

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	54-87 K-8258-02	2003	22	76

NOTE: QUANTITIES SHOWN ARE FOR INFORMATION ONLY. THIS CONTRACT WILL BE BASED ON A LUMP SUM BID AS NOTED IN THE PROJECT SPECIAL PROVISIONS.

SUMMARY OF QUANTITIES—BR. NO. 54-87-31.63(706)

	Unit	Part "A"	Part "B"	Part "C"	Total
Concrete (Grade 30) AE	cu m	1390.4	469.3	474.4	2334.1
Reinforcing Steel (Grade 420)	kg	174 000	51 160	57 780	282 940
Class III Excavation	cu m	675	208	204	1087
Handrail Metal (1070 mm)	m	34.09			34.09
Temporary Shoring	Lump Sum				1

GENERAL NOTES

DESIGN LOADING:
MS-18 AASHTO Specifications, 1996 Edition & Interims.

UNIT STRESSES:
Concrete (Grade 30) AE $f'_c = 30 \text{ MPa}$
Reinforcing Steel (Grade 420) $f_y = 420 \text{ MPa}$

CONCRETE:
Concrete (Grade 30) AE shall be used throughout. Bevel all exposed edges with a 20 mm triangular molding, unless otherwise noted.

REINFORCING:
All reinforcing shall conform to ASTM A615M, Grade 420. All dimensions relative to the placement of reinforcing steel shall be to the centerline of bar unless otherwise noted. The clear distance from the face of concrete to the end of reinforcing bar shall be 50 mm, unless noted otherwise on the plans.

EXCAVATION:
Excavation for culverts less than bridge length shall not be paid for directly but shall be Subsidiary to the bid item Concrete (Grade 30) AE. Excavation for R.C. Box Bridges shall be paid for as Class III Excavation.

SEAL COURSE:
A Seal Course may be required by the Engineer. The Seal Course shall be unreinforced Concrete (Commercial Grade) to a minimum depth of 75 mm or as determined by the Engineer. Concrete for the Seal Course shall be paid for at the unit price set for Concrete for Seal Course.

