8" CAPPED REBAR SET "ARCADIS CONTROL"
	S001	87+07.84	22.68' (RT)	667496.185	1836556.239	5/8" CAPPED REBAR SET "ARCADIS CONTROL"
	GPS002	94+37.44	25.72 (RT)	667508.721	1837279.327	5/8" CAPPED REBAR SET "ARCADIS CONTROL"
LOCKBOURNE RD	GPS004	69+01.64	17.30' (RT)	666205.643	1835778.991	5/8" CAPPED REBAR SET "ARCADIS CONTROL"
	S003	73+77.32	16.73' (RT)	666680.203	1835811.604	5/8" CAPPED REBAR SET "ARCADIS CONTROL"
	S103	77+59.66	28.47' (LT)	667065.198	1835793.569	5/8" CAPPED REBAR SET "ARCADIS CONTROL"
	S005	80+15.42	38.94' (RT)	667314.239	1835882.644	5/8" CAPPED REBAR SET "ARCADIS CONTROL"
	GPS001	80+41.21	33.87' (LT)	667346.170	1835812.304	5/8" CAPPED REBAR SET "ARCADIS CONTROL"
	S101	82+79.35	26.16' (LT)	667583.687	1835842.540	5/8" CAPPED REBAR SET "ARCADIS CONTROL"
	S004	85+90.29	17.63' (RT)	667871.566	1835967.187	5/8" CAPPED REBAR SET "ARCADIS CONTROL"



SETTING OF ALL MONUMENTS SHALL BE PERFORMED AND CERTIFIED BY A SURVEYOR REGISTERED IN THE STATE OF OHIO. THREE (3) MONUMENT ASSEMBLIES SHALL BE RESET BY THE CONTRACTOR UNDER THE SUPERVISION OF THE FRANKLIN COUNTY ENGINEER'S SURVEY DEPT. OFFICE WITHIN THE PROJECT LIMITS.

CHANGES OR ALTERATIONS TO THE LOCATION OF ANY MONUMENTS SHOWN IN THIS TABLE, REQUIRE PRIOR APPROVAL FROM THE REAL ESTATE ADMINISTRATOR FOR FRANKLIN COUNTY. SPECIFICATIONS FOR MONUMENT ASSEMBLIES, REFERENCE MONUMENTS AND RIGHT OF WAY MONUMENTS ARE SHOWN ON THE STANDARD CONSTRUCTION DRAWING PROVIDED BY THE FRANKLIN COUNTY ENGINEER'S SURVEY DEPT.

MONUMENT LEGEND

- [M] EXISTING ℄ MONUMENT BOX
- [M] PROPOSED MONUMENT BOX
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP
- P.F. IRON PIPE FOUND
- CONCRETE MONUMENT FOUND

A - LOCKBOURNE ROAD SEC.C,D,E 1949

C - ALTA/ACSM SURVEY BY EMH&T DATED 6/30/2004

D - SURVEY BY W. ROYCE HORTON DATED 3/10/1992

E - S.R.-317(665)-14.68/16.27 DATED 1951

F - S.H. 924 PT. F REV. 1942

EXISTING RIGHT OF WAY MONUMENT TABLE

ROAD	NAME	STATION	OFFSET	GROUND COORDINATES SEE SURVEY CERTIFICATION NORTH (Y)	EAST (X)	DESCRIPTION
LONDON-GROVEPORT RD (SR 317)	MN026	64+70.90	34.24' (RT)	667101.74	1834367.63	3/4" IRON PIN FOUND 8" DOWN
	MN027	65+95.93	46.32' (LT)	667174.04	1834497.61	CONC. MON FOUND 2" DOWN LEANING BAD NW
	MN025	66+48.63	31.18' (RT)	667093.34	1834545.28	5/8" IRON PIN FOUND 2" DOWN
	MN028	67+45.93	46.19' (LT)	667165.55	1834646.16	BROKEN CONC. MON FOUND ON SURFACE LEANING NW
	MN020	70+55.60	39.92' (LT)	667163.94	1834951.09	5/8" IRON PIN FOUND 2" DOWN LEANING NW
	MN024	72+46.34	60.00' (LT)	667203.10	1835135.43	CONC. MON FOUND 4" ABOVE SURFACE "STATE OF OHIO RW MARKER"
	MN017	73+81.72	116.13' (RT)	667050.96	1835298.35	3/4" IRON PIN FOUND 6" DOWN NOTE: "SQUARE"
	MN018	74+07.09	69.29' (RT)	667101.87	1835315.36	CONC. MON FOUND BASE OF BROKEN MARKER OR PIN IN CONC.
	MN019	74+07.68	50.22' (RT)	667120.70	1835312.31	CONC. MON FOUND ON SURFACE "STATE OF OHIO RW MARKER" DISC
	MN016	76+47.82	202.48' (RT)	667030.87	1835591.42	5/8" IRON PIPE FOUND 3"BELOW SURFACE
	MN029	83+05.53	61.24' (LT)	667492.28	1836143.00	5/8" IRON PIN FOUND 8" ABOVE SURFACE
	MN033	85+60.48	60.15' (LT)	667552.87	1836396.12	5/8" IRON PIN FOUND 9" ABOVE SURFACE
	MN032	85+90.47	47.59' (RT)	667452.72	1836445.92	1/2" IRON PIN FOUND 6" BELOW SURFACE
	MN030	86+38.15	72.19' (LT)	667579.02	1836472.11	1 1/4" IRON PIPE FOUND 2" BELOW SURFACE
	MN031	88+85.88	65.40' (LT)	667603.74	1836724.60	5/8" REBAR FOUND 8" ABOVE SURFACE
LOCKBOURNE RD	MN006	66+62.21	0.000	665968.00	1835745.03	DISC W/ CENTER MARK FOUND IN MON. BOX FCGS 5437
	MN035	68+80.85	24.35' (LT)	666187.81	1835735.99	5/8" REBAR FOUND 3" BELOW SURFACE
	MN015	78+27.60	29.90' (LT)	667133.01	1835797.97	5/8" IRON PIN FOUND 2" BELOW SURFACE BENT NW
	MN014	78+86.29	34.46' (LT)	667191.87	1835798.45	5/8" IRON PIN FOUND 5" BELOW SURFACE BENT SOUTH
	MN012	79+18.10	29.26' (RT)	667218.11	1835864.66	CONC. MON FOUND 1" ABOVE SURFACE BASE OF BROKEN MARKER
	MN013	79+48.04	48.41 (LT)	667254.59	1835789.84	CONC. MON FOUND ON SURFACE BASE OF BROKEN MARKER
	MN001	81+36.22	34.93' (LT)	667440.92	1835819.39	1 1/2" IRON PIN FOUND METAL TOPPED PIN BIGGER THAN PIN
	MN003	83+15.19	3.93' (LT)	667616.42	1835869.62	DISC W/ CENTER MARK FOUND IN MON. BOX FCGS 0042
	MN002	83+16.94	16.02' (RT)	667615.09	1835889.60	DISC W/ CENTER MARK FOUND IN MON. BOX FCGS 3322, SECTION CORNER
	MN007	85+49.04	30.33' (RT)	667829.54	1835962.88	1 1/4" IRON PIPE FOUND 6" ABOVE SURFACE BENT SOUTH

