WILSONVILLE, CONNECTICUT
FRENCH RIVER

LANGERS POND DAM
CT-00186

NATIONAL DAM INSPECTION PROGRAM
CORPS OF ENGINEERS

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

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11. CONTROLLING OFFICE NAME AND ADDRESS DEPT. OF THE ARMY, CORPS OF ENGINEERS NEW ENGLAND DIVISION, NEDED 424 TRAPELO ROAD, WALTHAM, MA. 02254		12. REPORT DATE Feb. 1980 13. NUMBER OF PAGES 35
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Cover program reads: Phase I Inspection Report, National Dam Inspection Program; however, the official title of the program is: National Program for Inspection of Non-Federal Dams; use cover date for date of report.

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

DAMS, INSPECTION, DAM SAFETY,

Wilsonville Conn.
French River
Langers Pond Dam

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Langers Pond Dam is a 10.5 foot high, "L-shaped", run-of-the-river stone masonry gravity structure. It is 160 feet in length, and constructed of stone masonry with a concrete section along the upstream face. Based upon the visual inspection the project appears to be in good condition.

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INSPECTION REPORT
LANGERS POND DAM
CT 00186

Langers Pond Dam is a 10.5 foot high, "L-shaped", run-of-the-river stone masonry gravity structure. It is located on the French River in Wilsonville, Connecticut and owned by the Simonds Company, also of Wilsonville. The dam was constructed in 1880 to supply water for the generation of power for the mill at the dam, now the Simonds Company. In recent times, the power generating facilities have been inoperable, however, the present owner is in the process of restoring these facilities. The drainage area is approximately 97 square miles and the maximum impoundment to the top of the dam is 156 acre-feet.

Because the dam is a run-of-the-river structure, the entire length of the dam is used as a spillway. It is 160 feet in length, and constructed of stone masonry with a concrete section along the upstream face. The concrete section is 15 inches wide and forms the crest of the dam at elevation 383.0. The stone masonry section is about 4.5 to 5 feet wide at the top (elevation 381.0), 11 feet wide at the base (elevation 372.5), and has a stepped downstream face. The training wall at the left end of the dam is about 3.5 feet above the dam crest and is constructed of stone and mortar masonry. At the right end, the dam abuts the concrete foundation of one of the Simonds Company buildings.

There is no low-level outlet at the dam. The only method of releasing water, other than over the dam, is through the channel which was once used to supply water for generating purposes. However, at this time the channel is almost completely filled in and the gates of the upstream end are severely deteriorated.

For the owner's information and use, the following items are attached in duplicate:

1. Hydraulic/Hydrologic Computations
2. General Plan w/Typical Section and Profile
3. Photographs
4. Visual Inspection Check List

Based upon the visual inspection, the project appears to be in good condition. The following features which could influence the future condition and/or stability were identified.

1. Stones appear to have become dislodged from the downstream face at the left side of the dam (Photo 1). If not repaired, more stone may become dislodged, leaving a weak zone in this area and possibly leading to failure of the structure.

2. The downstream end of the left training wall needs repair. The wall in this area is broken up and falling into the channel. If not repaired, undermining of the left abutment may occur during high flows, leading to gradual undermining and possible failure of the left side of the dam.

3. There is no low-level outlet at the dam. However, if the existing sluice way and gates are repaired, this should provide a sufficient outlet.

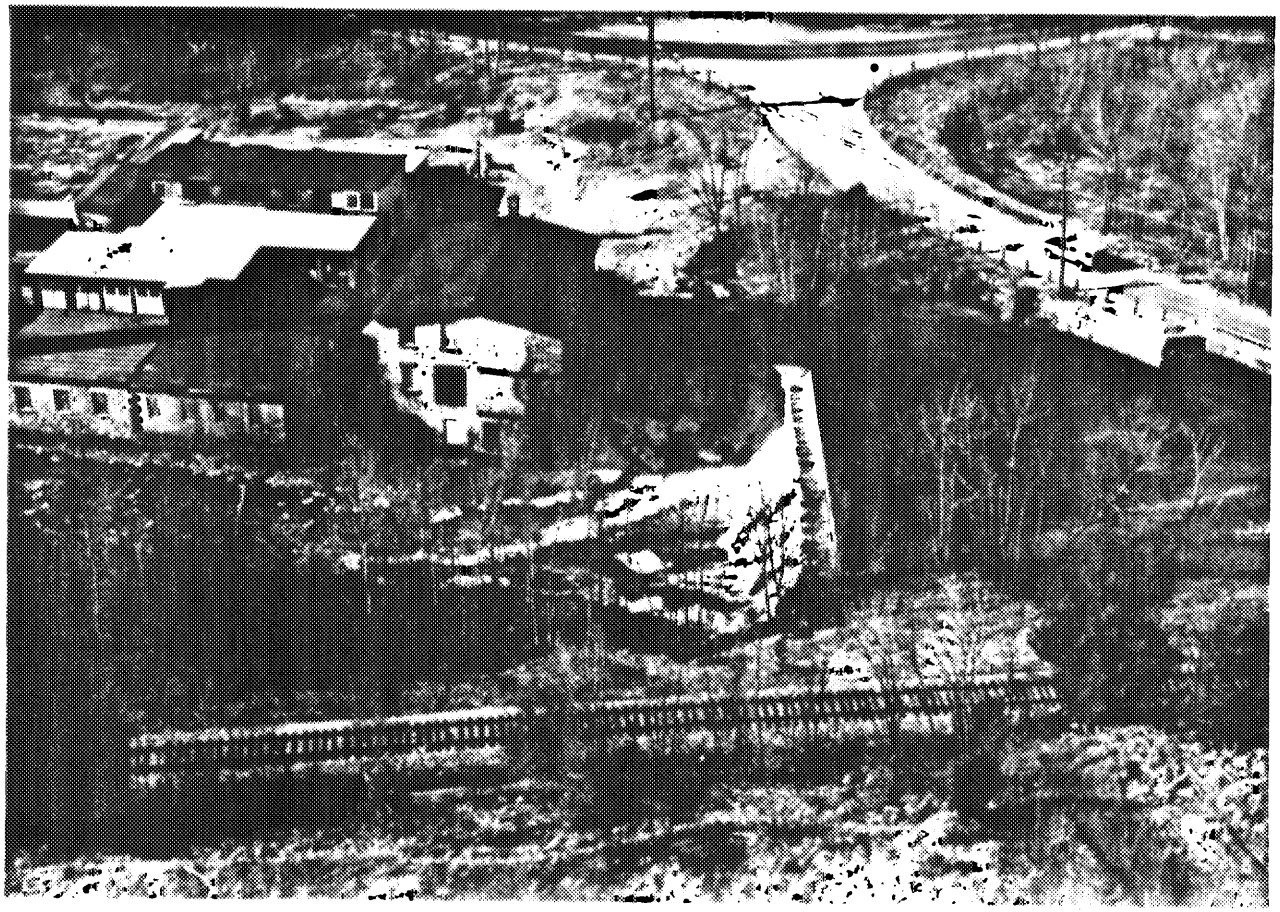
The owner should retain a registered professional engineer qualified in dam design and inspection to perform services pertaining to the following items. The engineer should establish correction measures which should then be instituted by the owner.

1. An attempt should be made to inspect the dam during period of low flow, so a more detailed inspection can be performed.

2. Recommendations should be made for repair of the downstream face of the dam and the left training wall.

3. The stone masonry should be repointed if the more detailed inspection reveals the need for this repair.

Also, the owner should insure that the crest of the dam and the channel at the toe of the dam remain clear of debris.



OVERVIEW PHOTO
(February, 1980)

US ARMY ENGINEER DIV. NEW ENGLAND CORPS OF ENGINEERS WALTHAM, MASS. CAHN ENGINEERS INC. WALLINGFORD, CONN. ENGINEER	NATIONAL PROGRAM OF INSPECTION OF NON-FED DAMS	Langers Pond Dam French River	Wilsonville CONNECTICUT	DATE Dec. 1980 CE # 27 785 KF PAGE ix

Photo 1-Crest and downstream face of dam from the fill by the outlet channel at the right end of the dam. Note displacement of stones at left end of dam (Dec. 1980).

