APPENDIX C PIPELINE CONSTRUCTION BEST MANAGEMENT PRACTICES PLAN

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MAGELLAN
MIDSTREAM PARTNERS, L.P.

PIPELINE CONSTRUCTION
BEST MANAGEMENT PRACTICES PLAN

Pipestone Reroute Project
Minnesota

April 2023

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RECORD OF BMP PLAN REVISION

Original Preparation February 2023

	Revision Date	Reason for Revision
Revised		
Revised		
Revised		
Revised		

1.0 PURPOSE AND USE OF THE BEST MANAGEMENT PRACTICES PLAN (BMP PLAN)

1.1 PURPOSE

Magellan Pipeline Company, L.P. (Magellan) will construct, own, and operate the Pipestone Reroute Project (Project). The Project will relocate approximately 0.74 mile of the existing 8-inch pipeline from federal lands managed by the U.S. Fish and Wildlife Service (USFWS) and National Park Service (NPS) within the Pipestone Creek Unit of the Northern Tallgrass Prairie National Wildlife Refuge (NWR) and the Pipestone National Monument, respectively. The reroute will be located on private lands west of the federal lands.

Magellan is the construction manager for the Project and will be responsible for all aspects of Project construction. Magellan will implement Best Management Practices (BMPs) for the duration of the construction project to reduce or eliminate potential pollutants from discharging from the construction site. The BMP Plan (Plan) includes procedures and protection measures regarding the construction of the Pipestone Reroute. This Plan and permits must be read together. There may be discrepancies between the content of the Plan and regulatory permits regarding construction conditions and protection measures. For any discrepancy, the regulatory permits supersede the Plan content. Magellan and its contractors are responsible for implementing the requirements of this Plan.

Stormwater discharges in the state of Minnesota are regulated by the Minnesota Pollution Control Agency. Construction stormwater discharges from this Project will be authorized under the Minnesota Construction Stormwater General Permit # MNR120001.

This BMP Plan describes practices and procedures designed by Magellan to minimize and control pollutants in storm water discharges associated with the proposed construction activities. This BMP Plan incorporates BMPs and expectations for activities not required to be addressed in the SWPPP.

This plan will be revised after field surveys are completed and permits are acquired, and before construction begins.

1.2 USE

1.2.1 Project

This BMP Plan is intended for use by Magellan and their affiliated companies for facility and pipeline construction projects. This BMP Plan identifies general measures that are relevant at all construction sites. In addition, this BMP Plan includes, and makes provisions for the inclusion of additional site-specific information. The BMP Plan should be evaluated on a project specific basis to verify that the provisions of the BMP Plan are appropriate for the Project.

Magellan will revise or update the project specific BMP Plan whenever:

- There is a change in design, construction, operation, or maintenance that has a significant effect on the discharge of pollutants and that has not been previously addressed in the BMP Plan;

- There is a change in site conditions based on updated plans and specifications, new operators, new areas of responsibility, and/or there are changes in best management practices (BMPs); or
- Results of inspections or investigations by site operators, operators of a municipal separate storm sewer system (MS4) receiving the discharge, or a federal, state or local agency approving sediment and erosion plans indicate the BMP Plan is proving ineffective in eliminating or significantly minimizing pollutants in storm water discharges.

If it is determined that the BMP Plan needs to be modified, the revisions must be completed within seven calendar days.

1.2.2 Construction Contractor Expectations

The construction contractor (contractor) is responsible for implementing this BMP Plan, complying with the approved SWPPP in Appendix A, and complying with other applicable permits (Appendix D). Should there be a discrepancy in requirements between the BMP Plan and the requirements of the SWPPP or other regulatory permits, the more stringent requirement will be followed.

In the event a non-compliant issue is identified at the project site, the Contractor must complete the necessary repairs identified within 24 hours of receiving notice of the non-compliant issue. If the repairs cannot be completed within 24 hours, the contractor must provide documentation of why the repairs cannot be completed.

All Contractors and Subcontractors shall go through orientation of the BMP Plan, be made aware of all local, state or federal government requirements and sign the Contractor Certification included as Appendix Table A2. Contractors and Subcontractors will then be responsible for ensuring all of their workers have been informed of the requirements of the BMP Plan and SWPPP and other applicable permits prior to working on the project.

1.3 PROJECT INFORMATION

The proposed Project includes a 1.3-mile-long reroute of approximately 0.74 mile of the existing 8-inch-diameter pipeline located on lands managed by the USFWS and the NPS. The segment of the existing pipeline was decommissioned in place on September 30, 2022. Final abandonment of the pipeline segment occurred on December 15, 2022.

The Project's associated facilities include one permanent and five temporary access roads. Additionally, the aboveground appurtenances include a new cathodic protection system and pipeline markers. None of the access roads will require upgrades or improvement for the proposed Project activities. The cathodic protection system will include two additional test points and potentially one additional ground bed. The pipeline markers are typically placed at property lines to mark the pipeline easement. No additional aboveground facilities are planned for this Project (e.g., valves, building, structures).

Detailed information specific to this project is presented in Table 1. Project site drawings are provided in Appendix C**.**

Table 1: Disturbed Area

Location (Counties)	Pipestone County, Minnesota
Length	1.3 miles
ROW Width – Permanent	40 feet
ROW Width – Temporary	45 feet
Project – Approximate Area of Disturbance	17.86 acres

1.4 SITE CONTACTS INFORMATION

The Contractor retains day-to-day operational control of the implementation of the project.
The Contractor will work in accordance with the contract specifications and this BMP Plan. The Contractor will direct on-site activities of all contract employees and Sub-Contractors hired by the Contractor. Project Contact information is provided in Appendix Table A1.

1.5 PROJECT SITE DRAWINGS

Project site drawings will be provided in Appendix C. The project site maps show the following features if applicable:

- the project construction area
- surface waters (including wetlands) either at, adjacent, or in close proximity to the site
- locations where storm water discharges from the site directly to a surface water body
- drainage patterns and approximate slopes anticipated after major grading activities
- areas of soil disturbance
- the location of temporary or permanent structural and nonstructural controls, either planned or in place
- the location of areas where temporary or permanent stabilization practices are expected to occur
- the locations of off-site material
- locations of construction support activities, including off-site activities including material, waste, borrow, fill, or equipment storage areas
- federal and state listed species habitat

Where the amount of information included on the map would result in a single map being difficult to read and interpret, a series of maps that collectively include the desired information are used. Drawings are used if they contain the information listed above. In situations where drawings or maps are not available, or do not contain adequate information, individual site maps or hand sketches may be prepared and utilized.

1.6 WATERS OF THE US, THREATENED AND ENDANGERED SPECIES, AND AREAS OF ARCHEOLOGICAL CONCERN

1.6.1 Waters of the US and State of Minnesota

Impacts on surface waters (wetlands and waterbodies) in the Project area may be regulated federally under Sections 401 and 404 of the Clean Water Act and by the state under the Wetland Conservation Act (WCA). Surface disturbance greater than 1 acre would also be regulated under Section 402 through the National Pollutant Discharge Elimination System (NPDES). In Minnesota, Section 404 permits are administered by the U.S. Army Corps of Engineers St. Paul Regulatory District, Section 401 Water Quality Certifications and Section 402 general stormwater permits are administered by the MPCA, and the WCA is regulated by the applicable local government unit with oversight by the Minnesota Board of Water and Soil Resources.

Permitting requirements for the Project will be confirmed following the completion of field surveys in spring 2023.

1.6.2 Threatened and Endangered Species

Due to the avoidance measures taken by Magellan for the construction of the pipeline (e.g., HDD of Pipestone Creek), the Project is unlikely to affect any federally threatened, endangered, or managed species listed for the proposed project area.

1.6.3 Areas of Archaeological Concern

Potential impacts on areas of archaeological concern will be updated following the completion of field surveys in spring 2023.

Although cultural resource impacts are not anticipated, if any human remains, grave offerings or other historic cultural materials are encountered at any point during construction, maintenance, or on-going use of the right-of-way, all work at the location of the accidental discovery must cease immediately. The Magellan project manager should be contacted for further guidance and coordination with a qualified archaeologist to assess the discovery as described in the Unanticipated Discovery Plan.

1.7 INTENDED SEQUENCE OF CONSTRUCTION ACTIVITIES

Construction will include one construction spread. The sequence and estimated duration of construction activities is anticipated to be approximately three months. Provided in Table 3 is a list of the construction activities.

Table 3: Anticipated Construction Sequencing

Activity	**Description**
Survey/Staking	Survey and staking of construction right-of-way, additional temporary workspace, environmental features, etc.
Clearing and Grading	Where required, vegetation will only be cut off at ground level (leaving root system intact). Other areas, vegetation (including stumps and roots) will be removed. Topsoil from the trenchline or entire graded work area will be segregated and stockpiled for restoration.
Mobilization	Entry/exit installations will be installed to minimize tracking of sediment from the construction site onto paved public roads.
Trenching	Generally the pipeline trench will be a minimum of 60 inches deep unless in rock. Where possible, excavated soil will be piled along the trench to be used as backfill once the pipeline has been laid into the trench.
Pipe Stringing, Bending, Welding	Laying the pipe joints adjacent to the trench line for bending (as needed) and welding of the pipeline.
Lowering-in and Backfilling	Installing the pipeline in the trench and burying the pipeline with a minimum of 48 inches of cover (except for in areas of rock).
Horizontal Directional Drilling	Alternative pipeline installation method used where trenching is undesirable, not feasible or may cause significant environmental impacts.
Hydrostatic Testing	Integrity testing of the pipeline using water to pressure test the line.
Final Clean-up and Restoration	Construction debris will be removed and work areas will be final graded and restored to preconstruction contours as possible. Site stabilization will begin within 14 days of completion of construction activities and will be considered complete upon the establishment of 70% vegetative cover, except for land that will be returned to use for cultivated crops.

Actual dates of construction activities, including start and completion dates of storm water controls and other construction activities that will disturb soils, will be documented by the construction contractor in Appendix Table A3.

2.0 POTENTIAL POLLUTANTS AND RECOMMENDED PRACTICES

The primary pollutant sources from construction activities will be disturbed soils and subsequent sediment-laden surface water runoff. Other potential pollutant sources include dust, solid waste materials, and materials and chemicals needed for construction equipment (e.g., gasoline, diesel, lube oil, etc.).

Material Storage

Any potentially polluting materials brought to the construction site should be stored in their original containers when possible. All containers of potentially polluting materials should be kept closed and stored on elevated bases (e.g., wood pallet) to prevent contact with storm water or storm water runoff. If the exposed materials will generate any kind of contaminated discharge during a rain event, the materials should be covered with a waterproof cover. Equipment, hazardous materials, including chemicals, fuels, and lubricating oils, will not be stored within 100 feet of a wetland, waterbody, or designated municipal watershed area. This applies to storage of these materials and does not apply to normal operation or use of equipment in these areas. Fuels, oils, and other hazardous materials should be stored in appropriate secondary containment systems. The construction contractor will provide a list of materials (using Table A4 of this document) that are stored on site, including the storage location and the method of storage. Spill prevention and response procedures are described in Section 4.0.

Fueling

All fueling of light equipment and transportation vehicles should be performed off-site. Heavy equipment (such as backhoe, track loader, or dozer) may be fueled on-site (when necessary) using either bullets, portable fuel containers or a mobile, truck-mounted fuel tank. All vehicles transporting fuel to on-site equipment should travel only on approved access roads. The mobile fuel tank will be removed from the site at the end of the workday. Drip pans, plastic sheeting or other impervious material will be used to protect the soil during all on-site fueling activities. A spill response kit will be kept in the mobile fueling vehicle. Spill kits and absorbent rags will be on all equipment. Fuel cans will always remain within secondary containment. To minimize adverse impacts to water bodies from petroleum products used for construction equipment, Contractors should not perform refueling and/or lubing activities within 100 feet of any water body or wetland.

Drilling Mud

This project will utilize horizontal directional drilling (HDD) as a construction technique. With HDD, there is the potential for an inadvertent return wherein the pressure of the drilling mud pumped through the drill stem is great enough to travel up through loose soils or voids and exit at ground surface. Inadvertent returns most frequently occur very near the entry or exit point of the drill, but there is the potential they could occur anywhere between the entry and exit points. During the drilling process, the contractor will conduct frequent inspections along the drills path above the location of the drill bit to look for inadvertent returns. Should an inadvertent return occur in an upland area, the drilling operation will be stopped and proper BMPs (e.g., sandbags, hay bales, or silt fencing) will be used to contain the drilling mud within as small an area as possible until it solidifies or a vac truck can arrive to pump mud from the inadvertent return. Should an inadvertent return occur immediately adjacent to or within a wetland or waterbody, the drilling operation will be stopped upon discovery and a drilling plan will be developed to prevent or minimize the potential for additional inadvertent returns. Additionally, the Contractor will insure the

following items are available to the HDD drilling crews for containment, response, and cleanup of an inadvertent return.

Available On-Site	**Available Within Two Hours**
• MSDS for drilling mud and additives	• Frac tank or mud pit for excess mud
• Hay bales	• Vacuum truck
• Silt fence	• Silt curtain/absorbent booms
• Sandbags	• Light towers for work at night
• Plastic sheeting	• Heavy equipment, such as backhoe or dozer, for containment and cleanup
• Shovels, brooms, appropriate hand tools	
• Generator, pump, and hose	

Non-contaminated drill cuttings can be put back into the HDD entry or exit pits or pipeline trench but must be buried a minimum of 24 inches from the surface. Drill cuttings cannot be surface spread on the construction right-of-way.

Drill mud must be vacuumed out as much as possible. If necessary, jet wash drill mud to where it can be vacuumed. It is the responsibility of the contractor to assure drilling mud is disposed of in accordance with all Local, State and Federal regulations. In rare instances drill mud may be land applied at designated sites that have been authorized for use by Magellan. Drill mud containing anything other than bentonite and water must be disposed of according to state and federal laws.

Wastes

The Contractor/Subcontractor must implement BMPs to ensure that no materials, including building materials, will be discharged to waters of the US. All waste material, including contaminated soil, must be properly stored and ultimately disposed of in accordance with federal, state, and local regulations. These materials must be identified with the appropriate label and/or hazard marking as required by the Hazard Communication program and DOT hazardous materials regulations. No wastes or unused materials may be buried, burned, dumped or discharged at the site.

The Environmental Inspector (EI) should be notified of all waste related issues. Contractors must provide documentation of waste management as requested by the EI.

Sanitary Waste

Sanitary sewage facilities (i.e., portable toilets) will be located by the contractor at predetermined locations throughout the duration of the construction project. Portable toilets will be stationed, maintained and collected by an authorized hauler. The portable toilets will be located in areas with low potential to impact existing stormwater paths and on the construction ROW.

Concrete Truck Wash Out

Typically concrete, if needed, will be prepared on location in small batches. Wash out of concrete from tools (and or trucks) will not be performed on site.

Existing Contaminated Soils

Construction crews should be aware of the possibility of encountering unanticipated historically contaminated soils. Construction must be stopped if soils that are visually impacted or have a petroleum odor are encountered. The Magellan Project Manager and Magellan Environmental specialist should be notified immediately of the presence of contaminated soils at the construction site.

Fugitive Dust

Fugitive dust emissions from the project will be minimized by controlling vehicle speeds and watering of the disturbed ROW where there is active construction. Vehicle speeds will be limited to 30 mph on all constructed access roads and 10 mph on the construction right-of-way. Speed limit signs will be posted by the Contractor and maintained throughout the duration of the project. In addition, the Contractor will water the construction ROW, as needed, in areas of active construction to minimize the generation of fugitive dust.

3.0 SEDIMENT AND EROSION CONTROLS

3.1 GENERAL

Erosion and sediment controls as well as BMPs should be utilized to minimize the off-site transport of sediments and other pollutants from the construction site. Drawings that contain control measures specific to this project are provided in Appendix B.

Typical pipeline construction activities that will need erosion and/or sedimentation controls include:

- Permanent flow navigable stream crossing boring operations,
- Permanent flow non-navigable tributary crossing trenching or boring operations,
- Intermittent flow tributary crossing trenching or boring operations,
- Wetland crossing trenching or boring operations,
- Dirt road crossing trenching operations,
- Hard top road crossing boring operations, and
- Steep slopes (>5%).

3.2 CONSTRUCTION PRACTICES FOR MINIMIZING EROSION AND SEDIMENTATION

Rocks, brush, and all woody material cleared from the ROW will be windrowed or piled to one side and inside the ROW or temporary work areas for later use in reclamation or pending removal and disposal by the Contractor at an approved disposal facility. Brush from the ROW may be cleared by scalping the top of brush with a motor-grader, bulldozer or brush hog. Unless restricted by the landowner, brush and other woody material cleared from the ROW may be chipped for surface mulching or randomly scattered over the ROW outside of designated wetland areas. Rocks that were cleared from the surface of the ROW, prior to trenching, may be randomly placed on the ROW with a "wheeled" front-end loader or other equipment capable of carrying the material.

As required by the construction contract, the Construction Restoration Plan and/or landowner specifications, topsoil should be excavated and segregated, topsoil should not be used for construction purposes but be maintained for use during final stabilization and revegetation.

Where pipelines parallel a waterbody, maintain at least 15 feet of undisturbed vegetation between the waterbody (and any adjacent wetland) and the construction right-of-way, except where maintaining this offset will result in greater environmental impact.

For each wetland crossed, install a trench breaker at the base of slopes near the boundary between the wetland and adjacent upland areas. Install a permanent slope breaker across the construction right-of-way at the base of slopes greater than 5 percent where the base of the slope is less than 50 feet from the wetland, or as needed to prevent sediment transport into the wetland. In addition, install sediment barriers as outlined in the Plan.

3.3 INSTALLATION OF EROSION CONTROL AND STABILIZATION MEASURES

Erosion control and stabilization measures are designed to minimize sediment transport by reducing the transport of sediment from its original location. Erosion control and stabilization measures may include, but are not limited to, diverting flows from exposed soils, storing storm water runoff, or other methods to limit runoff, establishing of temporary vegetation, establishing of permanent vegetation, mulching, placing geotextiles and/or sod, establishing vegetative buffer strips, and preserving existing vegetation to the extent practical.

Velocity dissipation devices shall be placed at discharge locations and along the length of outfall channels to provide a non-erosive velocity flow to the watercourse to protect natural physical and biological characteristics.

Site specific erosion control and stabilization measures should be implemented (where necessary). Erosion control and stabilization measures should be implemented as soon as practicable, but within 14 days, in portions of the site where construction activities have temporarily or permanently ceased. Where construction activity on a portion of the site is temporarily ceased, and earth disturbing activities will be resumed within 14 days, temporary stabilization measures do not have to be initiated in that area.

In the event that implementation of temporary stabilization measures is infeasible where construction activities have temporarily or permanently ceased due to drought, alternative temporary perimeter controls can be utilized. If temporary perimeter controls are utilized, the reason for their use, and a demonstration that the perimeter controls will retain sediment on site, should be documented in the BMP Plan. The temporary perimeter controls should continue to be inspected and maintained in accordance with Section 5.0 until the area is stabilized. At a minimum, perimeter controls should consist of silt fences, vegetative buffer strips, or equivalent sediment controls at all down slope boundaries of disturbed areas, and for side slope boundaries as needed. Dates of major site construction activities, grading activities, and stabilization measures are begun and dates they are temporarily or permanently ceased on a portion of the site should be documented by the Contractor in Table A3.

The locations of the erosion control and stabilization measures should be indicated on the project site maps in Appendix A, the design drawing, or hand drawing, as appropriate.

3.4 SEDIMENT CONTROL MEASURES

Sediment control measures are designed to trap sediment that has already been picked up by storm water before it leaves the construction site. A description of the site-specific sediment control measures required to divert flows from exposed soils, store storm water runoff, or otherwise limit runoff, sediment transport, and the discharge of pollutants from exposed areas is provided in the plans and specifications for the project and in the SWPPP in Appendix A. Sediment control measures identified in the plans and specifications may include silt fences, earth dikes, drainage swales, hay bale barriers, pipe slope drains, trench plugs, sediment traps, check dams, level spreaders, gabions, and temporary or permanent sediment basins. Sediment control measures should be placed on upland soils to the degree attainable. Where possible storm water should be diverted into or onto vegetation or a flat area outside of the immediate construction site. Drawings of typical control measures and installation details are provided in Appendix B.

In locations where the disturbed area consists of flat, cultivated areas, rangeland and pastureland, silt fences, vegetative buffer strips or other perimeter measures should be implemented at all down slope boundaries of the construction area. In the event that erosion or the potential for erosion is observed in these areas, the Contractor and/or EI will exercise best professional judgment regarding which BMPs and controls are appropriate as work proceeds. The following paragraphs describe temporary and permanent erosion controls which may be implemented.

Silt fence, staked hay bales, or other suitable erosion control devices should be used to intercept and retain small amounts of sediment carried by sheet flow from the disturbed areas during construction activities. Silt fence or staked hay bales may be placed in any areas where high surface runoff is expected. These locations are primarily in the drainage swale along pipeline Right-of-Ways and site storm water outfalls. Silt fences or staked hay bales should be placed down-slope, perpendicular to the flow of runoff and parallel to the grade contours. Berms, dikes, or other ECDs should be used in areas where silt fence and/or hay bales are not practical (e.g., livestock may likely eat and/or destroy the hay bales).

Slope breakers/ water bars should be placed across the width of the ROW to control surface water and erosion and divert storm water from the site after construction is completed. Permanent water bars should be constructed across the ROW where slopes are greater than 5 percent and are less than 50 feet from a waterbody. Water bars (and trench breakers) are typically constructed on the contour across disturbed areas at the following minimum intervals:

Percent Slope	Spacing Intervals
< 5%	not required
5% - 15%	300 feet
15% - 30%	200 feet
> 30%	100 feet

Below ground trench plugs may be installed in pipeline trenches to restrict flow parallel to the pipelines on a downhill slope. Trench plugs are effective in areas where high water velocity is likely to occur, as on the slope of a wash, stream, or river channel. Trench plugs may be constructed of materials such as sandbags or polyurethane foam. Do not use topsoil to construct trench plugs. Trench plugs should be installed at the same spacing as and upslope of permanent water bars unless otherwise specified. At a minimum, trench plugs should be installed at the base of slopes greater than 5 percent where the base of the slope is less than 50 feet from a waterbody or wetland and where needed to avoid draining a waterbody or wetland. Install trench plugs at all wetland boundaries. Trench plugs should not be installed within a wetland. Trench Plugs may also be installed at the same interval as water bars as outlined above.

3.5 CONSTRUCTION ACCESS

Stabilized construction access will be installed at paved public roads to minimize off-site sediment tracking. Construction access points should be installed per the Project Typical Public Road Entrance Map construction drawing (Appendix B) and should be inspected for sediments or mud tracked from the site by vehicles or equipment. Off-site tracking of sediments and/or the generation of dust should be minimized where possible. Dust should be minimized through control of vehicle speeds and through watering. Where tracking

has occurred, sediment should be removed immediately from the road by shoveling or sweeping. Site access points are shown on the Project Site Maps.

3.6 WATER CROSSINGS

Erosion and sediment controls as well as other BMPs should be utilized to minimize the off-site transport of sediments and other pollutants during water crossing and other pumping and dewatering activities.

Temporary work areas up to 50 feet wide on the side of the ROW and averaging 100 feet long may be required at water crossings. Temporary work areas should be located at least 50 feet from any waterbody except where the area consists of cultivated cropland or other disturbed land. Temporary work areas should be coordinated with the Company and may not be available in all areas.

3.6.1 Right-of-Way Clearing for Water Body and Wetland Crossings

To protect wetlands and waterbodies from sediment runoff, a 15-foot vegetated buffer zone will be retained on both sides of all wetland and waterbodies. Vegetated buffer zones will be staked or flagged by the surveyor and will be retained until installation of the pipeline across the wetland or waterbody occurs. Timber and brush within the vegetated buffer zones may be hand cleared (i.e., no soil disturbance) as part of normal pre-construction right-of-way clearing, but stumps, root balls, and other vegetation must be left in place until installation of the pipeline occurs.

3.6.2 Waterbody Crossings

Crossings and stream construction projects should be scheduled during periods of low stream flow and completed as soon as possible. Mechanical equipment may cross a stream using one of the following methods:

- timber or gravel through-streaming where possible without sloping the stream banks,
- temporary bridging (Appendix B – Typical Temporary Bridge, Typical Mat Bridge Crossing).

Minor excavation and leveling of the stream banks to provide a stable foundation for a temporary bridge over a waterbody is generally allowable when necessary. The exception is when the water crossing has been designated as a “no soil disturbance” crossing. For no soil disturbance crossings, no excavation or soil disturbance is allowed for 50 feet from the top of bank. Thus, timber mats must be used to protect the soils approaching the crossing and equipment may not traverse the site during wet conditions when the timber mats could be pressed into the soils. Temporary bridges should be sealed or underlain with a geotech fabric to catch sediment and debris falling between cracks in the deck.

