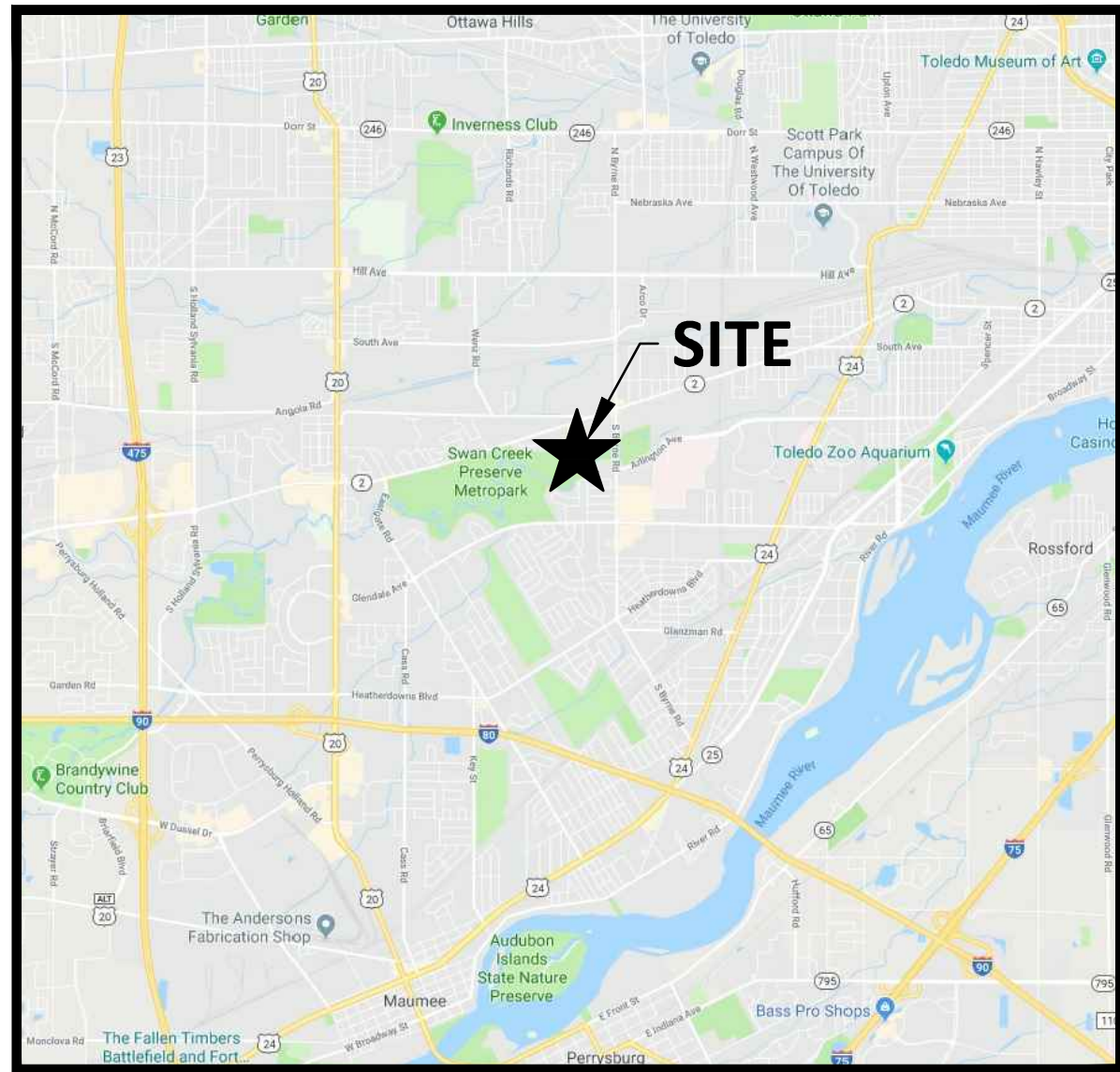


METROPARKS TOLEDO SWAN CREEK CONNECTOR TRAIL

CITY OF TOLEDO,
LUCAS COUNTY, OHIO



VICINITY MAP
NOT TO SCALE



SITE ADDRESS

4301 AIRPORT HWY
TOLEDO, OHIO 43615
LUCAS COUNTY

ZONING: MX (MIXED ZONED PARCEL)
FLOOD ZONES: X (NOT MAPPED)
AE (100 YEAR WITH BFE)
AE FLOODWAY

SYMBOL LEGEND

EXISTING	PROPOSED	DESCRIPTION
		BENCHMARK
		MONUMENT
		IRON PIN
		MONUMENT BOX
		PK NAIL
		MAG NAIL
		DRILL HOLE
		MONUMENT SPIKE
		TACKED HUB
		CATCH BASIN
		CURB INLET
		STORM MANHOLE
		SANITARY MANHOLE
		CLEANOUT
		ELECTRIC RISER/PULL BOX
		ELECTRIC METER
		ELECTRIC MANHOLE
		ELECTRIC TRANSFORMER
		GAS METER
		GAS MARKER
		GAS VALVE
		POWER POLE
		LIGHT POLE
		POWER/LIGHT POLE
		TELEPHONE POLE
		GUY WIRE
		TELEPHONE PEDESTAL
		FIRE HYDRANT
		WATER GATE VALVE
		WATER METER
		WATER MANHOLE
		STUMP
		SHRUB
		TREE-DECIDUOUS
		TREE-EVERGREEN
		AIR CONDITIONER
		MAIL BOX
		POST
		SATELLITE DISH
		SPRINKLER HEAD
		SIGN
		SIGNAL

ABBREVIATION LEGEND

SYMBOL	DESCRIPTION
BLDG	BUILDING
BL	BUILDING LINE
BM	BENCHMARK
CB	CATCH BASIN
CO	CLEANOUT
CONC	CONCRETE
CP	CONTROL POINT
CPP	CORRUGATED POLYETHYLENE PIPE
DE	DRAINAGE EASEMENT
E	EAST, EASTING
ELEV	ELEVATION
EX	EXISTING
FF	FINISHED FLOOR
FO	FIBER OPTIC
FM	FORCE MAIN
FND	FOUNDATION
FT	FOOT, FEET
HW	HEADWALL
IMPERV	IMPERVIOUS
ICW	INTEGRAL CURB AND WALK
INV	INVERT
LL	LOWER LEVEL
MH	MANHOLE
MON	MONUMENT
N	NORTH, NORTHING
NE	NORTHEAST
NW	NORTHWEST
OC	ON CENTER
OFF	OFFSET
RCP	ROCK CHANNEL PROTECTION
RCP	REINFORCED CONCRETE PIPE
R/W	RIGHT OF WAY
RYS	REAR YARD SETBACK
S	SOUTH
SAN	SANITARY
SE	SOUTHEAST
SS	SUMP SERVICE
STA	STATION
STM	STORM
SW	SOUTHWEST
TBR	TO BE REMOVED
TC	TOP OF CURB
T/GR	TOP OF GR
T/RIM	TOP OF RIM
TYP	TYPICAL
UD	UNDERDRAIN
UE	UTILITY EASEMENT
VIT	VITREOUS
W	WEST
WM	WATER MAIN
WS	WATER SERVICE

INDEX OF SHEETS

DESCRIPTION	SHEET	FOR CONSTRUCTION
CIVIL TITLE SHEET	C1	2/27/20
SCHEMATIC PLAN	C2	2/27/20
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ESTIMATED QUANTITIES	C4	2/27/20
EXISTING TRAIL IMPROVEMENT PLAN & PROFILE	C5-C11	2/27/20
PROPOSED WEST TRAIL PLAN & PROFILE	C12-C15	2/27/20
PROPOSED EAST TRAIL PLAN & PROFILE	C16-C19	2/27/20
PROPOSED AIRPORT HIGHWAY CONNECTOR PLAN & PROFILE	C20	2/27/20
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EROSION CONTROL NOTES & DETAILS	C48	2/27/20
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ENVIRONMENTAL PLAN AND NOTES	EN1	2/27/20

LINETYPE LEGEND

EXISTING	PROPOSED	DESCRIPTION	EXISTING	PROPOSED	DESCRIPTION
		INDEX CONTOURS			INTERMEDIATE CONTOURS
		CABLE			ELECTRIC
		OVERHEAD ELECTRIC			OVERHEAD CABLE
		OVERHEAD TELEPHONE			OVERHEAD UTILITIES

STANDARD CONSTRUCTION DRAWINGS

SUPPLEMENTAL
SPECIFICATIONS

SPECIAL
PROVISIONS

832

PROJECT DESCRIPTION:

THE SWAN CREEK TRAIL IMPROVEMENTS WILL PROVIDE THE MISSING PIECE OF TRAIL THAT WILL ULTIMATELY CONNECT MAUMEE TO SWAN CREEK AND THE UNIVERSITY OF TOLEDO MEDICAL CENTER. 7,300- FEET OF IMPROVEMENTS THROUGH SWAN CREEK PRESERVE WILL INCLUDE: 6,500- FEET OF ASPHALT PATH, A 200- FOOT PEDESTRIAN BRIDGE CROSSING OVER SWAN CREEK AND NEARLY 600- FEET OF ELEVATED BOARDWALK ABOVE THE FLOODPLAIN AT THE EAST END OF THE PRESERVE.

EARTH DISTURBED AREAS:

PROJECT EARTH DISTURBED AREA: 4.53 ACRES

ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0.00 ACRES

NOTICE OF INTENT EARTH DISTURBED AREA: 4.53 ACRES



NO	1	2	3	4	5	6	7	8	9
DATE	02-27-20								
REVISION	FOR CONSTRUCTION								



Know what's below.
Call before you dig.

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES
CALL TWO WORKING DAYS
BEFORE YOU DIG



CALL
1-800-362-2764
(TOLL FREE)



OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

OIL & GAS PRODUCERS PROTECTIVE
SERVICE CALL: 1-800-925-0988



DGL CONSULTING ENGINEERS, LLC
3455 BRIARFIELD BLVD, SUITE E
MAUMEE, OH 43537
PHONE: 419.535.1015
www.dgl-td.com

METROPARKS TOLEDO
SWAN CREEK CONNECTOR TRAIL

4301 AIRPORT HWY
TOLEDO, OHIO 43615
LUCAS COUNTY

CIVIL TITLE SHEET

FILE: 18147 CD.dwg
JOB NO.: 18147
DRAWN BY: EAH
ISSUED: FEB 27, 2020

C1

PLOTTED: Feb 27, 2020 -- 9:50am
 DRAWING: M:\18147 (Metroparks - Swan Creek Connector Trail)\Civil\DWG\18147 CD.dwg; C02 SCHEMATIC SWAN

CL EXISTING TRAIL IMPROVEMENT				
Number	STATION	NORTHING	EASTING	DESCRIPTION
L1	0+32.53	712998.55	1655784.39	PC
C1	0+85.38	713018.67	1655832.60	PT
L2	1+19.73	713023.15	1655866.66	PC
C2	1+46.50	713033.42	1655891.03	PT
L3	1+77.50	713052.58	1655915.40	PC
C3	1+87.25	713058.97	1655922.76	PT
L4	2+17.13	713079.65	1655944.34	PC
C4	2+45.83	713102.18	1655961.95	PT
L5	2+88.59	713139.29	1655983.19	PC
C5	3+43.05	713182.31	1656016.30	PT
L6	3+78.87	713207.47	1656041.81	PC
C6	4+00.32	713221.69	1656057.85	PT
L7	4+63.74	713261.14	1656107.51	PC
C7	4+70.73	713265.30	1656113.12	PT
L8	5+15.06	713290.39	1656149.68	PC
C8	5+41.86	713308.31	1656169.49	PT
L9	5+63.06	713324.51	1656183.17	PC
C9	6+70.38	713424.60	1656190.18	PT
L10	7+26.92	713472.46	1656160.09	PC
C10	7+65.81	713507.18	1656142.71	PT
L11	7+91.04	713530.73	1656133.66	PC
C11	9+06.85	713623.05	1656179.45	PT
L12	10+11.47	713652.27	1656279.90	PC
C12	10+83.74	713659.62	1656351.41	PT
L13	11+78.81	713652.19	1656446.19	PC
C13	12+62.04	713662.88	1656528.12	PT
C14	12+92.49	713661.62	1656557.81	PT
L14	13+14.94	713652.40	1656578.28	PC
C15	13+58.02	713652.71	1656620.04	PT
L15	13+85.63	713664.43	1656645.04	PC
C16	14+00.73	713668.69	1656659.47	PT
L16	14+27.27	713672.30	1656685.76	PC
C17	15+31.16	713659.66	1656787.71	PT
L17	15+57.60	713649.77	1656812.23	PC
C18	15+75.75	713644.55	1656829.58	PT
L18	16+37.20	713632.24	1656889.79	PC
C19	16+75.70	713611.45	1656921.07	PT
L19	16+95.93	713594.74	1656932.48	PC

CL EXISTING TRAIL IMPROVEMENT				
Number	STATION	NORTHING	EASTING	DESCRIPTION
C20	17+93.17	713542.58	1657011.64	PT
L20	18+44.54	713532.69	1657062.05	PC
C21	19+38.80	713543.83	1657154.09	PT
L21	19+77.94	713560.31	1657189.59	PC
C22	20+24.09	713569.57	1657234.39	PT
L22	20+90.88	713567.77	1657301.15	PC
C23	21+02.24	713568.11	1657312.50	PT
L23	21+56.34	713572.79	1657366.40	PC
C24	22+03.78	713555.53	1657408.69	PT
L24	22+30.25	713535.43	1657425.92	PC
C25	22+78.15	713514.61	1657467.65	PT
L25	24+98.34	713500.60	1657687.39	PC
C26	25+01.94	713500.31	1657690.98	PT
L26	26+04.07	713490.14	1657792.60	PC
C27	26+13.51	713489.65	1657802.03	PT
L27	26+54.73	713489.43	1657843.25	PC
C28	27+11.11	713497.03	1657898.92	PT
L28	27+61.84	713510.88	1657947.73	PC
C29	28+35.57	713504.26	1658019.49	PT
L29	28+45.39	713499.89	1658028.28	PC
C30	28+98.44	713470.32	1658072.14	PT
L30	29+40.39	713442.47	1658103.52	PC
C31	30+14.27	713417.26	1658171.18	PT
L31	30+42.84	713417.63	1658199.76	PC
C32	31+16.52	713411.81	1658273.10	PT
L32	31+44.32	713407.07	1658300.49	PC
C33	31+97.45	713401.51	1658353.29	PT
L33	32+72.20	713398.63	1658427.98	PC
C34	33+06.49	713408.71	1658460.06	PT
L34	33+96.91	713463.24	1658532.19	PC
C35	34+25.32	713473.20	1658558.39	PT
L35	34+43.87	713474.66	1658576.88	PC
C36	34+62.58	713474.39	1658595.56	PT
L36	34+76.75	713472.87	1658609.65	PC
C37	35+24.54	713437.17	1658629.48	PT

CL PROPOSED TRAIL WEST				
Number	STATION	NORTHING	EASTING	DESCRIPTION
C38	40+52.39	713478.09	1658666.36	PT
L38	41+03.82	713512.45	1658704.63	PC
C39	41+49.57	713524.41	1658747.15	PT
C40	42+68.62	713520.32	1658865.69	PT
C41	43+33.42	713489.60	1658917.65	PT
L39	43+42.62	713480.90	1658920.61	PC
C42	43+96.81	713465.18	1658965.03	PT
L40	44+28.05	713481.86	1658991.45	PC
C43	44+81.89	713513.58	1659034.91	PT
L41	45+72.42	713571.75	1659104.27	PC
C44	46+11.69	713590.51	1659138.49	PT
C45	47+14.58	713669.98	1659190.55	PT
L42	47+67.72	713722.82	1659184.92	PC
C46	48+16.33	713770.06	1659173.98	PT
L43	49+20.65	713868.10	1659138.30	PC
C47	49+41.40	713887.19	1659130.20	PT
C48	50+02.07	713943.53	1659138.94	PT
L44	50+36.18	713968.24	1659162.45	PC
C49	50+89.07	714017.36	1659174.03	PT
L45	52+93.75	714212.47	1659112.21	PC
C50	53+57.78	714269.40	1659083.51	PT
C51	53+84.26	714292.64	1659070.97	PT
L46	55+52.90	714450.34	1659011.21	PC
C52	55+85.14	714478.15	1658995.17	PT
L47	56+22.08	714506.76	1658971.81	PC
C53	56+60.40	714541.32	1658974.64	PT
L48	58+66.74	714677.77	1659129.42	PC

CL PROPOSED TRAIL EAST				
Number	STATION	NORTHING	EASTING	DESCRIPTION
L49	60+01.50	714859.50	1659731.72	PC
C54	60+36.47	714825.29	1659729.86	PT
L50	60+48.62	714814.12	1659725.08	PC
C55	60+88.24	714775.59	1659717.04	PT
L51	69+48.92	713914.93	1659710.38	PC
C56	70+94.10	713814.96	1659797.73	PT
L52	71+72.13	713805.09	1659875.14	PC
C57	71+82.03	713803.36	1659884.88	PT
L53	72+45.63	713789.12	1659946.87	PC
C58	72+66.39	713782.42	1659966.47	PT
L54	75+25.59	713673.58	1660201.72	PC
L55	75+46.52	713661.62	1660218.89	PC
L56	75+88.37	713634.82	1660251.03	PC
L57	76+30.23	713605.31	1660280.72	PC
L58	76+71.82	713573.53	1660307.55	PC
L59	77+13.42	713541.74	1660334.39	PC
L60	77+55.27	713507.54	1660358.52	PC
L61	77+97.13	713475.56	1660385.52	PC
L62	78+38.99	713446.05	1660415.20	PC
L63	78+80.84	713419.25	1660447.35	PC
L64	79+22.70	713395.34	1660481.71	PC
L65	80+06.15	713353.79	1660554.07	PC
L66	80+48.52	713326.65	1660586.62	PC
L67	80+90.64	713294.50	1660613.83	PC
L68	81+21.92	713272.45	1660636.01	PC

DGL PROJECT CONTROL			
POINT #	NORTHING	EASTING	DESCRIPTION
500	713071.98	1655289.10	MAG NAIL
501	713005.89	1655769.40	MAG NAIL
502	713652.49	1657215.41	MAG NAIL
503	713636.39	1658800.41	MAG NAIL
504	714616.34	1658924.88	MAG NAIL
505	714847.38	1659885.39	MAG NAIL
506	712958.99	1660711.03	MAG NAIL
507	713259.16	1660640.51	MAG NAIL
626	713464.54	1658609.65	IRON PIN
627	713498.61	1658821.68	IRON PIN
630	713782.95	1659978.60	IRON PIN
631	713743.41	1660096.56	IRON PIN
633	713487.57	1660380.52	IRON PIN
708	714789.24	1659475.07	MAG NAIL

CL BYRNE ROAD PATH				
Number	STATION	NORTHING	EASTING	DESCRIPTION
L125	94+37.23	713283.38	1660636.09	PC

CL AIRPORT HIGHWAY CONNECTOR				
Number	STATION	NORTHING	EASTING	DESCRIPTION
L122	100+34.43	713608.21	1656128.34	PC
C113	101+02.14	713668.67	1656100.83	PT
L124	101+12.75	713676.32	1656093.48	PC
C114	101+58.78	713715.56	1656070.20	PT
L123	101+81.27	713737.01	1656063.45	PC

NO	REVISION	DATE
1	FOR CONSTRUCTION	02-27-20
2		
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DGL CONSULTING ENGINEERS, LLC
 3455 BRIARFIELD BLVD, SUITE E
 MAUMEE, OH 43537
 PHONE: 419.535.1015
 www.dgl-llc.com

METROPARKS TOLEDO
 SWAN CREEK CONNECTOR TRAIL
 4301 AIRPORT HWY
 TOLEDO, OHIO 43615
 LUCAS COUNTY

SCHEMATIC PLAN

FILE: 18147 CD.dwg
 JOB NO.: 18147
 DRAWN BY: EAH
 ISSUED: FEB 27, 2020

C2

GENERAL NOTES

- ITEM NUMBERS REFER TO THE OHIO DEPARTMENT OF TRANSPORTATION (ODOT) CONSTRUCTION AND MATERIAL SPECIFICATIONS (CURRENT EDITION) AND ALL CONSTRUCTION WORK SHALL BE DONE ACCORDING TO SAID SPECIFICATIONS AND IN ACCORDANCE WITH APPLICABLE STANDARDS OF THE GOVERNING AGENCIES. WHEN IN CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN.
- ALL CONSTRUCTION DETAILS SHALL CONFORM TO THE CURRENT EDITION OF THE STANDARD CONSTRUCTION DRAWINGS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION (ODOT) UNLESS OTHERWISE NOTED.
- WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES AND ORDINANCES.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING A PERMIT FOR ALL CONSTRUCTION ACTIVITIES ACCORDING TO THE GOVERNING AGENCY REQUIREMENTS, SCHEDULING INSPECTIONS, AND PAYING ALL INSPECTION FEES.
- CONTRACTOR SHALL CONTACT THE LOCAL GOVERNING AGENCIES A MINIMUM OF SEVEN (7) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION IN RIGHT OF WAY.
- CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING CONDITIONS, DIMENSIONS, LOCATIONS, AND MATERIALS.
- CONTRACTOR SHALL REPAIR OR REPLACE, AT NO ADDITIONAL COST, ANY EXISTING IMPROVEMENTS DAMAGED DURING THE WORK.
- CONTRACTOR SHALL PROVIDE TEMPORARY SIGNS AND BARRIERS AT LIMITS OF CONSTRUCTION TO ASSURE PUBLIC SAFETY DURING CONSTRUCTION.
- CONTRACTOR SHALL MAINTAIN A CLEAN PROJECT SITE AND REMOVE ALL WASTE MATERIALS AND RUBBISH FROM THE PROJECT.
- ALL PAVEMENT DIMENSIONS, STRIPING DIMENSIONS, AND NODES ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
- EXISTING EDGE OF PAVEMENT ABUTTING PROPOSED PAVEMENT SHALL BE SAWCUT AND SEALED WITH ITEM 407 TACK COAT PRIOR TO PLACEMENT OF ITEM 301 OR 448.
- THE CONTRACTOR AND OWNER MUST VERIFY, TAKE OFF, AND AGREE TO ALL QUANTITIES, INCLUDING EXCAVATION AND EMBANKMENT QUANTITIES PRIOR TO BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL VERIFY THAT COORDINATES, IF USED, MATCH PLAN DIMENSIONS. WHEN IN CONFLICT, THE PLAN DIMENSIONS SHALL GOVERN OVER COORDINATES, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

EARTHWORK

- EXISTING SITE SURVEY, TOPOGRAPHY, AND SUBSURFACE CONDITIONS AS PRESENTED IN THE DRAWINGS, REPORTS, OR SPECIFICATION FORM ARE BELIEVED ACCURATE WITHIN NORMAL INDUSTRY TOLERANCES BUT ARE NOT GUARANTEED. INVESTIGATE, SURVEY, CONFIRM, AND VERIFY ALL CONDITIONS BEARING ON THE WORK BY ANY MEANS NECESSARY BEFORE STARTING ANY WORK THAT CHANGES EXISTING CONDITIONS. REPORT ANY UNACCEPTABLE DISCREPANCIES TO THE ENGINEER IN WRITING BEFORE BEGINNING OPERATIONS.
 - WRITTEN CLAIMS OF DIFFERENCE SHALL BE ACCOMPANIED BY SUBSTANTIATING EVIDENCE. CLAIMS OF DIFFERENCE SHALL BE RESOLVED, INCLUDING DETERMINATION OF QUANTITIES AND COSTS, AND METHODS OF CONTRACT MODIFICATION, BEFORE WORK THAT ALTERS SUCH EXISTING CONDITIONS IS STARTED.
 - INITIATION OF SITE-CLEARING, SOIL MOVING OPERATIONS, DEMOLITION, OR OTHER ACTIVITY THAT ALTERS EXISTING CONDITIONS SHALL BE EVIDENCE THAT CONTRACTOR HAS MADE ALL INVESTIGATIONS AND EVALUATIONS IT DEEMS NECESSARY AND HAS ACCEPTED ALL EXISTING CONDITIONS PRESENT WHETHER OR NOT THEY CONFORM EXACTLY TO THE DOCUMENTS.
 - WITHOUT ADVANCE WRITTEN NOTIFICATION OF UNACCEPTABLE DISCREPANCY, NO CLAIM FOR EXTRA PAYMENT WILL BE CONSIDERED FOR A CLAIM OF DIFFERENCE BETWEEN DOCUMENTS AND ACTUAL CONDITIONS AFTER THE CONTRACTOR HAS ALTERED EXISTING CONDITIONS.
- ALL SPOT ELEVATIONS ARE TO THE TOP OF FINISHED PAVEMENT/GRADE UNLESS NOTED OTHERWISE.
- ANY DIGITAL SURFACE MODELS PROVIDED FOR THE PROJECT BY THE ENGINEER HAVE BEEN GENERATED FOR THE PREPARATION OF THE CONSTRUCTION DRAWINGS. THE CONTRACTOR SHALL VERIFY THAT THE DIGITAL SURFACE MODEL IS CONSISTENT WITH THE FULL SET OF CONSTRUCTION DOCUMENTS AND IS SUITABLE FOR THEIR PURPOSES. WHEN IN CONFLICT, THE PRINTED DRAWINGS GOVERN UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- CONTRACTOR SHALL REMOVE ALL TREES AND CLEAN ALL AREAS AS DETERMINED BY THE ENGINEER OR ARCHITECT TO PERFORM ALL GRADING AND UTILITY WORK IN ACCORDANCE WITH THE DRAWINGS, GENERAL NOTES, AND PROJECT SPECIFICATIONS.
- EMBANKMENT MATERIAL SHOULD CONSIST OF PLASTIC CLAY MATERIALS, FREE OF ORGANIC MATTER, WHICH CLASSIFY AS CL ACCORDING TO THE UNIFIED SOIL CLASSIFICATION SYSTEM AND SHALL CONTAIN NO STONES WHOSE LARGEST DIMENSION EXCEEDS FOUR (4) INCHES.
- EXCAVATED AND/OR SPOILS MATERIAL FROM THE PROJECT TO BE LOCATED AS SHOWN ON SHEET 19. CONTRACTOR TO COORDINATE WITH METROPARKS ON EXACT LIMITS. MOUNDS TO BE CONSTRUCTED WITH A 3:1 MAX SIDE SLOPE. APPROPRIATE TEMPORARY EROSION CONTROL MEASURES TO BE INSTALLED BY CONTRACTOR. PERMANENT SEED AND MULCHING BY METROPARKS WHERE/WHEN APPLICABLE.
- CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT GEOTECHNICAL TESTING AGENCY TO PERFORM FIELD QUALITY CONTROL TESTING.
- ALL SITE EXCAVATION AND EMBANKMENT SHALL BE COMPLETED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT AND/OR THE PROJECT SPECIFICATIONS. WHEN IN CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN.

GENERAL UTILITY NOTES

- CONTRACTOR ACCESS ALONG BYRNE ROAD ON THE PROPOSED TRAIL ALIGNMENT FROM STATION 91+40 TO STATION 93+39 WILL BE LIMITED. CONSTRUCTION OF THE TRAIL WILL NOT BE ABLE TO BEGIN UNTIL AFTER THE FOUR UTILITY POLES IN THIS AREA ARE RELOCATED. CONTRACTOR SHALL PLAN CONSTRUCTION SEQUENCING ACCORDINGLY. THE CONTRACTOR SHALL PROVIDE PEDESTRIAN ACCESS ALONG THE EXISTING SIDEWALK OF BYRNE ROAD AT ALL TIMES, EXCEPT FOR THE PERIOD OF TIME REQUIRED FOR REMOVAL OF THE EXISTING WALK AND CONSTRUCTION OF THE PROPOSED TRAIL. IT IS ASSUMED THE CONTRACTOR CAN MAINTAIN ACCESS FOR CONSTRUCTION OF THE BOARDWALK AND PEDESTRIAN BRIDGE FROM BYRNE ROAD JUST SOUTH OF THE BRIDGE OVER SWAN CREEK NEAR STATION 94+00.
- UNDERGROUND UTILITIES AS SHOWN WERE LOCATED IN THE FIELD AND/OR TAKEN FROM VARIOUS DEPARTMENT RECORDS AND RECORD PLAN SETS FROM PREVIOUS PROJECTS. THE LOCATIONS ARE AS ACCURATE AS CAN BE CONFIRMED FROM SURFACE APPURTENANCES (MANHOLES, VALVES, ETC.). NO EXCAVATION WAS DONE TO DETERMINE LOCATION OR DEPTH UNLESS OTHERWISE NOTED.
- THE LOCATION OF ALL UNDERGROUND UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATION AND ELEVATION OF ANY EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING CONSTRUCTION OR EARTH MOVING OPERATIONS.
- A MINIMUM OF 48 HOURS BEFORE COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE OHIO UTILITIES PROTECTION SERVICE (OUPS) AT 811 OR 1-800-362-2764 AND ALL OTHER AGENCIES WHICH MAY HAVE UNDERGROUND UTILITIES INVOLVED IN THIS PROJECT OR ARE NOT MEMBERS OF OHIO UNDERGROUND PROTECTION, INC.

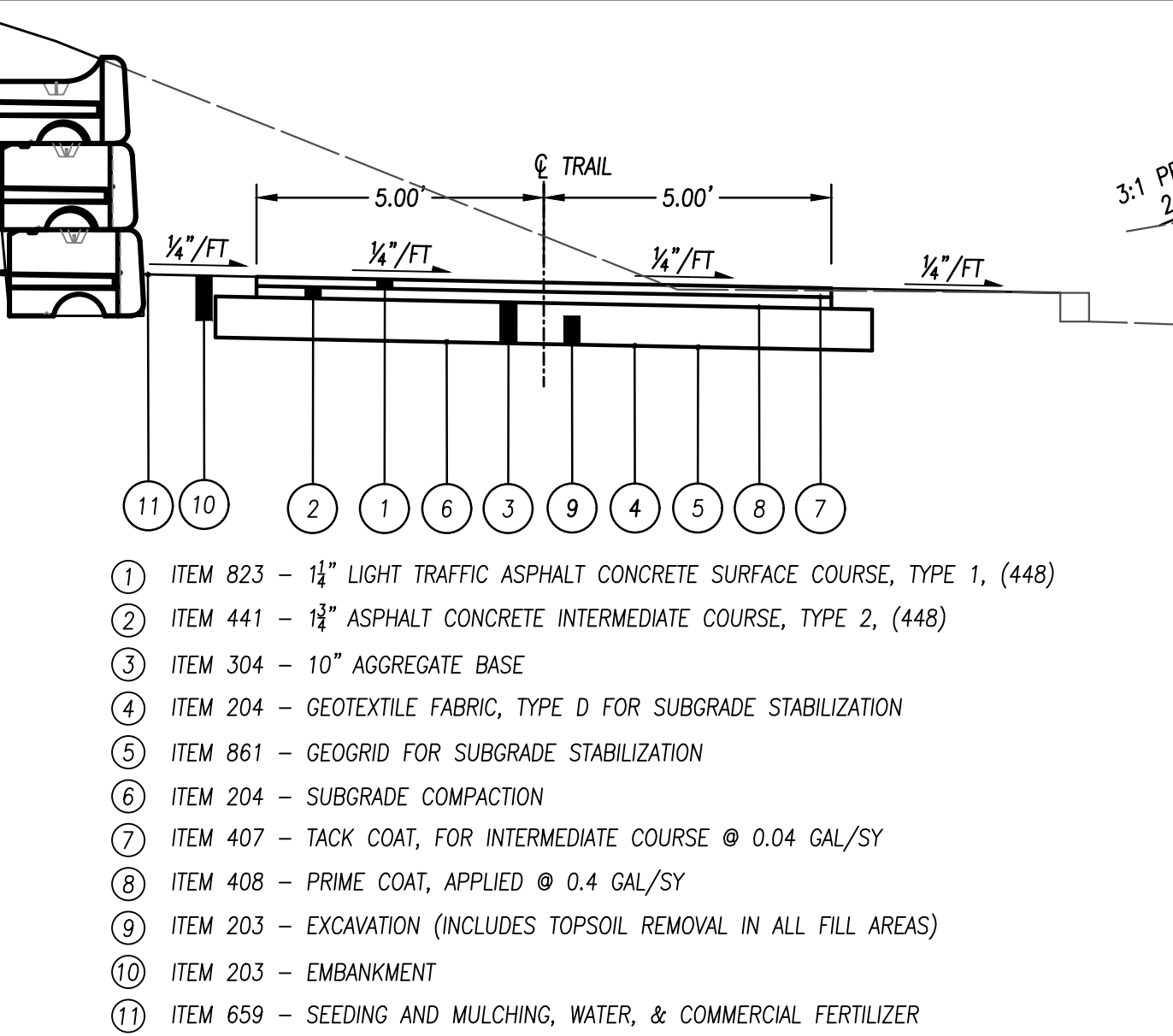
- ALL PUBLIC AND PRIVATE UTILITY COMPANIES SHALL BE NOTIFIED BY THE CONTRACTOR, IN WRITING, AT LEAST SEVEN (7) DAYS IN ADVANCE OF ANY CONSTRUCTION ACTIVITY TO ARRANGE FOR INSPECTION OF THE PROJECT.
- CONTRACTOR SHALL VERIFY ALL UTILITY AND CONDUIT SIZES AND LOCATIONS WITH THE ARCHITECTURAL, MECHANICAL, AND STRUCTURAL DRAWINGS AND WITH THE UTILITY PROVIDERS PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES.
- STORM SEWER, SANITARY SEWER, WATER MAIN, WATER SERVICES, AND UTILITY CROSSEOVERS LOCATED IN THE PUBLIC RIGHT-OF-WAY SHALL BE TOTALLY BACKFILLED WITH CONTROLLED DENSITY FILL UNDER EXISTING PAVEMENT CUT BY TRENCHING OPERATIONS TO A DISTANCE OF 5 FEET BEYOND THE BACK OF CURB.
- ALL TRENCHES SHALL BE COMPACTED AND BACKFILLED IN ACCORDANCE WITH ODOT SPECIFICATIONS ITEMS 203 AND 611 FOR TRENCHING OPERATIONS COMPLETED PRIOR TO PLACING PAVEMENT AND OUTSIDE OF PAVED AREAS.
- ITEMS THAT PERTAIN TO UNDERGROUND UTILITIES SUCH AS WATER MAIN PIPE, WATER VALVES, SANITARY SEWER PIPE, MANHOLE FRAMES AND COVERS, STORM SEWERS, ETC. WILL REMAIN UNDER THE SPECIFICATIONS OF THE UTILITY SERVING THE AREA AND THE LOCAL CITY OR COUNTY ENGINEER.
- NO OPEN CUT TRENCHES WILL BE ALLOWED TO REMAIN OPEN OVERNIGHT. OPEN TRENCHES SHALL BE COVERED WITH STEEL PLATES, ¾" PLYWOOD, OR OTHER MEANS FOR TRENCHES WHICH WILL BE CONTINUED WITHIN THE NEXT 72 HOURS. THE OPEN TRENCH AREA SHALL ALSO BE SURROUNDED WITH CAUTION TAPE OUTSIDE OF AREAS OPEN TO TRAFFIC. TRENCHES TO REMAIN INACTIVE LONGER THAN 72 HOURS SHALL HAVE THE PIPE PLUGGED, MARKED, AND THE TRENCH FILLED UNTIL THE WORK PROGRESSES.
- CROSSINGS
 - 1.1.1. WHENEVER A STORM OR SANITARY SEWER AND WATER MAIN MUST CROSS, THE SEWER SHALL BE AT SUCH AN ELEVATION THAT THE CROWN OF THE SEWER IS AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN AS MEASURED BETWEEN THE OUTSIDE PIPE WALLS. IF IT IS ABSOLUTELY IMPOSSIBLE TO MAINTAIN THE 18 INCH VERTICAL SEPARATION, THE WATER MAIN SHALL BE RELOCATED OR THE SEWER SHALL BE CONSTRUCTED AS FOLLOWS:
 - 1.1.1.1. A SEWER PASSING OVER OR UNDER THE WATER MAIN SHALL BE ENCASED OR CONSTRUCTED OF MATERIALS THAT ARE EQUIVALENT TO WATER MAIN STANDARDS OF CONSTRUCTION FOR A MINIMUM DISTANCE OF 10 FEET ON EACH SIDE OF THE WATER MAIN.
 - 1.1.1.2. THE SEWER CROSSING SHALL BE CONSTRUCTED SO THAT THE SEWER JOINTS WILL BE EQUIDISTANT AND AS FAR AS POSSIBLE FROM THE WATER MAIN JOINTS.
 - 1.1.1.3. WHERE A WATER MAIN PASSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT SHALL BE PROVIDED FOR THE SEWER TO PREVENT DAMAGE TO THE WATER MAIN.

STORM SEWERS

- STORM SEWER PIPES DESIGNATED AS "STM" SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING:
 - 1.1. NON-REINFORCED CONCRETE PIPE PER ODOT SPECIFICATION 706.01.
 - 1.2. REINFORCED CONCRETE CIRCULAR PIPE PER ODOT SPECIFICATION 706.02 OR 706.03.
 - 1.3. REINFORCED CONCRETE ELLIPTICAL CULVERT, STORM DRAIN, AND SEWER PIPE PER ODOT SPECIFICATION 706.04.
 - 1.4. PRECAST REINFORCED BOX SECTIONS PER ODOT SPECIFICATION 706.05.
 - 1.5. ALUMINIZED TYPE 2 CORRUGATED STEEL PIPE AND PIPE ARCHES WITH PAVED INVERT PER ODOT SPECIFICATIONS 707.01 OR 707.02.
 - 1.6. ALUMINIZED TYPE 2 CORRUGATED STEEL SPIRAL RIB CONDUITS PER ODOT SPECIFICATION 707.12.
 - 1.7. CORRUGATED POLYETHYLENE SMOOTH LINED PIPE PER ODOT SPECIFICATION 707.33.
 - 1.8. POLYVINYL CHLORIDE PROFILE WALL PIPE PER ODOT SPECIFICATION 707.43.
 - 1.9. POLYPROPYLENE CORRUGATED DOUBLE WALL PIPE PER ODOT SPECIFICATION 707.65.
 - 1.10. POLYPROPYLENE TRIPLE WALL PIPE PER ODOT SPECIFICATION 707.69.
- ALL STORM STRUCTURES ARE ODOT TYPES UNLESS OTHERWISE NOTED.
- CATCH BASINS SHALL BE CONSTRUCTED WITH FRAMES, IF NOT SPECIFIED AND BE CONSTRUCTED WITH THE APPROPRIATE GRATE.
- ALL CATCH BASINS ARE TO BE CONSTRUCTED WITH NEENAH GRATE R-4852 WITH R-1878-A7G FRAMES.
- ALL CATCH BASINS SHALL BE EQUIPPED WITH HEAVY DUTY, BICYCLE SAFE GRATES CAPABLE OF CARRYING AN HS-25 LOADING.
- ANY EXISTING STORM SEWER CUT BY EXCAVATION WHICH DRAINS AN OFFSITE AREA MUST BE TIED INTO THE STORM SEWER SYSTEM.
- EROSION CONTROL MEASURES SHALL BE PLACED AT THE INLET AND OUTLET OF STORM SEWERS TO CONTROL SILT AS THE INSTALLATION OF THE STORM SEWER PROGRESSES.
- ALL JOINTS SHALL BE SOIL SEAL JOINTS UNLESS SPECIFICALLY NOTED ON THE PLANS.
- PIPE JOINTS SHALL MEET THE REQUIREMENTS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION SPECIFICATIONS, ITEM 706.11 (ASTM C-443), AND SHALL HAVE PREMIUM JOINTS.
- UNCONTROLLED STORM WATER AND EXTRANEIOUS FLOWS ARE PROHIBITED FROM ENTERING THE EXISTING STORM SEWER SYSTEM DURING CONSTRUCTION. STORM DRAINS, DIVERSION DITCHES, PUMPS, ETC. SHALL BE USED AS REQUIRED TO MAINTAIN THE INTEGRITY OF THE SYSTEM AT ALL TIMES.
- ALL CATCH BASINS WITH A DEPTH GREATER THAN 4 FEET SHALL BE PROVIDED WITH STEPS MEETING THE REQUIREMENTS OF CMS ITEM 611 AND SHALL CONFORM TO THE DETAILS SHOWN ON ODOT STANDARD DRAWING MH-1.1.
- ASPHALT PAVEMENT AROUND ALL STORM WATER COLLECTION APPURTENANCES (CATCH BASINS, CURB INLETS, ETC.) SHALL BE NO LESS THAN 1/4" ABOVE THE STORM STRUCTURE.

MAINTAINING TRAFFIC

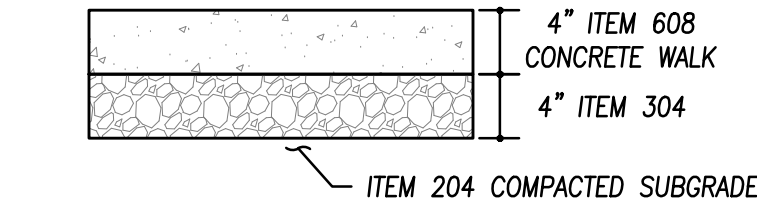
- METHODS OF MAINTAINING TRAFFIC SHALL BE IN ACCORDANCE WITH ODOT ITEM 614 AND THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES".



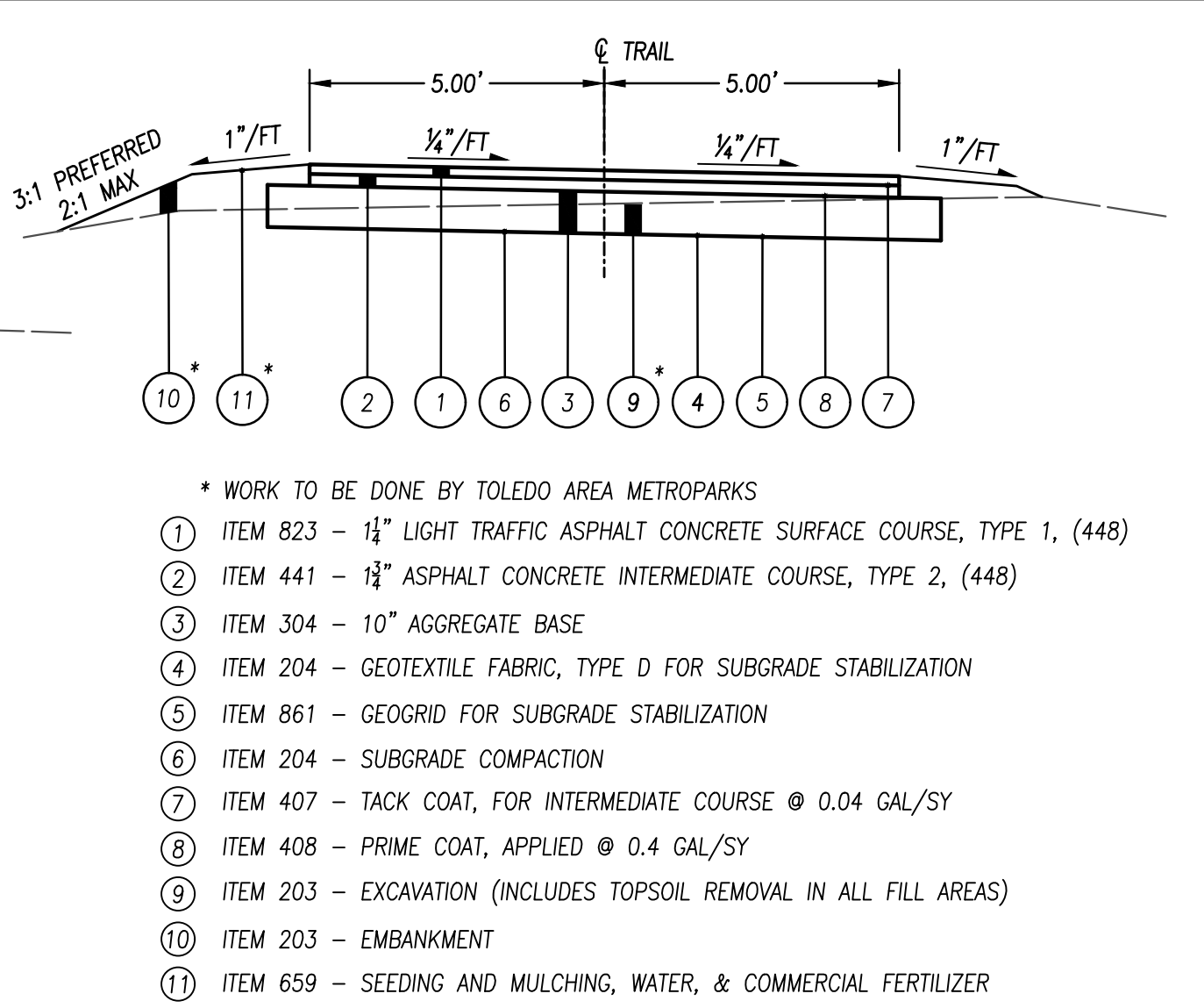
- ITEM 823 - 1½" LIGHT TRAFFIC ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448)
- ITEM 441 - 1½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
- ITEM 304 - 10" AGGREGATE BASE
- ITEM 204 - GEOTEXTILE FABRIC, TYPE D FOR SUBGRADE STABILIZATION
- ITEM 861 - GEOGRID FOR SUBGRADE STABILIZATION
- ITEM 204 - SUBGRADE COMPACTION
- ITEM 407 - TACK COAT, FOR INTERMEDIATE COURSE @ 0.04 GAL/SY
- ITEM 408 - PRIME COAT, APPLIED @ 0.4 GAL/SY
- ITEM 203 - EXCAVATION (INCLUDES TOPSOIL REMOVAL IN ALL FILL AREAS)
- ITEM 203 - EMBANKMENT
- ITEM 659 - SEEDING AND MULCHING, WATER, & COMMERCIAL FERTILIZER

TYPICAL ASPHALT/WALL SECTION

STA: 9+10.00 TO STA: 94+25.00 = 415.00 FT



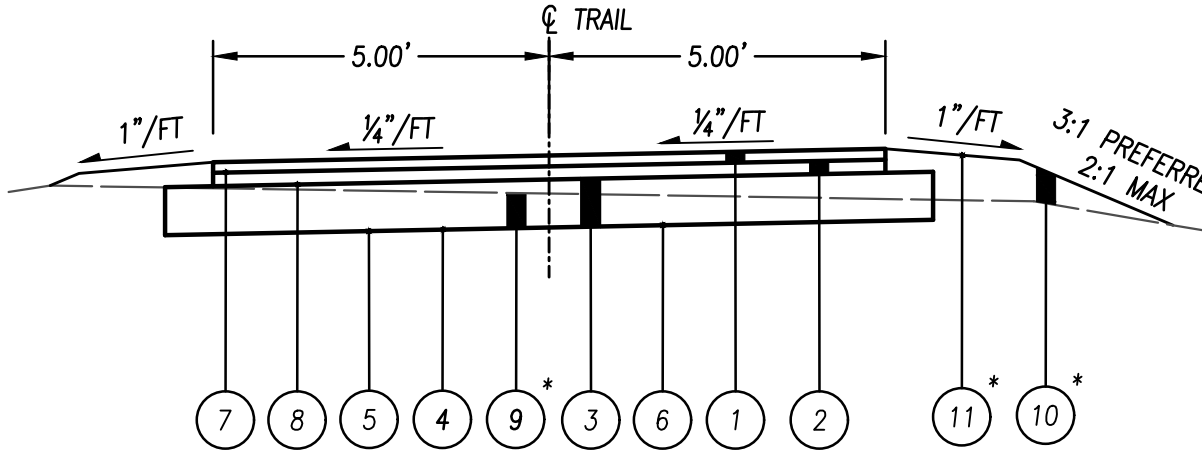
CONCRETE SIDEWALK SECTION



- * WORK TO BE DONE BY TOLEDO AREA METROPARKS
- ITEM 823 - 1½" LIGHT TRAFFIC ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448)
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TYPICAL ASPHALT SECTION

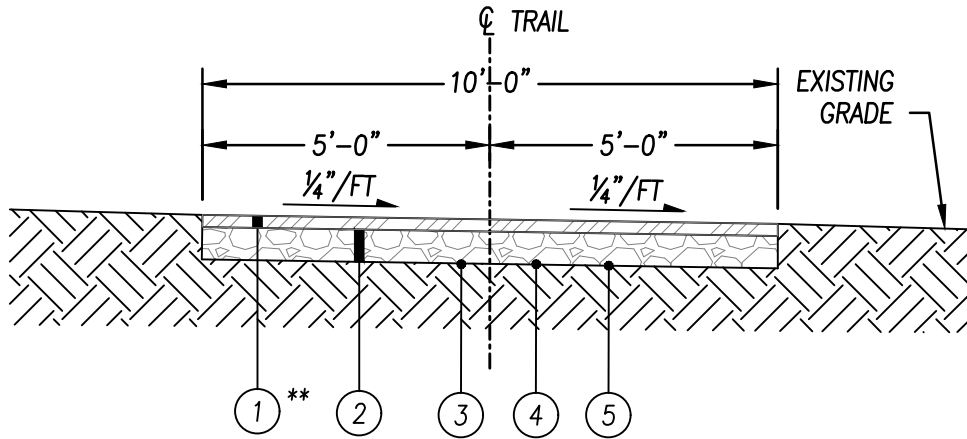
STA: 0+00.00 TO STA: 35+09.50 = 3509.50 FT
STA: 40+00.00 TO STA: 47+14.58 = 714.58 FT
STA: 69+48.92 TO STA: 72+86.00 = 337.08 FT
STA: 81+12.39 TO STA: 81+21.92 = 9.53 FT
STA: 90+00.00 TO 94+34.97 = 434.97 FT



- * WORK TO BE DONE BY TOLEDO AREA METROPARKS
- ITEM 823 - 1½" LIGHT TRAFFIC ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448)
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 - ITEM 203 - EMBANKMENT
 - ITEM 659 - SEEDING AND MULCHING, WATER, & COMMERCIAL FERTILIZER

TYPICAL ASPHALT SECTION

STA: 100+00.00 TO STA: 101+81.27 = 181.27 FT



- ** ITEM SPECIAL, STABILIZED CRUSHED AGGREGATE SURFACE COURSE, SHALL BE CONFORMING TO OHIO DEPARTMENT OF TRANSPORTATION SPECIFICATION 608.05, CRUSHED AGGREGATE WALK
- ITEM SPECIAL - 2" STABILIZED CRUSHED AGGREGATE SURFACE COURSE (SCREENINGS)
 - ITEM 411 - 4" STABILIZED CRUSHED AGGREGATE
 - ITEM 204 - SUBGRADE COMPACTION
 - ITEM 204 - GEOTEXTILE FABRIC, TYPE D FOR SUBGRADE STABILIZATION
 - ITEM 861 - GEOGRID FOR SUBGRADE STABILIZATION

TYPICAL GRAVEL PATH SECTION

STA: 47+14.58 TO STA: 58+66.74 = 1152.16 FT
STA: 60+00.00 TO STA: 69+48.92 = 948.92 FT

PLOTTED: Feb 27, 2020 - 11:13am
DRAWING: M:\18147 (Metroparks - Swan Creek Connector Trail)\Civil\DWG\18147 CD.dwg; C03 NOTES SWAN

PLOTTED: Feb 27, 2020 -- 9:50am
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EROSION CONTROL LEGEND

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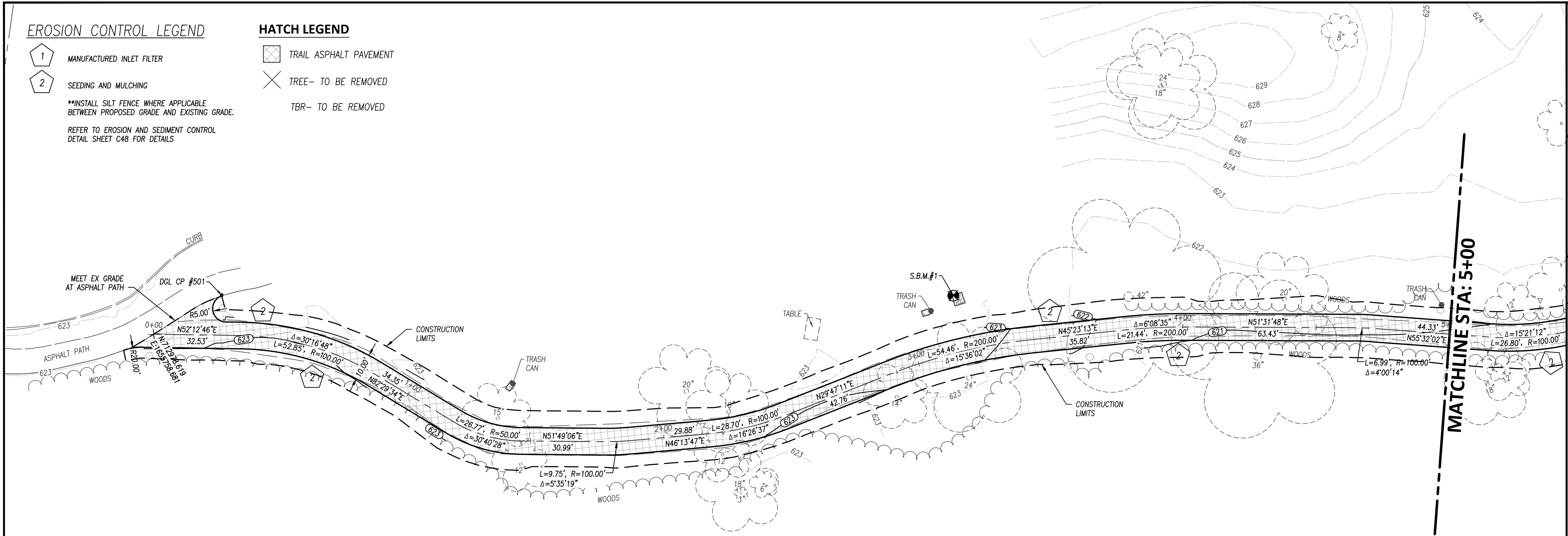
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SEEDING AND MULCHING
- **INSTALL SILT FENCE WHERE APPLICABLE BETWEEN PROPOSED GRADE AND EXISTING GRADE.

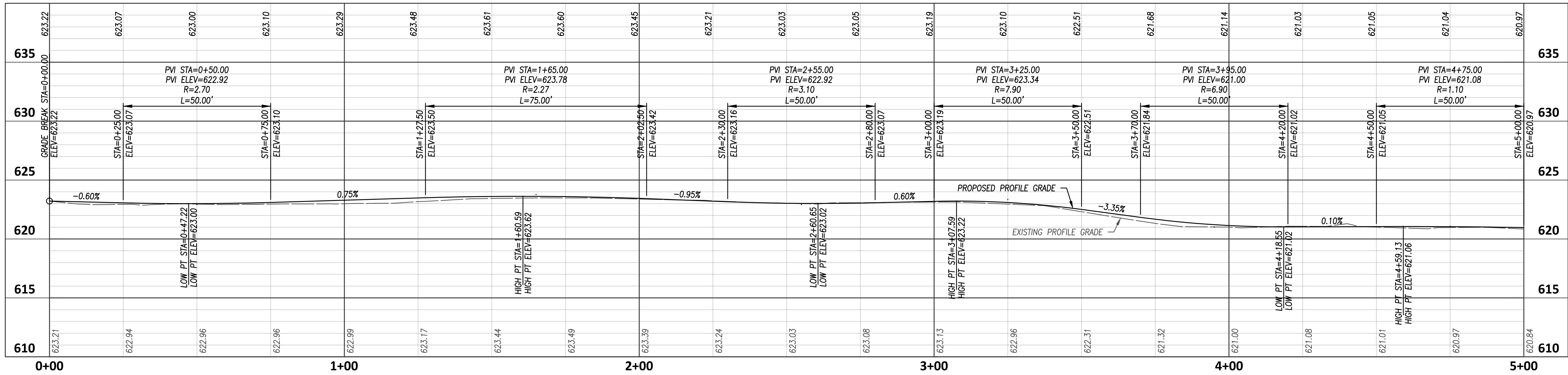
REFER TO EROSION AND SEDIMENT CONTROL DETAIL SHEET C48 FOR DETAILS

HATCH LEGEND

- TRAIL ASPHALT PAVEMENT
- TREE-- TO BE REMOVED
- TBR-- TO BE REMOVED



EXISTING TRAIL IMPROVEMENT PROFILE



SCALE: 1" = 20'

NO	REVISION	DATE
1	FOR CONSTRUCTION	02-27-20
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DGL CONSULTING ENGINEERS, LLC
 3455 BRIARFIELD BLVD, SUITE E
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 PHONE: 419.535.1015
 www.dgl-td.com

METROPARKS TOLEDO
SWAN CREEK CONNECTOR TRAIL
 4301 AIRPORT HWY
 TOLEDO, OHIO 43615
 LUCAS COUNTY

EXISTING TRAIL IMPROVEMENT
PLAN & PROFILE

FILE: 18147 CD.dwg
 JOB NO.: 18147
 DRAWN BY: EAH
 ISSUED: FEB 27, 2020

C5

PLOTTED: Feb 27, 2020 -- 9:50am
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EROSION CONTROL LEGEND

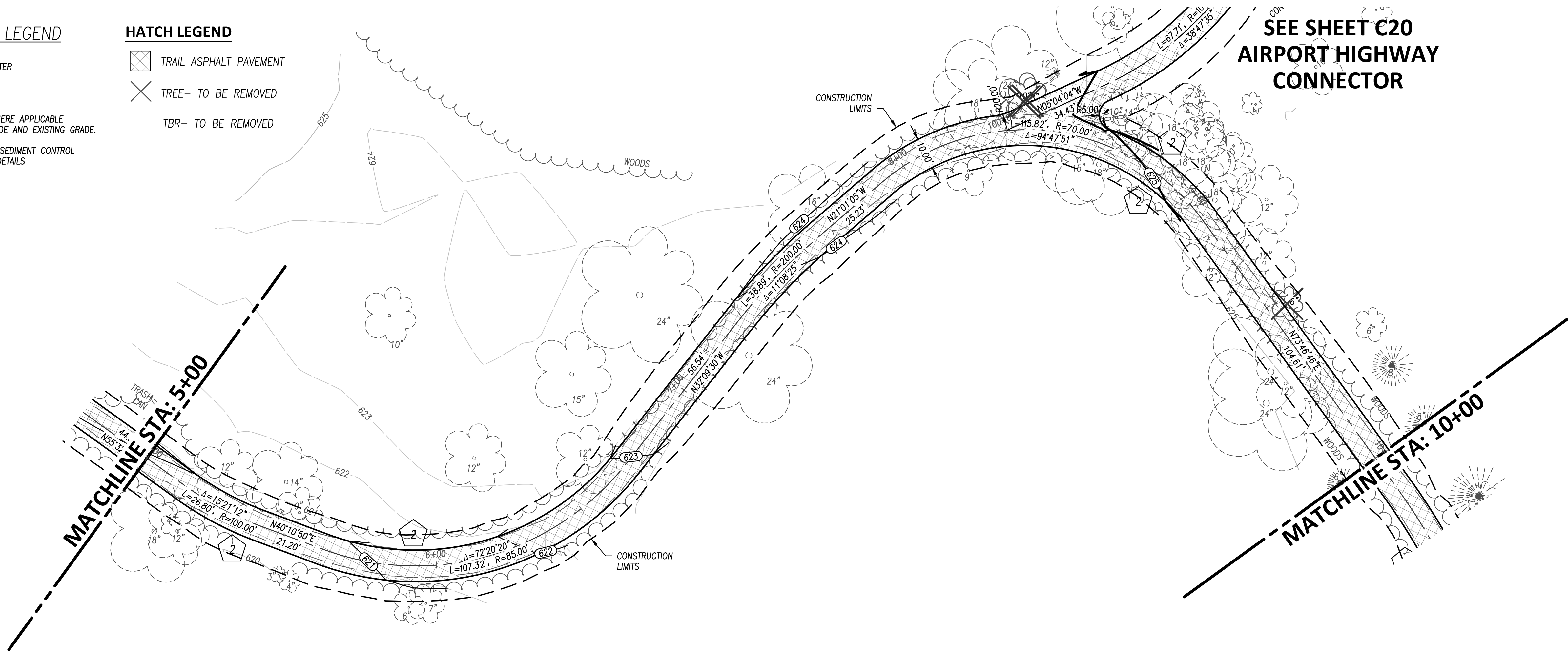
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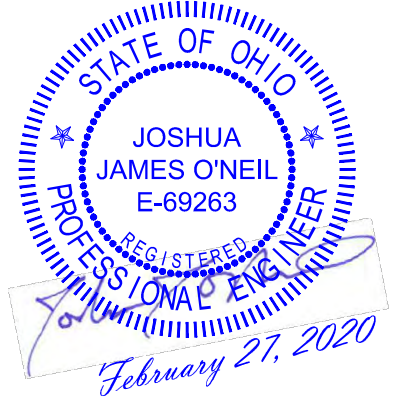
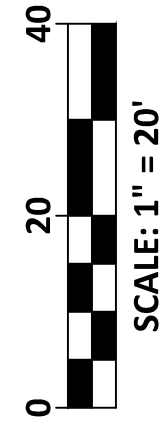
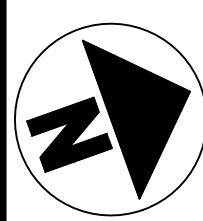
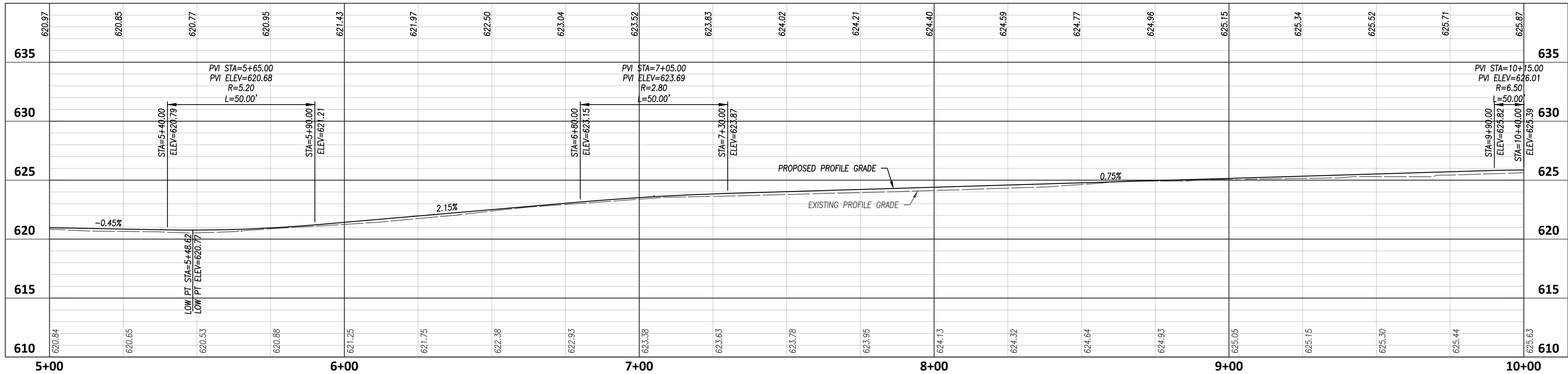
SEEDING AND MULCHING
- **INSTALL SILT FENCE WHERE APPLICABLE BETWEEN PROPOSED GRADE AND EXISTING GRADE.
- REFER TO EROSION AND SEDIMENT CONTROL DETAIL SHEET C48 FOR DETAILS

HATCH LEGEND

- TRAIL ASPHALT PAVEMENT
- TREE-- TO BE REMOVED
- TBR-- TO BE REMOVED



EXISTING TRAIL IMPROVEMENT PROFILE



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PLOTTED: Feb 27, 2020 -- 9:50am
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EROSION CONTROL LEGEND

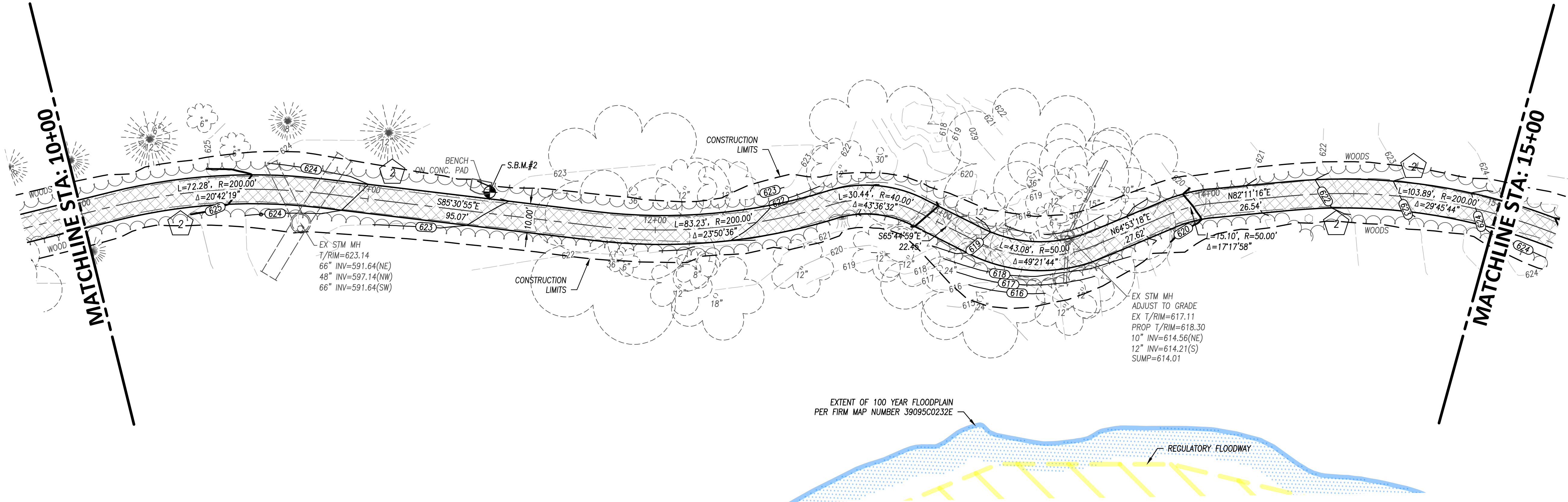
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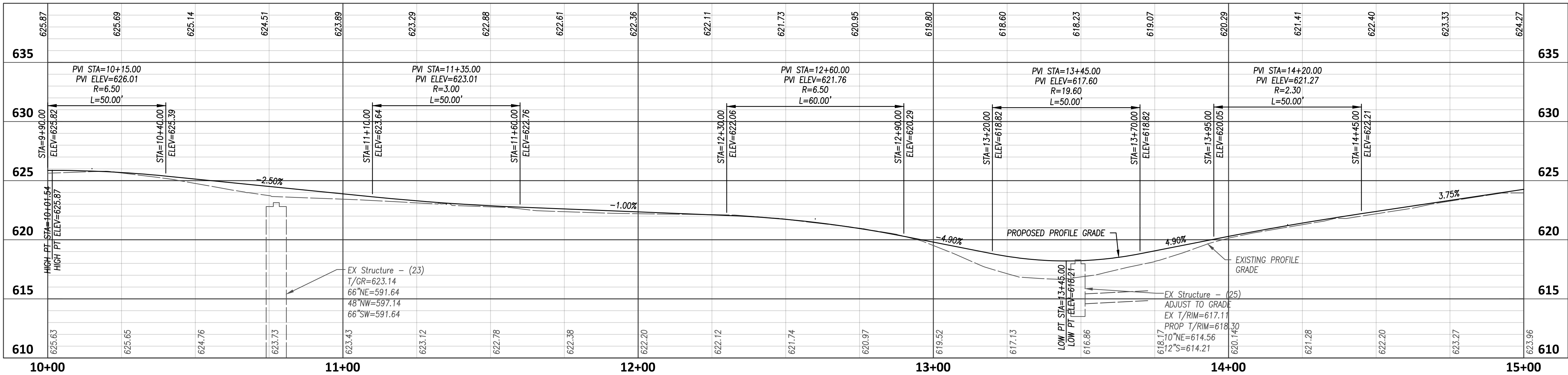
SEEDING AND MULCHING
- **INSTALL SILT FENCE WHERE APPLICABLE BETWEEN PROPOSED GRADE AND EXISTING GRADE.
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HATCH LEGEND

