

IOWA DEPARTMENT OF TRANSPORTATION Highway Division

FARM TO MARKET SYSTEM WOODBURY COUNTY P.C.C. PAVING

PROJECT NO: STBG-SWAP-C097(144)--FG-97

UTILITY CONTACTS

FIBERDAM, 1605 8TH STREET SIOUX CITY, IA 51101 - 712-251-6221 - RICK WELCH... LONG LINES, 504 4TH STREET SERGEANT BLUFF, IA 51054 - 712-333-1352 - TOM CONNORS...

TRAFFIC CONTROL PLAN

THIS ROAD WILL BE CLOSED TO THROUGH TRAFFIC DURING CONSTRUCTION. LOCAL TRAFFIC TO ADJACENT PROPERTIES WILL BE MAINTAINED AS PROVIDED FOR IN ARTICLE 1107.08 OF THE CURRENT STANDARD SPECIFICATIONS...

ALL SAFETY CLOSURES SHALL BE FURNISHED, ERECTED, MAINTAINED AND REMOVED BY THE CONTRACTOR.

MAINTENANCE OF SIGNS, BARRICADES AND SAFETY CLOSURES AS STATED IN ARTICLE 1107.09 SHALL APPLY ON THIS PROJECT.

ROAD CLOSURES ON THIS PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE IN ACCORDANCE WITH ROAD STANDARD TC-252.

WOODBURY COUNTY WILL BE RESPONSIBLE FOR DETOUR ROUTE

REFER TO THE PROPOSAL FORM FOR A LIST OF APPLICABLE SPECIFICATIONS

ON K-26, FROM RELOCATED PORT NEAL ROAD SOUTH 1.8 MILES TO GELITA PLANT ENTRANCE, SEG 7 AND 10 787 R47

THIS PROJECT IS COVERED BY THE IOWA DEPARTMENT OF NATURAL RESOURCES NPDES GENERAL PERMIT NO. 2. THE CONTRACTOR SHALL CARRY OUT THE TERMS AND CONDITIONS OF GENERAL PERMIT NO. 2. REFER TO SECTION 2902 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL INFORMATION.

REFER TO SHEET 2 FOR LOCATION MAP

Project Number: STBG-SWAP-C097(144)-FG-97

INDEX OF SHEETS

Table with 2 columns: No., Description. Rows include: 1 TITLE SHEET, 2 LOCATION PLAN, 3 ESTIMATE OF QUANTITIES AND GENERAL NOTES, 4 ESTIMATE REFERENCE INFORMATION, 5 TYPICAL SECTIONS AND TABULATIONS, 6 CORRUGATED METAL ROADWAY PIPE DETAIL, 7 CURTAIN WALL DETAILS INLET AND OUTLET, 8 REINFORCED CONCRETE PIPE DETAIL, 9 SUBGRADE STABILIZATION DETAIL, 10-14 PROFILE VIEWS, 15-34 PLAN VIEWS, P1-P2 POLLUTION PREVENTION PLAN.

MILEAGE SUMMARY

Table with 4 columns: Div., Location, Lin. Ft., Miles. Row: STA. 0+00.00 TO STA. 10+54.18, 10,154.18, 1.620

ROAD STANDARD PLANS

The following Bridge Standards shall be considered applicable to construction work on this project.

Table with 6 columns: Identification, Date, Identification, Date, Identification, Date. Rows include: MI-210, PM-110, PY-101, TC-252, EC-201 and their corresponding DR and DR-203 standards.

Approved: Mark J. Nabra, PE, Woodbury County Engineer, Date: 3/8/2022

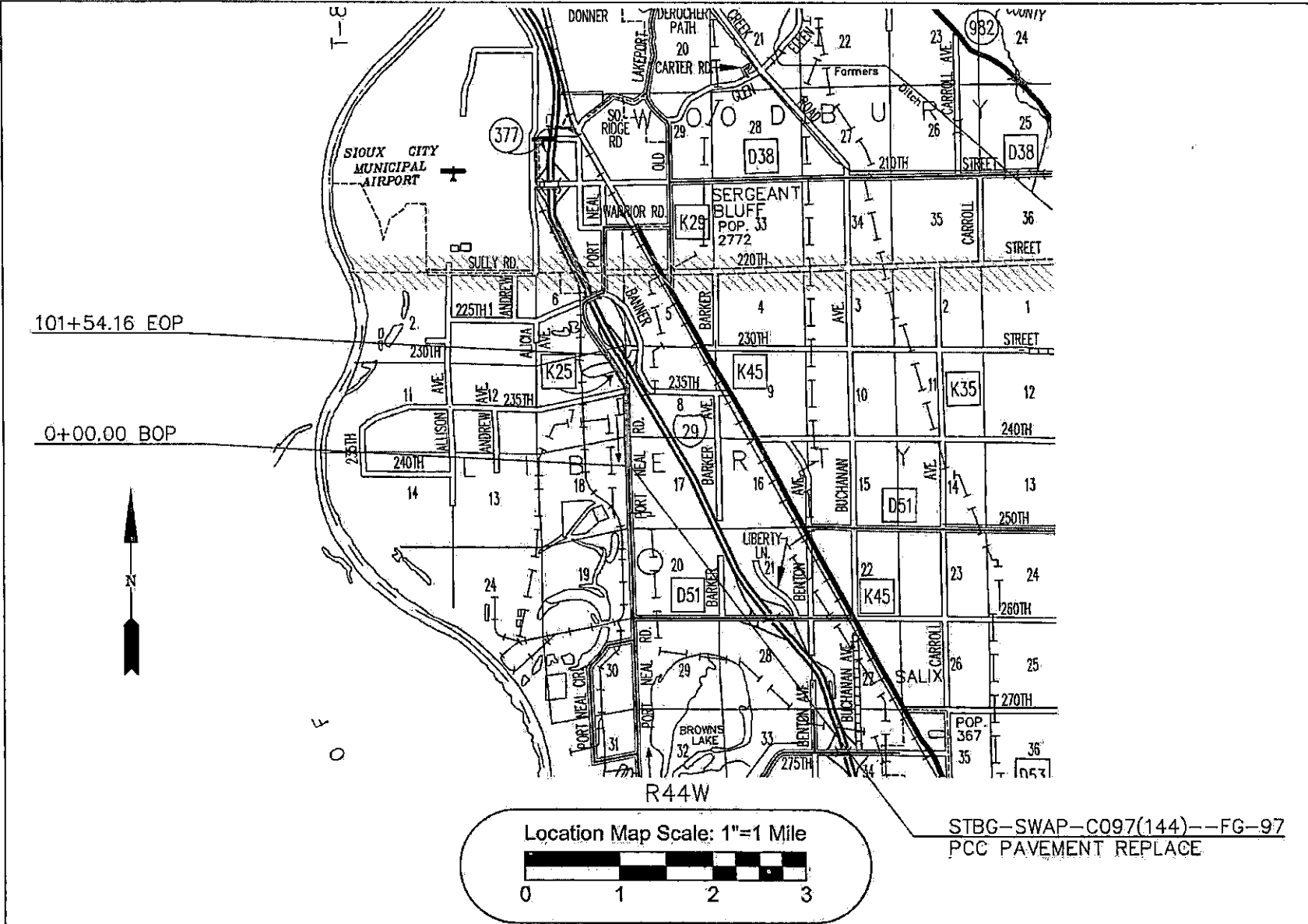
WOODBURY COUNTY Letting Date June 21, 2022

P.C.C. PAVING PROJECT NO: STBG-SWAP-C097(144)-FG-97

Board of Supervisors section with five signature lines and an 'Approved' box.

Licensed Professional Engineer seal for COLIN D. RYAN, P26798, IOWA. Includes signature and date: Colin D. Ryan 3/8/2022.





WOODBURY COUNTY
ENGINEERS OFFICE

CDR.	DATE
DRAWN BY:	REVISION
DESIGNED BY:	DATE
APPROVED BY:	DATE

PROJECT DESCRIPTION: PCC PAVEMENT - GRADE AND REPLACE
K25 SEC. 7, 18 187N-R47W

SHEET DESCRIPTION: LOCATION MAP

PROJECT NO.
STBG SWAP C097(144)-FG-97
SHEET
2

ESTIMATED QUANTITIES

No.	ITEM CODE	ITEM	UNIT	TOTAL
1.	2101-0850001	CLEARING AND GRUBBING	ACRE	14
2.	2102-0425071	SPECIAL BACKFILL	C.Y.	3,142.11
3.	2102-2625000	EMBANKMENT-IN-PLACE	C.Y.	9,061
4.	2102-2710070	EXCAVATION, CLASS 10, ROADWAY AND BORROW	C.Y.	16,443.79
5.	2113-0001100	SUBGRADE STABILIZATION MATERIAL, POLYMER GRID	S.Y.	9,333.33
6.	2115-0100000	MODIFIED SUBBASE	C.Y.	5,650.4
7.	2121-7425020	GRANULAR SHOULDERS, TYPE B	TON	5803
8.	2210-0475290	MACADAM STONE BASE	TON	8,001
9.	2301-1033090	STANDARD OR SLIP-FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C, CLASS 3 DURABILITY, 9 INCH	S.Y.	27,133.32
10.	2401-6745650	REMOVAL OF EXISTING STRUCTURES	LS	1
11.	2402-0425030	GRANULAR BACKFILL	C.Y.	28.67
12.	2402-2720100	EXCAVATION, CLASS 20, FOR ROADWAY PIPE CULVERT	C.Y.	368.81
13.	2403-0100000	STRUCTURAL CONCRETE (MISCELLANEOUS)	C.Y.	6.5
14.	2404-7775000	REINFORCING STEEL	LB.	332
15.	2405-2705000	EXCAVATE AND DEWATER	LS	1
16.	2416-0100024	APRONS, CONCRETE, 24 IN. DIA.	EACH	2
17.	2416-1180024	CULVERT, CONCRETE ROADWAY PIPE, 24 IN. DIA	L.F.	50
18.	2417-0330024	APRONS, SAFETY SLOPE, 24 IN. DIA	EACH	6
19.	2417-1060084	CULVERT, CORRUGATED METAL ROADWAY PIPE, 84 IN. DIA	L.F.	128
20.	2501-5775000	PILES, STEEL SHEET	S.F.	180
21.	2506-4984000	FLOWABLE MORTAR	C.Y.	70
22.	2507-3250005	ENGINEERING FABRIC	S.Y.	4,666.67
23.	2510-6750501	REMOVAL AND CRUSHING OF PAVEMENT	S.Y.	24,821.28
24.	2519-3280000	FENCE, FIELD	L.F.	1300
25.	2519-3300400	FIELD FENCE BRACE PANELS	EACH	2
26.	2527-9283109	PAINTED PAVEMENT MARKINGS WATERBORNE OR SOLVENT	STA	304.32
27.	2528-2518000	SAFETY CLOSURE	EACH	3

ESTIMATED QUANTITIES

No.	ITEM CODE	ITEM	UNIT	TOTAL
28.	2528-8445110	TRAFFIC CONTROL	LS	1
29.	2533-4980005	MOBILIZATION	LS	1
30.	2599-9999018	FILLET CONSTRUCTION	S.Y.	416
31.	2601-2634100	MULCHING	ACRE	14
32.	2601-2642100	STABILIZING CROP SEEDING AND FERTILIZING	ACRE	14
33.	2602-0000020	SILT FENCE	L.F.	20,308
34.	2602-0010010	MOBILIZATIONS, EROSION CONTROL	EACH	1

CONSTRUCTION NOTES

All construction features and materials used in the construction of pavement joints shall conform to the requirements of the Current Standard Specifications. Refer to the appropriate Standard Road Plans and Project Plans for details. Transverse saw joints shall be cut to $\frac{1}{4}$ " and across full width of pavement at 15 foot intervals, and shall be at 90 degrees from the edge as per Standard Road Plan PV-101. CD Joint assembly shall be as per detail on sheet C1. Baskets shall be as per plan details. All reinforcing steel or ties shall be epoxy coated conforming to the requirements of Section 4151.02 of Current Standard Specifications. All steel shall be uniformly spaced within the joint and properly aligned.

The pavements shall not be cored for thickness index. Section 2301.04 A.2. and 2301.05 A.2. shall not apply.

Portland Cement Concrete Pavement Slip-form, Class C 9". Coarse aggregate in pavement shall be Class 3 durability. Use of ground granulated blast furnace slag in blended cement or as a cement substitute will not be allowed on this project.

Refer to Jointing Standard PV-101 for all P.C.C. pavement placed next to existing concrete. If thickness allows drilled dowels will be used. For concrete thickness 6" and less, evaluation will be done by the Project Engineer to determine if doweling will be required.

WOODBURY COUNTY
ENGINEERS OFFICE

DATE	_____
REVISION	_____
APPROVED BY:	_____
DESIGNED BY:	_____
DRAWN BY:	_____

PROJECT DESCRIPTION: PCC PAVEMENT - GRADE AND REPLACE
K25 SEC. 7, 18 187N-R47W

SHEET DESCRIPTION: ESTIMATE OF QUANTITIES

PROJECT NO:
SBC-SHW-C057(14)-P097
SHEET
3

ESTIMATE REFERENCE INFORMATION

ITEM NO.	DESCRIPTION	DESCRIPTION
2	2102-0425071	SPECIAL BACKFILL THIS MATERIAL SHALL MEET THE GUIDELINES OF THE SPECIAL BACKFILL MATERIAL SPECIFICATION. THE MATERIAL SHALL BE PLACED IN LIFTS NO THICKER THAN 12 INCHES. THE MATERIAL SHALL BE COMPACTED WITH A VIBRATORY SMOOTH DRUM ROLLER. SEE SHEETS 8 AND 9 FOR PLACEMENT DETAILS
3	2102-2710070	EXCAVATION CLASS 10, ROADWAY AND BORROW BID ITEM INCLUDES TRIMMING EXISTING SUBGRADE TO FINAL ELEVATION PRIOR TO PLACEMENT OF MODIFIED SUBBASE. ESTIMATED QUANTITY IS BASED ON CONCRETE AND SUBBASE THICKNESS WITH A 3' ALLOWANCE ON THE EDGES FOR THE PAVING MACHINE. OVERHAUL IS INCIDENTAL TO THIS ITEM AND WILL NOT BE PAID FOR SEPARATELY. BID ITEM INCLUDES EXCAVATION FOR PLACEMENT OF MACADAM STONE AND POLYMER GRID FOR SUBGRADE STABILIZATION FROM STA. 73+00 TO STA 79+00. BID ITEM ALSO INCLUDES EXCAVATION FOR PLACEMENT OF 6" THICK HMA IN 235TH ST. GRAVEL INTERSECTION
4	2102-2625000	EMBANKMENT-IN-PLACE SEE SHEET 5 FOR BREAKDOWN OF EXCAVATION QUANTITIES. TYPE "A" COMPACTION IS REQUIRED. AFTER ALL SUITABLE MATERIAL ON SITE HAS BEEN DEPLETED THE CONTRACTOR SHALL FURNISH HIS OWN BORROW FOR EMBANKMENT-IN-PLACE. THE CONTRACTOR SHALL FAMILIARIZE THEM SELF WITH PROVISIONS OF IOWA LAW AS IT APPLIES TO REMOVAL AND REPLACEMENT OF TOPSOIL ON BORROW AREAS.
5	2113-0001100	SUBGRADE STABILIZATION MATERIAL, POLYMER GRID SEE SHEET 8 FOR PLACEMENT DETAILS. MATERIAL SHALL MEET THE GUIDELINES OF THE ENGINEERING FABRICS SPECIFICATION (4196.01-5)
6	2115-0100000	MODIFIED SUBBASE THIS MATERIAL SHALL MEET THE GUIDELINES OF THE MODIFIED SUBBASE SPECIFICATION. THE MATERIAL SHALL BE PLACED APPROXIMATELY 6 INCHES THICK UNDER THE PAVEMENT IN ITEM 9. THE MATERIAL SHALL BE COMPACTED WITH A SMOOTH DRUM ROLLER.
7	2121-7425020	GRANULAR SHOULDERS, TYPE B MINIMUM 50% BY WEIGHT OF CRUSHED PAVEMENT MATERIALS. SEE SHEET 5 FOR PLACEMENT DETAILS.
8	2210-0475290	MACADAM STONE BASE SEE SHEET 8 FOR PLACEMENT DETAILS.
9	2301-1033090	STANDARD OR, SLIP FORM PORTLAND CEMENT CONCRETE PAVEMENT, CLASS C, CLASS 3 DURABILITY, 9 IN. THE CONTRACTOR SHALL PROVIDE CERTIFIED PLANT INSPECTION FOR THE CONCRETE USED IN THIS BID ITEM. THE COST OF THIS INSPECTION SHALL BE INCIDENTAL TO THIS ITEM. CD BASKETS ARE INCIDENTAL TO THIS ITEM AND SHALL BE PLACED AT 20' SPACING AT 90 DEGREES. ALL SAW CUTS SEALED. QUANTITY INCLUDES ANTICIPATED REPAIR OF DRIVEWAY AT STATION 944-55
10	2401-6745650	REMOVAL OF EXISTING STRUCTURES THIS ITEM SHALL INCLUDE FULL REMOVAL AND DISPOSAL OF EXISTING 24 IN. DIAMETER CORRUGATED METAL PIPE CULVERT APPROXIMATELY 45 FEET IN LENGTH LOCATED AT STATION 30+46.50
11	2402-0425030	GRANULAR BACKFILL SEE SHEETS 6 AND 8 FOR PLACEMENT DETAILS.

