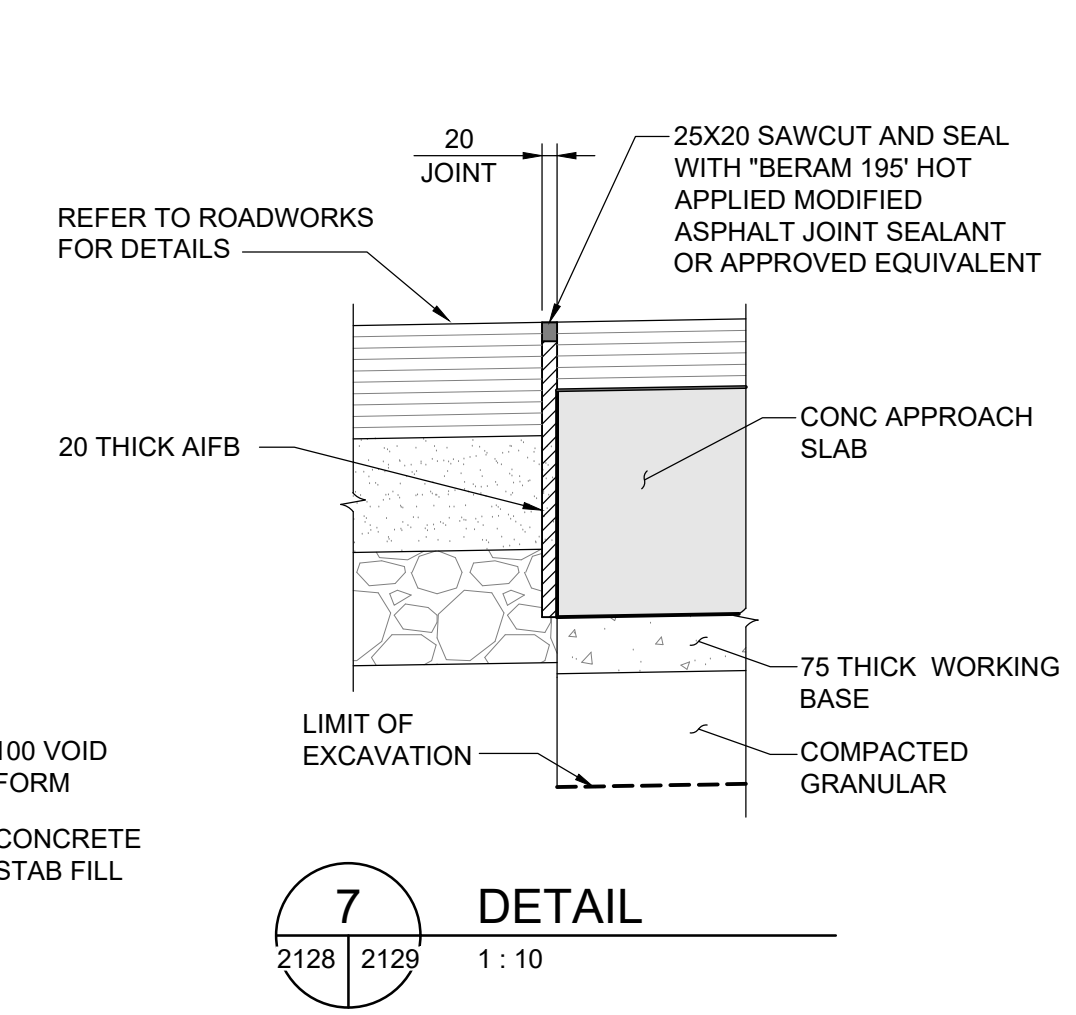
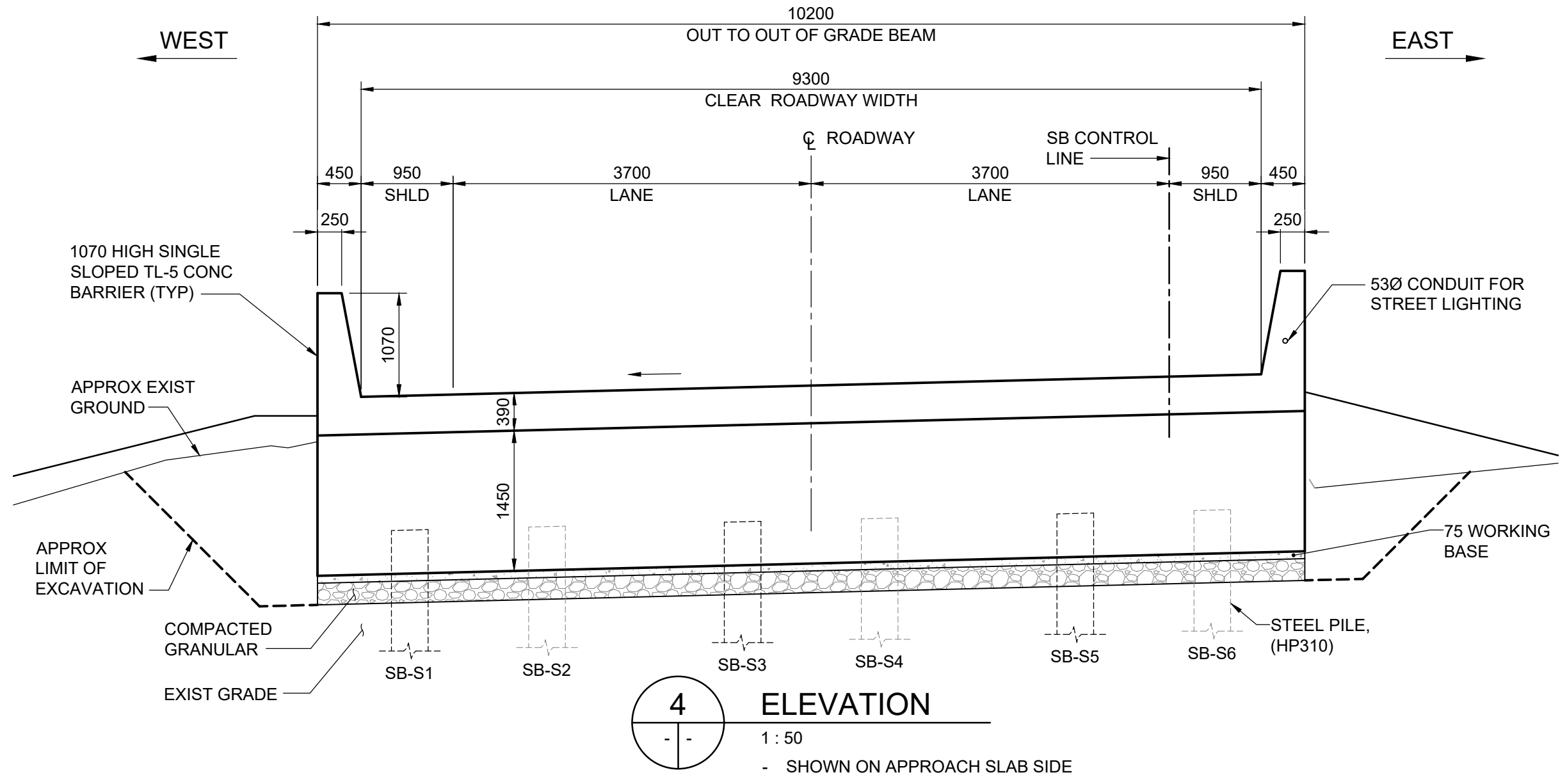
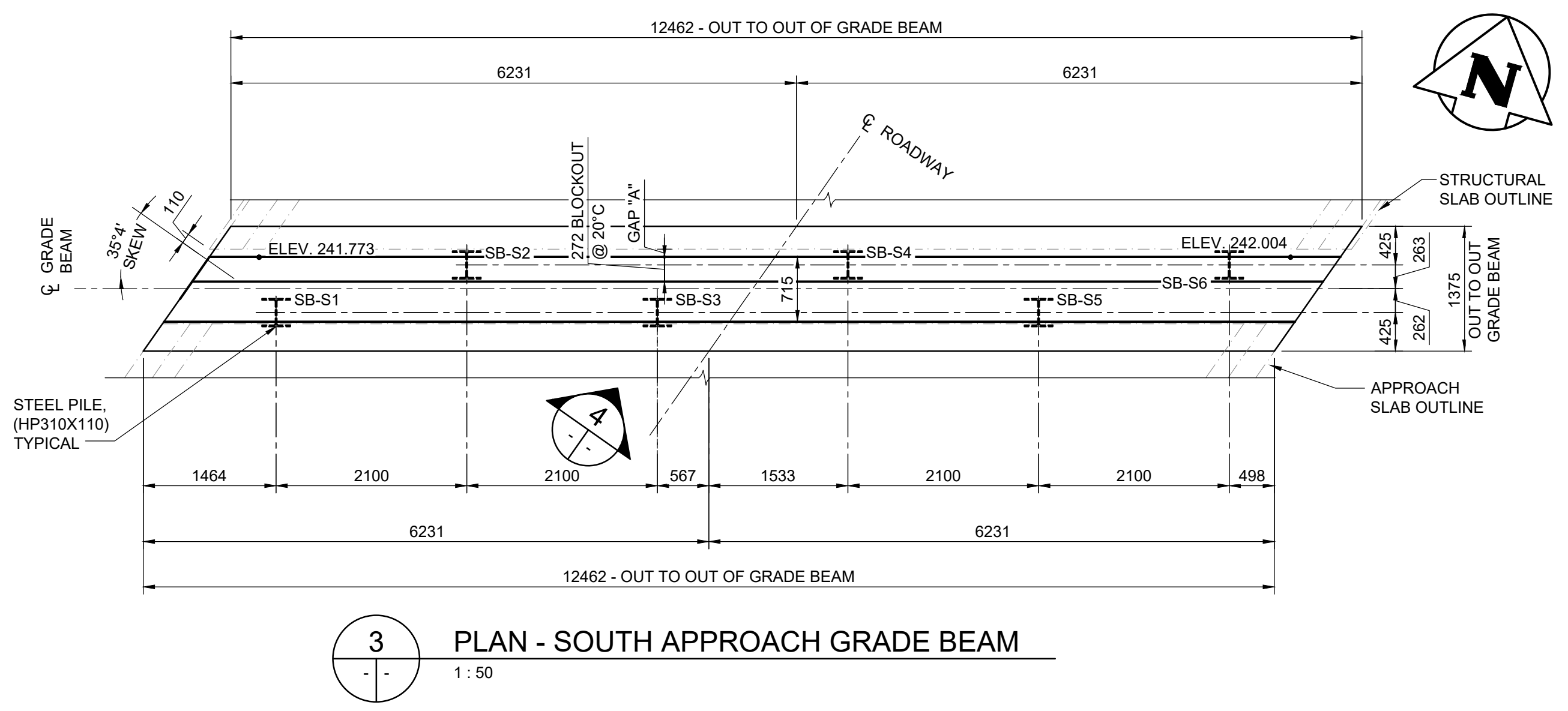
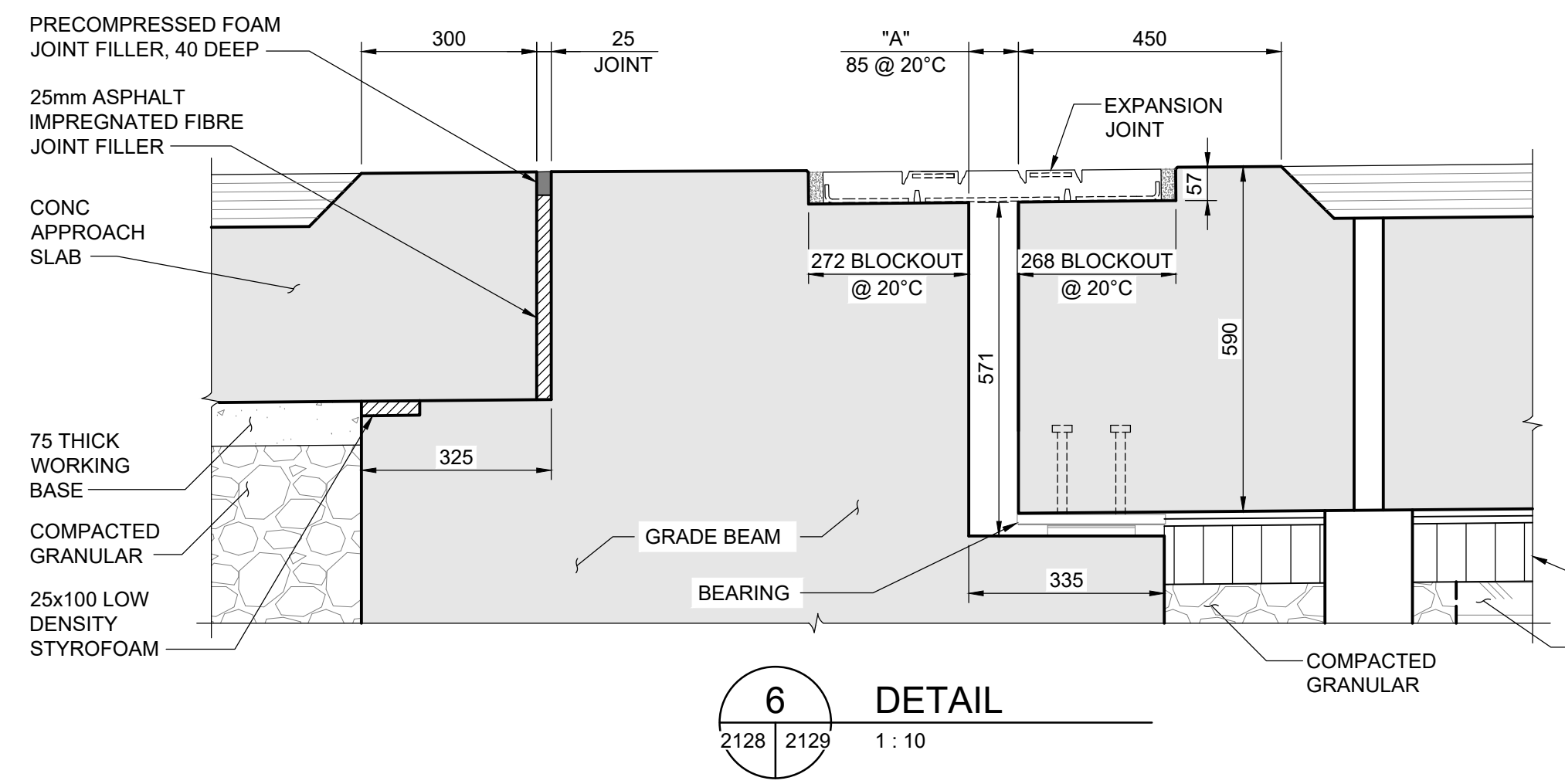
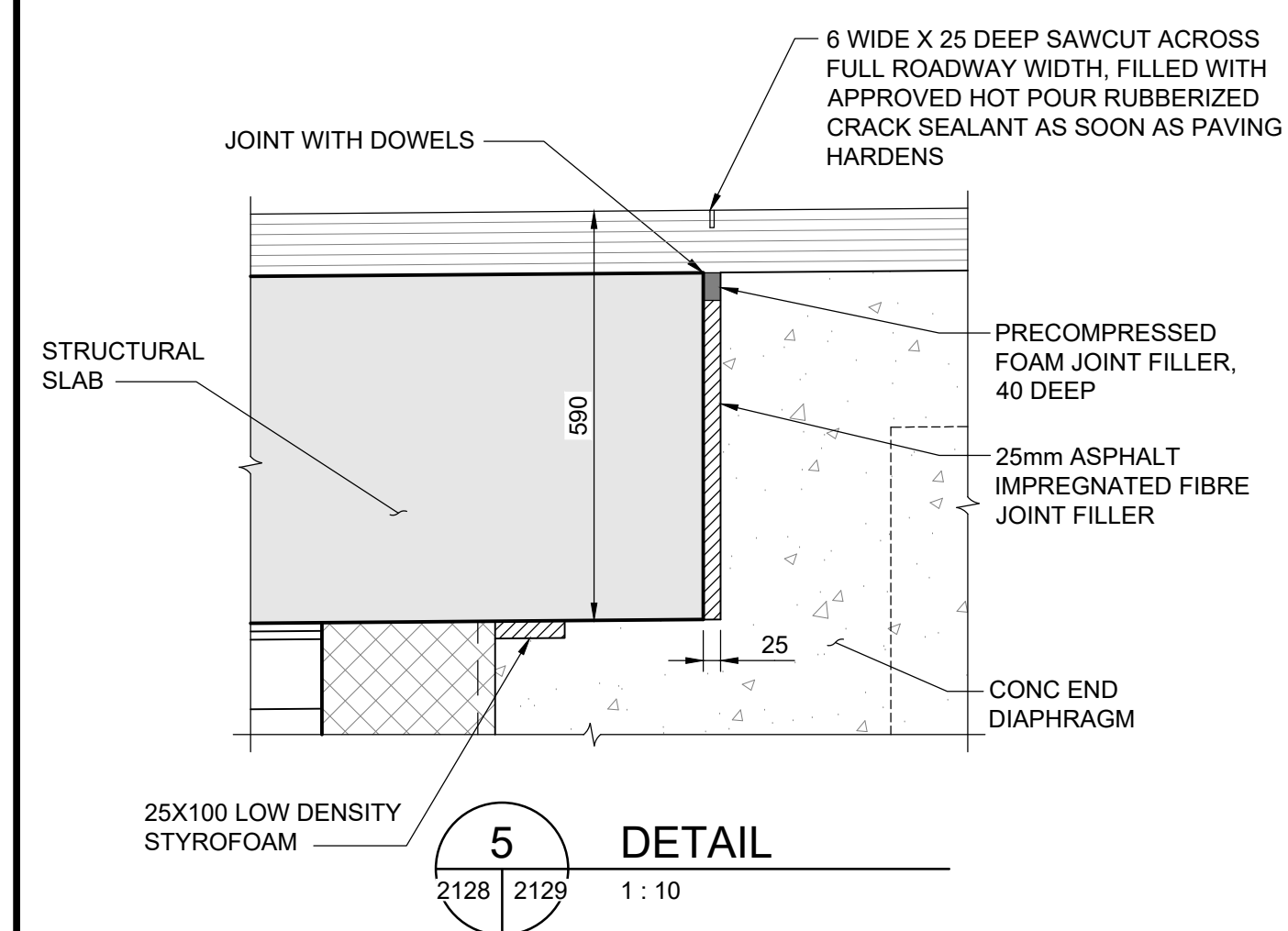
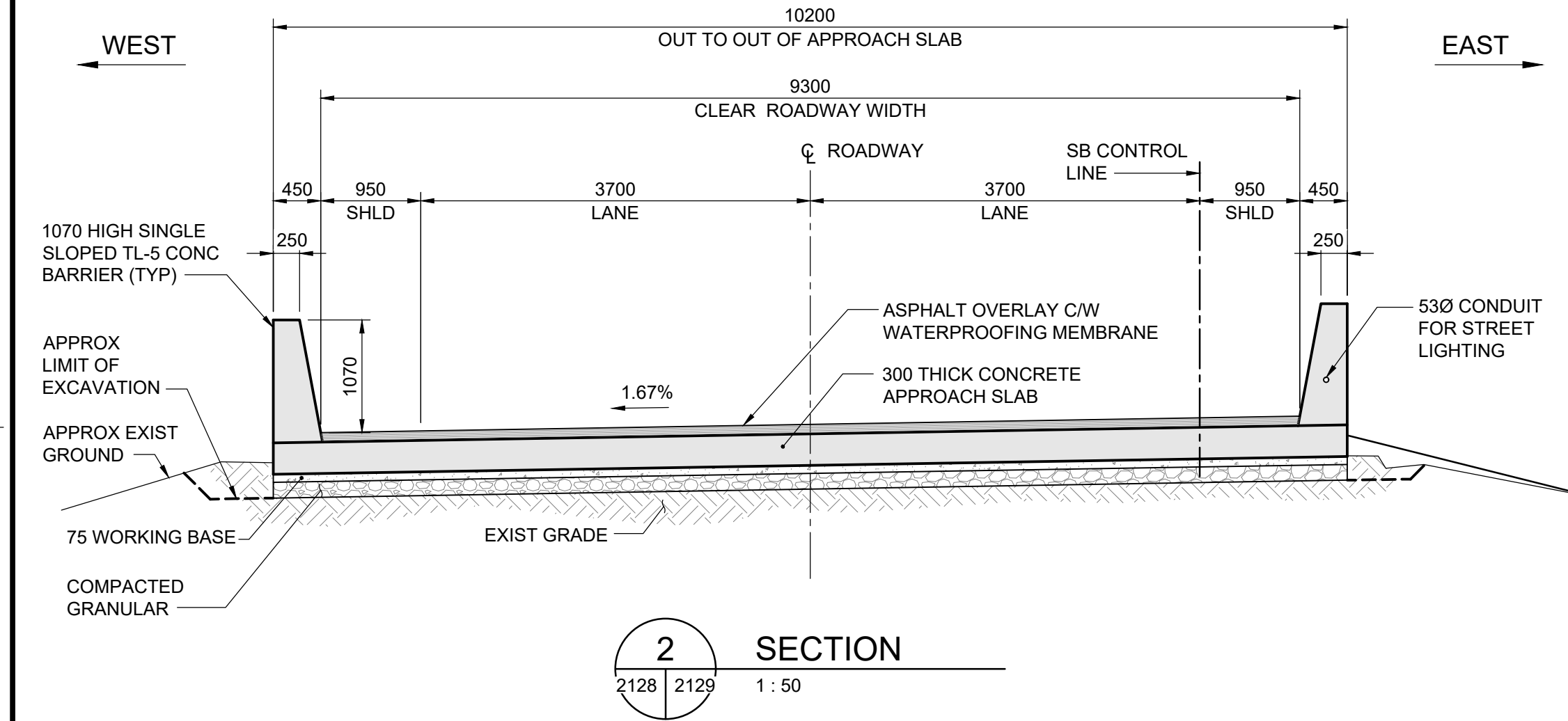
