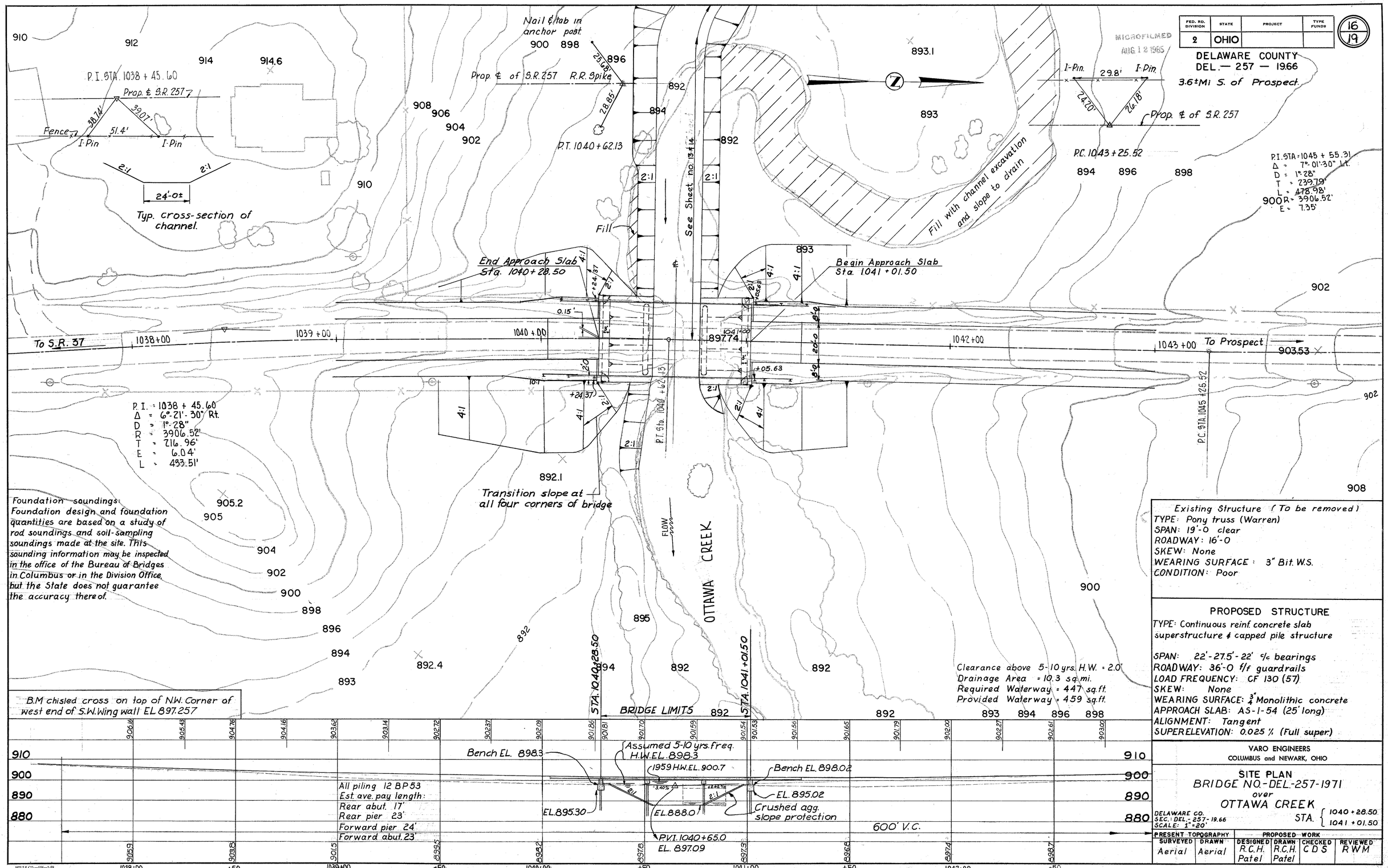
FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

16/19

MICROFILMED AUG 12 1985

DELAWARE COUNTY
DEL. — 257 — 19.66
3.6±Mi S. of Prospect

Appr. Pavement: S.R. 257; T35; One 20'-0 wide Pavement
8'-0 wide Berms.
Prop. 1980 traffic 771.



