

BAYOU DITCH

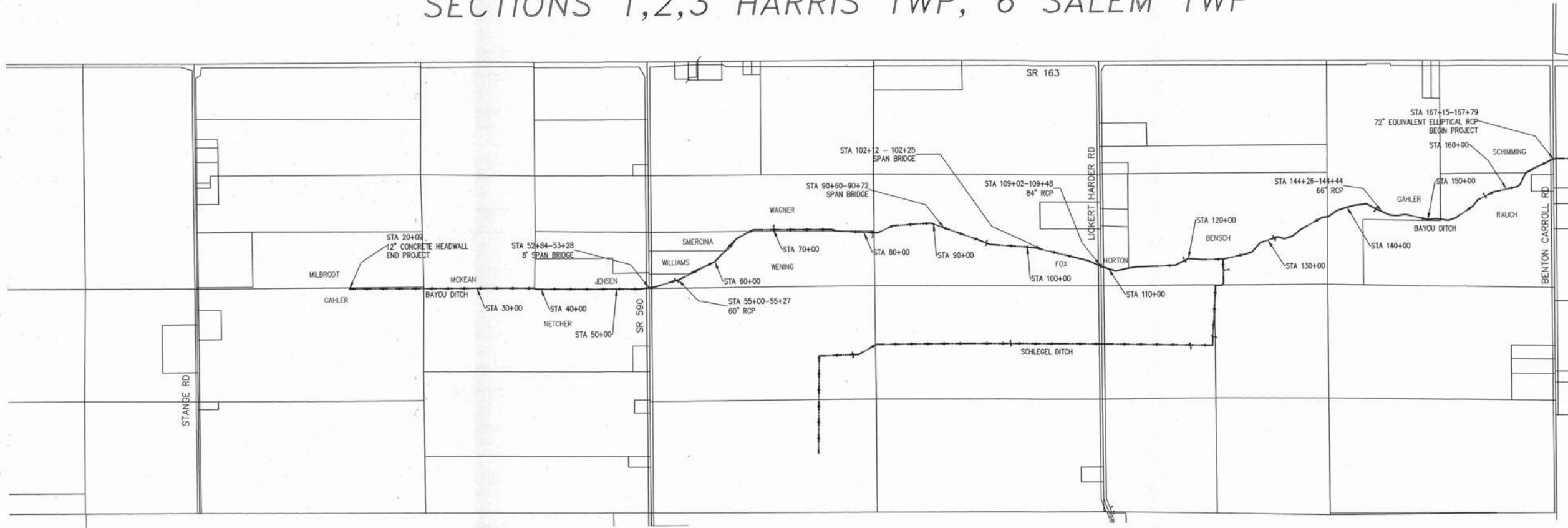
MAINTENANCE PROJECT 2020

SECTIONS 1,2,3 HARRIS TWP, 6 SALEM TWP

DATE	Approved	Title
9/2019	J. LAUBACHER	J. LAUBACHER
9/2019	J. LAUBACHER	J. LAUBACHER
5/2020	d. TORIS	d. TORIS

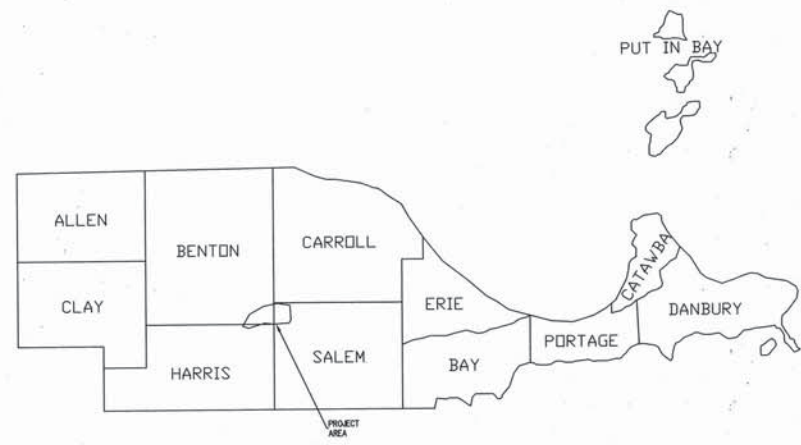
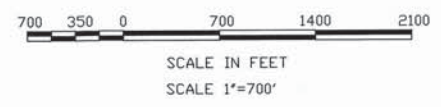
DATE	Designed	Drawn	Redlined	Checked
9/2019	J. LAUBACHER	J. LAUBACHER	J. LAUBACHER	d. TORIS
9/2019	J. LAUBACHER	J. LAUBACHER	J. LAUBACHER	d. TORIS
5/2020	d. TORIS	d. TORIS	d. TORIS	d. TORIS

TITLE
BAYOU DITCH
 OTTAWA SOIL & WATER CONSERVATION DISTRICT
 CAD FILE I.D.
 DRAWING NUMBER
 Sheet 1 of 9



INDEX OF SHEETS

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NOTE TO EXCAVATOR

Excavator must notify all utilities at least 48 hours and not more than 10 days prior to the planned commencement of excavation.

- OUPS member utilities will be contacted by calling oups (1-800-362-2764 or 811)
- Each Limited Basis Participant and the Ohio Oil and Gas Producers Underground Protection Service (1-800-925-0988) will be contacted by the excavator using the telephone number provided.

UNDERGROUND UTILITIES

CONTACT BOTH SERVICES TWO WORKING DAYS BEFORE YOU DIG

OHIO UTILITIES PROTECTION SERVICE
(NON-MEMBERS MUST BE CALLED DIRECTLY)

CALL BEFORE YOU DIG
1-800-362-2764

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

I HEREBY APPROVE THESE PLANS.

RONALD P. LAJTI, JR., P.E., P.S.
OTTAWA COUNTY ENGINEER

6/8/20
DATE

GENERAL

SCOPE

THIS PROJECT IS UNDER THE OTTAWA COUNTY DITCH MAINTENANCE PROGRAM, ADMINISTERED BY THE OTTAWA SOIL & WATER CONSERVATION DISTRICT, THE OTTAWA COUNTY ENGINEER AND THE OTTAWA COUNTY COMMISSIONERS. THE SCOPE OF THE WORK CONSISTS OF A BOTTOM EXCAVATION AND SLOPE RESHAPING TO REMOVE ACCUMULATED SEDIMENT AND CORRECT ANY BOTTOM CHANNEL MEANDERING. THIS EXCAVATION WILL RETURN THE CHANNEL BOTTOM TO A DESIRABLE CONSTRUCTED GRADE AND PROFILE AND THE SLOPES TO ORIGINAL PROJECT GRADES. SOME CULVERTS WERE REPLACED OR EXTENDED AFTER THE ORIGINAL PROJECT COMPLETION MAKING IT NECESSARY TO ADJUST THE DITCH GRADE LINE IN SOME AREAS.

2019 SPECIFICATIONS

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

UTILITY LINES:

THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING AND COORDINATING THE MARKING OF ANY UNDERGROUND UTILITIES AND SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES WITHIN THE PROJECT LIMITS. THE UTILITY(IES) SHALL BEAR ALL EXPENSE INVOLVED IN RELOCATING (INSTALLING) AFFECTED UTILITY LINES. THE CONTRACTOR AND UTILITY(IES) ARE TO COOPERATE BY ARRANGING THEIR WORK IN SUCH A MANNER THAT INCONVENIENCE TO EITHER WILL BE HELD TO A MINIMUM.

CONSTRUCTION NOISE:

ACTIVITIES AND LAND USE ADJACENT TO THE PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION TYPE DEVICES BETWEEN THE HOURS OF 9 P.M. AND 6 A.M. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

ELEVATION DATUM:

ALL ELEVATIONS ARE BASED UPON NATIONAL GEODETIC VERTICAL DATUM OF 1988. AT THE REQUEST OF THE CONTRACTOR, THE COUNTY WILL PROVIDE SURVEY CONTROL ONSITE FOR THE BASIS OF THE REQUIRED CONSTRUCTION LAYOUT.

REVIEW OF DRAINAGE FACILITIES:

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

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

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

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

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER" OR "AS NECESSARY" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED FOR SUCH ITEMS SHALL BE INCORPORATED INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

CONSTRUCTION INSPECTION

THE CONTRACTOR SHALL NOT COMMENCE WORK UNTIL CONSTRUCTION INSPECTION HAS BEEN ARRANGED WITH THE OTTAWA COUNTY ENGINEER.

PROTECTION AND RESTORATION OF PROPERTY

THE CONTRACTOR SHALL COMPLY WITH THE SECTION 107.10 OF THE 2019 ODOT CMS WITH RESPECT TO THE PRESERVATION OF ADJACENT PROPERTY.

WORK LIMITS

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

DATE OF COMPLETION

THE COMPLETION DATES ARE PRESENTED IN THE PROPOSAL FOR THIS PROJECT. THERE ARE TWO COMPLETION DATES FOR THIS PROJECT. THE SUBSTANTIAL COMPLETION DATE IS FOR ALL WORK IN THE PROJECT EXCLUDING SPOIL LEVELING AND FILTER STRIP SEEDING. THE FINAL COMPLETION DATE IS FOR SPOIL LEVELING AND FILTER STRIP SEEDING. THE SPOIL LEVELING DEADLINE IS SEPARATED FROM THE REST OF THE WORK TO ALLOW FOR A FREEZE THAW CYCLE FOR THE SPOIL, AND OR ALLOW FOR CROPS TO BE HARVESTED PRIOR TO LEVELING.

FAILURE TO COMPLETE THE WORK BY THIS DATE WILL RESULT IN MONIES DEDUCTED FROM ANY AMOUNT DUE THE CONTRACTOR AS LIQUIDATED DAMAGES AS PER SECTION 108.07 OF THE 2019 ODOT CONSTRUCTION AND MATERIAL SPECIFICATIONS DATED JANUARY 17, 2020. COUNTY ENGINEER RESERVES THE RIGHT TO WAIVE THIS IF DEEMED REASONABLE.

PUBLIC NOTIFICATION / REMOVAL OF UNSPECIFIED OBSTRUCTIONS

ALL PARCEL OWNERS WITHIN THE PROJECT LIMITS ARE TO BE NOTIFIED PRIOR TO ANY WORK COMMENCING. A CONSTRUCTION NOTICE SHALL BE DELIVERED TO EACH PARCEL. THIS NOTICE SHALL INCLUDE, BUT IS NOT LIMITED TO THE GENERAL DESCRIPTION OF THE WORK, SCHEDULE WITH START AND COMPLETION DATES, CONTACT INFORMATION, REQUIREMENTS FOR REMOVAL OF OBSTRUCTIONS, ETC.

