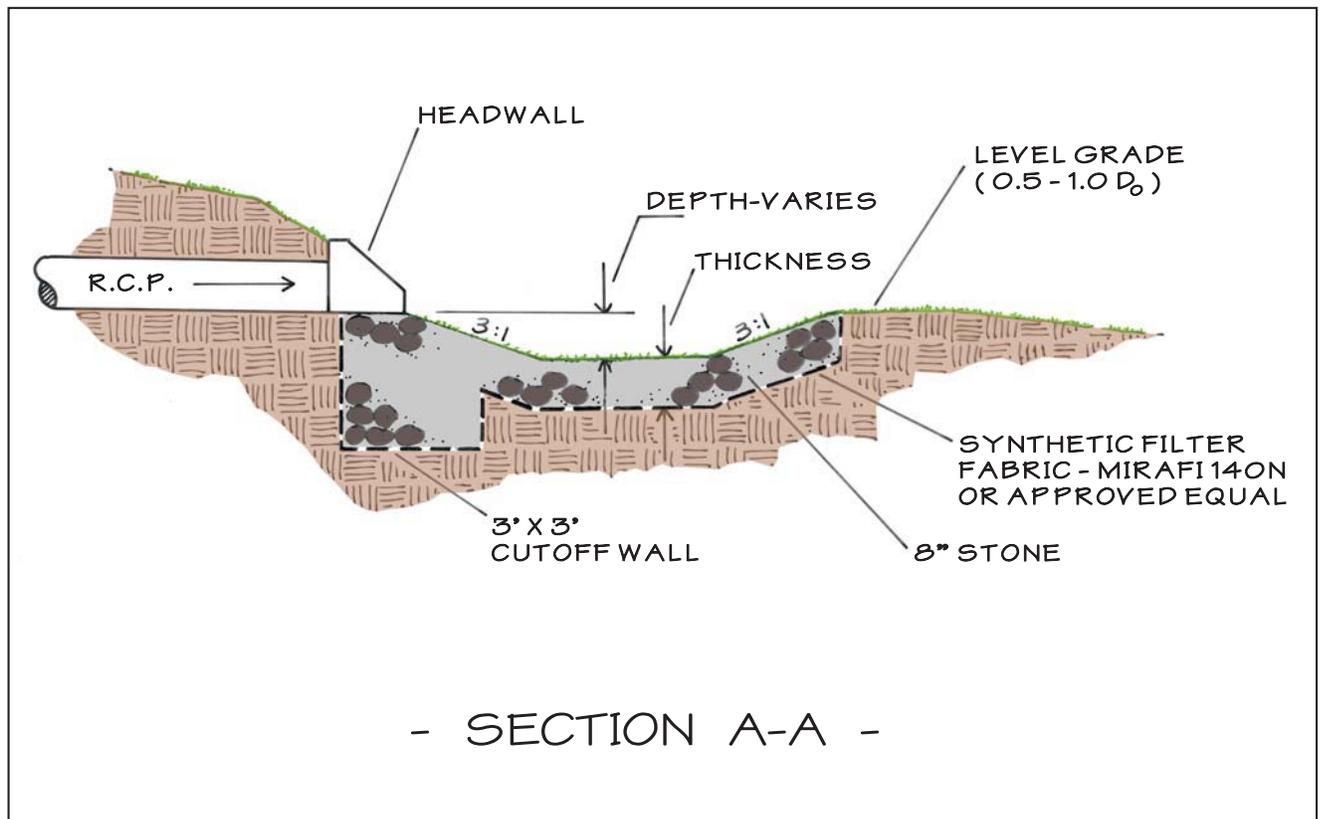


Land Development Standards Morris County, New Jersey



The Board of Chosen Freeholders
of the County of Morris

Prepared by the Morris County Planning Board

Land Development Standards of the County of Morris, New Jersey

Adopted by the
Morris County Board of Chosen Freeholders

September 23, 1998, as Amended May 12, 2004

2004

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INTRODUCTION

The New Jersey County Planning Act, N.J.S.A 40:27-1 et seq., provides statutory authority for the County Planning Board to require the submission, review and approval of all subdivision and certain site plan applications. Pursuant to this statute, the Planning Board reviews land development applications for their affect on County transportation and drainage facilities.

The Morris County Land Development Standards present the procedures, standards and requirements that the Planning Board will follow in its review and approval of land development applications. They supersede and replace the Standards adopted May 26, 1971, as amended and adopted through February 24, 1988. It is anticipated that the updating, revision and codification of County requirements for traffic and drainage considerations will improve the County's development review procedures and simplify the preparation of applications by applicants and their professional consultants.

In recent years various state and federal legislation has required the County of Morris to prepare and adopt plans which directly or indirectly relate to land development. Generally, these plans provide for the orderly development of the County, protection of environmental resources and provision of necessary public facilities and services.

The plans adopted pursuant to this legislation in some instances require the County Planning Board to take regulatory action to implement their provisions. In other instances, achievement of County plans will be directly influenced by land development decisions of the County Planning Board. The objectives of these plans can be accomplished in part by providing a mechanism for consistency in project review with the County agencies responsible for their implementation.

In addition, other County agencies have been provided with statutory authority for regulatory and permit approval that directly relate to the land development requirements of the County Planning Board. To avoid the imposition of duplicative, overlapping, or inconsistent requirements by County agencies it is necessary to provide for a coordinated development review procedure.

It is the opinion of the Planning Board, the Board of Chosen Freeholders and other County agencies that these objectives can be achieved in part through the administration of the Morris County Land Development Standards. In some instances, they will be achieved through the application of specific standards or best management practices. In other cases, they will be achieved through the provision of a coordinated and consistent review with the requirements of adopted County plans, and the regulatory standards and permit requirements of other County agencies.

This approach avoids unnecessary or inconsistent requirements by County agencies, and benefits the applicant by requiring agreement on a solution to cite specific design issues early in the development review process. The applicant thereby avoids a situation where he must resubmit for Planning Board approval because of subsequent requirements of other County agencies. The end result is a more efficient, timely and less costly development approval process for the applicant. It also results in a public benefit by providing for the achievement of goals and objectives embodied in adopted County plans and for the efficient implementation of the County's statutory responsibilities.

SECTION 100

Administration

101 Short Title

This Resolution shall be known and may be cited as: "The Land Development Standards of the County of Morris, New Jersey.", hereafter sometimes referred to as the "Standards."

102 Authority

The Resolution is adopted pursuant to the County Planning Act, N.J.S.A 40:27-1 et seq., L. 1935, C. 251 amended by various Laws including L. 1968, C. 285.

103 Purpose

The purpose of these Standards is to:

- A. Provide rules, regulations, and standards for the subdivision, development and redevelopment of land affecting County roads or drainage facilities and to guide the design of development of land affecting County roads in the County of Morris, New Jersey in order to promote the public health, safety, convenience and general welfare of the County.
- B. Implement applicable provisions of County plans which have been adopted pursuant to the following:
 - 1. Clean Air Act of 1977 as amended —1990-(P.L. 101-549)
 - 2. Intermodal Surface Transportation Efficiency Act of 1991 (P.L. 102-240)
 - 3. Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500)
- C. Institute standards for assessing developers for a proportionate share of the cost of County improvements located outside of a given development which must be made to accommodate the increased traffic or runoff which would be generated as a result of the development.
- D. Provide recommendations and, where authorized, regulations to ensure that land development within the County proceeds in accordance with the goals and objectives of the County Master Plan and other adopted County plans.
- E. Provide for the coordinated review of development projects involving various other State and County agencies which have regulatory responsibilities pursuant to the requirements of the following:
 - 1. Flood Hazard Area Control Act (N.J.S.A. 58:16A-50)
 - 2. Soil Erosion and Sediment Control Act (N.J.S.A. 4:24-39 et seq.)
 - 3. Solid Waste Management Act (N.J.S.A. 13:1E-1 et seq.)
 - 4. Storm Water Management Act (P.L. 1981, C. 32 N.J.S.A. 40:55D-1 et seq.)
 - 5. Freshwater Wetlands Protection Act of 1987 (N.J.S.A. 13:9B-1 et seq.)
 - 6. Realty Improvement, Water Supply & Sewer System Act (N.J.S. 58:11-37)
 - 7. State Highway Access Management Act (N.J.S.A. 27:7-1 et seq.)
 - 8. Municipal Land Use Law (N.J.S.A. 40:55-1 et seq.)

104 Approving Agency

The approving provisions of the Land Development Standards shall be administered by the Planning Board of the County of Morris in accordance with the New Jersey County Planning Act (N.J.S.A. 40:27-1 et seq. as amended and supplemented.)

105 Power to Amend and Modify

The rules, regulation, and standards herein set forth are designed to achieve minimum requirements for uniformity in the interest of the safety and general welfare of the County of Morris, and the people of the County of Morris, with due regard to the valid interest of the municipalities in the County of Morris. The County Planning Board understands that occasions may take place when the literal enforcement of one or more of these rules, regulations, or standards may be onerous, impracticable or impossible to perform or cause unnecessary hardship. In accordance with N.J.S.A. 40:27-6. 2(e), this power and authority to waive, modify, or amend, shall be exercised to achieve substantial fairness to all parties concerned, and so long as such power shall not substantially or materially prejudice the rights of other parties or interested persons.

106 Validity

If any section, subsection, paragraph, clause, phrase or provision of the Land Development Standards should be adjudged invalid or held unconstitutional, such adjudication shall not affect the validity of the standards as a whole or any part or provision hereof other than the part so adjudged to be invalid or unconstitutional.

107 Appeals

In the event an applicant for subdivision or site plan approval is aggrieved by the action taken by the Planning Director and Land Development Review Committee of the Planning Board , such applicant may file an appeal in writing to the Planning Board within ten (10) days after the date of notice by certified mail of such action. Any person aggrieved by the action of the Planning Board in regard to subdivision review and approval or site plan review and approval may file an appeal in writing to the Board of Chosen Freeholders within ten (10) days after the date of notice by certified mail of said action.

- A. The Planning Board or Board of Chosen Freeholders shall consider such an appeal at a regular or special public meeting within forty-five (45) days from the date of its filing.
- B. Notice of said hearing shall be made by certified mail at least ten (10) days prior to the hearing to the applicant and to such of the following officials as deemed appropriate for each specified case: The Municipal Clerk, Municipal Planning Board or Board of Adjustment, Building Inspector, Zoning Officer, and the County Planning Board.
- C. The Board to which the appeal is taken shall render a decision within thirty (30) days from the date of the hearing.
- D. A copy of the decision by the Board to which the appeal is heard shall be mailed by certified mail to such of the following officials as deemed appropriate for each specified case: the Municipal Clerk, Municipal Planning Board or Board of Adjustment, Building Inspector, Zoning Officer, and the County Planning Board.

SECTION 200

Definitions

200 DEFINITIONS

201 Applicant

The owner or any other individual, firm association, syndicate, co-partnership or corporation having a proprietary interest to commence and maintain proceedings for site plan or subdivision review pursuant to municipal ordinance and these Standards. Applicant also means developer.

202 Applications/Development Applications

Any proposed development of land which requires the review and/or approval of the Morris County Planning Board as required by the New Jersey County Planning Act (R.S.40:27-1 et seq.)

203 Application Form

All forms required to be filed with the Morris County Planning Board for subdivision and/or site plan approval.

204 Approval Conditions (or Conditions of Approval)

Requirements of the Morris County Planning Board which remain unfulfilled and are so stated by that Board in its written report giving conditional approval.

205 Best Management Practice

Schedules of activities, prohibitions of practices, maintenance procedures and other management practices to prevent or reduce the pollution of waters of the State of New Jersey

206 County Drainage Facility

Any bridge, culvert, drainage system, swale, or drainage structure for which the County of Morris is responsible in whole or in part.

207 County Master Plan

All elements of the Master Plan for the physical development of the County, with the accompanying maps, charts, and descriptive and explanatory matter adopted by the County Planning Board pursuant to N.J.S.A. 40:27-2. Also referred to in these standards as the "Master Plan".

208 County Planning Board or Planning Board

The Morris County Board appointed by the County Board of Chosen Freeholders pursuant to N.J.S.A. 40:27-1 et seq.

209 County Road

A road which is under the jurisdiction of the County of Morris as shown and listed on the Official County Map adopted by the County Board of Chosen Freeholders.

210 Dedication for County Road Purposes

A dedication of land to the Town, Township, Borough or County whichever is applicable, for the installation of utilities, construction, reconstruction, widening, repairing, maintaining, or improving a County Road and for the construction, reconstruction, or alteration of facilities related to the safety, convenience or carrying capacity of the County Road including curbing, pedestrian walkways, drainage facilities, and traffic control devices.

211 Development

The division of a parcel of land into two or more parcels, the construction, reconstruction, conversion, structural alteration, relocation, or enlargement of any building or other structure, or of any mining, excavation, or landfill, and any use or change in the use of any building or other structure, or land or extension of use of land, for which approval may be required pursuant to the Standards.

212 Detention/Retention Facility

A man-made or natural water collector facility that collect surface water runoff in order to attenuate its flow and to gradually release same into natural or man-made outlets.

213 Developer

The legal or beneficial owner or owners of a lot or of any land proposed to be included in a proposed development including the holder of an option or contract to purchase, or other person having an enforceable proprietary interest in such land. Developer also means Applicant.

214 Drainage Basin

All that area of land that contributes surface water runoff to any given point along a brook, stream watercourse, drainage facility or easement.

215 Drainage Easement

The land or assignable rights and restrictions to the land required for the installation and/or maintenance of storm water sewers, culverts, drainage ditches or swales, or that which is required along a natural stream or watercourse for preserving the channel and providing for the flow therein in order to safeguard the public against flood damage, sedimentation or erosion, or for similar or related storm drainage purposes, including requiring assignable rights and restrictions in floodplain lands from upstream owners in order to facilitate the impoundment of water in the floodplain.

216 Final Plat

The final map of all or a portion of a subdivision which is presented to the Planning Board for final approval in accordance with the Standards and with the requirements of the Map Filing Law, Chapter 142, P.L. 1960 and which incorporated conditions established by the Planning Board in the granting of preliminary approval.

217 Land Development Review Committee

A committee established by Resolution of the Morris County Planning Board, consisting of at least three (3) members, including the County Engineer and Planning Director, appointed by the Chairman to review and approve subdivision and site plans in behalf of the Morris County Planning Board in administering the provisions of these Standards.

218 Loading Area

A yard or designated area, with passenger automobile parking prohibited, for the sole purpose of loading and unloading vehicles and the accompanying vehicle maneuvering area.

219 Lot

A designated parcel, tract or area of land established by a plat or other wise as permitted by law to be used, developed or built upon as a unit.

220 Maintenance Bond

A security in a form set forth in these Standards and approved by the County Engineer to assure maintenance by developers for a period of two (2) years after release of developer's performance guarantee for installation of improvements.

221 Major Subdivision

Any subdivision not defined as minor.

222 Minor Subdivision

A subdivision of land for the creation of a number of lots specifically permitted by municipal ordinance as a minor subdivision; provided that such subdivision does not involve (1) planned development, (2) any new street or, (3) the extension of any off-tract improvement, the cost of which is to be prorated Pursuant to section 30 of P.L. 1975, c.291 (C.40:55D-42).

223 Morris County Stormwater Management Technical Guide (SWM Technical Guide)

Prepared for the Morris County Planning Board in 1989 by Goodkind O’Dea, this manual provides technical assistance in the preparation of Storm Water Management Plans. Copies are on file and available at the Morris County Planning Board Office.

224 New Building Lot

Any lot created by a subdivision upon which one or more principal buildings or structures could be erected under the provisions of the applicable municipal zoning ordinance.

225 NJDEP

This shall mean the New Jersey Department of Environmental Protection.

226 Official County Map

A map adopted by resolution of the County Board of Chosen Freeholders pursuant to Revised Statutes 40:27-5, showing existing and proposed properties, facilities and rights-of-way for which the County holds jurisdiction or will hold jurisdiction in the future.

227 Off-Site

Located outside the lot in question but within the property (of which the lot is a part) which is the subject of a development application, or on a contiguous portion of street or right-of-way.

228 Off-Street Parking Area

An area providing vehicle spaces and aisles.

229 Off-Tract

Not located on the property which is the subject of a development application nor on a contiguous portion of a street or right-of-way.

230 Off-Tract or Off-Site Improvements

Improvements to County roads or drainage facilities, such as culverts or bridges, located outside of a given subdivision or site development which must be made to accommodate the increased traffic or stormwater runoff which would be generated as a result of the development.

231 Owner

Means and includes an individual partnership, corporation, trust, estate, unincorporated organization or association, or a government or any other agency or political subdivision thereof having proprietary interest in the land sought to be developed, able to commence and maintain proceedings to develop the same under a municipal subdivision or site plan ordinance and the provision of the Morris County Development Standards.

232 Performance Guarantee

A security in a form set forth and approved by these Standards and the County Engineer, which may be accepted in lieu of a requirement or as a guarantee that certain improvements be made prior to the Planning Board granting final approval of an application for development.

233 Preliminary Plat

The map indicating the proposed layout of the subdivision showing or being accompanied by all of the information required by "Section 402" of these Standards.

234 Rate of Run-Off or Run-Off Rate

The volume rate of movement or quantity of stormwater flowing past a given point with respect to time, expressed in cubic feet per second or gallons per minute.

235 Redevelopment

Any site plan on which there exists one or more structures, presently or previously used for a residential or business activity, and where either additional construction, site improvement or change of use is proposed.

236 Resolution

The Morris County Land Development Standards as adopted by resolution of the Morris County Board of Chosen Freeholders pursuant to N.J. R.S. 40:27-6.2.

237 Reverse Frontage

The provision of vehicular access from a minor street to a subdivided lot or site abutting an existing or proposed arterial street, and the probability of direct vehicular access to the abutting arterial street by deed restriction or other instrument legally recorded.

238 Right-of-Discharge

A legally recordable instrument granting to the developer the right to discharge collected waters upon lands exterior to the development.

239 Roadway

The entire cross-sectional portion of a road inclusive of all applicable components: pavement, shoulders and right-of-way.

240 Road Permit

The permit issued by the County Engineer approving the construction or reconstruction of utility extension or connections, or any similar operation involving tearing up, opening, excavating or connecting into any portion of County road or any portion of a County road right-of-way.

241 Road Right-of-Way

A strip of land under County jurisdiction maintained for the passage of the travelling public. Also known and sometimes referred to as R.O.W.

242 Sight Triangle

A triangular shaped easement established at intersections in accordance with the requirements of these Standards, in which nothing shall be erected, placed, planted or allowed to grow in such a manner as to obstruct vision between a height of 2 feet and 10 feet above the centerline grade of either street. The County shall have the right of entry to remove any obstruction to vision within the sight easement area not conforming to the standards of this definition, following due notice to the property owner.

243 Site Plan

The development plan for one or more existing lot(s) or parcel(s) of land showing the existing conditions and proposed new development of the property.

244 Speed Change Lane

An auxiliary vehicle lane of a road for use by vehicles leaving or entering the adjacent travelled way of the road.

245 Standards

The Morris County Land Development Standards as adopted by resolution of the County Board of Chosen Freeholders; also known as and sometimes referred to as the "Resolution".

246 Stormwater Control Plan

A plan to divert, collect, transmit, store, and dispose of stormwater runoff using structural and/or non-structural techniques for the objective of eliminating or minimizing the adverse affect of soil erosion, flooding and degradation of water quality.

247 Stormwater Management Area

A watershed or defined geographical area delineated in an adopted Stormwater Management Plan.

248 Stormwater Management Plan

A plan adopted by the County designed to manage stormwater runoff for a regional or watershed area for the purposes of water quality protection and flood control. The Plan's management techniques may include regional detention or retention facilities, improvement of water courses and water bodies, land use planning strategies and implementation of Best Management Practices. The plan may also be known and referred to as a Phase II Regional or Watershed Stormwater Management Plan in accordance with the New Jersey Department of Environmental Protection Stormwater Management Act (N.J.S.A. 13: IE- 1 et.seq.).

249 Structure

Anything constructed or erected, the use of which requires permanent location on the ground or attachment to something having permanent location on the ground, including drainage facilities, buildings, fence, tanks, towers, carports, impervious pavement, and the curbing and other appurtenances for vehicular parking, circulation, loading, display or storage.

250 Subdivision

The division of a lot, tract or parcel of land into two or more lots, tracts, parcels, or other divisions of land for sale, or development. The following divisions shall not be considered subdivisions: divisions of land for agricultural purposes where the resulting parcels are 5 acres or larger in size, division of land by testamentary or intestate provisions, or divisions of land upon court order. "Subdivision" also includes resubdivision, and where appropriate to the context, relates to the process of subdividing or to the lands or territory divided.

251 Submission (Complete Submission)

An application form and all the accompanying documents for subdivision and/or site plan approval which meet the requirements of the appropriate sections of these standards.

252 Traffic Impact Report

A study of the additional traffic generated by the proposed development and its impact upon the County road system either on-site or off-tract.

253 Water Bodies

Any natural or artificial collection of water whether permanent or temporary.

254 Water Course

Any natural swale, ditch, gully, stream, brook or river wherein water flows ordinarily, frequently or infrequently but not necessarily continuously. This definition includes water courses which have been artificially treated, realigned, or improved.

SECTION 300

Procedures for Submission and Approval

300 Procedures for Submission and Approval

301 Review and Approval Required

A. Subdivisions

All subdivisions of land within Morris County shall be submitted to the Planning Board by the appropriate municipal approving authority for review and, where required, approval as set forth and limited in N.J.S.A. 40:27-6.2.

1. Minor subdivision applications shall be reviewed by location as related to County roads and County drainage facilities so that the Planning Board may either exempt those plats unrelated to County responsibilities, or review the minor subdivision plat in accordance with these Standards.
2. Major subdivision applications which abut a County road or affect County drainage facilities shall comply with the requirements of these Standards prior to receiving approval. Major subdivisions which do not abut a County road and do not affect County drainage facilities shall be approved.

B. Site Plans

Applications for land development located along a County road or affecting County drainage facilities shall be submitted to the Planning Board by the appropriate municipal approving authority for review and approval as set forth and limited in N.J.S.A. 40:27-6.6.

1. Applications for land development are defined as follows:
 - a. Commercial or industrial development/redevelopment.
 - b. Residential development/redevelopment of three (3) or more units.
 - c. Any other land development/redevelopment requiring off-street parking.
 - d. Any other land development/redevelopment producing surface runoff in excess of 1.1 cubic feet per second.
2. The following site plans do not require Planning Board review:
 - a. For land development/redevelopment that includes less than one (1) acre of impervious surface and does not abut a County road.
 - b. For one and two family dwellings.
 - c. For permitted accessory uses incidental to one and two family dwellings.
3. Application for Redevelopment - Site Plans requiring submission in accordance with Section 301B that propose the redevelopment on an existing site, shall be reviewed by the Planning Board with respect to any applicable requirements of these Standards.

Site plans for redevelopment will be reviewed in accordance with the following policies:

- a. New construction at an existing site shall conform to the applicable requirements of these Standards.

- b. Wherever the existing developed conditions of a site do not conform with these Standards, the Planning Board will require the necessary corrective measures. Compliance with these Standards will be limited to those measures and improvements, which in the judgement of the Planning Board, are reasonable and practicable and do not constitute an unfair burden on the applicant.
- c. Site plan applications for redevelopment may not be required to conform with requirements of the Standards, if in the judgement of the Planning Board, there will be no substantial increase or intensification in the re-use or expansion of the site, and would not adversely affect County drainage facilities or traffic circulation at the County road frontage.

302 Request for Informal Preapplication Review

A prospective applicant may appear before the Planning Board staff or the Land Development Review Committee for informal discussion prior to formal application. A fee shall not be charged for such informal preapplication review. Recommendations made by the staff and the Land Development Review Committee at this informal preapplication conference are non-binding upon the Planning Board.

303 Filing of Application

Application for subdivision review and approval or site plan review and approval shall be submitted to the Planning Board by the appropriate municipal approving authority. The municipal approving authority may allow the applicant to submit the application directly to the Planning Board directly if accompanied by a letter of transmittal from such authority.

304 Determination of Completeness

An application will not be determined to be formally filed until the appropriate fee and number of drawings, county application forms and other required information shall have been submitted in accordance with Section 400 of these Standards. The time period for action will not be deemed to run until such time as application is deemed complete.

305 Distribution of Plans

Copies of the submission for subdivision or site plan approval shall be distributed by the Planning Board to the County Engineer and other appropriate County agencies for their review. Such agencies shall report their findings to the Planning Board within twenty (20) days of receipt of an application so that the Planning Board may render its report to the municipal approving authority within the statutory thirty (30) day time limit.

306 Review Time Period

The Planning Board shall approve, conditionally approve, or withhold approval within thirty (30) days of deeming the application complete, or within an additional thirty day period by mutual agreement between the Planning Board and the municipal approving authority, with approval by the applicant.

If the Planning Board fails to report to the municipal approving authority within thirty (30) days of receipt of the application, said subdivision, site plan, or building permit application shall be deemed to have been approved by the Planning Board.

307 Notification of Action Taken

If Planning Board approval is required in accordance with Section 301 of these Standards, the action taken by the Planning Board on all development applications shall be duly set forth in writing, with a copy of the report to be submitted to the municipal approving authority and to the applicant. The report shall set forth all conditions required for County approval and, if disapproved, all reasons for disapproval.

308 Revisions

All revisions of site plans and subdivision plats, excepting site plans exempted by the Planning Board shall be promptly submitted (in duplicate) to the Planning Board. All revised site plans and subdivision plats shall show revision dates in proper sequence. Revisions of site plans and subdivision plats shall be submitted in accordance with the provisions of Sections 300 and 400 (as applicable) of these Standards.

309 Changes after County Approval

Deviations that substantially revise the approved plan shall require the approval of the Planning Board. In the event it becomes necessary to deviate from the approved plan due to site conditions which first appear during construction and which would affect a County road or a County drainage facility, the applicant shall notify and obtain the approval of the County Engineer before such deviation shall be made.

310 Land Development Review Committee

Pursuant to provisions of the County Planning Act (N.J.S.A. 40:27-6.8) the Planning Board has by Resolution dated January 9, 1975 vested its authority to review and approve subdivision plats and site plans in a Subdivision and Site Plan Committee, currently known and referred to as the Land Development Review Committee.

311 Subdivision and Site Plan Approval Requirements

Planning Board approval of the subdivision or site plan shall be granted upon a finding that the plan complies with the following standards and regulations:

- A. That the applicant has submitted the application form and drawings containing all of the information and data as provided for in these Standards.
- B. That the drawings are consistent with the County Master Plan, Official Map and other County plans in existence at the time of application and the details of the drawings are in accordance with the requirements of these Standards.
- C. That all parking and traffic related problems shall be reasonably resolved and shall provide for the safe and efficient passage of traffic.
- D. That adequate provisions are made so as to prevent any surface and subsurface drainage problems relating both to quantity and quality of runoff.
- E. Prior to granting approval for a minor subdivision, site plan or major subdivision, the Planning Board must be in receipt of all required deed and easement forms. Approval may be granted conditioned upon the receipt of all required deeds and easements.
- F. That all wetlands delineations are certified as appropriate by the Army Corps of Engineers or the NJDEP for all minor subdivisions, major subdivisions, and site plan applications.

312 Length of Approvals

Subdivision and site plan approvals granted by the Planning Board under the terms of these Standards shall be valid for the following time periods in accordance with the Municipal Land Use Law (N.J.S.A. 40:50-1 et seq.):

- A. Minor Subdivision - two (2) years from the date of approval.
- B. Preliminary Major Subdivision - three (3) years from the date of approval.
- C. Final Major Subdivision - two (2) years from the date of approval.
- D. Site Plan - three (3) years from the date of approval if said application has received preliminary approval only from the municipal approval authority, and two (2) years from the date of approval if the applicant has received final approval from the municipal approval authority.
- E. Extensions may be granted consistent with the Municipal Land Use Law (N.J.S.A. 40:50-1 et seq.).

313 Review Fees

- A. The County review of development applications requires payment of fees for minor and preliminary major subdivisions and site plans. Payment shall be made by the applicant to the Planning Board at the time of submission. The omission of payment shall be cause for the Planning Board to deem the application incomplete. Payment shall be made by check payable to the "Treasurer of Morris County".
- B. The review fee schedule is established by resolution of the Planning Board. Reference should be made to the current review fee schedule as printed on the Morris County Land Development Review Application Form.
- C. When site plans or subdivision plats are revised to comply with municipal or county requirements, the revised plat or plats will **not** be subject to fee payment. Site plans or subdivision plats received by the Planning Board more than one year after reception of a prior submission will be subject to full payment in accordance with the above schedule.
- D. Site plans and subdivision plats submitted by federal, state, county and municipal governments and churches (places of worship), hospitals, and secular non-profit institutions are not subject to payment of review fees.

314 Plat and Site Plan Sizes

The sizes of all maps and plans of any proposed land development shall be consistent with the sizes permitted under Chapter 141 of the laws of 1960 known as the "New Jersey Map Filing Act" (N.J.S.A. 23-9.1 et seq.) As follows:

- 8½ x 13 inches
- 15 x 21 inches
- 24 x 36 inches
- 30 x 42 inches.

SECTION 400

Submission Details

400 Submission Details

401 Materials and Information to be Submitted with Minor Subdivisions

The following documents shall be submitted when making minor subdivision applications: two (2) completed copies of the County application form, two (2) legible prints of the plat and shall contain or be accompanied by any other information required hereunder. The plat of a minor subdivision shall be drawn at a scale large enough to contain legibly written data, bearings and other details, and shall be prepared by such professional (s) licensed by the State of New Jersey in accordance with Subchapter 7 of Title 13 of the New Jersey Administrative Code, and shall be of a size to conform with the specifications of the Map Filing Act. The plat shall contain or be accompanied by the following information:

- A. A key map at a scale of not more than 500 feet to the inch showing the location of the tract to be subdivided and its relationship to surrounding areas within 1,000 feet of its boundaries. The intersection of at least two (2) public streets, together with the names of such streets, shall also be shown.
- B. A title box containing the title of the map, the tax map sheet, block and lot numbers, the name, address, license number, signature and embossed seal of the licensed professional (s) who prepared the plan details, the date of survey, the date of original plan preparation and a box for recording revision dates, all to appear in the lower right-hand corner of the plat.
- C. A zoning table which compares the land use, density, setback distances, and any other related data between that which is required in the municipal zoning ordinance and that which is proposed on the subdivision plat.
- D. Certification by a licensed land surveyor as to boundaries and physical conditions. Such certification shall include the name, address, license number, signature, seal and date of survey.
- E. Notes adjacent to the title box shall include the name and address of the owner of the tract being subdivided and of the subdivider, if different from the owner.
- F. The names of all adjacent landowners within 200 feet of the subdivision tract as disclosed by current tax records. Block and lot numbers and any land use zone boundaries and their respective designations shall also be disclosed.
- G. North arrow, reference meridian and graphic scale.
- H. The location of the tract to be subdivided in relation to any larger tract of which it is a part.
- I. The layout of the proposed subdivision indicating all lot lines and the dimensions thereof in feet and decimals of a foot, as well as the acreage

of the entire tract and of each proposed lot. Minimum setback lines and lot lines to be eliminated shall also be shown.

- J. The location, size and use of all existing structures.
- K. The location, size and nature of all existing and proposed right-of-way, easements and other encumbrances which may affect the lot or lots in question, and the location, size and description of any lands to be dedicated to the approving municipality or to the County of Morris.
- L. The location, size and direction of flow of all watercourses, including applicable floodway and flood hazard boundaries, and the location, size and type of all drainage facilities, culverts, bridges, roadways, curbs, sidewalks, driveways and wooded areas on the site and within 200 feet of the property.
- M. If deemed necessary by the County Engineer, detailed information on watercourses and storm drainage systems which is required for preliminary major subdivision approval in these Standards may be required.
- N. Delineation of all freshwater wetlands.
- O. Such other information as may be required by the Planning Board in order to make an informed decision and meet the requirements of these Standards.

When use of the required scales for preparation of the plat or key map will result in unnecessarily large drawings, multiple sheets or other hardship to the applicant, the Planning Board may designate a suitable scale sufficient to clearly and legibly show all necessary details.

402 Materials and Information to be Submitted with Preliminary Plat for Major Subdivision

The following documents shall be submitted when making application for preliminary major subdivision approval: two (2) completed copies of the County application form, two (2) legible prints of the plat and shall contain or be accompanied by any other information required hereunder. The preliminary plat shall be drawn at a scale large enough to contain legibly written data, bearings and other details, and shall be prepared by such professional (s) licensed by the State of New Jersey in accordance with Subchapter 7 of Title 13 of the New Jersey Administrative Code and shall be of a size to conform to the specifications of the Map Filing Act. The plat shall contain or be accompanied by the following information:

- A. All information, data and certifications required under Section 401 of these Standards for a minor subdivision.
- B. Elevations to be based upon the current accepted National Vertical Datum and geo referenced to the National Geodetic Reference Network showing existing and proposed contours at intervals of 2 feet where slopes are less than 15 percent, and 5 foot intervals where slopes are 15 percent or more. Where changes in grade are proposed, finished grades and proposed contours shall be indicated. Topographic data shall be

provided for the entire site, as well as suitable overlap onto adjacent properties as deemed necessary to determine the existing drainage and grading patterns.