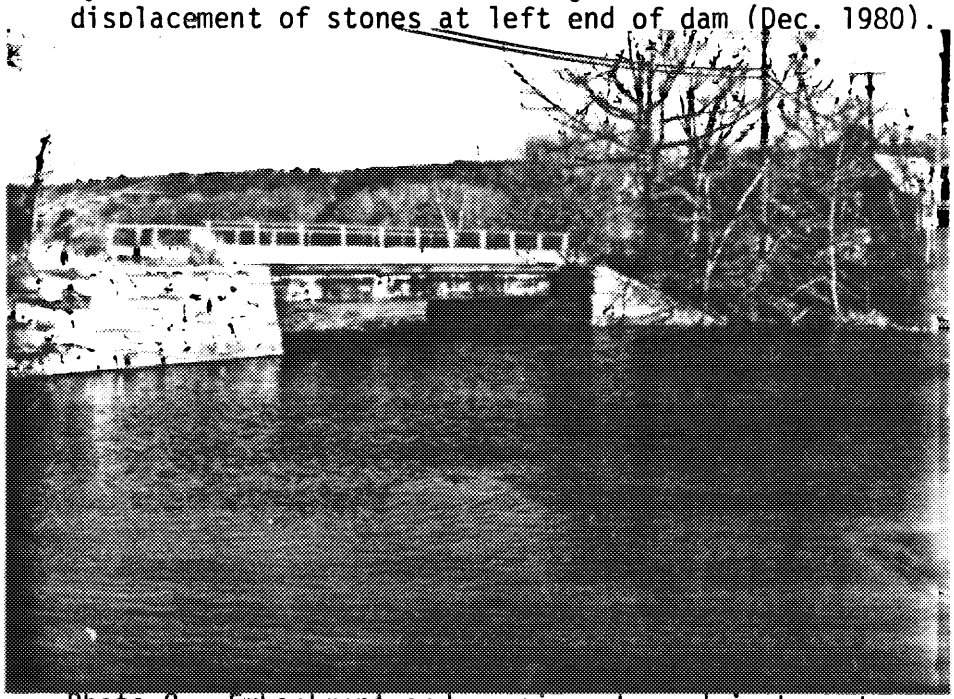


Photo 2 - Embankment and opening at road just upstream from dam (Dec. 1980).

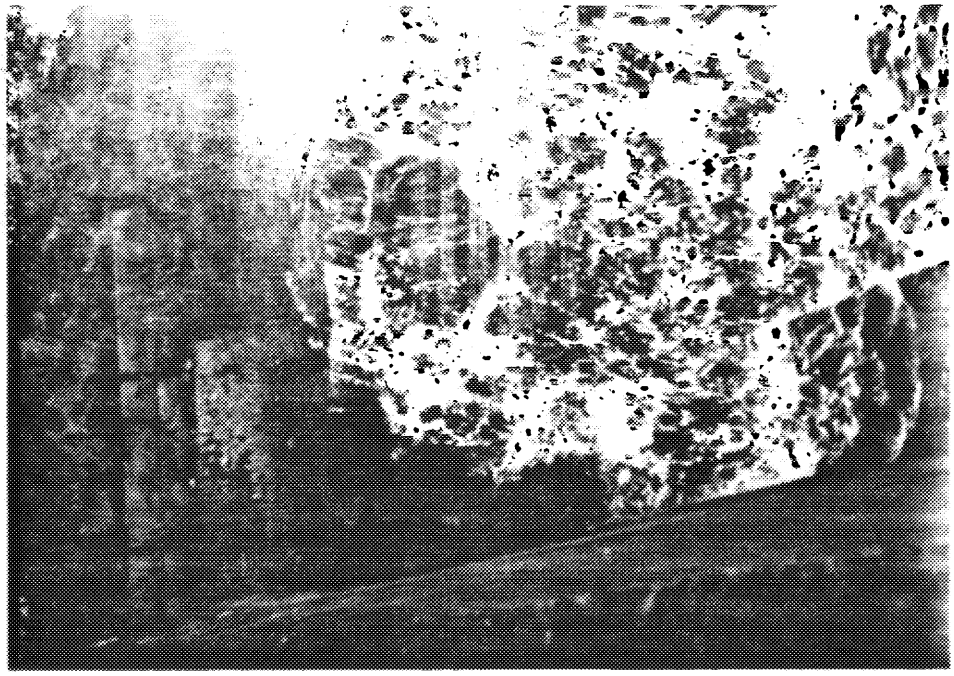


Photo 3 - Downstream face of dam where it abuts factory foundation at right end of dam (Dec. 1980).

Photo 4 - Masonry training wall and downstream face of dam at left end. Masonry retaining or cut-off wall at right side of photo in background (Dec. 1980).

US ARMY ENGINEER DIV. NEW ENGLAND CORPS OF ENGINEERS WALTHAM, MASS.	NATIONAL PROGRAM OF	Langers Pond Dam
	INSPECTION OF	French River
CAHN ENGINEERS INC. WALLINGFORD, CONN. ENGINEER	NON-FED. DAMS	Wilsonville, CT
		CE# 27 785 KF
		DATE Dec. 1980 PAGE C-

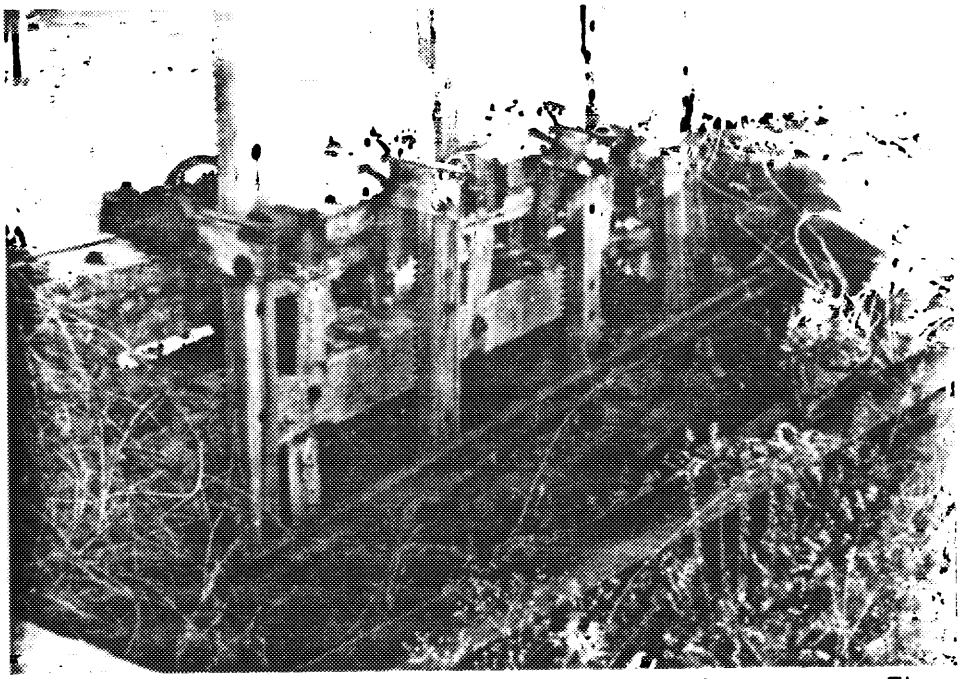


Photo 5 - Gate hoists and remains of wooden gates. The fill placed across the upstream end of the outlet channel is barely visible at lower right (Dec. 1980).

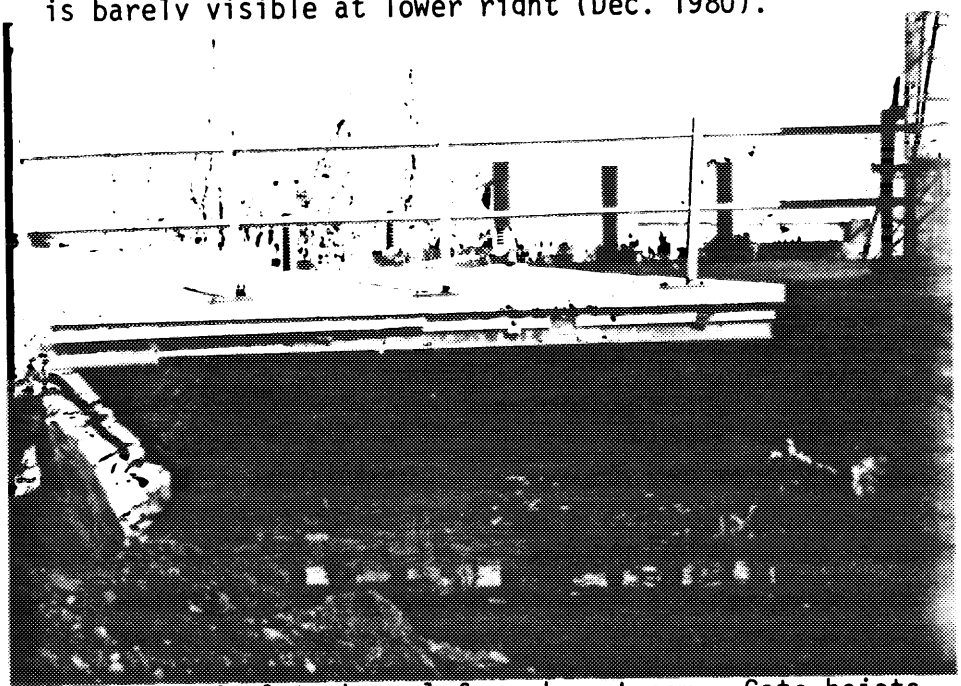


Photo 6 - Outlet channel from downstream. Gate hoists are visible in background, fill just above building housing the turbine is visible at lower left (Dec. 1980).