- TRAIL ASPHALT PAVEMENT
- TREE-- TO BE REMOVED
- TBR-- TO BE REMOVED



EXISTING TRAIL IMPROVEMENT PROFILE



SCALE: 1" = 20'

NO	REVISION	DATE
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EROSION CONTROL LEGEND

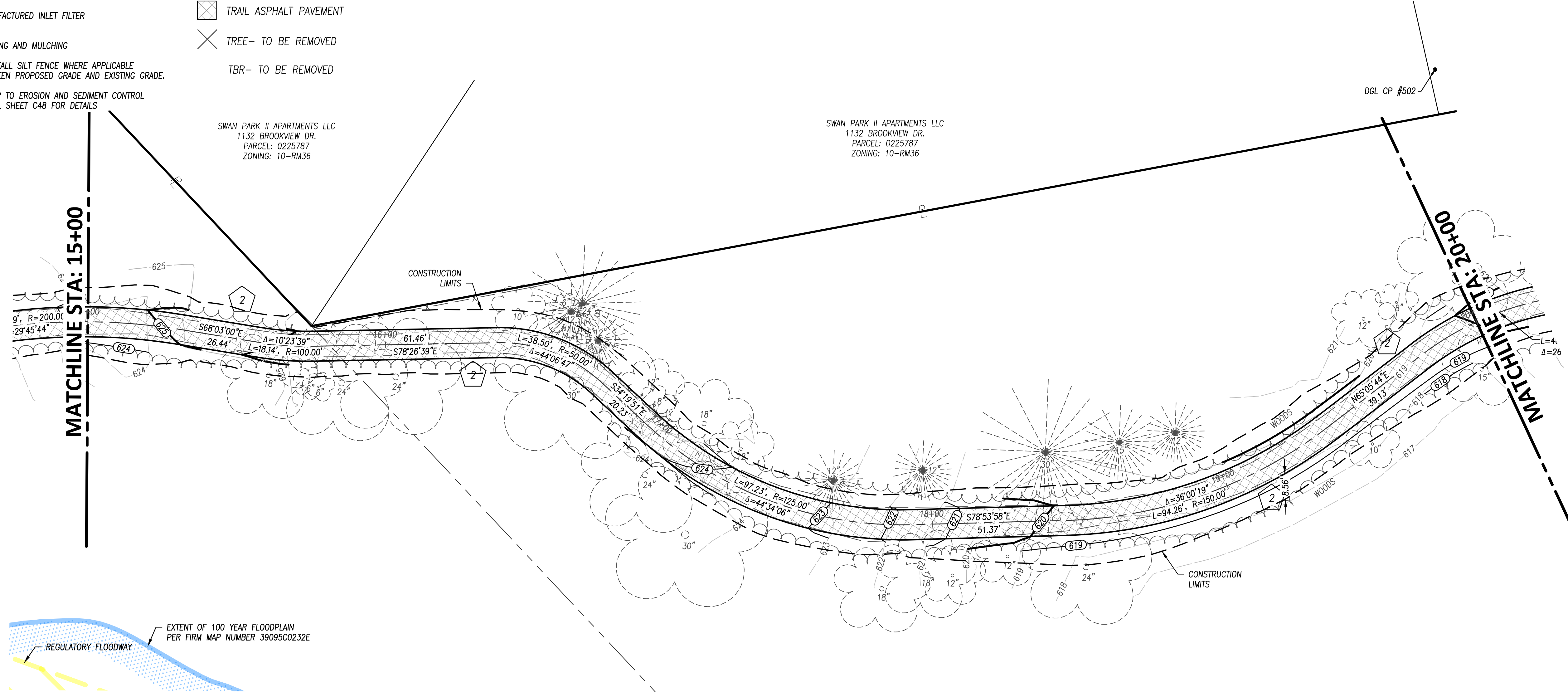
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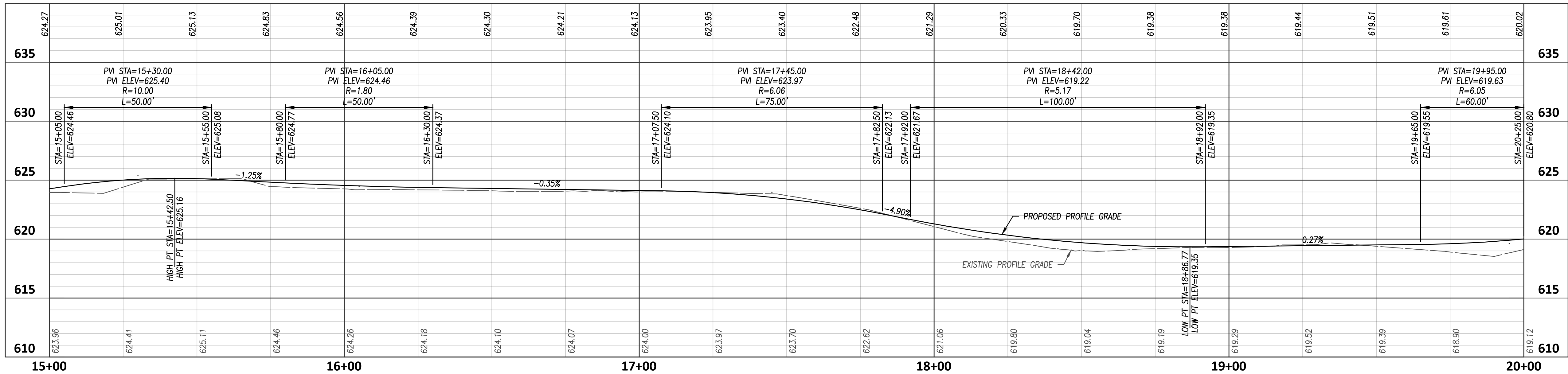
SEEDING AND MULCHING
- **INSTALL SILT FENCE WHERE APPLICABLE
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DETAIL SHEET C48 FOR DETAILS

HATCH LEGEND

- TRAIL ASPHALT PAVEMENT
- TREE-- TO BE REMOVED
- TBR-- TO BE REMOVED



EXISTING TRAIL IMPROVEMENT PROFILE



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SCALE: 1" = 20'

STATE OF OHIO

JOSHUA JAMES O'NEIL

E-69263

REGISTERED PROFESSIONAL ENGINEER

February 27, 2020

NO	REVISION	DATE
1	FOR CONSTRUCTION	02-27-20

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EXISTING TRAIL IMPROVEMENT

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EROSION CONTROL LEGEND

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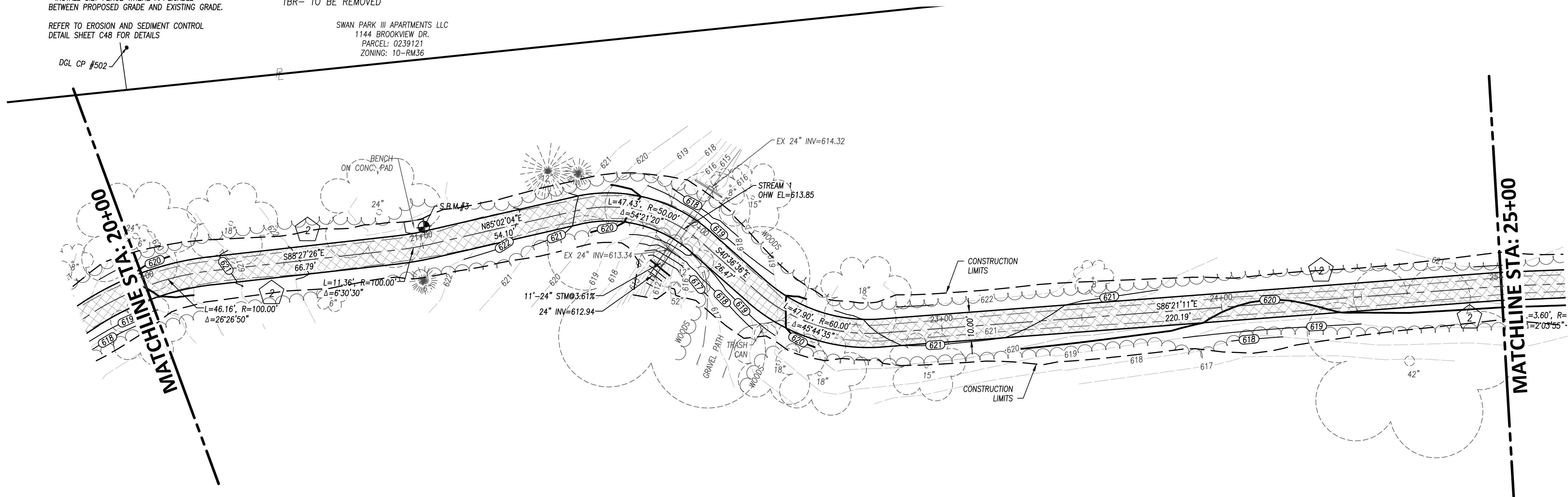
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SEEDING AND MULCHING
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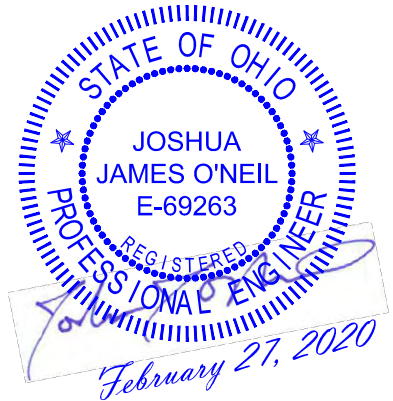
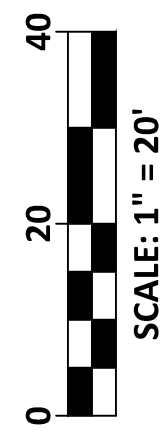
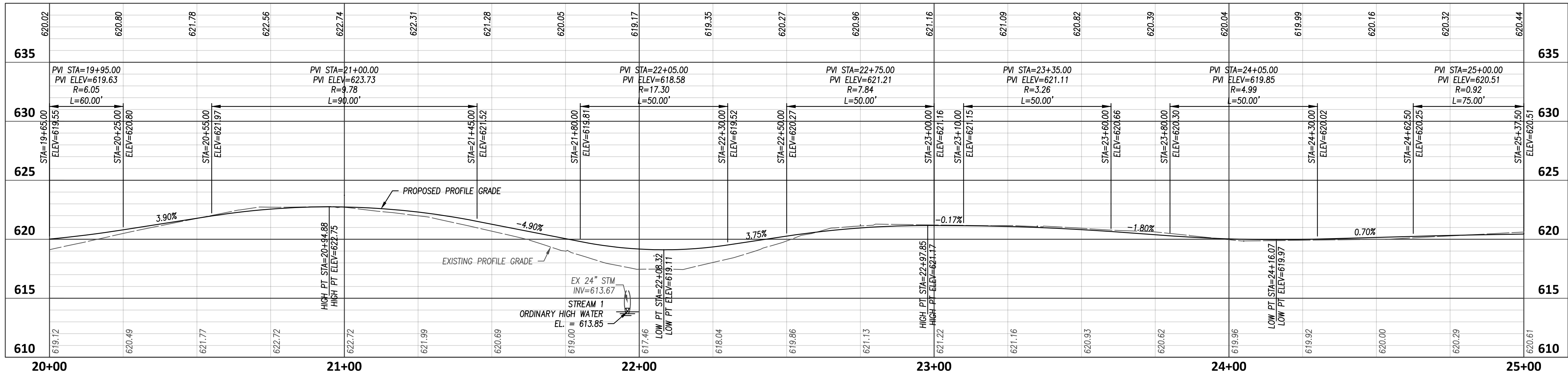
HATCH LEGEND

- TRAIL ASPHALT PAVEMENT
- TREE-- TO BE REMOVED
- TBR-- TO BE REMOVED

SWAN PARK III APARTMENTS LLC
 1144 BROOKVIEW DR.
 PARCEL: 0239121
 ZONING: 10-RM36



EXISTING TRAIL IMPROVEMENT PROFILE



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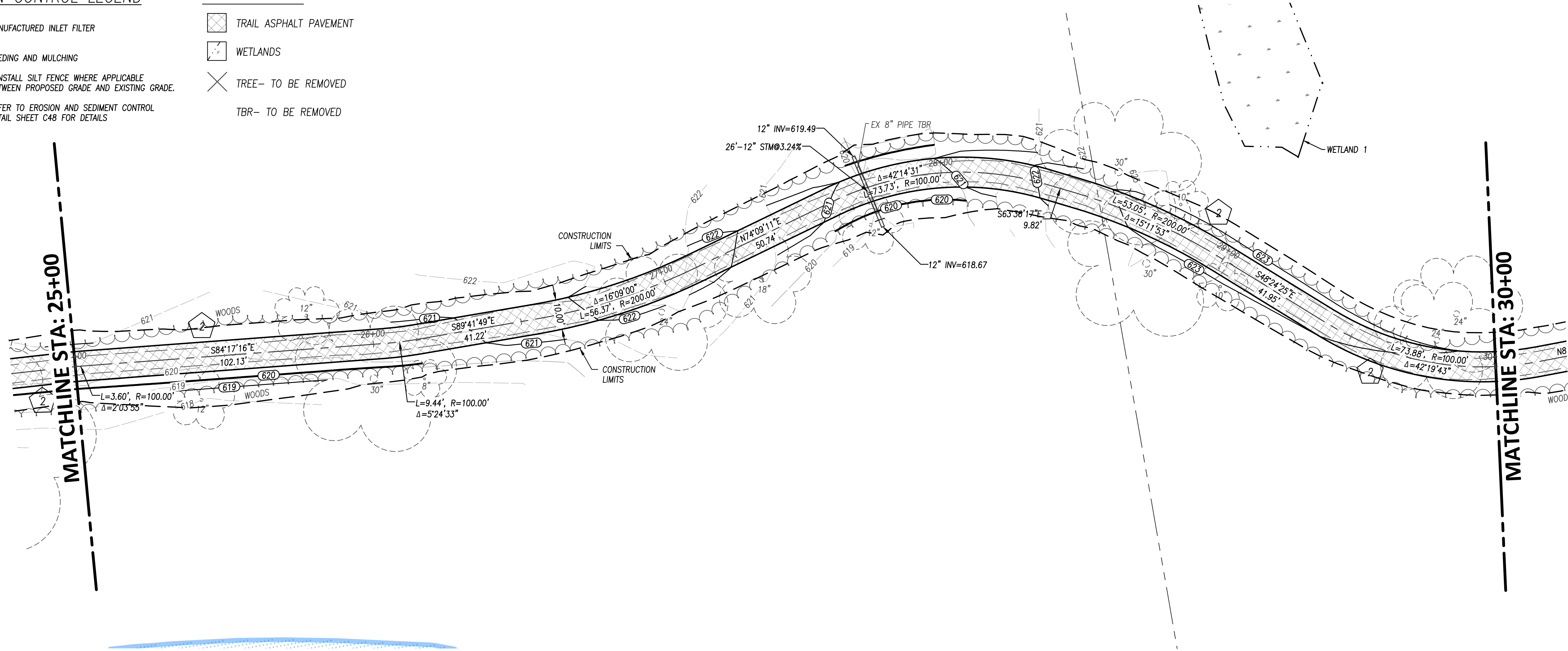
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EROSION CONTROL LEGEND

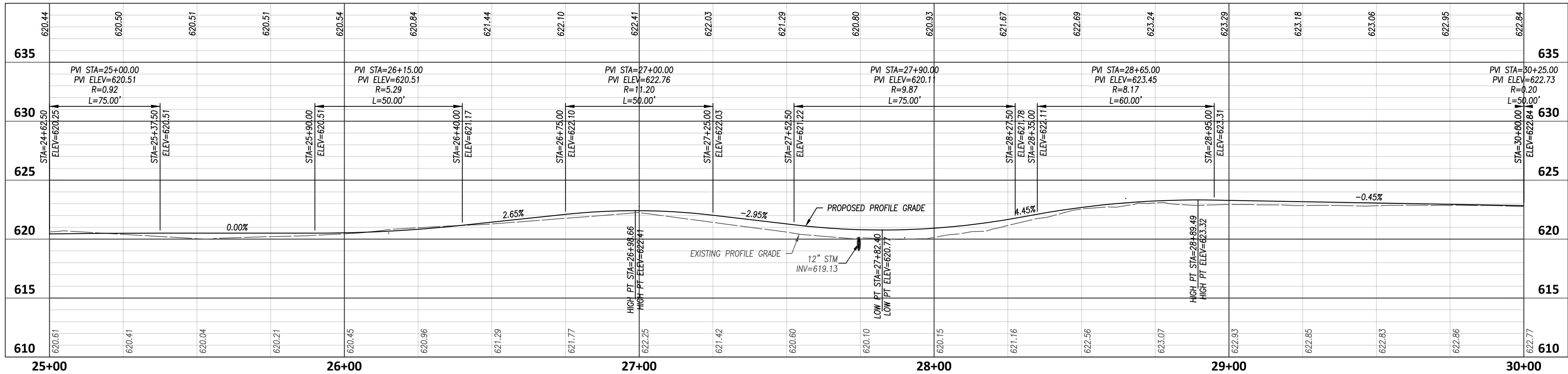
- 1 MANUFACTURED INLET FILTER
2 SEEDING AND MULCHING
**INSTALL SILT FENCE WHERE APPLICABLE
BETWEEN PROPOSED GRADE AND EXISTING GRADE.
REFER TO EROSION AND SEDIMENT CONTROL
DETAIL SHEET C48 FOR DETAILS

HATCH LEGEND

- TRAIL ASPHALT PAVEMENT
WETLANDS
TREE-- TO BE REMOVED
TBR-- TO BE REMOVED



EXISTING TRAIL IMPROVEMENT PROFILE



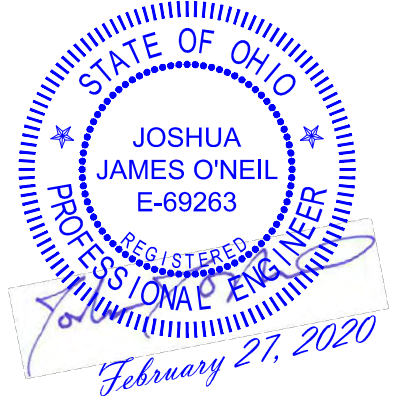
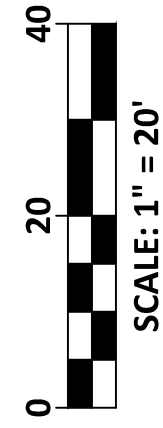
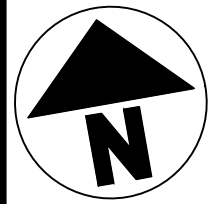
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EXISTING TRAIL IMPROVEMENT PLAN & PROFILE



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ISSUED: FEB 27, 2020

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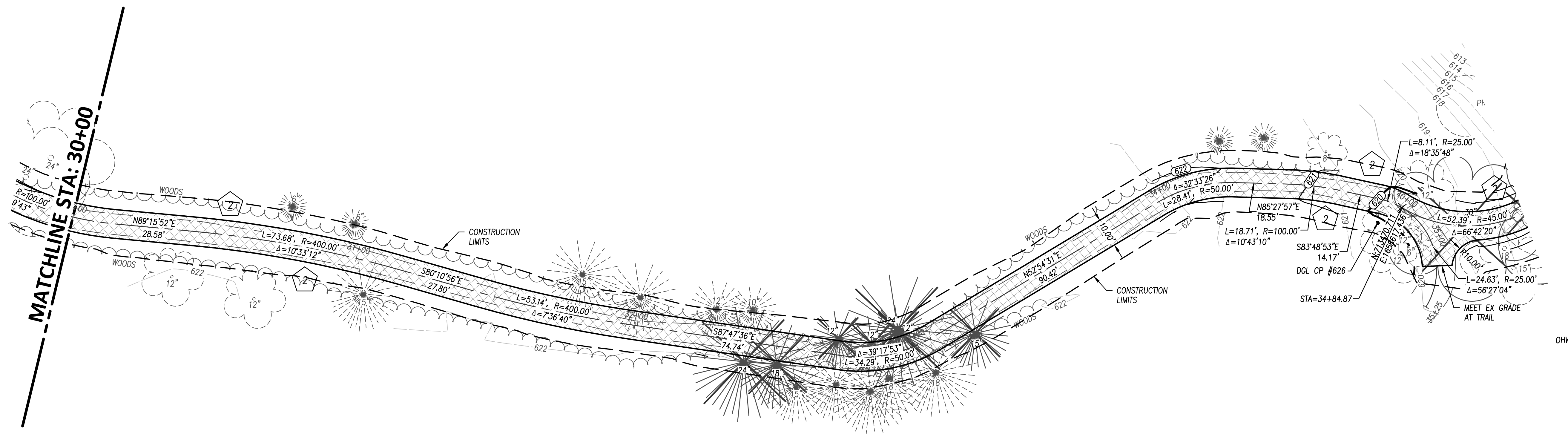
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EROSION CONTROL LEGEND

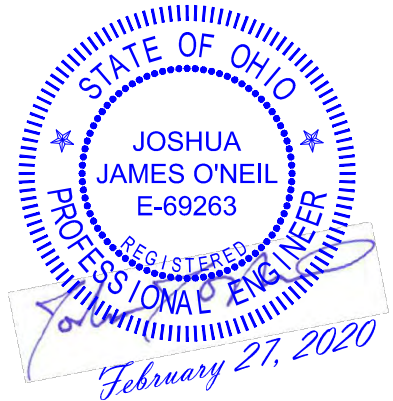
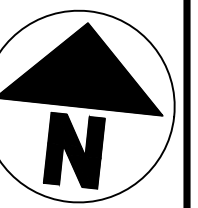
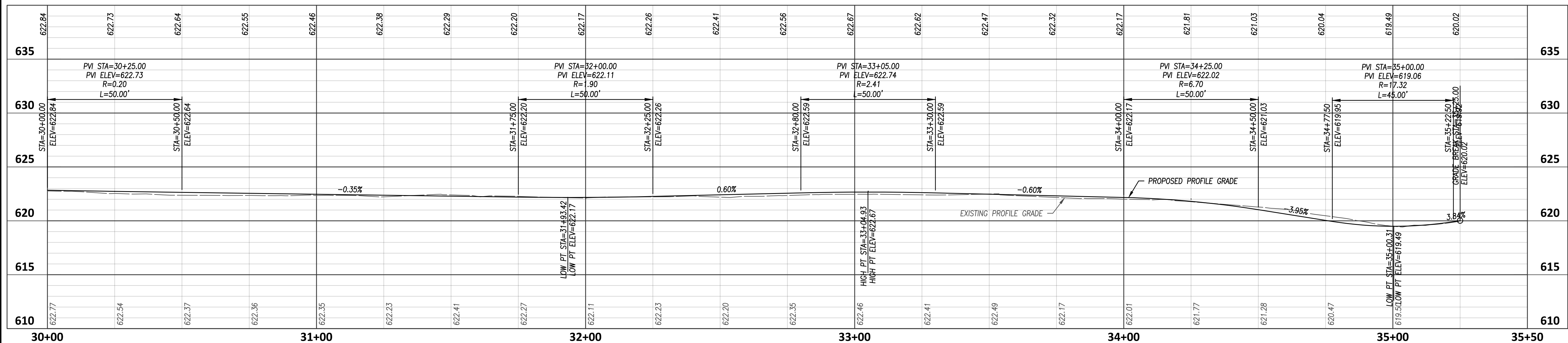
- | | |
|---|---|
|  | MANUFACTURED INLET FILTER |
|  | SEEDING AND MULCHING |
| | <p>**INSTALL SILT FENCE WHERE APPLICABLE
BETWEEN PROPOSED GRADE AND EXISTING GRADE.</p> <p>REFER TO EROSION AND SEDIMENT CONTROL
DETAIL SHEET C48 FOR DETAILS</p> |

HATCH LEGEND

-  TRAIL ASPHALT PAVEMENT
 TREE- TO BE REMOVED
 TBR- TO BE REMOVED



EXISTING TRAIL IMPROVEMENT PROFILE

[illegible]

**3455 BRIARFIELD BLVD. SUITE E
MAUMEE, OH 43537
PHONE: 419.535.1015
www.dgl-ltd.com**

METROPARKS TOLEDO

SWAN CREEK CONNECTOR TRAIL
 4301 AIRPORT HWY
 TOLEDO, OHIO 43615
 LUCAS COUNTY

**EXISTING TRAIL IMPROVEMENT
 PLAN & PROFILE**

FILE:	18147 CD.dwg
JOB NO.:	18147
DRAWN BY:	EAH
ISSUED:	FEB 27, 2020

C11

EROSION CONTROL LEGEND

- 1

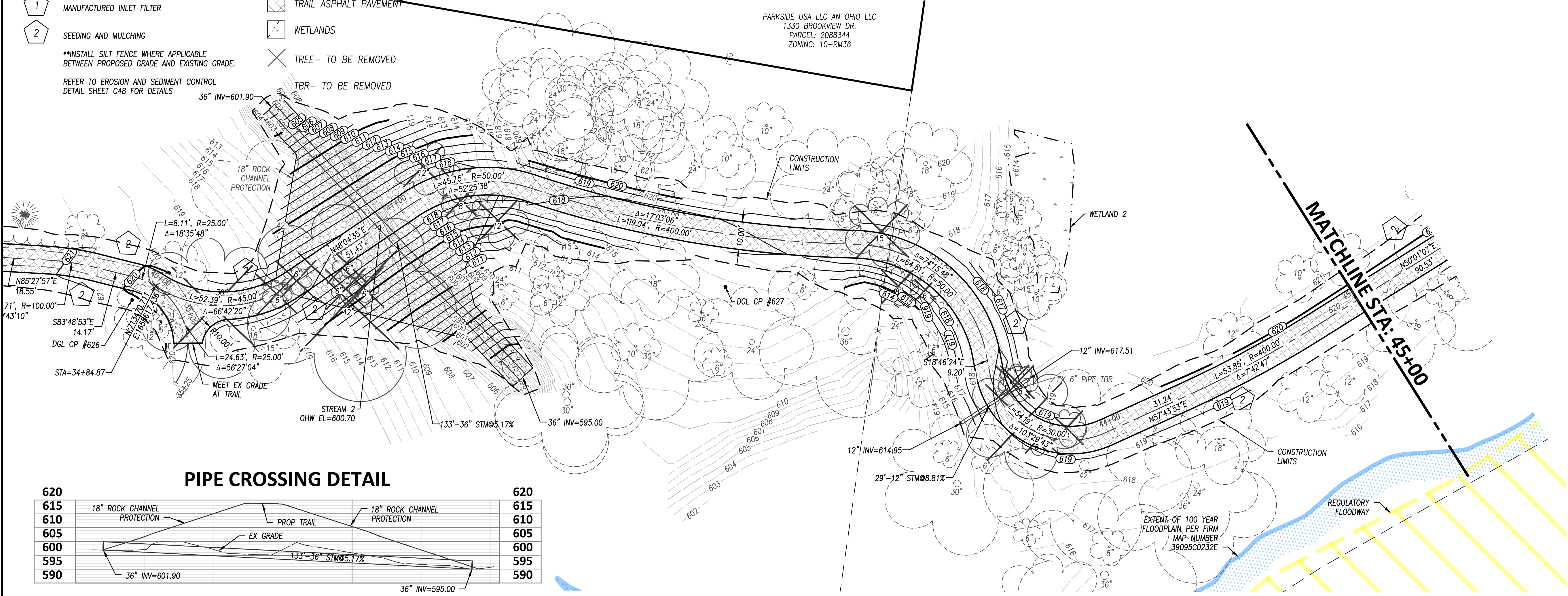
MANUFACTURED INLET FILTER
- 2

SEEDING AND MULCHING
- **INSTALL SILT FENCE WHERE APPLICABLE BETWEEN PROPOSED GRADE AND EXISTING GRADE.
- REFER TO EROSION AND SEDIMENT CONTROL DETAIL SHEET C48 FOR DETAILS

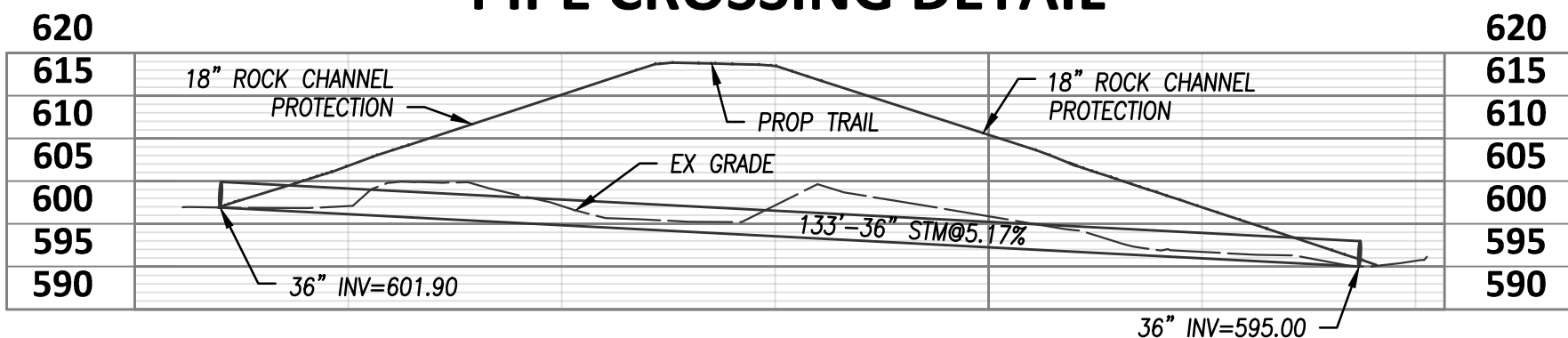
HATCH LEGEND

- TRAIL ASPHALT PAVEMENT
- WETLANDS
- TREE- TO BE REMOVED
- TBR- TO BE REMOVED

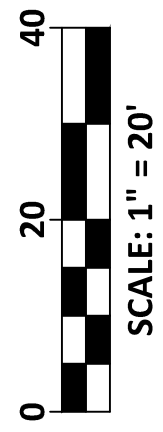
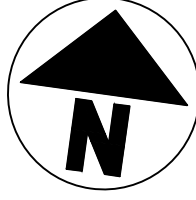
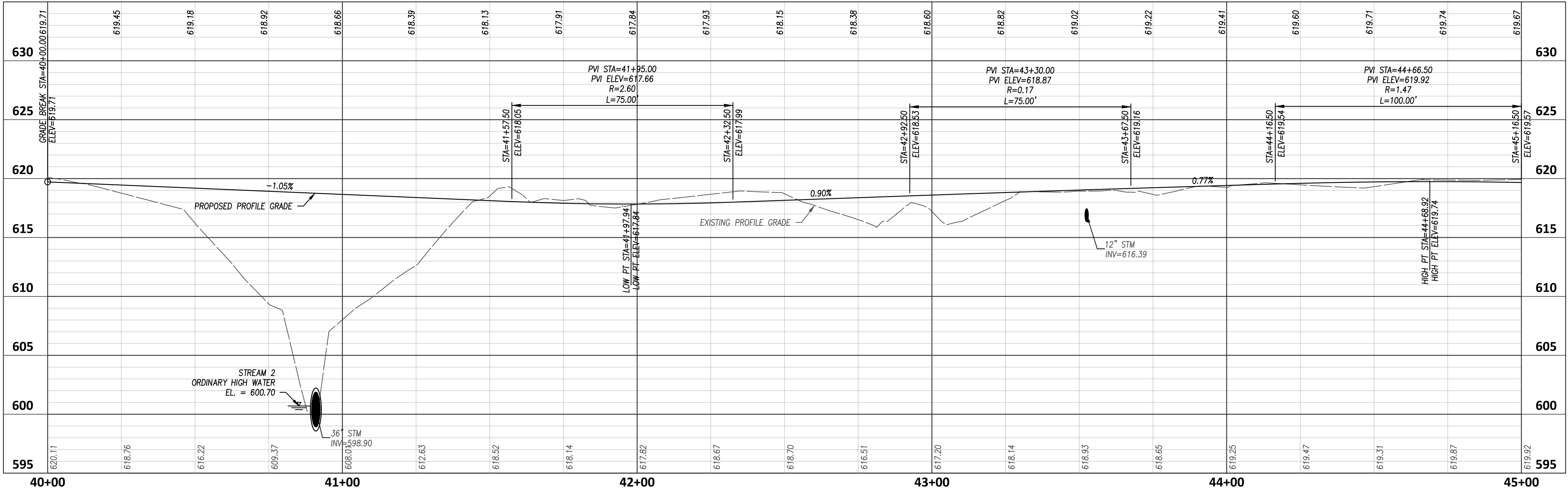
PARKSIDE USA LLC AN OHIO LLC
1330 BROOKVIEW DR.
PARCEL: 2088344
ZONING: 10-RM36



PIPE CROSSING DETAIL



PROPOSED TRAIL WEST PROFILE



NO	REVISION	DATE
1	FOR CONSTRUCTION	02-27-20



METROPARKS TOLEDO
SWAN CREEK CONNECTOR TRAIL
4301 AIRPORT HWY
TOLEDO, OHIO 43615
LUCAS COUNTY

PROPOSED WEST TRAIL
PLAN & PROFILE

FILE: 18147 CD.dwg
JOB NO.: 18147
DRAWN BY: EAH
ISSUED: FEB 27, 2020

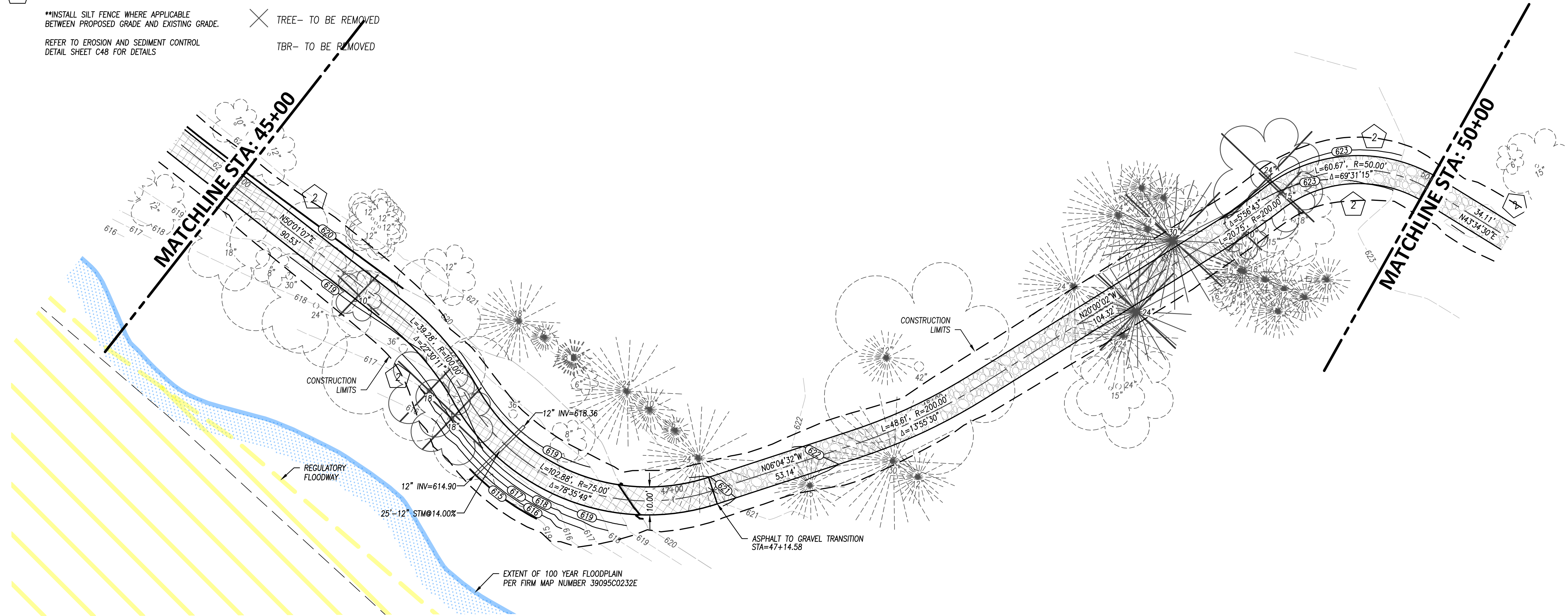
C12

EROSION CONTROL LEGEND

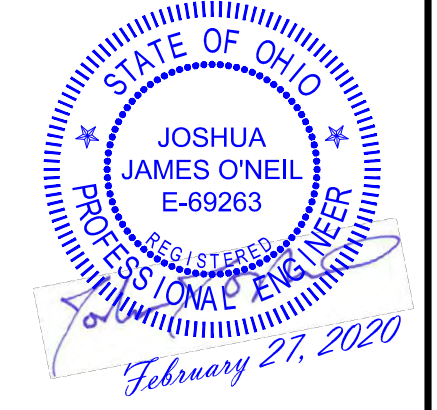
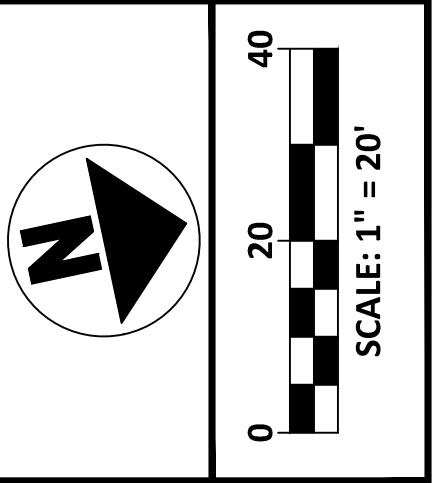
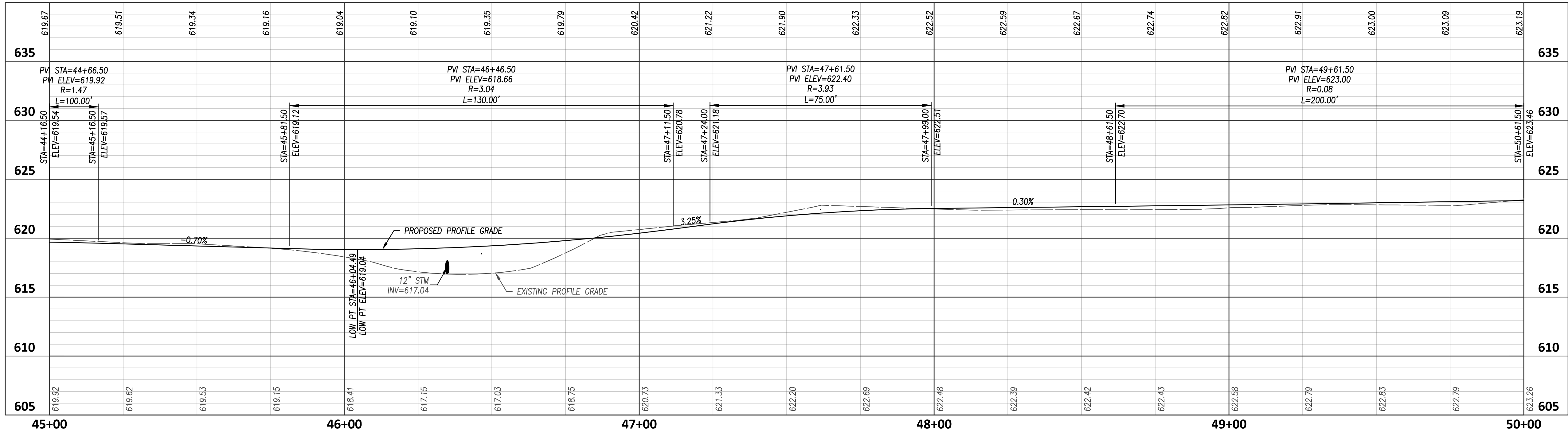
- 1 MANUFACTURED INLET FILTER
- 2 SEEDING AND MULCHING
- **INSTALL SILT FENCE WHERE APPLICABLE BETWEEN PROPOSED GRADE AND EXISTING GRADE.
- REFER TO EROSION AND SEDIMENT CONTROL DETAIL SHEET C48 FOR DETAILS

HATCH LEGEND

- TRAIL ASPHALT PAVEMENT
- GRAVEL
- TREE-- TO BE REMOVED
- TBR-- TO BE REMOVED



PROPOSED TRAIL WEST PROFILE



NO	REVISION	DATE
1	FOR CONSTRUCTION	02-27-20
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METROPARKS TOLEDO
SWAN CREEK CONNECTOR TRAIL
4301 AIRPORT HWY
TOLEDO, OHIO 43615
LUCAS COUNTY

PROPOSED WEST TRAIL
PLAN & PROFILE

FILE: 18147 CD.dwg
JOB NO.: 18147
DRAWN BY: EAH
ISSUED: FEB 27, 2020

C13

PLOTTED: Feb 27, 2020 -- 9:51am
 DRAWING: M:\18147 (Metroparks - Swan Creek Connector Trail)\CIVIL Dwg\18147 CD.dwg: C14 P&P STA 50+00--55+00 SWAN

EROSION CONTROL LEGEND

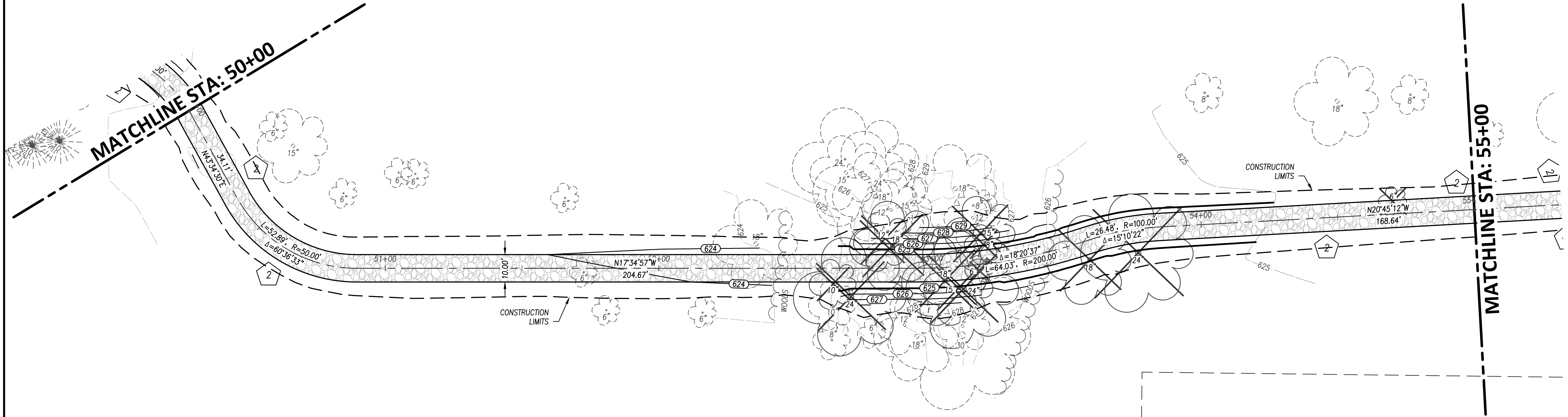
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MANUFACTURED INLET FILTER
- 2

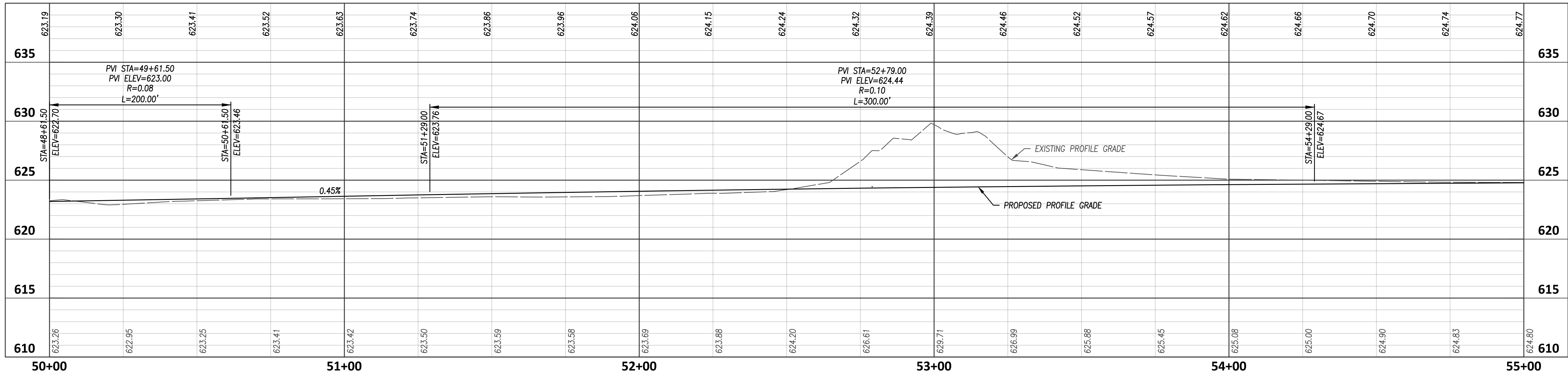
SEEDING AND MULCHING
- **INSTALL SILT FENCE WHERE APPLICABLE BETWEEN PROPOSED GRADE AND EXISTING GRADE.
- REFER TO EROSION AND SEDIMENT CONTROL DETAIL SHEET C48 FOR DETAILS

HATCH LEGEND

- GRAVEL
- TREE- TO BE REMOVED
- TBR- TO BE REMOVED



PROPOSED TRAIL WEST PROFILE



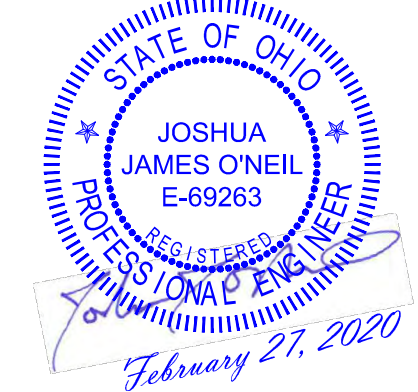
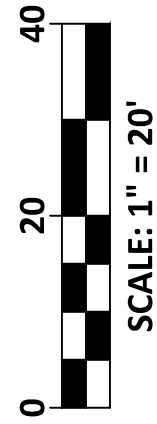
DGL CONSULTING ENGINEERS, LLC
 3455 BRIARFIELD BLVD, SUITE E
 MAUMEE, OH 43537
 PHONE: 419.535.1015
 www.dgl-ltd.com

METROPARKS TOLEDO
 SWAN CREEK CONNECTOR TRAIL
 4301 AIRPORT HWY
 TOLEDO, OHIO 43615
 LUCAS COUNTY

PROPOSED WEST TRAIL
PLAN & PROFILE

FILE: 18147 CD.dwg
 JOB NO.: 18147
 DRAWN BY: EAH
 ISSUED: FEB 27, 2020

C14



NO	REVISION	DATE
1	FOR CONSTRUCTION	02-27-20
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PLOTTED: Feb 27, 2020 -- 9:52am
 DRAWING: M:\18147 (Metroparks - Swan Creek Connector Trail)\CIVIL\DWG\18147 CD.dwg: C15 P&P STA 55+00--58+56.43 SWAN

EROSION CONTROL LEGEND

- 1

MANUFACTURED INLET FILTER
- 2

SEEDING AND MULCHING
- **INSTALL SILT FENCE WHERE APPLICABLE BETWEEN PROPOSED GRADE AND EXISTING GRADE.

REFER TO EROSION AND SEDIMENT CONTROL DETAIL SHEET C48 FOR DETAILS

HATCH LEGEND

- GRAVEL
- TREE-- TO BE REMOVED
- TBR-- TO BE REMOVED

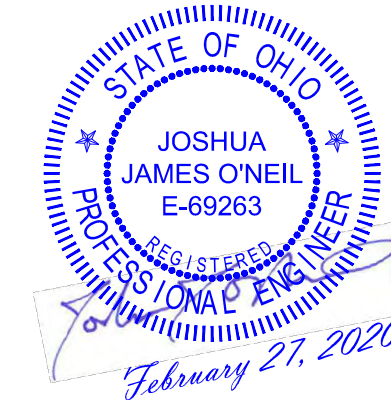
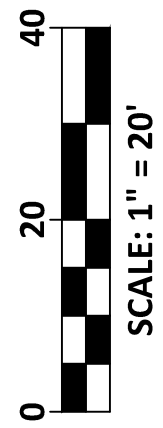
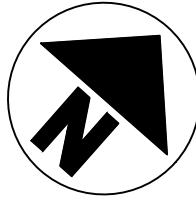
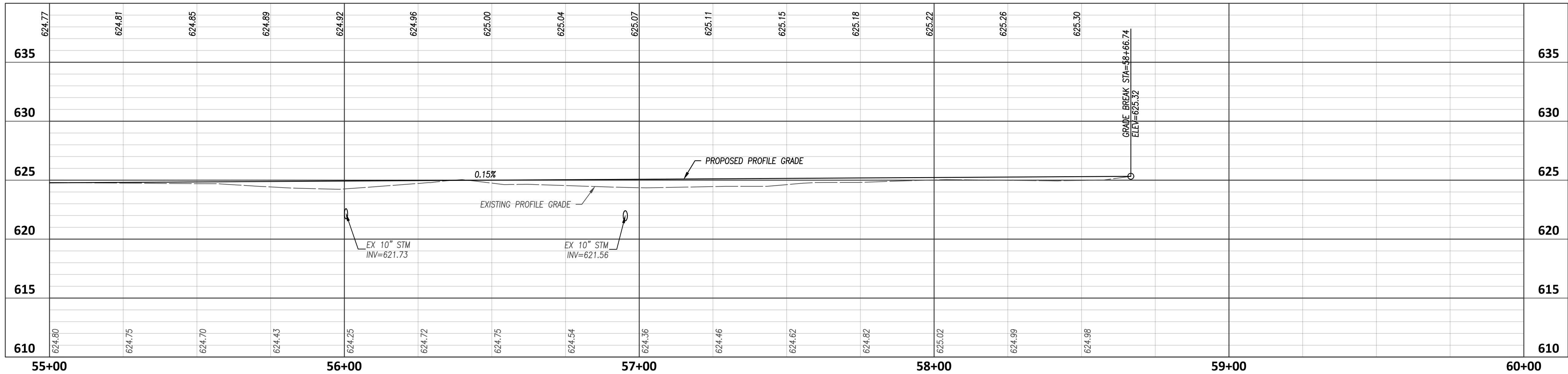
HIGHLAND LANE

STATE ROUTE 2
(AIRPORT HIGHWAY)

MATCHLINE STA: 55+00

PARKCREST MEDICAL FORUM LLC
 AN OHIO LLC
 3715 AIRPORT HWY.
 PARCEL: 2002036
 ZONING: 10-CR

PROPOSED TRAIL WEST PROFILE



NO	REVISION	DATE
1	FOR CONSTRUCTION	02-27-20
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DGL CONSULTING ENGINEERS, LLC
 3455 BRIARFIELD BLVD, SUITE E
 MAUMEE, OH 43537
 PHONE: 419.535.1015
 www.dgl-ltd.com

METROPARKS TOLEDO
 SWAN CREEK CONNECTOR TRAIL
 4301 AIRPORT HWY
 TOLEDO, OHIO 43615
 LUCAS COUNTY

PROPOSED WEST TRAIL
 PLAN & PROFILE

FILE: 18147 CD.dwg
 JOB NO.: 18147
 DRAWN BY: EAH
 ISSUED: FEB 27, 2020

C15

1 MANUFACTURED INLET FILTER

2 SEEDING AND MULCHING

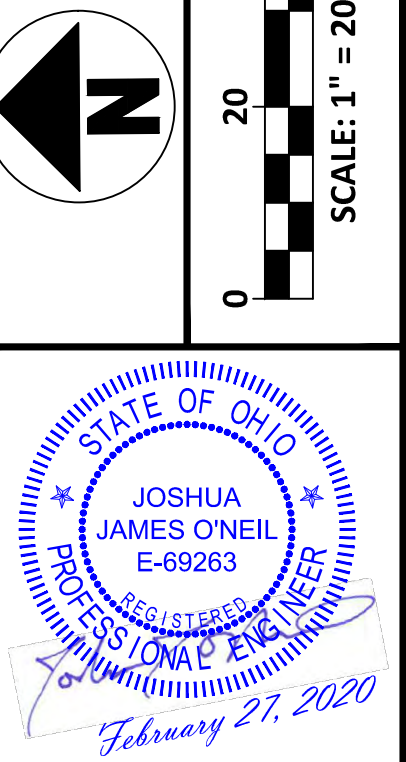
****INSTALL SILT FENCE WHERE APPLICABLE
BETWEEN PROPOSED GRADE AND EXISTING GRADE.**

REFER TO EROSION AND SEDIMENT CONTROL
DETAIL SHEET C48 FOR DETAILS

 GRAVEL

 TREE- TO BE REMOVED

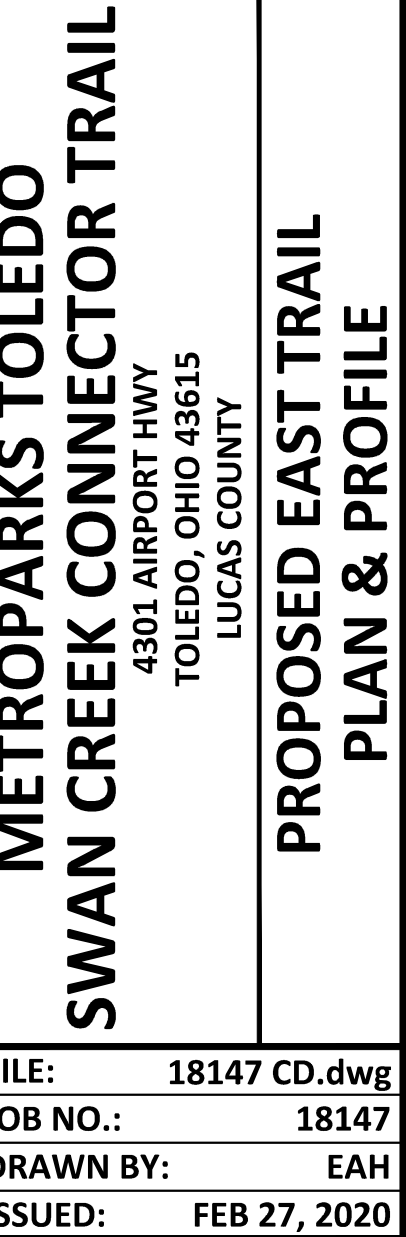
TBR- TO BE REMOVED



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BISHOP JOHN T.
3645 AIRPORT HWY.
PARCEL: 2002059
ZONING: 10-MX



C16

PLOTTED: Feb 27, 2020 - 9:52am
DRAWING: M:\18147 (Metroparks - Swan Creek Connector Trail)\CIVIL\Dwg\18147 CD.dwg: C16 P&P STA 60+00-65+50 SWAN

PLOTTED: Feb 27, 2020 -- 9:52am
 DRAWING: M:\18147 (Metroparks - Swan Creek Connector Trail)\CIVIL\DWG\18147 CD.dwg: C20 P&P STA 100+00--101+81.27 SWAN

EROSION CONTROL LEGEND

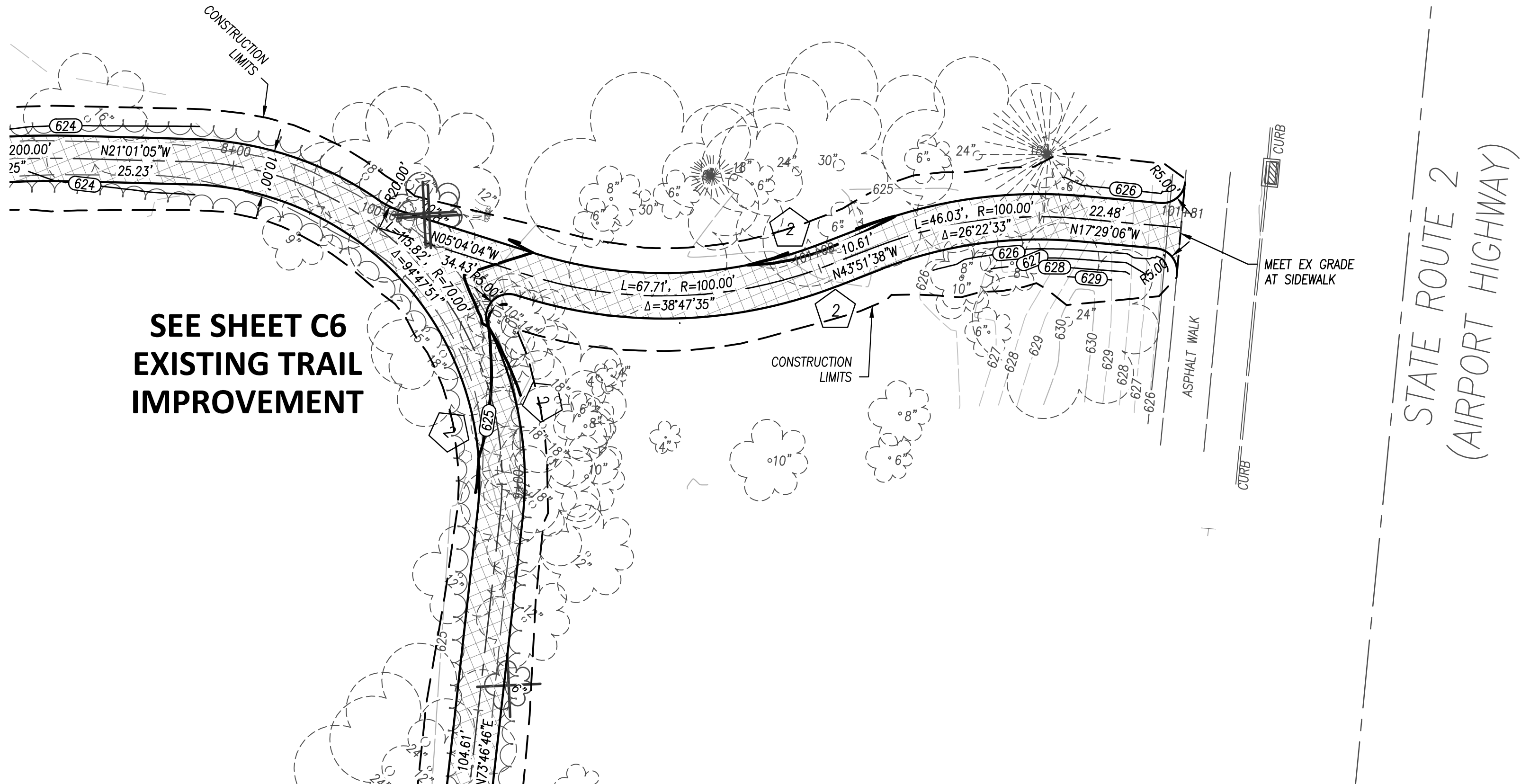
- 1

MANUFACTURED INLET FILTER
- 2

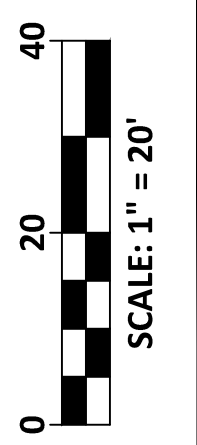
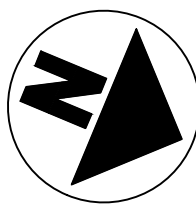
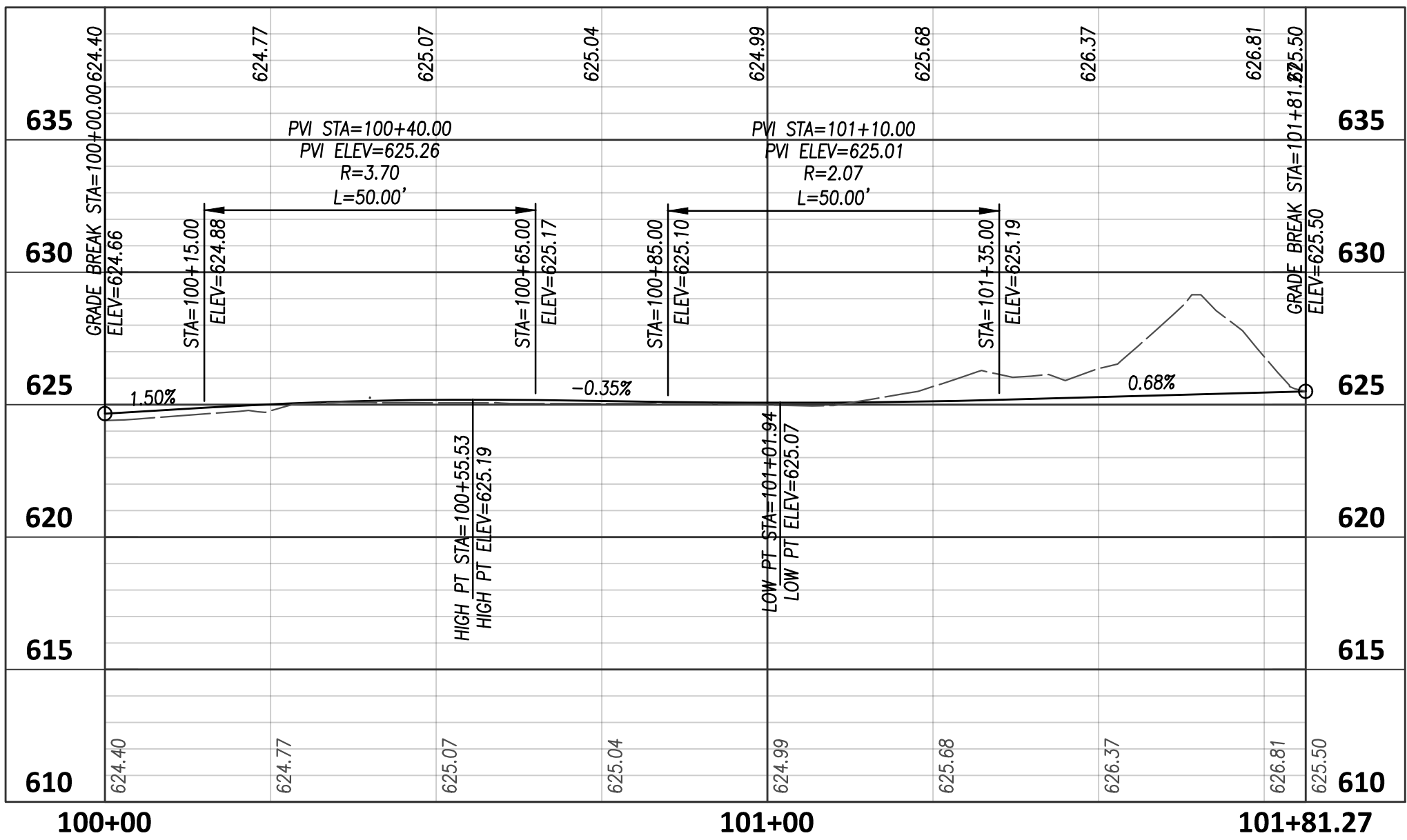
SEEDING AND MULCHING
- **INSTALL SILT FENCE WHERE APPLICABLE BETWEEN PROPOSED GRADE AND EXISTING GRADE.
- REFER TO EROSION AND SEDIMENT CONTROL DETAIL SHEET C48 FOR DETAILS

HATCH LEGEND

- TRAIL ASPHALT PAVEMENT
- TREE-- TO BE REMOVED
- TBR-- TO BE REMOVED



AIRPORT HIGHWAY CONNECTOR PROFILE



NO	REVISION	DATE
1	FOR CONSTRUCTION	02-27-20
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DGL CONSULTING ENGINEERS, LLC
 3455 BRIARFIELD BLVD, SUITE E
 MAUMEE, OH 43537
 PHONE: 419.535.1015
 www.dgl-ltd.com

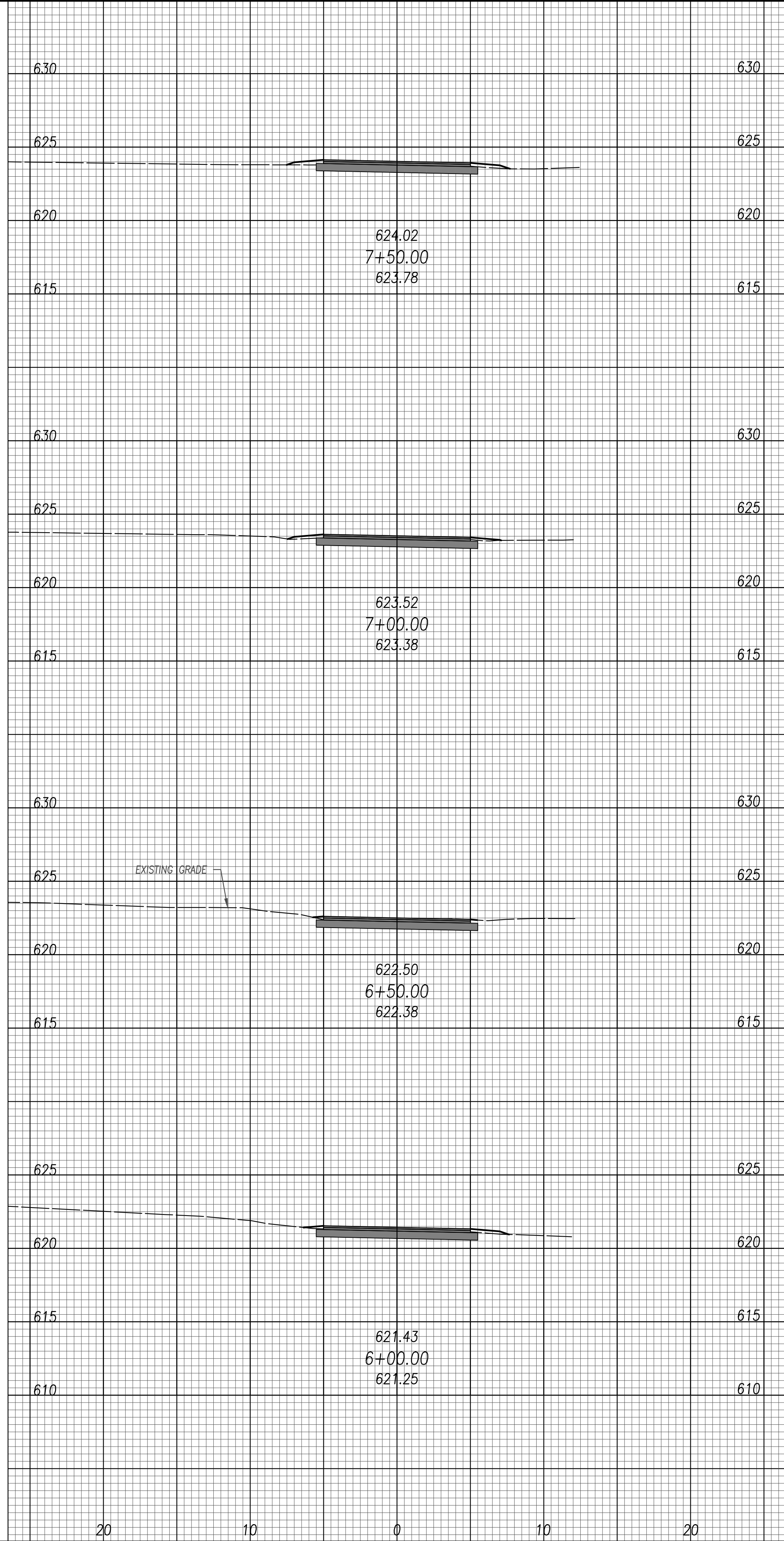
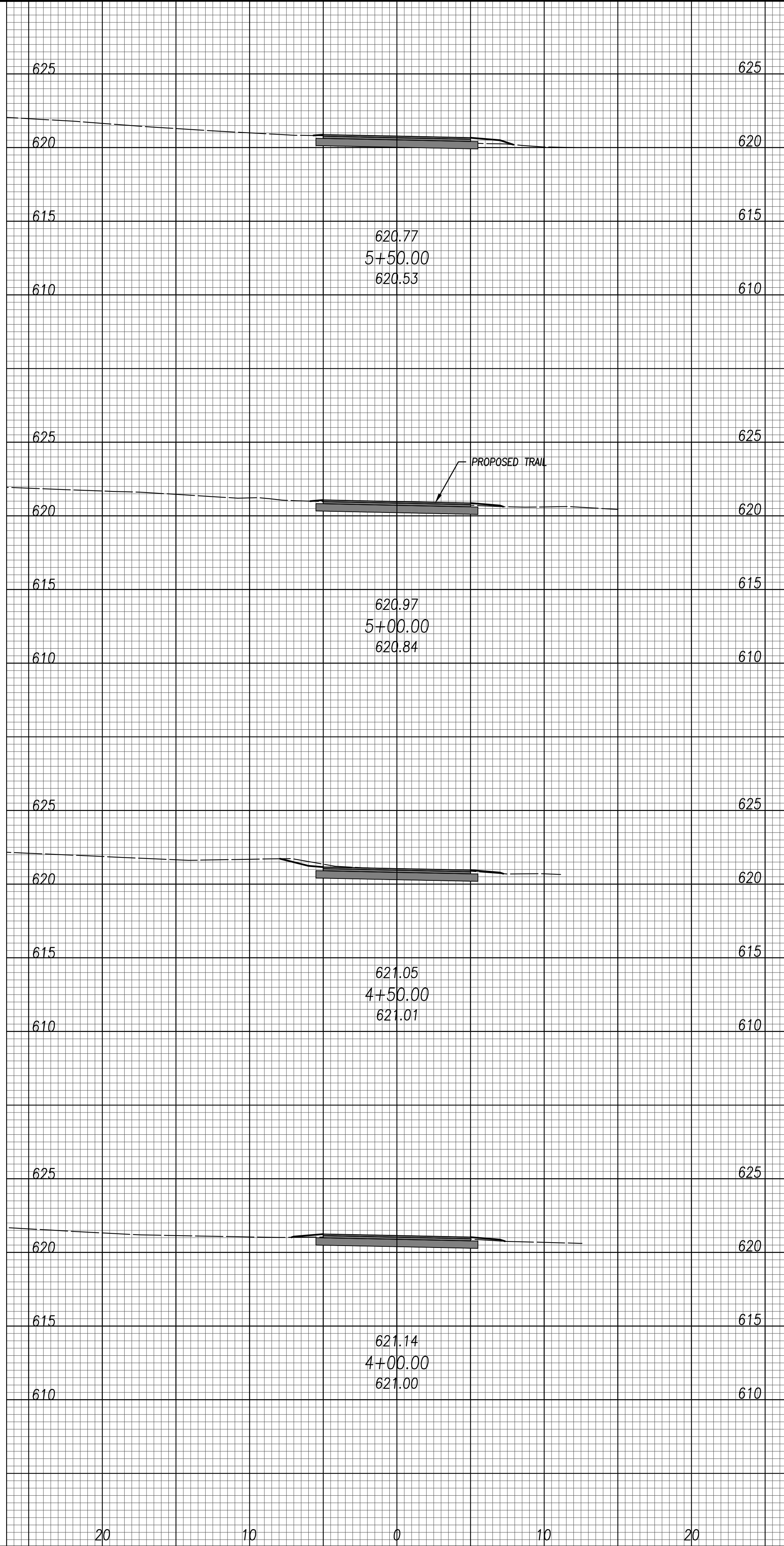
METROPARKS TOLEDO
 SWAN CREEK CONNECTOR TRAIL
 4301 AIRPORT HWY
 TOLEDO, OHIO 43615
 LUCAS COUNTY

