

GENERAL NOTES

PATCHING SEQUENCE: The concrete removal shall be completed in stages, beginning with removal of deteriorated concrete in Area ①. If more than 15 longitudinal bars in Area ① are debonded for a distance of greater than 4 feet along the bars, the concrete removal shall stop and the patch area filled with Gr. 4.0 Concrete (AE)(SW). The patch shall cure a minimum of 3 days before concrete removal resumes in that area. Following the completion of work in Area ①, concrete removal may begin in Area ②. Concrete removal shall not begin in an Area ② until the patching concrete in adjacent Area ① has cured a minimum of 3 days. The maximum size of any full depth patch shall be limited to 4'x8' in any direction. Fully debonded bars in Area ① shall be limited to the same 4'x8' maximum patch size. All patching and SFO concrete shall cure according to the Specifications prior to allowing traffic on that lane.

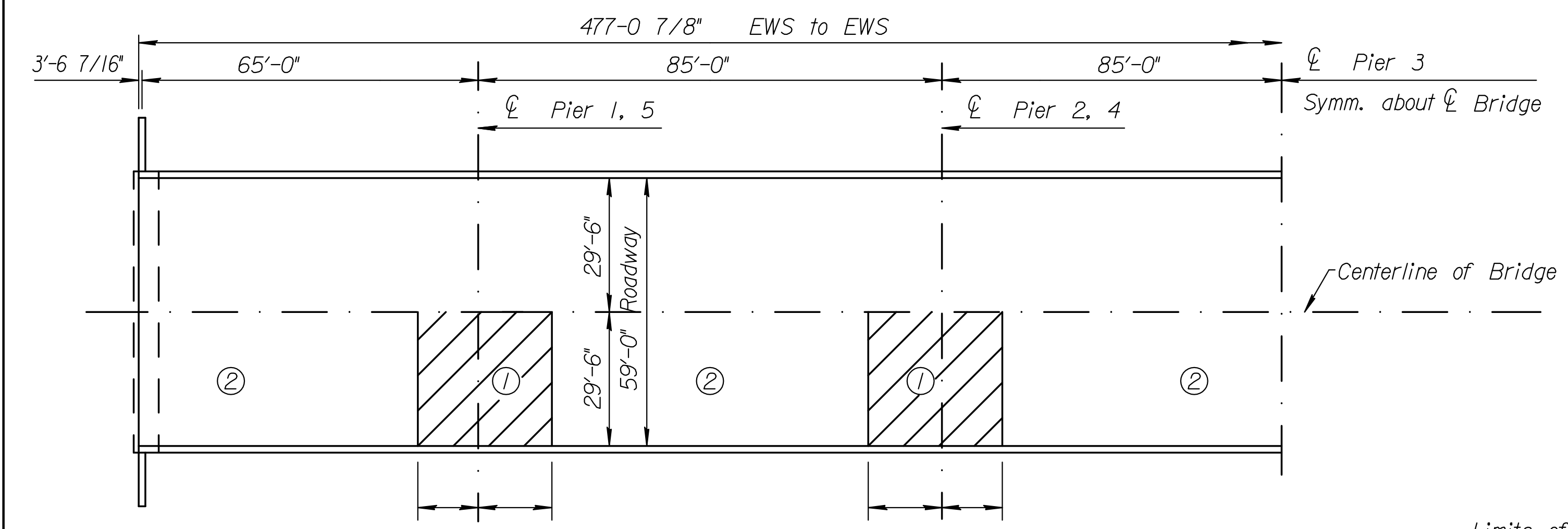
AREA PREPARED FOR PATCHING: Work shall be subsidiary to Partial Depth Patching and Full Depth Patching. This item shall consist of removing unsound concrete and bituminous patches from the bridge deck, cleaning reinforcing bars, filling the removed patched areas with concrete, and preparing the entire area of deck for SFO. Quantity shown is an estimate of the areas involved. The exact areas shall be determined by tapping, before, during and after chipping operation to assure that all unsound concrete has been removed. See KDOT Specifications.

FULL DEPTH PATCHING: Forms shall be provided to enable placement of concrete in areas of full depth removal of bridge slab. The forms may be suspended from existing reinforcing bars by wire ties or a method approved by the Engineer may be used. See KDOT Specifications for method of measurement and basis of payment.

