Benchmark: Chiseled "□" Top of Southeast Wingwall of SN 050-0030.
Elev. = 467.16

Existing Structure: SN 050-0030 to be removed. Originally built in 1970 as FA-8 Section U-BR. Two span precast prestressed concrete deck beam structure on closed abutments and concrete piers each on spread footings set in rock. 61'-8" Bk. to Bk. Abutments. 30° Right Forward Skew

One lane traffic to be maintained using stage construction

No Salvage

PRELIMINARY
NOT APPROVED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 627	*	LaSalle		
FED. ROAD DIST. NO. 7	ILL. PROJ.	FED. AID PROJECT-		

* U-BR

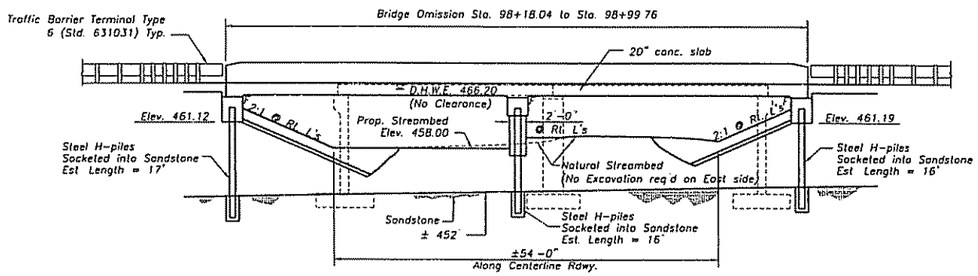
Sheet 1 of 2 Sheets

WATERWAY INFORMATION

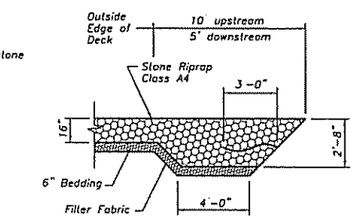
Drainage Area = 7.0 Sq. Mi. Exist. Low Grade Elev. = 466.6 @ Sta. 97±24
Prop. Low Grade Elev. = 466.5 @ Sta. 96±79

Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft. Exist.	Opening Sq. Ft. Prop.	Nat. R.W.E.	Head – Ft. Exist.	Head – Ft. Prop.	Headwater Elev. Exist.	Headwater Elev. Prop.
	10	1370	257	329	465.5	0.6	0.4	466.1	465.9
Design	50	2110	257	329	466.2	0.9	0.7	467.1	466.9
Base	100	2420	257	329	466.5	0.6	0.5	467.1	467.0
Overtop (exist.)	20	1690	257	329	465.8	0.8	–	466.6	–
Overtop (prop.)	30	1830	257	329	465.9	–	0.7	–	466.6

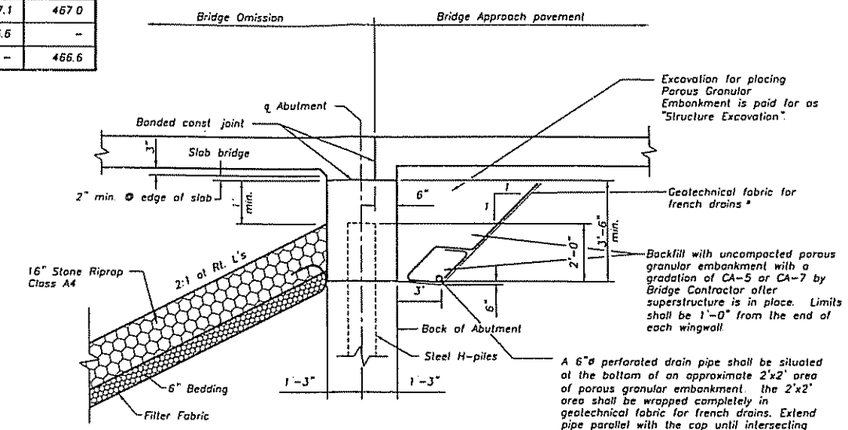
10 Year Velocity Through Existing Bridge = 5.3 Fps
10 Year Velocity Through Prop. Bridge = 4.2 Fps



ELEVATION
(Looking North)