THE CONTRACTOR SHALL NOT REMOVE ANY OBSTRUCTIONS NOT SPECIFIED IN THE PLANS WITHOUT THE PRIOR APPROVAL OF THE ENGINEER. WHEN APPROVAL IS GRANTED, THE CONTRACTOR SHALL NOTIFY THE OWNER OF SAID OBSTRUCTION AND ALLOW THE OWNER TWO (2) WEEKS TO RELOCATE SAID OBSTRUCTION. IF THE OWNER OF SAID OBSTRUCTION DOES NOT REMOVE OR RELOCATE IT WITHIN TWO (2) WEEKS, THE CONTRACTOR SHALL REMOVE THE OBSTRUCTION AT THE DIRECTION OF THE ENGINEER. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN A CHANGE ORDER.

PRIVATE DRAINAGE OUTLETS

LANDOWNERS HAVE BEEN NOTIFIED TO MARK ALL TILE OUTLET PIPES. ANY MARKED TILE OUTLETS THAT ARE DAMAGED OR DESTROYED WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. ANY UNMARKED TILES THAT ARE DAMAGED DURING THE PROJECT ARE TO BE REPORTED TO THE PROJECT SUPERVISOR. THESE TILES MAY BE FIXED AT THE LANDOWNERS' EXPENSE ONLY. THE CONTRACTOR MAY COORDINATE THESE EFFORTS WITH THE PROPERTY OWNERS OUTSIDE THE SCOPE OF THIS CONTRACT.

EARTHWORK

GENERAL EARTHWORK

ALL YARDAGE AMOUNTS ARE BASED ON THE CURRENT CULVERTS WHICH DETERMINE THE DITCH GRADE LINE. THE EXCAVATED SPOIL IS PLACED ON THE LAND ADJACENT TO THE CHANNEL AND LEVELED UNLESS DESIGNATED AS SPOIL REMOVAL OR SPOIL WAIVER FORMS HAVE BEEN SUBMITTED. ALL EXISTING CULVERTS, BRIDGES AND FARM DRIVES ARE TO BE CLEANED UNLESS OTHERWISE NOTED. TREES AND WOODY VEGETATION, INCLUDING STUMPS, ARE TO BE REMOVED AS NECESSARY.

ALL DIRECTIONS FOR CHANNEL ORIENTATION ARE GIVEN AS LEFT OR RIGHT LOOKING DOWNSTREAM IN THE DIRECTION OF INCREASING DITCH STATIONS.

ITEM 202 – PIPE CLEANOUT OVER 48”:

ITEM 202 – EXISTING CONDUIT CLEANED:

THE ABOVE ITEMS CONSIST OF THE CLEANING OF VARIOUS CULVERTS, BRIDGES AND FARM DRIVES IN THE LINE OF THE CHANNEL. CULVERT SEDIMENT MAY CONSIST OF SOIL, GRAVEL AND ROCKS. ALL SEDIMENT REMOVED FROM THE CULVERTS IS REMOVED FROM THE DITCH. IF CULVERTS ARE FLUSHED USING HIGH PRESSURE WATER, THE SEDIMENT IS IN SLURRY FORM AND MAY REQUIRE SOME SETTLING BEFORE REMOVAL.

ITEM 203 – EXCAVATION, AS PER PLAN

THIS ITEM CONSISTS OF DITCH BOTTOM EXCAVATION TO REMOVE ACCUMULATED SEDIMENT, CORRECT CHANNEL ALIGNMENT AND ANY SIDE SLOPE CORRECTION. THIS ITEM INCLUDES EXCAVATION WITH SPOIL PLACED IN THE ADJACENT FIELD FOR LEVELING AS PER ITEM 203 EARTHWORK, MISC.: SPOIL LEVELING. PLACE ALL SPOIL MORE THAN 10' FROM THE TOP OF THE CHANNEL, OUTSIDE OF EXISTING FILTER STRIPS UNLESS SPECIFIED BY PROJECT SUPERVISOR. THIS ITEM ALSO INCLUDES REINSTALLING ANY EXISTING ROCK RIP RAP REMOVED DURING EXCAVATION USUALLY AT CULVERTS OR OUTLET PIPES. EXISTING CONDITIONS AND PROPOSED EXCAVATION LIMITS ARE SHOWN IN THE CROSS SECTIONS AS THE HATCHED AREAS. ALL YARDAGE QUANTITIES WERE CALCULATED FROM THESE CROSS SECTIONS USING THE AVERAGE END AREA METHOD. MAINTAIN A BOTTOM WIDTH AS SHOWN IN THE TABLE ON THE CALCULATIONS SHEET, AND A MINIMUM OF ONE FOOT VERTICAL TO ONE AND A HALF FOOT HORIZONTAL (1.5:1) SIDE SLOPE DURING ALL EXCAVATION, UNLESS OTHERWISE MARKED BY THE PROJECT ENGINEER. THERE MAY BE AREAS NEAR BUILDINGS AND/OR UTILITY POLES THAT NEED SLIGHTLY STEEPER SLOPES. THE CONTRACTOR SHALL MEET WITH THE PROJECT SUPERVISOR PRIOR TO CONSTRUCTION TO DISCUSS THESE LOCATIONS IF ANY EXIST. AREAS WHERE SIDE SLOPES ARE EXCAVATED STEEPER WILL BE BLENDED TO MATCH THE DESIRED SLOPES. THE TABLE ON THE CALCULATIONS SHEET SHOWS THE GRADE LINES BETWEEN THE KNOWN CONTROL POINTS INCLUDING EXISTING CULVERTS AND CREEK BOTTOM. AS INDICATED IN THE TABLE, THERE ARE VARYING GRADES THROUGHOUT THE PROJECT. CLEAN UP ANY SPOIL SPILLAGE AND FILL RUTS OR TRACKED AREAS IN THE FIELD AS THE WORK PROCEEDS.

ALL EXCAVATION WORK WILL START AT THE DOWNSTREAM STATION AND WORK UPSTREAM.

IT WILL BE NECESSARY TO EXCAVATE FROM DIFFERENT SIDES ON CERTAIN REACHES DUE TO ACCESS AND OBSTACLES. THE TABLE ON THE CALCULATIONS SHEET SHOWS WHICH SIDE IS RECOMMENDED TO WORK FROM DUE TO EASE OF ACCESS. IF THE CONTRACTOR WISHES TO WORK FROM ANOTHER SIDE, THEY MUST PRESENT A PLAN AND PROVIDE PROPERTY OWNER PERMISSION TO THE PROJECT SUPERVISOR PRIOR TO ENTERING THE PROPERTY. LANDOWNERS DO NOT DICTATE THE SPECIFICATIONS ON THIS PROJECT. BRING ANY LANDOWNER REQUESTS OR PROPOSED CHANGES TO THE PROJECT SUPERVISOR.

AN ESTIMATED QUANTITY FOR THIS ITEM IS INCLUDED IN THE CALCULATIONS SHEET.

ITEM 203 – EARTHWORK, MISC.: SPOIL LEVELING:

THIS ITEM CONSISTS OF EXCAVATED SPOIL INDICATED IN ITEM 203 – EXCAVATION, AS PER PLAN. SPOIL TO BE CAST ON THE ADJACENT LAND AND LEVELED TO AVOID OR MINIMIZE ANY PONDING PER APPROVAL OF THE PROJECT SUPERVISOR. LEVELED SPOIL DEPTH NOT TO EXCEED 4". REMOVE ALL STONES 4" OR GREATER. DEPENDING ON SPOIL WORKABILITY AND CONSTRUCTION TIMEFRAME, IT IS ACCEPTABLE TO ALLOW SPOIL TO EXPERIENCE FREEZE THAW CYCLES. SPOIL SHOULD NOT BE PLACED IN IDENTIFIED AREAS WHERE IT WILL BLOCK THE NATURAL FLOW OF SURFACE WATER. THE PROJECT SUPERVISOR WILL IDENTIFY AND MARK THESE AREAS. LANDOWNERS WHO DO NOT WANT THEIR SPOIL LEVELED HAVE SIGNED AND SUBMITTED A DITCH SPOIL WAIVER FORM AND ARE INDICATED ON THE TABLE IN THE CALCULATIONS SHEET.

AN ESTIMATED QUANTITY FOR THIS ITEM IS INCLUDED IN THE CALCULATIONS SHEET.

EROSION CONTROL

ITEM 601 – DUMPED ROCK FILL, MISC.: TYPE D:

THIS ITEM CONSISTS OF MATERIAL, HAULING AND PLACING OF ODOT TYPE D RIP RAP IN EROSION PRONE AREAS OR IN AREAS TO STABILIZE DITCH SLOPES. THESE AREAS WILL BE DETERMINED DURING EXCAVATION. ROCK MUST BE KEYED IN, IN ORDER TO HOLD ROCK FROM SLIDING. GENERALLY THEY ARE NATURAL SURFACE WATER ENTRY POINTS FROM ADJACENT FIELDS OR ROAD DITCHES ENTERING THE MAIN CHANNEL. THIS ITEM HAS BEEN INCLUDED IN THE PROJECT AS A CONTINGENCY. THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK ASSOCIATED WITH THIS ITEM UNLESS AUTHORIZED BY THE PROJECT SUPERVISOR. A QUANTITY OF 100 TONS HAS BEEN ESTABLISHED FOR THIS POTENTIAL WORK.

ITEM 659 – SEEDING AND MULCHING, AS PER PLAN:

THESE ITEMS CONSIST OF THE PERMANENT SEEDING AND FERTILIZING OF THE DITCH BANKS AND FILTER STRIPS THAT ARE DAMAGED DURING CONSTRUCTION. ANY RUTTED OR DISTURBED AREAS WILL BE FILLED, GRADED, SEEDED, AND FERTILIZED.

WHEN THE ABOVE ITEM IS CALLED FOR ON THE PLANS OR IN THE PROPOSAL, ALL APPLICABLE PROVISIONS OF ITEM 659, AS SET FORTH IN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS, SHALL APPLY UNLESS MODIFIED HEREIN.