ESTIMATE REFERENCE INFORMATION

ITEM NO.	DESCRIPTION	DESCRIPTION
12	2402-2720100	EXCAVATION, CLASS 20, FOR ROADWAY PIPE CULVERT BID ITEM IS FOR EXCAVATION REQUIRED FOR PLACEMENT OF 84" CMP ROADWAY PIPE AND 24" CONCRETE ROADWAY PIPE
13,14,20	2403-0100000 2404-7775000 2501-5775000	STRUCTURAL CONCRETE (MISC), REINFORCING STEEL, SHEET PILING BID ITEMS TO BE USED FOR CONSTRUCTION OF HEADWALL AT INLET AND OUTLET OF ITEM 18 CORRUGATED METAL ROADWAY PIPE. CERTIFIED PLANT INSPECTION IS REQUIRED AND SHALL BE CONSIDERED INCIDENTAL TO THIS ITEM. SEE SHEET 7 FOR DETAILS
16,17	2416-0100024 2416-1180024	CONCRETE APRONS, CONCRETE ROADWAY PIPE SEE SHEET 8 FOR PLACEMENT DETAILS
18	2417-0330024	APRONS, SAFETY SLOPE, 24 IN. DIA APRONS TO BE PLACED ON EXISTING ENTRANCE CULVERT PIPES AT STATIONS 6+75, 20+00, AND 21+00
19	2417-1060084	CULVERT, CORRUGATED METAL ROADWAY PIPE, 84 IN. DIA CULVERT WILL BE UTILIZED TO SUPPLINE EXISTING 8'x8' BOX CULVERT AT STATION 80+87.50. SEE SHEET 6 FOR PLACEMENT DETAILS. CULVERT SHALL BE ALUMINIZED, RIVETED, AND 10 GAUGE WITH 3X1 CORRUGATIONS
21	2506-4984000	FLOWABLE MORTAR SEE SHEET 6 FOR PLACEMENT DETAILS. FLOWABLE MORTAR TO BE MADE TO MIX SPECIFIED BY WOODBURY COUNTY ENGINEER. MIX SHALL CONTAIN (PER YARD) 940 LB CEMENT, 2100 LB FINE AGGREGATE, AND CONTAIN 15% FLY ASH. CERTIFIED PLANT INSPECTION IS REQUIRED AND SHALL BE CONSIDERED INCIDENTAL.
22	2510-6745850	ENGINEERING FABRIC SEE SHEET 8 FOR PLACEMENT DETAILS
23	2510-6750501	REMOVAL AND CRUSHING OF PAVEMENT THIS ITEM SHALL INCLUDE REMOVAL AND CRUSHING OF THE EXISTING 8" H.M.A. PAVEMENT UNDERLAIN BY 8" P.C.C. PAVEMENT AS WELL AS ANY ISOLATED AREAS IN WHICH EITHER OF THOSE ARE THICKER. MATERIAL SHALL BE CRUSHED FOR USE AS A GRANULAR SHOULDER IN ITEM 7. SAW CUTS TO BE MADE AT THE STATION INDICATED OR AT THE NEAREST TRANSVERSE PAVEMENT JOINT AS DIRECTED BY THE COUNTY ENGINEER. ALL SAW CUTS SHALL BE INCIDENTAL TO THIS ITEM AND SHALL BE FULL DEPTH
27	2528-2518000	SAFETY CLOSURE THIS ITEM SHALL INCLUDE PROVIDING, INSTALLING, MAINTAINING AND REMOVING SAFETY CLOSURES ACCORDING TO IDOT STANDARD SPECIFICATIONS
28	2528-8445110	TRAFFIC CONTROL THIS ITEM SHALL INCLUDE FURNISHING, INSTALLING, MAINTAINING AND REMOVING SIGNING AS PER THE "MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" AS ADOPTED BY THE DEPARTMENT PER 781 OF THE IOWA ADMINISTRATIVE CODE (IAC) CHAPTER 130 AND STANDARD ROAD PLAN TC-252.
30	2599-9999018	FILLET CONSTRUCTION INCLUDES MATERIAL FOR INTERSECTING GRAVEL ROAD AT STATION 60+42 AND ASPHALT DRIVEWAYS AT STATIONS 4+44 AND 58+00. INTERSECTION LAYOUT AS TYPICAL ILLUSTRATED ON SHEET 5. THE FILLET SHALL BE AN HMA MIXTURE WITH A 3" AGGREGATE AND A BINDER OF PG58-28S OR A PCC M-MIX. HMA FILLETS SHALL BE A NOMINAL 6 INCHES THICK. HMA MATERIAL SHALL BE PLACED WITH A PAVER IN TWO EQUAL LIFTS, WHILE PCC SHALL BE POURED ONCE 7" FULL-DEPTH. METHOD OF MEASUREMENT SHALL BE AS ACCORDING TO 2301.05, SECTION 2310 AND BASIS OF PAYMENT SHALL BE SQUARE YARDS. CONSTRUCTION OF THIS ITEM SHALL NOT BE ALLOWED BEFORE THE COMPLETION OF MAINLINE PAVING WITH OUT THE ENGINEER'S CONSENT. CERTIFIED PLANT INSPECTION IS REQUIRED FOR THIS ITEM.

WOODBURY COUNTY
ENGINEERS OFFICE

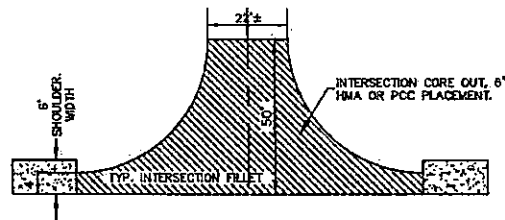
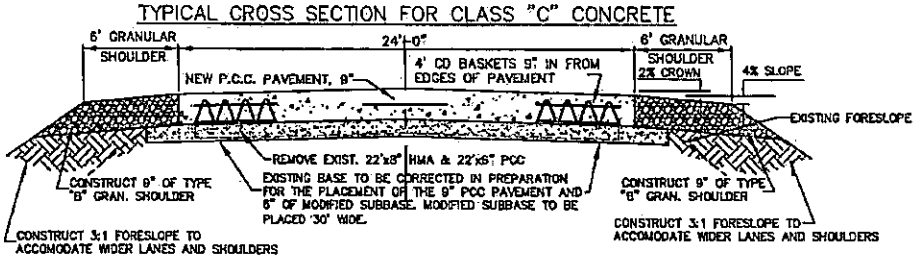
CUR DRAWN BY	DATE
CUR DESIGNED BY	REVISION
MUN APPROVED BY	DATE

PROJECT DESCRIPTION: P.C.C. PAVEMENT - GRADE AND REPLACE
K25 SEC. 7, 18 187N-R47W

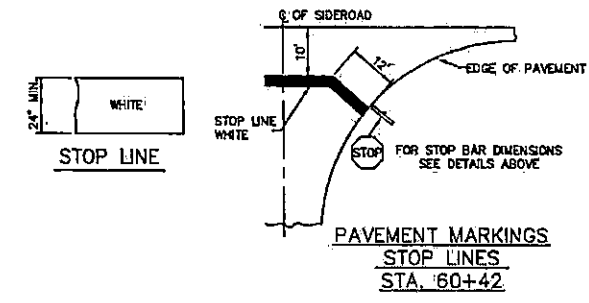
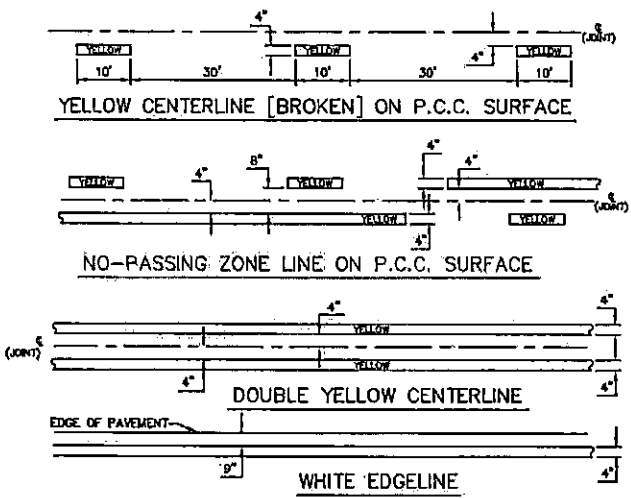
SHEET DESCRIPTION: QUANTITIES, REFERENCE INFORMATION

PROJECT NO.
3180-SWAP-0007141-P3-05

SHEET
4



INTERSECTION FILLET LAYOUT
STATION 60+42.00



TABULATION OF PAVEMENT MARKINGS

LOCATION DIVISION	SIDE	LENGTH IN STATIONS		
		SOLID WHITE EDGE LINE	YELLOW CENTER LINE SOLID	YELLOW CENTER LINE BROKEN
STATION TO STATION	LT. RT.			
STA. 0+00 TO 57+00	X	57.00		
STA. 0+00 TO 57+00	X	57.00		
STA. 0+00 TO 57+00	X			14.25
STA. 57+00 TO 68+40	X			6.80
STA. 57+00 TO 68+40	X		26.40	
STA. 57+00 TO 68+40	X		26.40	
STA. 68+40 TO 71+20	X		2.80	
STA. 68+40 TO 71+20	X		2.80	
STA. 68+40 TO 71+20	X			2.80
STA. 68+40 TO 71+20	X			2.80
STA. 71+20 TO 82+00	X			10.80
STA. 71+20 TO 101+54.16	X		30.34	
STA. 71+20 TO 101+54.16	X		30.34	
STA. 71+20 TO 101+54.16	X			7.59

SUMMARY OF EARTHWORK QUANTITIES Wood-100

EXCAVATION TYPE	RAW CUT CY	RAW FILL CY	WASTE ***** CY	USABLE ***** CUT CY	SHRINKAGE FACTOR	FILL + 40% SHRINKAGE CY	PAYMENT QUANTITY CY
EXCAVATION CLASS 10	16,443.79	19,474.76	1,544.38	14,789.41	40%	27,264.86	16,443.79
EXCAVATION CLASS 20	368.81	263.89	73.76	295.05	40%	516.34	368.81
TOTALS				15,084.46		27,781	

EMBANKMENT IN PLACE (EIP) EIP = (27,781 - 15,094.46) / 1.40 SHRINK = 9,061

TABULATION OF SILT FENCES FOR DITCH CHECKS

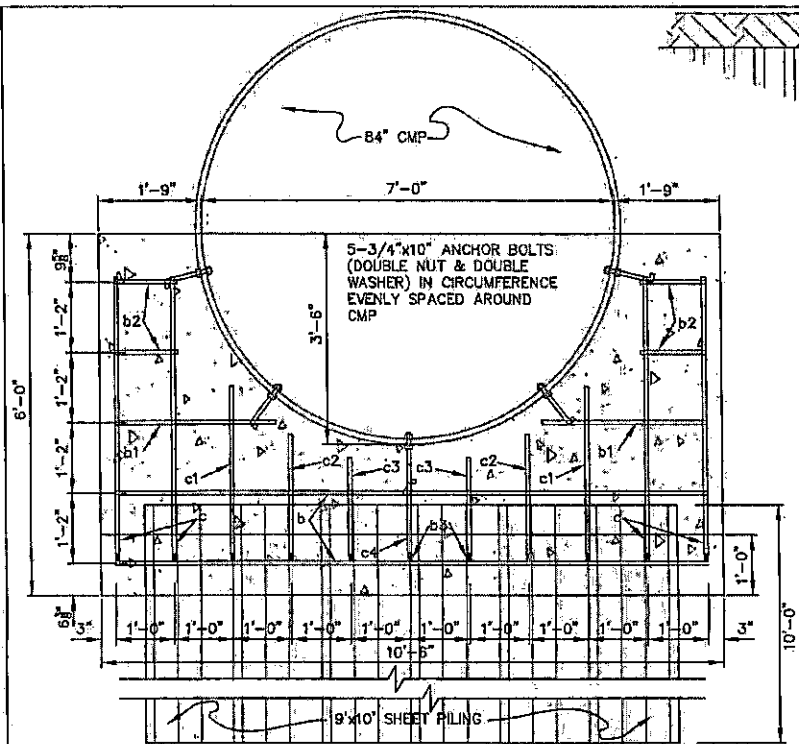
LOCATION STATION DIVISION I	LT.	LENGTH	RT.	LENGTH
0+00	X	10,154		
0+00			X	10,154
TOTALS		10,154	10,154	20,308

WOODBURY COUNTY
ENGINEERS OFFICE

COR. DRAWN BY: _____ DATE: _____
 COR. DESIGNED BY: _____ REVISION: _____
 MAIN APPROVED BY: _____ DATE: _____

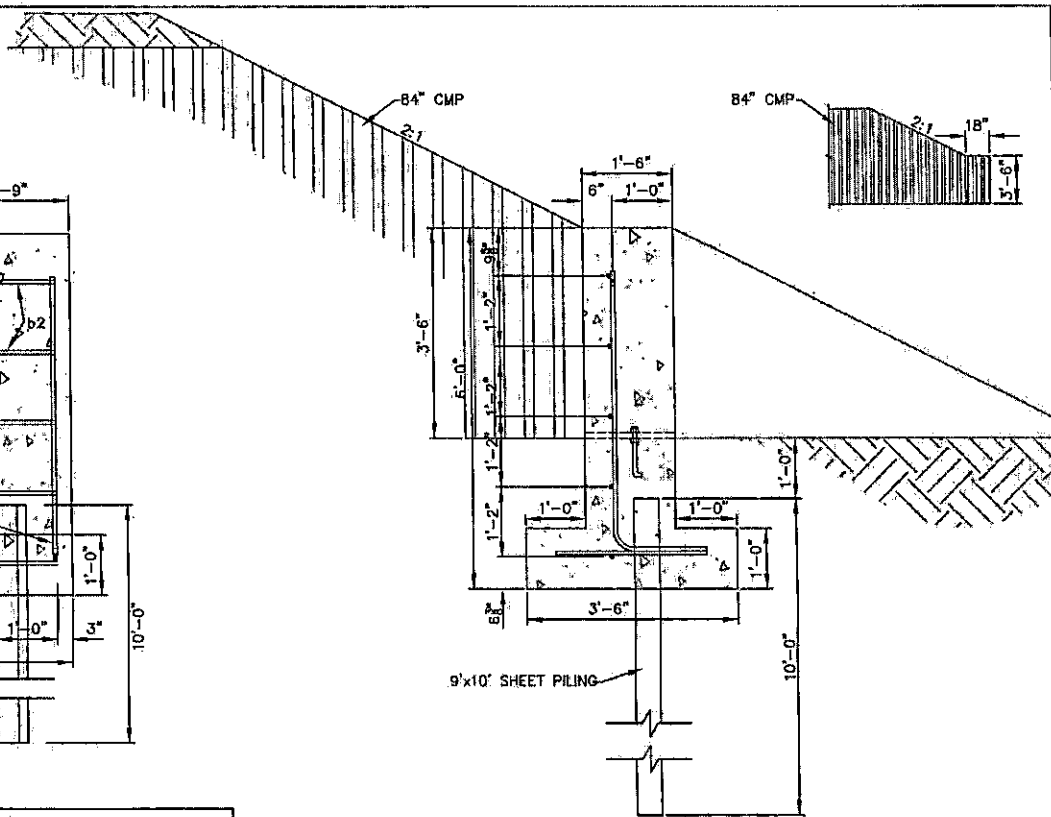
PROJECT DESCRIPTION: P.C.C. PAVEMENT - GRADE AND REPLACE K25 SEC. 7, 18 187N-R47W
 SHEET DESCRIPTION: TYPICAL SECTIONS & TABULATIONS

PROJECT NO. 876504P007144-FB97
 SHEET 5

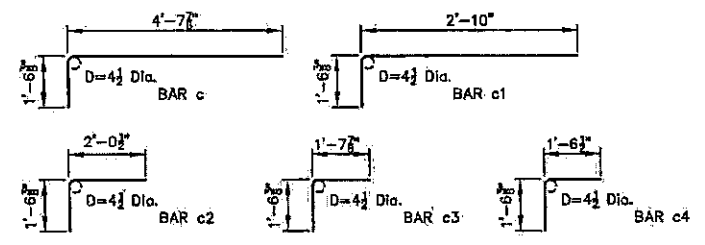


INLET AND OUTLET END ELEVATION
SCALE: 1"=2'

REBAR LIST CURTAIN WALL							
BAR	LOCATION	SHAPE	SIZE	NO.	LENGTH	SPACING	WEIGHT
b	WALL HORIZONTAL	—	6	2	10'-0"	14"	30
b ₁	WALL HORIZONTAL	—	6	2	2'-9"	14"	9
b ₂	WALL HORIZONTAL	—	6	4	1'-1"	14"	7
b ₃	WALL HORIZONTAL	—	6	11	2'-6"	14"	42
c	WALL VERTICAL	—	6	4	8'-2 1/4"	12"	38
c ₁	WALL VERTICAL	—	6	2	4'-4 3/8"	12"	14
c ₂	WALL VERTICAL	—	6	2	3'-6 3/8"	12"	11
c ₃	WALL VERTICAL	—	6	2	3'-2 1/4"	12"	10
c ₄	WALL VERTICAL	—	6	1	3'-0 3/8"	12"	5
TOTAL							166 LBS.



