ROUTINE MAINTENANCE ACTIVITIES

JULY 1996

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FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

ASPHALT REPAIR - MANUAL	MMS ACTIVITY : *411* MRP: *ROADWAY, DRAINAGE*

DESCRIPTION

Repair of roadway pavement depressions, edge raveling, potholes and leveling of pavement irregularities with hot or cold plant mix material by hand labor method. Other areas of asphalt repairs which are to be reported to this standard are as follows: paved shoulders, paved turnouts, edge widening, roadway ditches, under guardrail, constructing or maintaining drainage flumes, etc.

PURPOSE

To maintain a good riding pavement surface, and protect the roadway.

SCHEDULING FREQUENCY

Potholes, depressions and other irregularities are potential hazards and should be repaired as soon as possible. Repair to the roadway surface is a priority and should be scheduled as soon as possible. Other repairs may be scheduled in the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Place asphalt in accordance with publications listed below.
3. Clean up work site.
4. Complete crew report before moving to new site.
5. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Indexes 400, 513, 515, 516 & 600 & 200 series.
3. FDOT Standard Specifications for Road & Bridge Construction - Section 300 - 339.
4 M110-70 - Standard Maintenance Special Provisions - "Removal of Flexible Pavement."
5. BT - 07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. BT - 07-0001 - Asphalt Pavement Repair (Self-Study).
7. A Guide to Asphalt Pavement Repair.
8. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 411

MRP CRITERIA

Refer to Roadway element under "Flexible Pavement":

- Potholes: No defect is greater than 0.05 m^2 (½ sq. Ft.) In area and 38 mm (1 ½") deep. No pervious base is exposed in any hole.
- Edge Raveling: 90% of the total roadway edge is free of edge raveling with no continuous section 102 mm (4") or wider exceeding 7.6 m (25') in length.
- Shoving: Not to exceed a cumulative 2.3 m^2 (25 sq. ft.)
- Depressions/Bump: No measurement varies more than 13 mm (½") within the initial 3 m (10') increment or plus 10 mm (3/8") for each additional 3 m (10')

Flexible Paved Shoulder/Turnouts

- Potholes: No defect is greater than 0.05 m^2 (½ sq. Ft.) In area and 38 mm (1 ½') deep. No pervious base is exposed in any hole.
- Depressions/Bump: No measurement varies more than 25 mm (1') within the initial 3.0 m (10') increment or plus 10 mm (3/8") for each additional 3 m (10'). (Turnouts are not rated for depression/bump).
- Edge Raveling: 75% of the total shoulder edge is free of raveling with no continuous section 102 mm (4") or wider exceeding 15.2 m (50') in
- Miscellaneous Drainage: 90% of each structure functions as intended.

METHOD OF REPORTING

1. Report the metric tons (U. S. Tons) of asphalt placed to the nearest hundredth.
2. Use weight ticket from supplier, converted to metric tons (U. S. Tons), less any waste.
3. If weight tickets are not available, use Conversion Chart No. 1 -m (1) to calculate metric tons (U. S. Tons) from field measurement of asphalt in place.

REPORTING UNITS = metric tons (U. S. Tons)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9750	1	OMST - II
9740	3	OMST - I
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1110	1	Asphalt Patch Truck
2501	1	Two Ton Vibratory Steel Wheel Roller
9270	1	Arrow Board - Trailer Mounted
0520	1	3/4 Ton Pickup

SMALL TOOLS

Shovels & Tamps
Asphalt Rakes
Road Brooms
Straight Edge
Vibro-Plate Compactor
Hydraulic Pavement Cutter
Concrete Saw
Metric Measuring Devices
Work signs and safety equipment
Personal Safety Equipment

MATERIAL

Bituminous Liquid
Plant Mix
Litter Bags

EFFECTIVE DATE: July 1, 1996

APPROVED BY W. H. [signature]
State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

ASPHALT REPAIR (MECHANICAL)	**MMS ACTIVITY :** *412* **MRP:** *ROADWAY, DRAINAGE and ROADSIDE*

DESCRIPTION

Repairs by mechanical means of severe depressions and leveling of irregularities with hot mix material on roadway surfaces and paved shoulders. Major efforts by mechanical means to add paved turnouts, edge widening and paved aprons are to be included under this activity. Construction of (additional) cross overs, turn lanes, parking lots, etc. will be reported to Betterment (993).

PURPOSE

To provide a good riding surface, and protect the roadways.

SCHEDULING FREQUENCY

Severe depressions and other irregularities are potential hazards. They should be reviewed and planned for repair as determined by the work needs survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices which shall be in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Clean and prepare surface.
3. Spray bituminous tack coat.
4. Place hot mix asphalt material by mechanical means.
5. Compact asphalt material (see specifications below)
6. Place temporary pavement markings.
7. Clean up work site.
8. Complete crew report before moving to next site.
9. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

All referenced publications shall be current edition with supplements

1. Manual on Uniform Traffic Control Devices (MUTCD)
2. FDOT Roadway and Traffic Design Standards Indexes 513, 515 & 600 series
3. FDOT Standard Specifications for Road and Bridge Construction - section (300-339)
4. M110-70 - Removal of Flexible Pavement. Standard Maintenance special provisions
5. BT07-0022 - Work Zone Traffic Control for Maintenance & Utility Operations (level 3)
6. Asphalt Pavement Repair BT-07-0001
7. Maintenance Rating Program Manual (Procedure No. 850-065-002)

ACTIVITY No. 412

MRP CRITERIA:

Refer to MRP Roadway Element under "flexible pavement".

- ♦ Potholes: No defect is greater than 0.05 m^2 (½ sq. Ft.) In area and 38 mm (1 ½") deep. No pervious base is exposed in any hole.
- ✦ Edge Raveling: 90% of the total roadway edge is free of edge raveling with no continuous section 102 mm (4") or wider exceeding 7.6 m (25') in length.
- ✦ Shoving: Not to exceed a cumulative 2.3 m^2 (25 sq. ft.)
- ✦ Depressions/Bump: No measurement varies more than 13 mm (½") within the initial 3 m (10') increment or plus 10 mm (3/8") for each additional 3 m (10')

Flexible Paved Shoulder/Turnouts

- ✦ Potholes: No defect is greater than 0.05 m^2 (½ sq. Ft.) In area and 38 mm (1 ½') deep. No pervious base is exposed in any hole.
- ✦ Depressions/Bump: No measurement varies more than 25 mm (1') within the initial 3.0 m (10') increment or plus 10 mm (3/8") for each additional 3 m (10'). (Turnouts are not rated for depression/bump).
- ✦ Edge Raveling: 75% of the total shoulder edge is free of raveling with no continuous section 102 mm (4") or wider exceeding 15.2 m (50') in
- ✦ Miscellaneous Drainage: 90% of each structure functions as intended.

METHOD OF REPORTING

1. Report the metric tons (U. S. Tons) of asphalt placed using suppliers weight tickets to the nearest hundredth.
2. Conversion from U. S. measurements to metric may be required. See conversion chart 1 - m (1).
3. Do not report material wasted.

REPORTING UNITS = metric tons (U. S. Tons)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9760	1	OMST - III
9750	1	OMST - II
9740	5	OMST - I
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1510	1	8 Yd. Dump Truck
1100	1	2 - Ton Crew Cab
3411	1	Self Propelled Paver
2520	1	4 - 6 Ton Wheel Static Roller Self
2561	1	Self Propelled Rubber Tired Traffic Roller
1600	1	Asphalt Distributor
9270	1	Flashing Arrow Boar Trlr Mtd

SMALL TOOLS

Shovels
Asphalt rakes
Road brooms
Straight edge
Vibro-plate compactor
Tamps - other basic small tools
Hydraulic pavement cutter
Concrete saw
Work signs and safety equipment
Personal safety equipment

MATERIAL

Bituminous Liquid
Plant Mix
Litter Bags

EFFECTIVE DATE: July 1, 1996

APPROVED BY

W. A. [illegible]
State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

BASE REPAIR	MMS ACTIVITY : *414* MRP: *ROADWAY*

DESCRIPTION

Repair of base or subgrade failures with suitable materials under paved surfaces. Includes construction of base for additional paved turnouts, edge widening and paved aprons. Construction of base material for (additional) crossovers, turn lanes, parking lots, etc. will be reported to Betterment (993). Full depth asphalt repairs and surface repair should be reported to 411 or 412.

PURPOSE

To provide a good base to support the riding surface, and protect the roadways.

SCHEDULING FREQUENCY

As determined by the work needs survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway And Traffic Design Standards.
2. Cut pavement at repair limits.
3. Remove deteriorated pavement and base material and dispose.
4. Place new base material, compact material as specified by appropriate publications listed below
5. Finish base material and prime as specified by appropriate publications listed below.
6. Clean up work site.
7. Complete crew report before moving to the next work site.
8. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

All referenced publications shall be current edition with supplements

1. Manual on Uniform Traffic Control Devices (MUTCD)
2. FDOT Roadway and Traffic Design Standards Index 514
3. FDOT Standard Specifications for Road & Bridge Construction Section 200 through 300
4. M110-70 Removal of Flexible Pavement, Standard Maintenance Special Provisions
5. BT 07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3)
6. BT-07-0001 Asphalt Pavement Repair (Self Study)
7. A Guide to Asphalt Pavement Repair
8. Maintenance Rating Program Manual (Procedure No 850-065-002)

ACTIVITY No. 414

MRP CRITERIA:

Refer to MRP roadway elements under flexible and rigid pavement.

- ✦ Depressions: not to exceed 13 mm (1/2") within the initial 3 m (10') increment or plus 10 mm (3/8") for each additional 3 m (10')
- ✦ Paved Shoulders: depression bump, not to exceed 25 mm (1") within the initial 3 m (10') or plus 10 mm (3/8") for each 3 m (10')

METHOD OF REPORTING:

1. Report the metric tons (U. S. Tons) of base material placed using suppliers weight tickets.
2. Converting weight tickets to metric may be required. See conversion chart no. 1 - m (1) for reporting metric tons (U. S. Tons) of material in place.
3. Report to the nearest hundredth.

REPORTING UNITS = metric tons (U. S. Tons)

PERSONNEL			EQUIPMENT		
CLASS CODE	**NO.**	**SKILL CLASS**	**FLEET CODE**	**NO.**	**EQUIPMENT DESCRIPTION**
9760	N 1	OMST III	1510	2	Dump - 8yd. Capacity
9750	N 1	OMST II	1100	1	2-ton Crew Cab
9740	6	OMST I	2210	1	Motor Grader (Or) Hydraulic Excavator
			2520	1	4-6 T Steel Wheel Static Roller - Self Propelled (Or) 2 T Vibratory Steel Wheel Self Propelled, Rubber Tire
		Safety and traffic control assistance as required	1600	1	Asphalt Distributor
			9270	1	Flashing Arrow Board, Trailer Mounted

SMALL TOOLS

Hand Tamps
Vibro-plate Compactor
Shovels
Hydraulic Pavement Cutters
Work Signs And Safety Equipment
Straight Edge
Rake
Personal Protective Equipment

MATERIAL

Litter Bags
Base Materials (Limerock, Sand-shell)

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. A. Allsopp

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

PRESSURE GROUTING	MMS ACTIVITY : *421* MRP: *ROADWAY, ROADSIDE and DRAINAGE*

DESCRIPTION

Raising or leveling of concrete pavement slabs by hydraulic pressure grouting. Filling of cavities beneath concrete slabs (pavement or slope), box culverts, pipelines, etc.

PURPOSE

Maintain roadway slabs to proper grade so as to provide a smooth riding surface for the traveling public. Maintain slope pavement by filling voids and sealing cracks. Pressure grout voids around drainage structures to restore subgrade support and seal cracks.

SCHEDULING FREQUENCY

As determined by the work needs survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Metric Roadway and Traffic Design Standards.
2. Proceed with grouting operations in accordance with appropriate publications listed below.
3. When all pressure grouting has been completed, clean up work site.
4. Complete crew report before moving to next work site.
5. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

All referenced publications shall be current edition with supplements

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Specifications for Road and Bridge Construction.
3. FDOT Roadway and Traffic Design Standard Index No. 600 Series.
4. BT 07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
5. Refer to "A Guide to Slabjacking".
6. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 421

MRP CRITERIA

Refer to Roadway, Roadside and Drainage elements.

- Depressions: (roadway) no measurement varies more than 13 mm (1/2") (deep) within the initial 3 m (10') increment or plus 10 mm (3/8")for each additional 3 m (10')
- Slope Pavement: no voids exist under slope pavement
- Miscellaneous Drainage: 90% of each structure must function as intended.

METHOD OF REPORTING

1. Report the cubic meters (cubic feet) of grout reported to the nearest hundredth (example 3.54 m^3 or 1.57 ft^3).
2. One cubic foot bag of mix = 0.028 m^3. See conversion chart no. 7 - m (7).

REPORTING UNITS = cubic meters (cubic feet)

PERSONNEL			EQUIPMENT		
CLASS CODE	**NO.**	**SKILL CLASS**	**FLEET CODE**	**NO.**	**EQUIPMENT DESCRIPTION**
9760	1	OMST - III	0520	1	3/4 Ton Pickup Crew Cab with Low Profile Utility Body
9750	1	OMST - II			
9740	6	OMST - 1	9112	1	Air Compressor, 250 CFM Diesel
			1702	1	Transport Tractor, Dual Axle
			4000	1	25 Ton Low Bed Trailer
			3540	1	Concrete Saw
		Safety and traffic control assistance as required	9270	1	Flashing Arrow Trailer Mounted

SMALL TOOLS	MATERIAL
Two Rotary Air Hammers	Premixed Bagged Cement (Fly Ash)
Wooden Plugs	Water
1500 Gallon Water Tank	Litter Bags
Centrifugal Pump (less than 2")	
Metric Measuring Devices	
Pressure Grouting Pump and Mixer	
Safety Equipment	
Personal Safety Equipment	

EFFECTIVE DATE: July 1, 1996

APPROVED BY W. H. [signature]

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

CONCRETE PAVEMENT JOINT REPAIR	MMS ACTIVITY : *423* MRP: *ROADWAY*

DESCRIPTION

Clean and seal joints and cracks in concrete pavement, slope pavement etc.

PURPOSE

To restrict surface water from entering into the base or sub-grade material. Keep joints free of debris and non compressible material.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Remove old sealant material and clean joint walls in accordance with publications listed below.
3. Clean up work site.
4. Complete crew report before moving to the next site.
5. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES, and TRAINING RESOURCES

All referenced publications shall be current edition with supplements

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Indexes 305, 306 and 600 Series.
3. FDOT Standard Specifications for Road and Bridge Construction, Section 356 and 932.
4. BT 07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
5. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 423

MRP CRITERIA

Refer to Roadway elements under "rigid pavement".

- Joint / Cracking: 85%of the length, transverse and longitudinal joint material appears to function as intended and 90% of the roadway slabs have no unsealed cracks wider than 3 mm (1/8")
- Paved Shoulder / Turnout Joint / Cracking: 75% of the joints appear to function as intended by restricting the intrusion of water and non-compressible materials. 80% of the cumulative area has no unsealed cracks greater than 19 mm (3/4").

METHOD OF REPORTING

1. Report the length, in meters (linear feet) to the nearest hundredth.
2. Use cloth tape or wheel to determine measurement

REPORTING UNITS = meters (lineal feet)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9760	1	OMST - III
9740	7	OMST - 1
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
0520	1	3/4 Ton Pickup
1002	1	2 Ton Flatbed (LWB)
1100	1	2 Ton Crew Cab
3420	1	Joint Sealant Pump
9112	1	Air Compressor, 250CFM
3540	1	Concrete Saw
4080	1	Utility Trailer
9270	1	Flashing Arrow, Trailer / Mtd.
4440	1	Sandblaster, Trailer / Mtd
3125	1	Tractor Diesel / LCG

SMALL TOOLS

Shovels
Brooms
Mechanical Brush
Concrete Saw, 25 HP (Random Crack)
Joint Plow
Work Signs and Safety Equipment
Measuring Devices
Personal Protective Equipment

MATERIAL

Joint Sealant
Bond Breaker (Backer Rod)
Blasting Sand
Litter Bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

CONCRETE SLOPE PAVEMENT JOINT REPAIR	MMS ACTIVITY : *424* MRP: *ROADSIDE*

DESCRIPTION

Clean all open joints and weep holes in concrete slope pavement. Fill all vertical joints and all open horizontal joints and cracks with sealant material.

PURPOSE

To restrict water intrusion into base and sub base.

SCHEDULING FREQUENCY

As determined by the work needs survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway And Traffic Design Standards.
2. Remove old joint material with appropriate tool and clean joint walls with joint cleaner brush.
3. Install joint material according to standards before moving to the next site.
4. Clean up work site.
5. Complete crew report before moving to the next site.
6. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

All referenced publications shall be current edition with supplements

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standards Indexes 305, 306 and 600 Series.
3. FDOT Standard Specifications for Road and Bridge Construction, Section 356 and 932.
4. BT 07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
5. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 424

MRP CRITERIA

Refer to Roadside element under slope pavement.

No voids exist under the slope pavement. All joints and cracking should prevent the infiltration of running water that could cause erosion of the backfill slope.

METHOD OF REPORTING

1. Report the length of joints cleaned and sealed to the nearest hundredth.
2. Use cloth tape or wheel to determine measurement.

REPORTING UNITS = meters (Feet)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9750	1	OMST - II
9740	4	OMST - I
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1100	1	2 Ton Crew Cab
3420	1	Joint Sealing Pump
9112	1	Air Compressor, 250 CFM

SMALL TOOLS

Shovels
Brooms
Work Signs and Cones
Mechanical Brush
Miscellaneous Hand Tools
Personal Protective Equipment
Measuring Devices

MATERIAL

Joint Material
Bond Breaker (Backer Rod)
Litter Bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. F. Allbaugh

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

CONCRETE PAVEMENT SURFACE REPAIR	MMS ACTIVITY : *425* MRP: *ROADWAY*

DESCRIPTION

Repair concrete pavement surfaces including spalls, pop-outs, approach slabs and partial slab replacement. Entire slab (or large amount) replacement should be reported as minor betterment (Activity 993) asphalt patching of concrete is to be reported to Activity 411 or 412.
Not to include bridge deck repairs which will be reported to Activity 806.

PURPOSE

To maintain a good riding pavement surface, eliminate traffic hazards and protect the roadway pavement.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Reshape edge of hole to provide a vertical faced wall, minimum of 25 mm (1").
3. Remove all loose material.
4. Place forms as necessary.
5. Apply epoxy or rapid cure grout per manufacturer's recommendations.
6. Reseal joints as necessary, see specification listed below.
7. Finish patch consistent and to the level of surrounding pavement.
8. Clean up work site.
9. Complete crew report before moving to the next site.
10. Pickup work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index 305, 306, 515, 516, and 600 Series.
3. FDOT Standard Specifications for Road and Bridge Construction (Section 350-370, and 932).
4. BT 07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
5. BT 06-0015 Portland Cement Concrete Test and Construction (Self-Study).
6. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 425

MRP CRITERIA

Refer to Roadway element under:

- Rigid Pothole - no defect is greater than 0.05 m^2 (1/2 sq. ft.) in area and 38 mm (1 1/2") deep
- Rigid Depression / Bump - no measurement varies more than 13 mm (1/2") within the initial 3 m (10') increments or plus 10 mm (3/8") for each additional 3 m (10') increment
- Rigid Cracks - 90% of roadway slabs have no unsealed cracks wider than 3 mm (1/8")
- Joint / Cracking - rigid paved shoulder/turnout

  Potholes: same as above

  Depression & Bump: no measurement varies more than 244 mm (1") within the initial 3 m (10') increment or plus 10 mm (3/8") for each additional 3 m (10') increment (turnouts not rated for depression/bump)

  Cracking: 80% of the paved shoulder cumulative area has no unsealed cracks wider than 19 mm (3/4" sq. ft.)

METHOD OF REPORTING

1. Report the square meters (square feet) of concrete surface repaired.
2. Use the following formula; length (m) x width (m) = m^2, length (ft.) x width (ft.) = sq. Ft.; or
3. Refer to conversion chart no. 6 - m (3).

REPORTING UNITS = meters squared (square feet)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9750	1	OMST - II
9740	3	OMST - I
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1100	1	2 Ton Crew Cab
9112	1	Air Compressor, 250 CFM
9200	1	Portable Generator under 25 KW
3540	1	Concrete Pavement Saw
9270	1	Flashing Arrow, Truck Mounted

SMALL TOOLS

Miscellaneous Power Tools
Various Hand Tools
Various Finishing Tools
Wheel Barrow
Work Signs And Other Safety Devices
Measuring Devices
Personal Protective Equipment

MATERIAL

Epoxy or Rapid Cure Grout
Expansion Joint Material
Water
Litter Bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. H. Albaugh

State Maintenance Engineer

ROUTINE MAINTENANCE ACTIVITIES

ROADSIDE MAINTENANCE

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

MOTOR GRADER OPERATIONS	**MMS ACTIVITY :** *431* **MRP:** *ROADSIDE and TRAFFIC SERVICES*

DESCRIPTION

The grading of unpaved roads, the blading of pavement edges prior to edge striping and shoulders. Motor Grader work within the Maintenance Yard should not be charged to this activity.

PURPOSE

Maintain roadside areas and shoulders where establishment of grass is not possible or practical and maintain roadway edge lines so that they are visible.

SCHEDULING FREQUENCY

As determined by Work Needs Survey

RECOMMENDED WORK SEQUENCE:

1. Place work zone traffic control devices in accordance with MUTCD and Series 600 of FDOT Roadway and Traffic Design Standards.
2. Grading unpaved roads and blading of roadway edges, beach areas, etc.
3. Clean up work site.
4. Complete crew report before moving to next site.
5. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES* All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard - Index 104 & 105
3. FDOT Standard Specification for Road & Bridge Construction - Section 104
4. M 577-70 - M120-11 - Standard Maintenance Special Provision
5. BT07-022-Work Zone Traffic Control for Maintenance & Utility Operations (Level 3).
6. A Guide to Non-Paved Shoulder Repair Manual
7. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 431

MRP CRITERIA :

Refer to Roadside element, under: "Unpaved Shoulder":

No shoulder drop-off exceeds 76.20 mm (5") deep within 0.31 m (1') of the edge of pavement for a continuous 7.62 m (25'); No deviations across shoulder width exist greater than 127.0 mm (5") below or 50.8 mm (2") above the design template.

Refer to Traffic Services element under "striping" - 70% of each line must function as intended grass growing over the edge of lines will cause striping not to meet the desired Maintenance Conditions.

METHOD OF REPORTING:

1. Report the total length of area worked in kilometers (shoulder miles), to the nearest hundredth.
2. Refer to Conversion Chart No. 5 - m (4).

REPORTING UNITS = kilometers (shoulder miles)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9760	1	OMST III
9740	1	OMST I
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
0520	1	3/4 Ton Pickup Truck
2210	1	Motor Grader
		or
2401		Bulldozer
		or
		Front-end loader
2310	1	Rubber-tired (2 cy.)

SMALL TOOLS

Shovels
Measuring Devices
Work Signs and Safety Equipment
Personal Safety Equipment

MATERIAL

Litter Bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

REPAIR SHOULDERS, FRONT SLOPES & ROADSIDE DITCHES (MANUAL)	MMS ACTIVITY : *432* MRP: *ROADSIDE & DRAINAGE*

DESCRIPTION

Repairing non-paved shoulders by adding suitable material, or by lowering high areas to include minor work on slopes, ditches and turnouts. Includes small areas mulched by hand. This activity should only be performed in situations that are not practical to be corrected by mechanical means.

PURPOSE

To correct low or high areas on shoulders, provide roadway drainage and protection of the pavement edge.

SCHEDULING FREQUENCY

As determined by Work Needs Survey

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Repair defective areas in accordance with applicable standards.
3. Clean up site.
4. Complete crew report before moving to next site.
5. Pick up signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

***** All referenced publications shall be current edition with supplements *****

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard - Index 104, 105, 577 & 500 Series.
3. FDOT Standard Specifications for Roadway & Bridge Construction - Section 104.
4. M 577-70 M 120-11- Standard Maintenance Special Provisions.
5. BT-07-0022 - Work Zone Traffic Control for Maintenance & Utilities Operations (Level 3).
6. A Guide to Non-Paved Shoulder Repair Manual.
7. Maintenance Rating Program Manual (Procedure No. 850-065-0002).

ACTIVITY NO. 432

MRP CRITERIA:

Refer to Roadside element, under:

- "Unpaved Shoulder" - No shoulder drop-off exceeds 76.20 mm (5") deep within 0.31 m (1') of the pavement edge for a continuous 7.62 m (25'); No deviations across shoulder width exist greater than 127.0 mm (5") below or 50.8 mm (2") above the design template; No washboard areas exist having a total differential greater than 127.0 mm (5") from the low spot to the high spot.
- "Front Slope" - No ruts or washouts exist greater than 152.40 mm (6") in depth.

