

SECTION 11: EXCAVATION AND RESTORATION OF ROADWAYS:

- (1) All work within Camden County right-of-way shall conform to Camden County Standard Details. If any of the following are in conflict with current State or Federal Standards, the most stringent shall apply.
- a) If required by the County, a schedule of operations shall be submitted by the permittee.
 - b) No County road shall be closed without prior written approval of the Camden County Public Works Director.
 - c) No trench areas shall be left open after working hours.
 - d) Open trench areas shall be kept as small as possible consistent with the installations involved.
 - e) In no case shall sidewalks or pavements be removed or broken unless subsequent activities needed to complete the permit work proceed without delay. Where concrete pavement is broken and left in-place prior to removal, these pavement areas shall be surfaced with a temporary asphalt pavement before opening to traffic.
 - f) For larger utility main installations, utilities must have a County inspector or inspector representing Camden County present for the compaction operation above their main installation.
 - g) All saw cutting shall be performed with a wet-saw. Immediately following saw cutting, any excess material shall be cleaned and removed from adjoining surfaces.
 - h) The permittee shall have a competent representative at the site while the work is being progressed to insure adherence to conditions of the permit.
 - i) The permittee shall provide and maintain temporary pavements with hot asphalt mixes flush with the grades of the adjoining surfaces until final restoration.
 - j) The permittee shall maintain all traffic signal operations including image detectors, etc. Any traffic signal equipment damaged shall be restored to the original condition to the approval of the entity responsible for the signal equipment at the permittee's expense.
 - k) Manholes (Utility/Municipality/County) must be reset/reconstructed within the limit of any areas of final roadway surface restoration so all manholes are set to final grade and flush with the final roadway elevation.**
 - l) Every precaution shall be taken to prevent the marring of and damage to structures such as pavements, curbs, sidewalks, etc. adjoining the work as follows:
 - a. Timber planks shall be used to support steel treaded mobile equipment and timber blocks or planks shall be placed under all outriggers used to stabilize excavating and other mechanical equipment.
 - b. Loose stones, broken concrete, sand, dirt, debris, etc., shall be swept up daily from the areas, adjoining the work.
 - c. Under no circumstances shall the mixing of mortar or concrete or storage of asphalt be permitted directly on unprotected surfaces adjacent to the work.
- (2) Pavement restoration shall conform to the following requirements:
- a) Compaction – Soil density test of compacted backfill shall be taken by an independent laboratory engaged by the permittee. Certified copies of the results shall be supplied to the County prior to pavement replacement. Maximum density is defined as the maximum dry weight density in pounds per cubic foot, as determined by the ASHTO-T180 Designation. Tests shall be taken at locations designated by the County.
 - b) Final Roadway Restoration Prior to any final restoration of roadway surface, the contractor shall schedule a final restoration meeting in the field with Camden County Permit Department to review Final Restoration limits and requirements.
 - c) Asphalt Road Restoration: Camden County Temporary and Final Trench Restoration Details shall be followed. The following items are noted:

- a. The minimum width for trench restoration of sub-base and base course asphalt is twenty-four (24) inches
 - b. Longitudinal trench surface restoration shall be full lane width of the disturbed travel lane. The trench restoration must extend to the nearest joint in the asphalt road surface.
 - c. If a longitudinal trench is located in the center line of the roadway, the roadway surface restoration shall be full road width, curb to curb or edge of pavement to edge of pavement
 - d. If a trench diagonally crosses the center of the roadway, the roadway surface restoration shall be full road width, curb to curb (or edge of pavement to edge of pavement) and shall extend perpendicular to the curb line (or edge line) for a minimum of ten (10) feet beyond the diagonal trench.
 - e. All restoration areas must be sealed along all edges.
- d) Concrete Road Restoration: Camden County Temporary and Final Trench Restoration Details apply to concrete road restoration. The following items are noted:
- a. The minimum concrete trench width is forty-two (42) inches to allow concrete to be adequately drilled for dowels.
 - b. Longitudinal trench restoration shall be full concrete slab replacement to the nearest longitudinal and transverse joint.
 - c. Transverse trench restoration shall be full width concrete slab replacement between existing longitudinal joints and partial length concrete slab along transverse joints provided there is a minimum of five feet (5') of remaining concrete slab that can be doweled into.
 - d. Diagonal trench restoration shall be full concrete slab replacement to the nearest longitudinal and transverse joint.
 - e. Concrete reinforcement shall meet NJDOT standard detail requirements, except that a minimum of ¾" rebar may be doweled along longitudinal edge of slab and a minimum of 1" rebar may be doweled along the transverse edge of slab.
 - f. Contractor shall use Class 'B' concrete with 28-day strength of 4500 PSI and 6% +/- 1.5 air entrainment. Alternate mix designs from an approved NJDOT concrete supplier may be submitted to Camden County Engineering Department for review and approval prior to installation.
 - g. Camden County may require the contractor to take concrete cores to demonstrate conformance to NJDOT specifications.
- e) Composite Road Restoration (Asphalt over Concrete): Camden County Composite Roadway Temporary and Final Trench Restoration Details shall be followed. The following are noted:
- a. The minimum trench width in the concrete base is forty-two (42) inches to allow concrete to be adequately drilled for dowels.
 - b. Concrete reinforcement shall meet NJDOT standard detail requirements, except that a minimum of ¾" rebar may be doweled along longitudinal edge of slab and a minimum of 1" rebar may be doweled along the transverse edge of slab.
 - c. Contractor shall use Class 'B' concrete with 28-day strength of 4500 PSI and 6% +/- 1.5 air entrainment. Alternate mix designs from an approved NJDOT concrete supplier may be submitted to Camden County Engineering Department for review and approval prior to installation.
 - d. For composite roadways, contractor may plate concrete base during concrete curing period and open roadway to vehicular traffic.
 - e. Longitudinal trench restoration for composite roadways, the roadway surface restoration shall be full lane width of the disturbed travel lane. The trench restoration must extend to the nearest joint in the asphalt road surface.

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- f. For composite roadways with a longitudinal trenches in the center line of the roadway, the roadway surface restoration shall be full road width, curb to curb or edge of pavement to edge of pavement.
- g. For composite roadways with a restoration trench that diagonally crosses the center of the roadway, the roadway surface restoration shall be full road width, curb to curb (or edge of pavement to edge of pavement) and shall extend perpendicular to the curb line (or edge line) for a minimum of ten (10) feet beyond the diagonal trench.
- h. For composite roadways, all final asphalt restoration areas must be sealed along all edges..

- (3) Road construction, road widening, and road restoration shall conform to the NJDOT Standard Specifications for Road and Bridge Construction (latest edition). The County Engineer or Public Works Director may require specific street improvements based upon a review of the applicant's plans, specifications, and after considering the impact of the project on the street and its users.
- (4) It will be the full responsibility of the contractor to coordinate the relocation of utility poles before roadway restoration. For Construction Layout: the applicant shall employ a New Jersey Professional Land Surveyor to provide all the work required in connection with the layout for the construction of Concrete Curbing, Storm Sewer Pipe, Drainage Structures and Highway Paving Grades and Lines.

The Applicant's Professional Engineer and/or Professional Land Surveyor shall provide and maintain offset stakes be identified and marked to show the offset distance from the Concrete Curb lines, Drainage Structures, etc. The Applicant's Engineer and/or Surveyor shall furnish grade sheets to the County Inspector a minimum of one week prior to construction of any curbing, showing the cut of fill to the finished curb line profile with reference to the offset stakes.

The Applicant's Professional Engineer and/or Professional Land Surveyor shall immediately upon discovery bring to the attention of the County Inspector in writing any error or apparent discrepancies from the plans.

The applicant shall be responsible for the work conforming to the lines and grades called for on the Plans, and the Applicant shall correct all errors caused by the Applicant's Professional Engineer and/or Professional Land Surveyor at no cost to the County of Camden.

- (5) Trenches and other open excavations shall be back filled with clean granular soil free of excessive fines or clay material, construction debris, or other aggregate over 6" in diameter in lifts not exceed 18" in height. Compaction shall be done in 6' lifts with vibratory tampers such as jumping jacks, hoe packs, or Dynapacks. Jack hammer compaction methods are prohibited. Standing water in backfill is prohibited. If there is a deficiency of backfill material additional backfill shall be supplied by the permittee (see County details in Appendix 1).

Whenever the County Public Works Director deems the backfill material unsatisfactory, the permittee shall provide acceptable material that is clean, granular and free from excessive fines. 98% relative compaction is required for all backfill operations. The County Public Works Director may require the permittee to have a certified soil testing laboratory test backfill for compaction at any given lift. These tests shall be done at the expense of the permittee and a copy of the test results shall be furnished to the County Public Works Director immediately upon receipt. If the certified laboratory test results do not achieve the 98% relative compaction required, the County Public Works Director may require re-excavation and compaction.