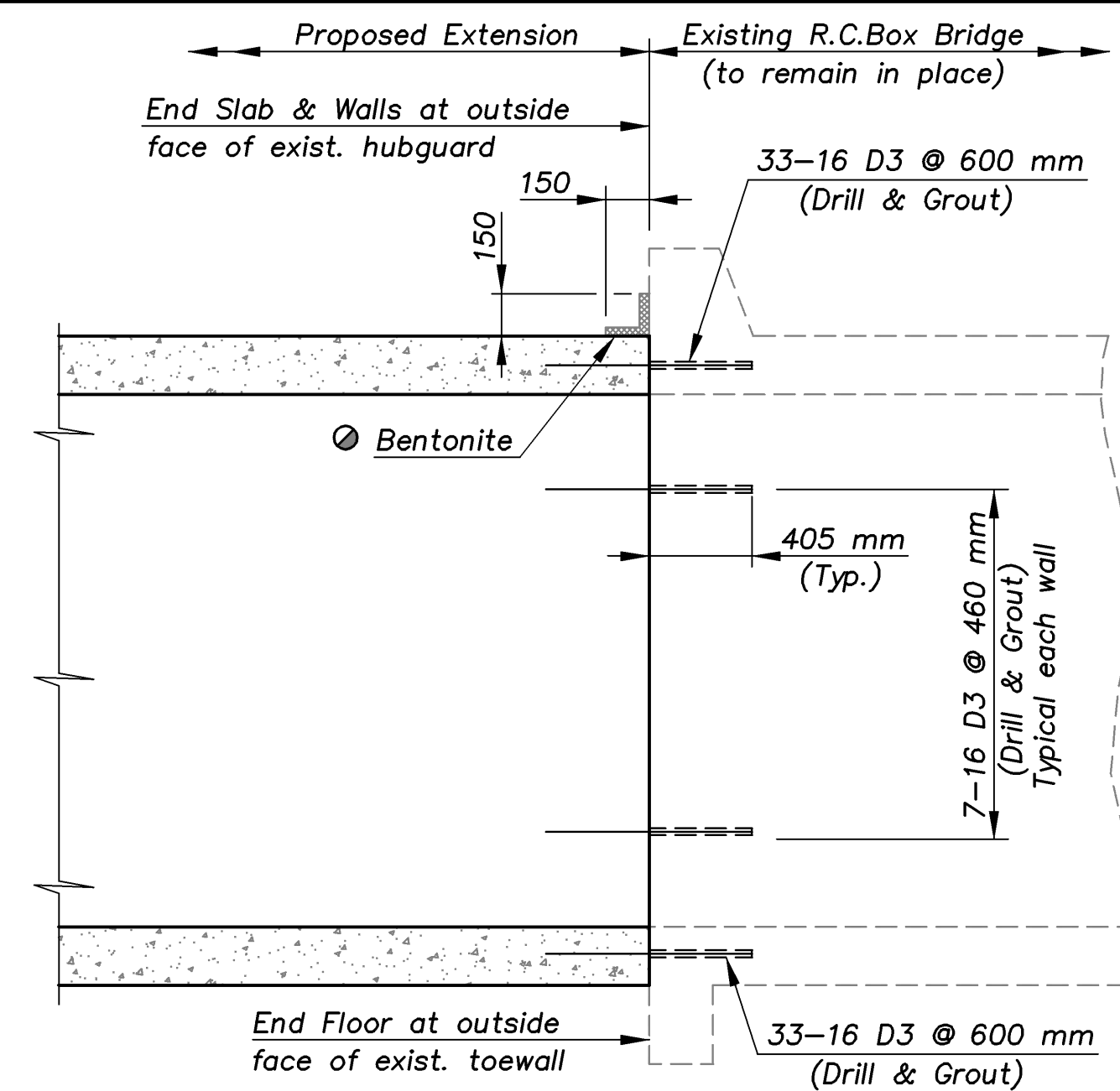
CONSTRUCTION JOINTS:
Construction Joints shown are optional, but if used shall be made at locations shown or approved by the Engineer.

FOUNDATION AND BACKFILL MATERIAL:
Soils judged as high plasticity clays, fat clays, expansive clays or organic clays are unsuitable for foundation and/or backfill material for the wingwalls and will not be used. Where these conditions exist, Foundation Stabilization and/or Granular Backfill (Wingwalls) shall be used as determined by the Engineer. See the "RCB Auxiliary Details" sheet for additional details.

STRIKE LINE:
Construct the wingwalls and that portion of the RCB outside the Strike Line level. Construct the wingwall footings with the culvert floor. See the wingwall detail sheet.

EXISTING DIMENSION VERIFICATION:
Dimensions shown, of the existing structures, are based on old plans. The Contractor shall verify, by field measurement, the as-built dimensions of the structures and submit such verification in writing to the Engineer prior to construction of the proposed R.C. Box Bridge Extensions.

TEMPORARY SHORING:
Sheet Piling shall be driven each side of the R.C. Box Bridge as shown, to maintain the integrity of the existing roadbed carrying traffic and to enable excavation for and construction of the R.C. Box Extension. Seven set of details showing the proposed location, length and cross-section of the piling and grade of material shall be submitted to the Engineer for review. The details shall bear the seal of a licensed professional Engineer.