HORIZONTAL SCALE IN FEET 0 50 100 200

CENTERLINE PLAT (1 OF 2)

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 200
COLUMBUS, OHIO 43235
(614) 895-2700
www.arcadis.com

DESIGNER BLW

REVIEWER RGH 11-10-20

PROJECT ID 109581

SUBSET 2 TOTAL 10

SHEET 83 TOTAL 91

FRA-317-1.46

MODEL: Centerline Plat [Sheet] PAPERSIZE: 34x22 (in.) DATE: 9/9/2021 TIME: 12:54:17 PM USER: BWallace
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FRANKLIN COUNTY
HAMILTON TOWNSHIP
SECTIONS 34 & 35, T4N, R22W
MATTHEW'S SURVEY OF THE CONGRESS LANDS EAST OF THE SCIOTO

PROJECT CONTROL POINTS

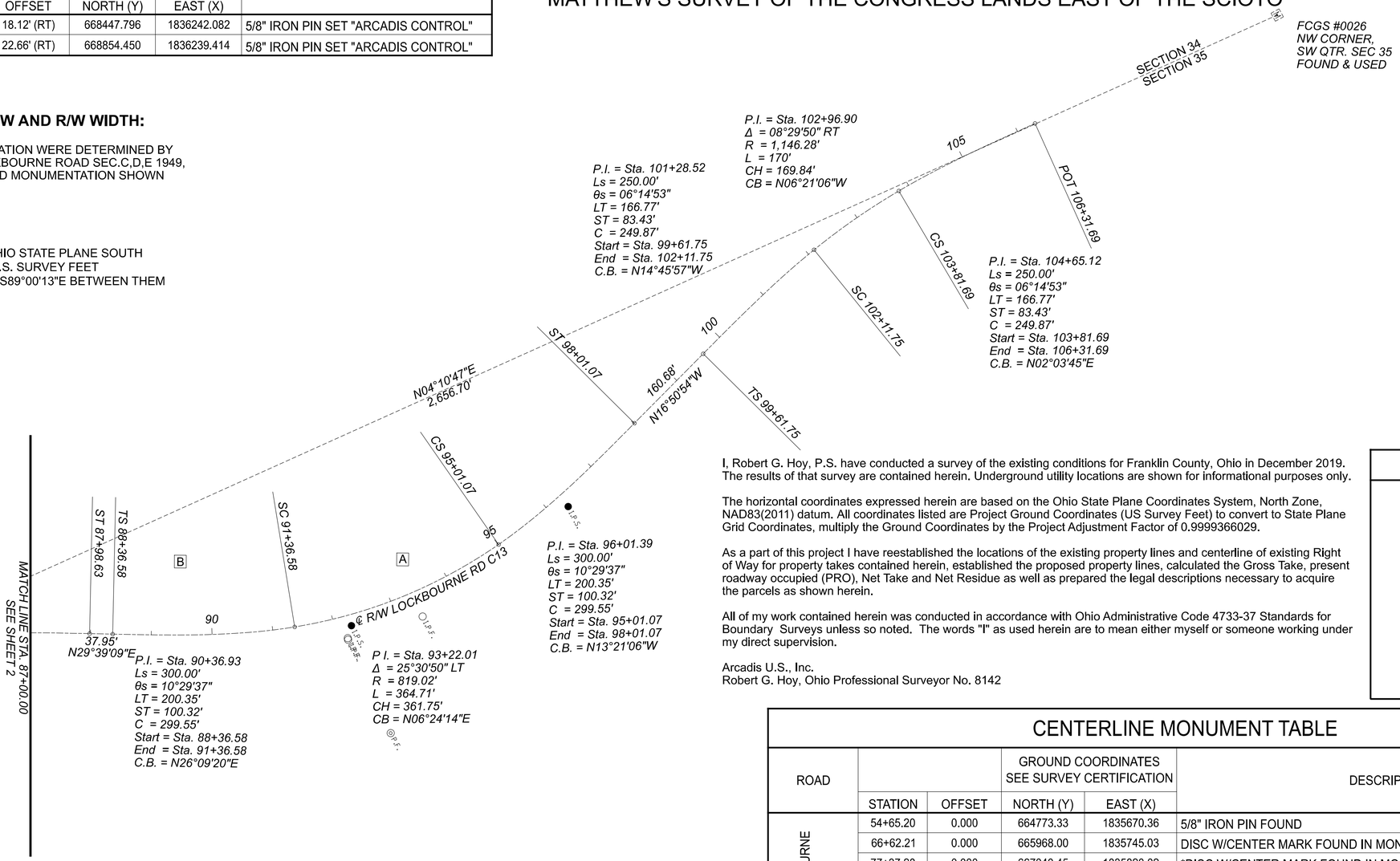
ROAD	NAME	STATION	OFFSET	GROUND COORDINATES SEE SURVEY CERTIFICATION NORTH (Y)	EAST (X)	DESCRIPTION
LOCKBOURNE RD	GPS005	92+27.15	18.12' (RT)	668447.796	1836242.082	5/8" IRON PIN SET "ARCADIS CONTROL"
	S102	96+28.15	22.66' (RT)	668854.450	1836239.414	5/8" IRON PIN SET "ARCADIS CONTROL"

BASIS OF EXISTING ℄ OF R/W AND R/W WIDTH:

THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED BY S.R.-317(665)-14.68/16.27 1951, LOCKBOURNE ROAD SEC.C,D,E 1949, S.H. 924 PT. F REV. 1942, AND FOUND MONUMENTATION SHOWN AND NOTED HEREON.