INLET AND OUTLET SIDE ELEVATION
SCALE: 1"=2'



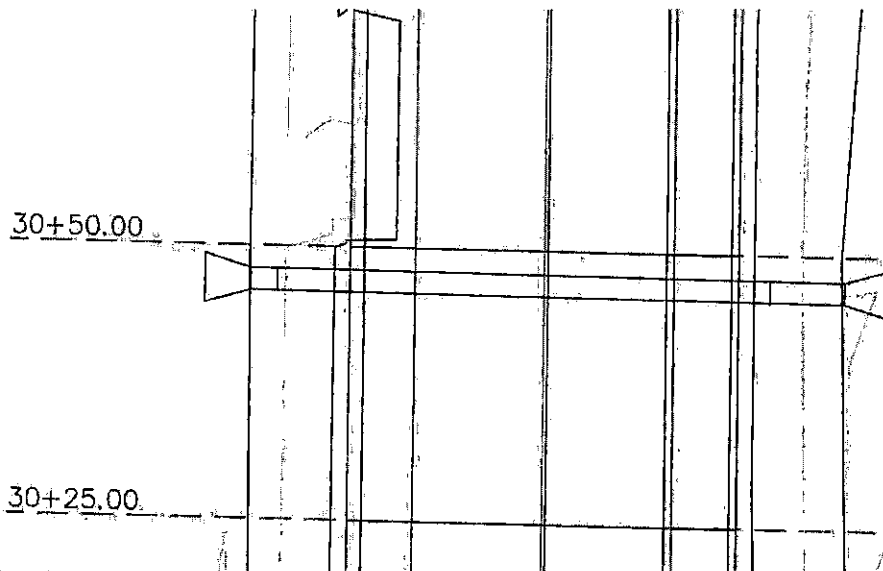
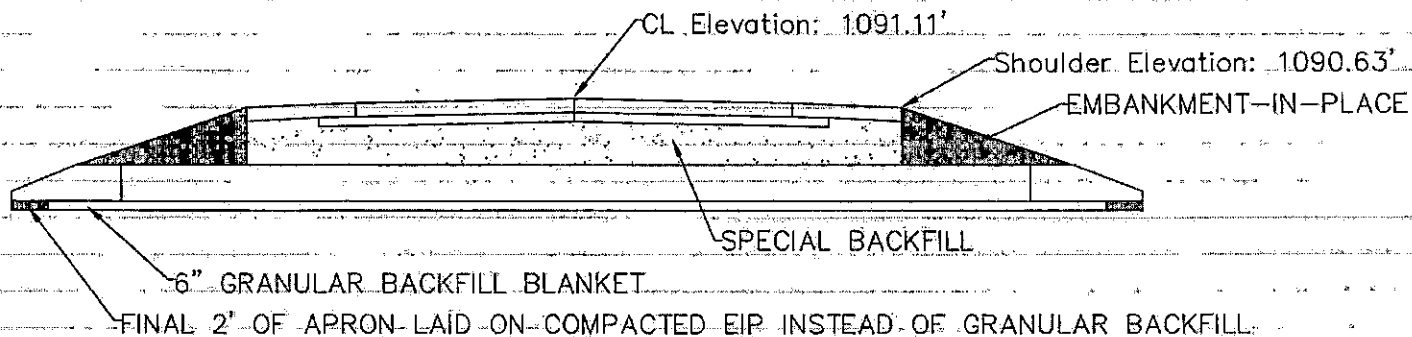
WOODBURY COUNTY
ENGINEERS OFFICE

CDR	DATE
DRAWN BY	REVISION
CDR	DATE
DESIGNED BY	
ALIN	
APPROVED BY	

PROJECT DESCRIPTION: P.C.C. PAVEMENT - GRADE AND REPLACE
K25 SEC. 7, 18 T87N-R47W

SHEET DESCRIPTION: CURTAIN WALL DETAILS INLET AND OUTLET

PROJECT NO.
SHEET
7



CONTRACTOR TO REMOVE EXISTING 24" CMP AND INSTALL 24" DIAMETER RCP 50' LONG. WITH CONCRETE APRONS AS SPECIFIED. 6" THICK GRANULAR BACKFILL SHALL BE PLACED AND COMPACTED BENEATH PIPE WITH SPECIAL BACKFILL PLACED AND COMPACTED ABOVE PIPE THRU ROADWAY SECTION WITH VIBRATORY PLATE PACKER OR VIBRATORY SMOOTH DRUM ROLLER.

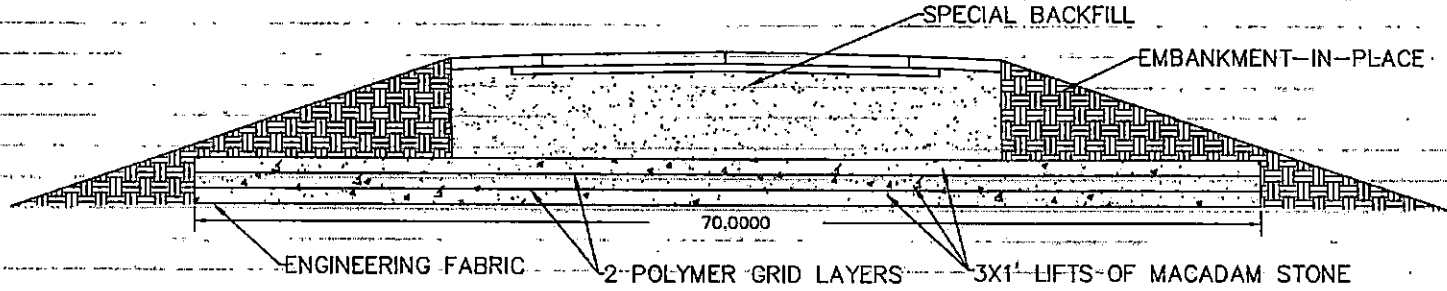
DATE	REVISION

DATE: _____
 DRAWN BY: _____
 CHECKED BY: _____
 DATE: _____
 APPROVED BY: _____

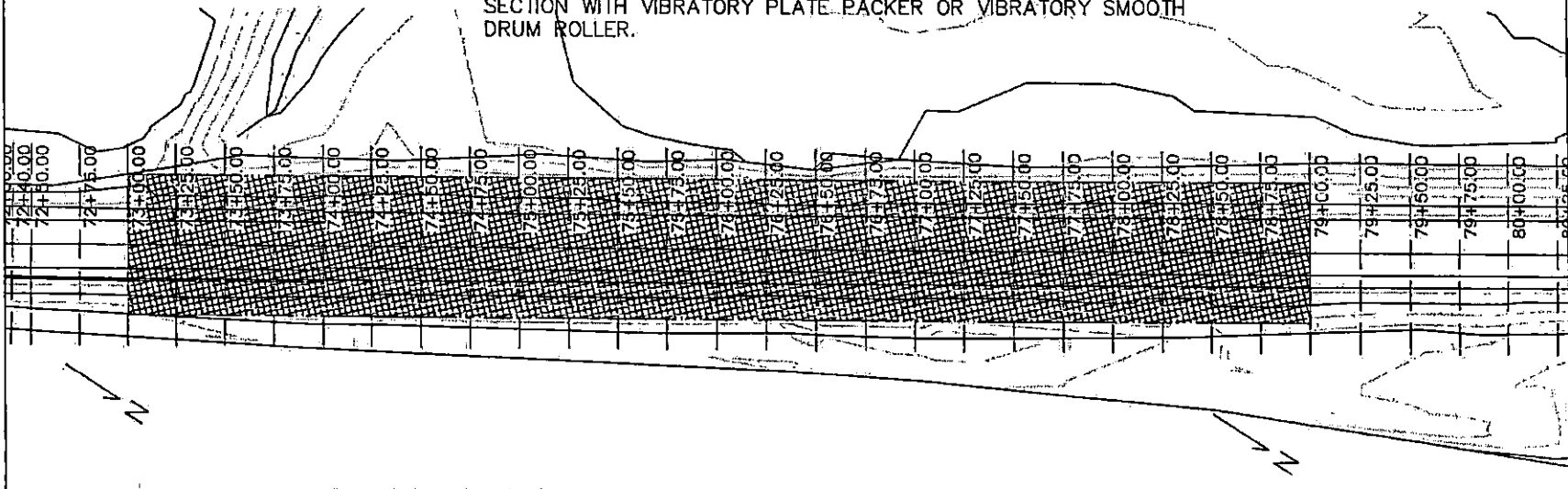
PROJECT DESCRIPTION: PCC PAVING ON K25
 SEC. 7 & 18-T87N-R47W

SHEET DESCRIPTION: REINF. CONCRETE ROADWAY PIPE DETAIL

TYPICAL STABILIZED SECTION



CONTRACTOR SHALL EXCAVATE DOWN 1' BELOW RELATIVE DITCH GRADE BEFORE PLACING ENGINEERING FABRIC UNDERLAYMENT AND 3 1' LAYERS OF MACADAM STONE VIBRATORY COMPACTED IN PLACE WITH POLYMER GRID PLACED BETWEEN EACH 1' LAYER. SPECIAL BACKFILL SHALL THEN BE PLACED AND COMPACTED THRU ROADWAY SECTION WITH VIBRATORY PLATE PACKER OR VIBRATORY SMOOTH DRUM ROLLER.

