

SECTION 32 12 16  
ASPHALT CONCRETE PAVING

PART 1 - GENERAL

1.1 WORK INCLUDED

All labor equipment and materials required to furnish and install asphalt concrete paving for roadways and parking areas as shown on the Drawings.

1.2 RELATED WORK

1.2.1 Testing Laboratory Services: Section 01 45 29

1.3 PAVING CONTRACTOR REQUIREMENTS

1.3.1 A Ga. DOT prequalified General Contractor shall provide all the work described under this specification.

1.3.2 The name of the Paving Contractor shall be submitted to the Owner 5 days after the bid.

PART 2 - PRODUCTS

2.1 GRADED AGGREGATE BASE COURSE

Section 815, GDOT Standard Specifications, latest edition.

2.2 BITUMINOUS PRIME COAT

Section 821, GDOT Standard Specifications, latest edition. Viscosity grade MC-70.

2.3 ASPHALTIC CONCRETE BASE COURSE

Section 828, GDOT Specifications, latest edition; 25 mm.

2.4 ASPHALTIC CONCRETE BINDER COURSE

Section 828, GDOT Specifications, latest edition; 19.5 mm.

2.5 BITUMINOUS TACK COAT

Section 822, GDOT Standard Specifications, latest edition. Grade SS-1 or SS-1h.

2.6 ASPHALTIC CONCRETE SURFACE COURSE

Section 828, GDOT Standard Specifications, latest edition; 12.5 mm.

2.7 PAINT TRAFFIC STRIPING

Section 652, GDOT Standard Specifications, latest edition.

2.8 THERMOPLASTIC TRAFFIC STRIPE

Section 653, GDOT Standard Specifications, latest edition.

2.9 COLD MIX FOR PATCHING

Section 401, GDOT Standard Specifications, latest edition.

PART 3 - EXECUTION

3.1 Construct graded aggregate base course in accordance with Section 310, GDOT Standard Specifications, latest edition.

3.2 Apply bituminous prime coat in accordance with Section 412, GDOT Standard Specifications, latest edition.

3.3 Construct asphaltic concrete base and binder courses in accordance with Section 400, GDOT Standard Specifications, latest edition.

3.4 Apply bituminous tack coat in accordance with Section 413, GDOT Standard Specifications, latest edition.

3.5 Construct asphaltic concrete surface course in accordance with Section 400, GDOT Standard Specifications, latest edition.

3.6 Apply traffic striping course in accordance with Section 652, GDOT Standard Specifications, latest edition or Section 653, GDOT Standard Specifications, latest edition as appropriate.

3.7 Omit all references to measurement and payment in the GDOT Specifications.

3.8 Final pavement will be subject to Georgia DOT acceptance for smoothness and trafficability.

**\*\*END OF SECTION\*\***

SECTION 32 31 13  
CHAIN LINK FENCE AND GATES

PART 1 - GENERAL

1.1 GENERAL

Provide and install non-climbable chain link fence and gates of the types and sizes and at the locations shown on the drawings.

PART 2 - PRODUCTS

2.1 GENERAL

All components shall be galvanically compatible.

2.2 CHAIN LINK FABRIC

Conform to FS RR-F-00191/1 Type A, Class I, two inch mesh, one piece fabric, full height. Wire diameter shall be 0.148 inch.

2.3 VINYL COATED CHAIN LINK FABRIC

Conform to FS RR-F-191/1C Type IV, two inch mesh, 6-gauge, PVC over zinc coated steel, one piece fabric, full height. When Vinyl coated fabric is specified all posts, gates and accessories shall be vinyl coated to match the color of the fabric. Fabric color to be chosen by the Owner.

2.4 GATES

Conform to FS RR-F-00191/2 Type A single swing or double swing as shown. Frames shall be round zinc-coated steel assembled with corner fittings and 3/8 inch steel truss rods. Fabric shall be same as for fence. Hinges shall allow for swinging the gate open through a 180 degree arc. Latches for double gates shall be of the plunge bar type operable from either side of the gate with integral padlock clasp. Keepers shall be provided for double gates.

2.5 POSTS

Conform to FS RR-F-00191/3, Type 1, Class 1, diameters as follows:

Line post	2 inches diameter
Corner post	3 inches diameter
Gate post	4 inches diameter.