AIRPORT HIGHWAY CONNECTOR
 PLAN & PROFILE

FILE:	18147 CD.dwg
JOB NO.:	18147
DRAWN BY:	EAH
ISSUED:	FEB 27, 2020

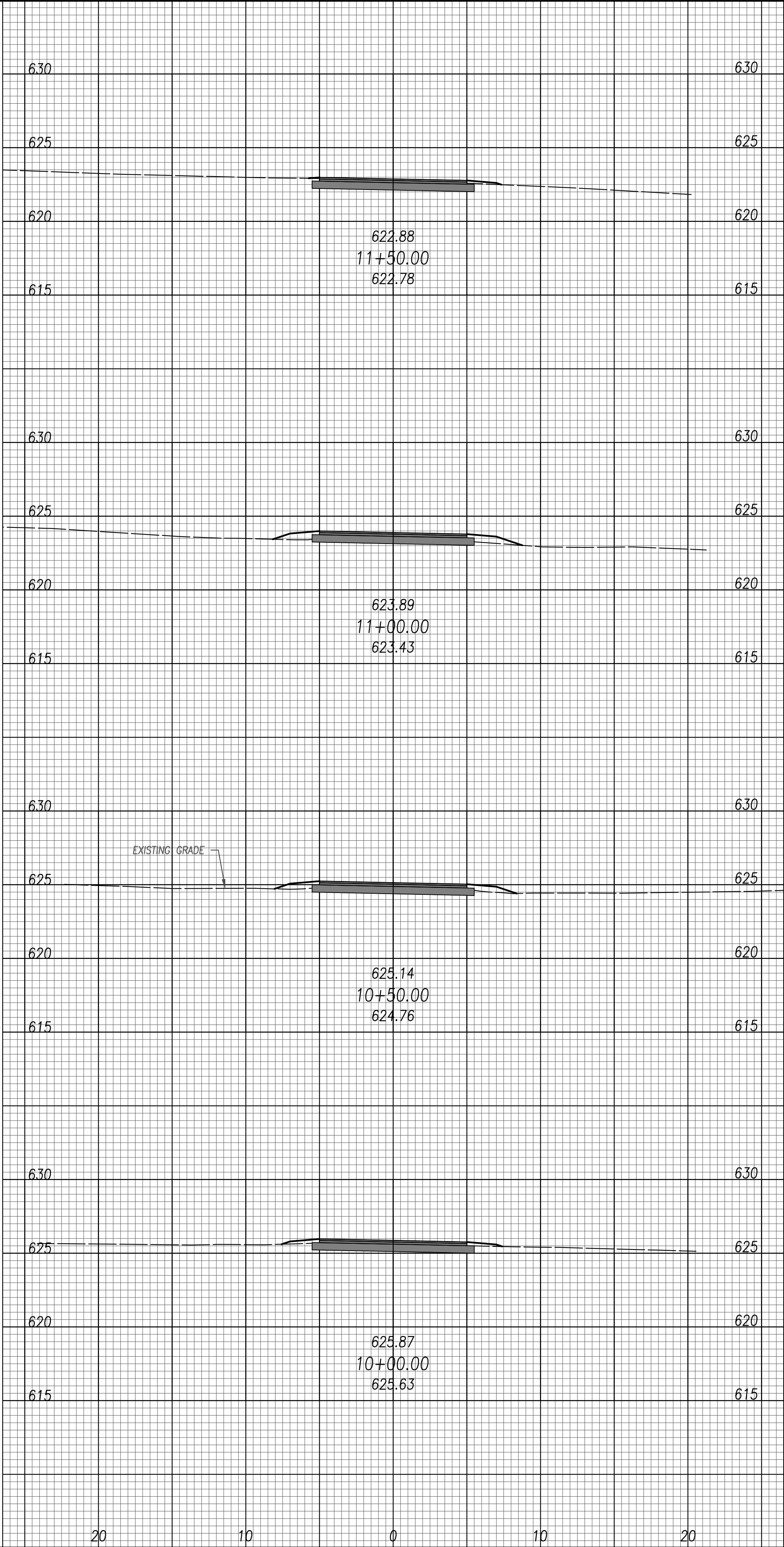
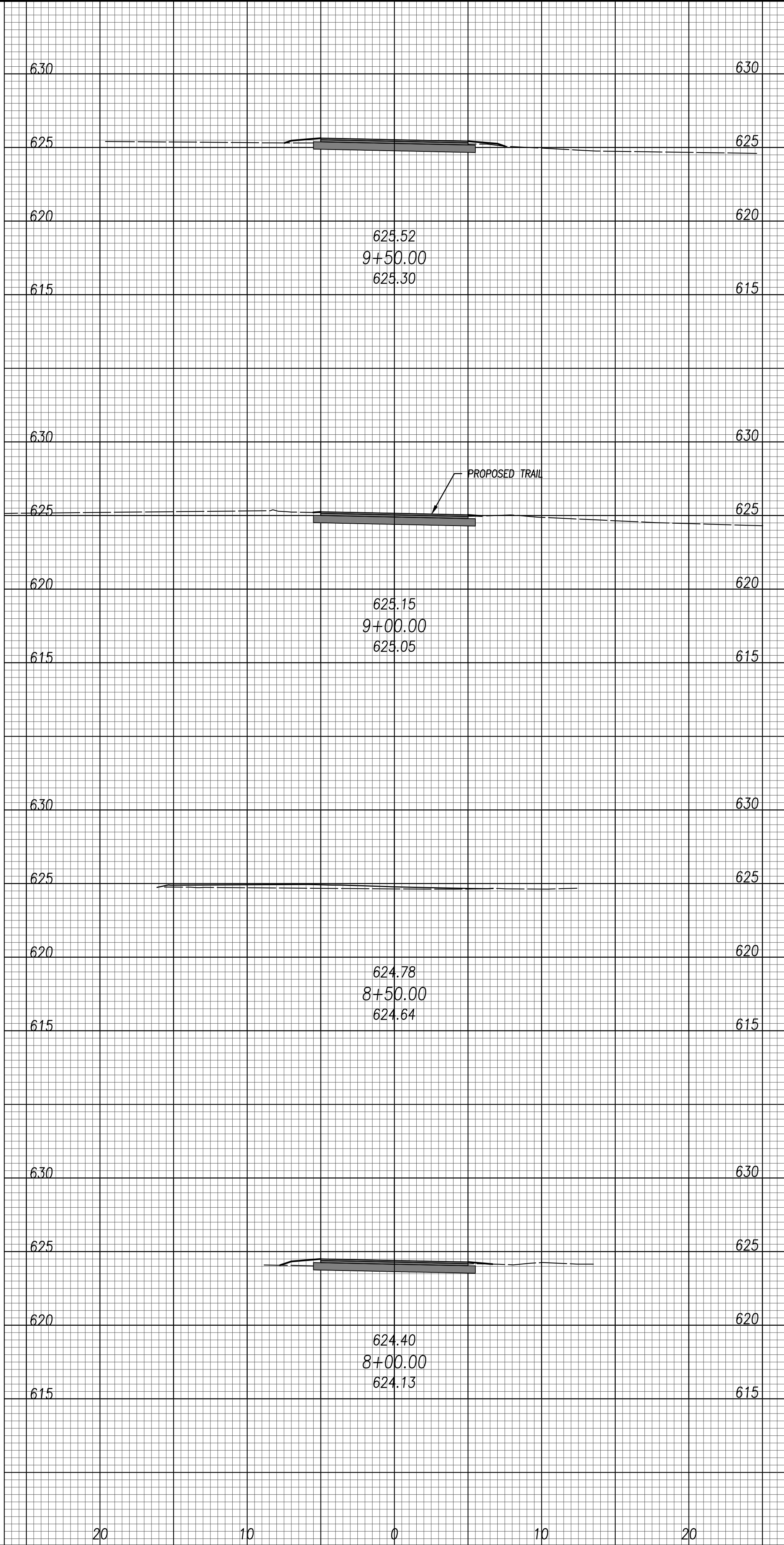
C20

PLOTTED: Feb 27, 2020 - 10:08am



<p>METROPARKS TOLEDO SWAN CREEK CONNECTOR TRAIL 4301 AIRPORT HWY TOLEDO, OHIO 43615 LUCAS COUNTY</p>		<p>EXISTING TRAIL IMPROVEMENT CROSS SECTIONS</p>	
<p>FILE: 18147 XS.dwg</p>		<p>JOB NO.: 18147</p>	
<p>DRAWN BY: EAH</p>		<p>ISSUED: FEB 27, 2020</p>	
<p>C22</p>			

PLOTTED: Feb 27, 2020 -- 10:08am
 DRAWING: M:\18147 (Metroparks - Swan Creek Connector Trail)\CWL(Dwg)\18147 XS.dwg: C23 CS STA 8+00--11+50 SWAN



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SCALE: 1" = 5'

STATE OF OHIO

JOSHUA JAMES O'NEIL

E-69263

REGISTERED PROFESSIONAL ENGINEER

February 27, 2020

NO	REVISION	DATE
1	FOR CONSTRUCTION	02-27-20
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DGL

DESIGN GROUP, L.L.C.

DGL CONSULTING ENGINEERS, LLC

3455 BRIARFIELD BLVD, SUITE E

MAUMEE, OH 43537

PHONE: 419.535.1015

www.dgl-llc.com

METROPARKS TOLEDO

SWAN CREEK CONNECTOR TRAIL

4301 AIRPORT HWY

TOLEDO, OHIO 43615

LUCAS COUNTY

EXISTING TRAIL IMPROVEMENT

CROSS SECTIONS

FILE: 18147 XS.dwg

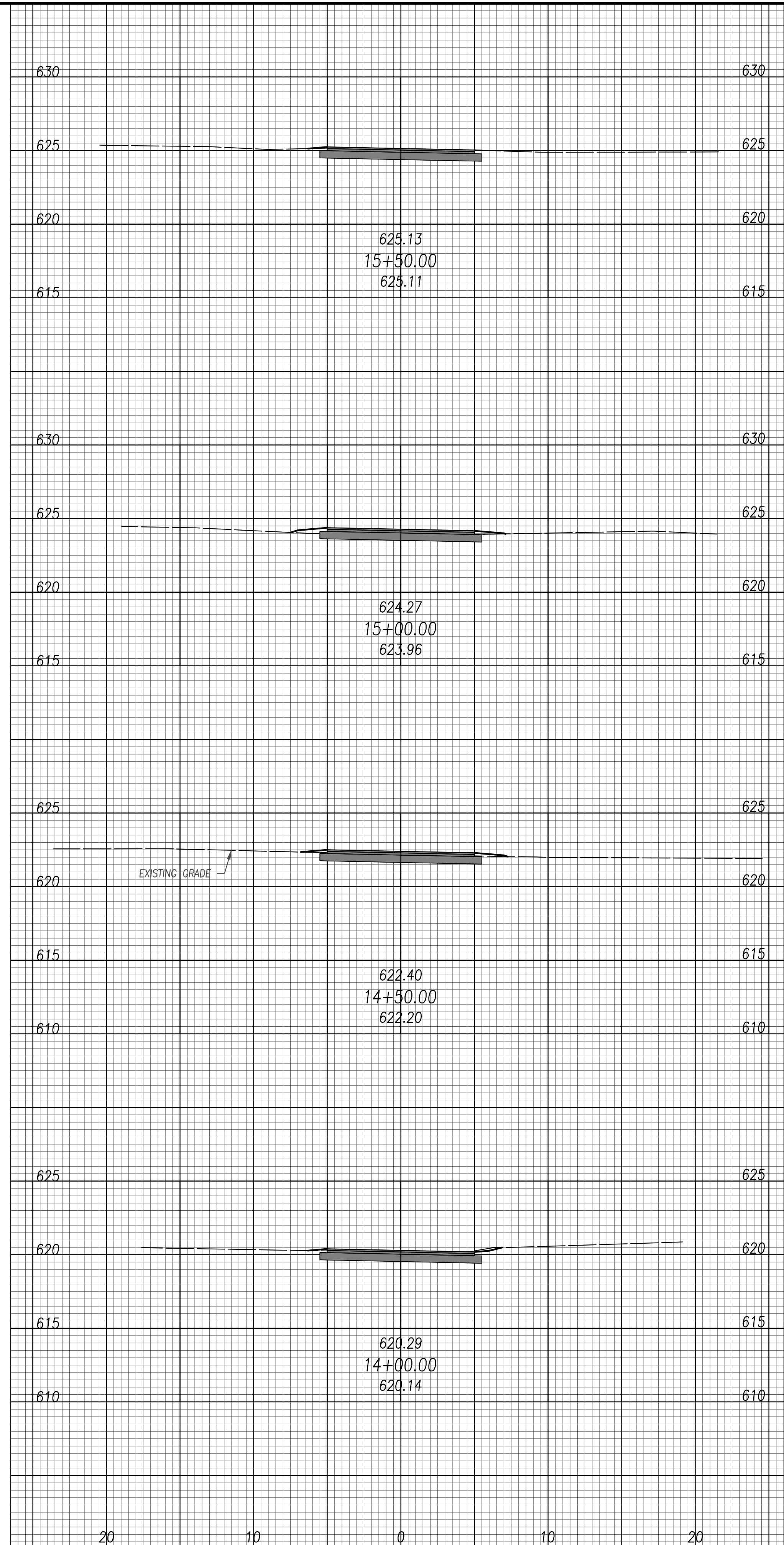
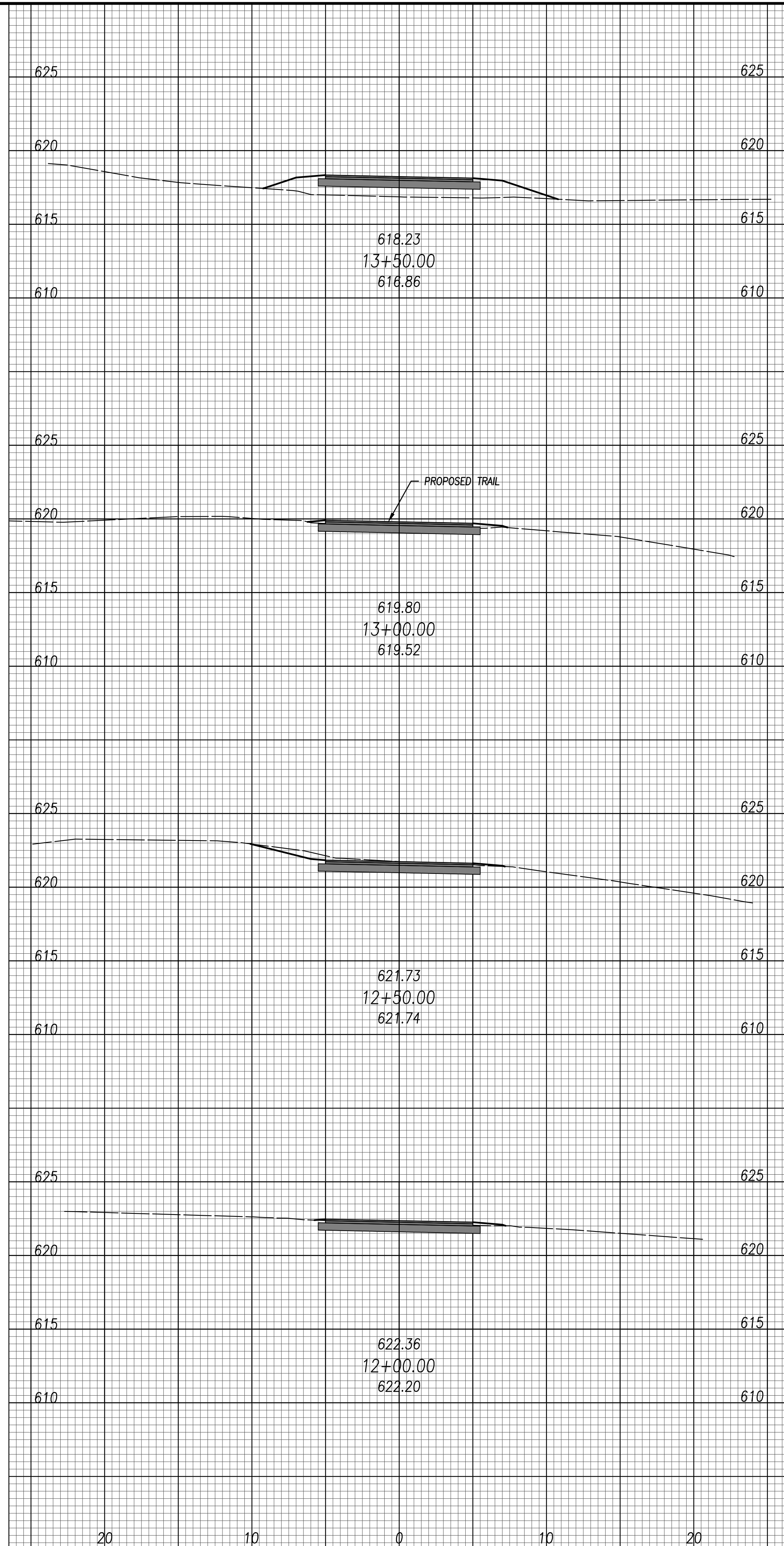
JOB NO.: 18147

DRAWN BY: EAH

ISSUED: FEB 27, 2020

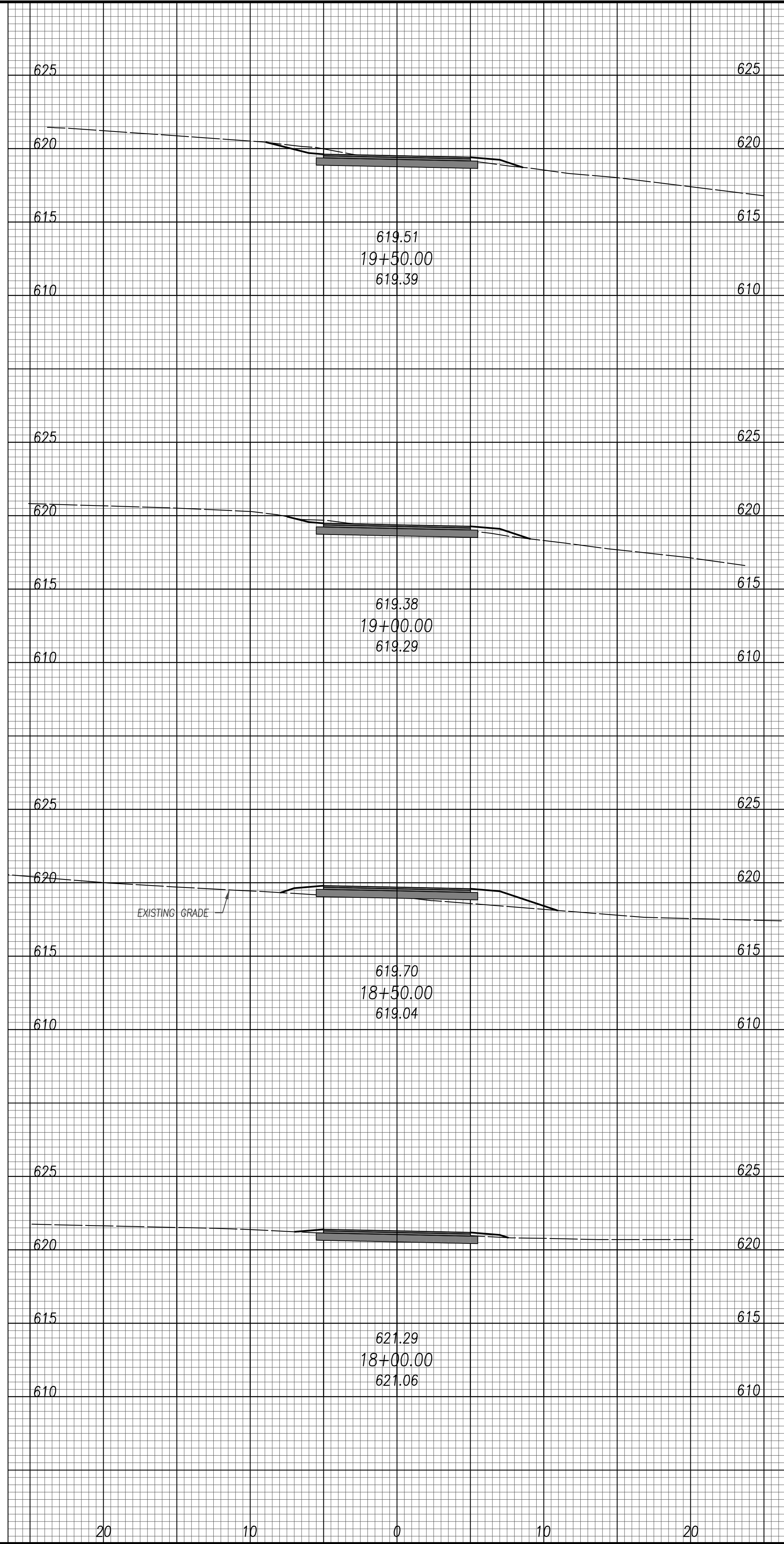
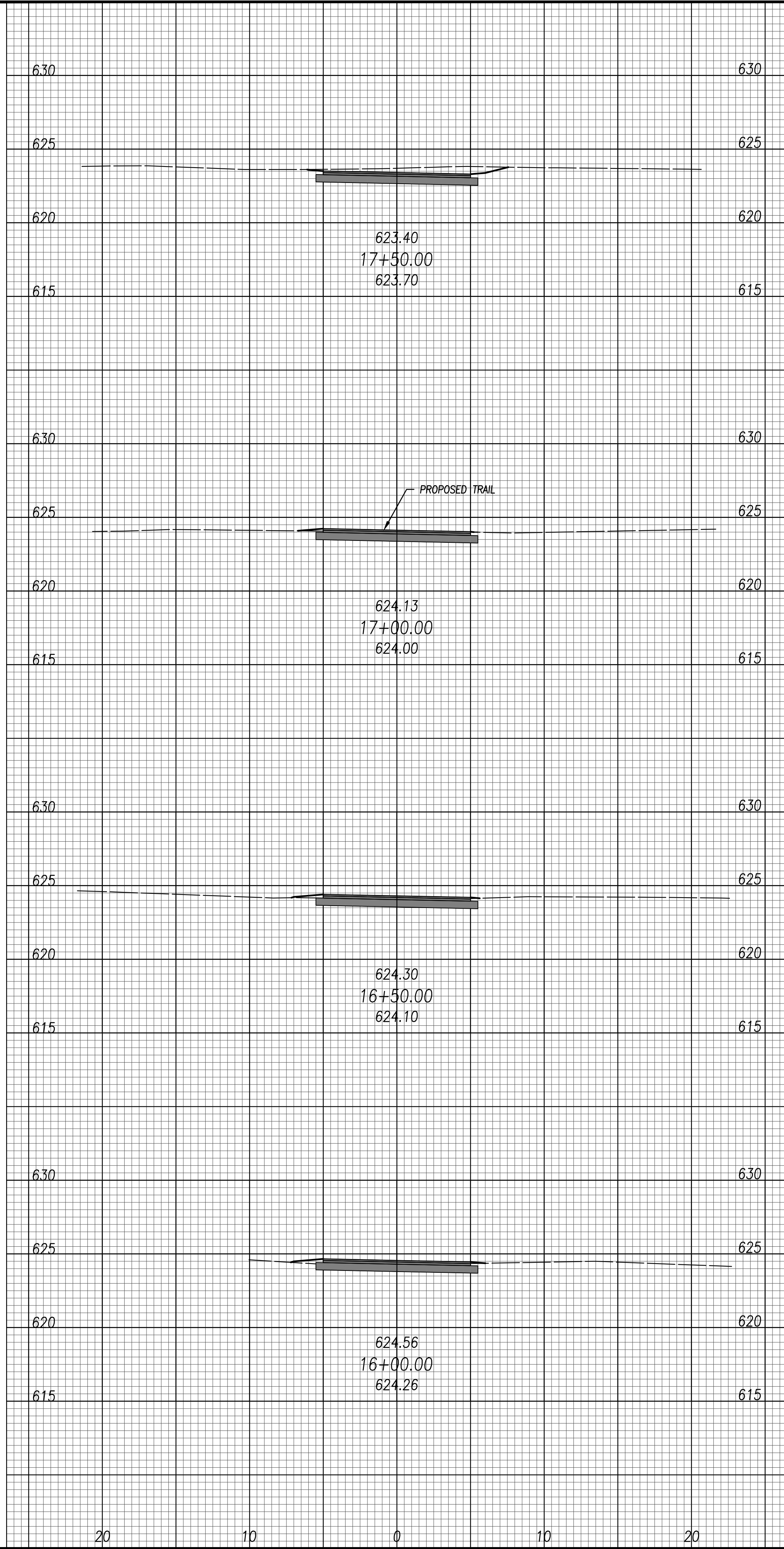
C23

PLOTTED: Feb 27, 2020 - 10:08am



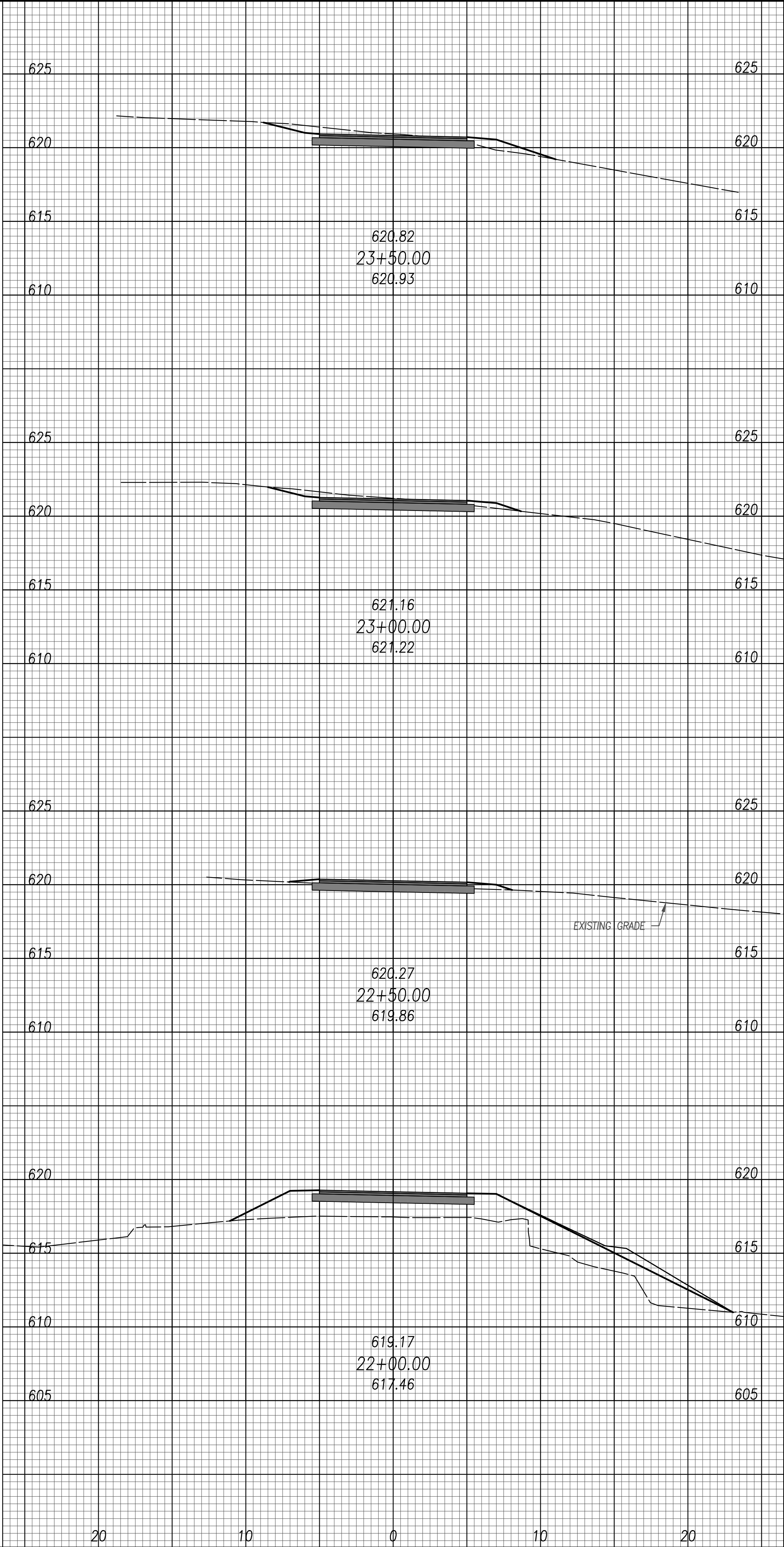
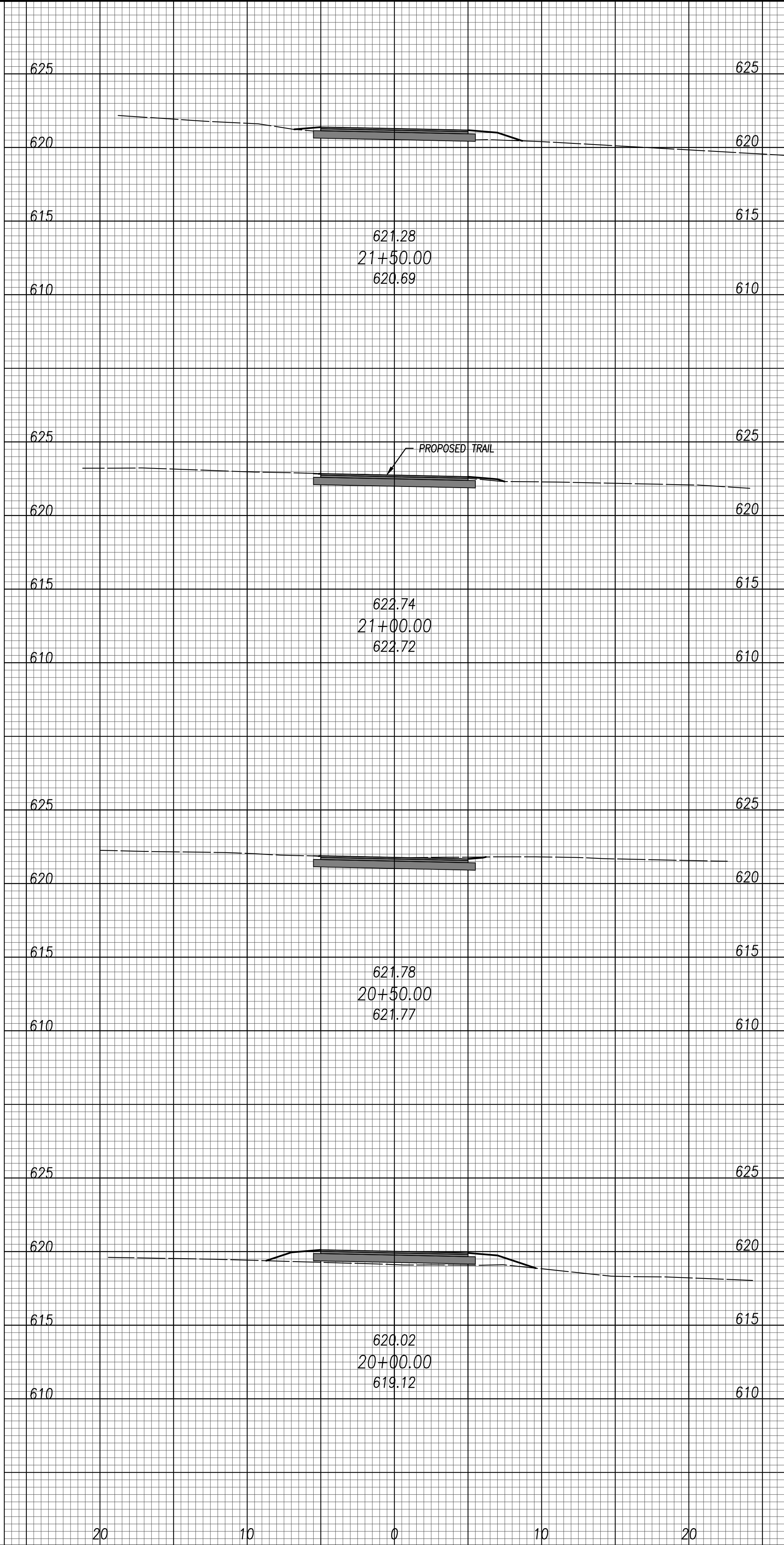
METROPARKS TOLEDO		EXISTING TRAIL IMPROVEMENT CROSS SECTIONS	
SWAN CREEK CONNECTOR TRAIL			
4301 AIRPORT HWY TOLEDO, OHIO 43615 LUCAS COUNTY			
FILE: 18147 XS.dwg			
JOB NO.: 18147			
DRAWN BY: EAH			
ISSUED: FEB 27, 2020			
C24			

PLOTTED: Feb 27, 2020 - 10:08am



	METROPARKS TOLEDO SWAN CREEK CONNECTOR TRAIL	 DGL CONSULTING ENGINEERS, LLC 3455 BRIARFIELD BLVD., SUITE E MAUMEE, OH 43537 PHONE : 419-535-1015 www.dgl-tld.com
	EXISTING TRAIL IMPROVEMENT CROSS SECTIONS	
FILE:	18147 XS.dwg	
JOB NO.:	18147	
DRAWN BY:	EAH	
ISSUED:	FEB 27, 2020	
C25		

PLOTTED: Feb 27, 2020 -- 10:08am
 DRAWING: M:\18147 (Metroparks - Swan Creek Connector Trail)\CIVIL\Drawg\18147 XS.dwg: C26 CS STA 20+00-23+50 SWAN



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SCALE: 1" = 5'

STATE OF OHIO

JOSHUA JAMES O'NEIL

E-69263

REGISTERED PROFESSIONAL ENGINEER

February 27, 2020

NO	REVISION	DATE
1	FOR CONSTRUCTION	02-27-20
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DGL

IN CONSULTING ENGINEERS, LLC

3455 BRIARFIELD BLVD, SUITE E
MAUMEE, OH 43537
PHONE: 419.535.1015
www.dgl-ltd.com

METROPARKS TOLEDO

SWAN CREEK CONNECTOR TRAIL

4301 AIRPORT HWY
TOLEDO, OHIO 43615
LUCAS COUNTY

EXISTING TRAIL IMPROVEMENT

CROSS SECTIONS

FILE: 18147 XS.dwg

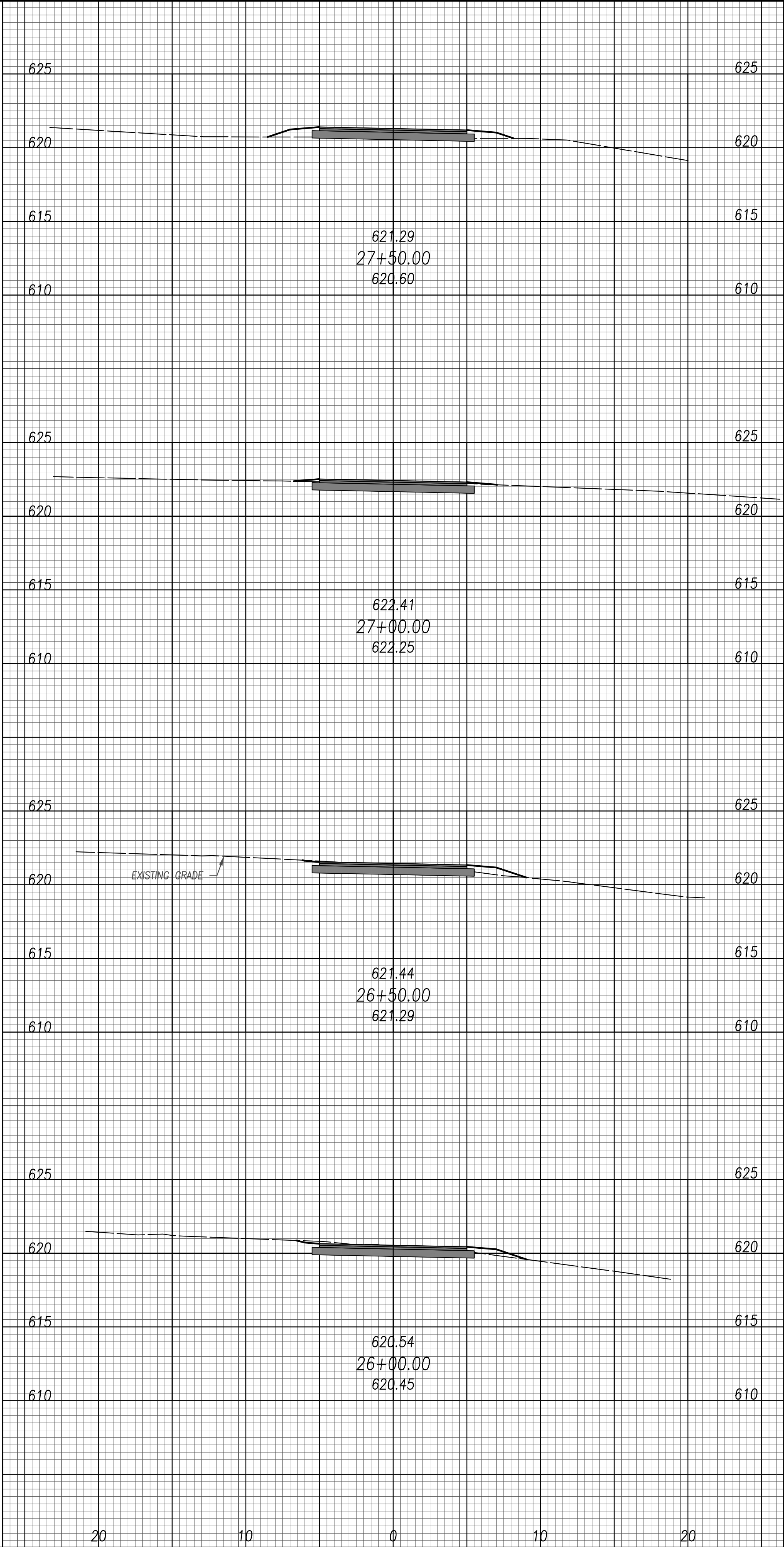
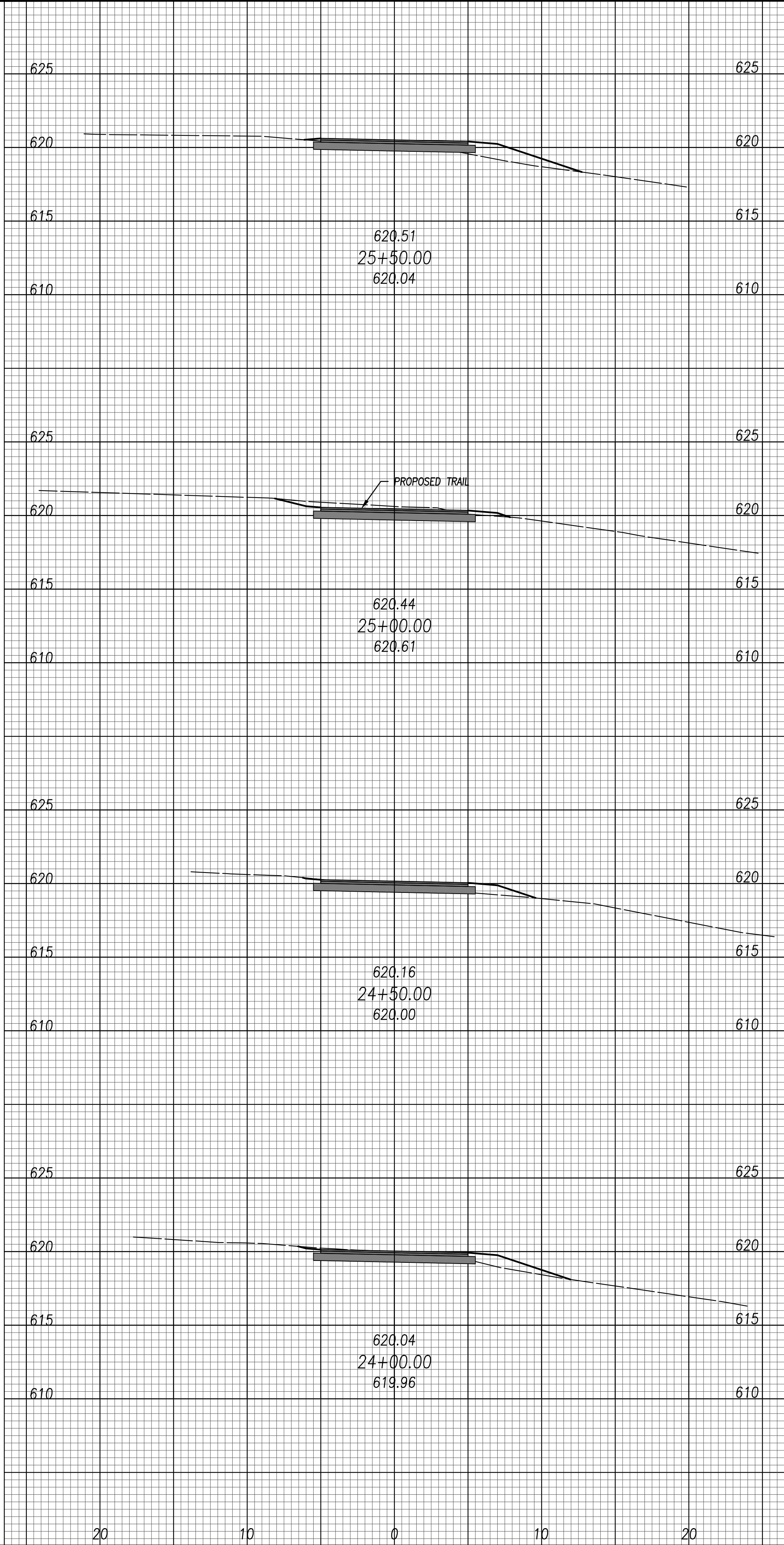
JOB NO.: 18147

DRAWN BY: EAH

ISSUED: FEB 27, 2020

C26

PLOTTED: Feb 27, 2020 -- 10:09am
 DRAWING: M:\18147 (Metroparks - Swan Creek Connector Trail)\CIVIL\Drawg\18147 XS.dwg: C27 CS STA 24+00--27+50 SWAN



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SCALE: 1" = 5'

STATE OF OHIO

JOSHUA JAMES O'NEIL

E-69263

REGISTERED PROFESSIONAL ENGINEER

February 27, 2020

NO	REVISION	DATE
1	FOR CONSTRUCTION	02-27-20
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DGL

IN CONSULTING ENGINEERS

DGL CONSULTING ENGINEERS, LLC

3455 BRIARFIELD BLVD, SUITE E

MAUMEE, OH 43537

PHONE: 419.535.1015

www.dgl-llc.com

METROPARKS TOLEDO

SWAN CREEK CONNECTOR TRAIL

4301 AIRPORT HWY

TOLEDO, OHIO 43615

LUCAS COUNTY

EXISTING TRAIL IMPROVEMENT

CROSS SECTIONS

FILE: 18147 XS.dwg

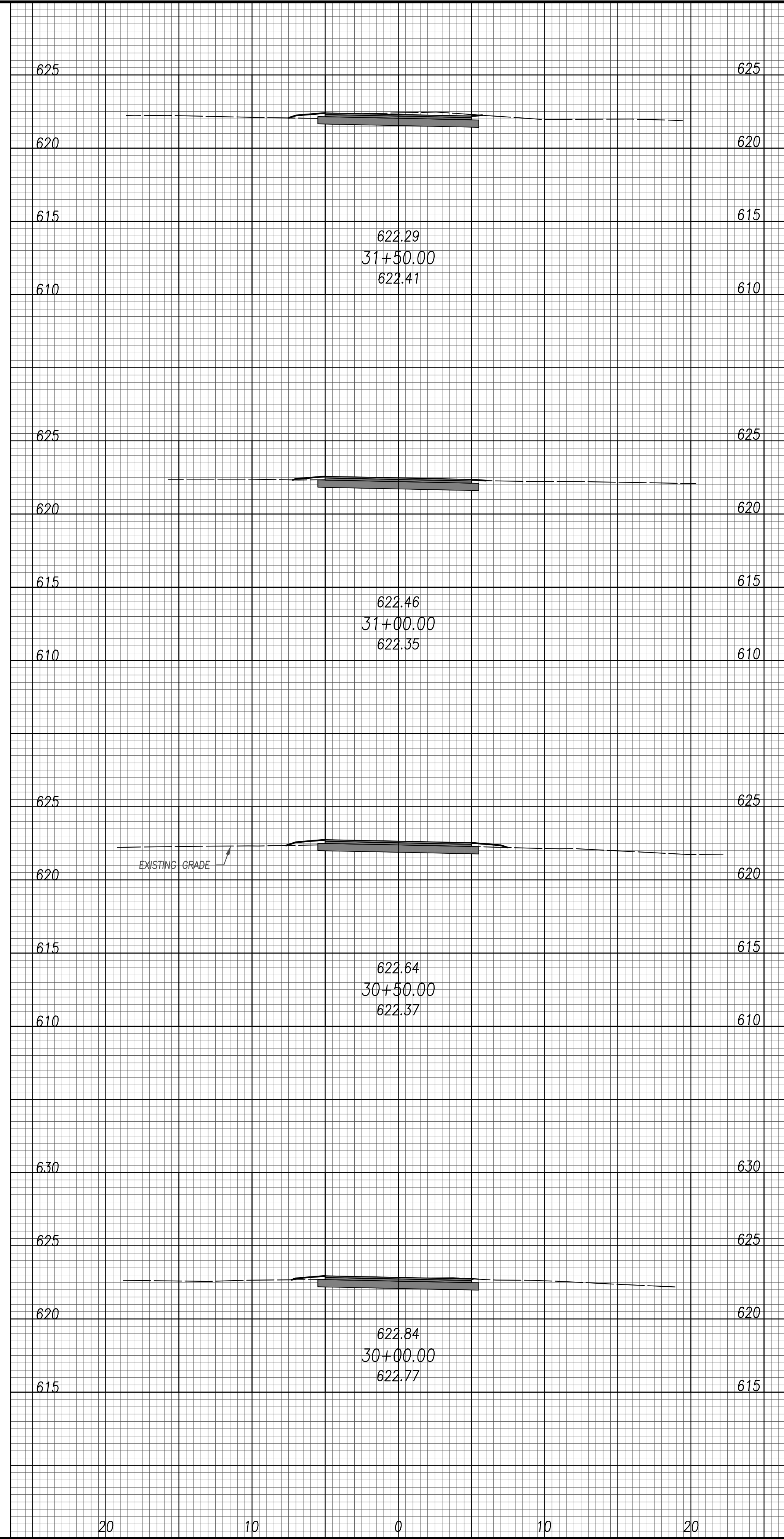
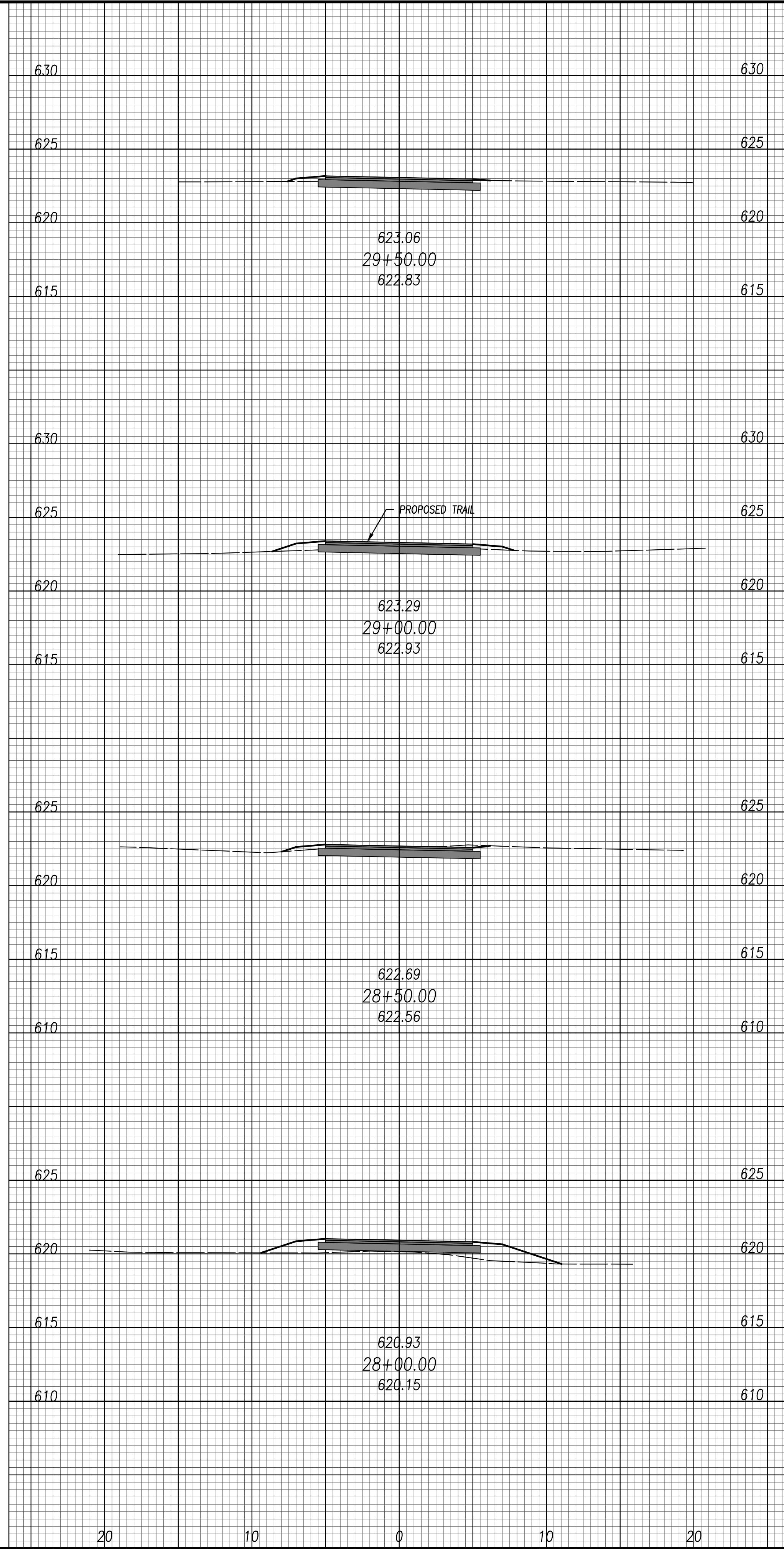
JOB NO.: 18147


DRAWN BY: EAH

ISSUED: FEB 27, 2020

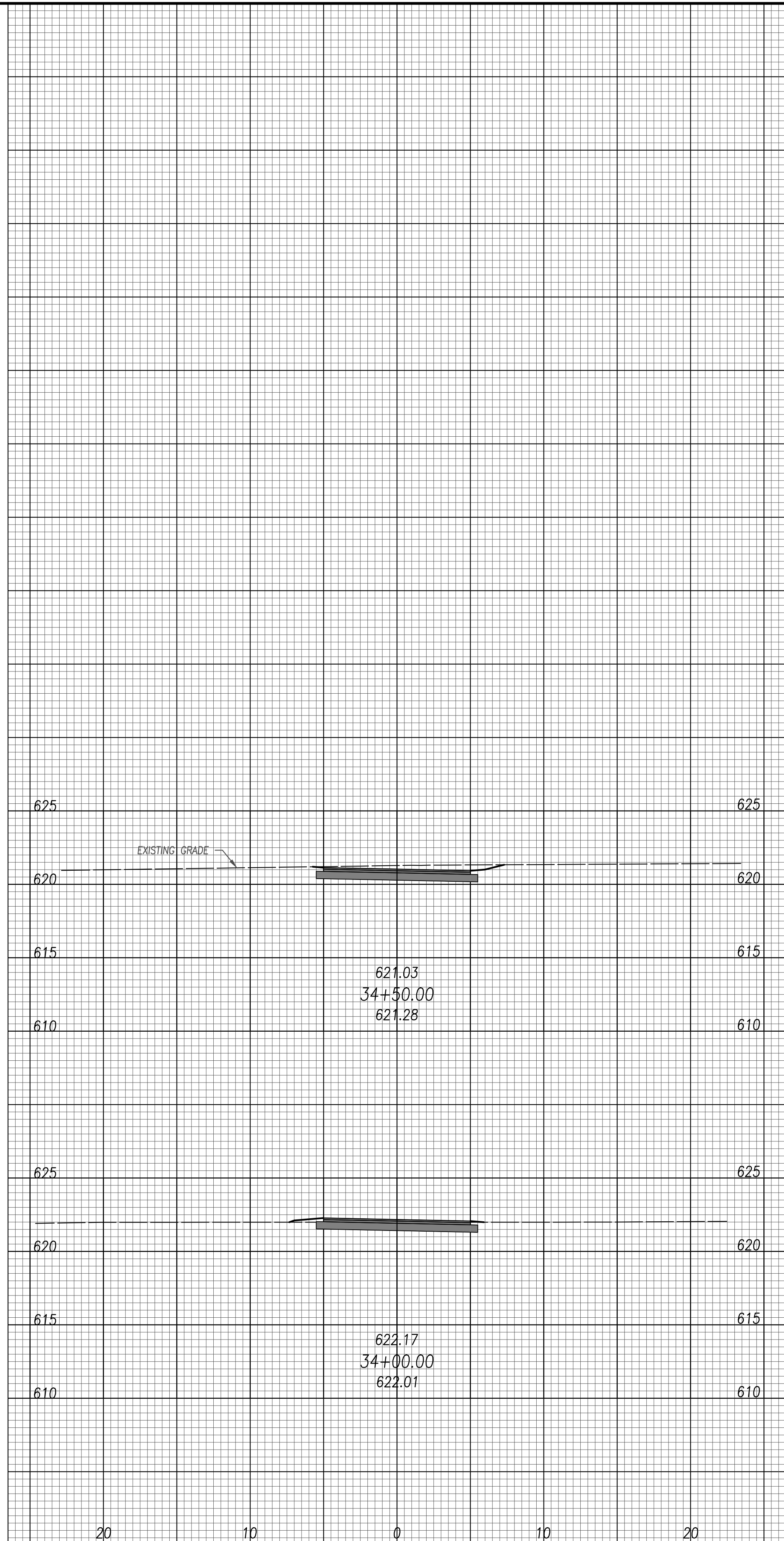
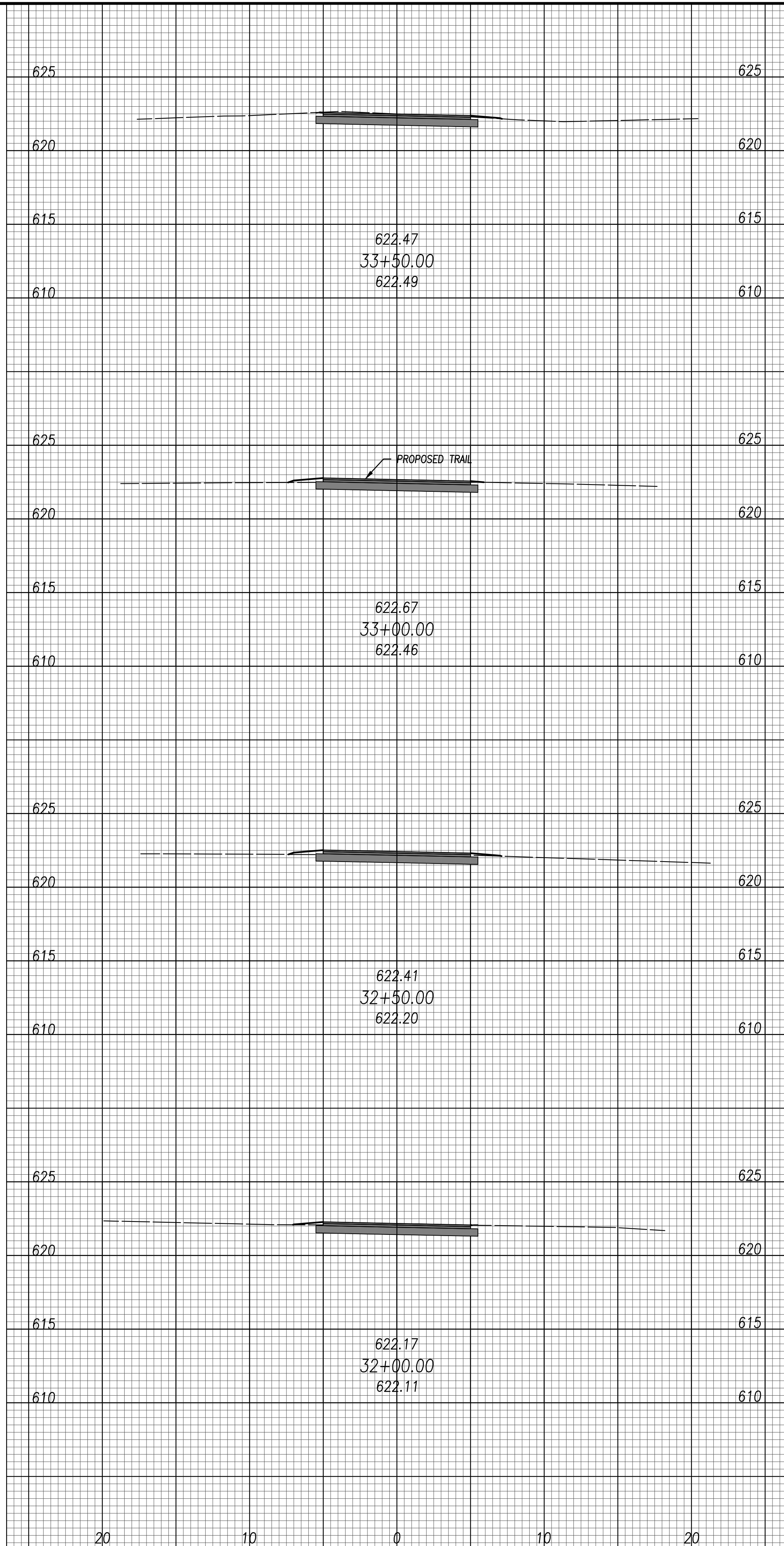
C27


PLOTTED: Feb 27, 2020 - 10:09am



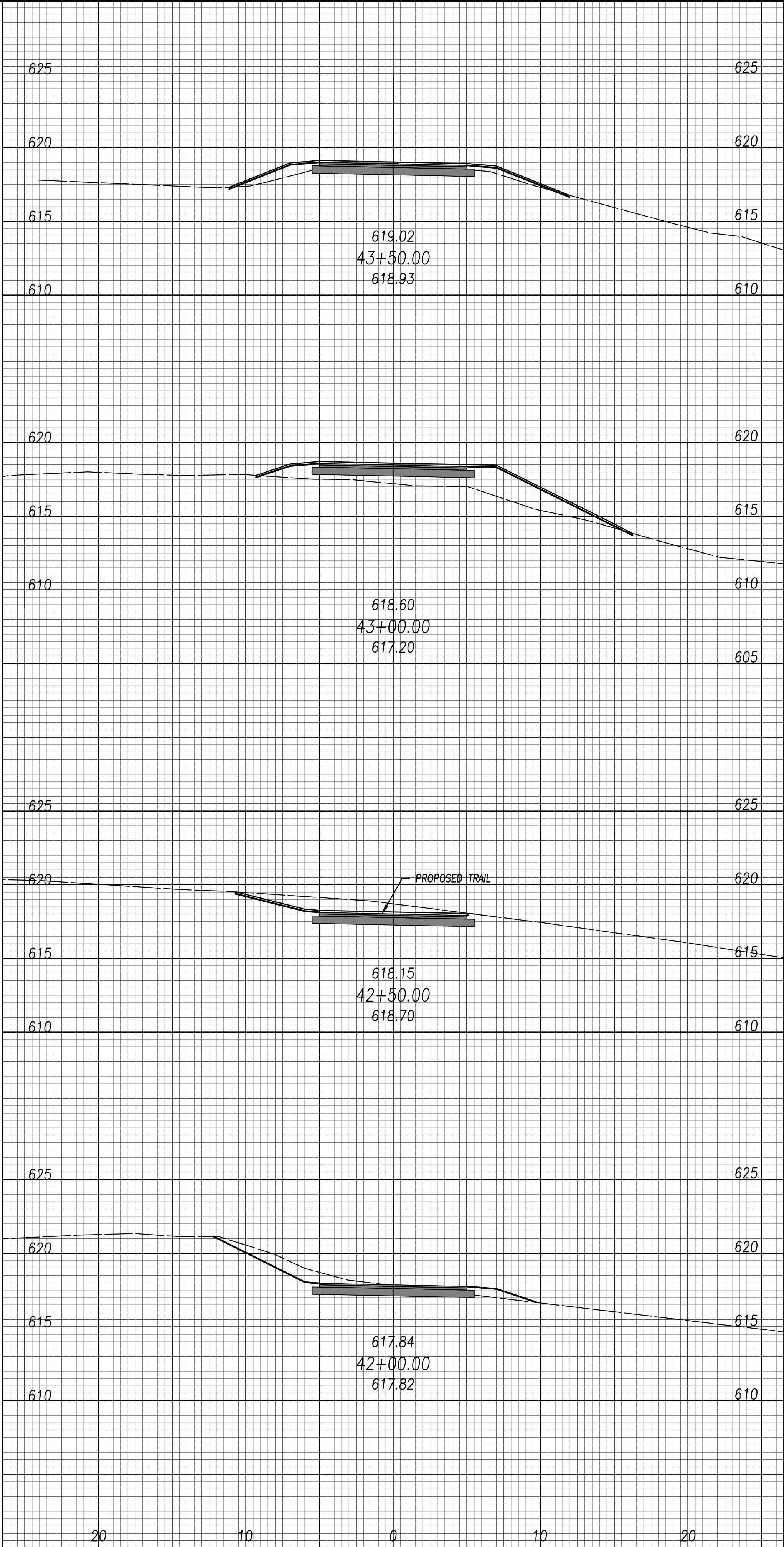
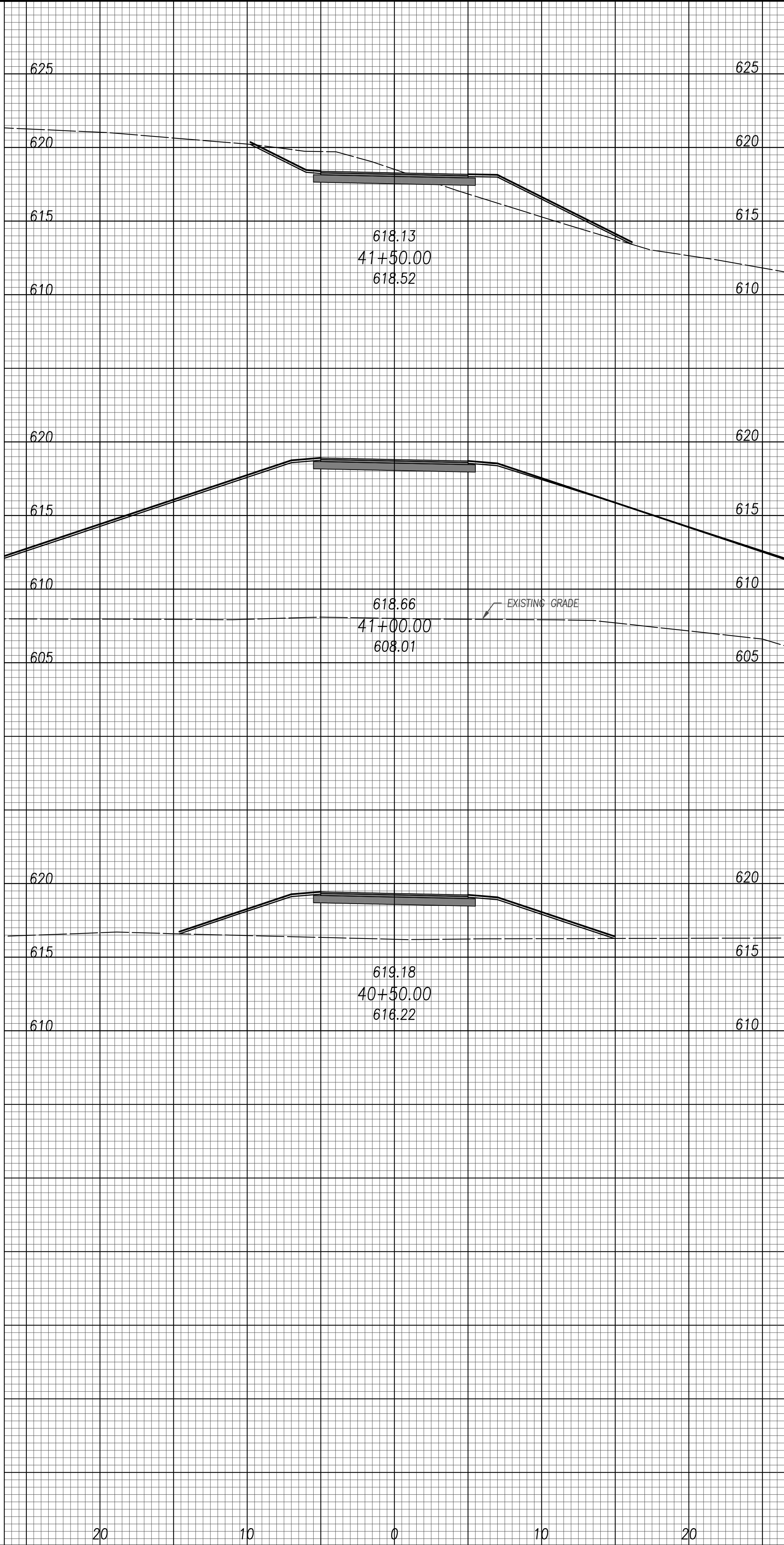
<div style="text-align: center;"> METROPARKS TOLEDO SWAN CREEK CONNECTOR TRAIL 4301 AIRPORT HWY TOLEDO, OHIO 43615 LUCAS COUNTY </div>		<div style="text-align: center;">  DGL <small>CONSULTING ENGINEERS, LLC</small> 3455 BRIARFIELD BLVD., SUITE E MAUMEE, OH 43537 PHONE: 419.535.1015 www.dgl-llc.com </div>		<div style="text-align: center;"> EXISTING TRAIL IMPROVEMENT CROSS SECTIONS </div>	
FILE:		18147 XS.dwg			
JOB NO.:		18147			
DRAWN BY:		EAH			
ISSUED:		FEB 27, 2020			
C28					