  Refer to Drainage element under
- "Roadside /Median Ditch" - The ditch bottom is (varies) meters or more below the (Non-Paved) outside edge of pavement and / or functions as intended.

Rural Limited Access	- 0.91 m (3')
Rural Arterial	- 0.91 m (3')
Urban Limited Access	- 0.76 m (2 1/2')
Urban Arterial	- 0.76 m (2 1/2')
Median	- 0.6 m (2')

METHOD OF REPORTING

1. Report the area of shoulders, slopes, ditches or turnouts repaired to the nearest hundredth.
2. Area of turnouts is to be included when the repair is performed as part of this activity.
3. Area used to dispose of excess material on site will not be reported.
4. Use Length (m) X Width (m) = m^2, $\frac{\text{ft. x ft.}}{9}$ = sq. yds.
5. Refer to Conversion Chart No. 6 - m (6).

REPORTING UNITS = square meter (sq. yds.)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9750	1	OMST II
9740	3	OMST- I
		Safety and traffic control assistance as required.

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1100	1	2-Ton Crew Cab

SMALL TOOLS

Hand Seeder
Shovels
Measuring Devices
Various Hand Tools as Necessary
Work Signs and Safety Equipment
Personal Safety Equipment

MATERIAL

Stable Fill Material
Seed
Fertilizer
Mulch
Litter Bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. D. Gilbreath

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

SODDING	MMS ACTIVITY : 433 MRP: ROADSIDE, DRAINAGE VEGETATION and AESTHETICS

DESCRIPTION

Cutting and placing sod in areas along the roadside associated with reworking non-paved shoulders, slopes, ditches, median islands, utility strips and repairing washouts.

PURPOSE

Establish and maintain a desirable turf to prevent soil erosion where seeding fertilizing and mulching operations have failed to provide a desireable turf.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place Work Zone Traffic Control Devices in accordance to MUTCD & 600 series of FDOT Metric Roadway and Traffic Design Standards.
2. Cut and place sod and stake as necessary.
3. Fertilize areas sodded.
4. Water down and lightly tamp sodded areas.
5. Complete crew report before moving to the next site.
6. Pickup work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

***** All referenced publications shall be current edition with supplements *****

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway Traffic Design Standard - Index 104, 105 & 281.
3. FDOT Standard Specifications for Road & Bridge Construction - Section 575.
4. MM 575 Standard Maintenance Special Provisions
5. BT-07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. Maintenance Rating Program Manual (Procedure No. 850-065-002).
7. A Guide to Turf Management Manual (Procedure No. 850-060-004).

ACTIVITY NO. 433

MRP CRITERIA Refer to Roadside element, under:

- "Unpaved Shoulder" - No shoulder drop-off exceeds 76.0 mm (5") deep within 0.31 m (1') of the pavement edge for a continuous 7.62 m (25'); No deviations across shoulder width exist greater than 127.0 mm (5") below or 50.8 mm (2") above the design template; No washboard areas exist having a total differential greater than 127.0 (5") from the low spot to the high spot.
- "Front Slope" - No ruts or washouts exist greater than 152.40 mm (6") in depth.
- "Roadside/Median Ditch" - The ditch bottom is (varies) meters or more below the (Non-Paved) outside edge of pavement and/or functions as intended.

Rural Limited Access	- 0.91 m (3')
Rural Arterial	- 0.91 m (3')
Urban Limited Access	- 0.76 m (2 1/2')
Urban Arterial	- 0.76 m (2 1/2')
Median	- 0.6 m (2')

METHOD OF REPORTING

1. Report the square meters (sq. yds.) of sod placed to the nearest hundredth by measuring area with an acceptable measuring device, such as a measuring wheel, tape, chain, DMI, etc.
2. Or calculate Length (m) x Width (m) = m^2 or $\frac{\text{length (ft.) x width (ft.)}}{9}$ = sq. yds.
3. Refer to conversion chart no. 6 - m (6).

REPORTING UNITS = meters squared (square yards)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9750	2	OMST II
9740	3	OMST I
		OMST II
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1100	1	2 Ton Crew Cab
1702	1	Transport Tractor Dual Axle
4200	1	7000 Gallon Water Truck
4050	1	27' Flatbed Trailer

SMALL TOOLS

Shovels
Rakes
Hand Tamp
Sodcutter
Machetes
Metric Measuring Devices
Work Signs and Safety Equipment
Personal Safety Equipment

MATERIAL

Fertilizer
Stakes
Sod
Water
Litter Bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY:

W. H. Albaugh

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

SEEDING, FERTILIZING and MULCHING	**MMS ACTIVITY :** *435* **MRP:** *ROADSIDE, DRAINAGE, VEGETATION and AESTHETICS*

DESCRIPTION

Seeding, fertilizing, and mulching of the roadside. To include seeding, fertilizing, and mulching associated with reworking non-paved shoulders, Standard 436 and Slope and Ditch Repair, Standard 437. Sodding should be reported to Activity 433.

PURPOSE

To establish and maintain a desirable turf and prevent erosion of the unpaved portion of the roadway.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey

RECOMMENDED WORK SEQUENCE

1. Place Work Zone Traffic Control Devices in accordance to MUTCD & 600 series of the FDOT Roadway and Traffic Design Standards.
2. Place seed, fertilizer and mulch according to specifications, standards, special provisions and training resources listed below
3. Clean up work site.
4. Complete crew report before moving to the next site.
5. Pick up signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

***** All referenced publications shall be current edition with supplements *****

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard - Index 104, 105 & 281.
3. FDOT Standard Specifications for Road & Bridge Construction - Section 570.
4. MM 570 Standard Maintenance Special Provisions.
5. BT-07-002 Work Zone Traffic Control for Maintenance & Utility Operations (Level 3).
6. A Guide to Turf Management Manual (Procedure No. 870-060-004).
7. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 435

MRP CRITERIA Refer to Vegetation and Aesthetics element, under "Turf Condition"
Turf in the mowing area is 75% free of undesired vegetation..

- "Unpaved Shoulder" - No shoulder drop-off exceeds 76.0 mm (5") deep within 0.31 m (1') of the pavement edge for a continuous 7.62 m (25'); No deviations across shoulder width exist greater than 127.0 mm (5") below or 50.8 mm (2") above the design template; No washboard areas exist having a total differential greater than 127.0 mm (5") from the low spot to the high spot.
- "Front Slope" - No ruts or washouts exist greater than 152.40 mm (6") in depth.
- "Roadside/Median Ditch" - The ditch bottom is (varies) meters or more below the (Non-Paved) outside edge of pavement and/or functions as intended.

Rural Limited Access	- 0.91 m (3')
Rural Arterial	- 0.91 m (3')
Urban Limited Access	- 0.76 m (2 1/2')
Urban Arterial	- 0.76 m (2 1/2')
Median	- 0.6 m (2')

METHOD OF REPORTING

1. Report the hectares (acres) of seeding, fertilizing and mulching upon completion of the required operation. Report to the nearest hundredth.
2. Use $\frac{\text{Length (m) X Width (m)}}{10{,}000\ m^2}$ = hectares ; $\frac{\text{L (Ft.) x W (Ft.)}}{43{,}560\ \text{sq. ft.}}$ = acres
3. Refer to conversion chart 8 - m, (8), 9 - m.
4. Use the following percentages when reporting work accomplished.
   a. Seeding----------20% b. Fertilizing----------20% c. Mulching--------60%

REPORTING UNITS = hectares (acres)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9750	1	OMST II
9740	5	OMST I
		Safety and traffic control assistance as required.

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1100	1	2-Ton Crew Cab
3120	1	Tractor 55 HP
3610	1	Mulch Cutter & Roller w/Seeder
3301	1	Fertilizer Dist., Spinner
3340	1	Mulch Blower
4050	1	27' Flatbed Trailer
1600	1	Asphalt Dist. or Liquid Mulch Applicator

SMALL TOOLS

Necessary Hand Tools
Work Signs and Safety Equipment
Measuring Devices
Personal Safety Equipment

MATERIAL

Seed
Mulch
Fertilizer
Asphalt Emulsifier or Liquid Mulch
Litter Bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. F. Allaugh

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

REWORKING NON-PAVED SHOULDERS, FRONT SLOPES and ROADSIDE DITCHES (MECHANICAL)	MMS ACTIVITY : *436* MRP: *ROADSIDE and DRAINAGE*

DESCRIPTION

Reworking non-paved shoulders, front slopes, roadside ditches and turnouts either by the addition of suitable material and reshaping, or by cutting down built-up areas. This should include the reworking of shoulders done by State Forces after a resurfacing project. Report fertilizing, seeding and mulching to Activity 435.

PURPOSE

Maintain proper roadway section by restoring shoulders, ditches and slopes to proper grade and slope.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey

RECOMMENDED WORK SEQUENCE

1. Place Work Zone Traffic Control Devices in accordance to MUTCD & Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Rework non-paved shoulders, front slopes and roadside ditches in accordance with Specifications, Standards and Training Resources listed below.
3. Clean up work site.
4. Complete Crew Report before moving to next site.
5. Pickup work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

***** All referenced publications shall be current edition with supplements *****

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard - Index 104,105, 577 & 600 Series.
3. FDOT Standard Specifications for Roadway & Bridge Construction - Section 104 & 120.
4. M 577-70 & M 120-11 Standard Maintenance Special Provisions
5. BT-07-0002 Work Zone Traffic Control for Maintenance & Utility Operations (Level 3).
6. A Guide to Non-Paved Shoulder Repair Manual
7. Maintenance Rating Program (Procedure No. 850-065-0002).

ACTIVITY NO. 436

MRP CRITERIA:

Refer to Roadside element under

- "Unpaved Shoulder" - No shoulder drop-off exceeds 76.20 mm (5") deep within .031 m (1') of the pavement edge for a continuous 7.62 m (25'); No deviations across shoulder width exist greater than 127.0 mm (5") below or 50.80 mm (2") above the design template; No washboard areas exist having a total differential greater than 127.0 mm (5") from the low spot to the high spot.
- "Front Slope" - No ruts or washouts exist greater than 152.40 mm (6") in depth. And Drainage element.
- "Roadside Ditch" - The ditch bottom is (varies) meters or more below the (Non-Paved) outside edge of pavement and/or functions as intended.

Rural Limited Access	- 0.91 m (3')
Rural Arterial	- 0.91 m (3')
Urban Limited Access	- 0.76 m (2 1/2')
Urban Arterial	- 0.76 m (2 1/2')
Median	- 0.6 m (2')

METHOD OF REPORTING

1. Report the hectares (acres) of shoulders, slopes, ditches and turnouts repaired as defined in the description to the nearest hundredth.
2. Area of turnouts are to be included when the repair is performed as part of this activity.
3. Areas used to dispose of excess material on site will not be reported.
4. Use $\frac{\text{Length (m) X Width (m)}}{10{,}000\ m^2}$ = hectares; $\frac{\text{Length (ft.) X width (ft.)}}{43{,}560\ \text{Sq. Ft.}}$ = acres
5. Refer to conversion chart no. 8 - m, (8), 9 - m.

REPORTING UNITS = hectares (acres)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9760	6	OMST III
9750	2	OMST II
9740	1	OMST I
		Safety and traffic control as needed.

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
0520	1	3/4 Ton Pickup Truck
1510	3	Dumps - 8 Yd Capacity
0520	1	3/4 Ton Crew Cab
2210	1	Motor Grader 120 H.P.
2310	1	Front End Loader - Rubber Tired 2 Cu. Yd. Min.
3120	2	Tractors 55 H.P.
2120	2	Rotovator or Disc Harrow
2560	1	Traffic Roller, Tractor Pulled
9270	1	Flashing Arrow Board, Trailer Mounted

SMALL TOOLS

Various Hand Tools As Necessary
Shovels
Rakes
Work Signs and Safety Equipment
Personal Safety Equipment

MATERIAL

Stable Fill Material
Litter Bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. R. Allen

State Maintenance Engineer

ACTIVITY NO. 437

MRP CRITERIA:

Refer to Roadside element, under :

- "Unpaved Shoulder" - No shoulder drop-off exceeds 76.0 mm (5") deep within 0.31 m (1') of the pavement edge for a continuous 7.62 m (25'); No deviations across shoulder width exist greater than 127.0 mm (5") below or 50.8 mm (2") above the design template; No washboard areas exist having a total differential greater than 127.0 mm (5") from the low spot to the high spot.
- "Front Slope" - No ruts or washouts exist greater than 152.4 mm (6") in depth.
- "Roadside Ditch" - The ditch bottom is (varies) meters or more below the outside edge of pavement and/or functions as intended.

Rural Limited Access	-	0.91 m	(3')
Rural Arterial	-	0.91 m	(3')
Urban Limited Access	-	0.76 m	(2 1/2')
Urban Arterial	-	0.76 m	(2 1/2')
Medians	-	0.6 m	(2')

METHOD OF REPORTING

1. Report the cubic meters (cubic yards) of material to the nearest hundredth.
2. Or use Length (m) x Width (m) x Average Depth (m) = m^3, Length (ft.) x Width (ft.) x Average Depth (ft.) = cubic yards (cu. yds.)
3. Refer to conversion chart no. 7 - m (7).

REPORTING UNITS = cubic meters (cubic yards)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9760	1	OMST III
9740	4	OMST I
		Safety and traffic control assistance as needed

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
2401	1	Bulldozer or Dragline or Excavator or Grader
1510	3	Dumps - 8 Yd. Capacity

SMALL TOOLS

Shovels
Measuring Devices
Work Signs and Safety Equipment
Personal Safety Equipment

MATERIAL

Fill Material
Litter Bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

CONCRETE SIDEWALK REPAIR	MMS ACTIVITY : *459* MRP: *ROADSIDE*

DESCRIPTION

Repair or replacement of existing sections of concrete sidewalk.
Construction of (additional) sidewalk is to be completed under Activity # 993 - Betterment.

PURPOSE

To restore defective sidewalk back to it's original condition or current design standard.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Remove all of the damaged material as needed, prepare area to line & grade and place necessary forms.
3. Place concrete and finish. Apply curing compound.
4. Remove forms, perform needed finish work and remove all debris from the job site.
5. Place appropriate barricades if overnight material set is expected.
6. Complete crew report before moving to new site.
7. Pick up work signs and other safety equipment as appropriate; move to next work site.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS and TRAINING RESOURCES

***** All referenced publications shall be current edition with supplements *****

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Indexes 310, 304 & 600 Series.
3. FDOT Standard Specifications for Road & Bridge Construction - Section 522.
4. BT 07-0022 Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
5. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY 459

MRP CRITERIA

Refer to Roadside element, under "Sidewalk."

99.5 % of sidewalk area is free of vertical fracture or horizontal crack greater than 19.05 mm (3/4").

METHOD OF REPORTING

1. Report the area of sidewalk repaired to the nearest hundredth.
2. Length (m) X Width (m) = square meters (m^2); $\frac{\text{Length (ft.) X Width (ft.)}}{9 \text{ sq. ft.}}$ = square yards (sq. Yds.).
3. Refer to conversion chart no. 6 - m (6).

REPORTING UNITS = square meters (sq. yds.)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9760	1	OMST - III
9740	3	OMST - I
		Safety and traffic control assistance as needed

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1100	1	2-Ton Crew Cab
9112	1	Air Compressor 250 CFM
3531	1	Portable Concrete Mixer - 11 C.F.
9200		
0520	1	Portable Generator Under 25 KW
9270	1	3/4 - Ton Pickup
	1	Trailer Mounted Flashing Arrow

SMALL TOOLS

Miscellaneous Power Tools
Finishing Tools
Wheelbarrow
Work Signs and Safety Equipment
Curing Compound Sprayer
Air Operated Jack Hammer
Circular Saw
Concrete Saw
Measuring Devices
Various Hand Tools as Necessary

MATERIAL

Ready Mix Concrete or Sand, Gravel, Cement, or Pre-Mixed Bagged Concrete
Expansion Materials
Forming Materials and Necessary Hardware
Water
Litter Bags
Curing Compound

EFFECTIVE DATE

July 1, 1996

APPROVED BY

W. F. Allbaugh

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

FENCE REPAIR	MMS ACTIVITY : 527 MRP: *ROADSIDE*

DESCRIPTION

Repair of fence, including deteriorated components.
Construction of (additional) fence will be charged to Betterment (993).

PURPOSE

To provide highway safety and deter unauthorized and unrestrained access to highway facilities.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Repair fence components where possible or replace defective components in accordance with appropriate standards.
3. Clean up work site.
4. Complete crew report before moving to the next site.
5. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD)
2. FDOT Roadway and Traffic Design Standard Indexes 450, 451, 452 & 600 Series
3. FDOT Standard Specifications for Road & Bridge Construction - Section 550, Sections 954 (Fence) & 966 (Posts)
4. MM 550 - Standard Maintenance Special Provisions
5. BT 07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3)
6. Maintenance Rating Program Manual (Procedure No. 850-065-002)

ACTIVITY NO. 527

MRP CRITERIA

Refer to Roadside element, under "Fence."

No unrestrained access is allowed. Fence height must be a minimum of 2/3 of the original height as measured from natural ground or have no hole greater than 0.18 m^2 (2 sq. ft.)

METHOD OF REPORTING

Report the total length of fence repaired or replaced. Construction of additional fence will be charged to a Betterment job number.

REPORTING UNITS = meters (linear feet)

PERSONNEL			EQUIPMENT		
CLASS CODE	**NO.**	**SKILL CLASS**	**FLEET CODE**	**NO.**	**EQUIPMENT DESCRIPTION**
9750	1	OMST - Level II	1100	1	2-Ton Crew Cab
9740	3	OMST - Level I			
		Safety and traffic control assistance as needed			

SMALL TOOLS

Post Hole Diggers
Tamps
Shovels
Measuring Devices
Miscellaneous Wrenches
Mechanical Auger
Fence Puller
Chain Saw
Work Signs and Safety Equipment

MATERIAL

Fence Wire
Posts
Miscellaneous Hardware
Litter Bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. H. [signature]

State Maintenance Engineer

ROUTINE MAINTENANCE ACTIVITIES

DRAINAGE

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

CLEAN DRAINAGE STRUCTURES	MMS ACTIVITY : *451* MRP: *DRAINAGE*

DESCRIPTION

Manual or Mechanical:
Cleaning storm drains, french drains, manholes, side drains, cross drains, inlets, piped outfalls, box culverts, and other miscellaneous drain structures. Not to include bridge drains.

PURPOSE

To maintain proper drainage system for protection of the roadway.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Remove debris such as lumber, tree branches or material that might create an obstruction to proper drainage. Load into truck and haul away to appropriate disposal site.
3. Check the outfall end of the drainage system to be sure it is not plugged by sediment and vegetation and that there is no serious scour damage (See Activity No. 464 for cleaning outfall ditches).
4. Control soil run-off and other soil erosion in accordance with publications listed below.
5. Clean up work site.
6. Complete crew report before moving to new site.
7. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 600 & 200 series.
3. M110-31, M110-32 and M425 Standard Maintenance Special Provisions.
4. BT 07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
5. Operator's Manual (Sewer Cleaner)
6. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 451

MRP CRITERIA

Refer to Drainage element under the following:

- ✦ Side / Cross Drain: 60% of the cross-sectional area is not obstructed
- ✦ Inlets: 85% of the opening is not obstructed
- ✦ Misc. Drainage Structures: 90% of each structure functions as intended

METHOD OF REPORTING

1. Use a tape or measuring wheel and report the length cleaned to the nearest hundredth.
2. Each inlet cleaned equals 2 meters (6 linear feet)
   If only inlet top cleaned, report one (1) meter (3 feet)

REPORTING UNITS = meters (lineal feet)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
		Mechanical:
9760	1	OMST - III
9740	2	OMST - I
		Manual:
9750	1	OMST - II
9740	3	OMST - I
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
		Mechanical:
1421	1	Truck Mounted Sewer Cleaner
0520	1	3/4 Ton Pickup Truck
9270	1	Trailer Mounted Flashing Arrow
		Manual:
1100	1	2 Ton Crew Cab
9270	1	Trailer Mounted Flashing Arrow

SMALL TOOLS

Hoe
Various Hand Tools
Shovels
Swing Blades
Hand Pipe Shovels
Pry Bar
Hydraulic Jack
Measuring Devices
Work signs and safety equipment
Personal Safety Equipment

MATERIAL

Litter bags
Sod

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. J. Waugh

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

REPAIR or REPLACE STORM DRAINS, SIDE DRAINS, CROSS DRAINS	MMS ACTIVITY : *456* MRP: *DRAINAGE*

DESCRIPTION

Repair or replacement of storm drains, side drains, cross drains, french drains and mitered ends. Not to include repair of items listed for Activity 457.

PURPOSE

To maintain drainage structures in good operating condition

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Repair or replace sections of damaged pipe. Be sure grates and manhole covers are not damaged and are secured in place by tack welding or chaining. Be sure all joints are sealed.
3. Control soil run-off and other soil erosion in accordance with publications listed below.
4. Clean up work site.
5. Complete crew report before moving to new site.
6. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 600 & 200 series.
3. FDOT Standard Specifications for Roadway and Bridge Construction
4. M425 Standard Maintenance Special Provisions.
5. BT 07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 456

MRP CRITERIA

Refer to Drainage element under the following characteristics:

- ✦ Side / Cross Drain: 60% of the cross-sectional area is not obstructed
- ✦ Inlets: 85% of the opening is not obstructed
- ✦ Misc. Drainage Structures: 90% of each structure functions as intended

METHOD OF REPORTING

Report the total length of pipe repaired or replaced as units of work completed to the nearest hundredth.

REPORTING UNITS = meters (linear feet)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9760	1	OMST - III
9740	2	OMST - I
		Safety and traffic control assistance as required.

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1100	1	2 Ton Crew Cab
2012	1	Backhoe
		or
2010		Excavator
3530	1	Portable Concrete Mixer

SMALL TOOLS

Shovels
Concrete Finishing Tools
Hand Pipe Shovel
Diaphragm Pump
Miscellaneous Wrenches
Measuring Devices
Work Signs and Safety Equipment
Personal Safety Equipment

MATERIAL

Pipe
Cement and Aggregate
Sand Bags
Brick
Forming Material
Litter Bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. F. Allbaugh

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

CONCRETE REPAIR	MMS ACTIVITY : *457* MRP: *DRAINAGE*

DESCRIPTION

Concrete repair on items such as catch basins, barrier wall, median inlets, head walls, curb inlets, pedestrian underpasses, seawalls, retention walls, and box culverts [under 6 m (20') span], curb and gutters, paved ditches, paved slopes, flumes or spillways, and rip rap. Not to include bridge or sidewalk repair.

PURPOSE

To maintain drainage structures and concrete items in good operating condition

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Determine required forming procedures and necessary materials.
3. Form item as needed.
4. Replace or repair reinforcing steel as needed.
5. Place concrete, cement or epoxy as required, and finish.
6. Apply curing compound.
7. Place appropriate barricades if overnight material set is expected.
8. Remove forms after material has set. Control run-off and other soil erosion in accordance with publications listed below.
9. Clean up work site.
10. Complete crew report before moving to new site.
11. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index.
3. FDOT Standard Specifications for Roadway and Bridge Construction.
4. M425 Standard Maintenance Special Provisions.
5. BT 07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 457

MRP CRITERIA

Refer to Drainage under the following characteristics:

- ✦ Side / Cross Drain: 60% of the cross-sectional area is not obstructed and functions as intended
- ✦ Inlets: Broken or damaged curb inlets with exposed reinforcing steel does not meet conditions. Concrete cradle must support grates.
- ✦ Miscellaneous Drainage Structures: Concrete cradle must support grates

METHOD OF REPORTING

Report the volume of concrete placed to the nearest hundredth using one of the following methods:

1. Calculate Length (m) x Width (m) x Depth (m) = m^3,
   Length (ft.)x Width (ft.)x Average Depth (ft.) = cubic yards (cu. yds.).
   27 cu. ft.
2. Refer to conversion chart no. 7 - m (7).

REPORTING UNITS = meters cubed (cubic yards)

PERSONNEL			EQUIPMENT		
CLASS CODE	**NO.**	**SKILL CLASS**	**FLEET CODE**	**NO.**	**EQUIPMENT DESCRIPTION**
9760	1	OMST - III	1100	1	2-Ton Crew Cab
9740	3	OMST - I	9112	1	Air Compressor
			3531	1	Portable Concrete Mixer
		Safety and traffic control assistance as required	9200	1	Portable Generator(Under 25KW)
			0520	1	3/4 Ton Pickup Truck

SMALL TOOLS

Shovels
Concrete Finishing Tools
Wheelbarrow or Mortar Box
Work Signs and Safety Equipment
Concrete Curing Compound Sprayer
Air Operated Jack Hammer
Circular Saw
Power Drill
Concrete Saw
Measuring Devices
Various Hand Tools as Necessary
Personal Safety Equipment

MATERIAL

Cement, Aggregate and Sand or Batch Mix Concrete
Pre-Mixed Bagged Concrete
Reinforcing Steel
Forming Material and Necessary Hardware
Curing Compound
Water
Litter Bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. A. Willoughby

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

ROADSIDE DITCHES - CLEAN & RESHAPE	MMS ACTIVITY : *461* MRP: *DRAINAGE*

DESCRIPTION

Cleaning and reshaping of ditches other than outfalls.