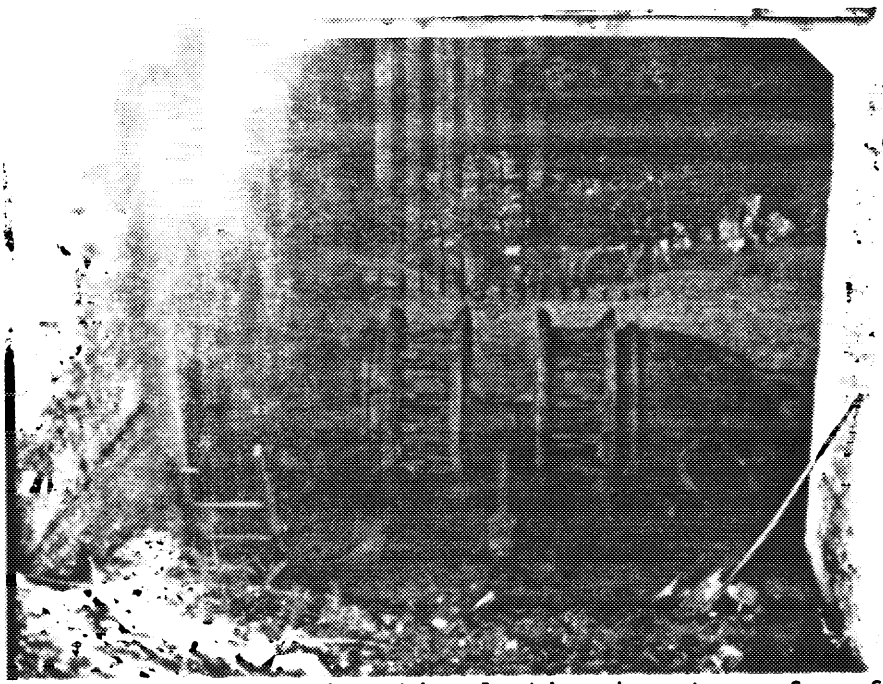


Photo 7 - Abandoned turbine looking downstream from fill in outlet channel. Drain holes in floor of concrete structure, allow water seeping through fill to flow back to the river,

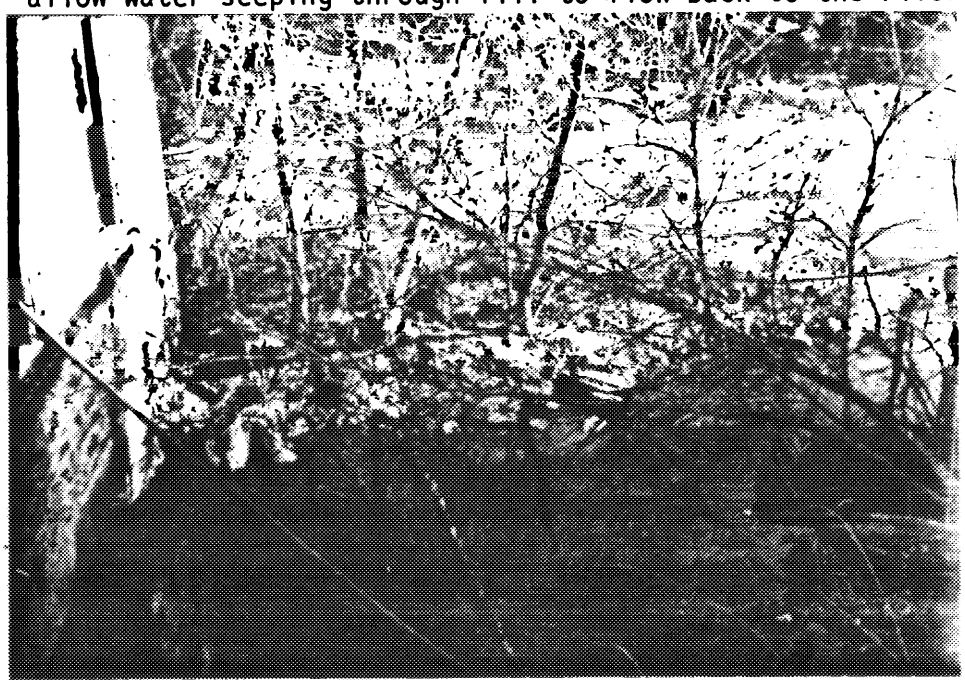


Photo 8 - Outlet Channel taken from top of concrete structure containing turbine. Openings at base of building to the left are for turbine which no longer exists (Dec. 1980).

INSPECTION CHECK LIST
QUALITY ORGANIZATION

PROJECT [illegible]

DATE: December 1, 1980

TIME: 10:00 AM to 1:00 PM

WEATHER: Sunny, 50°F

W.S. ELEV. 3832 U.S. _____ DN.S

PARTY:	INITIALS:	DISCIPLINE:
1. Peter M Heyner	PMH	Cahn-Geotechnical
2. Jay A Castello	JAC	Cahn-Geotechnical
3. Frank Segaline	FS	Cahn-Survey
4. Mural Athey	MA	DTC- H/H
5.		
6.		

	PROJECT FEATURE	INSPECTED BY	REMARKS
1.	Spillway	PMH, JAC, MA, FS	A-2
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			

PERIODIC INSPECTION CHECK LIST

PROJECT Farmers Pond Dam DATE Dec 1, 83

PROJECT FEATURE Spillway BY [illegible]

AREA EVALUATED	CONDITION
OUTLET WORKS-SPILLWAY WEIR, APPROACH AND DISCHARGE CHANNELS	
a) Approach Channel	
General Condition	Appears good, clear
Loose Rock Overhanging Channel	None observed
Trees Overhanging Channel	
Floor of Approach Channel	Silted in; sand & gravel
b) Weir and Training Walls	
General Condition of Concrete	Concrete - good stone masonry - needs repair left end. stones dislodged. right training wall needs repair.
Rust or Staining	None observed
Spalling	
Any Visible Reinforcing	
Any Seepage or Efflorescence	
Drain Holes	N/A
c) Discharge Channel	
General Condition	fair
Loose Rock Overhanging Channel	None observed
Trees Overhanging Channel	
Floor of Channel	Some stones; wood debris
Other Obstructions	N/A


Chaseville
Conant Pond
BM 589
BM 616
LYON HALL
Sewage Disposal
SCHOOL
Holy Trinity Cem
Foskard Pond
Perryville
WORCESTER CO
WINDHAM CO
Perry Pond
BM 408
Whitkowski Ponds
LAPORTE
CINEHOUSE
TUFT HILL ROAD
THOMPSON
Wilsonville
Langers Pond
Quarry
BM
Brook
CORTISS
Buffumville
Lily Pond
North Grosvenor Dale
Grosvenordale
LANGERS POND DAM
RESERVOIR
BRICKYARD
JERZESKA
KAPTULIK
Shepaug
Badamtaug
Brook
PENN CENTRAL
Golf Course
ROAD
4658
4657
4656
4655
4654
4653
4652

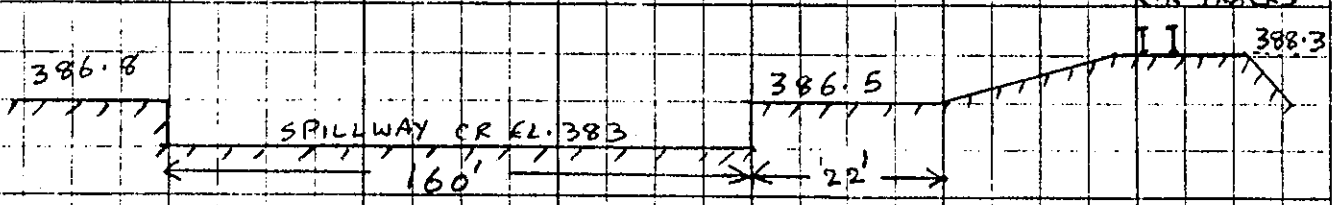
PROJECT NON FEDERAL DAM INSPECTION PROJECT NO. 80-10-19 SHEET 1 OF 14
NEW ENGLAND DIVISION COMPUTED BY [illegible] DATE 12/18/80
LANGERS POND DAM CHECKED BY E. Butler Bates DATE 12/19/80

SPILLWAY CREST ELVN = 383 NGVD*

TOP OF THE DAM EL = 386.5 (ELVN OF THE LEFT ABUTMENT - CONCRETE WALL)

TOP OF THE DAM EL = 372.5

HEIGHT OF THE DAM = 14 FT (Ya)



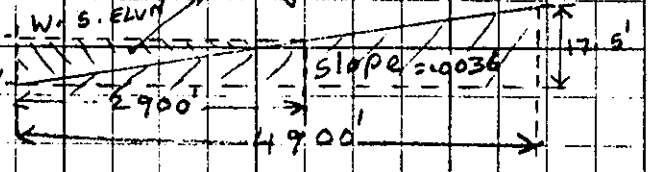
APPROXIMATE POTENTIAL OVERFLOW PROFILE
(BASED UPON CAHN INC's FIELD INFORMATION)

STORAGE

PLANIMETERING FROM USGS MAP FOR POND SURFACE AREAS:

AT EL. 383 (SPILLWAY CREST) = 18 Ac.

AT EL. 390 = 51 Ac.



A STAGE-POND AREA CURVE IS PLOTTED.

POND AREA AT TOP OF DAM = 35 Ac.

