

CULVERT DATA

TYPE : 60" S-28 SEC. M-64 (9) 10-8 Ga.
SECTIONAL CORRUGATED METAL STRUCTURE
SIZE : 60" x 398"
WORK REQUIRED : CONSTRUCT CHANNEL, CHANNEL PROTECTION, AND
CULVERT WITH STD. S.P. 53 ENDWALLS AS SHOWN.

PIPE CULVERT STA. 424+00
STR. No. ATB-1-2083

DA = 308 ACRES
Q₅₀ = 200 C.F.S.
H.W. MAX. = 7.5'
OUTLET V_{MAX.} = 14.8 F.P.S.

- LEGEND**
- CONDUIT RENEWAL LIMITS
 - ROCK CHANNEL PROTECTION
 - HEADWALL REPAIR/REPLACEMENT
 - TYPE C CONDUIT REPLACEMENT
 - CHANNEL CLEANOUT

EXISTING CONDUIT

TYPE: CIRCULAR CORRUGATED METAL PIPE
SIZE: 60"
SKEW: 37° RT
ALIGNMENT: TANGENT
DATE BUILT: 1958
CONDITION: FIELD PAVED
CFN: 1799669

HYDRAULIC DATA

DRAINAGE AREA = 270 ACRES
Q (2%) = 213 CFS HW (2%) = 737.1 FT V (2%) = 26 FPS
Q (1%) = 250 CFS HW (1%) = 739.2 FT V (1%) = 27 FPS

D04-BH/CR-FY2025

MODEL: Sheet PAPER SIZE: 34x22 (in.) DATE: 1/6/2025 TIME: 7:45:23 AM USER: mpatagan p:\vohodoo-pw-bentley.com\ohio\p-w-02\Documents\01 Active Projects\District 04\Ashabuda\119381\400-Engineering\Drainage\Sheets\119381_DB100.dgn

SCHEMATIC PLAN - ATB-90-20.849

DESIGN AGENCY

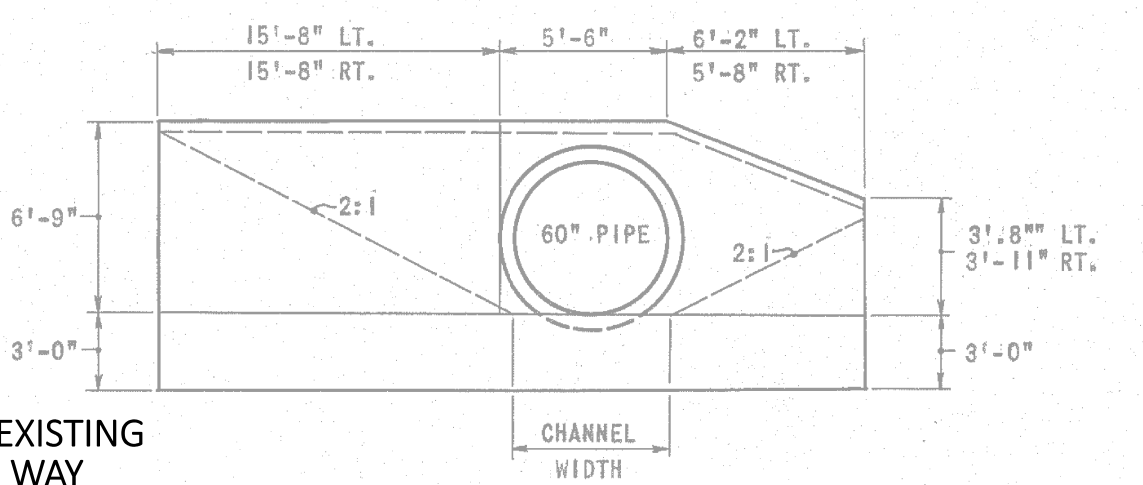
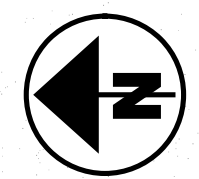