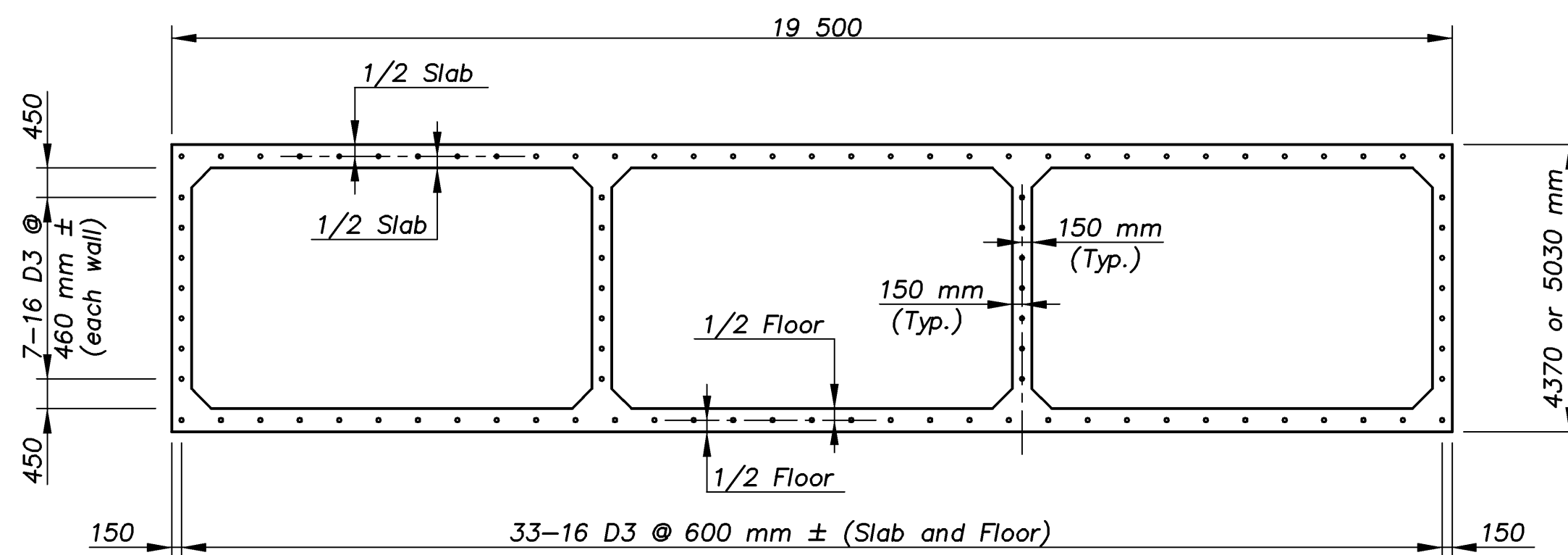


TYPICAL DOWELED EXTENSION

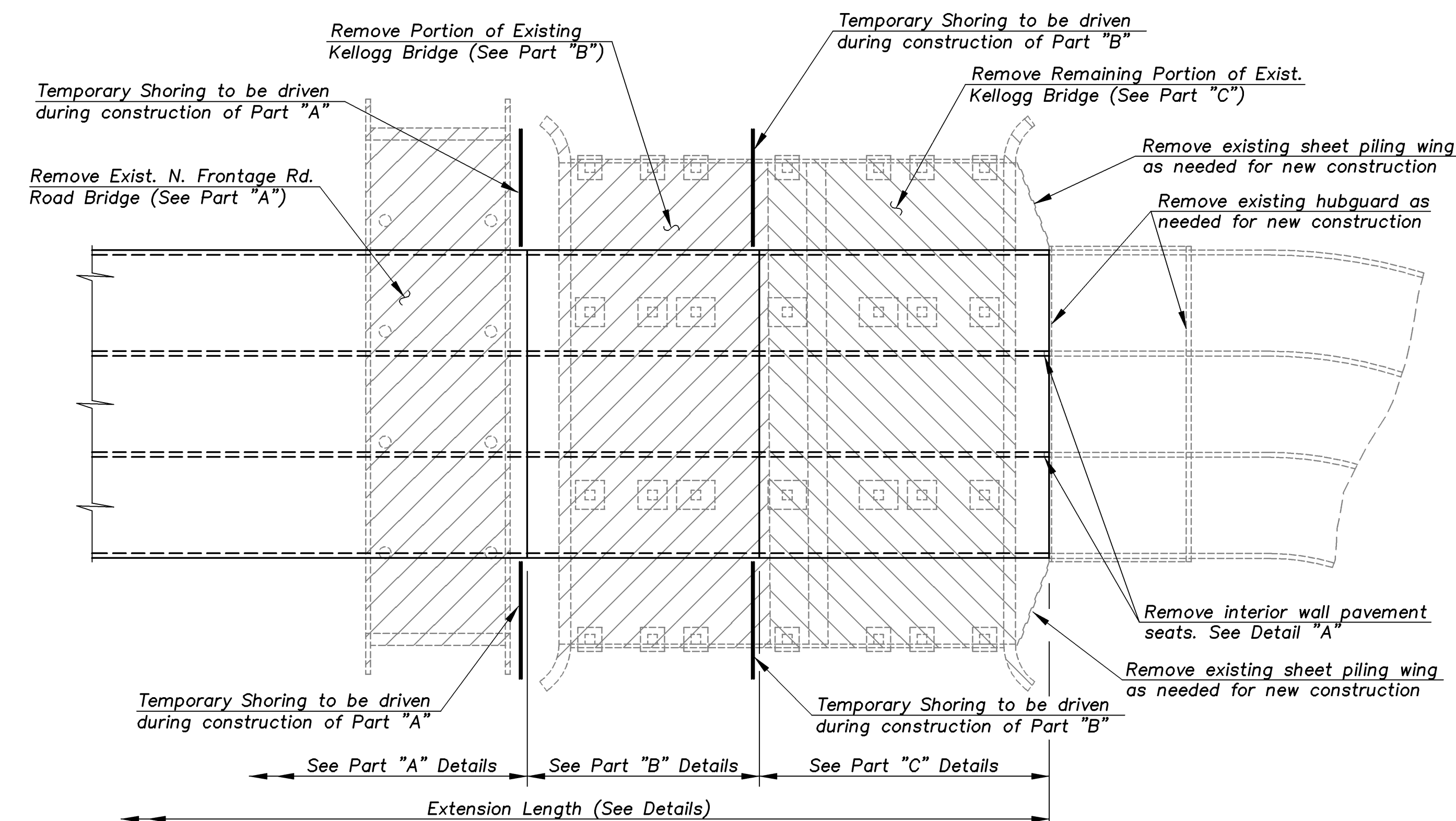
NOTE: The joint between the RCB Extension and the existing structure shall be protected by a bentonite based system as shown when the following conditions exist:

1. Fill depth over the joint is 600 mm or less.
2. Lateral location of the joint is 6.0 m or less from the edge of pavement.
3. R.C.B. span is equal to or greater than 2.4 m.