PURPOSE

To maintain proper roadway drainage by restoring ditches to line, grade and slope

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Grade ditch to proper line and grade, loading excess material into truck.
3. Haul excess material to designated area.
4. Control run-off and other soil erosion in accordance with publications listed below.
5. Clean up work site.
6. Complete crew report before moving to new site.
7. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 600 .
3. FDOT Standard Specifications for Roadway and Bridge Construction.
4. M120-10, M577-70 & M575 Standard Maintenance Special Provisions.
5. BT 07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 461

MRP CRITERIA

Refer to Drainage element under "Roadside/Median Ditch"

✦ The ditch bottom is *____* meters (feet) or more below the outside edge of pavement and functions as intended.

* Rural Limited Access	- 0.9 m	(3')
Rural Arterial	- 0.9 m	(3')
Urban Limited Access	- 0.7 m	(2 1/2')
Urban Arterial	- 0.7 m	(2 1/2')
Median (all facilities)	- 0.6 m	(2')

METHOD OF REPORTING

1. Use a tape or measuring wheel to measure and report length of ditch cleaned or repaired to the nearest hundredth.
2. Report the length in meters (linear feet).

REPORTING UNITS = meters (linear feet)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9760	1	OMST - III
9740	4	OMST - I
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1510	3	Dump Trucks
2010	1	Hydraulic Excavator w/bucket
0520	1	3/4 Ton Pickup Truck
3600	1	Wood Chipper

SMALL TOOLS

Various Hand Tools
Measuring Devices
Work signs and safety equipment
Personal Safety Equipment

MATERIAL

Litter bags
Sod

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. H. Dunlap

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

OUTFALL DITCHES - CLEAN & REPAIR	MMS ACTIVITY : *464* MRP: *DRAINAGE*

DESCRIPTION

Cleaning of outfall ditches and restoration of slopes and bottom areas. Report to activity 487 when efforts are limited to brush and weed cutting only. Piped outfalls will be reported to Activity 451. Repair of paved outfall ditch will be reported to Activity 457.

PURPOSE

To provide adequate drainage and remove unsightly vegetation that cannot be controlled by more cost effective means.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Clean and level access area for excavating equipment as required.
3. Proceed with cleaning operations by removing vegetation, debris and silted material to desired grade. Restore slopes and bottoms to proper shape.
4. Control run-off and other soil erosion in accordance with publications listed below.
5. Dispose of excess as appropriate.
6. Clean up work site.
7. Complete crew report before moving to new site.
8. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 600 & 200 series
3. FDOT Standard Specifications for Roadway and Bridge Construction
4. M577-70 Standard Maintenance Special Provisions
5. BT 07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3)
6. Maintenance Rating Program Manual (Procedure No. 850-065-002)

ACTIVITY NO. 464

MRP CRITERIA

Refer to Drainage element under "outfall ditch"

Outfall Ditch - the ditch bottom is at or within the lower 1/3 of the distance between natural ground and the design flowline.

METHOD OF REPORTING

1. Use a tape or measuring wheel to measure length of ditch cleaned or repaired.
2. Report to the nearest hundredth.

REPORTING UNITS = meters (linear feet)

PERSONNEL			EQUIPMENT		
CLASS CODE	**NO.**	**SKILL CLASS**	**FLEET CODE**	**NO.**	**EQUIPMENT DESCRIPTION**
9760	1	OMST - III	1510	3	Dump Truck
9740	3	OMST - I	2010	1	Hydraulic Excavator w/bucket
			0520	1	Pickup Truck
			3600	1	Wood Chipper
		Safety and traffic control	2004	1	Dragline
		assistance as required	2401	1	Bulldozer

SMALL TOOLS

Various Hand Tools as Necessary
Measuring Devices
Work Signs and Safety Equipment
Personal Safety Equipment

MATERIAL

Litter bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

MITIGATION AREA MAINTENANCE	MMS ACTIVITY : *465* MRP: *NONE*

DESCRIPTION

All efforts required for proper maintenance of Mitigation Areas. Includes control of nuisance vegetation by herbicide and/or manual removal.

PURPOSE

To re-establish wetland areas to comply with current environmental regulations.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Specific requirements for each site as shown in each individual permit.
3. Clean up work site.
4. Complete crew report before moving to new site.
5. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index
3. FDOT Standard Specifications for Roadway and Bridge Construction

ACTIVITY NO. 465

MRP CRITERIA

NONE

METHOD OF REPORTING

1. Report hectares (acres) completed.
2. Report to the nearest hundredth.
3. Use Conversion Chart No. 8 - m ,(8), 9 - m.

REPORTING UNITS = hectares (acres)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9760	1	OMST - III
9740	3	OMST - I
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1100	1	2-Ton Crew Cab

SMALL TOOLS

Various Hand Tools as Necessary
Measuring Devices
Work Signs and Safety Equipment
Personal Safety Equipment
Backpack Sprayer

MATERIAL

Litter bags
Plants as required by permit
Herbicide and Additives

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

STORM WATER MANAGEMENT	MMS ACTIVITY : 498 MRP: *NONE*

DESCRIPTION

All efforts required to maintain Surface/Storm Water Management Systems functioning as designed and permitted. Efforts include but are not limited to mowing, litter removal, chemical or manual weed control, fence repair, cleaning and repair of drainage structures ... etc. Generally work will be confined to the permitted retention/detention areas however, other systems may be included which routinely require significant workloads greater than the statewide planning values.

PURPOSE

To maintain, to the maximum extent practicable, all surface/storm water management systems to a functioning state as designed and in compliance with the permit conditions and/or applicable rules and regulations.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey and permit requirements..

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Clean and level access area for heavy equipment as required.
3. Proceed with cleaning operations which include removing nuisance vegetation, debris, and silted material. Back flush filtration systems or replace clogged sand/fabric filter if required. Restore slopes and bottom areas to original design elevation .
4. Control run-off and other soil erosion in accordance with publications listed below.
5. Check and clean out control structures, discharge orifices, inlet/outlet pipes, and associated spillways and conveyance systems.
6. Clean up worksite and perform disposal of excess materials as appropriate.
7. Complete crew report before moving to new site.
8. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 600 and 200 series.
3. FDOT Standard Specifications for Roadway and Bridge Construction.
4. M 577-70 and M 104 Standard Maintenance Special Provisions.
5. BT 07-0022 Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. Applicable permit conditions/requirements.
7. FDOT "Guide to Roadside Mowing" Handbook.
8. Roadside Mowing Guide, Self-Study, BT 07-0010.
9. Guide to Turf Management (Procedure 850-060-004)
10. Turf Management, Self-Study, BT 07-0013.
11. FDOT Sign Installation Manual.
12. Single and Multi-post Sign Inspection, Procedure 850-055-025.

ACTIVITY NO. 498

MRP CRITERIA

NONE

METHOD OF REPORTING

1. Report hectares (acres) completed to the nearest hundredth..
2. Use Conversion Chart No. 8 - m, (8), 9 - m

REPORTING UNITS = hectares (acres)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9740	3	OMST - I
9760	2	OMST - III
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
3040	1	Self-propelled Rotary Mower
2010	1	Hydraulic Excavator with bucket
3006	1	7' Rotary Mower, Tractor pull
1510	1	Dump Truck, 8 Yd.
1421	1	Truck Mounted Sewer Cleaner, 16 Yd.
0520	1	3/4 Ton Crew Cab Pickup
1201	1	Sign Truck, Platform
2310	1	Front-end Loader, Rubber Tired, 2 CY, with back blade
3121	1	Diesel Tractor 68 H.P.

SMALL TOOLS

Various hand tools as necessary.
Miscellaneous mechanical hand tools for on - job repairs.
Shovels including hand - pipe type.
Push mower.
Mechanical weed cutter small.
Chainsaw.
Work signs and safety equipment.
Personal safety equipment.

MATERIAL

Litter bags.
Sod.
Other materials as needed.

EFFECTIVE DATE:

July 1, 1996

APPROVED BY:

W. A. Albaugh

STATE MAINTENANCE ENGINEER

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

ROAD SWEEPING (MANUAL)	MMS ACTIVITY : *542* MRP: *DRAINAGE*

DESCRIPTION

Hand sweeping of roadway to protect the facility from excessive accumulation of debris.

PURPOSE

To remove debris from the roadway where mechanical means are not feasible before a drainage or safety problem is created or before it becomes unsightly.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Sweep area with road brooms to convenient pick-up points.
3. Load and haul accumulated material to nearest approved disposal area.
4. Complete crew report before moving to new site.
5. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 600
3. M110-32, M110-31 Standard Maintenance Special Provisions.
4. BT 07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
5. Maintenance Rating Program Manual (Procedure No. 850-065-002)

ACTIVITY NO. 542

MRP CRITERIA

Refer to Drainage Element under:

Roadway Sweeping - Material accumulation is not greater than 19 mm (3/4") deep for more than a continuous 0.3 m (1') in the traveled way or shall not exceed 57 mm (2 1/4") in depth for more than a continuous 0.3 m (1') in any gutter.

METHOD OF REPORTING

1. Report the total length of curb or edges cleaned.
2. Report to the nearest hundredth.
3. Refer to conversion chart no. 5 - m (4).

REPORTING UNITS = kilometers (mile)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9750	1	OMST - II
9740	4	OMST - I
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1100	1	2-Ton Crew Cab

SMALL TOOLS

Wheel Barrow
Hand Brooms
Shovels
Measuring Devices
Work Signs and Safety Equipment
Personal Safety Equipment
Various Hand Tools

MATERIAL

None
Litter Bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

ROAD SWEEPING (MECHANICAL)	MMS ACTIVITY : *543* MRP: *DRAINAGE*

DESCRIPTION

Machine sweeping of roadway to protect the facility from excessive accumulation of debris.

PURPOSE

To remove debris from the roadway before it creates a safety or drainage problem or it becomes unsightly.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Operate machine so as to pick up debris from roadway.
3. Haul accumulated material to nearest approved disposal area.
4. Complete crew report before moving to new site.
5. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 600
3. M110-32, M110-31 Standard Maintenance Special Provisions.
4. BT 07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
5. Operator's Manual (Street Sweeper)
6. Maintenance Rating Program Manual (Procedure No. 850-065-002)

ACTIVITY NO. 543

MRP CRITERIA

Refer to Drainage Element under:

Roadway Sweeping - Material accumulation is not greater than 19 mm (3/4") deep for more than a continuous 0.3 m (1') in the traveled way or shall not exceed 57 mm (2 1/4") in depth for more than a continuous 0.3 m (1') in any gutter.

METHOD OF REPORTING

1. Report the total length of curb or edge miles cleaned.
2. Report to the nearest hundredth.
3. Refer to conversion chart nos. 5 - m (4).

REPORTING UNITS = kilometers (mile)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9750	1	OMST - II
9740	1	OMST - I
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1500	1	Dump Truck
1401	1	Street Sweeper
4410	1	Follow Truck w/attenuator Pickup Truck as needed
9270	1	Arrow Board

SMALL TOOLS

Various Hand Tools
Measuring Devices
Work Signs and Safety Equipment
Personal Safety Equipment

MATERIAL

Litter Bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

State Maintenance Engineer

ROUTINE MAINTENANCE ACTIVITIES

VEGETATION AND AESTHETICS

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

LARGE MACHINE MOWING	MMS ACTIVITY : *471* MRP: *VEGETATION and AESTHETICS*

DESCRIPTION

Mowing of roadside areas with large mowers where conditions accommodate the efficient use of 2 m (7') or larger mowers, alone or in combination.

PURPOSE

To maintain the safety, appearance and drainage of the highway facility.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Service equipment for mowing operation.
3. Pick up litter prior to mowing.
4. Perform mowing operations in accordance with established procedures and appropriate publications listed below.
5. Complete crew report before moving to new site.
6. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 600 Series.
3. FDOT "Guide to Roadside Mowing" Handbook.
4. M 104-4 Standard Maintenance Special Provisions.
5. BT 07-0022 Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. Roadside Mowing Guide Self-Study BT 07-0010.
7. Turf Management, Self-Study, No. BT 07-0013.
8. Guide to Turf Management (Procedure No. 850-060-004).
9. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 471

MRP CRITERIA

Refer to Vegetation and Aesthetics element under "Roadside Mowing".

No more than 2% of vegetation exceeds 610 mm (24") rural interstate, 457 mm (18") on urban interstate, and rural primary or 305 mm (12") on urban primary roadways. Bahia seed stalks and decorative wild flowers excepted.

METHOD OF REPORTING

1. Report the hectares (acres) mowed to the nearest hundredth.
2. Do not report overlapping or dead heading.
3. Use $\frac{\text{Length (m) x Width (m)}}{10{,}000\ m^2}$ = hectares or $\frac{\text{Length (ft.) X Width (ft.)}}{43{,}560\ \text{sq. ft.}}$ = acres
4. Refer to conversion chart no. 8 - m, (8), 9 - m.
5. If litter removal operations exceed .5 crew hours, report time to Activity 541.

REPORTING UNITS = hectares (Acres)

PERSONNEL			EQUIPMENT		
CLASS CODE	**NO.**	**SKILL CLASS**	**FLEET CODE**	**NO.**	**EQUIPMENT DESCRIPTION**
9740	3	OMST - I	3120	1	Diesel Tractor 55 H.P.
			3006	1	7ft. Rotary Mower Tractor pulled
			3010	1	10ft. Rotary Mower
			3121	1	Diesel Tractor 68 H.P.
			3020	1	15ft. Rotary Mower
			3121	1	Diesel Tractor 68 H.P.
		Safety and traffic control assistance as required	0520	1	3/4 Ton Pickup Truck

SMALL TOOLS

Miscellaneous mechanical hand tools for on-job repairs
Measuring Devices
Work signs and safety equipment
Personal safety equipment

MATERIAL

Materials as required
Litter bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

SLOPE MOWING

MMS ACTIVITY : *482*
MRP: *VEGETATION and AESTHETICS*

DESCRIPTION

Grass, brush and weed cutting along slopes too steep to safely mow or are iunaccessible for conventional mowing tractors. All mowing and brush cutting with mechanical slope mowers are to be reported to this activity. Boom Mower cutting heads shall not be operated higher than 0.3 m (1') above ground level.

PURPOSE

To maintain the appearance, safety and drainage of the highway facilities in areas that cannot be controlled by more economical means.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Service equipment for slope mowing operations and brush cutting.
3. Pick up litter prior to mowing.
4. Proceed with cutting operations in accordance with established procedures and appropriate publications listed below.
5. Load and haul cut vegetation to an approved disposal site.
6. Complete crew report before moving to new site.
7. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 600 Series
3. FDOT "Guide to Roadside Mowing" handbook.
4. M 104-4 Standard Maintenance Special Provisions.
5. BT 07-0022 Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. Roadside Mowing Guide, Self-Study BT 07-0010.
7. Turf Management, Self-Study, BT 07-0013.
8. Guide to Turf Management (Procedure No. 850-060-004).
9. Maintenance Rating Program Manual (Procedure No. 850-065-002).

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

LITTER REMOVAL	MMS ACTIVITY : *541* MRP: *VEGETATION and AESTHETICS*

DESCRIPTION

Clearing roadways and roadsides of debris, tires, appliances, furnitures, trash, Adopt-A-Highway litter bags, etc. Does not include wayside parks, rest areas and service plaza barrels.

PURPOSE

To maintain the roadways and roadsides in a clean and safe condition by removing unsightly and hazardous objects.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Pick up litter and place into litter bags.
3. Place litter into truck.
4. Dispose of collected litter at authorized locations.
5. Complete crew report before moving to the next site.
6. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index 600 Series.
3. M110-300 - Standard Maintenance Special Provisions (Roadside Litter Removal).
4. BT 07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
5. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 541

MRP CRITERIA

Refer to Vegetation and Aesthetics element under "Litter Removal":

Area will be free of litter that creates a hazard to motorist or pedestrian traffic and does not exceed 0.17 m^3 (6 cu. ft.) per 0.4 hectares (1 acre) within the roadway and roadside area.

METHOD OF REPORTING

1. Measure the area that litter was removed and report length (to the nearest hundreth)
2. Use the following formula; $\frac{\text{length (m) x width (m)}}{10{,}000\ m^2}$ = hectars, or $\frac{\text{length (Ft.) X width (Ft.)}}{43{,}560\ \text{Sq. Ft.}}$ = acres
3. Refer to conversion chart no. 8 - m, (8), 9 - m.

REPORTING UNITS = hectares (acres)

PERSONNEL			EQUIPMENT		
CLASS CODE	**NO.**	**SKILL CLASS**	**FLEET CODE**	**NO.**	**EQUIPMENT DESCRIPTION**
9750	1	OMST II	1100	1	2 Ton Crew Cab
9740	3	OMST I			
		Safety and traffic control assistance as required			

SMALL TOOLS

Various Hand Tools
Litter Sack
Personal Safety Equipment
Measuring Devices
Work Signs and Safety Equipment

MATERIAL

Litter Bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

CHEMICAL WEED and GRASS CONTROL (WIPING)	MMS ACTIVITY : *497* MRP: *VEGETATION and AESTHETICS*

DESCRIPTION

The application of herbicides to control undesired vegetation when mowing will not control target species. This involves application of selective chemical formulations by wiping. Not to include efforts that can be done under Activity 494.

PURPOSE

To selectively remove undesirable vegetation when mechanical or manual methods are not practical.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
1. Apply prepared mix according to the Publications listed below.
1. Complete crew report before moving to the next site.
1. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*****All referenced publications shall be current edition with supplements *****

1. Manual on Uniform Traffic Control Devices (MUTCD).
1. FDOT Roadway and Traffic Design Standard Indexes 600 Series.
1. Florida Statutes; Chapter 5E-2, 5E-9 FAC; Florida Statutes 16C-20 Rules of F.D.E.P.; Florida Pesticide Law & Rules, Chapter 487; Aquatic Plant Control Permits, Chapter 369.2.
1. M 580 - 3, Standard Maintenance Special Provisions (Chemical Weeds & Grass).
1. BT 07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. BT-07-0004, Herbicide Program Update Workshop.
7. "A Guide to Chemical Weed and Grass Control".
8. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 497

MRP CRITERIA

Refer to Vegetation and Aesthetics element under "Turf Conditions":

Turf in the mowing area is 75 % free of the following undesired vegetation alone or in combination: 1. Cogon Grass, 2. Vasey Grass, 3. Johnson Grass, 4. Broom Sedge, 5. Dog Fennel, 6. Ragweed, 7. Castor Bean, 8. Maiden-cane, 9. Rhodes Grass, 10. Goose Grass, 11. Unstabilized bare ground, 12. Spanish Needle

No more than a cumulative 4.6 m^2 (50 sq. ft.) of bare ground should be present in the turf evaluation area or this characteristic does not meet desired maintenance conditions. Bare ground is defined as any single area 0.5 m^2 (5 sq. ft.) or more with no evidence of vegetation. Purposely stabilized areas (limerock, shell, etc.) shall not be considered as bare ground and not included in the turf evaluation.

METHOD OF REPORTING

Report hectares (acres) of mix applied.

REPORTING UNITS = hectares (acres)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9760	1	OMST - III
9740	1	OMST - I
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
3120	1	Diesel Tractor with
3205	1	Wiper Applicator
0520	1	3/4 Ton Pickup w/Arrow Board
4020	1	Trailer (18,000 lb.)

SMALL TOOLS

Spray Accessories
Various Hand Tools
Portable Eye Wash Station
Hand Held Wick Applicator
Personal Safety Equipment
Safety Work Signs

MATERIAL

Litter Bags
Herbicides
Additives

EFFECTIVE DATE:

July 1, 1996
Revised January, 1997

APPROVED BY

W. R. Allsup
State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

GRAFFITI REMOVAL	MMS ACTIVITY : *540* MRP: *TRAFFIC SERVICES*

DESCRIPTION

Removal (by paint or chemicals) of unsightly markings from bridges, barrier walls, signs and other structures within the right-of-way. Does not include the efforts of washing signs (Activity 522).

PURPOSE

To maintain the aesthetic quality of the State Highway System and the readability of signs. To remove undesirable distractions from the roadway environment.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Paint over or apply chemicals to the defaced areas to restore to a like original condition. If painting is necessary, use a shade that approximates the color of the surrounding area.
3. Clean up work site, and dispose of any hazardous materials or rags in an approved area.
4. Complete crew report before moving to the next site.
5. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

***** All referenced publications shall be current edition with supplements *****

1. Manual on Uniform Traffic Control Devices (MUTCD)
2. FDOT Roadway and Traffic Design Standard Index 600 Series.
3. BT 07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3)
4. Maintenance Rating Program Manual (Procedure No. 850-065-002)

ACTIVITY NO. 540

MRP CRITERIA

Refer to Traffic Services element "signs less than or equal to 2.79 m^2 (30 sq. ft.) and signs greater than 2.79 m^2 (30 sq. ft.)

Signs shall be reflective and possess sufficient contrast to convey message and function as intended on day or night inspection.

$\leq$ 2.79 m^2 (30 sq. ft) - 95% of the signs are functioning as intended
$>$ 2.79 m^2 (30 sq. ft.) - 85% of the signs are functioning as intended

METHOD OF REPORTING

1. Measure and report the area restored to the nearest hundredth.
2. Use the following formula; length (m) x width (m) = m^2, or length (ft.) X width (ft.) = sq. ft.
3. Refer to conversion chart no. 6 - m (3).

REPORTING UNITS = Square meters (square feet)

PERSONNEL			EQUIPMENT		
CLASS CODE	**NO.**	**SKILL CLASS**	**FLEET CODE**	**NO.**	**EQUIPMENT DESCRIPTION**
9760	1	OMST III	1201	1	Sign truck w/platform
9740	1	OMST I	3220	1	High Pressure Sewer Cleaner, Trailer Mounted
		Safety and Traffic Control Assistance as Required	9270	1	Arrow Board

SMALL TOOLS

Various Hand Tools
Paint Brushes and Rollers
Rags
Measuring Devices
Ladder
Drop Cloth
Personal Safety Equipment
Work Signs and Safety Equipment

MATERIAL

Litter Bags
Paint (Non-lead)
Water
Chemicals (Non-Toxic

EFFECTIVE DATE

July 1, 1996

APPROVED BY

W. F. Gilbreath
State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

INTERMEDIATE MACHINE MOWING	MMS ACTIVITY : *484* MRP: *VEGETATION and AESTHETICS*

DESCRIPTION

The intermediate machine mowing of areas (using mowers greater than 1 m (40") and less than 2 m (7') too difficult to mow with larger mowers and not practical for small mowers.

PURPOSE

To improve the safety, appearance and drainage of the highway facility.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Service equipment for intermediate mowing operations.
3. Pick up litter prior to mowing.
4. Proceed with cutting operations in accordance with established procedures and appropriate publication listed below.
5. Complete crew report before moving to new site.
6. Move work signs and safety equipment to new site.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 600 Series
3. FDOT "Guide to Roadside Mowing" handbook.
4. M 104-4 Standard Maintenance Special Provisions.
5. BT 07-0022 Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. Roadside Mowing Guide, Self-Study BT 07-0010.
7. Turf Management, Self-Study BT 07-0013.
8. Guide to Turf Management (Procedure No. 850-060-004).
9. Training for Small/Intermediate Mowing Equipment (BT 07-0026).
10. Maintenance Rating Program Manual (Procedure No. 850-065-002).

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

MISCELLANEOUS SLOPE AND DITCH REPAIR	MMS ACTIVITY : *437* MRP: *ROADSIDE and DRAINAGE*

DESCRIPTION

Repair of slopes in cut or fill sections around retaining wall and large erosion areas in ditches where problem is outside the realm of normal shoulder, slope or ditch maintenance. Report fertilizing, seeding and mulching to Activity 435. Report Sodding to Activity 433.

PURPOSE

To protect the roadway, eliminate drainage problems and restore proper grade of slope and ditch.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Repair slopes and ditches in accordance with specifications, standards, special provision and training resources listed below.
3. Clean up work site.
4 Complete crew report before moving to next site.
5. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

***** All referenced publications shall be current with supplements *****

1. Manual on Uniform Traffic Control Devices (MUTCD)
2. FDOT Roadway Traffic Design Standard - Index 104, 105, 577, 281, & 600 Series
3. FDOT Standard Specifications - Section 577
4. M 570 Standard Maintenance Special Provisions
5. Maintenance Rating Program Manual (Procedure No. 870-065-002)

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

HIGHWAY LIGHTING MAINTENANCE	MMS ACTIVITY : *787* MRP: *TRAFFIC SERVICES*

DESCRIPTION

Make repairs to the highway lighting system to keep it at an operational level. This will include both routine maintenance and repairs for knock downs, lightning damage and other outages.