BASIS FOR BEARINGS:

BEARINGS SHOWN HEREON ARE OHIO STATE PLANE SOUTH ZONE, NAD83(2011), GRID NORTH, U.S. SURVEY FEET
ODOT CORS COLB AND OHLI USED, S89°00'13"E BETWEEN THEM



A - LOCKBOURNE ROAD SEC.C,D,E 1949

B - SURVEY FOR NATIONAL LIME &STONE BY PETERMAN ASSOCIATES DATED 6/27/2018

I, Robert G. Hoy, P.S. have conducted a survey of the existing conditions for Franklin County, Ohio in December 2019. The results of that survey are contained herein. Underground utility locations are shown for informational purposes only.

The horizontal coordinates expressed herein are based on the Ohio State Plane Coordinates System, North Zone, NAD83(2011) datum. All coordinates listed are Project Ground Coordinates (US Survey Feet) to convert to State Plane Grid Coordinates, multiply the Ground Coordinates by the Project Adjustment Factor of 0.9999366029.

As a part of this project I have reestablished the locations of the existing property lines and centerline of existing Right of Way for property takes contained herein, established the proposed property lines, calculated the Gross Take, present roadway occupied (PRO), Net Take and Net Residue as well as prepared the legal descriptions necessary to acquire the parcels as shown herein.

All of my work contained herein was conducted in accordance with Ohio Administrative Code 4733-37 Standards for Boundary Surveys unless so noted. The words "I" as used herein are to mean either myself or someone working under my direct supervision.

Arcadis U.S., Inc.
Robert G. Hoy, Ohio Professional Surveyor No. 8142

SURVEYORS SEAL

STATE OF OHIO
ROBERT G. HOY
8142
REGISTERED
PROFESSIONAL SURVEYOR

CENTERLINE MONUMENT TABLE

ROAD	STATION	OFFSET	GROUND COORDINATES SEE SURVEY CERTIFICATION NORTH (Y)	EAST (X)	DESCRIPTION
LOCKBOURNE RD	54+65.20	0.000	664773.33	1835670.36	5/8" IRON PIN FOUND
	66+62.21	0.000	665968.00	1835745.03	DISC W/CENTER MARK FOUND IN MON. BOX FCGS 5437
	77+37.28	0.000	667040.45	1835820.02	*DISC W/CENTER MARK FOUND IN MON. BOX FCGS 0041
	81+36.21	0.000	667437.92	1835854.19	DISC W/CENTER MARK FOUND IN MON. BOX FCGS 0043
	83+15.19	3.93' (LT)	667616.42	1835869.62	*DISK W/CENTER MARK FOUND IN MON. BOX FCGS 0042
	83+16.94	16.02' (RT)	667615.09	1835889.60	*DISC W/CENTER MARK IN CONC. MON. BOX FCGS 3322, SECT. CORNER

** - TO BE RESET BY THE CONTRACTOR'S SURVEYOR UNDER THE SUPERVISION OF THE FRANKLIN COUNTY ENGINEER'S SURVEY DEPT.*

EXISTING RIGHT OF WAY MONUMENT TABLE

ROAD	NAME	STATION	OFFSET	GROUND COORDINATES SEE SURVEY CERTIFICATION NORTH (Y)	EAST (X)	DESCRIPTION
LOCKBOURNE RD	MN010	92+16.11	38.95' (RT)	668431.90	1836259.74	1" IRON PIN FOUND 3" BELOW SURFACE
	MN009	92+16.28	36.37' (RT)	668432.68	1836257.28	3/4" IRON PIPE FOUND 1" ABOVE SURFACE
	MN008	92+38.84	205.75' (RT)	668420.46	1836428.18	1" IRON PIPE FOUND 4" ABOVE SURFACE BENT NE
	MN011	93+38.37	43.04' (RT)	668557.91	1836284.54	1" IRON PIN FOUND 2" ABOVE SURFACE LEANING WEST
	MN021	-	-	670264.73	1836083.23	DISC W/ CENTER MARK FOUND IN MONUMENT BOX FCGS #0026

MONUMENT LEGEND

- EXISTING ℄ MONUMENT BOX
- PROPOSED MONUMENT BOX
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP
- P.F. IRON PIPE FOUND
- CONCRETE MONUMENT FOUND

HORIZONTAL SCALE IN FEET 0 50 100 200

CENTERLINE PLAT (2 OF 2)

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 895-2500
www.arcadis.com

DESIGNER BLW
REVIEWER RGH 11-10-20
PROJECT ID 109581
SUBSET 3 TOTAL 10
SHEET 84 TOTAL 91

FRA-317-1.46

MODEL: Centerline Plat-1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 9/9/2021 TIME: 12:54:21 PM USER: BWallace
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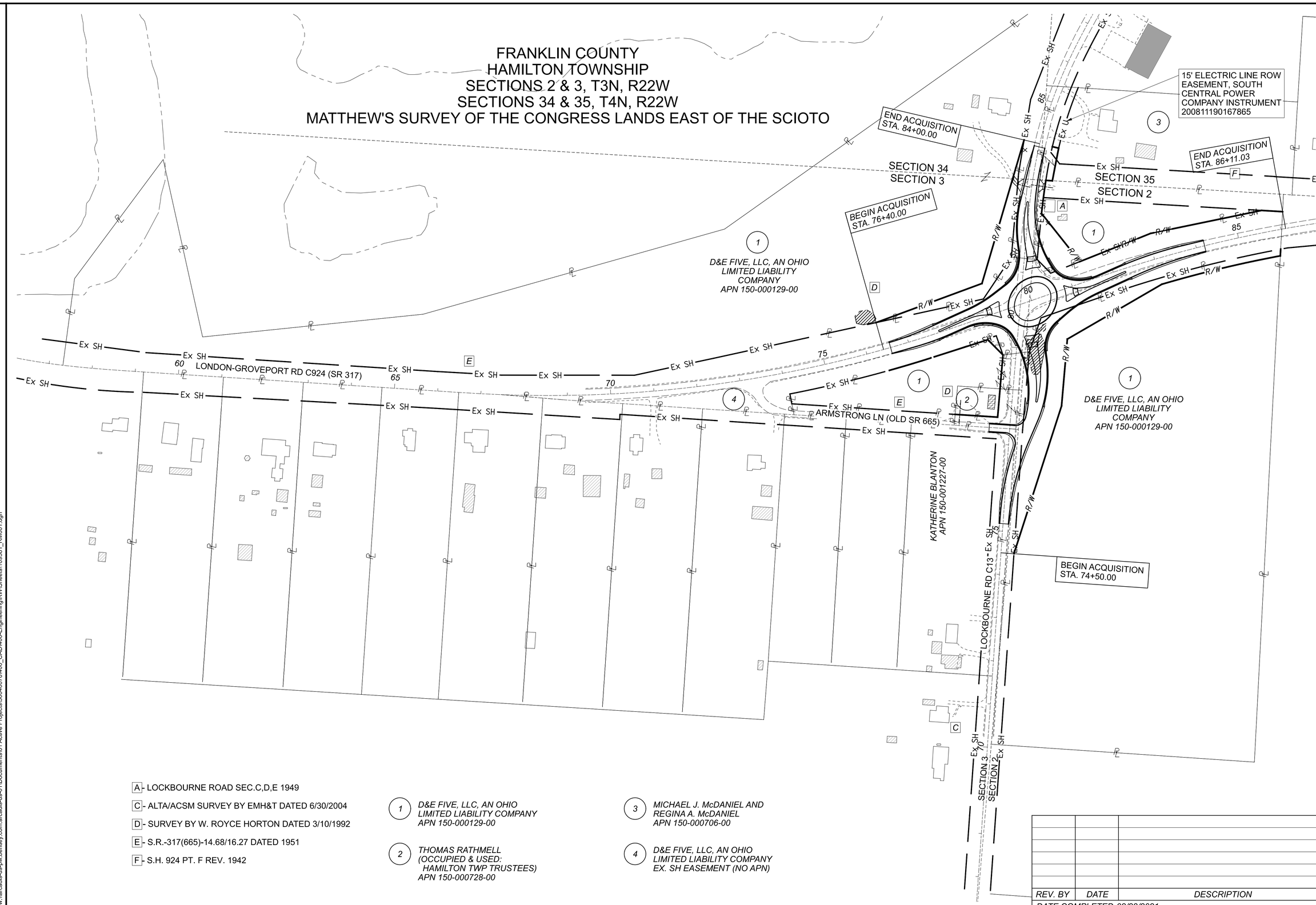

