DEPARTMENT OF NATURAL RESOURCES

SUMMIT LAKE DAM DRAWDOWN VALVE REPAIR

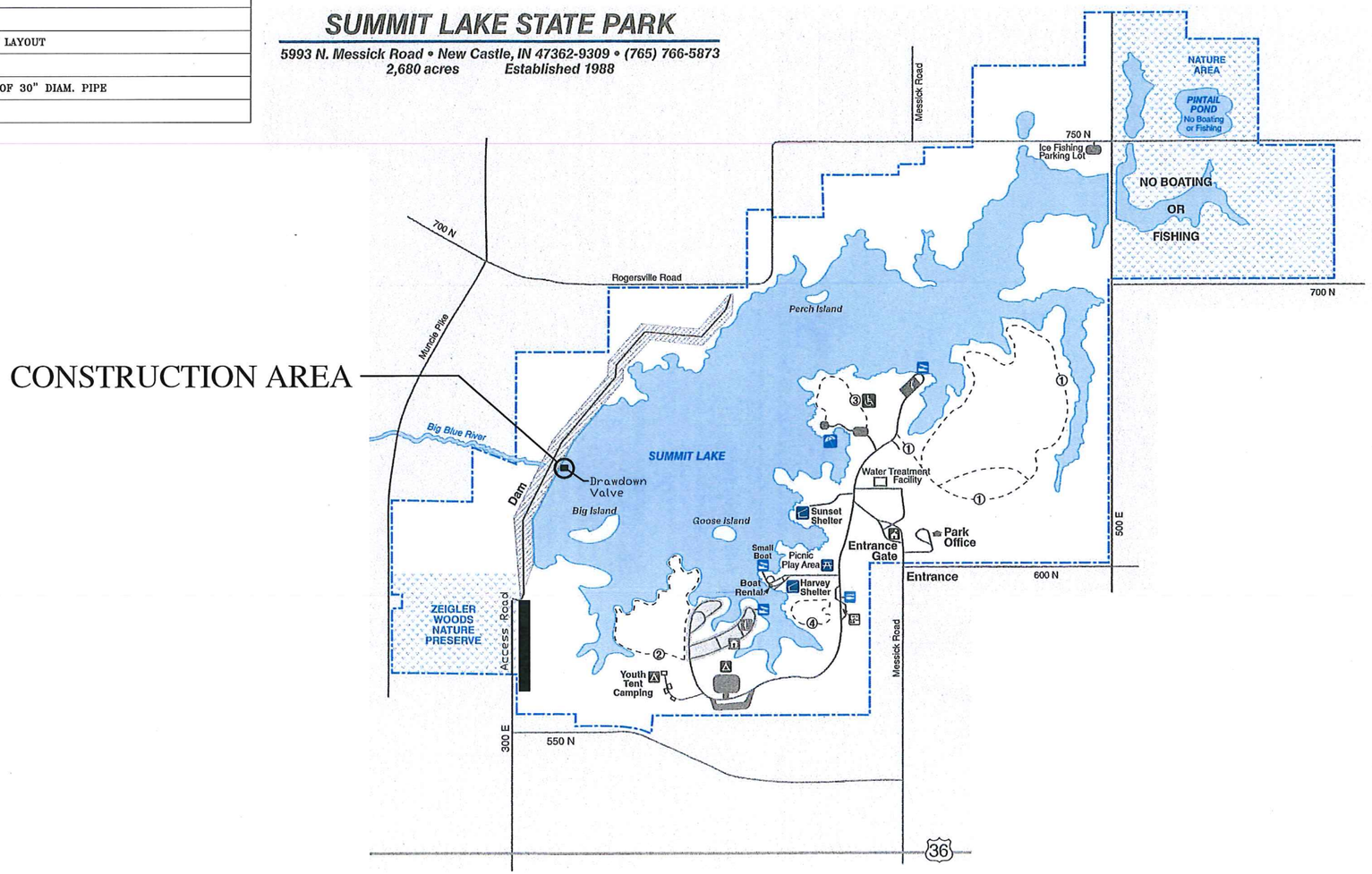
SUMMIT LAKE STATE PARK

NEW CASTLE, INDIANA

HENRY COUNTY, INDIANA

PROJECT NO. E030296

SHEET INDEX	
SHEET #	DESCRIPTION
T-1	TITLE SHEET
C-1	PRINCIPAL SPILLWAY LAYOUT
C-2	DETAILS
C-3	DETAILS FOR INLET OF 30" DIAM. PIPE