2.6 TOP RAILS AND BRACES

Conform to FS RR-F-00191/3 Type II Class 1, with top rail and braces 1-5/8 inches in diameter.

2.7 BARRED WIRE SUPPORT ARMS

Conform to FS RR-F-00191/4 Type X.

2.8 BARBED WIRE

Shall be four point pattern, two strand No. 12-1/2 gauge Aluminumized steel after weaving with large barbs placed 3 inches apart. When vinyl coating is specified for fence fabric, barbed wire shall also be vinyl coated with the exception of the barbs.

2.9 CONCRETE

Class B, as described in Section 03 30 00.

2.10 BOTTOM TENSION WIRE

The bottom tension wire shall be not less than no. 7 gage wire. Tie or clips shall be provided for attaching the wire to the fabric at intervals not exceeding 2 feet.

PART 3 - EXECUTION

3.1 INSPECTION

3.1.1 Stake out location of fence and gate prior to installation. Obtain approval of fencing and gate location from Owner prior to any installation.

3.1.2 Verify that final grading in fence location is completed without irregularities which would interfere with fence installation. Assure that maximum gap between fence fabric and ground will be no greater than 3 inches.

3.2 PREPARATION

3.2.1 Measure and lay out complete fence line.

3.2.2 Measure parallel to surface of ground.

3.2.3 Locate and Mark position of posts.

3.2.4 Locate line posts at equal distance spacing, not exceeding 10 foot centers.

3.2.5 Locate corner posts at positions where fence changes direction more than 10 degrees.

### 3.3 INSTALLATION

#### 3.3.1 Posts

3.3.1.1 Minimum post hole diameter three times outside post diameter.

3.3.1.2 Minimum post hole depth 3 in. below post bottom.

3.3.1.3 Place concrete in hole to depth of post bottom.

3.3.1.4 Set post plumb to 1/4 in. in 10 ft.

3.3.1.5 Fill hole with concrete to 2 in. above grade.

3.3.1.6 Crown surface of concrete to slope away from post.

#### 3.3.2 Fence Fabrics

3.3.2.1 Stretch fabric tight between terminal post.

3.3.2.2 Position bottom of fabric approximately 1 in. to 2 in. above ground level at each post.

3.3.2.3 Join ends of fabric by weaving with single strand of fabric wire to form continuous mesh pattern with selvage twisted to match balance of fabric.

3.3.2.4 Attach fabric to line posts using wire ties or clips, spacing not to exceed 15 in. o.c.

3.3.2.5 Attach top edge of fabric to top rail using wire ties or clips, spacing not to exceed 24 in. o.c.

3.3.2.6 Attach bottom edge of fabric to bottom tension wire using wire ties or clips not to exceed 24 in. o.c.

#### 3.3.3 Gates

3.3.3.1 Install gates plumb and level 1/4 in. in 10 ft.

3.3.3.2 Install ground-set items in concrete.

3.3.3.3 Adjust hardware to provide smooth operation.

3.4 ADJUST AND CLEAN

3.4.1 Adjust brace rails and tension rods for rigid installation.

3.4.2 Tighten hardware, fasteners, and accessories.

3.4.3 Remove excess and waste materials from project site.

**\*\*END OF SECTION\*\***

SECTION 32 92 00  
GRASSING AND MULCHING

PART 1 - GENERAL

1.1 GENERAL

1.1.1 This work shall consist of ground preparation, furnishing and planting, seeding, fertilizing, sodding and mulching of all disturbed areas.

1.1.2 Areas to be grassed or permanently mulched:

1.1.3 Any areas which were grassed prior to the start of construction shall be grassed after completion. These areas include but are not limited to pipeline trenches, fill and topsoil storage areas and structure excavation.

1.2 JOB CONDITIONS

Schedule work to comply with Section 31 25 00, Slope Protection and Erosion Control.

PART 2 - PRODUCTS

2.1 SEED

The seed shall be an approved mixture for the required type of grass and time of planting.

2.2 FERTILIZER

Commercial grade.