DESIGNER
NKF

REVIEWER
MJP 04-01-24

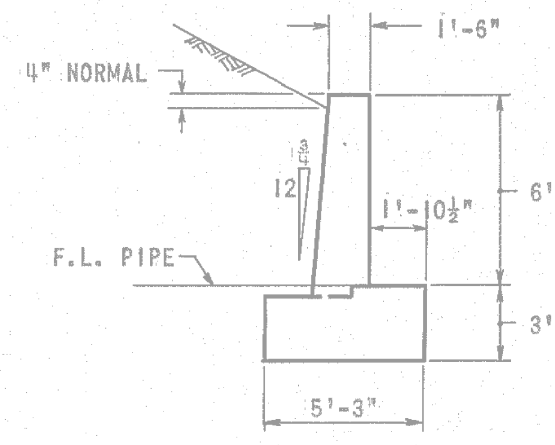
PROJECT ID
119381

SHEET	TOTAL
P.9	20



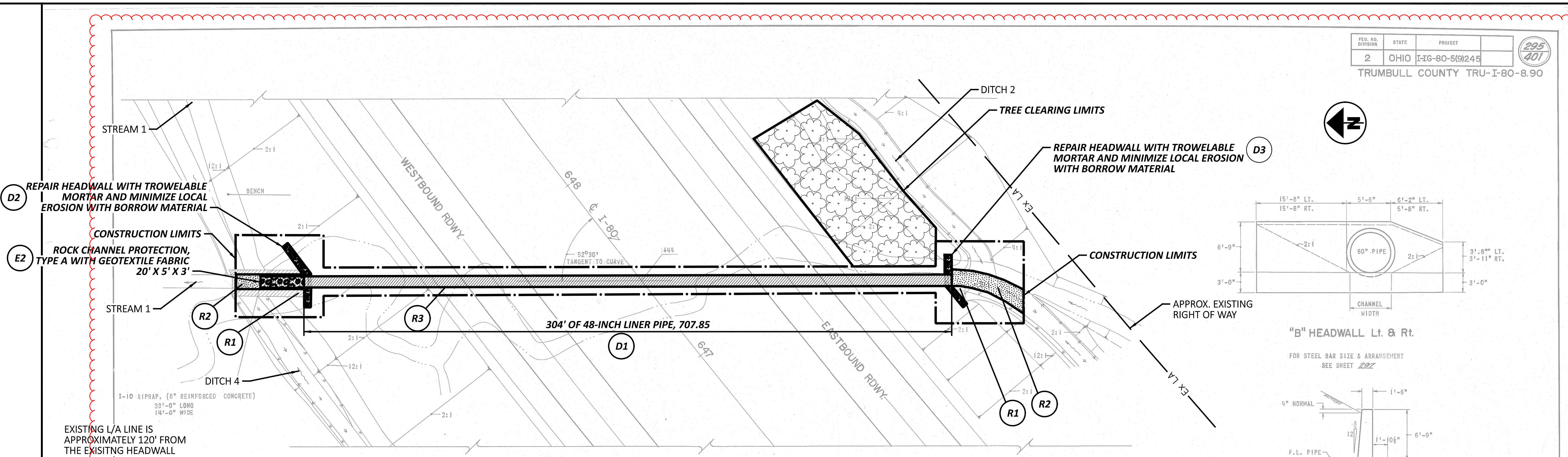
"B" HEADWALL Lt. & Rt.