AVERAGE POND AREA BET. SP. CR. & TOP OF DAM = $\frac{18+35}{2}$ = 26.5 Ac

STORAGE BETWEEN SP. CREST & TOP OF DAM = 3.5 x 26.5 = 93 Ac. Ft

STORAGE BELOW SP. CREST = $\frac{1}{3}$ x 18 x 10.5 = 63 Ac. Ft

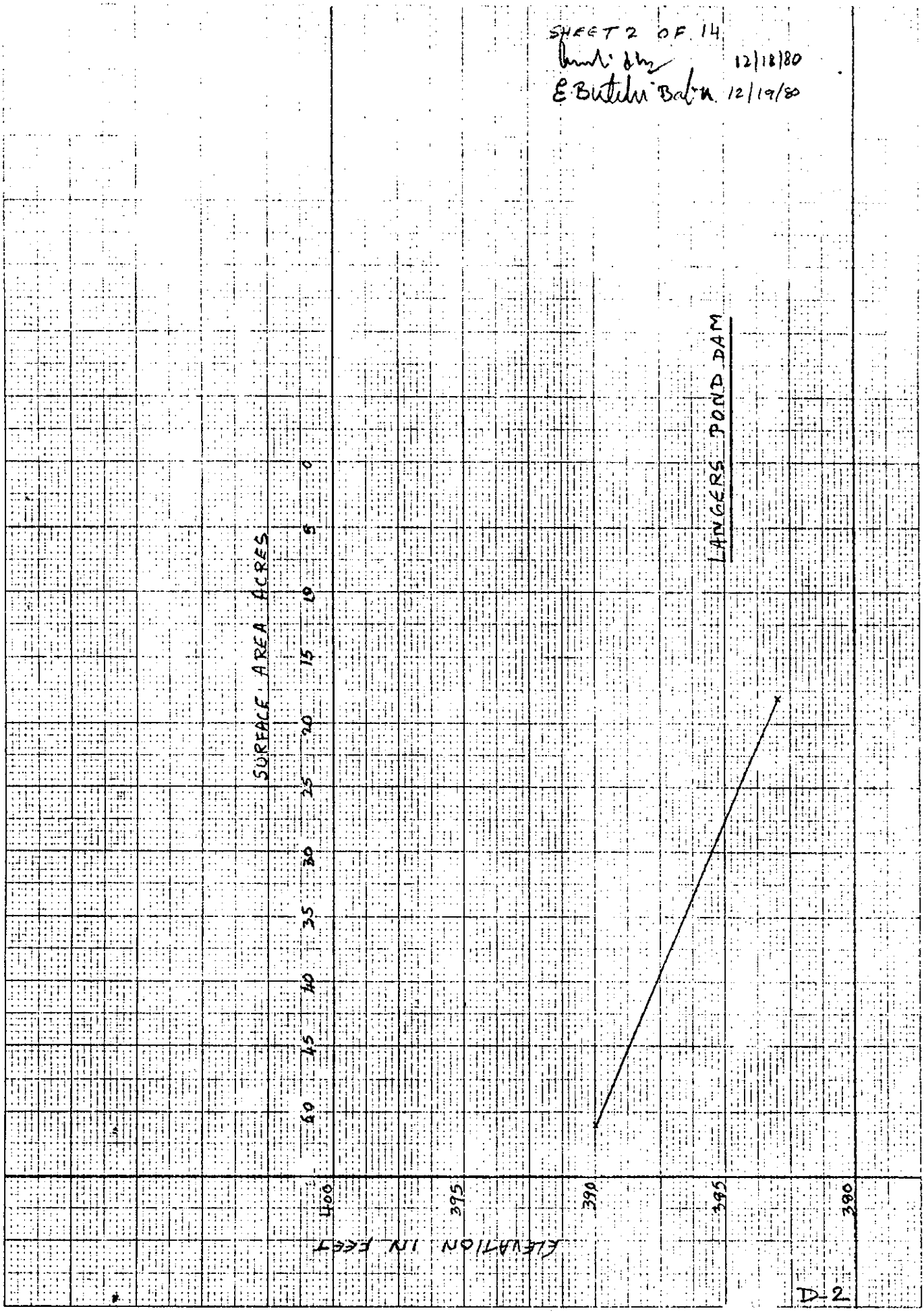
∴ MAXIMUM IMPOUNDMENT TO TOP OF DAM = 93 + 63 = 156 Ac. Ft (S)

* THE W.S. ELVN OF 383 MSL ON THE WEBSTER, MASS USGS QUAD SHEET (1969) IS ASSUMED TO BE THE SPILLWAY CREST ELVN ON NATIONAL GEODETIC VERTICAL DATUM (NGVD). ALL OTHER ELVNS ARE REFERENCED TO THIS ASSUMED ELVN AND ARE OBTAINED BASED UPON INFORMATION FURNISHED BY CAHN, INC.

SHEET 2 OF 14

12/18/80

E. Butcher Date 12/19/80



D-2

squares to the inch

PROJECT NON FEDERAL DAM INSPECTION PROJECT NO. 80-10-19 SHEET 3 OF 14
NEW ENGLAND DIVISION COMPUTED BY [illegible] DATE 12/18/80
LANGERS POND DAM CHECKED BY E. Butulis Baden DATE 12/19/80

BREACH ANALYSIS

DOWNSTREAM FAILURE HAZARD:

BREACH OUTFLOW $Q_b = \frac{8}{27} W_b \sqrt{g}\, y_o^{3/2}$ BASED UPON CORPS OF ENGINEERS "RULE OF THUMB" GUIDANCE FOR ESTIMATING D/S DAM FAILURE HYDROGRAPHS

ESTIMATED BREACH WIDTH = 40% OF MID-HEIGHT LENGTH OF DAM

MID-HEIGHT LENGTH IS ASSUMED = LENGTH OF THE SPILLWAY FOR LACK OF OTHER DATA

∴ BREACH WIDTH = 160 FT.
= 0.4 × 160 = 64 FT.

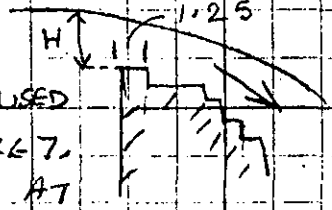
$Q_b = \frac{8}{27} \times 64 \sqrt{32.2} \times (14)^{3/2} = 5640$ CFS

PEAK FAILURE OUTFLOW $Q_{P_1} = Q_b$ + DISCHARGE OVER UNBREACHED LENGTH OF THE SPILLWAY

UNBREACHED LENGTH OF SPILLWAY = 160' − 64' = 96'

$Q_{SP} = C L H^{3/2}$

FOR BROAD CRESTED CONCRETE SPILLWAY WITH U/S FACE ASSUMED VERTICAL C = 3.5 USED



(Ref. USGS BOOK 3, CHAPTER A5, FIGURE 7, P.10 MEASUREMENT OF PEAK DISCHARGE AT DAM BY INDIRECT METHODS)

$Q_{SP} = 3.5 \times 96 \times (3.5)^{3/2}$ FOR POOL AT TOP OF DAM
= 2200 CFS

PEAK FAILURE OUTFLOW Q_{P_1} = 5640 + 2200 = 7840 CFS

ESTIMATED FAILURE FLOOD DEPTH IMMEDIATELY D/S FROM DAM = 0.44 × y_o
= 0.44 × 14 = 6.2 FT

(NOTE: THE TAILWATER EFFECT DUE TO NORTH ROSENGRDALE POND LOCATED D/S DOES NOT APPEAR TO INFLUENCE THIS ANALYSIS)

PROJECT NON FEDERAL DAM INSPECTION PROJECT NO. 80-10-19 SHEET 4 OF 14
NEW ENGLAND DIVISION COMPUTED BY [illegible] DATE 12/18/80
LANGERS POND DAM CHECKED BY E. Butler Babin DATE 12/19/80

PERFORM D/S ROUTING OF PEAK FAILURE OUTFLOW
SELECT A SECTION AA 300' D/S OF THE DAM. THIS SECTION IS SELECTED TO ESTIMATE POSSIBLE FLOODING DAMAGE TO THE MANUFACTURING FACILITY (SIMONDS CO)
USING MANNING'S EQUATION

$Q = \frac{1.486}{n} \times A \times R^{2/3} \times S^{1/2}$ $n = 0.06$ ASSUMED (stones)
$S = 0.0016$ From USGS Map

$= \frac{1.486}{.06} \times A \times R^{2/3} \times (.0016)^{1/2}$
$= \frac{1.0 \times A \times R^{2/3}}{}$

RIVER BED ELEVN AT SECTION AA = 372 (BASED UPON $S = .0016$)

ELVN	A sq.ft	P	R = A/P	$R^{2/3}$	Q CFS
372	0	—	—	—	0
374	64	63.7	1.0	1.0	64
376	253	126.8	2.0	1.59	402
378	565	188.9	2.99	2.08	1175
380	1000	250.5	3.99	2.52	2520
382	1412	283.2	4.99	2.92	4123
384	1884	314.9	5.98	3.30	6217
386	2415	346.1	6.98	3.65	8815

STAGE-AREA AND STAGE DISCHARGE CURVES ARE PLOTTED FOR SECTION AA
FOR PEAK FAILURE OUTFLOW $Q_{P_1} = 7840$ CFS.
ELVN = 385.2 FROM STAGE DISCHARGE CURVE.
FROM STAGE-AREA CURVE AREA = 2188 sq.ft

VOLUME OF REACH $V_1 = \frac{300 \times 2188}{43,560} = 15$ Ac.Ft.