PURPOSE

To maintain a lighting system that will service the needs of the driver and to protect the investment in the system.

SCHEDULING FREQUENCY

A patrol of the system will be made a minimum of every 14 days and repair work will be determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Perform routine maintenance observations as necessary.
3. Repair or replace lighting equipment in accordance with established and appropriate publications listed below.
4. Clean up work site.
5. Complete crew report before moving to new site.
6. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 600, 17500 thru 17505 series.
3. FDOT Standard Specifications for Roadway and Bridge construction 715, and 992 series.
4. M 715 Standard Maintenance Special Provisions.
5. BT 07-0022 Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 787

MRP CRITERIA

Refer to Traffic Services Element under "Lighting".

90% of the total luminaries for both sign and highway lightning are functioning as intended..

METHOD OF REPORTING

1. Number of workers x hours worked = total hours (to include safety hours worked).
2. Report to the nearest hundredth (1.00, 0.75, 0.50, 0.25)
3. Refer to conversion chart no. 2

REPORTING UNITS = hours

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9760	1	OMST - III
9740	1	OMST I
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1220	1	Aerial Elbow, Truck Mounted (Mtd. 600 lb. 45 ft. Reach) Bucket Truck As Needed

SMALL TOOLS

Volt/OHM multi-meter
Miscellaneous hand tools
Work signs and safety equipment
Personal Safety Equipment

MATERIAL

Varies

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

MOTORIST AID CALL BOX SYSTEM SERVICE AND REPAIR	MMS ACTIVITY : *779* MRP: *NONE*

DESCRIPTION

All work performed on the Motorist Aid Call Box system.

PURPOSE

To assure the reliable operation of the Motorist Aid Call Box System which serves to assist the motoring public.

SCHEDULING FREQUENCY

Call Boxes will be serviced every 45 days and other related components as determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Perform necessary testing in accordance with established and appropriate publications listed below.
3. Service units and replace components in accordance with established and appropriate publications listed below.
4. Clean up work site.
5. Complete crew report before moving to new site.
6. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 600.
3. BT 07-0022 Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
4. Motorist Aid System Testing and Routine Maintenance (Procedure No. 850-055-035).

ACTIVITY NO. 779

MRP CRITERIA

NONE

METHOD OF REPORTING

Report number of call boxes serviced or repaired.

REPORTING UNITS = each

PERSONNEL			EQUIPMENT		
CLASS CODE	**NO.**	**SKILL CLASS**	**FLEET CODE**	**NO.**	**EQUIPMENT DESCRIPTION**
9760	1	OMST - III *Safety and traffic control assistance as required*	0311	1	Long Wheelbase Van

SMALL TOOLS

Wattmeter
Voltmeter
Communications monitor
AC voltmeter
Midi-console
Loop back translator
Dual trave storage oscilloscope
Frequency counter
Two way radio on FHP frequency
Call box test rig
72 MHZ test receiver
Audio frequency generator
Inverter power supply
Miscellaneous hand and power tools
Personal Safety Equipment

MATERIAL

Aluminum poles
Signs
Concrete
Bolts
Electronic components

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. H. Albaugh

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

REST AREA MAINTENANCE	MMS ACTIVITY : *544* MRP: *NONE*

DESCRIPTION

To include all activities related to the general servicing, cleaning and maintenance of rest areas or wayside parks and fishing catwalks. This includes cleaning tables and restrooms, picking up debris and litter in the area, collecting garbage from containers, mowing, etc.

PURPOSE

To maintain a desirable appearance and sanitary condition in rest areas.

SCHEDULING FREQUENCY

Activities in the rest area should be scheduled as often as necessary to maintain the facility in a neat and clean appearance for the traveling public.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Perform janitorial type duties cleaning restrooms and tables.
3. Pick up any debris and litter in the area and insure proper disposal.
4. Mow grass to within established and approved publications as listed below.
7. Clean up work site.
8. Complete crew report before moving to new site.
9. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 530 and 600.
3. FDOT "Guide to Roadside Mowing" handbook.
4. BT 07-0022 Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).

ACTIVITY NO. 544

MRP CRITERIA

NONE

METHOD OF REPORTING

1. Number of workers x hours worked = total hours (to include safety hours worked).
2. Report to the nearest hundredth (1.00, 0.75, 0.50, 0.25)
3. Refer to conversion chart no. 2

REPORTING UNITS = hours

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9750	1	OMST - II
9740	3	OMST - I
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1100	1	Crew Cab Truck , 2 Ton
		Mowing Equipment As Needed

SMALL TOOLS

Various small hand tools
Personal Safety Equipment
Work Signs and Safety Equipment
Power Hedger
Push Mower
Edger
Mechanical Weed Cutter

MATERIAL

Litter bags
Cleaning Items

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

RAISED PAVEMENT MARKER REPLACEMENT	MMS ACTIVITY : *537* MRP: *TRAFFIC SERVICES*

DESCRIPTION

Installation or removal of raised pavement markers.

PURPOSE

Provide daytime and nighttime delineation of travel lanes..

SCHEDULING FREQUENCY

As determined by the Work Needs Survey (daytime and nighttime survey).

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Determine location for placement of markers in accordance with established and appropriate publications listed below.
3. After removing defective raised pavement marker(s), use proper method for cleaning pavement areas to provide a good surface to install markers.
4. Place markers in accordance with established and appropriate publications listed below.
5. Use traffic cones to protect markers from traffic until adhesive is dry, if necessary.
7. Clean up work site.
8. Complete crew report before moving to new site.
9. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 600, and 17352 series.
3. FDOT Standard Specifications for Roadway and Bridge construction Section 706 thru 707.
4. MM 706 Standard Maintenance Special Provisions.
5. BT 07-0022 Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 537

MRP CRITERIA

Refer to Traffic Services Element under "Raised Pavement Markers".

70% of required markers must be functional (reflective). No more than 36.6 m (120') of continuous centerline or laneline can be without a reflective marker.

METHOD OF REPORTING

Report the number of raised pavement markers installed or removed.

REPORTING UNITS = each

PERSONNEL			EQUIPMENT		
CLASS CODE	**NO.**	**SKILL CLASS**	**FLEET CODE**	**NO.**	**EQUIPMENT DESCRIPTION**
9750	1	OMST - II	0520	1	Crew Cab Pickup, 3/4 Ton
9740	3	OMST - I	9200	1	Generator (under 25 kw)
		Safety and traffic control assistance as required	1100	1	Crew Cab with Flashing Arrow, 2 Ton

SMALL TOOLS

Small hand tools
Brooms
Putty knife
Portable adhesive dispensing unit
Work signs and safety equipment
Personal Safety Equipment

MATERIAL

Raised pavement markers
Epoxy or bitumen adhesive
Thinner
Litter bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

PAVEMENT SYMBOLS	MMS ACTIVITY : *534* MRP: *TRAFFIC SERVICES*

DESCRIPTION

Installation, refurbishing, or removal of symbols, school markings, railroad markings, crosswalks, stop bars, pavement arrows and related traffic control markings.

PURPOSE

To be used in conjunction with overhead and roadside signs to convey warnings or information to the motorist without diverting attention from the roadway.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Establish location for symbol installation, refurbishing, or removal.
3. Clean area with broom prior to placement.
4. Place stencil on area to be marked.
5. Plastic: Apply thermoplastic compound. Add glass beads as required.
   Paint: Apply paint to area. Apply glass beads as required.
   Tape: Apply primer, apply tape symbol, roll tape with brush roller.
6. Protect symbols during installation period with traffic cones or other devices.
7. Clean up work site.
8. Complete crew report before moving to new site.
9. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 600, 17344, 17345, and 17346 series.
3. FDOT Standard Specifications for Roadway and Bridge construction 711, and 713 series.
4. M 710-11, M 711 and M 711-7 Standard Maintenance Special Provisions.
5. BT 07-0022 Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 494

MRP CRITERIA

Refer to Vegetation and Aesthetics element under "Curb/Sidewalk Edge" and "Turf Conditions":

- Chemically control the encroachment of grass and/or weeds more than 152 mm (6") onto the sidewalk or curb for more than 3.0 m (10').
- Turf in the mowing area is 75 % free of the following undesired vegetation alone or in combination: 1. Cogon Grass, 2. Vasey Grass, 3. Johnson Grass, 4. Brooms edge, 5. Dog Fennel, 6. Ragweed, 7. Castor Bean, 8. Maidencane, 9. Rhodes Grass, 10. Goose Grass, 11. Unstabilized bare ground, 12. Spanish Needle.

No more than a cumulative 4.6 m^2 (50 Sq. Ft.) of bare ground should be present in the turf evaluation area or this characteristic does not meet desired maintenance conditions. Bare ground is defined as any single area 0.5 m^2 (5 Sq. Ft.) or more with no evidence of vegetation. Purposely stabilized areas (limerock, shell, etc.) shall not be considered as bare ground and not included in the turf evaluation.

METHOD OF REPORTING

Report liters (gallons)of mix applied.

REPORTING UNITS = liters (gallons)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9760	1	OMST - III
9740	1	OMST - I
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1010	1	2 - Ton Herbicide Carrier
3205	1	Pressure Sprayer (Chemical)
3120	1	Diesel Tractor Sprayer 3 Point Hook Up
1000	1	2 Ton Truck with Attenuator & Arrow Board

SMALL TOOLS

Spray Accessories
Various Hand Tools
Back Pack/Pump-up Garden Sprayer
Squeeze Type Spot Gun
Basal Injector
Portable Eye Wash Station
Personal Safety Equipment
Safety Work Signs

MATERIAL

Litter Bags
Herbicides
Additives

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. H. Albaugh

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

EDGING AND SWEEPING	MMS ACTIVITY : *545* MRP: *VEGETATION and AESTHETICS*

DESCRIPTION

Removal of vegetation and debris from the curb, gutter, sidewalk, and pavement edges.

PURPOSE

Provide a pleasing appearance to roadway and to remove vegetation and debris before it becomes unsightly or creates a safety or drainage problem.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Edge roadways, paved shoulders, curb, gutter, and sidewalk using a tractor mounted or power edger.
3. Remove material by manual or mechanical and/or shoveling.
4. Load material and haul to an approved site.
5. Pick up litter and place into litter bags and clean up work site.
6. Complete crew report before moving to the next site.
7. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

***** All referenced publications shall be current edition with supplements *****

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index 600 Series.
3. M110-32- Standard Maintenance Special Provisions (Roadside Litter Removal).
4. BT 07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
5. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 545

MRP CRITERIA

Refer to Vegetation and Aesthetics elements under:

- Curb/Sidewalk Edging - There is no encroachment of grass and debris for more than 152 mm (6") onto the curb or sidewalk for more than a continuous 3.0 m (10') or no deviation of soil or more than 102 mm (4") above or 51 mm (2") below the top of curb and sidewalk for more than 3.0 m (10').
- Traffic Services Standard for: Edge Striping - 70% of each line must function as intended. Grass growing over edge of lines will cause striping to fail MRP Standards.

METHOD OF REPORTING

1. Report the total length of edging for roadway, paved shoulders, curb, gutter and/or sidewalk actually completed.
2. Report to the nearest hundredth.
3. Refer to conversion chart no. 5 -m, (4)

REPORTING UNITS = kilometers (miles)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9760	1	OMST - III
9740	3	OMST - I
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1100	1	2-Ton Crew Cab
3120	1	55 H.P. Tractor w/ curb edger
2315	1	Skid Loader
4080	1	Trailer

SMALL TOOLS

Various Hand Tools
Hand Brooms (Road)
Edger (Gasoline Powered)
Power Weed-whacker
Gas powered Blower
Wheel Barrow
Shovels
Personal Safety Equipment
Work Signs and Safety Equipment

MATERIAL

Litter Bags
Gas/oil mix

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. A. Allbaugh
State Maintenance Engineer

ROUTINE MAINTENANCE ACTIVITIES

TRAFFIC SERVICES

ACTIVITY NO. 534

MRP CRITERIA

Refer to Traffic Services Element under "Pavement Symbols".

DAYTIME: 70% of the cumulative symbol area must function as intended.

NIGHTTIME: 70% of the cumulative symbol area must be reflective for a distance of 45.7 m (150') when using low beam headlights.

METHOD OF REPORTING

1. Report the square meters (square feet) of pavement symbols installed, refurbished, or removed to the nearest hundredth.
2. Refer to conversion chart nos. 18 - m, (18), 6 - m, (3).

REPORTING UNITS = Square meter squared (square feet)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9760	1	OMST - III
9740	3	OMST - I
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
0540	1	Crew Cab Truck with Symbol Body and Flashing Arrow
3211	1	Portable Striping Machine
3660	1	Line Remover
4080	1	Utility Trailer
9270	1	Flashing Arrow

SMALL TOOLS

Small hand tools
Brooms
Putty knife
Thermoplastic unit
Stencils
Metric Measuring Devices
Work signs and safety equipment
Personal Safety Equipment

MATERIAL

Litter bags
Thermoplastic
Glass beads
LP gas
Paint
Tape
Tape primer
Grinder blades

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. H. Allbaugh

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

PAVEMENT STRIPING (LARGE MACHINE)	MMS ACTIVITY: *532* MRP: *TRAFFIC SERVICES*

DESCRIPTION

Machine striping of longitudinal markings on pavement surface; includes paint lines and other material used for this purpose.

PURPOSE

To provide the visual information needed by the driver to steer a vehicle safely in a variety of situations.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Service equipment necessary for striping operations.
3. Load necessary material for entire day's operation.
4. Survey roadways to be striped to determine traffic conditions.
5. Begin striping operations and adjust equipment as necessary to provide a finished product according to established and appropriate publications listed below.
6. Clean up work site.
7. Complete crew report before moving to new site.
8. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 17344, 17345, 17346 and 600 series.
3. FDOT Standard Specifications for Roadway and Bridge Construction 709, 710, 711 and 713 series.
4. M 710, M 710-11, M 711 and M 711-7 Standard Maintenance Special Provisions.
5. BT 07-0022 Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 532

MRP CRITERIA

Refer to Traffic Services Element under "Striping".

DAYTIME: Each line must have 70% of the length and width functioning as intended.

NIGHTTIME: With low beam headlights, at least 76 mm (3") of the width of each line must be reflective for 45.7 m (150')

METHOD OF REPORTING

1. Report the line length striped to the nearest hundredth.
2. Refer to conversion chart no. 5 - m, (4), 17 - m, (17).

REPORTING UNITS = line kilometers (line miles)

PERSONNEL			EQUIPMENT		
CLASS CODE	**NO.**	**SKILL CLASS**	**FLEET CODE**	**NO.**	**EQUIPMENT DESCRIPTION**
9760	3	OMST - III	0311	1	Club Wagon
9750	1	OMST - II	1310	1	Centerline Support Truck
9740	1	OMST - I	1301	1	Centerline Truck
			4410	1	Follow truck w/attenuator w/arrow
		Safety and traffic control assistance as required			

SMALL TOOLS

Brooms
Shovels
Hand agitator
Small hand tools
Measuring Devices
Work signs and safety equipment
Personal Safety Equipment

MATERIAL

Traffic paint or other material
Glass beads
Paint solvent (if required)
Litter bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. H. Allen

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

DELINEATORS AND TYPE 2 OBJECT MARKERS	MMS ACTIVITY : *519* MRP: *TRAFFIC SERVICES*

DESCRIPTION

Installation, replacement, repair and maintenance of flexible and nonflexible roadside delineators and Type 2 Object Markers.

PURPOSE

To maintain a system of delineators to guide motorists and other facility users of the roadway alignment and to mark roadside objects.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Install, replace, or repair delineators and markers in accordance with established and appropriate standards.
3. Clean up work site.
4. Complete crew report before moving to new site.
5. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

***All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Indexes 600 Series, 17302, 17345, 17346 17349, 17353, 17359.
3. FDOT Standard Specifications for Road & Bridge Construction - Section 705 & 993.
4. M 705 Standard Maintenance Special Provisions.
5. BT-07-0022 -Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. Florida DOT Sign Installation Manual for Single and Double Post Ground Signs.
7. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 519

MRP CRITERIA

Refer to Traffic Services Element under "Object Markers".

80% of the combined total of delineators and object markers must function as intended for height, horizontal placement, condition and reflectivity.

METHOD OF REPORTING

1. Report the number of units installed, replaced or repaired to the nearest hundredth.
2. Refer to conversion chart no. 14

REPORTING UNITS = each

PERSONNEL			EQUIPMENT		
CLASS CODE	**NO.**	**SKILL CLASS**	**FLEET CODE**	**NO.**	**EQUIPMENT DESCRIPTION**
9760	1	OMST - III	0520	1	Pickup Truck with flashing arrow
9740	1	OMST - I			
		Safety and traffic control assistance as required			

SMALL TOOLS

Miscellaneous hand tools
Post driver
Work signs and other safety devices
Measuring Devices
Personal Safety Equipment

MATERIAL

Delineators
Posts
Miscellaneous hardware
Litter bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

SIGNS, Ground Signs 2.79 m² (30 sq. ft.) or Less	MMS ACTIVITY : *520* MRP: *TRAFFIC SERVICES*

DESCRIPTION

Installation, replacement, repair, overlay and maintenance of signs, Type 1 & 3 object markers, sign posts, and the repair and maintenance of small structures.

PURPOSE

To maintain a system of signs to regulate, warn, and guide the motorist and other facility users.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Install, replace, repair, or overlay small signs and Type 1 & 3 object markers, sign posts, and small sign structures as required in accordance with established and appropriate publications listed below.
3. Clean up work site.
4. Complete crew report before moving to new site.
5. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 600, 9535 thru 17356 Series.
3. FDOT Standard Specifications for Roadway and Bridge Construction 700, 994, 995 & 996.
4. MM 700 Standard Maintenance Special Provisions.
5. BT 07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. FDOT Sign Installation Manual for Single and Double Post Ground Signs.
7. Maintenance Rating Program Manual (Procedure No. 850-065-002).
8. Single and Multi-Post Sign Inspection (Procedure No. 850-055-025).

ACTIVITY NO. 520

MRP CRITERIA

Refer to Traffic Services element under "Signs Less Than or Equal to 2.79 m^2 (30 sq. ft.)."

95% of signs must function as intended for height, horizontal placement, condition, and reflectivity.

METHOD OF REPORTING

Report the equivalent units to the nearest hundredth as determined by referring to conversion chart nos. 14 and 15.

REPORTING UNITS = units

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9760	1	OMST - III
9740	1	OMST - I
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1201	1	Sign Truck, Platform
		or
1202	1	Sign Truck, Hydraulic Boom

SMALL TOOLS

Miscellaneous hand tools
Post hole diggers
Tamps
Shovels
Stepladder
Mechanical auger
Mechanical driver
Measuring Devices
Miscellaneous power tools
Work signs and safety equipment
Personal Safety Equipment

MATERIAL

Signs
Posts
Miscellaneous hardware
Pre-mixed concrete
Litter bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. H. Dilbeck

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

LARGE SIGNS [GROUND SIGNS Over 2.79 m^2 (30 sq. ft.)]	MMS ACTIVITY : *521* MRP: *TRAFFIC SERVICES*

DESCRIPTION

Replacement, repair, overlay of large ground signs over 2.79 m^2 (30 sq. ft.) and all overlane and cantilever signs. Also includes bolt tightening and torquing. Installation of new large sign structures should be charged to special project job numbers.

PURPOSE

To safely control and expedite traffic movement and assist the motorist with information on routing, directions and destinations.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards,
2. Install, replace, repair, or overlay large signs including all overlane and cantilever signs as required in accordance with established and appropriate publications listed below.
3. Clean up work site.
4. Complete crew report before moving to new site.
5. Pickup work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 600, 9535 thru 17356 Series.
3. FDOT Standard Specifications for Roadway and Bridge construction 700, 994, 995 & 996.
4. M 700 Standard Maintenance Special Provisions.
5. BT 07-0022 Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. FDOT sign installation manual.
7. Maintenance Rating Program Manual (Procedure No. 850-065-002).
8. Single and Multi-post Sign Inspection (Procedure No. 850-055-025).

ACTIVITY NO. 521

MRP CRITERIA

Refer to Traffic Services element under "Signs Greater Than 2.79 m^2 (30 sq. ft.)".

85% of signs must function as intended for height, horizontal placement, condition, and reflectivity.

METHOD OF REPORTING

1. Report the units replaced or repaired to the nearest hundredth in the same manner as for Standard 520, using conversion chart nos. 14 and 15.
2. A panel is defined as a construction panel or post. All assembly time should be reported to this activity.
3. Report post replacement same as Standard 520.
4. Any miscellaneous work done on any concrete footing, overlane , cantilever structure, or cable replacement is part of this activity.
5. Report post bolt torquing as post straightening using converson chart no. (14).

REPORTING UNITS = units

PERSONNEL			EQUIPMENT		
CLASS CODE	**NO.**	**SKILL CLASS**	**FLEET CODE**	**NO.**	**EQUIPMENT DESCRIPTION**
9760	1	OMST - III	1202	1	Sign Truck, Hydraulic Boom
9740	3	OMST - I	0520	1	Pickup with Flashing Arrow
			1220	1	45' Bucket Truck
		Safety and traffic control assistance as required			

SMALL TOOLS

Miscellaneous power tools
Miscellaneous hand tools
Ladder
Personal Safety Equipment
Measuring Devices
Work sign and safety equipment

MATERIAL

Signs
Miscellaneous hardware
Litter bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

SIGN CLEANING	MMS ACTIVITY : *522* MRP: *TRAFFIC SERVICES*

DESCRIPTION

The routine cleaning of signs with a detergent and water solution. Not to include roadside delineators.

PURPOSE

To clean the sign face to prolong the serviceable life of the sign and increase visibility.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Standards.
2. Clean both small and large signs by applying water and a mild detergent to the face area of signs, brushing it with a soft bristle brush, and rinsing the area with clean water.
3. Complete crew report at the end of each site and prior to moving to new site.
4. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 600, 9535 thru 17356 Series.
3. FDOT Standard Specifications for Roadway and Bridge construction 700, 994, 995 & 996.
4. M 700 Standard Maintenance Special Provisions.
5. BT 07-0022 Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 522

MRP CRITERIA

Refer to Traffic Services element under "Signs greater than 2.79 m^2 (30 sq. ft.)" and "Signs less than or equal to 2.79 m^2 (30 sq. ft.)".

85% of "Signs greater than 2.79 m^2 (30 sq. ft.)" and 95% of "Signs less than or equal to 2.79 m^2 (30 sq.ft.)" must be reflective and possess sufficient contrast to convey message and function as intended on day and night inspection. All signs shall show the same shape and color both by day or night.

METHOD OF REPORTING

1. Report each unit washed.
2. Each is defined as a panel described in MMS Activity 520 and 521.
3. Refer to conversion chart nos. 15 - m, (15), 16 - m, (16).

REPORTING UNITS = units

PERSONNEL			EQUIPMENT		
CLASS CODE	**NO.**	**SKILL CLASS**	**FLEET CODE**	**NO.**	**EQUIPMENT DESCRIPTION**
9740	2	OMST - I *Safety and traffic control assistance as required*	0520	1	3/4 Ton Pickup Truck

SMALL TOOLS

Soft bristle brushes
Sprayer
Ladder
Personal Safety Equipment

MATERIAL

Water
Detergent
Litter bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. H. Dunlap

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

GUARDRAIL REPAIR	MMS ACTIVITY : *526* MRP: *TRAFFIC SERVICES*

DESCRIPTION

Repair or replacement of damaged or deteriorated guardrail and components (blocks, bolts, reflectors, posts, ect.). New installation of (additional) guardrail should be charged to betterment projects.

PURPOSE

To redirect vehicles away from various obstructions or dropoffs adjacent to the travelway.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Remove defective sections of guardrail and/or components.
3. Repair or replace damaged sections as required in accordance with established and appropriate publications listed below.
4. Clean up work site.
5. Complete crew report before moving to new site.
6. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 400, 401, and 600 series.
3. FDOT Standard Specifications for Roadway and Bridge Construction: 536,538, and 993 series.
4. M 536 and MM 538 Standard Maintenance Special Provisions.
5. BT 07-0022 Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. Maintenance Rating Program Manual (Procedure No. 850-065-002).
7. Guardrail Inspection (Procedure No. 850-050-003).

ACTIVITY NO. 526

MRP CRITERIA

Refer to Traffic Services Element under "Guardrail".

1. All posts, offset blocks, panels, and connection hardware shall be in place.
2. Height must be 533 mm (21") as measured from the center of the panel. Any section that is above or below the desired elevation, plus or minus 51 mm (2") for a continuous 7.6 m (25') does not meet desired conditions.
3. Miscellaneous repair of guardrail will be reported as follows: .3m (1 linear foot) production for every 3.8 m (12.5') of miscellaneous repair.

METHOD OF REPORTING

Report the length in meters (linear feet) for guardrail replaced, repaired, or realigned.

REPORTING UNITS = meters (linear feet)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9750	1	OMST - II
9740	3	OMST - I
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1100	1	Crew Cab Truck

SMALL TOOLS

Post hole diggers
Tamps
Shovels
Miscellaneous
Mechanical auger
Air or hydraulic post driver
Measuring Devices
Work signs and safety equipment
Personal Safety Equipment

MATERIAL

Guardrail panels
Posts
Miscellaneous hardware
Litter bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. H. Dorough

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

ROUTINE ATTENUATOR INSPECTION AND SERVICE	MMS ACTIVITY : *530* MRP: *TRAFFIC SERVICES*

DESCRIPTION

The uniform and timely inspection and service of all attenuator units on the State Highway System. Type I and Type II inspections will be conducted by qualified engineering personnel and be charged to Activity 197. Damaged attenuators requiring repairs should be reported to MMS Activity 531.

PURPOSE

To maintain the integrity of and maximize the performance potential of each attenuator.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Clean and remove sand, debris, or vegetation from around the attenuator.
3. Inspect for deterioration or damage of attenuator elements (refer to appropriate Type I or Type II inspection checklist).
4. Service unit and replace parts as appropriate according to established and appropriate publications listed below.
5. Clean up work site.
6. Complete crew report before moving to new site.
7. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on uniform traffic control devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 431, 432, 433, 437, 438, 439, 993 and 600 series.
3. FDOT Standard Specifications for Roadway and Bridge construction 536,538, and 993 series.
4. M 544 Standard Maintenance Special Provisions.
5. BT 07-0022 Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. Maintenance Rating Program Manual (Procedure No. 850-065-002).
7. Reporting Attenuator Inventory and Inspection (Procedure No. 850-055-003).

ACTIVITY NO. 530

MRP CRITERIA

Refer to Traffic Services Element under "Attenuators".

Each device must function as intended and has a type II inspection rating of good.

METHOD OF REPORTING

Report number of attenuators inspected and serviced.

REPORTING UNITS = each

PERSONNEL			EQUIPMENT		
CLASS CODE	**NO.**	**SKILL CLASS**	**FLEET CODE**	**NO.**	**EQUIPMENT DESCRIPTION**
9760 9740	1 1	OMST - III OMST - I *Safety and traffic control assistance as required*	1100	1	Crew Cab Truck with Water Tank and Pump; Truck Mounted Flashing Arrow

SMALL TOOLS

Generator
Power drill
Wrenches (box & ratchet)
Grease gun
Miscellaneous hand tools
chain or tape
Shovels
Brooms
Water hose
Rivet Gun
Ratchet Puller
Manufacturer's Handbooks
Work Signs and Safety Equipment
Personal Safety Equipment

MATERIAL

Water
Sand
Paint
Litter bags
Miscellaneous hardware
Miscellaneous attenuator parts

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. J. Albaugh

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

ATTENUATOR REPAIR	MMS ACTIVITY : *531* MRP: *TRAFFIC SERVICES*

DESCRIPTION

Repair to traffic attenuators due to accident damage or deterioration. The original installation of attenuators will be charged to Activity 993.

PURPOSE

To provide highway safety for vehicular traffic.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Repair, refurbish and/or replace attenuator components in accordance with manufactures guidelines and established/appropriate publications listed below.
3. Install components considered necessary to maintain or improve the system, i.e., debris skirts, improved tops, weather stripping, cartridge covers, flex-belt, etc. In according to established/appropriate publications listed below.
4. Clean up work site.
5. Complete crew report before moving to new site.
6. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 431, 432, 433, 437, 438, 439, and 600 series.
3. FDOT Standard Specifications for Roadway and Bridge construction 993 series.
4. MM 544 Standard Maintenance Special Provisions.
5. BT 07-0022 Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 531

MRP CRITERIA

Refer to Traffic Services Element under "Attenuators".

Each device must function as intended and has a type II inspection rating of good.

METHOD OF REPORTING

Report each attenuator repaired or replaced.

REPORTING UNITS = each

PERSONNEL			EQUIPMENT		
CLASS CODE	**NO.**	**SKILL CLASS**	**FLEET CODE**	**NO.**	**EQUIPMENT DESCRIPTION**
9760 9740	1 3	OMST - III OMST - I *Safety and traffic control assistance as required*	1100	1	Crew Cab Truck with Truck Mounted Flashing Arrow

SMALL TOOLS

Wrenches
Rivet gun
Shovels
Water hose
Brooms
Various hand tools as necessary
Work signs and safety equipment
Manufacturer's handbook(s)
Ratchet puller
Welder & cutting torch
Measuring Devices
Personal Safety Equipment

MATERIAL

Sand
Water
Paint
Litter bags
Miscellaneous hardware
Miscellaneous attenuator components

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

State Maintenance Engineer

ACTIVITY NO. 482

MRP CRITERIA

Refer to Vegetation and Aesthetics element under "Slope Mowing".

No more than 2% of vegetation exceeds 610 mm (24") in height for slope mowing areas defined in the FDOT mowing guide. Bahia seed stalks and decorative wild flowers excepted.

METHOD OF REPORTING

1. Report the areas cut to the nearest hundredth.
2. $\frac{\text{Length (m) x Height (m) or Width (m)}}{10{,}000\ m^2}$ = hectares or $\frac{\text{Length (ft)xHeight (ft.)Or width (ft.)}}{43{,}560\ \text{sq. ft.}}$ = acres
3. Refer to conversion chart no. 8 - m, (8), 9 - m.

REPORTING UNITS = hectares (acres)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9740	2	OMST - I
		Safety and Traffic Control Assistance as required.

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1002	1	2 Ton Flatbed (LWB)
3121	1	Diesel Tractor 68 H.P.
3132	1	Extension Boom Mower
4020	1	Trailer (18,000 lb. Min.)
3125	1	LCG Tractor - Wheel Diesel
3031	1	Mower 6' offset flail

SMALL TOOLS

Brush hooks
Pitchforks
Measuring Devices
Work signs and safety equipment
Chain saw
Mechanical weed cutter
Miscellaneous mechanics hand tools for on-the-job repair
Personal safety equipment

MATERIAL

Litter bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. H. Allen

State Maintenance Engineer

ACTIVITY NO. 484

MRP CRITERIA

Refer to vegetation and aesthetics element under "Roadside Mowing".

No more than 2% of vegetation exceeds 610 mm (24") on rural interstate, 457 mm (18") on urban interstate, and rural primary or 305 mm (12") on urban primary roadways. Bahia seed stalks and decorative wild flowers excepted.

METHOD OF REPORTING

1. Report the area mowed to the nearest hundredth.
2. Do not report overlapping or deadheading.
3. $\frac{\text{Length (m) x Width (m)}}{10{,}000\ m^2}$ = hectares or $\frac{\text{Length (ft)xWidth (ft.)}}{43{,}560\ \text{sq. Ft.}}$ = acres
4. Rever to conversion chart no. 8 - m, (8), 9 - m.
5. If litter removal operations exceed 0.5 crew hours, report to Activity 541.

REPORTING UNITS = hectares (acres)

PERSONNEL			EQUIPMENT		
CLASS CODE	**NO.**	**SKILL CLASS**	**FLEET CODE**	**NO.**	**EQUIPMENT DESCRIPTION**
9740	2	OMST - I	3100	1	Diesel Tractor
			3030	1	Mower 6' Flail Lift type
			4080	1	Utility Trailer - 5,000 lb. Min.
			0520	1	3/4 Ton Pickup Truck
		Safety and Traffic control assistance as required.			

SMALL TOOLS

Miscellaneous mechanic hand tools for on-job repairs
Work signs and safety equipment
Push mower
Mechanical weed cutter (small)
Measuring Devices
Personal safety equipment

MATERIAL

Litter bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY:

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

CHEMICAL WEED AND GRASS CONTROL	MMS ACTIVITY : *494* MRP: *VEGETATION and AESTHETICS*

DESCRIPTION

The application (handgun, basal or cut stump) of herbicides to slopes, ditches, fence, guardrail, barrier wall , reinforced earthen walls, sidewalks, bridges, curb and gutter, obstructions, shoulders, and other areas not accesscible to mowers. Not to include chemical applications within landscape or mitigation areas.

PURPOSE

To control undesirable vegetation when mechanical or manual methods are not practical.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Spray prepared mix according to Publications listed below.
3. Complete crew report before moving to the next site.
4. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

***** All referenced publications shall be current edition with supplements *****

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Indexes 600 Series.
3. Florida Statutes; Chapter 5E-2, 5E-9 FAC; Florida Statutes 16C-20 Rules of F.D.E.P.; Florida Pesticide Law & Rules, Chapter 487; Aquatic Plant Control Permits, Chapter 369.2.
4. M 580 - 3, Standard Maintenance Special Provisions (Chemical Weeds & Grass).
5. BT 07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. BT-07-0004, Herbicide Program Update Workshop
7. "A Guide to Chemical Weed and Grass Control".
8. Maintenance Rating Program Manual (Procedure No. 850-065-002).

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

SMALL MACHINE MOWING

MMS ACTIVITY : *485*
MRP: *VEGETATION and AESTHETICS*

DESCRIPTION

Mowing the roadside with small hand or riding mowers having a cutting width of 1 m (40") or less.

PURPOSE

To improve the safety, appearance and drainage of the highway facility.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Standards.
2. Service equipment for small machine mowing.
3. Pick up litter prior to mowing.
4. Proceed with cutting operations in accordance with established procedures and appropriate publications listed below.
5. Complete crew report before moving to new site.
6. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Index No. 600 Series
3. FDOT "Guide to Roadside Mowing" handbook.
4. M 104-4 Standard Maintenance Special Provisions.
5. BT 07-0022 Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. Roadside Mowing Guide Self-Study, BT 07-0010.
7. Turf Management, Self-Study, BT 07-0013.
8. Guide to Turf Management (Procedure No. 850-065-002).
9. BT 07-0026 Training for Small/Intermediate Mowing Equipment.
10. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 485

MRP CRITERIA

Refer to vegetation and aesthetics element under "Roadside Mowing".

No more than 2% of vegetation exceeds 610 mm (24") on rural interstate, 457 mm (18") on urban interstate, and rural primary or 305 mm (12") on urban primary roadways. Bahia seed stalks and decorative wild flowers excepted.

METHOD OF REPORTING

1. Report the area mowed to the nearest hundredth.
2. Do not report overlapping or deadheading.
3. $\frac{\text{Length (m) X Width (m)}}{10{,}000\ m^2}$ = hectares or $\frac{\text{Length (ft.)xWidth(ft.)}}{43{,}560\ \text{sq. ft.}}$ = acres
4. Refer to conversion chart no. 8 - m, (8), 9 - m.
5. If litter removal operations exceed 0.5 crew hours, report to Activity 541..

REPORTING UNITS = hectares (acres)

PERSONNEL			EQUIPMENT		
CLASS CODE	**NO.**	**SKILL CLASS**	**FLEET CODE**	**NO.**	**EQUIPMENT DESCRIPTION**
9740	2	OMST - I *Safety and Traffic Control assistance as required.*	3040 0520 4080	1 1 1	Self-Propelled Mower 3/4 Ton Pickup Truck Utility Trailer, Small

SMALL TOOLS

Miscellaneous mechanical hand tools for on-job repairs
Work signs and safety equipment
Push mower
Mechanical weed cutter (small)
Measuring Devices
Personal Safety Equipment

MATERIAL

Litter bags

EFFECTIVE DATE:

July 1, 1996

APPROVED BY

W. F. Allbaugh

State Maintenance Engineer

ACTIVITY NO. 493

MRP CRITERIA

Refer to Vegetation and Aesthetics standard for "Landscaping":

Vegetation is maintained in a healthy, attractive condition.

METHOD OF REPORTING

1. Measure the total area worked and report in m^2 (square yards) to the nearest hundredth.
2. Use the following formula; length (m) x width (m) = m^2 or length (Ft.) X width (Ft.) = square yards
3. See conversion chart no. 6 - m (6).

REPORTING UNITS = meters squared (square yards)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9750	1	OMST - II
9740	3	OMST - I
		Safety and traffic control assistance as required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1100	1	2 - Ton Crew Cab
4080	1	Utility Trailer

SMALL TOOLS

Various Hand Tools
Hedge Trimmers
Push/Self Propelled Mower
Shovels
Measuring Devices
Edger (Power)
Rakes
Mechanical Weed Cuter
Personal Safety Equipment
Work Signs and Safety Equipment

MATERIAL

Litter Bags
Fertilizer
Mulch
Plants

EFFECTIVE DATE:

July 1, 1996

APPROVED BY:

W. H. Pilbrough

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

LANDSCAPED AREA MAINTENANCE	MMS ACTIVITY : *493* MRP: *VEGETATION and AESTHETICS*

DESCRIPTION

All efforts required for proper maintenance of landscaped areas. Includes litter removal, mowing, edging, fertilizing, weeding, mulching, etc. Not to include any efforts with the planting or maintenance of Wildflowers.

PURPOSE

To maintain and enhance the appearance of landscaped areas.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

- Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
- Remove litter.
- Perform necessary mowing, trimming, weeding, mulching, fertilizing, and replacing of plants, etc.
- Clean up work site.
- Complete crew report before moving to the next site.
- Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

***** All referenced publications shall be current edition with supplements *****

- Manual on Uniform Traffic Control Devices (MUTCD).
- FDOT Roadway and Traffic Design Standard Indexes 545, 546, 580, 600 & 700 Series
- FDOT Standard Specifications for Road & Bridge Construction - Sections 100-3, & 580
- BT 07-0022 - Work zone Traffic Control for Maintenance and Utility Operations (Level 3).
- Highway Landscape Beautification and Plan Review (Procedure No. 650-050-001).
- Maintenance Rating Program Manual (Procedure No. 850-065-002).

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

WEED CONTROL (MANUAL)	MMS ACTIVITY : *487* MRP: *VEGETATION and AESTHETICS*

DESCRIPTION

Brush, weed and grass cutting 100 mm (4") or less in diameter performed with hand tools. Trimming or removal of vegetation greater than 100 mm (4") in diameter should be reported to Activity 492.

PURPOSE

To maintain the appearance, safety and drainage of the highway facility in areas that cannot be controlled by more economical means.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Cut only those areas that cannot be cut mechanically or controlled chemically.
3. Chip on site or load and haul cut vegetation to an approved disposal area.
4. Clean up work site.
5. Complete crew report before moving to the next site.
6. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

***** All referenced publications shall be current edition with supplements *****

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standards - Index 600.
3. BT 07-0022 Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
4. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY 487

MRP CRITERIA:

Refer to Vegetation/Aesthetics element, under "Turf Condition."
Turf in the mowing area is 75% free of undesired vegetation.

METHOD OF REPORTING

1. Report the total area mowed to the nearest hundredth.
2. Use $\frac{\text{Length (m) x Width (m)}}{10{,}000\ m^2}$ = hectares or $\frac{\text{Length (ft.)xWidth (ft.)}}{43{,}560\ \text{sq. ft.}}$ = acres
3. Refer to conversion chart no. 8 - m, (8), 9 - m.

REPORTING UNITS = hectares (acres)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9740	3	OMST - I
9750	1	OMST - II
		Safety and Traffic Control Assistance As Required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1100	1	2-Ton Crew Cab
3600	1	Wood Chipper, Trailer Mounted

SMALL TOOLS

Swing Blades
Brush Hooks
Pitchforks
Measuring Devices
Work signs and safety Equipment
Mechanical Weed Cutter (small)
Chain Saw
Personal Safety Equipment
Weed Eater
Machete
Rake

MATERIAL

Litter Bags
Gasoline
Oil
Other Material as Required

EFFECTIVE DATE

July 1, 1996

APPROVED BY

W. H. Albright

STATE MAINTENANCE ENGINEER

ACTIVITY NO. 492

MRP CRITERIA

Refer to Vegetation and Aesthetics standard for "Tree Trimming":

There is no encroachment of trees, tree limbs or vegetation in or over travelway or clear zone, lower than 4.4 m (14.5') or lower than 3.0 m (10') over sidewalks. If there is dead or dying vegetation next to or over a travelway or clear zone that could fall or otherwise present a hazard to pedestrians or vehicular traffic, then this characteristic does not meet maintenance conditions.

METHOD OF REPORTING

1. Number of personnel times the hours worked (regular + safety hours) = hours worked to the nearest hundredth (1.00, 0.25, 0.50, 0.75).
2. Refer to conversion chart no. 2

REPORTING UNITS = hours

PERSONNEL			EQUIPMENT		
CLASS CODE	**NO.**	**SKILL CLASS**	**FLEET CODE**	**NO.**	**EQUIPMENT DESCRIPTION**
9750	2	OMST - II	1220	1	45' Bucket Truck
9740	3	OMST - I	1100	1	2 - Ton Crew Cab
			3600	1	Wood Chipper, Trailer Mounted
			1510	1	Dump 8-10 Yds.
			3620	1	Stump Grinder *or*
		Safety and traffic control assistance as required	2310		Front-end loader, rubber tired with root rake

SMALL TOOLS

Hydraulic Power Tools
Shovels
Brush hooks
Pitchforks
Ropes
Chainsaws
Machetes
Personal Safety Equipment
Face Shield
Chaps
Measuring Devices
Work Signs and Safety Equipment

MATERIAL

Litter Bags
Pre - Mixed Gas & Oil
Bar Oil
Other Materials as needed

EFFECTIVE DATE:

July 1, 1996

APPROVED BY:

W. H. Dilworth

State Maintenance Engineer

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

TREE TRIMMING AND/OR REMOVAL	*MMS ACTIVITY: 492* *MRP: VEGETATION and AESTHETICS*

DESCRIPTION

Trimming trees and the removal of undesireable trees over 100 mm (4") in diameter. To include the chipping and/or removal of all debris; grinding and/or removal stumps. Trimming and removal of trees 100 mm (4") or less in diameter should be reported to Activity 487.

PURPOSE

Trim trees to maintain proper sight distance, vertical clearance, and growth encroachment near travel lanes, sidewalks and other appropriate facilities.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Cut and remove all undesireable trees and limbs encroaching into clear zone or blocking travelways.
3. Cut and remove all dead vegetation that could fall or present a hazard outside the clear zone.
4. Chip on site or haul away debris and dispose in an authorized area.
5. Remove or grind stumps 152 mm (6") below ground within mowing areas and/or clear zones.
6. Clean up work site.
7. Complete crew report before moving to the next site.
8. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

***** All referenced publications shall be current edition with supplements *****

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standard Indexes 546, 600, & 700 Series.
3. FDOT Standard Specifications for Road & Bridge Construction - Sections 110-2, & 100-3.
4. MM 110 - Standard Maintenance Special Provisions (Clearing and Grubbing).
5. BT 07-0022 - Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
6. Maintenance Rating Program Manual (Procedure No. 850-065-002).

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

WILDFLOWERS	MMS ACTIVITY : *489* MRP: *VEGETATION and AESTHETICS*

DESCRIPTION

All efforts required to plant and maintain wildflower areas.

PURPOSE

To propagate new stands of wildflowers as well as preserve existing stands along roadside and other visible areas.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Refer to applicable specifications listed below.
3. Clean up work site.
4. Complete crew report before moving to the next site.
5. Pick up work signs and other safety equipment.

SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS,PROCEDURES and TRAINING RESOURCES

***** All referenced publications shall be current edition with supplements *****

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standards - Index 600.
3. BT 07-0022 Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
4. Wildflower Procedure - (850-060-001).
5. A guide to Chemical Weed and Grass Control manual.
6. Maintenance Rating Program Manual (Procedure No. 850-065-002).

ACTIVITY NO. 490

MRP CRITERIA:

Refer to Vegetation/Aesthetics element, under: "Turf Condition"

Turf in the mowing area is 75% free of undesired vegetation.

METHOD OF REPORTING

1. Report the metric tons (U. S. tons) of fertilizer used.
2. Report to the nearest hundredth.

REPORTING UNITS = metric tons (U. S. tons)

PERSONNEL			EQUIPMENT		
CLASS CODE	**NO.**	**SKILL CLASS**	**FLEET CODE**	**NO.**	**EQUIPMENT DESCRIPTION**
9740	2	OMST - I	1001	1	2 Ton Flatbed
			3121	1	Tractor Diesel (68 HP)
			3301	1	Fertilizer Distributor (Spinner Type)
			3305	1	Bulk Truck mounted distributor 3/4 Ton
			0520	1	3/4 Ton Pickup with mounted flashing arrow
		Safety and traffic control assistance as required	1001	1	2 Ton Truck with attenuator & flashing arrow board

SMALL TOOLS

Various Hand Tools as necessary
Work signs and safety Equipment
Personal Protective Equipment
Measuring Devices

MATERIAL

Fertilizer
Litter Bags

EFFECTIVE DATE

July 1, 1996

APPROVED BY

W. A. Albaugh

State Maintenance Engineer

ACTIVITY 489

MRP CRITERIA:

Refer to Vegetation/Aesthetics element, under "Landscaping"
Vegetation is maintained in a healthy, attractive condition.

METHOD OF REPORTING

1. Site Preparation.
   A. Area treated with Non-Selective Herbicide - Report area planted to the nearest hundredth.
   B. Mulching - Report area to the nearest hundredth.
2. Planting
   A. Areas planted mechanically or manually and dragged with device to incorporate seed - Report area to the nearest hundredth.
3. Maintenance
   A. Irrigation - Report area to the nearest hundredth.
   B. Fertilization - Report area to the nearest hundredth.
   C. Selective Chemical Weeding - Report area to the nearest hundredth.
4. Refer to conversion chart no. 8 - m, (8), 9 - m.

REPORTING UNITS = hectares (acres)

PERSONNEL

CLASS CODE	NO.	SKILL CLASS
9740	2	OMST - I
		Safety and Traffic Control Assistance As Required

EQUIPMENT

FLEET CODE	NO.	EQUIPMENT DESCRIPTION
1010	1	Herbicide Spray System
3120	1	Diesel Tractor 55 H.P.
3030	1	Flail Mower
0520	1	3/4 Ton Pickup
3610	1	Seeder (Optional)
	1	Portable Water Supply

SMALL TOOLS

Various Hand Tools
Back Pack Sprayers
Dragging Device
Work signs and safety equipment
Personal Safety Equipment
Measuring Devices

MATERIAL

Wildflower seeds
Fertilizer
Water
Herbicide - Selective and Non-Selective
Other Additives
Litter Bags

EFFECTIVE DATE

July 1, 1996

APPROVED BY

STATE MAINTENANCE ENGINEER

FLORIDA DEPARTMENT OF TRANSPORTATION
MAINTENANCE MANAGEMENT SYSTEM
ROUTINE MAINTENANCE ACTIVITY

FERTILIZING

MMS ACTIVITY : *490*
MRP: *VEGETATION and AESTHETICS*

DESCRIPTION

Fertilizing to provide required nutrients to establish and maintain an acceptable roadside turf. Not to include fertilizing operations completed in conjunction with any other activity.

PURPOSE

To establish and maintain fertile soil conditions which will support healthy ground cover.

SCHEDULING FREQUENCY

As determined by the Work Needs Survey.

RECOMMENDED WORK SEQUENCE

1. Place work zone traffic control devices in accordance with the MUTCD and Series 600 of the FDOT Roadway and Traffic Design Standards.
2. Spread fertilizer uniformly at the application rate designated by results of soil testing.
3. Complete crew report before moving to the next site.
4. Pick up work signs and other safety equipment.

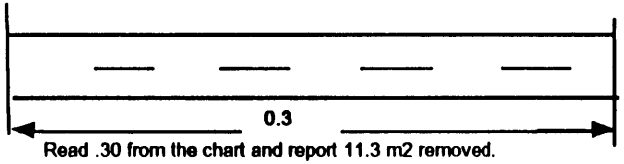
SPECIFICATIONS, STANDARDS, SPECIAL PROVISIONS, PROCEDURES and TRAINING RESOURCES

*** All referenced publications shall be current edition with supplements ***

1. Manual on Uniform Traffic Control Devices (MUTCD).
2. FDOT Roadway and Traffic Design Standards - Index 600.
3. BT 07-0022 Work Zone Traffic Control for Maintenance and Utility Operations (Level 3).
4. A Guide to Turf Management Manual (Procedure No. 850-060-004).
5. A Guide to Chemical Weed and Grass Control Manual.
6. Maintenance Rating program Manual (Procedure No. 850-065-002).

CONVERSION CHART 18 - m
PAVEMENT SYMBOLS - LINE REMOVAL/INSTALLATION
FOR ACTIVITIES: 534

SKIP LINE (STANDARD 150mm WIDE LINE)												
		EACH										
each		1	2	3	4	5	10	20	30	40	50	100
3 - 9 SKIP	m2	0.50	0.90	1.40	1.80	2.30	4.50	9.00	13.50	18.00	22.50	45.00
3-3-6 Skip W/Black	m2	0.90	1.80	2.80	3.60	4.60	9.00	18.00	27.00	36.00	45.00	90.00
1.8-3.0 Extension	m2	0.30	0.50	0.80	1.10	1.40	2.70	5.40	8.10	10.80	13.50	27.00
600(.6)-1.2 Guide	m2	0.10	0.20	0.30	0.40	0.50	0.90	1.80	2.70	3.60	4.50	9.00
		LENGTH IN KILOMETERS										
kilometers		0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00	2.00
3 - 9 SKIP	m2	3.70	7.40	11.10	14.80	18.50	22.20	25.90	29.60	33.30	37.40	74.80
3-3-6 Skip W/Black	m2	7.40	15.80	22.20	29.60	37.00	44.40	51.80	59.20	66.60	74.80	149.60
1.8-3.0 Extension	m2	5.60	11.20	17.10	22.90	28.60	34.30	40.00	44.00	51.40	56.20	112.40
600(.6)-1.2 Guide	m2	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	100.00



Read .30 from the chart and report 11.3 m2 removed.

NOTE:
When measuring removal/installation by kilometer, measure painted and unpainted distance.
If the line is 300 mm wide, then double the EACH or KILOMETERS for the correct square meters.

SOLID LINE (STANDARD 150 mm WIDE LINE)												
	Length in meters											
meters	5.00	10.00	15.00	20.00	30.00	40.00	50.00	100.00	200.00	300.00	400.00	500.00
m2	0.75	1.50	2.30	3.00	4.50	6.00	7.50	15.00	30.00	45.00	60.00	75.00
	Length in kilometers											
kilometer	0.50	0.60	0.70	0.80	0.90	1.00	1.50	2.00	2.50	3.00	3.50	4.00
m2	75.00	90.00	105.00	120.00	135.00	150.00	225.00	300.00	375.00	450.00	525.00	600.00

NOTE:
If the line is 300 mm wide, then double the METERS or KILOMETERS for the correct square meters.

meters X meters = m2
1,000 meters = 1-kilometer
1 meter = .001 kilometer

Effective Date: July 1, 1996

UNITS of MEASUREMENT

12 inches (inch. ") = 1 foot (ft. ')
36 inches = 1 yard (yd.)
3 feet (ft. ') = 1 yard
5,280 feet = 1 mile
8 ounces (oz.) = 1 cup
43,560 square feet (sq. ft.) = 1 acre (ar.)
16 ounces = 1 pint (pt.)
128 ounces = 1 gallon (gal.)
8 pints = 1 gallon
4 quarts (qt.) = 1 gallon
2 pints = 1 quart

1,000 millimeters (mm) = 1 meter (m)
100 centimeters (cm) = 1 meter
10 decimeters (dm) = 1 meter
1,000 meters = 1 kilometer (km)
10,000 square meters (m^2, m2) = 1 hectare (ha)

feet (ft.)	yard (yd.)	mile (mi.)
acre (ar.)	cup (cp.)	ounces (oz.)
meter (m)	pint (pt.)	decimeter (dm)
gallon (gal.)	meter (m)	centimeter (cm)
kilometer (kl)	hectare (ha)	millimeter (mm)
square feet (sq. Ft.)	inches (in.)	liter (L)
pounds (lb.)	English tons (t.)	metric tons (t)

ft. x ft. = sq. ft.	m x m = sq. m
ft. x ft. X ft. = cu. ft.	m x m x m = cu. m

3,280 ft. = 1 kl	0.62 mi. = 1 kl
3.2 ft. = 1 m	3.9 inches = 1 mm
1 ft. = 0.3 m	1 ft. = 30.5 cm
1 yd. = .9 m	1.1 yd. = 1m
2.5 ar. = 1 ha	1 gal. = 4.4 l
2,204.6 lbs. = 1 metric ton	1.1 t = 1 metric tons

CONVERSION CHART 19 - m

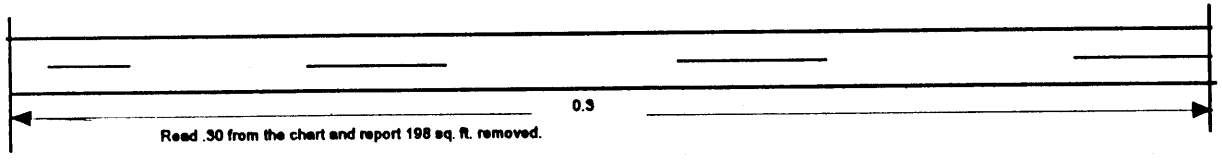
GALLONS to LITERS

GALLONS	0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.000
LITERS	0.47	0.95	1.42	1.89	2.37	2.84	3.31	3.79
GALLONS	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00
LITERS	7.57	11.36	15.14	18.93	22.71	26.50	30.28	34.07
GALLONS	10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00
LITERS	37.85	41.64	45.42	49.21	53.00	56.78	60.57	64.35
GALLONS	18.00	19.00	20.00	21.00	22.00	23.00	24.00	25.00
LITERS	68.14	71.92	75.71	79.49	83.28	87.06	90.85	94.64
GALLONS	26.00	27.00	28.00	29.00	30.00	31.00	32.00	33.00
LITERS	98.42	102.21	105.99	109.78	113.56	117.35	121.13	124.92
GALLONS	34.00	35.00	36.00	37.00	38.00	39.00	40.00	41.00
LITERS	128.70	132.49	136.27	140.06	143.85	147.63	151.42	155.20
GALLONS	42.00	43.00	44.00	45.00	46.00	47.00	48.00	49.00
LITERS	158.99	162.77	166.56	170.34	174.13	177.91	181.70	185.49

.125 GALLON = 1 PINT = .473 LITER

CONVERSION CHART 18
PAVEMENT SYMBOLS - LINE REMOVAL/INSTALLATION
FOR ACTIVITIES: 534

SKIP LINE (STANDARD 6 INCH WIDE LINE)												
		EACH										
EACH		1	2	3	4	5	10	20	30	40	50	100
10 - 30 SKIP	SQ. FT.	5.00	10.00	15.00	20.00	25.00	50.00	100.00	150.00	200.00	250.00	500.00
10-10-20 Skip W/Black	SQ. FT.	10.00	20.00	30.00	40.00	50.00	100.00	200.00	300.00	400.00	500.00	1000.00
6 - 10 Extension	SQ. FT.	3.00	6.00	9.00	12.00	15.00	30.00	60.00	90.00	120.00	150.00	300.00
2 - 4 Guide	SQ. FT.	1.00	2.00	3.00	4.00	5.00	10.00	20.00	30.00	40.00	50.00	100.00
		LENGTH IN MILES										
MILES		0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00	2.00
10 - 30 SKIP	SQ. FT.	66.00	132.00	198.00	264.00	330.00	396.00	462.00	528.00	594.00	660.00	1320.00
10-10-20 Skip W/Black	SQ. FT.	132.00	264.00	396.00	528.00	660.00	792.00	924.00	1056.00	1188.00	1320.00	2640.00
6 - 10 Extension	SQ. FT.	99.00	198.00	297.00	396.00	495.00	594.00	693.00	792.00	891.00	990.00	1980.00
2 - 4 Guide	SQ. FT.	88.00	176.00	264.00	352.00	440.00	528.00	616.00	704.00	792.00	880.00	1760.00



NOTE:
When measuring removal/installation by mile, measure painted and unpainted distance.
If the line is 12 inches wide, then double the EACH or MILES for the correct square feet.

SOLID LINE (STANDARD 6 INCH WIDE LINE)												
	LENGTH IN FEET											
Feet	5.00	10.00	15.00	20.00	30.00	40.00	50.00	100.00	200.00	300.00	400.00	500.00
Square Feet	2.50	5.00	7.50	10.00	15.00	20.00	25.00	50.00	100.00	150.00	200.00	250.00
	LENGTH IN MILES											
Miles	0.50	0.60	0.70	0.80	0.90	1.00	1.50	2.00	2.50	3.00	3.50	4.00
Square Feet	1320.00	1584.00	1848.00	2112.00	2376.00	2640.00	3960.00	5280.00	6600.00	7920.00	9240.00	10560.00

NOTE:
If the line is 12 inches wide, then double the FEET or MILES for the correct square feet.

Feet x Feet = Square Feet
5280 Feet in a Mile
0.1 Mile = 528 Feet

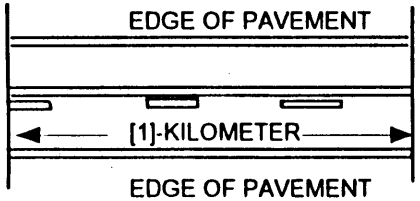
Effective Date: July 1, 1996

CONVERSION CHART 17 - m
DISTRICT - WIDE PAVEMENT STRIPING
FOR ACTIVITIES: 532

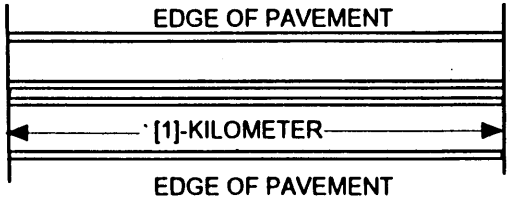
ITEM	REPORT AS
[1]-Kilometer of Double White	[2] Kilometer Striping
[1]-Kilometer of Single Line	[1] Kilometer Striping
[1]-Kilometer of Skip	[.25] Kilometer Striping
[1]-Kilometer of Skip W/Black	[.50] Kilometer Striping

CONVERSION TABLE FOR SKIP LINES																					
LENGTH IN KILOMETERS	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	2.0	3.0	4.0	5.0	10.0	15.0	20.0	25.0	30.0	40.0	50.0
KILOMETERS TO REPORT (3-9)	0.03	0.05	0.08	0.10	0.13	0.15	0.18	0.20	0.23	0.25	0.50	0.75	1.00	1.25	2.50	3.75	5.00	6.25	7.50	10.00	12.50
KILOMETERS TO REPORT (3-3-6,W/Black)	0.06	0.10	0.16	0.20	0.26	0.30	0.36	0.40	0.46	0.50	1.00	1.50	2.00	2.50	5.00	7.50	10.00	12.50	15.00	20.00	25.00

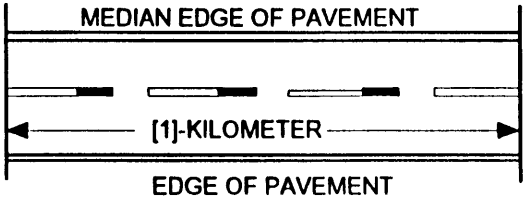
Painting of multiple lines, simultaneously, will be reported using the chart and the example below.



REPORT:
Edge Line = [2.0] Kilometers
Skip Lines = [0.25] Kilometer
Single Line = [1.00] Kilometer
[3.12] Kilometers



REPORT:
Edge Line = [2] Kilometers
Double Line = [2] Kilometers
[4] Kilometers



REPORT:
Edge Lines = [2.00] Kilometers
Skip W/Black = [0.50] Kilometer
[2.50] Kilometer

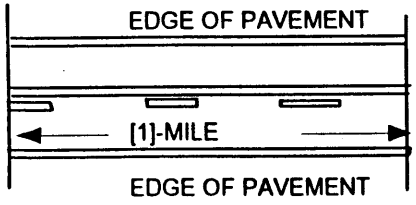
Effective Date: July 1, 1996

CONVERSION CHART 17
DISTRICT - WIDE PAVEMENT STRIPING
FOR ACTIVITIES: 532

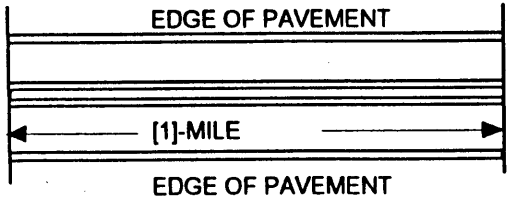
ITEM	REPORT AS
[1]-Mile of Double Yellow	[2] Miles Striping
[1]-Mile of Single Line	[1] Mile Striping
[1]-Mile of Skip	[.25] Mile Striping
[1]-Mile of Skip W/Black	[.50] Mile Striping

CONVERSION TABLE FOR SKIP LINES																				
Length in Miles	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	2.0	3.0	4.0	5.0	10.0	15.0	20.0	25.0	30.0	40.0	50.0
Report (3-9, W/O Black) in Miles	0.03	0.05	0.08	0.10	0.13	0.15	0.18	0.20	0.23	0.25	0.50	0.75	1.00	1.25	2.50	3.75	5.00	6.25	7.50	10.00	12.50
Report (3-3-6, W/Black) in Miles	0.06	0.10	0.16	0.20	0.26	0.30	0.36	0.40	0.46	0.50	1.00	1.50	2.00	2.50	5.00	7.50	10.00	12.50	15.00	20.00	25.00

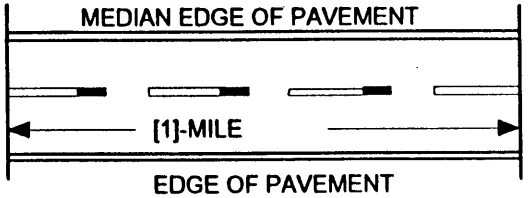
Painting of multiple lines, simultaneously, will be reported using the chart and the examples below.



REPORT:
Edge Line = [2.0] Miles
Skip Lines = [0.25] Mile
Single Line = [1.00] Mile
[3.25] Miles



REPORT:
Edge Line = [2] Miles
Double Line = [2] Miles
[4] Miles



REPORT:
Edge Lines = [2.00] Miles
Skip Line W/Black = [0.50] mile
[2.50] Miles

Effective Date: July 1, 1996

CONVERSION CHART 16

FOR ACTIVITIES: 521, 522

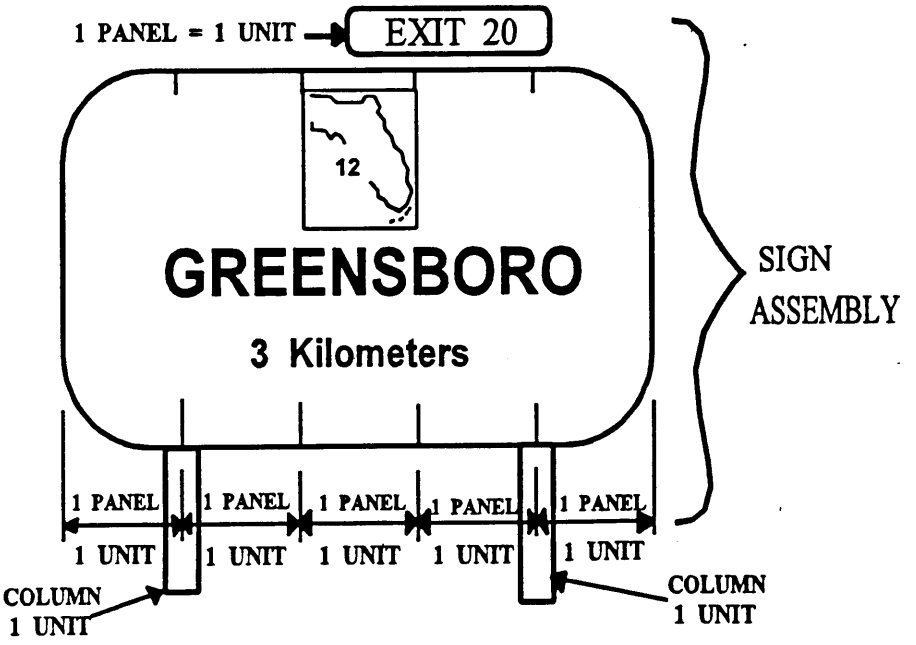
Ground signs over 2.79 square meters (30 square feet) and all overlane signs, including sign overlay work	**Activity 521**

Report a unit of work for each panel removed, one unit of work for each panel installed, one unit of work for each column removed, and one unit of work for each column installed. If overlay panels are involved, report 1.0 unit of production for each panel removed and 1.0 unit for each panel installed in addition to production for the mother board.

So, for the large sign shown below, if the sign was blown over and repair made, the production units would be:

1 - Sign removed (Greensboro)	= 5.0
2 - Columns removed	= 2.0
1 - Sign replaced	= 5.0
2 - Columns replaced	= 2.0
1 - Sign removed (EXIT)	= 1.0
1 - Sign replaced (EXIT)	= 1.0
TOTAL UNITS	16.0

Report production for the exit panel only if it is a separate panel as shown in example.



CONVERSION CHART 15
FOR ACTIVITIES 520, 522

Ground Signs 2.79 Square Meters (30 Square Feet) Or Less	Activity 520

Give a unit of work for each panel removed, one unit of work for each panel installed, one unit of work for each column removed, and one unit of work for each column installed.

SIGN ASSEMBLY 1

PANEL = 1 UNIT

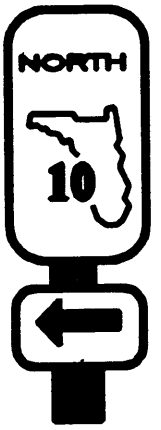
PANEL = 1 UNIT

PANEL = 1 UNIT

POST = 1 UNIT

4 UNITS

SIGN ASSEMBLY 2



PANEL = 1 UNIT

PANEL = 1 UNIT

POST = 1 UNIT

3 UNITS

Replacement of either sign without replacing the post would be a production of:

SIGN ASSEMBLY 1

Panels Removed = 3
Panels Installed = 3
Total Units 6

OR

SIGN ASSEMBLY 2

Panels Removed = 2
Panels Installed = 2
Total Units 4

CONVERSION CHART 14

ROADWAY SIGNS

CREW WORK SHEET AND CONVERSION CHART

FOR ACTIVTIES: 519, 520, 521 WORK DAY NO. _____

DISTRICT _____ MAINTENANCE AREA_____ CREW NUMBER _____ PERSON IN CHARGE_____

DAILY PRODUCTION UNITS					
TYPE OF WORK	UNITS	X	FAC.	=	TOTAL
PANELS (INSTALLED OR REMOVED)		X	1.0	=	
POSTS (INSTALLED OR REMOVED)		X	1.0	=	
POSTS STRAIGHTENED		X	0.25	=	
NOTES:	TOTAL UNITS				

Effective Date: July 1, 1996

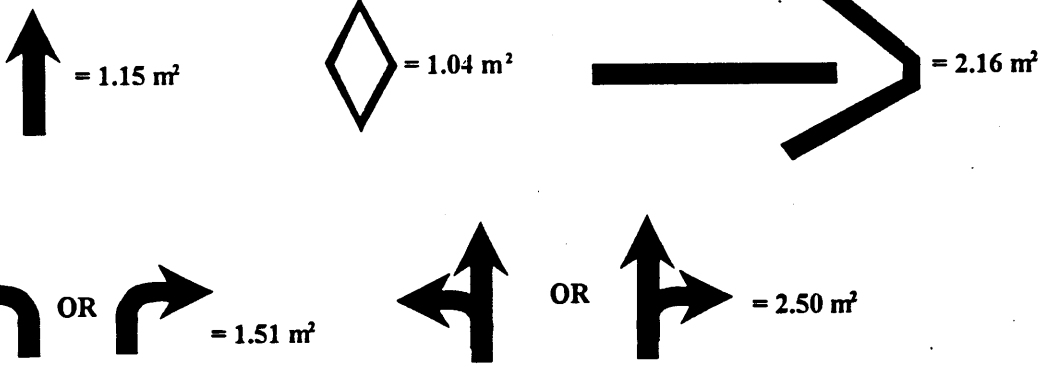
CONVERSION CHART 13 - m
PAVEMENT SYMBOLS

WORDS: SQUARE METERS PER WORD (INDEX 17346)

STOP = 2.0 m^2	TURN = 2.3 m^2	ONLY = 2.0 m^2
BUS = 1.9 m^2	LEFT = 1.8 m^2	LANE = 2.1 m^2
RIGHT = 2.5 m^2	* SCHOOL = 3.07 m^2	* RXR = 8.3 m^2
	MERGE = 3.3 m^2	BIKE = 1.0 m^2

* DOES NOT INCLUDE BARS.

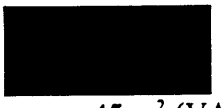
SYMBOLS: SQUARE METERS PER SYMBOL (INDEX 17346)



STOP BARS, CROSSWALKS, and MISC. (INDEX 17346)

600mm x 150 mm = .09 m^2
(Turning Guide Lines/Radius Guide Line)

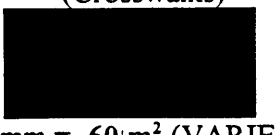
3.0 m x 150mm = .45 m^2
(Center Line Skip)



1m x 450 mm = .45 m^2 (VARIES)
(Crosshatch for Gore Areas)

1.8 m x 150 mm = .27 m^2
(Extension of Edge Lines)

1.0 m x 300 mm = .30 m^2 (VARIES)
(Crosswalks)



1m x 600 mm = .60 m^2 (VARIES)
(Stop Bars)

Effective Date: July 1, 1996

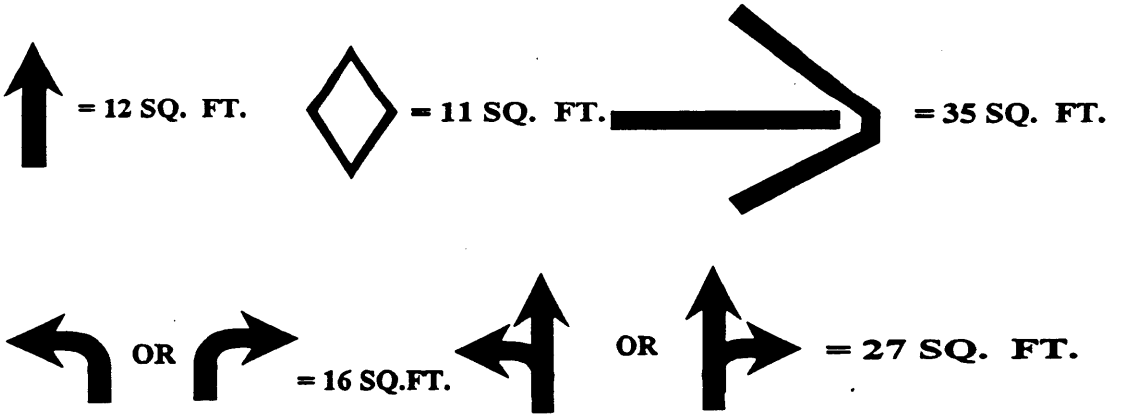
CONVERSION CHART 13
PAVEMENT SYMBOLS

WORDS: SQUARE FEET PER WORD (INDEX 17346)

STOP = 22 SQ. FT.	TURN = 25 SQ. FT.	ONLY = 22 SQ. FT.
BUS = 21 SQ. FT.	LEFT = 19 SQ.FT.	LANE = 23 SQ. FT.
RIGHT = 27 SQ. FT.	* SCHOOL =33 SQ. FT.	* RXR = 89 SQ. FT.
MERGE = 36 SQ. FT.	BIKE = 3.9 SQ. FT.	

* DOES NOT INCLUDE BARS.

SYMBOLS: SQUARE FEET PER SYMBOL (INDEX 17346)



STOP BARS, CROSSWALKS, and MISC. (INDEX 17346)

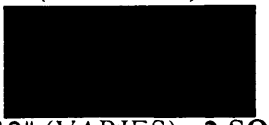
24" X 6" = 1 SQ. FT.
(Turning Guide Lines/Radius Guide Line)

6' X 6" = 3 SQ. FT.
(Extension of Edge Lines)

10' X 6" = 5 SQ. FT.
(Center Line Skip)

12" X 12" (VARIES) = 1 SQ. FT.
(Crosswalks)

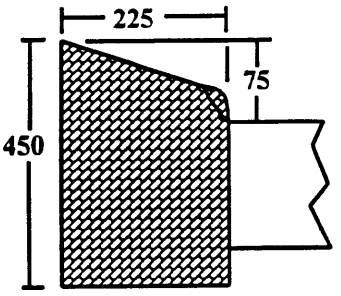
18" X 12" (VARIES) = 1.5 SQ. FT.
(Crosshatch for Gore Areas)



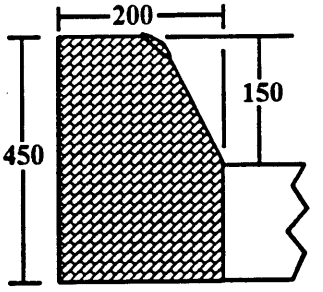
24" X 12" (VARIES)= 2 SQ. FT.
(Stop Bars)

Effective Date: July 1, 1996

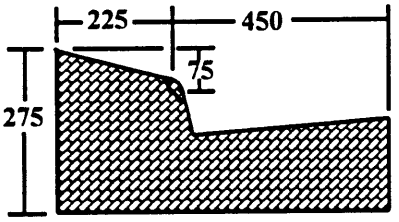
CHART 12 - M
CONCRETE REPAIR PRODUCTION
CURB and GUTTER
FDOT Metric Roadway and Traffic Design Standards - INDEX 300
NOTE: MEASUREMENTS ARE MADE IN MILLIMETERS



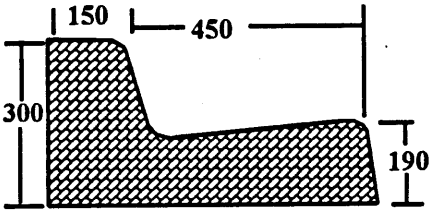
0.09 m³/m
Type B Curb



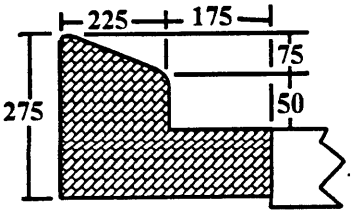
0.09 m³/m
Type D Curb



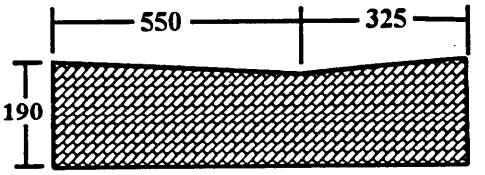
0.15 m³/m
Type E Curb



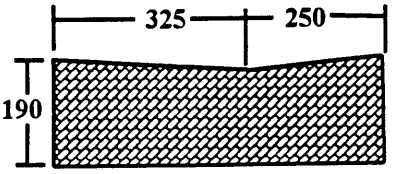
0.10 m³/m
Type F Curb



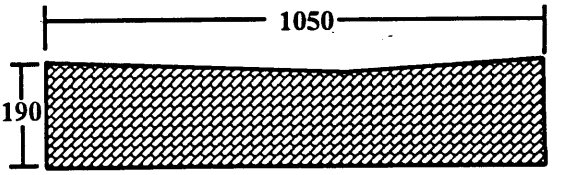
0.08 m³/m
Type A Curb



0.16 m³/m
Drop Curb - section AA



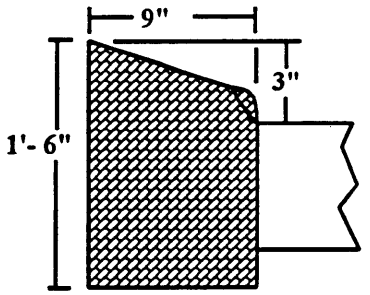
0.10 m³/m
Drop Curb



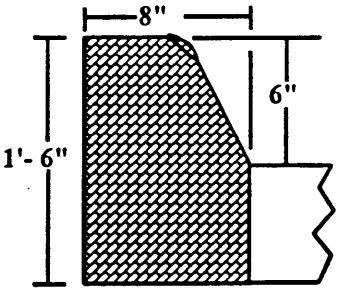
0.14 m³/m
Shoulder Gutter

Effective Date: July 1, 1996

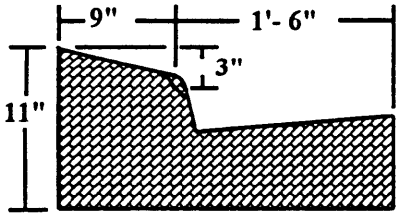
CONVERSION CHART 12
CONCRETE REPAIR PRODUCTION
CURB and GUTTER
FDOT Roadway and Traffic Design Standards - INDEX 300



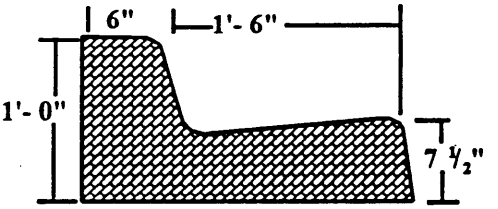
0.04 C.Y. per L.F.
Type B Curb



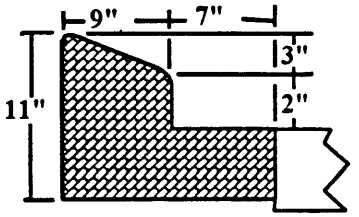
0.04 C.Y. per L.F.
Type D Curb



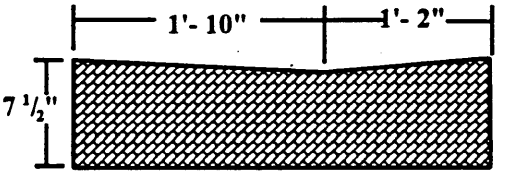
0.05 C.Y. per L.F.
Type E Curb



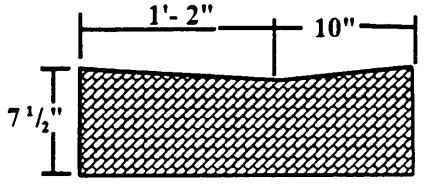
0.05 C.Y. per L.F.
Type F Curb



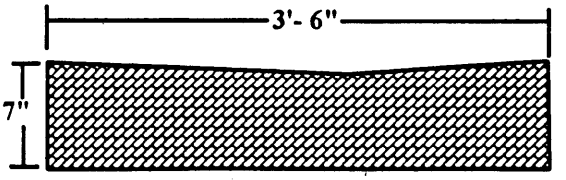
0.03 C.Y. per L.F.
Type A Curb



0.06 C.Y. per L.F.
Drop Curb - section AA



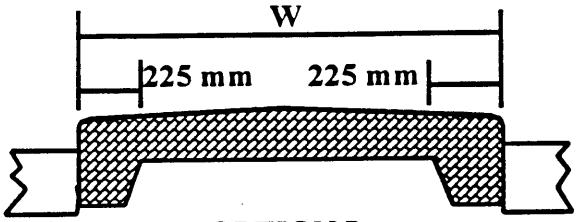
0.04 C.Y. per L.F.
Drop Curb



0.06 C.Y. per L.F.
Shoulder Gutter

CONVERSION CHART 11 - m
CONCRETE REPAIR PRODUCTION
Traffic Separators
FDOT Metric Roadway and Traffic Design Standards - INDEX NO. 281

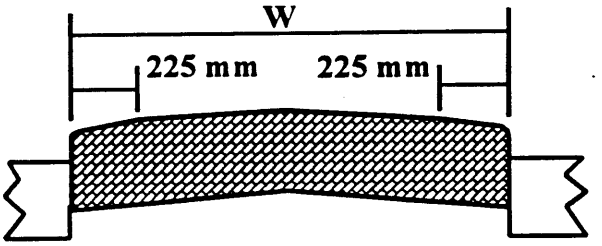
W in Meters	m^3/m
1.2	0.38
1.8	0.55
2.6	0.79



OPTION I

Type I Concrete Traffic Separator

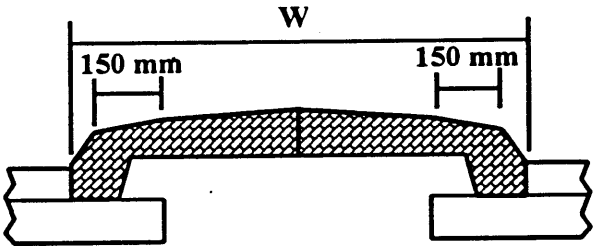
W in Meters	m^3/m
1.2	.33
1.8	.51
2.6	.77



OPTION II

Type I Concrete Traffic Separator

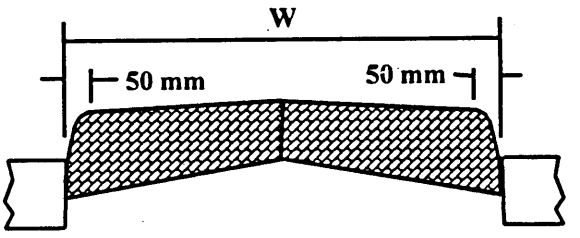
W in Metres	m^3/m
1.2	0.37
1.8	0.54
2.6	0.78



OPTION I

Type II Concrete Traffic Separator

W in Meters	m^3/m
1.2	0.24
1.8	0.37
2.6	0.54

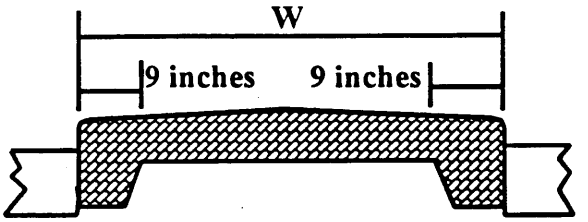


Type V Concrete Traffic Separator

Effective Date: July 1, 1996

CONVERSION CHART 11
CONCRETE REPAIR PRODUCTION
Traffic Separators
FDOT Roadway and Traffic Design Standards - INDEX NO. 281

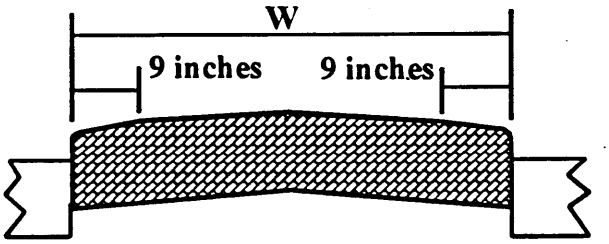
W in Feet	C.Y./L.F.
4	0.08
6	0.12
8'- 6"	0.16



OPTION I

Type I Concrete Traffic Separator

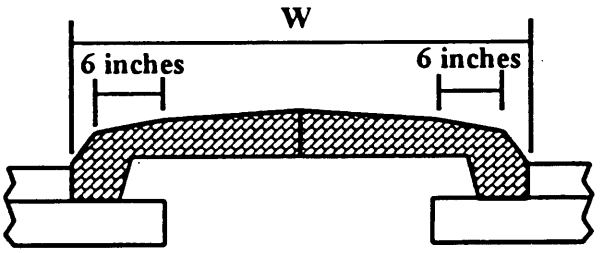
W in Feet	C.Y./L.F.
4	0.08
6	0.13
8'- 6"	0.19



OPTION II

Type I Concrete Traffic Separator

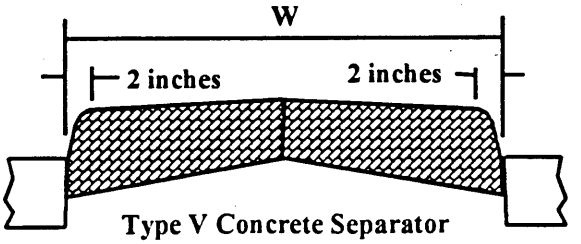
W in Feet	C.Y./L.F
4	0.09
6	0.12
8'- 6"	0.17



OPTION I

Type II Concrete Traffic Separator

W in Feet	C.Y./L.F.
4	0.10
6	0.14
8'- 6"	0.21



Type V Concrete Separator

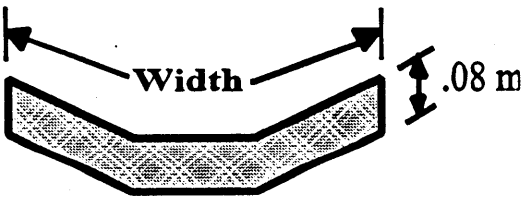
Effective Date: July 1, 1996

CONVERSION CHART 10 - m
CONCRETE REPAIR PRODUCTION

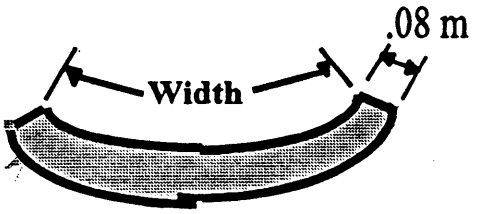
PAVED DITCH

FDOT Metric Roadway and Traffic Design Standards - INDEX NO. 281

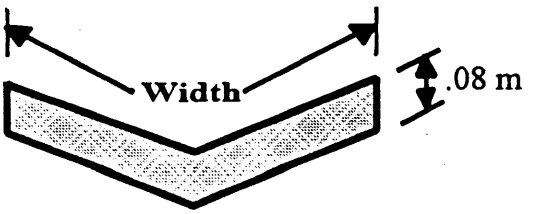
Width in Meters	Cubic Meters for 1 Meter Length
1.2	0.10
1.5	0.12
1.8	0.14
2.1	0.17
2.4	0.19
2.7	0.22
3.0	0.24
3.6	0.29
4.2	0.34



Roadway Side Ditch



Alternate Ditch Pavement

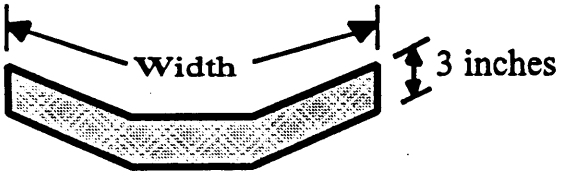


Swaled Medians

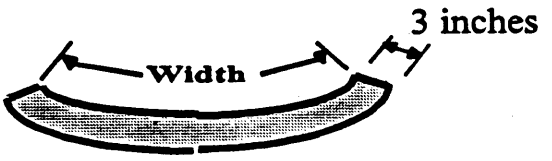
Effective Date: July 1, 1996

CONVERSION CHART 10
CONCRETE REPAIR PRODUCTION
PAVED DITCH
FDOT Roadway and Traffic Design Standards - INDEX NO. 281

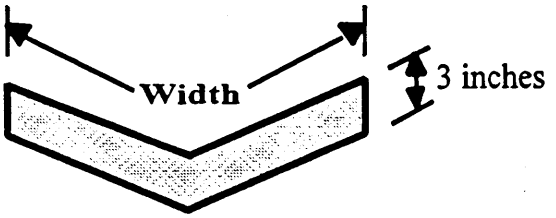
Width in Feet	Cubic Yards for 1 Foot Length
4	0.04
5	0.05
6	0.06
7	0.07
8	0.07
9	0.08
10	0.09
12	0.11
14	0.13



Roadway Side Ditch



Alternate Ditch Pavement



Swaled Medians

Effective Date: July 1, 1996

CONVERSION CHART 9 - m

Meters X Kilometers/10,000 = Hectares

FOR ACTIVITIES: 435, 436, 465, 471, 482, 484, 485, 487, 489, 498, 541

WIDTH IN METERS	LENGTH IN KILOMETERS																		
	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	0.90	10.00
1	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.09	1.00
2	0.02	0.04	0.06	0.08	0.10	0.12	0.14	0.16	0.18	0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60	0.18	2.00
3	0.03	0.06	0.09	0.12	0.15	0.18	0.21	0.24	0.27	0.30	0.60	0.90	1.20	1.50	1.80	2.10	2.40	0.27	3.00
4	0.04	0.08	0.12	0.16	0.20	0.24	0.28	0.32	0.36	0.40	0.80	1.20	1.60	2.00	2.40	2.80	3.20	0.36	4.00
5	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	0.45	5.00
6	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48	0.54	0.60	1.20	1.80	2.40	3.00	3.60	4.20	4.80	0.54	6.00
7	0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56	0.63	0.70	1.40	2.10	2.80	3.50	4.20	4.90	5.60	0.63	7.00
8	0.08	0.16	0.24	0.32	0.40	0.48	0.56	0.64	0.72	0.80	1.60	2.40	3.20	4.00	4.80	5.60	6.40	0.72	8.00
9	0.09	0.18	0.27	0.36	0.45	0.54	0.63	0.72	0.81	0.90	1.80	2.70	3.60	4.50	5.40	6.30	7.20	0.81	9.00
10	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	0.90	10.00
12	0.12	0.24	0.36	0.48	0.60	0.72	0.84	0.96	1.08	1.20	2.40	3.60	4.80	6.00	7.20	8.40	9.60	1.08	12.00
14	0.14	0.28	0.42	0.56	0.70	0.84	0.98	1.12	1.26	1.40	2.80	4.20	5.60	7.00	8.40	9.80	11.20	1.26	14.00
16	0.16	0.32	0.48	0.64	0.80	0.96	1.12	1.28	1.44	1.60	3.20	4.80	6.40	8.00	9.60	11.20	12.80	1.44	16.00
18	0.18	0.36	0.54	0.72	0.90	1.08	1.26	1.44	1.62	1.80	3.60	5.40	7.20	9.00	10.80	12.60	14.40	1.62	18.00
20	0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60	1.80	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	1.80	20.00
22	0.22	0.44	0.66	0.88	1.10	1.32	1.54	1.76	1.98	2.20	4.40	6.60	8.80	11.00	13.20	15.40	17.60	1.98	22.00
25	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	5.00	7.50	10.00	12.50	15.00	17.50	20.00	2.25	25.00
30	0.30	0.60	0.90	1.20	1.50	1.80	2.10	2.40	2.70	3.00	6.00	9.00	12.00	15.00	18.00	21.00	24.00	2.70	30.00
35	0.35	0.70	1.05	1.40	1.75	2.10	2.45	2.80	3.15	3.50	7.00	10.50	14.00	17.50	21.00	24.50	28.00	3.15	35.00
40	0.40	0.80	1.20	1.60	2.00	2.40	2.80	3.20	3.60	4.00	8.00	12.00	16.00	20.00	24.00	28.00	32.00	3.60	40.00
45	0.45	0.90	1.35	1.80	2.25	2.70	3.15	3.60	4.05	4.50	9.00	13.50	18.00	22.50	27.00	31.50	36.00	4.05	45.00
50	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	4.50	50.00

In reporting production in Hectares, round to the nearest hundredth of a Hectare for the production for the day on the crew sheet.

1 - HECTARE = 10,000 SQUARE METERS
METERS X METERS = SQUARE METERS
1,000 METERS = 1- KILOMETER
1 METER = 0.001 KILOMETER

Effective Date: July 1, 1996

CONVERSION CHART 8 - m

METERS X METERS/10,000 = HECTARES

FOR ACTIVITIES: 435, 436, 465, 471, 482, 484, 485, 487, 489, 498, 541

WIDTH IN METERS	LENGTH IN METERS																		
	25	50	75	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	500
1	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.05	0.05
2	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.05	0.06	0.06	0.07	0.07	0.08	0.08	0.09	0.09	0.10
3	0.01	0.02	0.02	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.08	0.09	0.10	0.11	0.11	0.12	0.13	0.14	0.15
4	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.15	0.16	0.17	0.18	0.20
5	0.01	0.03	0.04	0.05	0.06	0.08	0.09	0.10	0.11	0.13	0.14	0.15	0.16	0.18	0.19	0.20	0.21	0.23	0.25
6	0.02	0.03	0.05	0.06	0.08	0.09	0.11	0.12	0.14	0.15	0.17	0.18	0.20	0.21	0.23	0.24	0.26	0.27	0.30
7	0.02	0.04	0.05	0.07	0.09	0.11	0.12	0.14	0.16	0.18	0.19	0.21	0.23	0.25	0.26	0.28	0.30	0.32	0.35
8	0.02	0.04	0.06	0.08	0.10	0.12	0.14	0.16	0.18	0.20	0.22	0.24	0.26	0.28	0.30	0.32	0.34	0.36	0.40
9	0.02	0.05	0.07	0.09	0.11	0.14	0.16	0.18	0.20	0.23	0.25	0.27	0.29	0.32	0.34	0.36	0.38	0.41	0.45
10	0.03	0.05	0.08	0.10	0.13	0.15	0.18	0.20	0.23	0.25	0.28	0.30	0.33	0.35	0.38	0.40	0.43	0.45	0.50
12	0.03	0.06	0.09	0.12	0.15	0.18	0.21	0.24	0.27	0.30	0.33	0.36	0.39	0.42	0.45	0.48	0.51	0.54	0.60
14	0.04	0.07	0.11	0.14	0.18	0.21	0.25	0.28	0.32	0.35	0.39	0.42	0.46	0.49	0.53	0.56	0.60	0.63	0.70
16	0.04	0.08	0.12	0.16	0.20	0.24	0.28	0.32	0.36	0.40	0.44	0.48	0.52	0.56	0.60	0.64	0.68	0.72	0.80
18	0.05	0.09	0.14	0.18	0.23	0.27	0.32	0.36	0.41	0.45	0.50	0.54	0.59	0.63	0.68	0.72	0.77	0.81	0.90
20	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75	0.80	0.85	0.90	1.00
22	0.06	0.11	0.17	0.22	0.28	0.33	0.39	0.44	0.50	0.55	0.61	0.66	0.72	0.77	0.83	0.88	0.94	0.99	1.10
25	0.06	0.13	0.19	0.25	0.31	0.38	0.44	0.50	0.56	0.63	0.69	0.75	0.81	0.88	0.94	1.00	1.06	1.13	1.25
30	0.08	0.15	0.23	0.30	0.38	0.45	0.53	0.60	0.68	0.75	0.83	0.90	0.98	1.05	1.13	1.20	1.28	1.35	1.50
35	0.09	0.18	0.26	0.35	0.44	0.53	0.61	0.70	0.79	0.88	0.96	1.05	1.14	1.23	1.31	1.40	1.49	1.58	1.75
40	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.80	2.00
45	0.11	0.23	0.34	0.45	0.56	0.68	0.79	0.90	1.01	1.13	1.24	1.35	1.46	1.58	1.69	1.80	1.91	2.03	2.25
50	0.13	0.25	0.38	0.50	0.63	0.75	0.88	1.00	1.13	1.25	1.38	1.50	1.63	1.75	1.88	2.00	2.13	2.25	2.50

To report production in Hectares, round to the nearest hundredth of a hectare for production for the day on the Crew Sheet.

1 - HECTARE = 10,000 SQUARE METERS
METERS X METERS = SQUARE METERS
1,000 METERS = 1- KILOMETER
1 METER = 0.001 KILOMETER

Effective Date: July 1, 1996

CONVERSION CHART 8

SQUARE FEET TO ACRES

FOR ACTIVITIES 435, 436, 465, 471, 482, 484, 485, 487, 489, 498, 541

SQ. FT.	50	100	200	300	400	500	1000	2000	3000
ACRES	0.00	0.00	0.00	0.01	0.01	0.01	0.02	0.05	0.07
SQ. FT.	4000	5000	6000	7000	8000	9000	10000	10100	10200
ACRES	0.09	0.11	0.14	0.16	0.18	0.21	0.23	0.23	0.23
SQ. FT.	10300	10400	10500	10600	10700	10800	10900	11000	12000
ACRES	0.24	0.24	0.24	0.24	0.25	0.25	0.25	0.25	0.28
SQ. FT.	13000	14000	15000	16000	17000	18000	19000	20000	21000
ACRES	0.30	0.32	0.34	0.37	0.39	0.41	0.44	0.46	0.48
SQ. FT.	22000	23000	24000	25000	26000	27000	28000	29000	30000
ACRES	0.51	0.53	0.55	0.57	0.60	0.62	0.64	0.67	0.69
SQ. FT.	31000	32000	33000	34000	35000	36000	37000	38000	39000
ACRES	0.71	0.73	0.76	0.78	0.80	0.83	0.85	0.87	0.90
SQ. FT.	40000	41000	42000	43000	44000	45000	46000	47000	48000
ACRES	0.92	0.94	0.96	0.99	1.01	1.03	1.06	1.08	1.10
SQ. FT.	49000	50000	55000	60000	65000	70000	75000	80000	85000
ACRES	1.12	1.15	1.26	1.38	1.49	1.61	1.72	1.84	1.95
SQ. FT.	90000	95000	100000	105000	110000	115000	120000	125000	130000
ACRES	2.07	2.18	2.30	2.41	2.53	2.64	2.75	2.87	2.98
SQ. FT.	135000	140000	145000	150000	155000	160000	165000	170000	175000
ACRES	3.10	3.21	3.33	3.44	3.56	3.67	3.79	3.90	4.02
SQ. FT.	180000	185000	190000	195000	200000	205000	210000	215000	220000
ACRES	4.13	4.25	4.36	4.48	4.59	4.71	4.82	4.94	5.05

CONVERSION CHART 7 - m

METERS X METERS X .01 METER IN DEPTH = METER CUBED

FOR ACTIVITIES: 421, 437, 457

METERS	1	2	3	4	5	6	7	8	9	10	20	30	40	50	60	70	80	90	100
1	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00
2	0.02	0.04	0.06	0.08	0.10	0.12	0.14	0.16	0.18	0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60	1.80	2.00
3	0.03	0.06	0.09	0.12	0.15	0.18	0.21	0.24	0.27	0.30	0.60	0.90	1.20	1.50	1.80	2.10	2.40	2.70	3.00
4	0.04	0.08	0.12	0.16	0.20	0.24	0.28	0.32	0.36	0.40	0.80	1.20	1.60	2.00	2.40	2.80	3.20	3.60	4.00
5	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00
6	0.06	0.12	0.18	0.24	0.30	0.36	0.42	0.48	0.54	0.60	1.20	1.80	2.40	3.00	3.60	4.20	4.80	5.40	6.00
7	0.07	0.14	0.21	0.28	0.35	0.42	0.49	0.56	0.63	0.70	1.40	2.10	2.80	3.50	4.20	4.90	5.60	6.30	7.00
8	0.08	0.16	0.24	0.32	0.40	0.48	0.56	0.64	0.72	0.80	1.60	2.40	3.20	4.00	4.80	5.60	6.40	7.20	8.00
9	0.09	0.18	0.27	0.36	0.45	0.54	0.63	0.72	0.81	0.90	1.80	2.70	3.60	4.50	5.40	6.30	7.20	8.10	9.00
10	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
20	0.20	0.40	0.60	0.80	1.00	1.20	1.40	1.60	1.80	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00
30	0.30	0.60	0.90	1.20	1.50	1.80	2.10	2.40	2.70	3.00	6.00	9.00	12.00	15.00	18.00	21.00	24.00	27.00	30.00
40	0.40	0.80	1.20	1.60	2.00	2.40	2.80	3.20	3.60	4.00	8.00	12.00	16.00	20.00	24.00	28.00	32.00	36.00	40.00
50	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
60	0.60	1.20	1.80	2.40	3.00	3.60	4.20	4.80	5.40	6.00	12.00	18.00	24.00	30.00	36.00	42.00	48.00	54.00	60.00

In determining production in meters cubed, areas where the depth is greater than .01 meter, divide the depth by .01 meter (1 centimeter) obtaining a factor (x); multiply the number from the chart by determining the length X width by the factor (x).