- (6) In all full asphalt roadways, the permittee shall restore said road or street with a compacted subgrade of material acceptable to the County Public Works Director, 6" of compacted dense graded aggregate, and a temporary pavement consisting of 8" of bituminous stabilized base,

HMA 19M64. The top of the bituminous stabilized base course shall be brought even with the existing finished grade of the roadway. Cold patch will not be permitted as a temporary pavement course, unless the asphalt plants are closed during the winter months (see County detail 18 in Appendix 1).

Temporary pavement surface course for any opening must be mechanically rolled, hand raking is prohibited. The temporary pavement shall stay in place for a minimum period of 4 weeks unless further time is deemed necessary by the County Public Works Director. In general, deeper excavations shall require longer periods of time for soil consolidation. The permittee is responsible for maintaining the temporary pavement in passable condition and shall apply additional courses of skin patches.

Final pavement restoration shall meet the requirements noted above. The milling depth shall be 2 inches. The permittee shall then apply a tack course followed by 2 inches of bituminous concrete, HMA 9.5M64 or 12.5M64.

- (7) In all concrete roadways or composite roadways the replacement concrete shall be restored to the same thickness as existing concrete (9" thick to 14" thick) All openings require saw and seal of any new or existing concrete joints after final paving is completed.

- (8) Any road openings within 15 feet of one another shall be restored as outlined below. Additional limits of restoration may be required by the Director depending on damage from equipment and the impact of the project on the street and motorists. All multiple openings shall be restored as follows:
 - (a) **Multiple openings in roadway shoulder** – Full width shoulder restoration will be decided prior to final restoration by the County of Camden.
 - (b) **Multiple openings in one travel lane** – Roadway surface restoration shall extend for one-half of the road width for two-lane road and a full lane width for a multi-lane road.
 - (c) **Multiple openings in the roadway center or deep trench openings** – Roadway surface restoration shall extend across the full width of the paved road, curb to curb and extend transversely perpendicular to the curb, one foot (1') from the farthest opening.
 - (d) All restoration areas must be sealed along all edges.

- (7) All final edges of trench restoration shall be straight: uniform cuts with no keys or edge realignments. The County Public Works Director may require a diamond restoration pattern for cross trenches and intersection crossings depending upon the amount of traffic on the road and the depth of the trench. The Permittee is responsible for the fill restoration of the roadway surface including restriping and installing raised pavement markers.
 - (a) Pipes, trenches, and hook-ups, 6" in diameter or less used for making opposite side of the street hook-ups may be driven or bored under the paved portion of the road or street without disturbing the surface upon review of the Public Works Director.
 - (b) Upon completion of work, Applicant will request a final inspection by the County Public Works Department. The County Public Works Director may require that random core samples be taken on the project if in the opinion of the County Public Works Director there appears to be a question regarding either quality of the asphalt or the thickness thereof. These core samples will be the responsibility of the contractor and shall be taken and tested by a certified testing laboratory. All costs associated with this testing will be borne by the Permittee. If these samples reveal the use of improper material or insufficient thickness, the Permittee shall be required to remove, replace, add or take other actions to satisfactorily complete the restoration work as directed by the County Public Works Director. If the work is completed in a manner satisfactory to the County Public Works Director, the County Public Works Director will then issue a certificate of satisfactory completion to the applicant with a copy to the County Treasurer and to the county Counsel. The Permittee will then submit the maintenance guarantee to the

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County Public Works Department for review and submission to the County Council. The Performance Surety will be returned by the County Treasurer and County Council upon receipt of a satisfactory maintenance guarantee.