PLOTTED: Feb 27, 2020 - 10:09am



 <p>DGL CONSULTING ENGINEERS, LLC 3455 BRIARFIELD BLVD. SUITE E MALMEE, OH 43037 PHONE: 419.535.1015 www.dgl-llc.com</p>		<p>METROPARKS TOLEDO SWAN CREEK CONNECTOR TRAIL 4301 AIRPORT HWY TOLEDO, OHIO 43615 LUCAS COUNTY</p>		<p>EXISTING TRAIL IMPROVEMENT CROSS SECTIONS</p>	
<p>FILE: 18147 XS.dwg</p>		<p>JOB NO.: 18147</p>		<p>DRAWN BY: EAH</p>	
<p>ISSUED: FEB 27, 2020</p>		<p>C29</p>			

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SCALE: 1" = 5'

STATE OF OHIO

JOSHUA JAMES O'NEIL

E-69263

REGISTERED PROFESSIONAL ENGINEER

February 27, 2020

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DGL

IN CONSULTATION WITH

3455 BRIARFIELD BLVD, SUITE E
MAUMEE, OH 43537
PHONE: 419.535.1015
www.dgl-ltd.com

METROPARKS TOLEDO

SWAN CREEK CONNECTOR TRAIL

4301 AIRPORT HWY
TOLEDO, OHIO 43615
LUCAS COUNTY

PROPOSED WEST TRAIL

CROSS SECTIONS

FILE: 18147 XS.dwg

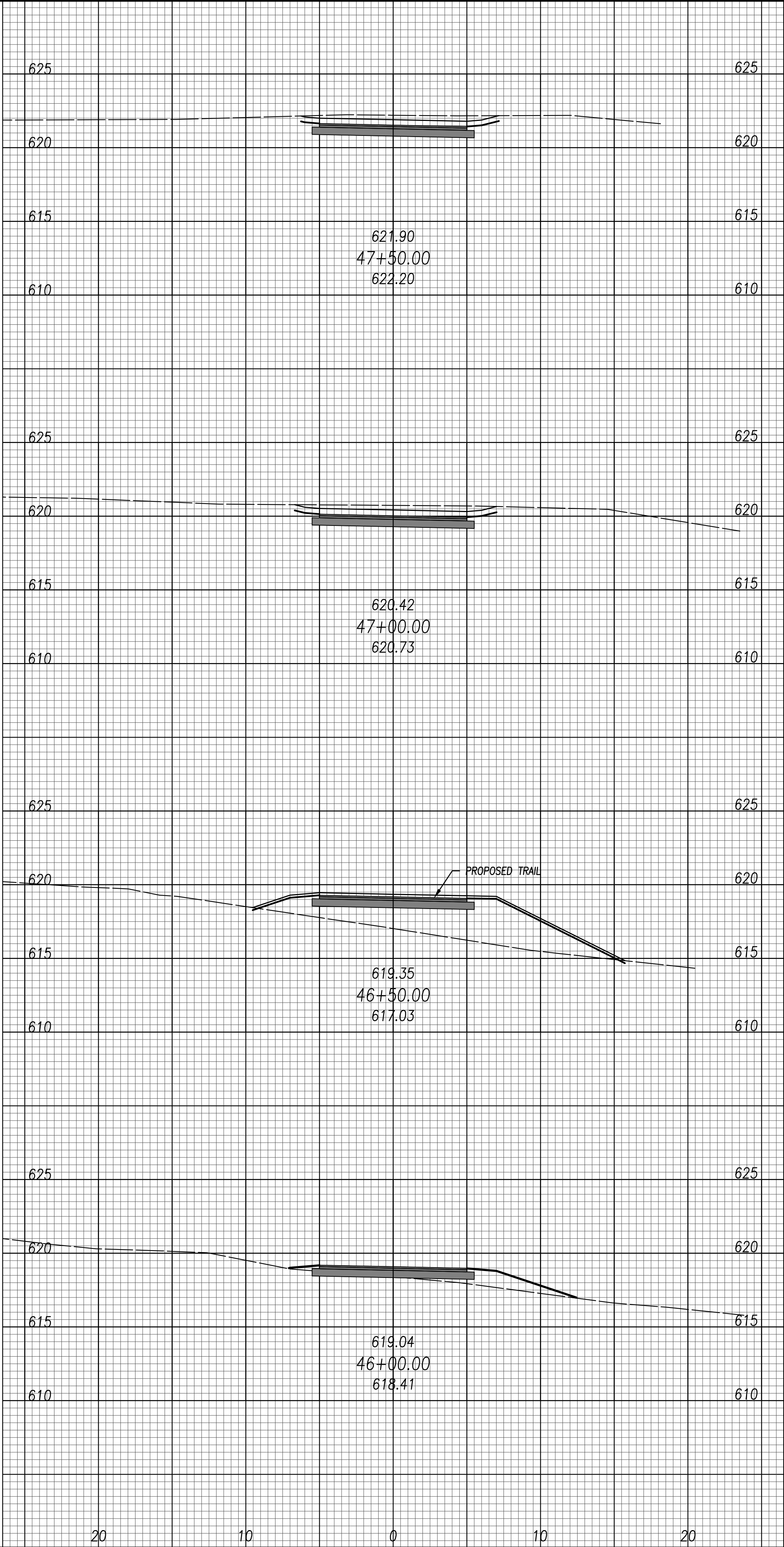
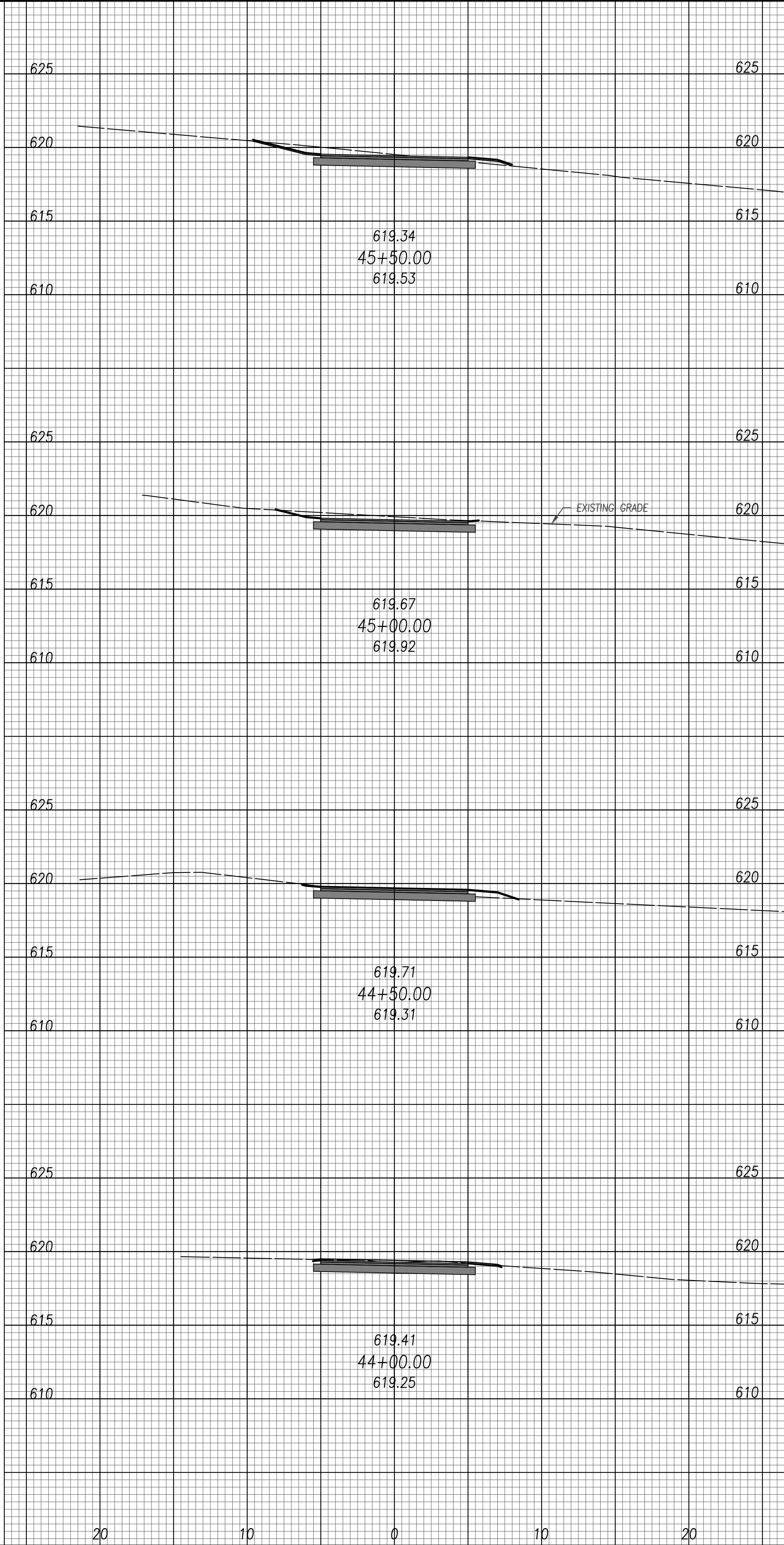
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DRAWN BY: EAH

ISSUED: FEB 27, 2020

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SCALE: 1" = 5'

STATE OF OHIO

JOSHUA JAMES O'NEIL

E-69263

REGISTERED PROFESSIONAL ENGINEER

February 27, 2020

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METROPARKS TOLEDO

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4301 AIRPORT HWY

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PROPOSED WEST TRAIL

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FILE: 18147 XS.dwg

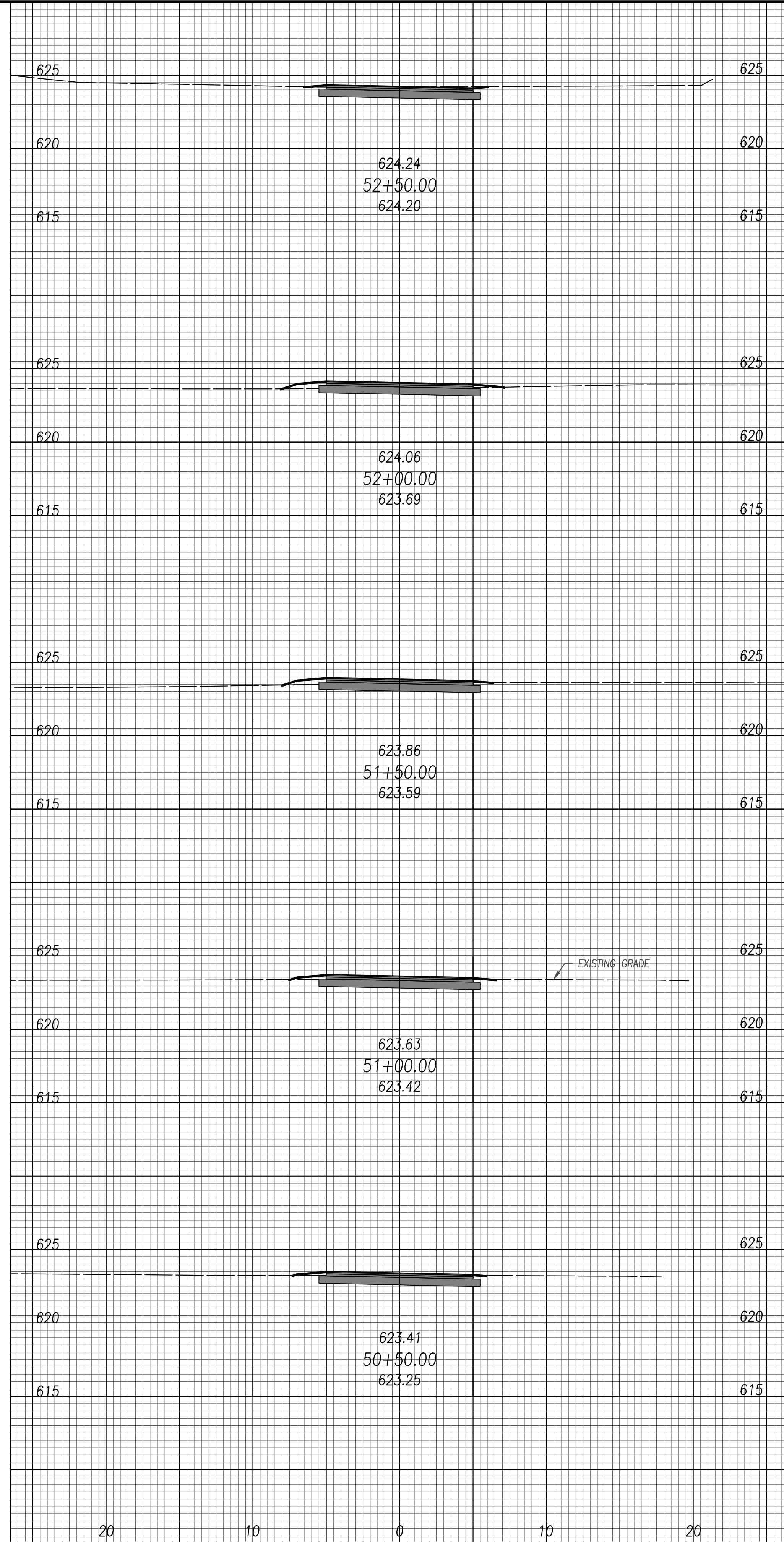
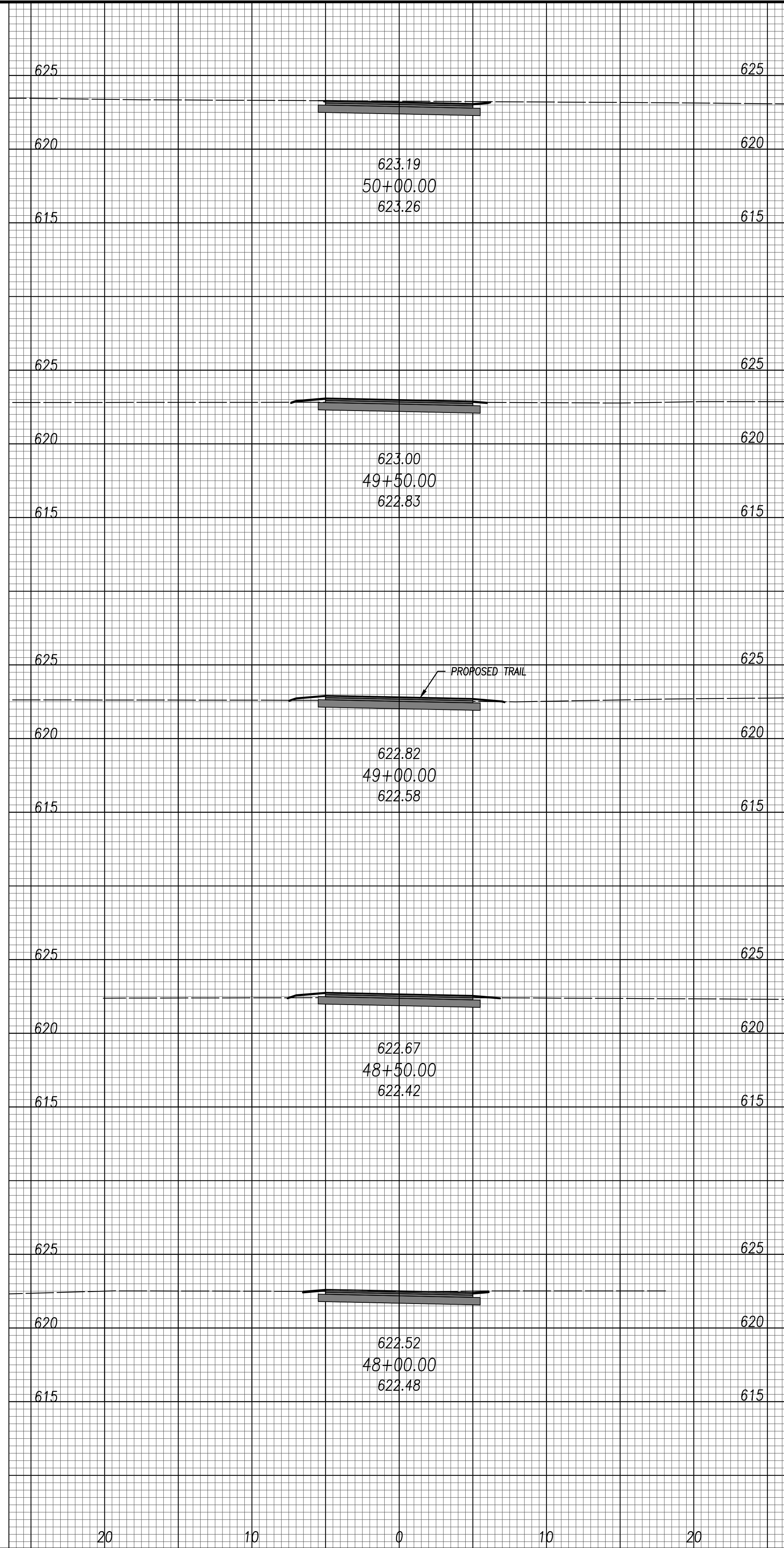
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ISSUED: FEB 27, 2020

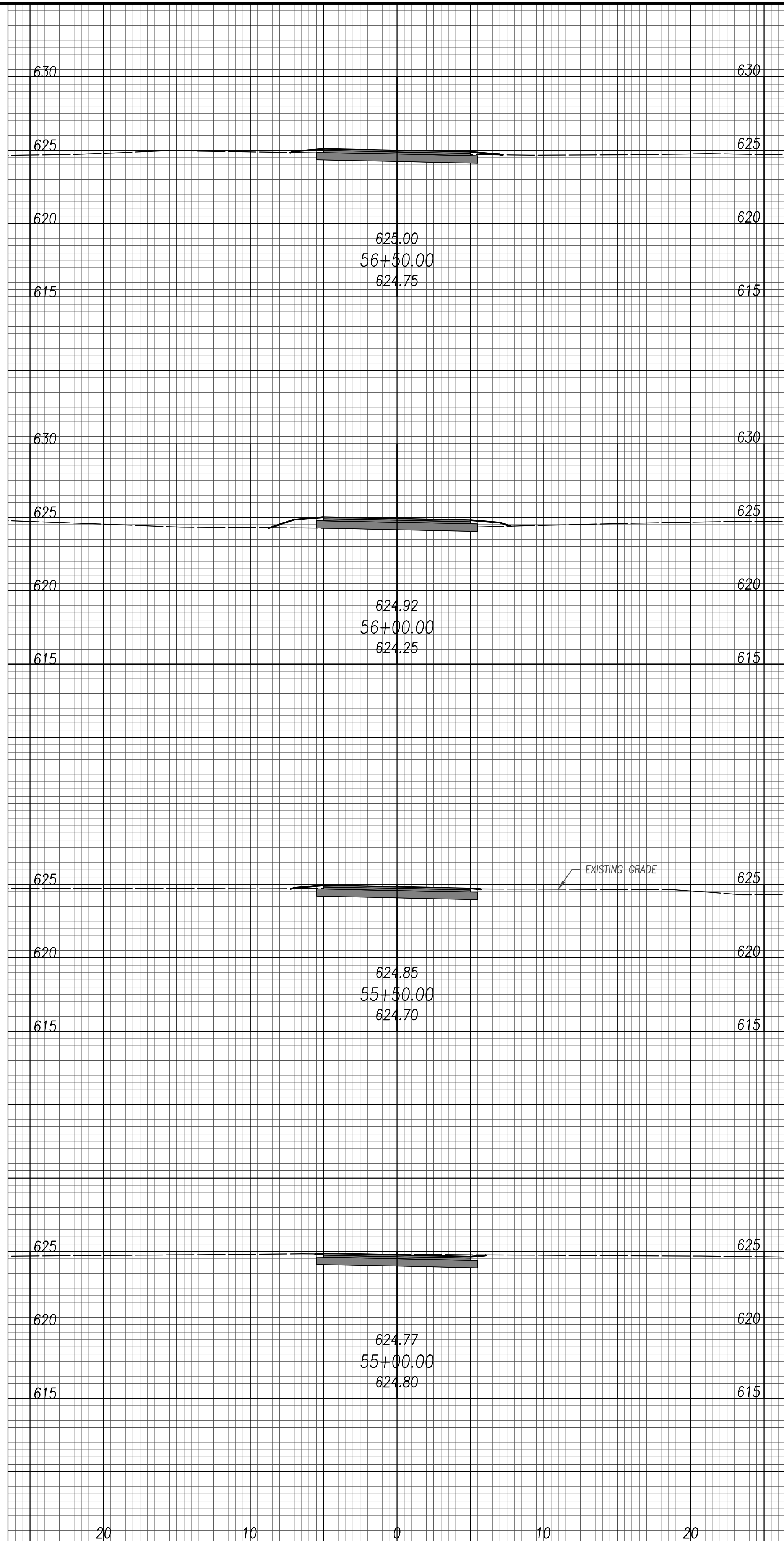
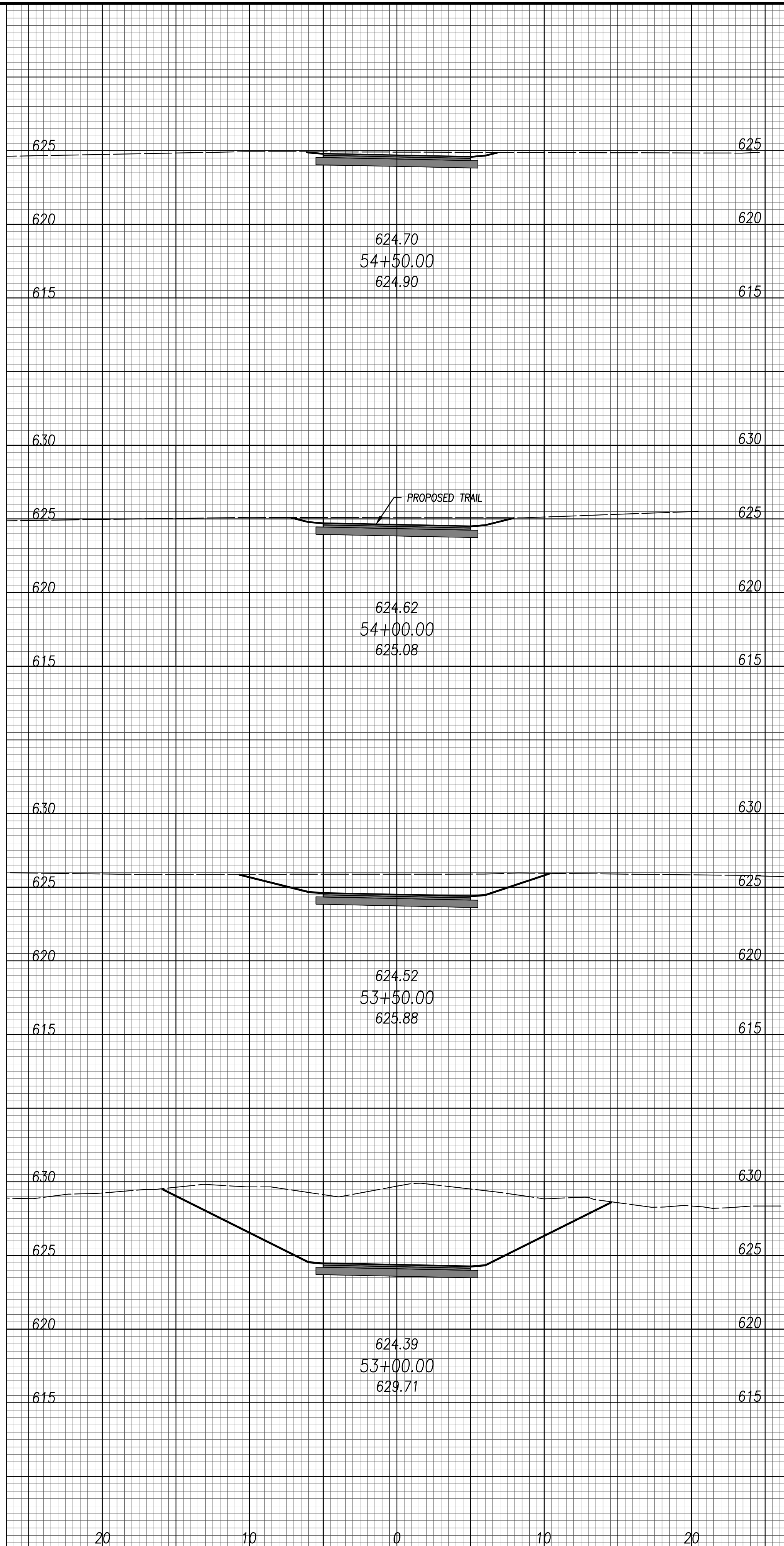
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METROPARKS TOLEDO

SWAN CREEK CONNECTOR TRAIL

4301 AIRPORT HWY
TOLEDO, OHIO 43615
LUCAS COUNTY

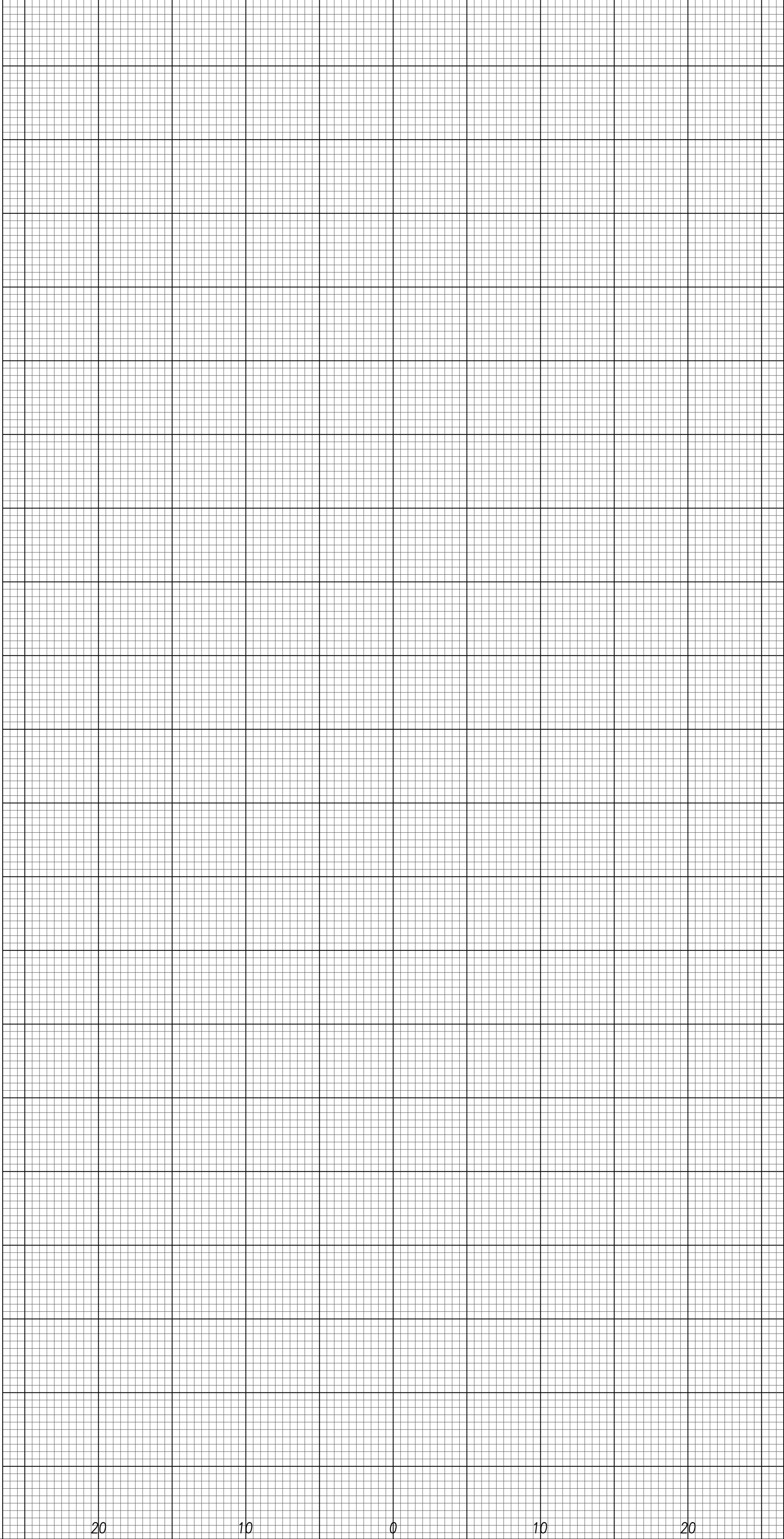
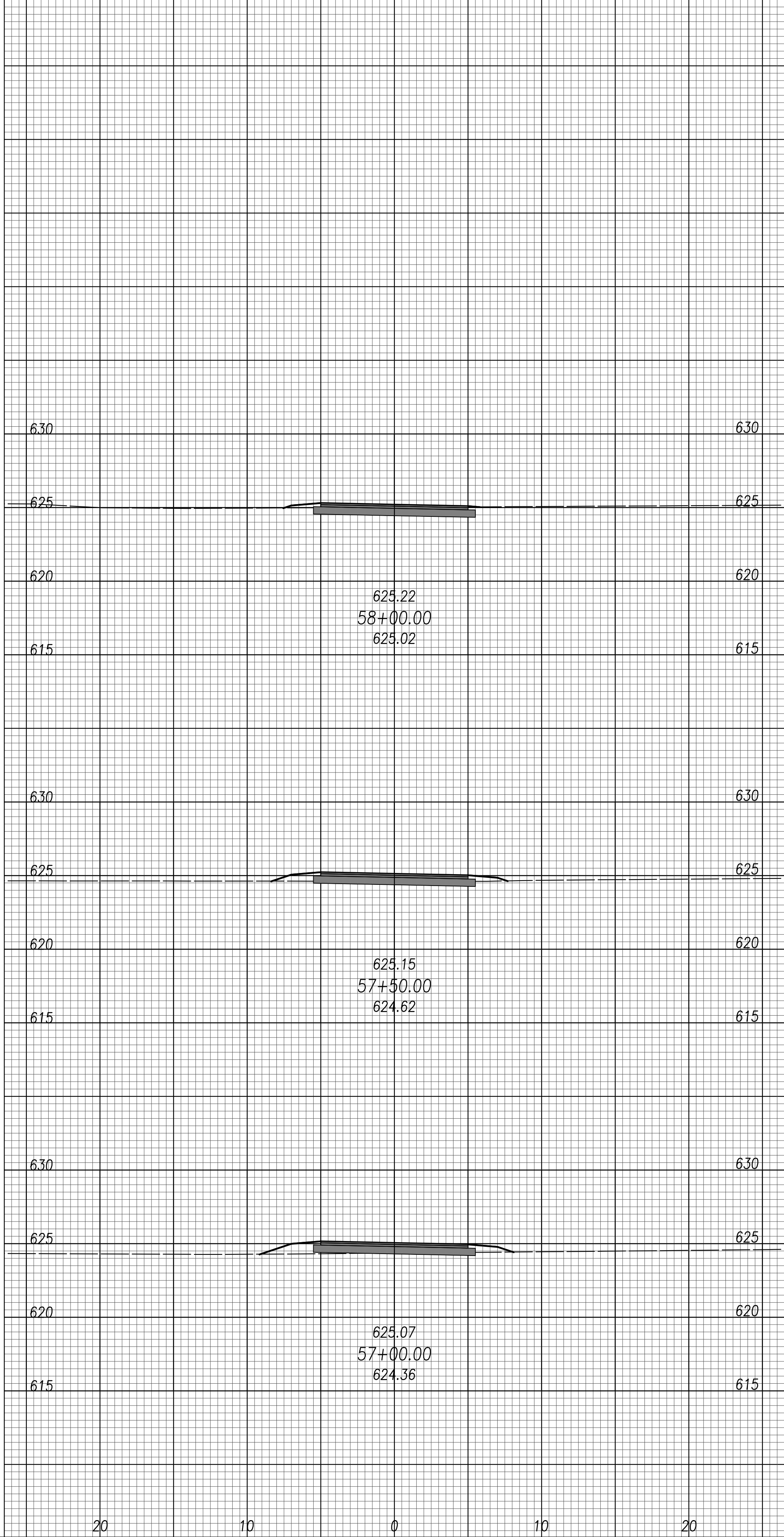
PROPOSED WEST TRAIL

CROSS SECTIONS

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ISSUED:	FEB 27, 202

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STATE OF OHIO
JOSHUA
JAMES O'NEIL
E-69263
REGISTERED
PROFESSIONAL ENGINEER
February 27, 2020

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SCALE: 1" = 5'

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3455 BRIARFIELD BLVD., SUITE E
MAUMEE, OH 43537
PHONE: 419.535.1015
www.dgl-ltd.com

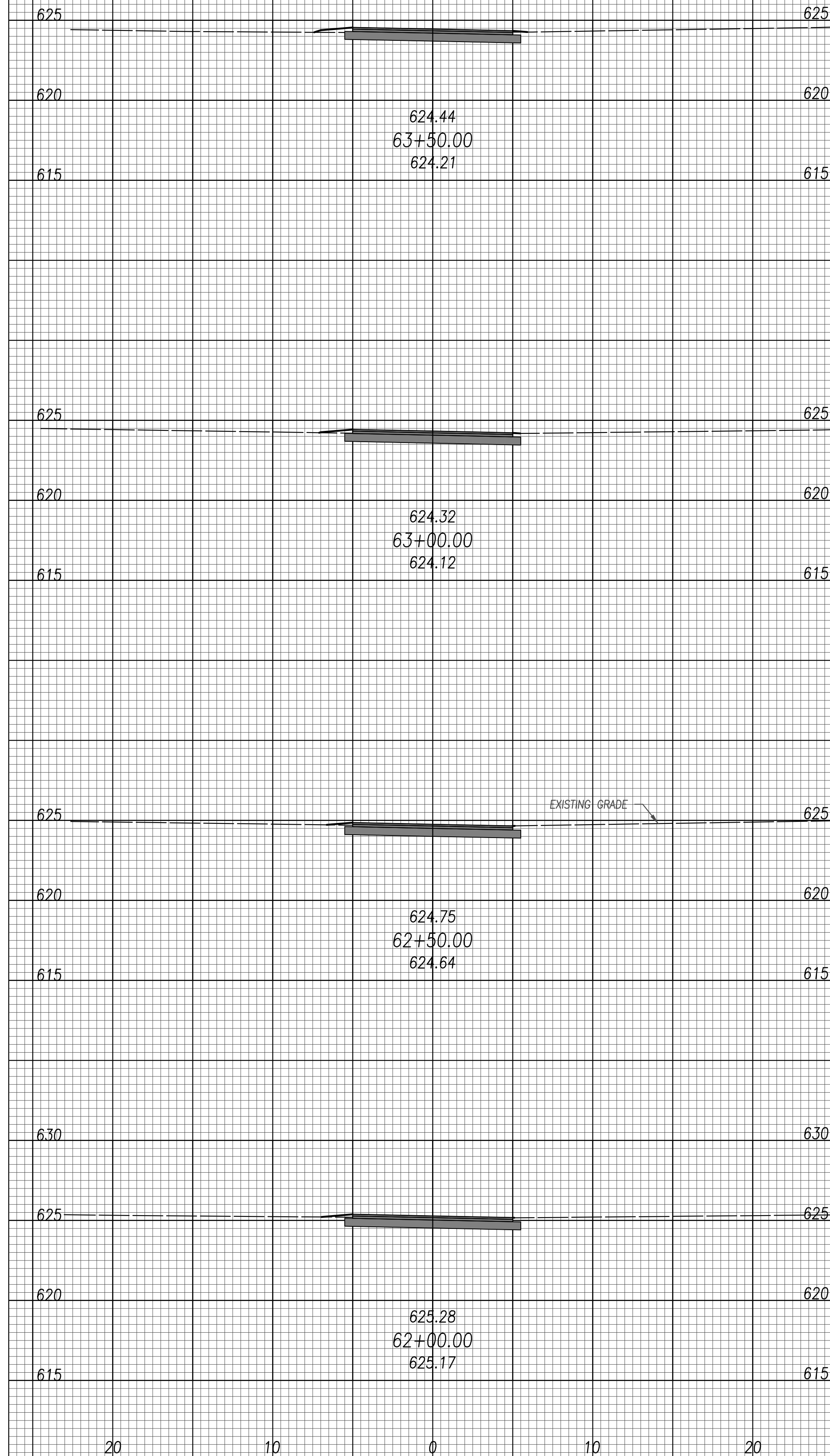
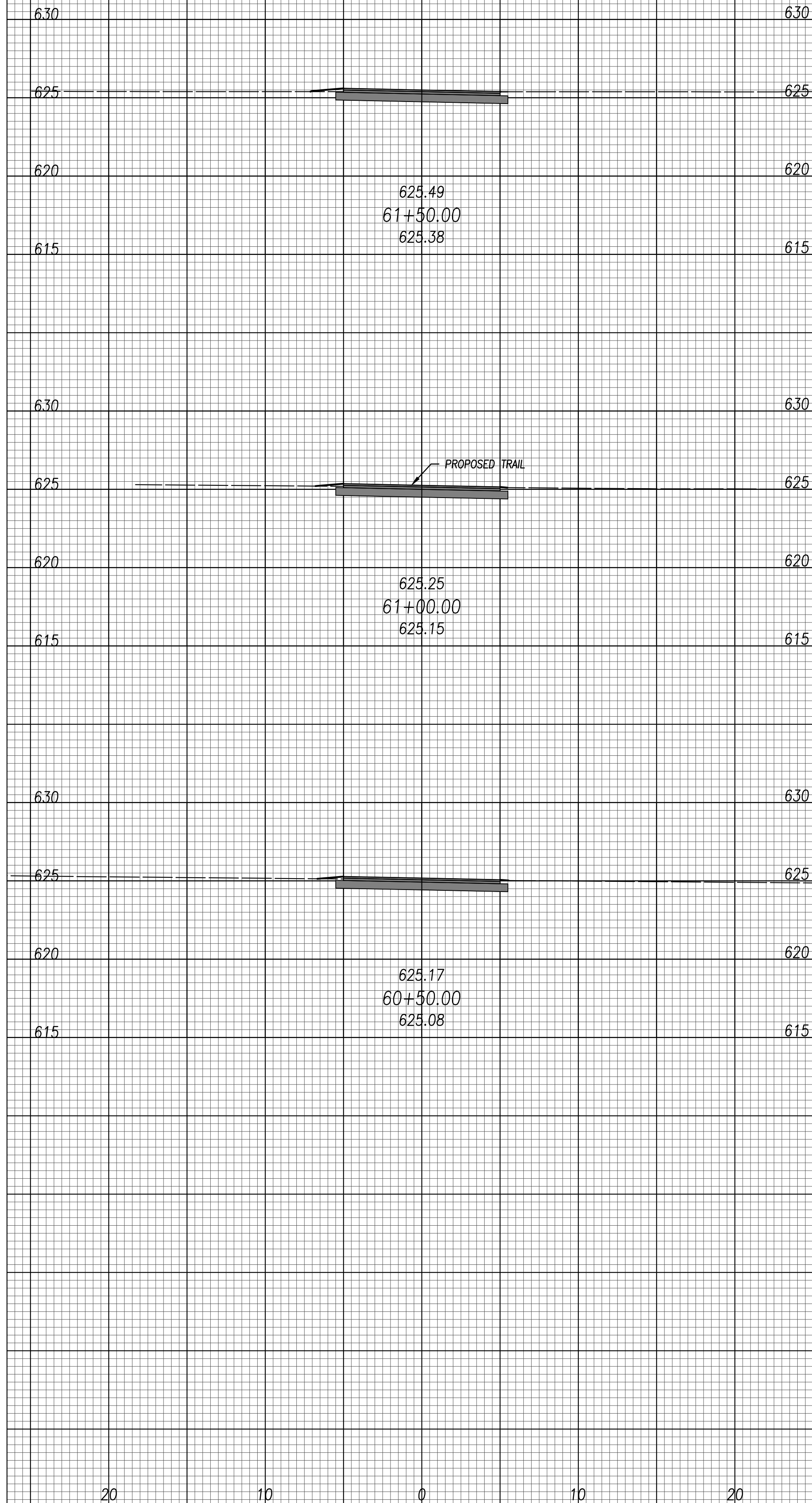
METROPARKS TOLEDO
SWAN CREEK CONNECTOR TRAIL
4301 AIRPORT HWY
TOLEDO, OHIO 43615
LUCAS COUNTY

PROPOSED WEST TRAIL
CROSS SECTIONS

FILE: 18147 XS.dwg
JOB NO.: 18147
DRAWN BY: EAH
ISSUED: FEB 27, 2020

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PLOTTED: Feb 27, 2020 - 10:10am



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NO	REVISION		DATE
			02-27-20



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METROPARKS TOLEDO

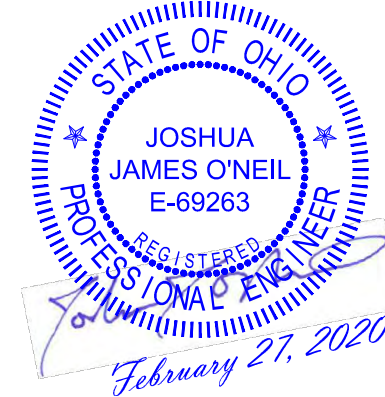
SWAN CREEK CONNECTOR TRAIL

4301 AIRPORT HWY
TOLEDO, OHIO 43615
LUCAS COUNTY

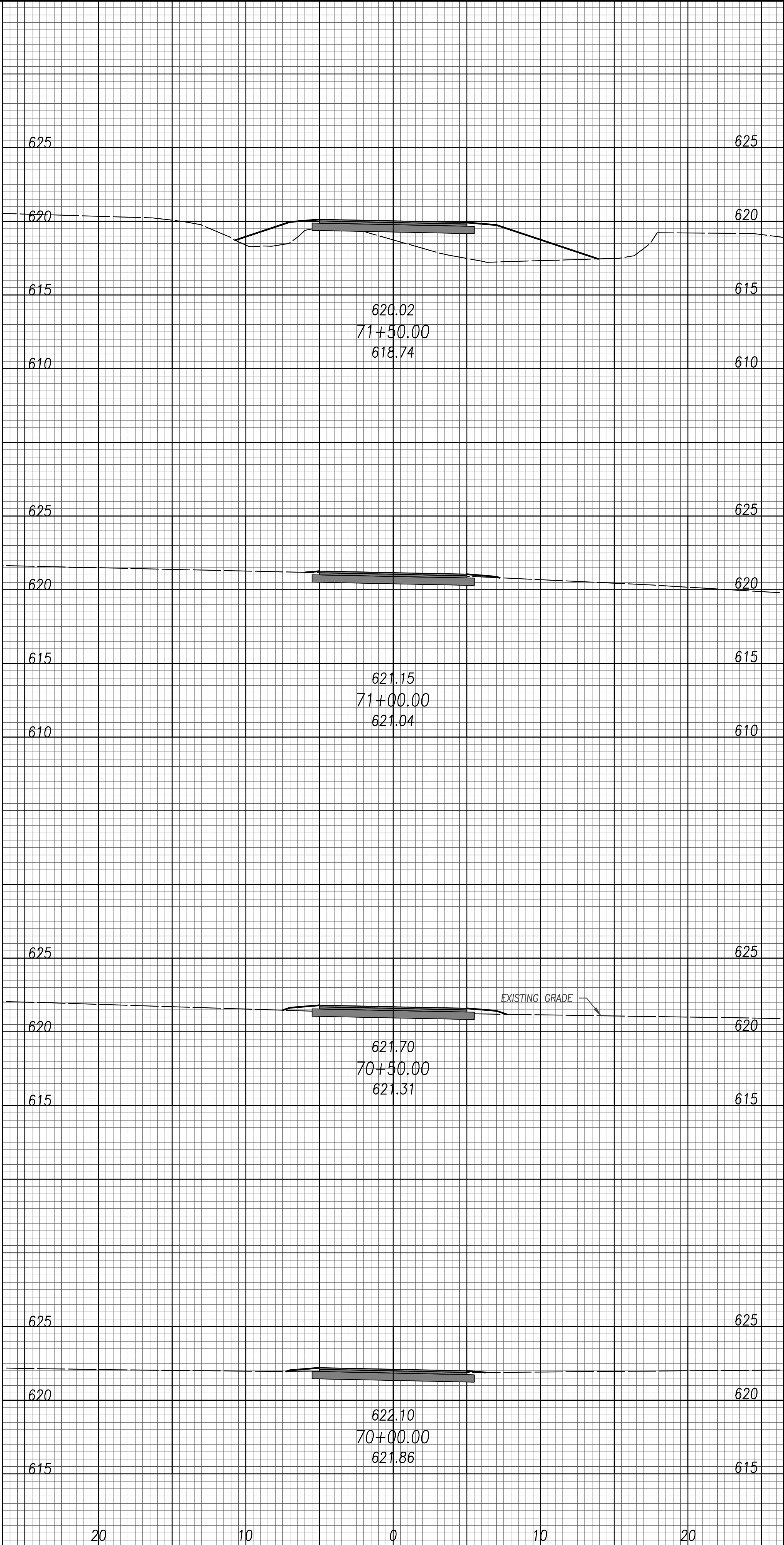
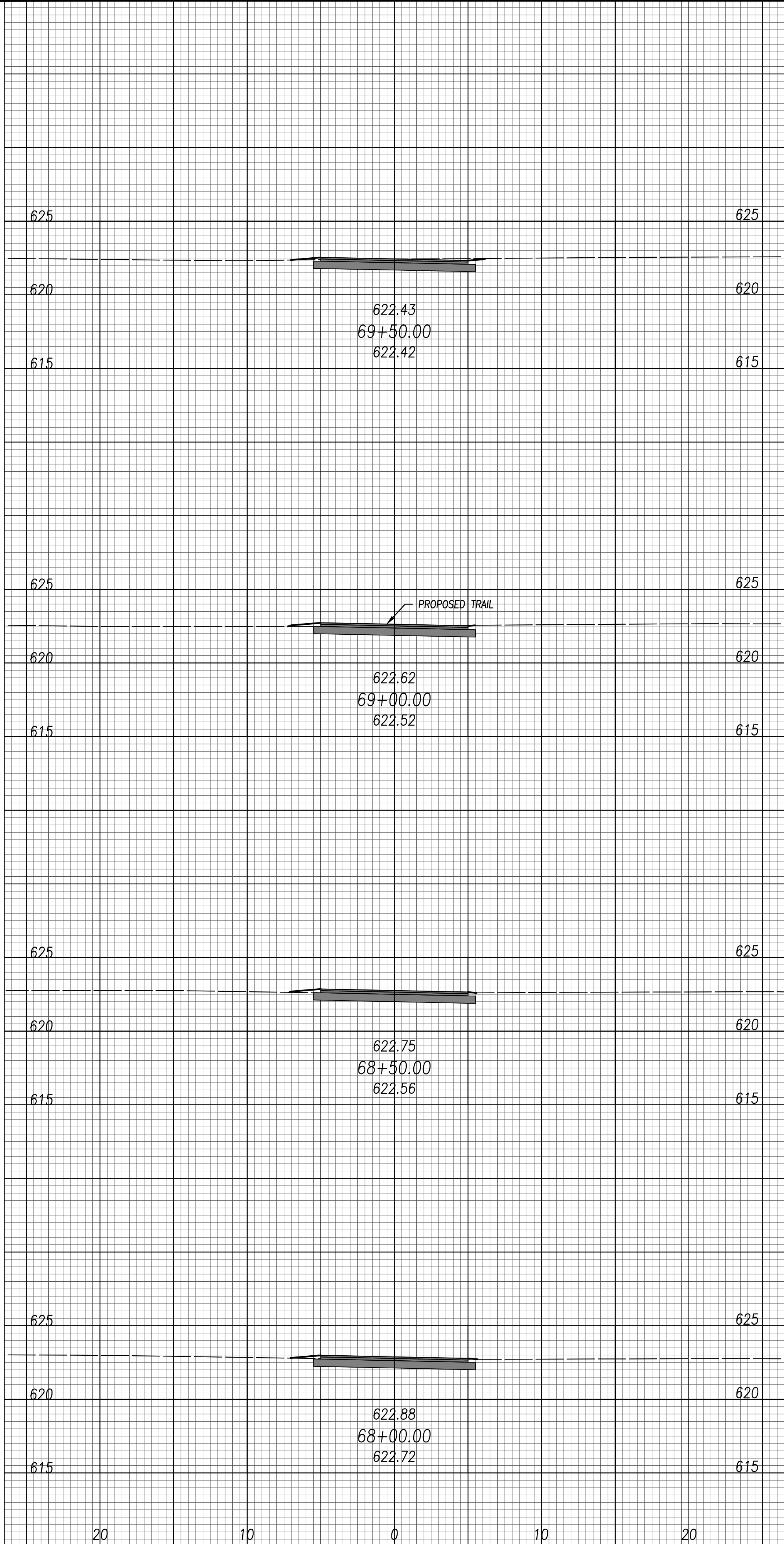
PROPOSED EAST TRAIL CROSS SECTIONS

FILE:	18147 XS.dwg
JOB NO.:	18147
DRAWN BY:	EAH
ISSUED:	FEB 27, 2020

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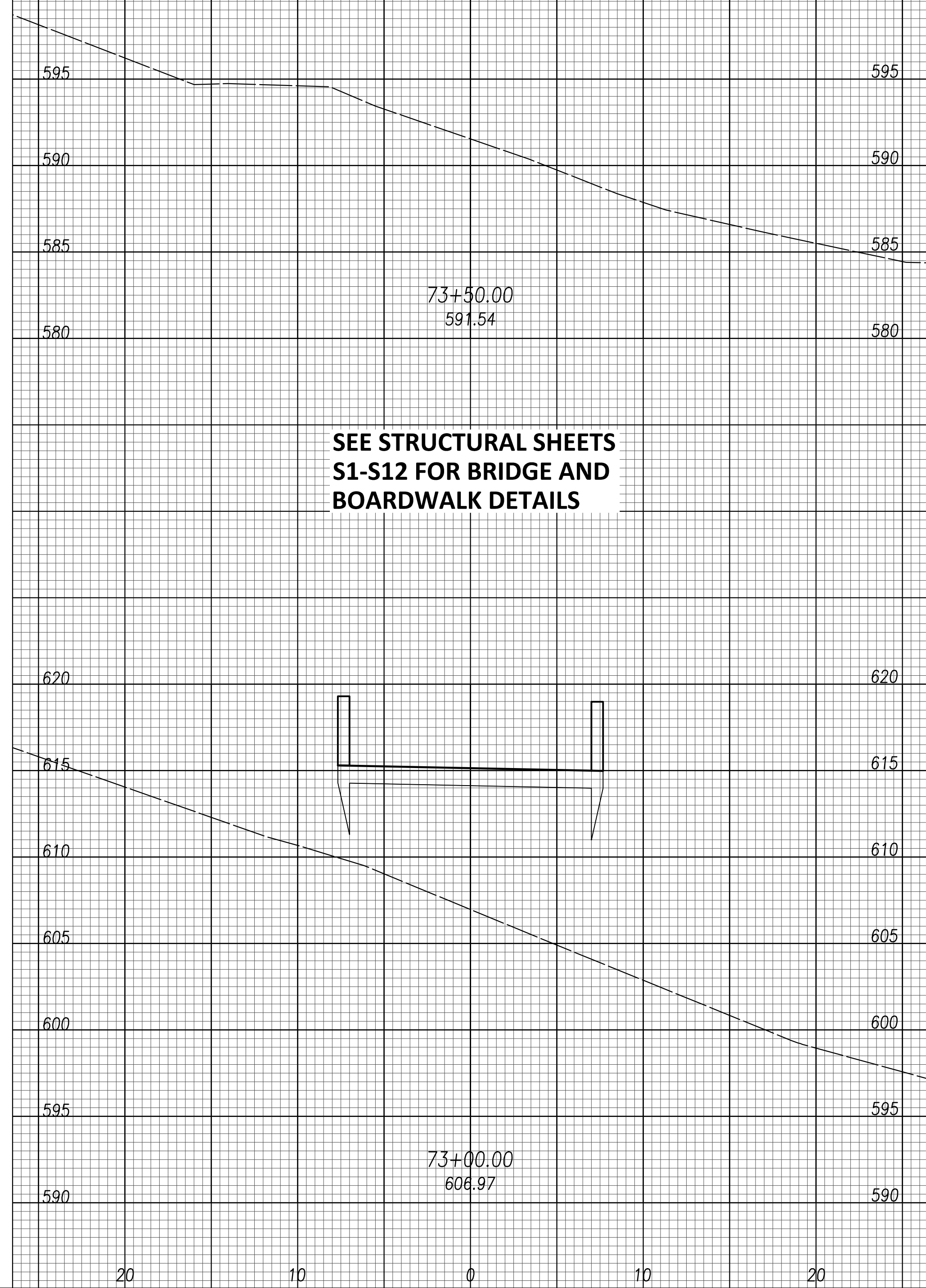
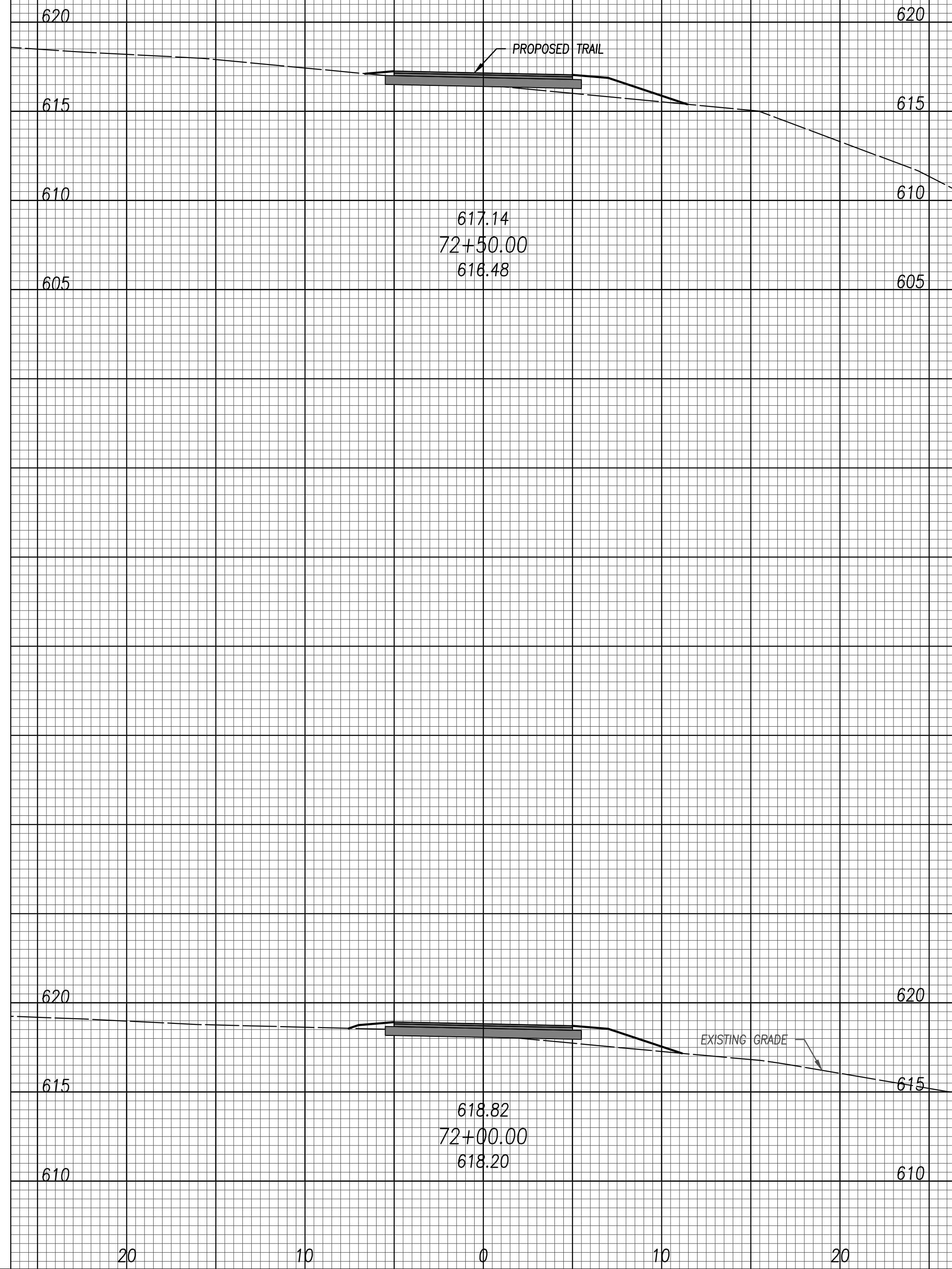


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METROPARKS TOLEDO
SWAN CREEK CONNECTOR TRAIL
4301 AIRPORT HWY
TOLEDO, OHIO 43615
LUCAS COUNTY

PROPOSED EAST TRAIL
CROSS SECTIONS

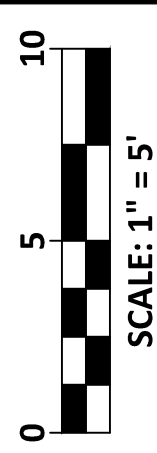
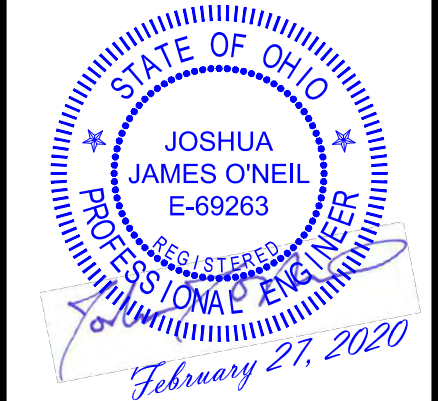
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DRAWN BY:	EAH
ISSUED:	FEB 27, 2020

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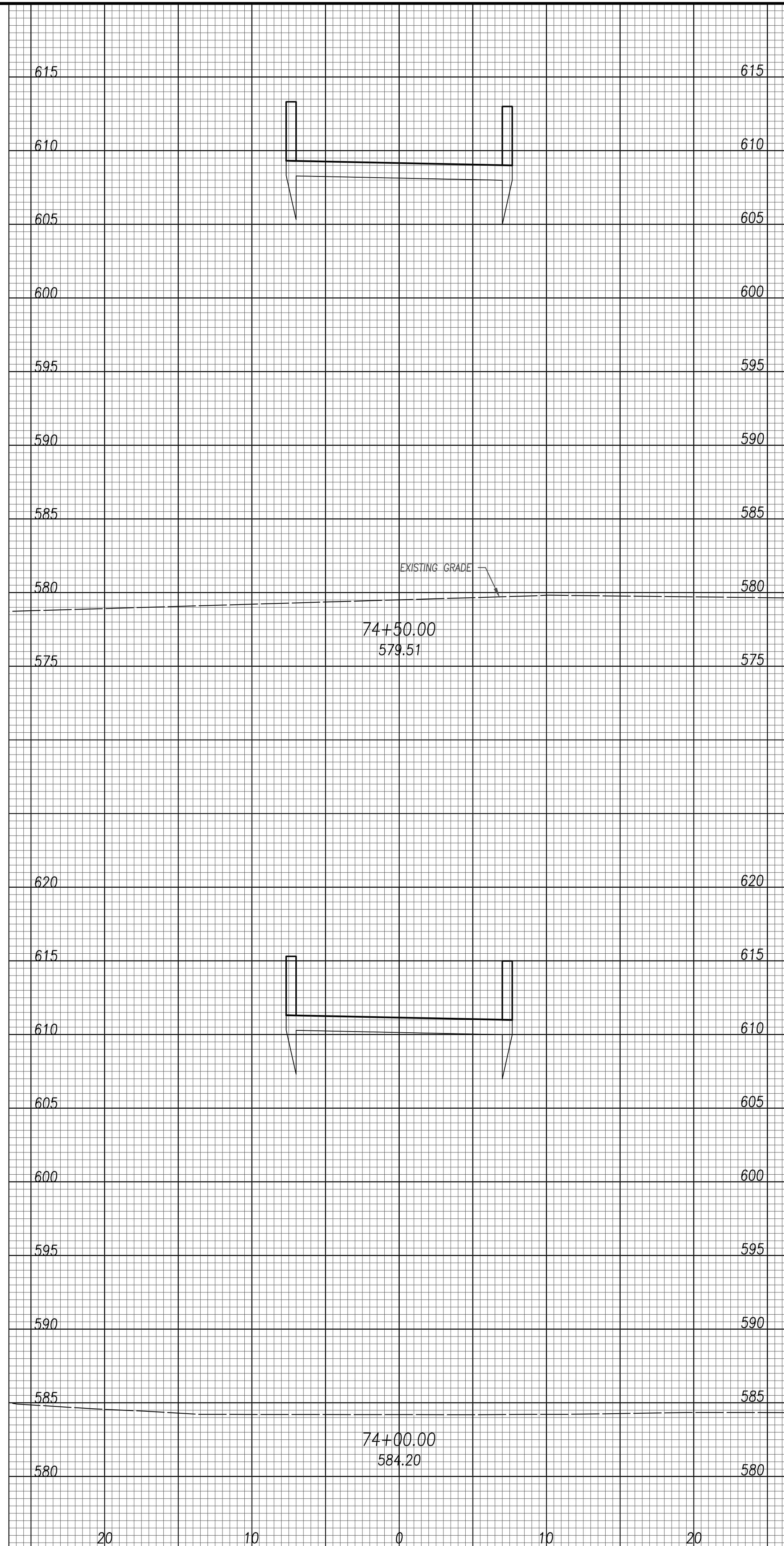