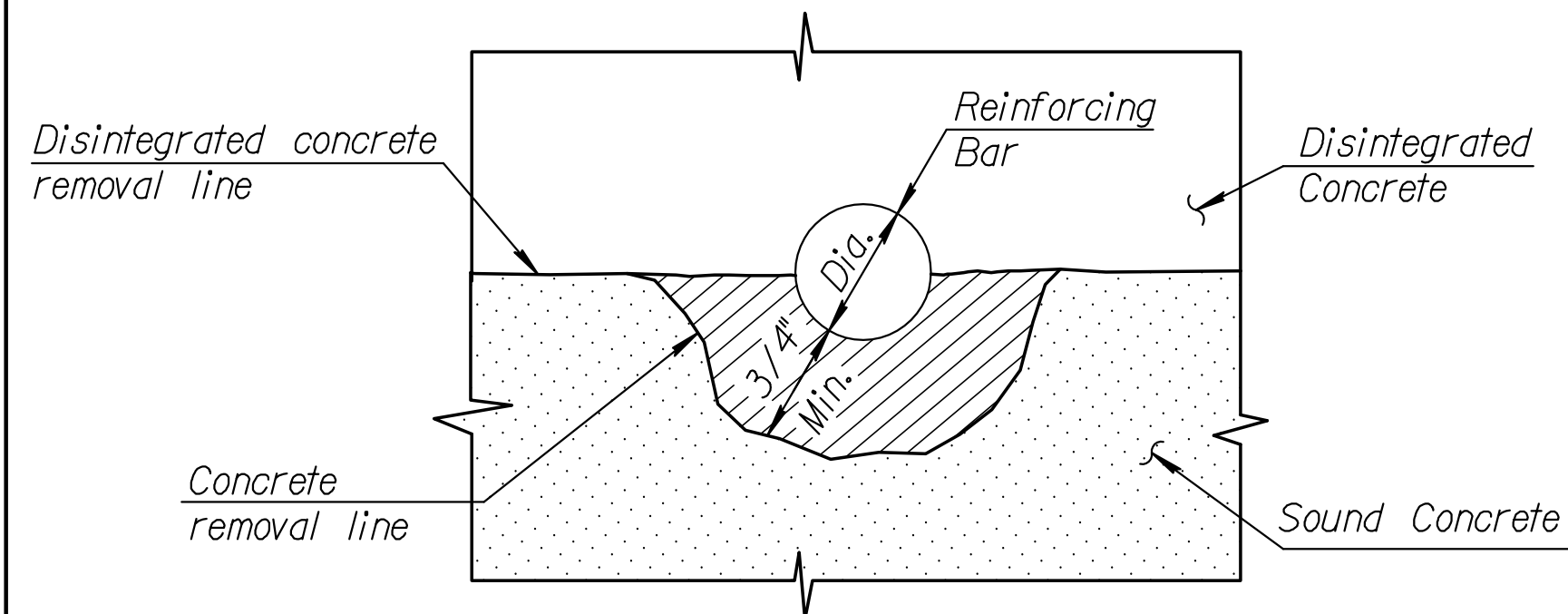
REINFORCING IN BRIDGE DECK: Care should be exercised to prevent cutting, stretching or damaging exposed reinforcing steel. Extreme care should be exercised to avoid breaking the bond between the reinforcing steel and concrete where bars are partially exposed yet remain anchored in sound concrete. Reinforcing steel damaged, cut or deteriorated shall be replaced as directed by the Engineer. See table on this sheet for minimum splice length required. Replacement of bars damaged by the Contractor shall be subsidiary to "Reinforcing Steel for Patches".

SILICA FUME OVERLAY (SFO): This item shall consist of preparing the concrete surface, placing, finishing and curing the 1 1/2" SFO. See KDOT Specifications.

SILICA FUME OVERLAY CONSTRUCTION JOINTS: All vertical construction joints in the overlay and the vertical joint between the overlay and the curbs shall be sealed by sandblasting and then painting the joints with an approved Concrete Masonry Coating, 72 hours after placement of the Silica Fume Overlay.