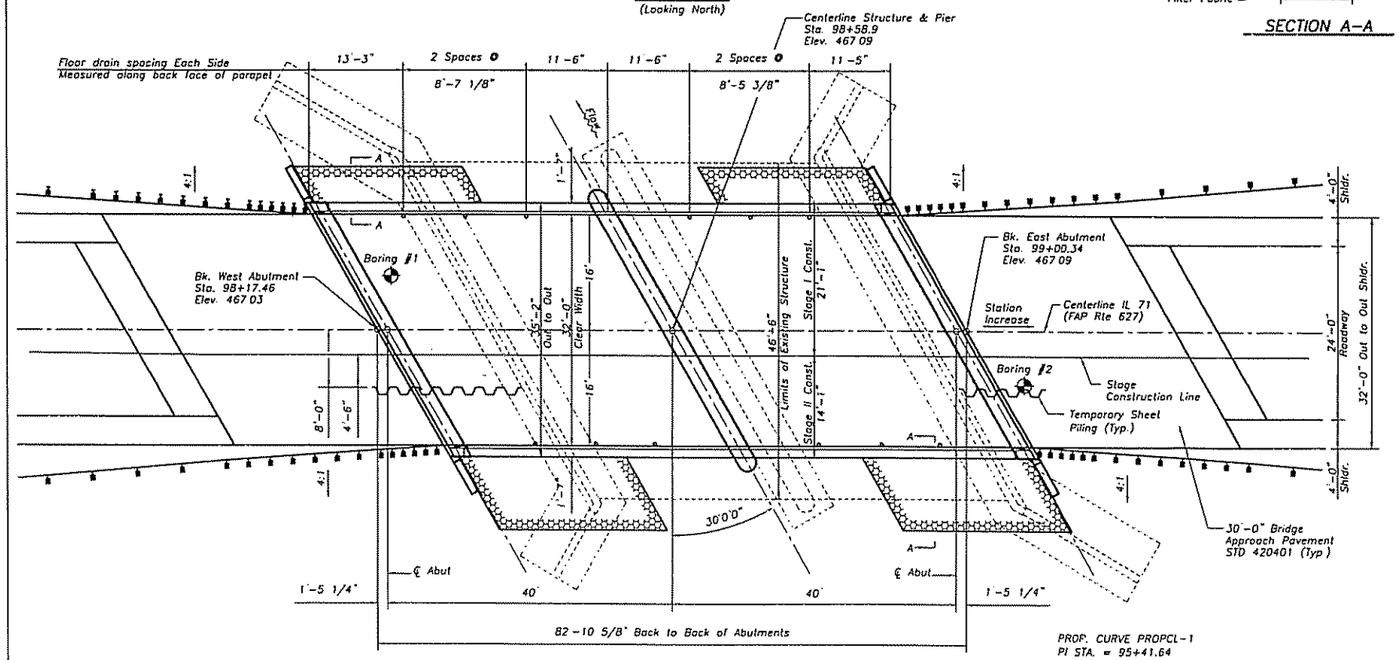


SECTION A-A

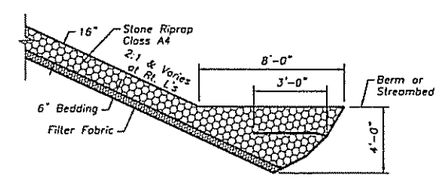


SECTION THRU INTEGRAL ABUTMENT
Dimensions at right angles

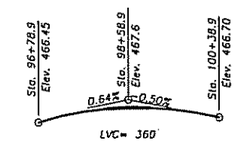
* Included in the cost of "porous granular embankment"



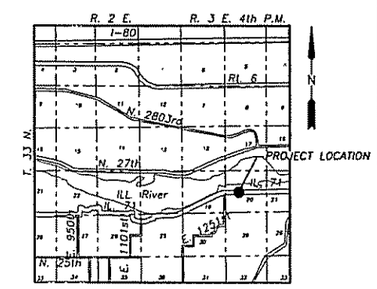
PLAN



TOE STONE RIPRAP TREATMENT



PROFILE GRADE
(Along Centerline Roadway)



LOCATION SKETCH

DESIGNED	JDA
CHECKED	JLS
DRAWN	ARR
CHECKED	JDA

HIGHWAY CLASSIFICATION

FAP Route:	627
Class:	Minor Arterial (Rural)
A.D.T.:	1200 (2001) 1700 (2021)
D.H.V.	374 (2021)
Design Speed:	55 mph
Posted Speed:	55 mph

LOADING HS20-44
Allow 50#/sq. ft. for future wearing surface

DESIGN SPECIFICATIONS
2002 AASHTO

DESIGN STRESSES
Field Units
f'c = 3,500 psi (Substructure)
f'c = 3,500 psi (Superstructure)
fy = 60,000 psi (reinforcement)

SEISMIC DATA
Seismic Performance Category (S.P.C.) = A
Bedrock Acceleration Coefficient (A) = 0.04
Site Coefficient (S) = 1.0