659.09 NATIVE GRASSES AND WILDFLOWERS

UNLESS OTHERWISE DIRECTED/APPROVED BY THE ENGINEER, USE THE FOLLOW SEED MIXTURE CLASS(ES) FOR ITEM 659:
DITCH BANKS – CLASS 3B
FILTER STRIPS – CLASS 4B

659.10 SITE PREPARATION

DITCH FILTER STRIPS SHALL BE DISKED OR WORKED TO PREPARE A SEED BED A MINIMUM OF TWO INCHES DEEP, UNLESS NO TILL EQUIPMENT IS USED. THE FILTER STRIP SHALL BE SMOOTH FROM THE TOP OF THE DITCH BANK AND BLEND INTO THE ADJACENT AREA.

659.12 SEEDING METHODS

SEED TO BE APPLIED WITH A BROADCAST SEEDER ON DITCH BANKS, AND A GRAIN DRILL MAY BE USED ON THE FILTER STRIPS. DITCH BANKS SHALL BE SEEDED AS EXCAVATION PROGRESSES. AT A MINIMUM, SEEDING SHOULD BE DONE AT THE END OF EACH WORK WEEK. DITCH FILTER STRIPS WILL BE SEEDED AFTER SPOIL IS SPREAD. A PERMANENT SEEDING WILL BE COMPLETED DURING THE PERIOD OF MARCH 15 TO OCTOBER 15.

659.13 MULCHING OPERATION

THE PROJECT SUPERVISOR WILL SPECIFY AREAS TO BE MULCHED PRIOR TO WORK BEING COMPLETED.

659.22 FERTILIZATION

UNLESS OTHERWISE DIRECTED/APPROVED BY THE ENGINEER, USE THE FOLLOW FERTILIZATION MIXTURE FOR ITEM 659:
SEEDING AND MULCHING, AS PER PLAN
FERTILIZER WILL BE APPLIED AT A RATE OF 50 POUNDS EACH OF ACTUAL TOTAL, NITROGEN, PHOSPHORUS AND POTASH PER ACRE.

659.23 PERFORMANCE

A MINIMUM OF 20 FESCUE PLANTS PER SQUARE FOOT WILL BE CONSIDERED ADEQUATE ESTABLISHMENT. AREAS IDENTIFIED BY THE PROJECT SUPERVISOR AS INCOMPLETE OR INSUFFICIENTLY RESTORED TO PROPER GRADE AND GRASS COVER SHALL BE REPAIRED BY THE CONTRACTOR AS DIRECTED AT NO COST TO THE PROJECT.

AN ESTIMATED QUANTITY FOR THIS ITEM IS INCLUDED IN THE CALCULATIONS SHEET. IN ADDITION TO THE CALCULATED QUANTITY, A CONTINGENCY QUANTITY OF 2147 SQUARE YARDS HAS BEEN ESTABLISHED FOR AREAS WHERE SPOIL LEVELING WAIVERS HAVE BEEN SUBMITTED.

(LENGTH OF FILTER STRIP W/O SPOIL LEVELING) X 10 X 25% = 2147 SQ. YD.

GENERAL NOTES BAYOU DITCH OTTAWA SOIL & WATER CONSERVATION DISTRICT	DATE 9/20/19	Approved _____
	DATE 9/20/19	Title _____
	DATE 5/20/20	Construction Approved _____
	DATE 5/20/20	Title _____
Designed J. LAUBACHIER	Drawn J. LAUBACHIER	Redlined _____
Checked D. TOMS		
CAD FILE I.D. _____ DRAWING NUMBER _____ Sheet <u>2</u> of <u>9</u>		

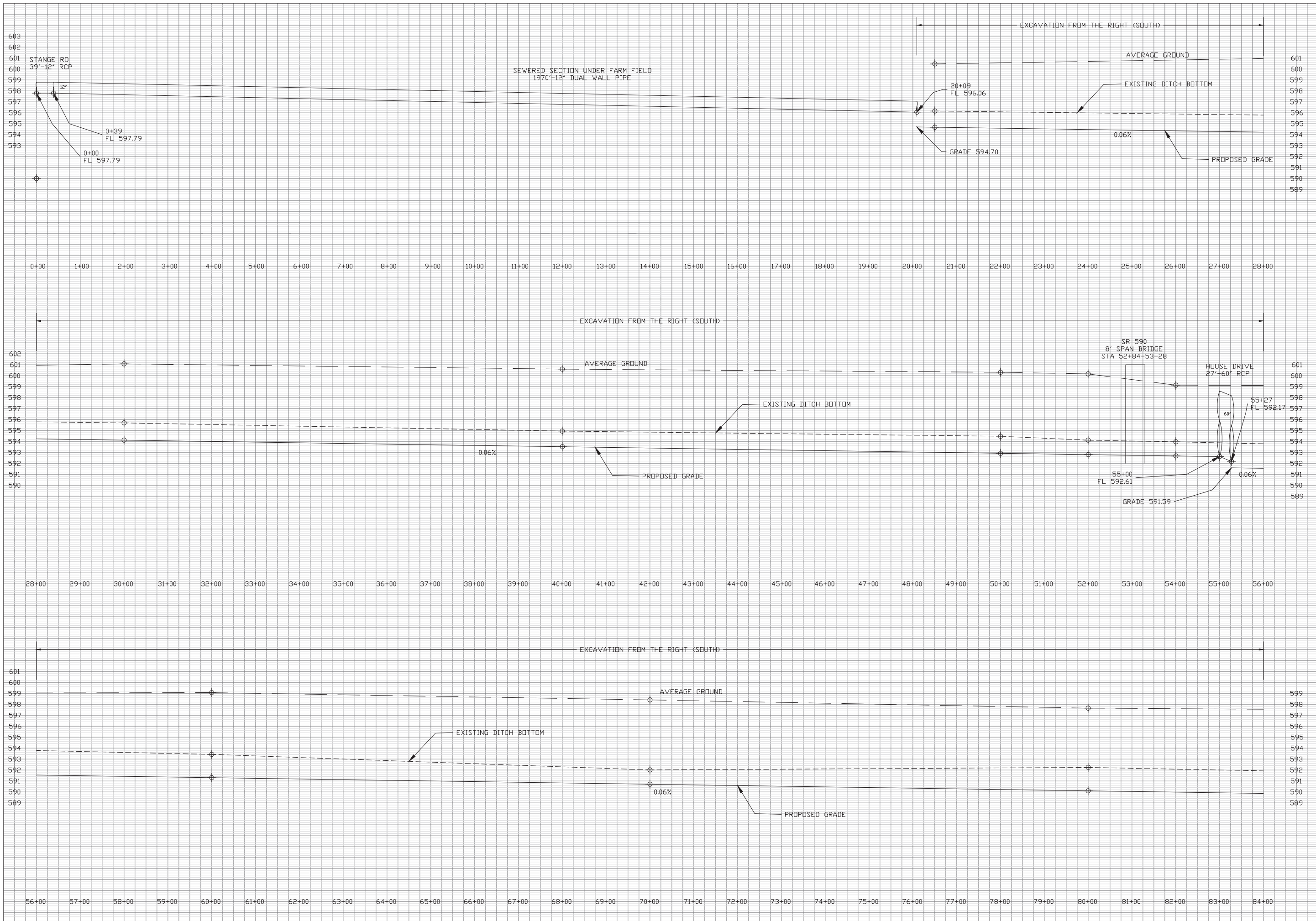
STATION TO STATION		SIDE EXCAVATION COMPLETED FROM LT./RT. (N/S/W/E)	BEGIN STATION END AREA	END STATION END AREA	AVERAGE END AREA	BEGIN STATION EXCAV. WIDTH	END STATION EXCAV. WIDTH	AVERAGE EXCAV. WIDTH	LENGTH	PROP. GRADE	BEGIN STATION EX. DITCH BOTTOM ELEV.	BEGIN STATION PROP. DITCH BOTTOM ELEV.	CUT FROM EX. BOTTOM	PROP. DITCH BOTTOM WIDTH	CULVERT NAME	SPECIAL	SPECIAL	203	203	659	659	DATE																	
																PIPE CLEANOUT OVER 48"	EXISTING CONDUIT CLEANED	EXCAVATION, AS PER PLAN	EARTHWORK, MISC.: SPOIL LEVELING	SEEDING AND MULCHING, AS PER PLAN	SEEDING AND MULCHING, AS PER PLAN		FT	FT	CY	CY	SY	SY	Approved										
BEGIN	END	LT./RT. (N/S/W/E)	BA	EA	AA	BW	EW	AW	L	%				DW		L	L	AA x L 27	AA x L 27	(AW-DW)xL 9 (BANKS)	10 x L 9 (FILTER)	DATE																	
20+09.00	20+50.00	RT. (S)	18.18	18.18	18.18	19.00	19.00	19.00	41.00	0.060				3						27.60		72.89		9/2019															
20+50.00	26+72.00	RT. (S)	18.18		16.27	19.00		16.50	622.00	0.060	596.16	594.68	1.48	3						374.73	WAIVER	933.00		9/2019															
26+72.00	30+00.00	RT. (S)		14.36	16.27		14.00	16.50	328.00	0.060				3						197.60	197.60	492.00	364.44																
30+00.00	40+00.00	RT. (S)	14.36	15.02	14.69	14.00	18.00	16.00	1000.00	0.060	595.69	594.11	1.58	3						543.89	543.89	1444.44	1111.11																
40+00.00	50+00.00	RT. (S)	15.02	22.92	18.97	18.00	20.00	19.00	1000.00	0.060	594.94	593.51	1.43	3						702.43	702.43	1777.78	1111.11																
50+00.00	52+00.00	RT. (S)	22.92	18.16	20.54	20.00	15.00	17.50	200.00	0.060	594.47	592.91	1.56	3						152.13	152.13	322.22	222.22																
52+00.00	52+84.00	RT. (S)	18.16	18.16	18.16	15.00	15.00	15.00	84.00	0.060	594.11	592.79	1.32	3						56.50	56.50	112.00	93.33																
52+84.00	53+28.00								44.00						SR 590 - 8' SPAN BRIDGE		44.00																						
53+28.00	54+00.00	RT. (S)	12.85	12.85	12.85	16.00	16.00	16.00	72.00	0.060				3						34.27	WAIVER	104.00																	
54+00.00	55+00.00	RT. (S)	12.85	12.85	12.85	16.00	16.00	16.00	100.00	0.060	593.96	592.67	1.29	3						47.59		144.44																	
55+00.00	55+27.00								27.00						WENING - 60" RCP DRIVE CULVERT	27.00																							
55+27.00	60+00.00	RT. (S)	40.84	40.84	40.84	24.00	24.00	24.00	473.00	0.060				4								1051.11																	
60+00.00	70+00.00	RT. (S)	40.84	35.66	38.25	24.00	26.00	25.00	1000.00	0.060	593.43	591.31	2.12	4								2333.33																	
70+00.00	80+00.00	RT. (S)	35.66	42.63	39.14	26.00	23.00	24.50	1000.00	0.060	592.01	590.70	1.31	4								2277.78																	
80+00.00	90+00.00	RT. (S)	42.63	36.55	39.59	23.00	25.00	24.00	1000.00	0.060	592.24	590.10	2.14	4								2222.22																	
90+00.00	90+60.00	RT. (S)	36.55	36.55	36.55	25.00	25.00	25.00	60.00	0.060	591.45	589.50	1.95	4								140.00																	
90+60.00	90+72.00								12.00						FOX - FARM SPAN BRIDGE 1		12.00																						
90+72.00	91+00.00	RT. (S)	40.72	40.72	40.72	25.00	25.00	25.00	28.00	0.060				4								65.33																	
91+00.00	100+00.00	RT. (S)	40.72	30.07	35.40	25.00	22.00	23.50	900.00	0.060	591.18	589.44	1.74	4								1950.00																	
100+00.00	102+00.00	RT. (S)	30.07	28.41	29.24	22.00	22.00	22.00	200.00	0.060	590.48	588.90	1.58	4								400.00																	
102+00.00	102+12.00	RT. (S)	28.41	28.41	28.41	22.00	22.00	22.00	12.00	0.060	590.38	588.78	1.60	4								24.00																	
102+12.00	102+25.00								13.00						FOX - FARM SPAN BRIDGE 2		13.00																						
102+25.00	102+50.00	RT. (S)	29.63	29.63	29.63	21.00	21.00	21.00	25.00	0.060				4								47.22																	
102+50.00	108+50.00	RT. (S)	29.63	24.38	27.01	21.00	23.00	22.00	600.00	0.060	590.2	588.75	1.45	4								1200.00																	
108+50.00	109+02.00	RT. (S)	24.38	24.38	24.38	23.00	23.00	23.00	52.00	0.060	589.71	588.39	1.32	4								109.78																	
109+02.00	109+48.00								46.00						LICKERT HARDER RD. - 84" RCP	46.00																							
109+48.00	110+00.00	RT. (S)	36.89	36.89	36.89	24.00	24.00	24.00	52.00	0.065				4								71.05	71.05	115.56	57.78														
110+00.00	120+00.00	RT. (S)	36.89	20.61	28.75	24.00	19.00	21.50	1000.00	0.065	590.07	588.08	1.99	4								1064.88	1064.88	1944.44	1111.11														
120+00.00	130+00.00	RT. (S)	20.61	6.43	13.52	19.00	13.00	16.00	1000.00	0.065	588.1	587.43	0.67	4								500.79	500.79	1333.33	1111.11														
130+00.00	137+61.00	RT. (S)	6.43		7.89	13.00		16.00	761.00	0.065	587.13	586.78	0.35	5								222.36	222.36	930.11	845.56														
137+61.00	140+00.00	LT. (N)		9.35	7.89		19.00	16.00	239.00	0.065				5								69.83	69.83	292.11	265.56														
140+00.00	144+00.00	LT. (N)	9.35	5.57	7.46	19.00	13.00	16.00	400.00	0.065	585.81	586.13	(0.32)	5								110.51	110.51	488.89	444.44														
144+00.00	144+26.00	LT. (N)	5.57	5.57	5.57	13.00	13.00	13.00	26.00	0.065	585.80	585.87	(0.07)	5								5.37	5.37	23.11	28.89														
144+26.00	144+44.00								18.00						GAHLER - 66" RCP FARM DRIVE	18.00																							
144+44.00	145+00.00	LT. (N)	16.34	16.34	16.34	17.00	17.00	17.00	56.00	0.060				5								33.89	33.89	74.67	62.22														
145+00.00	150+00.00	LT. (N)	16.34	8.63	12.48	17.00	16.00	16.50	500.00	0.060	586.28	585.23	1.05	5								231.16	231.16	638.89	555.56														
150+00.00	151+73.00	LT. (N)	8.63		9.33	16.00		17.00	173.00	0.060	585.35	584.93	0.42	5								59.79	59.79	230.67	192.22														
151+73.00	160+00.00	LT. (N)		10.04	9.33		18.00	17.00	827.00	0.060				5								285.81		1102.67															
160+00.00	166+50.00	LT. (N)	10.04	18.40	14.22	18.00	22.00	20.00	650.00	0.060	583.99	584.33	(0.34)	5								342.31	WAIVER	1083.33															
166+50.00	167+15.00	LT. (N)	18.40	18.40	18.40	22.00	22.00	22.00	65.00	0.060	583.64	583.94	(0.30)	5								44.30		122.78															
167+15.00	167+79.00								64.00						BENTON CARROLL RD. 72" EQ. ELL. RCP	64.00																							
TOTALS CARRIED TO GENERAL SUMMARY																155.00	69.00	12433.59	4022.18	25604.10	7576.66																		