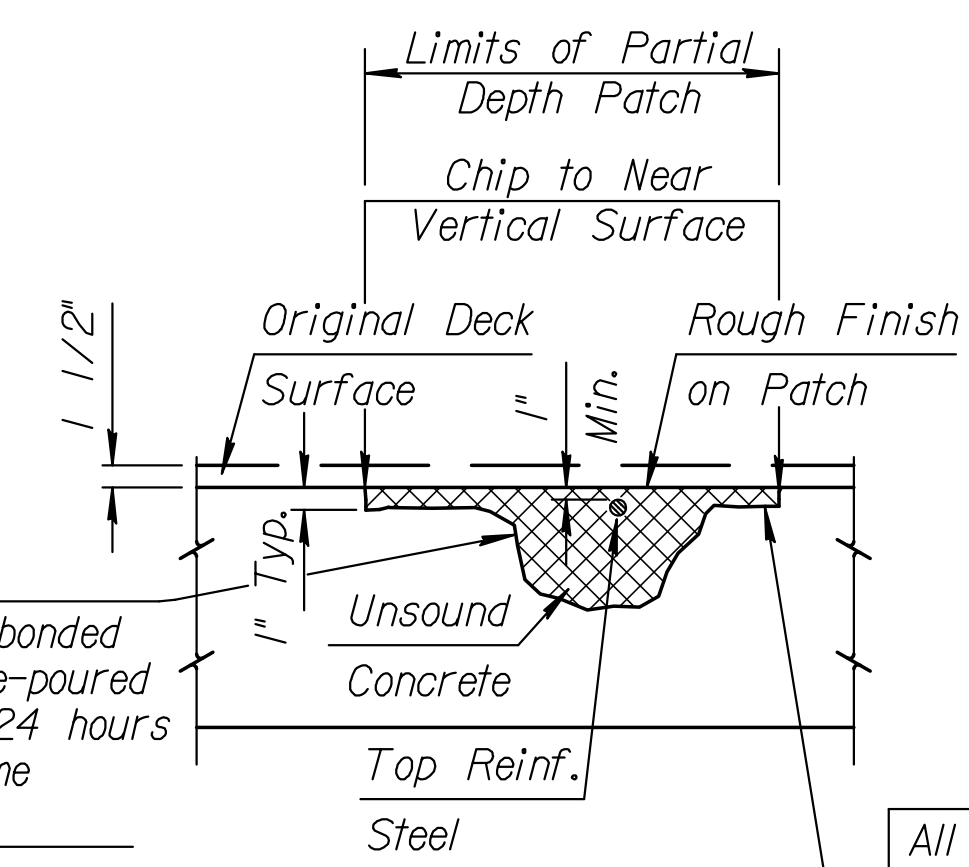


BRIDGE DECK PATCHING SEQUENCE



Where more than 1/2 the diameter of the steel is exposed or where the bond between existing concrete and reinforcing steel has been destroyed, remove the concrete adjacent to the bars to a depth that shall permit concrete to bond to the entire periphery of the bar with a minimum clearance of 3/4 inch.