SUMMIT LAKE STATE PARK
LOCATION MAP

STATE MAP

Certified by:

DAM DRAWDOWN VALVE REPAIR
SUMMIT LAKE STATE PARK
DEPT. OF NATURAL RESOURCES
5993 N. MESSICK RD.
NEW CASTILE, INDIANA 47362

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENGINEERING
ROOM W299, INDIANA GOVERNMENT CENTER SOUTH
402 WEST WASHINGTON STREET
INDIANAPOLIS, INDIANA 46204
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Revisions:

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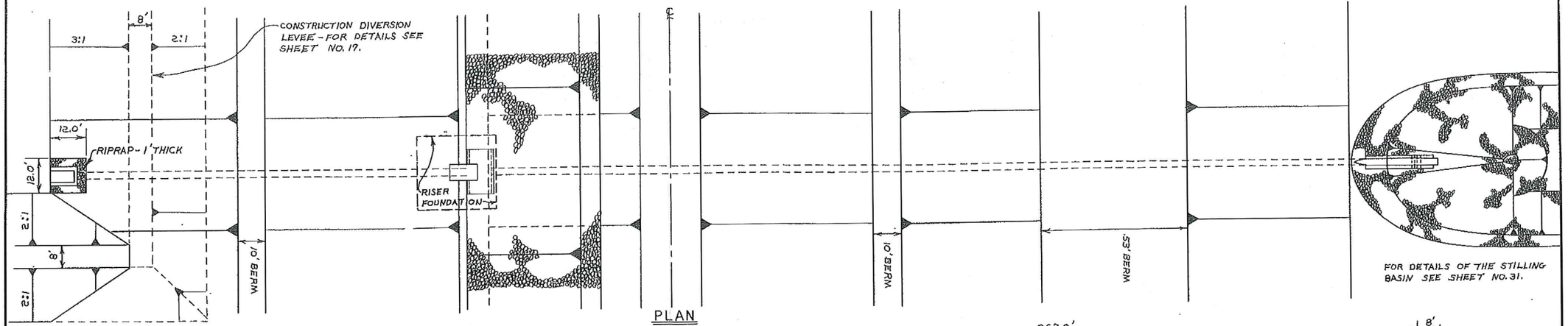
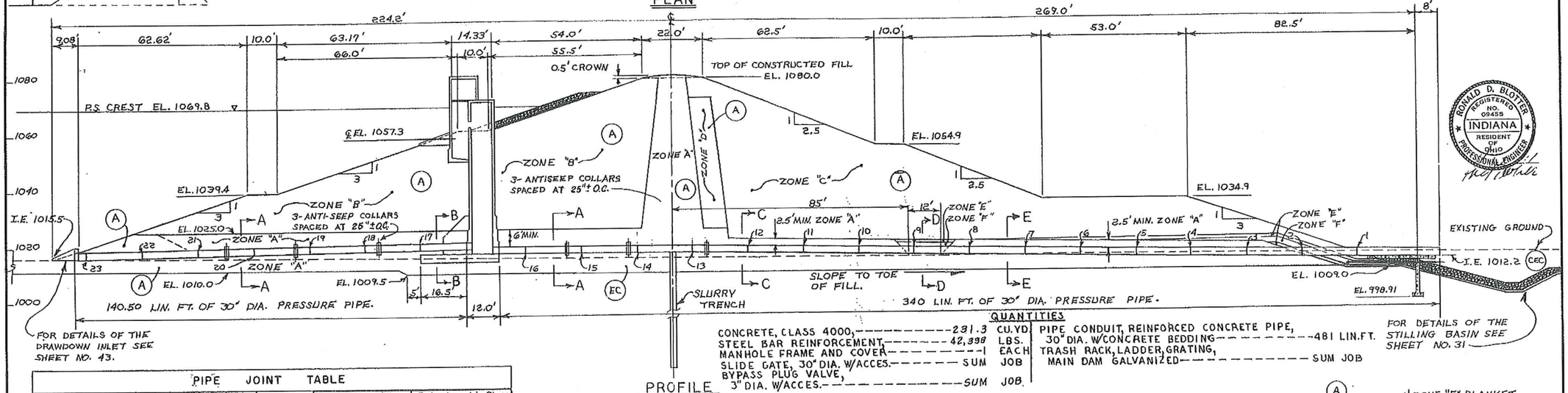
Sheet: 1 of 5



