

454 — CONCRETE DRIVE APPROACHES

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454.01 — Description. This item shall consist of the construction of concrete drive approaches of the type called for on the plans, constructed on a prepared foundation in accordance with these specifications and in conformance to the lines, grades and dimensions shown on the plans or established by the engineer.

Unless otherwise provided for by specific items in the bid schedule, this item will include the work necessary to remove existing drive approaches, the excavation to the required grade and removal of unsuitable foundation material and the furnishing and placing of backfill and base course materials.

See City of Blue Ash Standard Drawing No. 681 - Residential Concrete Apron Detail, and 682 — Commercial Concrete Apron.

454.02 — Materials. Base course materials shall be 6" of compacted ODOT 304. Concrete shall be Class C with between 5-8% air meeting the strength requirements of ODOT Item 499, Concrete — General. One-half inch (1/2") preformed expansion joint material shall conform to the requirements of ODOT item 705.03. Liquid white curing compound shall conform to ASTM C309 or AASHTO M-148, Type 2. Curing materials (burlap cloth, sheet materials/blankets) shall conform to ODOT items 705.05 and 705.06.

454.03 — Base Course Construction. Excavation shall be carried to the required grade and all soft or otherwise unsuitable material shall be excavated and backfilled with approved compacted material. Unless noted otherwise on the plans or special provisions, a base course at least 6 inches thick, or to the depth as shown on the plans, shall be placed and thoroughly compacted.

If suitable granular material in appropriate depths is encountered at the foundation elevation, the base course may be omitted with the approval of the Engineer/Inspector, but the materials shall be loosened, spread to the required grade and section and thoroughly compacted.

454.04 — Forming. Forms may be of metal or wood, but shall be of an approved section and of sufficient strength to retain their shape under pressure of the concrete.

Forms shall be securely staked to line and grade. Forms shall extend the full depth of the concrete.

454.05 — Placing and Finishing. Placing and finishing of concrete shall be in accordance with the applicable requirements of ODOT Item 451.06, Placing Concrete, and ODOT Item 451.09, Finishing. Thoroughly moisten the sub grade. Deposit concrete in a single layer. The sidewalk on either side of the approach shall be five (5) inches in thickness, except in walk areas through the approaches and curb ramps, where the thickness shall be increased to seven (7) inches for Residential drives, and nine (9) inches for commercial drives. The Approaches themselves shall be the same thickness, unless the Engineer deems it necessary to increase the thickness. Concrete should be screeded, bull floated, jointed, edged, bull floated again, broomed, jointed again, and edged again or as directed by engineer. Curb returns, when required by the drawings, shall be placed integrally with the drive approach.

454.06 — Joints. One-half inch (1/2") preformed expansion joint material shall be placed at junctions with curbs and sidewalks and at the property line when the drive approach is placed against an existing concrete drive. Expansion material shall extend the full depth of the concrete. Saw or form transverse control joints to a depth of not less than one-fourth the thickness of the slab and to a width of approximately 1/8" thick. Divide the surface of the walks going through the approaches into equally spaced rectangular blocks at approximately 5-foot intervals.

Contraction joints in drive approach shall constructed as shown on the plans or as directed.

454.07 — Curing. The concrete shall be cured in accordance with the provisions of ODOT Item 451.10, Curing.

454.08 — Measurement. The unit of measurement for "Concrete Drive Approaches" shall be the number of square feet of concrete drive approaches completed in place and accepted. When curb returns are constructed integrally with drives they shall be included in the measurement.

454.09 — Payment. The quantities measured as provided above, will be paid for at the contract unit price for each of the particular pay items listed below that are shown in the bid schedule, which price and payment shall be full compensation for furnishing all material and for all labor, equipment, tools and incidentals necessary to complete the item.

When an item of work is not specifically included in the bid schedule, the performance of that item will be considered a subsidiary obligation of the contractor, the cost of which is to be included in other items of the contract.

Item	Unit	Description
454	Square Feet	Concrete Drive Approaches (" Thick)

499 — CONCRETE - GENERAL

499.01 — Description

499.021 — General Specifications

499.01 — Description. This item shall consist of proportioning and mixing Portland cement concrete. This item shall meet the requirements of Item 499 of the ODOT Specification Book and in conformance with the lines, grades, thicknesses, and typical cross sections shown on the plans or established by the Engineer.

499.021— General Specifications. All concrete shall have a range of five to eight percent (5-8%) entrained air. Strength level of concrete shall be considered satisfactory if the average strength of the two specimens (cylinders) tested at 28 days and this average equals or exceeds 4,000 psi. All concrete not meeting the entrained air and/or strength requirements will be removed and replaced at the Contractor's expense, unless provisions for an extended guarantee are provided and accepted by the City herein.