FOR STEEL BAR SIZE & ARRANGEMENT
SEE SHEET 297

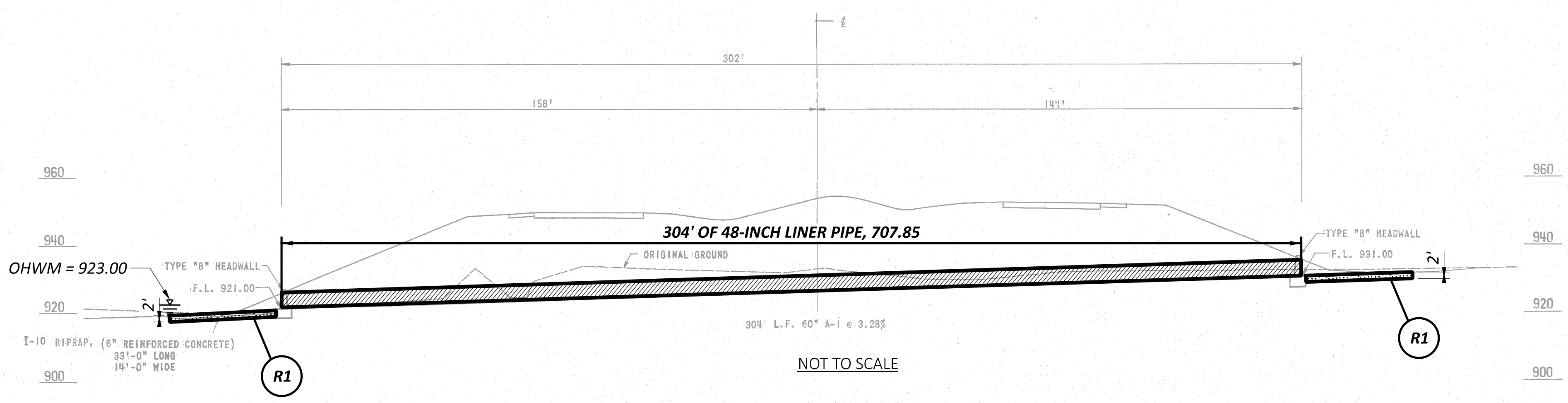


D. A. = 267 ACRES $Q_{50} = 203$ C.F.S.

STRUCTURE NO. TRU -80-1197
Station 647+44
Skew 37° 30' L.F.



NOT TO SCALE



NOT TO SCALE

D04-BH/CR-FY2025

MODEL: Sheet PAPER SIZE: 34x22 (in.) DATE: 1/6/2025 TIME: 7:45:55 AM USER: mpalagan pvc:\ohio\dot-pw\benley.com\ohio\dot-pw-02\Documents\01 Active Projects\District 04\Ashland\119381\400-Engineering\Drainage\Sheets\119381_DB200.dgn

- LEGEND**
- CONDUIT RENEWAL LIMITS
 - ROCK CHANNEL PROTECTION
 - HEADWALL REPAIR/REPLACEMENT
 - CHANNEL CLEANOUT

EXISTING CONDUIT

TYPE: CIRCULAR CORRUGATED METAL PIPE
SIZE: 60"
SKEW: 52° RT
ALIGNMENT: TANGENT
DATE BUILT: 1964
CONDITION: FIELD PAVED
CFN: 1800989

HYDRAULIC DATA

DRAINAGE AREA = 262 ACRES
 $Q(2\%) = 168$ CFS $HW(2\%) = 939.3$ FT $V(2\%) = 23$ FPS
 $Q(1\%) = 203$ CFS $HW(1\%) = 955.4$ FT $V(1\%) = 19$ FPS