PLAN



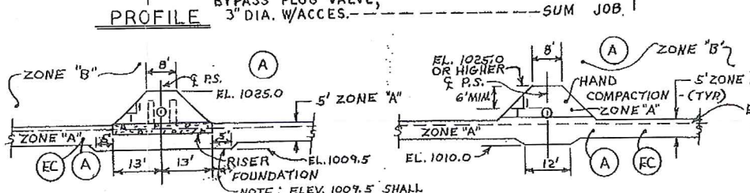
PROFILE

PIPE JOINT TABLE

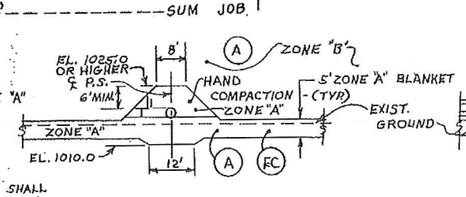
Pipe Diam. (in)	Joint Location	Distance From Outlet (ft.)	Invert Elevation	Before Backfill Date — Invert Elevation	Before Backfill Date — Joint Gap	Embankment in Place Date — Invert Elevation	Embankment in Place Date — Joint Gap
	OUTLET	0	1012.20				
	1	30	1012.65				
	2	50	1012.96				
	3	70	1013.26				
	4	90	1013.56				
	5	110	1013.87				
	6	130	1014.17				
	7	150	1014.47				
	8	170	1014.78				
30	9	190	1015.08				
	10	210	1015.38				
	11	230	1015.68				
	12	250	1015.99				
	13	270	1016.29				
	14	290	1016.39				
	15	310	1016.50				
	16	330	1016.60				
	INLET	340	1016.65				
	OUTLET	352	1018.48				
	17	368.5	1018.48				
	18	388.5	1017.98				
	19	408.5	1017.49				
30	20	428.5	1016.99				
	21	448.5	1016.49				
	22	468.5	1016.00				
	23	488.5	1015.50				
	INLET	492.5	1015.50				

QUANTITIES

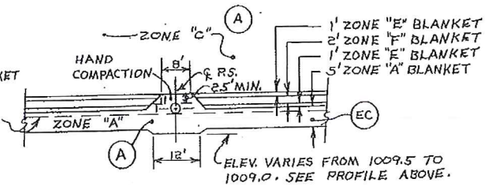
CONCRETE, CLASS 4000	231.3	CU.YD.	
STEEL BAR REINFORCEMENT	42,398	LBS.	
MANHOLE FRAME AND COVER	1	EACH	
SLIDE GATE, 30" DIA. W/ACCES.	SUM	JOB	
BYPASS PLUG VALVE, 3" DIA. W/ACCES.	SUM	JOB	
PIPE CONDUIT, REINFORCED CONCRETE PIPE, 30" DIA. W/CONCRETE BEDDING	481	LIN.FT.	
TRASH RACK, LADDER, GRATING, MAIN DAM GALVANIZED	SUM	JOB	



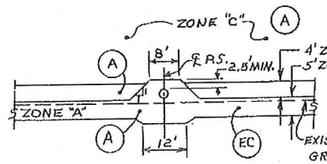
SECTION B-B



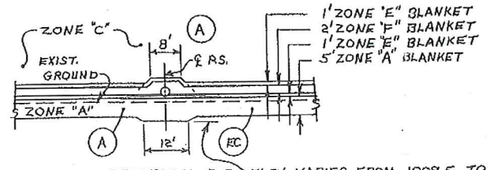
SECTION A-A



SECTION E-E



SECTION C-C



SECTION D-D

REV. IN EDU 5-77

20 0 20 40 60

RONALD D. BLOTTER REGISTERED NO. 09455 INDIANA RESIDENT OF OHIO PROFESSIONAL ENGINEER

STRUCTURE NO. 20

PRINCIPAL SPILLWAY LAYOUT
MAIN DAM

Upper Big Blue River Watershed Protection and Flood Prevention Project (PL-566), Henry County, Indiana

