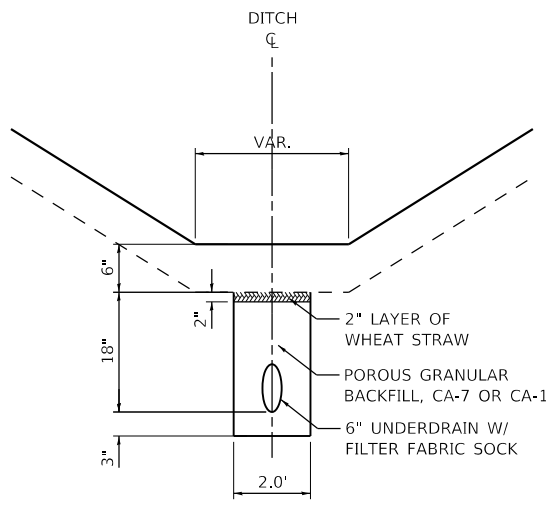


PROPOSED TYPICAL SECTION NO. 3

UNION ROAD
 STA. 33+09.0 TO STA. 39+24.3
 BRIDGE OMISSION
 STA. 39+24.3 TO STA. 40+75.7



**PIPE UNDERDRAIN (MODIFIED)
 IN DRAINAGE DITCH DETAIL**
 STA. 34+07.0 TO 39+79.2 (RT)

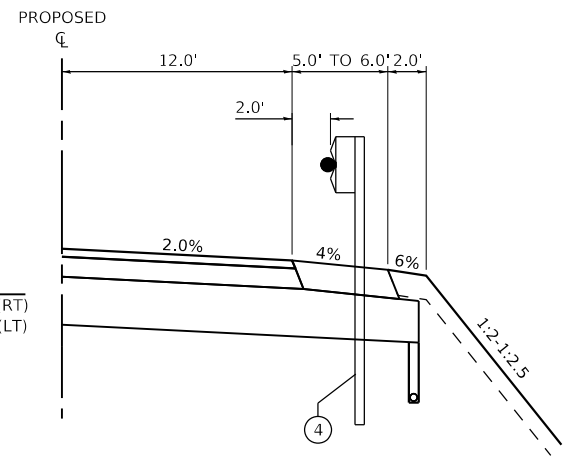
STRUCTURAL PAVEMENT DESIGN

STRUCTURAL DESIGN TRAFFIC: Year 2029
 PV = 693 SU = 7 MU = 7
 ROAD/STREET CLASSIFICATION: Class 3
 PERCENT OF STRUCTURAL DESIGN TRAFFIC IN DESIGN LANE:
 P = 98 S = 1 M = 1
 TRAFFIC FACTOR: Actual TF = 0.04 AC Type = PG 58-28
 Minimum TF = 0.50
 PG GRADE: Binder = PG 64-22 /58-22 Surface = PG 58-28
 SUBGRADE SUPPORT RATING: SSR = (POOR)

HOT-MIX ASPHALT MIXTURE REQUIREMENTS - UNION ROAD

ITEM	AIR VOIDS @ Ndes
HMA PAVEMENT (FULL-DEPTH), 7"	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 mm), 2"	4% @ 50 GYR.
HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL-19 mm), 5" (2 1/4" MIN.)	4% @ 50 GYR.
HMA SHOULDERS, 7"	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 mm), 2"	4% @ 50 GYR.
HOT-MIX ASPHALT SHOULDER (HMA BINDER IL-19 mm), 5" (2 1/4" MIN.)	4% @ 50 GYR.
STABILIZED DRIVEWAYS 6" (P.E.)	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 mm), 2"	4% @ 50 GYR.
HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL-19 mm), 4" (2 1/4" MIN.)	4% @ 50 GYR.
PAVEMENT CONNECTOR (HMA) FOR BRIDGE APPROACH SLABS	
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 mm), 2"	4% @ 50 GYR.
HOT-MIX ASPHALT BASE COURSE (HMA BINDER IL-19 mm), VAR.	4% @ 50 GYR.