PROP. CURVE PROPCL-1
PI STA. = 95+41.64
Δ = 6° 22' 44.8"
T = 160.00'
R = 2,870.85'
L = 319.67'
D = 2° 01' 12"
E = 4.44'
S.E. = 0.041 ′/′
P.C. STA. = 93+81.64
P.T. STA. = 97+01.31
ATTAIN S.E. STA. 92+73.31 TO STA. 94+35.81 (66/33)
REMOVE S.E. STA. 96+36.31 TO STA. 97+98.81 (60/40)

PROP. CURVE PROPCL-2
PI STA. = 101+13.05
Δ = 4° 20' 19.67"
T = 100.00'
R = 2,639.83'
L = 199.90'
D = 2° 10' 15"
E = 1.89'
S.E. = 0.044 ′/′
P.C. STA. = 100+13.05
P.T. STA. = 102+12.96
ATTAIN S.E. STA. 99+15.05 TO STA. 100+78.05 (60/40)
REMOVE S.E. STA. 101+58.79 TO STA. 103+21.29 (66/33)

GENERAL PLAN
FAP ROUTE 627 (IL 71)
OVER UNNAMED STREAM
SECTION U-BR
STA. 98+58.9
LASALLE COUNTY
SN 050-0243

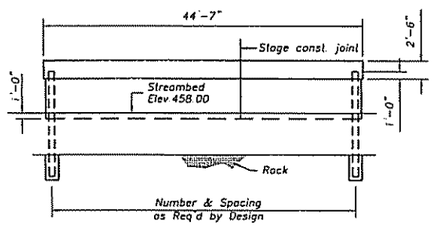
PRELIMINARY
NOT APPROVED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

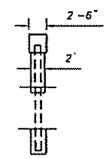
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 627	*	LaSalle		
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

* U-BR

Sheet 2 of 2 Sheets

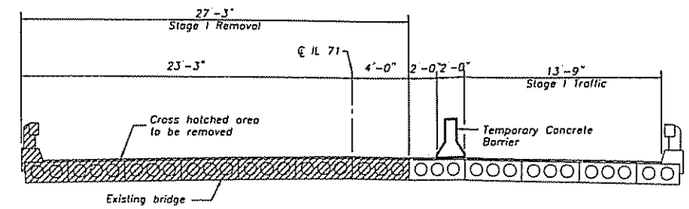


ELEVATION

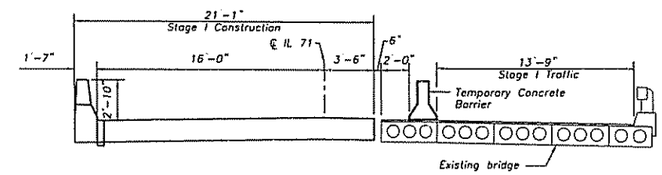


END VIEW

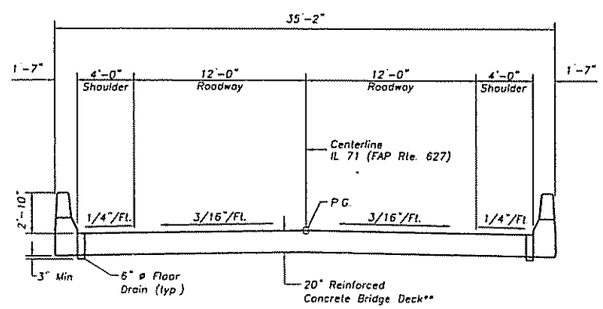
PIER SKETCH



STAGE I REMOVAL
(Looking East)

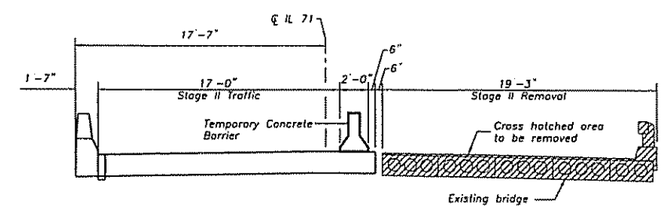


STAGE I CONSTRUCTION
(Looking East)

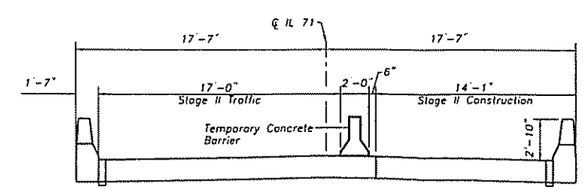


PROPOSED CROSS SECTION

** Slab thickness may be refined in final design



STAGE II REMOVAL
(Looking East)



STAGE II CONSTRUCTION
(Looking East)

DESIGNED	JDA
CHECKED	JLS
DRAWN	ARR
CHECKED	JDA

DETAILS
FAP ROUTE 627 (IL 71)
OVER UNNAMED STREAM
SECTION U-BR
STA. 98+58.9
LASALLE COUNTY
SN 050-0243