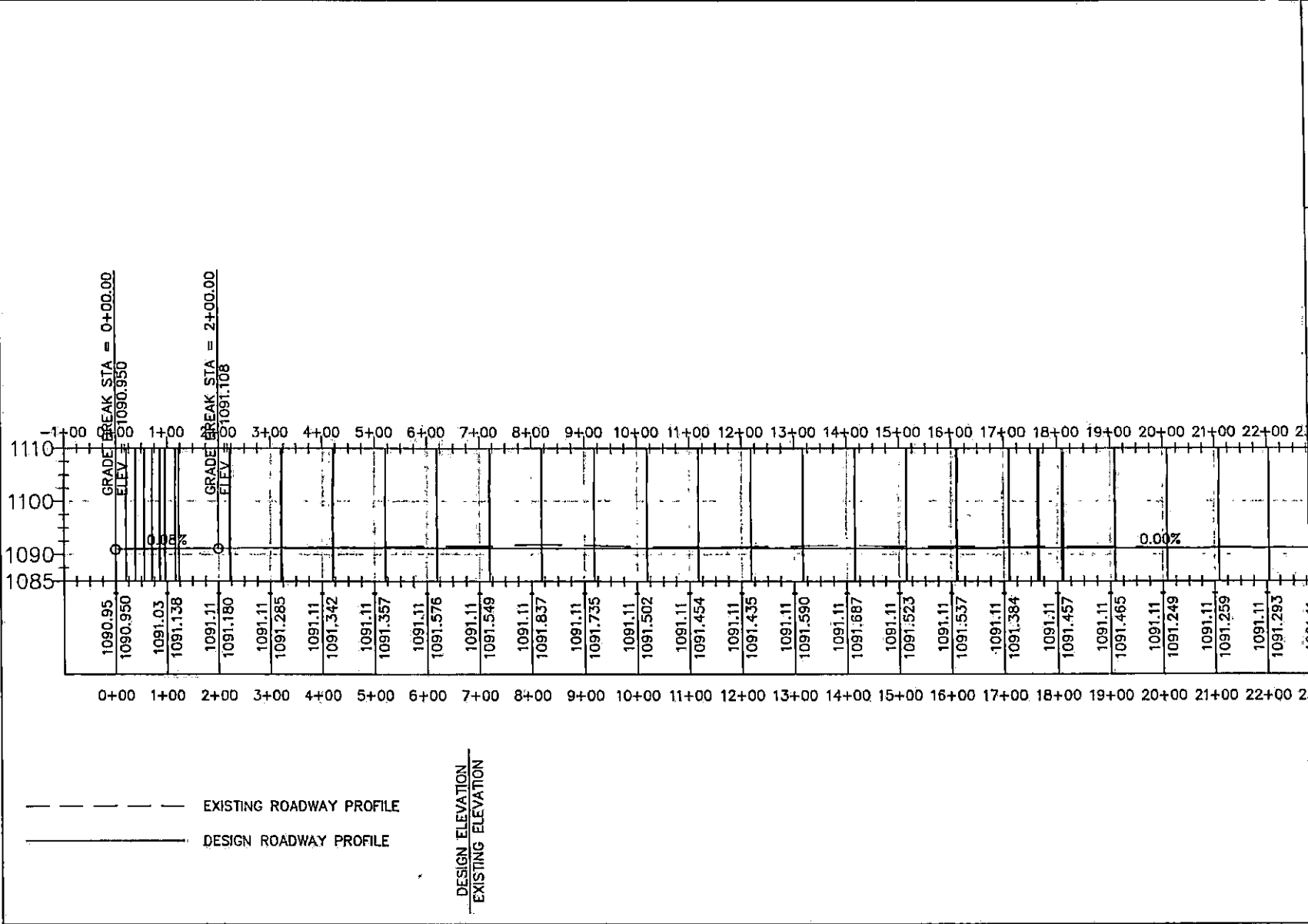


WOODBURY COUNTY
ENGINEERS OFFICE

COR	DATE
DRAWN BY	REVISION
DESIGNED BY	DATE
MAJOR	DATE
APPROVED BY	DATE

PROJECT DESCRIPTION: PCC PAVING ON K25
SEC. 7 & 18-187N-R47W
SHEET DESCRIPTION: SUBGRADE STABILIZATION DETAIL

PROJECT NO.
SHEET
9



PROJECT DESCRIPTION: PCC PAVING ON R25
 SEC. 7 & 18-T87N-R47W

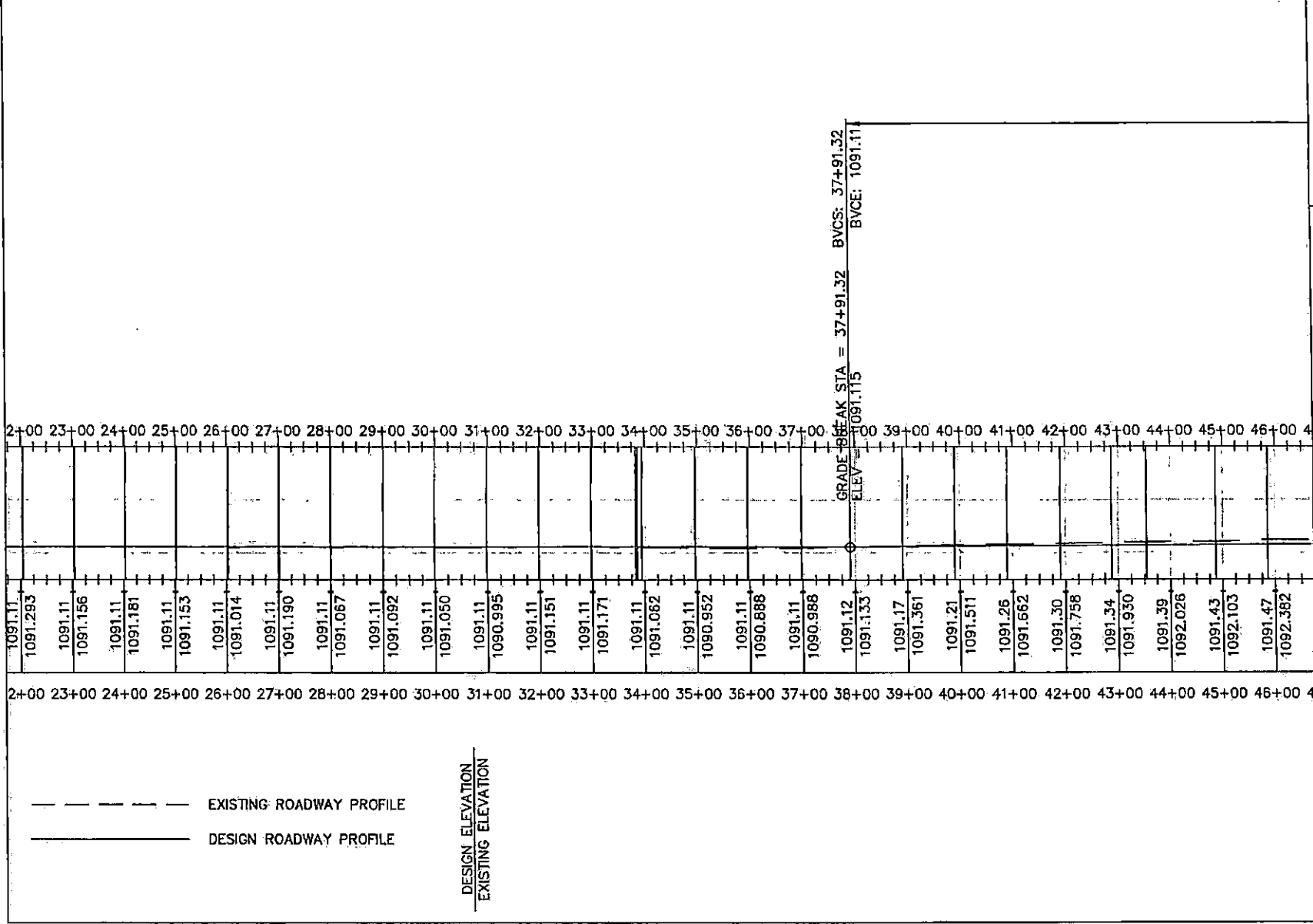
SHEET DESCRIPTION: PROFILE VIEWS

PROJECT NO.
 870684P-CW7(40-7047)

SHEET
 10

WOODBURY COUNTY
 ENGINEERS OFFICE

COR	DATE	REVISION
DRAWN BY:		
DESIGNED BY:		
APPROVED BY:		



DESIGN ELEVATION
EXISTING ELEVATION

--- EXISTING ROADWAY PROFILE
— DESIGN ROADWAY PROFILE

GRADE BREAK STA = 37+91.32 BVCS: 37+91.32
ELEV: 1091.115 BVCE: 1091.11

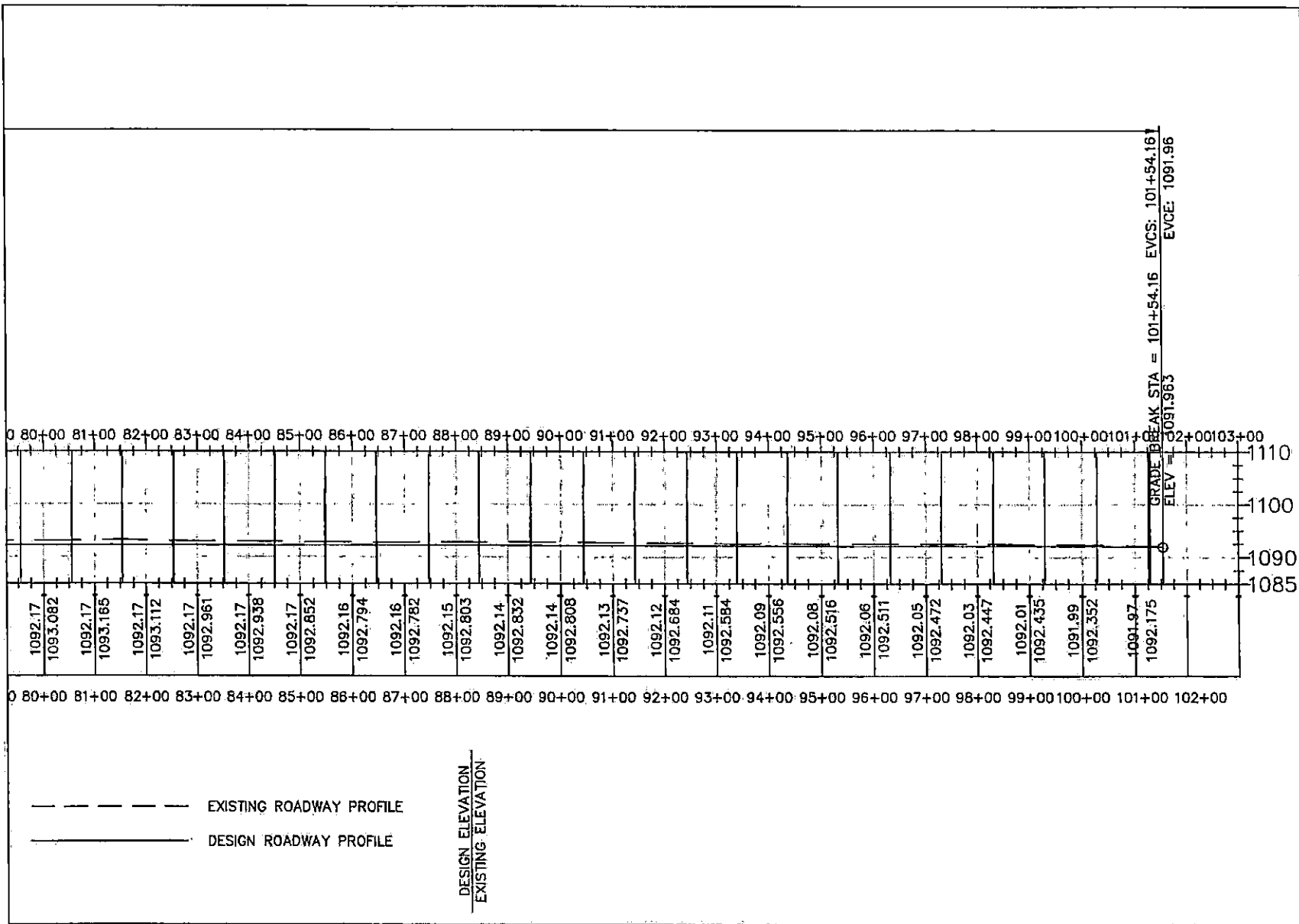
PROJECT DESCRIPTION: PCC PAVING ON K25
SEC. 7 & 18-TB/N-R47W

SHEET DESCRIPTION: PROFILE VIEWS

PROJECT NO. 270-020-001(4)-R47W
SHEET 11

WOODBURY COUNTY ENGINEERS OFFICE

CDR DRAWN BY:	DATE:	REVISION:	DATE:
CDR DESIGNED BY:			
M/J/M APPROVED BY:			



WOODBURY COUNTY
ENGINEERS OFFICE

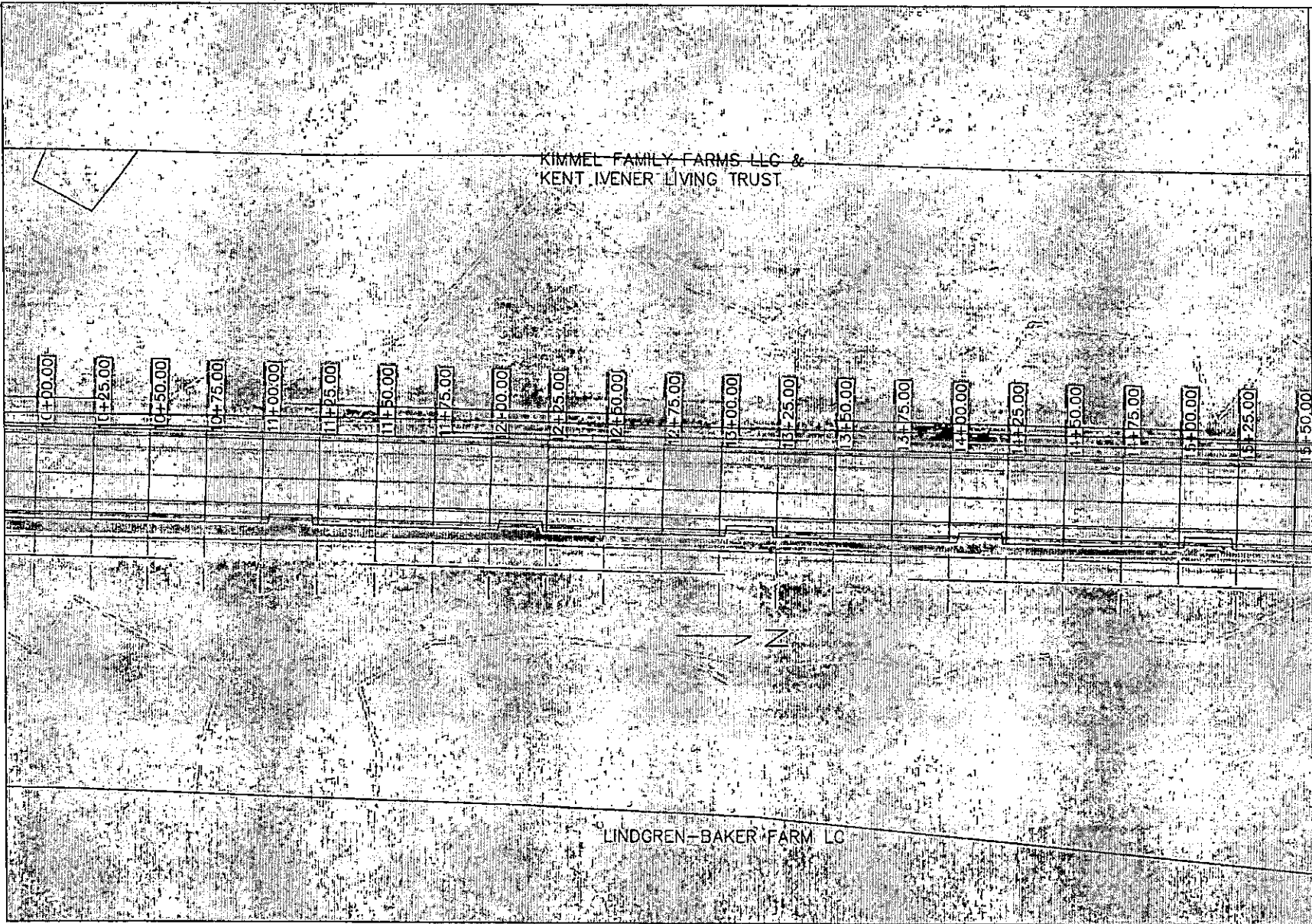
CDR	DATE	REVISION	DATE
DRAWN BY:			
CDR			
DESIGNED BY:			
ALN			
APPROVED BY:			

PROJECT DESCRIPTION: PCC PAVING ON K25
SEC. 7 & 18-187N-R47W

SHEET DESCRIPTION: PROFILE VIEWS

PROJECT NO.
8702-2014-001145-10-14
SHEET
14

GRADE BREAK STA = 101+54.16 EVCS: 101+54.16
ELEV = 1091.963 EVCE: 1091.96



KIMMEL FAMILY FARMS LLC &
KENT IVENER LIVING TRUST

LINDGREN-BAKER FARM LC

WOODBURY COUNTY
ENGINEERS OFFICE

DATE	REVISION

PROJECT DESCRIPTION: PCC PAVING ON K25
SEC. 7 & 18-187N-R47W
SHEET DESCRIPTION: PLAN VIEW

PROJECT NO.
WBO-2014-00140-F047
SHEET
17

DRAWN BY:

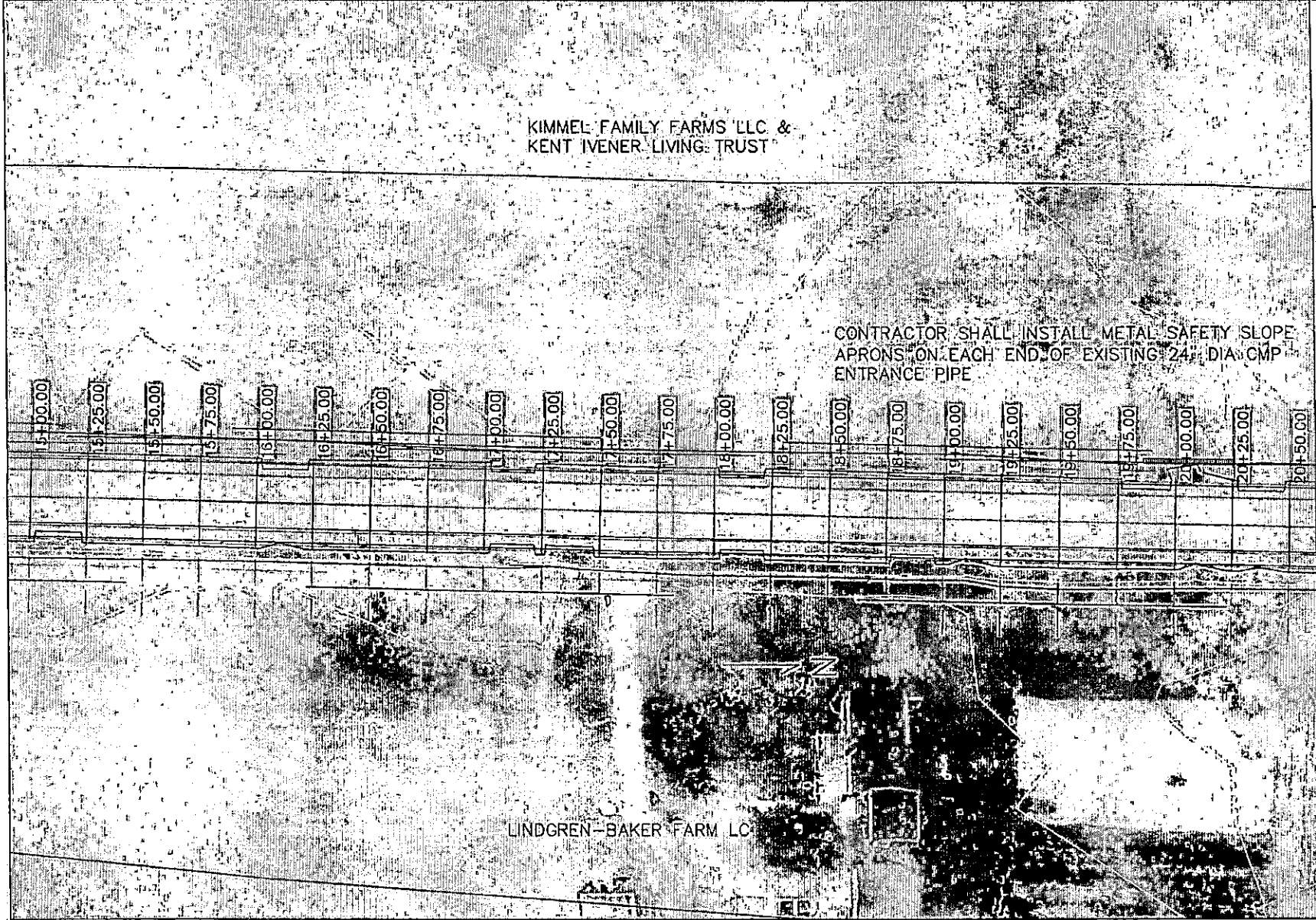
CDR

DESIGNED BY:

MJM

APPROVED BY:

DATE



KIMMEL FAMILY FARMS LLC &
KENT IVENER LIVING TRUST

CONTRACTOR SHALL INSTALL METAL SAFETY SLOPE
APRONS ON EACH END OF EXISTING 24" DIA CMP
ENTRANCE PIPE

LINDGREN-BAKER FARM LC

WOODBURY COUNTY
ENGINEERS OFFICE

CDR	DATE
DRAWN BY	REVISION
CDR	DATE
DESIGNED BY	REVISION
M/JM	DATE
APPROVED BY	REVISION
	DATE

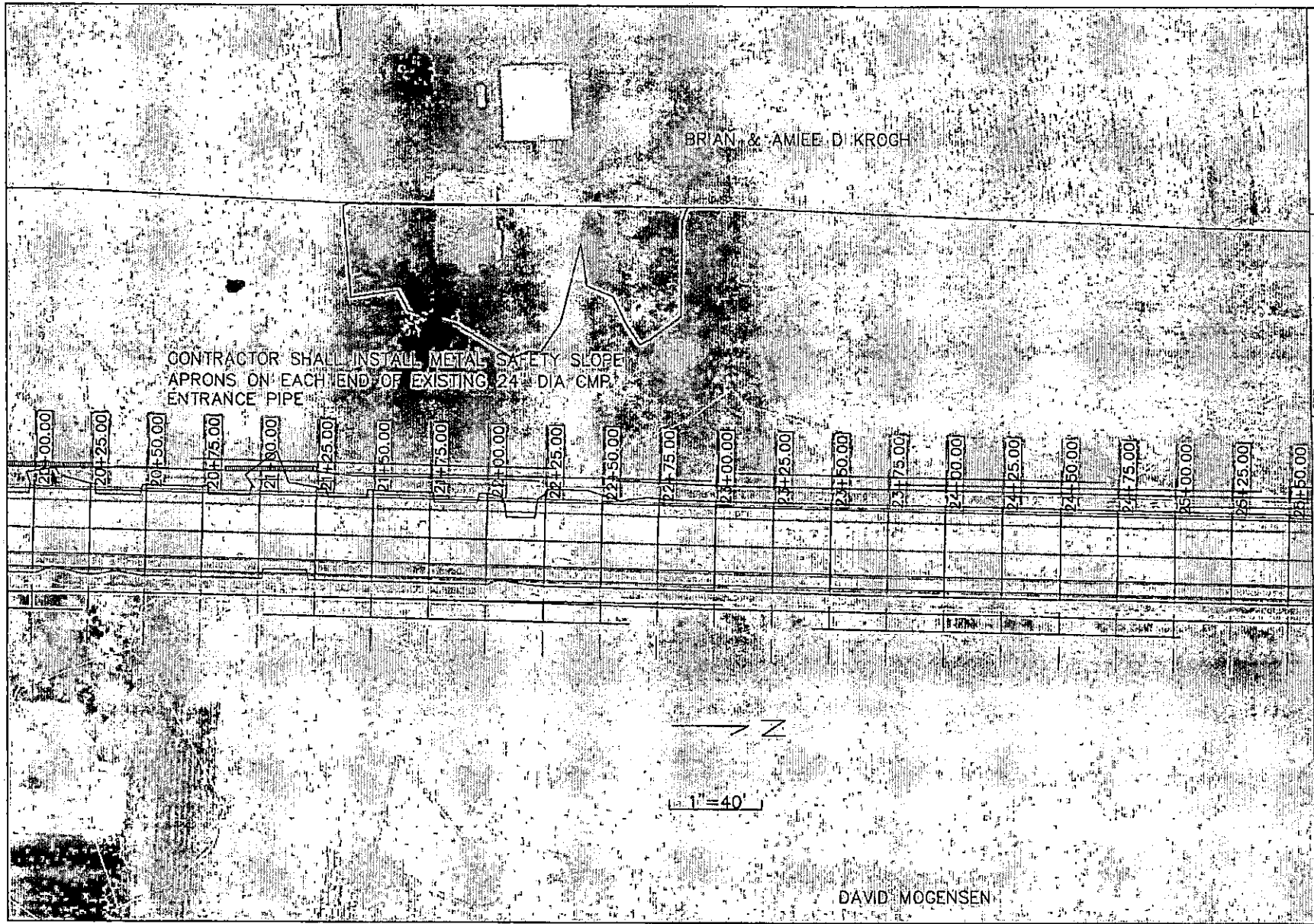
PROJECT DESCRIPTION: PCC PAVING ON R25
SEC. 7 & 18-T87N-R47W

SHEET DESCRIPTION: PLAN VIEW

PROJECT NO.
2700-2014-001(11)-R47W

SHEET

18



WOODBURY COUNTY
ENGINEERS OFFICE

CDR	DATE
DRAWN BY	REVISION
DESIGNED BY	DATE
MAN	REVISION
APPROVED BY	DATE

PROJECT DESCRIPTION: PCC PAVING ON K25
SEC. 7 & 18-187N-R47W

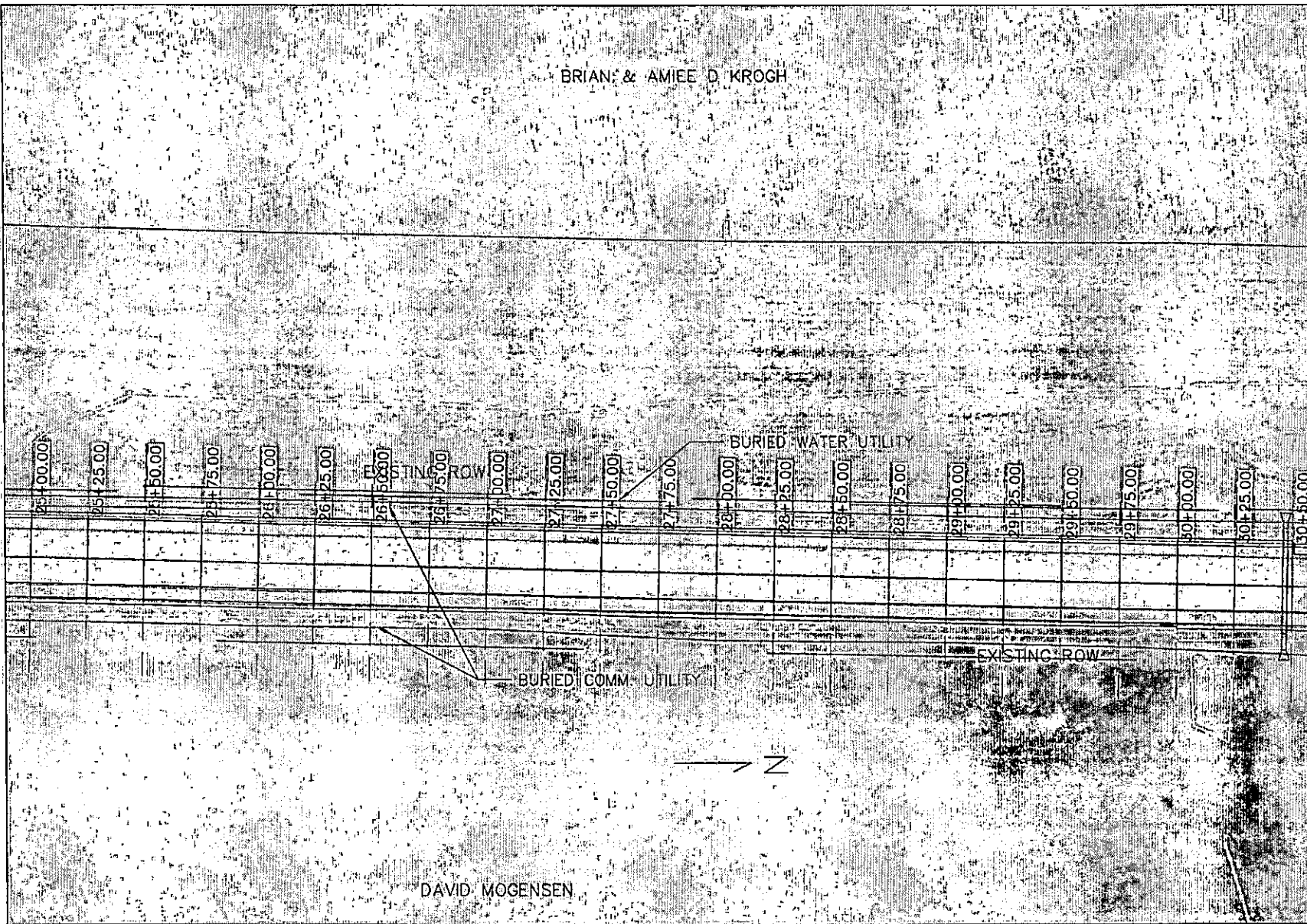
SHEET DESCRIPTION: PLAN VIEW

PROJECT NO.
5790-GWA-C027(14)-P0-07
SHEET
19

BRIAN & AMIEE D KROGH

WOODBURY COUNTY
ENGINEERS OFFICE

BRAWN BY:					
DESIGNED BY:					
APPROVED BY:					
DATE:					
REVISION:					



PROJECT DESCRIPTION: PCC PAVING ON K25
SEC. 7 & 18-187N-R47W

SHEET DESCRIPTION: PLAN VIEW

PROJECT NO.
5700-0000-0000-0000-0000-0000-0000-0000-0000-0000

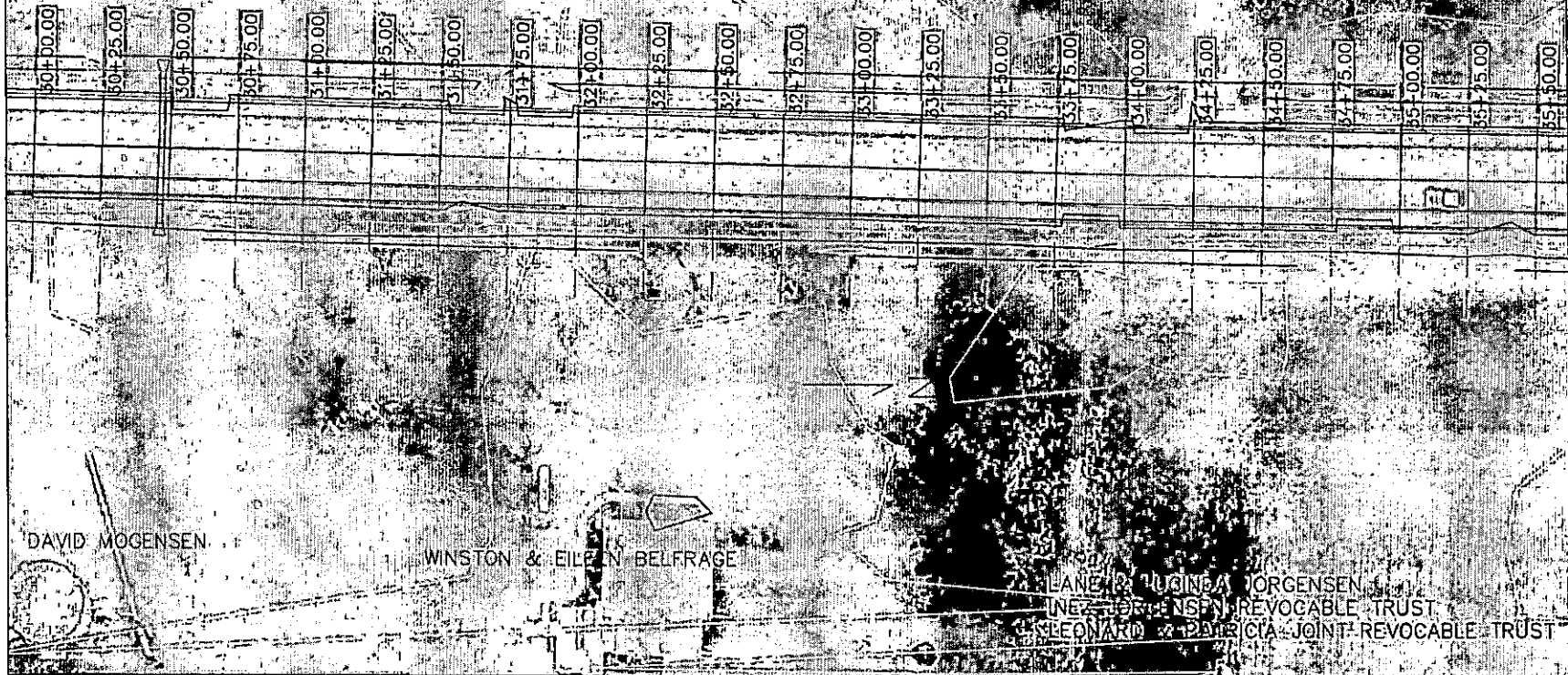
SHEET
20

BRIAN & AIMEE KROCH

DV HOOPS HOLDINGS LLC

WOODBURY COUNTY
ENGINEERS OFFICE

CONTRACTOR TO REMOVE EXISTING 24" CMP
AND INSTALL 24" DIAMETER RCP 50' LONG
WITH CONCRETE APRONS AS SPECIFIED. 6"
THICK GRANULAR BACKFILL SHALL BE PLACED
AND COMPACTED BENEATH PIPE WITH
SPECIAL BACKFILL PLACED AND COMPACTED
ABOVE PIPE THRU ROADWAY SECTION WITH
VIBRATORY PLATE PACKER OR VIBRATORY
SMOOTH DRUM ROLLER.