- C. Spot elevations on existing structures, pavements, walks or other physical features, with sufficient detail to determine existing conditions.
- D. Proposed elevations of the site shall be indicated by spot elevations at the corners of all buildings and lots and at changes in grade. Finished first floor and garage floor elevations shall also be shown for all buildings.
- E. Plans of proposed street intersections with County roads shall be shown at a minimum scale of 1 inch equals 30 feet. Included in the intersection plan shall be: any existing or proposed sight-triangles, radii of curb lines, traffic control signs, pavement markings, traffic islands, curb elevations, sidewalks, drainage inlets, and drainage flow direction.
- F. Profiles and cross-sections of existing and proposed streets within the development and existing streets and highways abutting the development shall be provided. The typical cross-section of streets shall clearly indicate the type, width and depth of pavement, and the location of curb, sidewalks and shade tree planting strips.
 - 1. Profiles of County roads must be drawn at a scale of 1 inch equals 30 feet horizontal and 1 inch equals 5 feet vertical; showing centerline, percentage of slope between stations, top-of-curb and gutter-line elevations including pavement taper and 50 feet beyond the proposed pavement widening.
 - 2. Profiles of County roads shall show existing and proposed drainage systems with elevations, percentage of slope, and the design velocity for each pipe.
 - 3. Cross-sections of County roads shall be shown at intervals of 50 feet at a scale of 1-inch equals 5 feet. These cross-sections shall show spot elevations at centerline, proposed gutter line, existing pavement edge, proposed top of curb and existing and proposed cross slopes.
- G. The following information shall be shown for all existing watercourses:
 - 1. Cross-sections of watercourses at an appropriate scale showing the extent of the floodplain for a 100 year storm, (if defined), top of bank, normal water level and bottom elevations at the following locations:
 - a. At any point where a watercourse crosses a boundary of the site.
 - b. At 50 foot intervals for a distance of 500 feet upstream and downstream of any proposed culvert or bridge within or adjacent to the development.
 - c. Immediately upstream and downstream of any point of juncture of two (2) or more watercourses.
 - d. At 50 foot intervals along all watercourses which run through or adjacent to the site.
 - 2. Profiles of stream beds 500 feet upstream and downstream from

proposed property limits of development.

3. When ditches, streams, brooks or watercourses are to be altered, improved or relocated, the method of stabilizing slopes and measures to control erosion and siltation, resulting from said alteration, improvement or relocation shall be shown.

4. When a brook or stream is proposed for alteration, improvement or relocation, or when a drainage structure is proposed on a running stream with a drainage area of one-half square mile or greater, the applicant shall be required to submit the improvement to the New Jersey Department of Environmental Protection.

H. Plans and computations for any storm drainage systems including the following:

1. A drainage plan with (a) the drainage area delineated; (b) contributory areas given in acres; and (c) the existing and proposed runoff for the 2, 10, 50 and 100 year storms.

2. All existing or proposed storm sewer lines within or adjacent to the development showing size and profile of the lines, direction of flow and the location of each manhole, inlet and catch basin.

3. The location and extent of any existing or proposed dry wells, groundwater recharge basins, retention basins or other water conservation devices.

4. The total acreage upstream of the development which is in the drainage basin of any watercourse running through or adjacent to the development.

5. The total acreage in the drainage basin to the nearest downstream drainage structure and the acreage in the development which drains to the structure.

I. The location and extent of drainage and conservation easements and stream encroachment lines.

J. The location, extent and water level elevation of all existing or proposed lakes or ponds within or adjacent to the development.

K. Plans showing existing and proposed sanitary sewage facilities, water mains or any other utilities and the easements to accommodate them, including the location, size, depth, slope and connections to existing facilities where appropriate. Treatment plants and pumping stations shall also be shown.

L. A soil erosion sediment control plan as required by, and in compliance with, the "Soil Erosion and Sediment Control Act," (N.J.S.A. 4:24-39 et seq.)

M. A stormwater control plan, as required by, and in compliance with Section 602 of these Standards.

N. A traffic impact report as required by and in compliance with Section 502 of these Standards.

403 Materials and Information to be Submitted with Final Plat for Major Subdivision.

The following documents shall be submitted when making application for final subdivision approval: 2 completed copies of the County application form and 2 legible prints of the plat. The final plat shall be drawn at a scale large enough to contain legibly written data, bearings and other details, and shall be prepared by such professional (s) licensed by the State of New Jersey in accordance with Subchapter 7 of Title 13 of the New Jersey Administrative Code. The plat shall be designed in compliance with all of the provisions of the New Jersey Map Filing Act and shall contain or be accompanied by the following information:

- A. All requirements for drainage easements, conservation easements, encroachment lines, sight triangles and new or additional rights-of-way or easements for County roads as shown on the approved preliminary plat. If substantial revisions are incorporated on the final plat which affect or could affect County requirements, a revised preliminary plat shall be submitted to the Morris County Planning Board for processing as a new preliminary plat.
- B. All required deed and/or easement forms.
- C. Detailed plans and specifications for all proposed culverts and bridges which may become structures under County jurisdiction and for improvements to existing County culverts or bridges as well as a permit from the NJDEP indicating its approval of the proposed facility.
- D. Submission of proof that the applicant has complied with one or both of the following:
 - 1. Installed all improvements to County facilities in accordance with the requirements of these Standards and the conditions of preliminary approval.
 - 2. Posted a performance guarantee in favor of the County of Morris in sufficient amount to assure completion of all required improvements to County facilities.

404 Material and Information to be Submitted When Filing a Final Plat

Prior to filing of the approved final subdivision plat at the County Clerk's Office, the applicant shall submit to the County Planning Board Offices the necessary copies of the approved final plat for certification and signature by the County Planning Director or his/her designee. The final plat shall conform to the following:

- A. For the purpose of filing at the County Clerk's Office, the final plat shall be prepared in accordance with the New Jersey Map Filing Act and Section 403 of these Standards. The final plat shall be submitted either as an original drawing in black ink on translucent tracing cloth, translucent mylars

at least 4 mils thick or its equivalent, of good quality, with signatures in ink, or as an equivalent reproduction on photographic fixed line mylar 4 mils thick with signatures in black ink or its equivalent and shall be accompanied by a cloth print or photographic fixed line mylar 4 mils thick duplicate thereof. Plats shall be certified (signed and sealed) as required by the New Jersey Map Filing Law, the New Jersey Municipal Land Use Law and Subchapter 7 of Title 13 of the New Jersey Administrative Code.

B. In addition to the above required drawings, a CAD copy of the final plat, certified by a New Jersey Licensed Surveyor, prepared in accordance with the New Jersey Map Filing Act and Section 403 of these Standards shall be submitted. All required information appearing on the digital version of the final plat shall appear on separate layers of the drawing in accordance with the adopted criteria as found in Appendix 'G', Digital Mapping Submission Standards of these Standards. All work shall be based upon the New Jersey system of plane co-ordinates as defined in Section 51:3-7 of the New Jersey Statutes. The drawing shall identify a minimum of three (3) corners distributed around the tract and shall indicate the grid coordinate values geo referenced to within 0.3 feet of the National Geodetic Reference Network as amended and updated. The monumentation shall be in a US Survey Feet based upon the standard conversions from meters to feet in accordance with adopted standards of the National Oceanic Atmospheric Administration.

405 Materials and Information to be Submitted with Site Plans

The following documents shall be submitted when making application for site plan approval: two (2) completed copies of the County application form, two (2) legible prints of the plat and shall contain or be accompanied by any other information required hereunder. The sizes of all maps and plans of any proposed land development shall be of a size to conform with the specifications of the Map Filing Act. The site plan shall be drawn at a scale large enough to contain legibly written data, bearings and other details. For topographical and boundary survey information, the site plan shall be signed and sealed by a licensed land surveyor and shall indicate the date of survey or shall be accompanied by a current survey in accordance with the laws of the State of New Jersey. For all elements of design, including drainage, pavements, curbing, walkways, embankments, horizontal and vertical geometrics, utilities and all pertinent structures, drawings shall be signed and sealed by such professional (s) licensed by the State of New Jersey in accordance with Subchapter 7 of Title 13 of the New Jersey Administrative Code.. The site plan shall contain or be accompanied by the following information:

A. A key map at a scale of not more than 500 feet to the inch showing the location of the tract and its relationship to surrounding areas within 1,000 feet of its boundaries. The intersection of at least two (2) public streets, together with the names of such streets, shall also be shown.

- B. A title box containing the title of the map, the tax map sheet, block and lot numbers, the name, address, license number, signature and embossed seal of the professional (s) who prepared the details in accordance with Subchapter 7 of Title 13 of the New Jersey Administrative Code, the date of the original site plan preparation and a box for recording revision dates, all to appear in the lower right-hand corner of the site plan.
- C. Certification by a licensed land surveyor as to boundaries and physical conditions. Such certification shall include name, address, license number, signature, seal and date of survey.
- D. Notes adjacent to the title box shall include the name and address of the owner and of the applicant, if different from the owner.
- E. The names of all adjacent landowners within 200 feet of the site as disclosed by current tax records. Block and lot numbers and any land use zone boundaries and their respective designations shall also be disclosed.
- F. North arrow, reference meridian and graphic scale.
- G. The location, size, type and specifics of all existing and proposed utilities, storm drainage facilities and easements necessary to service the site, plus all design data necessary to support the adequacy of the existing or proposed facilities to handle future flows.
- H. The location, size and use of all existing structures, and the location, size and direction of flow of all watercourses and drainage facilities on the site and within 200 feet of the property in question, as well as the location, size and type of all wooded areas, retaining walls, culverts, bridges, roadways, curbs, sidewalks and driveways on the tract. Minimum setback lines shall also be shown, as shall floodways and flood hazard boundaries, when applicable. All structures to be removed shall be labeled to be removed and indicated by dashed lines.
- I. The location, size and nature of all existing and proposed right-of-way, easements and other encumbrances which may affect the site in question, and the location, size and description of any lands to be dedicated to the approving municipality or to the County of Morris.
- J. Elevations to be based upon the current accepted National Vertical Datum showing existing and proposed contours at intervals of 2 feet where slopes are less than 15 percent, and 5 foot intervals where slopes are 15 percent or more. Where changes in grade are proposed, finished grades and proposed contours shall be indicated. Topographic data shall be provided for the entire site, as well as suitable overlap onto adjacent properties as deemed necessary to determine the existing drainage and grading patterns.
- K. Spot elevations on existing structures, pavements, walks or other physical features, with sufficient detail to determine the existing conditions.
- L. The proposed use(s) of land and buildings and the proposed location of structures, including finished floor elevations and elevations at outside corners of all structures.

- M. All proposed means of vehicular access for ingress and egress from the site onto public streets, showing the size and location of driveways and curb cuts, acceleration and deceleration lanes and any other device necessary to permit the safe and efficient movement of traffic.
- N. All walkways and rights-of-way for pedestrian traffic.
- O. The location and design of any off-street parking or loading areas, showing size and location of bays, aisles and barriers.
- P. Profiles and cross-sections of all existing and proposed streets and driveways abutting and within the development. The typical cross-section of streets shall clearly indicate the type, width and depth of pavement and the location of curb, sidewalks and shade tree planting strips. At intersections of streets or streets and driveways, any existing or proposed sight triangles and the radius of curb lines shall be clearly indicated.
- Q. Plans showing existing and proposed sanitary sewage facilities, water mains or any other utilities and the easements to accommodate them, including the location, size, depth, slope and connections to existing facilities where appropriate. Treatment plants and pumping stations shall also be shown.
- R. A soil erosion and sediment control plan as required by, and in compliance with, the Soil Erosion and Sediment Control Act (N.J.S. 4:27-39 et seq.)
- S. A stormwater control plan as required by, and in compliance with Section 602 of these Standards.
- T. The location, type and size of all existing and proposed signs, lighting standards and utility poles within 25 feet of the County right-of-way, as well as information on the power and direction of illumination of proposed lighting.
- U. The nature of the entire lot or lots in question with respect to contiguous lots owned by the applicant or in which the applicant has a direct or indirect interest, even though only a portion of the entire property is involved in the site plan for which approval is sought; provided, however, that where it is physically impossible to show such entire lot or lots or contiguous lots on one map, a key map thereof shall be submitted.
- V. Boring logs if available showing the character of the soil on the site and the elevation of the groundwater table, as well as delineation of the soil types as established by the USDA soil survey map for Morris County with the site delineated.
- W. Delineation of all freshwater wetlands.
- X. A traffic impact study as required by and in compliance with Section 502 of these Standards.
- Y. Such other information as may be required by the Planning Board in order to make an informed decision and meet the requirements of these Standards.

SECTION 500

Traffic and Roadway Design

500 TRAFFIC AND ROADWAY DESIGN

501 General Policies

All subdivisions and site plans subject to County approval shall provide for the safe and efficient movement of traffic onto and along an existing County road, and shall provide for all necessary improvements to the County transportation system including the provision of new roadways, bridges, culverts and traffic-related facilities consistent with the following policies.

- A. All developments shall provide for adequate roads, road improvements, intersections, driveways, bridges, culverts and other off-site and off-tract improvements required by the Planning Board in accordance with these Standards, the Official County Map and the County Engineer necessary for the safe and efficient movement of traffic.
- B. Improvements may be required to include among others: the dedication of additional rights-of-way, road pavement widening, grading of rights-of-way, curbs, sidewalks, shade trees, street and traffic control signs, traffic signals, marginal access streets, reverse frontage, off street parking facilities plus highway and traffic design features necessary to correct potential traffic and safety hazards which could be created by an increase in traffic volumes or impediments to traffic flows caused by the development.
- C. The applicant may be required to construct or install all traffic related off-tract improvements made necessary by the development in accordance with the standards established by these Standards. Where appropriate, the applicant may be required to contribute his fair share of the cost of such improvements.
- D. All street intersections with, or entrance and exit driveways, to a County road shall be located and designed to afford maximum safety to the traveling public.
- E. The proposed interior streets and walkways shall be designed to provide optimal vehicular and pedestrian circulation for the development and for any existing streets, roads and walkways which may adjoin the development or may be constructed in the future.
- F. All development shall conform to road and traffic-related improvements which appear in the County Transportation Master Plan, Official County Map and other County plans.
- G. An applicant may be required to submit a traffic impact report as provided in Section 502A for the purpose of determining the necessity and extent to which road and traffic improvements are needed.
- H. The applicant shall wherever possible consider implementation of traffic mitigation measures in the form of ridesharing programs, deferred parking, public transportation, bicycling and pedestrian improvements in order to minimize traffic and subsequent road improvements.
- I. Design or road improvements shall be in accordance with these Standards supplemented and modified, as needed by the County Planning Board based on the advice of the County Engineer.

502 Traffic Impact Report

- A. Any land development located along or affecting a County road may be required (as determined by the County Traffic Engineer) to submit a comprehensive Traffic Impact Report to the Planning Board if any one of the following conditions exist:
1. Proposed construction of 150 or more residential dwelling units.
 2. Proposed construction of non-residential development with 300 or more parking stalls.
 3. Any proposed development which will generate in excess of 100 vehicle trips during the weekday, morning, evening or Saturday peak hour using the latest "Institute of Transportation (ITE) Engineering Trip Generation Rates."
- B. The following items must be included in traffic impact reports:
1. Existing traffic volumes for the abutting and surrounding roadways and intersections. The scope of the analysis shall be determined in consultation with the County Engineer and may include off-tract intersections and highway links that may be affected by the development.
 2. Existing levels of service calculations using the latest edition of the Highway Capacity Manual. Different analytical methods require advanced approval from the County Engineer.
 3. AM & PM peak hour trips generated by the proposed development and any other significant peak anticipated (e.g., Saturday). Supporting information must be provided for any generation rates which deviate from the "ITE Trip Generation Manual".
 4. A schematic drawing(s) showing development generated trip distribution on surrounding roadway system. Full documentation of the distribution rationale must be provided.
 5. Future year traffic volumes with level of service calculations for a target year. Target year volumes must include volumes from adjacent developments and background traffic rates. (Target year, adjacent development, and other factors of the Traffic Impact Report to be determined by the Morris County Division of Transportation Management.)
 6. Traffic improvement strategies shall be recommended for mitigation of the problem areas. Strategies may include physical operational improvements, and shall be designed for a minimum Level of Service "C" in the peak hour.
 7. An assessment of any existing or anticipated safety problems.
 8. Justification for any deviation from municipal parking design standards or number of spaces proposed for the subject development.
 9. All capacity work sheets and base data such as machine counts and turning movement counts must be provided.
 10. Any other traffic or operational items that are relevant to the subject development.

Note: Additional information pertaining to the preparation of a Traffic Impact Report can be found in a publication titled Traffic Impact Study Format, April 1991, prepared by and on file at the Morris County Division of Transportation Management.

- C. The applicant’s engineer may request a waiver from strict compliance with this requirement if it can be demonstrated, in writing, that the land development will not have a significant impact on County roads. The County Traffic Engineer may grant said waiver, based on the documentation submitted.
- D. If the circumstances of a development warrant a comprehensive Traffic Impact Report because of its location in relation to land use, traffic volumes and traffic patterns, The County Traffic Engineer may require such a study even though the development does not meet the criteria stated above.

503 Off-Street Parking, Loading/Unloading and Customer Service Areas

A. Design of Off-Street Parking

- 1. Each land development subject to County site plan approval shall provide on its lot the number of off-street parking spaces required by any ordinance of the municipality in which the land development is to be located. In addition, the standards specified below shall be applied.
- 2. Off-street parking areas shall be designed to prevent the maneuvering of vehicles into or out of parking spaces or the storage of vehicles within any portion of an entrance driveway in the County right-of-way in accordance with Table 500-1.

Table 500-1: Parking Set Back	
Proposed Number of parking spaces on site	Minimum distance along entrance driveway from present, or where applicable, future right-of-way line of the County road to any parking space or parking aisle that has direct access to the entrance driveway.
1-20	10 feet
21 and over	20 feet for each 100 spaces or fraction thereof, but not to exceed 50 feet.

- 3. Off-street parking space, including adjacent parking access lanes or maneuvering space, shall be designed to prevent encroachment by vehicles on or over the existing or proposed right-of-way of the County road, including the sidewalk area.
- 4. Off-street parking areas and driveways for residences or non-residential uses shall be designed to prevent vehicles from backing onto the County road.

B. Off-Street Loading

- 1. Each land development subject to County site-plan approval shall provide on its lot the number of off-street vehicle loading or unloading spaces required by any zoning, subdivision, site-planning or other ordinance of the municipality in which the land development is to be located.

2. No part of any off-street vehicle loading or unloading space shall be located within the right-of-way of the County road including the sidewalk area. Off-street vehicle loading and unloading spaces shall be located and designed to permit any vehicle to maneuver from a driveway into and out of such space without encroaching upon any portion of a County road existing or proposed right-of-way including the sidewalk area.

C. Customer Service Areas

Temporary stopping space or maneuvering space for customers' vehicles at a roadside business establishment (such as a roadside grocery stand, filling station or drive-in bank) shall be located so that the stopping or maneuvering space is at least 5 feet back of the existing or (where applicable) future right-of-way line of the County road.

504 Driveways

The following standards 504:A through and including D shall apply to all driveways, except for single family residential driveways.

A. Number of Driveways

The number of driveways permitted from a proposed lot or site directly onto any County road shall be limited in accordance with Table 500-2 except under conditions where the safety and/or convenience of the general motoring public is impaired. Such conditions shall be determined and specified by the County Planning Board upon receipt of advice of the County Traffic Engineer.

Table 500-2: Driveway Spacing	
Length of Lot or Site Frontage	Permitted Number of Driveways
150 feet or less	1
151 feet to 800 feet	2
801 feet or greater	Specified by Planning Board

B. Location of Driveways

1. All entrance and exit driveways to a County road shall be located to afford maximum safety to traffic on the County road.
2. No entrance or exit driveway shall be located on the following portion of a County road: on a rotary; on a ramp of an interchange; or within 25 feet of the beginning of any ramp or other portion of an interchange.
3. Where two or more driveways connect a single site to any one County road, a minimum clear distance shall separate the closest of any two such driveways.
4. Where a site occupies a corner of two intersecting roads, no driveway entrance or exit shall be located within the minimum distances established in Table 500-4 and Figure 500-1.

5. No part of any driveway shall be located within the minimum distance of a side property line as established in Table 500-4 and Figure 500-1. However, upon application to the Planning Board and approval of the design by the County Traffic Engineer, the Planning Board may permit a driveway serving two or more adjacent sites to be located on or within 10 feet of the side property line between the adjacent sites.
6. Driveways shall be designed to prevent vehicles from backing out on the County road.

C. Sight Distance of Driveways

1. Any exit driveway or driveway lane shall be so designed in profile and grading and shall be so located to permit the following minimum sight distance measured in each direction along the County road; the measurement shall be from the driver's seat of a vehicle standing on that portion of the exit driveway with the front of the vehicle a minimum of 10 feet behind the curb line or edge of shoulder of the County road; with the height of eye of 3.25 feet to top of object 4.0 feet above the pavement. (See Table 500-3.)

Table 500-3: Required Sight Distance	
Allowable Speed on County Road	Required Sight Distance in Feet*
25 MPH	300 Ft.
30 MPH	350 Ft.
35 MPH	425 Ft.
40 MPH	475 Ft.
45 MPH	525 Ft.
50 MPH	600 Ft.
<p>* Where 25% or more of traffic using the driveway is comprised of single-unit trucks or tractor-trailer trucks, the above required sight-distance shall be increased by 25% and 50% respectively.</p>	

D. Geometric Design

The geometric design of a driveway connection to a County road should be governed by sound traffic engineering principles. Below are guidelines in preparing a geometric design, but deviation from them may be necessitated from time to time due to the many variables encountered in the course of preparing a design. The applicant should be aware, therefore, that although the driveway layout may conform to these guidelines, conditions may dictate deviations from them and requirements of the County Traffic Engineer shall be final. Driveway design standards #1 through #3 are further described in Figure 500-1 and Table 500-4.

1. Two-Way Operation: Driveways used for two-way operation will intersect the County road at an angle to as near 90 degrees as site conditions will permit and in no case will be less than 60 degrees.
2. One-Way Operation: Driveways used by vehicles in one direction of travel (right turn only) shall not form an angle smaller than 45 degrees with a County road.

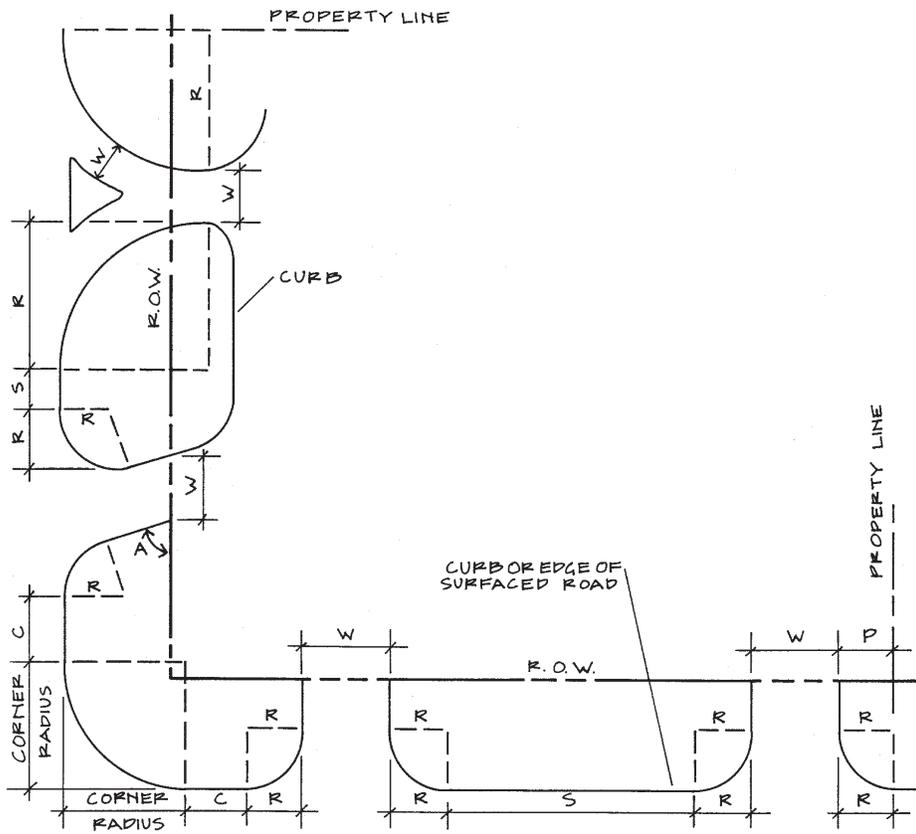


FIGURE 500-1	
Morris County Typical Detail Driveway Location Diagram	
Not to Scale	10-95

3. The dimensions of driveways shall be designed to adequately accommodate the volume and character of vehicles anticipated to be attracted daily onto the land development for which a site-plan is prepared. The required maximum and minimum dimensions for driveways connecting to a County road at 90 degrees are set forth in Table 500-4 and Figure 500-1. Driveways serving a large volume of daily traffic or traffic over 25 per cent of which is truck traffic shall be required to utilize high to maximum dimensions. Driveways serving low daily traffic volumes or traffic less than 25 per cent of which is truck traffic shall be permitted to use low to minimum dimensions.
 4. Any vertical curve on a driveway shall be flat enough to prevent the dragging of any vehicle undercarriage. The maximum permitted gradients for driveways shall not exceed a 2 per cent grade for a distance of 20 feet in back of gutterline. Whenever possible the driveway shall be graded to prevent stormwater entering the site from the County road.
 5. The surface of any driveway subject to County site-plan approval shall be constructed with permanent pavement for a minimum distance of 25 feet from the County road edge of pavement.
- E. Residential driveways of single family lots shall be designed in accordance with the following standards:
1. The location and design of single family residential driveway shall conform to Table 500-4 and Figure 500-1.
 2. Driveways shall be designed to prevent vehicles from backing out on the County road.
 3. Driveway shall be located and designed to provide optimal sight distance along the County road.
 4. The profile of the driveway at the connection to the County road shall be designed with a "leveling area" prior to vehicles entering the County road.
 5. The surface of the driveway subject to County approval shall be constructed with permanent pavement for a minimum distance of 10 feet from the County road edge of pavement.
 6. Whenever possible the driveway shall be graded to prevent stormwater from flowing onto the County road.

Table 500-4: Driveway Dimensions

	Dimension Reference (See Fig. 500-1) (feet)	Single Family Residential (feet)	Commercial and Multi-family Residential (feet)	Industrial (feet)
Width ¹ One Way One-way (min./max) Two-Way (min./max)	W	10-12	12-15 24-30	15-18 30-36
Turning Radius ² Minimum Maximum	R	5 15	15 35	30 45
Minimum Spacing ³ From Property Line From Street Corner ⁴ Between Driveways	P C S	5 10 50	10 or -R 25 150	-R 25 150
Angle ⁵ Two-way One-way (minimum)	A	90° -	60° 45°	60° 45°

1. The width shown applies to rural routes and most urban streets, including neighborhood, business, residential, and industrial streets. The width is intended to be measured along the right-of-way line, in most instances at the inner limit of a curbed radius, or between the line of the radius and the near edge of a curbed island at least 50 feet square in area.
2. In high pedestrian activity areas, the radii should be half the values shown. The maximum radii for major generator driveways will be higher than the values shown and will be determined by the County Engineer.
3. Measured along the curb or edge of pavement from the roadway end of the curb radius, except for conditions noted in Figure 500-1. In high pedestrian activity areas, the minimum spacing between driveways should be 5 feet.
4. At signalized intersections the minimum spacing shall be doubled.
5. Minimum acute angle measured from edge of pavement, and generally based on one-way operation. For two-way driveways, and in high pedestrian activity areas, the minimum angle should be 70 degrees.

505 Speed-Change Lanes

A speed-change lane is an auxiliary lane for the acceleration or deceleration of vehicles entering or leaving the through traffic lane. Speed change lanes may be required where certain development roads and driveways are proposed to intersect County roads.

- A. Construction of speed-change lanes by the developer shall be at the direction of the County Traffic Engineer. Factors governing this determination shall include but not be limited to current and anticipated traffic volume and speed on the County road and anticipated character and volume of traffic on the development street or driveway.
- B. Where pavement widening and curbing are required in accordance with Section 510A this additional width of pavement will generally be acceptable as serving the purpose of speed change lanes.

- C. Where full width speed change lanes are required their dimensional design shall comply with the following table:

Table 500-5: Speed Change Lanes		
Acceleration Lanes		
Legal Speed Limit	Full Width	Taper
25 MPH to 40 MPH	200 feet	150 feet
40 MPH to 50 MPH	350 feet	200 feet
50 MPH and over	450 feet	250 feet
Deceleration Lanes		
Legal Speed Limit	Full Width	Taper
25 MPH to 40 MPH	150 feet	200 feet
40 MPH and over	200 feet	250 feet

- D. In all cases the full width widened roadway shall be preceded or terminated with an uncurbed, paved taper having a length set forth in Table 500-5 measured from the end of curb to the existing pavement. Exception: Where the pavement taper will become a permanent design of the roadway, curbing of the taper is required.
- E. The area behind the taper shall be cleared of all trees, poles and other obstructions for a distance of not less than the width of the new pavement edge as measured from the centerline of the road which would present a hazard to vehicles running off the edge of the taper pavement.

506 Left-turn Lanes, Jughandles and Overpasses

The construction of and/or the conveyance of land to the County for left turn lanes, jughandles and overpasses may be required by the Planning Board, under one or more of the following circumstances:

- A. When the Circulation Element of the County Master Plan or the Official County Map shows the proposed location of jughandles and/or overpasses.
- B. When a development is proposed that provides peak hour traffic in excess of 150 vehicle trips. A trip is defined as a single or one-every-vehicle movement with the origin or destination inside the study site.
- C. Where the sight distance is below that shown in Table 500-3.
- D. Where the existing level of service is Level "D", as described in the Highway Capacity Manual, published by the Highway Research Board, during the time period when the County road would be utilized by drivers entering and leaving the development.

507 Traffic Control

Traffic control measures may include signals, pavement markings, signage, and curbed islands.

- A. The Planning Board may require installation of traffic control measures at driveways and intersections depending on the need as determined by the County Traffic Engineer and based upon the Traffic Impact Report as required in Section 502.
- B. All traffic control measures shall be provided by the applicant and shall conform to the Manual of Uniform Traffic Control Devices, the New Jersey Department of Transportation, and the specifications of the County Engineer.
- C. Traffic control measures in residential, rural and historic zones will be designed to take into consideration the character of the area.

508 Street Intersections

A. General

- 1. All street intersections with a County road shall, given the physical constraints of the site, be located to afford maximum safety to the traveling public.
- 2. All street intersections with a County road shall be designed in accordance with Figure 500-2.

B. Location of Street Intersections

- 1. Where there is an existing or proposed street intersection on the County road opposite the frontage of the development and where site conditions allow, the road servicing the development shall be located directly across from said existing or proposed road forming a 4-way intersection.
- 2. If Section 508:B-I above does not or cannot be applied, where site conditions allow, the proposed intersection with a County road shall be off-set with other proposed or existing intersections by a minimum distance of 250 feet.
- 3. Only one new street shall be permitted for a development to connect to a County road, except where the development frontage along the County road exceeds 1,000 feet.
- 4. Where the development frontage exceeds 1,000 feet along a County road, new streets shall be placed at intervals of not less than 800 feet. Consideration shall be given to the locations of existing streets opposite and/or adjacent to the development in the final location of the development street.

C. Design of Street Intersections

- 1. Intersections shall be made at right angles, unless otherwise approved by the County Traffic Engineer. The angle of the intersection shall be measured at the intersection of the centerline of the intersecting street with the centerline of the County road.
- 2. A 30x30 inch high intensity stop sign, 12 inch white stop line, and 4 inch double yellow centerline shall be placed at the proposed street in accordance with Figure 500-2.