FRA-317-1.46

MODEL: Property Map [Sheet] PAPERSIZE: 34x22 (in.) DATE: 9/9/2021 TIME: 1:59:32 PM USER: BWallace
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TOTAL NUMBER OF :

4 OWNERSHIPS
6 PARCELS
0 TOTAL TAKES
0 OWNERSHIPS W/ STRUCTURES INVOLVED

NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

NET TAKE = GROSS TAKE - PRO IN TAKE

GRANTEE:

ALL RIGHT OF WAY ACQUIRED IN THE NAME OF
FRANKLIN COUNTY COMMISSIONERS
UNLESS OTHERWISE SHOWN.

ALL AREAS IN ACRES

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD BOOK	OWNERS RECORD PAGE	OWNERS RECORD INSTRUMENT	AUDITOR'S PARCEL NUMBER	AUDITOR'S RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE LEFT	NET RESIDUE RIGHT	FUND TYPE	REMARKS	AS ACQUIRED INSTRUMENT
1-WD1	D&E FIVE, LLC,	4,6,7&10			201705310072620	150-000129-00	37.592	1.628	0.817 (LT)	0.349 (LT)	0.468 (LT)	N	20.641		100% LOCAL	ONE-FIFTH INTEREST, TAKE 18" TREE	
	AN OHIO LIMITED LIABILITY CORPORATION				201705310072621											ONE-FIFTH INTEREST	
					201705310072622											ONE-FIFTH INTEREST	
					201705310072623											ONE-FIFTH INTEREST	
					201705310072624											ONE-FIFTH INTEREST	
1-WD2		4,7							0.014 (RT)	0.000 (RT)	0.014 (RT)						
1-WD3		4,7-9							1.265 (RT)	0.226 (RT)	1.039 (RT)						
	TOTAL (RT)								1.279 (RT)	0.226 (RT)	1.053 (RT)			13.802			
	TOTAL												34.443 (LT & RT)			(T) ROCK, (R) ROCK*	
2-WD	THOMAS RATHMELL	4,9	DB 161	PG 505		150-000728-00	0.320	0.161	0.161	0.161	0.000	N	0.159			P.R.O. ONLY	
	(OCCUPIED & USED BY HAMILTON TWP TRUSTEES)																
3-WD	MICHAEL J. McDANIEL AND REGINA A. McDANIEL	4,10			199712180170835	150-000706-00	2.920	0.859	0.062	0.054	0.008	N		2.053			
					199712180170841												
4-WD	D&E FIVE, LLC,	4,6-9			201705310072620	N/A	5.672	2.414	2.414	2.414	0.000	N	2.205	1.053		P.R.O. ONLY, *TREE LINE	
	AN OHIO LIMITED LIABILITY CORPORATION				201705310072621												
					201705310072622												
					201705310072623												
					201705310072624												

TYPES OF TITLE LEGEND:

WD = WARRANTY DEED

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.