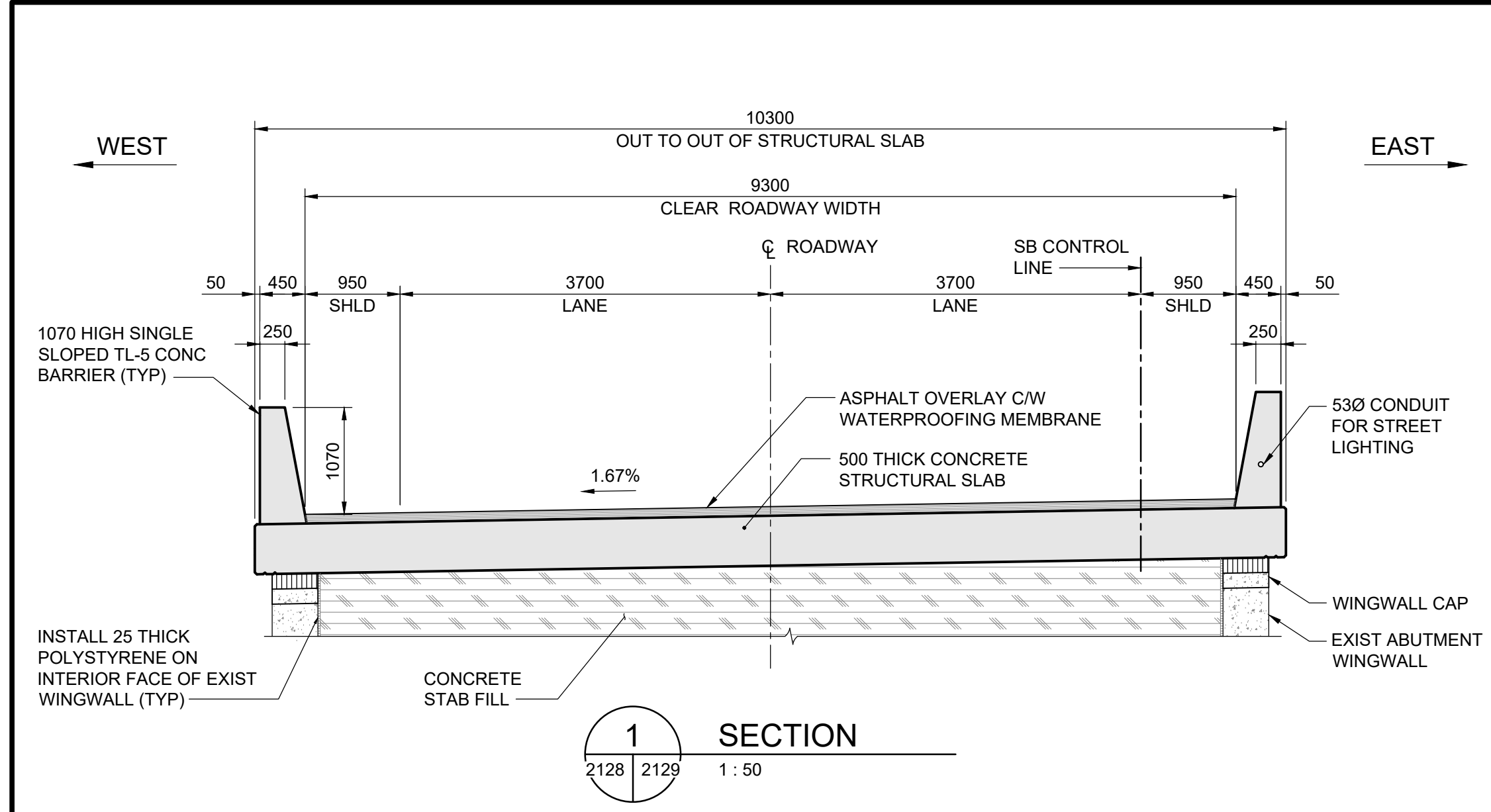
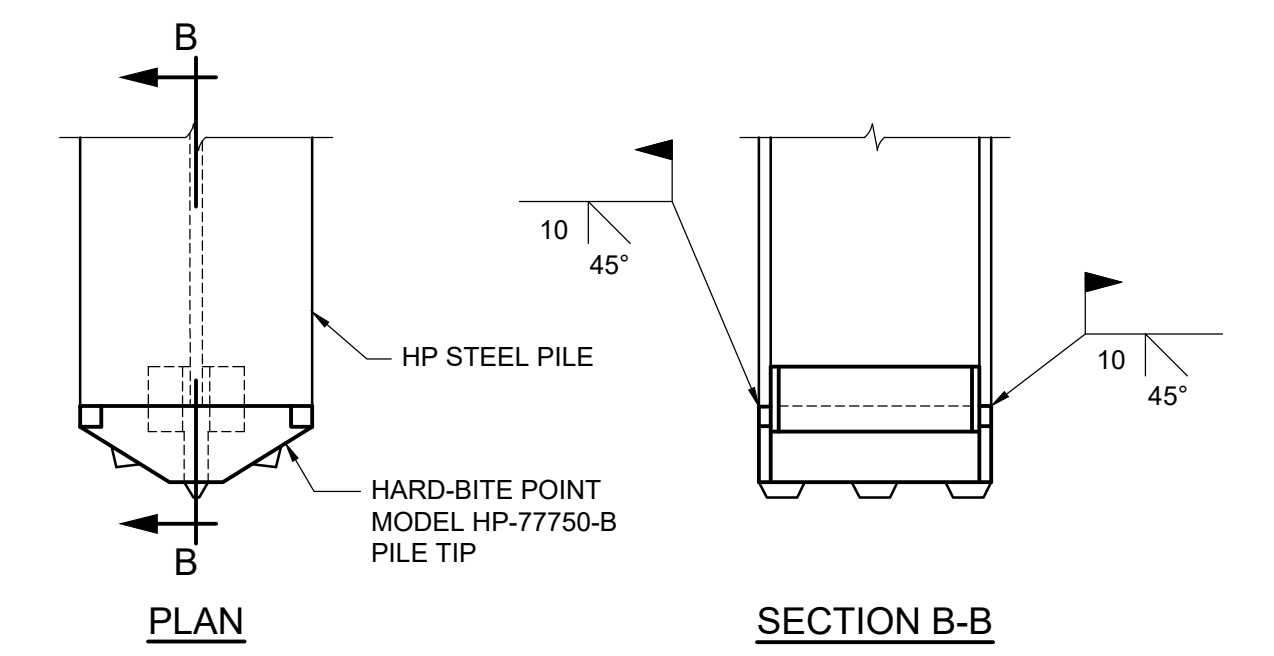




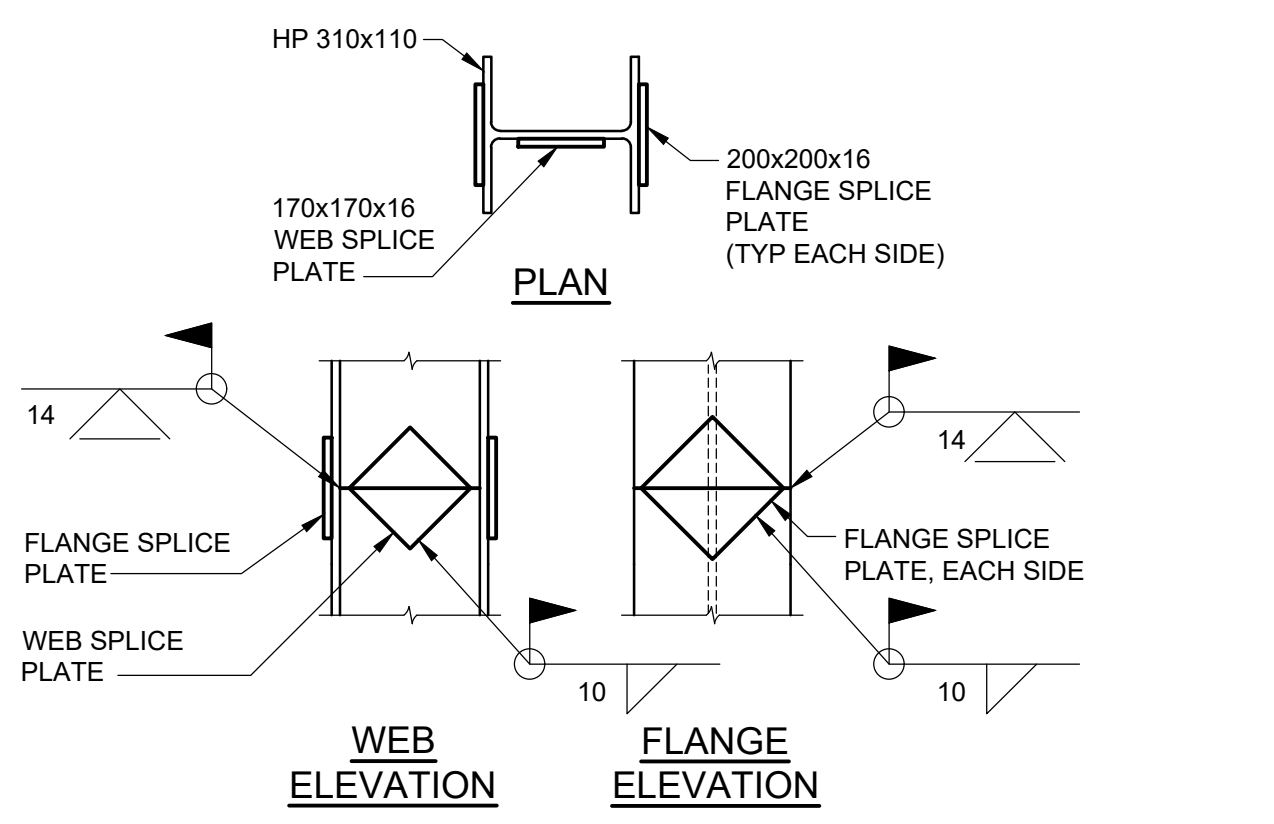
BILL OF PILES				
LOCATION	NO.	DESCRIPTION	ESTIMATED TOTAL LENGTH (m)	ESTIMATED TOTAL LENGTH (m)