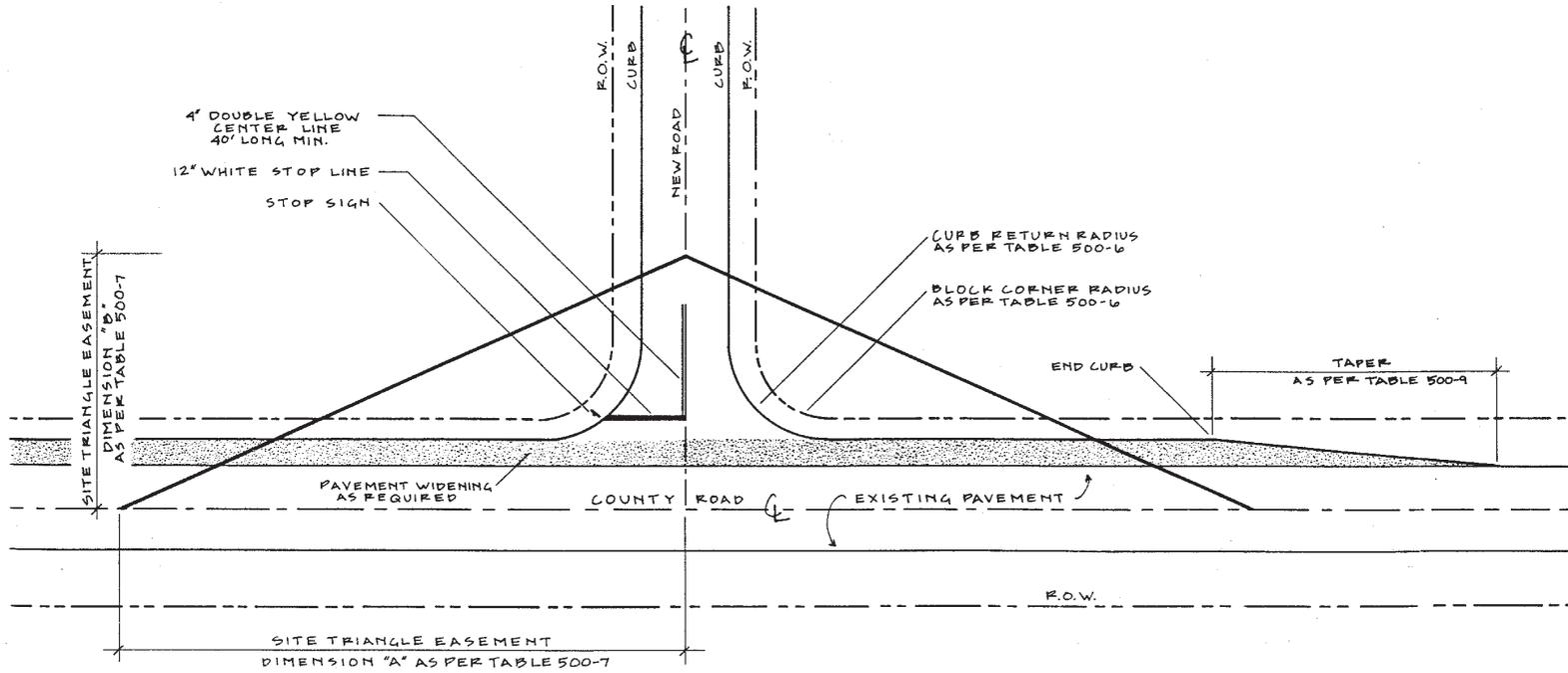


FIGURE 500-2	
Morris County Typical Detail Intersection Design	
Not to Scale	10-95

3. Curb return radii shall be provided between the intersecting curb lines of the County road and proposed street in accordance with Table 500-6. The highest road classification at the intersection shall determine the curb return radii standard. The curb return radii shall be off-set from the roadway centerline in accordance with pavement widths established in Section 510A or as otherwise directed by the County Planning Board.

D. Sight Triangles

1. In addition to the rights-of-way dedications required under Section 509A-1, sight triangle easements shall be dedicated to the County by the developer at all intersections, both proposed and existing, on which the development fronts.

Table 500-6 Corner Radii Standards		
Street	Curb Radii	Block Corner Radii
Arterial	Fifty (50) feet	Forty (40) feet
Collector	Forty (40) feet	Thirty (30) feet
*Minor	Thirty-five (35) feet	Twenty five (25) feet
*Where bus or truck traffic from the minor street exceeds 3% of the total traffic from the minor street, curb radii shall be forty (40) feet.		

2. In cases where the sight triangle easement extends beyond the property limits of the development, only that portion within the ownership or control of the developer is required.
3. Natural or man-made obstacles shall not be located within the sight triangle. Such sight easements shall assure that an unobstructed view of the County road is maintained through the specified triangular area. Traffic control devices and other man-made or natural objects may remain if it can be demonstrated that they do not obstruct the view of on-coming traffic.
4. Sight triangle easements shall be in accordance with the following schedule.

Table 500-7: Site Triangle Easements		
	"A"	"B"
Minor to a Arterial	300'	90'
Monor to a Collector	200'	90'
Collector to a Collector	120'	200'
Collector to an Arterial	120'	300'
Distances "A" and "B" as measured along the centerlines from the point of intersection. (see Figure 500-2).		

509 Road Rights of Way

A. Dedication of Road Right-Of-Way

1. All proposed developments which front on or include County roads, the existing deed lines of which do not conform to the right-of-way widths adopted in the County Master Plan or Official County Map, shall dedicate the required additional right-of-way width for the entire frontage along the County road or roads. The additional right-of-way shall be that portion of the property which lies between the existing right-of-way and the proposed future right-of-way line of the County road or roads.
2. Where any road classified as an arterial or collector road intersects with an arterial or a collector road in the adopted County Master plan or Official County Map, the right-of-way dedication shall be increased an additional 12 feet along the development frontage or frontages on both roads for a distance of 250 feet from the intersection of the centerline of the roads.
3. The construction of and/or the conveyance of land to the County for left turn lanes, jughandles, and overpasses to a development may be required by the Planning Board based upon criteria set forth in Section 506.
4. Where the total additional right-of-way is to be secured from just one side of a County road, only one-half of the required additional right-of-way shall be dedicated by the development as a condition of approval of the development. The development shall reserve the remaining area of right-of-way for future acquisition and shall so designate the area on the development maps. The building setback line shall be measured and shown from the future right-of-way line.
5. The final subdivision plat (which is to be filed in the Office of the County Clerk of Morris County), minor subdivision plat, or site plan shall bear the notation "Dedicated to the County of Morris for Road Purposes" which shall further be defined by metes and bounds. In addition, the developer shall show concrete monuments to be set on the new right-of-way line at the tract corners and points of curvature.
6. The developer shall furnish the Planning Board with a bargain and sale type deed, drawn to the County of Morris, a Municipal Corporation and shall include a metes and bounds description which corresponds to the dedicated area as shown on the subdivision plat, or site plan as the case might be.
7. The deed description shall include:
 - a. A beginning point referenced to a tax map lot and block, a prior deed or filed map, and the nearest street intersection.
 - b. Square footage or acreage of the dedicated area.
 - c. A reference to the subdivision plat or site plan as the case may be stating the title, municipality, date and last revision, and the name and address of the surveyor/engineer.

B. Right-of-Way Encroachments Prohibited

No development which adjoins or includes a County road or roads shall be designed to permit any of the following uses within the County road right-of-way: conduct of private business; erection of buildings, permanent or temporary; sales of merchandising displays; vehicular parking areas; servicing of vehicles; service equipment and appurtenances thereto; fencing of any kind, to include living and artificial or fabricated types; walls of timber, stone, concrete, metal or other materials; signs of all types, excepting traffic and regulatory and street signs; shrubberies and horticultural materials, excepting trees designated to remain or to be planted as a requirement under these regulations.

510 Roadway Widening

- A. The County road frontage shall not be widened unless the development application involves either of the following, in which case it may be widened:
1. Residential subdivisions and site plans of densities equal to or greater than two (2) units per acre.
 2. Commercial, industrial and other nonresidential subdivision and site plan applications.
- B. Where road widening is required, such widening shall be designed in accordance with Table 500-8 and Figure 500-3 of these Standards, or as directed by the Planning Board.
- C. The type of road from Table 500-8 shall be determined by the Planning Board based on the advice of the County Engineer and the following guidelines.

Table 500-8: Roadway Design Standards			
Road Type	Pavement *Half Width	Curb	R.O.W. *Half Width
A	24'	required	33'
B	20'	required	33'
C	18'	**varies	33'

*As measured from existing pavement centerline.
 **As determined by the Planning Board based on the advice of the County Engineer.

1. Road Type 'A' is applicable to developments proposed along County roads where widening has been constructed at 24 feet from centerline or where the County has specifically adopted plans for a 48 foot wide road.
 2. Road Type 'B' is applicable to County roads where a designated parking lane is required such as in a commercial zone.
 3. Road Type 'C' is applicable to other development applications where road widening is required under Section 510:A and Road Types 'A' and 'B' are not applicable.
- D. The Planning Board may modify and waive the roadway widening standards in consideration of the following:

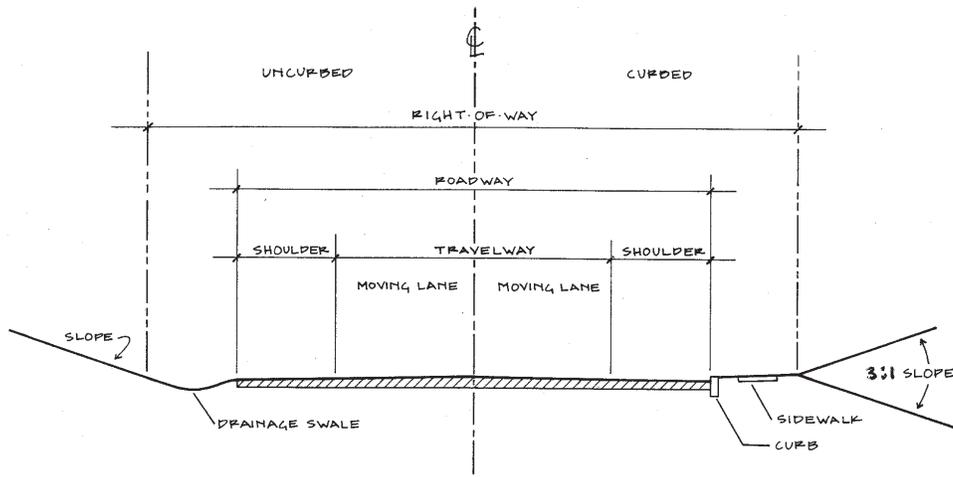


FIGURE 500-3
 Morris County Typical Detail
Road Design Section
 Not to Scale 10-95

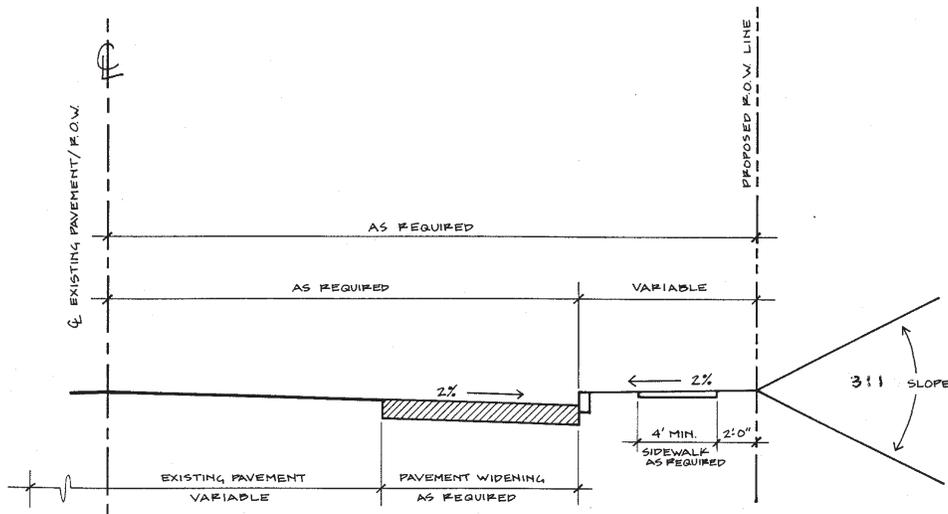


FIGURE 500-4
 Morris County Typical Detail
Road Widening Section
 Not to Scale 10-95

1. Where the pavement width and curb have been established by previous road improvements.
 2. Where an existing site is proposed for redevelopment, and the Planning Board has determined that the proposed changes will have little or no affect upon the County road and drainage systems.
 3. Where single-family residential lots are proposed using reverse frontage and no driveways or streets will connect to the County road.
 4. Where widening of the road pavement is undesirable as provided in Section 105.
 5. Where a redevelopment plan or historic preservation plan element or survey has been adopted by the municipality. (It is the policy of Morris County that design standards and widths of roadways and rights-of-way in historic districts be continued and maintained in their existing configuration.)
- E. Notwithstanding the above, a development may be required to make road improvements with respect to drainage, street intersections, driveway connections and traffic circulation as determined by the County Engineer and in accordance with other Sections of these Standards.
- F. The alignment of road widening improvements shall conform to the County road improvement plans (where such plans exist) and the recommendations of the County Engineer, if in the judgment of the Planning Board such realignment will not impose an undue hardship on the applicant and other affected property owners.

511 Pavement

- A. Wherever pavement widening is required along the County road frontage of a development, the area between the edge of existing pavement and the curb shall be paved as specified and shown in Figures 500-5 and 500-6 as applicable.
1. Where the existing pavement cross-slopes are 3 per cent or greater, the new pavement shall be overlayed to the road centerline to attain standard 2 per cent cross slopes in accordance with Figure 500-5. Where existing pavement cross-slopes are less than 3 per cent, existing edge of pavement shall be saw cut to create an even edge to receive additional pavement in accordance with Figure 500-6.
 2. The widened roadway shall be preceded and terminated with an uncurbed paved taper as shown in Figure 500-7. The lengths of paved tapers shall conform with Table 500-9.
 3. The area behind the taper shall be cleared of all trees, poles and other obstructions which would present a hazard to vehicles running off the edge of the pavement taper. The cleared area shall equal the distance of the new curb line (edge of pavement) as measured from centerline of the road.
 4. Two Special #2L Signs as shown in Figure 500-8 shall be placed along the pavement taper.
 5. Where high volumes of traffic are anticipated at development driveways or roads, design standards set forth for intersections shall be applied as required by the County Traffic Engineer.

B. Minimum Standard Road Details

All developments which abut County roads shall submit plans, profiles and cross-sections as specified in Section 402:F-1 thru 3 and shall include the following:

1. Road Profiles

All improvements to a County road shall maintain a positive gutter flow at the new curbline. The profile shall show the proposed gutter line (bottom of curb) of the widening in relation to the existing centerline and edge of pavement. The minimum allowable profile grade is 0.5 per cent for pavement gutters, and 2.0 per cent for drainage swales.

2. Road Plans

- a. The extent of the pavement widening and resurfacing shall be shown on the drawings by shading in accordance with the pavement cross-sections.
- b. Alignment data for curbing must be shown. All plans shall specifically note that the alignment, grade and stake out of any improvement to a County road shall be inspected by the County Engineer prior to construction.

3. Road Cross Sections

- a. County roads shall maintain a uniform 2 per cent cross slope between centerline and gutterline.
- b. The remaining road right-of-way (behind the curb line or edge of pavement) shall also be graded at 2 per cent.
- c. If by determination of the County Planning Board, grading of the full right-of-way is unfeasible, then the right-of-way shall be graded at a minimum of 3 feet behind the curb line or edge of pavement.

Table 500-9: Pavement Taper	
Additional Width of Pavement (W)	Length of Taper (L)
0-2'	25'
2-4'	50'
4-6'	75'
6-8'	100'
8-10'	125'
10-12'	150'
12-14'	200'

C.. Marginal Service Roads / Reverse Frontage

Where possible and as directed by the Planning Board, applicants shall design the development so that access driveways will connect with internal roads, not the County road. Where a marginal road or reverse frontage can not be achieved, all access driveways to the County road shall be in accordance with the standard as found in Section 504.

512 Curbing

A. Curbing Along Development Frontages

Where widening of the County road frontage is required, curbing shall be constructed in accordance with Table 500-8 and the standards of this Section.

B. Minimum Curbing at Public Street Intersections

Curbing shall be placed along the County road for a minimum distance of 125 feet from the end of the curb returns. The placement of the curb in feet from the centerline of the County road shall be determined by the Planning Board. In addition, the area between the curb and existing edge of pavement shall be paved to the specifications of Section 510:B.

C. Minimum Curbing at Driveway Connections

Driveways serving non-residential developments requiring County site plan approval shall provide curbing at the following locations:

1. Along the curb returns specified in Section 508:C-3 plus 25 feet along the County road from the point of tangency of each curb return with the curb line; or
2. Where the option is available and with the approval for the Planning Board, along the depressed curb line plus an additional 15 feet in both directions along the County road.

D. Any existing curb openings not required by the development shall be closed with construction of new curbing.

E. Specifications

1. The alignment and grade of curbing shall conform to that established or existing in the area and should be subject to the approval of the County Engineer.
2. Curbing shall be constructed in accordance with the design standards set forth in Figures 500-9 and 500-10.
3. Depressed curb
 - a. Where a proposed driveway is to serve any land development, curbing shall be carried across the driveway opening as depressed curb.
 - b. New depressed curb shall be constructed in accordance with Figure 500-11.

513 Drainage

Drainage facilities shall be designed as necessary in connection with road widening improvements in accordance with Section 600 of these Standards.

514 Sidewalks

- A. Each land development subject to County approval shall provide a sidewalk within the County road right-of-way if such is required by a zoning, subdivision, site-plan or other ordinance of the municipality in which the land development is to be located. Where no local ordinance requires a sidewalk, the County Planning Board may require the installation of a sidewalk in the County right-of-way in order to protect pedestrian traffic while facilitating vehicular traffic. If a sidewalk is required as a condition of approval under these Standards or is required by a municipality, such sidewalk shall be located in accordance with local specifications. In the event that no local specifications exist, sidewalks shall be constructed in accordance with Figure 500-12 and the following:
- B. Sidewalk Construction Specifications
 - 1. Sidewalks shall be constructed of portland cement concrete, 2,500 lbs., in accordance with the standards and specifications of the New Jersey Department of Transportation.
 - 2. Sidewalks shall be a minimum of 4 feet in width. The outside edge of the sidewalk shall be 2 feet inside the right-of-way line except in commercial areas.
 - 3. Sidewalks shall conform to standards slope specifications of 1/4 inch per foot rising from the top of standard curb, except where depressed curb-type driveways require a lowering of the sidewalk grade.
 - 4. Where pedestrian crossings exist or are proposed, sidewalks and curbs shall be designed with ramps and curb cuts in accordance with the Barrier Free Subcode of the Uniform Construction Code N.J.A.C. 5:23-7:31 as supplemented by any municipal standards.

515 Utility Poles

Utility poles, both new and relocated shall be positioned a maximum 2 feet off the County road right-of-way line and as directed by the County Traffic Engineer and/or utility company so as to avoid hazardous conditions along the County roadway.

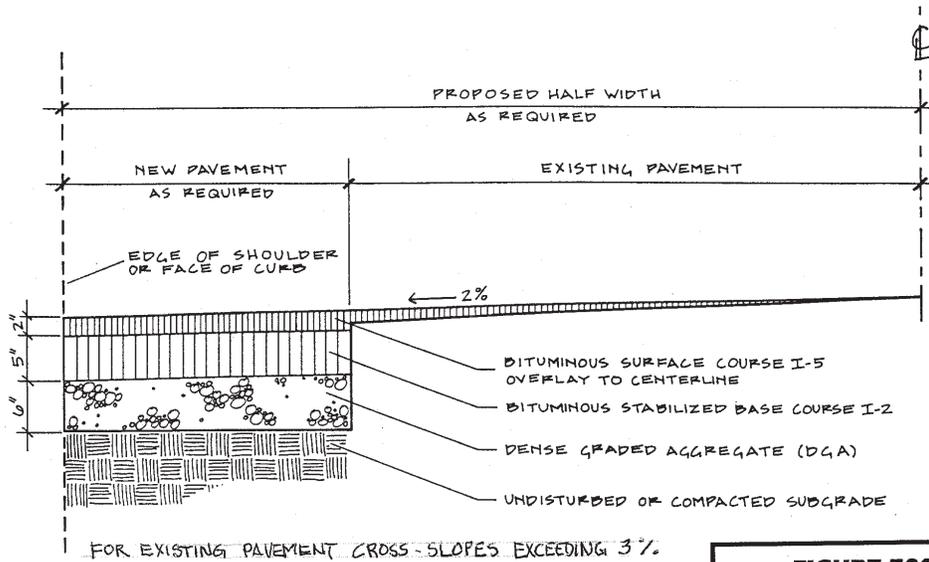


FIGURE 500-5

Morris County Typical Detail
Pavement Widening Section (CL)

Not to Scale	10-95
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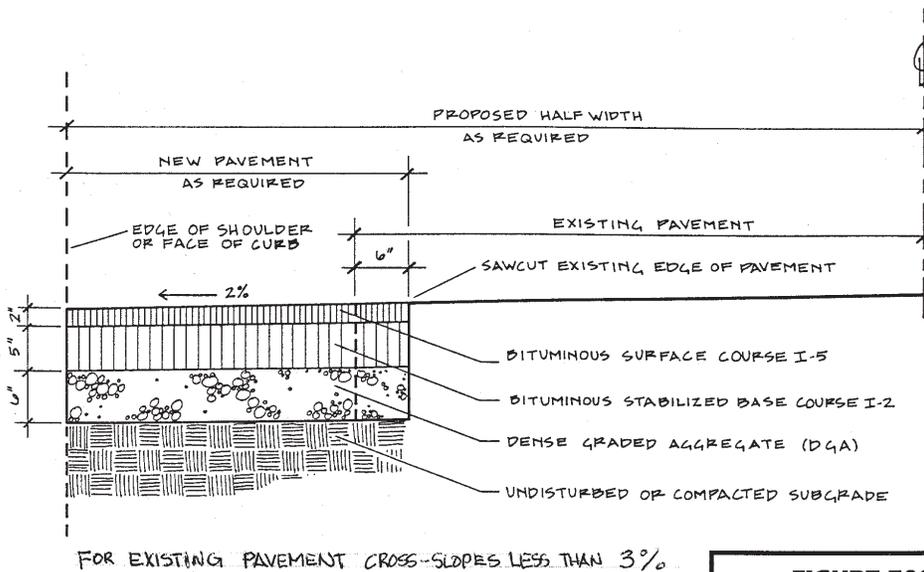


FIGURE 500-6

Morris County Typical Detail
Pavement Widening Section (EP)

Not to Scale	10-95
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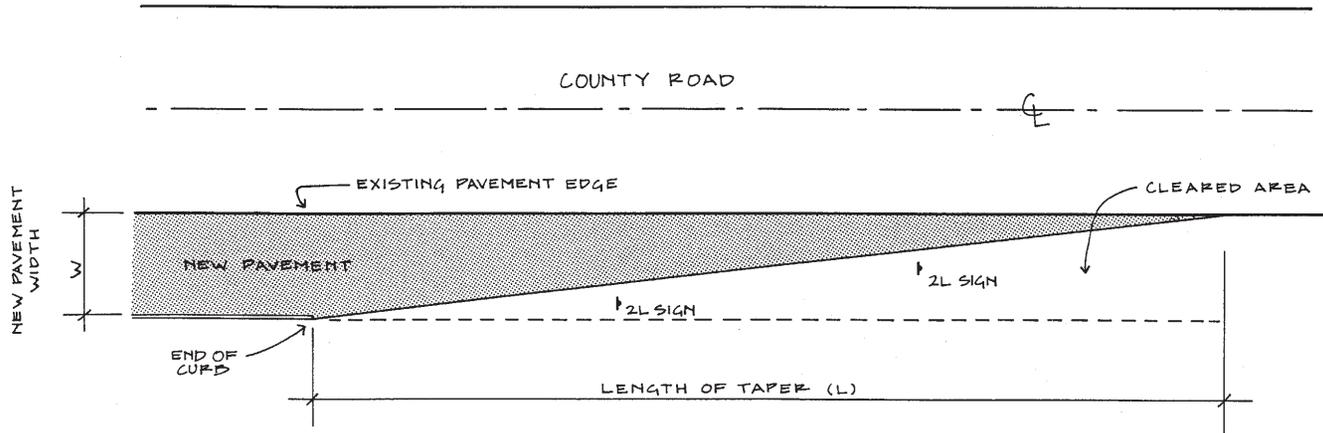
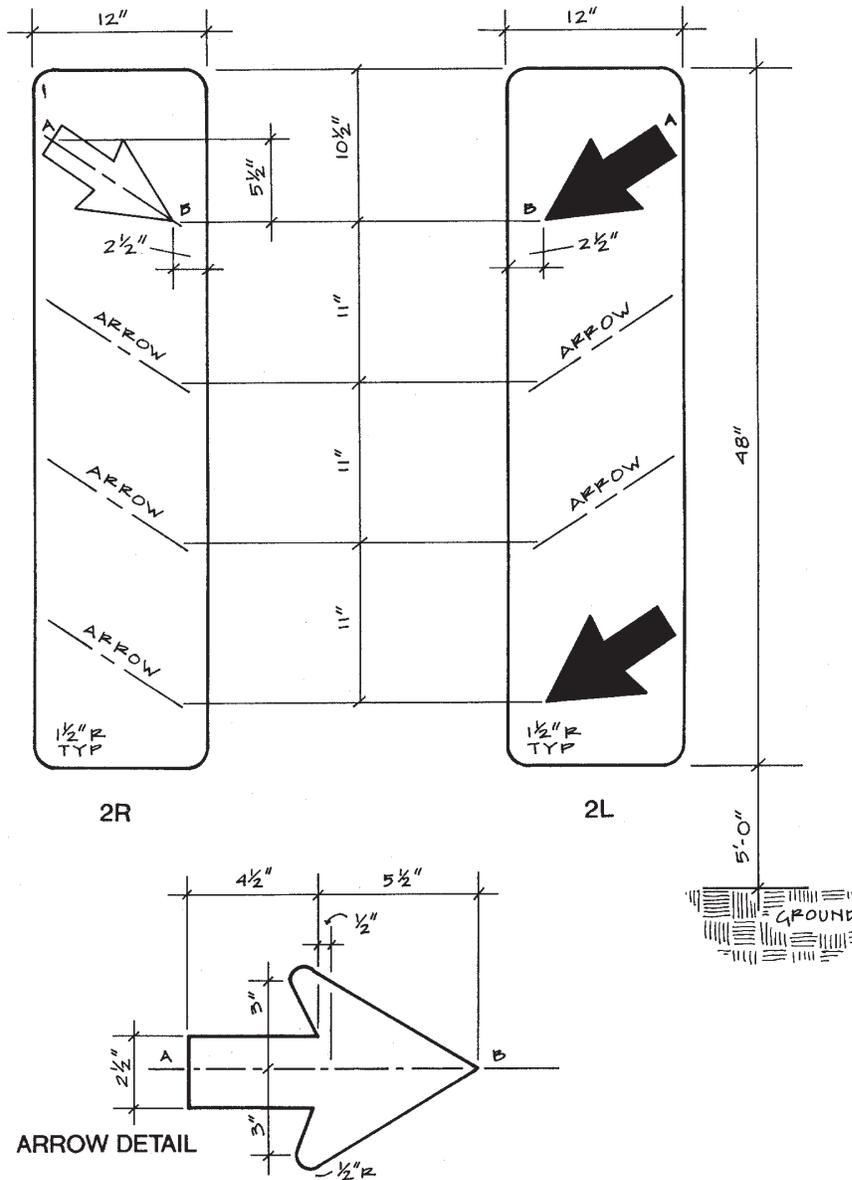


FIGURE 500-7	
Morris County Typical Detail Pavement Taper	
Not to Scale	10-95



SPECIAL SIGN #2R & #2L

FIGURE 500-8	
Morris County Typical Detail Special Sign 2R & 2L	
Not to Scale	10-95

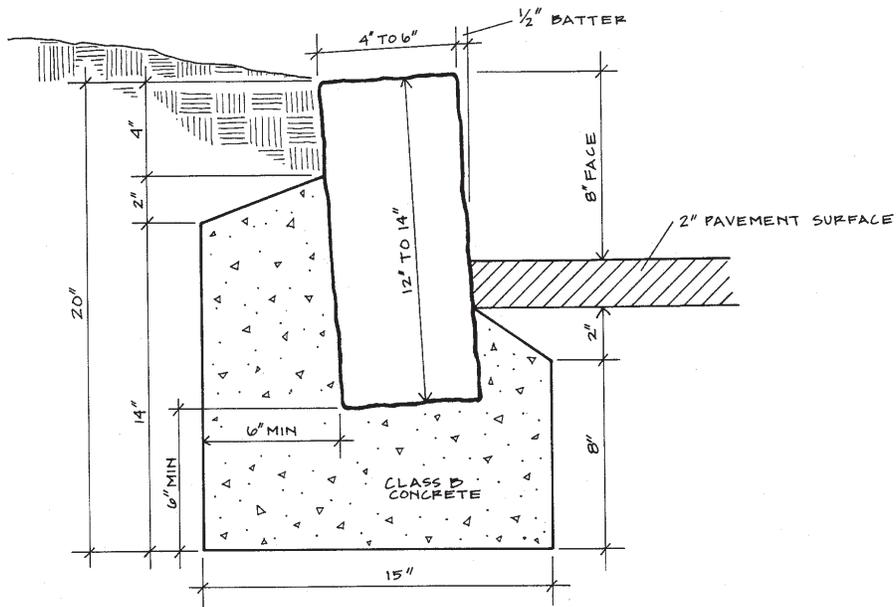


FIGURE 500-9	
Morris County Typical Detail Granite Block Curb	
Not to Scale	10-95

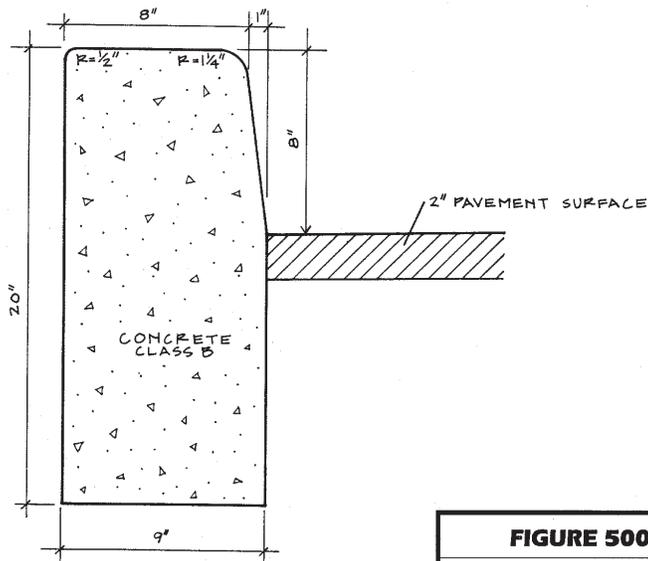


FIGURE 500-10	
Morris County Typical Detail Concrete Curb	
Not to Scale	10-95

SECTION 600

Stormwater Management

600 Stormwater Management

601 General Policies

All subdivision and site plans subject to County approval shall provide for the management of stormwater runoff in a manner consistent with the following policies:

- A. All subdivisions and site plans shall provide adequate drainage structures in accordance with the standards established herein for the management of stormwater runoff that is generated by a development that now flows or will flow directly or indirectly to a County road or through a County drainage facility.
- B. The developer shall be responsible for providing adequate drainage systems along County roadways as required and in accordance with the standards and construction details herein.
- C. Stormwater runoff from a development tributary to County roadways or county drainage facilities or any development which lies within a County designated Stormwater Management Area shall submit a Stormwater Control Plan which provides for drainage improvements of adequate design and capacity to intercept and dispose of stormwater from the proposed development in a manner which does not increase the drainage impact upon the County roads, County-maintained drainage facilities, or drainage systems within designated stormwater management areas.
- D. All subdivisions and site plans requiring a Stormwater Control Plan and affecting County roadways or County drainage/stormwater management facilities shall be required to submit hydraulic calculations documenting the drainage basin studies. Depending on the location of the site in relationship to the total drainage basin, an on-site stormwater detention facility may be required where it is found that the installation of the facility will reduce the overall impact of stormwater runoff. In cases where on-site detention will not reduce the overall impact of stormwater runoff rate, and will not be effective due to specific site limitations such as space limitations, topography, location in the common drainage area and wetland conservation areas, a detention facility will not be required. All such developments releasing an increase in stormwater peak runoff from predevelopment conditions into the County stormwater system shall be required to contribute to the improvements of County drainage channels, structures, and/or regional detention facilities within the common drainage area or a designated stormwater management area. The costs will be determined by the County Engineer based on the area of the site in relationship to the total drainage area and considering the amount of increased runoff rate from the site. Developments providing on-site infiltration or recharge facilities, and resulting in no change or increase in the amount of predevelopment stormwater runoff off-site, will not be required to contribute to County improvements.
- E. In cases where stormwater runoff from a development discharges to streams, lakes, wetlands or other water bodies, the County may require special filtration and other water control measures in order to meet current permissible water quality standards and reduce the risk of contamination of the receiving water body from stormwater runoff. The applicable water quality standards are contained in NJDEP rules cited as NJAC 7:8-1.1 et. seq., NJAC 7:9-4.1 et. seq., 7:14A-3.1 et. seq. and NJAC 8:9-5.1 et. seq.
- F. When necessary as determined by the County Engineer these stormwater management standards will be supplemented by performance criteria and guidelines in the

Morris County Stormwater Management Technical Guide and the NJDEP Stormwater Management Best Management Practices Manual.

- G. Non-structural methods of stormwater management shall be used to the greatest extent possible for the purpose of minimizing stormwater volume and total suspended solid generation, maintaining natural filtration, simulating natural drainage systems and minimizing the discharge of pollutants to ground and surface waters.
- H. These policies and standards are intended to serve the needs of the County for the design of stormwater control plans, systems and facilities under its jurisdiction. The County Standards shall not take precedence over any municipal stormwater control ordinance which regulates the design of the systems and facilities internal to the development site. In such instances which involve the detention or retention stormwater flowing from the site into a County maintained drainage system or facility, the more stringent of the two standards shall be applied.

