APPLICATION FOR SIDEWALK GRADE AND PERMIT FOR SIDEWALK CONSTRUCTION, RECONSTRUCTION/REPAIRS

_____ 20 _____

(I) We) hereby make application to the City of Watertown, N.Y., for a sidewalk grade and line in front of premises

owned by **(me) (us)** at _____
with permission to use part of the area of the street outside of the curb line for the purpose of building a CONCRETE sidewalk.
Sidewalk is to be built according to standard specifications as issued with, and becoming a part of this permit.
Asphalt is NOT to be placed on sidewalks.

Accommodation grades for the purpose of building construction are approximate and are not to be used for the construction of permanent driveways or sidewalks. For driveways, the limits must be marked by the property owner and grades will be established accordingly. Accommodation grades on UNPAVED streets or streets not formally established by the City of Watertown Engineering Department are subject to change and are NOT guaranteed for purposes of permanent driveway or sidewalk work.

Work to be done by: ☐ Department of Public Works; ☐ Property Owner;

☐ Private Contractor _____

In consideration of the above privilege being granted, **(I) (we)** hereby covenant, promise and agree that **(I) (we)** will at all times while said street shall be used, or cause to be used, by **(me) (us)** for the purposes above stated, cause any obstruction or excavation therein to be *PROPERLY GUARDED* by day, and *GUARDED AND LIGHTED* by night, so as to prevent accident to the lawful users of said street and will *INDEMNIFY* and *SAVE HARMLESS* the City of Watertown for any and all liability which it may incur by reason of **(my) (our)** entry upon said street and in use thereof as aforesaid, from any accidents or damage resulting therefrom: and that **(I) (we)** will leave said street in the same condition as nearly as may be, as it was before such entry and use, and will keep the same at all times during such use free and open to public travel.

Failure to remove any obstruction placed or caused to be placed by **(me) (us)** in said street as aforesaid upon the expiration of this permit, or completion of the work, shall NOT relieve **(me) (us)** from any liability for any accident occurring thereafter and on account thereof.

By order of D.P.W., Order No. _____ ☐ Voluntary

Owner: _____ Address: _____

By: _____ _____

This permit is hereby granted and is not to extend beyond a period of days, but the actual time of doing the work shall not be longer than necessary. Concrete is not to be poured unless forms have been checked and approved by a representative as listed below, regardless of the number/length of blocks being constructed. At least twenty-four hours notice is to be given to field crew for grade or field checks.

DEPARTMENT OF ENGINEERING

By authority of the City Engineer; by: _____

☐ Final Construction Grades ☐ Accommodation Grade ☐ Driveway Grades ☐ No Grade Necessary

Length _____ Width _____ Grades By _____ Date _____

Remarks: _____

_____

CALL **AT** **TO CHECK FORMS.**

SIDEWALK SPECIFICATIONS

MATERIALS

CEMENT:

Cement shall be Air Entraining Portland Cement Type 1-A conforming to Serial Designation C150 of the American Society of Testing Materials, or later revision thereof.

FINE AGGREGATE:

Fine aggregate shall consist of a clean, sharp, coarse, washed sand; free from acids, silt, mud, organic matter or other deleterious materials.

COARSE AGGREGATE:

Coarse aggregate shall be crushed stone. Such stone shall consist of clean, durable, sharp angled fragments of rock free from thin or elongated pieces, soft or disintegrated stone, dirt, stone dust, or other deleterious materials. Stone shall be graded and of uniform quality throughout. Round washed gravel will not be allowed.

Coarse aggregate shall consist of a well-graded mixture of commercial size crushed stone; No. 1, No. 2 and No. 3-A.

CONCRETE:

Concrete for sidewalks shall be made from Portland cement, fine aggregate, and coarse aggregate, conforming to specifications hereinbefore listed.

Concrete shall be mixed in the following proportions:

1 part Portland cement
2 parts fine aggregate
3 parts coarse aggregate

Concrete shall be mixed with clean water, free from mud, oils, grease, or other deleterious matter. The amount of water used per batch shall be the minimum amount necessary to produce a concrete of workable consistency and in general shall be 5 ½ gallons per sack of cement used. The amount of water used shall be such that in no batch shall the slump be less than 2" or more than 4".