SCHEMATIC PLAN - TRU-80-12.115

DESIGN AGENCY



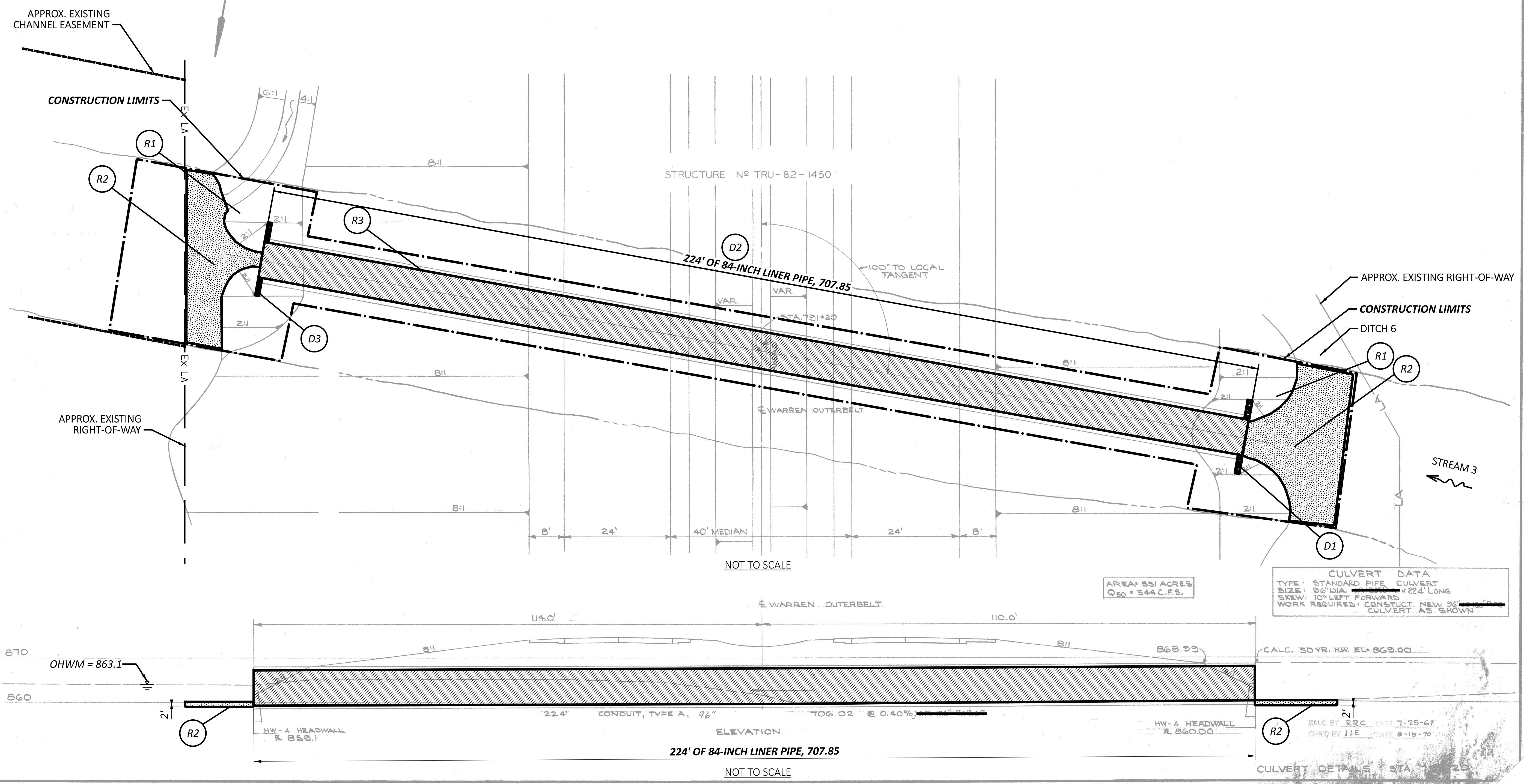
DESIGNER
NKF

REVIEWER
MJP 04-01-24

PROJECT ID
119381

SHEET TOTAL
P.11 | 20

NOTE: THE NORTH ARROW IS FACING DOWN
PLEASE BE AWARE THE WORK IS TO TAKE PLACE ON CFN 1800970 LOCATED AT (41.257954, -80.769602)



AREA: 551 ACRES
Q₅₀ = 544 C.F.S.

CULVERT DATA
TYPE: STANDARD PIPE CULVERT
SIZE: 96" DIA. x 224' LONG
SKEW: 10° LEFT FORWARD
WORK REQUIRED: CONSTRUCT NEW 96" CULVERT AS SHOWN

CALC. 50YR. HW. EL. = 865.00
CALC. BY RRC DATE 7-25-69
CHK'D BY JJE DATE 8-15-70

CULVERT DETAILS STA 731+20

D04-BH/CR-FY2025

MODEL: Sheet PAPER SIZE: 34x22 (in.) DATE: 1/6/2025 TIME: 7:46:28 AM USER: mpalagan
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- LEGEND**
- CONDUIT RENEWAL LIMITS
 - HEADWALL REPAIR/REPLACEMENT
 - CHANNEL CLEANOUT, AS PER PLAN

EXISTING CONDUIT

TYPE: CIRCULAR CORRUGATED METAL PIPE
SIZE: 96"
SKEW: 10° RT
ALIGNMENT: TANGENT
DATE BUILT: 1978
CONDITION: UNPROTECTED
CFN: 1800970

HYDRAULIC DATA

DRAINAGE AREA = 589 ACRES
Q (4%) = 151 CFS HW (4%) = 864.5 FT V (4%) = 9 FPS
Q (1%) = 201 CFS HW (1%) = 865.3 FT V (1%) = 11 FPS

