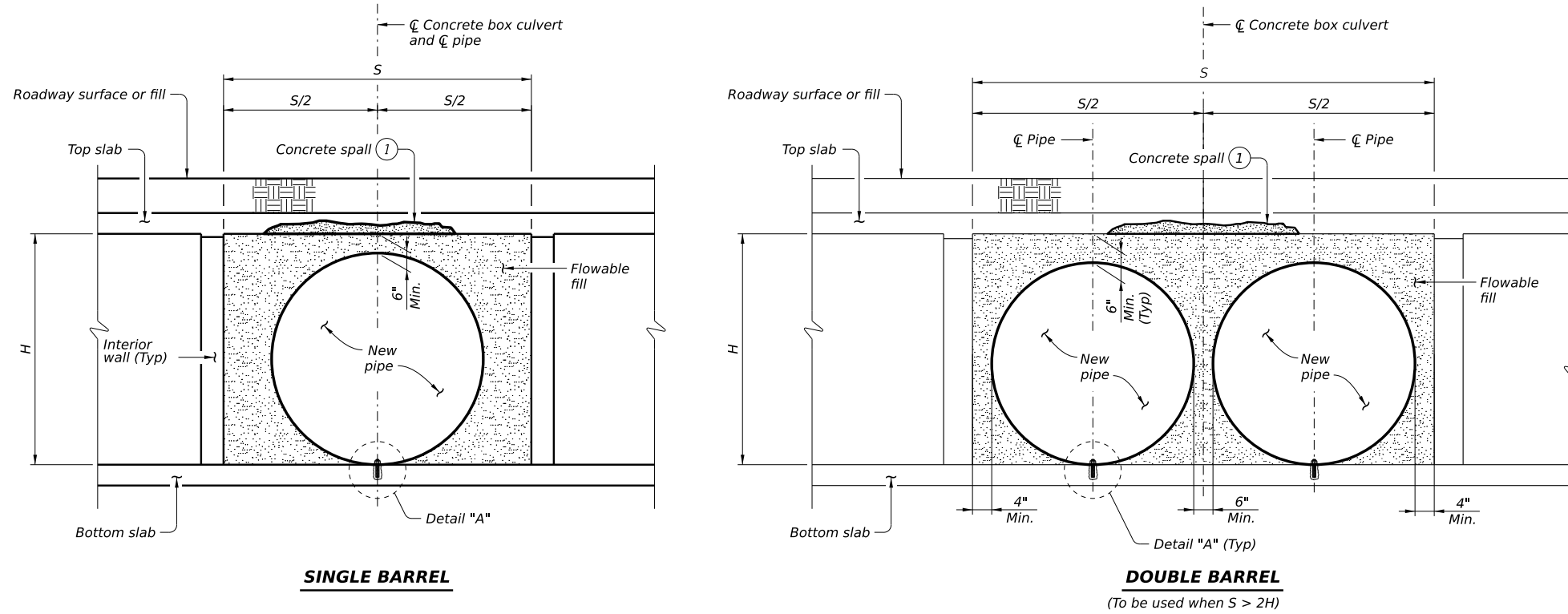
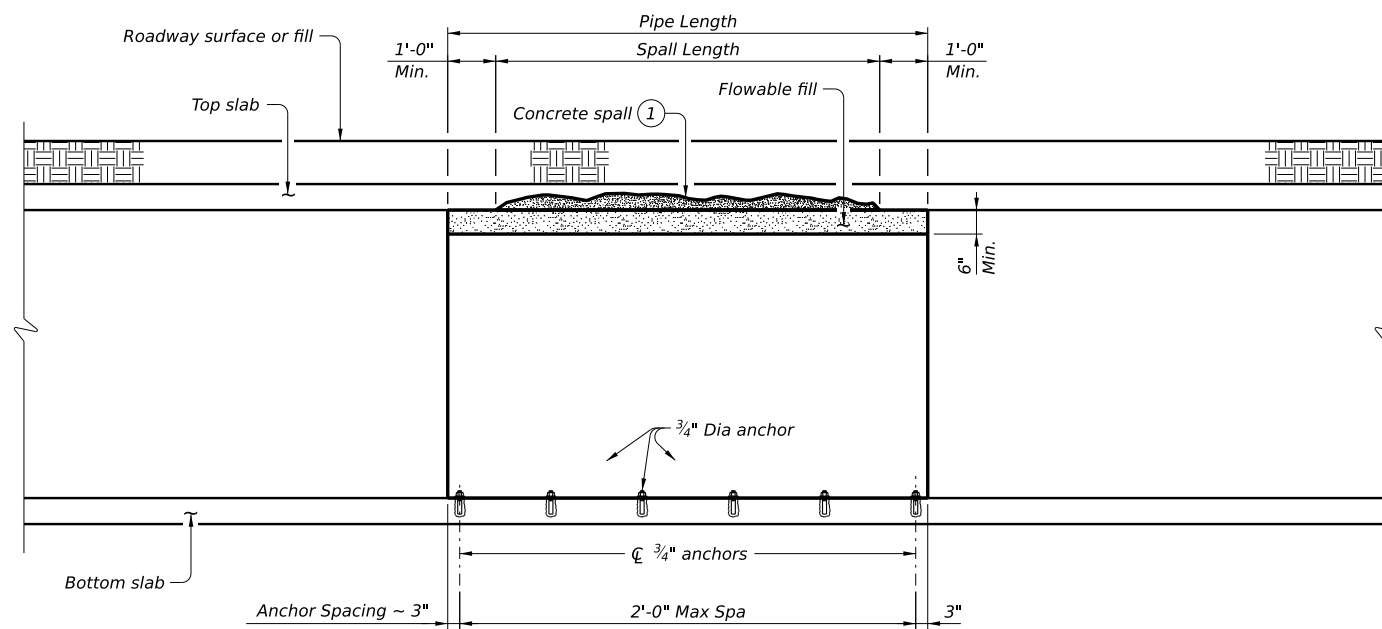