(c) = CALCULATED AREA

** DENOTES RIGHT OF WAY ENCROACHMENT*

REV. BY	DATE	DESCRIPTION

DATE COMPLETED 02/23/2021

SUMMARY OF ADDITIONAL RIGHT OF WAY

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 895-3700
www.arcadis.com

DESIGNER BLW
REVIEWER RGH 11-10-20
PROJECT ID 109581
SUBSET 5 TOTAL 10
SHEET 86 TOTAL 91

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 9/9/2021 TIME: 1:59:41PM USER: BWallace
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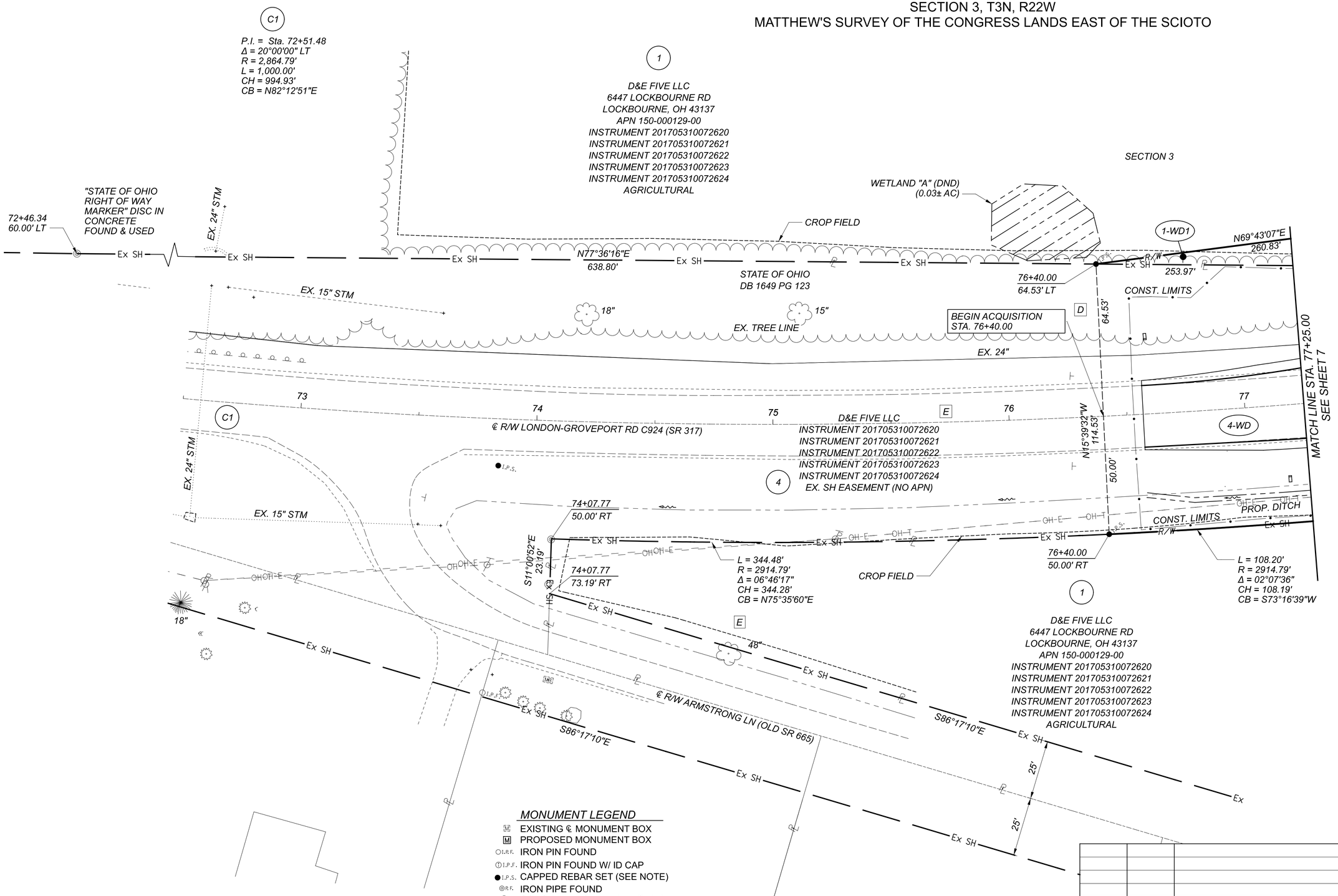
FRANKLIN COUNTY
HAMILTON TOWNSHIP
SECTION 3, T3N, R22W
MATTHEW'S SURVEY OF THE CONGRESS LANDS EAST OF THE SCIOTO



MONUMENT LEGEND

- EXISTING ℄ MONUMENT BOX
- PROPOSED MONUMENT BOX
- I.P.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP
- I.P.S. CAPPED REBAR SET (SEE NOTE)
- P.F. IRON PIPE FOUND
- CONCRETE MONUMENT FOUND

NOTE: CAPPED REBAR SET IS A 5/8" DIAMETER 30 INCHES LONG
REBAR SET WITH YELLOW PLASTIC CAP STAMPED: ARCADIS US INC

D - SURVEY BY W. ROYCE HORTON DATED 3/10/1992

E - S.R.-317(665) - 14.68/16.27 DATED 1951

REV. BY	DATE	DESCRIPTION

DATE COMPLETED 02/23/2021

HORIZONTAL SCALE IN FEET
0 10 20 40

RIGHT OF WAY DETAIL SHEET - LONDON-GROVEPORT RD C924 (SR 317)
STA. 72+50.00 TO STA. 77+25.00

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 985-9100
www.arcadis.com

DESIGNER	BLW
REVIEWER	RGH 11-10-20
PROJECT ID	109581
SUBSET	6
TOTAL	10
SHEET	87
TOTAL	91

FRA-317-1.46

MODEL: Plan I[Sheet] PAPERSIZE: 34x22 (in.) DATE: 9/9/2021 TIME: 1:59:59 PM USER: BWallace
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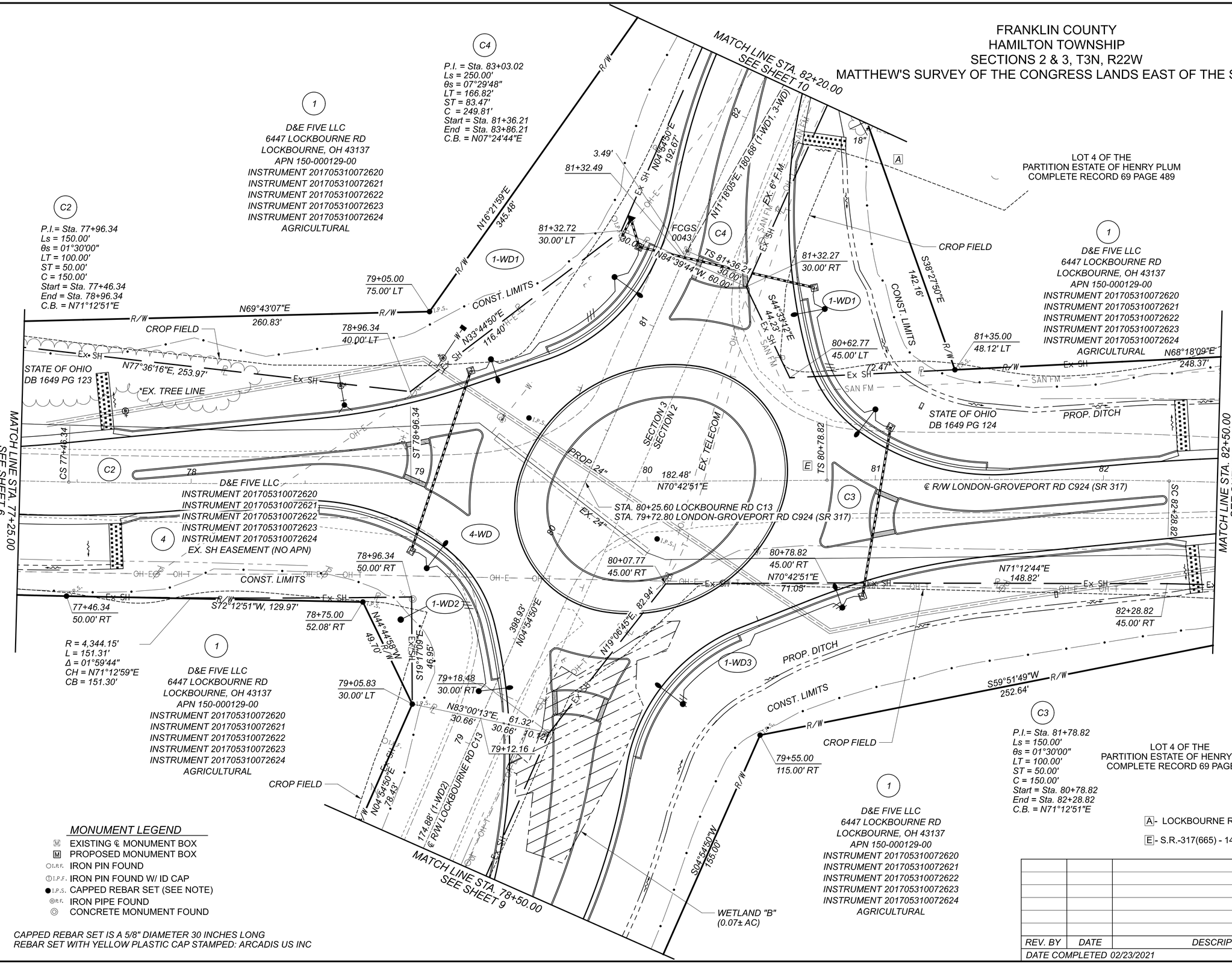
FRANKLIN COUNTY
HAMILTON TOWNSHIP
SECTIONS 2 & 3, T3N, R22W
MATTHEW'S SURVEY OF THE CONGRESS LANDS EAST OF THE SCIOTO