SOUTH GRADE BEAM	6	STEEL PILES - HP 310x110	26.50	159.00
	6	HARD-BITE POINT HP-77750 FOR HP 310x110		
TOTAL LENGTH (m) =			159.00	

PILE ELEVATIONS		
PILE MK.	PILE CUT OFF ELEV (m)	ESTIMATED PILE TIP ELEV (m)
SB-S1	240.395	214.500
SB-S2	240.410	214.500
SB-S3	240.481	214.500
SB-S4	240.516	214.500
SB-S5	240.566	214.500
SB-S6	240.601	214.500

- GENERAL NOTES:**
- SPACING OF PILES, FOR ALL FOOTINGS AS SHOWN, IS AT THE BOTTOM OF FOOTINGS.
 - H-PILES ARE TO BE DRIVEN TO PRACTICAL REFUSAL IN BEDROCK AND TO AN APPROXIMATE MINIMUM TIP ELEVATION OF 214.5m.



- WELDING NOTES:**
- LOW HYDROGEN E480 SERIES ELECTRODES SHALL BE USED.
 - THE MINIMUM ROOT PASS SHALL BE 6mm.
 - BEFORE UNDERTAKING THE BACK WELDS, THE WELD PREPARATION SHALL BE CARRIED OUT WITH A CARBON ARC-AIR GOUGER.



ENGINEERS
GEOSCIENTISTS
MANITOBA
Certificate of Authorization
Tetra Tech Canada Inc.
No. 6499

B.M. ELEV.			TETRA TECH		CONSULTANT DRAWING NO. 704-INF-MBI03007.01-DWG-S2129	
DESIGNED BY	RL	REVIEWED BY	SA	DATE	25.08.07	
DRAWN BY	EV	APPROVED BY	KA	DATE	25.08.07	
SCALE:	AS NOTED		ACCEPTED BY	CAM WARD, P.ENG.	25.08.07	
0	ISSUED FOR TENDER	25.08.07	SA	DATE	25.08.07	
NO.	REVISIONS	DATE	BY	DATE	25.08.07	

THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION		CITY DRAWING NUMBER B123-25-2129
LAGIMODIERE TWIN OVERPASSES OVER CPKC KEEWATIN REHABILITATION AND RELATED WORKS		SHEET 29 OF 47
SOUTHBOUND STRUCTURE SOUTH APPROACH CONCRETE DETAILS SHEET 2 OF 3		2129