CITY OF BIRMINGHAM
ENGINEERING DEPARTMENT

151 Martin Street, P.O. Box 3001
Birmingham, Michigan 48012-3001
(248) 530-1850

SIDEWALK & DRIVE APPROACH PERMIT APPLICATION

CHECK ALL THAT APPLY:

____ SIDEWALK
____ DRIVE APPROACH
____ CURB CLOSING
____ CURB CUT

PERMIT TO CONSTRUCT, OPERATE, USE AND/OR MAINTAIN WITHIN THE RIGHT-OF WAY
This form acts as an application for the permit and upon approval becomes the final permit for the work described herein.
PERMIT VOID AFTER SIX MONTHS

DO NOT WRITE IN THIS BOX

Permit No. _____

Insurance Attached: _____

_____ hereby makes application for a permit to
Applicant's Name (Please print)

CONSTRUCT concrete or asphalt flatwork on a City of Birmingham ROAD within the part of the right-of-way under the jurisdiction of the City of Birmingham described as follows:

Address: _____ Owner: _____

Owner Email: _____

By providing your e-mail to the City, you agree to receive news and notifications from the City. If you do not wish to receive these messages, you may unsubscribe at any time.

Is the proposed work within the Central Business District? ☐ YES ☐ NO

Will there be surface work performed on private property? ☐ YES ☐ NO

If YES, please describe _____.

Are there trees within 6 ft. of proposed drive approach? ☐ YES ☐ NO ☐ N.A.

FEE CALCULATION: FEE:

Sidewalk: _____ sq. ft. @ 50¢ = $_____ **($50 minimum)**

Drive Approach: _____ each @ $50.00 = _____

Curb Cut/Removal: _____ lin. ft. @ $5.00 = _____ **($50 minimum)**

Curb Closing/New Curb: _____ lin. ft. @ $5.00 = _____ **($50 minimum)**

TOTAL $_____ **($100 minimum)**

FORM/GRADE INSPECTION REQUIRED FOR ALL WORK ON PUBLIC PROPERTY PRIOR TO PLACING OF CONCRETE/ASPHALT
CALL THE CITY INSPECTION LINE TO SCHEDULE INSPECTIONS AT LEAST 24 HOURS IN ADVANCE - (248) 530-1860.

This license/permit/lease agreement shall in all circumstances, regardless of any other potential action in law, maintain the City's public property in the City's rightful and legal ownership and possession for all times and the licensee/permittee/lessor accepts, acknowledges, and agrees to the City's sole rights in its public property and agrees to always accept and never interfere with the City's rights in its public property.

I hereby apply for the above described permit and agree to comply with all the terms and conditions on the back of this permit, and the requirements of the ordinances of the City. No materials other than standard broom finished concrete shall be used on City sidewalks, unless specifically approved as a part of this permit.

Applicant's Signature: _____ Date: _____

Applicant Address: _____

City: _____ State: _____ Phone #: _____

The application as requested above is hereby approved, subject to the conditions on back. The obligation to operate, use and/or maintain the facility to the satisfaction of the City of Birmingham remains in force as long as the facility exists and is within the right-of-way under the jurisdiction of the City of Birmingham.

Not valid until stamped paid by City Treasurer. Approved By _____ Date: _____
Engineering Department

Revised 1/2024

SKETCH PROPOSED WORK HERE (include dimensions, ex. trees, pavements, curb cuts, obstacles, etc.)

GENERAL TERMS & CONDITIONS

1. Secure an approved permit from the City prior to the commencement of construction or maintenance operations. If a contractor is to perform the work detailed in this application, he shall assume responsibility along with the party of whom he has been retained, for any provisions of this application that apply to him.
2. All construction proposed under this application shall meet all requirements of the City.
3. Save harmless, indemnify, defend and represent the City against any and all claims arising out of or related to the creation, operation, use of continuing existence of the facility covered by the permit or for any other work done within City right-of-way whether or not specifically authorized, or in conformance with the description of activities for which the permit was issued. Applicants agree and understand that the obligations set forth herein are binding upon their successor, transferor, assigns, sureties and guarantors.
4. In rights-of-way with non-permanent pavements, surrender all rights hereunder, cease operations, and remove, alter, relocate at applicant's own expense whenever ordered to do so by the City, because of the need for the area covered by this permit for public uses and/or improvements.
5. The permit does not relieve the applicant from meeting any applicable requirements of law or other public bodies or agencies.

