Bench Mark: Cut square on southwest corner of concrete base of traffic control box on northeast corner of IL 59 and Army Trail Rd. Elevation 807.24.

Existing Structure: The existing noise wall structure consists of HP-Piles spaced at 15'-0" with approximately 13'-0" to 18'-0" tall noise panel wall.

Traffic to be maintained utilizing staged construction.

Salvage: Existing noise wall panels shall be removed, modified as required, and installed on proposed noise wall. Existing noise wall panels not re-utilized shall be delivered to the IDOT maintenance yard.

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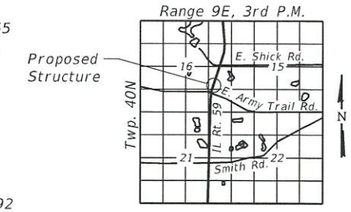
FEB 28 2018

AS A BASIS FOR PREPARATION OF DETAILED PLANS

CURVE DATA

P.I. Sta. = 501+67.55
Δ = 18° 17' 04" (RT)
D = 1° 05' 16"
R = 5,267.07'
T = 847.63'
L = 1,680.85'
E = 67.77'
e = 2.00%
T.R. = 40'
S.E. Run = 67'
P.C. Sta. = 493+19.92
P.T. Sta. = 510+00.77



LOCATION SKETCH

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

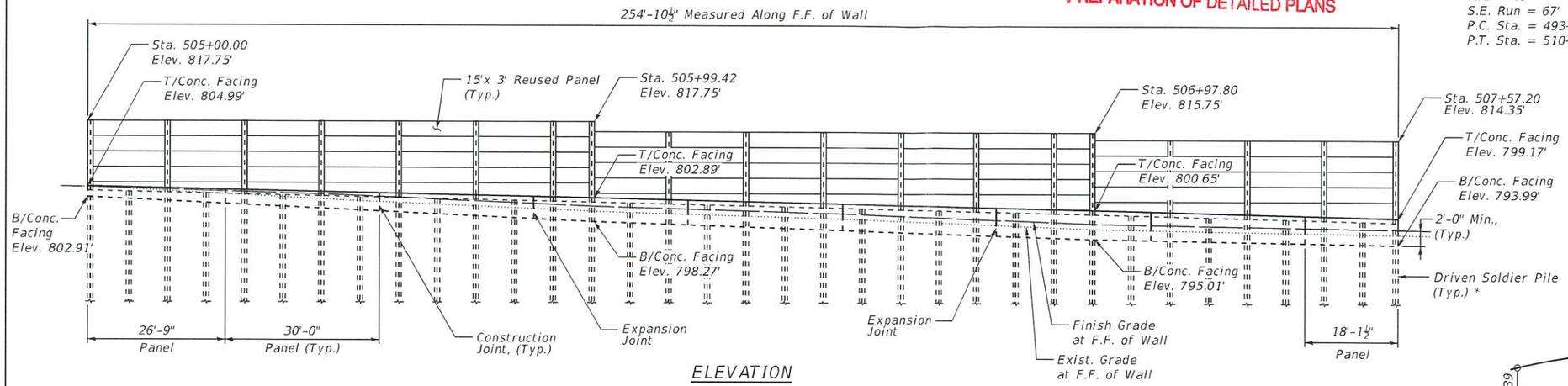
DESIGN STRESSES

FIELD UNITS

f'c = 3,500 psi
fy = 60,000 psi (Reinforcement)

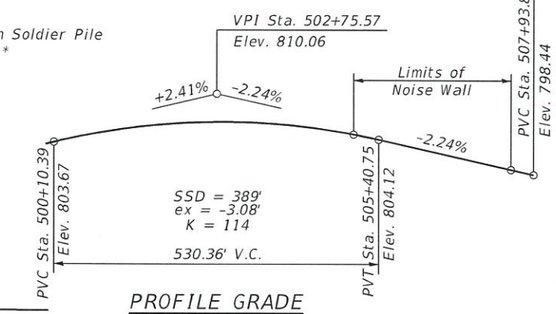
SOLDIER PILES

fy = 50,000 psi (M270 Grade 50)