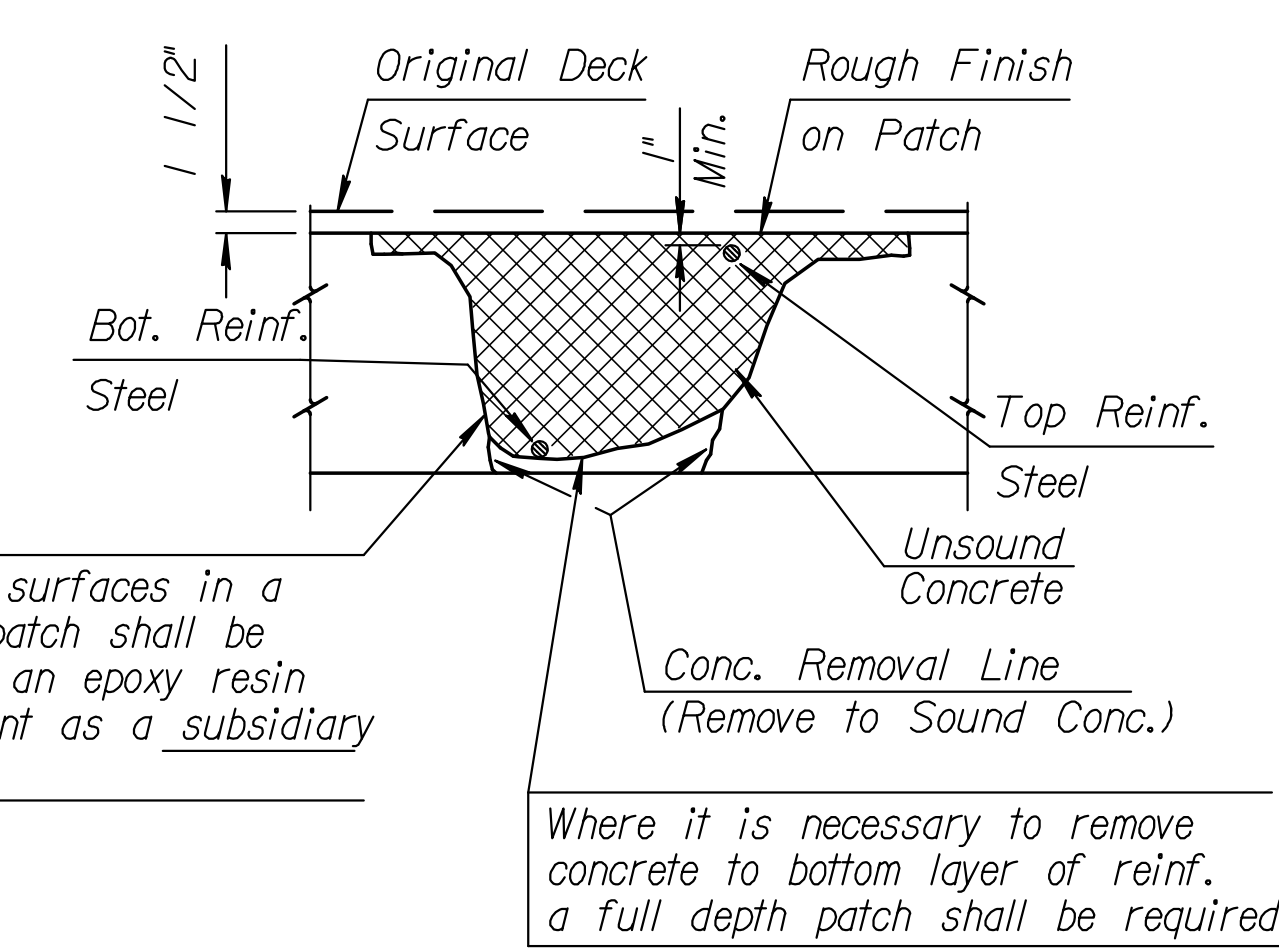
AREA OF DEBONDING



All patch areas which have debonded reinf. shall be pre-poured. Pre-poured patches shall cure a min. of 24 hours prior to placing the Silica Fume Overlay.

If the repair does not de-bond the top layer of reinforcing steel, the patch area shall be filled monolithic with the Silica Fume Overlay.

PARTIAL DECK PATCHING

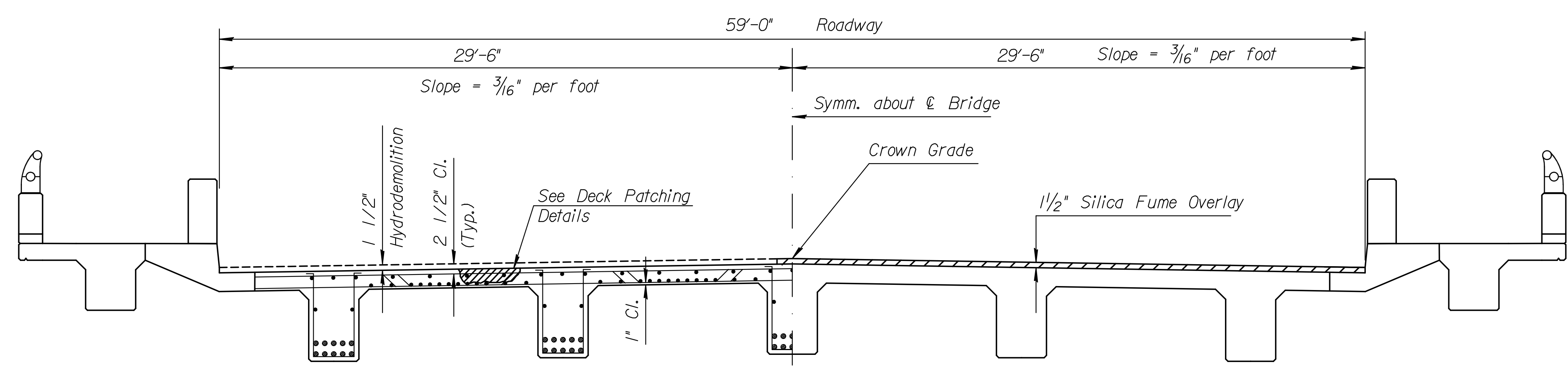


All vertical surfaces in a full depth patch shall be coated with an epoxy resin bonding agent as a subsidiary item.

Where it is necessary to remove concrete to bottom layer of reinf. a full depth patch shall be required.

FULL DECK PATCHING

DECK PATCHING DETAILS



TYPICAL SECTION SHOWING HYDRODEMOLITION

TYPICAL SECTION SHOWING COMPLETED WORK

See Traffic Control Plans for Phasing Schedule

Bar Size	Gr. 40	Gr. 60
#4	12"	16"
#5	13"	20"
#6	16"	24"
#7	20"	29"
#8	26"	38"
#9	33"	48"
#10	42"	61"
#11	52"	75"

* Lap lengths are based on a Class B Splice. Use the min. splice length corresponding to the grade of existing reinforcing in the deck.

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1	10-19-04	Current Release		
NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

BRIDGE DECK PATCHING AND OVERLAY DETAILS

14

SHEET NO.	OF	DATE	APP'D
DESIGNED		DETAILED	REL
DESIGN CK.		DETAIL CK.	QUAN. CK.
			TRACED
			TRACE CK.