CONSTRUCTION SPECIFICATIONS

GENERAL

1 REFERENCES

A. Unless otherwise specified, all materials shall conform to the latest edition of STANDARD SPECIFICATIONS FOR CONSTRUCTION, adopted by the Michigan Department of Transportation.

B. All sidewalk and ramp shall meet ADA requirements for slope, surface finish, width, and all other requirements.

MATERIALS

2 CONCRETE

A. The concrete mixture shall meet the requirements of MDOT Mixture 3500, with 3,500 PSI minimum compressive strength, and utilize 6AA coarse aggregate and Type 1A Portland Cement.

B. The concrete mixture supplied shall conform to the requirements for resistance to alkali-silica reactivity (ASR).

C. Admixtures shall be used only when specified or authorized by the City.

D. The City reserves the right to make air and slump tests on any or all loads of concrete supplied to the job prior to placing the concrete in the grade. Concrete shall not be placed on the grade until such tests have been completed and approved by the City Inspector. Concrete not meeting the specifications will be rejected. Re-tempering of rejected concrete for re-use on the job will not be allowed.

E. Water shall not be added to the concrete at any time without specific permission by the City Inspector.

3 TRUNCATED DOMES / DETECTABLE WARNING

A. Truncated Domes / Detectable Warning shall be manufactured of cast iron, and shall at a minimum have the following properties:

Slip Resistance (ASTM C-1028):	1.10 Dry / 1.06 Wet
Wear Resistance (ASTM C-501):	7333
Impact Resistance (ASTM D-1709)	>238 Newtons
Adhesion to Concrete (Bond Strength ASTM D-482)	>5000 lbs
Tensile Strength (ASTM A-48)	35,000 PSI

B. Truncated Domes / Detectable Warning shall be supplied with a natural finish. Black asphalt dip finish is acceptable as well, as long as all of the detectable warning plates at each intersection (all corners) that are constructed as a part of the work have the same finish.

C. Truncated Domes / Detectable Warning shall be supplied at each sidewalk ramp in accordance with ADAAG and/or MDOT requirements, whichever is more stringent.

D. Truncated Domes / Detectable Warning shall be at least two (2) feet deep along the direction of travel. The detectable warning plate width shall generally be five (5) feet, unless otherwise specified on the drawings or in the field by the Engineer. Radial plates may be used where called for on the drawings, or in the field by the City Inspector.

E. Truncated Domes / Detectable Warning shall be manufactured by East Jordan Iron Works, or approved equal.

4 FORMS

A. Forms shall be of metal or wood, and of an approved section. Materials, other than metal or wood shall not be used for forms, unless specifically authorized by the City Inspector.

B. Forms shall be straight, free from distortions, and shall show no vertical variation greater than one-eighth (1/8) of an inch in ten (10) foot lengths from the true plane surface on the top of the forms when tested with a ten (10) foot straight edge, and shall show no lateral variations greater than one-quarter (1/4) of an inch from the true plane surface on the vertical face of the form when tested with a ten (10) foot straight edge.

CONSTRUCTION

4 PREPARATION

A. If removal and replacement of the existing sidewalk is specified in the plan, the Contractor shall remove the existing sidewalk to the extent shown on the plans, or as directed by the City Inspector in the field.

B. During removals and construction, Contractor shall protect all adjacent sidewalks, pavement, curb and gutter, and drive approaches from damage. Any adjacent infrastructure that is damaged by the Contractor during construction shall be replaced by the Contractor.

C. The subgrade shall be formed by trenching or filling to the required elevation for bottom of concrete, or to bottom of subbase, if a subbase is specified. All sod and vegetative matter shall be stripped from the subgrade.