Existing Structure (To be removed)
TYPE: Pony truss (Warren)
SPAN: 19'-0 clear
ROADWAY: 16'-0
SKEW: None
WEARING SURFACE: 3" Bit. W.S.
CONDITION: Poor

PROPOSED STRUCTURE
TYPE: Continuous reinf. concrete slab superstructure & capped pile structure

SPAN: 22'-27.5'-22' c/c bearings
ROADWAY: 36'-0 f/f guardrails
LOAD FREQUENCY: CF 130 (57)
SKEW: None
WEARING SURFACE: 3/4" Monolithic concrete
APPROACH SLAB: AS-1-54 (25' long)
ALIGNMENT: Tangent
SUPERELEVATION: 0.025 % (Full super.)

VARO ENGINEERS
COLUMBUS and NEWARK, OHIO

SITE PLAN
BRIDGE NO.-DEL.-257-1971
over
OTTAWA CREEK

DELAWARE CO.
SEC.: DEL.-257-19.66
SCALE: 1" = 20'

STA. 1040 + 28.50 / 1041 + 01.50

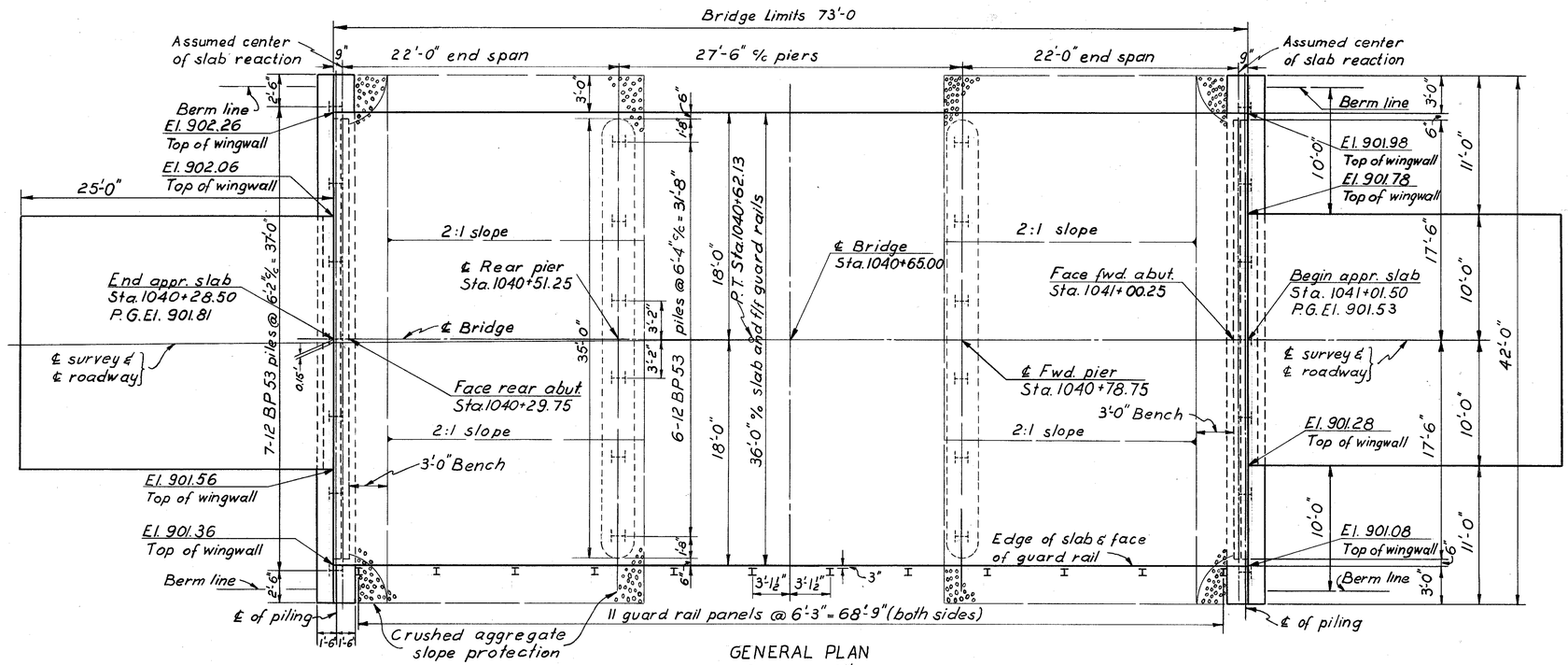
PRESENT TOPOGRAPHY		PROPOSED WORK			
SURVEYED	DRAWN	DESIGNED	DRAWN	CHECKED	REVIEWED
Aerial	Aerial	R.C.H. Patel	R.C.H. Patel	CDS	RWM