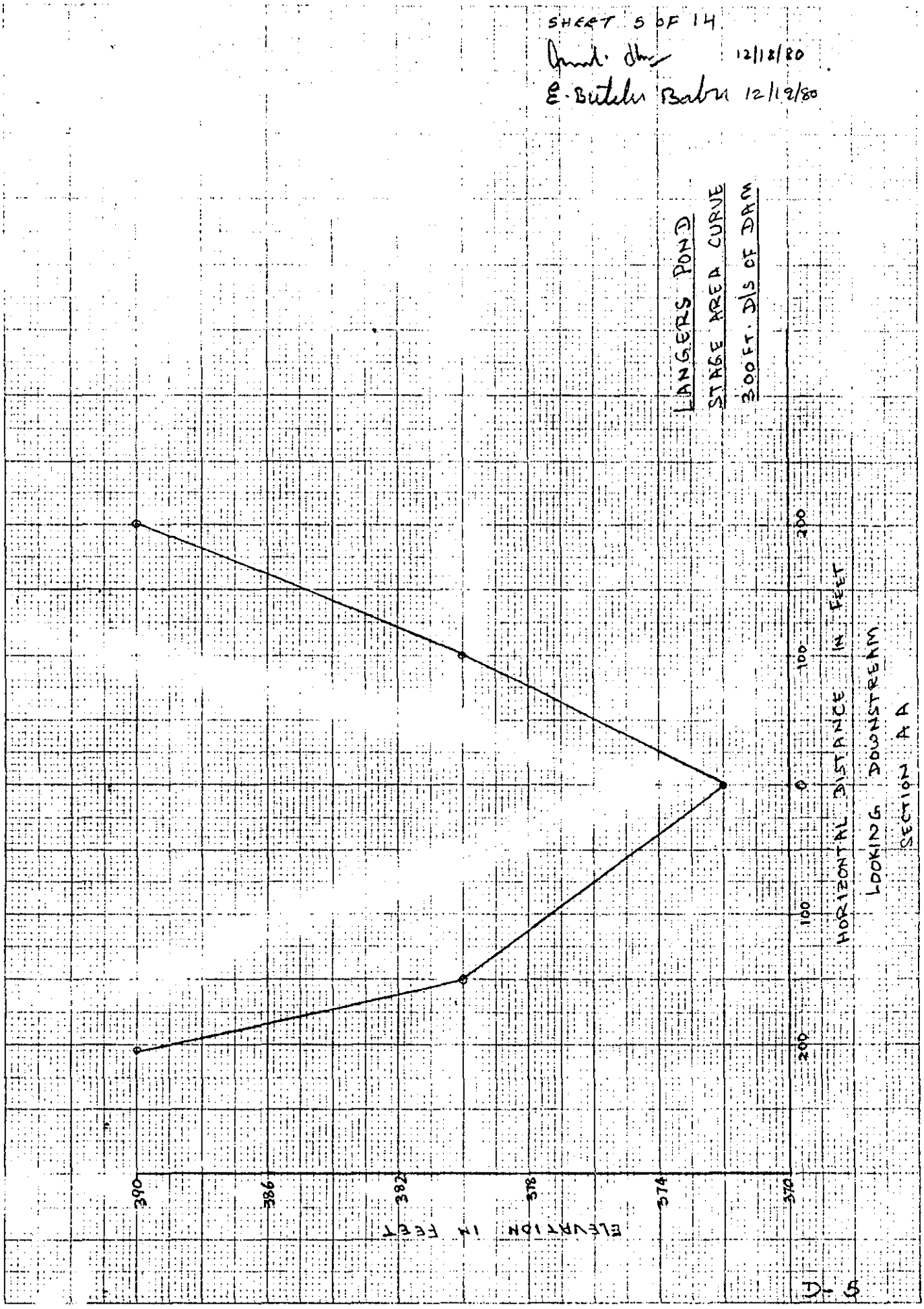
TRIAL $Q_{P_2} = Q_{P_1}\left(1 - \frac{V_1}{S}\right)$, WHERE S = STORAGE TO TOP OF DAM

$= 7840\left(1 - \frac{15}{156}\right) = 7080$ CFS.

SHEET 5 OF 14

12/18/80

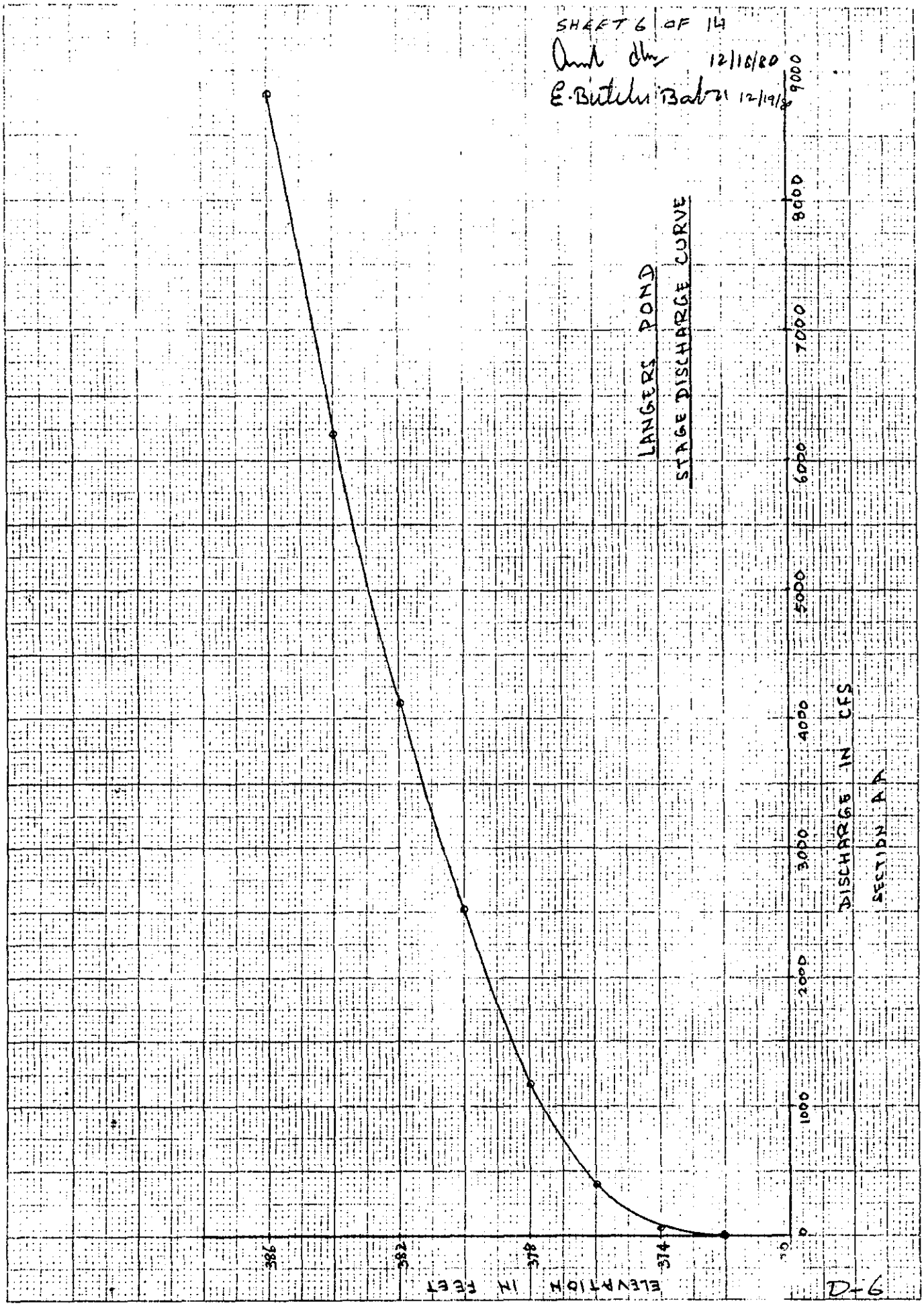
E. Butler Babin 12/19/80



Squares to the inch

Chk'd by 12/18/80

E. Butcher Batch 12/19/80



FOR THIS QP_2, THE STAGE DISCHARGE CURVE GIVES
ELVN = 384.6 AND AREA = 2035 SQ. FT.

$V_2 = \frac{300 \times 2035}{43,560} = 14$ AC. FT.

RECOMPUTING $QP_2 = 7840\left(1 - \frac{14.75}{156}\right) = 7110$ CFS

FLOOD STAGE AT SECTION AA = EL. 384.6

FLOOD DEPTH AT SECTION AA = EL. 384.6 - EL. 372 = 12.6 FT.