D. The subgrade after grading shall be thoroughly tamped or otherwise compacted, to insure its stability. Any soft, spongy or otherwise unstable areas in the subgrade shall be removed and replaced with granular fill.

E. In cuts, the subgrade shall be made sufficiently wide to permit the proper placing of forms, and in fills, the subgrade shall be made at least one (1) foot wider on each side than the required width of sidewalk.

F. All fills shall be of granular material, and shall be placed in thoroughly compacted layers not to exceed six (6) inches in depth. Compaction shall be accomplished by the use of mechanical equipment or hand tamps with metal bases.

G. Existing sidewalks or paved areas under proposed sidewalks shall be removed, except where grade will allow at least two (2) inches of granular fill to be placed over them.

5 SIDEWALK THICKNESS

A. Unless otherwise noted on the drawings, sidewalks shall be at least four (4) inches thick, except at ramps and across driveways plus five (5) feet on each side, where they shall be at least six (6) inches thick.

6 DISPOSAL OF WALK AND EXCAVATED MATERIALS

A. The old walk, after removal, and excavated materials shall be disposed of by the Contractor at his own expense.

7 PREPARATION OF SUBGRADE

A. The subgrade shall be formed by trenching or filling to the required elevation for bottom of concrete, or to bottom of subbase, if a subbase is specified. All sod and vegetative matter shall be stripped from the subgrade.

B. The subgrade after grading shall be thoroughly tamped or otherwise compacted, to insure its stability. Any soft, spongy or otherwise unstable areas in the subgrade shall be removed and replaced with granular fill.

C. In cuts, the subgrade shall be made sufficiently wide to permit the proper placing of forms, and in fills, the subgrade shall be made at least one (1) foot wider on each side than the required width of sidewalk.

D. All fills shall be of granular material, and shall be placed in thoroughly compacted layers not to exceed six (6) inches in depth. Compaction shall be accomplished by the use of mechanical equipment or hand tamps with metal bases.

E. Existing sidewalks or paved areas under proposed sidewalks shall be removed, except where grade will allow at least two (2) inches of granular fill to be placed over them.

8 PROTECTION OF TREES

A. Where a tree is less than twenty-four (24) inches from the existing walk, or at the City's discretion, the Contractor may be required to curve the walk around the tree, maintaining the full width of the walk through the curve. The Contractor shall cut and remove all tree roots that are in the sidewalk grade. Merely shaving the roots in order to place the sidewalk at proper grade and thickness will not be acceptable.

9 BARRICADES AND LIGHTS

A. Barricades shall be placed where sidewalks under construction join sidewalks or driveways which are open for use.

10 FORMS

A. Forms shall be of metal or wood, and of an approved section.

B. Forms shall be straight, free from distortions, and shall show no vertical variation greater than one-eighth (1/8) of an inch in ten (10) foot lengths from the true plane surface on the top of the forms when tested with a ten (10) foot straight edge, and shall show no lateral variations greater than one-quarter (1/4) of an inch from the true plane surface on the vertical face of the form when tested with a ten (10) foot straight edge.

11 FORMING

A. Forms must be used for all edges of all sidewalk construction. Where proposed walk abuts existing concrete, and the edge of the existing concrete is true to line and grade, the existing concrete, with or without expansion paper, will be considered a form for the new sidewalk.

B. Forms shall be installed true to line and grade established by the City Inspector. They shall be adequately staked and braced to remain on line and grade during the placement of concrete.

C. Walk shall pitch to the center of the street at the rate of one-quarter (1/4) inch per foot of width, unless otherwise provided. Forms shall be of the full depth specified for the walk.

D. Before placing concrete, forms shall be thoroughly cleaned and oiled.

12 PLACING AND FINISHING CONCRETE

A. Before beginning a run of concrete, all hardened concrete or foreign material shall be completely removed from the inner surface of the mixer and conveying equipment. Before depositing any concrete, all debris or other foreign matter shall be removed from the space to be occupied by the concrete.

B. The subgrade shall be thoroughly wetted and the concrete shall be deposited thereon to the proper depth. So called “two course” pouring will not be permitted. Concrete shall be handled from the mixer to the place of deposit as rapidly as possible and by methods which will prevent separation of the ingredients. The concrete shall be deposited directly into the forms as nearly as possible in its final position, so as to avoid re-handling. The piling up of concrete in the forms will not be permitted. No concrete which has partially hardened shall be deposited in the work.

C. Concrete shall be worked into all the recesses and corners of the forms by means of thorough spading of an approved method or mechanical vibration.

D. When the air temperature falls to 40°F and is dropping, no concrete shall be placed. Pouring may be started when the temperature is 35°F in the shade, away from artificial heat, and is rising. All concrete during curing shall be protected from freezing by straw, hay or tarpaulins, for not less than seventy-two (72) hours after pouring.

E. No concrete shall be poured on a frozen, dry or uncompacted subgrade.

F. The concrete shall be alternately tamped and struck off with a strike board until all voids are removed and the surface has the required grade and cross section. The strike board shall be long enough so it can always be in contact with both forms. The surface shall be floated with a wood or aluminum float, followed by a steel float, just enough to produce a smooth surface free from irregularities. All edges and joints shall be rounded to a radius of one-quarter (1/4) inch with an approved finishing tool. The surface shall then be brushed to slightly roughen the surface and remove the finishing tool marks.

G. The end of a run of concrete shall not remain unformed for more than one-half (1/2) hour, by which time a header form shall be placed. If a header is not placed, the concrete shall be removed back to the last transverse joint prior to continuing the pour. Headers, when used, shall not vary more than six (6) inches in location from the normal transverse joint location.

13 JOINTS

A. Joints shall be constructed true to line, with their faces perpendicular to the surface of the sidewalk, and shall not vary more than one-quarter (1/4) inch from their designated position. Transverse joints shall be constructed at right angles to the centerline of the sidewalk, and longitudinal joints shall be constructed parallel to the centerline, unless otherwise required.

B. When the sidewalk is constructed in partial width slabs, transverse joints in the succeeding slab shall be placed in line with like joints in the adjacent slab. In the case of widening existing sidewalks, transverse joints shall be placed in line with like joints in the existing sidewalk.

C. The concrete at the faces of all joints shall be thoroughly spaded and compacted to fill all voids, and the surface shall be finished smooth and true to grade.

D. Expansion Joints - Expansion joints shall be of the pre-moulded non-extruding bituminous fiber filler type.

E. In new sidewalk, one-half (1/2) inch thick expansion joints shall be placed at intervals of not more than fifty (50) feet. In repairing existing sidewalk, at least one and one-half (1 1/2) inch expansion joints shall be used in the repair, unless existing expansion joints are less than thirty (30) feet on either side of the repair.

F. One-half (1/2) inch thick expansion joints shall also be placed at junctions with sidewalks, drives, buildings and other rigid structures. Three-quarter (3/4) inch thick by five (5) inch expansion joints shall be placed at all curb junctions and also between sidewalk and abutting parallel curb or gutter.

G. Contraction Joints - Insofar as feasible, joints shall be spaced at intervals equal to the width of the walk and with maximum transverse and longitudinal intervals of ten (10) feet. Joints shall be produced by use of slab division forms extending the full width and one-half (1/2) the depth of the walk. The joints shall be of not less than one-eighth (1/8) inch, nor more than one-quarter (1/4) inch in width, and shall be finished smooth and true to line.

H. Slab division forms shall remain in the concrete a sufficient length of time to insure permanent separation of the concrete.

14 WHITE MEMBRANOUS CURING

A. After finishing operations have been completed, and immediately after the free water has left the surface, the surface of the sidewalk shall be completely coated and sealed with a uniform layer of white membranous curing compound.

B. The compound shall be applied in a continuous uniform film by means of mechanical pressure sprayer equipment at a rate of not less than one (1) gallon per two hundred (200) square feet of surface. The equipment shall provide adequate stirring of the compound during application. The equipment for applying the compound must be approved by the Engineer before work is started.

C. If the compound is too thick for satisfactory application during cold weather, the material may be warmed in a water bath at temperatures not over 100°F. Thinning with solvents will not be permitted.

D. If rain falls on the newly coated sidewalk before the film has dried sufficiently to resist damage, or if the film is damaged in any other way, the Contractor will be required to apply a new coat of material to the affected areas equal in curing value to that specified for the original coat.

15 SIDEWALK RAMPS

A. Sidewalk ramps shall be constructed in accordance with these Concrete Sidewalk Construction Specifications, and in accordance with MDOT Standard Detail R-28, latest edition.

B. Surface texture of ramps shall be that obtained by a coarse brooming, transverse to the slope of the ramps. The normal gutter line profile shall be maintained through the area of ramps.

C. Each ramp shall include a Truncated Domes / Detectable Warning installed at the back of the curb. The Truncated Domes / Detectable Warning shall generally be five (5) feet wide by two (2) feet deep. If that is not possible given the site constraints, then they shall be at least as wide as the existing adjacent sidewalk. Radial Truncated Domes / Detectable Warning plates may be required in some locations.

16 REMOVAL OF FORMS

A. Forms shall not be removed from freshly placed concrete until it has set for at least twelve (12) hours. They shall be carefully removed, and in such a manner that no damage will be dont to the edge of the sidewalk.

17 PROTECTION OF EXISTING LAWNS

A. The Contractor shall use extreme care while replacing existing sidewalks or constructing new sidewalks in existing lawns not to damage the lawns. The Contractor shall remove a maximum of six (6) inches of sod beyond the edges of the sidewalk. He shall remove the sod after cutting it with a square nosed shovel on a parallel line to the sidewalk.

B. The Contractor shall protect existing lawns at all times during his work. Equipment or vehicles will not be permitted on established lawns. The Contractor will be held responsible for all damage to lawns more than six (6) inches away from sidewalk construction. Sod and other excavated materials shall not be placed on existing lawns.

18 CONSTRUCTION AT PAVED DRIVEWAYS

A. Sidewalk Replacement at Concrete Driveways

1. The existing sidewalk shall be removed without damaging the driveway. Expansion joints shall be replaced along each edge of the sidewalk, and the sidewalk shall be replaced using the expansion paper at the drive as forms.

B. Sidewalk Replacement at Asphalt Driveways

1. The existing sidewalk, and a maximum of four (4) inches of asphalt on each side of the sidewalk, shall be removed without damaging the rest of the drive. A neat joint shall be cut in the asphalt prior to removing the sidewalk. The sidewalk shall be formed across the driveway. Wood forms may be used in such locations. Upon completion of the sidewalk construction, the Contractor shall place road gravel and asphalt in the form excavations.

2. Where an asphalt driveway is in good condition and at a suitable grade, the City Inspector may direct that the sidewalk be removed and replaced without removing a portion of the driveway. In such case, the Contractor shall use caution to avoid damage to the asphalt. Also, the Contractor will not be required to set forms. The Contractor should avoid getting cement on the surface of any asphalt drive.

C. New Sidewalk at Concrete Driveways

1. The Contractor shall saw cut and remove that portion of the driveway necessary to be removed to construct the sidewalk, and necessary to be removed because of grade. The sidewalk shall be formed across the driveway, and following the removal of the forms, the remaining portion of the driveway removed shall be replaced.

D. New Sidewalk at Asphalt Drives

1. The Contractor shall cut neat joints in the asphalt at locations determined by the City Inspector. The Contractor shall remove the asphalt between the neat joints, shall form the sidewalk across the drive, and following the removal of the forms, shall fill the form excavations with road gravel and asphalt.

19 CONSTRUCTION AT UNPAVED DRIVEWAYS

A. The Contractor shall backfill the form excavation across unpaved drives with the same type.

20 FINAL GRADING

A. For new sidewalk construction, the Contractor shall grade to a uniform slope from the top of the walk to top of the curb, and from the walk to the property line. In the event there is no curb, grading shall be done for a distance of 10 (ten) feet towards the centerline of the street to the existing grade. If this provision should involve destroying or re-grading established lawns and parkways, the Contractor shall confer with the City Inspector before starting such grading.