MONUMENT LEGEND

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- P.F. IRON PIPE FOUND
- CONCRETE MONUMENT FOUND

NOTE: CAPPED REBAR SET IS A 5/8" DIAMETER 30 INCHES LONG REBAR SET WITH YELLOW PLASTIC CAP STAMPED: ARCADIS US INC

A- LOCKBOURNE ROAD SEC,C,D,E 1949

E- S.R.-317(665) - 14.68/16.27 DATED 1951

REV. BY	DATE	DESCRIPTION

DATE COMPLETED 02/23/2021

HORIZONTAL SCALE IN FEET 0 10 20 40

RIGHT OF WAY DETAIL SHEET - LONDON-GROVEPORT RD C924 (SR 317)
STA. 77+25.00 TO STA. 82+50.00

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 985-9100
www.arcadis.com

DESIGNER	BLW
REVIEWER	RGH 11-10-20
PROJECT ID	109581
SUBSET	7
TOTAL	10
SHEET	88
TOTAL	91

FRA-317-1.46

MODEL: Plan 2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 9/9/2021 TIME: 2:00:00 PM USER: BWallace
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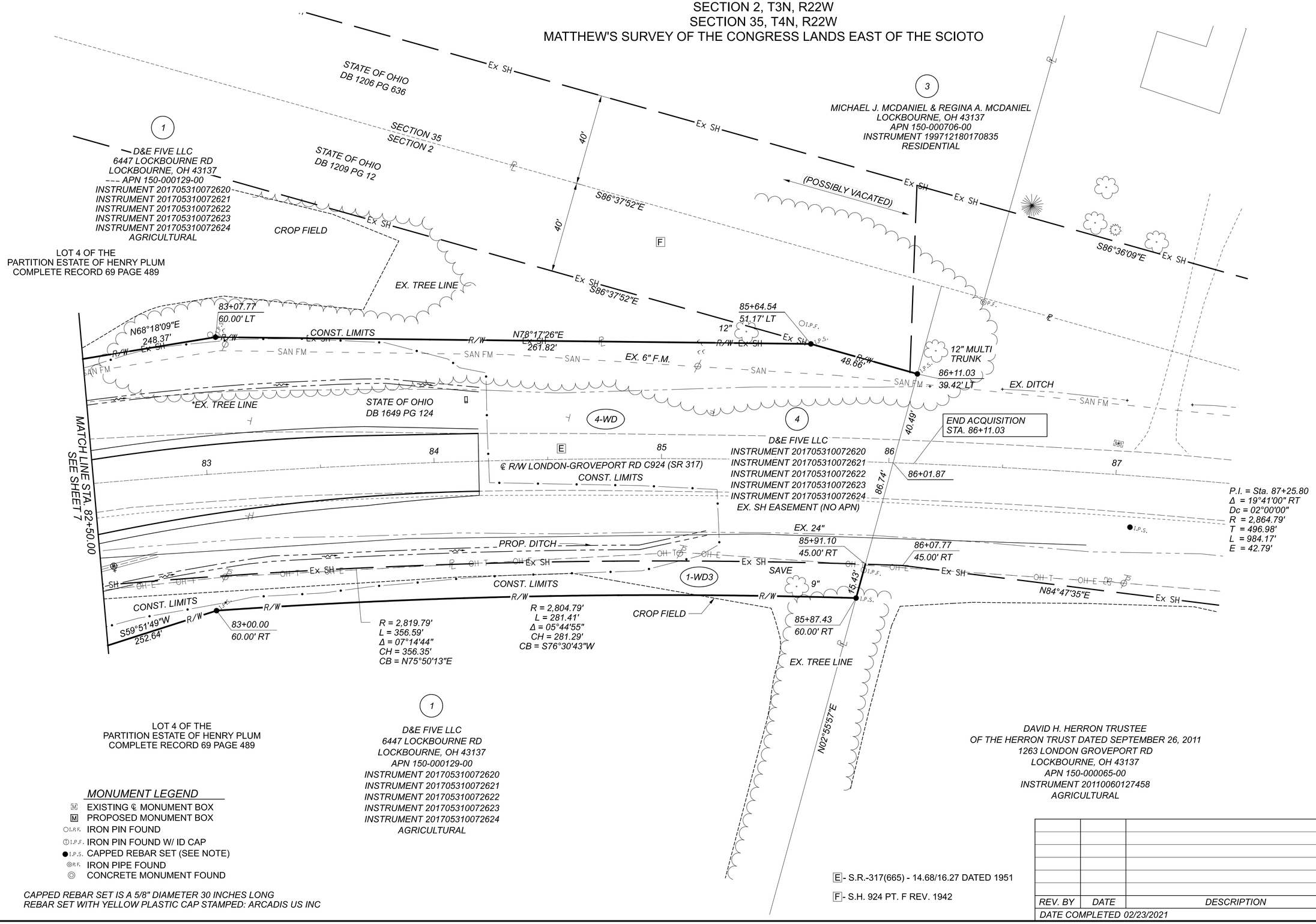
FRANKLIN COUNTY
HAMILTON TOWNSHIP
SECTION 2, T3N, R22W
SECTION 35, T4N, R22W
MATTHEW'S SURVEY OF THE CONGRESS LANDS EAST OF THE SCIOTO