HILLS CO.—136—2-88
10-11-5

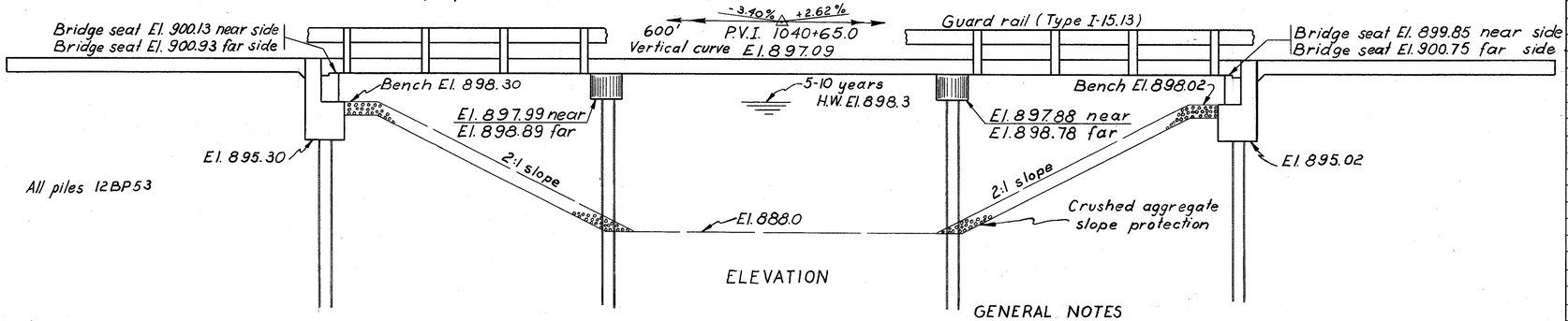
MICROFILMED
AUG 12 1985

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO		

DELAWARE COUNTY
DEL.- 257-19.66



GENERAL PLAN

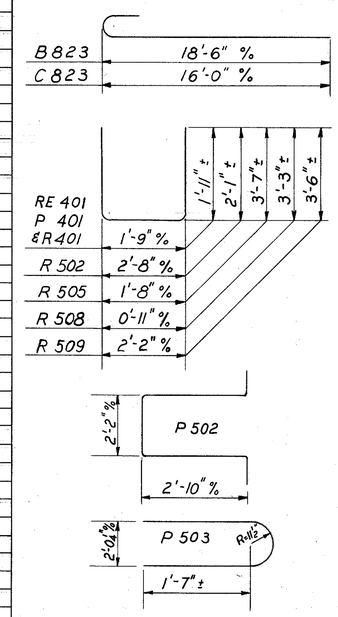


ELEVATION

REINFORCING STEEL LIST

Mark	No.	Length	Weight	Shp
SUPERSTRUCTURE				
A823	96	25'-11"	6,640	S
B823	30	19'-7"	1,569	B
C823	30	17'-1"	1,368	B
D823	15	18'-2"	728	S
E823	15	14'-4"	574	S
F923	62	19'-0"	4,005	S
G823	30	10'-9"	861	S
H823	28	7'-6"	561	S
J601	32	14'-4"	689	S
K601	16	13'-8"	329	S
M601	74	35'-8"	3,964	S
N601	50	35'-8"	2,679	S
ABUTMENTS				
R 1001	16	18'-11"	1,302	S
R 801	16	22'-1"	943	S
R 501	16	21'-7"	360	S
R 502	136	6'-7"	934	B
R 503	8	18'-1"	151	S
R 504	24	6'-4"	159	S
R 505	28	8'-7"	251	B
R 506	8	10'-8"	90	S
R 507	16	4'-11"	82	S
R 508	24	7'-2"	180	B
R 509	24	8'-11"	223	B
R 401	56	5'-5"	202	B
PIERS				
P 1001	8	35'-6"	1,222	S
P 901	8	32'-6"	884	S
P 501	4	32'-6"	136	S
P 502	56	9'-0"	526	B
P 503	8	6'-4"	53	B
P 401	48	5'-5"	173	B
REPLACEMENT BARS				
RE 1001	1	7'-2"	–	S
RE 901	1	6'-10"	–	S
RE 801	1	6'-6"	–	S
RE 601	1	5'-11"	–	S
RE 501	1	5'-7"	–	S
RE 401	1	5'-5"	–	B