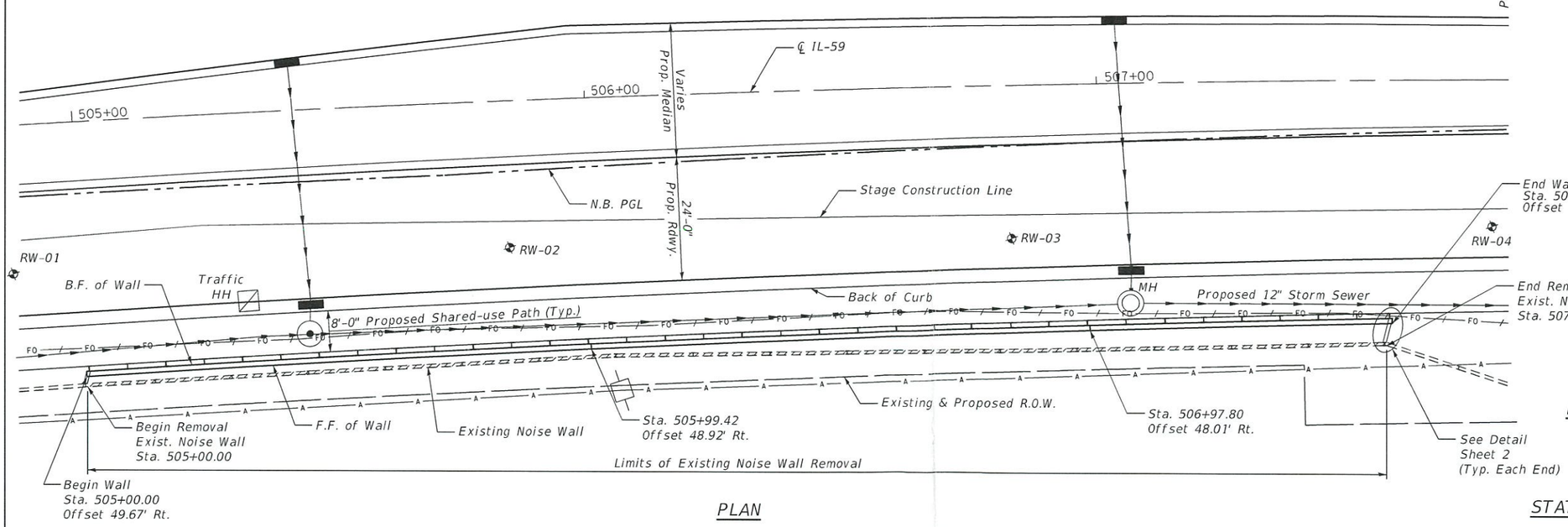
ELEVATION

* Pile section, spacing, & tip elevation to be determined during final design.



PROFILE GRADE

(Along IL 59 N.B. P.G.L.)



PLAN

HIGHWAY CLASSIFICATION

IL Rte. 59 - F.A.P. Rte. 338
Functional Class: Other Principal Arterial
ADT: 37,700 (2016); 42,000 (2040)
ADTT: 6,032 (2016); 6,720 (2040)
DHV: 4,784 (2015)
Design Speed: 45 m.p.h.
Posted Speed: 45 m.p.h.
Two-Way Traffic
Directional Distribution: 50%/50%