MONUMENT LEGEND

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- I.P.F. IRON PIN FOUND W/ ID CAP
- I.P.S. CAPPED REBAR SET (SEE NOTE)
- P.F. IRON PIPE FOUND
- CONCRETE MONUMENT FOUND

NOTE: CAPPED REBAR SET IS A 5/8" DIAMETER 30 INCHES LONG
REBAR SET WITH YELLOW PLASTIC CAP STAMPED: ARCADIS US INC

E - S.R.-317(665) - 14.68/16.27 DATED 1951

F - S.H. 924 PT. F REV. 1942

REV. BY	DATE	DESCRIPTION

DATE COMPLETED 02/23/2021

HORIZONTAL SCALE IN FEET 0 10 20 40

RIGHT OF WAY DETAIL SHEET - LONDON-GROVEPORT RD C924 (SR 317)
STA. 82+50.00 TO STA 87+50.00

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 985-9100
www.arcadis.com

DESIGNER	BLW
REVIEWER	RGH 11-10-20
PROJECT ID	109581
SUBSET	8
TOTAL	10
SHEET	89
TOTAL	91

FRA-317-1.46

MODEL: Plan 3 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 9/9/2021 TIME: 2:00:02 PM USER: BWallace
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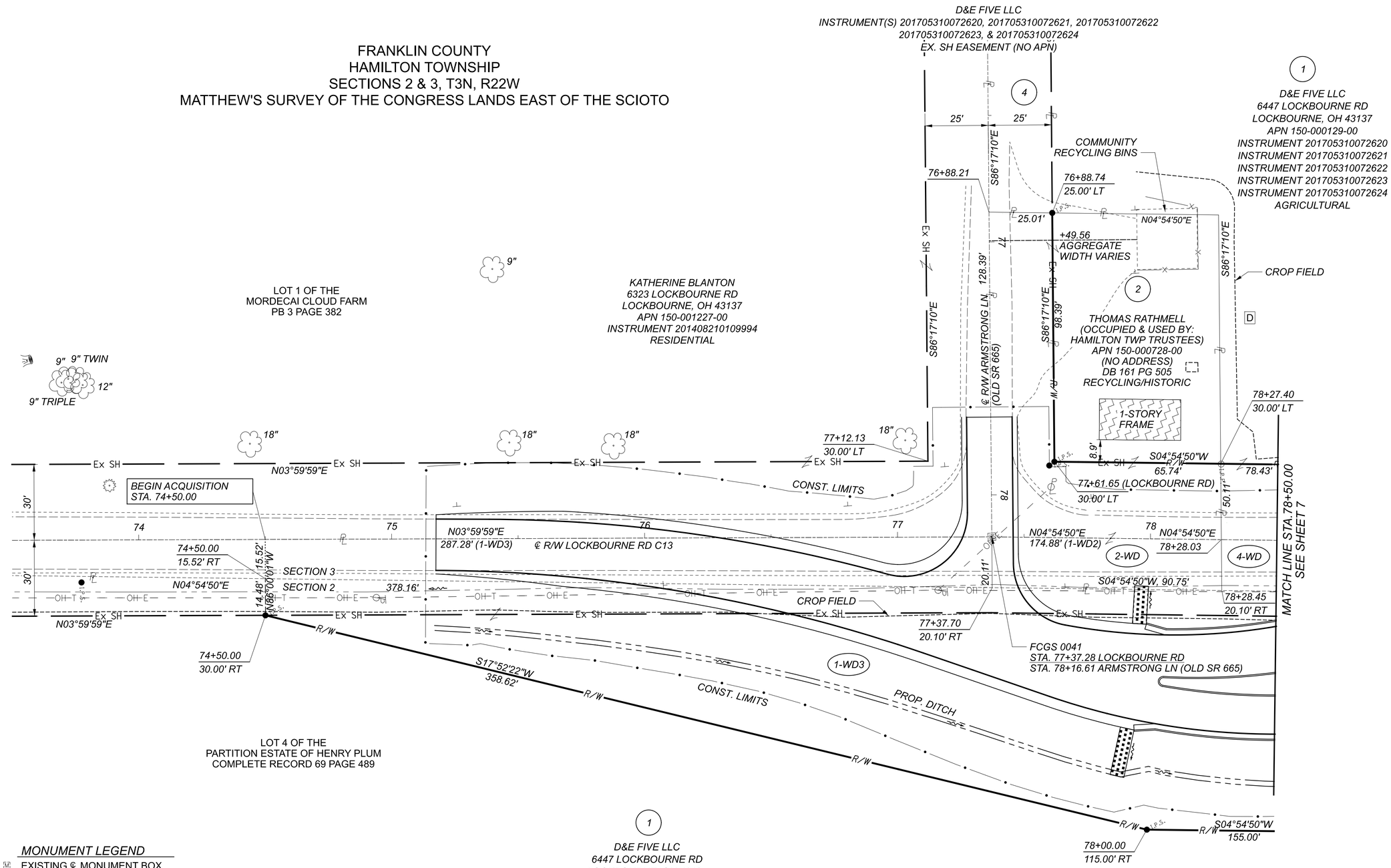
FRANKLIN COUNTY
HAMILTON TOWNSHIP
SECTIONS 2 & 3, T3N, R22W
MATTHEW'S SURVEY OF THE CONGRESS LANDS EAST OF THE SCIOTO



MONUMENT LEGEND

- EXISTING ℄ MONUMENT BOX
- PROPOSED MONUMENT BOX
- I.R.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP
- I.P.S. CAPPED REBAR SET (SEE NOTE)
- P.F. IRON PIPE FOUND
- CONCRETE MONUMENT FOUND