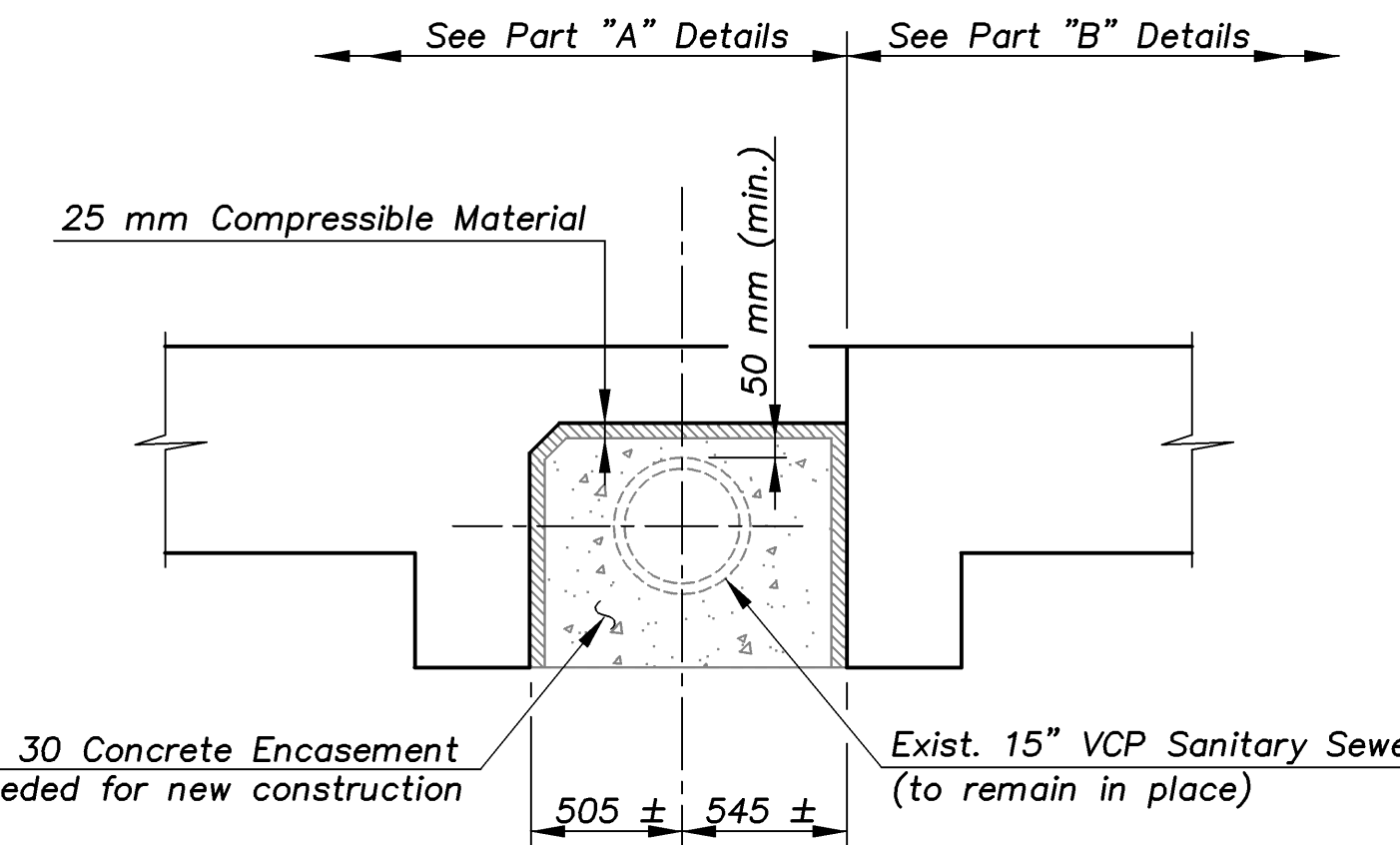
The bentonite shall be placed on the exterior walls and top slab and shall conform with the requirements of the Special Provision for "Bridge Backfill Protection System". All materials and labor required for this work shall be Subsidiary to the bid item Concrete (Grade 30) AE.