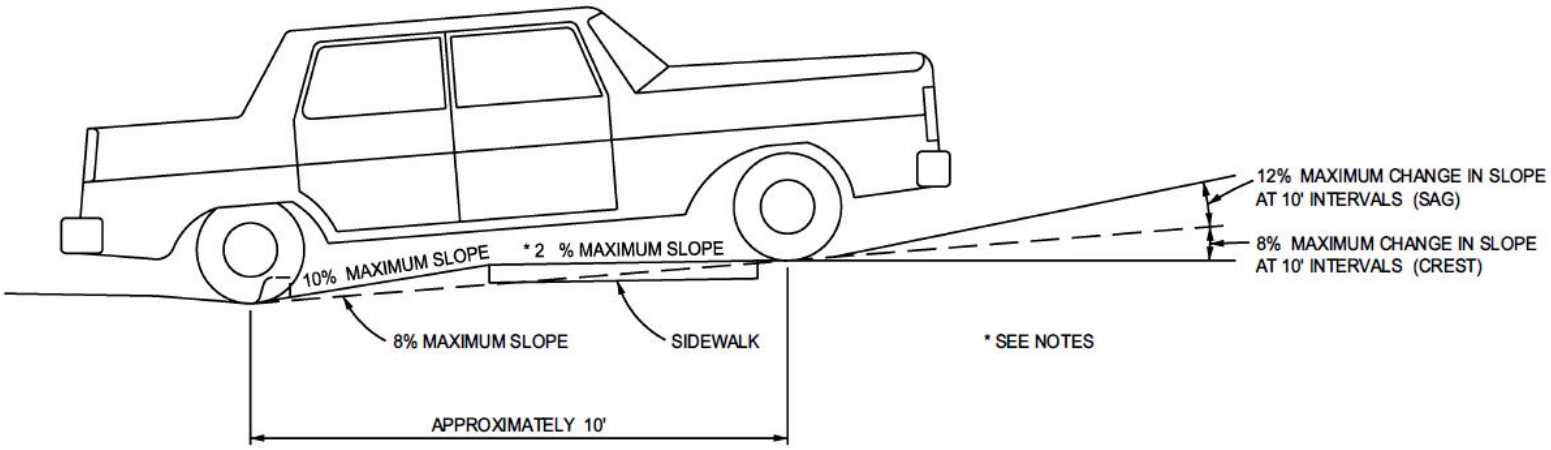
B. Grading and clean-up work shall be done as soon as possible following the completion of any section of sidewalk, and in no case shall more than two (2) consecutive days (excluding Sundays and holidays) elapse from the time any section of sidewalk is placed until the adjacent grading and clean-up is completed.

C. In establishing lawns, the Contractor shall place a minimum of two (2) inches of topsoil in all form excavations and on all re-graded areas. The topsoil shall be tamped and graded, and then seeded with grass seed. Clean excavated material may be used to fill under the required topsoil. Topsoil and seed used shall be of a high quality and approved by the Engineer. Topsoil shall be free of sticks, stones, clumps of clay, debris and similar materials.