NOTE: CAPPED REBAR SET IS A 5/8" DIAMETER 30 INCHES LONG REBAR SET WITH YELLOW PLASTIC CAP STAMPED: ARCADIS US INC

D - SURVEY BY W. ROYCE HORTON DATED 3/10/1992

REV. BY	DATE	DESCRIPTION

DATE COMPLETED 02/23/2021

HORIZONTAL SCALE IN FEET 0 10 20 40

RIGHT OF WAY DETAIL SHEET - LOCKBOURNE RD C13
STA. 73+50.00 TO STA. 78+50.00

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 895-3700
www.arcadis.com

DESIGNER BLW
REVIEWER RGH 11-10-20
PROJECT ID 109581
SUBSET 9 TOTAL 10
SHEET 90 TOTAL 91

FRA-317-1.46

MODEL: Plan 4 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 9/9/2021 TIME: 2:00:02 PM USER: BWallace
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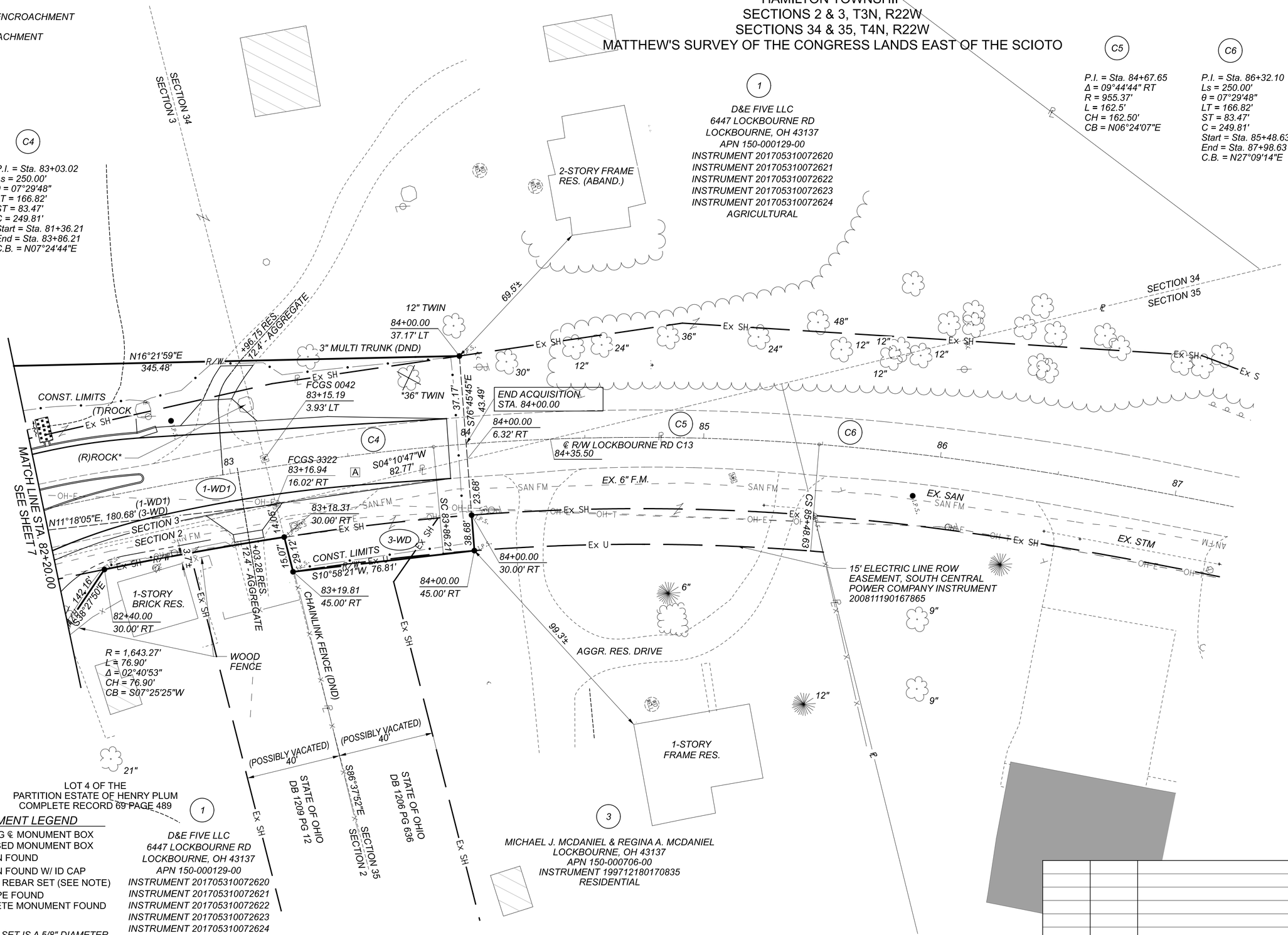
A - LOCKBOURNE ROAD SEC.C,D,E 1949

(R) - REMOVE ENCROACHMENT
(T) - TAKE
** - R/W ENCROACHMENT*

FRANKLIN COUNTY
HAMILTON TOWNSHIP
SECTIONS 2 & 3, T3N, R22W
SECTIONS 34 & 35, T4N, R22W
MATTHEW'S SURVEY OF THE CONGRESS LANDS EAST OF THE SCIOTO



MONUMENT LEGEND

- EXISTING ℄ MONUMENT BOX
- PROPOSED MONUMENT BOX
- I.R.F. IRON PIN FOUND
- I.P.F. IRON PIN FOUND W/ ID CAP
- I.P.S. CAPPED REBAR SET (SEE NOTE)
- R.F. IRON PIPE FOUND
- CONCRETE MONUMENT FOUND

NOTE:
CAPPED REBAR SET IS A 5/8" DIAMETER 30 INCHES LONG REBAR SET WITH YELLOW PLASTIC CAP STAMPED: ARCADIS US INC

REV. BY	DATE	DESCRIPTION

DATE COMPLETED 02/23/2021

HORIZONTAL SCALE IN FEET 0 10 20 40

RIGHT OF WAY DETAIL SHEET - LOCKBOURNE RD C13
STA. 82+20.00 TO STA. 87+25.00

DESIGN AGENCY
ARCADIS
100 E CAMPUS VIEW BLVD SUITE 230
COLUMBUS, OHIO 43235
(614) 895-3700
www.arcadis.com

DESIGNER: BLW
REVIEWER: RGH 11-10-20
PROJECT ID: 109581
SUBSET: 10 TOTAL: 10
SHEET: 91 TOTAL: 91

FRA-317-1.46

MODEL: Plan 5 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 9/9/2021 TIME: 2:00:03 PM USER: BWallace
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