602 Stormwater Control Plan and Contents

Subdivisions and site plans draining to a County maintained drainage system, or situated within a designated Stormwater Management Area, shall submit a Stormwater Control Plan and report containing (in addition to the information required in Section 300) the following information:

- A. Separate pre and post development contoured drainage maps outlining area referenced in the study with acreage, runoff, curve numbers and time of concentration paths, areas detained and undetained, proposed drainage structures and common points of analysis.
- B. The resultant changes in the volume and peak rate of runoff for the designated storms from the various areas on the site toward the County drainage structures showing, in the instance of detention basins, inflow, outflow, undetained flow and total flow.
- C. The proposed location of stormwater measures, the run-off volume, peak rate, flow path, detention and retention of stormwater on-site for the designated storms.
- D. The volume and peak rate of off-site stormwater discharged from the site for the designated storms.
- E. Hydraulic computations for the analysis and design of the stormwater control facilities. All calculations, assumptions and criteria used in the design analysis should be justified and documented.
- F. Detention basin routing computations by the Storage Indication (Modified PULS) Method or other appropriate procedure or method for the specified design storms.
- G. Data, illustrations and narrative outlining provisions to meet water quality requirements.
- H. Computations showing the total additional impervious surface for the development.

603 County Storm Drainage Systems and Stormwater Management Areas

- A. It shall be the applicant's responsibility to provide adequate drainage facilities along County roadways and within County Stormwater Management Areas as required by the County Engineer.
- B. When a drainage system or any part thereof is proposed for a development which relates to a County roadway or County Stormwater Management Area, the additional capacity necessary to accommodate the anticipated increased stormwater runoff from the development, or of areas tributary to the drainage system, shall be determined in accordance with the following procedures:
 - 1. The capacity and design of the drainage structure or system to accommodate stormwater runoff shall be determined by the applicant's engineer in accordance with Section 608 of these Standards. Storm drainage calculations and a storm drainage map shall be submitted by the applicant's engineer.
 - 2. If it is necessary to enlarge a drainage structure or system the applicant's engineer shall prepare plans and designs required to provide capacity for the anticipated increase in stormwater runoff for the post-development and for the predevelopment flow of stormwater for areas outside of the development which are tributary to the drainage system, subject to the approval of the County Engineer.
 - 3. If determined by the County Engineer a drainage structure or system cannot be enlarged by the applicant, the applicant shall make payment to the County in lieu of the installation of the drainage system. The County may also participate in the construction of improvements, or assume responsibility for construction of the drainage system. Payment for all improvements shall be consistent with the provisions of Section 800.

604 Existing County Bridges and Culverts on Roads to be Widened

- A. Where road pavement widening is required by these Standards, the developer shall extend bridges and culverts to the full width of the widened traveled way or future pavement width, whichever is greater, plus a sidewalk or embankment area, if such is required. In no instances, however, shall the traveled way be less than 26 feet (13 feet from centerline).
- B. Where these Standards require widening on both sides of the road, the culvert or bridge shall be extended, or replaced as specified in Section 604:A.
- C. Where an existing bridge or culvert is found to be structurally or hydraulically inadequate to serve the proposed development, then total replacement of the structure shall be required by the Planning Board.
- D. When bridges and culverts are designated for replacement but immediate replacement is found to be impossible or impractical, then full payment of the total replacement cost shall be charged to the developer as provided in Sections 103:C and in accordance with Section 803 of these Standards.
- E. The design of bridges and culverts to be extended or replaced shall conform to the procedures and standards of The Bridge and Culvert Policy of the County of Morris, adopted by the Morris County Board of Chosen Freeholders, April 14, 1993 (See Appendix C).

605 New Bridges and Culverts

The County may assume jurisdiction and future maintenance of bridges and culverts on municipal roadways within developments when said structures will be for the purpose of spanning a waterway and will have a nominal four (4) foot clear span or greater. Said structures must further comply with the applicable standards for procedures, design, and construction as set forth in "The Bridge and Culvert Policy of the County of Morris", adopted by Resolution of the Board of Chosen Freeholders of Morris County, April 14, 1993. (See Appendix C).

606 Bridges and Culverts Downstream of Development

- A. All developments, which drain to an existing County bridge or culvert, will be considered to directly increase the hydraulic requirements of that structure. Residential subdivisions of 3 lots or less, not involving any other subdivision action within the prior three years, and not involving addition of pavement, are exempted from this requirement.
- B. A developer shall be required to pay a proportionate share of the cost of correcting an adverse drainage condition when the Planning Board determines that a development situated in a drainage basin:
 - 1. Would create an immediate or potential effect on a County drainage structure, such as increased streamflows and discharges; or
 - 2. When the development lies in a drainage basin where drainage facilities have previously been installed, replaced or altered under the provisions of these Standards.
- C. The proportion of the cost of such facilities to be paid by a developer whose proposed development would drain into such facility will be equal to the proportion that the acreage of the proposed development bears to the acreage of the entire drainage basin. The developer's engineer shall perform all calculations of storm runoff based on consideration of the physical features of the basin and the future development of the area based on the existing local zoning ordinances. The County Engineer shall on behalf of the Planning Board review said calculations.
- D. The proportionate cost of the drainage facility installation or alteration will be the estimated cost of installing the new facility as calculated by the County Engineer, plus 10 percent for contingencies. In cases where the payment is to be made toward the proportionate cost of facilities previously installed or the cost of previously performed alterations, the actual cost of the work performed will be used in place of an estimated cost.
- E. Regardless of any other provision in these standards, the developer will not be financially responsible for any part of existing drainage facilities for which full payment has previously been made to the County by other developers in the same drainage basin.

607 Drainage Rights of Way and Easements

- A. All developments traversed by a water course, drainageway channel or stream shall provide a storm-water drainage easement or drainage right-of-way of such width as may be deemed necessary and adequate for the purpose of maintaining and preserving the drainage facility. The existing natural drainage features shall be preserved wherever possible in the design of the development.

- B. Drainage easements shall be established for all existing and proposed enclosed storm drainage systems. The purpose of the drainage easement shall be to enter upon, operate and maintain the system . The easement shall be no less than 20 feet in width.
- C. All stormwater detention and infiltration facilities shall provide easements to permit access for maintenance in accordance with minimum standards established by the County or Municipal Engineer. A minimum width of 20 feet for the entire perimeter of the facility should be provided.
- D. Where a development by necessity, design, or both, must discharge storm drain runoff or alter the course of a stream to flow onto or across lands of the downstream property owner(s), for which there is no drainage easement of record, the developer shall secure the necessary easement and/or right-of-discharge agreement from the downstream property owner and submit a copy of the easement and/or right-of-discharge agreement to the Planning Board.
- E. The site plan or final development plat which is to be recorded in the Office of the Morris County Clerk shall show all drainage easements and "Dedicated to the County of Morris" (Town, Township or Borough) for storm drainage purposes," whichever is appropriate. In addition the developer shall furnish the County Planning Board with deed of easement in accordance with Section 800 of these Standards.

608 Storm Drainage Design Criteria

- A. Methodology
 - 1. All drainage facilities shall be designed using one of the following methods as appropriate:
 - a. Rational Method - for peak discharges of uniform drainage areas up to 50 acres.
 - b. Modified Rational Method - for runoff volumes of uniform drainage areas of less than 20 acres.
 - c. Soil Conservation Service (S.C.S.) Technical Release No. 55 - for drainage areas between 1 acre and 2000 acres.
 - d. Other methods described in the Morris County Stormwater Management Technical Guide subject to approval of the County Engineer.
 - 2. Drainage calculations shall include computations of the total drainage basin area and the percentage of the total drainage from a development which connect directly into an existing County storm drain or requires drainage facilities to be installed within the County right-of-way. The applicant's engineer shall submit hydraulic calculations for all storm drains, ditch cross sections, swales, culvert and bridge details which are part of, or related to, the development. A storm drainage map shall also be provided indicating the area tributary to the County roadway or drainage facility.
 - 3. Drainage calculations for storm drain pipes shall be based on Mannings formula for pipes flowing full, as outlined in the Morris County Stormwater Management Technical Guide.

4. Detention and retention facilities are to provide stormwater management for the proposed project and such facilities shall be designed to control stormwater runoff for the 2, 10, and 100 year storm events so that peak flow rates and velocities are not increased at or downstream of the point of discharge.
5. Recharge facilities shall provide stormwater management for the proposed project, and shall be designed to accommodate the additional runoff volume for the 100 year storm, and empty within 3 days.

B. Pipelines and Open Channel Hydraulics.

All storm sewers and open channels shall serve two major functions:

1. To carry the maximum discharge for which it is designed.
2. To transport suspended solids in such a manner that deposits in the sewer are kept to a minimum.

C. Design Formulas

1. Rainfall intensity shall be taken from Figure 600-1 "Rainfall Intensity Curves for Morris County" found at the back of this Section 600. All pipelines within the development, County roadway drainage system, and stormwater systems shall be designed to carry flows of the 25 year storm frequency. All open channels, culverts or bridges shall be designed for a 25 year storm frequency when the upstream drainage area is less than 50 acres. When the upstream drainage area equals or exceeds 50 acres, all open channel culverts and bridges shall be designed for the 100 year storm frequency.
2. The runoff coefficient for a development shall be derived based on the future development of the project.
3. The values of the runoff coefficients shall be approved by the County Engineer and shall be in accordance with typical values established in Table 600-1. Further adjustment of the "Rational Formula" may be necessary for storms which exceed the 10 year recurrence interval (see Part B of Table 600-1).
4. Minimum design velocity for pipes flowing full shall be 2.5 feet per second and the maximum velocity for pipes flowing full shall be 8 feet per second.
5. The friction factor Manning Coefficient "n" for pipe conduits shall be in accordance with the Morris County Stormwater Management Technical Guide "Values of the Roughness Coefficient "n" as reprinted in Appendix D of these Standards.

D. Line Transition

For pipe sizes less than 48 inches in diameter, all transition in slope, horizontal direction, junction, and change in pipe sizes shall be confined to manholes, catch basins, or other accessible structures designed for one or more of these purposes. For pipelines 48 inches and larger, horizontal deflections may be accomplished without the use of such structures if the radius of the curve in feet is greater than ten times the diameter in inches of the proposed pipe.

E. Open Channel Flow

Table 600-1: Runoff Coefficients (Antecedent Moisture Condition) AMCII

Part A Land-use Description	Hydrologic Soil Group			
	A	B	C	D
Cultivated land: without conservation treatment	0.49	0.67	0.81	0.88
with conservation treatment	0.27	0.43	0.61	0.67
Pasture or range land: poor condition	0.38	0.63	0.78	0.84
good condition	NA	0.25	0.51	0.65
Meadow: good condition	NA	NA	0.44	0.61
Wood or forest land: thin stand, poor cover, no mulch	NA	NA	0.59	0.79
good cover	NA	NA	0.45	0.59
Open spaces, lawns, parks, golf courses, cemeteries: good condition, grass cover on 75% or more of area	NA	0.25	0.51	0.65
fair condition, grass cover on 50-74% of area	NA	0.45	0.63	0.74
Commercial and business areas (85% impervious)	0.84	0.90	0.93	0.96
Industrial districts (72% impervious)	0.67	0.81	0.88	0.92
Residential: Average lot size Average impervious				
1/8 acre 65%	0.59	0.76	0.86	0.90
1/4 acre 38%	0.25	0.55	0.70	0.80
1/3 acre 30%	NA	0.49	0.67	0.78
1/2 acre 25%	NA	0.45	0.65	0.76
1 acre 20%	NA	0.41	0.63	0.74
Paved parking lots, roofs, driveways, etc.	0.99	0.99	0.99	0.99
Streets and roads: paved with curbs and storm sewers	0.99	0.99	0.99	0.99
gravel	0.57	0.76	0.84	0.88
dirt	0.49	0.69	0.80	0.84

NOTE: NA denotes information is not available; design engineers should rely on another authoritative source.

SOURCE: New Jersey Department of Environmental Protection, Technical Manual for Land Use Regulation Program, Bureaus of Inland and Coastal Regulations, Stream Encroachment Permits (Trenton, New Jersey: Department of Environmental Protection, Revised September 1995) p. 51

Part B Adjustment Factors for Runoff Coefficients	
Frequency of Event (years)	Runoff Coefficient Adjustment Factor
2 to 10	0.8
25	0.88
50	0.96
100	1

NOTE: These adjustment factors are from a similar table presented on page 3-61 of Design of Urban Highway Drainage, The State of the Art, Report No. FHWA-TS-79-225, U.S. Department of Transportation, Federal Highway Administration, Offices of Research and Development, Implementation Division (HDV-21), August 1979.

The values in this table are to be used with the Rational formula, where the runoff coefficient is taken from Table 600-1, Part A.

SOURCE: New Jersey Residential Site Improvement Standards, N.J.S.C., Title 5, Chapter 21

Open channels shall be designed using the Mannings Formula for hydraulic flow and the size and shape shall meet the requirements of runoff, depth, side slope, gradient, and velocity limitations in accordance with site conditions. The friction factor of open channels shall be in accordance with Table 4-2 of the Morris County Stormwater Management Technical Guide, "Values of the Roughness Coefficient "n" as reprinted in Appendix D of these Standards. Open channels shall also be designed so that the velocities do not exceed those stated in Table 600-2.

Table 600-2: Allowable Open Channel Velocities	
Soil Type	Allowable Velocities (Feet Per Second)
Sands	1.8
Sand loam (noncolloidal)	2.5
Silt loam (also high loam clay)	3.0
Sandy clay loam	3.5
Clay loam	4.0
Clay, fine gravel, (graded loam to gravel)	5.0
Cobbles	5.5
Shale	6.0
Concrete lined ditch	10.0
Channels and other drainage systems shall be protected by the use of vegetation, rip rap, or paving and area subject to approval by the County Engineer.	

609 Design of County Storm Drainage Systems

- A. Hydraulic calculations for storm drainage pipelines shall be based on Mannings Formula for pipes flowing full or other approved design methods acceptable to the County Engineer.
- B. Pipelines shall be designed to carry the maximum runoff when flowing full.
- C. The minimum design velocity for pipes flowing full shall be 2.5 feet per second.
- D. Minimum pipe diameters shall be 15 inches.
- E. Pipes used shall be reinforced concrete pipe, Class III, Wall B, unless otherwise directed and approved by the County Engineer, and shall have a minimum of 2 feet of cover over the top of the pipe wherever possible. Where minimum cover cannot be obtained, the pipe strength shall be increased as approved by the County Engineer.
- F. All changes in pipe size, slope and horizontal direction shall be made in a manhole, inlet or other accessible structure designed for the above purpose. All pipe ends shall be encased in a head-wall or other appropriate structure conforming to the construction details provided in Figures 600-8 and 600-9 of these Standards.

610 Storm Sewer Layout

- A. Inlet spacing shall not exceed 250 feet or a design inlet flow of 6 cubic feet per second, whichever conditions shall be more stringent. Access manholes shall be spaced at 500 foot intervals through right-of-ways and at sewer junctions where there are no catch basins.
- B. Inlets shall be located to intercept stormwater runoff before the runoff crosses intersections or crosswalks and at the beginning and end of new curbing.

- C. All drainage facilities upon completion of construction shall be cleared of all debris, dirt and other objectionable material and shall be maintained in clean condition until such time as maintenance is accepted by the County Engineer.
- D. Grease traps, oil skimmers, sediment basins and other water quality improvement or "Best Management Practices" structures shall be installed as required.

611 Storm Sewer Construction Standards

All inlets and manholes shall conform to the following Standards unless otherwise approved by the County Engineer.

- A. Corbelling of inlet walls will be permitted at the rate of 1/2 inch per 8 inch of height of wall: maximum corbel, 6 inches per wall.
- B. When the item of manholes, inlets and additional depth, is scheduled in the proposal and the depth of a structure exceed 10 feet as measured from top of cover or grate to invert of drainage structure, the walls of the structure below a depth of 8 feet shall be 12 inches thick and the overall horizontal dimensions of foundations shall be increased 12 inches and (except in rock) the depth increased to 12 inches.
- C. Except for Type "A" inlets, footings and inverts shall be constructed in two stages, and the bottom of the footings shall be 8 inches below the outer wall of the lowest pipe in inlets and 10 inches in manholes concrete to be Class "D".
- D. The item of reset heads shall include raising or lowering the head castings of inlets or the raising of manhole head castings, for a maximum of 12 inches. All other changes in position of head casting shall be considered as reconstructed manholes or reconstructed inlets or catch basins.
- E. When curb piece height specified is greater than curb face height, depress the gutter of grate so that the top of the curb piece is at the same elevation as the top of curb.
- F. Inlet or manhole may be constructed of brick, concrete or concrete block. If brick or concrete block is used, the bottom shall be as shown for concrete.
- G. Precast concrete manholes, inlets or catch basins shall conform to the requirement of ASTM Specification C478-72A and shall withstand an HS-20 highway loading as per Article 5.3.2 of New Jersey State Highway Department Standard Specifications for Road and Bridge Construction for 1961, as supplemented and amended.
- H. Construction details shall conform to the Figures 600-2 through 600-10 found in the back of this Section 600.

612 Stream Encroachment & Wetlands Permits

All projects with a total tributary drainage area less than 150 acres and all minor projects, as defined by the New Jersey DEP Flood Hazard Control Act, with a total tributary drainage area less than 320 acres at the downstream most end of the project, may be approved by the County Engineer or by the Municipal Engineer. All other projects must make application for a stream encroachment permit from the NJDEP. A copy of said application shall be forwarded by the applicant to the County Engineer. Stream encroachment lines established by the NJDEP shall be identified with bearings and distances on the subdivision plat or site plan submitted to the County for approval.

613 Detention, Recharge, Water Quality Facilities

Where required by these Standards, and as determined by the County Engineer, developments must construct stormwater detention/retention facilities to control the volume of runoff, rate of discharge and quality of water being discharged from the site. If municipal standards exist which differ from those of the County, the more stringent of the two standards would apply.

A. Stormwater Control

1. The stormwater runoff resulting from the development of a site for the 2, ~~10~~, 25 and 100 year storm events shall be controlled so that the pre-development peak flow rates and velocities from the site onto downstream properties, watercourses, and/or drainage systems is not increased at or downstream of the point of discharge.
2. If a Stormwater Management Plan for the region or watershed containing the watercourse affected by a proposed development has been adopted by the County, the applicant shall design the project and its stormwater management facilities to conform to that plan.
3. Where an adopted Stormwater Management Plan does not exist for the watershed, then the applicant shall provide for on-site detention facilities such that the development's post-project construction peak runoff for the two (2) year storm event is 50 percent of the pre-project construction peak runoff rate and; the post-project construction peak runoff rates for the 10 and 100 year storm events shall be 75 and 80 percent, respectively, of the pre-project construction peak runoff rates. These percentages only apply to the portion of the post-project runoff from the site under development. Off-site runoff may be computed at 100 percent of the pre-project rate.
4. The design storms used to achieve the required level of site runoff control described in Section 613:A-2 shall be defined as either a 24-hour storm using the rainfall distribution recommended by the U.S. Department of Agriculture, Soil Conservation Service, or as the estimated total rainfall falling uniformly throughout the critical storm duration (which shall equal or exceed the estimated time of concentration) at the site when using a design method such as the Modified Rational Method. A 20 acre drainage area shall be the maximum used for the modified rational method unless otherwise approved by the County Engineer or as designated in the Standards adopted under the Site Improvement Act (N.J.S.A. 40:55D-40.1 et. seq).

B. Water Quality

All site development or redevelopment shall be required to provide water quality control measures to meet current permissible water quality standards (see Section 601E).

All runoff within the water quality design storm cited in N.J.A.C. 7:8-1.1 et. seq. shall be controlled by maximizing the use of feasible nonstructural management practices appropriate to the site or by structural management facilities which meet the standards of this rule.

1. The water quality design storm shall be defined as the one-year frequency S.C.S. Type III, 24-hour or 1.25 inches of rainfall falling uniformly in 2 hours. All practices and facilities used to meet the stormwater runoff quality goal shall be designed to control the water quality design storm unless otherwise specified.

2. In computing the runoff from the water quality design storm, appropriate consideration shall be given to the relative runoff potential of pervious and impervious areas in order to accurately compute the rates and volume of runoff from the entire drainage area.
3. The water quality design storm shall be controlled by Best Management Practices. These include, but are not limited to the following:
 - a. In “dry” detention basins, provide for the retention of the water quality design storm, such that not more than 90 percent will be evacuated prior to 18 hours.
 - b. In permanent ponds or “wet” basins, the water quality requirements of these rules shall be satisfied where the volume of permanent water is at least three times the volume of runoff produced by the water quality design storm.
 - c. Infiltration practices such as drywells, infiltration basins, infiltration trenches, etc. may be used to meet the water quality standards, provided they produce zero runoff from the water quality design storm and allow for complete infiltration within 72 hours.
 - d. Other Best Management Practices may be incorporated in the site design in order to meet water quality standards such as but not limited to: minimizing land disturbance, clustering, use of natural drainage ways, water quality swales, water quality chambers and landscaping. Reference should be made to the following documents for other suitable BMP’s and associated information:
 - i. New Jersey Stormwater Quantity/Quality Management Manual, New Jersey, Department of Environmental Protection, February 1981.
 - ii. Stormwater and Non Point Pollution Control, Best Management Practices Manual, State of New Jersey, Department of Environmental Protection, Office of Land and Water Planning.
 - iii. The Morris County Stormwater Management Technical Guide, Morris County Planning Board, May 1989.
 - iv. Any Phase II Regional Stormwater Management Plan.

C. Design Standards for Detention Facilities

1. Stormwater management facilities shall not be located within the floodway of the watercourse unless they are constructed on-stream as part of a Phase II regional or watershed stormwater management plan.
2. Stormwater management facilities design and construction shall be in conformance with the Soil Erosion and Sediment Control Act., N.J.S.A.4:29-39 et. seq.
3. Slopes - Side slopes of the facilities should not exceed 3:1 ratios.
4. Length-to-Width Ratio - All detention basins should have length to width ratios of at least 2:1 and maximize to the extent feasible the distance between pond inflow and outflow.

5. Vegetation - The facilities should have a vegetative cover of water-tolerant species. Suggested varieties of cover include reed canary grass, fescue, perennial rye, orchard grass and Bermuda grass.
 6. Outlets - Outlets from the facilities should be designed to function independent of manual, electric or mechanical controls. The outlets should have a minimum diameter of 3 inches. Trash racks consisting of vertical parallel bars, which can be cleaned from above with a rake, must be placed at all outlets.
 7. Detention/retention basins shall conform to the typical construction details as found in Figures 600-10 through 600-13 and supplemented by alternative schematic design features in Appendix E.
 8. A drainage easement shall be provided for all detention/retention basins and other related facilities for the purpose of access and maintenance.
- D. Alternative types of detention/retention facilities may be utilized in lieu of the conventional detention basin (subject to the approval of the County Engineer) in order to overcome existing physical limitations of the site and surrounding area. Alternative detention/retention options are as follows:
1. Wet ponds/retention basins
 2. Stormwater wetlands
 3. Stabilized, vegetated or biofilter swales
 4. Vegetated filter strips
 5. Infiltration basins
 6. Perforated pipes for underground recharge
 7. Underground Storage
- E. The design, construction of the above named detention/retention facilities shall comply with the standards of the Morris County Stormwater Management Technical Guide and supplemented by the NJDEP Stormwater Management Regulations (N.J.A.C. 7:8-3.4).
- F. Any retention system proposing the use of infiltration (recharge) must provide a soil feasibility test for review and approval by the County Engineer. The design of an infiltration system must also provide for the removal and filtering of objectionable pollutants using methods described in the Morris County Stormwater Management Technical Guide and NJDEP Best Management Practices Manual for Stormwater and Non-point Source Pollution Control.
- G. Any detention system proposing the use of underground storage for the purpose of controlling stormwater volume must provide for the treatment of the water quality design storm prior to stormwater discharges to the underground storage system.

614 Landscaping

- A. Upon completion of a detention basin recharge facility, the applicant shall immediately provide stabilization of the ground surface with seeding or sodding with a water tolerant grass. Where seasonal conditions do not permit seeding or sodding, a temporary mulch may be used. All of the above practices must be approved by

the Morris County Soil Conservation District and shown on the soil erosion and sediment control plan required by that agency.

- B. In cases where the detention/recharge basin has been used during construction for sediment control purposes, such facilities shall be restored by the removal of the accumulated sediment and debris, and sodded or re-seeded.

615 Maintenance

- A. Detention/retention facilities which are required by the County due to drainage impacts on County facilities shall, as a condition of subdivision/site plan approval, submit proof of a maintenance agreement to the County Planning Board for review and approval. After approval of the maintenance agreement, a copy will be placed on file in the County Engineer's office or some other appropriately designated location.
- B. The maintenance agreement shall provide a program and schedule to include:
 - 1. Grass mowing (no higher than 2 inches)
 - 2. Removal of debris from basin, trash rack, channel and culverts.
 - 3. Name, address, and phone number of individual, company, or government agency responsible for maintenance of the detention/retention facility.
 - 4. Removal of silt - responsible party shall periodically inspect the basin capacity and set limits for silt accumulation after which time responsible party shall remove and dispose of silt in order to maintain the storage capacity of the facility.

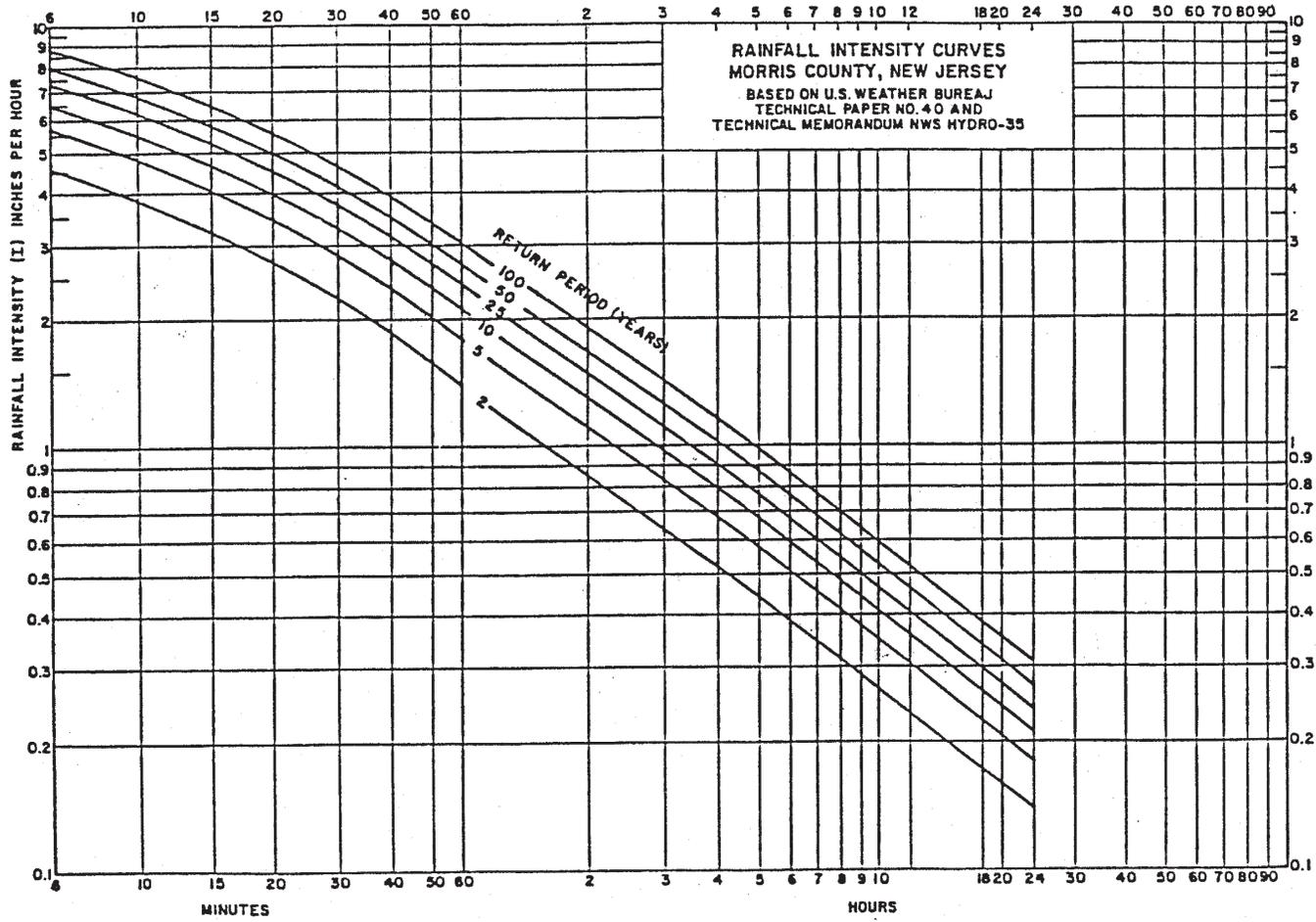
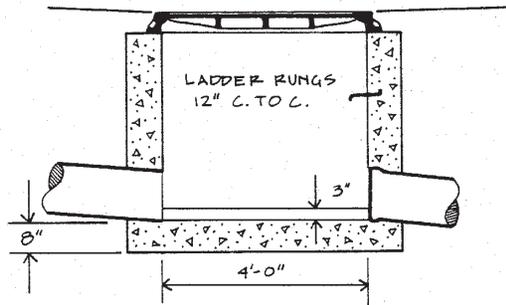
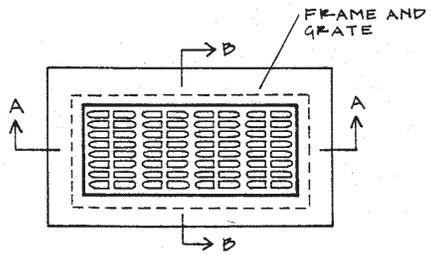
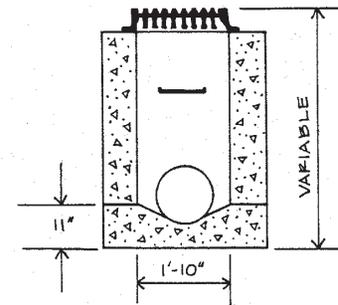


FIGURE 600-1

Rainfall Intensity Curves for Morris County



SECTION A-A



SECTION B-B

FIGURE 600-2	
Morris County Typical Detail Type "A" Inlet	
Not to Scale	10-95

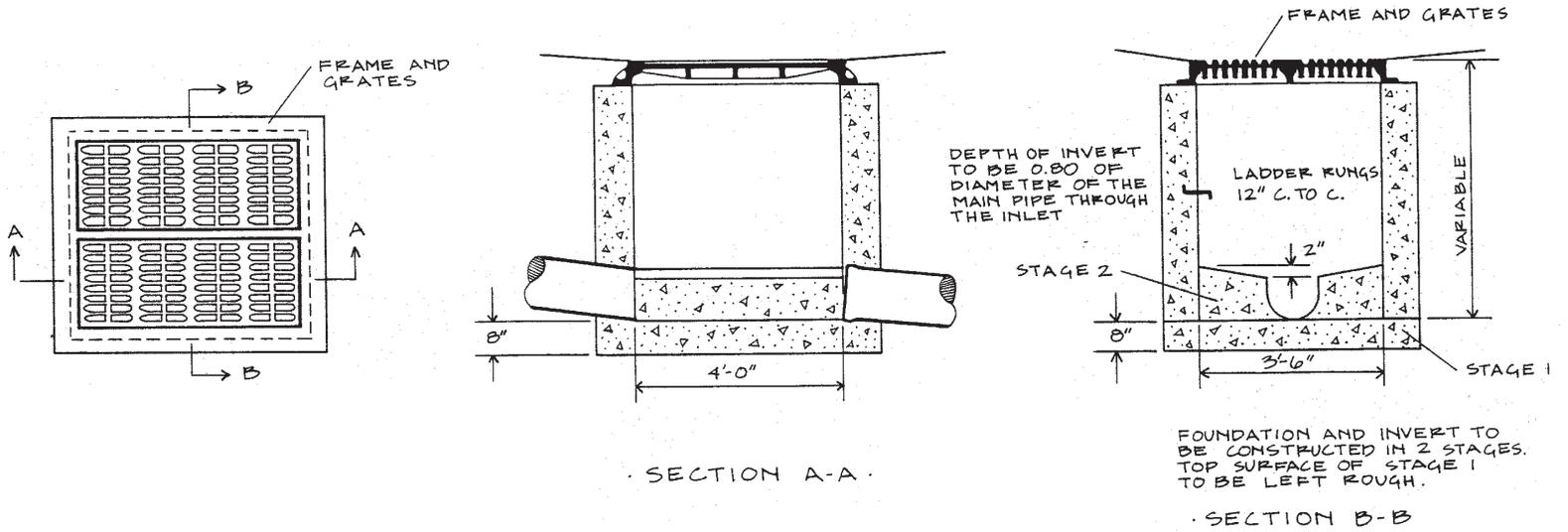


FIGURE 600-4	
Morris County Typical Detail Type "E" Inlet	
Not to Scale	10-95

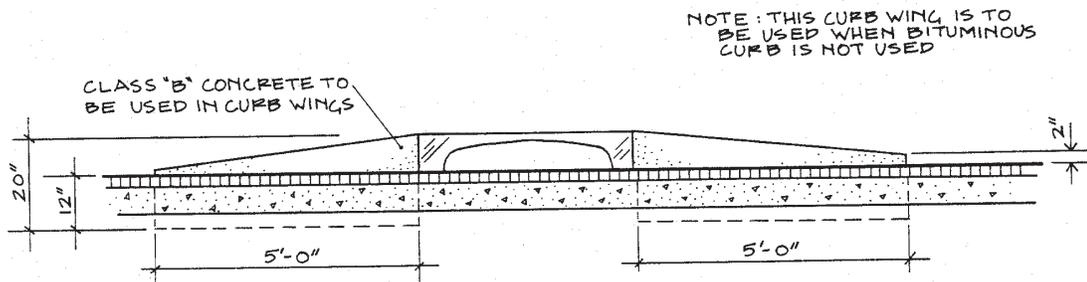
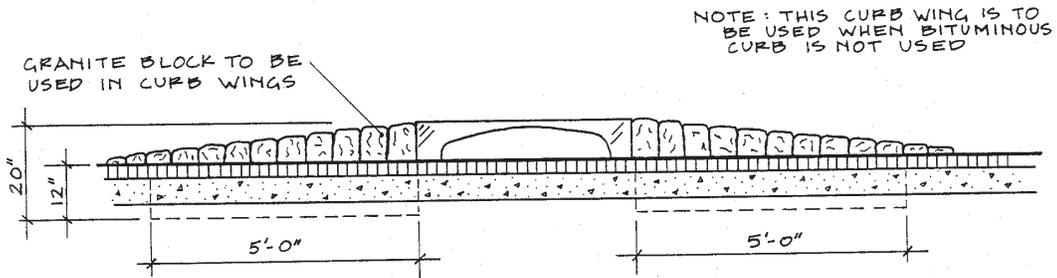
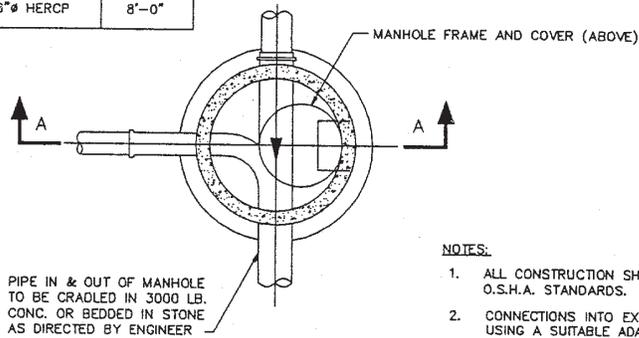


FIGURE 600-5	
Morris County Typical Detail Curb Wings	
Not to Scale	10-95

NOTE:

THE STORM SEWER COVERS SHALL HAVE THE "TOWNSHIP NAME AND STORM SEWER" CAST ON.