NOISE WALL DESIGN LOADS

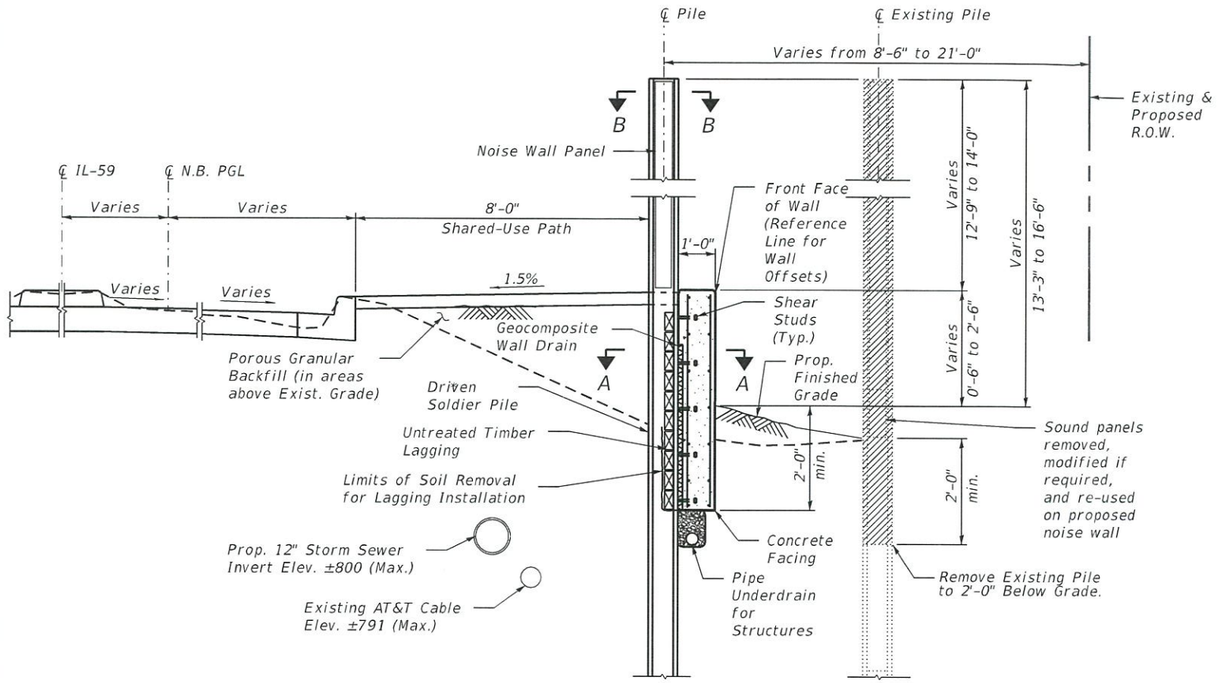
AASHTO LRFD Load Combinations:
Service I Wind Load = 15 psf
Strength III Wind Load = 35 psf
Strength V Wind Load = 20 psf