Ready-mix concrete will have a minimum compressive strength of 5000 psi.

Retempering or remixing of concrete, with or without additional cement, aggregates or water will not be permitted.

GRAVEL OR CRUSHER RUN FILL:

Gravel used for fill where necessary to bring the sidewalk up to proper grade shall consist of clean bank run gravel, free from vegetable matter or fiber. All gravel shall pass a 1 inch square mesh.

EXPANSION JOINTS:

Expansion joints shall be of the premolded type and not less than ½" thick. The joint filler shall consist of cane or other long fibers of a cellular nature, uniformly impregnated with asphalt. The asphalt content shall be between 35 and 50 percent by weight.

CONSTRUCTION

MIXING CONCRETE:

All concrete shall be machine mixed or transit mixed. Transit mixing shall conform to the requirements for transit mixed concrete as described in Serial Designation C94 of the American Society of Testing Materials, or later revision thereof.

Truck mixing at the plant or in transit. If mixing is to occur at the plant or in transit, a minimum of 90 percent of the design water shall be added to the batch either from the plant water supply or the water supply carried by the truck. Mixing shall begin at the plant not more than 5 minutes after cement has made contact with the aggregates. The load shall be mixed from 70 to 100 drum revolutions and then checked for consistency. If the truck is enroute to the project when such revolutions are met, the mixer speed shall be changed to agitating speed. Under no circumstances shall the mixer drum be stopped.

Water may be added to the mixture within the limitations of the specified W/C ratios in not more than two additions at the point of deposition before discharge to obtain initial slump. After each such addition, the concrete shall be mixed at least 30 revolutions in the mixing speed range. The total number of revolutions in the mixing range shall not be less than 100 or more than 160. After completion of mixing, discharging may begin immediately; otherwise the mixer shall be revolved at agitating speed. Once discharge has commenced, the entire load shall be discharged in not more than 50 minutes. Concrete shall be discharged through a completely opened discharge gate providing unrestricted flow. The discharge area or gate shall remain fully open throughout the discharge period and the rate of discharge shall be controlled by the speed of the drum. The total time interval from the moment the cement makes contact with the aggregates to the completion of discharge shall not exceed 90 minutes for structural concrete placements and 75 minutes for pavement concrete placements. The Engineer may increase the allowable time under unusual circumstances or may reduce the total time limit in hot weather or under unusual conditions if unsatisfactory results are obtained.

Mixing at the Construction Site. If the time limits specified cannot be consistently achieved by mixing at the plant or in transit, concrete shall be mixed completely in the truck mixer following the addition of the mixing water at the point of deposition. The above requirements for truck mixing at the plant or in transit shall apply except as modified by this section.

Trucks shall be loaded first with coarse and fine aggregates and admixtures during which time the drum may be revolved or rocked. Cement shall be added last and the drum shall remain stationary after the cement is added until water is added at the project site.

Mixing shall begin at the project site after the addition of water and shall continue for a minimum of 100 revolutions or until a uniform mix has been produced. Mixing time shall not exceed 15 minutes.

The entire load shall be discharged within 30 minutes after mixing has been completed and no more than 90 minutes after the time that the cement first comes in contact with the aggregates at the concrete plant.

PLACING CONCRETE:

Before pouring, all hardened concrete and other foreign materials shall be removed from the space between the forms. All forms, unless oiled, shall be thoroughly wetted. The subgrade shall also be thoroughly wetted.

The concrete shall be conveyed from the mixer to the forms as rapidly as possible and by such methods which will prevent the separation or loss of ingredients. If conveyed by chuting, the angle of the chute with the horizontal shall be such as to allow the concrete to flow without separation. The end of the chute shall be as close as possible to the point of deposit.

Concrete shall be placed in the forms as near to the final position as possible in order to avoid rehandling.