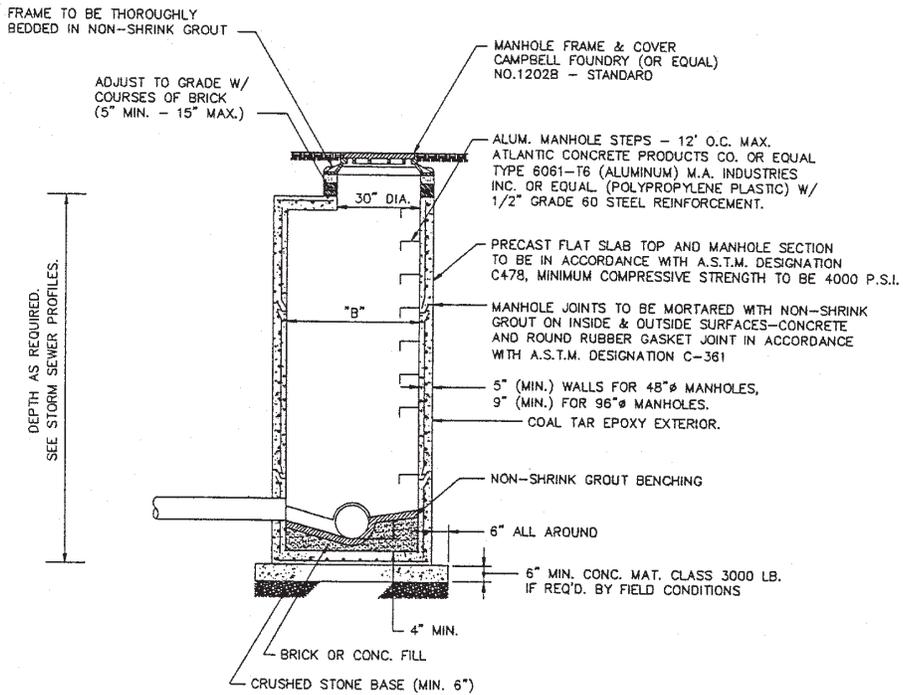
PIPE DIA. (D)	"B"
UP TO 18"Ø	4'-0"
36"Ø HERCP	8'-0"



NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST O.S.H.A. STANDARDS.
2. CONNECTIONS INTO EXISTING MANHOLES SHALL BE COMPLETED USING A SUITABLE ADAPTOR AS APPROVED BY THE ENGINEER.

SECTIONAL PLAN



SECTION A - A

FIGURE 600-6

Morris County Typical Detail
Manhole

Not to Scale

10-95

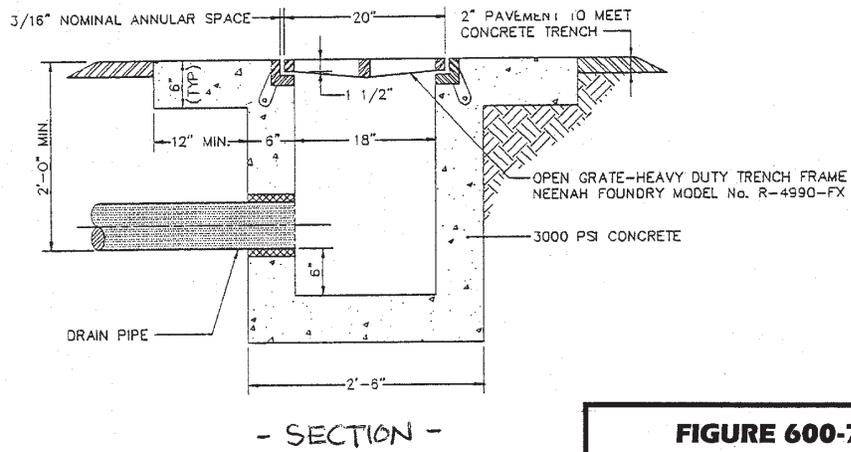
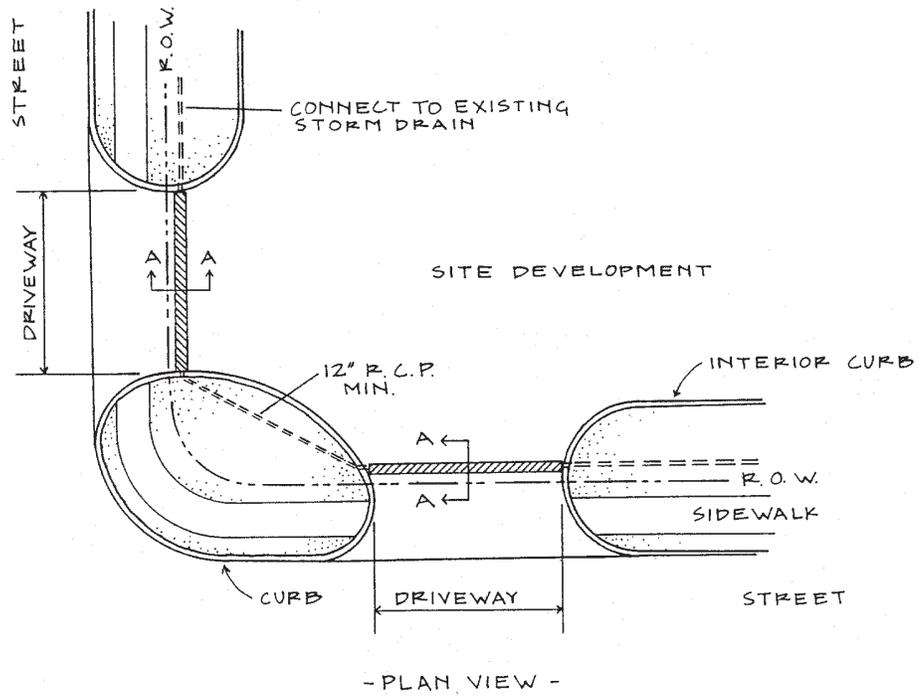


FIGURE 600-7	
Morris County Typical Detail Grated Trench Drain	
Not to Scale	10-95

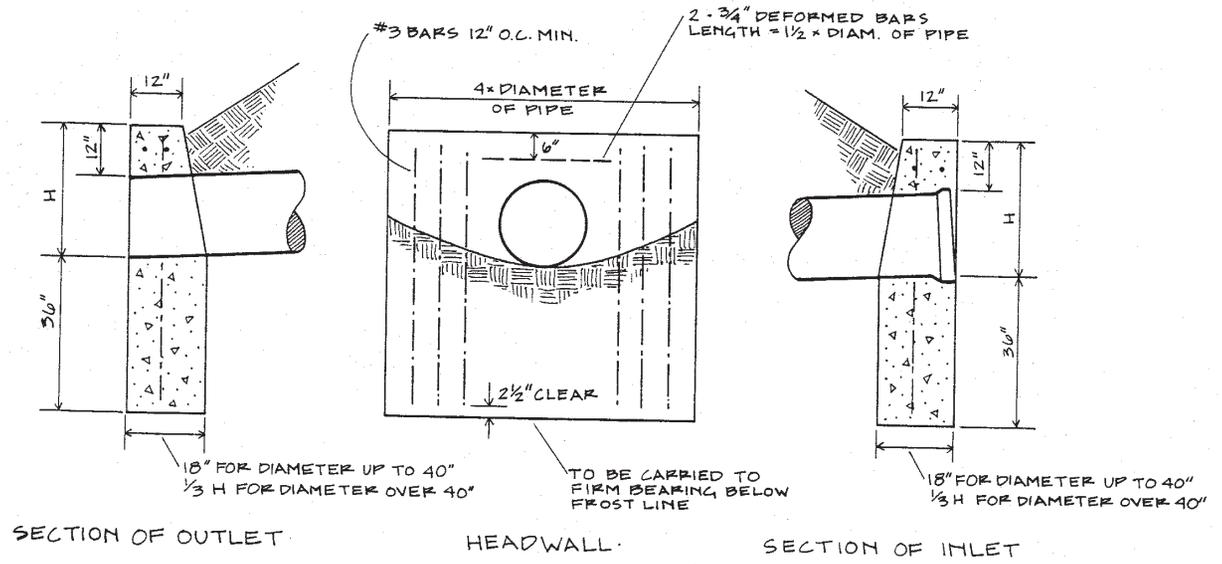
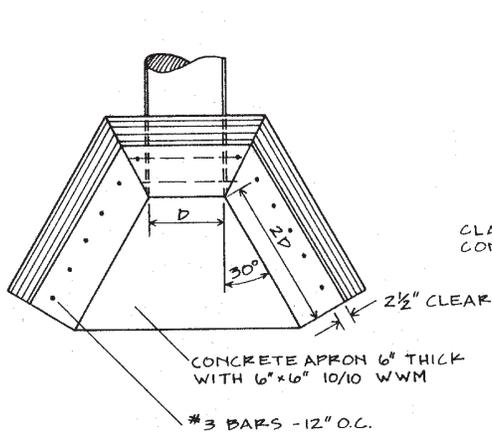


FIGURE 600-8

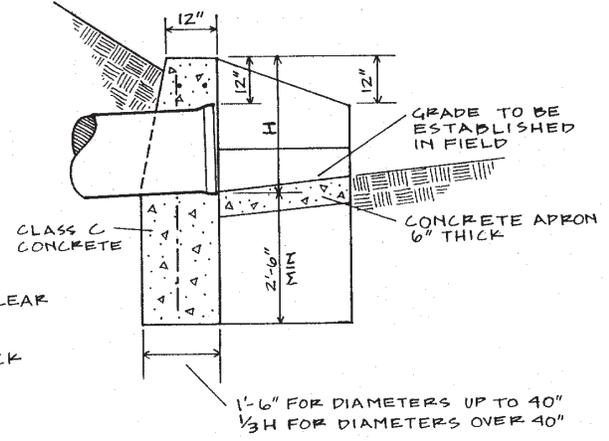
Morris County Typical Detail
Flat Headwall

Not to Scale

10-95

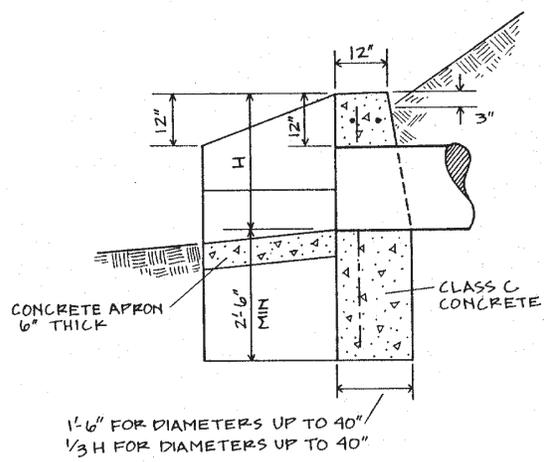


PLAN

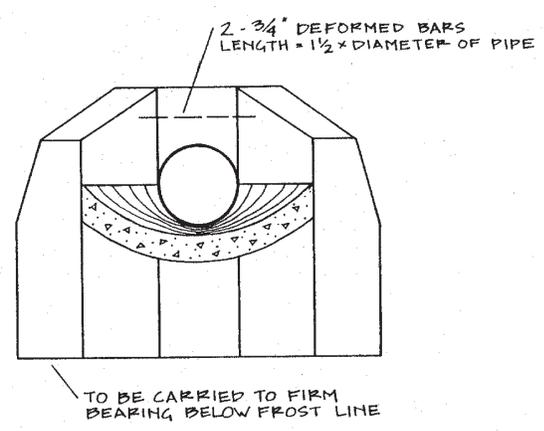


SECTION OF INLET

NOTE: ALL EDGES TO BE CHAMFERED 1"



SECTION OF OUTLET



END VIEW OF OUTLET

FIGURE 600-9	
Morris County Typical Detail Winged Headwall	
Not to Scale	10-95

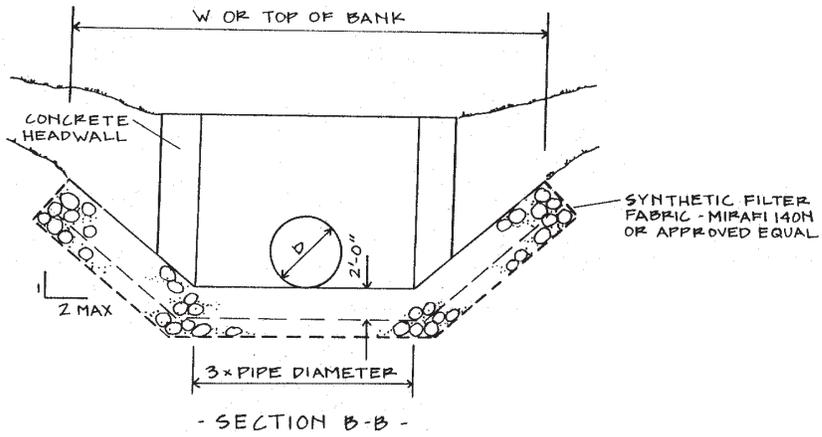
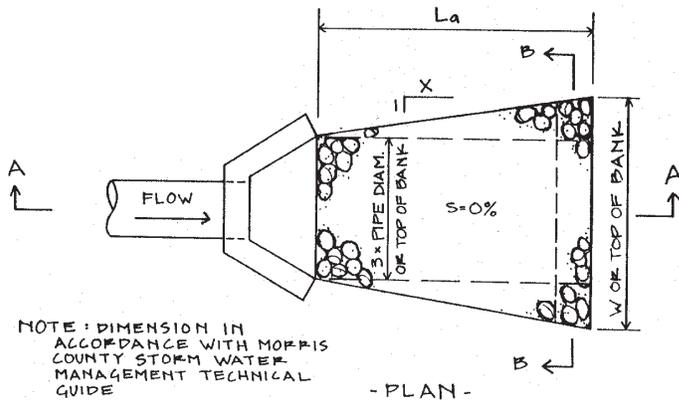
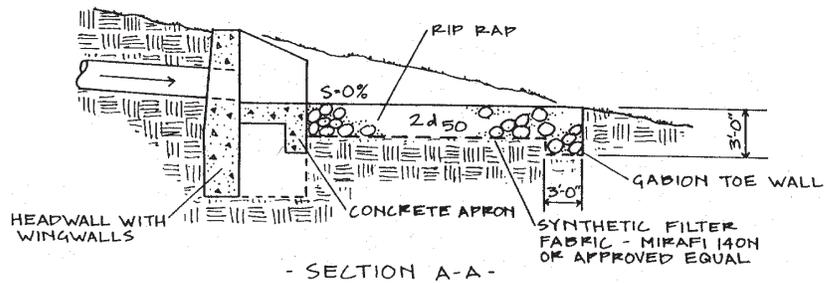


FIGURE 600-10	
Morris County Typical Detail Outlet Protection	
Not to Scale	10-95

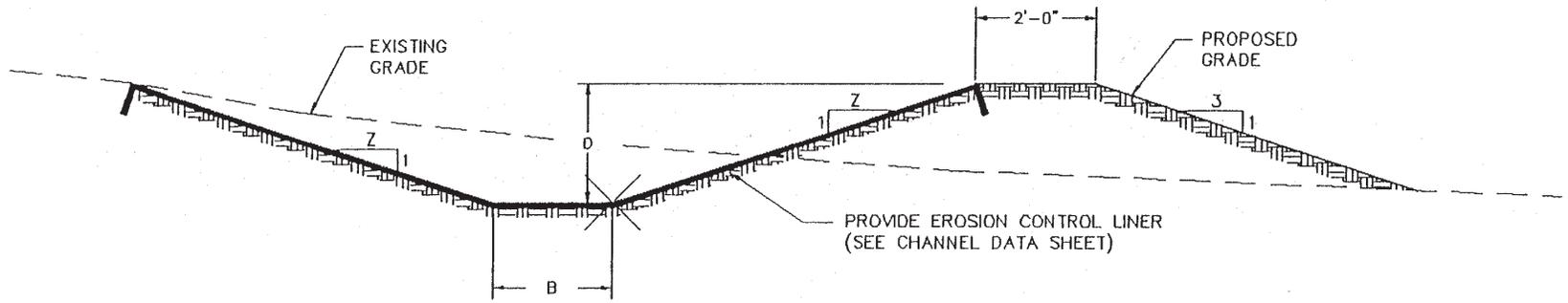


FIGURE 600-11	
Morris County Typical Detail Drainage Swale	
Not to Scale	10-95

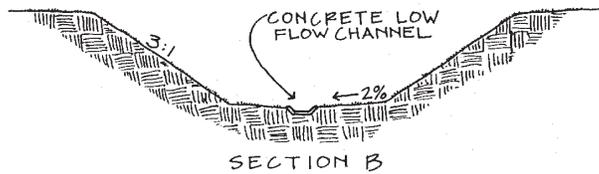
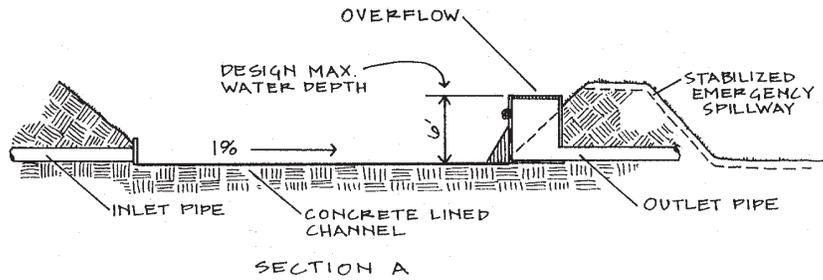
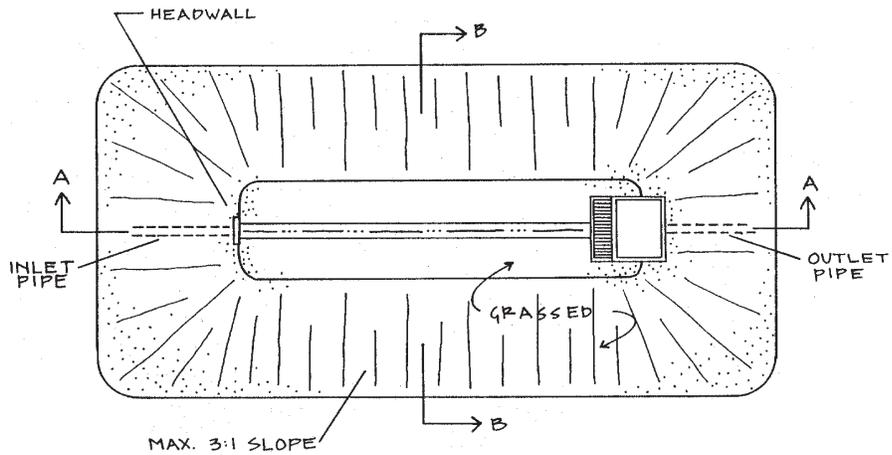


FIGURE 600-12	
Morris County Typical Detail Dry Detention Basin	
Not to Scale	10-95

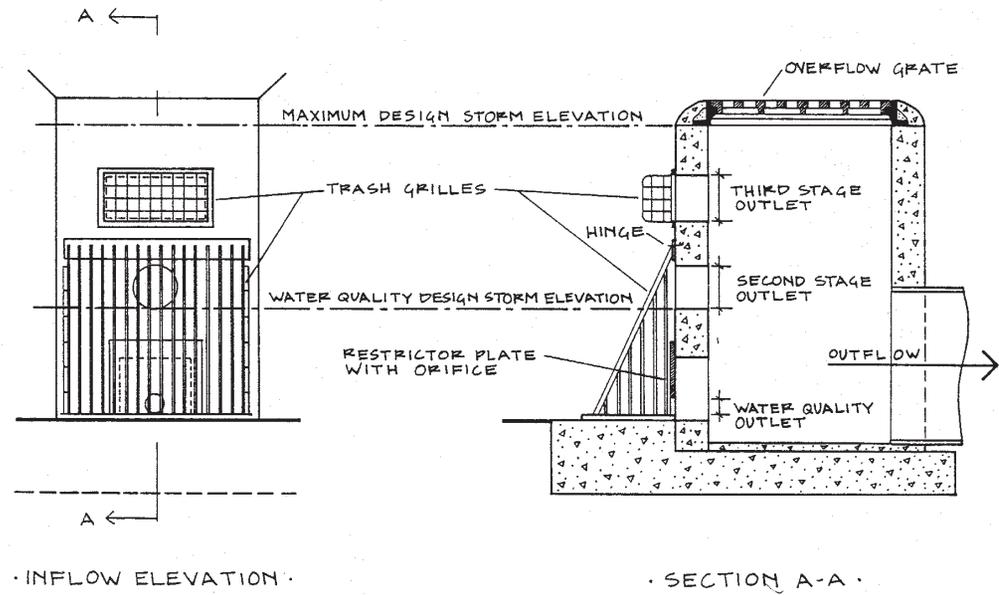
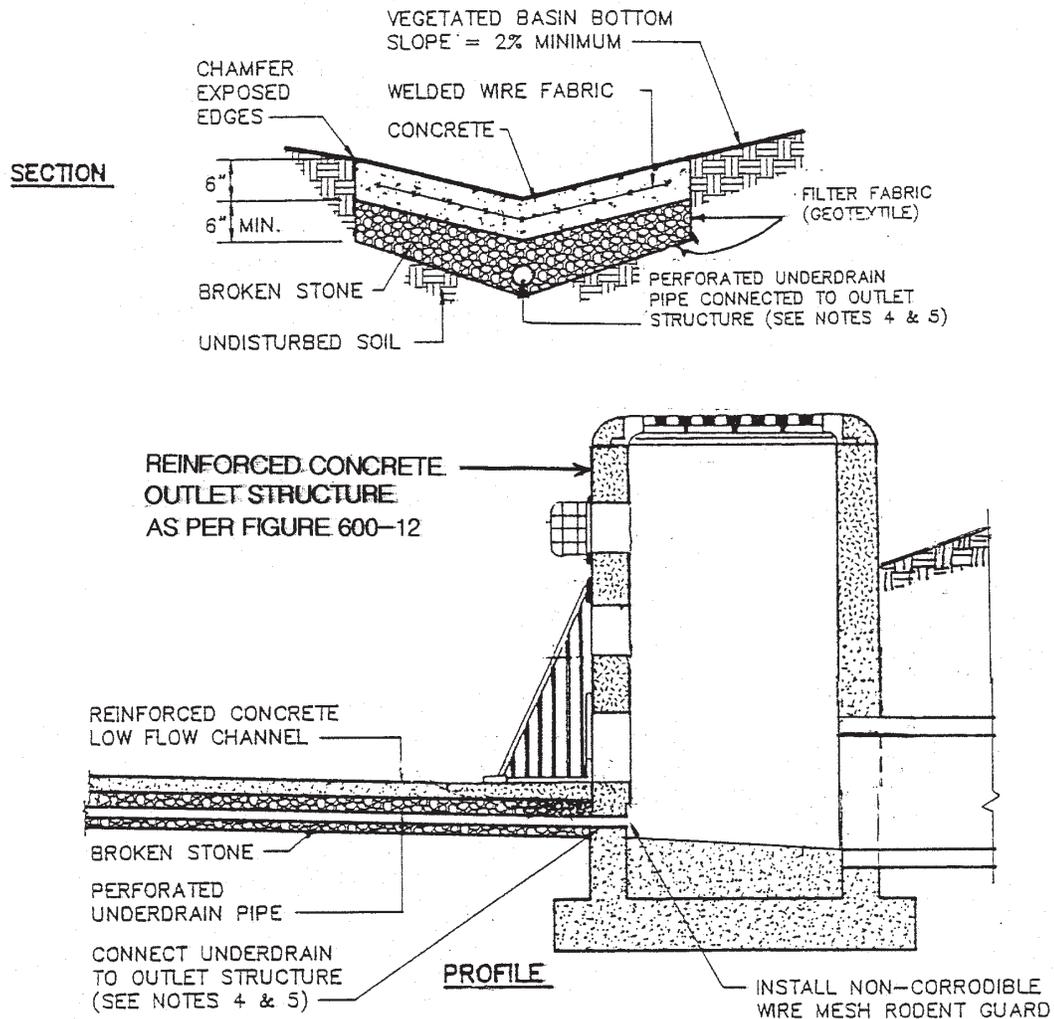


FIGURE 600-13	
Morris County Typical Detail Multi-Stage Outlet	
Not to Scale	10-95

NOTES:

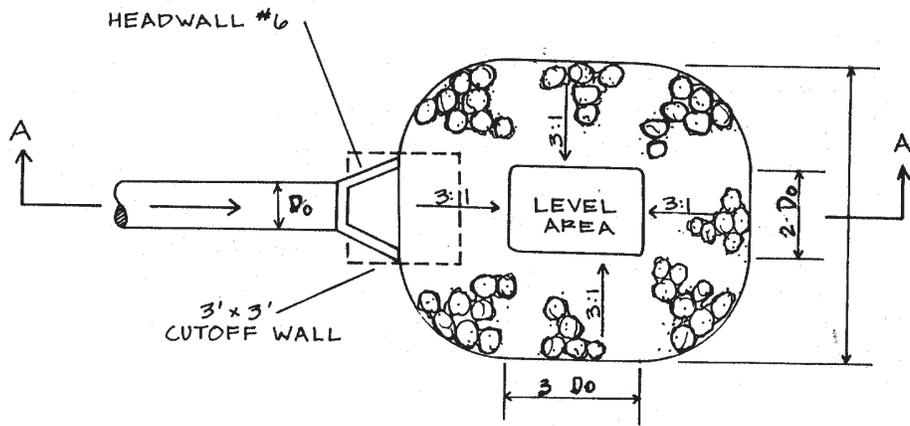
1. PROVIDE 4"Ø WEEP HOLES IN CONCRETE CHANNEL 12' O.C. (MAX.) OR EVERY 100 S.F. OF LINING (WHICHEVER IS LESS). WEEP HOLES MUST NOT BE DIRECTLY CONNECTED TO ANY LOW FLOW CHANNEL UNDERDRAIN PIPE. PLACE GEOTEXTILE FILTER FABRIC UNDER WEEP HOLES.
2. PROVIDE CONSTRUCTION AND EXPANSION JOINTS IN CONCRETE AT REQUIRED INTERVALS.
3. PROVIDE CUTOFF WALLS AS REQUIRED



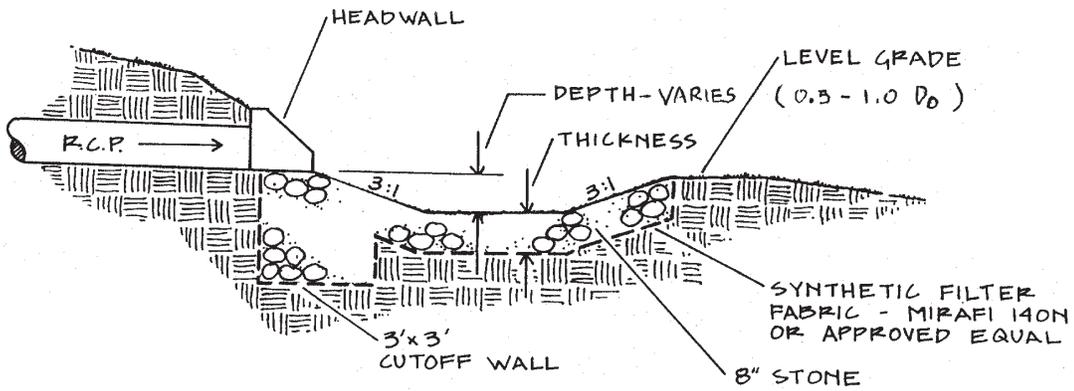
4. FOR GABION LINED LOW FLOW CHANNELS, PROVIDE WEEP HOLES IN UPSTREAM FACE OF OUTLET STRUCTURE AT DOWNSTREAM END OF GABION LINING. GABION LINED CHANNEL CAN THEN SERVE AS ITS OWN UNDERDRAIN.
5. WHERE THE RATE OF FLOW THROUGH THE UNDERDRAIN SYSTEM IS A CONCERN RELATIVE TO THE STORM WATER QUALITY CONTROL, THE UNDERDRAIN SYSTEM SHOULD BE DAYLIGHTED UPSTREAM OF THE CONTROL STRUCTURE.

FIGURE 600-14	
Morris County Typical Detail Low Flow Channels	
Not to Scale	10-95

SOURCE: NJDEP STORMWATER MANAGEMENT
MAINTENANCE MANUAL, MODIFIED BY MCPB



- PLAN VIEW -



- SECTION A-A -

NOTE: SEE PAGE 4-13, FIGURE 4-4
MORRIS COUNTY STORMWATER
MANAGEMENT TECHNICAL GUIDE

FIGURE 600-15	
Morris County Typical Detail Preformed Scour Hole	
Not to Scale	10-95

Section 700

**Relationships with other County Plans,
Programs and Policies**

700 Relationships with other County Plans, Programs and Policies

701 Adopted County Plans

When an adopted plan prepared pursuant to either State or Federal statute requires the County to implement best management practices, minimum standards or other requirements relating to land development, the provisions of this section shall apply. In cases where these plans involve traffic and drainage considerations, Planning Board approval shall not be granted unless the application is in conformance with the requirements of the adopted plan. In all other cases, the Planning Board shall forward comments to the appropriate regulatory agencies stating that the proposed development is in conformance with or in conflict either in whole or in part with the adopted plan.

In order to achieve the goals and objectives of certain adopted County plans and to fulfill the purpose stated in Sections 103B, D, and E of these Standards, land development applications will be reviewed in accordance with the following provisions:

A. Morris County Master Plan.

The Master Plan presents a long range comprehensive plan for the orderly and efficient development of the County. It is prepared pursuant to the provisions of the New Jersey County Planning Act, (N.J.S.A. 40:27-1 et seq., as amended). The Master Plan recommends appropriate types and intensity of land use in areas suitable for additional development, seeks to protect the County's environmental resources from inappropriate development, achieve economic development, housing and other regional planning goals and provide a basis for infrastructure and capital improvements planning.

Land development applications will be reviewed for consistency with the land use, open space, and other development policies of the Master Plan in accordance with following provisions:

1. Applications which are substantially inconsistent with the Master Plan will be noted as such in the review report of the Planning Board and forwarded to other appropriate municipal, county, regional and state review agencies.
2. Applications shall be required to conform to the Master Plan recommendations for roadways, drainage facility, easements and/or rights-of-way for County facilities designated in the Plan.

B. Morris County Official Map

The Official Map lists and shows the location of existing property, or rights-of-way under the ownership or jurisdiction of the county of Morris and its agencies. Also shown and listed on the Official Map are properties and rights-of-way proposed for acquisition or to come under jurisdiction of the County and its agencies in the future. It is prepared pursuant to the provisions of the New Jersey County Planning Act, (N.J.S.A. 40: 27-5 et seq., as amended). The Official Map identifies those properties and rights-of-way needed to effectuate and implement certain proposals of the County Master Plan.