GENERAL PLAN AND ELEVATION RETAINING AND NOISE WALL ALONG F.A.P. RTE. 59 (S. SUTTON RD.) SECTION 110TS-N DUPAGE COUNTY

STATION 505+00.00 TO STATION 507+57.20

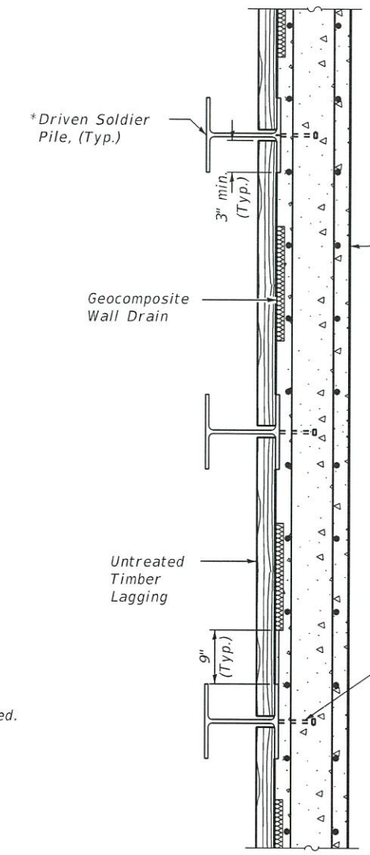
STRUCTURE NO. 022-2998

FILE NAME =	USER NAME =	DESIGNED - LY	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION STRUCTURE NO. 022-2998	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
COLLINS ENGINEERS INC. 123 N. Wacker Dr. Suite 900 Chicago, IL 60606 Tele. (312) 704-9300 Fax. (312) 704-9320 www.collinsengr.com ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000993		CHECKED - JMS	REVISED -			338	110TS-N	DuPAGE	2 / 1
	PLOT SCALE =	DRAWN - DR	REVISED -		SHEET NO. 1 OF 2 SHEETS			CONTRACT NO. 62F19	
	PLOT DATE =	CHECKED - JMS	REVISED -					ILLINOIS FED. AID PROJECT	

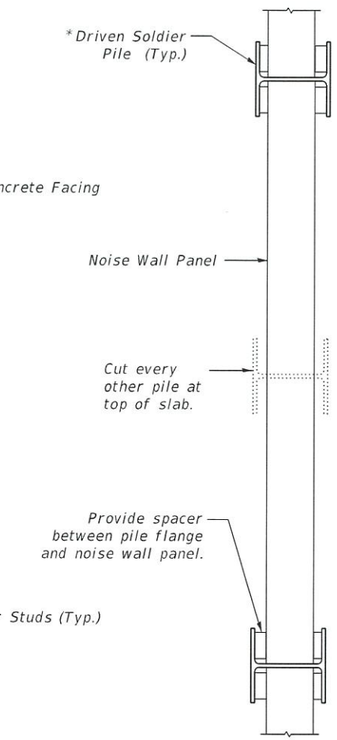


TYPICAL CROSS SECTION

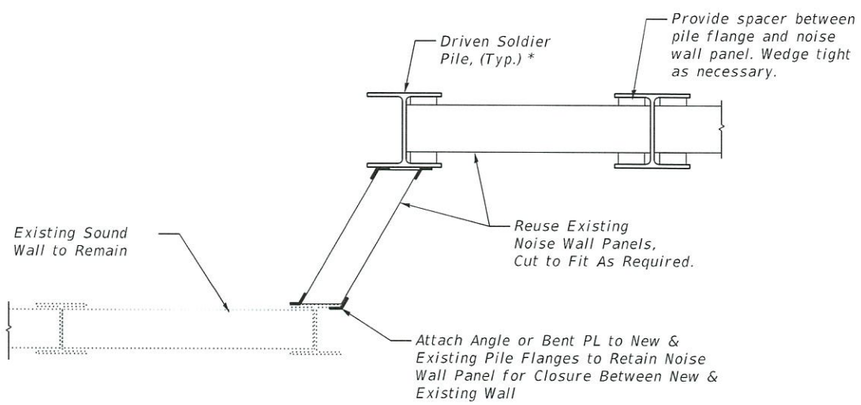
* Driven soldier piles shall be painted.



SECTION A-A



SECTION B-B



TYPICAL CONNECTION TO EXISTING NOISE WALL

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FILE NAME =	USER NAME =	DESIGNED - LY	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS AND DETAILS STRUCTURE NO. 022-2998	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS / SHEET NO.
COLLINS ENGINEERS 123 N. Wacker Dr. Suite 900 Chicago, IL 60606 Tele: (312) 704-1300 Fax: (312) 704-1320 www.collinseng.com ILLINOIS PROFESSIONAL DESIGN FIRM LICENSE NO. 184-000993		CHECKED - JMS	REVISED -			338	110TS-N	DuPAGE	2 / 2
	PLOT SCALE =	DRAWN - DR	REVISED -		SHEET NO. 2 OF 2 SHEETS			CONTRACT NO. 62F19	
	PLOT DATE =	CHECKED - JMS	REVISED -				ILLINOIS FED. AID PROJECT		