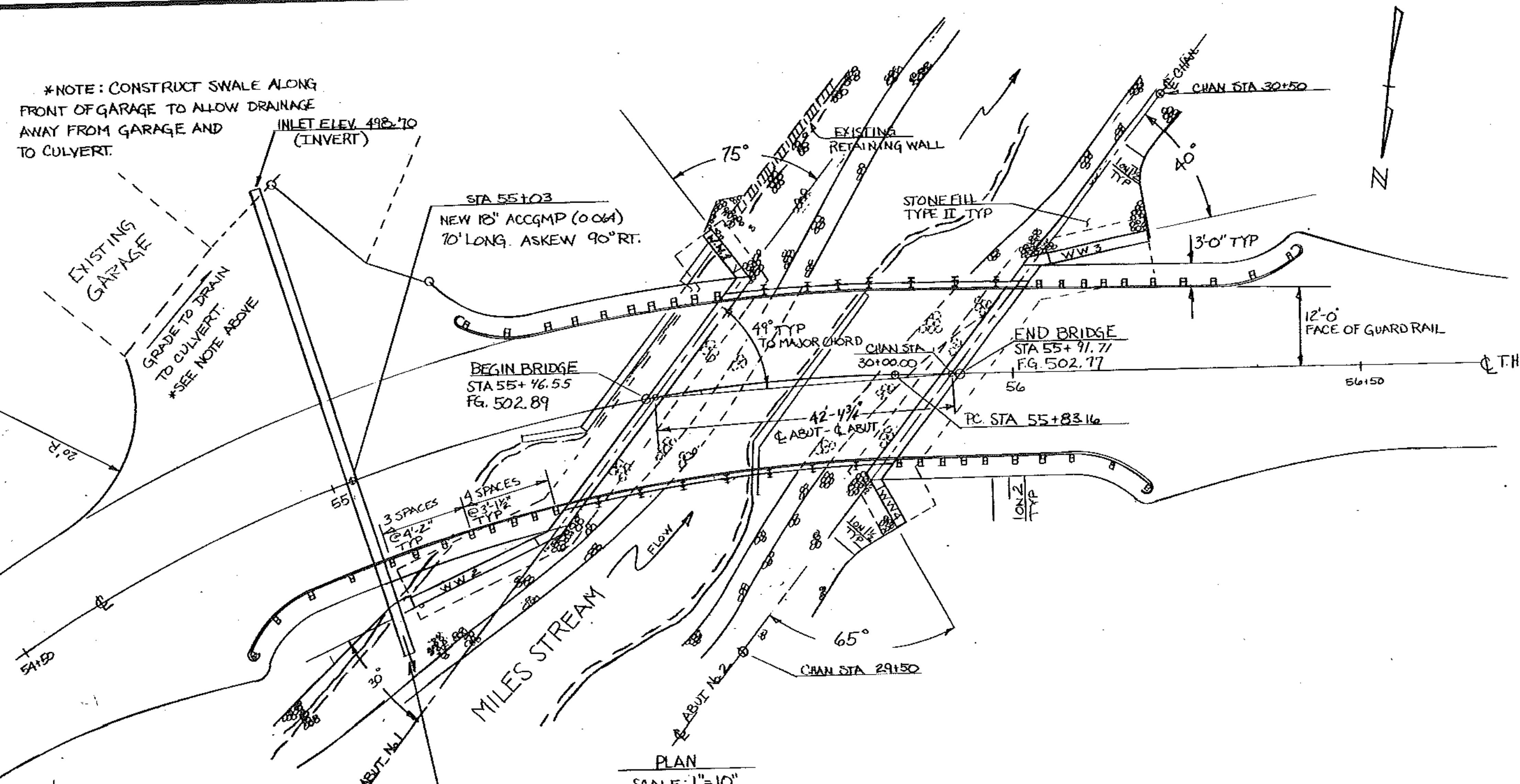
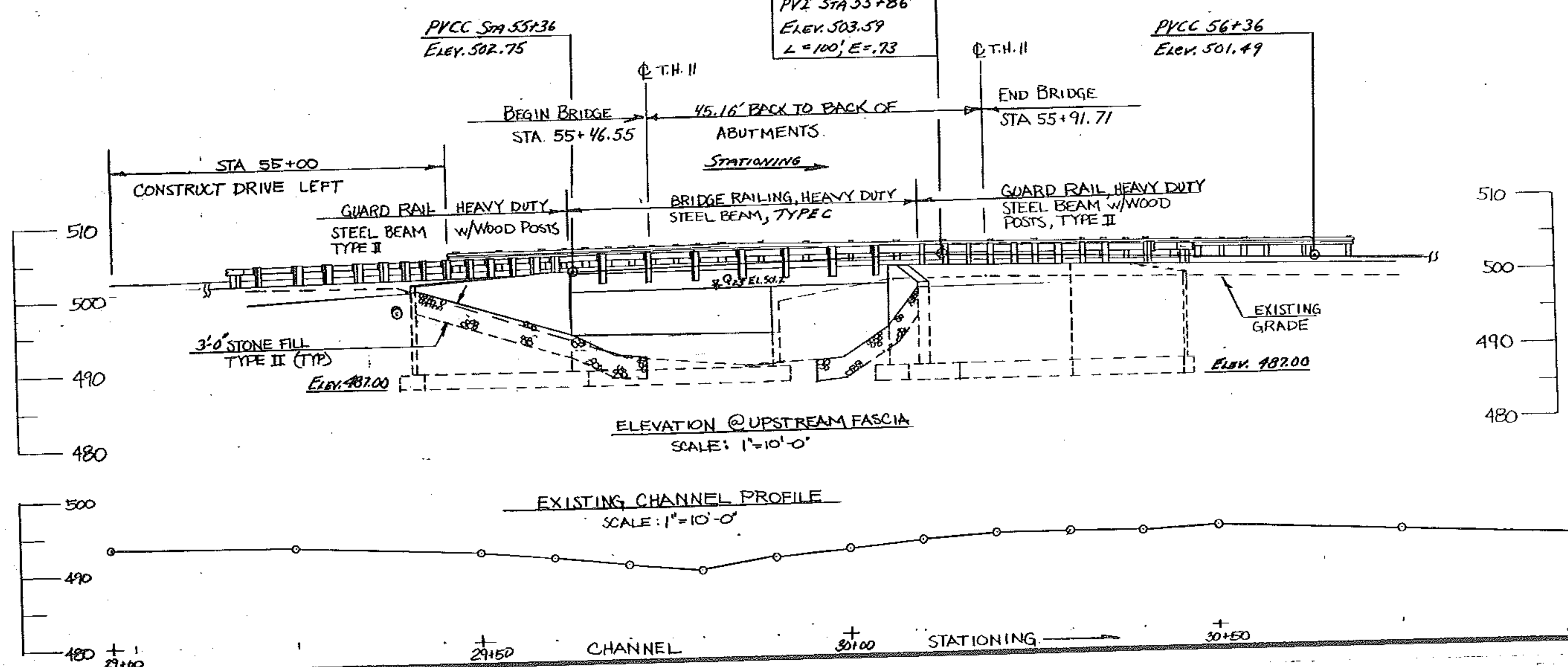