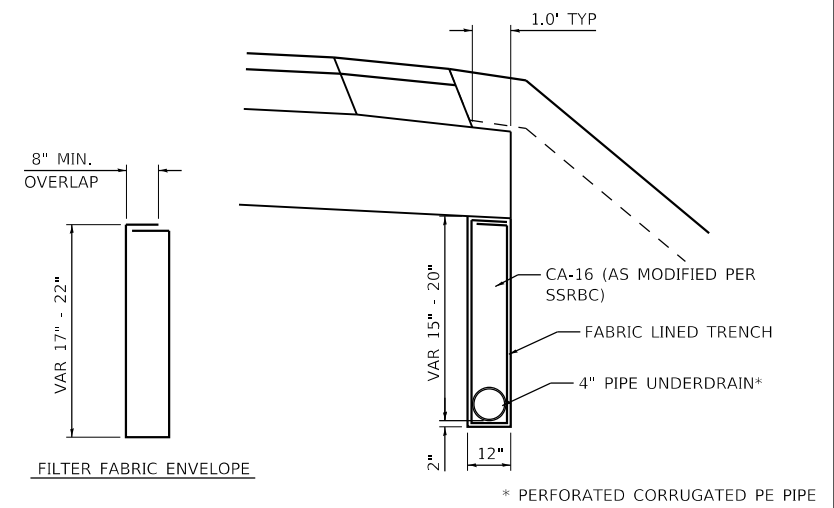
THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LB/SQ YD/IN.
 THE AC TYPE FOR NON-POLYMERIZED HMA MIXES SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR USE WITH RECYCLED MATERIALS SEE SPECIAL PROVISIONS.



PROPOSED GUARDRAIL TYPICAL SECTION NO. 4

LEGEND, PROPOSED

- ① AGGREGATE SUBGRADE IMPROVEMENT 12"
- ② HOT-MIX ASPHALT PAVEMENT (FULL-DEPTH), 7"
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 mm), 2"
HOT-MIX ASPHALT BASE COURSE, 5"
- ③ HOT-MIX ASPHALT SHOULDERS, 7"
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50 (IL 9.5 mm), 2"
HOT-MIX ASPHALT BASE COURSE, 5"
- ④ STEEL PLATE BEAM GUARDRAIL, TY A, 9 FT POSTS W/ GUARDRAIL REFLECTORS, TY A
- ⑤ PIPE UNDERDRAINS, TYPE 2, 4"
- ⑥ TOPSOIL PLACEMENT, 6"
- ⑦ SEEDING (OF THE CLASS SPECIFIED) W/ FERTILIZER & EROSION CONTROL BLANKET
- ⑧ EMBANKMENT
- ⑨ STONE RIPRAP, CLASS A4 W/ BEDDING & FILTER FABRIC
- ⑩ WOVEN WIRE FENCE, 4'
- ⑪ PIPE UNDERDRAINS, 6" (MODIFIED)
- ⑫ LONGITUDINAL JOINT SEALANT - SEE NOTE



PIPE UNDERDRAIN, TYPE 2 DETAIL

UNION ROAD
 STA. 33+09.00 TO STA. 39+52.33, LT/RT
 STA. 40+47.67 TO STA. 46+00.00, LT/RT

PIPE UNDERDRAINS SHALL BE INSTALLED ACCORDING TO SECTION 601 OF THE SSRBC AND STANDARD 601001-05. TOP OF PIPE UNDERDRAINS SHALL BE PLACED MINIMUM 6" BELOW THE AGGREGATE SUBGRADE IMPROVEMENT LAYER. THE COST OF MAKING PIPE UNDERDRAINS CONNECTIONS TO DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF THE PIPE UNDERDRAINS.

LEGEND, EXISTING

- Ⓐ EXISTING GROUND

LONGITUDINAL JOINT SEALANT NOTE

FOR FULL-DEPTH HMA PAVEMENTS, THE LONGITUDINAL JOINT SEALANT SHALL BE PLACED UNDER THE SURFACE LIFT AND UNDER THE TOP BINDER LIFT.

FILE NAME = SFILES

USER NAME = bpottorff	DESIGNED - SBP	REVISED - 1/7/19
PLOT SCALE = 1:10	DRAWN - NDP	REVISED -
PLOT DATE = 1/7/2019	CHECKED - DPB	REVISED -
	DATE - 11/07/2018	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

UNION ROAD OVER KISHWAUKEE RIVER
 PROPOSED TYPICAL SECTIONS

SCALE: N/A SHEET 2 OF 3 SHEETS STA. TO STA.

RT.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CH 21	14-00431-00-BR	MCHENRY	86	8
CONTRACT NO. 61F08				
ILLINOIS FED. AID PROJECT				