SCHEMATIC PLAN - TRU-82-15.260

DESIGN AGENCY



DESIGNER

NKF

REVIEWER

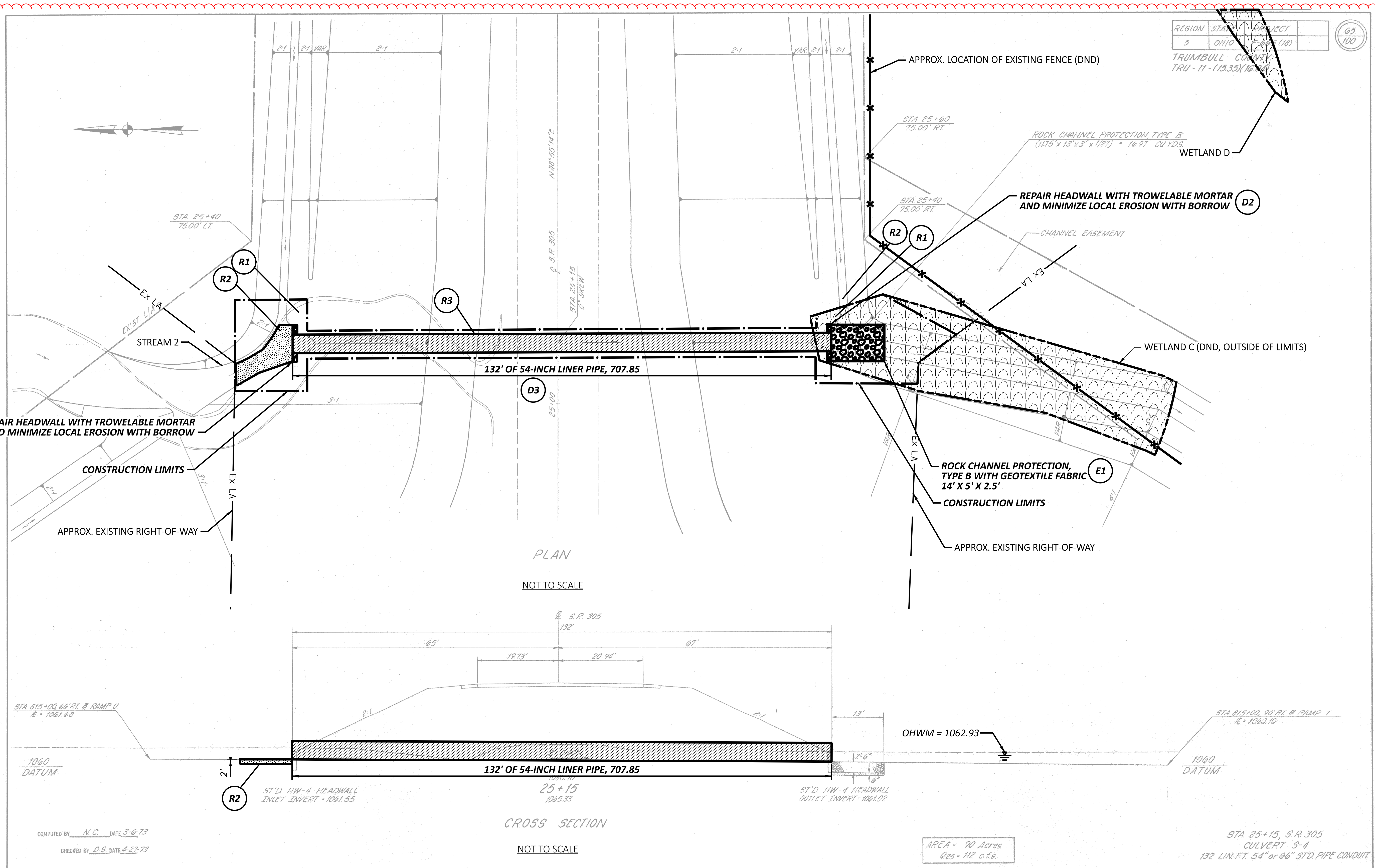
MJP 04-01-24

PROJECT ID

119381

SHEET TOTAL

P.13 | 20



REGION	STATE	PROJECT
5	OHIO	TRU-305-16.860 (18)
TRUMBULL COUNTY		
TRU-11-(115.35)(16.860)		

65
100

PLAN
NOT TO SCALE

CROSS SECTION
NOT TO SCALE

AREA = 90 Acres
Q₂₅ = 112 cfs.