CALCULATIONS
 BAYOU DITCH
 OTTAWA SOIL & WATER CONSERVATION DISTRICT

DATE 9/2019
 Approved _____
 Title _____
 Construction Approved _____
 Title _____

Designed J. LAUBACHER
 Drawn J. LAUBACHER
 Redlined _____
 Checked D. TOWNS
 DATE 5/2020

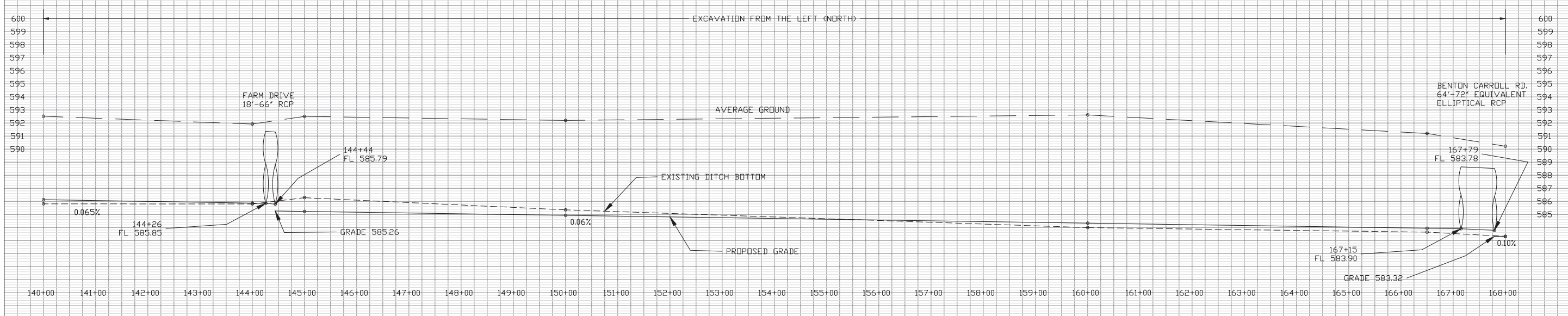
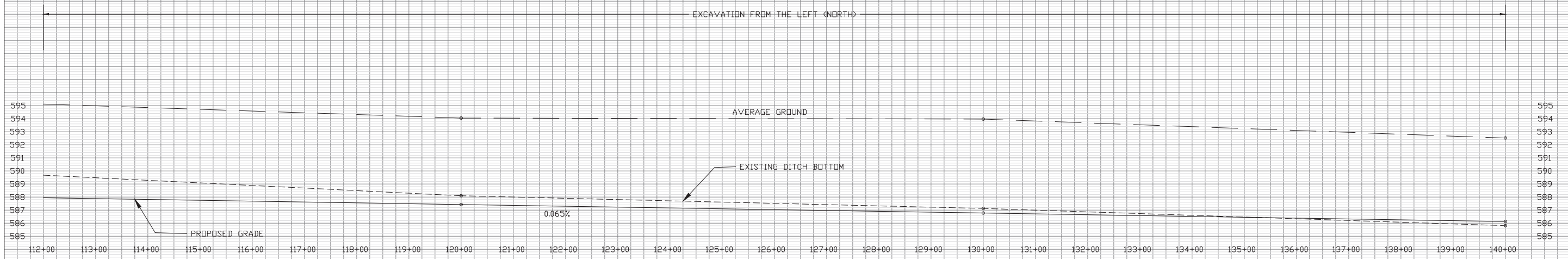
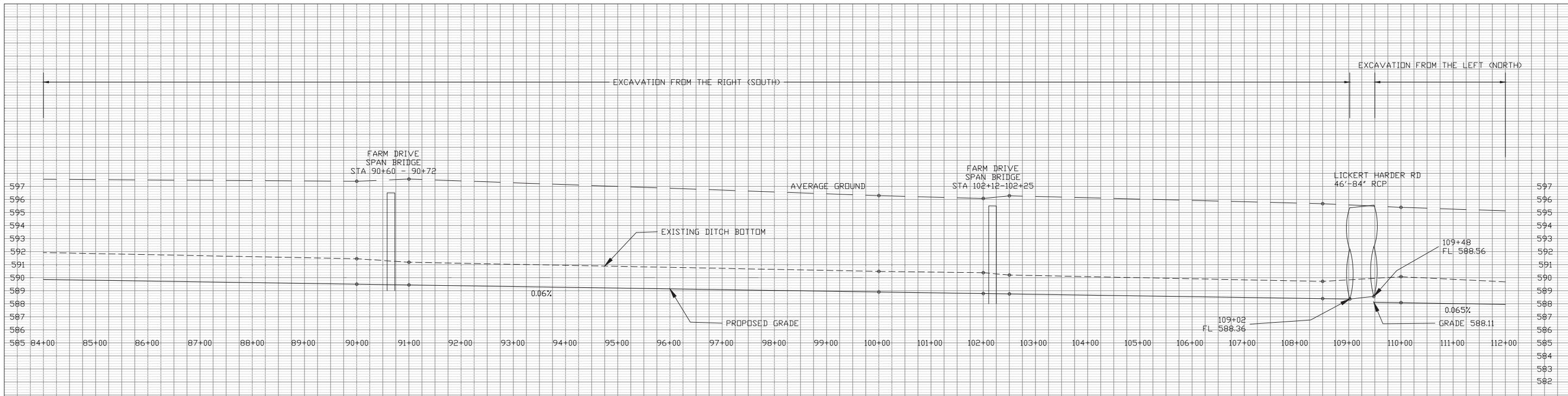
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 DRAWING NUMBER
 Sheet 4 of 9