Land development applications will be reviewed for conformity with the Official County Map in accordance with the following provisions:

1. Upon receiving an application for land development, the County Planning Board may reserve land, in the manner provided in Sections 500 and 600 of these Standards, for the public areas and facilities shown on the official county map that

are under County jurisdiction, or that the County, in whole or in part, may in the future acquire, finance or construct.

2. No approval of land development shall be issued by any approving authority, except as provided in Sections 500 and 600 of these Standards or other applicable law, for the sites of public areas and facilities shown on the Official County Map.

C. Areawide Water Quality Management Plans (WQMP) of Morris County

There are four WQMPs which cover Morris County:

Study Area	Prepared by
Upper Raritan	NJDEP
Northeast New Jersey	NJDEP
Upper Delaware	NJDEP
Sussex County	County of Sussex

These Areawide WQMP's present land use and environmental recommendations to preserve and protect the County's water resources from growth-related sources of pollution. They are prepared pursuant to the provisions of Section 208 of the Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. 1251) and the New Jersey Water Quality Planning Act (N.J.S.A. 58:11A-1). The plans have been conditionally certified by the Governor of New Jersey and approved by Region II of the United States Environmental Protection Agency.

All sewerage facility plans must be in conformance with the Areawide WQMP's and all permits issued under the New Jersey Pollution Discharge Elimination System must also conform to the plans. In addition, all other federally funded plans and projects must be consistent with its requirements. The Plans also require the control of point and non-point sources of pollution through the development and implementation of Best Management Practices.

The Planning Board and Engineering Division are designated by the Plans as management agencies responsible for control of stormwater runoff and other non-point sources of pollution. Toward this end, the County has adopted the Morris County Stormwater Management Technical Guide, other stormwater management plans and improvement projects for certain drainage basins of the County and developed a computer model to evaluate the design requirements of drainage facilities from a watershed perspective. Also, both structural and nonstructural approaches to improving the quality of urban runoff have been developed to prevent the degradation of the County's water resources.

Land development applications will be reviewed for consistency with the requirements of the Areawide WQMPs of Morris County in accordance with the following provisions:

1. Land development applications shall conform to the sewerage facilities requirements of the Areawide WQMP. Where it is determined that an application is inconsistent with these requirements, a statement of inconsistency including the basis for this determination shall be included in the Planning Board report and forwarded to the applicant and appropriate state and federal review agencies.

2. Land development applicants shall be required to incorporate Best Management Practices for the control of non-point sources of pollution in the preparation of stormwater management plans and the design and location of drainage facilities. Alternative means for meeting Best Management Practice requirements are included in the Stormwater Management Technical Guide.

D. Morris County Transportation Program.

The Transportation Program is a comprehensive planning program for transportation facilities and activities in Morris County. Its programs are conducted pursuant to the provisions of the Intermodal Surface Transportation Efficiency Act and the Clean Air Act, as amended.

The overall purpose of the program is to advance high priority transportation projects toward implementation in accordance with adopted plans and programs as required by the Federal Highway Administration, Federal Transit Administration the New Jersey Department of Transportation, and the North Jersey Transportation Planning Authority. The planning program may recommend the need for new facilities and services in order to implement the overall transportation plan for Morris County.

Relevant elements of this program which deal with planning, procedural and funding requirements are:

1. Circulation Element of the County Master Plan - a plan that concisely identifies and addresses transportation issues in Morris County and recommends a coordinated multi-faceted approach in dealing with transportation problems into the twenty-first century. The proposals generally recommend encouraging the use of innovative transportation system management strategies, maintaining and improving existing transportation facilities and infrastructures, and improving the accessibility and efficiency of public transportation.
2. Transportation Improvement Program - a five year capital improvement program adopted by the Board of Chosen Freeholders and approved by the North Jersey Transportation Planning Authority. This program lists all transportation projects eligible for federal funding assistance during the five year period.
3. Transportation System Management Element - an alternative program to high-cost capital investments by making short-term improvements to existing transportation resources. Increased efficiency is achieved through traffic engineering and regulation, short range planning solutions and public transportation improvements.
4. Air Quality Planning Program - the Air Quality Control Plan is the local component of the federally required State Implementation Plan. The County must develop and implement reasonable, balanced plans to provide for the reduction of transportation system and stationary source emissions necessary to demonstrate attainment of National Ambient Air Quality Standards by the statutory deadlines. Effective air pollution control strategies, primarily related to ozone must be implemented for the entire County; and in the case of carbon monoxide, must be implemented for identified non- attainment areas. The implementation plans must demonstrate the full development and evaluation of control measures and integration with on-going planning processes, particularly emphasizing the continuing, cooperative and comprehensive process administered by the Department of Transportation and Department of Environmental Protection.

5. Development Review - land development applications will be reviewed for consistency with the requirements of the Transportation Program in accordance with the following provisions:
 - a. Land development applications shall permit the construction or implementation of all projects listed in the Transportation Improvement Program and the Circulation Element of the County Master Plan. Where it is determined that the applicant will be specially benefited from the construction of a listed project he may be required to participate in the construction of such projects under the applicable provisions of these Standards.
 - b. Land development applications shall consider the air quality control strategies contained in the Air Quality Plan in the design and location of roadways and other transportation facilities. In identified non-attainment areas, the applicant shall be required to conform to reasonably available control measures contained in the Plan in order to achieve mandated National Ambient Air Quality Standards.

E. Morris County Solid Waste Management Plan

The Board of Chosen Freeholders has adopted a Solid Waste Management Plan (Plan) that provides for the management and disposal of solid waste in Morris County. This Plan was adopted pursuant to the requirements of the New Jersey Solid Waste Management Act (N.J.S.A. 131E-1).

The Plan established source reduction and recycling goals. These include the stabilization and eventual decrease in county-wide solid waste generation as well as 60 percent recycling goal. For the most part, Morris County has achieved these goals through a variety of recommended waste management techniques. These include, but are not limited to, the mandating of specific materials to be source separated and recycled. These mandated materials include newspaper, corrugated cardboard, mixed paper (junk mail, office paper, magazines, etc.), aluminum containers, (steel and tin cans), yard waste (grass leaves and brush), tires, batteries, white goods (appliances), used motor oil, oil contaminated soil, and stumps. All new development in the County must be designed to provide for the storage and collection of recycled materials.

The Plan also identifies the Morris County Municipal Utilities Authority (MCMUA) as the agency in charge of implementing the Plan. As such, the MCMUA acts as a liaison to amend the Plan as needed to include any proposed solid waste facilities. NJDEP requires Plan inclusion prior to reviewing any solid waste facility permit application.

The Plan amendment process to include a new facility starts with the Morris County Solid Waste Advisory Council (SWAC). The SWAC is required to make a recommendation to the Board of Chosen Freeholders prior to amending the Plan. The SWAC typically does not entertain proposals until the letter of support from the host municipality is obtained by the proposed facility. In addition to the SWAC, the Board of Chosen Freeholders usually seeks a recommendation of the MCMUA prior to conducting a public hearing and amending the Plan.

Land development applications will be reviewed for consistency with the Solid Waste Management Plan in accordance with the following provisions:

1. Applications for land development on or adjacent to designated or operating solid waste management facilities shall be reviewed for consistency with the plan's land use recommendations. If an application is found to be substantially inconsistent

with the plan's requirements it shall be so stated in the review report and forwarded to municipal, County state and federal review agencies.

2. Applications for solid waste facilities not contained in the plan as adopted by the Board of Chosen Freeholders shall require the approval of the Board of Chosen Freeholders.
3. Applications for development shall be reviewed for consistency with recommendations of the Solid Waste Management Plan with respect to on-site separation, storage, and pickup of solid waste.

F. Morris County Farmland Preservation Program

The Morris County Board of Chosen Freeholders has established the County Agriculture Development Board (CADB) for the purpose of implementing the State Agriculture retention and Development Act (N.J.S.A. 4:1C-11). The CADB identifies areas of the County where agricultural uses should be retained and enhanced. Specific farm sites are also identified by the CADB for voluntary inclusion in Eight Year Farmland Preservation Programs and/or Permanently Preserved Easement Purchase Programs. Land development applications shall be reviewed for the consistency and compatibility with the Farmland Preservation Programs in accordance with the following provisions:

1. The CADB shall be notified of any land development application on a farmland site for which an application has been made to the CADB for participation in a Program.
2. Development applications on land adjacent to or within the general area of deed restricted farms will be reviewed to determine if any impacts will be caused by the proposed development which would be incompatible with existing and future agricultural operations and practices.
3. When necessary, the Planning Board shall consult with the CADB and shall identify, in its report, any conflicts between the proposed development and the County Farmland Preservation Program. Where conflicts seem to exist, the Planning Board will offer recommendations to the applicant and municipality with regard to their resolution.

702 Regulatory Requirements of County Agencies and Coordinated Review

To provide for consistent and coordinated review procedures, standards and requirements of the Planning Board and other County agencies with statutory authority affecting land development within Morris County, and to fulfill the purpose of Section 103E of these Standards, land development applications will be reviewed for compliance with the requirements of the following County agencies:

- A. Morris County Soil Conservation District: soil erosion and sediment control pursuant to the Soil Erosion and Sediment Control Act (N.J.S.A. 4:24-39).
- B. Morris County Mosquito Commission: control of mosquito populations and breeding areas pursuant to the New Jersey Department of Health Act (N.J.S.A. 26:9-1).
- C. Morris County Department of Public Works:
 1. Driveway permits and road opening permits in County roads pursuant to "Rules, Regulations Governing Road Openings and Storage Permits" adopted by the

Morris County Board of Chosen Freeholders, December 5, 1985, Amended December 21, 1988.

2. Stream encroachment permits for watersheds of less than 150 acres pursuant to the New Jersey Flood Control Facilities Act (N.J.S.A. 15:16A-1).
3. Regulation of bridge and culvert construction pursuant to the "Bridge and Culvert Policy of Morris County", adopted by the Morris County Board of Chosen Freeholders, April 14, 1993.

D. Morris County Shade Tree Commission: regulation of planting, maintenance, and removal of shade trees within the County road right-of-way pursuant to the provisions of the County Shade Tree Commission Act (N.J.S.A. 40:37).

These agencies will be notified by the Planning Board of a potential conflict or apparent inconsistency between their requirements and the land development application prior to the Planning Board taking action on the application. The applicant must still receive all applicable permits from the appropriate County agencies.

703 Relationship to Future County Plans and Regulatory Requirements

Any plan adopted by Morris County pursuant to state or federal law subsequent to the adoption of this Resolution assigning to the Planning Board implementation or review coordination responsibilities will be implemented through the applicable provisions of Sections 103, 701 or 702 of these Standards.

SECTION 800

Approval Conditions

800 Approval Conditions

801 General

At such time that the Planning Board gives its final approval any unfulfilled requirements of the Planning Board shall be considered conditions of that approval. The applicant shall be required to comply with these conditions within the time frames specified in these Standards or as specified by the Planning Board when final approval is granted.

802 Deeds and Easements

After Planning Board approval of a development application, but prior to issuance of a road opening permit, or municipal building permit, all deed and easement instruments or any other legal instruments required by the Planning Board must be submitted to the Planning Board for review and approval prior to the County Counsel recording such legal documents at the County Clerk's Office. Deed and easements shall be prepared in accordance with these standards and shall bear all necessary signatures prior to recording.

803 Proportionate Share Contributions and Payment in Lieu of Construction

- A. After approval of development plans and prior to construction (or filing of a final plat) the applicant must submit to the County Planning Board, a check in the amount specified in the Planning Board's approval.
- B. Checks shall be made payable to the Treasurer of Morris County and shall be submitted to the Planning Board for recording and transmittal to the County Treasurer.
- C. Such funds shall be used only for the specified County drainage project unless such projects are not initiated for a period of ten (10) years, at which time those funds for each specific project reaching that time limit shall be transferred to the general fund of the County, provided that no assessment by the County shall be thereafter levied against the owners of the land upon which the developer's prior contribution has been based.

804 Performance Guarantee and Other Payments

- A. Shall be submitted to the County Engineering Division upon application for a Road Opening Permit and/or prior to construction of any sort within the County road right-of-way.
- B. Shall be in the form of a certified check (unless otherwise specified) made payable to the Treasurer of Morris County and submitted to the County Engineering Division. Performance Guarantees in other forms may be acceptable if approved by the County Counsel.
- C. Shall be determined by the County Engineering Division in an amount sufficiently adequate to cover the cost of improvements as required in the Planning Board.
- D. Shall be based upon and accompanied by written agreement with the County Engineer specifying construction standards for the required improvements and release of such payments upon satisfactory completion of the required improvements.
- E. Release of Performance Guarantee
 - 1. The County Engineering Division shall inspect all completed improvements required by the County Planning Board for which a Performance Guarantee has

been posted and certify that the improvements have been satisfactorily constructed in conformance with the requirements and specifications of these Standards and the terms and conditions of the Performance Guarantee and that any required Maintenance Bond has been posted.

2. The County Engineering Division shall forward a copy of its certification to the Planning Board for transmittal to the Board of Chosen Freeholders with a request for release of the Performance Guarantee.
3. The Board of Chosen Freeholders, at their next regular meeting after receipt of the request from the Planning Board, shall by resolution release the Performance Guarantee.

F. Release of Maintenance Bond

1. The County Engineering Division shall inspect all County facilities covered by a maintenance bond thirty (30) days prior to the expiration date of the bond and certify that the facilities are in satisfactory condition.
2. A copy of the certification shall be forwarded to the Planning Board for transmittal to the Board of Chosen Freeholders with the request for release of the bond.

805 Developer's Agreement

- A. Such agreement shall be required when one or more of the following conditions exist as determined by the County Planning Board in consultation with the County Engineer:
1. Improvements to County facilities are to be provided which differ from the adopted Standards.
 2. Monetary contributions are required in lieu of construction improvements.
 3. Pro rata, off tract improvement obligations are determined.
 4. Multiple developers jointly fund and/or construct improvements.
 5. Improvement obligations are reallocated to address immediate, higher priority needs.
- B. The Planning Board, in cooperation with County Counsel, shall coordinate the activities involved in negotiating, drafting, finalizing and approving development agreements by the Board of Chosen Freeholders within the land development review process. These activities include:
1. Review by the Land Development Review Committee.
 2. Coordination of municipal review when applicable.
 3. Recording of agreements.
 4. Depositing contribution payments and fees into dedicated accounts.
- C. Provisions contained within the development agreement shall include the following general categories according to the requirements upon which an agreement is based:
1. Parties to the Agreement and Site Demarcation

2. Objectives and Responsibilities
 3. Construction of Improvements
 4. Pro Rata and In Lieu Contributions
 5. Easements and Dedications
 6. Permits and Approvals
 7. Reporting Mechanisms
 8. Assignment and Transfer
 9. Duration
 10. Other terms and Conditions
 11. Construction Phasing
- D. Such agreement shall be retained until all improvements have been completed to the satisfaction of the County Engineering Division and the County Planning Board.
- E. In instances when the provisions of this resolution allow or require a cash contribution to the County to cover a share of the cost of all improvement, the approval of a subdivision or site plan shall be further conditioned on the receipt of such contributions in the form of a certified check made out to the Treasurer of the County of Morris, and deposited in an account reserved for such improvements.

806 As-Built Drawings

When required by the Planning Board, and in consultation with the County Engineering Division, the developer shall submit “as-built drawings” of construction work performed for any structure within a right-of-way under County’ jurisdiction.

807 Road Opening Permit

After Planning Board approval of the development application and drawings, and 10 days prior to construction at the site, the developer must apply to the County Engineering Division for a permit to perform work within the County right-of-way for any proposed construction of driveways, roadway, or utilities.

808 Non-Compliance with Conditions of Approval

Failure to comply with any of the conditions of County subdivision or site plan approval may be grounds for any or all of the following actions:

- A. Refusal of the County to issue a Road Opening Permit for said subdivision or site development;
- B. A request to the local approving authority to revoke or to withhold the local building permit and/or certificate of occupancy for said development;
- C. Forfeiture of any performance bond or other payment guarantee required by the County to cover the cost of improvements over which the County has jurisdiction.
- D. Appropriate court action initiated by the County of Morris.

APPENDIX

APPENDIX A

NEW JERSEY COUNTY PLANNING ACT

(As Amended Through 1981)

PLANNING BOARD; MEMBERS; APPOINTMENT & TERM; EXPENSES

40:27-1 The board of chosen freeholders may create a county planning board of not less than five nor more than nine members. The members of such planning board shall be the director of the board of chosen freeholders, one member of the board of chosen freeholders to be appointed by the director, the county engineer, if the board exceeds six in number, and other citizens who may not hold any other county office and who shall be appointed by such director of the board of chosen freeholders the approval of that body. One of the remaining members shall be appointed for two years, two shall be appointed for three years, and all additional remaining members shall be appointed for four years, and thereafter, their successors shall be appointed for the term of three years from and after the expiration of the terms of the predecessors in the office. All members of the county planning board shall serve as such without compensation, but may be paid expenses incurred in the performance of duties.

L. 1935, c. 251.

APPOINTMENT OF ALTERNATE MEMBERS

40:27-1.1 The board of chosen freeholders may, by resolution, provide for the appointment of alternate members to the county planning board in accordance with the following:

- a. Where the county planning board consists of six or less, the director of the board of chosen freeholders, with the approval of a majority of the board of freeholders, may appoint one alternate citizen member;
- b. Where the county planning board consists of more than six members, the director of the board of chosen freeholders, with the approval of majority of the board of freeholders, may appoint two alternate citizen members. These members shall be designated by the director as “alternate No.1” and “alternate No.2” and shall participate in the planning board’s decision in rotation during the absence or disqualification of any citizen member;
- c. Where the county engineer is a member of the planning board, the director of the board of chosen freeholders, with the approval of a majority of the board of freeholders, may appoint the assistant or deputy county engineer to serve as an alternate to the county engineer;
- d. The director of the board of chosen freeholders, with the approval of a majority of the board of freeholders, may appoint a member of the board of freeholders to serve as an alternate to the two freeholder members;

Alternate members shall be appointed for terms to expire at the same time as the terms of the regular members for whom they are alternates. An alternate member shall be entitled to sit with and participate as a member in any hearing or hearings may participate in the board's decision during the absence or disqualification of any regular member for whom he is an alternate.

L. 1975, c. 186. Eff. Aug. 16, 1975.

DUTIES OF BOARD; MASTER PLAN; MUNICIPAL CO-OPERATION

40:27-2 The county planning board shall make and adopt a master plan for the physical development of the county. The master plan of a county, with the accompanying maps, plats, charts, and descriptive and explanatory matter, shall show the county planning board's recommendations for the development of the territory covered by the plan, and may include, among other things, the general location, character, and extent of streets or roads, viaducts, bridges, waterways and waterfront developments, parkways, playgrounds, forests, reservations, parks, airports, and other public ways, grounds, places and spaces: the general location and extent of forests, agricultural areas, and open-development areas for purposes of conservation, food and water supply, sanitary and drainage facilities, or the protection of urban development, and such other features as may be important to the development of the county.

The county planning board shall encourage the co-operation of the local municipalities within the county in any matters whatever which may concern the integrity of the county master plan and to advise the board of chosen freeholders with respect to the formulation of development programs and budgets for capital expenditures.

Source, L. 1935, c. 251.

EMPLOYEES; EXPERTS; MASTER PLAN PART OF IMPROVEMENT; BONDS

40:27-3 The county planning board may employ experts and pay for their and such other expenses as may be deemed necessary for the making of the master plan and for the carrying out of such other duties as are herein prescribed, except that such board may expend only such sums as may be appropriated by the board of chosen freeholders or be placed at its disposal through gift. The making of the master plan shall be regarded as essential preliminary studies incidental to the later carrying out of capital improvement projects over an indefinite period of years and may be funded by serial notes or bonds to be issued by the county, the term of which shall not exceed five years.

Source, L. 1935, c. 251.

**HEARING BEFORE PLAN ADOPTED; NOTICE OF HEARING;
RESOLUTION; VOTE REQUIRED;
MUNICIPAL MASTER PLAN, OFFICIAL MAP OR ORDINANCE**

40:27-4 a. Before adopting the master plan or any part thereof or any amendment thereof the board shall hold at least one public hearing thereon, notice of the time and place of which shall be given by one publication in a newspaper of general circulation in the county and by the transmission by delivery or by certified mail, at least 20 days prior to such hearing, of a notice of such hearing and a copy of the proposed master plan, or part thereof or any proposed amendment thereof to the municipal clerk and secretary of the planning board of each municipality in the county. The adoption of the plan or part or amendment thereof shall be by resolution of the board carried by the affirmative vote of not less than 2/3 of the members of the board. The resolution shall refer especially to the maps and descriptive and other matter intended by the board to form the whole or part of the plan or amendment and the action taken shall be record on the map and plan and descriptive matter by the identifying signature of the secretary of the board. An attested copy of the master plan or any amendments thereof shall be certified to the board of chosen freeholders, to the county park commission, if such exists, and to the legislative body of every municipality within the county.

b. In order to maximize the degree of coordination between municipal and county plans and official maps, the county planning board shall be notified in regard to the adoption or amendment of any municipal master plan, official map or ordinance under the “Municipal Planned Unit Development Act (1967).” A copy of such proposed plan, map or amendment shall be forwarded to the county planning board for review and report at least 20 days prior to the date of public hearing thereon.

c. Within 30 days after the adoption of a zoning ordinance, subdivision ordinance, master plan, official map, capital improvement program, or amendments thereto, a copy of said document shall be transmitted to the county planning board for its information and files.

Source, L. 1935, c. 251, As amended by L. 1968, c. 285.

**ADDING TO COUNTY MAP;
CHANGES SUBMITTED TO BOARD;
MAP CONSIDERED BINDING**

40:27-5 The board of chosen freeholders in any county after receiving the advice of the county planning board is hereby empowered to adopt and establish and thereafter as often as the board may deem it for the public interest, to change or to add to an official county map, showing the highways, roadways, parks, parkways, and sites for public building or works, under county jurisdiction, or in the acquisition, financing or construction of which the county has participated or may be called upon to participate. Such map shall be deemed to have been established to conserve and promote the public health, safety, convenience, and welfare. Before acting thereon in the first instance and before adopting any amendments thereto such board of chosen freeholders, after notice of time and place has been given by one publication for each of 3 successive weeks in a newspaper of general circulation in the county and after written notice to the county engineer, county planning board, county park commission, if such exists, and such

other county officers and departments of the board shall designate and to the municipal clerk and secretary of the planning board of each municipality in the county, shall hold a public hearing thereon at which such representatives entitled to notice and such property owners and others interested therein as shall so desire shall be heard.

Before holding any such public hearing such board of chosen freeholders shall submit such proposed change or addition to the county planning board for its consideration and advice and shall fix a reasonable time within which such county planning board may report thereon, not, however, less than 20 days; upon receipt of such report from the county planning board or upon the failure of such board to report within the time limit so fixed such board of chosen freeholders may thereupon act upon the proposed change, but any action adverse to the report of the county planning board shall require the affirmative vote of the majority of all the members of such board of chosen freeholders.

When approved in whole or part by the board of chosen freeholders in any county, such county official map or part thereof shall be deemed to be binding upon the board of chosen freeholders of the county and the several county departments thereof, and upon other county boards heretofore or hereafter created under special laws, and no expenditure of public funds by such county for construction work or the acquisition of land for any purpose enumerated in section 40:27-2 of this Title shall be made except in accordance with such official map.

Nothing herein prescribed shall be construed as restricting or limiting the powers of boards of chosen freeholders from repairing, maintaining and improving any existing street, road, viaduct, bridge, or parkway not shown on such official maps, which does not involve the acquisition of additional land or of park commission as otherwise provided by law.

Source, L. 1935, c. 251, As amended by L. 1968, c. 285.

**BUILDINGS IN ROADWAYS;
PERMITS; HEARING PENALTY;
INJUNCTION**

40:27-6 No building shall be erected in the bed of any highway adopted and shown as a part of the official county map unless a permit therefor is issued by the board of chosen freeholders. For such purpose such board is hereby created a discretionary administrative body, and shall when so acting be deemed an independent statutory body and all its transactions when so acting shall be separately recorded in minutes independent of the minutes of the board of chosen freeholders when acting as a legislative body. When so acting it shall have power by a vote of a majority of all its members to grant or withhold such a permit.

In such a meeting the board shall have power in considering the application for a permit for a specific building by a vote of a majority of all its members, to grant a permit for a building in such a highway, which will as little as practicable increase the cost of opening such highway, or tend to cause a change of such official map, and such board shall impose reasonable requirements as a condition of granting such permit, which requirements shall be designed to promote the health, convenience, safety and general welfare of the public and shall inure to the benefit of the county. Before taking such action the board shall give a public hearing at which

parties in interest and others shall have an opportunity to be heard. At least ten days notice of the time and place of such hearing shall be published in a newspaper of general circulation in the county. The boards shall refuse a permit where the land of the applicant within the mapped highway is already earning a fair return, or where he is in no way injured by placing his building outside of the mapped highway.

Whoever shall construct or begin the construction of such a building without a permit shall forfeit and pay a penalty of not more than one hundred dollars (\$100.00) for each day that work on such structure continues. The county may bring the action to enjoin such construction and may also recover the penalty by a civil action in any court of competent jurisdiction.

Source, L. 1935, c. 251, As amended by L. 1953, c. 37.

DEFINITIONS

40:27-6.1 As used in this act and in chapter 27 of Title of the Revised Statutes, unless the context otherwise requires:

“County master plan” and “master plan” means a composite of the master plan for the physical development of the county, with the accompanying maps, plats, charts and descriptive and explanatory matter adopted by the county planning board pursuant to Revised Statutes 40:27-2;

“County planning board” means a county planning board established by the county pursuant to R.S. 40:27-1 to exercise the duties set forth in such chapter, and means, in any county having adopted the provisions of the “Optional County Charter Law” (P.L. 1972, c. 154; C. 40:41A-1 et seq.), any department, division, board or agency established pursuant to the administrative code of such county to exercise such duties, but only to the degree and extent that the requirements specified in such chapter for county planning boards do not conflict with organization and structure of such department, division, agency or boards as set forth in the administrative code of such county,

“Official county map” means the map, changes and additions thereto, adopted and established, from time to time, by resolution of the board of chosen freeholders of the county pursuant to R.S. 40:27-5;

“Site plan” means a plan of an existing lot or plot or a subdivided lot on which is shown topography, locations of all existing and proposed buildings, structures, drainage facilities, roads, rights-of-way, easements, parking areas, together with any other information required by and at a scale specified by a site plan review and approval resolution adopted by the board of chosen freeholders pursuant to this act;

“Subdivision” means the division of a lot, tract, or parcel of land into two or more lots, tracts, parcels or other divisions of land for sale or development. The following shall not be considered subdivisions within the meaning of this act, if no new streets are created: (1) divisions of land found by the planning board or subdivision committee thereof appointed by the chairman to be for agricultural purposes where all resulting parcels are 5 acres or larger in size. (2) divisions of property by testamentary or interstate provisions. (3) divisions of property upon court order,

including but not limited to judgements of foreclosure (4) consolidation of existing lots by need or other recorded instruments and (5) the conveyance of one or more adjoining lots, tracts or parcels of land, owned by the same person or persons and all of which are found and certified by the administrative officer to conform to the requirements of the municipal development regulations and are shown and designated as separate lots, tracts or parcels on the tax map or atlas of the municipality. The term "subdivision" shall also include the term "resubdivision."

"Subdivision application" means the application for approval of a subdivision pursuant to the "Municipal Land Use Law" (P.L. 1975, c. 291; C. 40:55D-1 et seq.) Or an application for approval of a planned unit development pursuant to the "Municipal Land Use Law" (P.L. 1975, c. 291; C. 40:55D-1 et seq.)

L.1968, c 285, eff. July 1, 1969. Amended by L. 1979, c. 216.

PROVISIONS BY THE COUNTY FOR REVIEW; STANDARDS FOR REVIEW

40:27-6.2. The board of freeholders of any county having a county planning board shall provide for the review of all subdivisions of land within the county by said county planning board and for the approval of those subdivisions affecting county road or drainage facilities as set forth and limited hereinafter in this section. Such review or approval shall be in accordance with procedures and engineering and planning standards adopted by resolution of the board of chosen freeholders. These standards shall be limited to:

- a. The requirements of adequate drainage facilities and easements when, as determined by the county engineer in accordance with county-wide standards, the proposed subdivision will cause storm water to drain either directly or indirectly to a county road, or through any drainage way, structure, pipe, culvert, or facility for which the county is responsible for the construction, maintenance, or proper functioning:
- b. The requirements of dedicating rights-of-way for any roads or drainage ways shown on a duly adopted county master plan or official county map;
- c. Where a proposed subdivision abuts a county road, or where additional rights-of-way and physical improvements are required by the county planning board, such improvements shall be subject to recommendations of the county engineer relating to the safety and convenience of the traveling public and may include additional pavement widths, marginal access streets, reverse frontage and other county highway and traffic design necessitated by an increase in traffic volumes, potential safety hazards or impediments to traffic flows caused by the subdivision.
- d. The requirements of performance guarantees and procedures for the release of same, maintenance bonds for not more than 2 years duration from date of acceptance of improvements and agreements specifying minimum standards of construction for required improvements. The amount of any performance guarantee or maintenance bond shall be set by the planning board upon the advise of the county engineer and shall not exceed the full cost of the facility and installation costs or developer's proportionate share thereof, computed on the basis of his acreage related to the acreage of the total drainage basin involved plus 10% for contingencies.

In lieu of providing any required drainage easement a cash contribution may be deposited with the county to cover the cost of the proportionate share thereof for securing said easement. In lieu of installing any such required facilities exterior to the proposed plat a cash contribution may be deposited with the county to cover the cost of proportionate share thereof for the future installation of such facilities. Any and all monies received by the county to insure performance under the provisions of this act shall be paid to the county treasurer who shall provide a suitable depository therefor. Such funds shall be used only for county drainage projects or improvements for which they are deposited unless such projects are not initiated for a period of 10 years, at which time said funds shall be transferred to the general funds of the county, provided that no assessment of benefit for such facilities as a local improvement shall thereafter be levied against the owners of the lands upon which the developer's prior contribution had been based. Any monies or guarantees received by the county under this paragraph shall not duplicate bonds or other guarantees required by municipalities for municipal purposes.

e. Provision may be made for waiving or adjusting requirements under the subdivision resolution to alleviate hardships which result from strict compliance with the subdivision standards. Where provision is made for waiving or adjusting requirements criteria shall be included in the standards adopted by the board of chosen freeholders to guide actions of the county planning board. Notice of the public hearing on a proposed resolution of the board of chosen freeholders establishing procedures and engineering standards to govern land subdivision within the county, and a copy of such resolution, shall be given by delivery or by certified mail to the municipal clerk and secretary of the planning board of each municipality in the county at least 10 days prior to such hearing.

Source, L 1968, c.285.

SUBMISSION OF SUBDIVISION APPLICATION TO BOARD FOR REVIEW AND APPROVAL; REPORT TO MUNICIPAL AUTHORITY

40:27-6.3 Each subdivision application shall be submitted to the county planning board for review and, where required, approval prior to approval by the local municipal approving authority. County approval of any subdivision application affecting county road or drainage facilities shall be limited by and based upon the rules, regulations and standards established by and duly set forth in a resolution adopted by the board of chosen freeholders. The municipal approval authority shall either defer taking final action on a subdivision application until receipt of the county planning board report thereon or approve the subdivision application subject to its timely receipt of a favorable report thereon by the county planning board. The county planning board shall report to the municipal authority within 30 days from the date of receipt of the application. If the county planning board fails to report to the municipal approving authority within the 30-day period, said subdivision application shall be deemed to have been approved by the county planning board unless, by mutual agreement between the county planning board and municipal approving authority, with approval of the applicant, the 30-day period shall be extended for an additional 30-day period, and any such extension shall so extend the time within which a municipal approving authority shall be required by law to act thereon.

L. 1968, c. 285, Amended by L. 1971, c. 371

**REVIEW OF SUBDIVISION APPLICATION;
WITHHOLDING OF APPROVAL**

40:27-6.4 The county planning board shall review each subdivision application and withhold approval if said proposed subdivision does not meet the subdivision approval standards previously adopted by the board of chosen freeholders, in accordance with section 4 of this act. In the event of the withholding of approval, or the disapproval of, a subdivision application, the reasons for such action shall be set forth in writing and a copy thereof shall be transmitted to the applicant.

L. 1968, c. 285

**CERTIFICATION OF SUBDIVISION PLAT;
ACCEPTANCE FOR FILING**

40:27-6.5 The county recording officer shall not accept for filing any subdivision plat unless it bears the certification of either approval or of review and exemption of the authorized county planning board officer or staff member indicating compliance with the provisions of this act and standards adopted pursuant thereto, in addition to all other requirements for filing a subdivision plat including compliance with the provisions of “The Map Filing Law” (P.L. 1960, c. 141). In the event the county planning board shall have waived its right to review, approve or disapprove a subdivision by failing to report to the municipal approval authority within the 30 day period or the mutually agreed upon 30 day extension period, as outlined in section 5 (40:27-6.3) above, the subdivision shall be deemed to have county planning board approval, and at the request of the applicant, the secretary of the county planning board shall attest on the part to the failure of the county planning board to report within the required time period, which shall be sufficient authorization for further action by the municipal planning board and acceptance thereof for filing by the county recording officer.

Source, L. 1968, c. 285.