Intermittent streams and dry washes may be open trenched, bored, or directionally drilled. Soil from trenching across streams may be temporarily stockpiled at the top of the stream banks per the time frames identified below for open trench crossings. Disturbed bank areas should be returned to their original contours and stabilized immediately, not to exceed 24 hours, upon completion of the activity. This approach may be modified to fit specific situations; e.g., rock rip-rap or other reinforcing material might be required in

large deep washes where bank stabilization and scouring consideration may be a problem. Where open-trench methods are used, the in-stream construction activities (including restoration of streambed contours) should be completed within the following time frames:

- crossing of a "minor waterbody" (≤ 10 feet wide at the water's edge at the time of crossing) must be completed within 24 hours.
- crossing of a "intermediate waterbody" (> 10 feet but < 100 feet wide at the water's edge at the time of crossing) must be completed within 48 hours.
- Crossing of a "major waterbody" (>100 feet wide at the water's edge at the time of crossing) must be completed within 96 hours.

Trenching across minor streams may be flumed or crossed by dry-ditch method. Trench plugs should be installed in trenches where stream banks are intersected.

Major streams and rivers will be directional drilled so there will be no disturbance of the stream or riverbank. Drilling should take place at least 100 feet from the top of the stream bank with an additional temporary workspace as needed and as defined by the Project Construction Plan, on each side of the waterway. Excavation should be performed in such a manner as to minimize the creation of additional suspended solids. Excavated material from drilling may be stored at an upland site or on-site, but always in a contained stockpile area at least 100 feet from the top of the stream bank. Material should be protected from precipitation to prevent erosion into waterways.

Drilling mud, if used, should be removed from the site and disposed in accordance with state and federal regulations by the contractor.

All areas disturbed, including banks and bottom contours should be restored to their original condition. BMPs should be employed to ensure that spoil storage and other project activities do not cause erosion or sedimentation.

3.6.3 Wetlands Crossing

If wetlands are encountered, measures should be employed to prevent sediment flow to adjacent wetlands and should be maintained until project completion. Prior to commencement of construction activities, all wetland areas will be field located in accordance with federal, state and local regulation and field marked so the appropriate construction method can be implemented.

Prior to any construction activity, sediment barriers will be installed at the downslope edge of the work area to prevent flow of sediment into adjacent wetlands. Temporary erosion and sediment control devices should remain in place and be maintained until permanent measures have been established.

Staging areas should be located at least 50 feet from the edge of wetland crossings where topographic conditions provide the necessary space. Staging areas should be limited to the minimum size area practicable for the preparation of the construction activity. No storage of fuels or hazardous materials should take place within 100 feet of a wetland. Construction equipment or vehicles should not be refueled or serviced within 100 feet of a wetland boundary. Spill prevention and/or containment measures should be employed, as required during all maintenance and refueling efforts.

Only the equipment needed to perform the wetland construction activity and to restore the disturbed wetland should be allowed in the wetland area. Crossing of the wetland by construction equipment or vehicles for the purpose of providing access to other parts of the project should be prohibited unless it is the only means of access. Equipment bridges should be constructed and maintained to allow unrestricted water flow and to prevent soil from entering the wetland. Soil should not be used to construct or stabilize equipment bridges. Temporary water bars will be installed 15 feet outside of the vegetated buffer zone and will be routinely maintained.

If standing water or saturated soils are present or if construction equipment causes significant ruts or mixing of the topsoil and subsoil in wetlands, use wide-track or balloon-tire equipment, or normal equipment on equipment mats to perform the necessary construction activities. Timber equipment mats shall not be more than two layers deep. The pipeline should be assembled in an upland area unless the wetland is dry enough to adequately support skids and pipe. Trenching in wetlands should not begin until the pipeline is assembled and ready for installation.

All materials used including timber bridges, timber mats, and prefabricated equipment mats must be removed upon completion of construction activities. When backfilling is completed, the wetland area should be restored to its original contours by using the elevation of the adjacent undisturbed areas as a guide.

3.7 STOCKPILED SOILS

The majority of stockpiled soils from this construction project will be stockpiled along the pipeline trench to be used for backfill (subsoil) and right-of-way restoration (top soil). In locations where soil is stockpiled in flat cultivated areas, rangeland and pastureland, silt fences, vegetative buffer strips or other perimeter measures should be implemented at all down slope boundaries of the construction area. Unless specifically noted elsewhere in this Plan, soil stockpiles will be located a minimum of 50 feet away from all waterbodies and wetlands.

3.8 TRENCH DEWATERING

Stormwater or groundwater will be removed from trenches utilizing a water pump that will discharge the water onto an on-site or adjacent vegetative strip where landowner approval has been obtained for the discharge. Where it is not possible to discharge trench water to a vegetative strip, the water will be discharged through a filter bag or a dewatering structure consisting of hay bales and/or silt fencing to remove suspended sediments from the trench water.

3.9 CLEAN UP

Upon completion of pipe installation and backfill, all disturbed areas should be restored to their original contours within 14 days.

All temporary soil erosion and sediment control measures should be removed or disposed of and disturbed areas should be re-vegetated at project completion as described in Section 8.0.

3.10 EROSION CONTROL DEVICE MAINTENANCE

All erosion and sediment control measures and other protective measures identified in the BMP Plan should be maintained in effective operating condition. The EI, Contractor and environmental crews will conduct storm water walk inspections as teams. If site inspections required by this BMP Plan identify BMPs that are not operating effectively, maintenance should be performed as soon as possible to maintain the continued effectiveness of storm water controls. BMPs that have been damaged by construction activities (run over, disabled, removed etc.) should be repaired or replaced immediately upon discovery.

Sediment should be removed from sediment traps and sedimentation ponds before the design capacity has been reduced by 50 percent. Trapped sediment should be removed from perimeter controls such as silt fences, and berms, before the sediment reaches 50 percent of the above-ground height of the control. If sediment escapes the site, off-site accumulations of sediment should be removed and returned to the construction site as soon as possible to minimize off-site impacts. Magellan will coordinate removal efforts with the owner and/or operator of the off-site stormwater conveyance (ditch, channel, roadway, etc.)

If maintenance is not possible prior to the next anticipated rainfall event, the reason should be documented on the maintenance form and maintenance should be performed as soon as possible.

4.0 SPILL PREVENTION AND RESPONSE PROCEDURES

The Contractor shall implement material handling procedures, storage requirements, containment, and spill cleanup procedures designed to minimize the potential for spills and, in the event of a spill, enable a proper and timely response.

4.1 SPILL PREVENTION MEASURES

- Personnel handling fuels and other hazardous materials should be properly trained in spill prevention procedures and proper material handling through environmental training conducted by the EI.
- Equipment and storage areas should be routinely inspected for signs of leaks;
- A spill response kit consisting of (at a minimum) a shovel, absorbent materials, and a container for impacted soils must be maintained at each fuel storage and dispensing location;
- Liquid materials, including fuels, must be stored in secondary containments that will hold at least 110% of the largest container;
- Environmental and Pipeline Inspectors will have MSDS documents for all harmful chemicals readily available.
- Drip pans or plastic sheeting must be used during fuel transfers to prevent leaks from vulnerable locations such as couplings and beneath the fuel nozzle;
- Any leaking equipment or leaking chemical storage containers must be repaired or replaced immediately;
- Chemical containers must be kept closed when not in use;
- An effort should be made to store only enough product required to do the project;
- All materials stored onsite should be stored in an orderly manner in their appropriate containers, as far away as possible from potential receptors (i.e. storm drains, ditches, etc.) and, if possible, under a roof or other enclosure; and
- Whenever possible, all of a product should be used up prior to disposing of the container.

4.2 SPILL CONTROL

- Manufacturer's recommended methods for spill cleanup should be maintained at the site and personnel should be made aware of the procedures and the location of the information and cleanup supplies;
- Materials, tools, and equipment necessary for spill cleanup must be kept onsite, (brooms, dust pans, rags, gloves, kitty litter, sand, sawdust, plastic or metal storage containers, etc.);
- Any spilled materials that could come in contact with storm water must be cleaned up immediately;
- No construction materials or wastes may be buried onsite; and
- All hazardous materials must be disposed of in the manner specified by the manufacturer and in accordance with applicable state and federal regulations.

4.3 INITIAL SPILL RESPONSE ACTIONS

Spill Prevention and Control BMPs will be implemented to contain and clean up spills and prevent material discharges to the storm water system. Cleanup of spills should be immediate, automatic, and routine. A trained staff member or a licensed emergency response company should perform the cleanup. This discussion contains guidance for spill prevention and control.

Minor Spills

Minor spills (less than five gallons and no impact to groundwater or surface water) are those that are likely to be controlled by on-site personnel. After contacting the EI (see Table 2 for contact information), **if it is safe to do so**, the following actions should occur upon discovery of a minor spill:

- Contain the spread of the spill.
- If the spill occurs on paved or impermeable surfaces, clean up using dry methods (i.e., absorbent material, cat litter, and/or rags).
- If the spill occurs in a dirt area, immediately contain the spill by constructing an earthen dike.
- Dig up and properly dispose of contaminated soil.
- If the spill occurs during rain, use absorbent pads and cover the affected area with plastic to prevent contact with storm water. Dirt berms will be built if needed to further help contain the spill.
- Record all steps taken to report and contain the spill

All Other Spills

On-site personnel should not attempt to control major spills until the appropriate and qualified emergency response staff has arrived at the site. If the spilled material is hazardous, immediately contact the Fire Department (911) for a Hazardous Materials Response Team. In the event of a major spill (greater than five gallons or impacts to groundwater or visible sheen on surface water) immediately contact the Project EI, Chief Inspector AND the Magellan Environmental Specialist (see Table A1 for contact information).

4.4 SPILL REPORTING

All confirmed or suspected releases are to be reported immediately to the EI. All releases greater than 1 gallon will be reported to the Magellan Environmental Specialist.

5.0 INSPECTIONS

Inspections of BMPs and other storm water controls should be performed to identify evidence of the potential for pollutants entering the drainage system. Inspections will be performed by the EI (see Section 1.4), Contractor and environmental crews as a team who are knowledgeable of the BMP Plan, and the site including wetland and waterbody conditions. The inspections should include disturbed areas of the construction site that have not been finally stabilized, limits of work areas, areas used for the storage of materials that are exposed to precipitation, erosion and sedimentation control measures, and areas where vehicles enter and exit the site.

The EI will notify the Contractor as soon as practicable of any findings made. Actions taken as a result of the inspection should be documented on the inspection form. The BMP Plan should be modified based on the results of inspections, as necessary.

Long linear pipeline construction activities may limit the access of inspection personnel to the areas described above. Inspection of these areas could require that vehicles compromise temporarily or even permanently stabilized areas, cause additional disturbance of soils, and increase the potential for erosion. In these circumstances, controls should be inspected on the same frequencies as other construction projects, but representative inspections may be performed. For representative inspections, personnel should inspect controls along the construction site for 0.25 miles above and below each access point where a roadway, undisturbed ROW, or other similar feature intersects the construction site and allows access to the areas described above. The conditions of the controls along each inspected 0.25-mile segment may be considered as representative of the condition of controls along that reach extending from the end of the 0.25-mile segment to either the end of the next 0.25 mile inspected segment, or to the end of the project, whichever comes first.

During construction, inspections should be performed at least once every seven (7) calendar days and within 24 hours of any storm event of 0.5 inches or more of precipitation. Inspections should be performed once a month for areas that have been restored and finally stabilized. In the event of flooding or other uncontrollable situations which prohibit access to the inspection sites, inspections should be conducted as soon as access is practicable.

All inspections should be documented using the Inspection Form.

6.0 RETENTION OF RECORDS

Magellan must retain copies of the BMP Plan and associated reports for at least three years from the date the project is completed. Therefore, the Contractor will retain the following information and provide to Magellan upon project completion or as requested by Magellan.

6.1 DOCUMENTS

At a minimum, the following information should be retained:

- A copy of this BMP Plan; including copies of all tables, attachments, and appendices;
- A record of any spill reports or notifications discussed in Section 4.0 and Table A5 of the BMP Plan; and
- A copy of all inspection reports as identified in Section 5.0 of the BMP Plan.

6.2 ACCESSIBILITY

The Contractor should retain a copy of the BMP Plan at the construction site or at the site field office as appropriate.

7.0 NON-STORM WATER DISCHARGES

7.1 ALLOWABLE NON-STORM WATER DISCHARGES

The following non-storm water discharges that might be present at the construction site may be discharged during construction activities:

- discharges from firefighting activities;
- uncontaminated fire hydrant flushings (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life);
- uncontaminated water used to control dust;
- potable water sources including waterline flushings (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life);
- uncontaminated ground water or spring water, including foundation or footing drains where flows are not contaminated with industrial materials such as solvents.