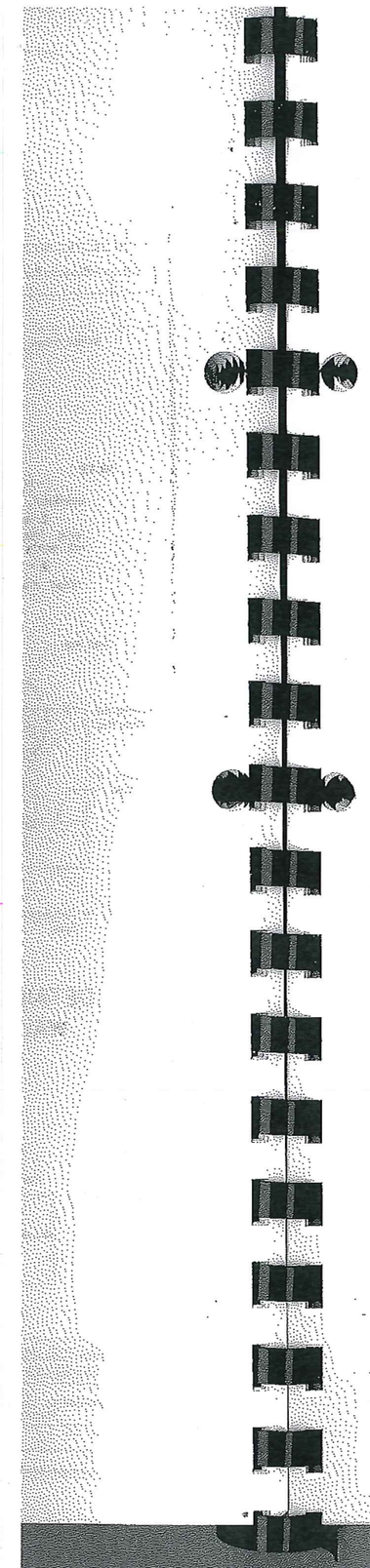
U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

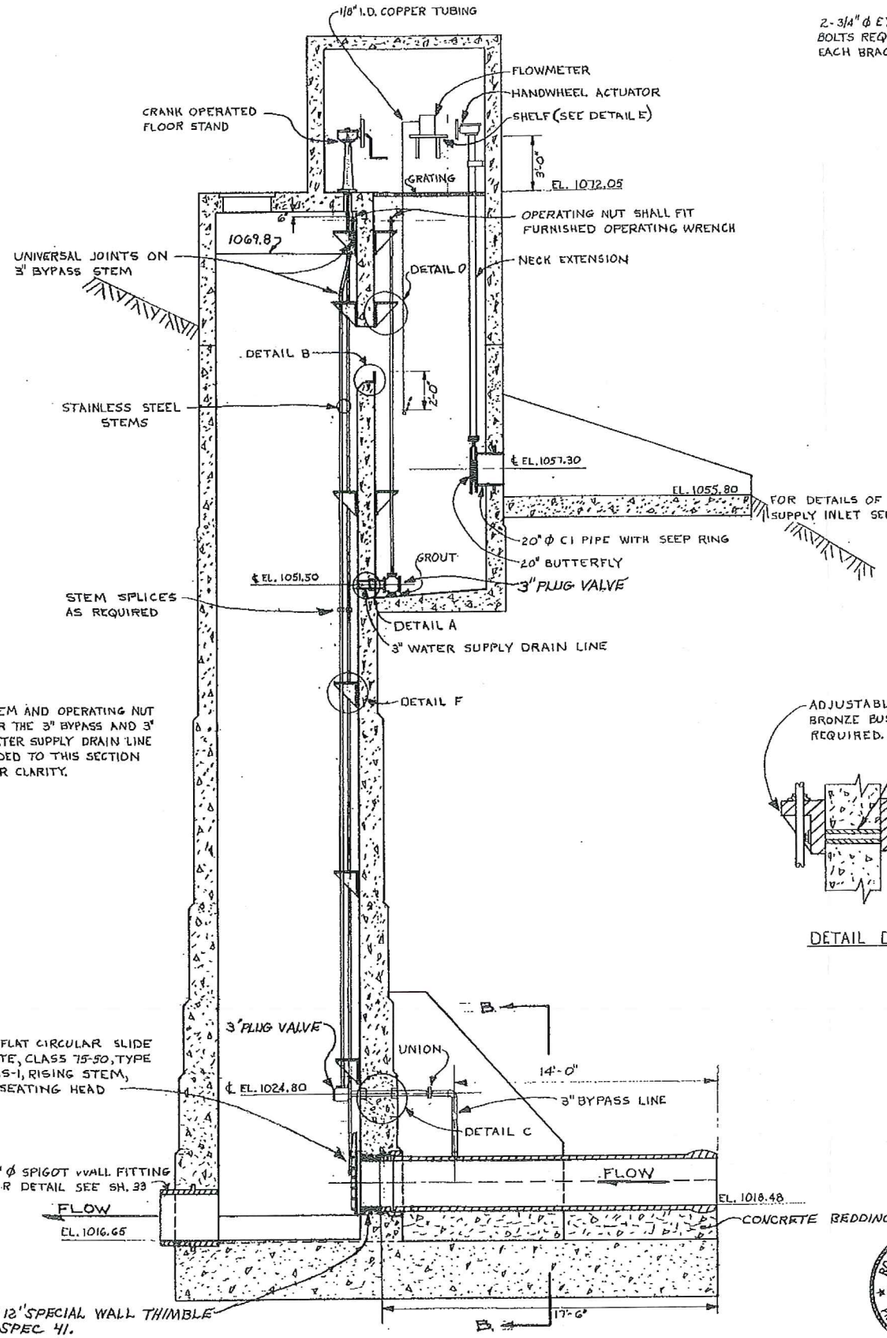
A. M. KINNEY, INC.
CONSULTING ENGINEERS
CINCINNATI, OHIO NEW YORK, N.Y.