AND VELOCITY AT SECTION AA = $\frac{7110}{2025} = 3.5$ FPS

THE 1ST FLOOR OF SIMONDS CO MANUFACTURING FACILITY IS AT LEAST 2 FT ABOVE THIS FLOOD STAGE OF 384.6.

SELECT A SECTION BB 340' DS OF AA

BED ELVN AT BB = EL. 372.5 - 640 x .0016 = 371.5

USING MANNING'S EQUATION

$Q = \frac{1.486}{n} \times A \times R^{2/3} \times S^{1/2}$

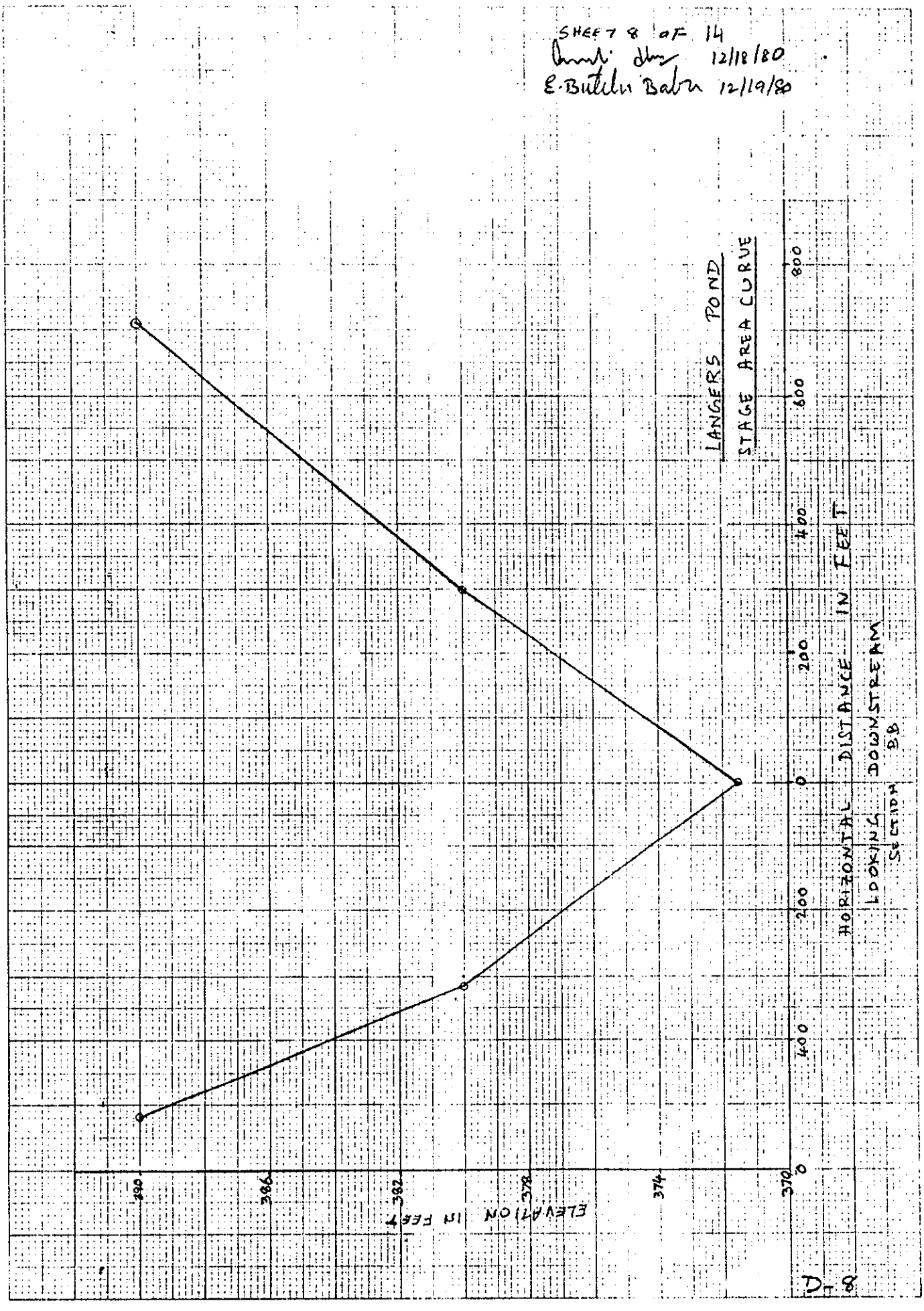
$= 1.0 \times A \times R^{2/3}$

n = 0.06 ASSUMED
S = 0.0016 (USGS MAP)

ELVN	A SQ. FT.	P	R = A/P	$R^{2/3}$	Q CFS
371.5	0	—	—	—	0
374	219	175.1	1.25	1.16	254
378	1511	465.2	3.25	2.2	3324
380	2614	615.2	4.25	2.62	6862
382	3859	735.2	5.25	3.02	11654

STAGE AREA AND STAGE DISCHARGE CURVES ARE PLOTTED FOR SECTION BB
FOR PEAK OUTFLOW QP_1 = 7110 CFS. ELVN = 380.2
AND AREA = 2767 SQ. FT.

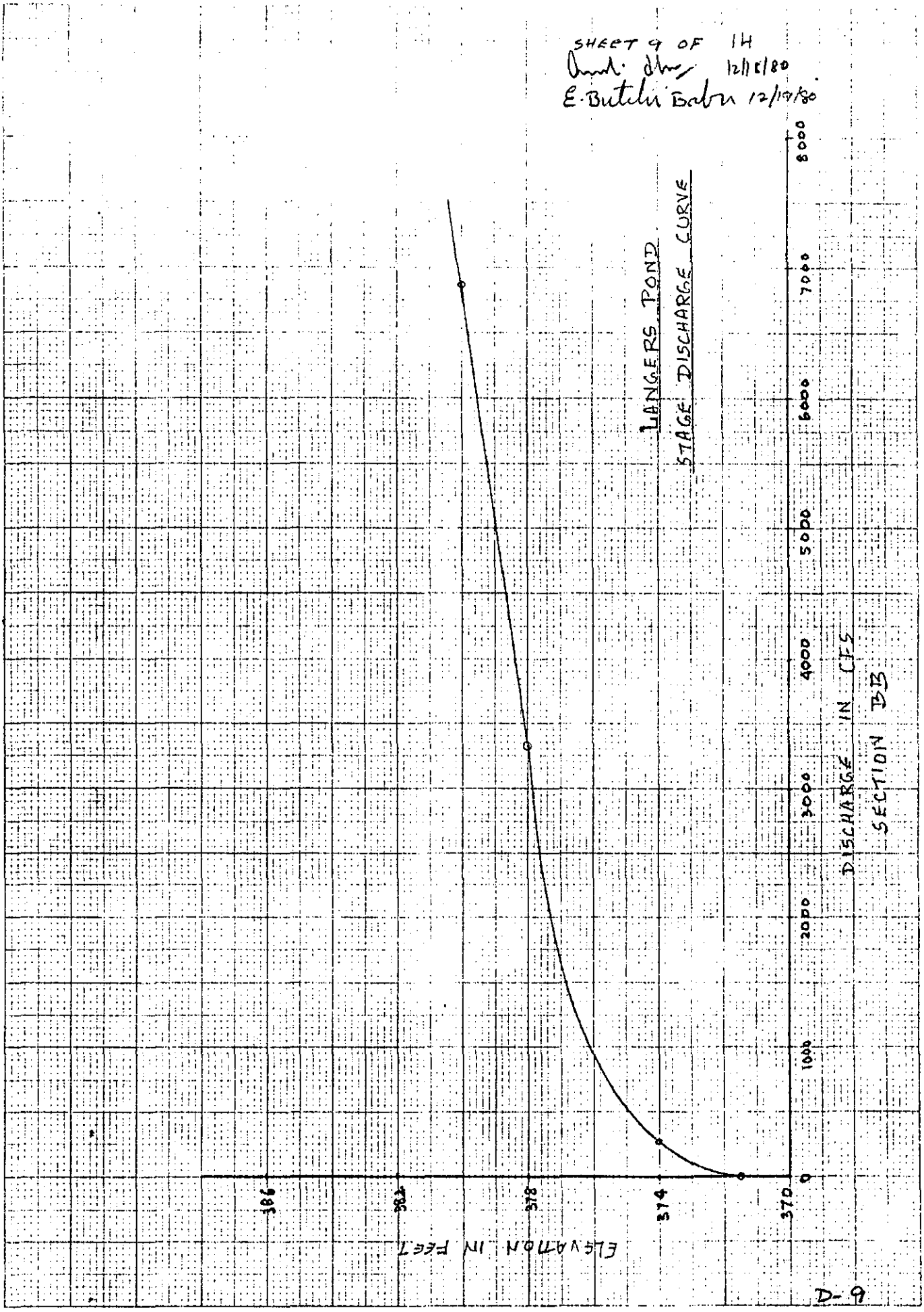
SHEET 8 OF 14
12/18/80
E. Butcher Baker 12/19/80



Squares to the Inch

Chk. dhw 12/11/80

E. Butler Babb 12/10/80



PROJECT NON FEDERAL DAM INSPECTION PROJECT NO. 80-10-19 SHEET 10 OF 14
NEW ENGLAND DIVISION COMPUTED BY [illegible] DATE 12/12/80
LANGERS POND DAM CHECKED BY E. Butil; Bald DATE 12/19/80

VOLUME OF REACH $V_1 = \frac{340 \times 2767}{43,560} = 21.6$ AC.FT

STORAGE REMAINING $= (166 - \frac{14+15}{2}) = 141.5$ AC.FT

TRIAL $QP_2 = QP_1 (1 - \frac{V_1}{3})$

$= 7110 (1 - \frac{21.6}{141.5}) = 6025$ CFS

FOR THIS QP_2, ELVN = 379.6 AND AREA = 2365 SQ.FT.