*NOTE: CONSTRUCT SWALE ALONG FRONT OF GARAGE TO ALLOW DRAINAGE AWAY FROM GARAGE AND TO CULVERT.
 *SEE NOTE ABOVE



PLAN
 SCALE: 1" = 10'

V.C. No. 2
 PVI STA 55+86
 Elev. 503.59
 L = 100', E = .73



ELEVATION @ UPSTREAM FASCIA
 SCALE: 1" = 10'-0'

EXISTING CHANNEL PROFILE
 SCALE: 1" = 10'-0'

EXISTING STRUCTURE

- STRUCTURE TYPE WOOD DECK - CONCRETE ABUT. OVERALL LENGTH 28'-10" INVENTORY RATING _____
- SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 24'-10"
- CLEAR SPAN LENGTH(S) NORMAL TO STREAM 19'-6"
- WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) 164.50 SQ. FT. VERTICAL CLEARANCE ABOVE STREAMBED 8'-5"
- WATER SURFACE ELEVATION @ Q 233 498.5 WATER SURFACE ELEVATION @ Q 25 502.2
- WATER SURFACE ELEVATION AT FLOOD OF RECORD UNKNOWN YEAR _____ ESTIMATED DISCHARGE _____
- DOES ALL WATER PASS THROUGH EXISTING STRUCTURE? NO IF NOT, AT WHAT FREQUENCY AND ELEVATION DOES RELIEF OCCUR? EQ 3, 3500
- ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF UNLIMITED
- TYPE OF SUBSTRUCTURE FOUNDATION MATERIAL SANDY GRAVEL
- DISPOSITION OF STRUCTURE BECOMES THE PROPERTY OF THE CONTRACTOR

NEW STRUCTURE

- STRUCTURE GEOMETRY:
- STRUCTURE TYPE CONCRETE SLAB BRIDGE OVERALL LENGTH 45'-2" ALONG CENTERLINE
 - SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 42'-4 1/2"
 - VERTICAL CLEARANCE ABOVE STREAMBED OR ROAD UNDER 7'-0"
 - CLEAR SPAN LENGTH(S) NORMAL TO STREAM 30'-0"
 - WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) 210.32 SQ. FT.
 - ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES? NO

HYDRAULIC DATA:

