



BID SPECIFICATION – PCC DRIVE REPLACEMENT

To: Matt Eastman
Director of Community Development
Village of Bolingbrook
375 W. Briarcliff Road

From: Clay Shipley, P.E.
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
Subject: BID SPECIFICATION
Fire Station No. 4
PCC Drive Replacement

Existing Conditions

It is the contractor's responsibility to verify existing conditions and accurately estimate PCC pavement removal and replacement.

The existing conditions photos can be viewed here: [2024.05.07 Photos](#).

Provided at the same link above is a record site plan from 1990 construction documents. The existing pavement design is clipped below.

PAVEMENT SECTIONS	
PARKING LOT	
	1.5" BIT CONC SURF CSE, CLI 1.5" BIT BINDER CSE 8" AGG BASE, CA6, GR9
	CONCRETE DRIVES
	7" REINF PCC PVMT W/4x4 4W/4W WWF 4" AGG SUBBASE, CA6, GR9
	CONCRETE SIDEWALK
	4" PCC REINF. SIDEWALK W 6x6 NO.6 WWF 4" AGG BASE, CA6, GR9

Proposed Improvement

Existing drives are in poor condition. Numerous joints have failed and are separated. Complete removal and replacement is recommended.

Proposed areas to be replaced is approximately 9,600 SF or 1,070 SY. It is the contractor's responsibility to verify existing conditions and accurately estimate PCC pavement removal and replacement

Proposed design

- ⇒ Reference ACI 330R-08 and ACI 330.2R-17
- ⇒ Traffic Category C – Table 3.3
- ⇒ AASHTO HS-20 Loading
- ⇒ Assume CBR minimum of 2.0
- ⇒ 20-Year Design = 7.5" PCC minimum – Table 3.4 (8" provided)Use



- ⇒ Use
 - 8" CONCRETE (F'C=4,000 PSI)
 - 5" COMPACTED CRUSHED STONE (CA-6)
 - COMPACTED SUBGRADE

- ⇒ Contraction joints
 - Sawed at max 15-foot spacing Table 3.5
 - Sawed 2" conventional
 - No joint sealant

- ⇒ Isolation (expansion) joints
 - At drive aprons
 - Around building and between trash enclosure slab and PCC pavement

- ⇒ Curb ties required. Saw through curb at all contraction joints to same level as pavement.

- ⇒ Blockouts in PCC pavement at storm structures (manholes)

- ⇒ Specification Notes
 - MIXTURE DESIGN TO COMPLY WITH IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 1020 FOR PCC PAVEMENT
 - CONTRACTOR SHALL PROVIDE A JOINTING PLAN FOR ENGINEER APPROVAL
 - CONTRACTOR SHALL PROVIDE APPROPRIATE JOINT TYPE AND LOAD TRANSFER IN ACCORDANCE WITH ACI 330.2R-17
 - ALL PAVEMENT STRUCTURE ELEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

End Bid Specification