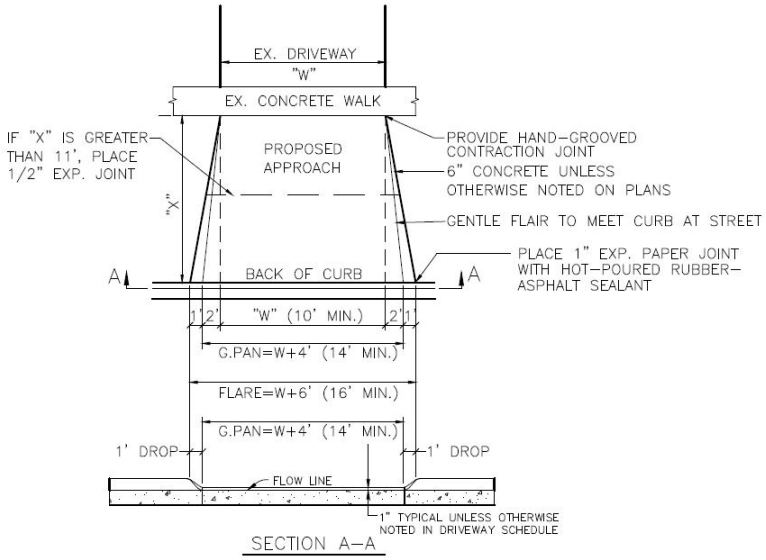
21 INSPECTION

A. 24 hours notice must be provided prior to commencing activity. The inspection required will be dependent upon the type of work proposed. Pavements shall be inspected when all forms are in place and the sub grade is graded and compacted.

The work approved under this permit may be stopped by the City Engineer for any causes enumerated in the ordinances of the City as found on www.ci.birmingham.mi.us



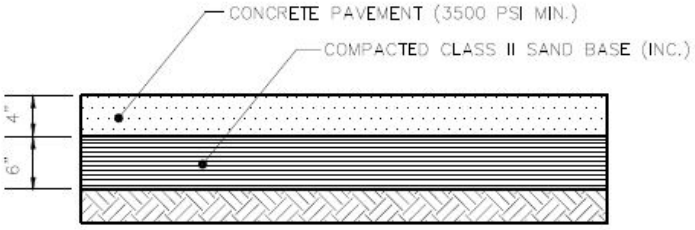
RESIDENTIAL DRIVEWAY SLOPES



SECTION A-A

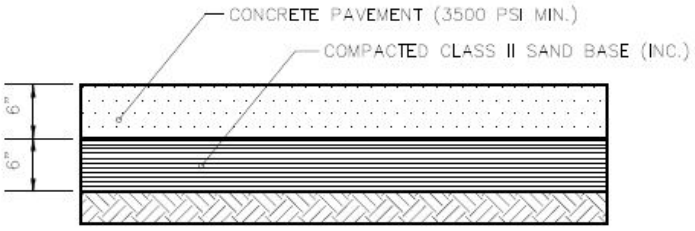
CONCRETE DRIVE APPROACH – DETAIL 'L'

N.T.S.



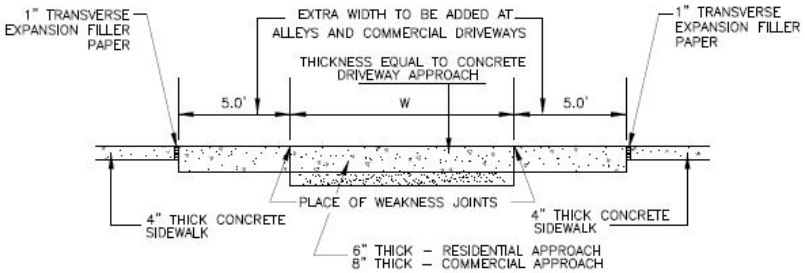
4" CONCRETE SIDEWALK SECTION

STANDARD SIDEWALK REPLACEMENTS/INSTALLATIONS N.T.S.



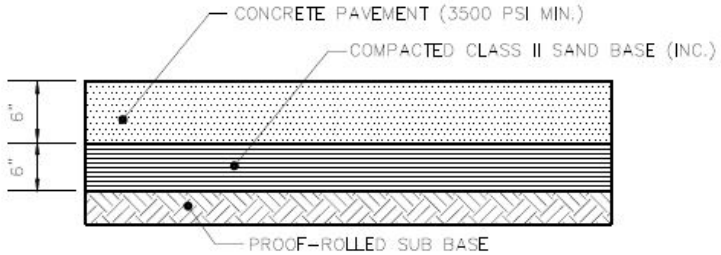
6" CONCRETE SIDEWALK SECTION

TO MATCH SPECIFIED PAVEMENT THICKNESS THROUGH DRIVE APPROACH N.T.S.



THICKENED CONCRETE SIDEWALK (PLAIN)

N.T.S.



TYPICAL CONCRETE SECTION FOR RESIDENTIAL APPROACH

N.T.S.