FORMING:

Forms for concrete sidewalks shall be set to the line and grade as established by the Engineer.

Forms shall be set so as the finished slab shall pitch toward the street ¼" per foot of sidewalk width.

In general, walks 4' wide shall be 4" thick; 5' wide – 5" thick; 6' wide – 6" thick. The entire thickness shall be made in one monolithic pour. This pour shall be reinforced with 6" x 6" 6/6 gauge wire mesh fabric. It shall be placed mid-depth in concrete in driveway areas.

The type of form used, whether metal or wood, shall be of proper dimensions to provide the required depth for the full width of the slab. Wood forms shall be of sound lumber, free from knotholes, loose knots or other defects. Dressed 2" x 4" will not be allowed. Full dimensions must be maintained.

Forms shall be properly anchored and braced to prevent any movement or bowing of the forms during pouring.

Expansion joints of the type previously specified shall be placed along all curbs or structures, and transversely across the slab at each property line as determined by the Engineer. Joints shall extend for the full depth of the slab.

Dividers shall be placed so as to produce a transverse joint for the full depth of the slab at intervals of a maximum of 16 feet for 4 foot wide walks, and 20 feet for 5 foot wide walks. Dividers shall be of the same material as the side forms and shall produce a smooth surface for the full depth of the slab. Dividers are not to be removed until the concrete has hardened. After the dividers have been removed and before the next adjoining section of walk is poured, one thickness of tarpaper shall be placed between the finished slab and the new poured concrete.

In addition, transverse control joints shall be scored on the surface of the walk at 4 foot intervals for 4 foot wide walks and at 5 foot intervals for 5 foot wide walks. Scoring shall be done with an approved edging tool of ¼ " radius.

At locations where the city lighting cable is beneath the sidewalk, a dummy joint shall be placed as ordered by the Engineer. Also, 2" ducts shall be placed across all driveways where such lighting cable is involved. Ducts shall be placed according to City specifications and at the owner's expense.

SURFACE FINISH:

The surface of concrete sidewalks shall have a wood float or light broom finish. Care shall be taken that the surface is not over floated. All edges and joints shall be finished with an approved edging tool of ¼" radius.

CURING:

Curing shall be either NYSDOT Standard Specification Section 711-01, "Waterproof Paper Blankets;" Section 711-04, "Polyethylene Curing Covers;" or Section 711-05, "Membrane Curing Compounds." If the above blankets or cover methods are used, after curing is complete, the concrete shall be sealed with an approved chlorinated rubber base curing and sealer, Euco Floor Coat as manufactured by the Euclid Chemical Company, Sonneborn Kure-N-Seal, Thompson Water Seal, or equal. The sealer to meet or exceed ASTM Specification C-309 Type 1D. If "Membrane Curing Compound" (NYSDOT Section 711-05) is used, it shall be combined with one of the above named or equal sealer products. Membrane curing and sealing compounds may be either clear or white colored. The selection of materials and methods shall provide protection from freezing temperatures. Concrete shall be kept covered and free of vehicles for at least five (5) days. Membrane curing and sealing compounds shall be applied in accordance with manufacturer's instructions.

SUBGRADING:

Subgrading work shall be done as follows: In areas where it is necessary to cut down the existing ground, the sidewalk may be poured directly on the undisturbed soil. In areas where it is necessary to fill under the slabs, gravel fill, as hereinbefore specified, shall be used. Gravel fill shall be placed in 4 inch layers and thoroughly tamped.

FINISH GRADING & SEEDING:

After the sidewalk is poured and the forms removed, the ground on each side of the walk shall be graded to the satisfaction of the Engineer. In general, this will involve cutting away or filling the area between the sidewalk and street or curb to provide for an even slope; also, cutting away or filling the area in back of the sidewalk to a slope not to exceed 2 horizontal to one vertical. The top 3" of any fill necessary shall be of an approved topsoil. All areas, whether cut or fill, shall be seeded with an approved grass seed and mulched.

In areas where there is a master plan or City streetscape plan, replacement and new development work on sidewalks shall be in compliance with said plan.