DATE	DATE	DATE	DATE
Approved	9/20/09	9/20/09	5/20/20
Title	J. LAUBACHIER	J. LAUBACHIER	D. TORIS
Construction			
Approved			
Title			

PROFILE 1
BAYOU DITCH
 OTTAWA SOIL & WATER CONSERVATION DISTRICT

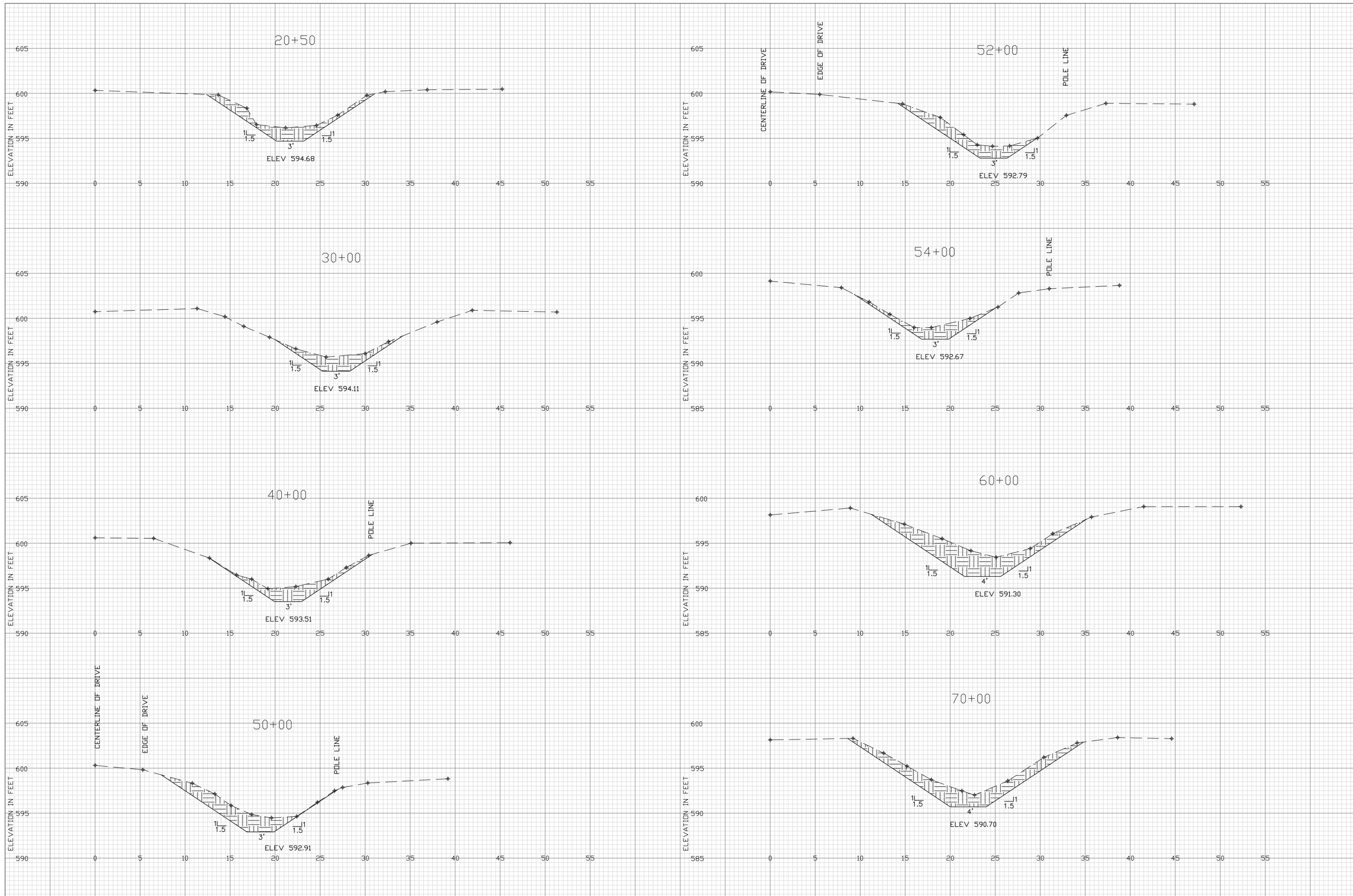
CAD FILE I.D.
 DRAWING NUMBER
 Sheet 5 of 9



DATE	DATE	Approved	Title
	9/20/19	J. LAUBACHIER	J. LAUBACHIER
	9/20/19	J. LAUBACHIER	J. LAUBACHIER
	5/20/20	D. TORIS	D. TORIS