Q 233	850 CFS	WATER ELEVATION	497.0	VELOCITY	8.2 FPS
Q 10	1550 CFS	WATER ELEVATION	499.3	VELOCITY	9.8 FPS
Q 25	2125 CFS	WATER ELEVATION	501.8	VELOCITY	11.0 FPS
Q 50	2650 CFS	WATER ELEVATION	501.9	VELOCITY	12.5 FPS
Q 100	3250 CFS	WATER ELEVATION	502.4	VELOCITY	14.8 FPS

- DRAINAGE AREA 23.8 SQ. MI. CHARACTER OF TERRAIN HILLY
- ARE THERE OBJECTIONS TO A PIER IN THE STREAM? YES
- DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? YES IS ORDINARY RISE RAPID? YES
- NATURE OF NATURAL STREAMBED SAND, GRAVEL, SMALL BOULDERS
- ESTIMATED SCOUR DEPTH 2'-4" COMMENT ON: DRIFT SLIGHT ICE MODERATE
- WILL ALL WATER PASS THROUGH NEW STRUCTURE? NO IF NOT, WHAT FREQUENCY AND ELEVATION WILL RELIEF OCCUR? 1175 CFS @ 10'
- ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF UNLIMITED
- VERTICAL CLEARANCE ABOVE Q 25 7'-0" LIMITED BY BOTTOM OF SLAB
- ALLOWABLE WATER SURFACE ELEVATION ± 500.5
- IS DESIGN STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? NO IF YES, DESCRIBE _____
- AVERAGE DAILY LOW FLOW 25 CFS DEPTH 1.5' AVERAGE DAILY HIGH FLOW 25 CFS DEPTH 2.5'
- STREAMBANK OR CHANNEL PROTECTION REQUIRED STONE FILL TYPE II
- DISTANCE TO EXISTING UPSTREAM STRUCTURE 2000' SPAN 24' WATERWAY AREA OF FULL OPENING 0
- DISTANCE TO EXISTING DOWNSTREAM STRUCTURE 2000' SPAN 24' WATERWAY AREA OF FULL OPENING 0

- ALLOWABLE STRESSES:
- DESIGN LIVE LOAD AASHTO H20
 - ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL TYPE AKSF ON LEDGE N/A ESTIMATED LENGTH N/A
 - ALLOWABLE LOAD FOR PILING N/A
 - ALLOWABLE STRESS FOR STRUCTURAL STEEL ASTM A _____ TENSION _____ COMPRESSION 20 KSI
 - ALLOWABLE STRESS FOR REINFORCING STEEL GRADE 60 TENSION 24 KSI f_c 1.4 KSI
 - ALLOWABLE STRESS FOR CONCRETE CLASS A f_c 3.5 KSI CLASS B f_c 3.5 KSI f_c 1.4 KSI
- L.W. CONCRETE f_c 4.0 KSI f_c 1.6 KSI
- TRAFFIC MAINTENANCE:
- IS TRAFFIC TO BE MAINTAINED? YES IF YES, ON EXISTING STRUCTURE NO OR ON TEMPORARY BRIDGE YES
 - TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY ONE WAY TRAFFIC CONTROL SIGNALS REQUIRED NO
 MINIMUM CLEAR SPAN AS SHOWN * MINIMUM CLEAR HEIGHT AS SHOWN * MINIMUM WATERWAY AREA AS SHOWN
 ARE SIDEWALKS REQUIRED? NO IF SO, ON WHAT SIDE? _____

* SEE SHEET 4

ADDITIONAL DESIGN CONSIDERATIONS

STRESS LEVELS	LOAD RATING (TONS)						
	H	HS	3S2	6 AXLE	3A STR.	4A STR.	5A SEMI
INVENTORY							
0.55 Fy =							
POSTED							
0.67 Fy =							
OPERATING							
0.75 Fy =							

RECOMMENDED FOR APPROVAL _____ STRUCTURES ENGINEER DATE _____
 RECOMMENDED FOR APPROVAL _____ CHIEF OF DESIGN DATE _____
 APPROVED BY _____ DIRECTOR OF ENGINEERING & CONSTRUCTION DATE _____

REVISIONS		BY & DATE
NO.	DESCRIPTION	

STATE OF VERMONT
 AGENCY OF TRANSPORTATION

TOWN OF CONCORD Bridge No. 20
 Log Sta. _____
 HIGHWAY NO. T.H. 11 Surv. Sta. 15+00

PRELIMINARY INFORMATION:
 TOWN HIGHWAY #11 OVER MILES STREAM
 Designed by J. POTTER Drawn by J. POTTER
 Checked by R. PANZL date 7/83 Bridge Design Supervisor
R.S. HAUPT date 7/83
 PROJECT CONCORD PROJECT NO. BRZ-1447(10)
 Bridge Sheet No. _____ Sheet 8 of 29