Bending Diagram



REPLACEMENT BARS: If reinforcing bars are fabricated from stock which has previously been tested and approved by the Ohio Highway Testing Laboratory, test samples as provided in Sec. S-4.02 need not be furnished and replacement bars will not be required

ESTIMATED QUANTITIES

Item	Total	Unit	Description	Super	Abuts.	Piers	Gen'l.
E-2	81	Cu.Yds.	Unclassified excavation		81		
E-3	2215	Cu.Yds.	Channel excavation				2215
S-1	116	Cu.Yds.	Class "C" concrete, superstructure & pier caps	103		13	
S-1	43	Cu.Yds.	Class "E" concrete, abutments		43		
S-4	31838	Lbs.	Reinforcing steel	23967	4877	2994	
S-14	146.0	Lin.Ft.	Railing (Type I-15.13 with galvanized steel posts and bolts)	146.0			
S-16	Lump	Sum	First test pile				Lump
S-18	563	Lin.Ft.	Steel piles, 12 BP 53		287	276	
S-24	Lump	Sum	Removal of existing structure				Lump
S-29	13	Cu.Yds.	Porous backfill		13		
I-10	235	Sq.Yds.	Crushed aggregate slope protection				235

GENERAL NOTES

REFERENCE shall be made to Standard Drawings CS-1-54, revised 7-16-56, A-1-54, revised 12-1-54, P-1-54 revised 2-2-59 and to Supplemental Specification No. S-101, dated 12-2-59.

REMOVAL OF EXISTING STRUCTURE: When no longer needed to maintain traffic the existing structure shall be removed. Suitable waste masonry may be used as bank protection as directed by the Engineer.

SLAB THICKNESS is 12½" which includes ¾" for monolithic wearing surface.

PILES shall be driven to firm contact with rock. If the length of penetration is approximately equal to the depth to rock according to the bridge foundation investigation report, the firm contact shall be considered as attained when the capacity according to the formula is Sec. S-18.05 is not less than the following value for a pile hammer of the indicated energy rating:

For the abutment piles:
32 tons per pile using a 7000 ft.lb. hammer
25 tons per pile using a 11000 ft.lb. hammer
23 tons per pile using a 15000 ft.lb. or greater hammer
For the pier piles
42 tons per pile using a 11000 ft.lb. hammer
37 tons per pile using a 15000 ft.lb. or greater hammer

If the energy rating of the hammer is between the ratings as shown above, the required formula capacity shall be determined by interpolation. The design load is 21 tons per pile for the abutment piles and 31 tons per pile for the pier piles.

PIER PILE ENCASEMENT as shown on Standard Drawing P-1-54 is not required. The painting of the piles shall extend to low water elevation or, if the proposed surface of the ground is above low water, it shall extend to at least one foot below the proposed surface of the ground.

EXCAVATION QUANTITY for the abutments, in addition to that outlined in Sec. E-2.09, includes the removal of material bounded by the proposed bench, by the front vertical plane described in Sec. E-2.09, by the finished slope of the cut, and by the existing ground.

VARO ENGINEERS
COLUMBUS and NEWARK, OHIO

GENERAL PLAN, ELEVATION, NOTES
EST. QUANT. & REINF. STEEL LIST
BRIDGE NO. DEL-257-1971
OVER OTTAWA CREEK
STA. 1040+28.50
STA. 1041+01.50
DELAWARE COUNTY

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
EDEN	EDEN	W.J.G.	R.W.M.	R.K.G.	9/9/60	

HILLS CO.—156—2-58