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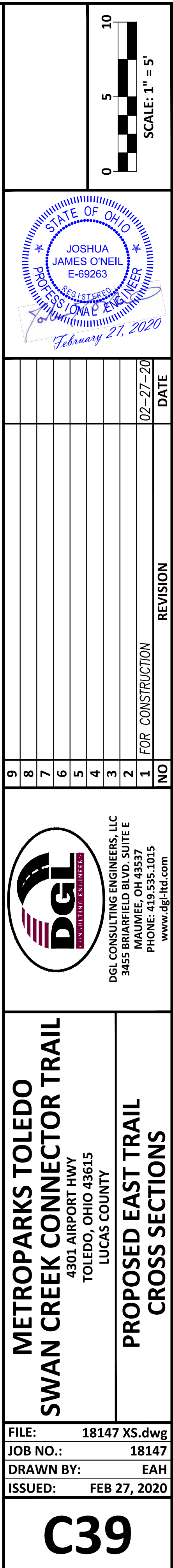
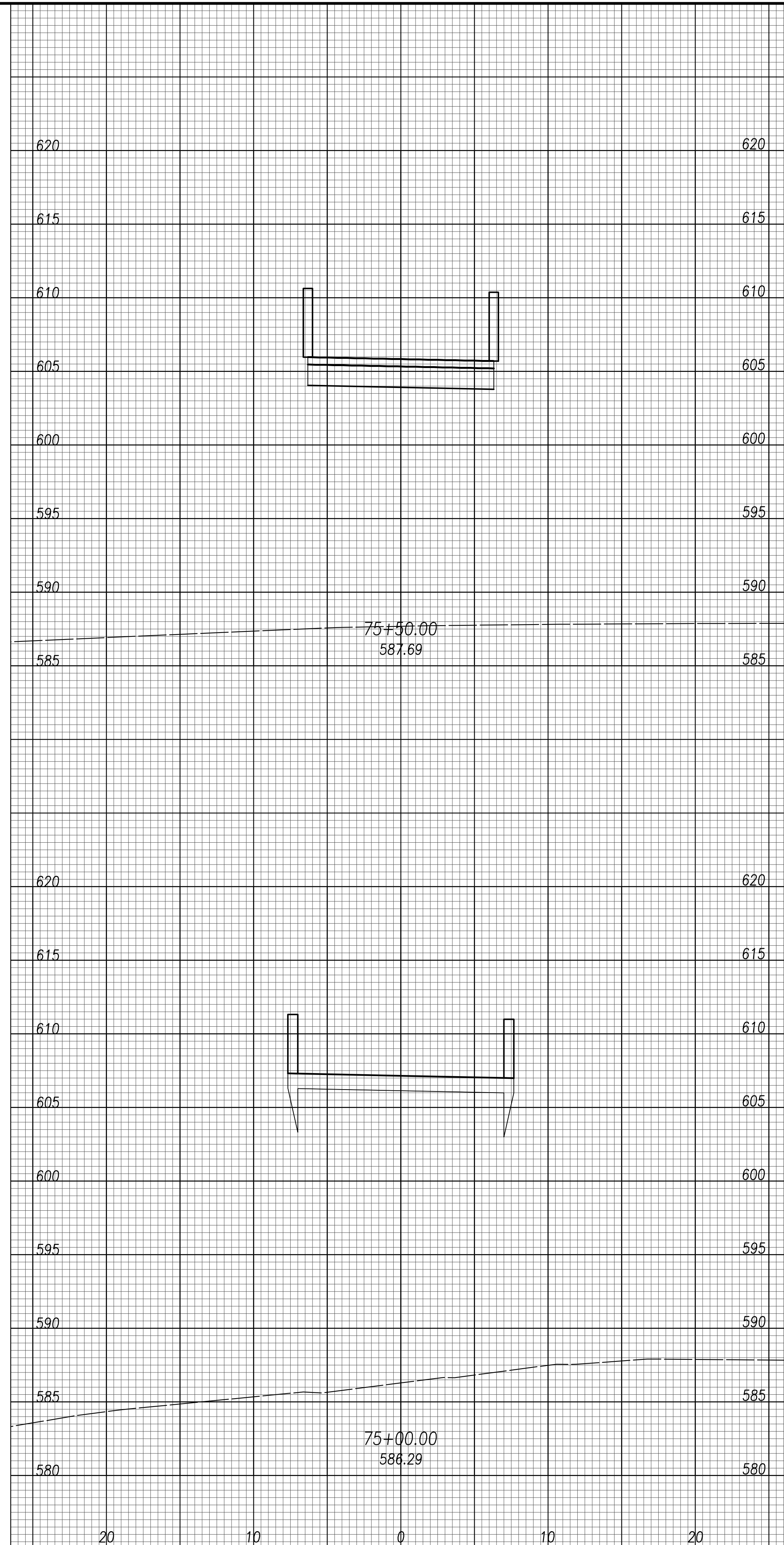
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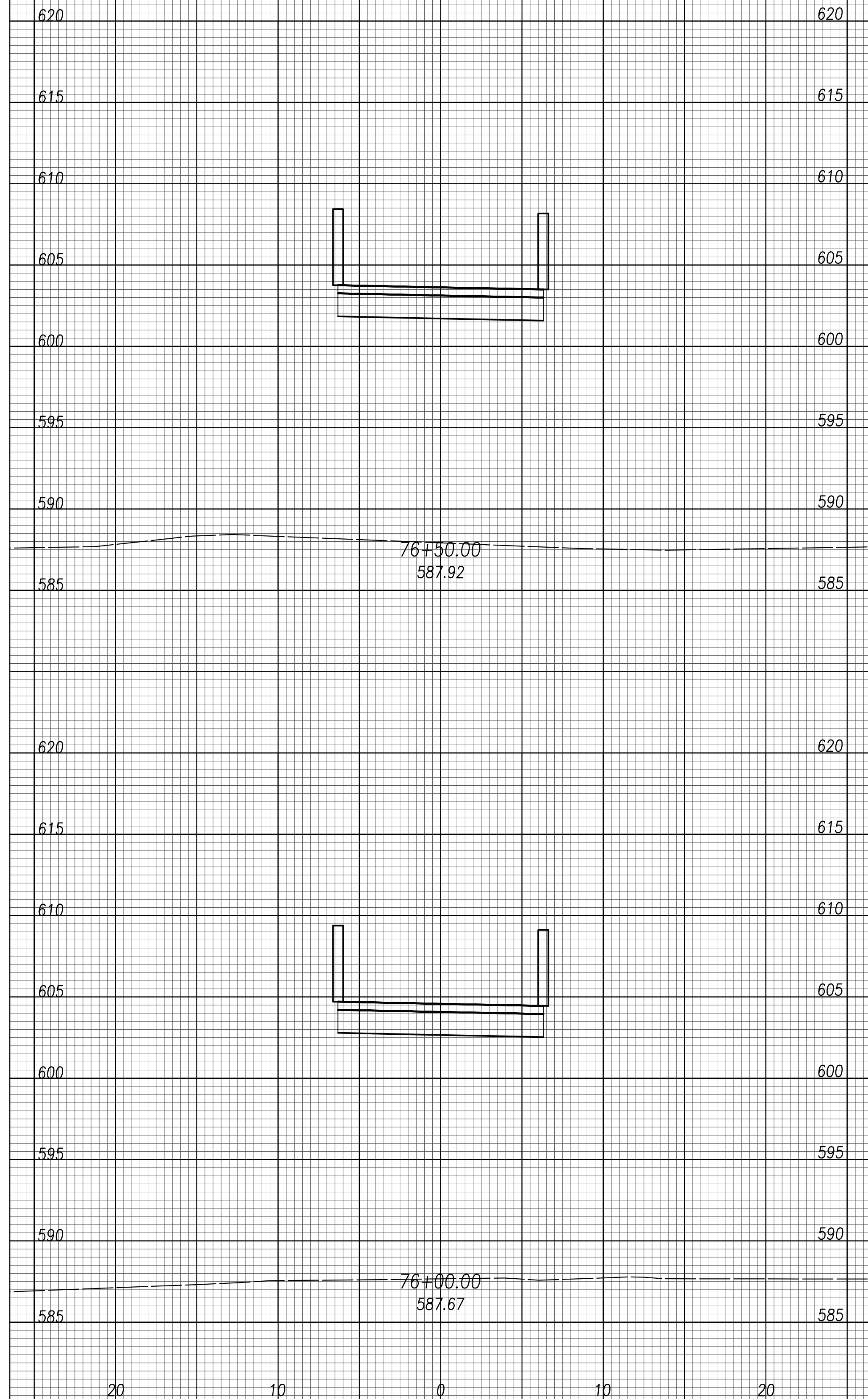
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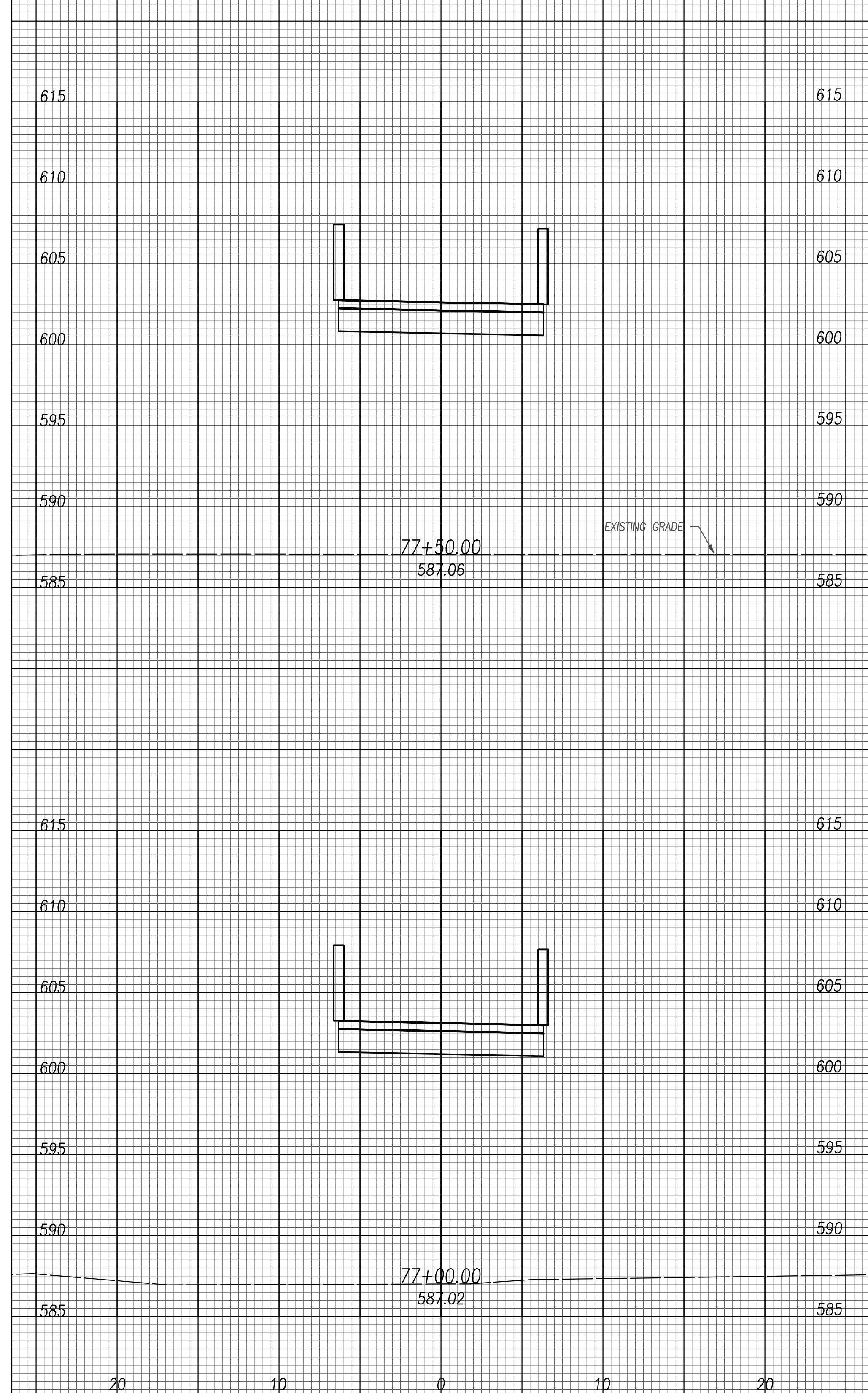
**SEE STRUCTURAL SHEETS
S1-S12 FOR BRIDGE AND
BOARDWALK DETAILS**



PLOTTED: Feb 27, 2020 - 10:11am
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**SEE STRUCTURAL SHEETS
S1-S12 FOR BRIDGE AND
BOARDWALK DETAILS**



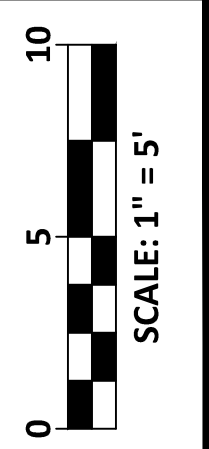
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SWAN CREEK CONNECTOR TRAIL
4301 AIRPORT HWY
TOLEDO, OHIO 43615
LUCAS COUNTY

PROPOSED EAST TRAIL CROSS SECTIONS

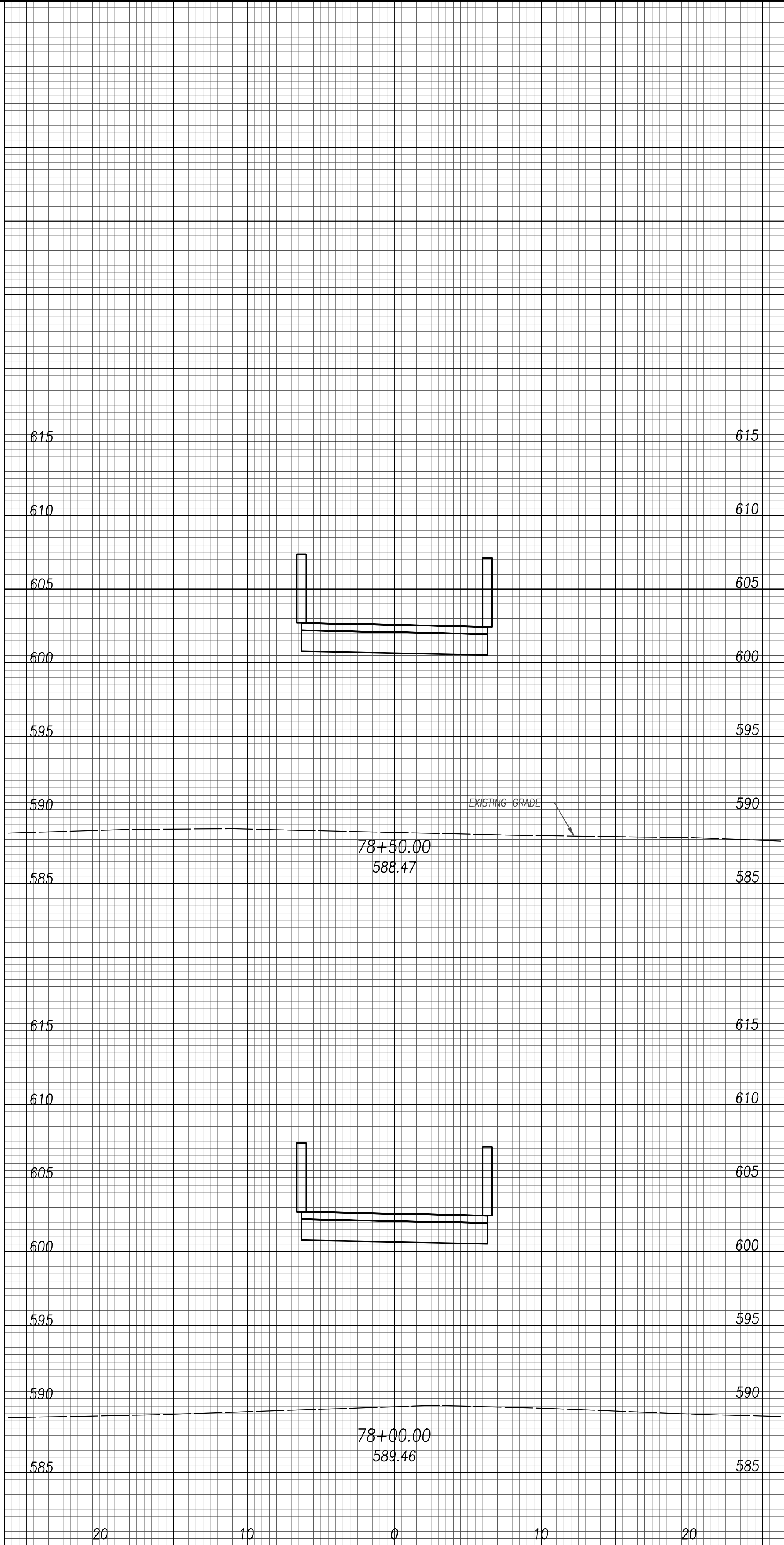
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JOB NO.:	18147
DRAWN BY:	EAH
ISSUED:	FEB 27, 2020

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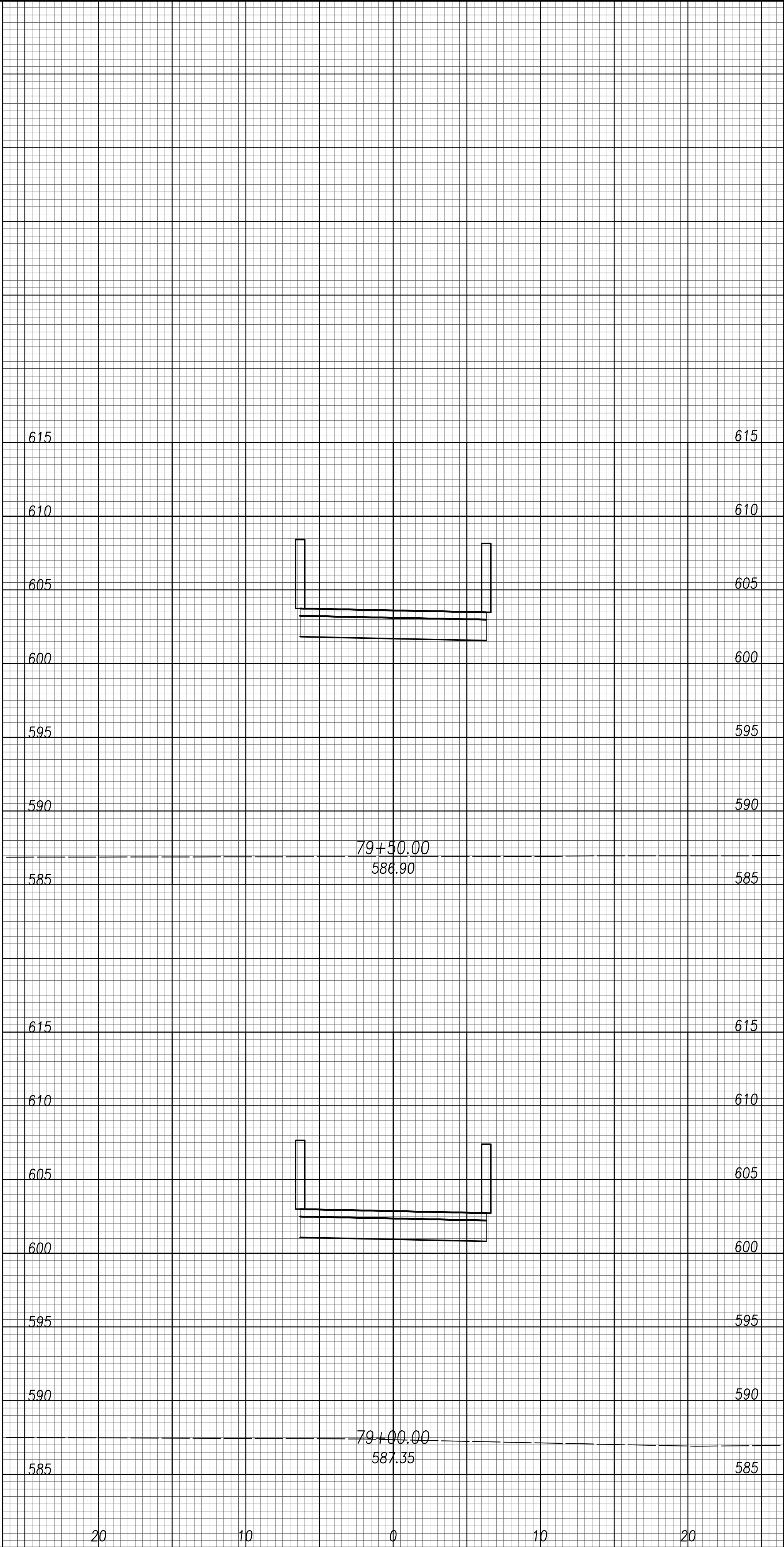


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SEE STRUCTURAL SHEETS
S1-S12 FOR BRIDGE AND
BOARDWALK DETAILS



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FOR CONSTRUCTION

REVISION

DATE

STATE OF OHIO

JOSHUA JAMES O'NEIL

E-69263

REGISTERED PROFESSIONAL ENGINEER

February 27, 2020

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SCALE: 1" = 5'

METROPARKS TOLEDO

SWAN CREEK CONNECTOR TRAIL

4301 AIRPORT HWY

TOLEDO, OHIO 43615

LUCAS COUNTY

PROPOSED EAST TRAIL

CROSS SECTIONS

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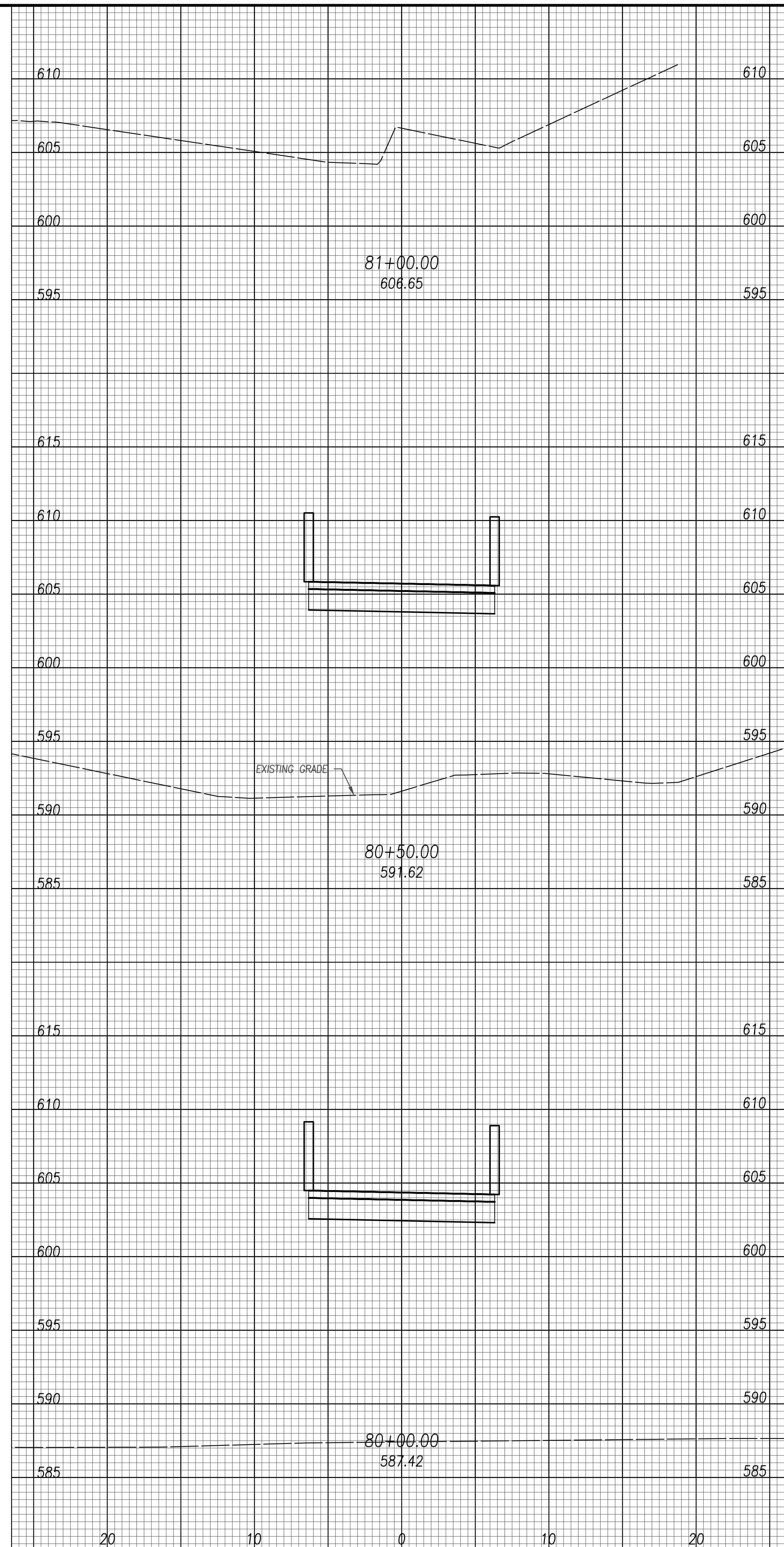
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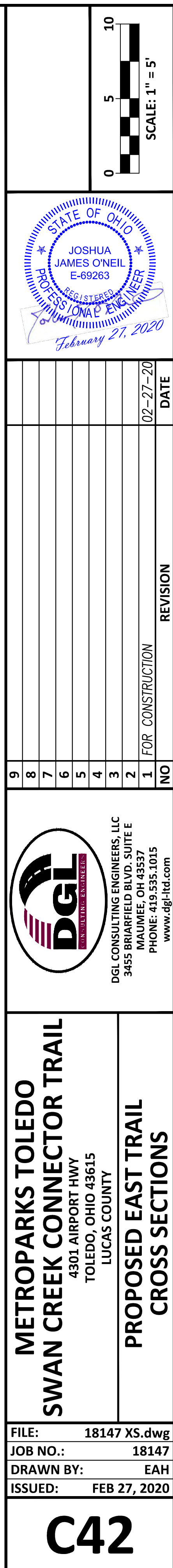
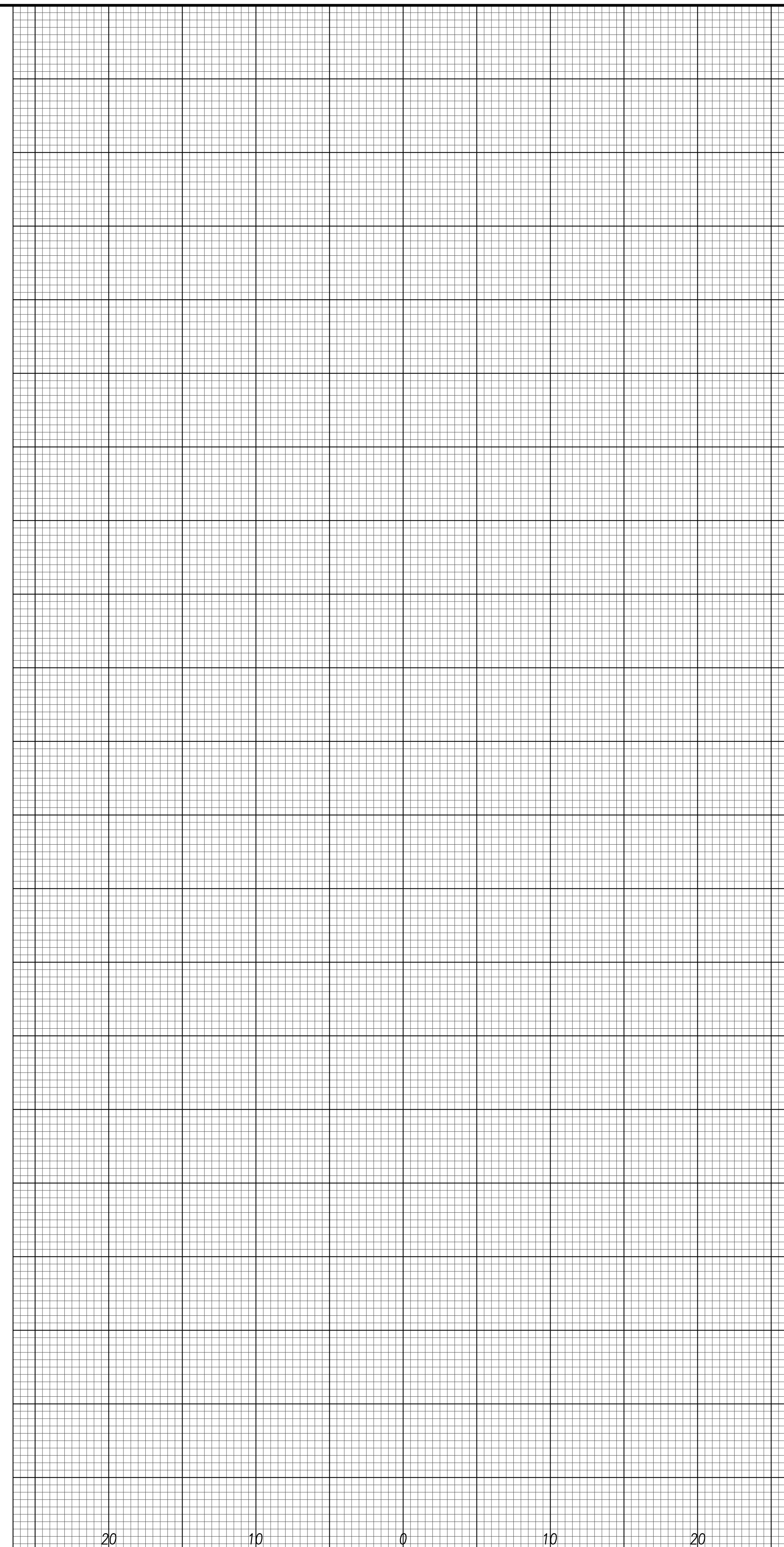
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**SEE STRUCTURAL SHEETS
S1-S12 FOR BRIDGE AND
BOARDWALK DETAILS**



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EROSION CONTROL LEGEND

- 1 MANUFACTURED INLET FILTER
 - 2 SEEDING AND MULCHING
- **INSTALL SILT FENCE WHERE APPLICABLE BETWEEN PROPOSED GRADE AND EXISTING GRADE.
- REFER TO EROSION AND SEDIMENT CONTROL DETAIL SHEET C48 FOR DETAILS

HATCH LEGEND

- TRAIL ASPHALT PAVEMENT
- BRIDGE/BOARDWALK
- CONC WALK
- TREE- TO BE REMOVED
- TBR- TO BE REMOVED

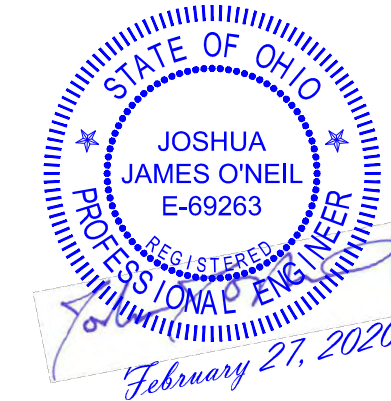
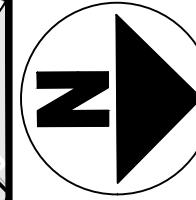
BAKER WILLIAM G. ETAL
1153 MICHELE DR.
PARCEL: 2008392
ZONING: 10-RS12

OLIVER FREDERICK D.
1145 MICHELE DR.
PARCEL: 2008399
ZONING: 10-RS12

MCBRIDE JO ANN R.
1141 MICHELE DR.
PARCEL: 2008399
ZONING: 10-RS12

NOTE: CONTRACTOR TO LIMIT EXCAVATION DURING CONSTRUCTION TO WITHIN THE PUBLIC RIGHT-OF-WAY

EXTENT OF 100 YEAR FLOODPLAIN PER FIRM MAP NUMBER 39095C0232E



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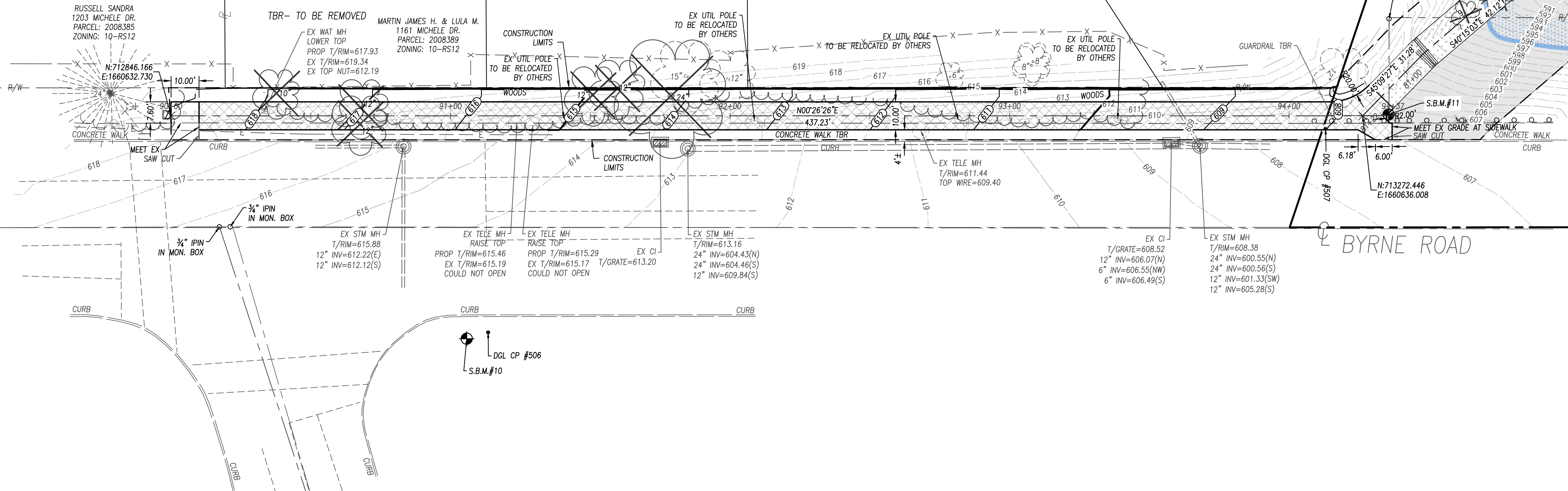


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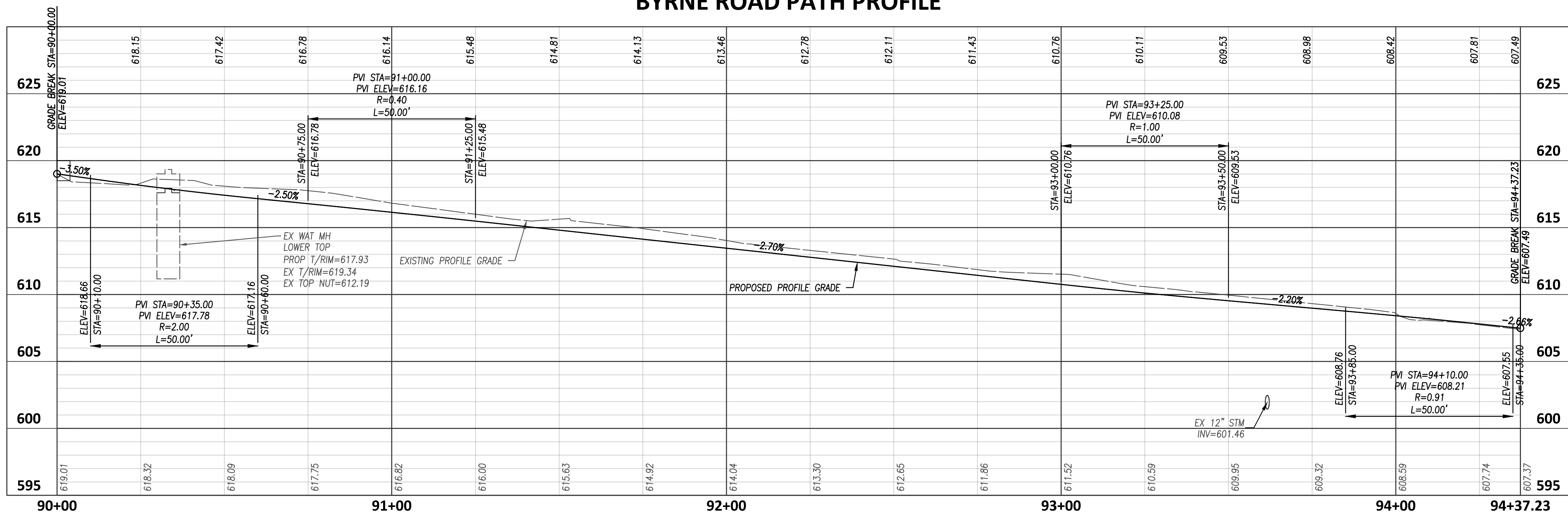
PROPOSED BYRNE ROAD TRAIL
PLAN & PROFILE

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JOB NO.: 18147
DRAWN BY: EAH
ISSUED: FEB 27, 2020

C44



BYRNE ROAD PATH PROFILE



1 MANUFACTURED INLET FILTER

2 SEEDING AND MULCHING

REFER TO EROSION AND SEDIMENT CONTROL
DETAIL SHEET C48 FOR DETAILS

RUSSELL SANDRA
1203 MICHELE DR.
PARCEL: 2008385
ZONING: 1Q-RS12

 TRAIL ASPHALT PAVEMENT
 BRIDGE/BOARDWALK
 CONC WALK
 TREE- TO BE REMOVED
 TBR- TO BE REMOVED

BAKER WILLIAM G. ETAL
1153 MICHELE DR.
PARCEL: 2008392
ZONING: 10-RS12

OLIVER FREDERICK D.
1145 MICHELE DR.
PARCEL: 2008395
ZONING: 10-RS12

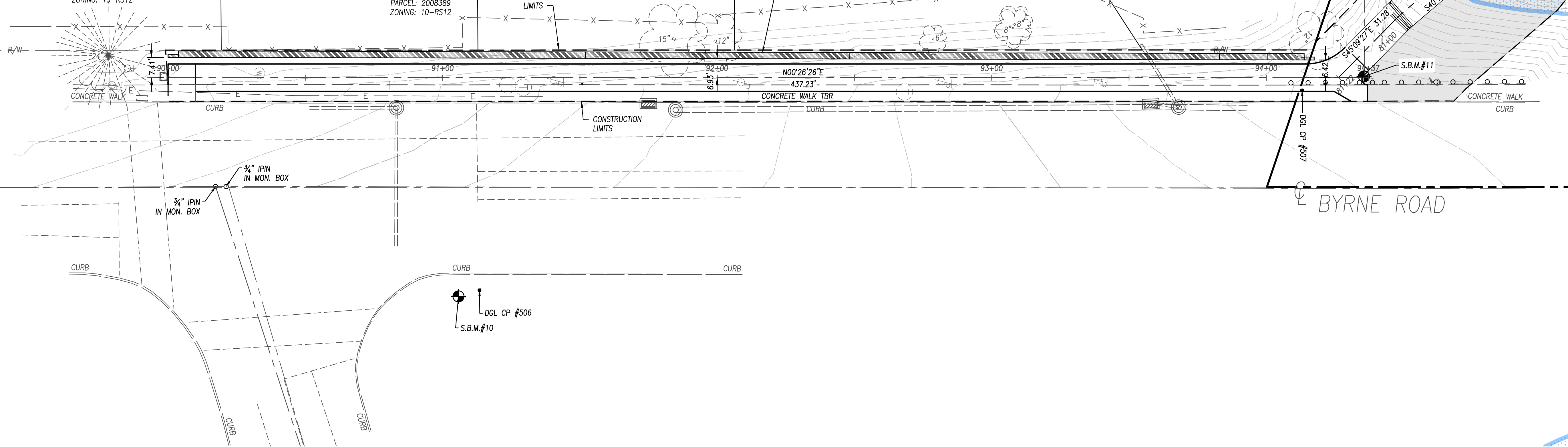
EXTENT OF 100 YEAR FLOODPLAIN PER
FIRM MAP NUMBER 39095C0232E-

MCBRIDE JO ANN R.
1141 MICHELE DR.
PARCEL: 2008399
ZONING: 10-RS12

MARTIN JAMES H. & LULA M.
1161 MICHELE DR.
PARCEL: 2008389
ZONING: 10-RS12

NOTE: CONTRACTOR TO LIMIT EXCAVATION
DURING CONSTRUCTION TO WITHIN THE
PUBLIC RIGHT-OF-WAY

PROPOSED RETAINING WALL TO BE
DESIGNED BY CONTRACTOR
46"x28"x18" REDI-ROCK BLOCK
OR METROPARKS TOLEDO AND
CITY OF TOLEDO APPROVED EQUAL



BYRNE ROAD PATH PROFILE

Vertical Curve Data:

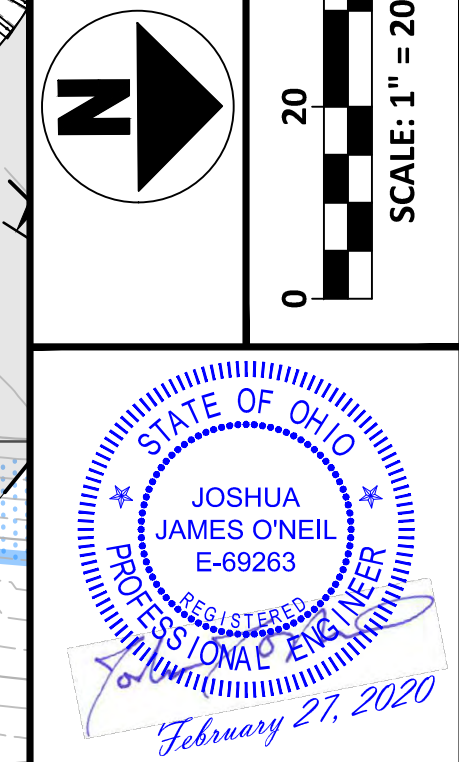
- Grade Break STA=90+00.00, ELEV=619.01
- PVI STA=91+00.00, PVI ELEV=616.16, R=0.40, L=50.00'
- PVI STA=93+25.00, PVI ELEV=610.08, R=1.00, L=50.00'
- PVI STA=94+10.00, PVI ELEV=608.21, R=0.91, L=50.00'

Key Features and Annotations:

- PROPOSED RETAINING WALL TO BE DESIGNED BY CONTRACTOR 46"x28"x18" REDI-ROCK BLOCK OR METROPARKS TOLEDO AND CITY OF TOLEDO APPROVED EQUAL
- EXISTING PROFILE GRADE AT BACK OF WALL
- EXISTING PROFILE GRADE
- PROPOSED PROFILE GRADE
- EX WAT MH LOWER TOP PROP T/RIM=617.93, EX T/RIM=619.34, EX TOP NUT=612.19
- EX 12" STM INV=601.46

Stationing and Elevation Data:

Station	Elevation
90+00	619.01
90+35.00	618.86
90+75.00	617.75
91+00.00	616.82
91+25.00	615.48
91+40.00	614.81
91+75.00	614.13
92+00.00	613.46
92+30.00	612.78
92+65.00	612.11
93+00.00	611.43
93+25.00	610.76
93+50.00	609.53
93+85.00	608.76
94+00.00	608.98
94+10.00	608.59
94+37.23	607.49



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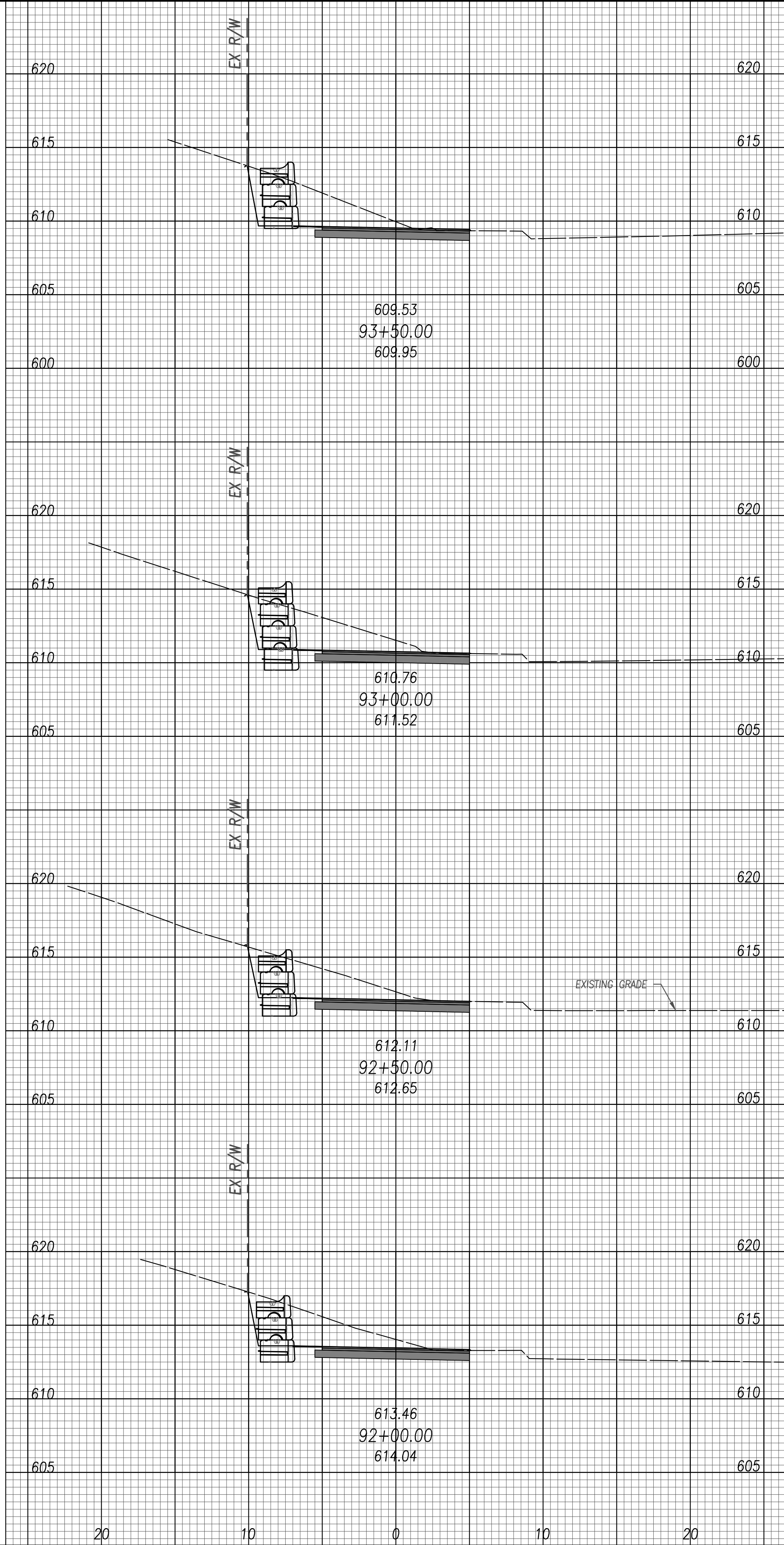
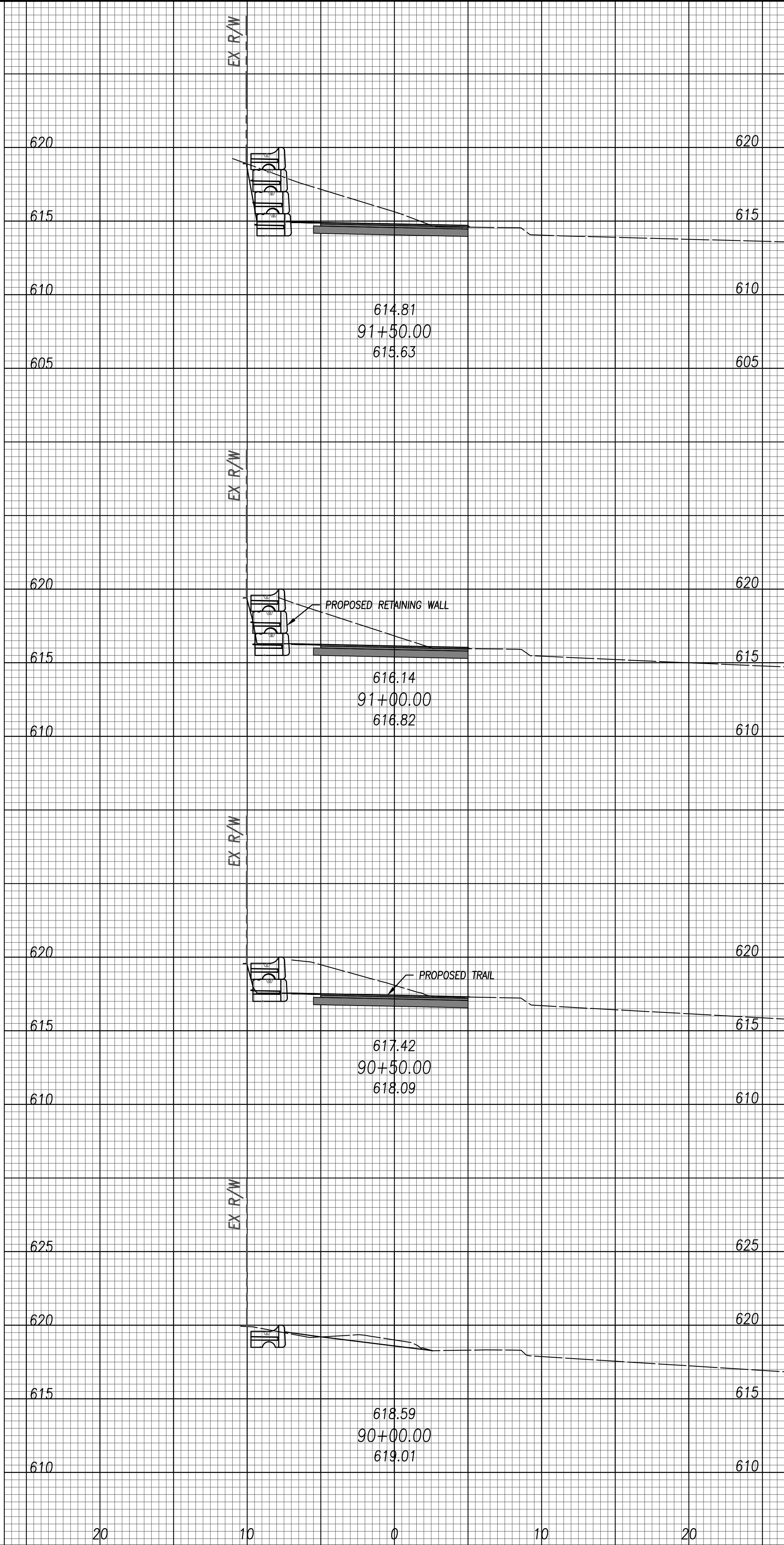


<p>METROPARKS TOLEDO</p> <p>SWAN CREEK CONNECTOR TRAIL</p> <p>4301 AIRPORT HWY TOLEDO, OHIO 43615 LUCAS COUNTY</p>	<p>PROPOSED BYRNE ROAD TRAIL</p> <p>WALL PLAN & PROFILE</p>
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FILE:	18147 CD.dwg
JOB NO.:	18147
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ISSUED:	FEB 27, 2020

C45

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STATE OF OHIO JOSHUA JAMES O'NEIL E-69263 REGISTERED PROFESSIONAL ENGINEER February 27, 2020		0 5 10 SCALE: 1" = 5'	
9		DATE	
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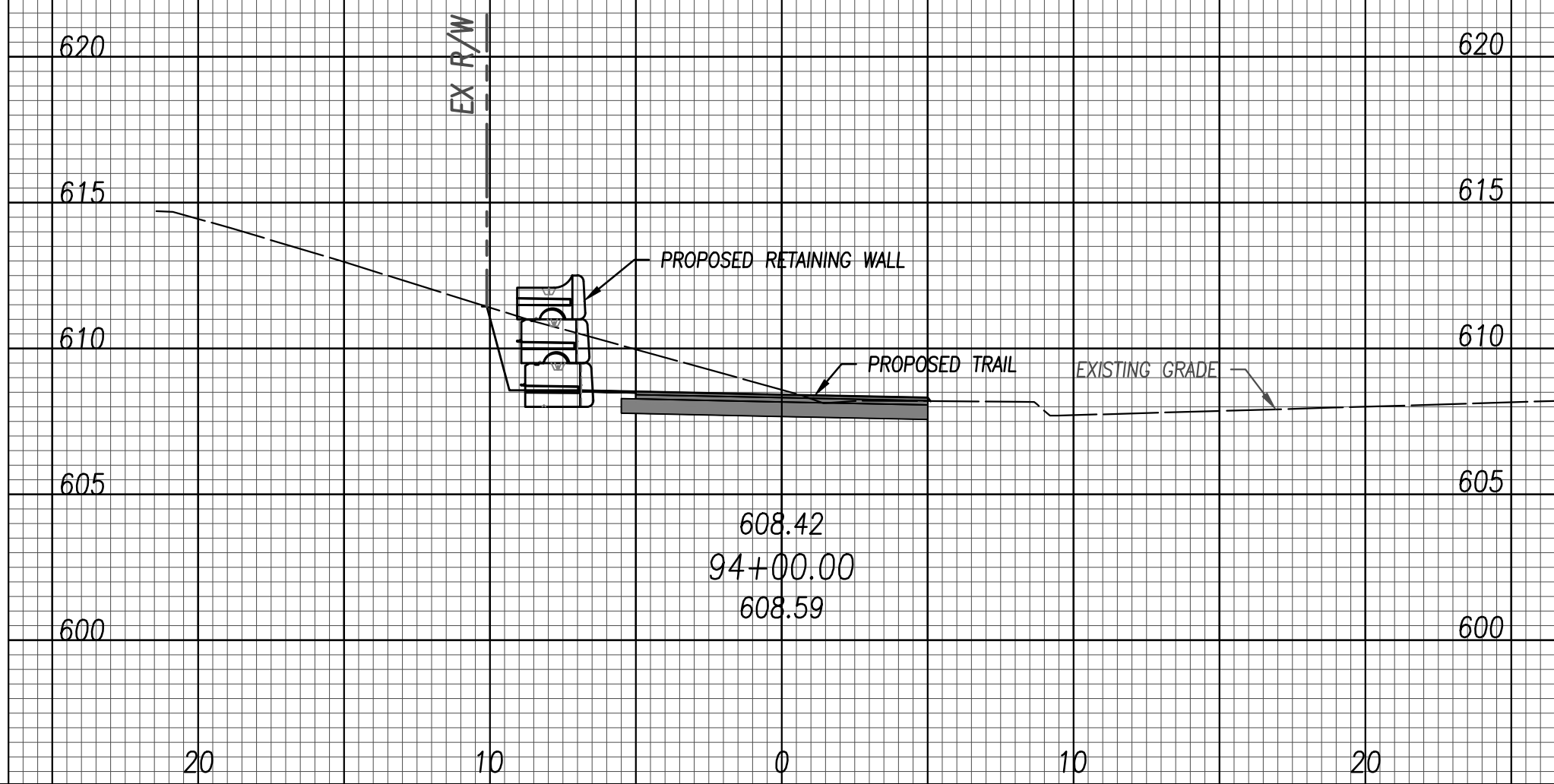
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LUCAS COUNTY

PROPOSED BYRNE ROAD TRAIL
CROSS SECTIONS

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SCALE: 1" = 5'

STATE OF OHIO

JOSHUA JAMES O'NEIL

E-69263

REGISTERED PROFESSIONAL ENGINEER

February 27, 2020

NO	REVISION	DATE
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DGL

DESIGN GROUP, LLC

DGL CONSULTING ENGINEERS, LLC
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MAUMEE, OH 43537
PHONE: 419.535.1015
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FILE: 18147 XS.dwg

JOB NO.: 18147

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SEDIMENT AND EROSION CONTROL

- CONTRACTOR SHALL CONFORM WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT OH000004 AND ALL PLANS AND SPECIFICATIONS REGARDING SOIL EROSION/SEDIMENTATION CONTROL REQUIREMENTS.
- CONTRACTOR SHALL IMPLEMENT ALL SOIL AND EROSION CONTROL PRACTICES AS PER THE PLAN AND AS REQUIRED BY THE LOCAL GOVERNING AGENCY AND THE OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA). THE EROSION CONTROL MEASURES SHALL BE INSTALLED PER THE CURRENT EDITION OF THE OHIO DEPARTMENT OF NATURAL RESOURCES RAINWATER AND LAND DEVELOPMENT HANDBOOK.
- THE CONTRACTOR SHALL PREPARE A STORM WATER POLLUTION PREVENTION PLAN (SWP3) FOR THE PROJECT UTILIZING THE EROSION AND SEDIMENT CONTROL PLANS AND DETAILS PROVIDED IN THE CONSTRUCTION DRAWINGS AS WELL AS ANY OTHER APPLICABLE DETAILS AND BEST MANAGEMENT PRACTICES (BMP), FOLLOWING THE RULES AND REGULATIONS OF THE OHIO EPA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND UPDATING THE SWP3 THROUGHOUT CONSTRUCTION PER THE NPDES PERMIT. THE SWP3 SHALL BE DESIGNED TO MEET ALL OEPA AND LUCAS COUNTY STANDARDS.
- SWP3 AND INSPECTION LOGS MUST BE KEPT ON SITE THROUGHOUT CONSTRUCTION.
- AT THE END OF CONSTRUCTION OR AFTER THE NOTICE OF TERMINATION HAS BEEN FILED WITH THE OHIO EPA, THE SWP3 AND INSPECTION LOGS SHALL BE TURNED OVER TO THE OWNER. THE OWNER SHALL KEEP THE SWP3 AND INSPECTION LOGS IN THEIR RECORDS FOR A MINIMUM OF 3 (THREE) YEARS AFTER THE NOTICE OF TERMINATION HAS BEEN RECORDED.
- BORROW AND WASTE DISPOSAL AREAS SHALL BE SELECTED WITH FULL CONSIDERATION FOR SOIL EROSION AND SEDIMENT CONTROL. ALL BORROW AND WASTE DISPOSAL AREAS ARE INCLUDED IN THE NPDES PERMIT AND ARE REQUIRED TO BECOME A PART OF THE SWP3.
- ANY PARTY (INCLUDING, BUT NOT LIMITED TO, THE GENERAL CONTRACTOR) WHO HAS DAY-TO-DAY OPERATIONAL CONTROL OF ACTIVITIES AT THIS PROJECT, WHICH ARE NECESSARY TO ENSURE COMPLIANCE WITH THE SWP3 FOR THE SITE, OR OTHER CONDITIONS AS SET FORTH IN THE PERMIT, MUST FILE A CO-PERMITTEE NOTICE OF INTENT (NOI) WITH THE OHIO EPA. THIS IS THE SOLE RESPONSIBILITY OF THE CO-PERMITTEE AND SHOULD BE DONE 21 DAYS BEFORE GROUND IS BROKEN.
- PRIOR TO THE START OF ANY CONSTRUCTION, CONTRACTOR SHALL INSTALL SOIL EROSION AND SEDIMENTATION BEST MANAGEMENT PRACTICES (BMPs) AS PER THE PLAN AND AS REQUIRED BY THE OHIO ENVIRONMENTAL PROTECTION AGENCY.
- EROSION CONTROL MEASURES MAY BE IMPLEMENTED AND LOCATIONS ADJUSTED AS NEEDED TO FACILITATE CONSTRUCTION PROVIDED THE SWP3 PLAN IS UPDATED ACCORDINGLY AND THE INTENT OF THE PLAN IS MET.
- SOIL EROSION AND SEDIMENTATION BMP MEASURES SHALL BE MAINTAINED AT ALL TIMES UNTIL CONSTRUCTION HAS BEEN COMPLETED, INCLUDING ALL GRASS BEING WELL ESTABLISHED AND/OR PERMANENT EROSION AND SEDIMENTATION BMP MEASURES ARE INSTALLED AND OPERATIONAL.
- CONTRACTOR SHALL NOTIFY THE LOCAL GOVERNING AGENCY THREE (3) DAYS PRIOR TO STARTING CONSTRUCTION FOR PURPOSES OF MONITORING SOIL EROSION AND BMP MEASURES.
- SEDIMENT AND EROSION CONTROLS SHALL BE INSPECTED ONCE EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS OF EVERY 0.5" OR GREATER RAINFALL. A WRITTEN LOG OF THESE INSPECTIONS SHALL BECOME PART OF THE SWP3. THIS LOG SHOULD INDICATE THE DATE OF INSPECTION, NAME OF INSPECTOR, WEATHER CONDITIONS, OBSERVATIONS, ACTIONS TAKEN TO CORRECT ANY PROBLEMS AND THE DATE ACTION WAS TAKEN. FURNISH THE OWNER, OWNER'S REPRESENTATIVE, AND ENGINEER WITH WRITTEN REPORTS UNLESS OTHERWISE DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
- THE PROJECT HAS BEEN DESIGNED TO CONTROL EROSION AND PREVENT DAMAGE TO OTHER PROPERTY. ALL STRIPPING, EARTHWORK, AND GRADING SHALL BE PERFORMED TO MINIMIZE EROSION. NATURAL VEGETATION SHALL BE RETAINED WHEREVER POSSIBLE. THE PROPOSED PLAN WILL ALLOW MOST ERODED MATERIALS TO BE RETAINED ON SITE.
- SPECIAL PRECAUTIONS WILL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT OPERATIONS WHICH PROMOTE EROSION.
- SOLID, SANITARY, AND TOXIC WASTE MUST BE DISPOSED OF IN A PROPER MANNER IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. IT IS PROHIBITED TO BURN, BURY OR POUR INTO THE GROUND OR INTO STORM SEWERS ANY SOLVENTS, PAINTS, STAINS, GASOLINE, DIESEL FUEL, USED MOTOR OIL, HYDRAULIC FUEL, ANTIFREEZE, CEMENT CURING COMPOUNDS, AND OTHER SUCH TOXIC OR HAZARDOUS WASTES.
- HAZARDOUS WASTES SHALL BE REMOVED OFF SITE AND PROPERLY DISPOSED OF CONSISTENT WITH ALL FEDERAL, STATE, AND LOCAL REGULATIONS.
- CONTRACTOR SHALL DESIGNATE A SITE DUMP/WASH AREA PRIOR TO STARTING CONSTRUCTION FOR SUCH PURPOSES AS WASHING OUT CONCRETE TRUCKS AND DUMPING NON-HAZARDOUS WASTE MATERIALS.
- DUMPING OR DISCHARGE OF ANY HAZARDOUS WASTE MATERIALS TO ANY STORM OR SANITARY SEWERS IS PROHIBITED.
- WASH OUT OF CONCRETE TRUCKS SHALL BE IN A DIKED, DESIGNATED AREA OR INTO PORTABLE MANUFACTURED WASHOUT BAGS SUCH AS THE LINED READY MIX BAGS MANUFACTURED BY ENVIRO SYSTEMS, INC., OR EQUIVALENT, WHERE THE WASTEWATER CAN BE COLLECTED AND DISPOSED OF PROPERLY AFTER IT HARDENS.
- STORAGE TANKS SHOULD BE LOCATED IN DIKED AREAS THAT HOLD A MINIMUM VOLUME OF 110% OF THE LARGEST TANK.
- LOCATION OF DUMP/WASH LOCATIONS AND CONTRACTOR PROCEDURES ARE SUBJECT TO SUPERVISION BY THE FEDERAL, STATE, AND THE LOCAL GOVERNING AGENCIES.
- ALL CATCH BASINS AND INLETS NEAR DISTURBED AREAS SHALL HAVE TEMPORARY INLET PROTECTION SEDIMENT BARRIERS PLACED AND MAINTAINED THROUGHOUT CONSTRUCTION TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE SYSTEMS WHETHER SHOWN IN THE DRAWINGS OR NOT.
- ANY DETENTION OR RETENTION AREAS AND ANY PERIMETER CONTROLS SHALL BE IMPLEMENTED WITHIN SEVEN (7) DAYS OF FIRST GRUBBING AND SHALL REMAIN FUNCTIONAL UNTIL THE UP-SLOPE DEVELOPMENT AREA IS STABILIZED.
- ADDITIONAL STABILIZATION IS REQUIRED AROUND ANY WATER OF THE STATE. IF A NATURAL 50 FOOT BUFFER CAN NOT BE MAINTAINED, THE CONTRACTOR SHALL PROVIDE ADDITIONAL EROSION AND SEDIMENT CONTROLS, WHICH IN COMBINATION ACHIEVES THE SEDIMENT LOAD REDUCTION EQUIVALENT TO A 50 FOOT UNDISTURBED NATURAL BUFFER.
- STOCKPILED SOILS SHALL BE LEGALLY REMOVED FROM THE SITE OR COVERED WITH TEMPORARY SEED AND MULCH WITHIN SEVEN (7) DAYS AND SURROUNDED WITH SILT FENCE UNTIL SUCH TIME THAT IT CAN BE REUSED ON THE SITE.
- ALL AREAS AT FINAL GRADE OR WHERE CONSTRUCTION ACTIVITY HAS TEMPORARILY CEASED FOR 14 DAYS OR LONGER SHALL BE STABILIZED WITHIN SEVEN (7) DAYS OF ACTIVITY.
- ALL GRASS AREAS ARE TO BE SEEDED AND STRAW MULCHED WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED.
- STRUCTURAL PRACTICES SHALL BE USED TO CONTROL EROSION AND TRAP SEDIMENTS FROM ALL SITES REMAINING DISTURBED FOR MORE THAN (14) FOURTEEN DAYS.
- SEED AND MULCH ALL AREAS NOT SHOWN AS BUILDING OR PAVEMENT AND ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES UNLESS OTHERWISE NOTED IN THE PLANS.

- ALL STREETS MUST BE MAINTAINED DURING CONSTRUCTION. STREETS SHALL BE KEPT FREE OF MUD, DIRT, AND CONSTRUCTION DEBRIS. CONTRACTOR SHALL PROVIDE ROUTINE STREET SWEEPING TO ENSURE MINIMAL EROSION INTO THE PUBLIC STORM SEWER SYSTEM AND ROADWAY.
- CLEANUP SHALL BE CONDUCTED IN A MANNER TO ENSURE THAT EROSION MEASURES ARE NOT DISTURBED.
- THE LOCAL GOVERNING AGENCY MAY REQUIRE WORK TO BE STOPPED AND THE STORM DRAINAGE OUTLET TO BE PLUGGED IF CONDITIONS BECOME UNSATISFACTORY.

2

SEEDING AND MULCHING

SPREAD 4 TO 6 INCHES OF TOPSOIL.

FERTILIZE ACCORDING TO SOIL TEST (OR APPLY 10 LB./1000 SQ. FT. OF 20-10-10 OR 10-10-10 FERTILIZER).

SEED WITH AN APPROPRIATE MIX FOR THE SITE (SEE TABLE.) RAKE LIGHTLY TO COVER SEED WITH 1/4" OF SOIL. ROLL LIGHTLY.

MULCH WITH STRAW (70-90 LB. OR ONE BALE PER 1000 SQ. FT.).

ANCHOR MULCH BY PUNCHING 2 INCHES INTO THE SOIL WITH A DULL, WEIGHTED DISK OR BY USING NETTING OR OTHER MEASURES ON STEEP SLOPES; OR WINDY AREAS. WATER GENTLY EVERY DAY OR TWO TO KEEP SOIL MOIST. LESS WATERING IS NEEDED ONCE GRASS IS 2 INCHES TALL.

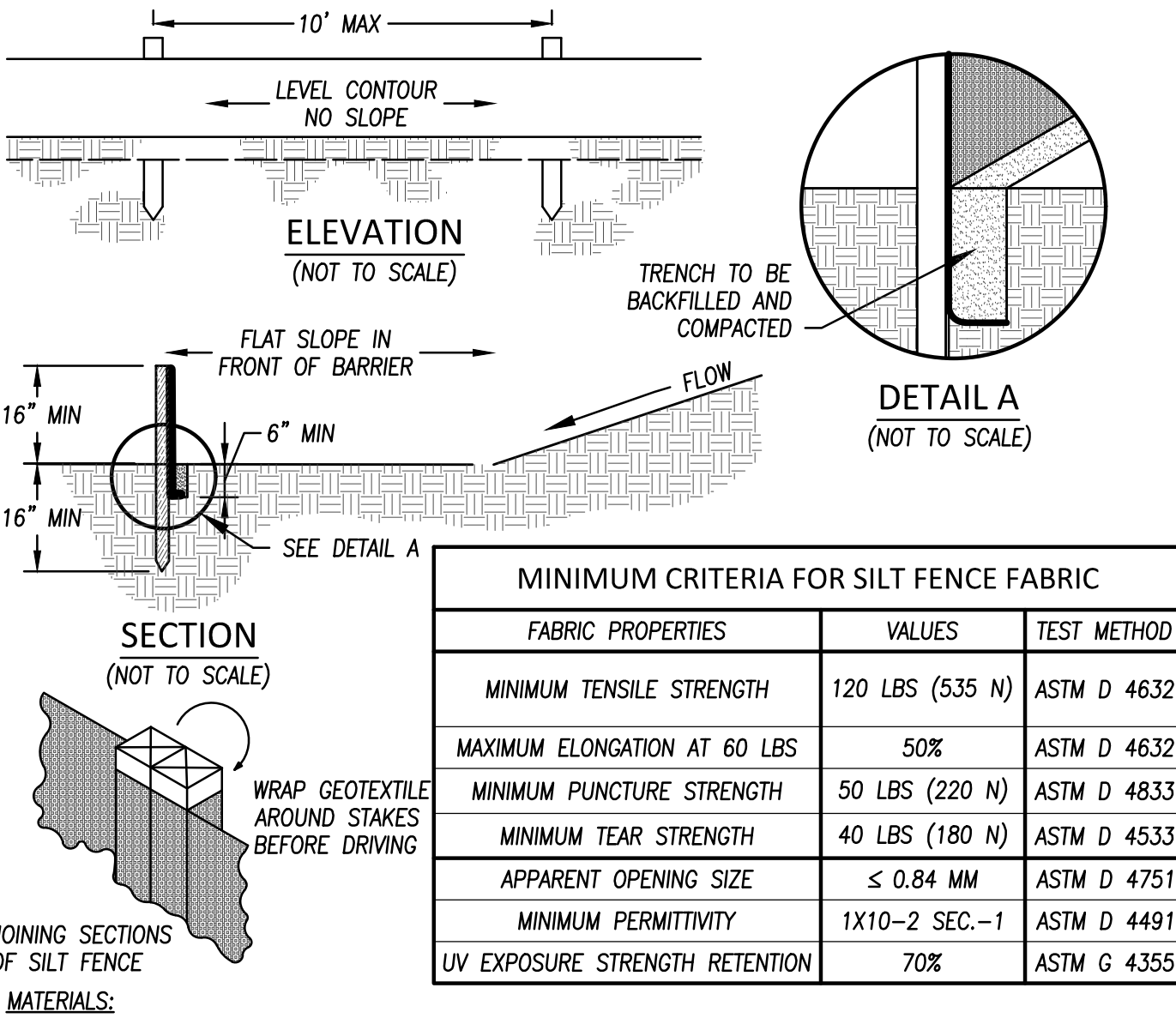
TEMPORARY SEEDING SPECIES SELECTION			
SEEDING DATES	SPECIES	LB/1,000 FT ²	LB/ACRE
MARCH 1 TO AUGUST 15	OATS	3	128 (4 BUSHEL)
	TALL FESCUE	1	40
	ANNUAL RYEGRASS	1	40
	PERENNIAL RYEGRASS	1	40 LB.
	TALL FESCUE	1	40 LB.
	ANNUAL RYEGRASS	1	40 LB.
AUGUST 16 TO NOVEMBER 1	ANNUAL RYEGRASS	1.25	55
	PERENNIAL RYEGRASS	3.25	142
	CREeping RED FESCUE	0.4	17
	KENTUCKY BLUEGRASS	0.4	17
	RYE	3	112 (2 BUSHEL)
	TALL FESCUE	1	40 LB.
AUGUST 16 TO NOVEMBER 1	WHEAT	3	120 (2 BUSHEL)
	TALL FESCUE	1	40 LB.
	ANNUAL RYEGRASS	1	40 LB.
	PERENNIAL RYEGRASS	1	40 LB.
	TALL FESCUE	1	40 LB.
	ANNUAL RYEGRASS	1	40 LB.
NOVEMBER 1 TO FEBRUARY 29	ANNUAL RYEGRASS	1.25	40
	PERENNIAL RYEGRASS	3.25	40
	CREeping RED FESCUE	0.4	40
	KENTUCKY BLUEGRASS	0.4	40

NOTE: OTHER APPROVED SEED SPECIES MAY BE SUBSTITUTED.