PROFILE 2
BAYOU DITCH
 OTTAWA SOIL & WATER CONSERVATION DISTRICT

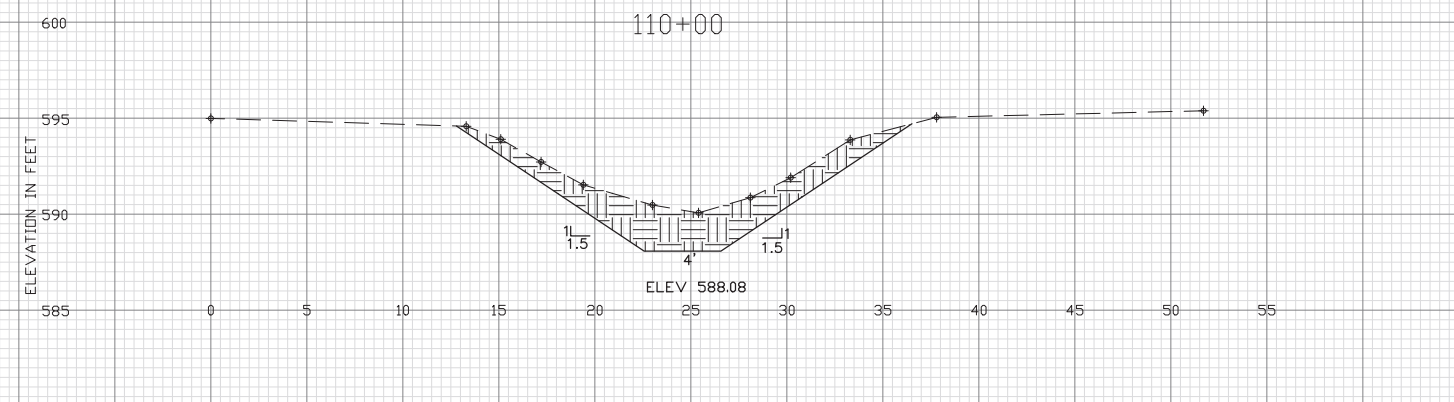
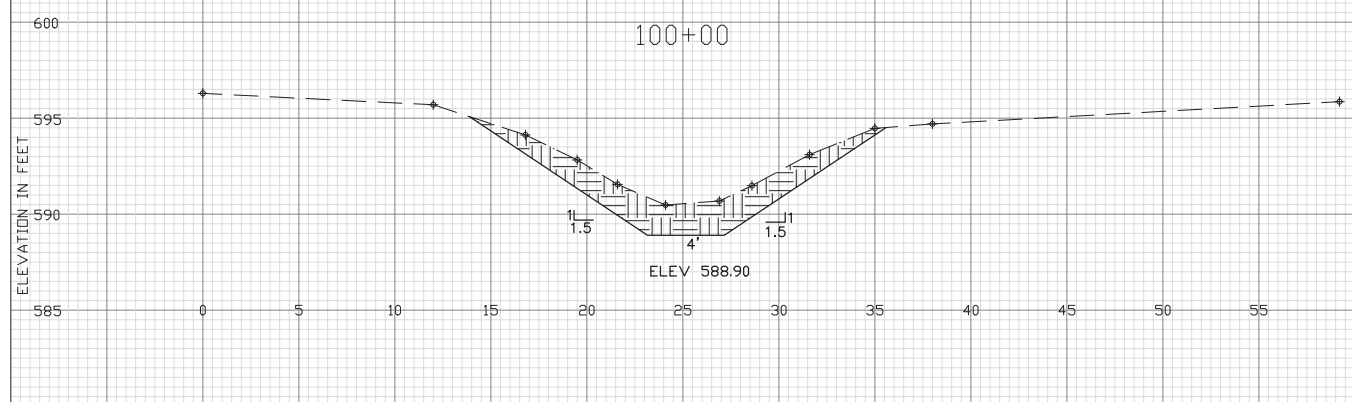
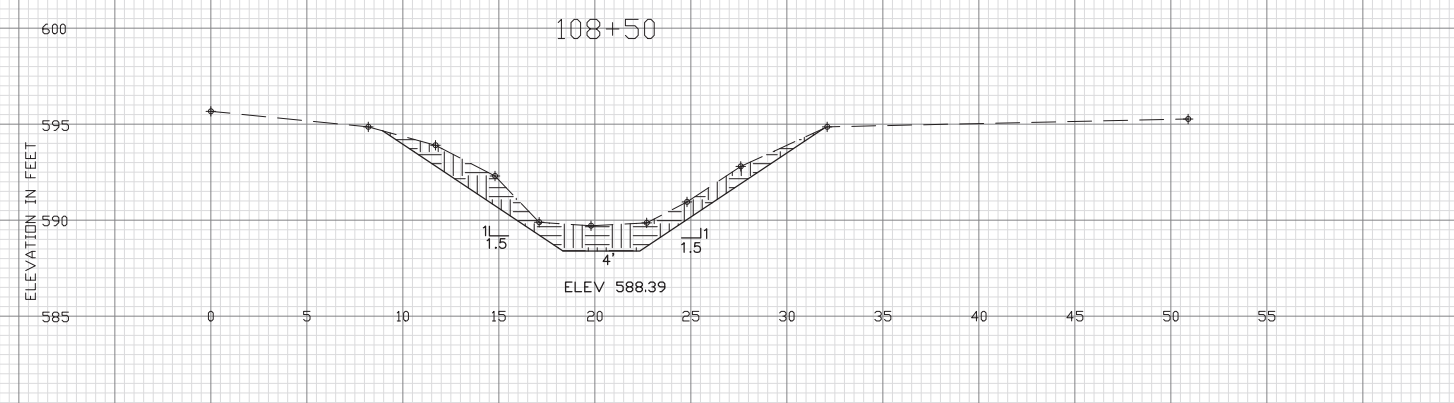
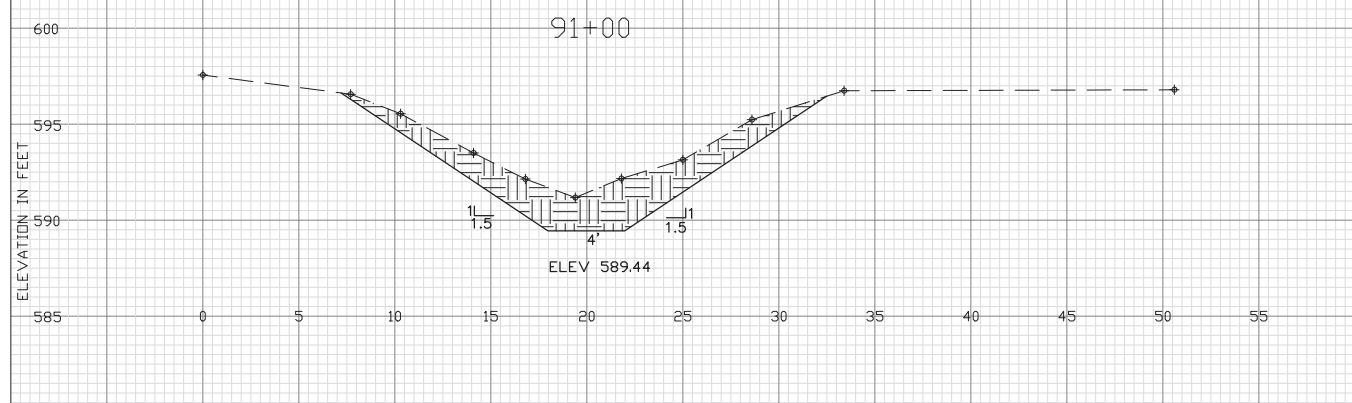
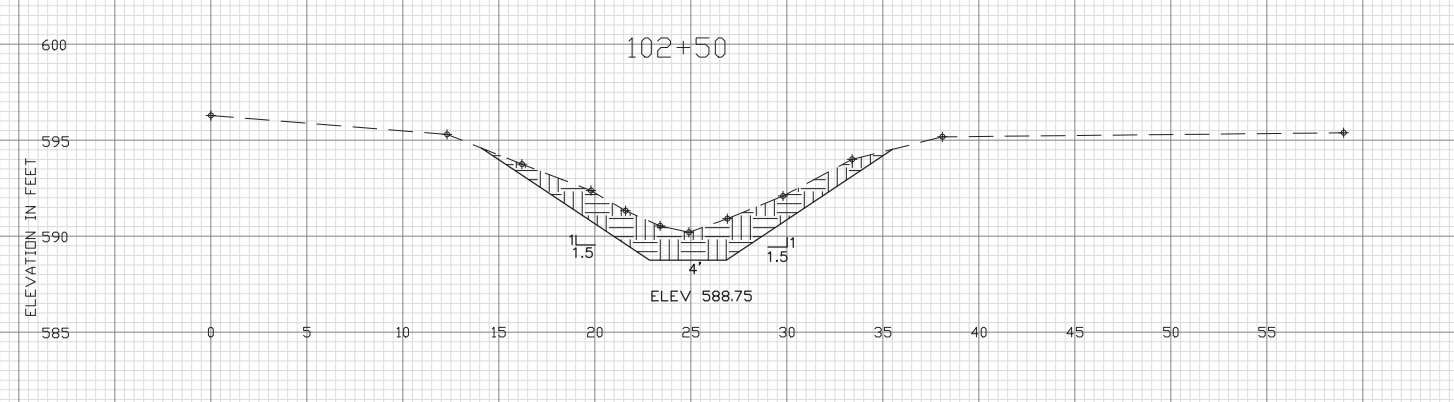
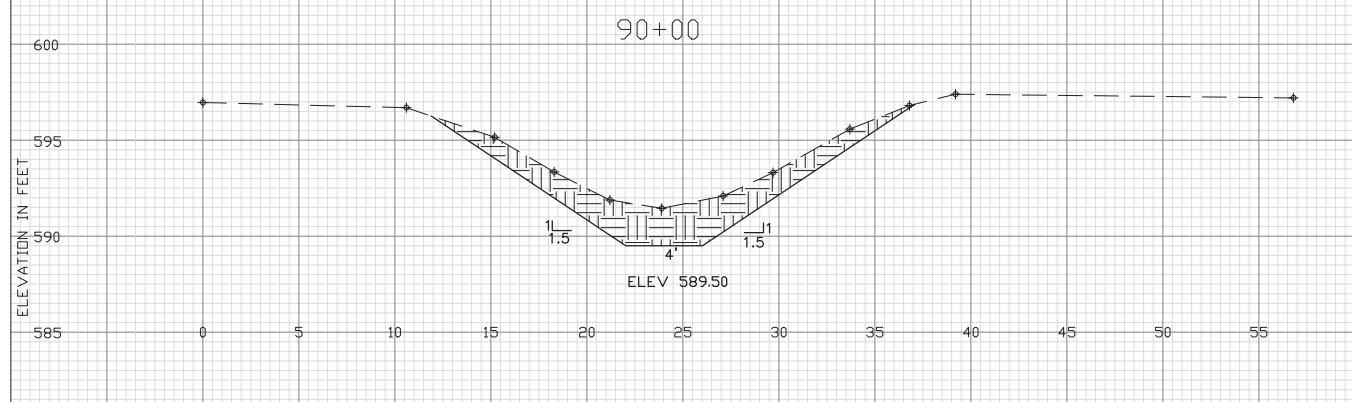
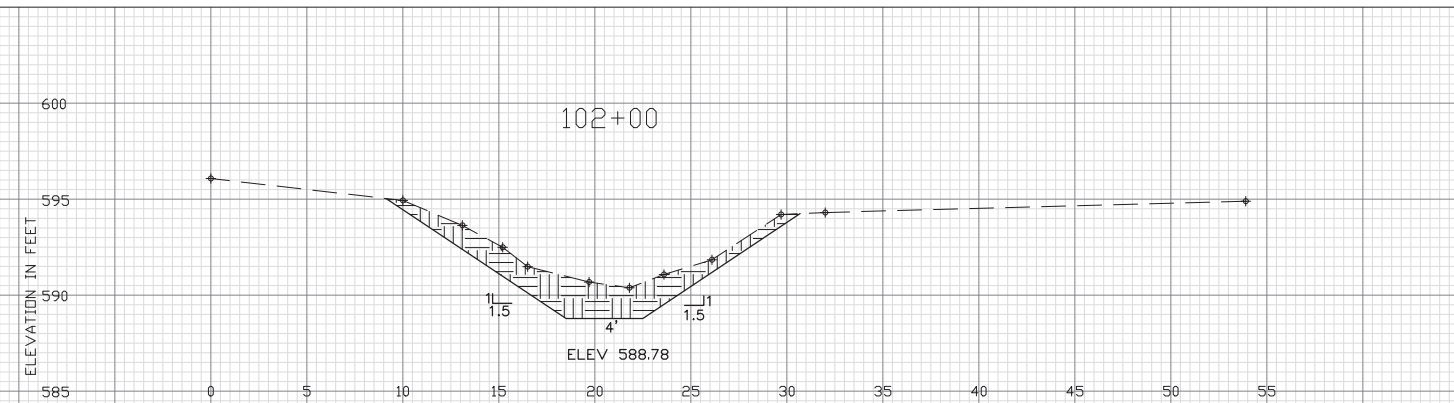
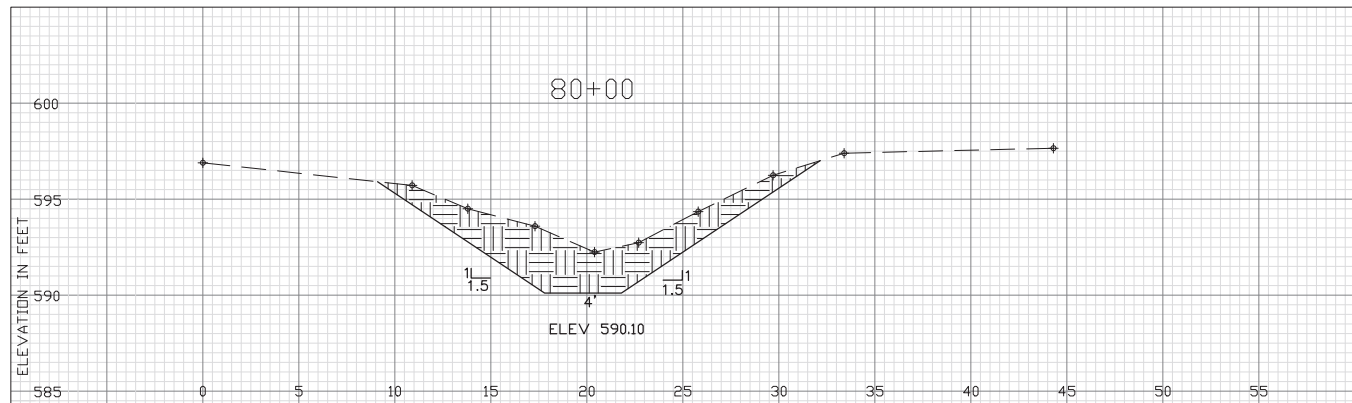
CAD FILE I.D.
 DRAWING NUMBER
 Sheet 6 of 9