2.3 AGRICULTURAL LIME

GDOT Section 882.2

2.4 MULCH

GDOT Section 893.2

PART 3 - EXECUTION

3.1 STAND OF GRASS REQUIRED

It is the intent of this specification that the Contractor is obliged to deliver a satisfactory stand of perennial grass before final payment will be made. If it is necessary to repeat any or all of the work, including plowing, fertilizing, watering and seeding, the Contractor shall nevertheless repeat these operations as a part of this contract until a satisfactory stand is obtained. For the purpose of seeding, a satisfactory stand of grass is herein defined as a full cover, over the areas to be seeded, with grass that is alive and growing, leaving no bare spots larger than one square foot. Bare spots shall be scattered and the total bare areas should not comprise more than 1/100 of any given area.

3.2 LIMING AND GROUND PREPARATION

After the area to be seeded has been brought to finished grade, lime, if it is required, shall be uniformly distributed at a rate of 1 to 2 tons per acre over the seeding area, depending on soil test, with a mechanical spreader. The ground shall be prepared by plowing, disking and harrowing to a depth of at least 4 inches until these areas are friable, well pulverized and the lime is uniformly mixed with the soil. All irregularities in the surface shall be smoothed out. All roots and stones larger than 3 inches to any dimension, and all other foreign material detrimental to final grading, proper bonding or the proper growth of the planting, shall be removed.

3.3 FIRST APPLICATION OF FERTILIZER

Commercial fertilizer grades 4-12-12, 6-12-12 or 5-10-15 shall then be distributed uniformly at the rate of 1,500 pounds per acre and shall be uniformly mixed with the soil to a depth of at least 4 inches by disking, harrowing or by other methods acceptable to the Engineer. Fertilizer shall not be applied when the wind makes it difficult to get satisfactory distribution.

3.4 SEEDING

The seed shall be a mixture as shown in the table below, and shall be applied at the rates shown in the table:

<u>Application</u>		
<u>Season</u>	<u>Kinds of Seed</u>	<u>Pounds Per Acre</u>
Jan. 1-May 15	Unhulled Common Bermuda	45
	Kentucky 31 Fescue	150
May 16-Sept. 1	Hulled Common Bermuda	75

Sept. 2-Dec. 31

Unhulled Common Bermuda  
Kentucky 31 Fescue

45

150

The seed shall be uniformly sown by approved mechanical power drawn drills or, in small areas, by mechanical hand seeders. The seeds shall be covered and compacted to a depth of 1/8 to 1/2 inch by means of a cultipacker and an empty traffic roller or another roller weighing less than 3 tons. Broadcast seeding shall not be done when the wind makes it difficult to get satisfactory distribution.

### 3.5 MOISTURE

Seed shall not be sown unless the soil has the optimum moisture content or more through a depth of at least 4 inches, nor shall it be sown when there is frost in the ground. The Engineers has the authority to postpone seeding at any time when weather and moisture conditions are not favorable.

### 3.6 MULCH

All areas to be seeded (except those to be sprigged and over-seeded) shall be uniformly mulched in a continuous blanket immediately after seeding using the quantities per acre listed below for each type of mulching material.

Straw, Hay, Forest Litter, Hulls	1 <sup>1</sup> / <sub>2</sub> tons
Stalks	2 tons
Manure	4 tons
Peat or Mulch	135 C.Y.

The rate of application will correspond to a depth of at least one inch and not more than one and one half inches, according to the texture and moisture content of the mulch material. It is intended that mulch shall allow some sunlight to penetrate and air to circulate, at the same time shading the ground, reducing erosion and conserving soil moisture. The contractor shall take steps necessary to prevent loss of mulch or bunching of mulch as caused by the wind.

### 3.7 WATERING

After the seeds have been sown, the soil will be maintained in a moist state until seed germination has occurred. After germination, if there is not enough moisture in the soil to insure adequate plant growth, water shall be applied until an adequate moisture content has been reached. Water shall not be applied when there is danger of freezing.

### 3.8 MAINTENANCE

The Contractor will be required to do all maintenance necessary to keep all seeded areas in a satisfactory condition until the work is finally accepted. This includes mowing, repairing washes that occur, and additional seed, fertilizer and water if they are needed. Mowing will

be required at most four weeks apart during growing season.

### 3.9 STAND OF GRASS

If, after a suitable growth period, a satisfactory stand of grass is not evident, the unsatisfactory areas shall be reseeded, including any additional ground preparation and fertilizing necessary, using the type of seed specified.

### 3.10 SEEDING SCHEDULE

The Contractor shall grass disturbed areas as construction progresses. Not more than 1,000 feet of line shall be left un-grassed at any time.

**\*\*END OF SECTION\*\***