W.O. 7109 PROJ.

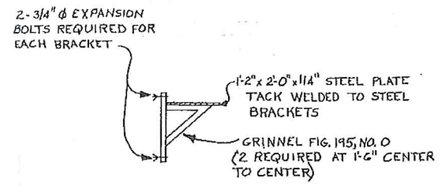
Designed S.W.H.	Date	Approved by	
Drawn S.W.H.		Title	
Traced		Title	
Checked D.G.U.	5-19-77	Sheet No. 30 of 59	Drawing No. 5-E-36,313-P

SCS-ENG-313-B Rev. 7-69

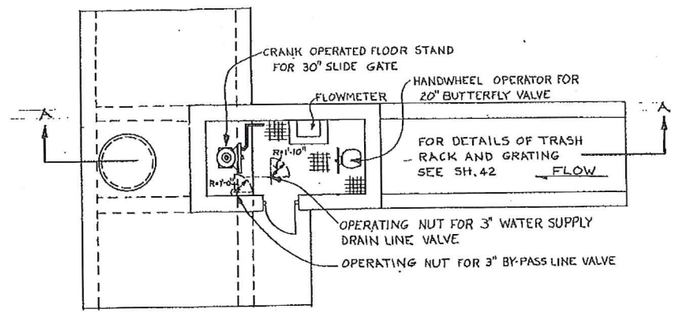




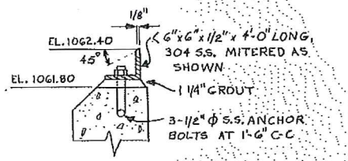
SECTION A-A



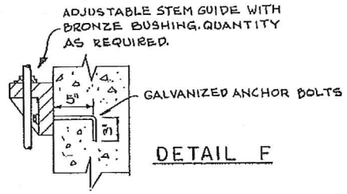
DETAIL E



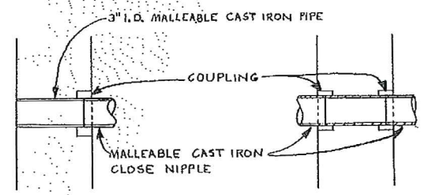
TOP PLAN



DETAIL B

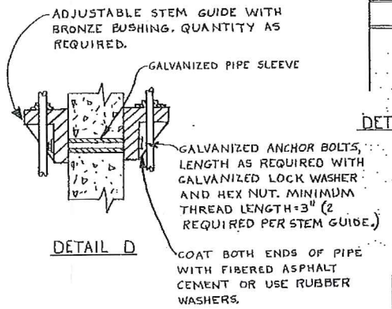


DETAIL F



DETAIL A

DETAIL C



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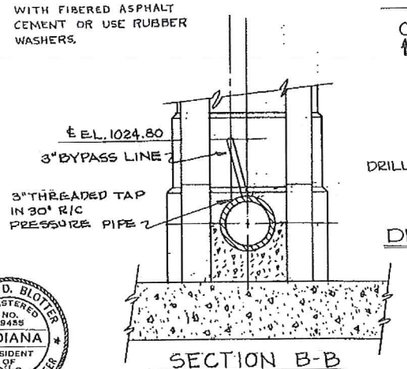
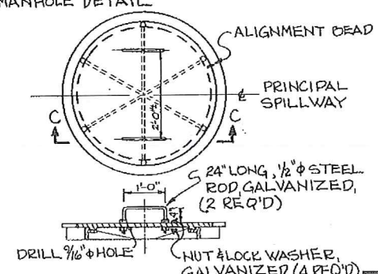


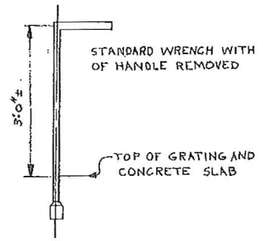
SECTION B-B

NOTE: SEE SHEET 35 FOR MANHOLE DETAIL



SECTION C-C

DETAIL FOR MANHOLE COVER HANDLES