All non-storm water discharges need to pass a sight and smell test for sediments or contamination. If no sediment or contamination concerns are present, then proceed with discharging activities. If sediment or contamination concerns are present then contact the EI.

7.2 PERMITTED WATER DISCHARGES

The following discharges require a permit:

- Hydrostatic Test Water Discharge

If any other non-storm water discharge is noted during a BMP inspection, the source should be investigated and discontinued. The Magellan Environmental Specialist should be contacted to determine if the discharge must be permitted under a separate permit.

8.0 PROJECT COMPLETION

After completion of all construction activities, disturbed areas should be stabilized to prevent erosion per the Construction Restoration Plan (Appendix F).

APPENDIX TABLES

TABLE A1
PROJECT CONTACTS

Site Name:
Pipestone Reroute Project, Minnesota

Contact Name	**Title**	**Phone (office)**	**Phone (other)**
Doug Mitchell	Magellan Environmental Specialist	918-574-7367	918-645-7997
Brandon Cox	Magellan Project Manager	918-574-7763	
TBD	Project Construction Manager		
TBD	Project Chief Inspector		
TBD	Project Asst. Chief Inspector		
TBD	Environmental Inspector		

TABLE A2
CONTRACTOR CERTIFICATION FORM

Inspector, Contractor, Project Manager, and Subcontractor Certification

"I certify under penalty of law that I understand the terms and conditions of this BMP Plan, and that I also understand that I am working within construction specifications that are specific to this contract agreement".

Inspector/ Contractor/ Subcontractor	For	Responsible for
		Activity
Name:	Company:	
Position:	Street/PO Box:	
Signature:	City, State, Zip:	
Date:	Phone:	

Inspector/ Contractor/ Subcontractor	For	Responsible for
		Activity
Name:	Company:	
Position:	Street/PO Box:	
Signature:	City, State, Zip:	
Date:	Phone:	

TABLE A2
CONTRACTOR CERTIFICATION FORM

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Inspector/ Contractor/ Subcontractor	For	Responsible for
		Activity
Name:	Company:	
Position:	Street/PO Box:	
Signature:	City, State, Zip:	
Date:	Phone:	

Inspector/ Contractor/ Subcontractor	For	Responsible for
		Activity
Name:	Company:	
Position:	Street/PO Box:	
Signature:	City, State, Zip:	
Date:	Phone:	

TABLE A3
MAJOR CONSTRUCTION ACTIVITY RECORD

Major Construction Activity (describe)	Start Date	Completion Date
Spread 1		
Survey/Staking		
Clearing and Grading		
Mobilization		
Trenching		
Pipe Stringing, Bending, Welding		
Lowering-in and Backfilling		
Horizontal Directional Drilling		
Hydrostatic Testing		
Final Clean-up and Restoration		

TABLE A4
LIST OF MATERIALS

Material	Storage Location	Storage Method

TABLE A4
LIST OF MATERIALS

Material	Storage Location	Storage Method

TABLE A5
LIST OF SIGNIFICANT SPILLS AND LEAKS

Date (month/day /year)	Spill	Leak	Location (as indicated on site map)	Description				Response Procedure		Preventative Measures Taken
				Type of Material	Quantity	Source, If Known	Reason	Amount of Material	Is Material Exposed to Storm Water (Yes/No)	

TABLE A6

LOCAL EMERGENCY PLANNING COMMITTEE (LEPC)

County Name	Contact	Phone	Address

APPENDIX A

Storm Water Pollution Prevention Plan

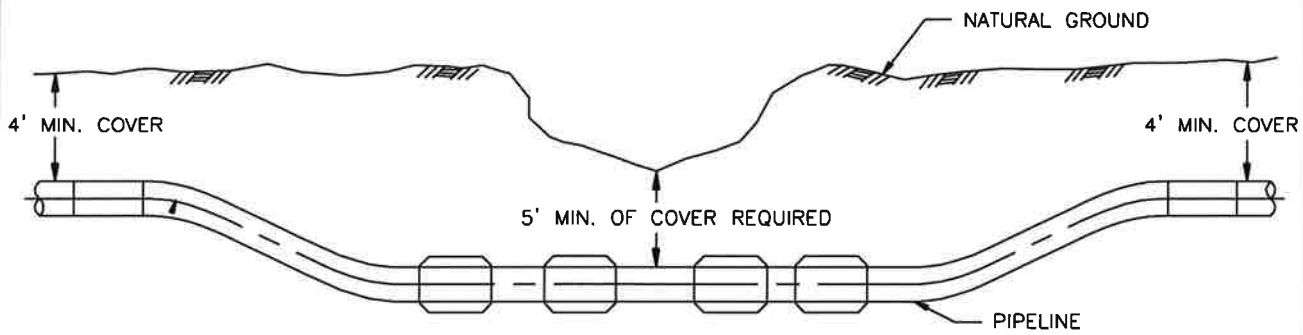
APPENDIX A

PENDING PROJECT AUTHORIZATION

APPENDIX B

PROJECT TYPICAL CONSTRUCTION STANDARDS

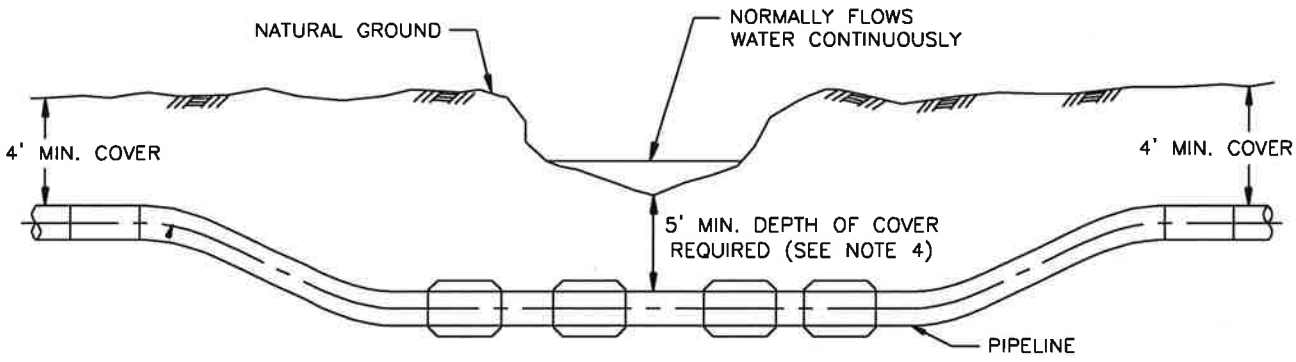
MINOR – INTERMITTENT STREAM CROSSING



NOTES:
1. CONTRACTOR SHALL INSTALL THE STEEL PIPE, BACKFILL AND RESTORE THE STREAM BANKS IN ACCORDANCE WITH THE WATER CROSSING SPECIFICATION.
2. PIPE SECTIONS 100 FEET OR MORE SHALL BE WEIGHTED WITH SACK WEIGHTS, CONCRETE WEIGHTS, AND/OR CONCRETE COATING.
3. WHEN WATER CROSSING DITCH EXCAVATIONS CONTAIN ROCK, PIPE PROTECTIVE COATING SHALL BE UTILIZED.

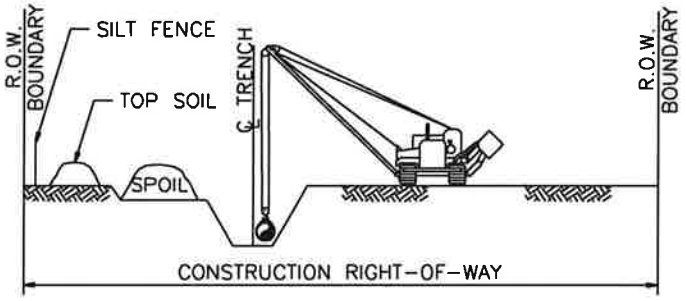
DRAWN BY: SSL	MAGELLAN™ MIDSTREAM PARTNERS, L.P.	*Magellan Pipeline Company, L.P.*
APPROVED:		
DATE: 10/1/2012	MINOR INTERMITTENT STREAM CROSSING	6601-TC-006
SCALE: N/A		

MINOR STREAM – CONTINUOUSLY FLOWING

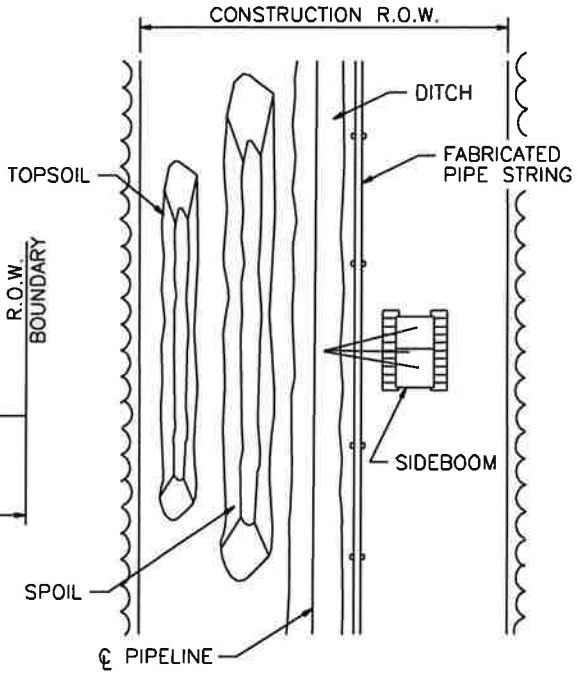


NOTES:
1. CONTRACTOR SHALL INSTALL THE STEEL PIPE, BACKFILL AND RESTORE THE STREAM BANKS IN ACCORDANCE WITH THE WATER CROSSING SPECIFICATION.
2. PIPE SECTIONS 100 FEET OR MORE SHALL BE WEIGHTED WITH SACK WEIGHTS, CONCRETE WEIGHTS, AND/OR CONCRETE COATING.
3. WHEN WATER CROSSING DITCH EXCAVATIONS CONTAIN ROCK, PIPE PROTECTIVE COATING SHALL BE UTILIZED.
4. THE MINIMUM DEPTH OF COVER BELOW THE BOTTOM OF THE WATER CROSSING SHALL BE 5 FEET, FOR CROSSING WIDTH LESS THAN 100 FEET, AND 10 FEET FOR CROSSING WIDTH GREATER THAN OR EQUAL TO 100 FEET.

DRAWN BY: SSL	MAGELLAN MIDSTREAM PARTNERS, L.P.	*Magellan Pipeline Company, L.P.*
APPROVED:		
DATE: 10/3/2012	**MINOR CONTINUOUSLY FLOWING STREAM CROSSING**	**6601-TC-007**
SCALE: N/A		



CROSS SECTION
SCALE: N.T.S.

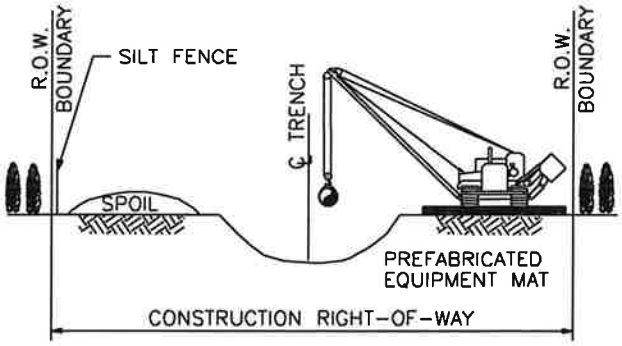


PLAN VIEW
SCALE: N.T.S.

CONSTRUCTION PROCEDURE NOTES:

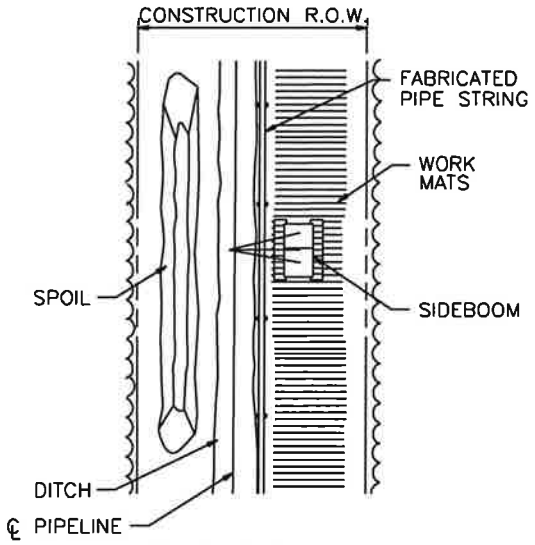
1. FLAG WETLAND BOUNDARIES PRIOR TO CLEARING.
2. NO REFUELING OF MOBILE EQUIPMENT IS ALLOWED WITHIN 100 FEET OF WETLAND. PLACE "NO FUELING" SIGN POSTS 100 FEET BACK FROM WETLAND BOUNDARY. REFUEL STATIONARY EQUIPMENT AS PER SPCC PLAN.
3. INSTALL TEMPORARY SLOPE BREAKER UPSLOPE WITHIN 100 FEET OF WETLAND BOUNDARY, BUT NOT CLOSER THAN 15 FEET FROM WETLAND BOUNDARY IF DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
4. CONSTRUCT WHEN DRY, IF POSSIBLE. IF SITE BECOMES WET AT TIME OF TRENCHING, AVOID SOIL COMPACTION BY UTILIZING TIMBER RIP-RAP OR PREFABRICATED EQUIPMENT MATS.
5. AVOID ADJACENT WETLANDS. INSTALL SEDIMENT BARRIERS (STRAW BALES AND/OR SILT FENCE) AT DOWN SLOPE EDGE OF RIGHT-OF-WAY ALONG WETLAND EDGE IF EVIDENT, OTHERWISE INSTALL BARRIER ON BOTH EDGES.
6. RESTRICT ROOT GRUBBING TO ONLY THAT AREA OVER THE DITCHLINE AND DITCH SPOIL AREAS. GRIND STUMPS IF NECESSARY IN OTHER AREAS TO FACILITATE CONSTRUCTION.
7. CONDUCT TRENCH LINE TOPSOIL STRIPPING (IF TOPSOIL IS NOT SATURATED). SALVAGE TOPSOIL TO ACTUAL DEPTH OR A MAXIMUM DEPTH OF 12 INCHES, AS DETERMINED BY THE ENVIRONMENTAL INSPECTOR. SEGREGATED TOPSOIL PILE MAY BE LOCATED ON SPOIL SIDE, AS REQUIRED.
8. TRENCH THROUGH WETLANDS.
9. PIPE SECTION MAY BE FABRICATED WITHIN THE WETLAND AND ADJACENT TO ALIGNMENT, OR IN STAGING AREA OUTSIDE THE WETLAND AND WALKED IN.
10. LOWER IN PIPE. PRIOR TO BACKFILLING TRENCH, TRENCH PLUG REQUIREMENTS SHALL BE DETERMINED BY THE ENVIRONMENTAL INSPECTOR. BACKFILL TRENCH.
11. RESTORE GRADE TO NEAR PRE-CONSTRUCTION TOPOGRAPHY, REPLACE TOPSOIL AND INSTALL PERMANENT EROSION CONTROL.
12. REMOVE ANY TIMBER MATS OR PREFABRICATED MATS FROM WETLANDS UPON COMPLETION.

DRAWN BY: SSL	MAGELLAN℠ MIDSTREAM PARTNERS, L.P.	Magellan Pipeline Company, L.P.
REVISED: MAB 7/30/14		
DATE: 10/1/2012	TYPE I "DRY" WETLAND CROSSING	6601-TC-011
SCALE: N/A		



CROSS SECTION

SCALE: N.T.S.



PLAN VIEW

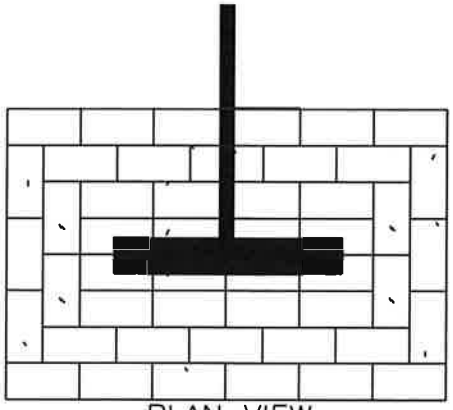
SCALE: N.T.S.

CONSTRUCTION PROCEDURE NOTES:

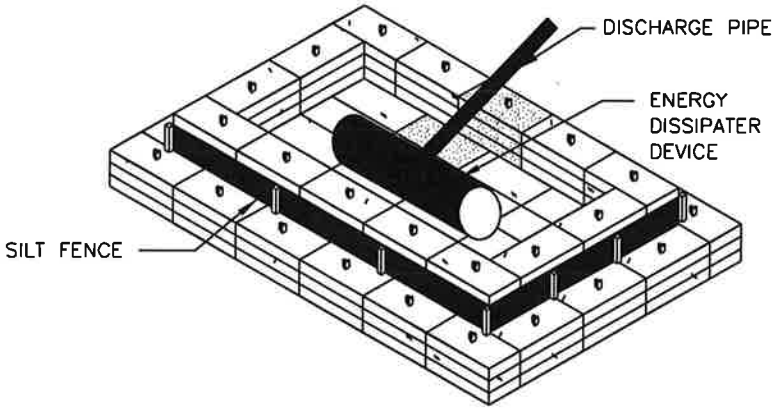
1. FLAG WETLAND BOUNDARIES PRIOR TO CLEARING.
2. NO REFUELING OF MOBILE EQUIPMENT IS ALLOWED WITHIN 100 FEET OF WETLAND. PLACE "NO FUELING" SIGN POSTS 100 FEET BACK FROM WETLAND BOUNDARY. REFUEL STATIONARY EQUIPMENT AS PER SPCC PLAN.
3. INSTALL TEMPORARY SLOPE BREAKER UPSLOPE WITHIN 100 FEET OF WETLAND BOUNDARY IF DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
4. MINIMIZE SOIL COMPACTION BY UTILIZING PREFABRICATED EQUIPMENT MATS.
5. AVOID ADJACENT WETLANDS. INSTALL SEDIMENT BARRIERS (STRAW BALES AND/OR SILT FENCE) AT DOWN SLOPE EDGE OF RIGHT-OF-WAY AND ALONG WETLAND EDGE AS REQUIRED.
6. RESTRICT ROOT GRUBBING TO ONLY THAT AREA OVER THE DITCHLINE AND DITCH SPOIL AREAS. GRIND STUMPS IF NECESSARY IN OTHER AREAS TO FACILITATE CONSTRUCTION.
7. TOPSOIL STRIPPING SHALL NOT BE REQUIRED IN SATURATED SOIL CONDITIONS.
8. LEAVE HARD PLUGS AT THE EDGE OF WETLAND UNTIL JUST PRIOR TO TRENCHING.
9. INSTALL TIMBER MATS/RIP-RAP THROUGH ENTIRE WETLAND AREA. EQUIPMENT NECESSARY FOR RIGHT-OF-WAY CLEARING MAY MAKE ONE (1) PASS THROUGH THE WETLAND BEFORE MATS ARE INSTALLED.
10. TRENCH THROUGH WETLANDS.
11. PIPE SECTION MAY BE FABRICATED WITHIN THE WETLAND AND ADJACENT TO ALIGNMENT, OR IN STAGING AREA OUTSIDE THE WETLAND AND WALKED IN.
12. LOWER IN PIPE, INSTALL TRENCH PLUGS AT WETLAND EDGES IF DIRECTED BY THE ENVIRONMENTAL INSPECTOR AND BACKFILL IMMEDIATELY.
13. REMOVE ANY TIMBER MATS OR PREFABRICATED MATS FROM WETLANDS UPON COMPLETION.
14. RESTORE GRADE TO NEAR PRE-CONSTRUCTION TOPOGRAPHY, REPLACE TOPSOIL AND INSTALL PERMANENT EROSION CONTROL. CLAY NEEDS TO BE PUT BACK INTO IT'S ORIGINAL LOCATION.
15. GENERALLY, SEEDING IN WETLANDS WILL NOT BE NECESSARY SINCE WETLANDS REVEGETATE QUICKLY AND SOD WILL REMAIN INTACT EXCEPT OVER TRENCH.

    THE CONTRACTOR SHALL SEED ANY WETLANDS THAT MAY REQUIRE SEEDING AS DETERMINED BY THE ENVIRONMENTAL INSPECTOR.

DRAWN BY: SSL	MAGELLAN℠ MIDSTREAM PARTNERS, L.P.	*Magellan Pipeline Company, L.P.*
REVISED: MAB 7/30/14		
DATE: 10/1/2012	**TYPE II "WET" SATURATED WETLAND CROSSING**	**6601-TC-012**
SCALE: N/A		



PLAN VIEW
(NOT TO SCALE)



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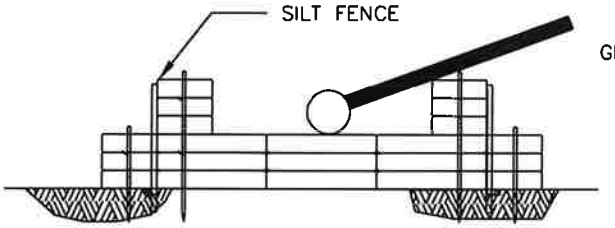
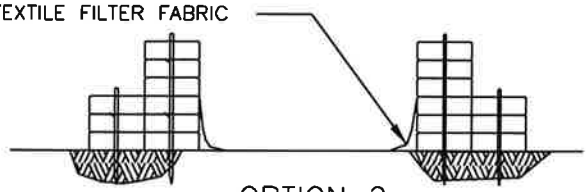


OPTION 1

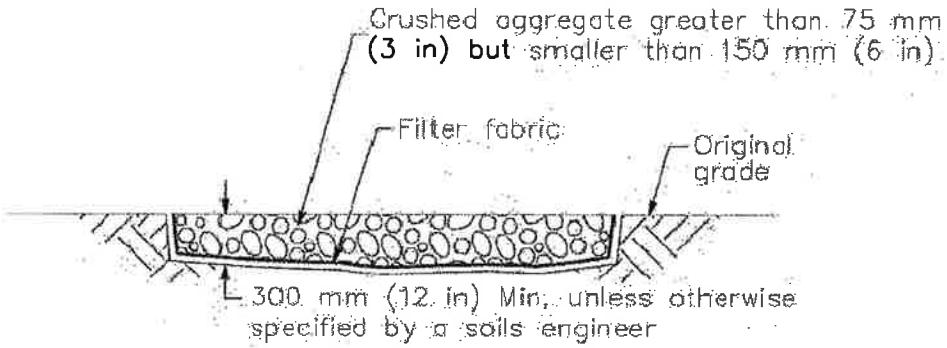


OPTION 2

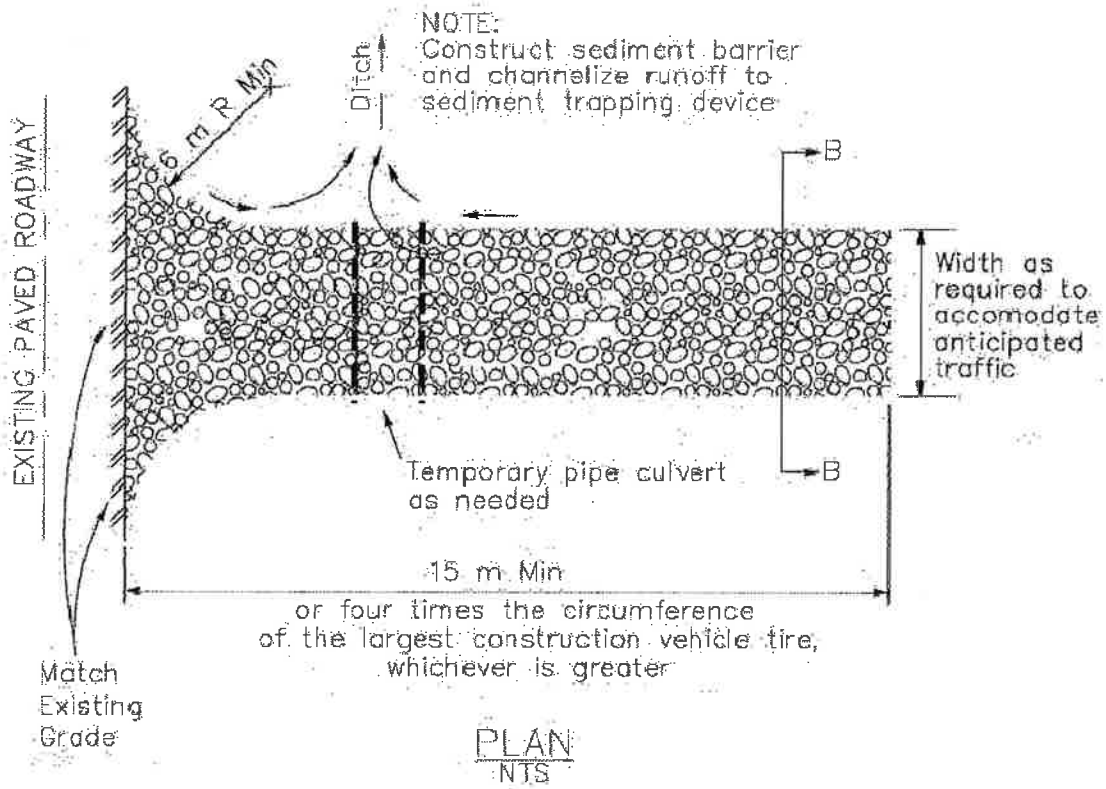
NOTES:

1. INSTALL A STRAW BALE DEWATERING STRUCTURE WHEREVER IT IS NECESSARY AND AS DIRECTED BY THE ENGINEER TO PREVENT THE FLOW OF HEAVILY SILT LADEN WATER INTO WATER BODIES OR WETLANDS. ALL DEWATERING ACTIVITIES SHALL BE CONDUCTED IN ACCORDANCE WITH PERMIT CONDITIONS.
2. DISCHARGE SITE SHOULD BE WELL VEGETATED AND LOCATED AT LEAST 100 FT FROM ANY WATERCOURSE. THE TOPOGRAPHY OF THE SITE SHOULD BE SUCH THAT WATER WILL FLOW INTO THE DEWATERING STRUCTURE AND AWAY FROM ANY WORK AREAS. THE AREA DOWNSLOPE FROM THE SITE MUST BE REASONABLY LEVEL OR STABILIZED BY VEGETATION OR OTHER MEANS TO ALLOW THE FILTERED WATER TO CONTINUE AS SHEET FLOW.
3. DIRECT THE PUMPED WATER ONTO A STABLE SPILL PAD CONSTRUCTED OF STRAW BALES, ROCK FILL, WEIGHTED TIMBERS, OR A WOVEN GEOTEXTILE STAKED TO THE GROUND SURFACE.
4. DISCHARGE RATES SHOULD BE SUCH THAT THE STRUCTURE WILL NOT OVERFLOW.
5. DISCHARGE WATER TO BE FORCED INTO SHEET FLOW IMMEDIATELY BEYOND THE SPILL PAD USING A COMBINATION OF STRAW BALES AND THE NATURAL TOPOGRAPHY. RECESS STRAW BALES A MINIMUM OF 4 IN. DRIVE TWO STAKES OR REBAR INTO EACH BALE TO ANCHOR THEM IN PLACE.
6. MANUFACTURED FILTER BAGS ARE A SUITABLE ALTERNATIVE TO STRAW BALE STRUCTURES FOR TRENCH DEWATERING.
7. ENERGY DISSIPATER DEVICE SHALL BE ANCHORED BY CONTRACTOR.

DRAWN BY: LN	MAGELLAN℠ MIDSTREAM PARTNERS, L.P.	*Magellan Pipeline Company, L.P.*
APPROVED:		
DATE: 10/19/2012	HYDROSTATIC TEST DEWATERING STRUCTURE	**6601-TC-019**
SCALE: N/A		



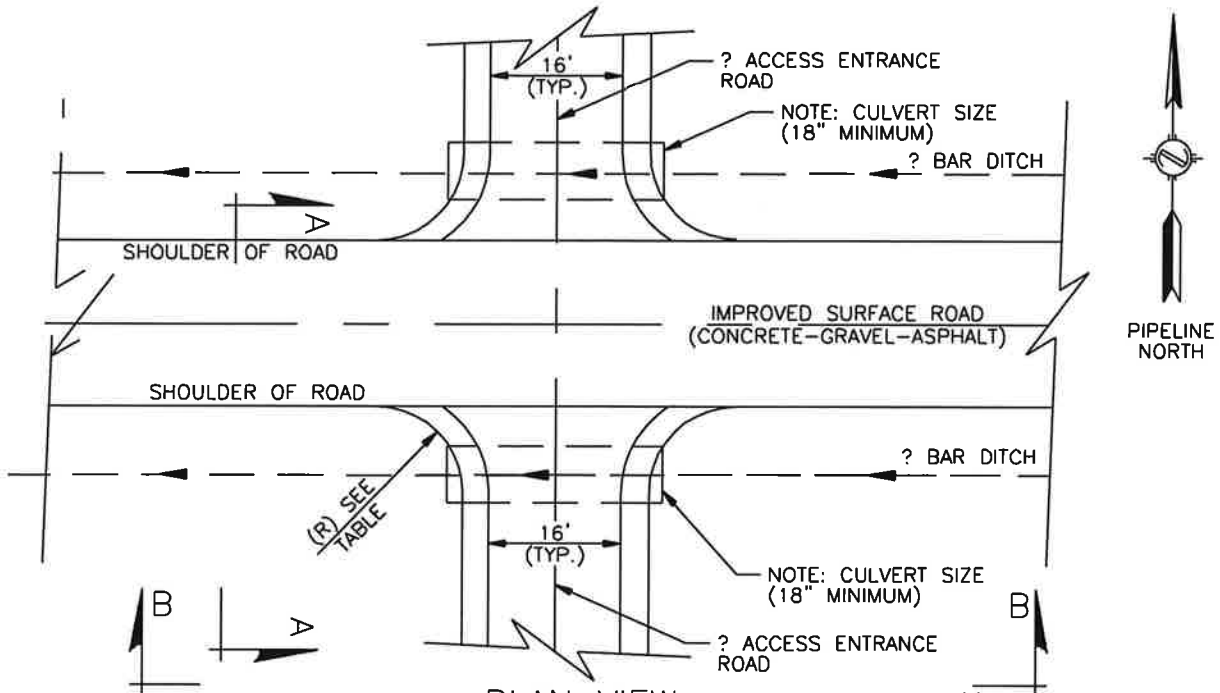
SECTION B–B
NTS



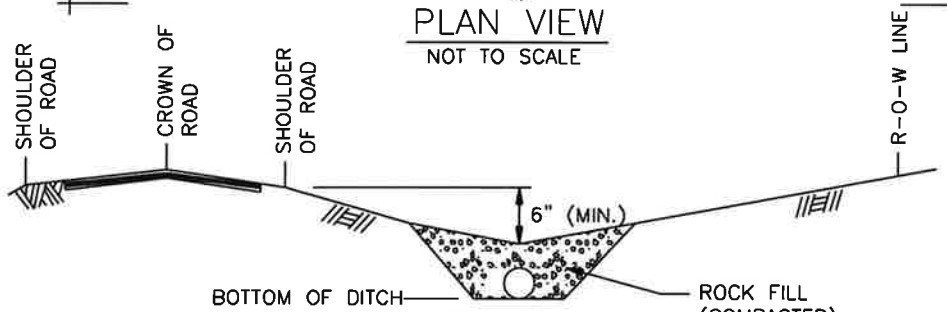
PLAN
NTS

Stabilized Contraction Entrance/Exit (Type 1)

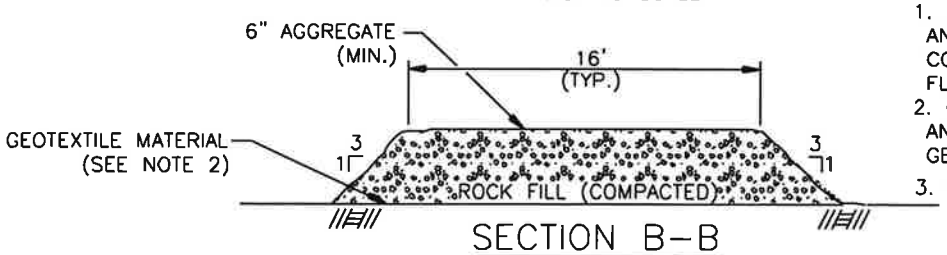
DRAWN BY: MAB	MAGELLAN MIDSTREAM PARTNERS, L.P.	*Magellan Pipeline Company, L.P.*
APPROVED:		
DATE: 6/30/2014	**STABILIZED CONSTRUCTION ENTRANCE/EXIT**	**6601-TC-054**
SCALE: N/A		



PLAN VIEW
NOT TO SCALE



SECTION A-A
NOT TO SCALE



SECTION B-B
NOT TO SCALE

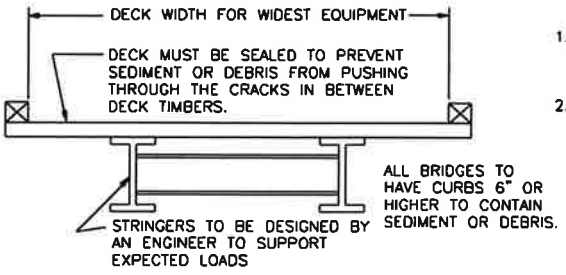
NOTES:

1. CONTRACTOR SHALL FURNISH AND INSTALL ADEQUATE TRAFFIC CONTROL SIGNS, MARKERS, FLASHERS, ETC.
2. CONTRACTOR SHALL FURNISH AND INSTALL COMPANY APPROVED GEOTEXTILE MATERIAL.
3. SHALL ALSO COMPLY WITH ANY COUNTY OR STATE PERMIT REQUIREMENTS.

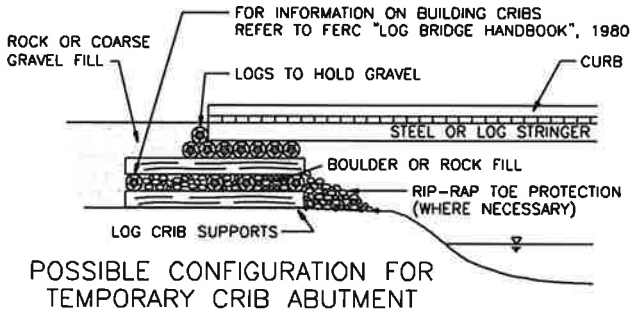
R = TYPICAL RADIUS TO ACCOMODATE STRINGING TRUCKS

PIPE JOINT LENGTH	R
40' JOINT	MIN. RADIUS = 25'
80' JOINT	MIN. RADIUS = 55'

DRAWN BY: LN	MAGELLAN MIDSTREAM PARTNERS, L.P.	Magellan Pipeline Company, L.P.
APPROVED:		
DATE: 10/19/2012	TYPICAL PUBLIC ACCESS ROAD ENTRANCE RAMP	6601-TC-020
SCALE: N/A		



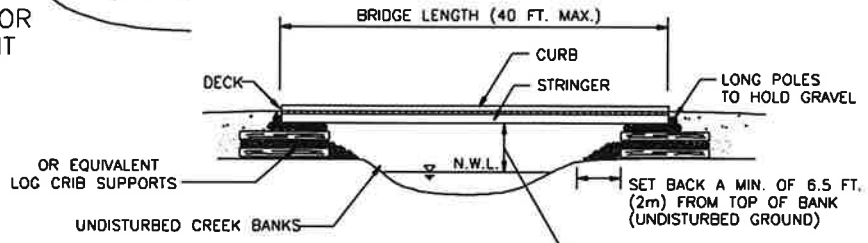
SECTION 'A-A'



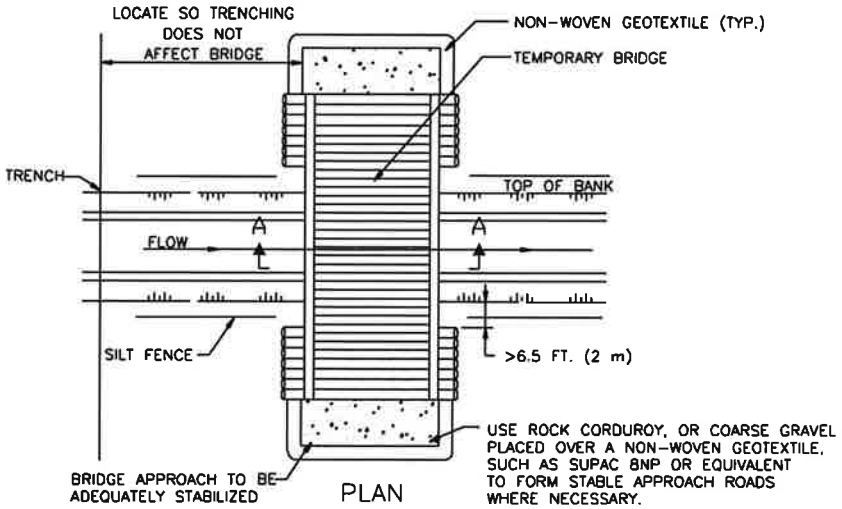
POSSIBLE CONFIGURATION FOR TEMPORARY CRIB ABUTMENT

THE FOLLOWING IS A SEQUENCE OF CONSTRUCTION AND MITIGATION MEASURES TO BE FOLLOWED AT ALL TEMPORARY BRIDGE CROSSINGS.

1. A PRE-FABRICATED BRIDGE OR FLATBED RAILCAR , FLEXI-FLOAT OR FLUMED VEHICLE CROSSING MAY BE SUBSTITUTED FOR THE TEMPORARY BRIDGE.
2. INSTALL THE BRIDGE IN A MANNER THAT WILL MINIMIZE SEDIMENT ENTERING THE WATER. STRINGERS MUST BE DESIGNED TO SUPPORT THE LOADS EXPECTED ON THE BRIDGE. CURBS AT LEAST 6 IN. HIGH MUST BE INSTALLED ALONG THE EDGE OF THE DECK TO CONTAIN SEDIMENT AND DEBRIS ON THE BRIDGE. FASTENERS CONNECTING COMPONENTS MUST BE STRONG ENOUGH TO HOLD THEM IN POSITION DURING THE LIFE OF THE BRIDGE. CRIBS MAY BE FILLED WITH ROCK OR COBBLE, OR MAY BE SOLID TIMBER ROTATED 90° IN ALTERNATIVE LAYERS. RIP-RAP EROSION PROTECTION IS TO BE PLACED AROUND THE CRIBS AND ON ANY FILL SLOPES PROJECTING INTO THE WATER.
3. ROAD APPROACHES LEADING TO THE BRIDGE MUST BE RAISED AND STABLE SO EQUIPMENT LOADS ARE SUPPORTED A SUFFICIENT DISTANCE BACK FROM THE WATER TO REDUCE SEDIMENT AND DEBRIS ENTERING THE STREAM FROM EQUIPMENT TRACKS. DO NOT USE SOIL TO CONSTRUCT OR STABILIZE EQUIPMENT BRIDGES. IF CUTS ARE NEEDED TO OBTAIN A SATISFACTORY GRADE, THEY ARE TO BE DUG WITH SIDE DITCHES AND STABLE SLOPES. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED TO KEEP SEDIMENT ON LAND (E.G., SILT FENCING, FILTER CLOTH, RIP-RAP, SEED AND MULCH, ETC.).
4. PERIODICALLY CHECK BRIDGE INSTALLATION AND REMOVE ANY BUILD-UP OF SEDIMENT OR DEBRIS ON THE BRIDGE.
5. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ADEQUACY OF DESIGN.

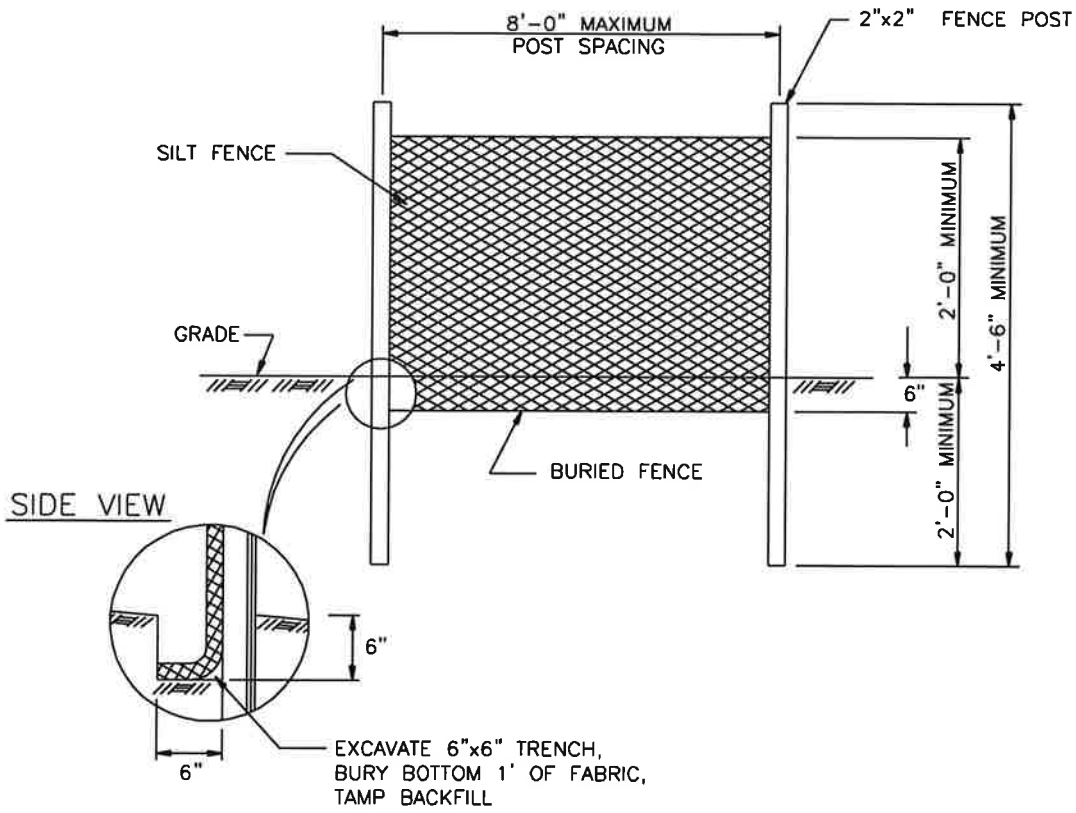


BRIDGE PROFILE



PLAN

DRAWN BY: LN	MAGELLAN℠ MIDSTREAM PARTNERS, L.P.	Magellan Pipeline Company, L.P.
APPROVED:		
DATE: 10/19/2012	TYPICAL TEMPORARY BRIDGE	6601-TC-023
SCALE: N/A		



NOTES:

1. SILT FENCES ARE CONSTRUCTED FROM SYNTHETIC MESH MATERIAL DESIGNED TO RETAIN SILT WHILE ALLOWING WATER TO PASS THROUGH. (AMOCO CONSTRUCTION FABRIC 1380 SILT STOP OR AS REQUIRED BY LANDOWNER AND/ OR PERMITTING AGENCY).

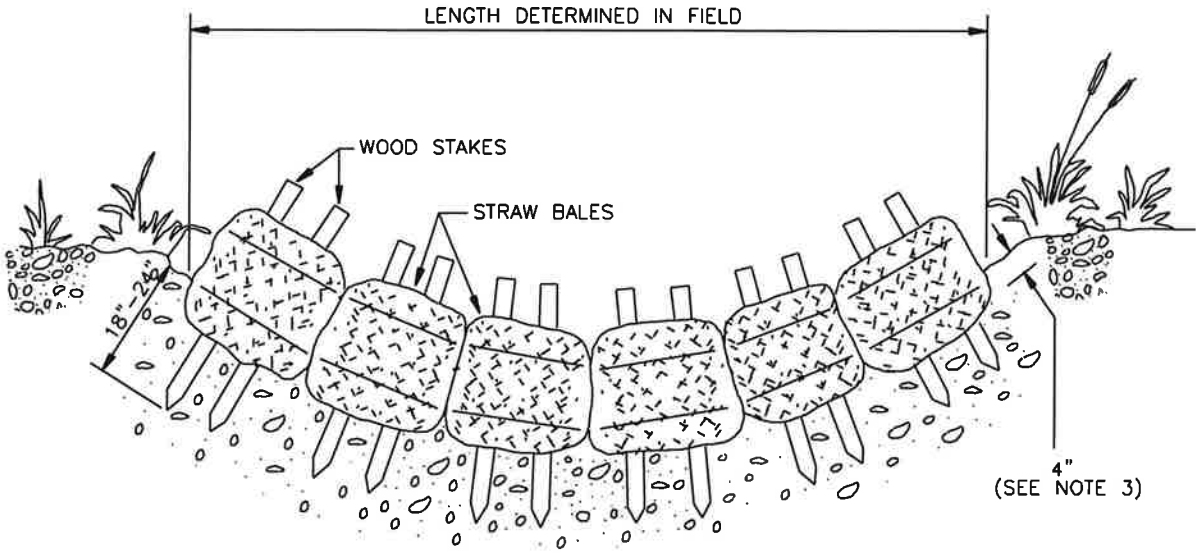
2. SILT FENCES WILL BE CONSTRUCTED AT THE EDGE OF THE R-O-W:

   - AT THE OUTFALL OF AN INTERCEPTOR DIKE IF NATURAL VEGETATION IS INSUFFICIENT TO FILTER THE SILT FROM THE RUN-OFF WATER.
   - AT THE BASE OF SLOPES ADJACENT TO ROADWAYS AND STREAMS WHEN THE NATIVE VEGETATION COVER HAS BEEN DISTURBED.
   - WHEN THE DISTANCE (IN AREAS OF GOOD VEGETATION COVER) OF THE R-O-W TO A BODY OF WATER IS EQUAL TO OR LESS THAN THE FOLLOWING SCHEDULE.

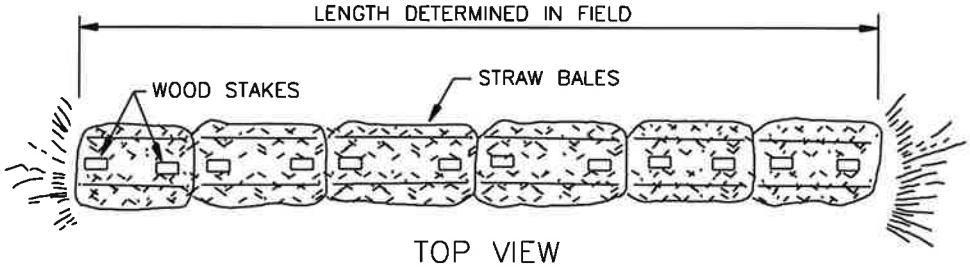
PERCENT SLOPE	DISTANCE
0 - 5%	25 FEET
5 - 15%	50 FEET
15 - 30%	75 FEET
OVER 30%	100 FEET

   - WHEN THE DISTANCE (IN AREAS OF POOR VEGETATION COVER) OF THE R-O-W TO A BODY OF WATER IS WITHIN 150 FEET AND THE AREA SLOPES TOWARD THE WATER.

DRAWN BY: LN	MAGELLAN℠ MIDSTREAM PARTNERS, L.P.	*Magellan Pipeline Company, L.P.*
APPROVED:		
DATE: 10/19/2012	PIPELINE STANDARD EROSION CONTROL SILT FENCE	6601-TC-027
SCALE: N/A		



FRONT VIEW

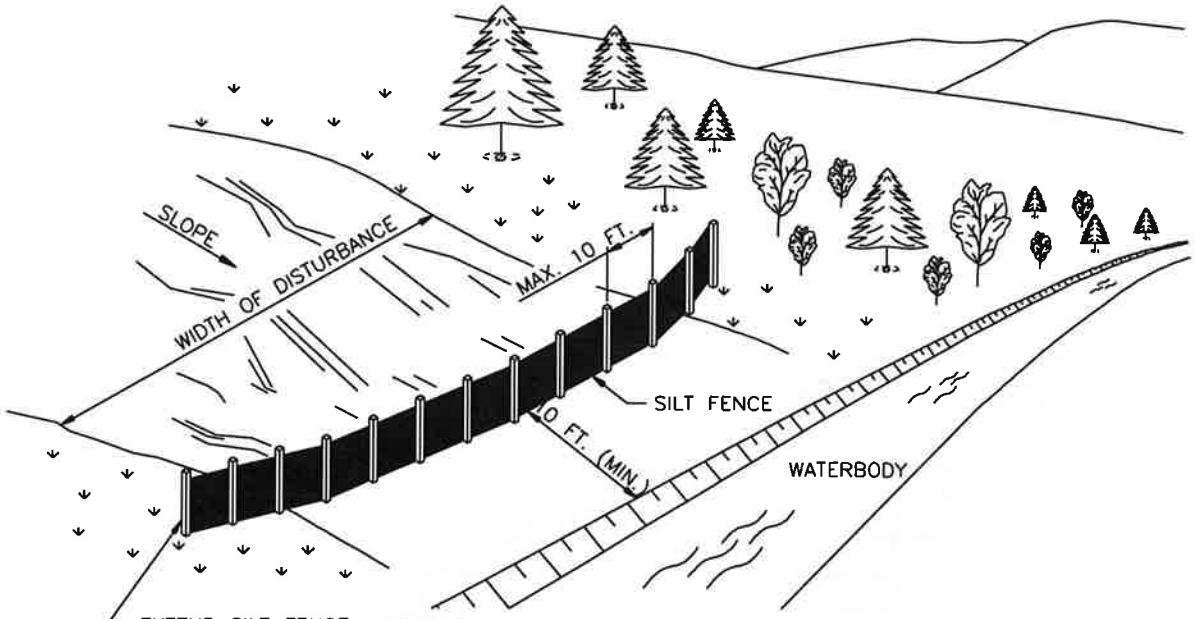


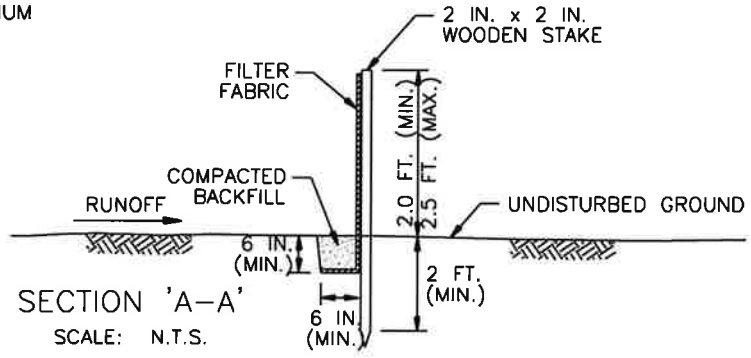
TOP VIEW

NOTES:

1. INSTALL PRIOR TO GRADING.
2. ANGLE FIRST STAKE TOWARD PREVIOUSLY LAID BALE.
3. IMBED BALES IN EARTH APPROXIMATELY 4".
4. WHEN REMOVING BALES, SCATTER SILT AND STRAW OVER R-O-W.
5. ALL MATERIALS TO BE SUPPLIED BY CONTRACTOR.
6. STRAW BALES SHALL BE INSTALLED AS REQUIRED BY LANDOWNER AND / OR PERMITTING AGENCY.