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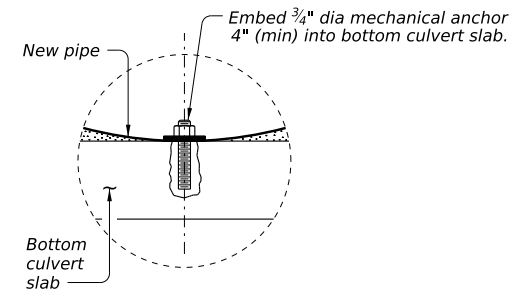
TYPICAL CULVERT REPAIR SECTION

(Showing repairs in one box only. Apply repairs to all locations shown in plans.)



TYPICAL CULVERT REPAIR ELEVATION

(Not to scale)



DETAIL "A"

TABLE OF ESTIMATED QUANTITIES				
Barrel No.	0401-6001	0429-6007	0460-60XX	7001-60XX
	FLOWABLE BACKFILL	CONC STR REPAIR (VERTICAL & OVERHEAD)	CMP (GAL STL XX IN.)	SLIP LINING CULVERT PIPE XX IN.
	CY	SF	LF	LF
1				
2				
3				
4				
5				
6				
Totals				

- ① Ensure flowable fill fills concrete spall area.
- ② For Contractor's information. Payment is subsidiary to Item 7001, "Slip Lining Pipe or Box Culverts."

NOTE TO DESIGNER:
 This sheet is to be used as a guide for preparing plans for box culvert slip lining. Designer must exercise engineering judgement when determining whether repair is appropriate given the extent of the damage. Details with appropriate notes from this guide should be prepared for the specific application.
 If needed, consider performing concrete structural repair on culvert slabs or walls before slip lining procedures.
 CMP bid item is shown but other bid items for different pipe materials may be used.
 Regardless of material, payment for pipe will be subsidiary to Item 7001, "Slip Lining Pipe or Box Culverts."
 This sheet cannot not be used without modification. The details shown may need to be amended if the exact existing conditions are not covered. In all cases details and notes not required must be deleted. This note and the phrase "Not to be used as a standard" must be removed and the sheet must be signed and sealed by a Professional Engineer.

GENERAL NOTES:
 Prior to slip lining culvert, remove any damaged or loose concrete from the box culvert top slab. Avoid damage to sound concrete that is to remain in place. Unless otherwise approved by the Engineer, use only hand tools or power-driven chipping hammers (15-lb. class maximum) to remove concrete.
 Remove rust from steel reinforcement without cutting or causing further damage to the steel reinforcement.
 Provide PVC, HDPE, CMP, or steel pipe insert. Place new pipe in the barrels of the concrete box culverts as shown in the plans, and in accordance with Special Specification 7001, "Slip Lining Pipe or Box Culverts." Anchor down the pipe insert in the box culvert bottom slab as shown.
 Set forms at two ends of pipe in accordance with Item 420, "Concrete Substructures."
 Furnish and place 500 psi, non-excavatable flowable backfill for voids between box culvert and pipe in accordance with Item 401, "Flowable Backfill."
 If necessary, perform the backfill operation in lifts, to maintain the circular shape of the pipe.
 Contractor must verify extent of damage and locations prior to ordering materials and beginning work. Notify the Engineer of any discrepancies between plans and actual conditions.

Repairs performed in accordance with these details will result in a load rating that meets or exceeds the original design loading of the structure.

P.E. SEAL REQUIRED
PRELIMINARY
 SUBJECT TO REVISION

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Texas Department of Transportation Bridge Division

BOX CULVERT SLIP LINING DETAILS

(Not to be used as a standard)
 NBI: XX-XXX-XXXX-XX-XXX

FILE: WD-BCSL-24.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
©TxDOT February 2024	CONT	SECT	JOB	HIGHWAY
REVISIONS				
DIST		COUNTY		SHEET NO.

DATE:
FILE: