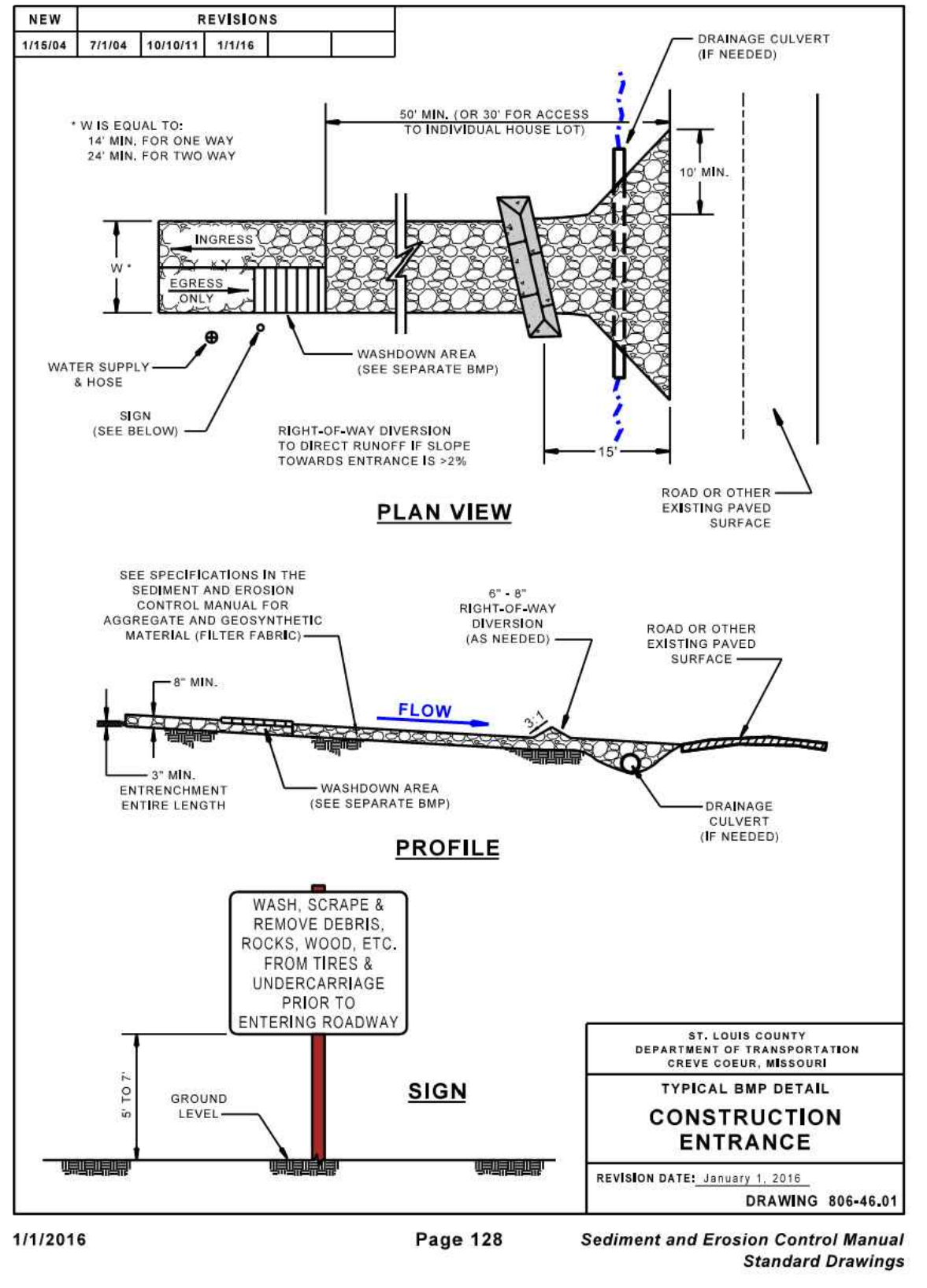


FILE LOCATION: K:\151054 - QuikTrip #0675 - Highway K and Fallon Parkway\Civil\06-0675 DETAILS EROSION CONTROL.dwg, 9/15/2016 8:52:44 AM, DWG To PDF.p3

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



H1 CONSTRUCTION ENTRANCE DETAIL

DUST CONTROL

PHYSICAL DESCRIPTION - Control measures designed to reduce the transport of dust, thereby preventing pollutants from infiltrating into stormwater. Examples for construction activities include vegetative cover, wind barriers, minimization of soil disturbance, spray on adhesives, tilling, chemical treatment and water bars.

In St. Louis County the contractor / permittee is required by Missouri State Law (10 CSR 10-6.170) and County Ordinance (612.340) to control fugitive dust blown from the construction site, land disturbance site, signal installation, etc. Dust control, including saw-cut material etc., on the construction site shall be monitored for safety purposes and to prevent nuisances. The contractor / permittee shall apply reasonable measures to control dust and particulate matter (of any size or source) due to roadway / construction traffic, grading, clearing and grubbing, building demolition, wind erosion, saw-cutting etc. from migrating off the site of origin.

WHERE BMP IS TO BE INSTALLED - Critical in areas of exposed soil.

CONDITIONS FOR EFFECTIVE USE OF BMPs - A combination of the following actions should be used to help reduce the dust and air pollution at a construction site.

Minimize Concurrent Areas of Soil Disturbance - Phase work to the extent practical.

Vegetative Cover - For areas not subjected to traffic, vegetation provides the most practical method of dust control and should be established as early as possible. Temporary vegetation should also be used. See Seeding and Sodding BMPs for additional information.

Sprinkling - The site can be sprinkled with water until the surface is moist. This practice is effective for dust control on large areas, haul routes or other traffic routes, but constant repetition is required for effective control.

Tilling - Roughen the surface and bring clods to the surface. This is an emergency measure that should be used before soil blowing starts. Begin tillage on windward side of the site. Chisel plows with shanks spaced about 12 inches to 18 inches apart and spring toothed harrows are examples of equipment that may produce the desired effect. See Surface Roughening BMPs for additional information.

Wind Barriers - Solid board fences, snow fences, burlap fences, crate walls and similar materials can be used to control air currents and blowing soil. Barriers placed at right angles to prevailing wind currents at intervals of about 10 times their height are effective in controlling soil blowing.

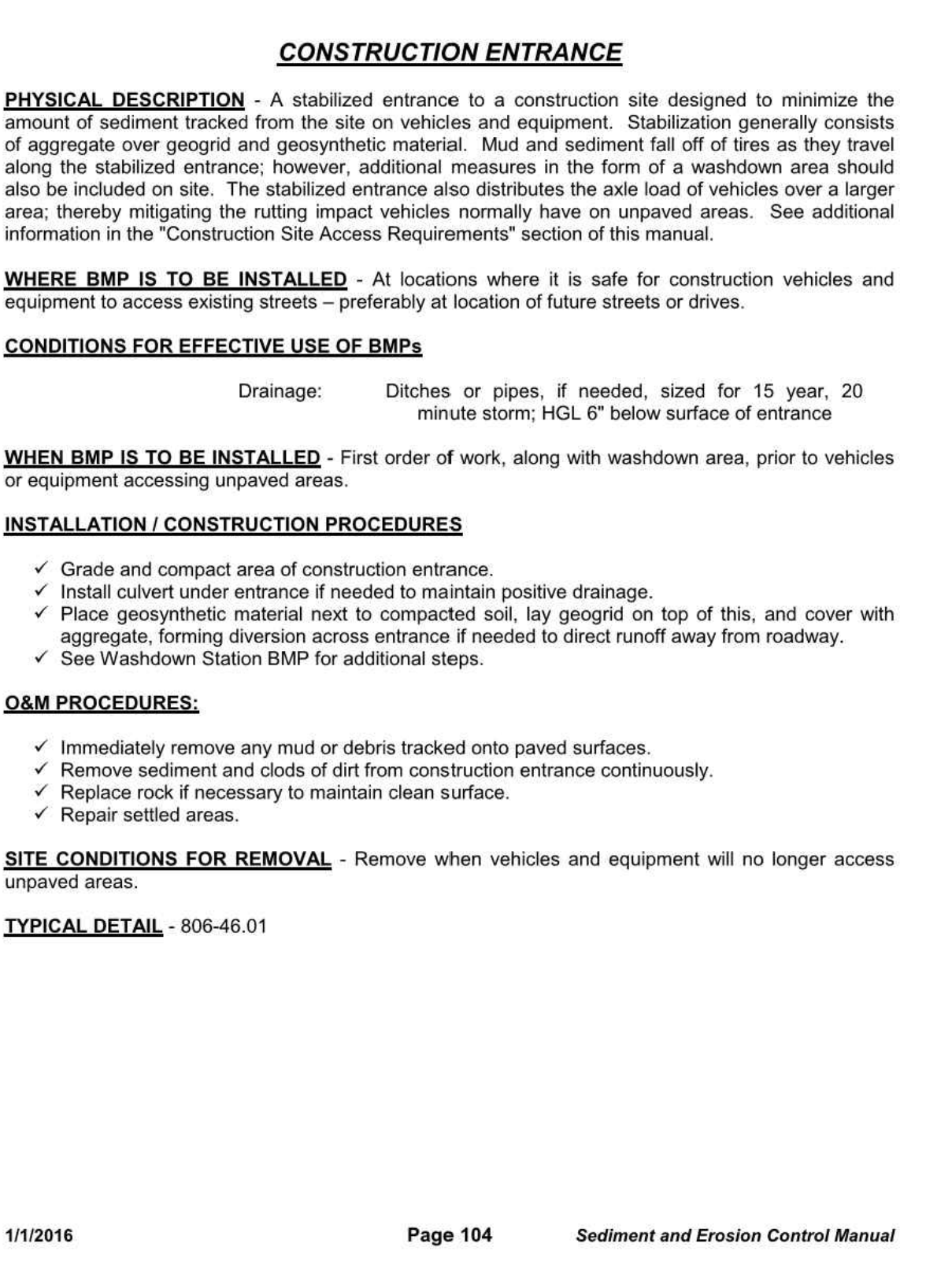
Street Cleaning - Paved areas that have soil on them from construction sites should be cleaned continuously, at least daily, utilizing a street sweeper or bucket type end loader or scraper.

Mulching - This practice offers a fast and effective means of controlling dust when properly applied. Binders and tackifiers should be used on organic mulches. Mulching is not recommended for areas with heavy traffic. See Mulching BMP for additional information.

Note: If calcium chloride or spray-on adhesives are used for dust control, a permit may be required from the Missouri Department of Natural Resources.

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A1 DUST CONTROL PROCEDURES



H8 CONSTRUCTION ROAD DETAIL

VEHICLE MAINTENANCE AND WASHING AREAS

DESCRIPTION - Ideally, vehicle maintenance and washing occurs in garages and wash facilities, not on active construction sites. However, if these activities must occur onsite, operators should follow appropriate BMPs to prevent untreated nutrient-enriched wastewater or hazardous wastes from being discharged to surface or ground waters. Vehicle maintenance and washing BMPs prevent construction site spills of wash water, fuel, or coolant from contaminating surface or ground water. They apply to all construction sites.

APPROPRIATE APPLICATION OF BMP - Inspect construction vehicles daily, and repair any leaks immediately. Dispose of all used oil, antifreeze, solvents and other automotive-related chemicals according to manufacturer instructions. These wastes require special handling and disposal. Used oil, antifreeze, and some solvents can be recycled at designated facilities, but other chemicals must be disposed of at a hazardous waste disposal site. Local government agencies can help identify such facilities.

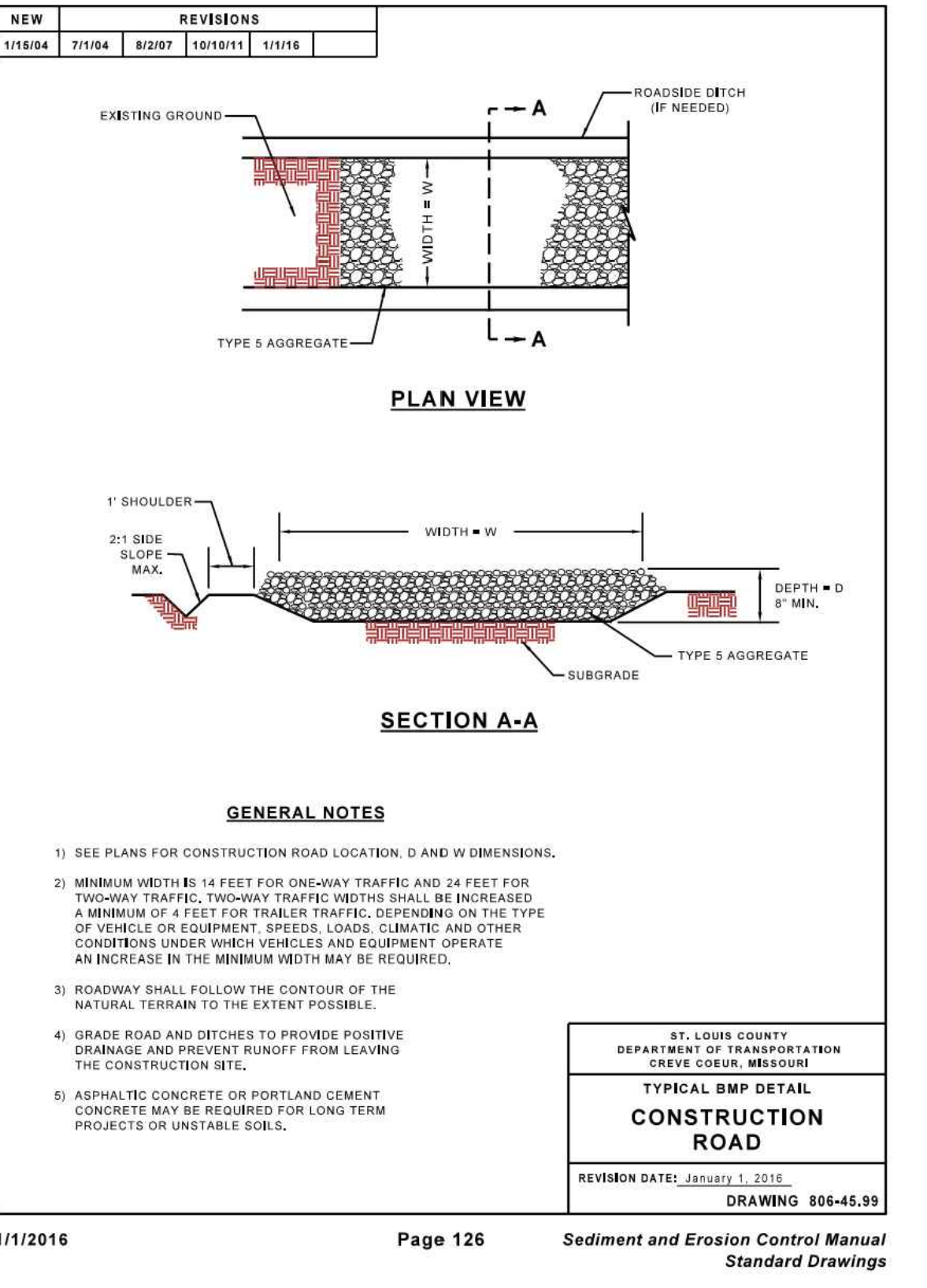
Designate special paved areas for vehicle repair. To direct wash water to sanitary sewer systems or other treatment facilities, ensure that vehicle washing areas are impervious and are bermed. Use blowers or vacuums instead of water to remove dry materials from vehicles if possible. Because water alone can remove most dirt adequately, use high-pressure water spray without detergents at vehicle washing areas. If you must use detergents, avoid phosphate or organic-based cleansers to reduce nutrient enrichment and biological oxygen demand in wastewater. Use only biodegradable products that are free of halogenated solvents. Clearly mark all washing areas, and inform workers that all washing must occur in this area.

O&M PROCEDURES - Vehicle maintenance operations produce substantial amounts of hazardous and other wastes that require regular disposal. Clean up spills and dispose of cleanup materials immediately. Inspect equipment and storage containers regularly to identify leaks or signs of deterioration. Maintenance of vehicle wash areas is minimal, usually involving repairs to berms and drainage to the sanitary sewer system.

TYPICAL DETAILS - Not applicable.

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A8 VEHICLE MAINTENANCE PROCEDURES



H1 CONSTRUCTION ENTRANCE DETAIL

TRAFFIC CONTROL

GENERAL NOTES

- Do not scale drawing. Follow dimensions.
- Track berms with blocking signs and/or arrows should be installed on ditches by the St. Louis County Department of Transportation.
- All overnight closures when specifically authorized by the St. Louis County Department of Transportation shall use Orange Berms with white reflective flags (optional) for transverse traffic.
- All flagging must be in accordance with the Manual on Uniform Traffic Control Devices (MUTCD).

TWO LANE PAVEMENT

BERM SPACING BY SPEED LIMIT

SPEED	30 MPH	35 MPH	40 MPH	45 MPH
BERM	200 FT.	200 FT.	200 FT.	200 FT.

FOUR LANE PAVEMENT

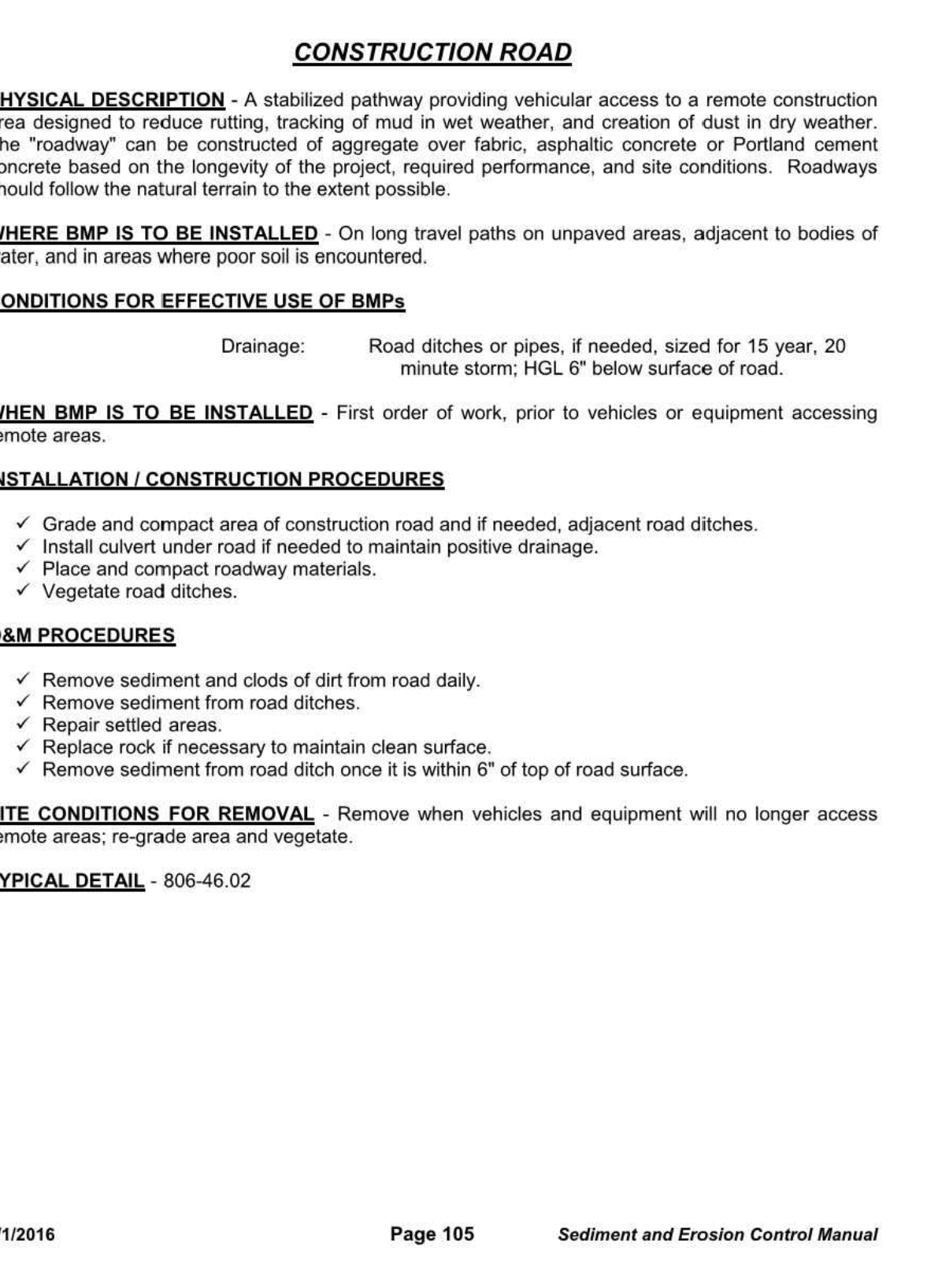
TAPER LENGTHS - BERM SPACING BY SPEED LIMIT

SPEED	30 MPH	35 MPH	40 MPH	45 MPH
TAPER	150 FT.	150 FT.	150 FT.	150 FT.
BERM	200 FT.	200 FT.	200 FT.	200 FT.

TYPICAL APPLICATIONS FOR TRAFFIC CONTROLS

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A12 ST. LOUIS COUNTY TRAFFIC CONTROL



A1 DUST CONTROL PROCEDURES

VEHICLE MAINTENANCE AND WASHING AREAS

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TYPICAL DETAILS - Not applicable.

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A8 VEHICLE MAINTENANCE PROCEDURES

ST. LOUIS COUNTY DEPARTMENT OF TRANSPORTATION
MICHAEL JAMES VELLOFF
P.L.L.C.
E-2000161862
REGISTERED PROFESSIONAL ENGINEER

PROJECT NO: 151054
NAME: MICHAEL J. VELLOFF
LICENSE NUMBER: E-2000161862
DISCIPLINE: CIVIL
CORPORATION AUTHORITY NUMBER: 001194

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DRAWN BY: RKF
REVIEWED BY: MJV

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09-15-16	CONSTRUCTION SET	

ORIGINAL ISSUE DATE: 04-14-16

SHEET TITLE:
EROSION CONTROL DETAILS

SHEET NUMBER:
C553