**REVIEW AND APPROVAL OF SITE PLANS
ALONG COUNTY ROADS OR AFFECTING
COUNTY DRAINAGE FACILITIES;
ADOPTION OF STANDARDS;**

40:27-6.6 The governing body of any county having a county planning board may provide for the review of site plans for land development along county roads or affecting county drainage facilities as provided in subsection e. of this section and for the approval of such development as hereinafter set forth and limited for the purpose of assuring a safe and efficient county road system. Such review and approval shall be in conformance with procedures and standards adopted by resolution or ordinance as appropriate of the governing body. Notice of the public hearing on a proposed resolution or ordinance of the governing body established procedures and standards to govern the review and regulation of land development along county roads or affecting county drainage facilities as provided in subsection e. of this section, and a copy of

such resolution or ordinance, shall be given by delivery or by certified mail to the municipal clerk, secretary of the planning board secretary of the board of adjustment of each municipality in the county at least 10 days prior of such hearing.

These procedures and standards shall be limited to:

- a. The submission of a site plan, prior to the issuance of a municipal building permit, drawn in accordance with standards in the resolution or ordinance for any proposed land development including proposed commercial, industrial, multi-family structures containing five or more units, or any other land development requiring off-street parking area or producing surface runoff in excess of standards set forth in the site plan review and approval resolution or ordinance of the governing body.
- b. The requirements of dedication of additional right-of-way in accordance with the county master plan adopted by the county planning board or an official county map adopted by the governing body. Where by reason of special or unusual conditions said total additional right-of-way is to be secured from just one side of an existing road, only one-half of the additional right-of-way may be required to be dedicated.
- c. The requirements of physical improvements subject to recommendation of the county engineer relating to the safety to the safety and convenience, of the traveling public, including drainage facilities, or other highway and traffic design features as may be deemed necessary on such county road or roads in accordance with the engineering and planning standards established in the site plan review and approval resolution or ordinance of the governing body.
- d. The requirements of performance and payment guarantees and procedures for the release of same, maintenance bonds of not more than 2 years duration from the date of acceptance of improvements, cash contributions, and agreements specifying minimum standards of construction for required improvements. Procedures for, and limitations on the requirements of such guarantees or cash contributions shall be governed by the provisions of this act.
- e. The requirements of adequate drainage facilities and easements when, as determined by the county engineer in accordance with county-wide standards, the proposed site plan will cause storm water to drain either directly or indirectly to a county road or through any drainage-way, structure, pipe, culvert or facility for which the county is responsible for the construction, maintenance of proper functioning.

Site plans for land development not along a county road that include less than 1 acre of impervious surfaces are exempt from county site plan review.

L. 1968, c 285, Amended by L. 1981, c. 50.

SITE PLAN APPROVAL; INACTION DEEMED APPROVAL

40:27-6.7 The municipal or other local agency or individual with authority to approve the site plan or issue a building permit shall defer action on any application requiring county approval

pursuant to section 7 (40:27-6.5) of this act until the same have been submitted to the county planning board for its approval of the site plan. The county planning board shall have 30 days from the receipt of a site plan to report to the appropriate local authority. In the event of disapproval, such report shall state the specific reasons therefor. If the county planning board fails to report to the municipal approving or issuing authority within the 30-day period, said site plan shall be deemed to have been approved by the county planning board. Upon mutual agreement between the county planning board and the municipal approving authority, with approval of the applicant, the 30-day period may be extended for an additional 30-day period.

Source, L. 1968, c. 285.

**SUBDIVISION AND SITE
PLAN APPROVAL;
AUTHORITY MAY BE DELEGATED TO PLANNING DIRECTOR AND COMMITTEE**

40:27-6.8 The county planning board may by resolution vest its power to review and approve subdivisions, pursuant to the provisions of section 4 (40:27-6.2) through 6 (40:27-6.4) of this act, and the power to review and approve site plans pursuant to the provisions of sections 8 (40:27-6.6) and 9 (40:27-6.7) of this act with the county planning director and a designated committee of members of said county planning board.

Source, L 1968, c. 285.

**APPEAL BY AGGRIEVED PERSONS;
HEARING;
DECISION**

40:27-6.9 If said action is taken by the planning director and a committee of the board, said applicant may file an appeal in writing to the county planning board within 10 days after the date of notice by certified mail of the said action. Any person aggrieved by the action of the county planning board in regard to subdivision review and approval or site plan review and approval may file an appeal in writing to the board of chosen freeholders within 10 days after the date of notice by certified mail of said action. The county planning board or the board of chosen freeholders to which an appeal is taken shall consider such appeal at a regular or special public meeting within 45 days from the date of its filing. Notice of said hearing shall be made by certified mail at least 10 days prior to the hearing to the applicant and to such of the following officials as deemed appropriate for each specific case, the municipal clerk; municipal planning board, board of adjustment, building inspector, zoning officer, board of chosen freeholders and the county planning board. The board to which appeal is taken shall render a decision within 30 days from the date of the hearing.

Source, L. 1968, c. 285.

FILING OF MUNICIPAL ZONING ORDINANCE WITH COUNTY; NOTICE OF CHANGE

40:27-6.10 In order that county planning boards shall have a complete file of the planning and zoning ordinances of all municipalities in the county, each municipal clerk shall file with the county planning board a copy of the planning and zoning ordinances of the municipality in effect on the effective date of this act and shall notify the county planning board of the introduction of any revision or amendment of such and ordinance which affects lands adjoining roads or other county lands, or lands lying within 200 feet of a municipal boundary, or proposed facilities or public lands shown on the county master plan or official county map. Such notice shall be given to the county planning board at least 10 days prior to the public hearing thereon by personal delivery or by certified mail of a copy of the official notice of the public hearing together with a copy of the proposed ordinance.

Source, L. 1968, c. 285.

NOTICE OF APPLICATION TO BOARD OF ADJUSTMENT

40:27-6.11 The county planning board shall be notified of any application to the board of adjustment under Revised Statute 40:55-39 in such cases where the land involved fronts upon an existing road or proposed road shown on the official county map or on the county master plan, adjoins the other county land or is situated within 200 feet of a municipal boundary. Notice of hearing on such applications shall be furnished by the appellant in accordance with P.L. 1965, c. 162 (C. 40:55-53).

Source, L. 1968, c. 285.

PRIOR PLANNING BOARD TO CONTINUE, DURATION

40:27-6.12 Any county planning board exercising the authority of review and approval of land subdivision pursuant to the provision of chapter 27 of Title 40 of the Revised Statutes and chapter 412 of the laws of 1948 supplementary thereto is authorized to continue to exercise such authority thereunder for the period of 1 year after the effective date of this act or until the board of chosen freeholders of the county adopts a resolution governing land subdivision pursuant to this act, which occurs first.

Source, L. 1968, c. 285.

NOTICE TO COUNTY OF VARIANCE OR OFFICIAL MAP AMENDMENT OR ESTABLISHED IN SPECIFIED AREAS

40:27-6.13 Whenever a hearing is required before a zoning board of adjustment or the governing body of a municipality in respect to the granting of variance or establishing or amending an official municipal map involving property adjoining county road or within 200 feet of an adjoining municipality, and notice of said hearing is required to be given, the person giving such notice shall also, at least 10 days prior to the hearing, give notice thereof in writing by certified mail to the county planning board. The notice shall contain a brief description of the

property involved, its location, a concise statement of the matters to be heard and the date, time and place of such hearing.

Source, L. 1968, c. 285.

EXISTING BOARDS CONTINUED IN CONFORMITY WITH THIS CHAPTER

40:27-8 County planning boards lawfully in existence on June eighth, one thousand nine hundred and thirty-five if continued after January first, one thousand nine hundred and thirty-six, shall be reconstituted in accordance with the provisions of this chapter.

Source, L. 1935, c. 251.

**MORRIS COUNTY PLANNING BOARD
LAND DEVELOPMENT REVIEW
APPLICATION PROCEDURES**

SUBMISSION REQUIREMENTS:

Subdivision – All subdivisions must be submitted to the County Planning Board for review.

Major Subdivisions – will be reviewed for County approval

Minor Subdivisions – will be reviewed to determine:

1. If the project fronts along a County road; and/or
2. If the project will affect any County drainage facilities.

For those minor subdivisions which meet either one or both of the above criteria, the project will be reviewed for approval. If a minor subdivision does not meet either criteria, an exemption letter will be sent.

Site Plans – Site Plans will be reviewed to determine:

1. If the project fronts along a County road; and/or
2. If the project contains an amount of impervious surface equal to or greater than one acre (43,560 sq. ft.)

For those site plans which meet either one or both of the above criteria, the project will be reviewed for approval.

If the site plan does not meet either criteria, an exemption letter is sent.

PROCEDURES:

New applications must be submitted to the County Planning Board by the municipal approving authority or by the applicant and accompanied by the transmittal letter stating that the application has also been made to the municipal approving authority.

Development applications revised in response to County Planning Board requirements may be submitted directly to the County Planning Board by the applicant.

Digital copy of final plat and fully signed paper copy of final plat are required prior to filing of final plat at the Morris County Clerk's Office.

REVISIONS:

Subdivision plats and site plans which are revised to comply with the County Planning Board requirements, or would alter a previous County Planning Board approval, must be resubmitted to the County Planning Board for review and approval.

REPORTS:

The County Planning Board has a statutory review period of thirty (30) days from the date of a complete submission. Upon completion of the County Planning Board review, a report will be mailed to the municipal approving authority with copies mailed to the applicant and his/her engineer. For those site plans and minor subdivisions found to be exempt, a notice of exemption will be mailed to the municipal approving authority.

SUBMISSION PACKAGE:

A complete application consists of the following:

- 1. Two (2) completed copies of the County application form (on the reverse side).
- 2. Two (2) copies of the subdivision or site plan drawings.
- 3. Two (2) copies of the drainage study (if required by the County Land Development Standards or municipal ordinance).
- 4. Two (2) copies of the traffic impact study (if required by the County Land Development Standards or municipal ordinance).
- 5. Payment of the review fee in accordance with the fee schedule on the reverse side of this application. If no fee is included, the applicant will be billed and the project may not be reviewed until payment is received. No fee is required for resubmissions.

Package should be submitted via mail to: Morris County Planning Board
P.O. Box 900

Or via personal delivery or overnight to: Morristown, NJ 07963-0900
30 Schuyler Place, 4th Floor
Morristown, New Jersey

Questions, please call: (973) 829-8120

(Revised 8/08)

APPENDIX C

Revised March 29, 1993
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THE BRIDGE AND CULVERT POLICY OF THE COUNTY OF MORRIS

Policy of the Morris County Board of Chosen Freeholders
for Establishing Jurisdiction and Maintenance of Bridges and Culverts;
and for the Transfer of Newly Constructed Bridges & Culverts to
County Jurisdiction

Note: For the purpose of this policy, the term "structure" shall mean "bridges and culverts." Culverts can include cross section openings which are square, rectangular, circular, elliptical and arched.

I. Jurisdictional Considerations

A. Existing Bridges and Culverts in County Roads

All existing structures including certain existing railroad bridges, situated in County roads, rights-of-way and extensions thereof, are considered within the jurisdiction of the County for maintenance, repair and replacement.

B. Existing Bridges and Culverts in Municipal Roads

1. It is the policy and intent that structures situated in municipal roads are considered within the County's jurisdiction when the bridge span or culvert width has a clear inside dimension of four (4) feet or greater. These structures are generally shown on the "Bridge and Culvert Map of Morris County" on file at the County Department of Public Works.
2. The governing body of a municipality may request that a structure in a municipal road be transferred to County jurisdiction provided the bridge span or culvert width has a clear inside dimension of four (4) feet or greater. It is at the option of the County whether to accept or reject said structure. The structure shall be transferred in a manner consistent with the criteria and procedures of this policy.
3. It is the policy and intent that structures situated in municipal roads with a span in the case of bridges and a width in the case of culverts less than four (4) feet are the sole responsibility of the municipality.

C. Proposed Bridges and Culverts in County Roads

Structures proposed for construction in a County road right-of-way for the purpose of spanning a waterway shall (after design review, inspection, and acceptance) be placed under the County's jurisdiction for maintenance, repair and replacement.

D. Proposed Bridges in Municipal Roads

The County will accept jurisdiction of a newly constructed bridge or culvert situated in a municipal road upon recommendation of the County Engineer and approval of the Board of Chosen Freeholders. Such structures must be for the purpose of spanning a waterway and must have a nominal four (4) foot clear span or greater. The structure shall be designed and constructed in a manner consistent with the criteria and procedures of this policy.

II. Proposed Bridges and Culverts to be Constructed in Development Roads and to be Transferred from Municipal to County Jurisdiction

A. Procedures

1. Prior to the design of any new bridge or culvert in a municipal road, to be constructed by a developer, the municipal governing body shall notify the County Engineer, in writing, of the intent of the municipality to transfer jurisdiction of the structure upon its completion and acceptance by the County.
2. The developer's engineer shall confer with the County Engineer before starting bridge and culvert designs.
3. The following information must be submitted via the County Planning Board for preliminary plan approval:
 - a. Design information required under preliminary plat or site plan submission requirements of the Morris County Land Development Standards.
 - b. Plan view showing overall length and width of the structure and of each span, and the roadway width.
 - c. Cross-section showing materials for deck slab, beams, railing and curb, with dimensions. (Re-bar design not required).
 - d. Longitudinal section or elevation showing materials and dimensions for beams, piers, footings, abutments and wingwalls. (Re-bar

design not required). Also the 100 year water surface elevation established by the New Jersey Department of Environmental Protection (NJDEP) shall be shown to illustrate the underclearance.

- e. Design specifications showing design loads and specifications in accordance with the American Association of State Highway and Transportation Officials (AASHTO), Standard Specifications for Highway Bridges, 1989 as amended, and supplemented by the New Jersey Department of Transportation (NJDOT), Design Manual for Bridges and Structures, 1987 as amended.
 - f. Construction specification note showing construction to be in accordance with NJDOT's "Specifications for Road and Bridge Construction", 1989 as amended.
 - g. Copy of NJDEP stream encroachment permit(s), wetlands permit(s), and any other local, state and federal permit(s) and approval(s) as may be required.
4. After preliminary plat approval and prior to construction of a bridge or culvert, the following information must be submitted to the County Engineer for review and approval.
- a. Detailed bridge and culvert structural drawings and specifications.
 - b. Hydraulic and structural calculations.
 - c. Copies of the final permits and approvals required under paragraph 3.g of this section.
5. Approved shop drawings, as required by the developer's engineer and in accordance with the NJDOT, Design Manual for Bridges and Structures, 1987 as amended, must be filed at the Office of the County Engineer.
6. Upon completion of a bridge or culvert, the municipality shall:
- a. Request in writing to the Board of Chosen Freeholders asking the County to accept jurisdiction of said structure.
 - b. The request shall be accompanied by:
 - 1) A certified copy of the municipal resolution accepting the road.
 - 2) Two copies (one certified paper print and one reproducible transparent mylar print) of the "as built" drawings of the

new structure showing the actual materials and quantities used, the linear measurements and elevations as constructed.

- 3) A maintenance bond from the developer to the County of Morris for a period of two (2) years.
7. In the event the Board of Chosen Freeholders accepts the jurisdiction for the structure, it shall be agreed that the municipality maintains the approaches to the structure.
8. Jurisdiction of a bridge or culvert by the County shall be limited to the structure, associated wingwalls and guiderails. Any extension of structural elements beyond the wing walls, and 50 feet of guiderail are not within the County's jurisdiction when accepting the new bridge or culvert, unless otherwise specified.

B. Design

1. Culverts shall be designed of reinforced concrete. No multiple structures will be permitted.
2. All culverts shall be constructed for the full width of the travelled way, plus sidewalk area and embankments, but shall be no less than twenty six (26) feet in length.
3. Bridge structures shall be designed of reinforced concrete, and/or prestressed concrete. No bridge of a temporary design will be allowed. Use of steel composite bridges shall be at the discretion of the County Engineer.
4. The roadway width of bridges shall be no less than the planned pavement width of the approach road, including shoulder. However, the roadway width of bridges shall be no less than twenty-six (26) feet.
5. All structures shall be designed in accordance with the AASHTO's, Standard Specifications for Highway Bridges, 1989 as amended and supplemented by NJDOT's, Design Manual for Bridges and Structures, 1987 as amended.
6. All structures shall be designed to carry highway loadings of HS20-44 (MS18) plus 10% for municipal roads, HS20-44 (MS18) + 25% (HS25) for County roads or two 24,000 pound axles spaced at four (4) feet on centers, whichever produces the maximum stresses.
7. A maintenance easement of adequate size shall be provided for each bridge

or culvert whenever the road right-of-way is insufficient to provide adequate access.

C. Construction

1. Notification of construction must be given to the County Engineer forty-eight (48) hours prior to construction.
2. During construction, the County reserves the right to inspect the work along with the municipal engineer and developer's engineer to ensure that the structure is being built in accordance with plans and specifications and when completed would be acceptable to the County of Morris. The County participation in the inspection during construction in no way relieves the municipal engineer or developer's engineer from their obligations.
3. The County Engineer reserves the right to obtain certification of all materials used in the construction of bridges and culverts.
4. All structures shall be constructed in accordance with New Jersey Department of Transportation, Standard Specifications for Road and Bridge Construction, 1989 as amended.

APPENDIX D

Values of the Roughness Coefficient "n"

Type of channel	Minimum	Normal	Maximum
A. CLOSED CONDUITS FLOWING PARTLY FULL			
A-1. Metal			
a. Brass, smooth	0.009	0.010	0.013
b. Steel			
1. Lockbar and welded	0.010	0.012	0.014
2. Riveted and spiral	0.013	0.016	0.017
c. Cast iron			
1. Coated	0.010	0.013	0.014
2. Uncoated	0.011	0.014	0.016
d. Wrought iron			
1. Black	0.012	0.014	0.015
2. Galvanized	0.013	0.016	0.017
e. Corrugated metal			
1. Subdrain	0.017	0.019	0.021
2. Storm drain	0.021	0.024	0.030
A-2. Nonmetal			
a. Lucite	0.008	0.009	0.010
b. Glass	0.009	0.010	0.013
c. Cement			
1. Neat, surface	0.010	0.011	0.013
2. Mortar	0.011	0.013	0.015
d. Concrete			
1. Culvert, straight and free of debris	0.010	0.011	0.013
2. Culvert with bends, connections, and some debris	0.011	0.013	0.014
3. Finished	0.011	0.012	0.014
4. Sewer with manholes, inlet, etc. straight	0.013	0.015	0.017
5. Unfinished, steel form	0.012	0.013	0.014
6. Unfinished, smooth wood form	0.012	0.014	0.016
7. Unfinished, rough wood form	0.015	0.017	0.020
e. Wood			
1. Stave	0.010	0.012	0.014
2. Laminated, treated	0.015	0.017	0.020
f. Clay			
1. Common drainage tile	0.011	0.013	0.017
2. Vitrified sewer	0.011	0.014	0.017
3. Vitrified sewer with manholes, inlet, etc.	0.013	0.015	0.017
4. Vitrified subdrain with open joint	0.014	0.016	0.018
g. Brickwork			
1. Glazed	0.011	0.013	0.015
2. Lined with cement mortar	0.012	0.015	0.017
h. Sanitary sewers coated with sewage slimes, with bends and connections	0.012	0.013	0.016
i. Paved invert, sewer, smooth bottom	0.016	0.019	0.020
j. Rubble masonry, cemented	0.018	0.025	0.030

*Values of the Roughness Coefficient "n" (Cont'd)

Type of channel		Minimum	Normal	Maximum
B. LINED OR BUILT-UP CHANNELS				
B-1. Metal				
a.	Smooth steel surface			
	1. Unpainted	0.011	0.012	0.014
	2. Painted	0.012	0.013	0.017
b.	Corrugated	0.021	0.025	0.030
B-2 Nonmetal				
a.	Cement			
	1. Neat, surface	0.010	0.011	0.013
	2. Mortar	0.011	0.013	0.015
b.	Wood			
	1. Planed, untreated	0.010	0.012	0.014
	2. Planed, creosoted	0.011	0.012	0.015
	3. Unplaned	0.011	0.013	0.015
	4. Plank with battens	0.012	0.015	0.018
	5. Lined with roofing paper	0.010	0.014	0.017
c.	Concrete			
	1. Trowel finish	0.011	0.013	0.015
	2. Float finish	0.013	0.015	0.016
	3. Finished, with gravel on bottom	0.015	0.017	0.020
	4. Unfinished	0.014	0.017	0.020
	5. Gunite, good section	0.016	0.019	0.023
	6. Gunite, wavy section	0.018	0.022	0.025
	7. On good excavated rock	0.017	0.020	
	8. On irregular excavated rock	0.022	0.027	
d.	Concrete bottom float finished with sides of			
	1. Dressed stone in mortar	0.015	0.017	0.020
	2. Random stone in mortar	0.017	0.020	0.024
	3. Cement rubble masonry, plastered	0.016	0.020	0.024
	4. Cement rubble masonry	0.020	0.025	0.030
	5. Dry rubble or riprap	0.020	0.030	0.035
e.	Gravel bottom with sides of			
	1. Formed concrete	0.017	0.020	0.025
	2. Random stone in mortar	0.020	0.023	0.026
	3. Dry rubble or riprap	0.023	0.033	0.036
f.	Brick			
	1. Glazed	0.011	0.013	0.015
	2. In cement mortar	0.012	0.015	0.018
g.	Masonry			
	1. Cemented rubble	0.017	0.025	0.030
	2. Dry rubble	0.023	0.032	0.035
h.	Dressed ashlar	0.013	0.015	0.017
i.	Asphalt			
	1. Smooth	0.013	0.013	
	2. Rough	0.016	0.016	
j.	Vegetal lining	0.030	0.500

*Values of the Roughness Coefficient "n" (Cont'd)

Type of channel	Minimum	Normal	Maximum
C. EXACAVATED OR DREDGED			
a. Earth, straight and uniform			
1. Clean, recently completed	0.016	0.018	0.020
2. Clean, after weathering	0.018	0.022	0.025
3. Gravel, uniform section, clean	0.022	0.025	0.030
4. With short grass, few weeds	0.022	0.027	0.033
b. Earth, winding and sluggish			
1. No vegetation	0.023	0.025	0.030
2. Grass, some weeds	0.025	0.030	0.033
3. Dense weeds or aquatic plants in deep channels	0.030	0.035	0.040
4. Earth bottom and rubble sides	0.028	0.030	0.035
5. Stony bottom and weedy banks	0.025	0.035	0.040
6. Cobble bottom and clean sides	0.030	0.040	0.050
c. Dragline-excavated or dredged			
1. No vegetation	0.025	0.028	0.033
2. Light brush on banks	0.035	0.050	0.060
d. Rock cuts			
1. Smooth and uniform	0.025	0.035	0.040
2. Jagged and irregular	0.035	0.040	0.050
e. Channels not maintained, weeds and brush uncut			
1. Dense weeds, high as flow depth	0.050	0.080	0.120
2. Clean bottom, brush on sides	0.040	0.050	0.080
3. Same, highest stage of flow	0.045	0.070	0.110
4. Dense brush, high stage	0.080	0.100	0.140
D. NATURAL STREAMS			
D-1. Minor streams (top width at flood stage 100 ft)			
a. Streams on plain			
1. Clean, straight, full stage, no rift or deep pools	0.025	0.030	0.033
2. Same as above, but more stones and weeds	0.030	0.035	0.040
3. Clean, winding, some pools and shoals	0.033	0.040	0.045
4. Same as above, but some weeds and stones	0.035	0.045	0.050
5. Same as above, lower stages, more ineffective slopes and sections	0.040	0.048	0.055
6. Same as 4, but more stones	0.045	0.050	0.060
7. Sluggish reaches, weedy, deep pools	0.050	0.070	0.080
8. Very weedy reaches, deep pools, or floodways with heavy stand of timber and underbrush	0.075	0.100	0.150

*Values of the Roughness Coefficient "n" (Cont'd)

Type of channel	Minimum	Normal	Maximum
b. Mountain streams, no vegetation in channel, banks usually steep, trees and brush along banks submerged at high stages			
1. Bottom: gravels, cobbles, and few boulders	0.030	0.040	0.050
2. Bottom: cobbles with large boulders	0.040	0.050	0.070
D-2. Flood plains			
a. Pasture, no brush			
1. Short grass	0.025	0.030	0.035
2. High grass	0.030	0.035	0.050
b. Cultivated areas			
1. No crop	0.020	0.030	0.040
2. Mature row crops	0.025	0.035	0.045
3. Mature field crops	0.030	0.040	0.050
c. Brush			
1. Scattered brush, heavy weeds	0.035	0.050	0.070
2. Light brush and trees in winter	0.035	0.050	0.060
3. Light brush and trees, in summer	0.040	0.060	0.080
4. Medium to dense brush, in winter	0.045	0.070	0.110
5. Medium to dense brush, in summer	0.070	0.100	0.160
d. Trees			
1. Dense willows, summer, straight	0.110	0.150	0.200
2. Cleared land with tree stumps, no sprouts	0.030	0.040	0.050
3. Same as above, but with heavy growth of sprouts	0.050	0.060	0.080
4. Heavy stand of timber, a few down trees, little undergrowth, flood stage below branches	0.080	0.100	0.120
5. Same as above, but with flood stage reaching branches	0.100	0.120	0.160
D-3. Major streams (top width at flood stage 100 ft). The n value is less than that for minor streams of similar description, because banks offer less effective resistance.			
a. Regular section with no boulders or brush	0.025	0.060
b. Irregular and rough section	0.035	0.100

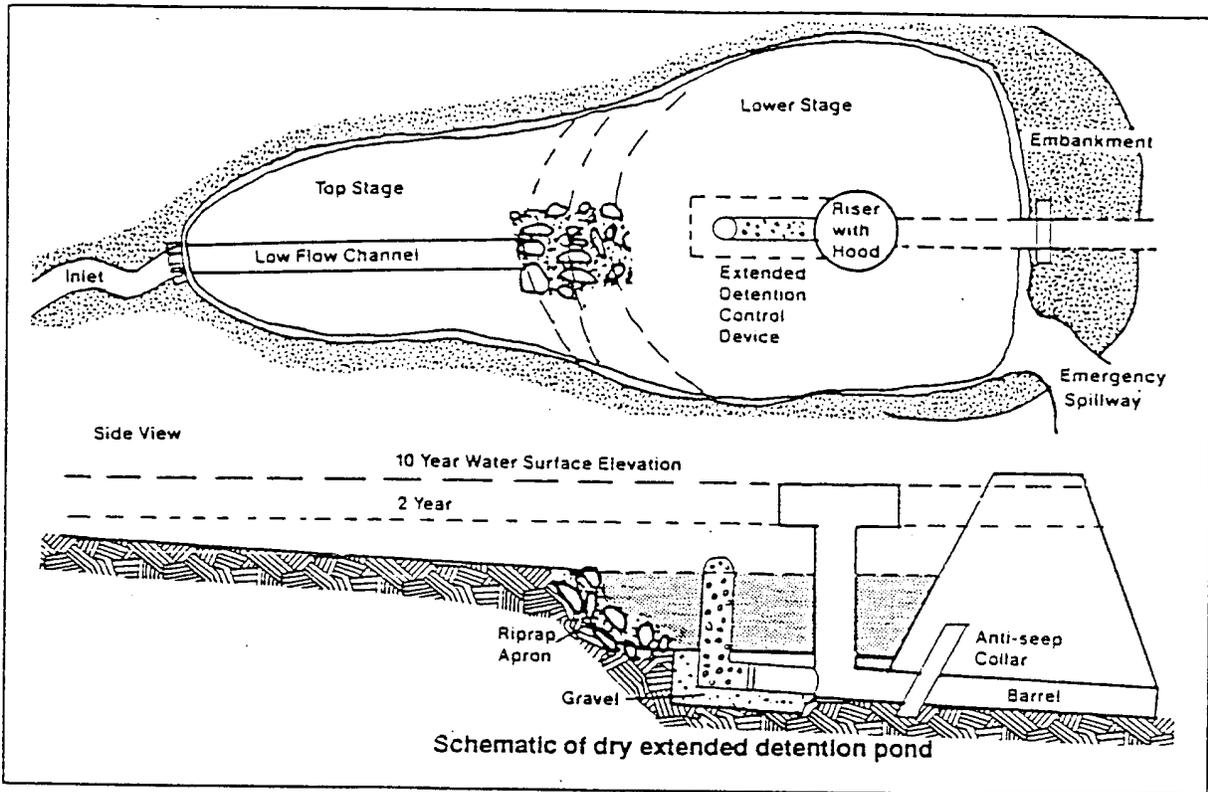
*Source: V.T. Chow, "Open Channel Hydraulics."

APPENDIX E

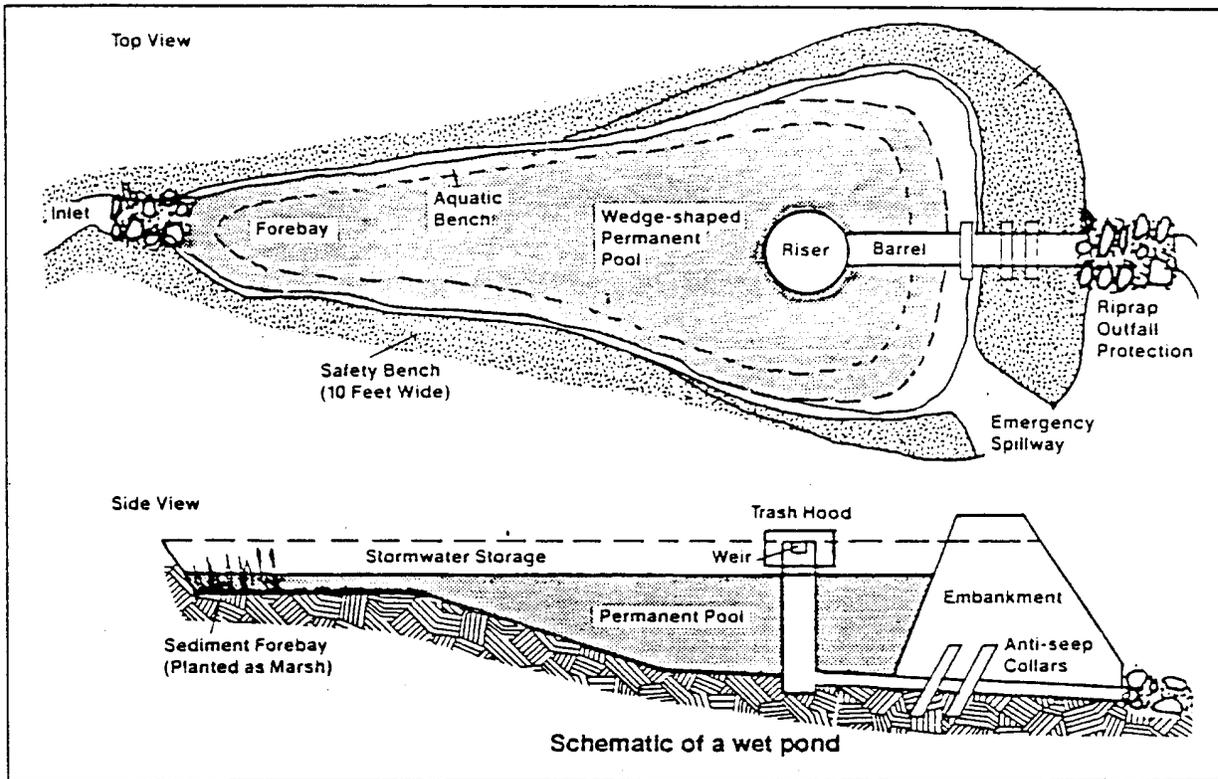
ALTERNATE DESIGN FEATURES

FOR

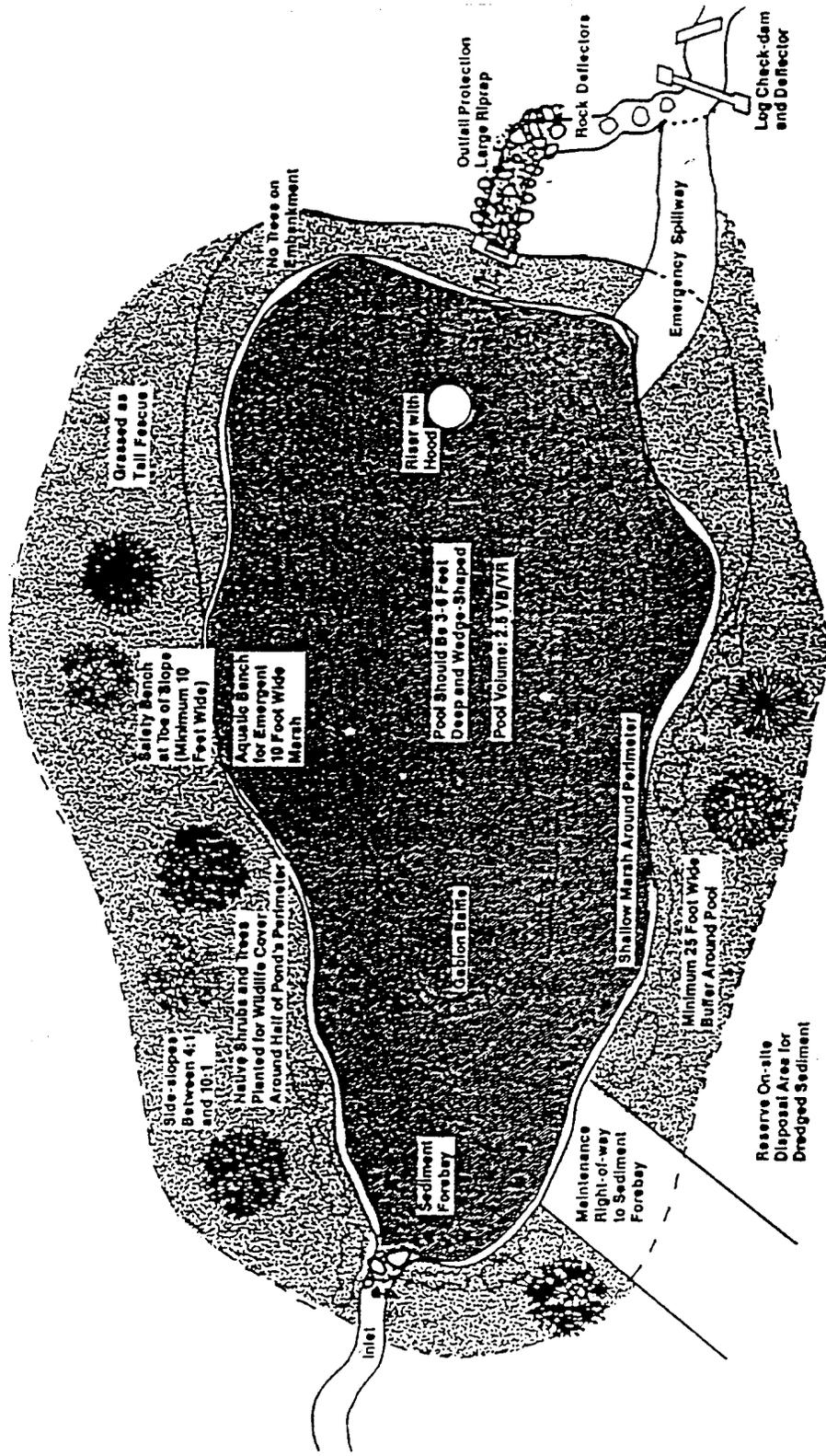
STORMWATER DETENTION FACILITIES



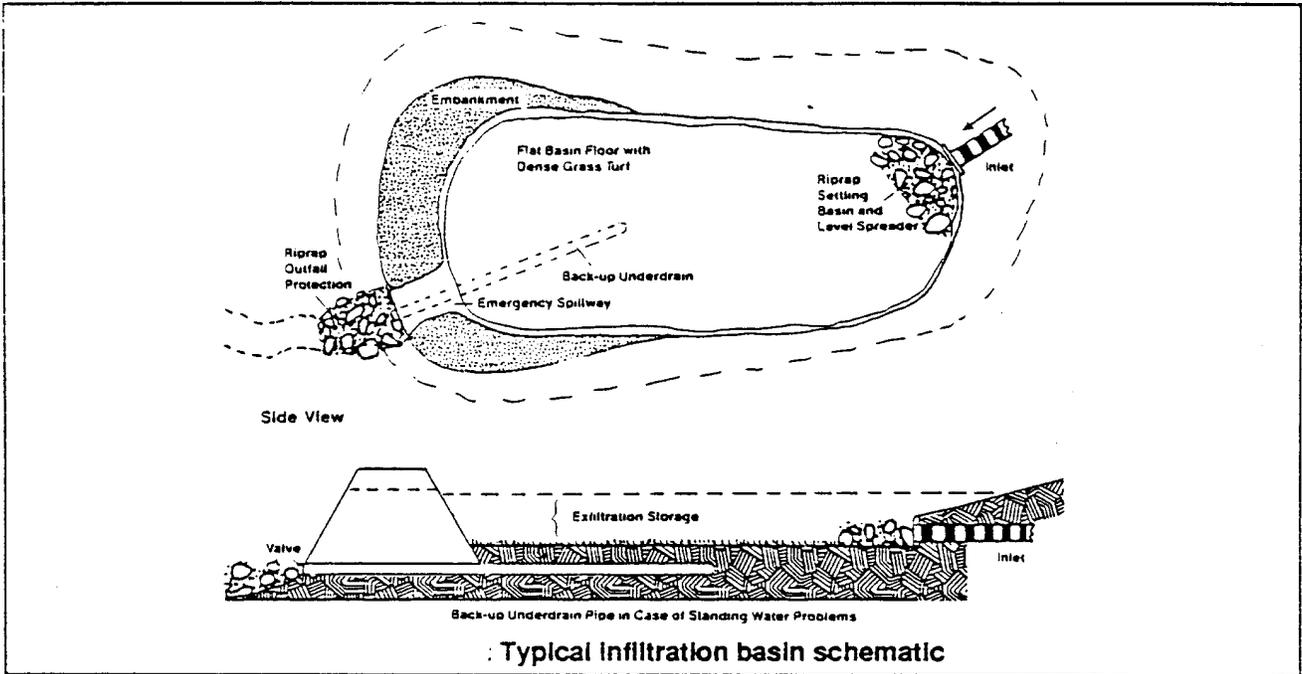
Source: Schueler, 1987



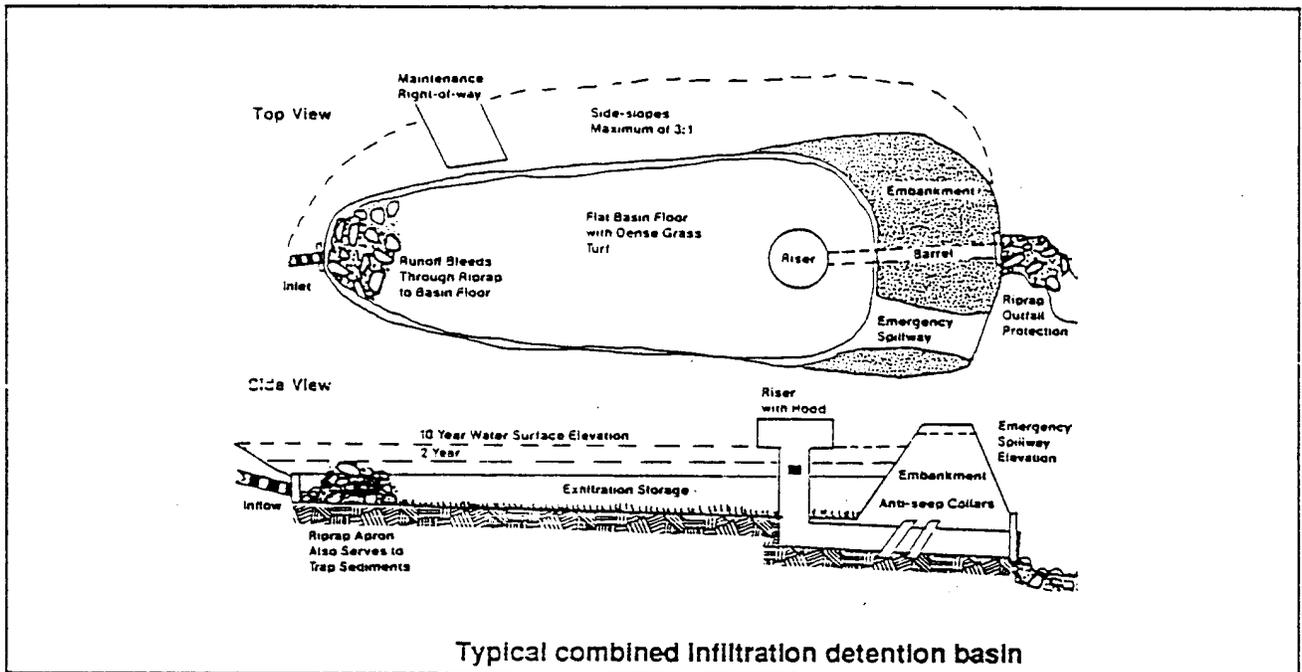
Source: Schueler, 1987



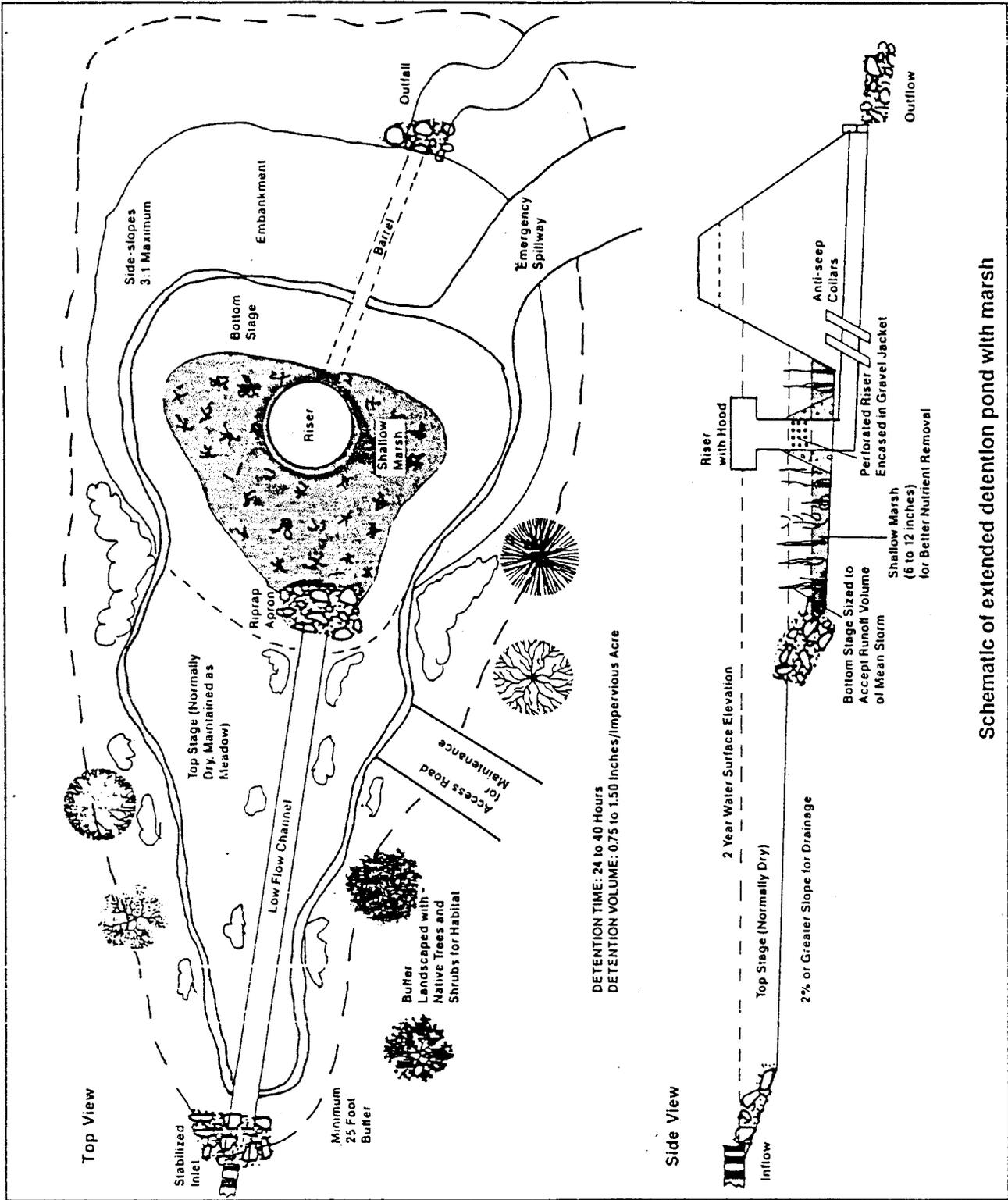
Design Schematic of a Wet Pond



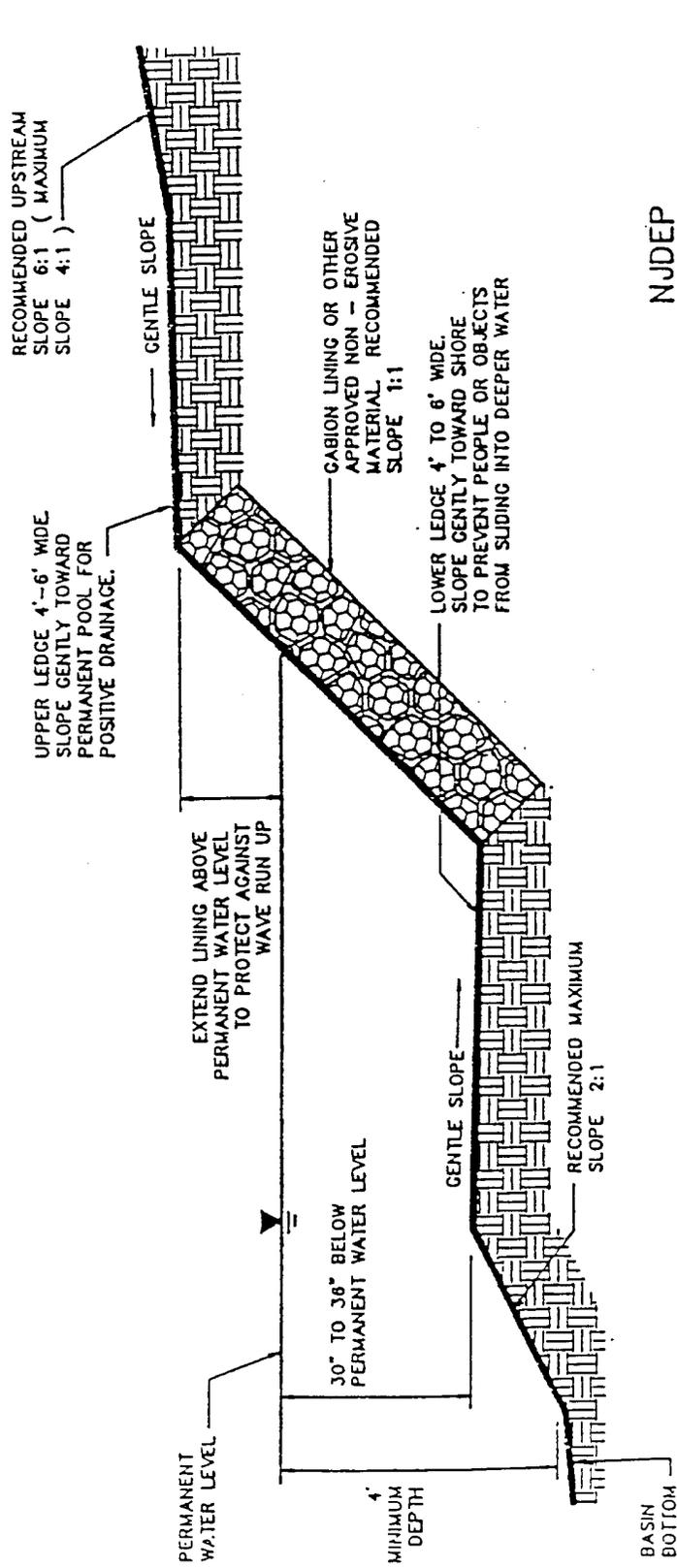
Source: Schueler, 1987



Source: Schueler, 1987



Source: Schueler, 1987



NJDEP
 SWMF MAINTENANCE MANUAL
 RETENTION BASIN
 SIDE SLOPES
 TYPICAL DETAILS

NO SCALE

APPENDIX F

IMPORTANT!
24 HOURS BEFORE YOU DIG YOU MUST NOTIFY COUNTY OF MORRIS DEPARTMENT OF ROAD INSPECTION
(201) 285-6749

Office of Board of Chosen Freeholders

MORRIS COUNTY, NEW JERSEY

APPLICATION FOR ROAD OPENING, STORAGE PERMIT, ETC.

Complete and submit to Department of Road Inspection, Courthouse, Morristown, New Jersey 07960

NOT VALID UNLESS COUNTERSIGNED BY THE COUNTY SUPERVISOR OF ROAD INSPECTION

Date _____

Applicants _____
Telephone No. () _____

Application is made by _____

Applicants address _____

For (Owner of Property Name) _____ Owners _____
Telephone No. () _____

Located at _____
address municipality zip

For a permit to open: _____ road name

For purpose of: _____ specify proposed work

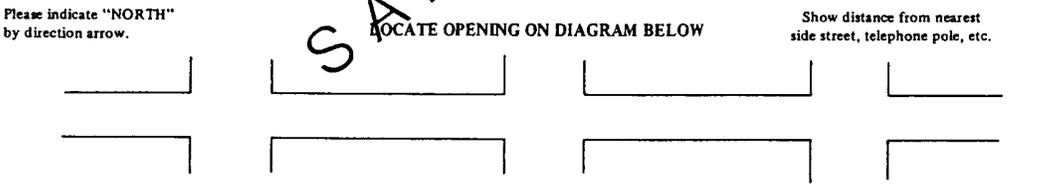
From _____ To _____
(Give approximate limits ; show on diagram below)

Length of opening: _____ Width: _____ Depth: _____ Square Yards: _____

Size of pipe, main or ducts being installed _____ Type of pavement to be disturbed _____

Work will be started on _____ Completed on _____

Remarks: _____



The applicant agrees to comply with the rules and regulations printed on the back hereof as well as all laws, ordinances and resolutions, relating to said work, and the acceptance of the permit shall be deemed an agreement to abide by all its terms and conditions.

The applicant further agrees that in the event it shall cause, through negligence, improper action or omission while the work is in progress or after completion, the county to incur costs in order to rectify any problem, said costs shall be deducted by the county from the cash deposit. Prevailing wage rates shall be used. After deducting all charges, the balance of the deposit shall be returned to the applicant. The applicant agrees that he is liable for charges incurred in excess of the deposit.

Received from Applicant: _____ Insurance Cert. _____ Locator File _____ Road Opening Bond _____

_____ Cash Deposit _____ Plans _____ Other _____

Amount of Cash Deposit _____ (\$ _____) (Amount to be written) (Figures)

Amount of Bond _____ (\$ _____) (Amount to be written) (Figures)

APPROVED:

County Supervisor of Road Inspection _____ Signed (Applicant) _____
(Name printed) _____

Received the sum of _____ Dollars Title _____

Clerk of the Board of Chosen Freeholders _____ PERMIT NUMBER _____

RULES, REGULATIONS GOVERNING ROAD OPENINGS AND STORAGE PERMITS

Adopted by the Morris County Board of Chosen Freeholders December 5, 1985 amended December 21, 1988.

1. It shall be unlawful for any person, firm, corporation or municipality to make any excavation in or tear up the surface for any purpose whatsoever of any road or street which is under the jurisdiction of the County of Morris without a written permit first having been obtained from the Board of Chosen Freeholders as hereinafter provided.

2. Application must be made in writing by the firm, corporation, person or municipality for a permit for an excavation for any purpose whatsoever on any county road the maintenance of which is chargeable to the Board of Chosen Freeholders of Morris County. Said application is to state the purpose of such excavation, namely: sewer, water, gas, telephone or any other purpose. Permission to make excavation or tear up surface of road does NOT carry any right to make sewer, water, gas, or other connections. A separate permit to make such connections must be obtained from proper officials having jurisdiction therefore. No permit will be issued, to open any County road, for three years after the date the road was paved.

3. Applicant assumes responsibility for all injuries to, or deaths of any persons, for damages to property, including property of the County of Morris, and for all claims, losses or expenses resulting directly or indirectly from the performance of the work specified in this permit, whether caused by negligence or otherwise, and whether caused by the negligence of the County of Morris. The applicant shall indemnify and save harmless from all claims, losses, expenses, or suits (including costs and attorneys' fees) for such injuries, deaths or damages, and from all claims, losses, expenses or liens of any sort which may result directly or indirectly from performance of the work. The applicant shall assume the defense of any suit filed against the County of Morris for such injuries, deaths or damages.

4. The applicant shall be responsible for arranging with adjacent property owners for the removal or relocation of shrubs, fences, structures, trees or embankments, etc., necessary for his construction, whether they are in the county right-of-way or on private property. The applicant shall make all arrangements with utility companies for the location, relocation and protection of their installations. Applicant shall save county harmless from any suits or claims by any person for damages to trees, shrubs, lawns, etc., caused by the applicant's equipment, workmen or his operation.

5. Applicants will be held responsible for tree damage caused by careless handling of equipment when working along county maintained roads. The county forester must approve the removal of and/or work done around shade trees in the county right-of-way.

6. Since the permittee's insurance certificates do not cover subcontract work, all subcontractors employed by permittees holding permits to work on Morris County roads must submit their own insurance certificates in the minimum amounts required by the County of Morris and issued to the "Morris County Board of Chosen Freeholders".

7. Unless covered by a Municipal Corporation of Utility Agreement, a deposit of cash will be required for each opening, the amount thereof to be determined by the County Supervisor of Road Inspection. Upon completion of satisfactory repairs, the deposit will be returned provided no maintenance bond is required. See paragraph 10.

8. It shall be the duty of the permittee to properly guard any excavation or storage piles by the erection of suitable barriers by day and lights by nights. Sufficient warning signs, and watchmen, (flagmen and/or special Officers) shall be posted at each end of the work area to control traffic unless not deemed necessary by the County Supervisor of Road Inspection. Coordination of traffic control shall be made with the local police department, subject to the municipality(s) ordinances, regulations and procedures.

The permittee shall be liable for any neglect to safeguard the traveling public. If the excavation extends the full width of the road, only one-half of it shall be made at one time and it shall be backfilled before the other half is excavated, so as to maintain traffic at all times. In any other case there shall at all times be maintained a vehicular lane. No highway or bridge shall be encumbered for a longer period than shall be necessary to execute the work.

9. Pavement openings, digging, backfilling and temporary and permanent repairs must be done in accordance with County of Morris General Specifications, **Revision B**. Permanent repairs shall not be made until approval has been given by the County Supervisor of Road Inspection.

10. County must approve any connection to or removal of portions of existing county bridges or drainage structures located within municipal or county rights-of-way. The surface of any county highway or bridge and any pavement or flagging taken up by the permittee in its construction work shall be restored by and at the expense of the permittee to at least good condition as existed before the commencement of the work thereon and shall thereafter be maintained at the expense of the permittee in said condition for three years within the paved right-of-way, after completion of same. For refund of deposit, Permittee shall post a three year maintenance bond or in lieu thereof enter into an Agreement with Morris County to leave 20 percent of the deposit on deposit with the County for three years.

All trenches in macadam or bituminous pavement shall be replaced with six (6) inches of quarry process stone subbase: five (5) inches of bituminous stabilized base course; and two (2) inches of F.A.B.C. top course. Trenches crossing a CONCRETE road shall be replaced with 9 inches of Class B Concrete.

No permanent paving to be done between December 1 and April 1.

11. For any work over 15 square yards done under these rules and regulations the permittee shall submit blueprints or plans in triplicate with his application and if it is considered necessary or desirable, a joint general inspection of the site of the work, with the applicant, may be directed as to be made by the County Supervisor of Road Inspection before the permit is issued. After the approval of the blueprint or plan, if in the course of the proposed construction shown thereon any changes or deviations become necessary in the work, the permittee shall, before making such changes or deviations, obtain the approval of same by the County Supervisor of Road Inspection. Upon completion of the entire work, permittee shall file final plans with the Supervisor of Road Inspection showing in full detail all of the work after its completion.

In addition to any regular general inspection procedure by the county, an inspector may be placed on the work by the County Supervisor of Road Inspection if it is thought necessary and desirable, at the expense of the permittee and at the prevailing rate of wage and incidental costs paid by the Board of Chosen Freeholders.

12. In connection with this work it shall be unlawful for any person or persons, firm, corporation or municipality to place or store material of any description whatsoever, or vehicles or other equipment of any nature whatsoever, upon any road or street so as to interfere with the flow of water along the gutters or to interfere with traffic on such road or street without first having obtained a permit for such storage. The permit shall state the approximate quantity of material or the number of vehicles or equipment to be stored and the time of such storage and the same shall be guarded as set forth in Section B.

13. No excavation shall be opened for a distance of more than two hundred feet at any one time. All excavations shall be properly backfilled and all equipment shall be removed from the public right-of-way at the end of each day's work, and during periods of heavy traffic, and at such times as may be required for non-interference with snow removal, and at such times as may be directed by the Supervisor of Road Inspection.

Metal plates capable of supporting traffic loads shall be used to temporarily cover road opening (in place of using barricades) at such times and at such places as shall be designated by the Supervisor of Road Inspection. When so used, metal plates must be adequately anchored, to avoid the possibility of displacement; however plates should be removed on the weekend.

14. Unless an emergency exists, no work shall start before 9:00 A.M. of each work day and all equipment and materials must be moved off the road and the road swept clean by 4:00 P.M. unless otherwise noted on front of permit. The application of calcium chloride is not permitted. No work shall be permitted on Saturdays, Sundays, holidays, or when road is snow or ice covered, or after asphalt plants have stopped making stabilized base. Emergency road openings (gas or water leak, sewer stoppage, etc.) shall be reported to the County Supervisor of Road Inspection on the next regular work day and all permit requirements met as requested by him.

15. All services installations shall be bored or jacked under the road whenever possible. Tunneling will not be permitted under any circumstances and shall be unlawful exercise of the privilege under any such permit and a violation thereof.

All utilities shall cross under all existing county drains and road intersections at a minimum depth of five feet below grade. Care shall be exercised in all crossing of county drains. Any damage to drains shall be repaired by contractor/applicant immediately at his own proper expense, and work on remainder of job shall be suspended until drain is repaired and is in working order. POWER LINE ducts at road crossings must be encased in RED CEMENT and installed at a minimum depth of 5 feet below grade. POWER LINE ducts at locations other than road crossings may be SAND ENCASED but must be installed at a minimum depth of 4 feet below grade.

All house laterals shall be run into the property lines one foot beyond the county right-of-way.

16. The issuance of a permit hereunder does not waive the obtaining of any or all Federal, State or Municipal permits including environmental permits for stream encroachments or wetlands.

17. This permit is valid for as long as insurance is in effect. Failure to adhere to conditions set forth herein shall void the permit.

18. The County Supervisor of Road Inspection is charged with the enforcement of all the provisions of these rules and regulations and is the agent acting for the Board of Chosen Freeholders.

19. Any person, firm, corporation, municipal or private utility violating these rules and regulations shall be subject, upon conviction, to a fine not exceeding \$200.00 per day for each and every day the violation exists, and civil action for the cost of prosecution as well as civil action for trespass to remove the non-conforming use.

APPENDIX G

DIGITAL MAPPING SUBMISSION STANDARDS

The purpose of the digital map submission is to provide the user community with survey accurate data that will be beneficial in future endeavors requiring digital data. The cartographic standards used by the submitting agency may be of its own design; however when necessary, the standards should be modified to reflect the requirements of the digital mapping submission standards. In those instances where it is not possible to adopt cartographic standards to adhere to the digital mapping submission standards, modification of the cartographic standards may be required.

I. Drawings

Drawings shall be submitted in the form of Computer Aided Design (CAD) in .dwg or .dxf format. This file shall include all layers and graphic elements included in the submitted paper document (text, legend, scale, labels etc.). This file will include features classified in the standard layers defined in the GIS Layer Table below. If the drawing contains layers that are not included in the Table, then a list of these layers shall also be submitted (ASCII text file labeled: 'xlyrspec.txt'). The completed CAD drawing file should contain text in standard fonts that can be read without third-party software.

II. Features

Drawing features shall include layer names as indicated in the Table below. Features other than those thematically defined by the individual layer name/description shall not be included in that layer. Systems using numbered levels, such as Microstation, should include a conversion table in the .dxf file creation process that can be used to specify named layers. Additional layers may utilize any open layer beyond those reserved layers. A list of these layers shall also be submitted (ASCII text file labeled: 'alyrspec.txt').

III. Lines

Lines must completely represent the feature. Do not break lines to accommodate annotation placement.

1. All partial lines, which are shown for reference in drawings, are not to be included in the layers defined in the Table. Such features can be included in unnamed layers.
2. End nodes must be snapped.
3. Crossing lines shall have nodes at the intersection or point of intersection.
4. Lines shall be correctly labeled.
5. Line length must match annotation length.

IV. Detail Boxes

Detail boxes must adhere to line labeling and spatial requirements.

V. Symbology

Symbology shall not be used to represent features.

VI. Monumentation

Placement of points can not break continuity of lines. The North American Datum of 1983 (NAD83) has been adopted as the datum for the horizontal control for all MCPB-GIS projects. All MCPB-GIS survey projects shall be connected and tied to the New Jersey Geodetic Reference Network. This will allow all surveys to be correlated to a single reference network. The North American Vertical Datum of 1988 (NAVD88) has been adopted as the reference datum for all vertical control on MCPB-GIS projects. All elevation points shall be delivered in a single comma-delimited ASCII text file. Each line of the file shall contain values in New Jersey State Plane Coordinates (NJSPC) for a single point as follows: Easting, Northing and Elevation. Monument order or positional accuracy to the National Geodetic Reference Network must be identified.

VII. Annotation

Text insertion or start points shall be within the area of the feature. Block and Lot numbers shall be represented by complete numbers and shall adhere to the NJ Tax Map filing standards. Easement text label points must be between the easement line and the corresponding feature line, which compromises the easement. Line annotation must reflect CAD measurement of the line length.

VIII. Accuracy

The digital mapping shall be based on the New Jersey Plane Coordinate system, using grid (not ground) coordinates having a positional accuracy of 0.3 feet at all boundary corners. Digital map bearings shall relate to true North in the New Jersey Plane Coordinate System. If the application of this standard will cause a significant economic hardship on any particular applicant, the Planning Board may waive this requirement. The basis of the plane coordinate values must be included as a reference in the electronic version of the mapping.

Morris County Planning Board – GIS Layer Tables

POINT STYLES	
Layer Name	Description
DIMTIC	Line Endpoint
MONUMENT	Survey Monument
GRIDTIC	Map Grid Tic Mark

Morris County Planning Board – GIS Layer Tables (continued)

LINE STYLES	
Layer Name	Description
BLOCKLINE	Tax map blockline
BLOCKLINE_BUILDING	Building - Tax block forming
BLOCKLINE_RAILROAD	Railroad Right-of-way - Tax block forming
BLOCKLINE_ROW_PRIVATE	Private Right-of-way - Tax block forming
BLOCKLINE_WATER	Surface Water - Tax block forming
CONTOUR	Contour line
BRIDGE	Bridge
BUILDING	Building - non lot forming
CENTERLINE	Street Centerline
DAM	Dam
EASEMENT	Easement
FHA	Flood hazard area
FIRE_DIST	Fire district
FLOODWAY	Floodway
LOTLINE	Tax map lotline
LOTLINE_BUILDING	Building - lot forming
LOTLINE_RAILROAD	Railroad right-of-way - lot forming
LOTLINE_ROW_PRIVATE	Private right-of-way - lot forming
LOTLINE_WATER	Surface water - lot forming
MCD	Municipal boundary line
MCD_CENTERLINE	Municipal boundary line and Street centerline
MCD_RAILROAD	Municipal boundary line and Railroad right-of-way
MCD_ROW	Municipal boundary line and Public right-of-way
MCD_ROW_PRIVATE	Municipal boundary line and Private right-of-way
MCD_WATER	Municipal boundary line and Surface water
OLD_LOTLINE	Old lotline
OLD_MCD	Old municipal boundary line
OLD_ROW	Old right-of-way
OUTBOUND	Outbound map feature
ROW	Public right-of-way
ROW_PEDESTRIAN	Pedestrian right-of-way
ROW_PVT_NOLOT	Private right-of-way - non lot forming
ROW_RAILROAD	Public right-of-way and Railroad right-of-way
ROW_WATER	Public right-of-way and Surface water
STREAMENC	Stream encroachment line
WATER	Surface water
WETLANDS	wetlands boundary

ANNOTATION STYLES	
Layer Name	Description
ADDRESS	Street Address Number
BLOCKLINE_TXT	Descriptive text for block line
BLOCKNO	Block Number
BLDG_LOTNO	Lot number - inside a building
BUILDING_TXT	Descriptive text for building
CENTERLINE_TXT	Descriptive text for street centerline

Morris County Planning Board – GIS Layer Tables (continued)

ANNOTATION STYLES - continued	
Layer Name	Description
CONDO_UNIT_NO	Condominium Unit Number
DAM_TXT	Descriptive text for dam
EASEMENT_TXT	Descriptive text for easement
FHA_TXT	Flood Hazard Area text
FIRE_DIST_TXT	Fire district text
FLOODWAY_TXT	Floodway text
FRONTAGEDIM	Front Yard Dimension
LOT_TXT	Descriptive text for lot
LOTACRES	Lot acreage
LOTDIM	Side / rear yard lot dimension
LOTNO	Lot number
MCD_TXT	Municipal boundary text
OLD_BLOCKNO	Old block number
OLD_LOTNO	Old lot number
OLD_ROW_TXT	Descriptive text for old right of way
RAILROAD_TXT	Descriptive text for railroad right of way
ROADNAMES	Road name
ROW_PED_TXT	Descriptive text for pedestrian right of way
ROW_PVT_TXT	Descriptive text for private right of way
ROW_TXT	Descriptive text for public right of way
STREAMENC_TXT	Stream encroachment text
WATER_TXT	Descriptive text for surface water
WETLANDS_TXT	Descriptive text for wetlands