PERMANENT SEEDING TO BE AS PER LANDSCAPING PLANS

3

SILT FENCE



JOINING SECTIONS
 OF SILT FENCE

MATERIALS:

- FENCE POST – THE LENGTH SHALL BE A MINIMUM OF 32 INCHES. WOOD POSTS WILL BE 2-BY-2-IN. NOMINAL DIMENSIONED HARDWOOD OF SOUND QUALITY. THEY SHALL BE FREE OF KNOTS, SPLITS, AND OTHER VISIBLE IMPERFECTIONS THAT WILL WEAKEN THE POSTS. THE MAXIMUM SPACING BETWEEN POSTS SHALL BE 10 FT. POSTS SHALL BE DRIVEN A MINIMUM 16 INCHES INTO THE GROUND, WHERE POSSIBLE. IF NOT POSSIBLE, THE POSTS SHALL BE ADEQUATELY SECURED TO PREVENT OVERTURNING OF THE FENCE DUE TO SEDIMENT/WATER LOADING.
- SILT FENCE FABRIC – SEE CHART.
- SILT FENCE SHALL BE CONSTRUCTED BEFORE UPSLOPE LAND DISTURBANCE BEGINS.
- ALL SILT FENCE SHALL BE PLACED AS CLOSE TO THE CONTOUR AS POSSIBLE SO THAT WATER WILL NOT CONCENTRATE AT LOW POINTS IN THE FENCE AND SO THAT SMALL SWALES OR DEPRESSIONS THAT MAY CARRY SMALL CONCENTRATED FLOWS TO THE SILT FENCE ARE DISSIPATED ALONG ITS LENGTH.
- ENDS OF THE SILT FENCES SHALL BE BROUGHT UPSLOPE SLIGHTLY SO THAT WATER PONDED BY THE SILT FENCE WILL BE PREVENTED FROM FLOWING AROUND THE ENDS.
- SILT FENCE SHALL BE PLACED ON THE FLATTEST AREA AVAILABLE.
- WHERE POSSIBLE, VEGETATION SHALL BE PRESERVED FOR 5 FEET (OR AS MUCH AS POSSIBLE) UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IS SHALL BE REESTABLISHED WITHIN 7 DAYS FROM THE INSTALLATION OF THE SILT FENCE.
- THE HEIGHT OF THE SILT FENCE SHALL BE A MINIMUM OF 16 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
- THE SILT FENCE SHALL BE PLACED IN AN EXCAVATED OR SLICED TRENCH CUT A MINIMUM OF 6 INCHES DEEP. THE TRENCH SHALL BE MADE WITH A TRENCHER, CABLE LAYING MACHINE, SLICING MACHINE, OR OTHER SUITABLE DEVICE THAT WILL ENSURE AN ADEQUATELY UNIFORM TRENCH DEPTH.
- THE SILT FENCE SHALL BE PLACED WITH THE STAKES ON THE DOWNSLOPE SIDE OF THE GEOTEXTILE. A MINIMUM OF 8 INCHES OF GEOTEXTILE MUST BE BELOW THE GROUND SURFACE. EXCESS MATERIAL SHALL LAY ON THE BOTTOM OF THE 6-INCH DEEP TRENCH. THE TRENCH SHALL BE BACKFILLED AND COMPACTED ON BOTH SIDES OF THE FABRIC.
- SEAMS BETWEEN SECTIONS OF SILT FENCE SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST WITH A MINIMUM 6-IN. OVERLAP PRIOR TO DRIVING INTO THE GROUND, (SEE DETAILS).

MAINTENANCE:

- SILT FENCE SHALL ALLOW RUNOFF TO PASS ONLY AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVER-TOPS THE SILT FENCE, FLOWS UNDER THE FABRIC OR AROUND THE FENCE ENDS, OR IN ANY OTHER WAY ALLOWS A CONCENTRATED FLOW DISCHARGE, ONE OF THE FOLLOWING SHALL BE PERFORMED, AS APPROPRIATE:
 - THE LAYOUT OF THE SILT FENCE SHALL BE CHANGED
 - ACCUMULATED SEDIMENT SHALL BE REMOVED
 - OTHER PRACTICES SHALL BE INSTALLED
- SEDIMENT DEPOSITS SHALL BE ROUTINELY REMOVED WHEN THE DEPOSIT REACHES APPROXIMATELY ONE-HALF OF THE HEIGHT OF THE SILT FENCE.
- SILT FENCES SHALL BE INSPECTED AFTER EACH RAINFALL AND AT LEAST DAILY DURING A PROLONGED RAINFALL. THE LOCATION OF EXISTING SILT FENCE SHALL BE REVIEWED DAILY TO ENSURE ITS PROPER LOCATION AND EFFECTIVENESS.
- IF DAMAGED, THE SILT FENCE SHALL BE REPAIRED IMMEDIATELY.

REMOVAL

- REMOVE SILT FENCE ONCE THE AREA UPSLOPE OF THE SILT FENCE HAS BEEN STABILIZED WITH PERMANENT INSTALLATIONS SUCH AS PAVEMENT, BUILDINGS, LANDSCAPING, OR OTHER VEGETATION.

1

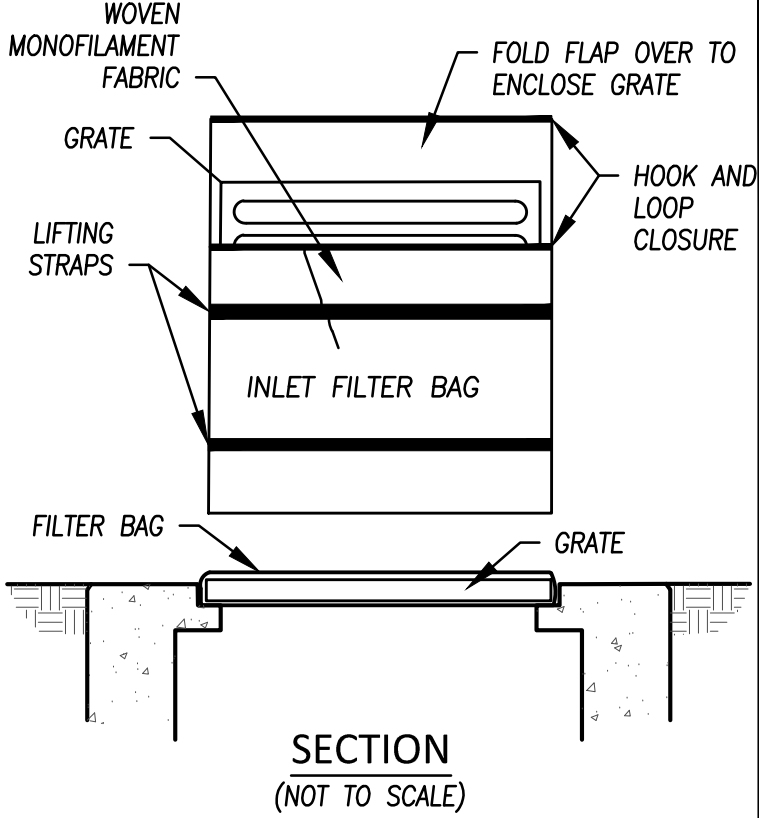
MANUFACTURED INLET FILTER

MATERIALS

- INLET FILTERS ARE TO BE MANUFACTURED FROM WOVEN MONOFILAMENT FABRIC MATERIALS MEETING THE REQUIREMENTS OF THE TABLE BELOW.

INSTALLATION:

- STAND GRATE ON END AND PLACE THE BAG OVER THE GRATE.
- ROLL THE GRATE OVER SO THAT THE OPEN END IS UP AND PULL UP THE SLACK.
- TUCK THE FLAP IN AND PRESS THE HOOK AND LOOP STRIPS TOGETHER MAKING SURE THAT THE END OF THE GRATE IS COMPLETELY COVERED BY THE FLAP.
- CAREFULLY PLACE THE BAG WITH THE GRATE INSERTED INTO THE CATCH BASIN FRAME USING THE LIFTING HANDLES.

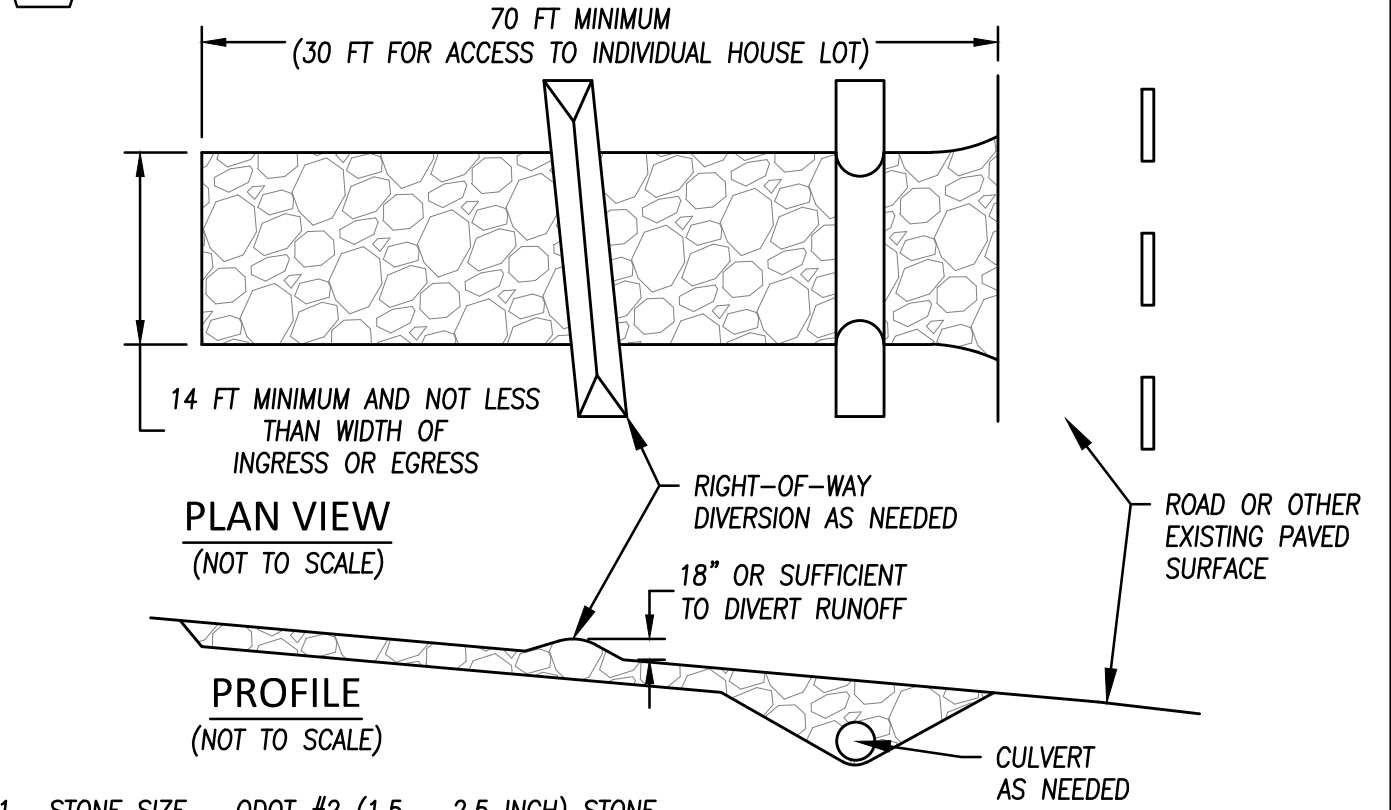


MAINTENANCE:

- ROUTINELY INSPECT INLET FILTERS AFTER EACH SIGNIFICANT RAIN, MAINTAINING INLET FILTERS IN A FUNCTIONAL CONDITION AT ALL TIMES.
- REMOVE SILT, SEDIMENT, AND DEBRIS FROM THE SURFACE AND THE VICINITY OF THE UNIT WITH A SQUARE POINT SHOVEL OR STIFF BRISTLE BROOM. REMOVE FINE MATERIAL FROM INSIDE THE FILTER BAG AS NEEDED.
- KEEP MATERIAL AWAY FROM ENVIRONMENTALLY SENSITIVE AREAS AND WATERWAYS IN A MANNER SATISFACTORY TO THE ENGINEER/INSPECTOR.
- REPLACE AND DISPOSE OF FILTER BAGS DAMAGED WHICH ARE NO LONGER EFFECTIVE.
- WHERE THE INLET FILTER DETERIORATES OR FAILS, IT SHALL BE REPAIRED OR REPLACED WITH A MORE EFFECTIVE SOLUTION.
- REMOVE INLET FILTERS FROM THE SITE WHEN NO LONGER REQUIRED.

4

CONSTRUCTION ENTRANCE



- STONE SIZE – ODOT #2 (1.5 – 2.5 INCH) STONE SHALL BE USED, OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH – THE CONSTRUCTION ENTRANCE SHALL BE AS LONG AS REQUIRED TO STABILIZE HIGH TRAFFIC AREAS BUT NOT LESS THAN 70 FT. (EXCEPTION: APPLY 30 FT. MINIMUM TO SINGLE RESIDENCE LOTS).
- THICKNESS – THE STONE LAYER SHALL BE AT LEAST 6 INCHES THICK FOR LIGHT DUTY ENTRANCES OR AT LEAST 10 INCHES FOR HEAVY DUTY USE.
- WIDTH – THE ENTRANCE SHALL BE AT LEAST 14 FEET WIDE, BUT NOT LESS THAN THE FULL FINAL WIDTH AT POINTS WHERE INGRESS AND EGRESS OCCURS.
- GEOTEXTILE – A GEOTEXTILE SHALL BE LAID OVER THE ENTIRE AREA PRIOR TO PLACING STONE. IT SHALL BE COMPOSED OF STRONG, ROT-PROOF POLYMERIC FIBERS AND MEET THE FOLLOWING SPECIFICATIONS:

GEOTEXTILE SPECIFICATION FOR CONSTRUCTION ENTRANCE	
MINIMUM TENSILE STRENGTH	200 LBS.
MINIMUM PUNCTURE STRENGTH	80 PSI.
MINIMUM TEAR STRENGTH	50 LBS.
MINIMUM BURST STRENGTH	320 PSI.
MINIMUM ELONGATION	20%
EQUIVALENT OPENING SIZE	EOS < 0.6 MM.
PERMITTIVITY	1x10-3 CM/SEC.
- TIMING – THE CONSTRUCTION ENTRANCE SHALL BE INSTALLED AS SOON AS IS PRACTICABLE BEFORE MAJOR GRADING ACTIVITIES.
- CULVERT – A PIPE OR CULVERT SHALL BE CONSTRUCTED UNDER THE ENTRANCE IF NEEDED TO PREVENT SURFACE WATER FROM FLOWING ACROSS THE ENTRANCE OR TO PREVENT RUNOFF FROM BEING DIRECTED OUT ONTO PAVED SURFACES.
- WATER BAR – A WATER BAR SHALL BE CONSTRUCTED AS PART OF THE CONSTRUCTION ENTRANCE IF NEEDED TO PREVENT SURFACE RUNOFF FROM FLOWING THE LENGTH OF THE CONSTRUCTION ENTRANCE AND OUT ONTO PAVED SURFACES.
- MAINTENANCE – TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITIONS DEMAND. MUD SPILLED, DROPPED, WASHED, OR TRACKED ONLY PUBLIC ROADS, OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS, SHALL BE REMOVED IMMEDIATELY. REMOVAL SHALL BE ACCOMPLISHED BY SCRAPING OR SWEEPING.
- CONSTRUCTION ENTRANCES SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES AND PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE CONSTRUCTION SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
- REMOVAL – THE ENTRANCE SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY OR ENTRANCE.

9	8	7	6	5	4	3	2	1	NO
								02-27-20	DATE
								1	FOR CONSTRUCTION
									REVISION
DGL CONSULTING ENGINEERS LLC 3455 BRIARFIELD BLVD., SUITE E MAUMEE, OH 43537 PHONE: 419.535.1015 www.dgl-td.com									
METROPARKS TOLEDO SWAN CREEK CONNECTOR TRAIL 4301 AIRPORT HWY TOLEDO, OHIO 43615 LUCAS COUNTY									
EROSION CONTROL NOTES & DETAILS									
FILE: 18147 CD.dwg JOB NO.: 18147 DRAWN BY: EAH ISSUED: FEB 27, 2020									
C48									

PLOTTED: Jan 21, 2021 -- 6:17am
DRAWING: M:\18147 (Metroparks -- Swan Creek Connector Trail)\STRUCTURAL\Draw\18147 GN.dwg: S02 GENERAL NOTES

GENERAL NOTES

ALL MATERIAL AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION STANDARDS AND SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION (ODOT) DATED JANUARY 1, 2016. ALL WORK SHALL BE IN COMPLIANCE WITH ALL APPLICABLE FEDERAL AND STATE STANDARDS AND REGULATIONS.

UNDERGROUND UTILITIES

THE LOCATIONS OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 ORC AND ARE APPROXIMATE LOCATIONS. EXACT LOCATIONS OF ACTIVE UTILITIES TO REMAIN IN SERVICE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL COORDINATE WITH THE METROPARKS AND PREFABRICATED MANUFACTURERS IF ANY UTILITIES ARE TO BE CARRIED ON THE PREFABRICATED SUPERSTRUCTURE.

AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN AN AREA WHICH MAY INVOLVE UNDERGROUND UTILITY FACILITIES, THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER, THE REGISTERED UTILITY PROTECTION SERVICE AND THE OWNERS OF EACH UNDERGROUND UTILITY FACILITY SHOWN IN THE PLANS.

CONSTRUCTION STAKING

CONSTRUCTION STAKING FOR THE PROJECT WILL BE PERFORMED BY THE CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT AND PRESERVE THE CONSTRUCTION STAKES AND TO VERIFY CORRECTNESS.

RESTORATION

ALL EXISTING FEATURES THAT ARE DISTURBED DUE TO CONSTRUCTION SUCH AS SHRUBS, BUSHES, GUARDRAIL, DRIVEWAYS, SEEDED AREAS, ETC. SHALL BE REPLACED TO THEIR ORIGINAL CONDITION IN ACCORDANCE WITH THE APPLICABLE ODOT SPECIFICATIONS, AND TO THE SATISFACTION OF THE METROPARKS.

SEDIMENT AND EROSION CONTROL

- CONTRACTOR SHALL CONFORM WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT AND ALL PLANS AND SPECIFICATIONS REGARDING SOIL EROSION/SEDIMENTATION CONTROL REQUIREMENTS.
- SPECIAL PRECAUTIONS WILL BE TAKEN IN THE USE OF CONSTRUCTION EQUIPMENT TO PREVENT OPERATIONS WHICH PROMOTE EROSION.
- SOLID, SANITARY AND TOXIC WASTE MUST BE DISPOSED OF IN A PROPER MANNER IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. IT IS PROHIBITED TO BURN, BURY OR POUR INTO THE GROUND OR INTO STORM SEWERS ANY SOLVENTS, PAINTS, STAINS, GASOLINE, DIESEL FUEL, USED MOTOR OIL, HYDRAULIC FUEL, ANTIFREEZE, CEMENT CURING COMPOUNDS, AND OTHER SUCH TOXIC OR HAZARDOUS WASTES.
- DUMPING OR DISCHARGE OF ANY WASTE MATERIALS TO ANY STORM OR SANITARY SEWERS IS PROHIBITED.
- HAZARDOUS WASTES ARE TO BE REMOVED OFF SITE AND PROPERLY DISPOSED OF CONSISTENT ALL FEDERAL, STATE, AND LOCAL REGULATIONS.
- ALL CATCH BASINS AND INLETS NEAR DISTURBED AREAS SHALL HAVE TEMPORARY INLET PROTECTION SEDIMENT BARRIERS PLACED AND MAINTAINED THROUGHOUT CONSTRUCTION TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE SYSTEMS WHETHER SHOWN IN THE DRAWINGS OR NOT.

PROJECT DESCRIPTION AND WORK ITEMS

CONSTRUCTION OF THE PEDESTRIAN BRIDGE OVER SWAN CREEK AND AN ELEVATED BOARDWALK TO BYRNE ROAD.

ALL WORK SHALL BE COMPLETED NO LATER THAN SEPTEMBER 30, 2020.

WORK ITEMS INCLUDED WITH THIS PROJECT SHALL INCLUDE BUT MAY NOT BE LIMITED TO THE FOLLOWING:

- CONSTRUCT DEEP PILE ABUTMENT FOUNDATIONS AND REINFORCED CONCRETE ABUTMENTS AND PIERS PER PLAN DETAILS.
- INSTALL AND ANCHOR NEW TWO SPAN, PRE-FABRICATED, GALVANIZED STEEL SUPERSTRUCTURE WITH A CONCRETE DECK.
- CONSTRUCT A LOOKOUT AREA AND BOARDWALK COMPRISED OF PRESTRESSED CONCRETE BOX BEAMS WITH A CONCRETE DECK ON PIERS.
- INSTALL TIMBER RAILING THROUGHOUT BRIDGE AND BOARDWALK LIMITS.
- COMPLETE TIE-IN WORK TO BYRNE ROAD AND GENERAL EMBANKMENT GRADING.

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATION

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:
PSBD-2-07 REVISED 7-20-2018

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS:
800 DATED 1-17-2020

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "LRFD BRIDGE DESIGN SPECIFICATIONS FOR HIGHWAY BRIDGES" AND "LRFD GUIDE SPECIFICATIONS FOR THE DESIGN OF PEDESTRIAN BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2007, INCLUDING THE 2008 INTERIM SPECIFICATIONS AND THE ODOT BRIDGE DESIGN MANUAL, 2007.

DESIGN DATA

CONCRETE CLASS QC1 CONCRETE – COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE CLASS QC2 CONCRETE – COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

REINFORCING STEEL – MINIMUM YIELD STRENGTH 60 KSI

CONCRETE FOR PRESTRESSED BEAMS:
COMPRESSIVE STRENGTH (FINAL) – 7 KSI
COMPRESSIVE STRENGTH (RELEASE) – 5 KSI

PRESTRESSING STRAND:
AREA = 0.167 IN²
ULTIMATE STRENGTH = 270 KSI
INITIAL STRESS = 202.5 KSI (LOW-RELAXATION STRANDS)

CAST-IN-PLACE REINFORCED CONCRETE

- ALL REINFORCING STEEL SHALL BE EPOXY COATED.
- CLEARANCE BETWEEN REINFORCING AND CONCRETE SURFACES:
2.1. UNFORMED 3"
2.2. FORMED AND EXPOSED TO EARTH AND WEATHER – 2"
- ALL EXPOSED CORNERS SHALL RECEIVE A ¾" CHAMFER UNLESS NOTED OTHERWISE.
- PRIOR TO PLACING CONCRETE, COORDINATE WITH ALL OTHER TRADES, SUCH AS ELECTRICAL, THE INSTALLATION OF ALL ANCHOR BOLTS, CONDUITS; ETC.
- IN HOT WEATHER (GREATER THAN 90°F) COOL THE INGREDIENTS PRIOR TO MIXING AND MAINTAIN TEMPERATURE BELOW 90°F DURING PLACEMENT AND CURING.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, INTERFERENCE AND CONDITIONS PRIOR TO CONCRETE POUR AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
- THE BRIDGE DECK SHALL BE SEALED WITH EUCO-GUARD VOX BY THE EUCLID CHEMICAL COMPANY.
- INCLUDE ALL REINFORCING STEEL AS SHOWN IN THE PLANS WITH THE COST OF CONCRETE FOR PAYMENT.

PILE DESIGN LOADS (ULTIMATE BEARING VALUE)

THE ULTIMATE BEARING VALUE IS 70 KIPS PER PILE FOR THE ABUTMENT PILES, 140 KIPS FOR PIER 1 PILES, 100 KIPS FOR PIERS 2 & 3 AND 55 KIPS FOR PIERS 4 THRU 17.

ABUTMENT AND PIER 4 THRU 17 PILES:
– HP10X42 STEEL PILES, SEE SHEET S9 FOR ORDER LENGTHS
– 1 DYNAMIC LOAD TESTING ITEM

PIER 1 PILES:
– HP14X102 STEEL PILES, SEE SHEET S9 FOR ORDER LENGTHS
– 1 DYNAMIC LOAD TESTING ITEM

PIER 2 AND 3 PILES
– HP12X53 STEEL PILES, SEE SHEET S9 FOR ORDER LENGTHS
– 1 DYNAMIC LOAD TESTING ITEM

STRUCTURAL STEEL MEMBERS, PILE BRACING

- ROLLED H-PILE SHALL BE ASTM A572 GRADE-50.
- ROLLED ANGLES AND PLATES SHALL BE ASTM A36 OR HIGHER GRADE.
- STRUCTURAL STEEL HAS BEEN DESIGNED IN ACCORDANCE WITH LOAD AND RESISTANCE (LRFD) DESIGN PROCEDURES AS REQUIRED BY "AISC MANUAL OF STEEL CONSTRUCTION", AND WITH CONSIDERATIONS FROM AASHTO LRFD.
- PIER BRACING CONNECTION DESIGN:
4.1. BRACING CONNECTION PLATES SHALL HAVE A MINIMUM THICKNESS OF ¾".

4.2. BOLTED CONNECTIONS:
4.2.1. MINIMUM BOLT DIAMETER IS ¾" UNLESS NOTED OTHERWISE.
4.2.2. ALL BOLTS SHALL BE A325N UNLESS OTHERWISE NOTED.
4.2.3. TWO BOLT MINIMUM PER CONNECTED MEMBER U.N.O.
4.2.4. BOLTED CONNECTIONS SHALL BE CONSIDERED IN THE SNUG TIGHT CONDITION UNLESS OTHERWISE NOTED. SNUG TIGHT CONDITION IS DEFINED AS THE TIGHTNESS THAT EXISTS WHEN ALL PLIES IN A JOINT ARE IN FIRM CONTACT. THIS MAY BE ACHIEVED BY A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF A MAN USING AN ORDINARY SPUD WRENCH.

4.3. WELDED CONNECTIONS:
4.3.1. GENERAL WELDING SHALL BE MADE WITH E70XX SERIES ELECTRODES AND IN ACCORDANCE WITH AWS SPECIFICATIONS. SHOP AND FIELD WELDERS SHALL BE CERTIFIED IN ACCORDANCE WITH THE LATEST EDITION OF ANSI/AWS D1.1 REQUIREMENTS.
4.3.2. FILLET WELDS SHOULD CONFORM TO THE AISC MINIMUM BUT NOT LESS THAT ⅝".
4.3.3. GROOVE WELDS: FULL PENETRATION UNLESS OTHERWISE NOTED.
4.3.4. WELDS ARE CONTINUOUS UNLESS NOTED.

EXISTING SITE VERIFICATION

IT IS STRONGLY RECOMMENDED THAT ALL BIDDERS VISIT AND EXAMINE THE SITE. NO ADDITIONAL COMPENSATION WILL BE AWARDED FOR ANY DEVIATIONS TO THESE PLANS. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH ALL CONDITIONS UNDER WHICH WORK MUST BE PERFORMED AND CHECK ALL PRESENT ELEVATIONS. THE CONTRACTOR SHALL REPORT ANY MAJOR DISCREPANCIES TO THE ENGINEER. FAILURE TO DO SO SHALL BE DEEMED AS ACCEPTANCE OF EXISTING CONDITIONS.

IN-STREAM WORK RESTRICTION

DO NOT WORK BELOW THE ORDINARY HIGH WATER MARK OF SWAN CREEK, OR INSTALL, MODIFY, OR REMOVE ANY EXISTING INSTREAM FILLS DURING THE ODNR INSTREAM WORK RESTRICTION PERIOD OF APRIL 15 TO JUNE 30.

ESTIMATED QUANTITIES			
ITEM	QUANTITY	UNIT	DESCRIPTION
503		LUMP	COFFERDAMS AND EXCAVATION BRACING
505		LUMP	PILE DRIVING EQUIPMENT MOBILIZATION
507	2235	FT.	STEEL PILES HP10x42, FURNISHED
507	1975	FT.	STEEL PILES HP10x42, DRIVEN
507	270	FT.	STEEL PILES HP12x53, FURNISHED
507	240	FT.	STEEL PILES HP12x53, DRIVEN
507	240	FT.	STEEL PILES HP14x102, FURNISHED
507	225	FT.	STEEL PILES HP14x102, DRIVEN
511	188	CU. YD.	CLASS QC2 CONCRETE, SUPERSTRUCTURE, AS PER PLAN
511	102	CU. YD.	CLASS QC1 CONCRETE, PIER CAP, AS PER PLAN
511	38	CU. YD.	CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING, AS PER PLAN
513	9900	POUNDS	STRUCTURAL STEEL MEMBERS, PILE BRACING
513		LUMP	PREFABRICATED STEEL TRUSS, FURNISHED
513		LUMP	PREFABRICATED STEEL TRUSS, ERECTED
515	8	EACH	PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, CB12-48
515	45	EACH	PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, CB17-48
516	212	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES (NEOPRENE), AS PER PLAN (7"x4"x1.25")
517	1254	FT.	RAILINGS, AS PER PLAN
518	28	CU. YD.	POROUS BACKFILL WITH GEOTEXTILE FABRIC
518	55	FT.	6" PERFORATED CORRUGATED PLASTIC PIPE
518	20	FT.	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN
523	3	EACH	DYNAMIC LOAD TESTING



DGL CONSULTING ENGINEERS, LLC
3455 BRIARFIELD BLVD, SUITE E
MAUMEE, OH 43537
PHONE: 419.535.1015
www.dgl-ltd.com

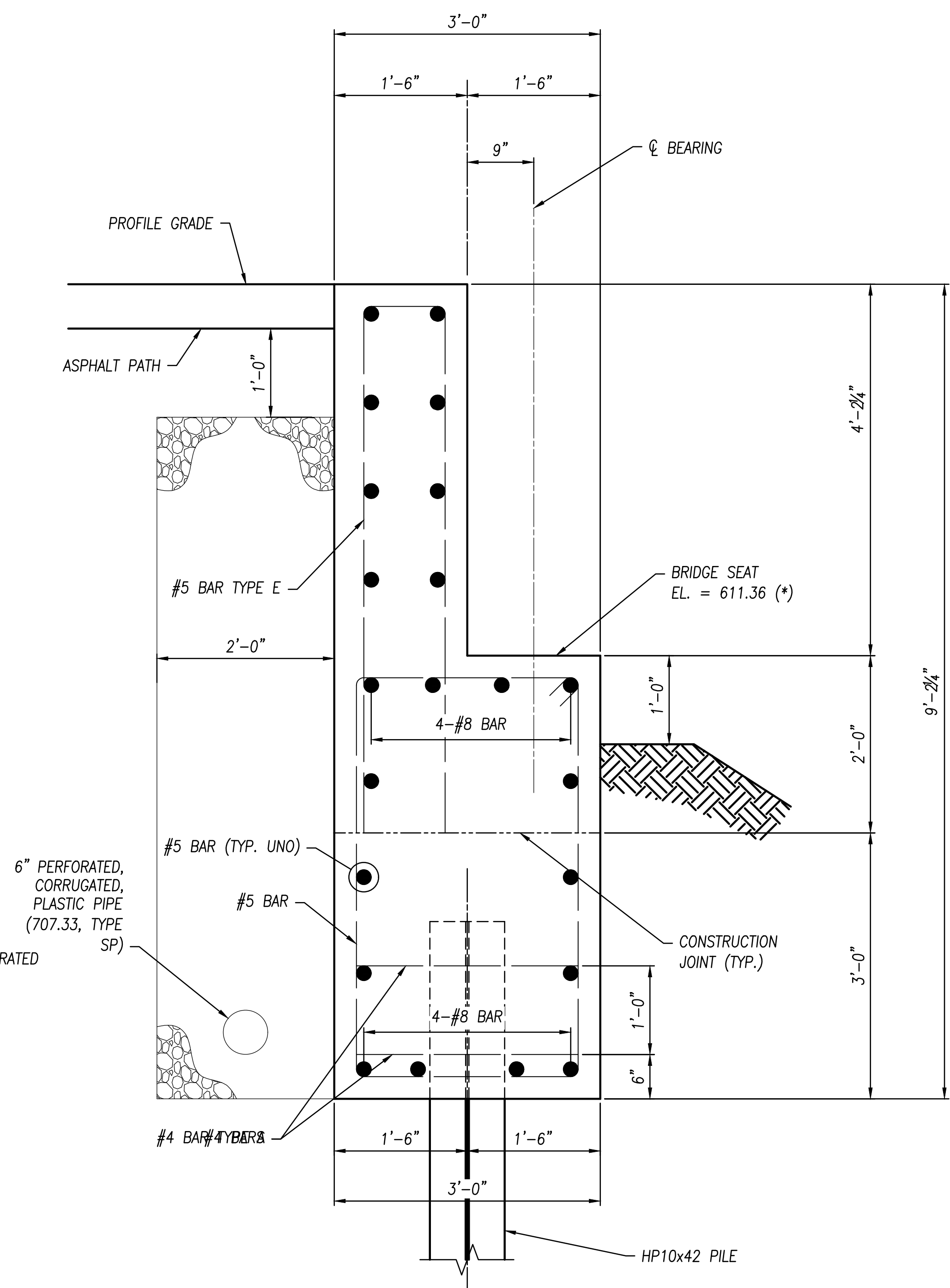
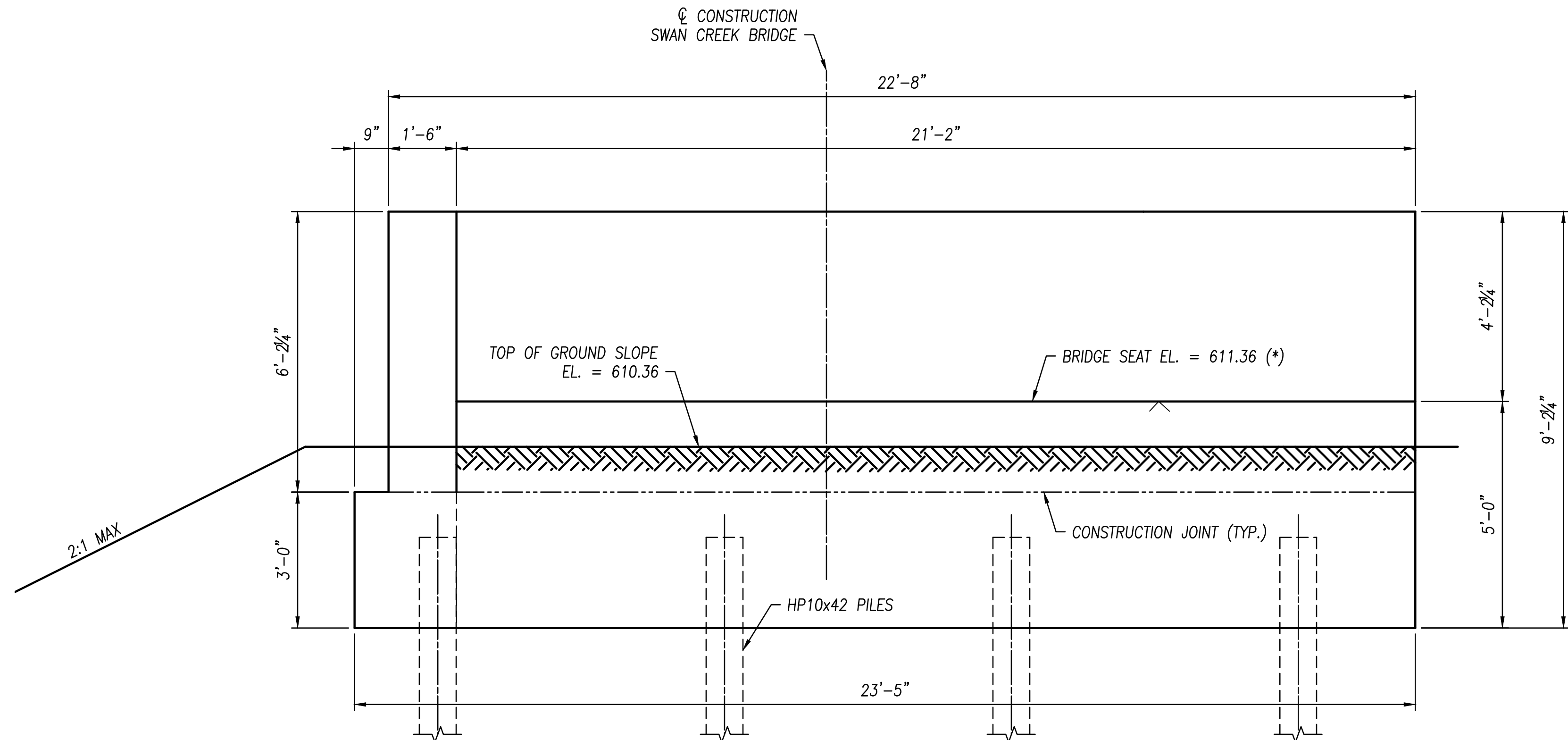
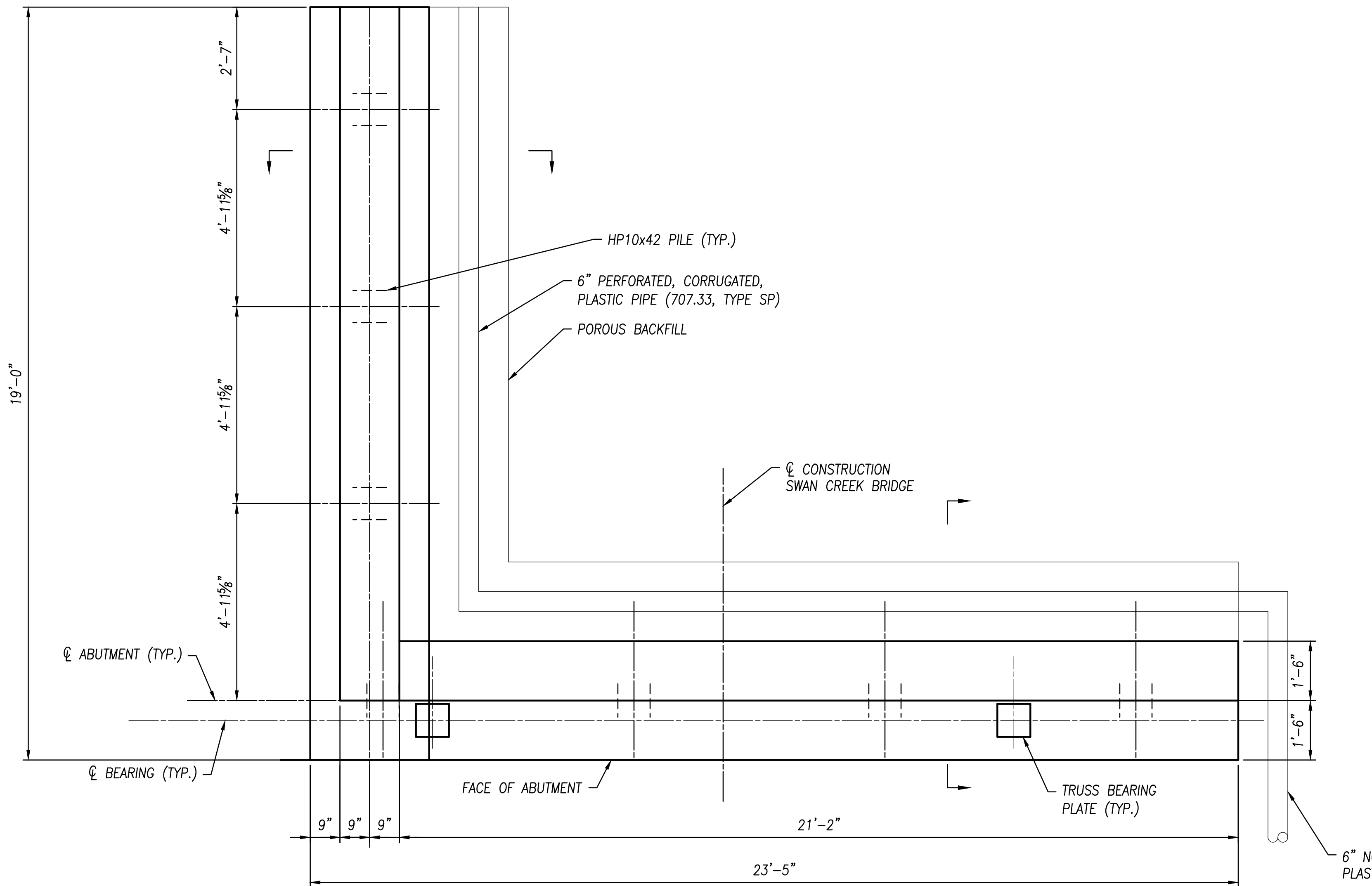
METROPARKS TOLEDO
SWAN CREEK CONNECTOR TRAIL
4301 AIRPORT HWY
TOLEDO, OHIO 43615
LUCAS COUNTY

GENERAL NOTES (1 OF 2)

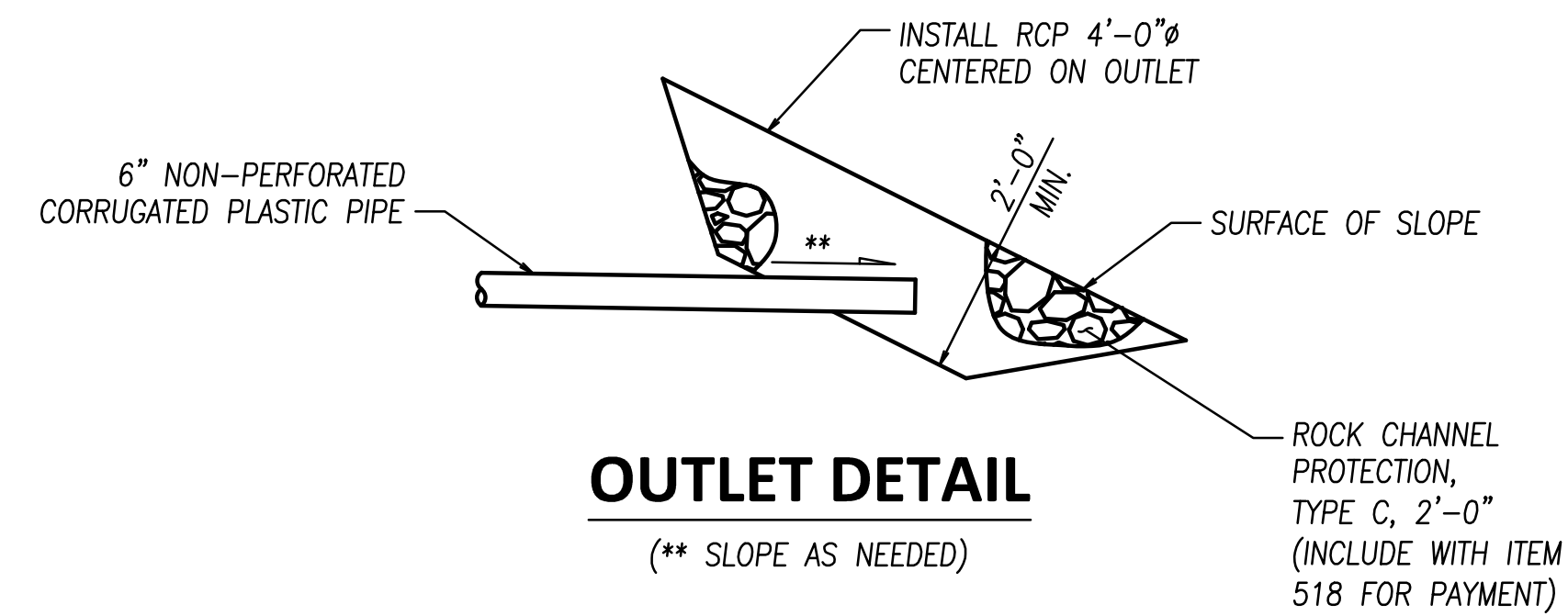
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S2

PLOTTED: Feb 27, 2020 -- 10:14am
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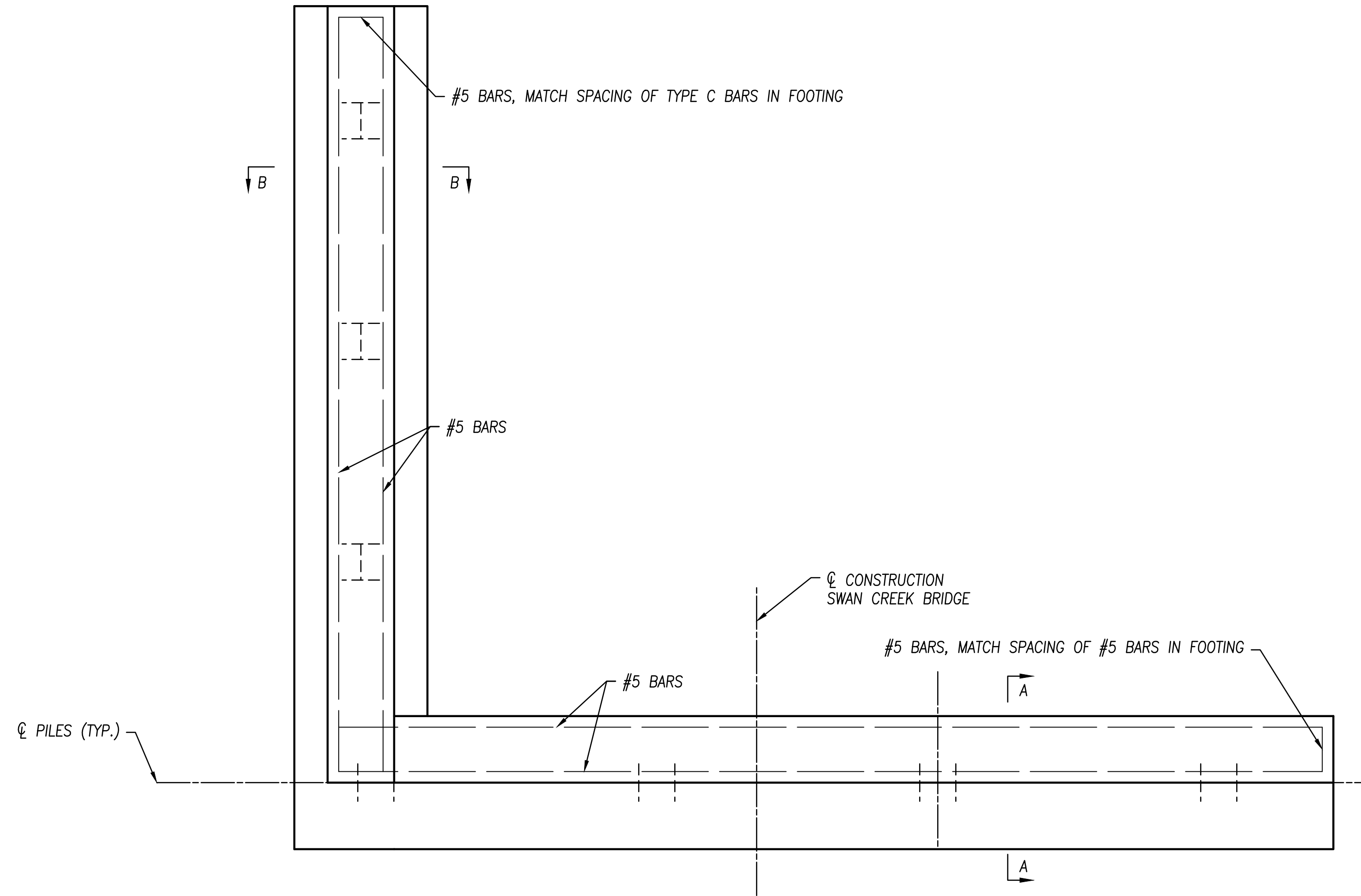


NOTES:
 (*) - BASED ON PREFABRICATED TRUSS SYSTEM DETERMINED



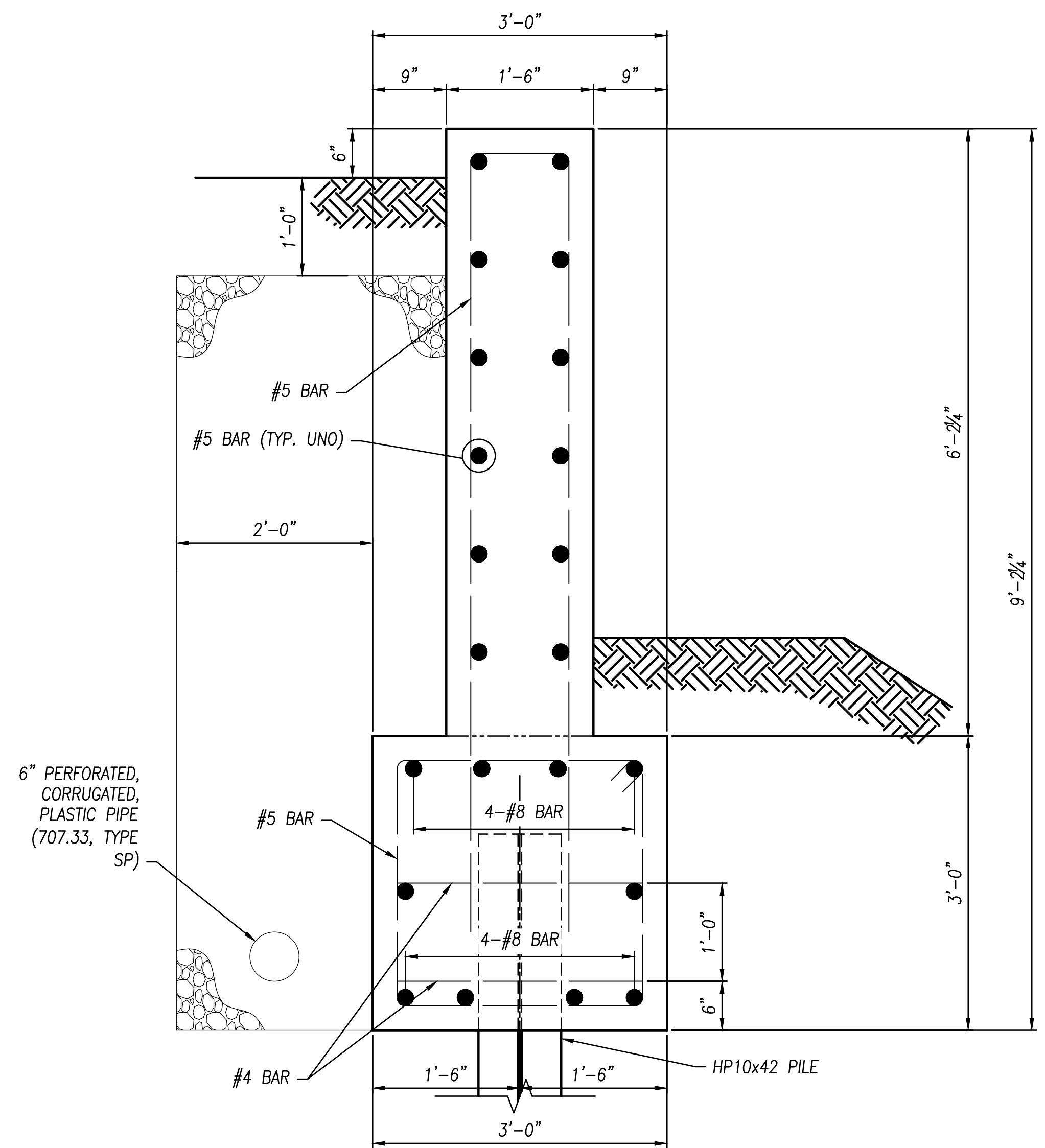
DGL CONSULTING ENGINEERS, LLC 3455 BRIARFIELD BLVD, SUITE E MAUMEE, OH 43537 PHONE: 419.535.1015 www.dgl-ltd.com	
METROPARKS TOLEDO SWAN CREEK CONNECTOR TRAIL 4301 AIRPORT HWY TOLEDO, OHIO 43615 LUCAS COUNTY	
ABUTMENT DETAILS	
FILE:	18147 SD.dwg
JOB NO.:	18147
DRAWN BY:	X
ISSUED:	FEB 27, 2020
S4	

PLOTTED: Feb 27, 2020 -- 10:14am
 DRAWING: M:\18147 (Metroparks - Swan Creek Connector Trail)\STRUCTURAL\Draw\18147 SD.dwg: S5 ABUTMENT DETAILS

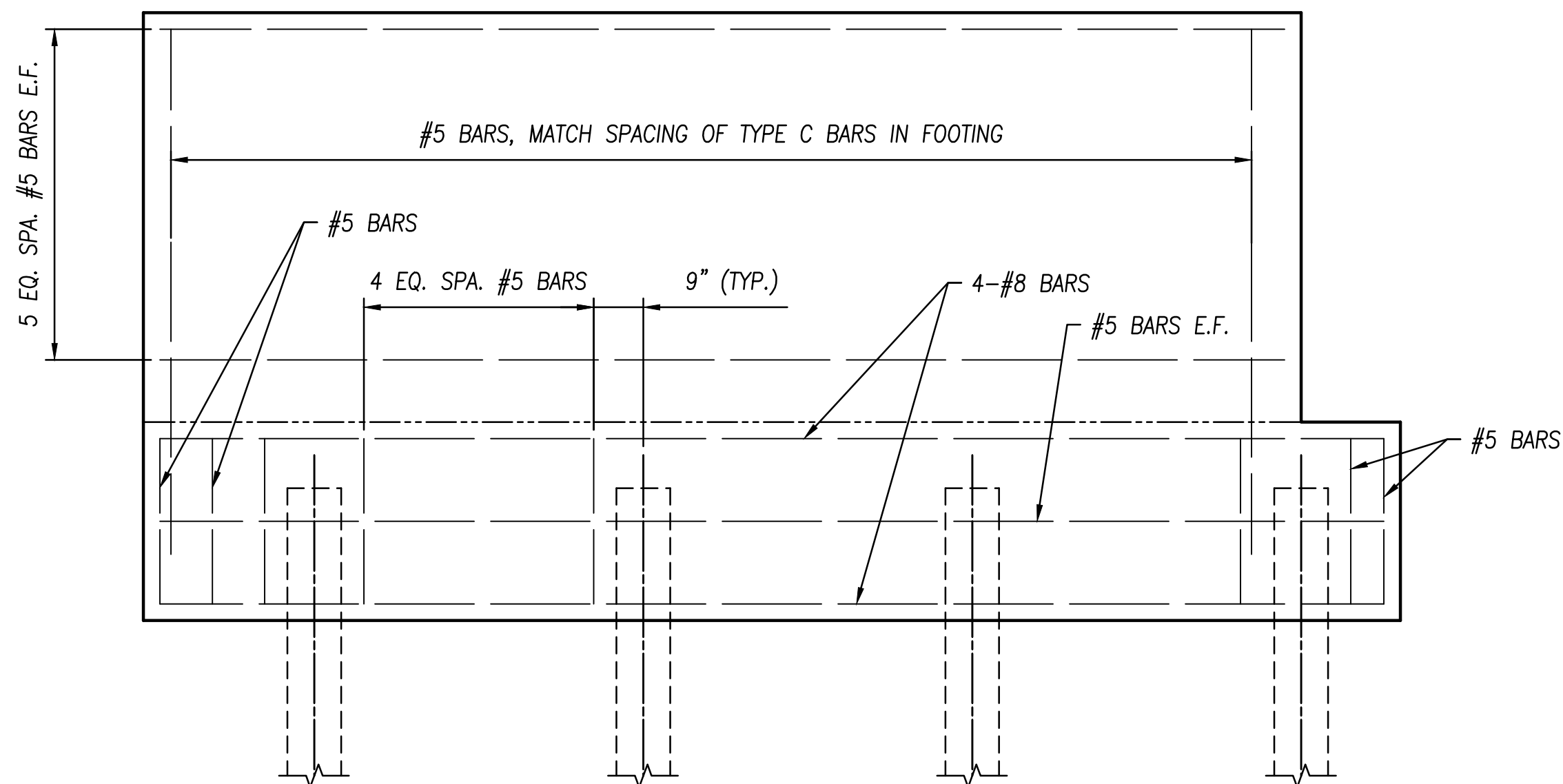


REAR ABUTMENT REINFORCING PLAN

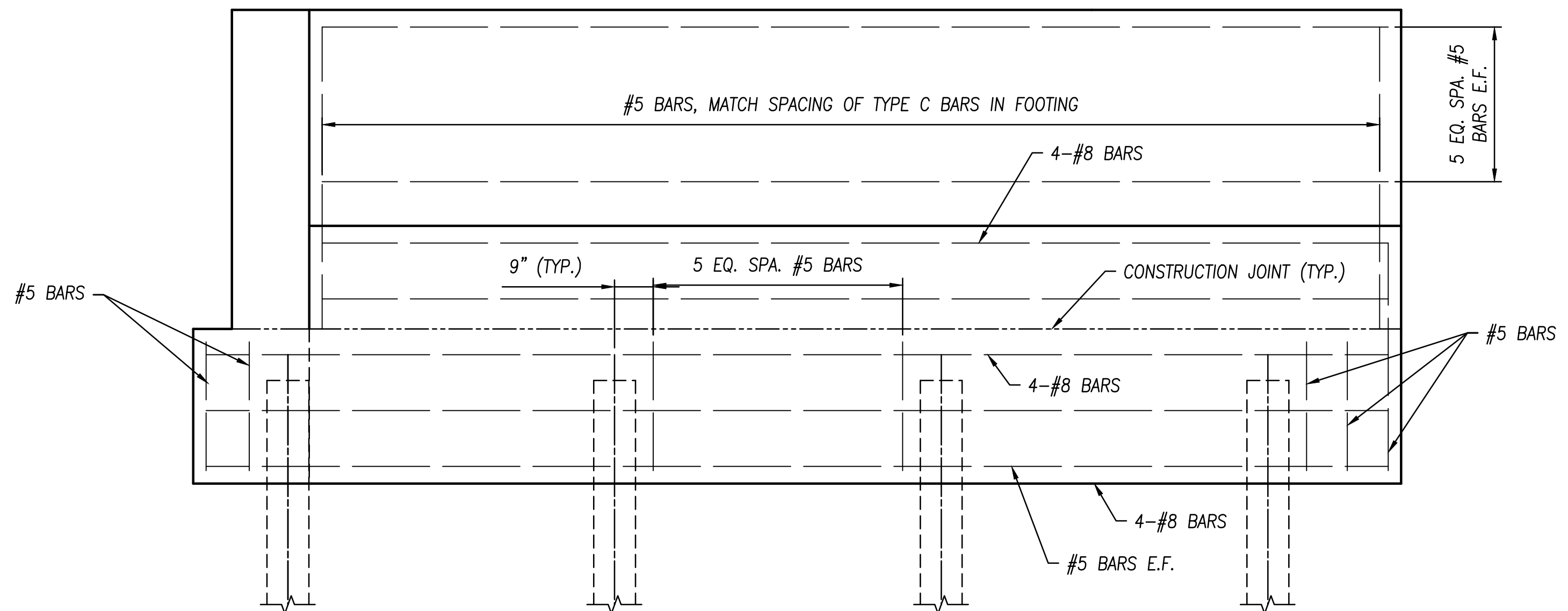
(FOR CLARITY, FOOTING STEEL IS NOT SHOWN)



SECTION B-B



WINGWALL REINFORCING ELEVATION



MAIN WALL REINFORCING ELEVATION

NOTES:
 - SEE SHEET S4 FOR BAR DIMENSIONS AND DETAILS NOT SHOWN



NO	REVISION	DATE
1	FOR CONSTRUCTION	02-27-20

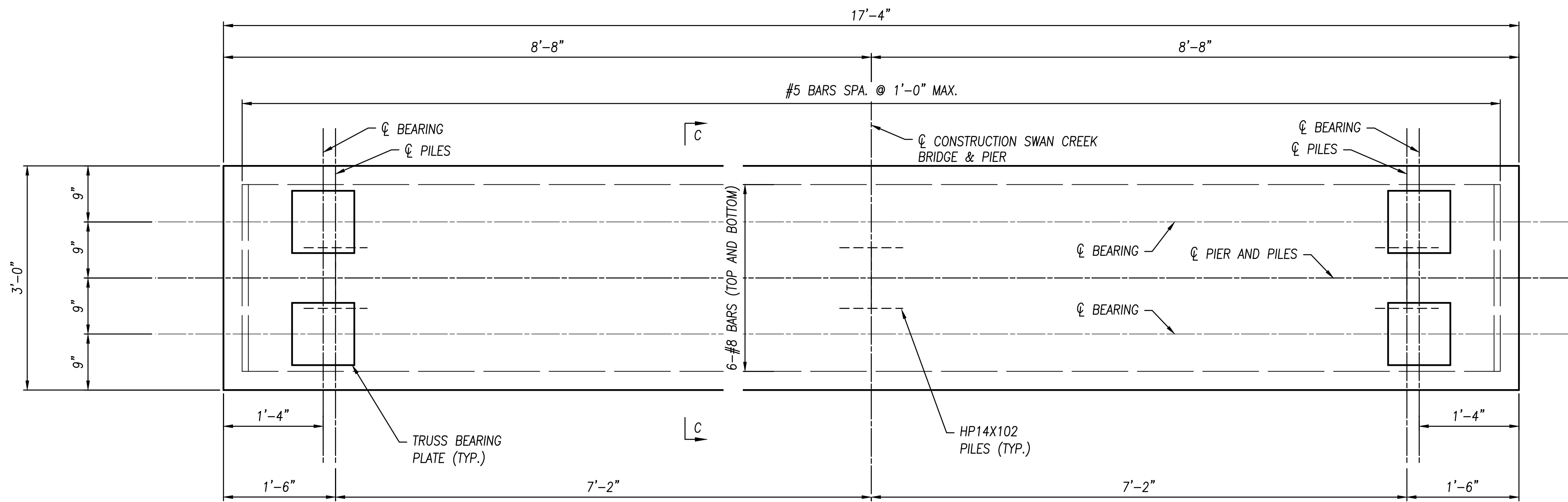


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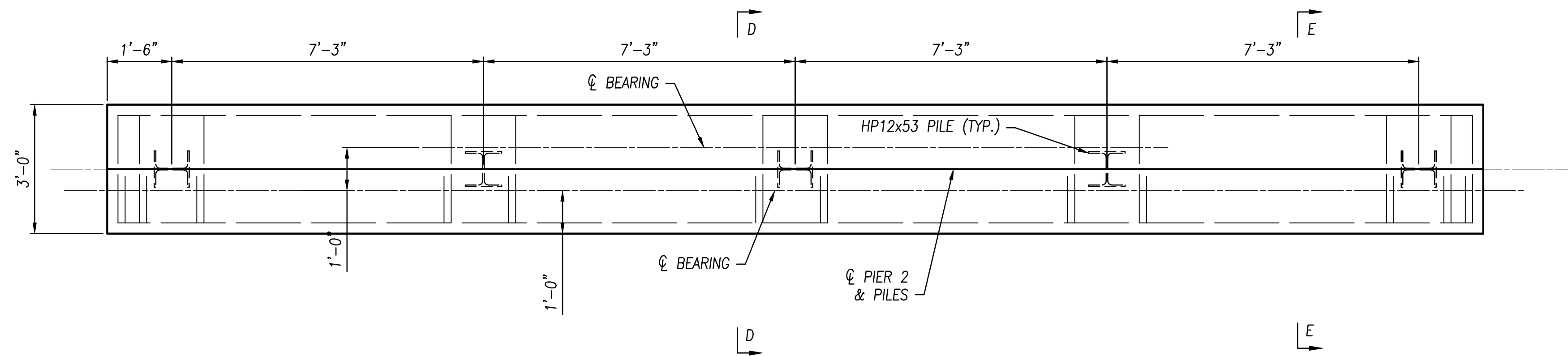
FILE: 18147 SD.dwg
 JOB NO.: 18147
 DRAWN BY: X
 ISSUED: FEB 27, 2020

S5

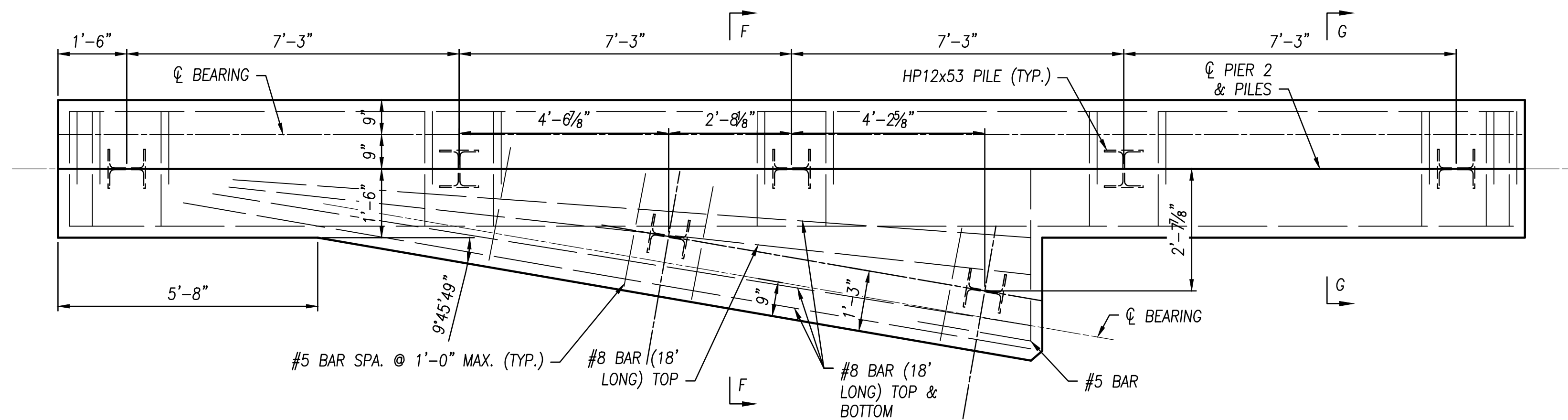
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 DRAWING: M:\18147 (Metroparks - Swan Creek Connector Trail)\STRUCTURAL\Draw\18147 SD.dwg: S6 PIER 1 2 3 DETAILS