NOTE: ALL CROSS SECTIONS VIEWED LEFT TO RIGHT LOOKING
DOWNSTREAM IN THE DIRECTION OF INCREASING STATIONS

JOB CLASS

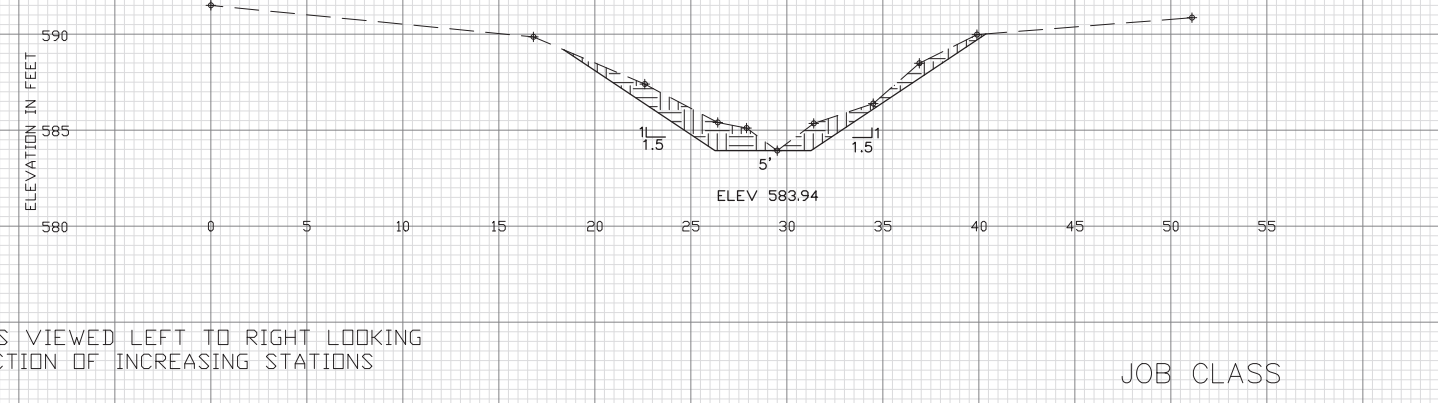
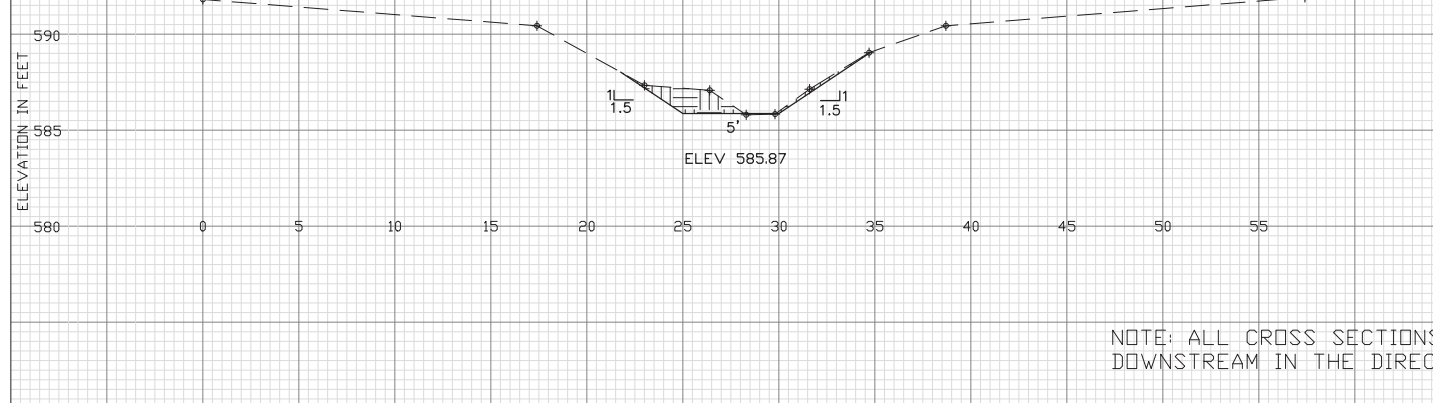
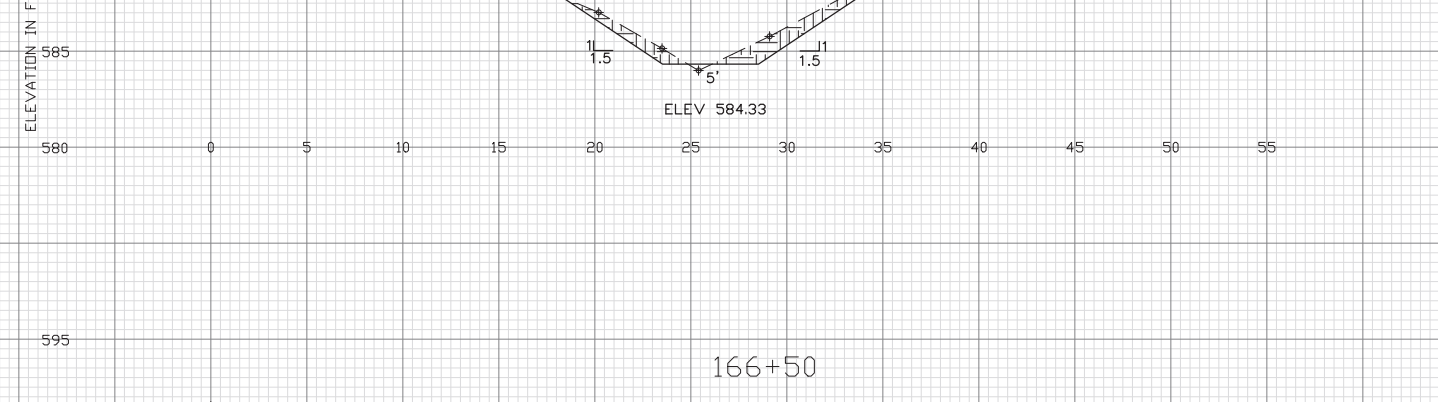
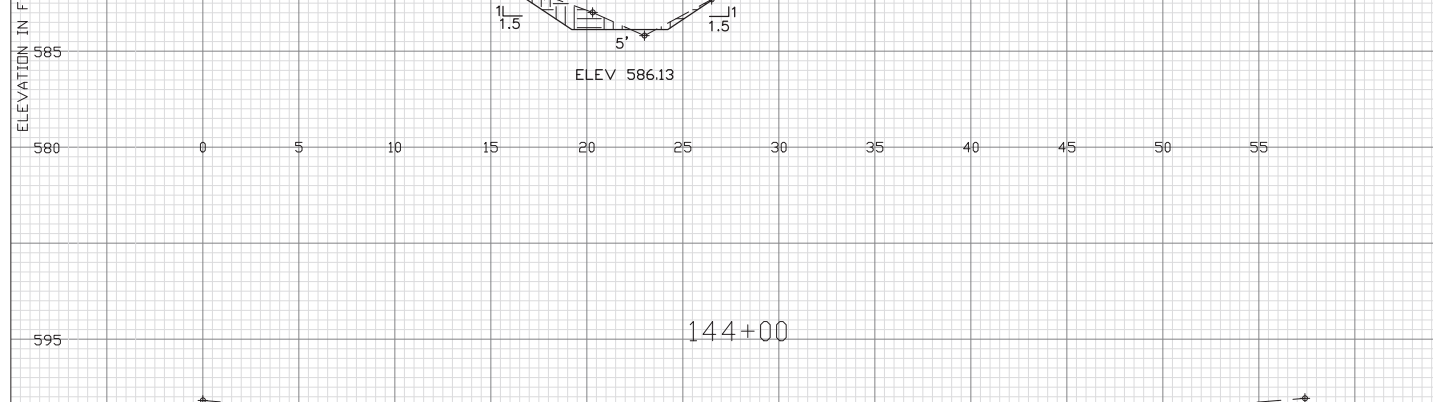
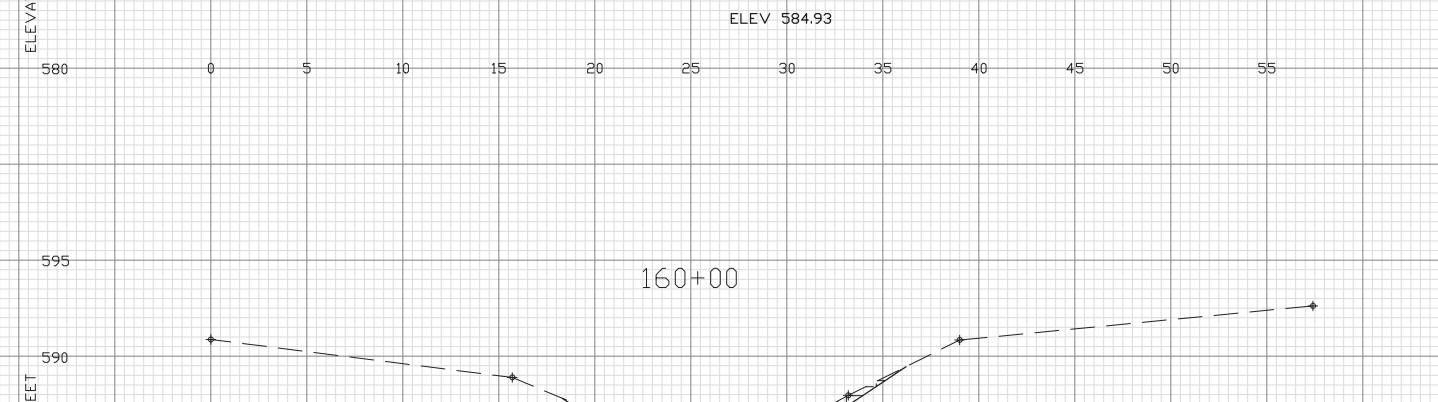
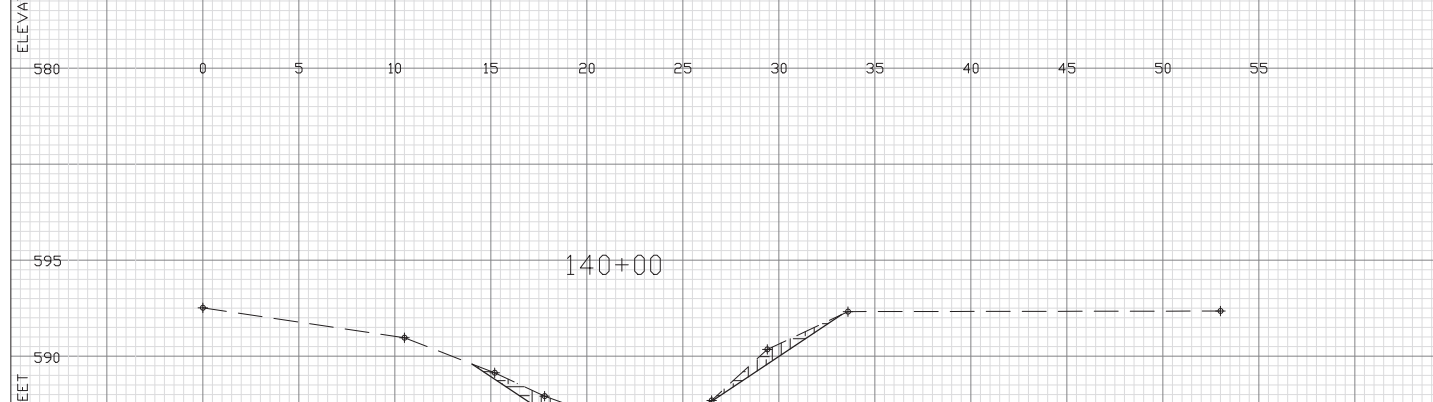
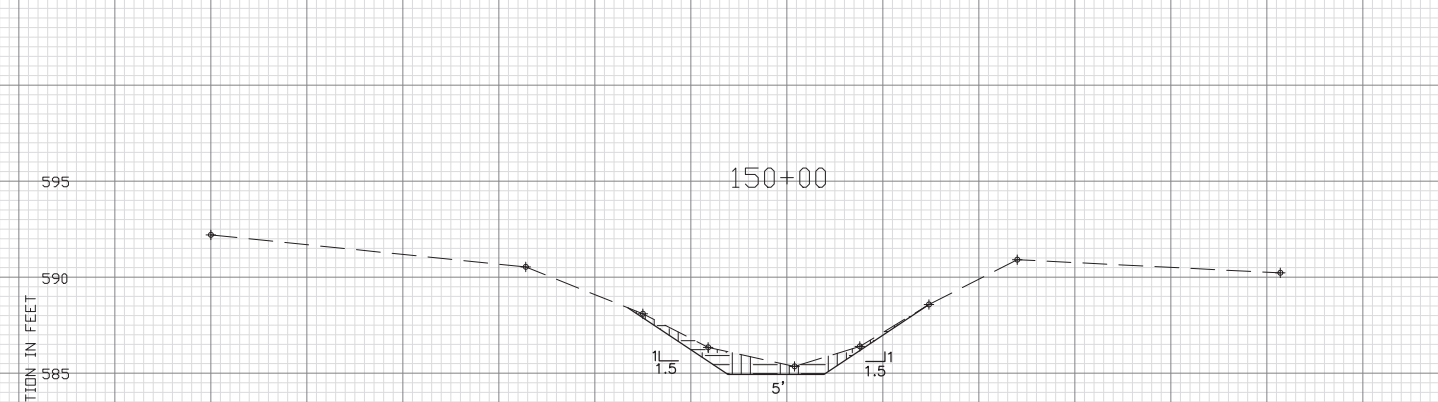
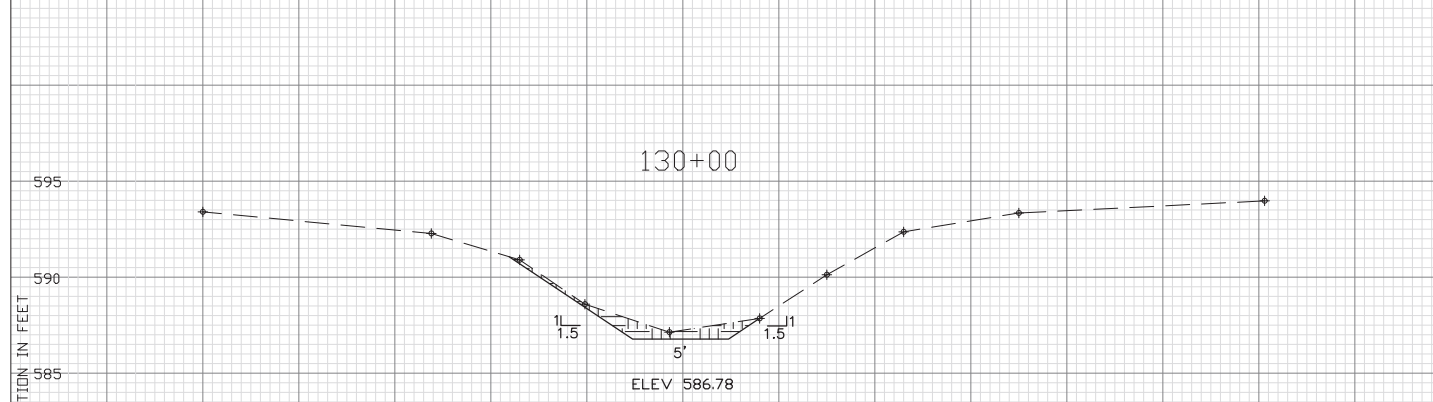
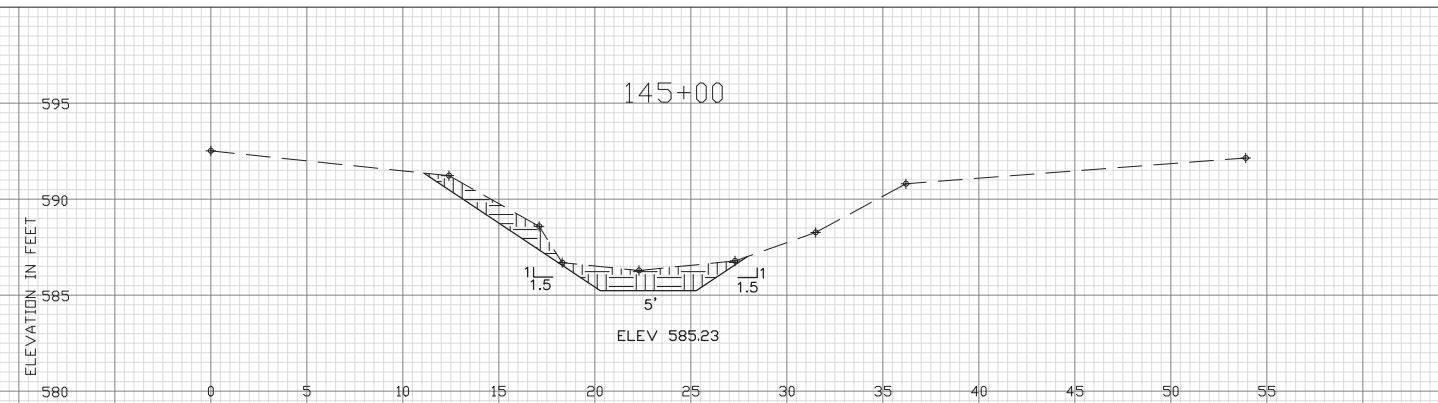
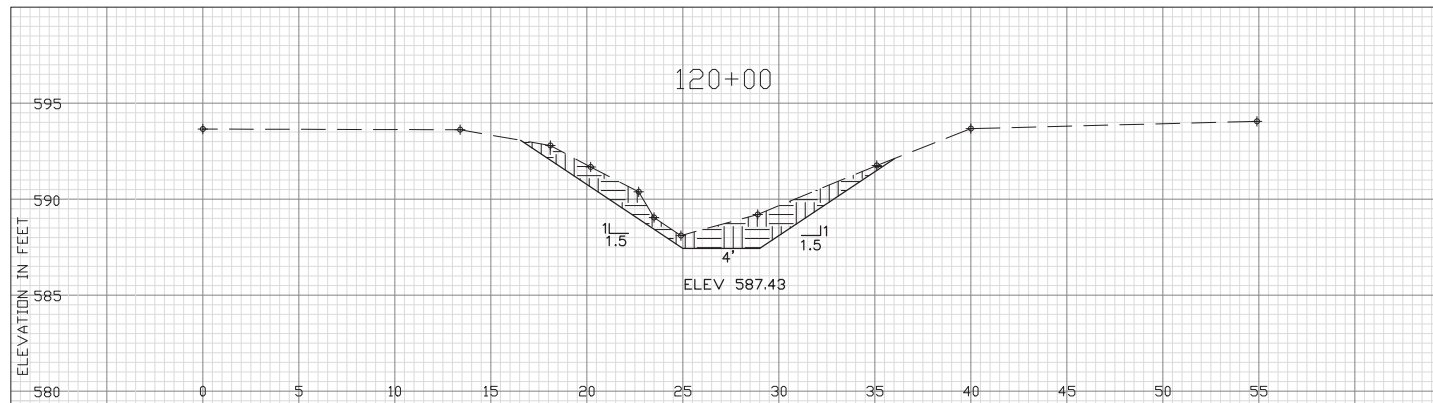
DATE		DATE	
Approved	9/20/19	Designed	J. LAUBACHER
Title	9/20/19	Drawn	J. LAUBACHER
Construction		Redlined	
Title	5/20/20	Checked	D. TORIS
<p>CROSS SECTION 1</p> <p>BAYOU DITCH</p> <p>OTTAWA SOIL & WATER CONSERVATION DISTRICT</p>			
CAD FILE I.D.		DRAWING NUMBER	
Sheet 7		of 9	