DETAIL OF OPERATING WRENCH

QUANTITIES

TRASH RACKS, LADDER, & MISC. METAL, GALVANIZED-WATER SUPPLY INLET & METER HOUSE ---------- SUM JOB

WATER SUPPLY INLET BUTTERFLY VALVE, 20" DIA. W/ACCESSORIES ---------- SUM JOB

DRAIN, WATER SUPPLY INLET PLUG VALVE, 3" DIA. W/ACCESSORIES ---------- SUM JOB

SCALE IN FEET: NOT TO SCALE

RONALD D. BLOTTER REGISTERED NO. 09485 INDIANA RESIDENT OF OHIO PROFESSIONAL ENGINEER

STRUCTURE NO. 20

DETAILS OF 4'-0" X 7'-6" X 53'-3" DRAWDOWN

Upper Big Blue River Watershed Protection and Flood Prevention Project (PL-566), Henry County, Indiana

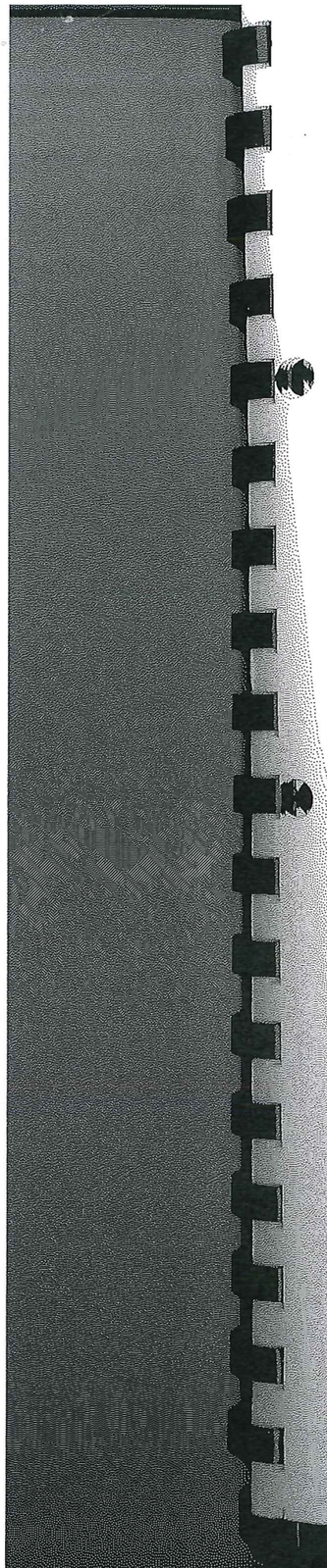
U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

A. M. KINNEY, INC.
CONSULTING ENGINEERS
CINCINNATI, OHIO NEW YORK, N. Y.

W.O. 7109 PROJ.