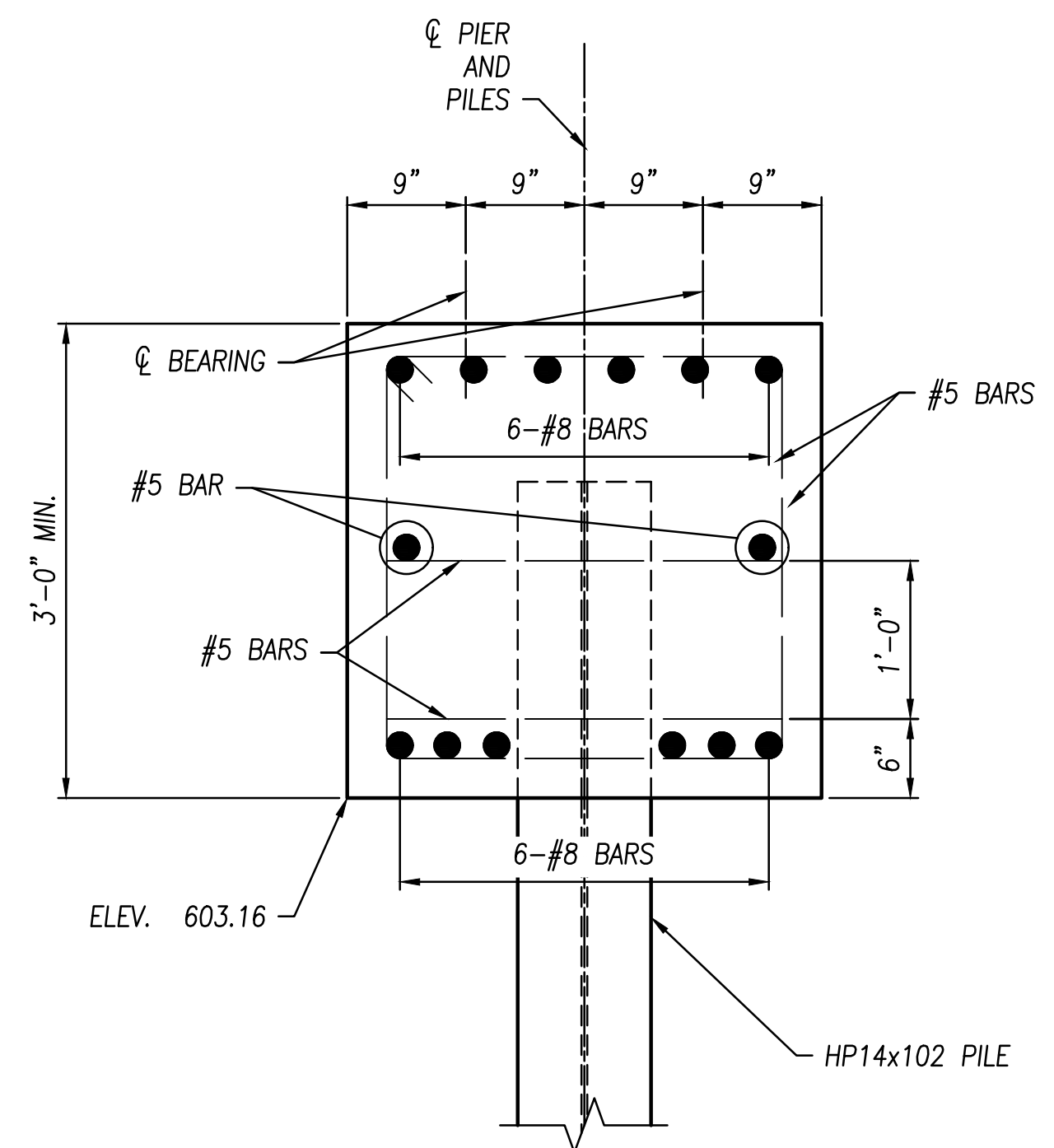
PIER 1 PLAN



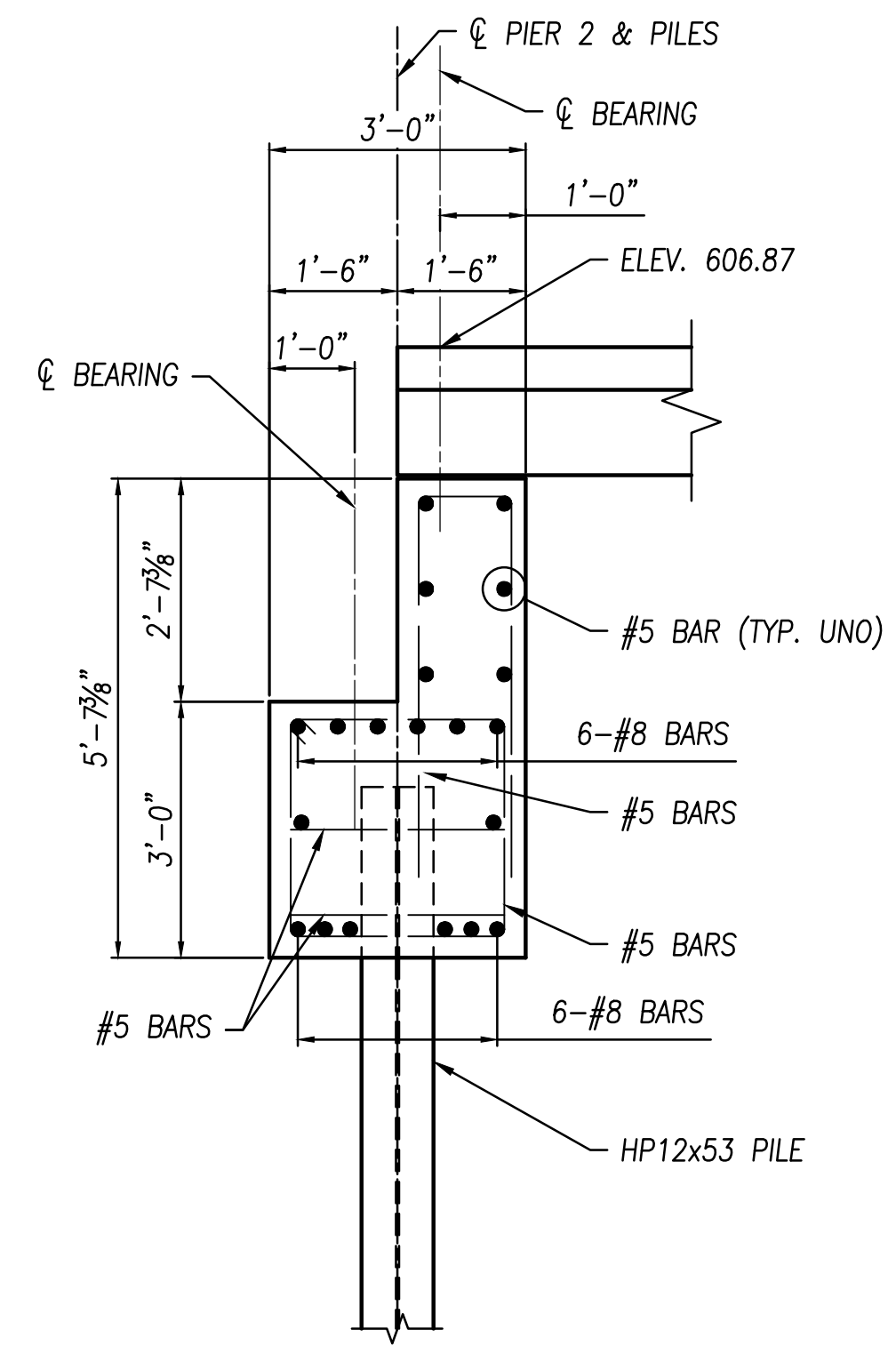
PIER 2 PLAN



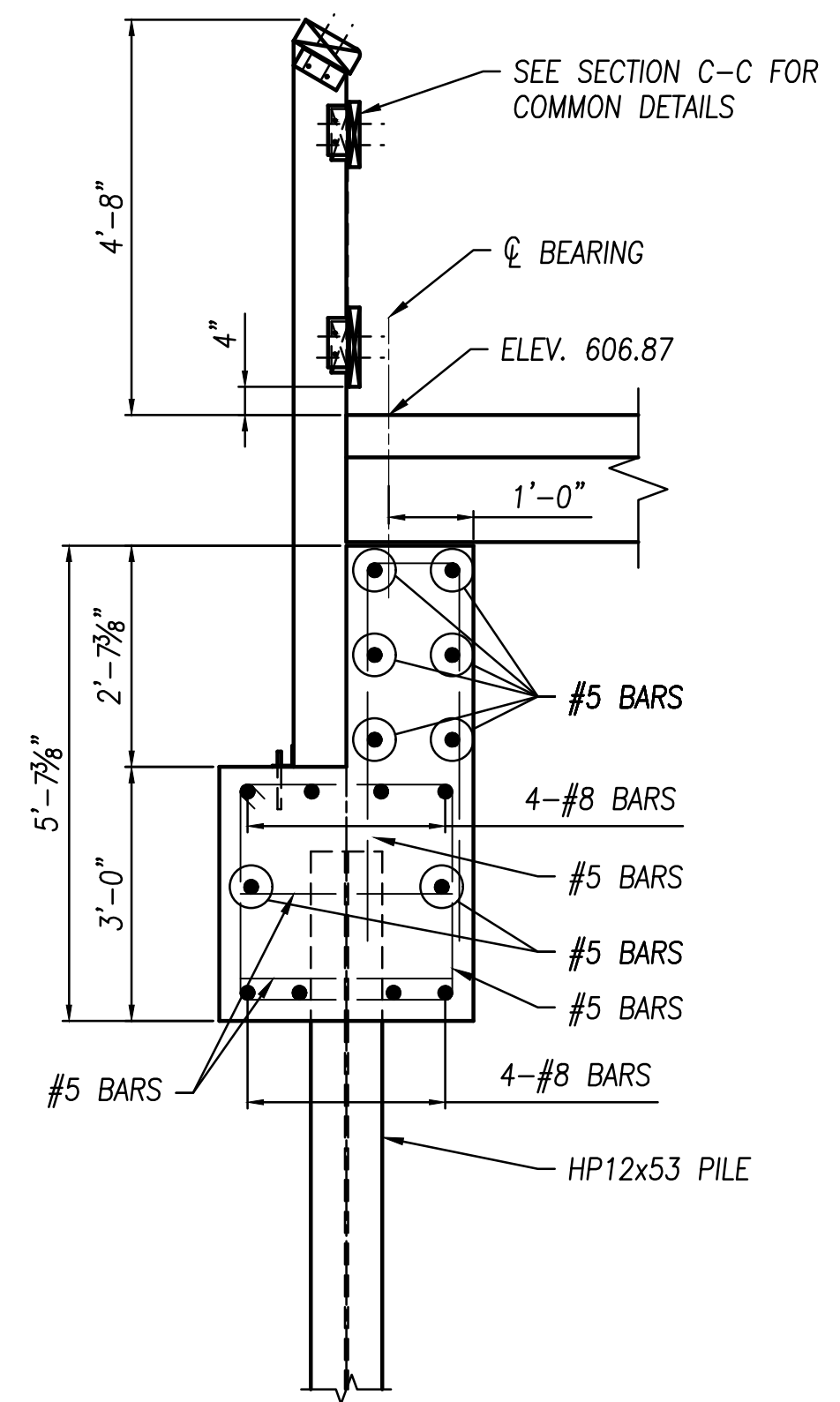
PIER 3 PLAN



SECTION C-C



SECTION D-D



SECTION E-E

NOTES:
 - SEE SHEET S9 FOR ADDITIONAL BRACING DETAILS



NO	REVISION	DATE
1	FOR CONSTRUCTION	02-27-20
2		
3		
4		
5		
6		
7		
8		
9		

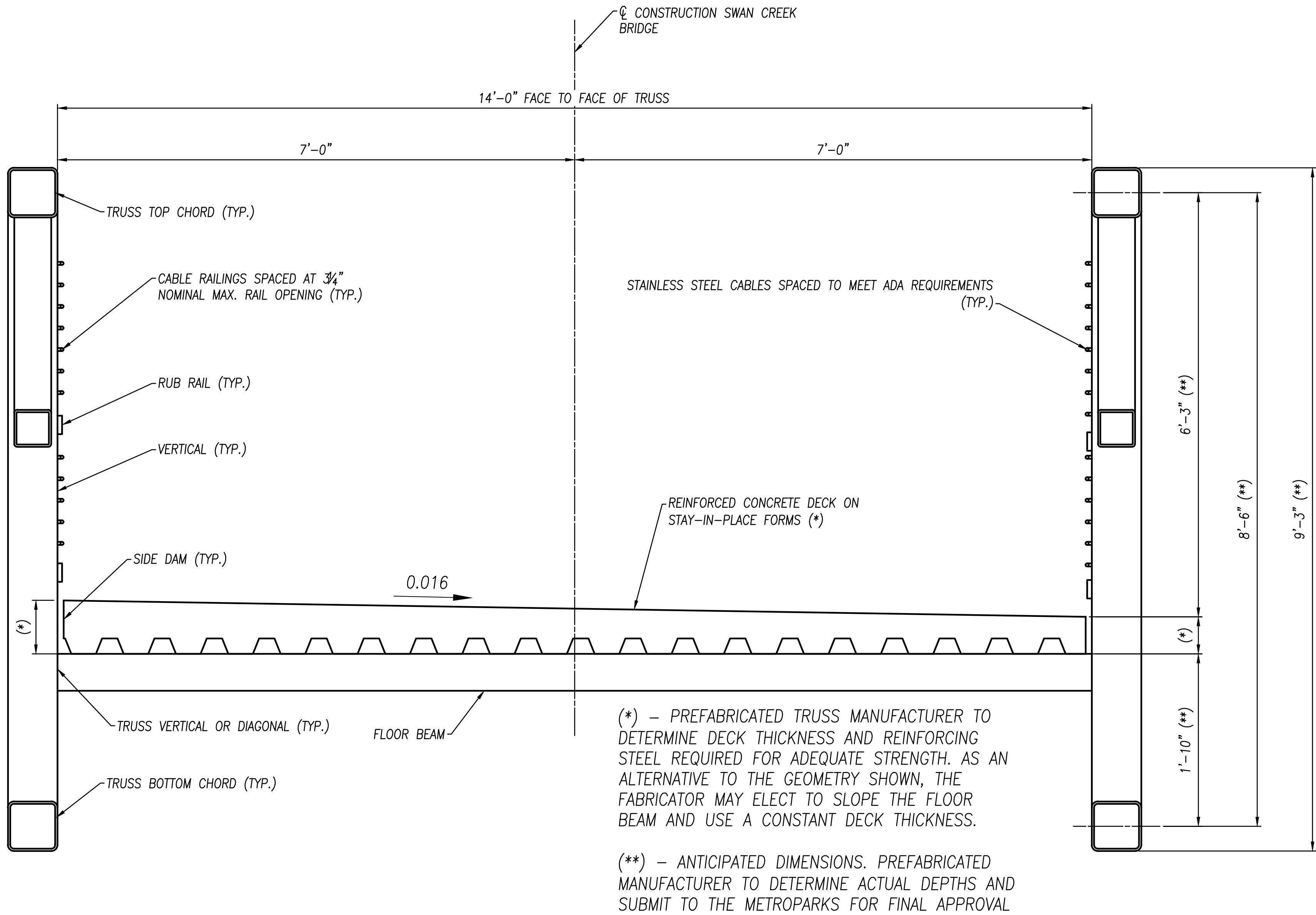


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FILE: 18147 SD.dwg
 JOB NO.: 18147
 DRAWN BY: SAH
 ISSUED: FEB 27, 2020

PIER 1, 2 & 3 DETAILS

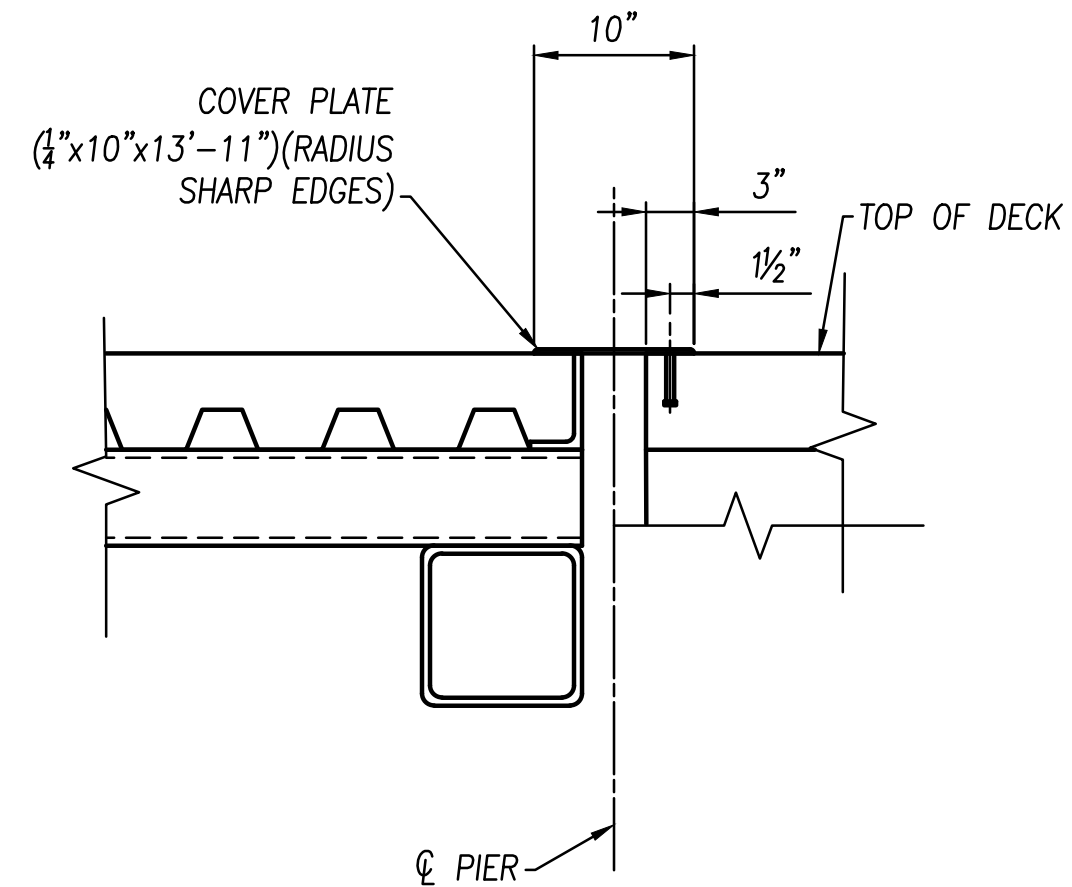
PLOTTED: Feb 27, 2020 -- 10:14am
DRAWING: M:\18147 (Metroparks - Swan Creek Connector Trail)\STRUCTURAL\Draw\18147 SD.dwg: S7 SUPERSTRUCTURE DETAILS



PREFABRICATED STRUCTURE SECTION

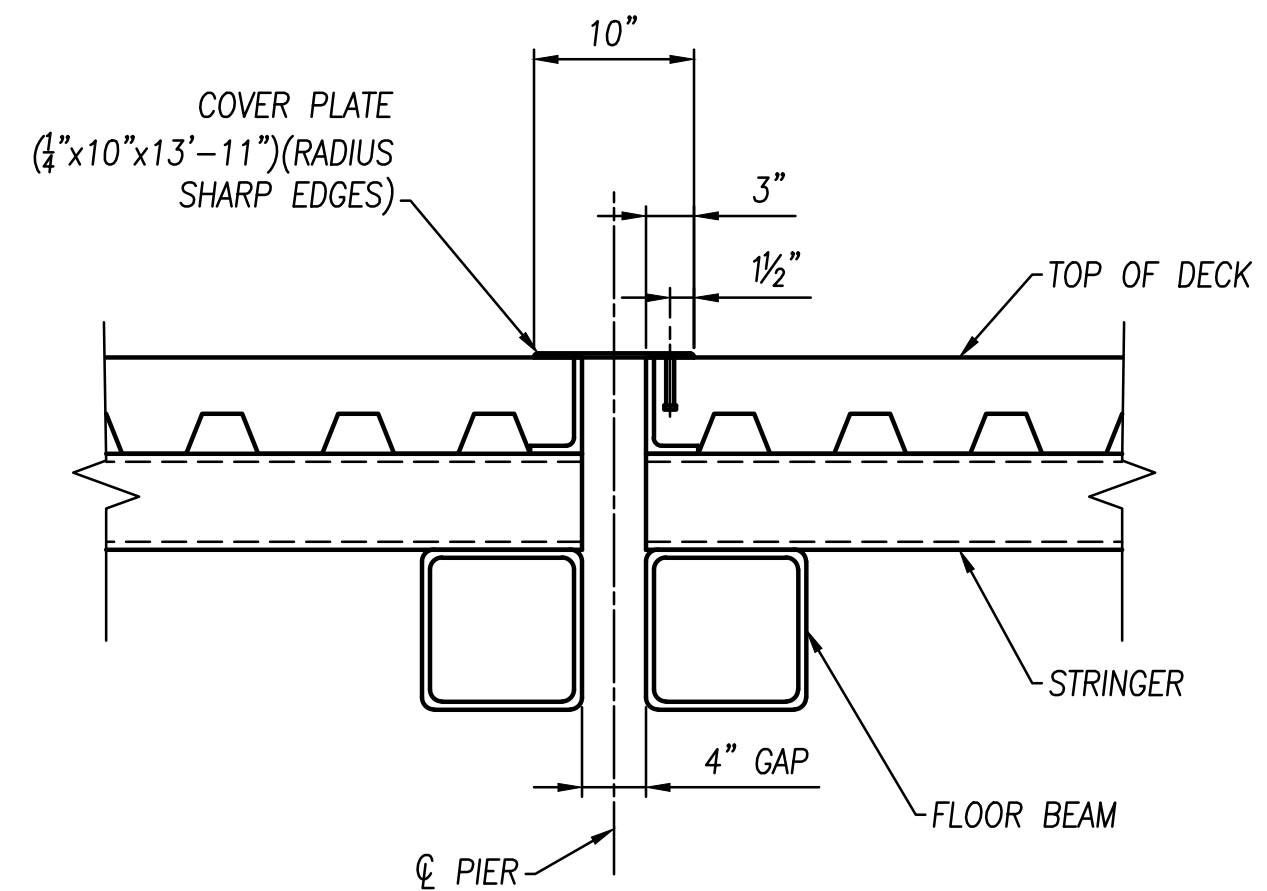
(SPANS 1 AND 2; REFER TO GENERAL NOTES FOR ADDITIONAL DETAILS NOT SHOWN)

NOTES:
- SEE SHEET S3 FOR ADDITIONAL NOTES AND DETAILS NOT SHOWN



END OF SPAN 2 TRUSS AT PIER 2

(END OF SPAN 1 TRUSS AT REAR ABUTMENT SIMILAR)



END OF TRUSSES AT PIER 1



NO	REVISION	DATE
9		
8		
7		
6		
5		
4		
3		
2		
1	FOR CONSTRUCTION	02-27-20



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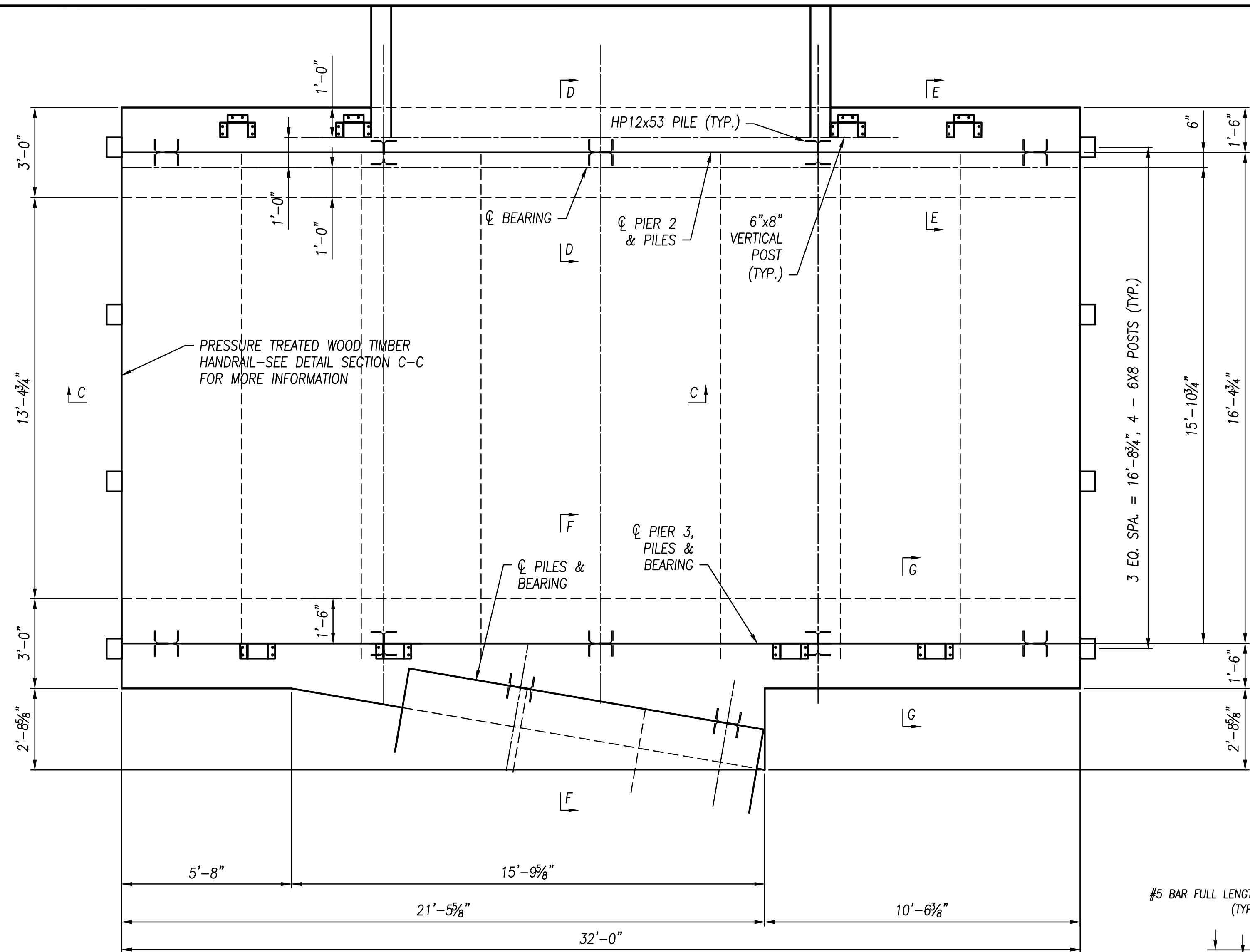
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TRUSS DETAILS

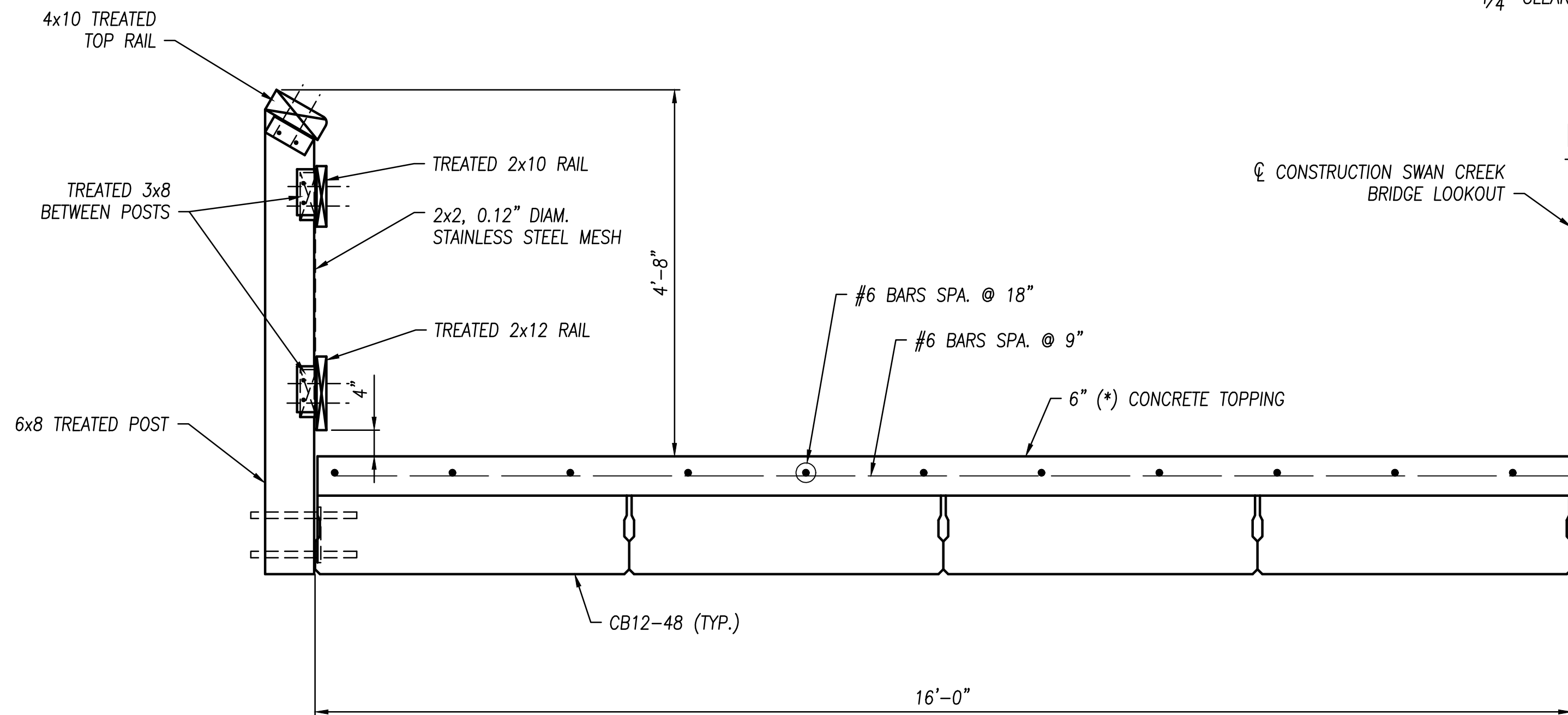
FILE: 18147 SD.dwg
JOB NO.: 18147
DRAWN BY: SAH
ISSUED: FEB 27, 2020

S7

PLOTTED: Feb 27, 2020 -- 10:14am
 DRAWING: M:\18147 (Metroparks - Swan Creek Connector Trail)\STRUCTURAL\Draw\18147 SD.dwg: S8 LOOKOUT DETAILS

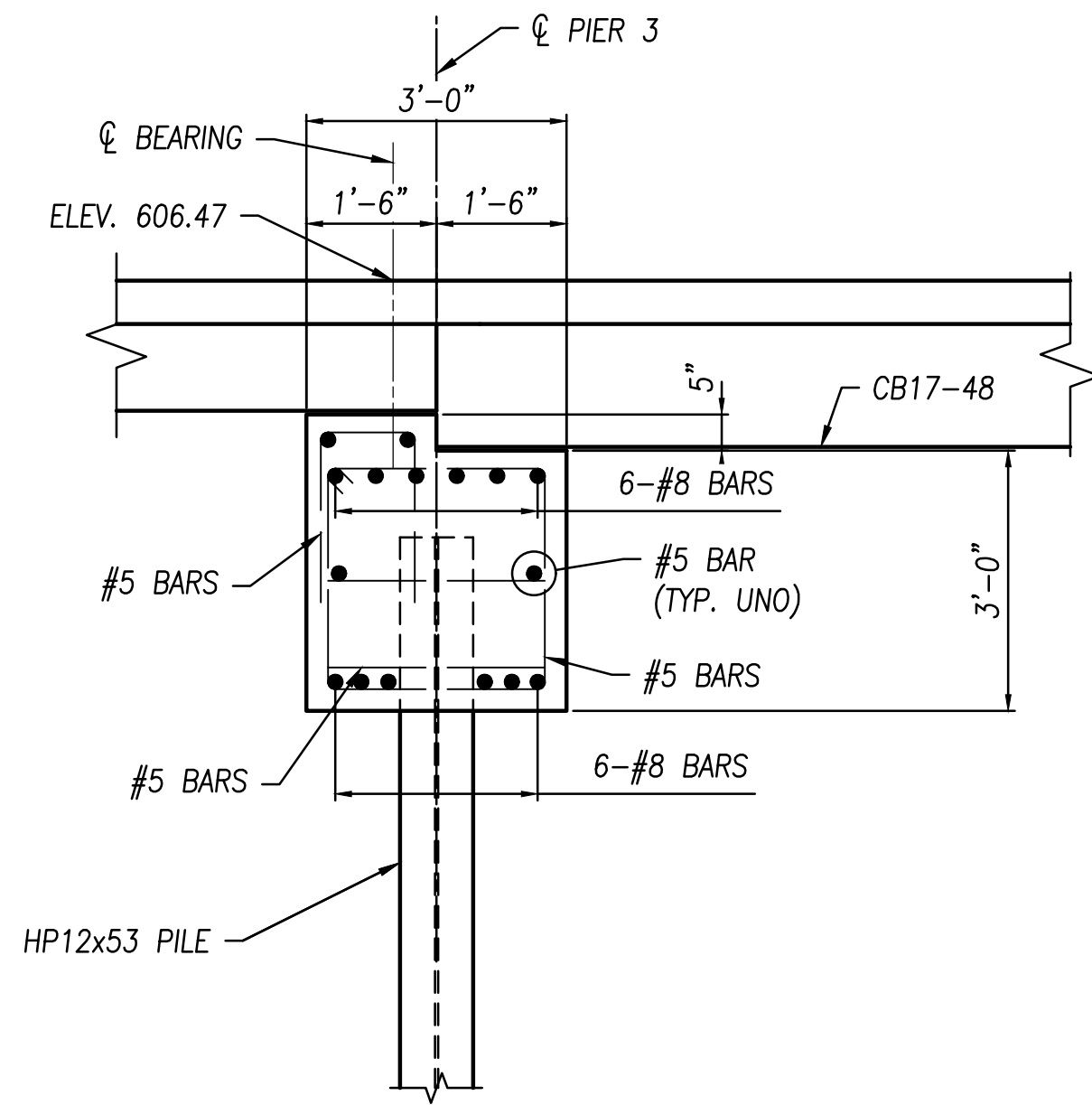


LOOKOUT PLAN

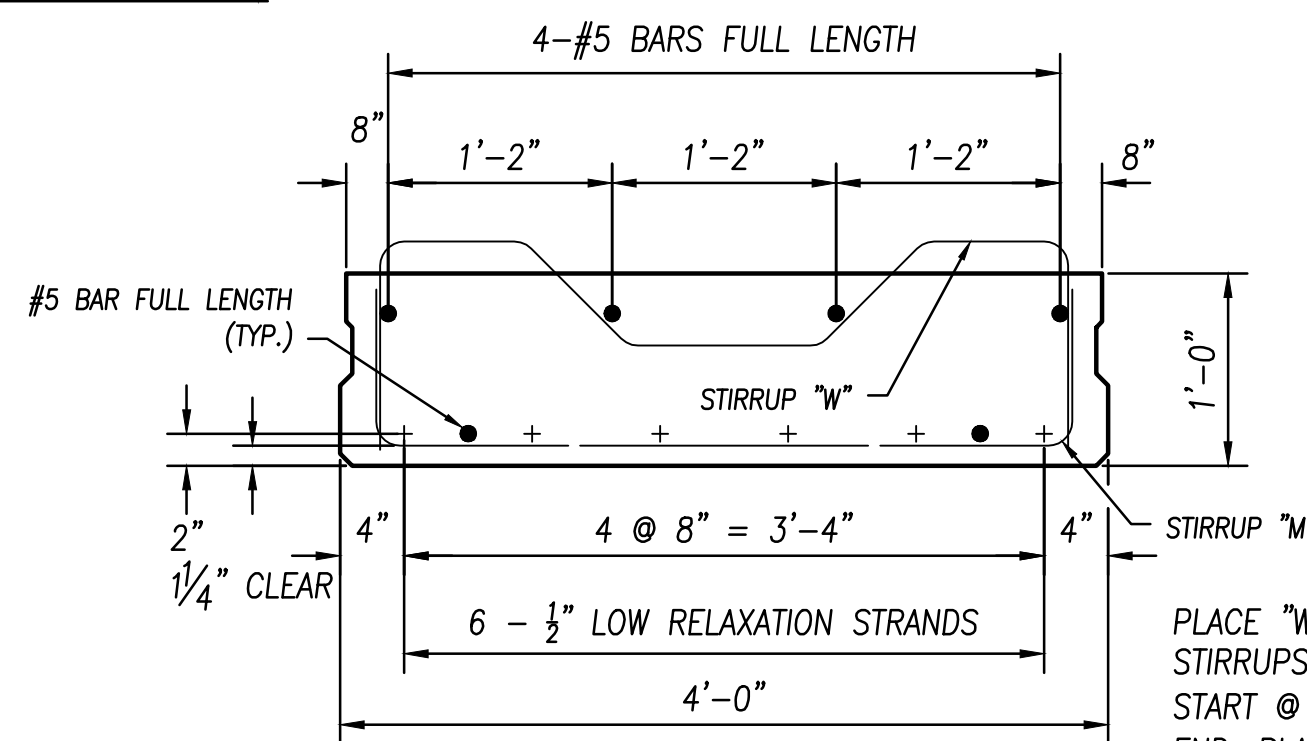


SECTION C-C

(*) - PLACE 6" CONCRETE AT EACH BEAM END, TRANSITION TO 6" DEPTH AT MID-SPAN

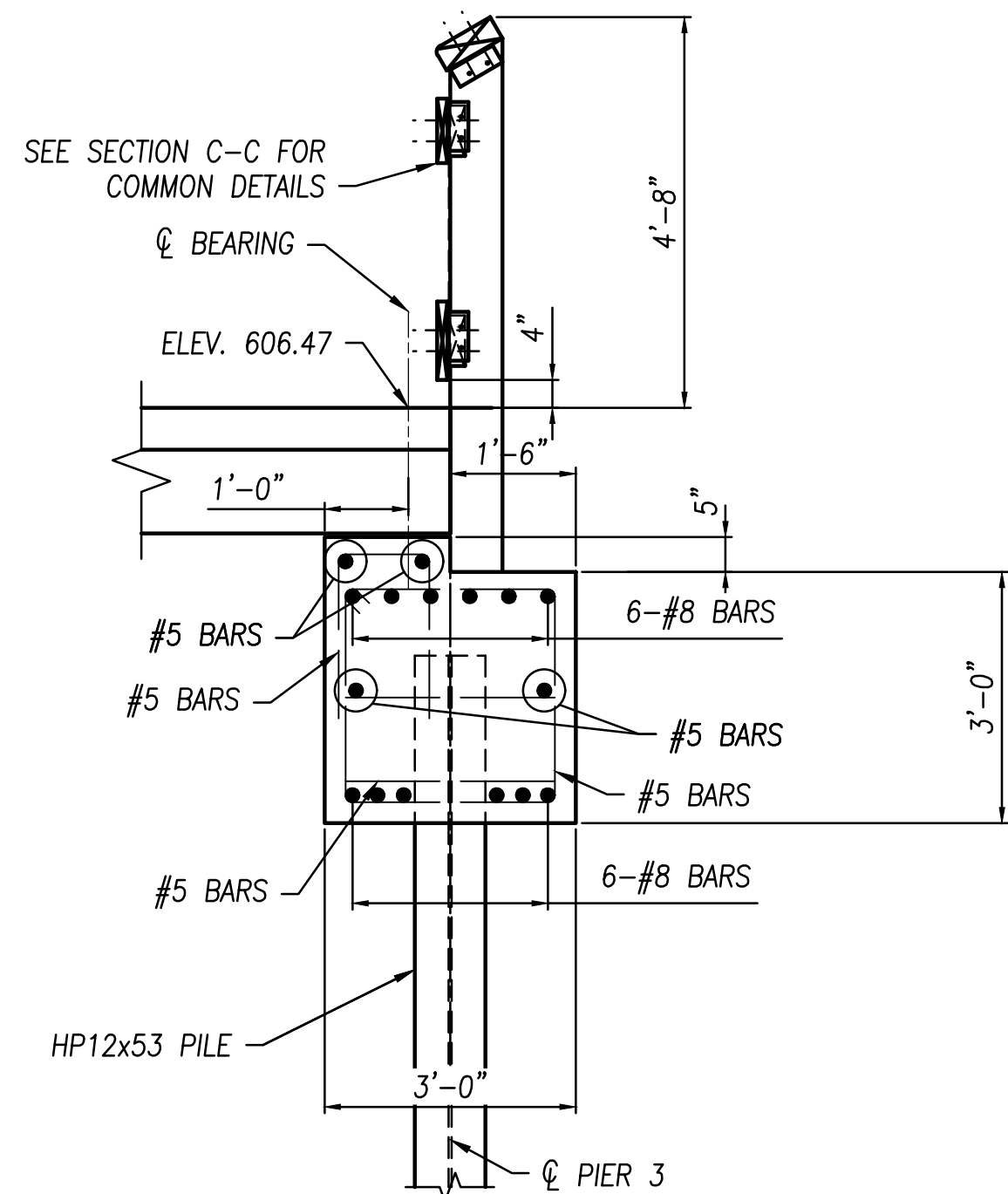


SECTION F-F



BEAM SECTION (CB12-48)
(SPAN 3)

PLACE "W" & "M" STIRRUPS TOGETHER. START @ 4" FROM EACH END. PLACE 4 AT 3" SPACING (EACH END). PLACE BOTH TOGETHER IN BETWEEN AT 10" (MAX.) SPACING.



SECTION G-G



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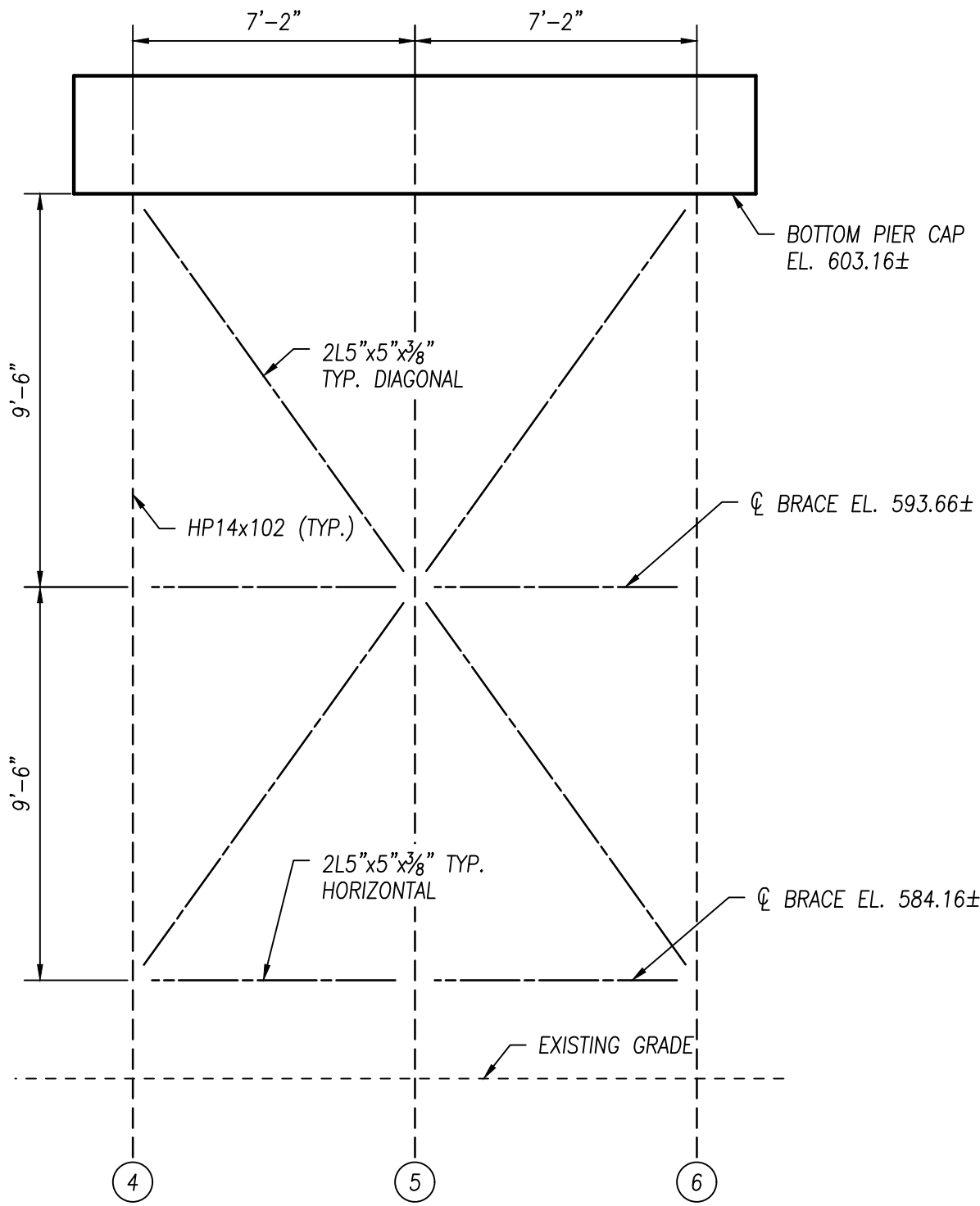
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LOOKOUT PLAN AND DETAILS

FILE: 18147 SD.dwg
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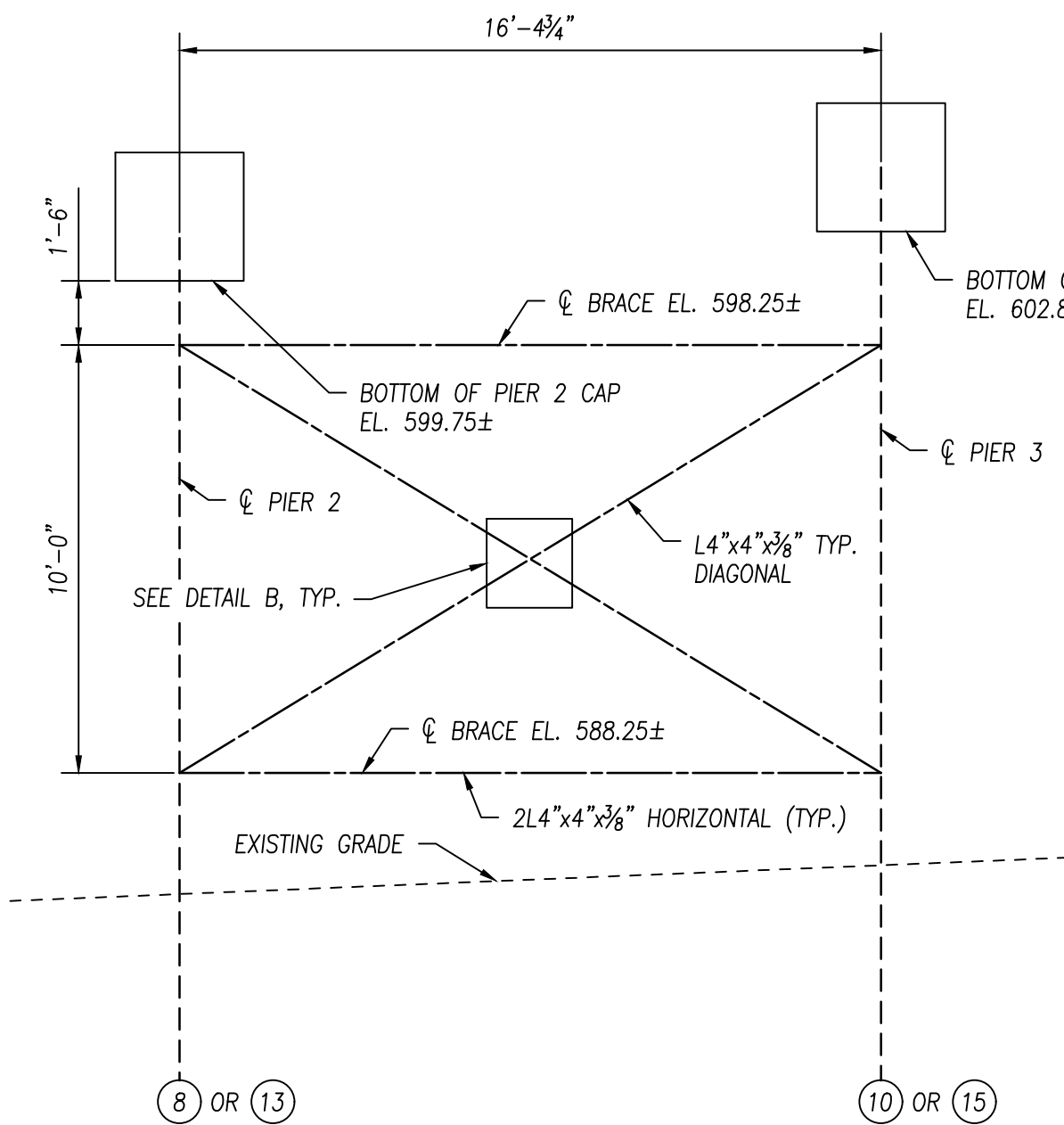
S8

PLOTTED: Feb 28, 2020 -- 8:05am
 DRAWING: M:\18147 (Metroparks - Swan Creek Connector Trail)\STRUCTURAL\Draw\18147 SD-SAM.dwg: S9 ABUTMENT DETAILS-SAM



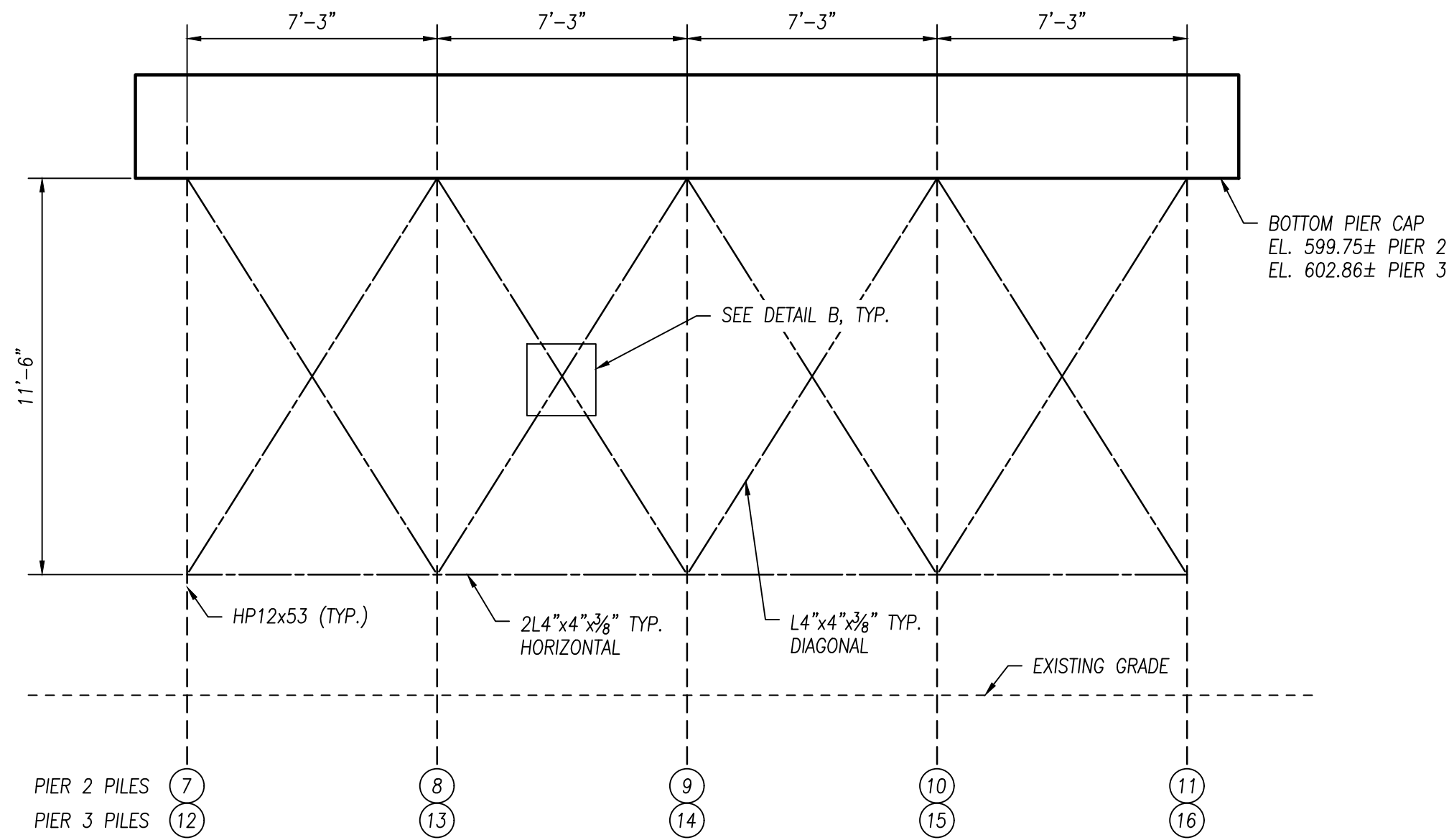
PIER 1 BRACING

(SCHEMATIC ONLY, NOT TO SCALE)



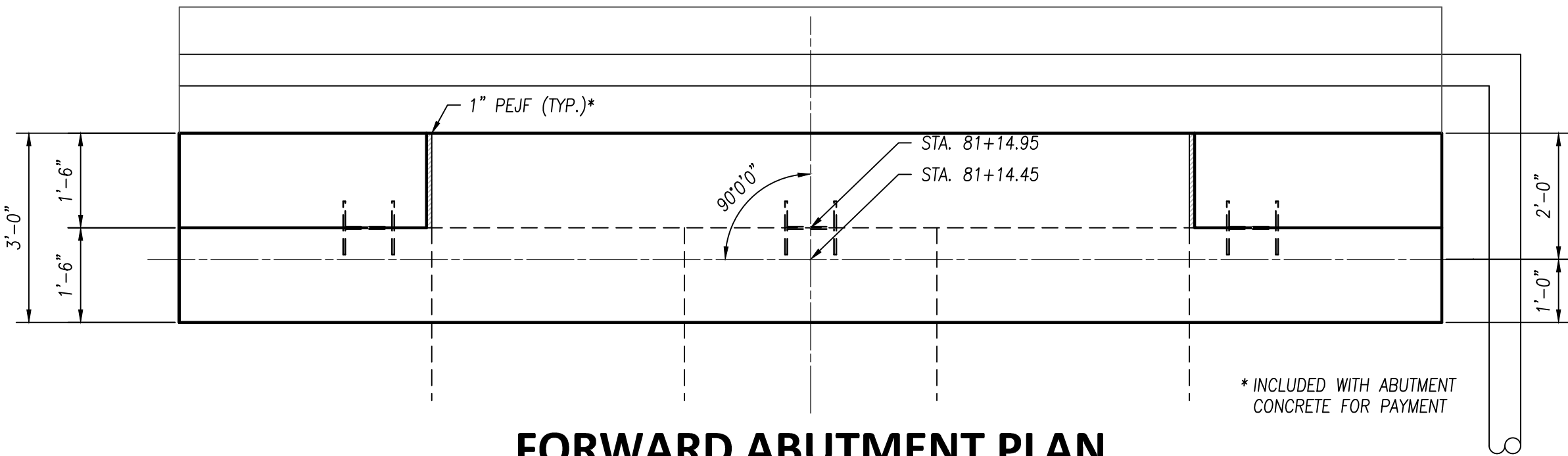
PIER 2 TO PIER 3 BRACING

(ONLY REQUIRED TO CREATE BRACED FRAME BETWEEN PILES 8 AND 13 AS WELL AS 10 AND 15)
(SCHEMATIC ONLY, NOT TO SCALE)

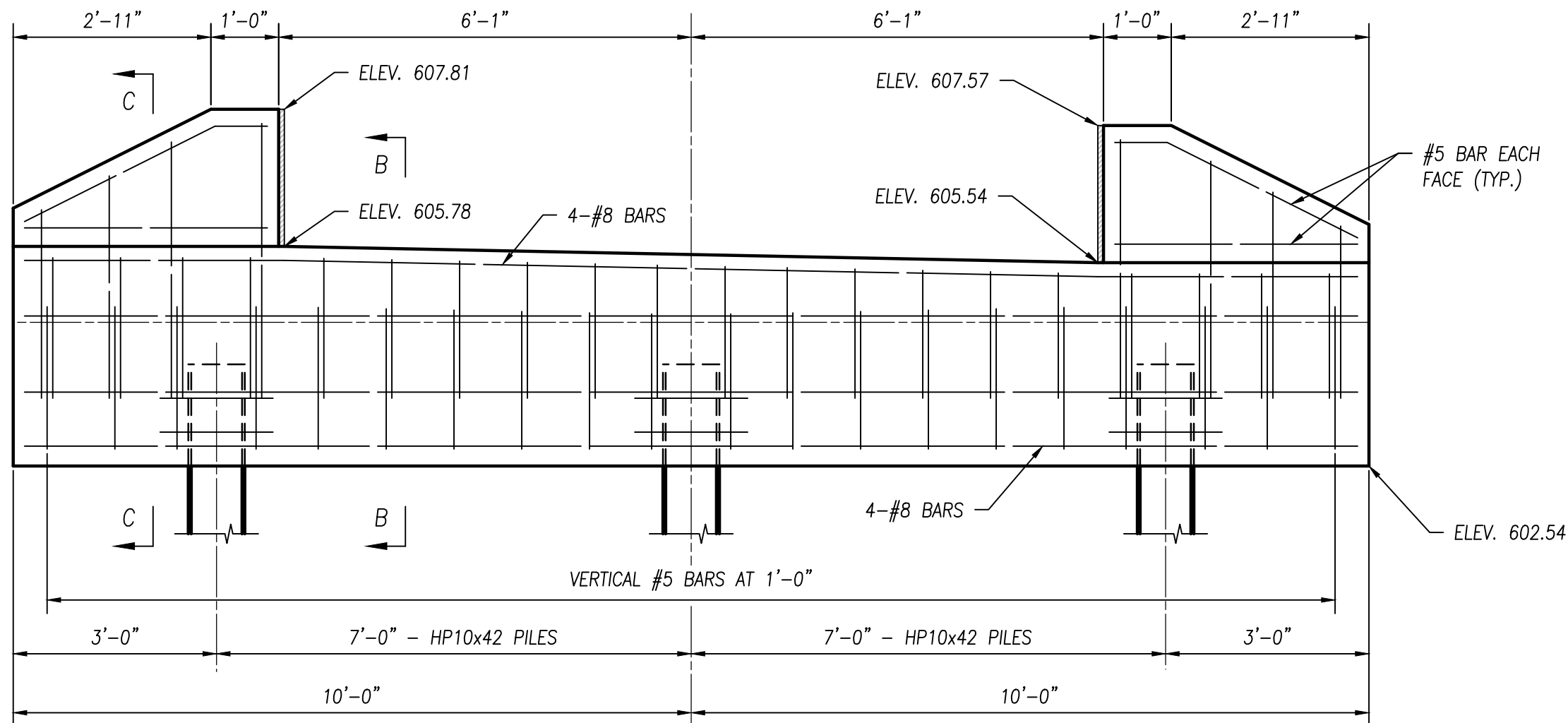


PIER 2 & 3 BRACING

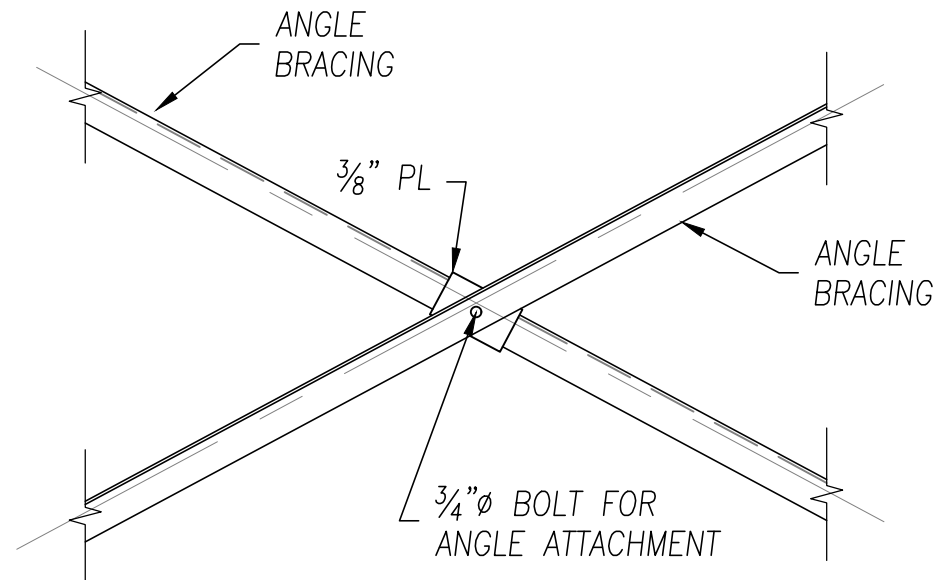
(SCHEMATIC ONLY, NOT TO SCALE)



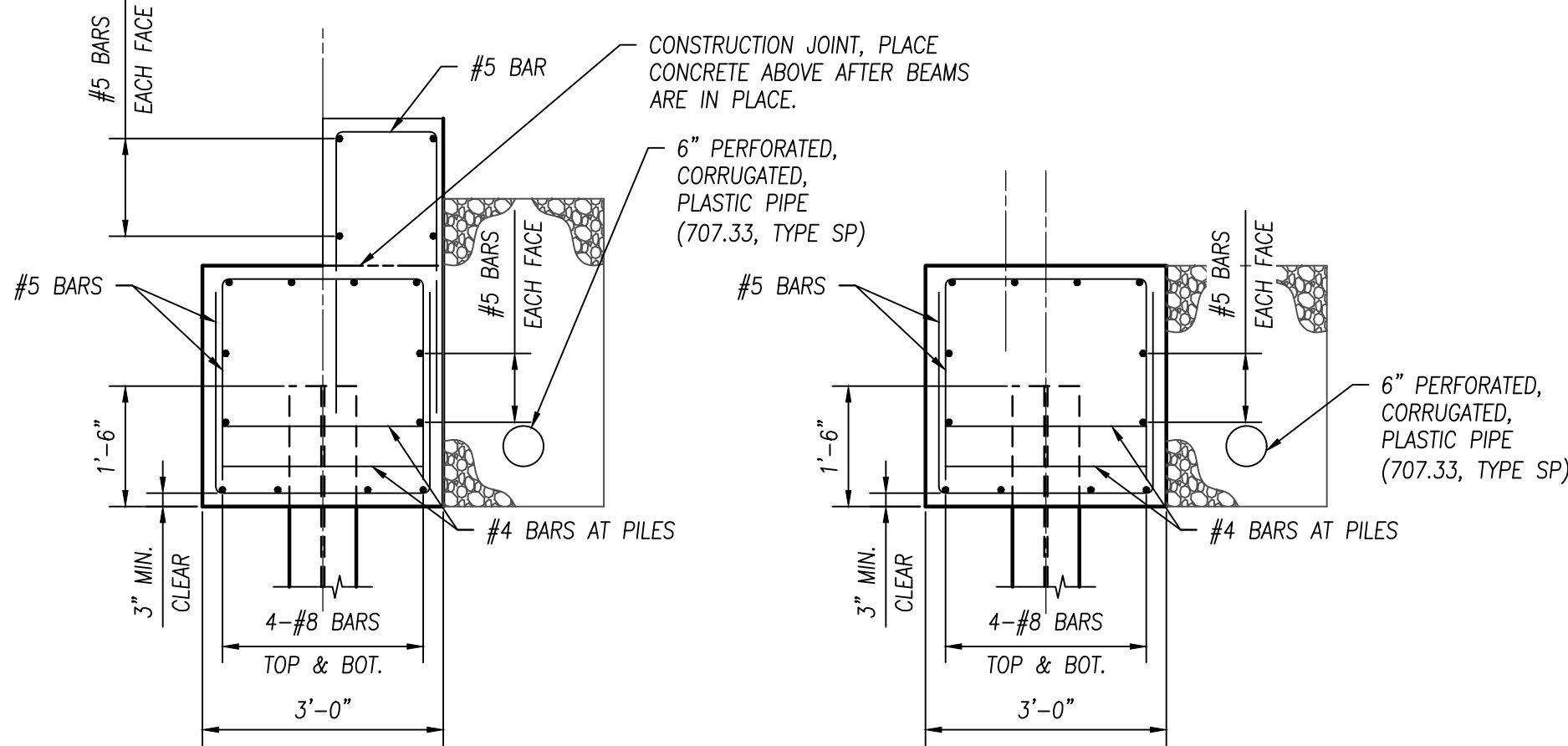
FORWARD ABUTMENT PLAN



FORWARD ABUTMENT ELEVATION



DETAIL B



SECTION C-C

SECTION B-B

PILE LENGTH TABLE			
LOCATION	TOP OF PILE ELEVATION	ESTIMATED PILE LENGTH (FT.)	PILE ORDER LENGTH (FT.)
REAR ABUT.	608.36	25	30
PIER 1	605.16	75 (*)	80 (*)
PIER 2	601.75	40	45
PIER 3	603.86	40	45
PIER 4	603.50	40	45
PIER 5	602.95	40	45
PIER 6	601.90	40	45
PIER 7	600.87	40	45
PIER 8	600.46	40	45
PIER 9	600.04	40	45
PIER 10	599.63	40	45
PIER 11	599.63	40	45
PIER 12	599.63	40	45
PIER 13	600.24	40	45
PIER 14	600.87	40	45
PIER 15	601.49	40	45
PIER 16	602.74	40	45
PIER 17	604.01	40	45
FWD. ABUT.	604.78	40	45

(*) - PILES ARE TO BE DRIVEN TO REFUSAL ON BEDROCK (LENGTH BASED ON ESTIMATED BEDROCK ELEVATIONS)



NO	REVISION	DATE
9		
8		
7		
6		
5		
4		
3		
2		
1	FOR CONSTRUCTION	02-27-20



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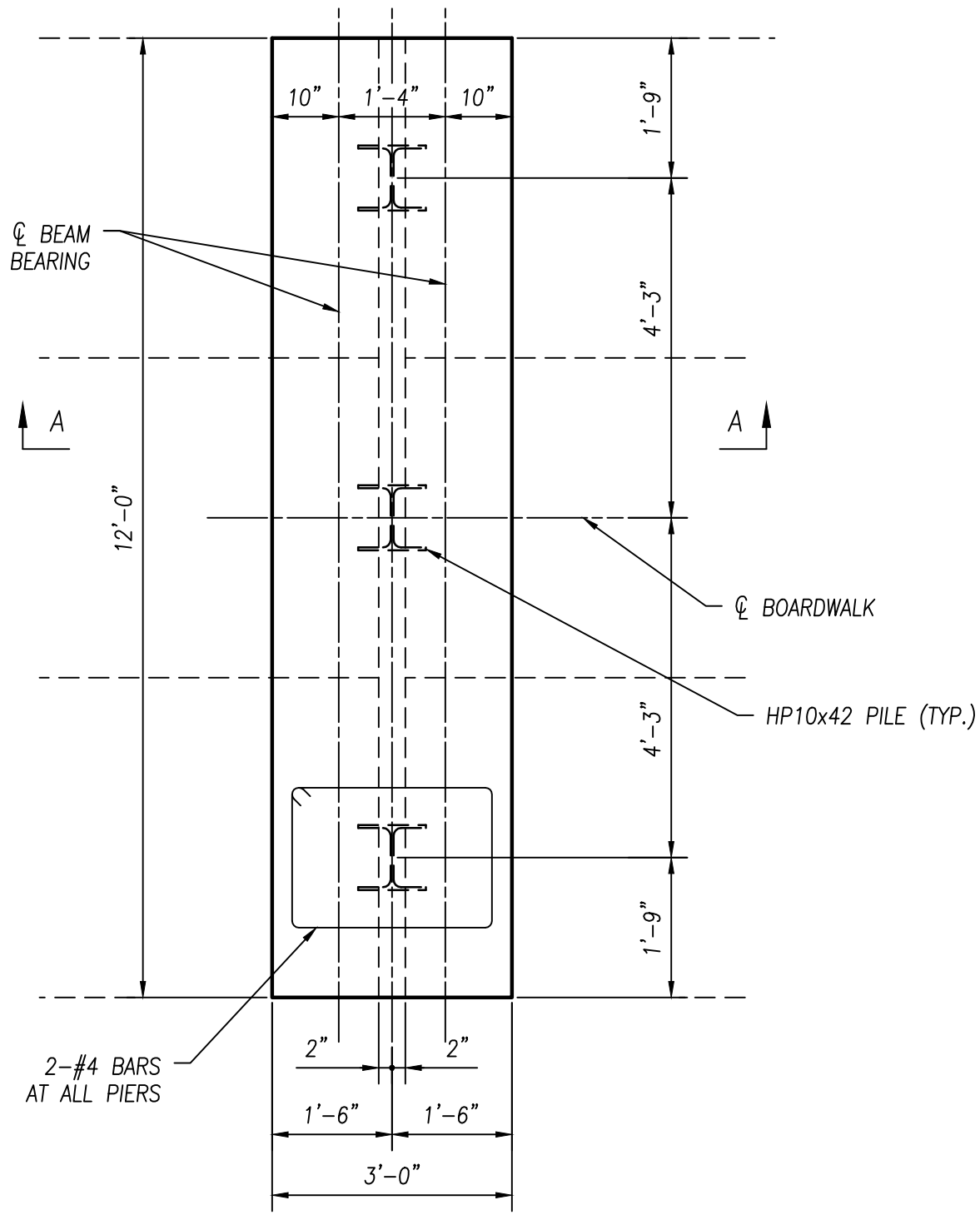
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LUCAS COUNTY