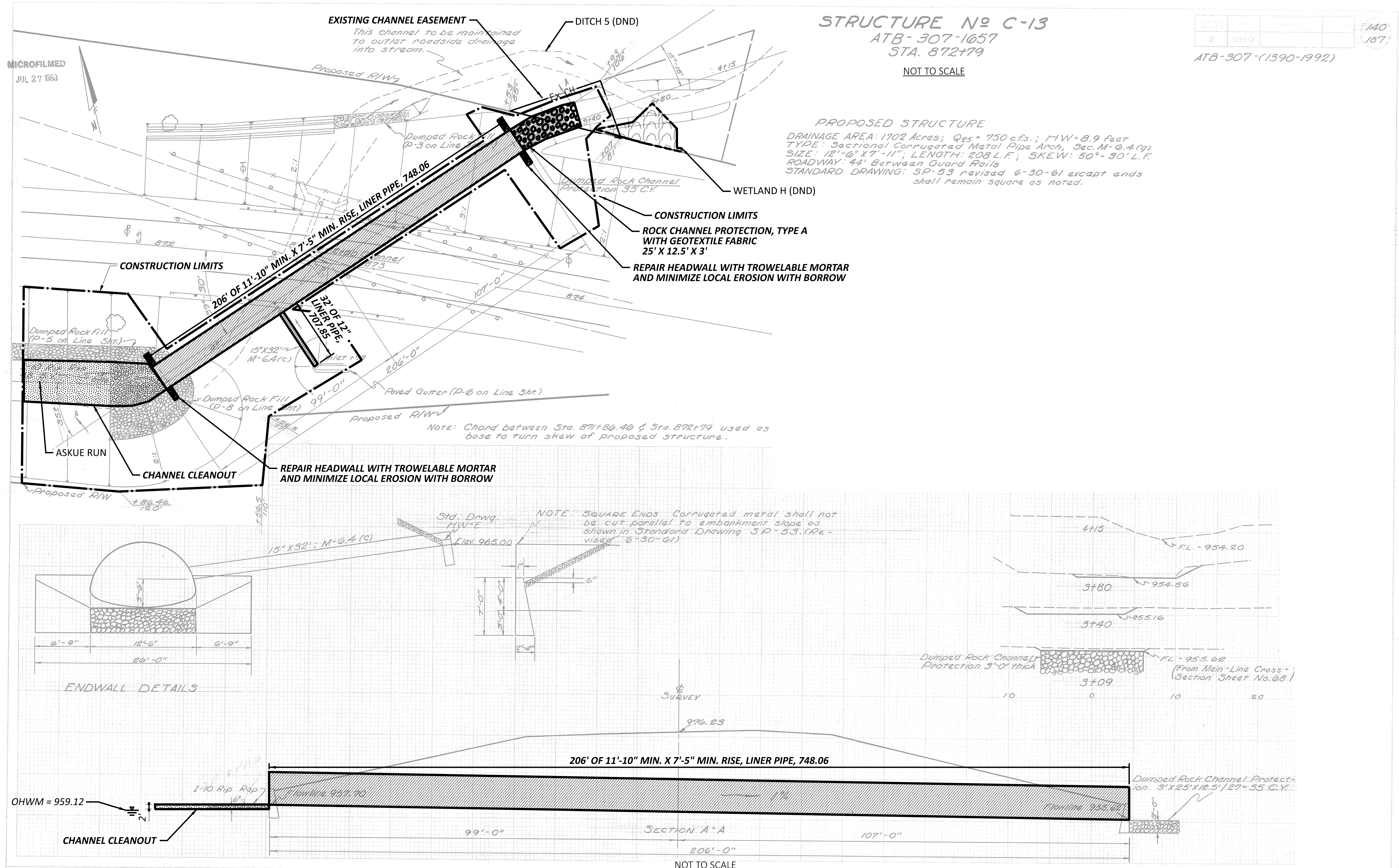
STA 25+15, S.R. 305
CULVERT 3-4
132 LIN. FT. 54" or 66" STD. PIPE CONDUIT
CULVERT DETAIL

- LEGEND**
- CONDUIT RENEWAL LIMITS
 - ROCK CHANNEL PROTECTION
 - HEADWALL REPAIR/REPLACEMENT
 - CHANNEL CLEANOUT

EXISTING CONDUIT
TYPE: CIRCULAR CORRUGATED METAL PIPE
SIZE: 60"
SKREW: NONE
ALIGNMENT: TANGENT
DATE BUILT: 1973
CONDITION: UNPROTECTED
CFN: 1800939

HYDRAULIC DATA
DRAINAGE AREA = 86 ACRES
Q (4%) = 59 CFS HW (4%) = 1064.7 FT V (4%) = 8.2 FPS
Q (1%) = 82 CFS HW (1%) = 1065.4 FT V (1%) = 8.9 FPS

DESIGN AGENCY	
DESIGNER	NKF
REVIEWER	MJP
PROJECT ID	04-01-24
	119381
SHEET	TOTAL
P.15	20



LEGEND

	CONDUIT RENEWAL LIMITS
	ROCK CHANNEL PROTECTION
	HEADWALL REPAIR/REPLACEMENT
	CHANNEL CLEANOUT

EXISTING STRUCTURE

TYPE: SECTIONAL CORRUGATED METAL PIPE ARCH
SIZE: 12'-6" X 7'-11"
SKEW: 39° RT
ALIGNMENT: TANGENT
DATE BUILT: 1962
CONDITION: FIELD PAVED
SFN: 0406007