$V_2 = \frac{340 \times 2365}{43,560} = 18.5$ AC.FT

RECOMPUTING $QP_2 = 7110 (1 - \frac{\frac{21.6+18.5}{2}}{141.5}) = 6100$ CFS

FLOOD STAGE AT SECTION BB = 379.6

FLOOD DEPTH AT SECTION BB = 379.6 - 371.5 = 8.1 FT

AND VELOCITY AT SECTION BB $= \frac{6100}{2365} = 2.6$ FPS

SELECT A SECTION CC 1290' D/S OF BB

BED ELVN @ SECTION CC = 372.5 - 1930 x .0016 = 369.4

USING MANNING'S EQUATION

$Q = \frac{1.486}{n} \times A \times R^{2/3} \times S^{1/2}$

$= 0.74 \times A \times R^{2/3}$

n = 0.08 ASSUMED
S = .0016 (USGS MAP)

STORAGE REMAINING $= 141.5 - \frac{21.6+18.5}{2} = 121.5$ AC.FT

ELVN	A SQ.FT	P	R = A/P	$R^{2/3}$	Q CFS
369.4	0	—	—	—	0
372	442	340	1.3	1.2	312
374	1380	600.2	2.3	1.74	1777
376	2971	870.2	3.3	2.22	4716
378	4833	1124.3	4.3	2.64	9442

PROJECT NON FEDERAL DAM INSPECTION PROJECT NO. 80-10-19 SHEET 11 OF 14
NEW ENGLAND DIVISION COMPUTED BY [illegible] DATE 12/18/80
LANGERS POND DAM CHECKED BY E. Butler Bates DATE 12/19/80

STAGE AREA AND STAGE DISCHARGE CURVES ARE PLOTTED FOR SECTION CC.
FOR PEAK OUTFLOW Q_{P_1} = 6100 CFS, ELVN = 376.6
AND AREA = 3398 Sq. FT.

VOLUME OF REACH $V_1 = \frac{1290 \times 3398}{43,560} = 100.6$ AC. FT.

TRIAL $Q_{P_2} = Q_{P_1}\left(1 - \frac{V_1}{5}\right)$
$= 6100\left(1 - \frac{100.6}{121.5}\right) = 1049$ CFS

FOR THIS Q_{P_2}, ELVN = 373.2, AREA = 950 Sq. FT.
$\therefore V_2 = \frac{1290 \times 950}{43,560} = 28$ AC. FT.

RECOMPUTING $Q_{P_2} = 6100\left(1 - \frac{\frac{100.6+28}{2}}{121.5}\right)$

$= 2870$ CFS

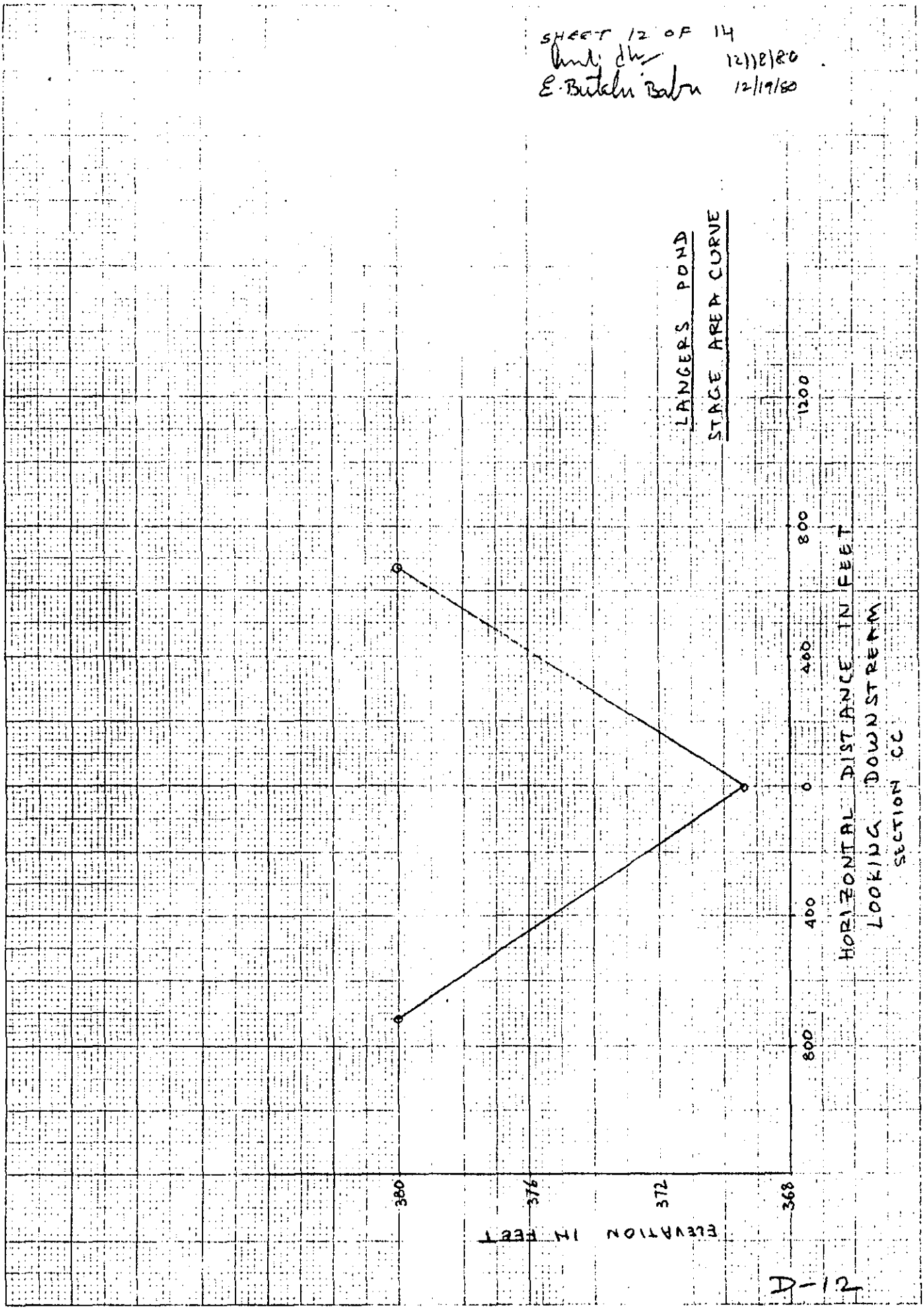
FLOOD STAGE AT SECTION CC = 373.2
FLOOD DEPTH AT SECTION CC = 373.2 − 369.4 = 3.8 FT.
AND VELOCITY AT SECTION CC $= \frac{2870}{950} = 3.0$ FPS

STORAGE VOLUME REMAINING $= 121.5 - \frac{100.6+28}{2}$

$= 57$ AC. FT.