BOARDWALK ABUTMENT DETAILS

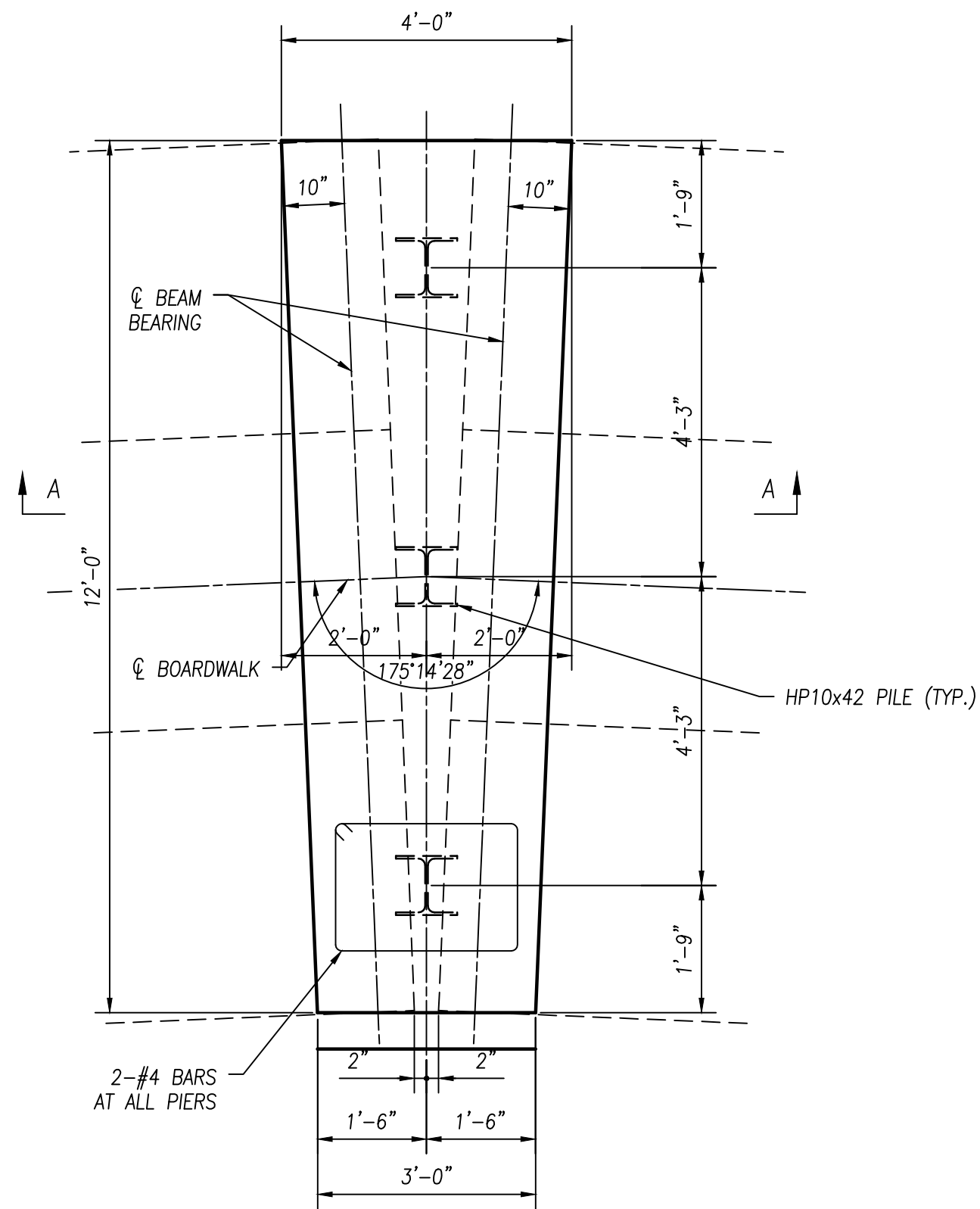
FILE: 18147 SD-SAM.dwg
JOB NO.: 18147
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S9

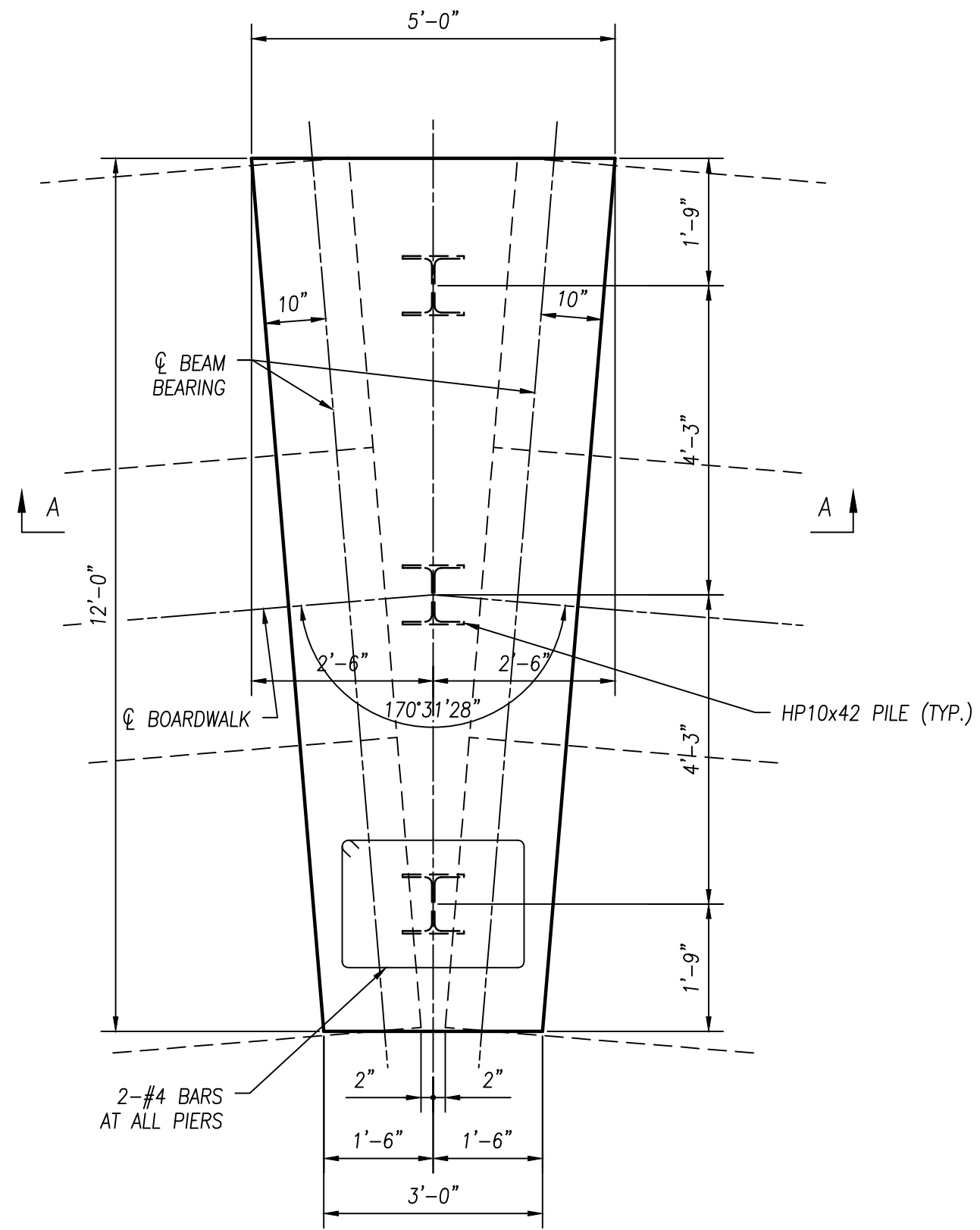
PLOTTED: Feb 28, 2020 -- 7:49am
 DRAWING: M:\18147 (Metroparks - Swan Creek Connector Trail)\STRUCTURAL\Draw\18147 SD-SAM.dwg: S10 PIER DETAILS-SAM



PIER PLAN (NO SKEW)
 (TYPE 1 - 2 LOCATIONS)

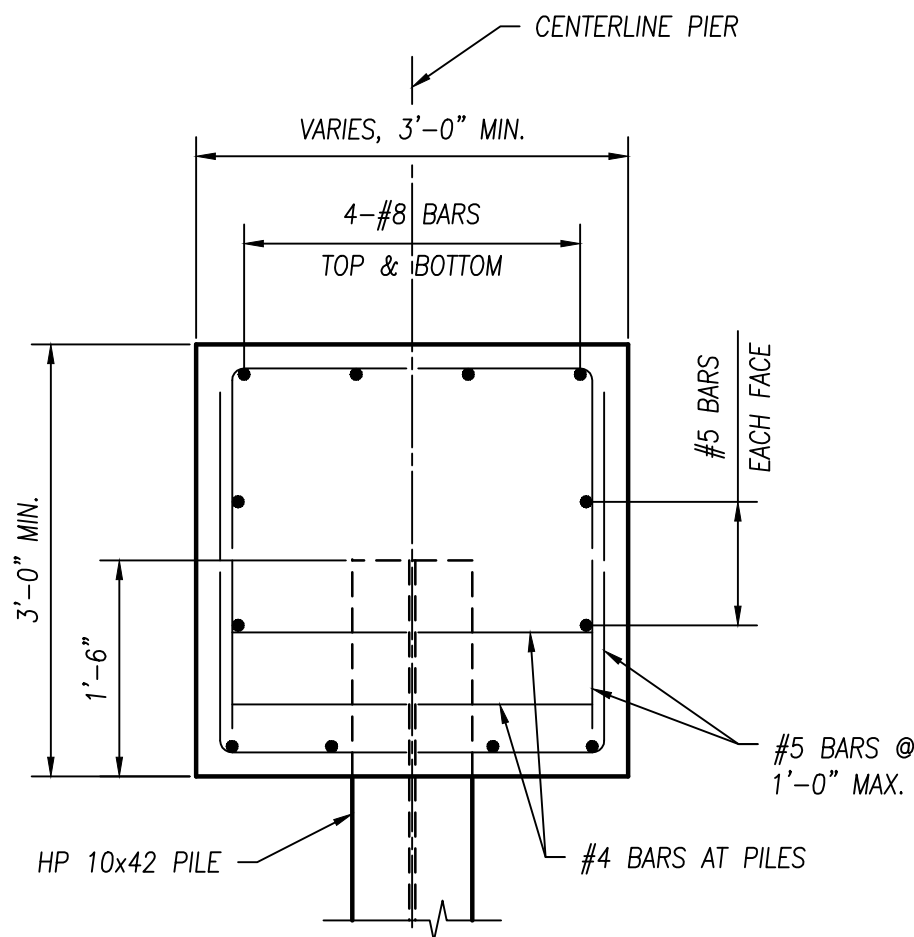


PIER PLAN (4°45'32" SKEW)
 (TYPE 2 - 10 LOCATIONS)



PIER PLAN (9°28'32" SKEW)
 (TYPE 3 - 2 LOCATIONS)

PIER INFORMATION		
PIER	TYPE	STATION
4	2	75+46.52
5	2	75+88.37
6	2	76+30.23
7	1	76+71.82
8	2	77+13.42
9	2	77+55.27
10	2	77+97.13
11	2	78+38.99
12	2	78+80.84
13	2	79+22.70
14	1	79+64.29
15	3	80+06.15
16	3	80+48.52
17	2	80+90.64



SECTION A-A



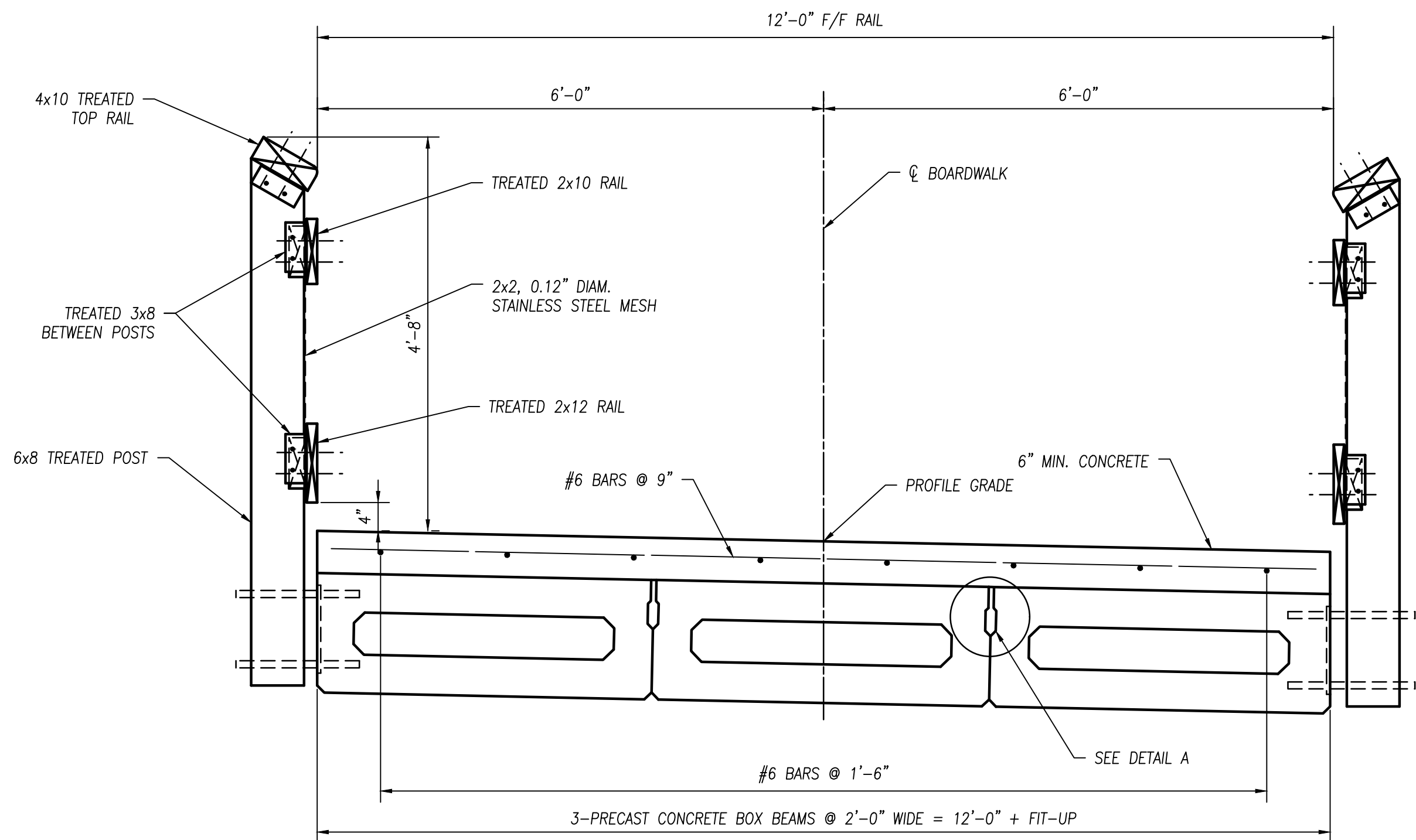
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BOARDWALK PIER DETAILS

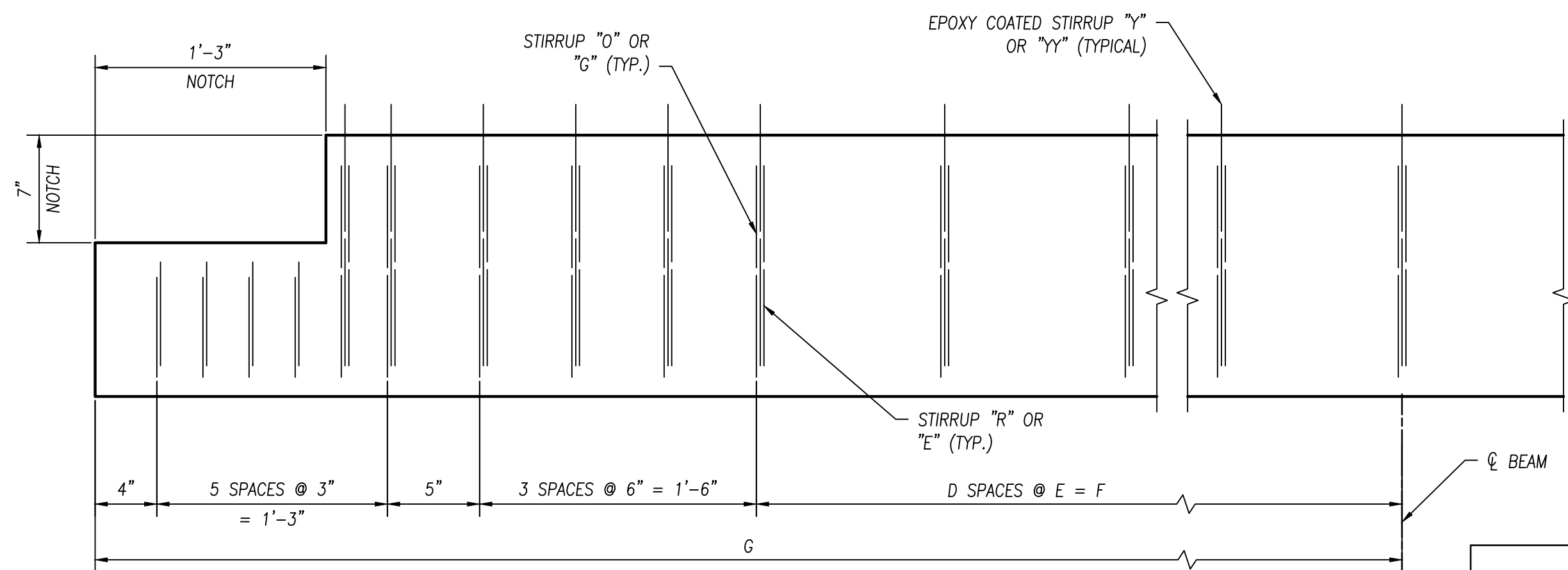
FILE: 18147 SD-SAM.dwg
 JOB NO.: 18147
 DRAWN BY: SAH
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S10

PLOTTED: Feb 28, 2020 - 7:48am
 DRAWING: M:\18147 (Metroparks - Swan Creek Connector Trail)\STRUCTURAL\Draw\18147 SD-SAM.dwg: S11 BEAM DETAILS-SAM

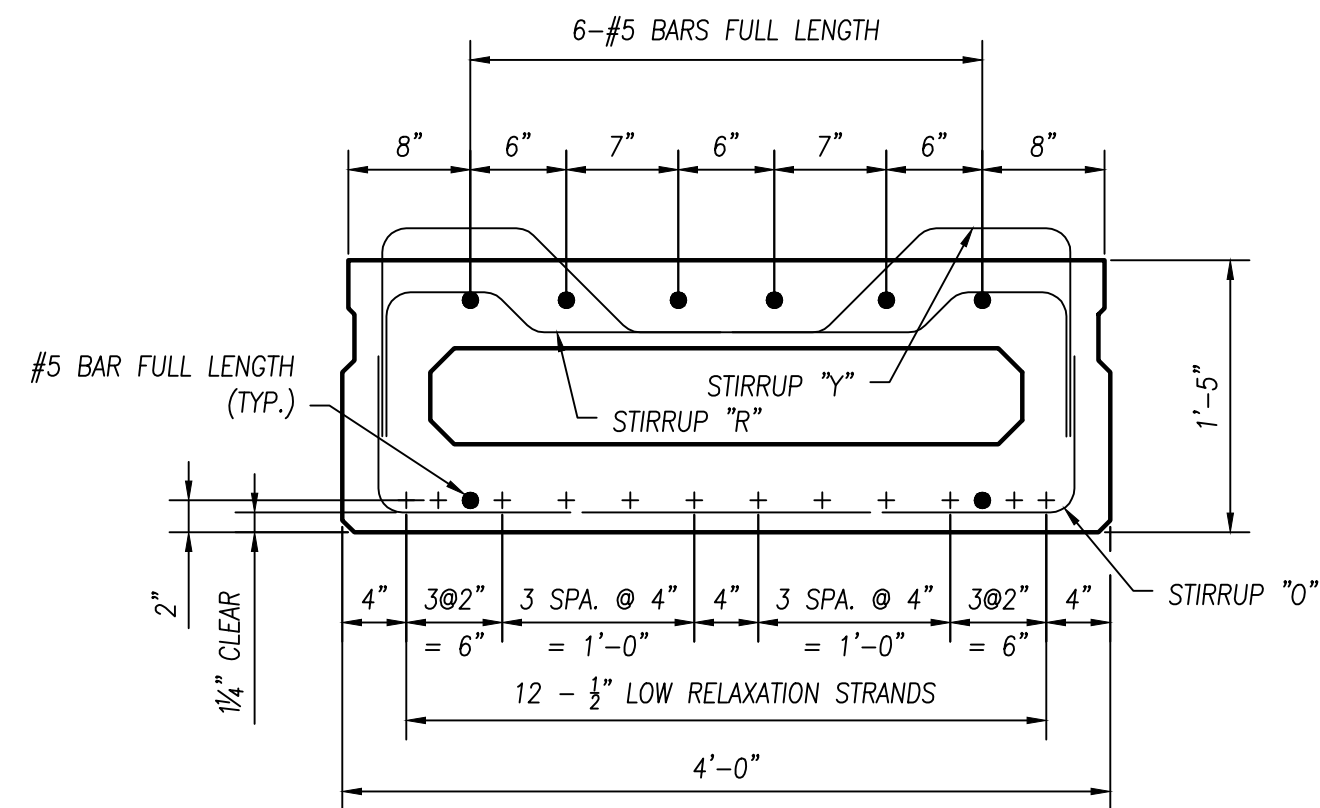


TYPICAL BOARDWALK SECTION

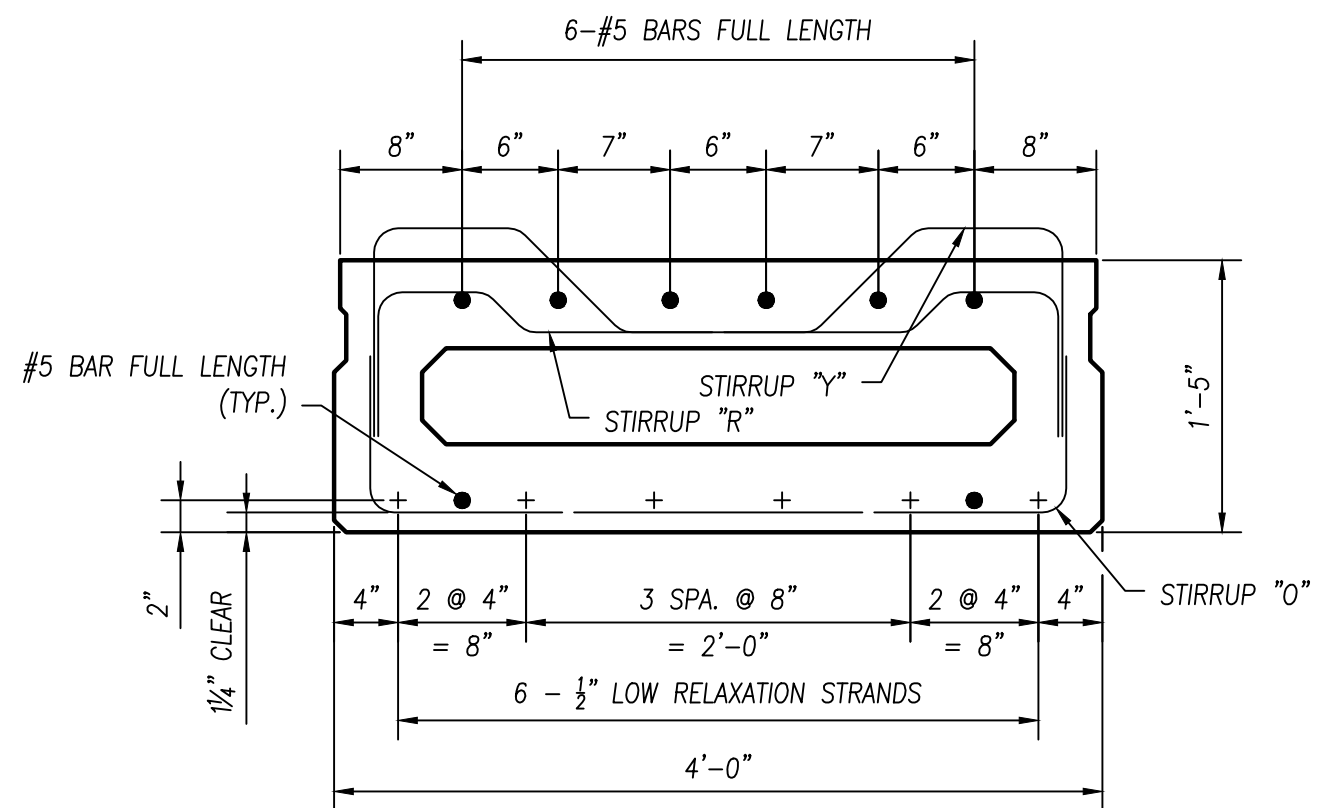


TYPICAL BEAM ELEVATION
(ALL SPANS)

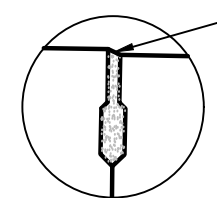
TYPICAL BEAM ELEVATION DIMENSIONS				
SPAN	D	DIM. "E"	DIM. "F"	DIM. "G"
4	7	11"±	6'-4 1/8"	9'-10 1/8"
5 THRU 17	17	1'-0"	17'-0"	20'-6"
18	8	1'-0"±	7'-11 1/4"	11'-5 1/4"



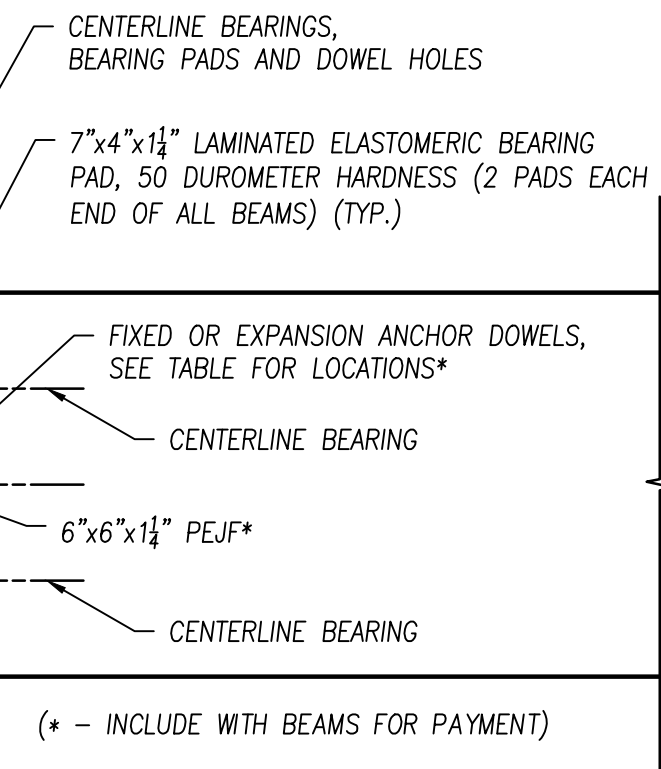
BEAM SECTION (CB17-48)
(SPANS 5 - 17)



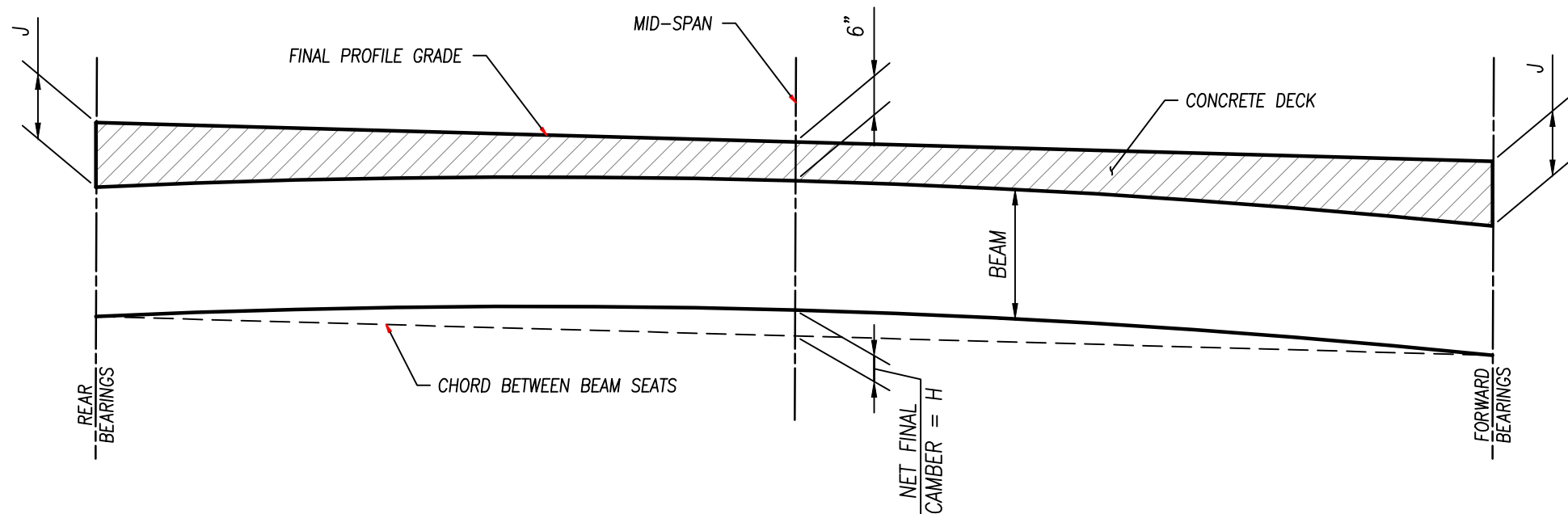
BEAM SECTION (CB17-48)
(SPANS 4 & 18)



DETAIL A

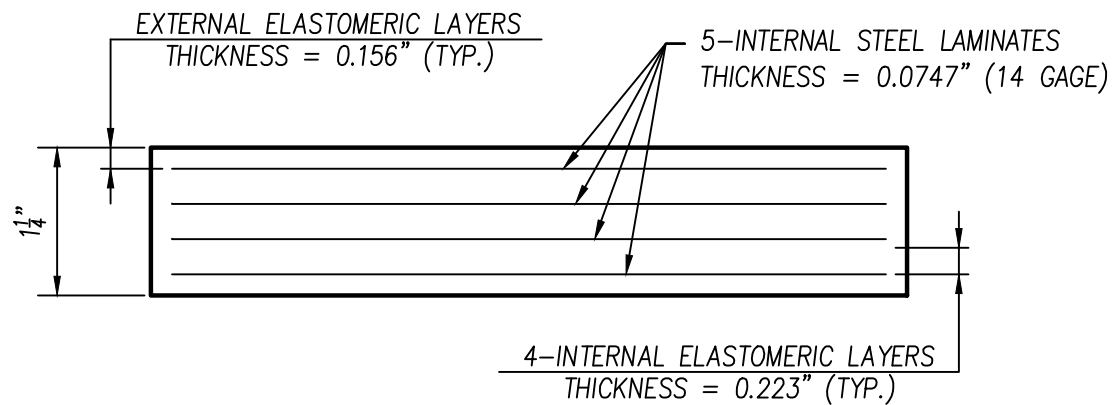


BEARING LOCATION PLAN



BEAM CAMBER AND DECK
THICKNESS DIAGRAM

BEAM CAMBER DIMENSIONS		
SPAN	DIM. "H"	DIM. "J"
4	1/8"	6/8"
5 THRU 17	1/2"	6/8"
18	1/8"	6/8"



BEARING DESIGN LOAD	
DEAD LOAD	9.8 KIPS
LIVE LOAD (EXCLUDING IMPACT)	9.4 KIPS
MAXIMUM DESIGN LOAD	19.2 KIPS

LAMINATED ELASTOMERIC
BEARING DETAIL
(50 DUROMETER)



REVISION		DATE
1	FOR CONSTRUCTION	02-27-20



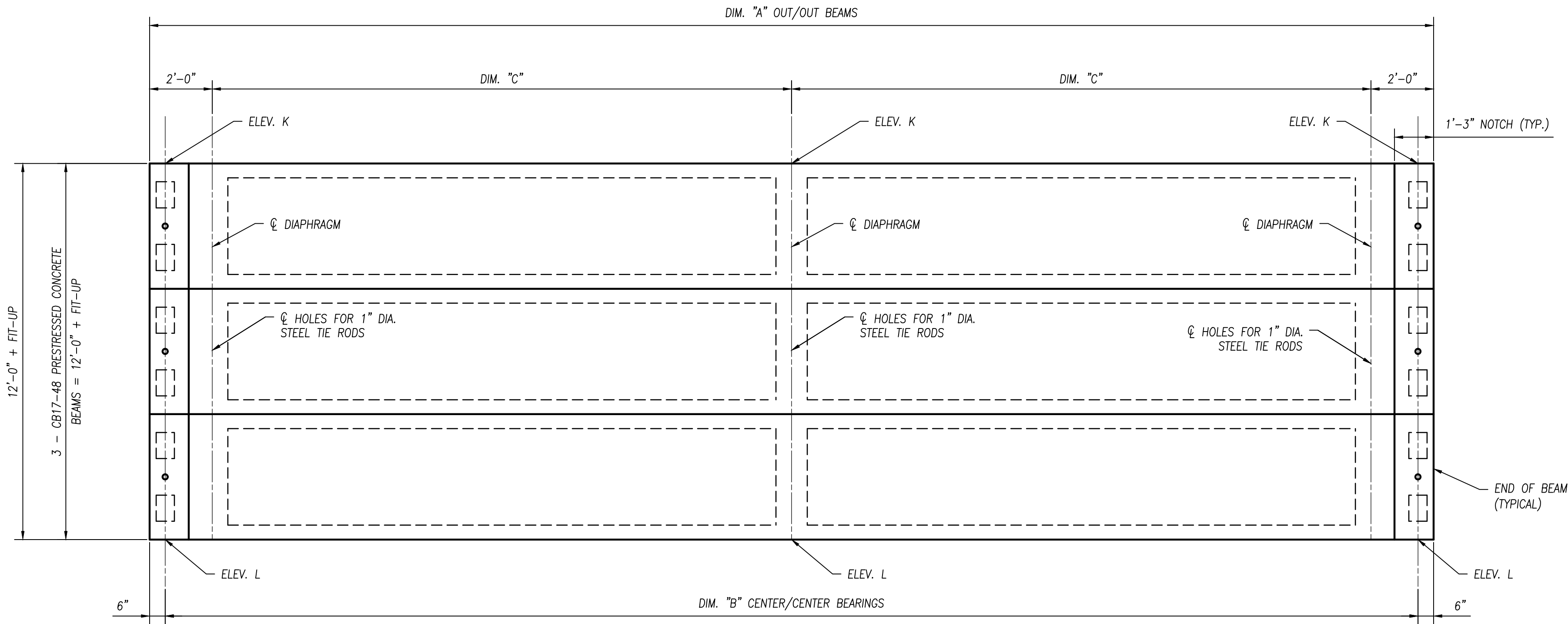
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BOARDWALK DETAILS

FILE: 18147 SD-SAM.dwg
JOB NO.: 18147
DRAWN BY: SAH
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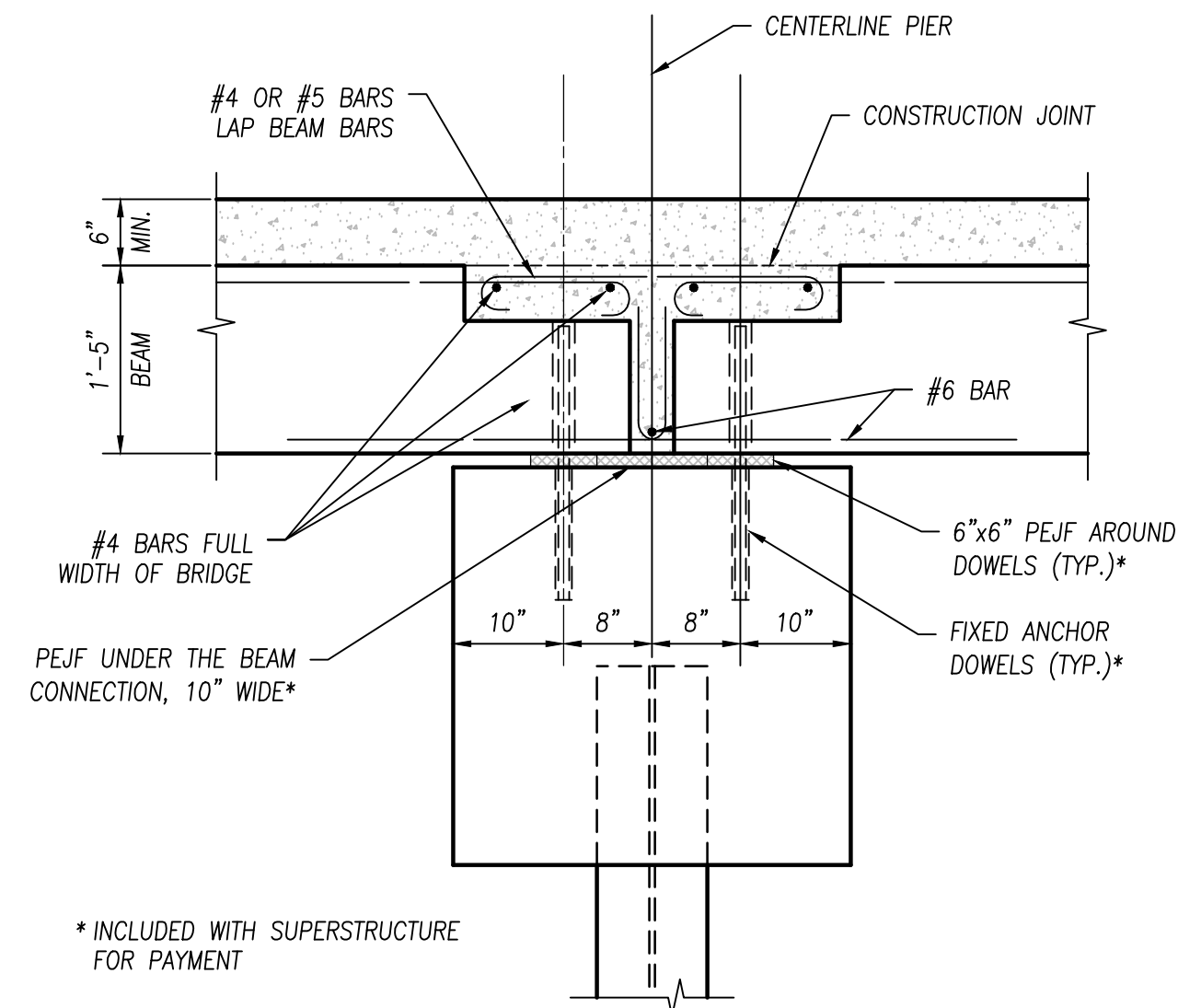
S11

PLOTTED: Feb 27, 2020 -- 10:18am
 DRAWING: M:\18147 (Metroparks - Swan Creek Connector Trail)\STRUCTURAL\Draw\18147 SD-SAM.dwg: S12 BEAM PLAN-SAM

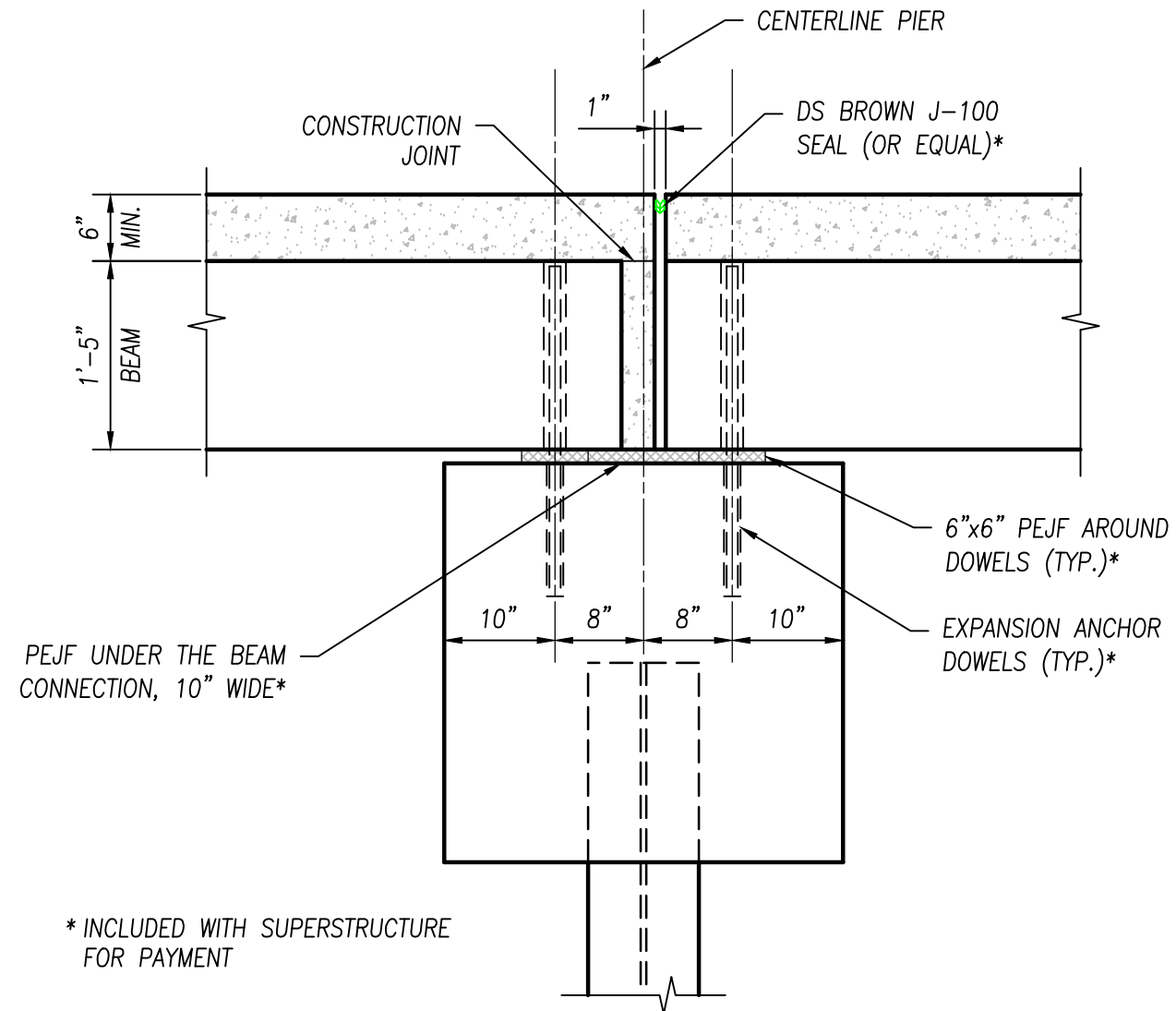


BEAM PLAN DIMENSIONS			
SPAN	DIM. "A"	DIM. "B"	DIM. "C"
4	19'-9 3/4"	18'-9 3/4"	9'-4 5/8"
5 THRU 17	41'-0"	40'-0"	20'-0"
18	22'-10 1/2"	21'-10 1/2"	10'-11 1/4"

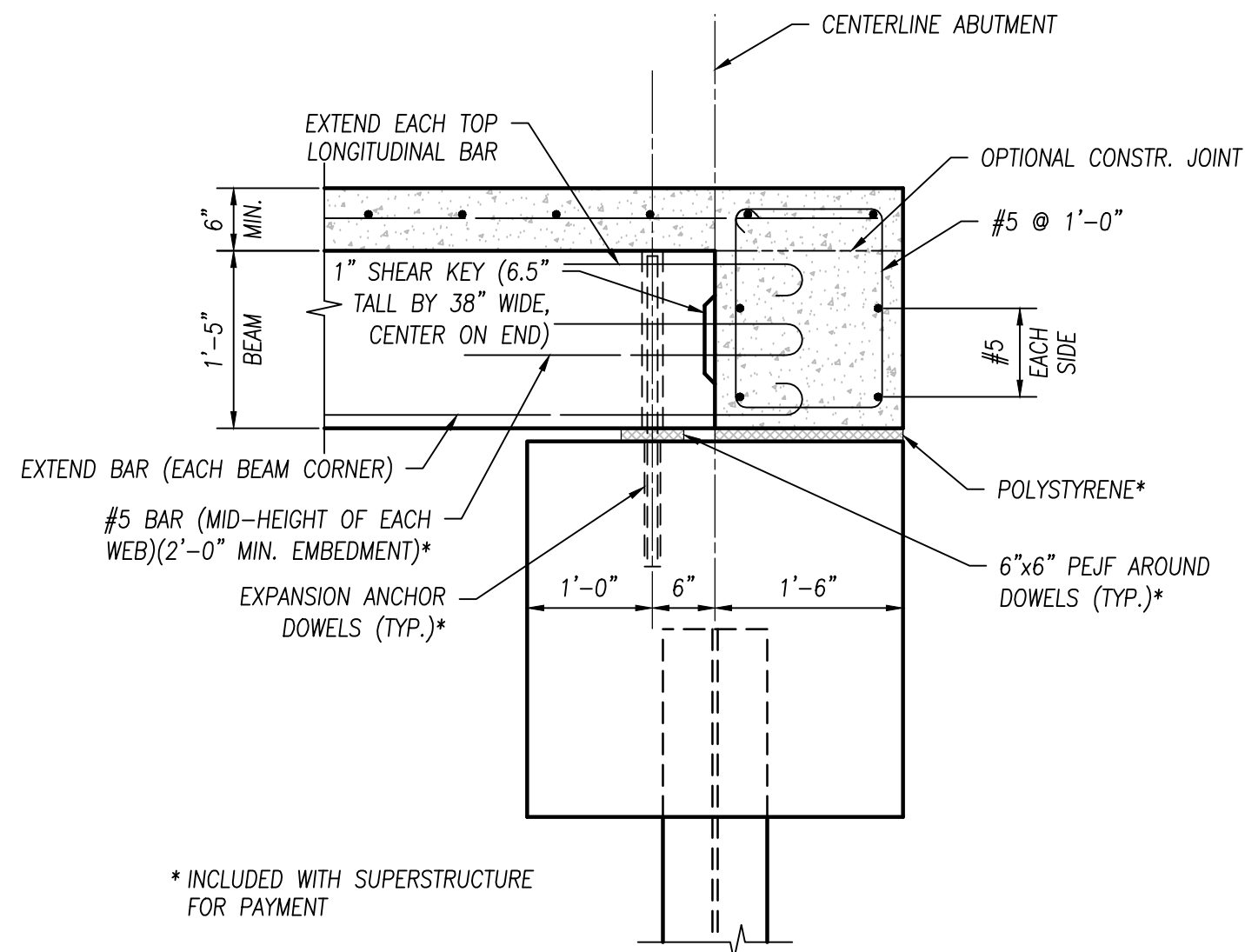
BEAM PLAN
 (ALL SPANS)



PIER SECTION
 (FIXED PIERS)



PIER SECTION
 (EXPANSION PIERS)



ABUTMENT SECTION
 (EAST ABUTMENT)

BEAM INFORMATION							
SPAN	LOCATION	STATION	TOP OF SLAB ELEVATION		BRIDGE SEAT ELEVATION		BEARING
			ELEV. "K"	ELEV. "L"	ELEV. "K"	ELEV. "L"	
4	REAR BEARING	75+26.78	606.53	606.29	604.50	604.26	EXPANSION
4	MID-SPAN	75+36.18	606.30	606.06			
4	FWD. BEARING	75+45.59	606.06	605.82	604.03	603.79	FIXED
5	REAR BEARING	75+47.44	606.02	605.78	603.95	603.71	FIXED
5	MID-SPAN	75+67.44	605.51	605.27			
5	FWD. BEARING	75.87.44	605.01	604.77	602.95	602.71	FIXED
6	REAR BEARING	75+89.30	604.97	604.73	602.90	602.66	FIXED
6	MID-SPAN	76+09.30	604.46	604.22			
6	FWD. BEARING	76+29.30	603.96	603.72	601.90	601.66	EXPANSION
7	REAR BEARING	76+31.16	603.93	603.69	601.87	601.63	EXPANSION
7	MID-SPAN	76+51.16	603.73	603.49			
7	FWD. BEARING	76+71.16	603.53	603.29	601.47	601.23	FIXED
8	REAR BEARING	76+72.49	603.52	603.28	601.46	601.22	FIXED
8	MID-SPAN	76+92.49	603.32	603.08			
8	FWD. BEARING	77.12.49	603.12	602.88	601.06	600.82	FIXED
9	REAR BEARING	77+14.35	603.10	602.86	601.04	600.80	FIXED
9	MID-SPAN	77+34.35	602.90	602.66			
9	FWD. BEARING	77+54.35	602.70	602.46	600.64	600.40	EXPANSION
10	REAR BEARING	77+56.20	602.69	602.45	600.63	600.39	EXPANSION
10	MID-SPAN	77+76.20	602.69	602.45			
10	FWD. BEARING	77+96.20	602.69	602.45	600.63	600.39	FIXED
11	REAR BEARING	77+98.06	602.69	602.45	600.63	600.39	FIXED
11	MID-SPAN	78+18.06	602.69	602.45			
11	FWD. BEARING	78+38.06	602.69	602.45	600.63	600.39	FIXED
12	REAR BEARING	78+39.91	602.69	602.45	600.63	600.39	FIXED
12	MID-SPAN	78+59.91	602.69	602.45			
12	FWD. BEARING	78+79.91	602.69	602.45	600.63	600.39	EXPANSION
13	REAR BEARING	78+81.77	602.70	602.46	600.64	600.46	EXPANSION
13	MID-SPAN	79+01.77	603.00	602.76			
13	FWD. BEARING	79+21.77	603.30	603.06	601.24	601.00	FIXED
14	REAR BEARING	79+23.63	603.33	603.09	601.27	601.03	FIXED
14	MID-SPAN	79+43.63	603.63	603.39			
14	FWD. BEARING	79+63.63	603.93	603.69	601.87	601.63	FIXED
15	REAR BEARING	79+64.96	603.95	603.71	601.89	601.65	FIXED
15	MID-SPAN	79+84.96	604.25	604.01			
15	FWD. BEARING	80+04.96	604.55	604.31	602.49	602.25	EXPANSION
16	REAR BEARING	80+07.34	604.61	604.37	602.54	602.30	EXPANSION
16	MID-SPAN	80+27.34	605.20	604.96			
16	FWD. BEARING	80+47.34	605.80	605.56	603.74	603.50	FIXED
17	REAR BEARING	80+49.71	605.87	605.63	603.81	603.57	FIXED
17	MID-SPAN	80+69.71	605.47	606.23			
17	FWD. BEARING	80+89.71	607.07	606.83	605.01	604.77	FIXED
18	REAR BEARING	80+91.57	607.12	606.88	605.09	604.85	FIXED
18	MID-SPAN	81+03.01	607.47	607.23			
18	FWD. BEARING	81+14.45	607.81	607.57	605.78	605.54	EXPANSION



DGL

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METROPARKS TOLEDO

SWAN CREEK CONNECTOR TRAIL

4301 AIRPORT HWY

TOLEDO, OHIO 43615

LUCAS COUNTY

BOARDWALK DETAILS

FILE: 18147 SD-SAM.dwg

JOB NO.: 18147

DRAWN BY: SAH

ISSUED: FEB 27, 2020

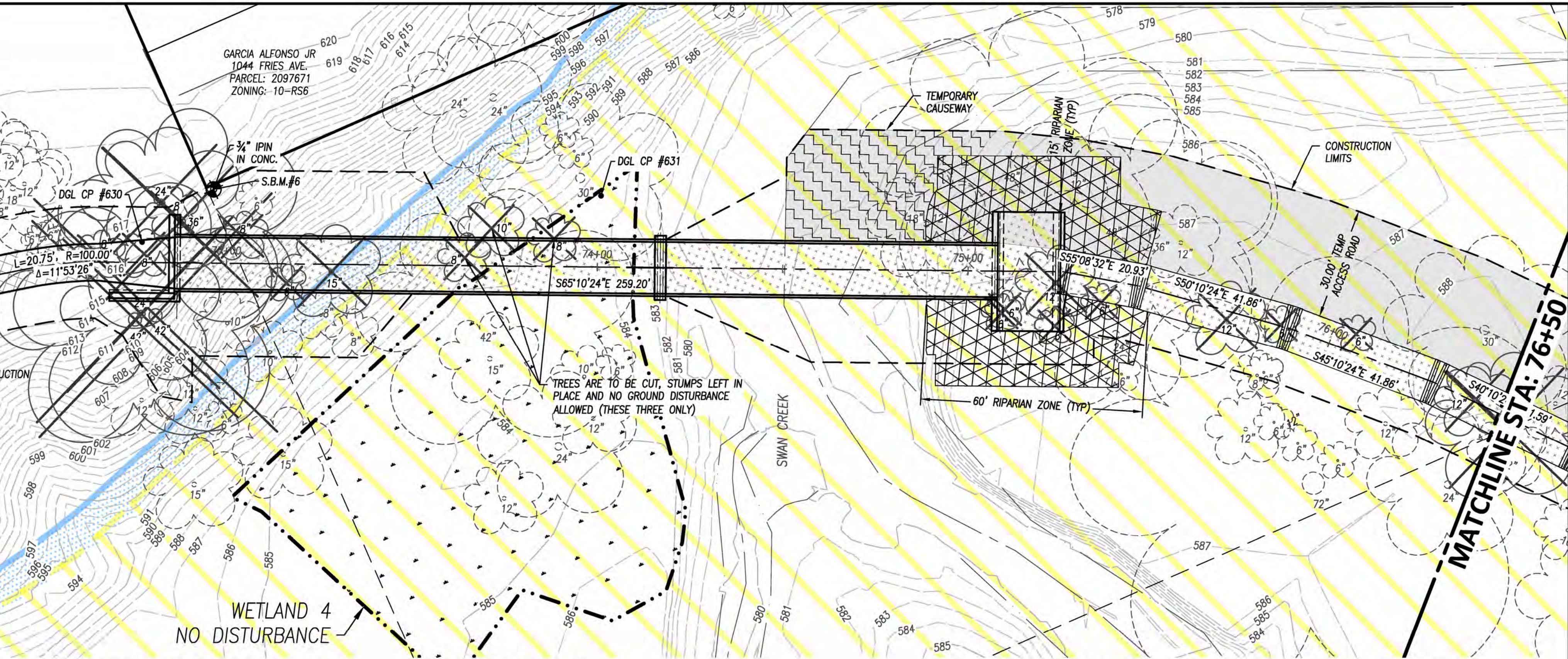
TEMPORARY WETLAND IMPACT RESTORATION PLAN

TEMPORARY IMPACTS ARE ANTICIPATED FOR WETLANDS 5 AND 6. THE TEMPORARY IMPACTS WILL BE FROM THE CONSTRUCTION OF A 30-FOOT WIDE ACCESS PATH COMPOSED OF TIMBER MATTING THAT WILL BE LOCATED FROM BYRNE ROAD TO SWAN CREEK. THE TEMPORARY PATH IS NEEDED TO BUILD THE BOARDWALK AND LIFT THE BRIDGE INTO PLACE. CONSTRUCTION OF THE SWAN CREEK BRIDGE CROSSING WILL INVOLVE CONSTRUCTING A TEMPORARY CAUSEWAY NEEDED FOR THE PLACEMENT OF THE BRIDGE. A RESTORATION PLAN WILL BE SPECIFIED FOR THE WETLAND AND STREAM AREAS THAT ARE AFFECTED BY THE TEMPORARY ACCESS ROAD AND CAUSEWAY. THE RESTORATION PLAN WILL INCLUDE THE FOLLOWING SPECIFICATIONS:

1. UNDER NO CIRCUMSTANCES WILL THE CONTRACTOR BE PERMITTED BEYOND THE CONSTRUCTION LIMITS AS SHOWN ON THE PLANS. NO TREES WILL BE REMOVED THAT ARE NOT REQUIRED TO CREATE THE TEMPORARY ACCESS ROAD.
2. ANY CUTTING OF TREES FOR THE TEMPORARY ACCESS ROAD WILL BE PERFORMED ONLY BETWEEN OCTOBER 1ST AND MARCH 31ST WHEN THE FEDERALLY ENDANGERED INDIANA BAT IS NOT UTILIZING SUMMER ROOSTING HABITAT.
3. A DETAILED TOPOGRAPHIC SURVEY TO 6-INCH ACCURACY WILL BE MADE OF THE SWAN CREEK CENTERLINE, TOP OF BANK LOCATION AND ELEVATION, BOTTOM OF BANK LOCATION AND ELEVATION, CENTERLINE LOCATION AND ELEVATIONS, AND THALWEG LOCATION AND ELEVATIONS. AT LEAST ONE DETAILED CROSS SECTIONS WILL BE COMPLETED TO DOCUMENT SWAN CREEK AT A RIFLE AND RUN LOCATION.
4. A SURVEY OF ALL LIVING TREES THAT ARE 6 INCHES DIAMETER AT BREAST HEIGHT OR GREATER WILL BE MADE WITHIN WETLANDS 5 AND 6 AND WITHIN 20 FEET OF THE TOP OF BANK OF SWAN CREEK. THE SURVEY WILL INCLUDE LOCATION AND SPECIES OF EACH TREE.
5. TOPSOIL WILL NOT BE STRIPPED PRIOR TO THE PLACEMENT OF THE TIMBER MATTING.
6. THE TIMBER MATTING (8"x8" OR 10"x10"s) WILL BE PLACED IMMEDIATELY ADJACENT TO THE BOARDWALK. IT WILL BE INSTALLED AS NEEDED AS CONSTRUCTION OF THE BOARDWALK PROGRESSES. IT WILL THEN BE REMOVED AND ANY AREAS RESTORED AS NEEDED AS EQUIPMENT IS BACKED OUT.
7. ONCE CONSTRUCTION IS COMPLETE, THE TEMPORARY TIMBER MATTING WILL BE REMOVED. THE SOIL WILL BE DISCED AS NEEDED TO REMOVE COMPACTION.
8. ALL RESTORED AREAS SHALL BE SEEDED WITH A SEED MIX COMPOSED OF NATIVE HERBS AND GRASSES, WITH ANNUAL RYEGRASS AS A TEMPORARY STABILIZER WITHIN 5 DAYS FOLLOWING DISCING.
9. RESTORATION OF THE STREAM SHALL BEGIN AFTER THE CAUSEWAY IS REMOVED. RESTORATION OF THE STREAM SHALL BEGIN AT THE DOWNSTREAM END AND PROCEED UPSTREAM.
10. THE TEMPORARY FILL PLACED IN SWAN CREEK WILL BE REMOVED AND THE CROSS SECTION WILL BE RESTORED TO THE PRE-CONSTRUCTION DIMENSIONS, INCLUDING BOTTOM OF BANK WIDTH, TOP OF BANK HEIGHT, THALWEG, AND CENTERLINE ELEVATIONS, ALTHOUGH BANK SLOPES WILL BE MADE TO BE STABLE. THE CENTERLINE OF THE RESTORED STREAM WILL MATCH THE EXISTING CENTERLINE.
11. TREES AND SHRUBS TO BE RESTORED IN THE WETLANDS AND ALONG THE 20 FOOT-RIPARIAN ZONE SHALL BE THE SAME SPECIES AS CURRENTLY FOUND THERE. PLANT MATERIAL SHALL BE INSTALLED WITHIN 14 DAYS FOLLOWING CONSTRUCTION. ALL WOODY PLANTS SHALL BE CONTAINER LIVE STAKES.
12. TREES THAT WERE REMOVED FROM WETLANDS FOR THE TEMPORARY ACCESS ROAD SHALL BE REPLACED AT A DENSITY OF 400 TREES/ACRE. THE TREES SHALL BE EVENLY DISTRIBUTED IN THE DISTURBED AREAS OF THE WETLANDS. NO TREES WILL BE PLANTED UNDER THE NEW BOARDWALK.
13. A 15-FOOT WIDE RIPARIAN ZONE WILL BE RE-ESTABLISHED ON EACH SIDE OF THE NEW BRIDGE/BOARDWALK ALONG THE EAST BANK OF THE RESTORED STREAM FOR APPROXIMATELY 60 FEET. THE RIPARIAN ZONE WILL BE PLANTED WITH LIVE STAKES AT A DENSITY OF 400 TREES/ACRE.

HATCH LEGEND

- | | | | | | |
|--|------------------------|--|---------------------|--|-----------------------|
| | TRAIL ASPHALT PAVEMENT | | WETLANDS | | TEMP ACCESS ROAD |
| | BRIDGE/BOARDWALK | | TREE- TO BE REMOVED | | TEMP CAUSEWAY |
| | | | TBR- TO BE REMOVED | | 15'x60' RIPARIAN ZONE |



PERMANENT WETLAND SEED MIX

BASIC SEED MIX BELOW FOR THE RESTORATION EFFORTS IN WETLANDS 5 AND 6:

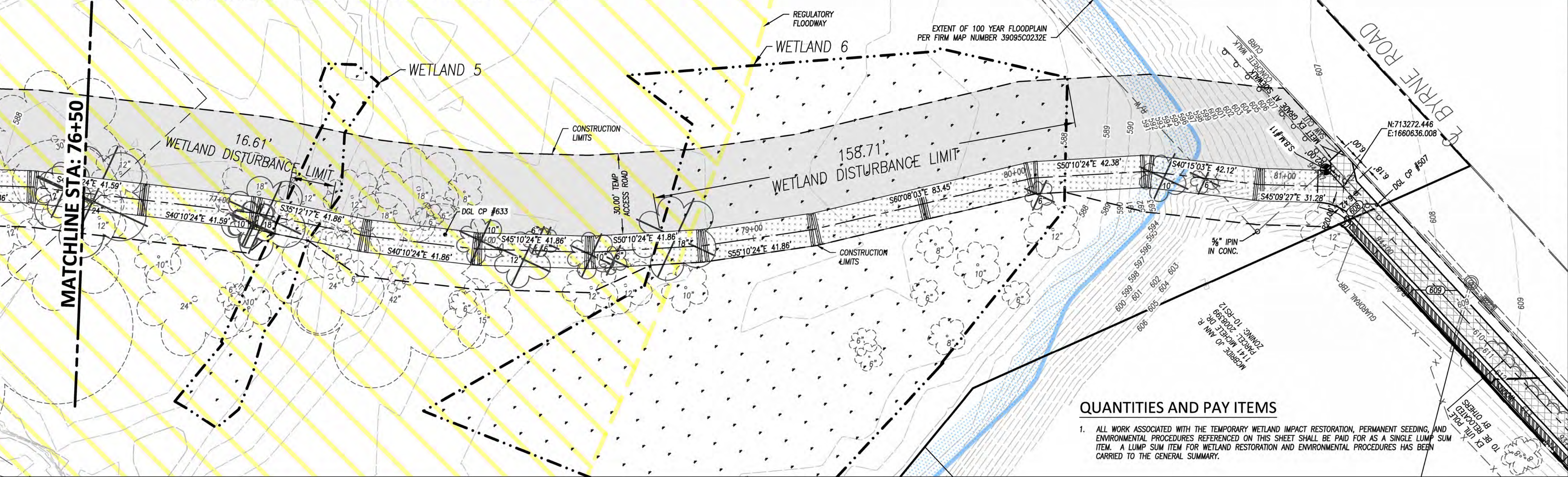
- 32 PLS OZ./AC. OF VIRGINIA WILD RYE (ELYMUS VIRGINICUS)
- 0.50 PLS OZ./AC. COMMON WOOD REED (CINNA ARUNDINACEA)
- 2 PLS OZ./AC. FOWL MANNA GRASS (GLYCERIA STRIATA)
- 4 PLS OZ./AC. WINGSTEM (VERBESINA ALTERNIFOLIA)
- 2 PLS OZ./AC. WILD GOLDEN GLOW (RUDBECKIA LACINIATA)
- 2.PLS OZ./AC. FALSE NETTLE (BOEHMERIA CYLINDRICA)
- 0.50 PLS OZ./AC. GREAT BLUE LOBELIA (LOBELIA SIPHILITICA)
- 0.25 PLS OZ./AC. CARDINAL FLOWER (LOBELIA CARDINALIS)
- 1.0 PLS OZ./AC. COMMON FOX SEDGE (CAREX STIPATA)

WOODY MATERIAL FOR THE RIPARIAN RESTORATION:
• EASTERN SYCAMORE (PLATANUS OCCIDENTALIS)
• SILVER MAPLE (ACER SACCHARINUM)
• COTTONWOOD (POPULUS DELTOIDES)

ENVIRONMENTAL

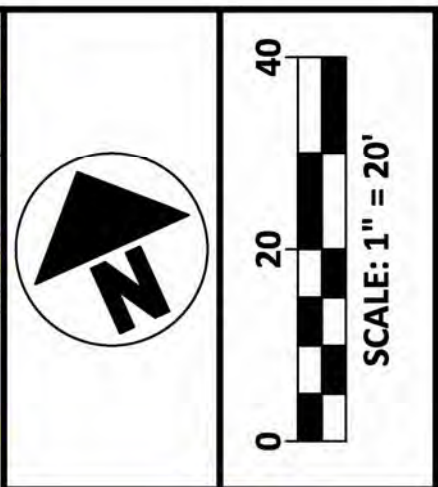
1. THE PROJECT IS LOCATED WITHIN THE KNOWN HABITAT RANGES OF THE FEDERALLY LISTED AND PROTECTED INDIANA AND NORTHERN LONG-EARED BAT. THE CONTRACTOR SHALL NOT REMOVE TREES UNDER THIS PROJECT FROM APRIL 1 THROUGH SEPTEMBER 30. ALL NECESSARY TREE REMOVAL SHALL OCCUR FROM OCTOBER 1 THROUGH MARCH 31. THIS REQUIREMENT IS NECESSARY TO AVOID AND MINIMIZE IMPACTS TO THESE SPECIES AS REQUIRED BY THE ENDANGERED SPECIES ACT. FOR THE PURPOSES OF THIS NOTE, A TREE IS DEFINED AS A LIVE, DYING, OR DEAD WOODY PLANT, WITH A TRUNK 3 INCHES OR GREATER IN DIAMETER AT A HEIGHT OF 4.5 FEET ABOVE THE GROUND SURFACE, AND WITH A MINIMUM HEIGHT OF 13 FEET.
2. ACCESS TO SWAN CREEK METROPARK SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION ACTIVITIES.

3. TEMPORARY CONSTRUCTION FENCING SHALL BE INSTALLED ALONG THE PROPOSED CONSTRUCTION LIMITS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES TO PROTECT SWAN CREEK METROPARK AND THE PUBLIC.
4. APPROPRIATE SIGNAGE SHALL BE INSTALLED TO ALERT SWAN CREEK METROPARK USERS OF CONSTRUCTION ACTIVITIES, ACCESS RESTRICTIONS OR CLOSURES, AND TO DIRECT USERS TO SECONDARY PARK ACCESS POINTS.
5. NO STAGING AND/OR STORAGE OF CONSTRUCTION EQUIPMENT SHALL TAKE PLACE OUTSIDE OF THE PROPOSED CONSTRUCTION LIMITS THAT ARE WITHIN THE DEFINED BOUNDARIES OF SWAN CREEK METROPARK.
6. THE CONTRACTOR SHALL CLOSELY COORDINATE THE CONSTRUCTION SCHEDULE WITH THE TOLEDO AREA METROPARKS DISTRICT.



QUANTITIES AND PAY ITEMS

1. ALL WORK ASSOCIATED WITH THE TEMPORARY WETLAND IMPACT RESTORATION, PERMANENT SEEDING, AND ENVIRONMENTAL PROCEDURES REFERENCED ON THIS SHEET SHALL BE PAID FOR AS A SINGLE LUMP SUM ITEM. A LUMP SUM ITEM FOR WETLAND RESTORATION AND ENVIRONMENTAL PROCEDURES HAS BEEN CARRIED TO THE GENERAL SUMMARY.



DATE	REVISION	NO
02-27-20	1 FOR CONSTRUCTION	1
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METROPARKS TOLEDO
SWAN CREEK CONNECTOR TRAIL
4301 AIRPORT HWY
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ENVIRONMENTAL
PLAN AND NOTES

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