HYDRAULIC DATA

DRAINAGE AREA = 1,440 ACRES			
Q (10%) = 410 CFS	HW (10%) = 964.0 FT	V (10%) = 16.7 FPS	
Q (1%) = 684 CFS	HW (1%) = 969.2 FT	V (2%) = 21.0 FPS	

FOR ESTIMATED QUANTITIES, SEE SHEET P.20

SFN	0406007
DESIGN AGENCY	
DESIGNER	NKF
CHECKER	MJP
REVIEWER	
EMS	04-01-24
PROJECT ID	119381
SUBSET	TOTAL
2	5
SHEET	TOTAL
P.17	20

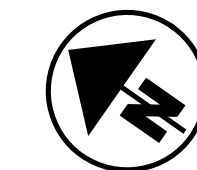
STRUCTURE N° C-1
MAH - 170-0594
 Sta. 4+75

FED. RD. DIVISION	STATE	PROJECT	TYPE FUNDS
2	OHIO	STATE	

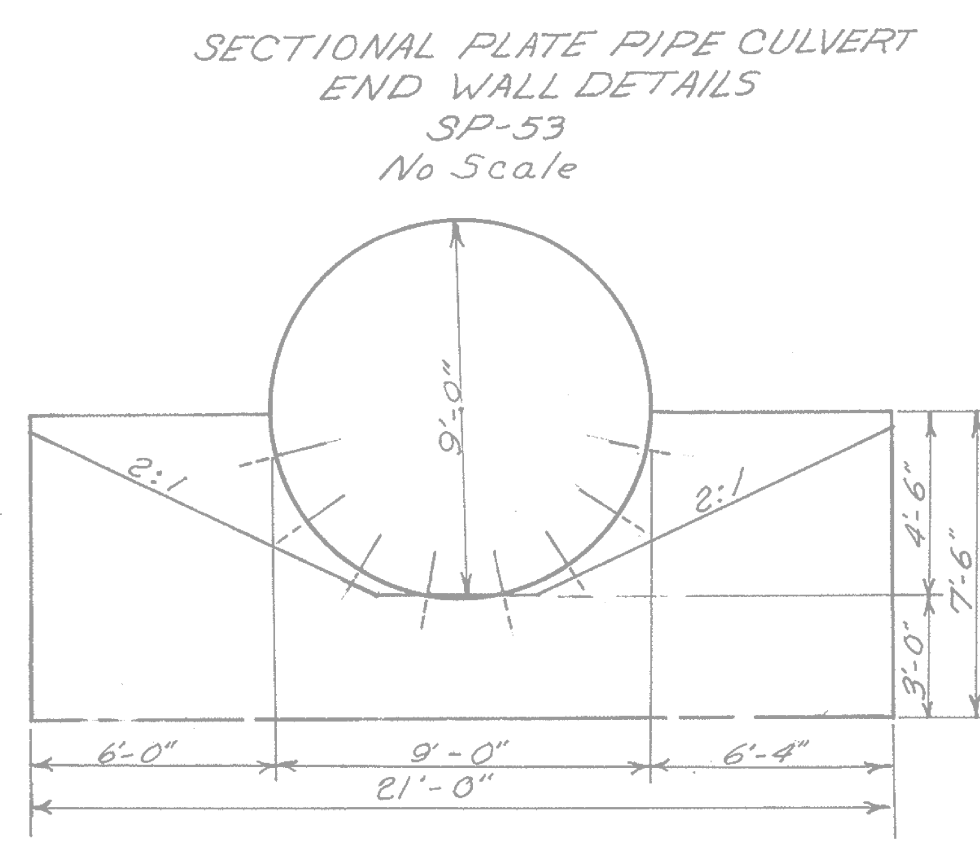
MAH-170-(5.94)(6.79)

9/19

NOT TO SCALE



Proposed Structure Data
 Drainage Area: 620 Acres $Q_{25} = 320$ cfs HW=6.4'
 Type A Conduit Corrugated Metal Pipe
 Size 108" 70.703 Gage 10.8V=9.6 for CMP
 x110' Long Skew 30° L.F.