Andy Chu 12/18/80

E. Butala Babu 12/19/80



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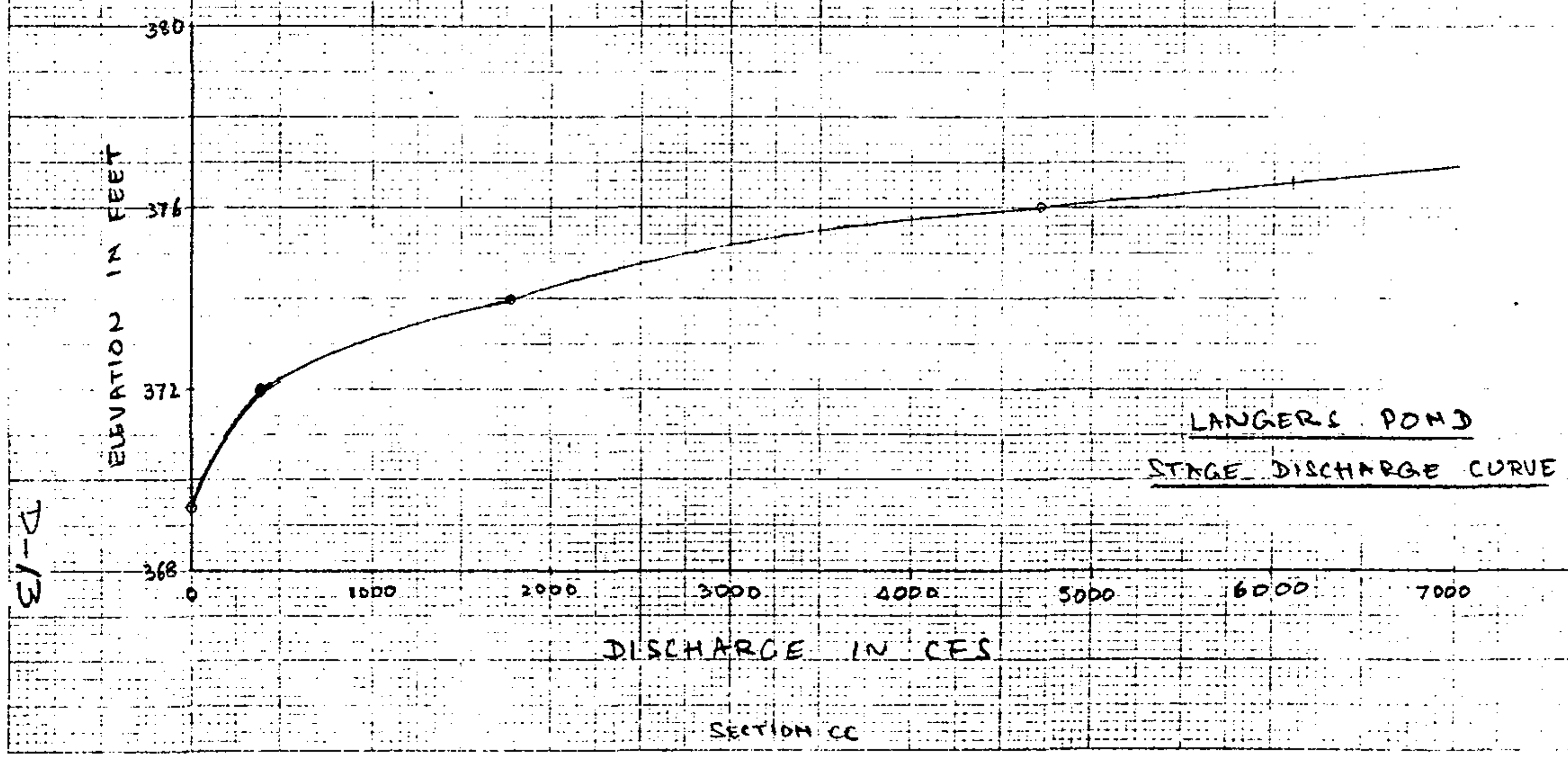
[signature] ch 12/18/80
E. Butch Babn 12/19/80



PROJECT NON FEDERAL DAM INSPECTION PROJECT NO. 80-10-19 SHEET 14 OF 14
NEW ENGLAND DIVISION COMPUTED BY [illegible] DATE 12/18/80
LANGERS POND DAM CHECKED BY E Butler Baker DATE 12/19/80

FAILURE HAZARD POTENTIAL

THE FAILURE ANALYSIS WAS DONE WITH POOL AT TOP OF DAM (EL. 386.5 NGVD).

SUMMARY OF BREACH ANALYSIS RESULTS:

LOCATION	DISTANCE FROM DAM FT.	PEAK FLOW RATE CFS	FLOOD STAGE	FLOOD DEPTH FT.	VELOCITY FPS	STORAGE REMAINING AC. FT.
DAM	0	7840	378.7	6.2	—	156
AA	300	7110	384.6	12.6	3.5	141.5
BB	640	6100	379.6	8.1	2.6	121.5

AT SECTION AA, THE FLOOD STAGE IS 384.6 WHEREAS THE 1ST FLOOR ELEVATION OF SIMONDS MANUFACTURING BUILDING IS 386.6. HOWEVER, THE LOWER FLOOR OF THE BUILDING ADJACENT TO THE RIVER COULD BE SUBJECT TO FLOOD DAMAGE. ALSO, THE RAILROAD TRACKS COULD BE INUNDATED IN THE VICINITY OF SECTION AA. BETWEEN SECTION AA AND CC, NO OTHER STRUCTURE IS LIKELY TO BE FLOODED. THE REMAINING STORAGE VOLUME OF 57 AC.FT. AT SECTION CC WOULD BE ATTENUATED IN THE NORTH GROSVENORDALE POND (60Ac) WITH A RISE OF WATER ELEVATION BY LESS THAN 1 FT. IN THE POND.

THUS DUE TO DAM FAILURE SOME ECONOMIC LOSS, PRIMARILY AT SIMONDS CO. COULD BE EXPECTED. HOWEVER, LOSS OF LIFE FROM DAM FAILURE IS UNLIKELY. THEREFORE, THE LANGERS POND DAM IS CLASSIFIED AS A "LOW" HAZARD POTENTIAL DAM.

PART I – INVENTORY OF DAMS IN THE UNITED STATES
(PURSUANT TO PUBLIC LAW 92-367)

See reverse side for instructions

FORM APPROVED OMB NO. 49-R0421
REQUIREMENTS CONTROL SYMBOL DAEN-CWE-17

(1) STATE	IDENTITY NUMBER
CT	00186

IDENTIFICATION

DIVISION	STATE	COUNTY	CONGR DIST	STATE	COUNTY	CONGR DIST	NAME	LATITUDE (North)	LONGITUDE (West)	REPORT DATE (DAY MO YR)
NED	CT	[illegible]					LANGERS POND DAM	4200.8	7152.8	31DEC80

IDENTIFICATION

POPULAR NAME	NAME OF IMPOUNDMENT
	LANGERS POND

LOCATION

REGION	BASIN	RIVER OR STREAM	NEAREST DOWNSTREAM CITY - TOWN - VILLAGE	DIST FROM DAM (mi)	POPULATION
[illegible]	[illegible]	FRENCH RIVER	WILSONVILLE		1000

STATISTICS

TYPE OF DAM	YEAR COMPLETED	PURPOSES	STRUCTURAL HEIGHT (ft)	HYDRAULIC HEIGHT (ft)	IMPOUNDING CAPACITIES MAXIMUM (acre-ft)	IMPOUNDING CAPACITIES NORMAL (acre-ft)	CORPS ENGR. DIST.	OWN.	FED. R.	PRV/FED	SCS A.	VERIFICATION DATE (DA MO YR)
[illegible]		RPOH		11		156	NED	N	N	N		31DEC80

REMARKS

[illegible] MASONRY WITH CONCRETE [illegible] ALONG UPSTREAM FACE

ENG FORM 1 DEC 77 4474

PART II – INVENTORY OF DAMS IN THE UNITED STATES
(PURSUANT TO PUBLIC LAW 92-367)

See reverse side for instructions

FORM APPROVED OMB NO. 49-R0421
REQUIREMENTS CONTROL SYMBOL DAEN-CWE-17

(1) STATE	IDENTITY NUMBER
CT	00186

STATISTICS

D/S HAZ	CREST LENGTH (ft)	SPILLWAY TYPE	SPILLWAY WIDTH (ft)	SPILLWAY MAXIMUM DISCHARGE (cfs)	VOLUME OF DAM (cy)	POWER CAPACITY INSTALLED (MW)	POWER CAPACITY PROPOSED (MW)	NAVIGATION LOCKS NO	LENGTH (ft)	WIDTH (ft)	LENGTH (ft)	WIDTH (ft)	LENGTH (ft)	WIDTH (ft)	LENGTH (ft)	WIDTH (ft)
S	160	U	160	7840												

MISC DATA

OWNER	ENGINEERING BY	CONSTRUCTION BY
SIMONDS COMPANY		

MISC DATA (Continued) — REGULATORY AGENCY

DESIGN	CONSTRUCTION	OPERATION	MAINTENANCE
CT ENVIRON PROTECT	CT ENVIRON PROTECT	CT ENVIRON PROTECT	CT ENVIRON PROTECT

MISC. DATA (Continued)

INSPECTION BY	INSPECTION DATE (DAY MO YR)	AUTHORITY FOR INSPECTION
PARK ENGINEERING INC	01DEC80	PL92-367

REMARKS

ENG FORM 1 DEC 77 4474A

PART III – INVENTORY OF DAMS IN THE UNITED STATES
SUPPLEMENTARY DATA

STATE	IDENTITY NUMBER
CT	00186

LOCATION

TOWN	NED PERMIT NO	STATE NUMBER	FERC NO	USGS SHEET
WILSONVILLE				WEBSTER MASS-CONN

DRAINAGE CHARACTERISTICS

DRAINAGE AREA SQ MI	FLOW DATA MIN CFS	FLOW DATA AVE CFS	MAX CFS	CREST ELEV MSL	ABUT ELEV MSL	USABLE STORAGE ACRE FEET	RESERVOIR AREA ACRES	FLASH BOARD HT FEET	OUTLET CONDUITS NO	OUTLET CONDUITS SIZE	INVERT ELEV MSL
1.9				383	387	63	35				

POWER DATA

GENERATION UNITS INSTALLED NO	CAP KW	PLANNED NO	CAP KW	AVERAGE ANNUAL GENERATION KWH	LAST GEN YEAR	RETIRED YEAR	FORMER USE	CAPACITY FACTOR

NED FORM 1 JAN 1980 (TEST)