DOWEL BAR LAYOUT

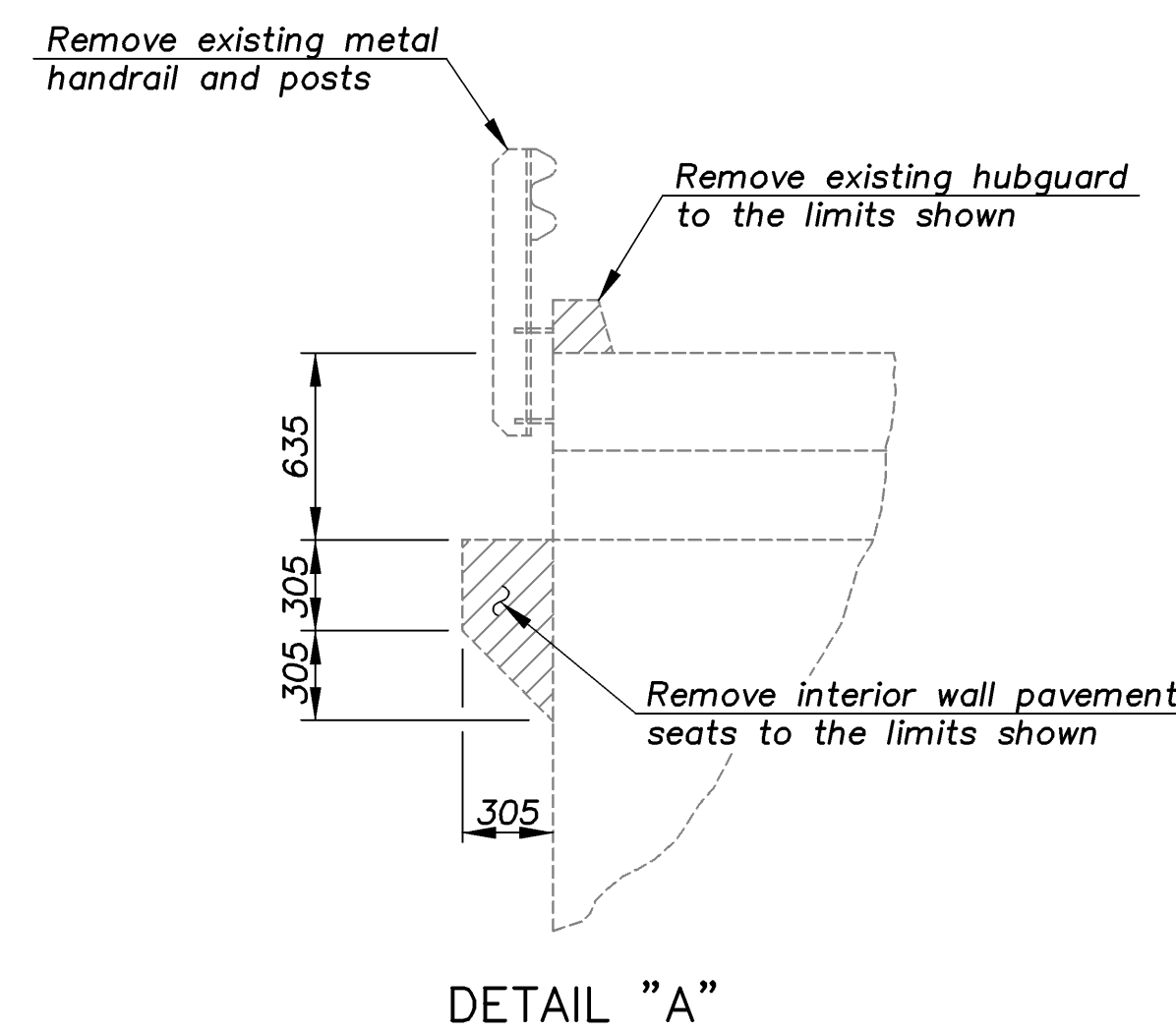


TYPICAL PLAN



CONCRETE ENCASEMENT DETAIL

All material and labor required to construct the encasement of the existing sanitary sewer shall be Subsidiary to the bid item "Concrete (Grade 30) AE".



DETAIL "A"

NOTE: Dimensions of existing structures shall be checked in the field prior to starting the new construction. Interior walls of multiple span box extensions need not be the same thickness as the existing walls.

All existing concrete surfaces adjacent to new concrete shall be thoroughly cleaned by brushing, and soaked with water immediately prior to placing the new concrete.

All work and material necessary for installing the dowel bars shall be Subsidiary to the bid item "Reinforcing Steel Grade 420". Grouting of bars shall meet the requirements of KDOT Standard Specifications.

Remove existing wall pavement seats as shown. Remove existing hubguard if necessary to clear new construction. Drill and Grout the 16 D3 bars into the walls, slab and floor of the existing box as shown on the plans. Butt the box extension against existing structure. This work shall be Subsidiary to the bid item "Concrete (Grade 30) AE".

KANSAS DEPARTMENT OF TRANSPORTATION		
BR. NO. 54-87-31.63(706)	STA. 4+689.738	
TRIPLE 6.1 x 3.7 m R.C.B. GENERAL NOTES & QUANTITIES		
DESIGNED R.S.C.	SCALE Varies	SHEET 1 OF 13
DETAILED T.R.G.	DATE	
QUANTITIES T.R.G.	SHEET	

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