DAVID MOGENSEN

WINSTON & EILEEN BELFRAGE

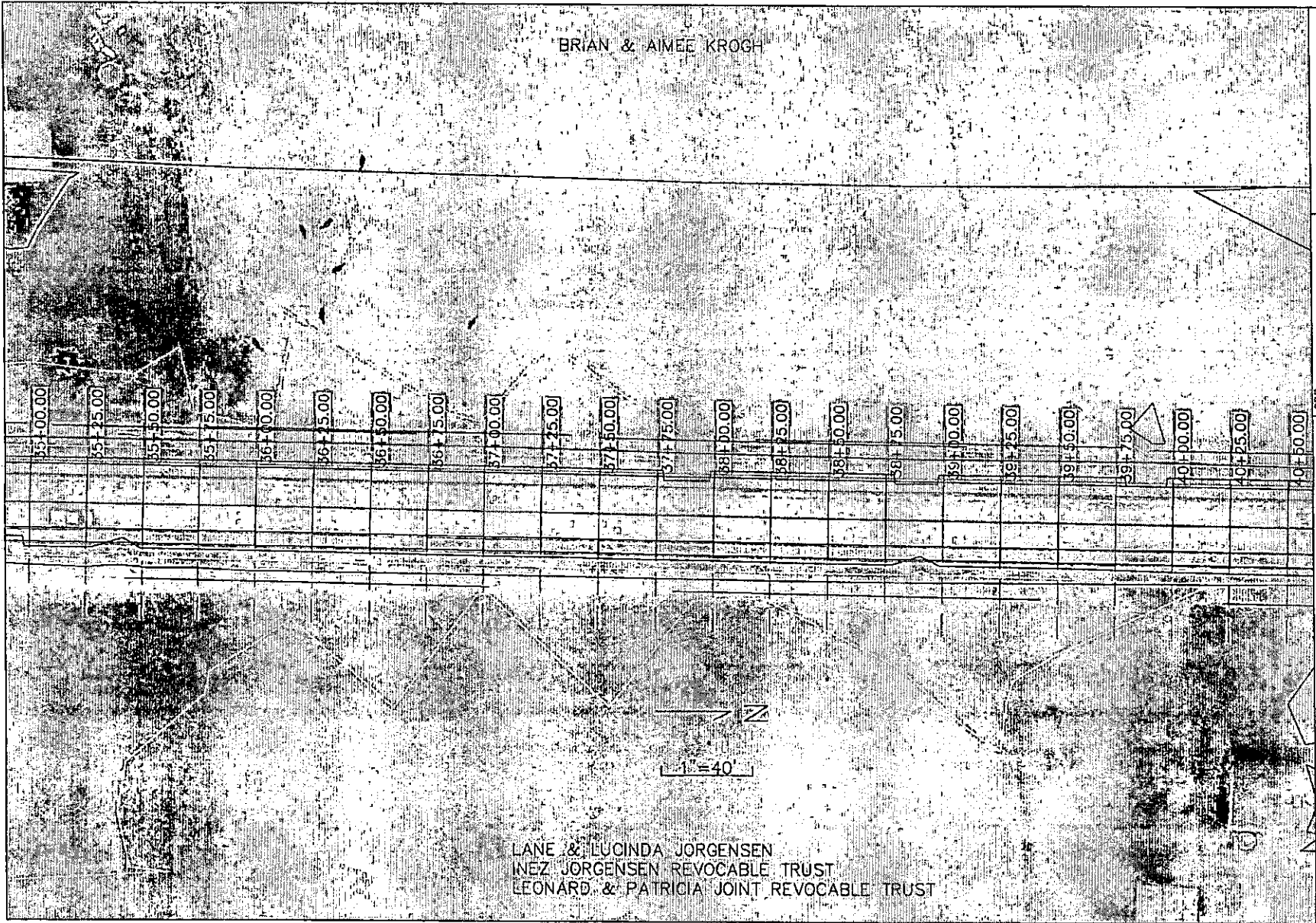
ELANE & TUCINEA JORGENSEN
LENE & JONAS JENSEN REVOCABLE TRUST
LEONARD & PATRICIA JOINT REVOCABLE TRUST

DRWN BY:	DATE:
CDR	
DESIGNED BY:	
M.J.N	
APPROVED BY:	
DATE:	
REVISION	

PROJECT DESCRIPTION: PCC PAVING ON K25
SEC. 7 & 18-T87N-R47W

SHEET DESCRIPTION: PLAN VIEW

PROJECT NO.
7703-0000-0007040-000
SHEET



BRIAN & AIMEE KROGH

LANE & LUCINDA JORGENSEN
 INEZ JORGENSEN REVOCABLE TRUST
 LEONARD & PATRICIA JOINT REVOCABLE TRUST



WOODBURY COUNTY
 ENGINEERS OFFICE

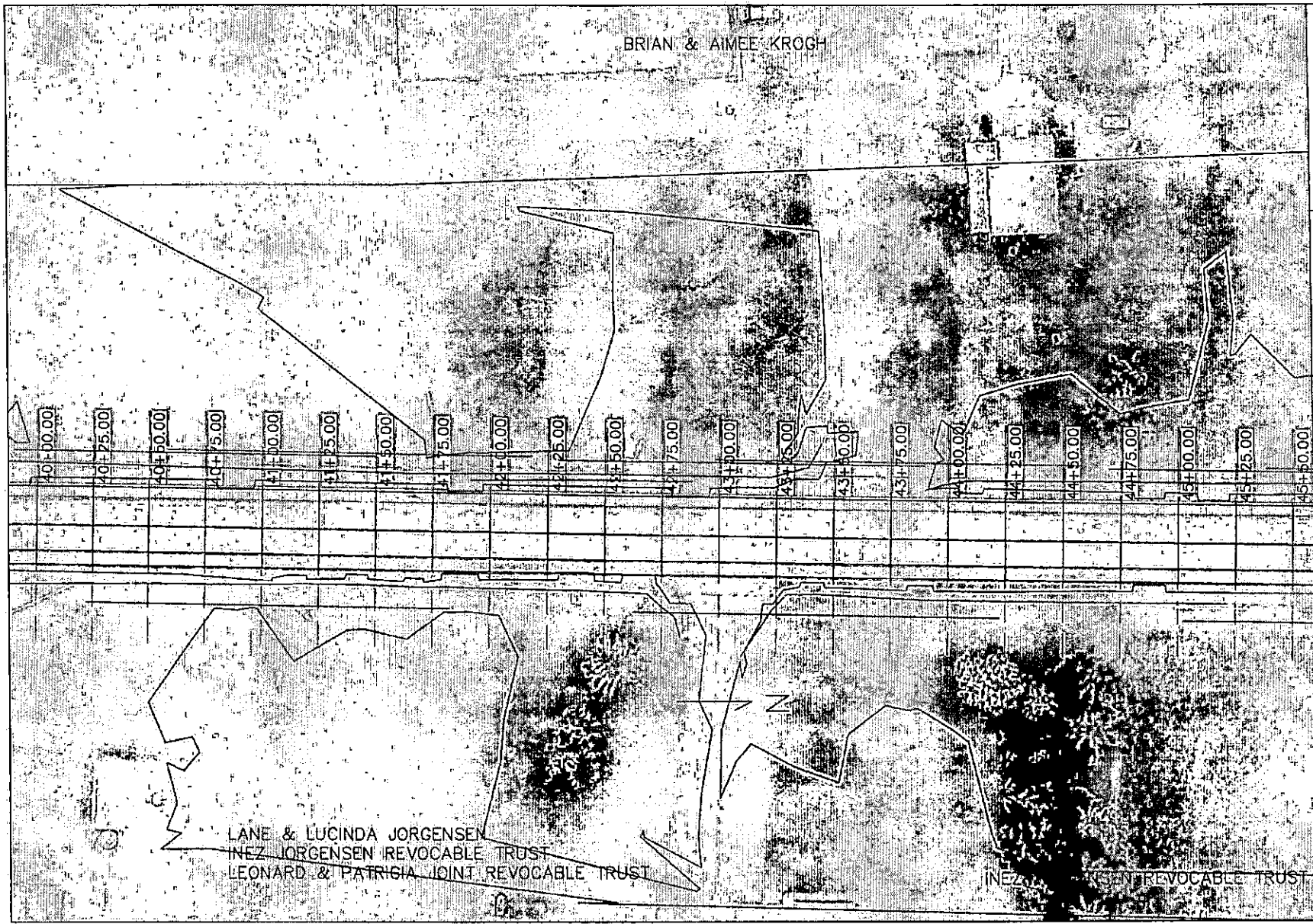
DATE	REVISION	DATE

PROJECT DESCRIPTION: PCC PAVING ON K25
 SEC. 7 & 18-T87N-R47W

SHEET DESCRIPTION: PLAN VIEW

PROJECT NO.
 8780-698A-C87(14)-P3-87

SHEET
 22



WOODBURY COUNTY
ENGINEERS OFFICE

CDR	DATE
DRAWN BY:	REVISION
DESIGNED BY:	DATE
APPROVED BY:	DATE

PROJECT DESCRIPTION: PCC PAVING ON K25
SEC. 7 & 18-187N-R47W

SHEET DESCRIPTION: PLAN VIEW

PROJECT NO.
MDS-684P-007021-R047
SHEET
23

FREDRIC & MARY ANNE BUSEY REVOCABLE TRUST

37

INEZ JORGENSEN REVOCABLE TRUST

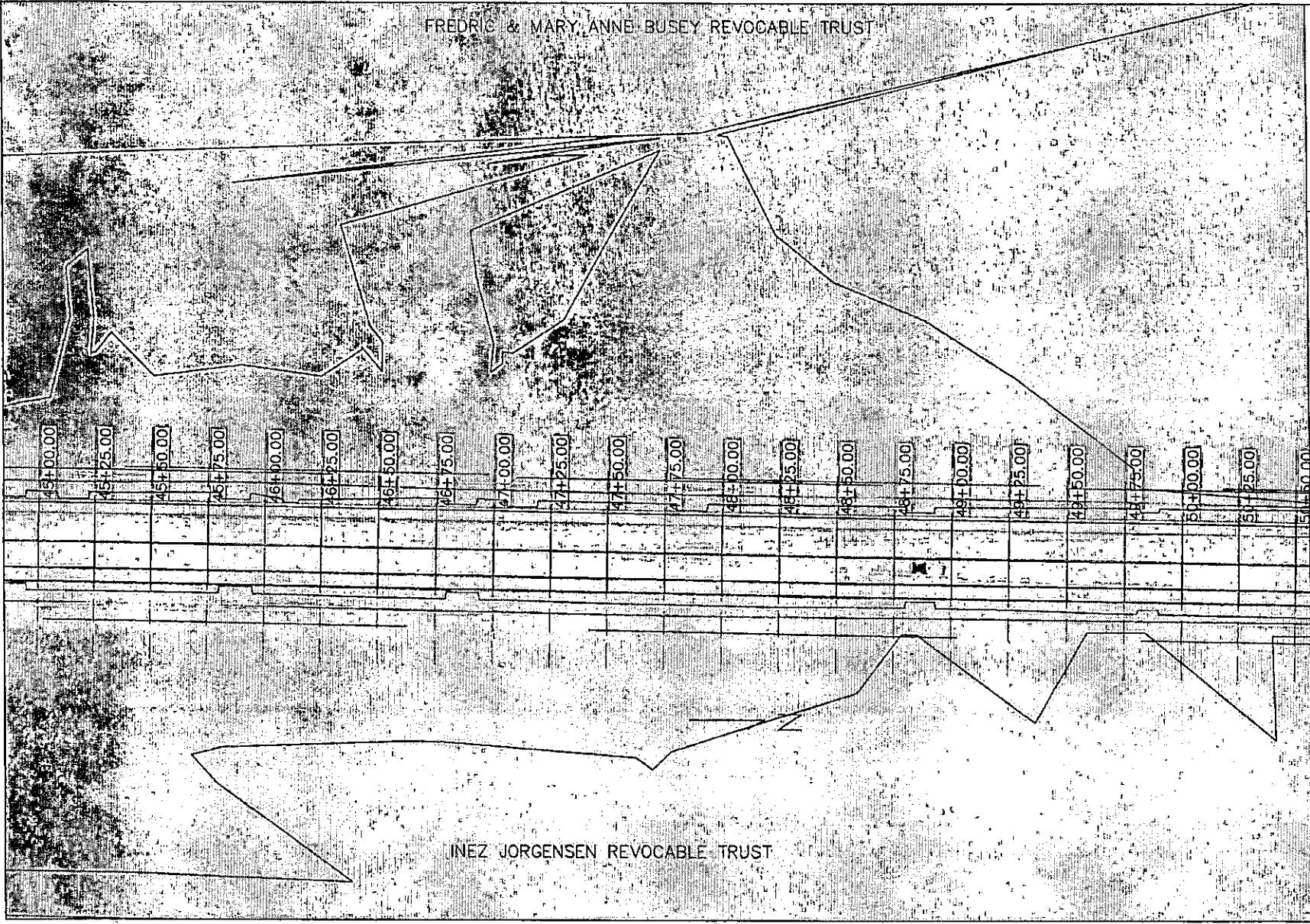
WOODBURY COUNTY
ENGINEERS OFFICE

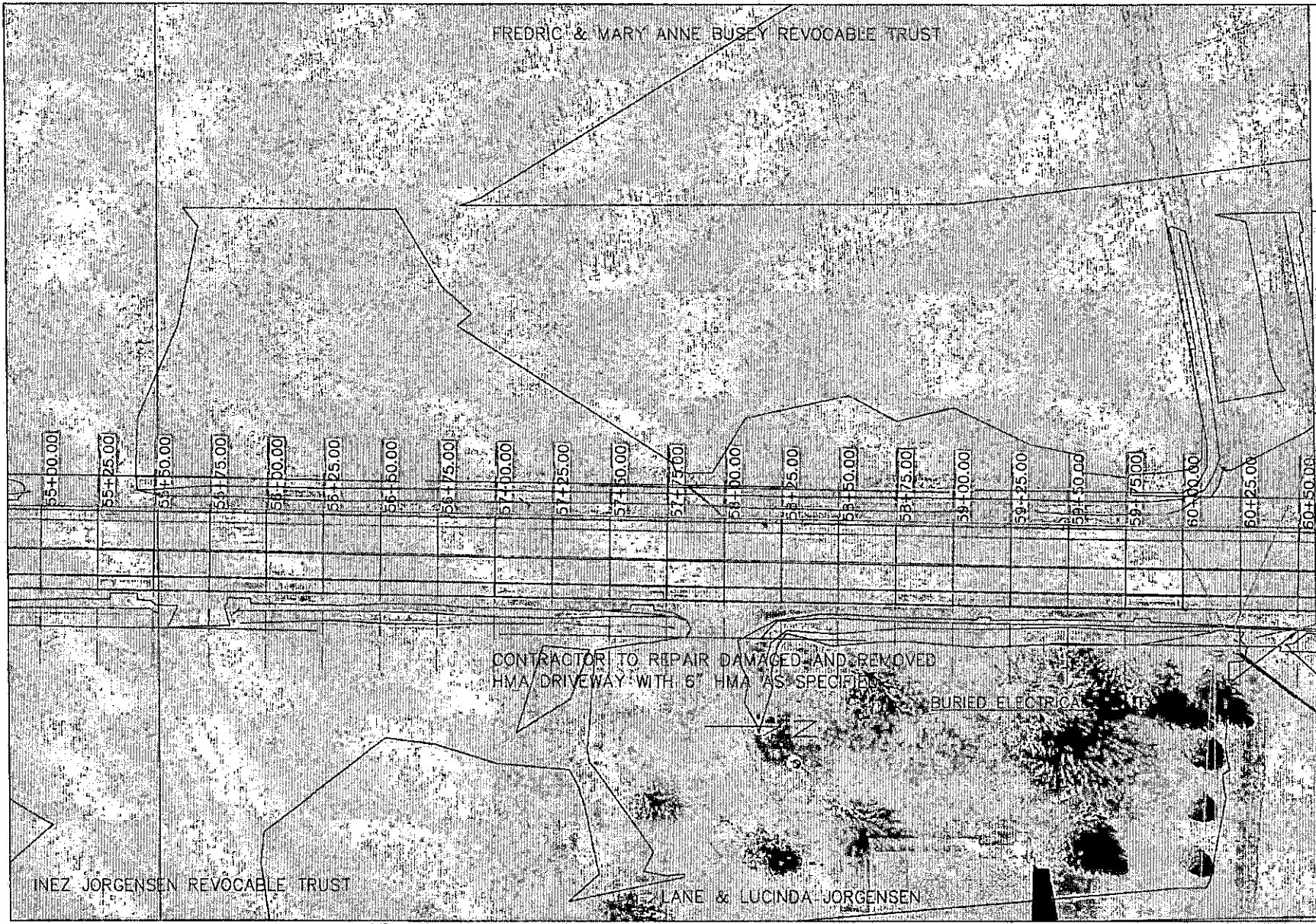
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DESIGNED BY:	REVISION:
APPROVED BY:	DATE:

PROJECT DESCRIPTION: PCC PAVING ON K25
SEC. 7 & 18-187N-R47W

SHEET DESCRIPTION: PLAN VIEW

PROJECT NO.
2780-8XW-COM-147-PS-87
SHEET
24





WOODBURY COUNTY
ENGINEERS OFFICE

CDR	DATE
DRAWN BY:	
DESIGNED BY:	
APPROVED BY:	
REVISION	DATE

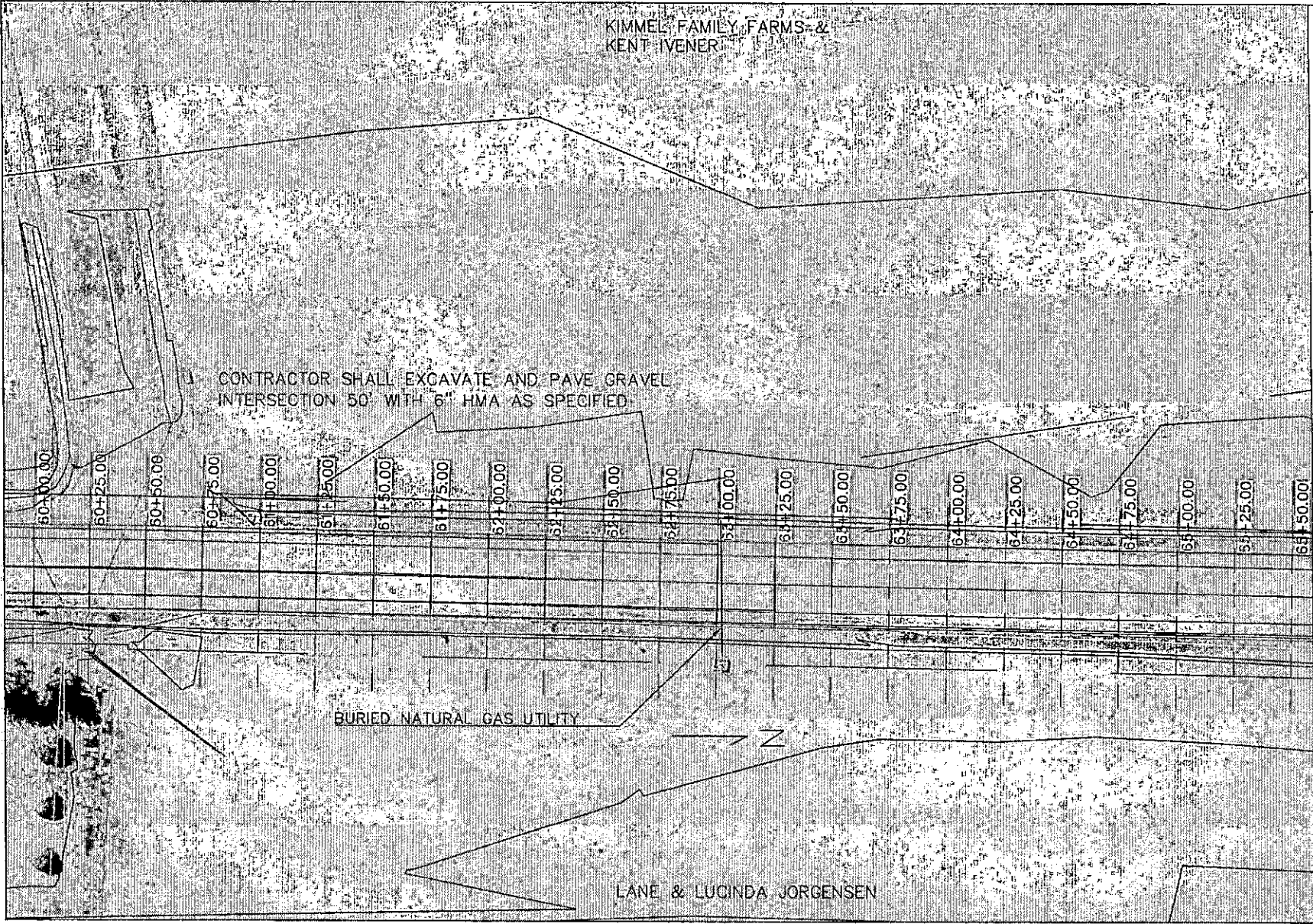
PROJECT DESCRIPTION: PCC PAVING ON K25
SEC. 7 & 18-TB/N-R47W

SHEET DESCRIPTION: PLAN VIEW

PROJECT NO.
61804WP-CO(14)-P&B

SHEET

26



KIMMEL FAMILY FARMS &
KENT IVENER

CONTRACTOR SHALL EXCAVATE AND PAVE GRAVEL
INTERSECTION 50' WITH 6" HMA AS SPECIFIED.

BURIED NATURAL GAS UTILITY

LANE & LUCINDA JORGENSEN

WOODBURY COUNTY
ENGINEERS OFFICE

CDR	DATE
DRAWN BY:	REVISION
DESIGNED BY:	DATE
APPROVED BY:	DATE

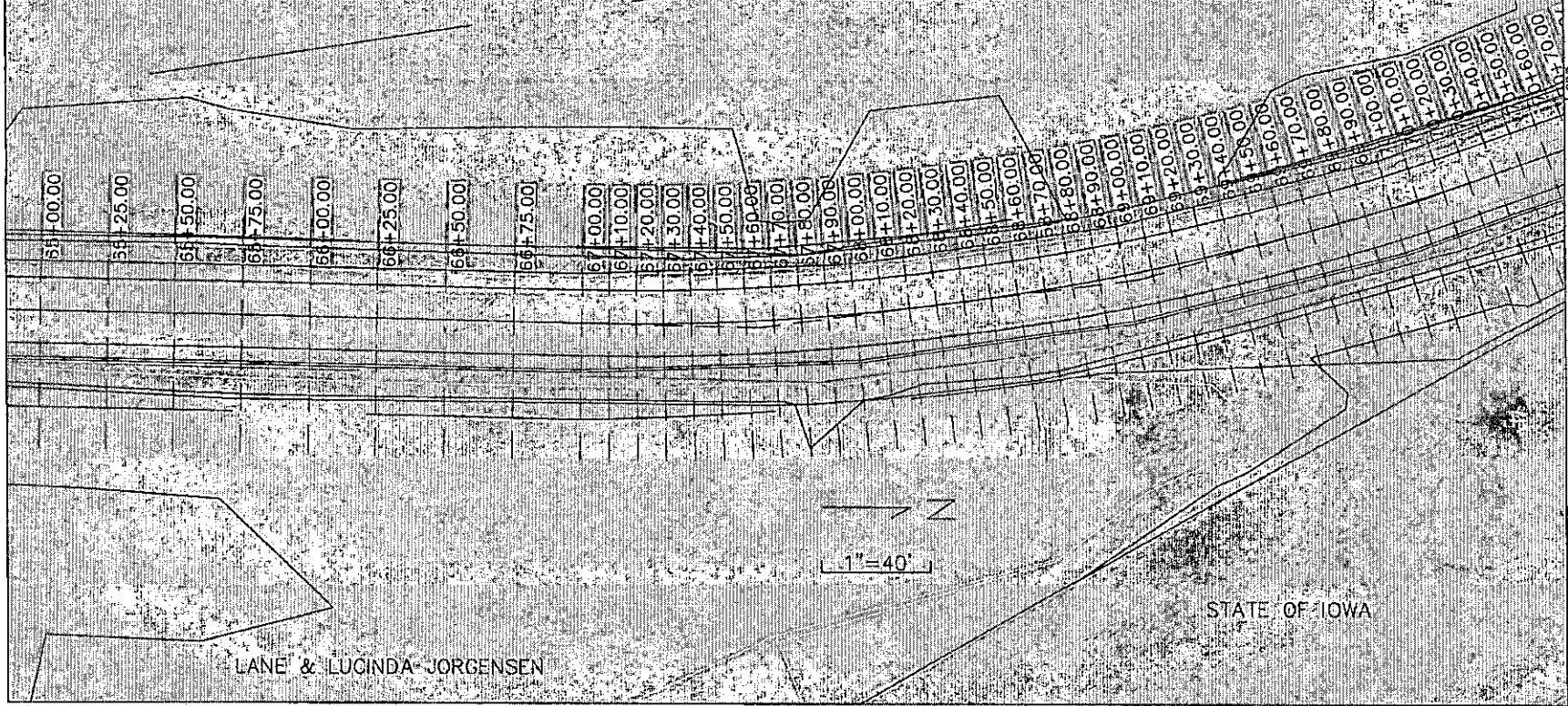
PROJECT DESCRIPTION: PCC PAVING ON K25
SEC. 7 & 18-T87N-R47W

SHEET DESCRIPTION: PLAN VIEW

PROJECT NO.
SHEET
27

KIMMEL FAMILY FARMS &
KENT IVENER

HORIZONTAL CURVE GEOMETRY
 RADIUS: 983'
 LENGTH: 550'
 ANGLE: 32 DEGREES
 MAXIMUM SUPERELEVATION: 8%



LANE & LUCINDA JORGENSEN

STATE OF IOWA

WOODBURY COUNTY
ENGINEERS OFFICE

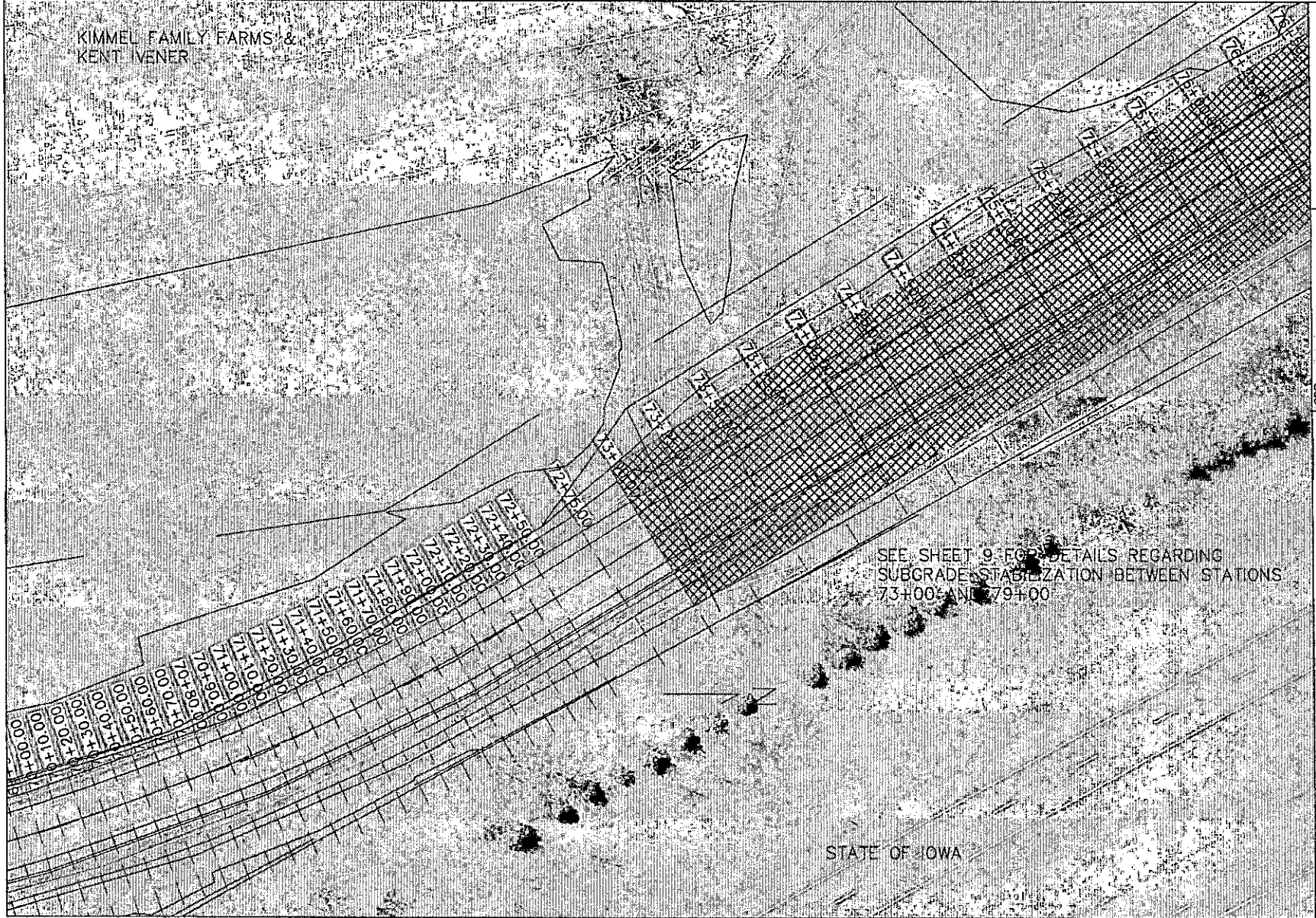
DATE	REVISION	DATE

PROJECT DESCRIPTION: PCC PAVING ON K25
 SEC. 7 & 18-187N-R47W.

SHEET DESCRIPTION: PLAN VIEW

PROJECT NO.
 8100-01/PA-007(44)-70-01
 SHEET
 28

KIMMEL FAMILY FARMS &
KENT IVENER



SEE SHEET 9 FOR DETAILS REGARDING
SUBGRADE STABILIZATION BETWEEN STATIONS
73+00 AND 79+00

STATE OF IOWA

WOODBURY COUNTY
ENGINEERS OFFICE

DATE	REVISION	DATE

CDR
DRAWN BY: _____
CDR
DESIGNED BY: _____
MUN
APPROVED BY: _____
DATE: _____

PROJECT DESCRIPTION: PCC PAVING ON I25
SEC. 7 & 18-187N-R47W

SHEET DESCRIPTION: PLAN VIEW

PROJECT NO.
8780-014P-C01144-10-07
SHEET
29

HOLLAND BROS. CONSTRUCTION CO., INC.

EASEMENT AREA

BURIED WATER UTILITY

SEE SHEET 9 FOR DETAILS REGARDING
SUBGRADE STABILIZATION BETWEEN STATIONS
73+00 AND 79+00

BURIED COMM. UTILITY

BURIED ELECTRICAL UTILITY

STATE OF IOWA

CONTRACTOR TO SUTURE EXISTING 8'x8'
RCB WITH 84" DIAMETER CMP AS SPECIFIED.
INLET AND OUTLET CURTAIN WALLS TO BE
CONSTRUCTED AS SHOWN ON SHEET 7.
FLOWABLE MORTAR SHALL BE USED TO FILL
VOID REMAINING AROUND PIPE BEFORE
BACKFILLING.

WOODBURY COUNTY
ENGINEERS OFFICE

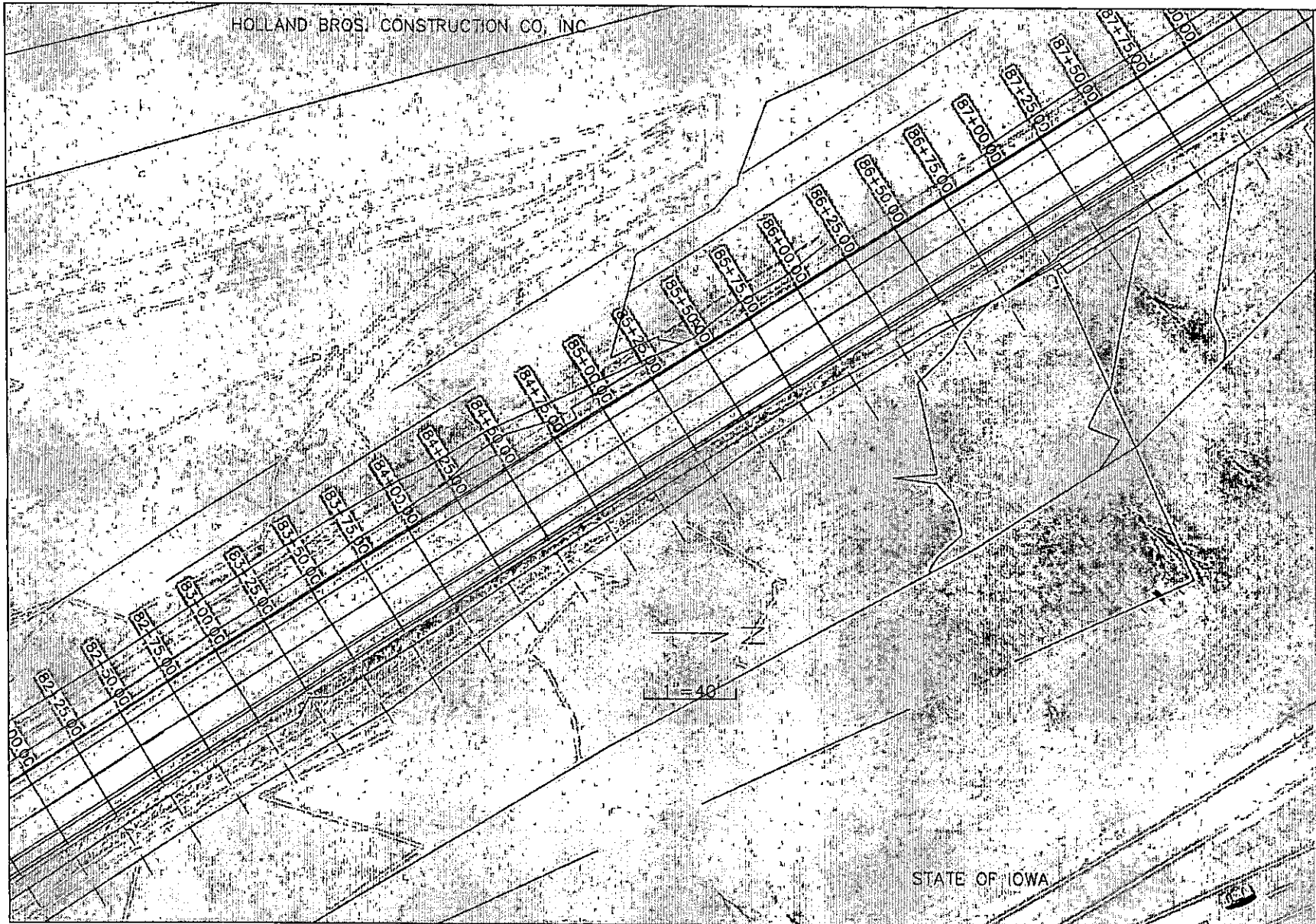
DATE:	
REVISION:	
APPROVED BY:	
DESIGNED BY:	
DRAWN BY:	