NOTE: ALL CROSS SECTIONS VIEWED LEFT TO RIGHT LOOKING
DOWNSTREAM IN THE DIRECTION OF INCREASING STATIONS

JOB CLASS

DATE	DATE	DESIGNED	APPROVED
9/20/19	9/20/19	J. LAUBACHER	J. LAUBACHER
TITLE	TITLE	DRAWN	TITLE
CROSS SECTION 2	CROSS SECTION 2	J. LAUBACHER	CROSS SECTION 2
BAYOU DITCH	BAYOU DITCH	REDLINED	BAYOU DITCH
OTTAWA SOIL & WATER CONSERVATION DISTRICT	OTTAWA SOIL & WATER CONSERVATION DISTRICT	CHECKED	OTTAWA SOIL & WATER CONSERVATION DISTRICT
		D. TORIS	
CAD FILE I.D.			
DRAWING NUMBER			
Sheet 8 of 9			



NOTE: ALL CROSS SECTIONS VIEWED LEFT TO RIGHT LOOKING
DOWNSTREAM IN THE DIRECTION OF INCREASING STATIONS

JOB CLASS

DATE		DATE	
Approved	9/20/19	Designed	J. LAUBACHER
Title	9/20/19	Drawn	J. LAUBACHER
Construction Approved		Redlined	
Title	5/20/20	Checked	D. TORIS
<p>CROSS SECTION 3 BAYOU DITCH OTTAWA SOIL & WATER CONSERVATION DISTRICT</p>			
CAD FILE I.D.			
DRAWING NUMBER			
Sheet 9 of 9			