Effective Date: July 1, 1996

CONVERSION CHART 7
CUBIC YARDS
FOR ACTIVITIES: 421, 437, 457

LENGTH FEET	WIDTH 1	2	3	4	5	6	7	8	9	10
1	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.03	0.03
3	0.01	0.02	0.03	0.04	0.05	0.06	0.06	0.07	0.08	0.09
3	0.01	0.02	0.03	0.04	0.05	0.06	0.06	0.07	0.08	0.09
4	0.01	0.02	0.04	0.05	0.06	0.07	0.09	0.10	0.11	0.12
5	0.02	0.03	0.05	0.06	0.08	0.09	0.11	0.12	0.14	0.15
6	0.02	0.04	0.06	0.07	0.09	0.11	0.13	0.15	0.17	0.19
7	0.02	0.04	0.06	0.09	0.11	0.13	0.15	0.17	0.19	0.22
8	0.02	0.05	0.07	0.10	0.12	0.15	0.17	0.20	0.22	0.25
9	0.03	0.06	0.08	0.11	0.14	0.17	0.19	0.22	0.25	0.28
10	0.03	0.06	0.09	0.12	0.15	0.19	0.22	0.25	0.28	0.31
20	0.06	0.12	0.19	0.25	0.31	0.37	0.43	0.49	0.56	0.62
30	0.09	0.19	0.28	0.37	0.46	0.56	0.65	0.74	0.83	0.93
40	0.12	0.25	0.37	0.49	0.62	0.74	0.86	0.99	1.11	1.23
50	0.15	0.31	0.46	0.62	0.77	0.93	1.08	1.23	1.39	1.54
60	0.19	0.37	0.56	0.74	0.93	1.11	1.30	1.48	1.67	1.85
70	0.22	0.43	0.65	0.86	1.08	1.30	1.51	1.73	1.94	2.16
80	0.25	0.49	0.74	0.99	1.23	1.48	1.73	1.97	2.22	2.47
90	0.28	0.56	0.83	1.11	1.39	1.67	1.94	2.22	2.50	2.78
100	0.31	0.62	0.93	1.23	1.54	1.85	2.16	2.47	2.78	3.09

FEET X FEET X .08 / 27 CUBIC FEET = CUBIC YARDS
CHART IS BASED ON 1 INCH IN DEPTH, FIND LENGTH AND WIDTH
ON THE CHART. TAKE THE NUMBER FROM THE CHART AND MULTIPLY THE
THE FACTOR TIMES DEPTH TO GET CUBIC YARDS.

Effective Date: July 1, 1996

CONVERSION CHART 6 - m

METERS X METERS = METER SQUARED

FOR ACTIVITIES: 425, 432, 433, 459, 493, 534, 540

METERS	0.25	0.50	0.75	1	2	3	4	5	6	7	8	9	10	20	30	40	50
0.25	0.06	0.13	0.19	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	5.00	7.50	10.00	12.50
0.50	0.13	0.25	0.38	0.50	1.00	1.50	2.00	2.50	3.00	3.50	4.00	4.50	5.00	10.00	15.00	20.00	25.00
0.75	0.19	0.38	0.56	0.75	1.50	2.25	3.00	3.75	4.50	5.25	6.00	6.75	7.50	15.00	22.50	30.00	37.50
1.00	0.25	0.50	0.75	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	20.00	30.00	40.00	50.00
2.00	0.50	1.00	1.50	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	40.00	60.00	80.00	100.00
3.00	0.75	1.50	2.25	3.00	6.00	9.00	12.00	15.00	18.00	21.00	24.00	27.00	30.00	60.00	90.00	120.00	150.00
4.00	1.00	2.00	3.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00	32.00	36.00	40.00	80.00	120.00	160.00	200.00
5.00	1.25	2.50	3.75	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00	100.00	150.00	200.00	250.00
6.00	1.50	3.00	4.50	6.00	12.00	18.00	24.00	30.00	36.00	42.00	48.00	54.00	60.00	120.00	180.00	240.00	300.00
7.00	1.75	3.50	5.25	7.00	14.00	21.00	28.00	35.00	42.00	49.00	56.00	63.00	70.00	140.00	210.00	280.00	350.00
8.00	2.00	4.00	6.00	8.00	16.00	24.00	32.00	40.00	48.00	56.00	64.00	72.00	80.00	160.00	240.00	320.00	400.00
9.00	2.25	4.50	6.75	9.00	18.00	27.00	36.00	45.00	54.00	63.00	72.00	81.00	90.00	180.00	270.00	360.00	450.00
10.00	2.50	5.00	7.50	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00	200.00	300.00	400.00	500.00
20.00	5.00	10.00	15.00	20.00	40.00	60.00	80.00	100.00	120.00	140.00	160.00	180.00	200.00	400.00	600.00	800.00	1000.00
30.00	7.50	15.00	22.50	30.00	60.00	90.00	120.00	150.00	180.00	210.00	240.00	270.00	300.00	600.00	900.00	1200.00	1500.00
40.00	10.00	20.00	30.00	40.00	80.00	120.00	160.00	200.00	240.00	280.00	320.00	360.00	400.00	800.00	1200.00	1600.00	2000.00
50.00	12.50	25.00	37.50	50.00	100.00	150.00	200.00	250.00	300.00	350.00	400.00	450.00	500.00	1000.00	1500.00	2000.00	2500.00

Effective Date: July 1, 1996

CONVERSION CHART 6

SQUARE YARDS

FOR ACTIVITIES:432, 433, 459, 493

LENGTH FEET	WIDTH									
	1	2	3	4	5	6	7	8	9	10
1	0.11	0.22	0.33	0.44	0.56	0.67	0.78	0.89	1.00	1.11
2	0.22	0.44	0.67	0.89	1.11	1.33	1.56	1.78	2.00	2.22
3	0.33	0.67	1.00	1.33	1.67	2.00	2.33	2.67	3.00	3.33
4	0.44	0.89	1.33	1.78	2.22	2.67	3.11	3.56	4.00	4.44
5	0.56	1.11	1.67	2.22	2.78	3.33	3.89	4.44	5.00	5.56
6	0.67	1.33	2.00	2.67	3.33	4.00	4.67	5.33	6.00	6.67
7	0.78	1.56	2.33	3.11	3.89	4.67	5.44	6.22	7.00	7.78
8	0.89	1.78	2.67	3.56	4.44	5.33	6.22	7.11	8.00	8.89
9	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
10	1.11	2.22	3.33	4.44	5.56	6.67	7.78	8.89	10.00	11.11
20	2.22	4.44	6.67	8.89	11.11	13.33	15.56	17.78	20.00	22.22
30	3.33	6.67	10.00	13.33	16.67	20.00	23.33	26.67	30.00	33.33
40	4.44	8.89	13.33	17.78	22.22	26.67	31.11	35.56	40.00	44.44
50	5.56	11.11	16.67	22.22	27.78	33.33	38.89	44.44	50.00	55.56
60	6.67	13.33	20.00	26.67	33.33	40.00	46.67	53.33	60.00	66.67
70	7.78	15.56	23.33	31.11	38.89	46.67	54.44	62.22	70.00	77.78
80	8.89	17.78	26.67	35.56	44.44	53.33	62.22	71.11	80.00	88.89
90	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00
100	11.11	22.22	33.33	44.44	55.56	66.67	77.78	88.89	100.00	111.11

FEET X FEET / 9 SQUARE FEET = SQUARE YARDS

Effective Date: July 1, 1996

CONVERSION CHART 5 - m

METERS to KILOMETERS

ACTIVITIES: 431, 532, 542, 543, 545,

METERS	1	2	3	4	5	6	7	8	9	10
KILOMETER	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01
METERS	20	30	40	50	60	70	80	90	100	200
KILOMETER	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09	0.10	0.20
METERS	300	400	500	600	700	800	900	1000	1100	1200
KILOMETER	0.30	0.40	0.50	0.60	0.70	0.80	0.90	1.000	1.10	1.20
METERS	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200
KILOMETER	1.30	1.40	1.50	1.60	1.70	1.80	1.90	2.00	2.10	2.20
METERS	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200
KILOMETER	2.30	2.40	2.50	2.60	2.70	2.80	2.90	3.00	3.10	3.20
METERS	3300	3400	3500	3600	3700	3800	3900	4000	4100	4200
KILOMETER	2.30	2.40	2.50	2.60	2.70	2.80	2.90	3.00	3.10	3.20
METERS	4300	4400	4500	4600	4700	4800	4900	5000	5100	5200
KILOMETER	4.30	4.40	4.50	4.60	4.70	4.80	4.90	5.00	5.10	5.20
METERS	5300	5400	5500	5600	5700	5800	5900	6000	6100	6200
KILOMETER	4.30	4.40	4.50	4.60	4.70	4.80	4.90	5.00	5.10	5.20
METERS	6300	6400	6500	6600	6700	6800	6900	7000	7100	7200
KILOMETER	6.30	6.40	6.50	6.60	6.70	6.80	6.90	7.00	7.10	7.20
METERS	7300	7400	7500	7600	7700	7800	7900	8000	8100	8200
KILOMETER	6.30	6.40	6.50	6.60	6.70	6.80	6.90	7.00	7.10	7.20

1000 METERS = 1 KILOMETER
1 METER = .001 KILOMETER

Effective Date: July 1, 1996

CONVERSION CHART 4

LINEAR FEET TO LINEAR MILES

FOR ACTIVITIES: 431, 532, 542, 543, 545

FEET	5	10	25	50	100	200	300	400	500	600	700	800
MILE	0.00	0.00	0.00	0.01	0.02	0.04	0.06	0.08	0.09	0.11	0.13	0.15
FEET	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000
MILE	0.17	0.19	0.21	0.23	0.25	0.27	0.28	0.30	0.32	0.34	0.36	0.38
FEET	2100	2200	2300	2400	2500	2600	2700	2800	2900	3000	3100	3200
MILE	0.40	0.42	0.44	0.45	0.47	0.49	0.51	0.53	0.55	0.57	0.59	0.61
FEET	3300	3400	3500	3600	3700	3800	3900	4000	4100	4200	4300	4400
MILE	0.63	0.64	0.66	0.68	0.70	0.72	0.74	0.76	0.78	0.80	0.81	0.83
FEET	4500	4600	4700	4800	4900	5000	5100	5200	5300	5400	5500	5600
MILE	0.85	0.87	0.89	0.91	0.93	0.95	0.97	0.98	1.00	1.02	1.04	1.06
FEET	5700	5800	5900	6000	6100	6200	6300	6400	6500	6600	6700	6800
MILE	1.08	1.10	1.12	1.14	1.16	1.17	1.19	1.21	1.23	1.25	1.27	1.29
FEET	6900	7000	7100	7200	7300	7400	7500	7600	7700	7800	7900	8000
MILE	1.31	1.33	1.34	1.36	1.38	1.40	1.42	1.44	1.46	1.48	1.50	1.52
FEET	8100	8200	8300	8400	8500	8600	8700	8800	8900	9000	9100	9200
MILE	1.53	1.55	1.57	1.59	1.61	1.63	1.65	1.67	1.69	1.70	1.72	1.74
FEET	9300	9400	9500	9600	9700	9800	9900	10000	10100	10200	10300	10400
MILE	1.76	1.78	1.80	1.82	1.84	1.86	1.88	1.89	1.91	1.93	1.95	1.97
FEET	10500	10600	10700	10800	10900	11000	11100	11200	11300	11400	11500	11600
MILE	1.99	2.01	2.03	2.05	2.06	2.08	2.10	2.12	2.14	2.16	2.18	2.20
FEET	11700	11800	11900	12000	12100	12200	12300	12400	12500	12600	12700	12800
MILE	2.22	2.23	2.25	2.27	2.29	2.31	2.33	2.35	2.37	2.39	2.41	2.42

CONVERSION CHART 3

FEET X FEET = SQUARE FEET

FOR ACTIVITIES: 425, 540

FEET	1	2	3	4	5	6	7	8	9	10	20	30	40	50	60	70	80	90	100
1	1	2	3	4	5	6	7	8	9	10	20	30	40	50	60	70	80	90	100
2	2	4	6	8	10	12	14	16	18	20	40	60	80	100	120	140	160	180	200
3	3	6	9	12	15	18	21	24	27	30	60	90	120	150	180	210	240	270	300
4	4	8	12	16	20	24	28	32	36	40	80	120	160	200	240	280	320	360	400
5	5	10	15	20	25	30	35	40	45	50	100	150	200	250	300	350	400	450	500
6	6	12	18	24	30	36	42	48	54	60	120	180	240	300	360	420	480	540	600
7	7	14	21	28	35	42	49	56	63	70	140	210	280	350	420	490	560	630	700
8	8	16	24	32	40	48	56	64	72	80	160	240	320	400	480	560	640	720	800
9	9	18	27	36	45	54	63	72	81	90	180	270	360	450	540	630	720	810	900
10	10	20	30	40	50	60	70	80	90	100	200	300	400	500	600	700	800	900	1000
20	20	40	60	80	100	120	140	160	180	200	400	600	800	1000	1200	1400	1600	1800	2000
30	30	60	90	120	150	180	210	240	270	300	600	900	1200	1500	1800	2100	2400	2700	3000
40	40	80	120	160	200	240	280	320	360	400	800	1200	1600	2000	2400	2800	3200	3600	4000
50	50	100	150	200	250	300	350	400	450	500	1000	1500	2000	2500	3000	3500	4000	4500	5000
60	60	120	180	240	300	360	420	480	540	600	1200	1800	2400	3000	3600	4200	4800	5400	6000
70	70	140	210	280	350	420	490	560	630	700	1400	2100	2800	3500	4200	4900	5600	6300	7000
80	80	160	240	320	400	480	560	640	720	800	1600	2400	3200	4000	4800	5600	6400	7200	8000
90	90	180	270	360	450	540	630	720	810	900	1800	2700	3600	4500	5400	6300	7200	8100	9000
100	100	200	300	400	500	600	700	800	900	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000

Effective Date: July 1, 1996

CONVERSION CHART 2

NUMBER of WORKERS X HOURS WORKED (Hours worked includes Safety Hours) = TOTAL HOURS

FOR ACTIVITIES: 492, 544, 787, 995, 996

NUMBER WORKERS	0.25 HRS	0.50 HRS	0.75 HRS	1 HRS	2 HRS	3 HRS	4 HRS	5 HRS	6 HRS	7 HRS	8 HRS	9 HRS	10 HRS
1	0.25	0.50	0.75	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00
2	0.50	1.00	1.50	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00
3	0.75	1.50	2.25	3.00	6.00	9.00	12.00	15.00	18.00	21.00	24.00	27.00	30.00
4	1.00	2.00	3.00	4.00	8.00	12.00	16.00	20.00	24.00	28.00	32.00	36.00	40.00
5	1.25	2.50	3.75	5.00	10.00	15.00	20.00	25.00	30.00	35.00	40.00	45.00	50.00
6	1.50	3.00	4.50	6.00	12.00	18.00	24.00	30.00	36.00	42.00	48.00	54.00	60.00
7	1.75	3.50	5.25	7.00	14.00	21.00	28.00	35.00	42.00	49.00	56.00	63.00	70.00
8	2.00	4.00	6.00	8.00	16.00	24.00	32.00	40.00	48.00	56.00	64.00	72.00	80.00
9	2.25	4.50	6.75	9.00	18.00	27.00	36.00	45.00	54.00	63.00	72.00	81.00	90.00
10	2.50	5.00	7.50	10.00	20.00	30.00	40.00	50.00	60.00	70.00	80.00	90.00	100.00
11	2.75	5.50	8.25	11.00	22.00	33.00	44.00	55.00	66.00	77.00	88.00	99.00	110.00
12	3.00	6.00	9.00	12.00	24.00	36.00	48.00	60.00	72.00	84.00	96.00	108.00	120.00
13	3.25	6.50	9.75	13.00	26.00	39.00	52.00	65.00	78.00	91.00	104.00	117.00	130.00
14	3.50	7.00	10.50	14.00	28.00	42.00	56.00	70.00	84.00	98.00	112.00	126.00	140.00
15	3.75	7.50	11.25	15.00	30.00	45.00	60.00	75.00	90.00	105.00	120.00	135.00	150.00

Effective Date: July 1, 1996

CONVERSION CHART 1 - m

METRIC TONS PER 25 mm DEPTH OF ASPHALT IN PLACE

FOR ACTIVITIES: 411, 412, 414

LENGTH IN METERS	WIDTH IN METERS																	
	0.3	0.60	0.75	1.00	1.30	1.60	2.00	2.30	2.60	3.00	3.30	3.60	4.00	4.60	5.00	5.30	5.60	6.00
0.3	0.00	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.05	0.06	0.07	0.07	0.08	0.09	0.09	0.10
0.60	0.01	0.02	0.02	0.03	0.04	0.05	0.07	0.07	0.08	0.10	0.11	0.12	0.13	0.15	0.16	0.17	0.18	0.20
0.75	0.01	0.02	0.03	0.04	0.05	0.07	0.08	0.09	0.11	0.12	0.13	0.15	0.16	0.19	0.20	0.22	0.23	0.24
1.00	0.02	0.03	0.04	0.05	0.07	0.09	0.11	0.12	0.14	0.16	0.18	0.20	0.22	0.25	0.27	0.29	0.30	0.33
1.30	0.02	0.04	0.05	0.07	0.09	0.11	0.14	0.16	0.18	0.21	0.23	0.25	0.28	0.32	0.35	0.37	0.39	0.42
1.60	0.03	0.05	0.07	0.09	0.11	0.14	0.17	0.20	0.23	0.26	0.29	0.31	0.35	0.40	0.43	0.46	0.49	0.52
2.00	0.03	0.07	0.08	0.11	0.14	0.17	0.22	0.25	0.28	0.33	0.36	0.39	0.43	0.50	0.54	0.58	0.61	0.65
2.30	0.04	0.07	0.09	0.12	0.16	0.20	0.25	0.29	0.32	0.37	0.41	0.45	0.50	0.57	0.62	0.66	0.70	0.75
2.60	0.04	0.08	0.11	0.14	0.18	0.23	0.28	0.32	0.37	0.42	0.47	0.51	0.56	0.65	0.71	0.75	0.79	0.85
3.00	0.05	0.10	0.12	0.16	0.21	0.26	0.33	0.37	0.42	0.49	0.54	0.59	0.65	0.75	0.81	0.86	0.91	0.98
3.30	0.05	0.11	0.13	0.18	0.23	0.29	0.36	0.41	0.47	0.54	0.59	0.64	0.72	0.82	0.90	0.95	1.00	1.07
3.60	0.06	0.12	0.15	0.20	0.25	0.31	0.39	0.45	0.51	0.59	0.64	0.70	0.78	0.90	0.98	1.04	1.09	1.17
4.00	0.07	0.13	0.16	0.22	0.28	0.35	0.43	0.50	0.56	0.65	0.72	0.78	0.87	1.00	1.08	1.15	1.22	1.30
4.30	0.07	0.14	0.17	0.23	0.30	0.37	0.47	0.54	0.61	0.70	0.77	0.84	0.93	1.07	1.17	1.24	1.31	1.40
4.60	0.07	0.15	0.19	0.25	0.32	0.40	0.50	0.57	0.65	0.75	0.82	0.90	1.00	1.15	1.25	1.32	1.40	1.50
5.00	0.08	0.16	0.20	0.27	0.35	0.43	0.54	0.62	0.71	0.81	0.90	0.98	1.08	1.25	1.36	1.44	1.52	1.63
5.30	0.09	0.17	0.22	0.29	0.37	0.46	0.58	0.66	0.75	0.86	0.95	1.04	1.15	1.32	1.44	1.52	1.61	1.73
5.60	0.09	0.18	0.23	0.30	0.39	0.49	0.61	0.70	0.79	0.91	1.00	1.09	1.22	1.40	1.52	1.61	1.70	1.82
6	0.10	0.20	0.24	0.33	0.42	0.52	0.65	0.75	0.85	0.98	1.07	1.17	1.30	1.50	1.63	1.73	1.82	1.95

For a depth other than 25mm, divide that depth in mm by 25 then multiply the result by the appropriate factor from the chart.

(NOTE: **One Metric Ton Equals 2.2 Tons**)

Effective Date: July 1, 1996

CONVERSION CHART 1

TONS PER INCH OF ASPHALT IN PLACE

FOR ACTIVITIES: 411, 412, 414

LENGTH IN FEET	WIDTH IN FEET															
	0.5	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00	13.00	14.00	15.00
0.5	0.00	0.00	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.04
1.00	0.00	0.01	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.06	0.06	0.07	0.07	0.08	0.08
2.00	0.01	0.01	0.02	0.03	0.04	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13	0.14	0.16	0.17
3.00	0.01	0.02	0.03	0.05	0.07	0.08	0.10	0.12	0.13	0.15	0.17	0.18	0.20	0.22	0.23	0.25
4.00	0.01	0.02	0.04	0.07	0.09	0.11	0.13	0.16	0.18	0.20	0.22	0.24	0.27	0.29	0.31	0.33
5.00	0.01	0.03	0.06	0.08	0.11	0.14	0.17	0.19	0.22	0.25	0.28	0.31	0.33	0.36	0.39	0.42
6.00	0.02	0.03	0.07	0.10	0.13	0.17	0.20	0.23	0.27	0.30	0.33	0.37	0.40	0.43	0.47	0.50
7.00	0.02	0.04	0.08	0.12	0.16	0.19	0.23	0.27	0.31	0.35	0.39	0.43	0.47	0.51	0.54	0.58
8.00	0.02	0.04	0.09	0.13	0.18	0.22	0.27	0.31	0.36	0.40	0.44	0.49	0.53	0.58	0.62	0.67
9.00	0.03	0.05	0.10	0.15	0.20	0.25	0.30	0.35	0.40	0.45	0.50	0.55	0.60	0.65	0.70	0.75
10.00	0.03	0.06	0.11	0.17	0.22	0.28	0.33	0.39	0.44	0.50	0.56	0.61	0.67	0.72	0.78	0.83
15.00	0.04	0.08	0.17	0.25	0.33	0.42	0.50	0.58	0.67	0.75	0.83	0.92	1.00	1.08	1.17	1.25
20.00	0.06	0.11	0.22	0.33	0.44	0.56	0.67	0.78	0.89	1.00	1.11	1.22	1.33	1.44	1.56	1.67
25.00	0.07	0.14	0.28	0.42	0.56	0.69	0.83	0.97	1.11	1.25	1.39	1.53	1.67	1.81	1.94	2.08
30.00	0.08	0.17	0.33	0.50	0.67	0.83	1.00	1.17	1.33	1.50	1.67	1.83	2.00	2.17	2.33	2.50
35.00	0.10	0.19	0.39	0.58	0.78	0.97	1.17	1.36	1.56	1.75	1.94	2.14	2.33	2.53	2.72	2.92
40.00	0.11	0.22	0.44	0.67	0.89	1.11	1.33	1.56	1.78	2.00	2.22	2.44	2.67	2.89	3.11	3.33
45.00	0.13	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75
50	0.14	0.28	0.56	0.83	1.11	1.39	1.67	1.94	2.22	2.50	2.78	3.06	3.33	3.61	3.89	4.17

For a depth other than 1 inch, multiply the appropriate factor obtained from the chart by the depth in inches.

Effective Date: July 1, 1996