PROJECT DESCRIPTION: PCC PAVING ON I26
SEC. 7 & 18-187N-R47W

SHEET DESCRIPTION: PLAN VIEW

PROJECT NO.
8705-6-00-007(14)-P-027
SHEET
30

HOLLAND BROS. CONSTRUCTION CO., INC



WOODBURY COUNTY
ENGINEERS OFFICE

CDR	DATE
DRAWN BY	REVISION
DESIGNED BY	DATE
APPROVED BY	

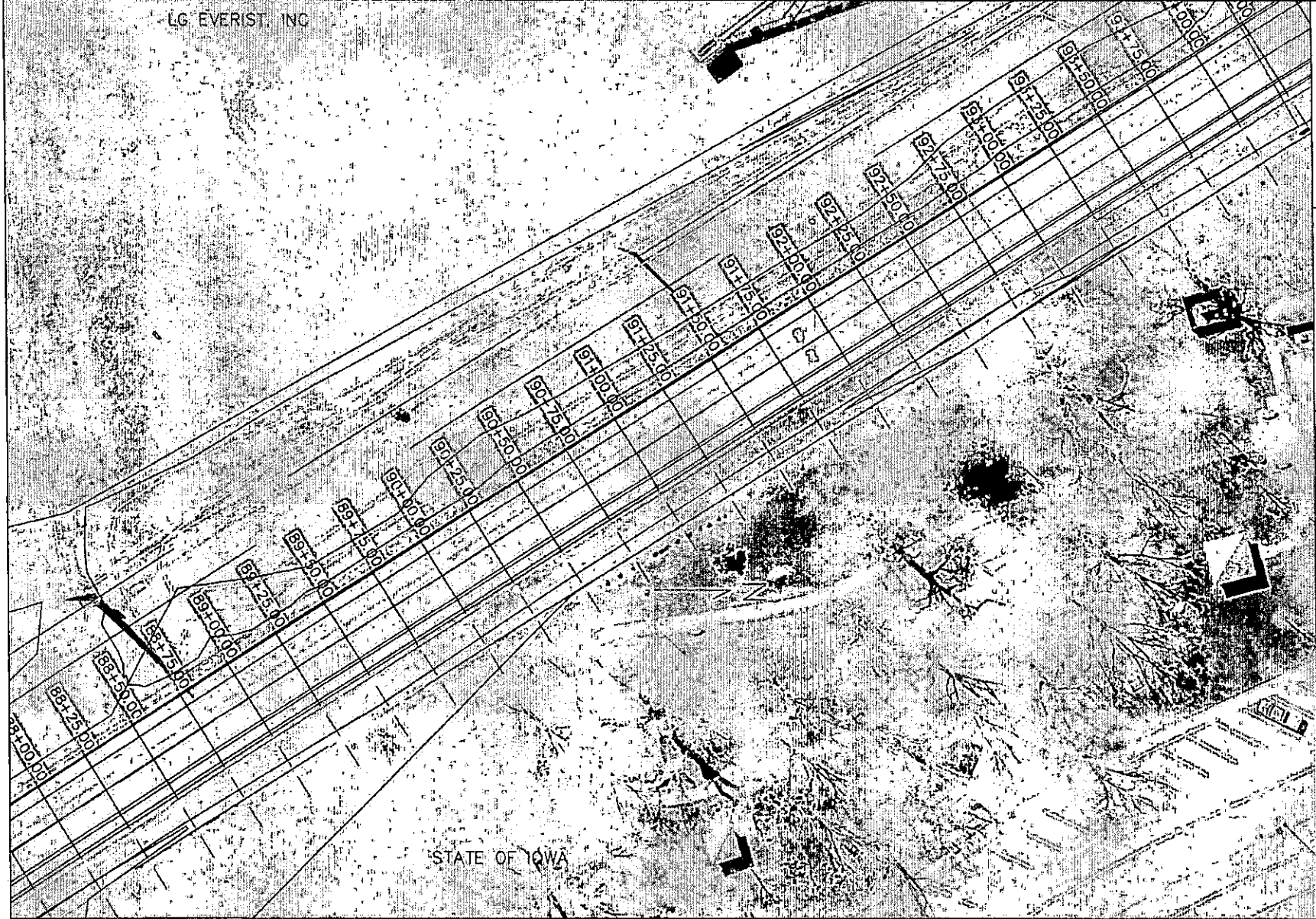
PROJECT DESCRIPTION: PCC PAVING ON K25
SEC. 7 & 18-187N-R47W

SHEET DESCRIPTION: PLAN VIEW

PROJECT NO.
SHEET

LG. EVERIST, INC

STATE OF IOWA



WOODBURY COUNTY
ENGINEERS OFFICE

CDR	DATE
DRAWN BY:	REVISION
CDR	DATE
DESIGNED BY:	REVISION
M/JN	DATE
APPROVED BY:	REVISION
DATE	DATE

PROJECT DESCRIPTION: PCC PAVING ON K25
SEC. 7 & 18-T67N-R47W

SHEET DESCRIPTION: PLAN VIEW

PROJECT NO:
87B0-027AP-0201(44)-P0-87
SHEET
32

LG. EVERIST INC

CONTRACTOR TO REPAIR DAMAGED, AND REMOVED
PCC DRIVEWAY WITH 9" PCC AS SPECIFIED

STATE OF IOWA

WOODBURY COUNTY
ENGINEERS OFFICE

CDR	DATE	PERSON
DRAWN BY:		
DESIGNED BY:		
MAINTAINED BY:		
APPROVED BY:		

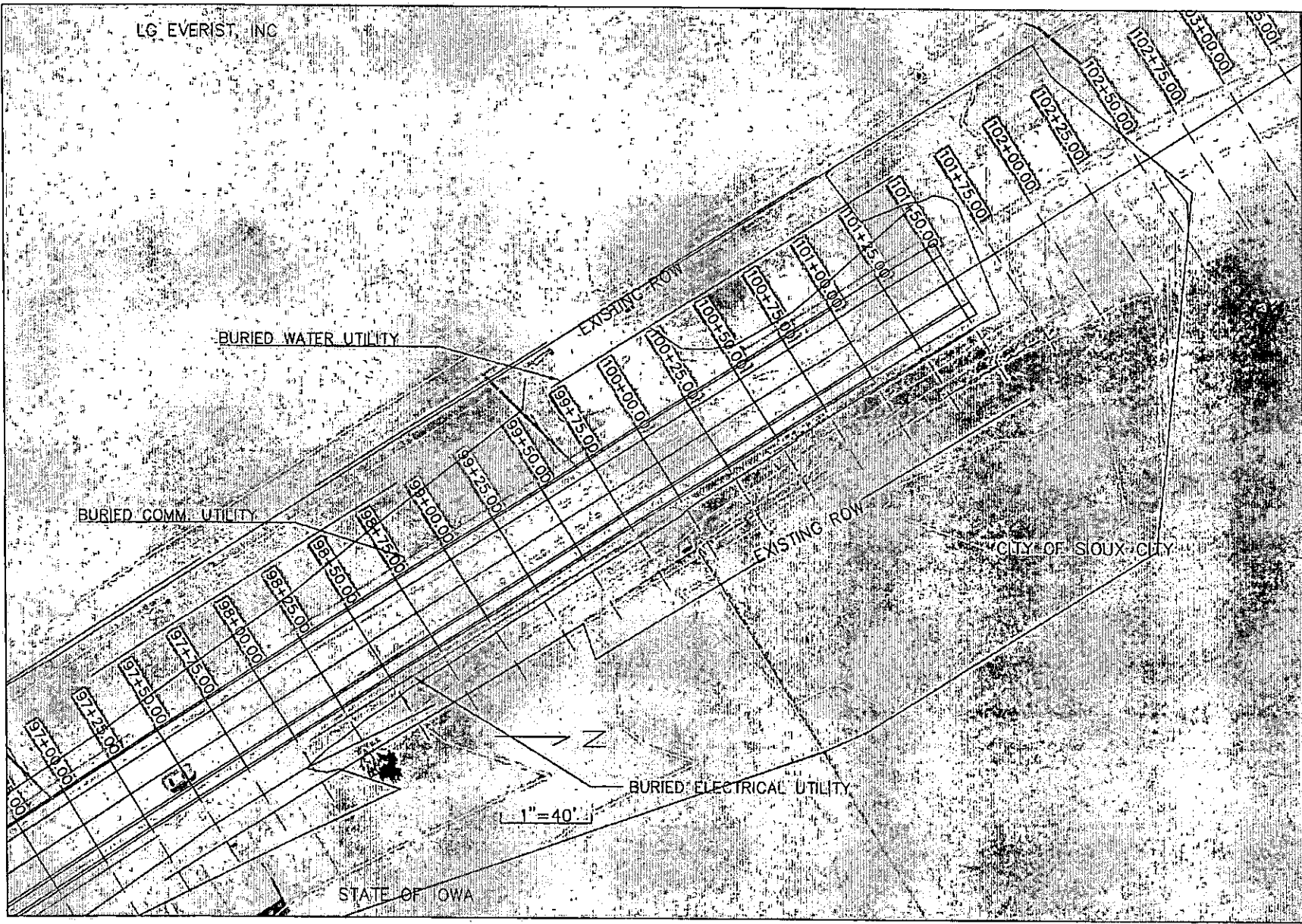
PROJECT DESCRIPTION: PCC PAVING ON K25
SEC. 7 & 18-187N-R47W

SHEET DESCRIPTION: PLAN VIEW

PROJECT NO.
6780-DRAW-COM(144)-1047
SHEET
33

LG EVERIST, INC

WOODBURY COUNTY
ENGINEERS OFFICE



CDR	DATE	REVISION	DATE

PROJECT DESCRIPTION: PCC PAVING ON K25
SEC. 7 & 18-T87N-R47W

SHEET DESCRIPTION: PLAN VIEW

PROJECT NO.
S700-SIWA-COBY(14)-P-07
SHEET
34

2. OTHER CONTROLS

- a. Contractor disposal of unused construction materials and construction material wastes shall comply with applicable state and local waste disposal, sanitary sewer, or septic system regulations. In the event of a conflict with other governmental laws, rules and regulations, the more restrictive applicable laws, rules or regulations shall apply.
 - 1) Vehicle Entrances and Exits - Construct and maintain entrances and exits to prevent tracking of sediments onto roadways.
 - 2) Material Delivery, Storage and Use - Implement practices to prevent discharge of construction materials during delivery, storage, and use.
 - 3) Stockpile Management - Install controls to reduce or eliminate pollution of storm water from stockpiles of soil and paving.
 - 4) Waste Disposal - Do not discharge any materials, including building materials, into waters of the state, except as authorized by a Section 404 permit.
 - 5) Spill Prevention and Control - Implement chemical spill and leak prevention and response procedures to contain and clean-up spills and prevent material discharges to the storm drain system and waters of the state.
 - 6) Concrete Residuals and Washout Wastes - Waste shall not be discharged to a surface water and is not allowed to adversely affect a water of the state. Designate temporary concrete washout facilities for rinsing out concrete trucks. Provide directions to truck drivers where designated washout facilities are located. Designated washout areas should be located at least 50 feet away from storm drains, streams or other water bodies. Care should be taken to ensure these facilities do not overflow during storm events.
 - 7) Concrete Grooving/Grinding Slurry - Do not discharge slurry to a waterbody or storm drain. Slurry may be applied on foreslopes or removed from the project.
 - 8) Vehicle and Equipment Storage and Maintenance Areas - Perform on site fueling and maintenance in accordance with all environment laws such as proper storage of onsite fuels and proper disposal of used engine oil or other fluids on site. Employ washing practices that prevent contamination of surface and ground water from wash water. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge.
 - 9) Litter Management - Ensure employees properly dispose of litter. Minimize exposure of trash if exposure to precipitation or storm water would result in a discharge of pollutants.
 - 10) Dewatering - Properly treat water to remove suspended sediment before it re-enters a waterbody or discharges off-site. Measures are also to be taken to prevent scour erosion at dewatering discharge point.

3. APPROVED STATE OR LOCAL PLANS

During the course of this construction, it is possible that situations will arise where unknown materials will be encountered. When such situations are encountered, they will be handled according to all federal, state, and local regulations in effect at the time.

IV. MAINTENANCE PROCEDURES

The Contractor is required to maintain all temporary erosion and sediment control measures in proper working order, including cleaning, repairing, or replacing them throughout the contract period. This shall begin when the features have lost 50% of their capacity.

V. INSPECTION REQUIREMENTS

- A. Inspections shall be made jointly by the Contractor and the Contracting Authority at least once every seven calendar days. Storm water monitoring inspections will include:
 - 1. Date of the inspection.
 - 2. Summary of the scope of the inspection.
 - 3. Name and qualifications of the personnel making the inspection.
 - 5. Review of erosion and sediment control measures within disturbed areas for the effectiveness in preventing impacts to receiving waters.
 - 6. Major observations related to the implementation of the PPP.
 - 7. Identification of corrective actions required to maintain or modify erosion and sediment control measures.

- B. Include storm water monitoring inspection reports in the Amended PPP. Incorporate any additional erosion and sediment control measures determined as a result of the inspection. Immediately begin corrective actions on all deficiencies found within 3 calendar days of the inspection and complete within 7 calendar days following the inspection. If it is determined that making the corrections less than 72 hours after the inspection is impracticable, it should be documented why it is impracticable and indicate an estimated date by which the corrections will be made.

VI. NON-STORM WATER DISCHARGES

This includes subsurface drains (i.e. longitudinal and standard subdrains) and slope drains. The velocity of the discharge from these features may be controlled by the use of headwalls or blocks, Class A stone, erosion stone or other appropriate materials. This also includes uncontaminated groundwater from dewatering operations, which will be controlled as discussed in Section III of the PPP.

VII. POTENTIAL SOURCES OF OFF RIGHT-OF-WAY (ROW) POLLUTION

Silts, sediment, and other forms of pollution may be transported onto highway right-of-way (ROW) as a result of a storm event. Potential sources of pollution located outside highway ROW are beyond the control of this PPP. Pollution within highway ROW will be conveyed and controlled per this PPP.

VIII. DEFINITIONS

- A. Base PPP - Initial Pollution Prevention Plan.
- B. Amended PPP - May include Plan Revisions or Contract Modifications for new items, storm water monitoring inspection reports, and fieldbook entries made by the inspector.
- C. IDR - Inspector's Daily report - this contains the inspector's daily diary and bid item postings.
- D. Controls - Methods, practices, or measures to minimize or prevent erosion, control sedimentation, control storm water, or minimize contaminants from other types of waste or materials. Also called Best Management Practices (BMPs).
- E. Signature Authority - Representative authorized to sign various storm water documents.

CERTIFICATION STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Mark J. Nahon
Signature

Mark J. Nahon
Printed or Typed Name

WOODBURY COUNTY
ENGINEERS OFFICE

CDR	DATE
DRAWN BY	REVISION
CDR	DATE
DESIGNED BY	REVISION
MLN	DATE
APPROVED BY	REVISION
DATE	REVISION

PROJECT DESCRIPTION: PCC PAVEMENT - GRADE AND REPLACE
K25 SEC. 7, 18 TOWN-R4TW

SHEET DESCRIPTION: POLLUTION PREVENTION PLAN

PROJECT NO.
ST65-SUP-CONTR-14-040

SHEET
P2