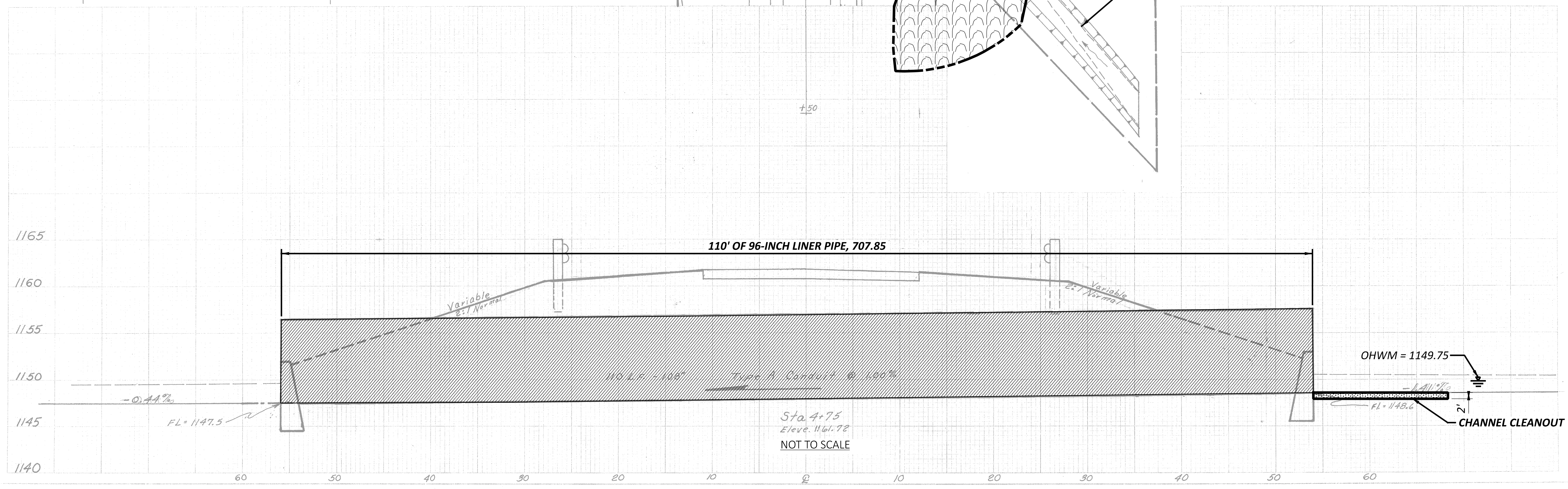
ROCK CHANNEL PROTECTION,
 TYPE B WITH GEOTEXTILE FABRIC
 28' X 21' X 2.5'

REPAIR HEADWALL WITH TROWELABLE MORTAR
 AND MINIMIZE LOCAL EROSION WITH BORROW

DITCH 1
 WETLAND A (DND)
 CONSTRUCTION LIMITS

REPAIR HEADWALL WITH TROWELABLE MORTAR
 AND MINIMIZE LOCAL EROSION WITH BORROW

CONSTRUCTION LIMITS
 CHANNEL CLEANOUT
 WETLAND A (DND, OUTSIDE OF LIMITS)



CULVERT DETAIL C-1 PART 1

LEGEND

	CONDUIT RENEWAL LIMITS
	ROCK CHANNEL PROTECTION
	HEADWALL REPAIR/REPLACEMENT
	CHANNEL CLEANOUT

EXISTING STRUCTURE

TYPE: CORRUGATED METAL PIPE
SIZE: 108"
SKEW: 30° LT
ALIGNMENT: TANGENT
DATE BUILT: 1967
CONDITION: UNPROTECTED
SFN: 5003970

HYDRAULIC DATA

DRAINAGE AREA = 620 ACRES
$Q(4\%) = 344$ CFS HW (4%) = 1155.8 FT V (4%) = 11.2 FPS
$Q(1\%) = 507$ CFS HW (1%) = 1159.0 FT V (1%) = 13.1 FPS

FOR ESTIMATED QUANTITIES, SEE SHEET P.20

STRUCTURE GENERAL PLAN
 MAH-170-5.903
 OVER BURGESS RUN

SFN	5003970
DESIGN AGENCY	
DESIGNER	NKF
CHECKER	MJP
REVIEWER	
EMS	04-01-24
PROJECT ID	119381
SUBSET	TOTAL
4	5
SHEET	TOTAL
P.19	20