- (c) If Permittee fails to complete work or provide required work zone safety measures in a timely manner satisfactory to the County Public Works Director, the County or a County hired contractor shall complete the work and the Permittee shall be obliged to pay the County for labor, materials and equipment as follows:
 - (d) For labor, Permittee shall pay at the current prevailing wage rate as determined for Camden County by the New Jersey Department of Labor or the County's current rate, imperious wage must govern. Payment shall be made on a per hour basis for all time expended by each County employee in completing the work. Payment shall be required for a minimum of 3 hours for each Occasion County employees are needed to complete work left unfinished by the permittee.
 - (e) For materials, Permittee shall pay for all material used at the County's cost, based upon the County's annual bid prices.
 - (f) For equipment, Permittee shall pay for usage on a per hour basis based upon the fee schedule listed in the current edition of the publication "Rental Rates Compilation Construction Equipment" published by Associated Equipment Distributors.
 - (g) In Addition, Failure to complete the work in a timely and satisfactory manner shall be deemed to constitute a violation of this resolution.
- (8) All traffic striping damaged during construction shall be restored with temporary striping that same day. Final traffic striping and symbol restoration shall consist of Long Life materials, as described in the NJ DOT Standard Specifications for Road and Bridge Construction, latest edition.
- All traffic control signs removed for construction activities shall be reinstalled that same day.
- All raised pavement markers affected by construction activities shall be replaced with new units of the same design.
- (a) All driveways damaged during construction shall be restored with the same material and size existing prior to construction. Minimum restoration depths shall be six (6) inches.
 - (b) All landscaping damaged during construction shall be restored in kind to the size existing prior to construction. Replacement of lawn irrigation systems that existed prior to the work will be required to be relocated outside the County Right of Way unless specifically authorized by the County Public Works Director. Lawn areas shall be restored with four (4) inches of loamy topsoil and two (2) applications of hydroseeding and or sod as directed by County Public Works Director.
 - (c) All main installations of plastic or non-ferrous materials must contain a wire or detection device to accurately determine locations after installation so as to facilitate other proposed utilities and drainage.
 - (d) The uncompleted length of the opening allowed under a permit at any time shall not exceed fifty (50) lineal feet.
 - (e) Reconstruction of all pavements will require that a tack coat be applied to all vertical surfaces and the placement of the two- (2) inch surface course. Tack coat shall also be applied to the horizontal joints after the placement of the surface course.
 - (f) Manhole rim elevations are to be set level to road grade.
- (9) No permit will be issued for any opening that is less than twenty-four (24) inches in any direction from an existing roadway seam(s) or previous road opening. In such cases the opening must include or abut the existing roadway seam(s).

- (10) The surface of any Residential Driveway apron shall be constructed with permanent pavement, as approved by the County Public Works Director. Such pavement shall extend to the paved traveled way or paved shoulder of the County road and shall extend throughout the area defined by the required driveway dimensions and County road Right of Way or maximum 10 feet. Depressed concrete curbing shall be installed at the end of driveways where they meet the County highway. Aprons should be constructed with 6" of compacted dense graded aggregate and 2' of I-5bituminous concrete or 6" of class B concrete. Driveway elevation at the shoulder shall be supplied by the applicant's engineer. A proper turnaround driveway detail should be shown on the submitted plan (see details 6, 7, 8 and 9 in Appendix 1).
- (11) Applicants must notify residents adjacent to work zone in writing before any work commences at site and copy the Camden County Public Works Department with notification.

SECTION 12: PER DIEM INSPECTION:

- (1) For any opening more than 200' or at the sole discretion of the County Director of Public Works, the County Permit office shall post a Per-Diem Inspector on the job. The Permit holder shall be responsible for paying the Per-Diem Inspector.
- (2) The check for the Per-Diem Inspector should be forwarded by the Permit holder, directly to the Permits Office in a check made out to "Camden County Treasurer". The County will send a voucher to the Permit holder illustrating the time spent on the project.
- (3) **Per Diem Inspector.** The specific selection of each Per Diem Inspector for each permit will be selected by Camden County. Per Diem Inspector will physically visit each project as outlined in the specific permit, to ensure proper County standards are being followed. Weekly written reports will be given to the County by each Per Diem Inspector, along with a daily-time sheet.

SECTION 13: ROAD CLOSURE PERMIT

Camden County is happy to provide County roads for use as parade routes and fairs. In order to close a road or use it for any local event, you must file for a free permit from the Camden County Public Works Permit Division. Agreement should be submitted 7 days prior to closure. Roads will be swept prior to closure.

To receive the free road closure permit, you must supply:

1. County Road Event Agreement or Charitable Solicitation Application – available online or at the permits office
2. The Indemnification Agreement – available online or at the permits office
3. A copy of the Insurance certificate for the event naming the County as insured.

SECTION 14: OVERSIZED LOAD PERMIT

1. Provide plan of proposed route for review of minor and major bridges crossed.
2. Provide load calculations signed and sealed by a structural engineer if crossing a County major bridge that does not have a load rating calc.
3. Provide spanner over any minor bridges (culverts) being crossed.
4. Drive the route with Engineer from CCDPW to review road conditions in the field, location and height of trees and overhead utilities.