	Date		
Designed D.J.B.		Approved by	
Drawn D.J.B.		Title	
Traced		Title	
Checked D.G.U.	5-19-77	Sheet No. 34 of 59	Drawing No. 5-E-36,313-P

SCS-ENG-313-B Rev. 7-69



WATER SUPPLY CONTROL HOUSE

THIS OPENING IN FAR WALL SEE SHEET 41.

12"×24" OPENINGS FOR EXTRUDED ALUMINUM STATIONARY LOUVER AIROLITE TG08 OR EQUAL W/½" SQ. MESH BIRD SCREEN, 16 GA. ALUMINUM.

FOR DETAILS OF TRASHRACK ANGLES AND GRATING, SEE SHEET 44.

EL. 1072.05

EL. 1069.80

OPTIONAL

OPTIONAL

45° TYP.

20" DIA.

I.E. 1018.48

I.E. 1016.65

EL. 1016.55

1'-3" RADIUS

PLATE CONSTR. JOINT FOR DETAIL SEE SH. 2

SECTION B-B

B

10'-4"

5'-8"

2'-6"×7'-0" DOOR OPENING IN FAR WALL. SEE SHEET 41.

MANHOLE 2'-6"ϕ OPENING

HANDRAIL

FOOTRAIL

SECT. 1

SECT. 2

SECT. 3

SECT. 4

SECT. 5

SECT. 6

SECT. 7

SECT. 8

EL. 1049.80

FOR LADDER DETAILS SEE SHEET 42.

FOR DETAIL SEE SHEET 34

30" DIA. SPIGOT WALL FITTING. FOR DETAIL SEE SHEET 33.

I.E. 1018.48

I.E. 1016.65

FLOW

8'-0" 8'-6" 2'-3" 7'-6" 2'-3"

28'-6"

B

SIDEWALL ELEVATION

SCALE IN FEET

NOTE:
- PAINT ALL EXPOSED SURFACES OF THE MANHOLE COVER AND FRAME PER PAINT SYSTEM "A" SEE SPECIFICATION 82.

36½" DIAM. ROUND MANHOLE PRESSURE TYPE (NEENAH FOUNDRY CO. NEENAH, WISCONSIN. MODEL R 6461-JL OR EQUIVALENT.

STOP/HOLDER SEE NOTE 3 ON SHEET 41.

GRAB BAR SEE SHEET 42.

LADDER BRACKET SEE SHEET 42.

3'-0" 2'-2"

15'-8"

6'-10" 7'-6"

8'-8" 5'-8"

16'-0"

TOP PLAN

8'-0" 8'-6" 12'-0"

FLOW

FILL WITH CONCRETE AFTER PIPE IS PLACED

SECTION A-A

NOTES:
1. CHAMFER ALL EXPOSED EDGES ¾"
2. DESIGN CONSTANTS: CONCRETE f'_c = 4000 PSI, f_c = 1600 PSI
   REINFORCING STEEL f_s = 20,000 PSI, n=8
3. PIPE SLEEVES TO BE EMBEDDED IN CONCRETE AT TIME OF POUR.
4. FOR ADDITIONAL DETAILS OF WATER SUPPLY CONTROL HOUSE, SEE SHEET 41 & 42.

STRUCTURE NO. 20

4'-0"×7'-6"×53'-3" REINFORCED CONCRETE INLET FOR 30" DIAM. ⅝ PIPE

SHEET 1 OF 8

Upper Big Blue River Watershed Protection and Flood Prevention Project (PL-566), Henry County, Indiana

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Designed A.W.P. Date Approved by
Drawn R.E.T. Title
Traced Title
Checked D.G.U. 54 Drawing No. 35 of 59

5-E-36,313-P

RONALD D. BLOTTER REGISTERED NO. 09455 INDIANA RESIDENT OF OHIO PROFESSIONAL ENGINEER

A. M. KINNEY, INC.
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W.O. 7109

PROJ.

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