DRAWN BY: LN	MAGELLAN℠ MIDSTREAM PARTNERS, L.P.	*Magellan Pipeline Company, L.P.*
APPROVED:		
DATE: 10/19/2012	PIPELINE STANDARD EROSION CONTROL STAKED STRAW BALES	**6601-TC-028**
SCALE: N/A		



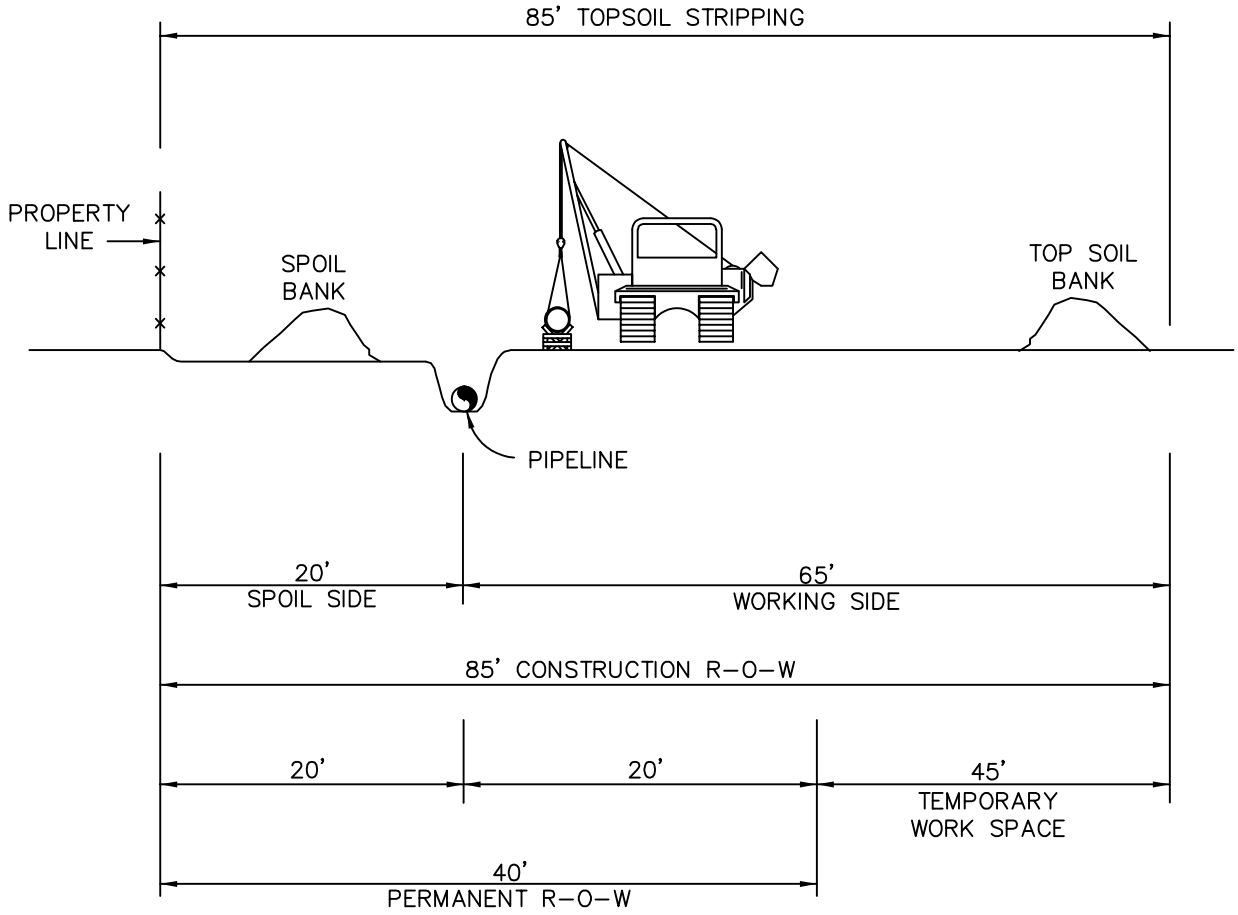


SECTION 'A–A'
SCALE: N.T.S.

NOTES:

1. SILT FENCES ARE TO BE USED IN AREAS WHERE SHEET FLOW OR RELATIVELY SMALL VOLUMES OF WATER CAN BE EXPECTED TO OCCUR. FOR LARGER VOLUMES SUCH AS WITHIN A DEFINED CHANNEL, A CHECK DAM WILL BE REQUIRED.
2. STAKES ARE TO BE PLACED EVERY TEN (10) FT. OR CLOSER AS CONDITIONS REQUIRE.
3. ATTACH FILTER FABRIC AT EACH POST AT A MINIMUM OF THREE (3) LOCATIONS
4. THE FILTER FABRIC (MIN. OF 1 FT.) IS TO BE ANCHORED IN A 6 INCH x 6 INCH TRENCH WITH WELL COMPACTED BACKFILL OVER THE FABRIC TO PREVENT UNDERMINING.
5. TO ELIMINATE POSSIBLE END FLOW, BOTH ENDS OF THE SILT FENCE SHALL BE TURNED AND EXTENDED UPSLOPE.
6. SILT FENCES ARE TO BE CHECKED AND MAINTAINED ON A REGULAR BASIS. REMOVE ANY BUILD–UP OF SEDIMENT WHEN THE HEIGHT OF SEDIMENT EXCEEDS APPROXIMATELY 20% OF THE HEIGHT OF THE BARRIER.
7. MATERIAL SHOULD BE WOVEN GEOTEXTILE FABRIC SUCH AS EXXON GTF 180 OR MIRAFI 600X, OR AN APPROVED EQUIVALENT. SECONDARY REINFORCEMENT, SUCH AS A CONSTRUCTION BARRIER FENCE OR WIRE MESH CAN ALSO BE USED BEHIND THE FILTER FABRIC.
8. WHERE ANCHORING CONDITIONS FOR THE SILT FENCE ARE POOR, PLACE ANCHORED STRAW BALES ON DOWNSTREAM SIDE OF THE SILT FENCE.

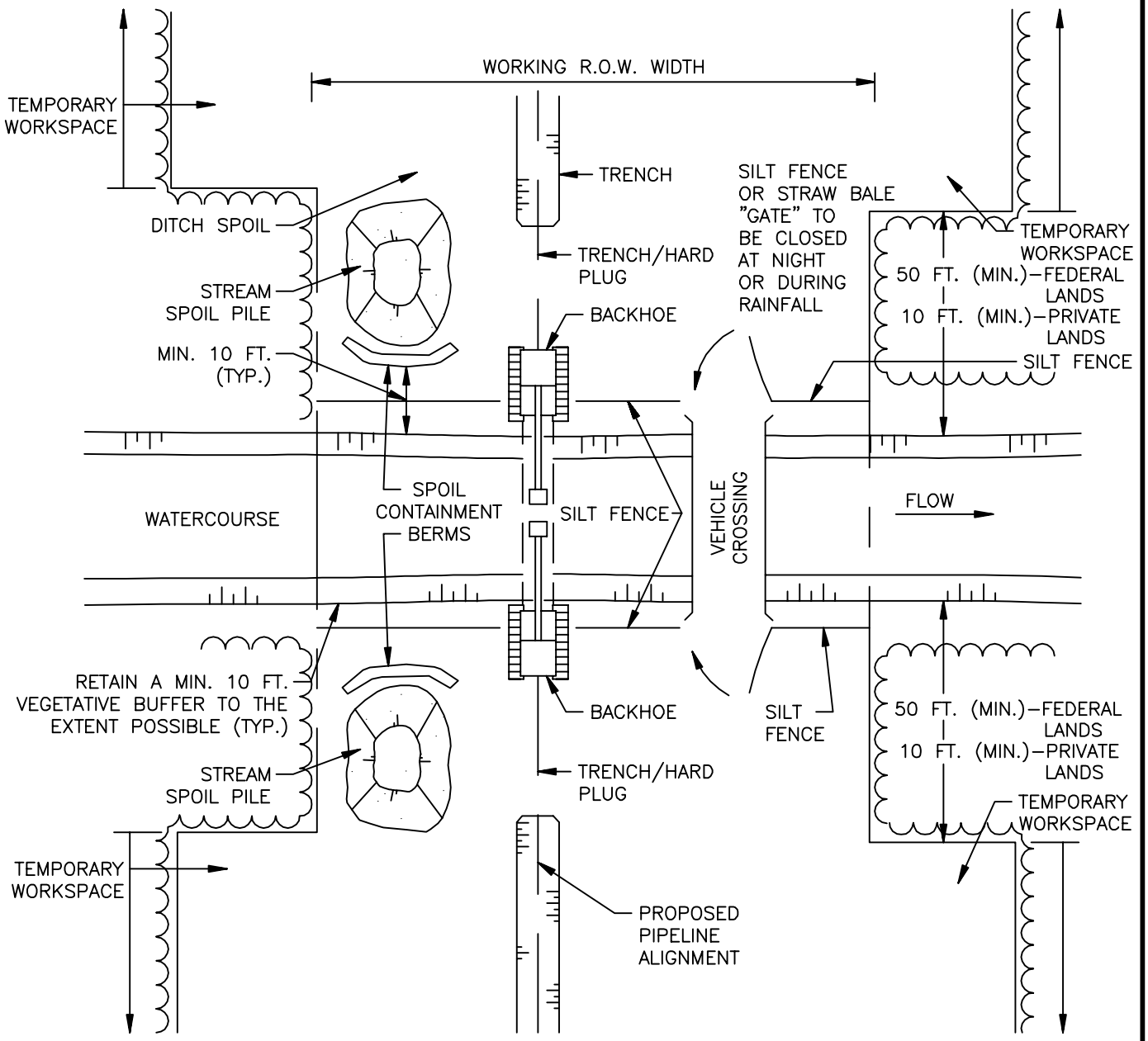
DRAWN BY: LN	MAGELLAN℠ MIDSTREAM PARTNERS, L.P.	*Magellan Pipeline Company, L.P.*
APPROVED:		
DATE: 10/19/2012	TYPICAL SILT FENCE BARRIER	**6601-TC-029**
SCALE: N/A		



NOTES

1. CONFIGURATION DOES NOT INCLUDE ADDITIONAL TEMPORARY WORK SPACE AT CROSSINGS.
2. SEE ALIGNMENT DRAWINGS FOR ACTUAL ROW CONFIGURATION.
3. SEE ROW RESTRICTIONS LIST FOR ACTUAL PERMANENT AND TEMPORARY ROW WIDTHS.

DRAWN BY: MMP	MAGELLAN MIDSTREAM PARTNERS, L.P.	*Magellan Pipeline Company, L.P.*
APPROVED:		
DATE: 12/01/2022	**85' PIPELINE RIGHT OF WAY WITH TOPSOIL SEGREGATION ADJACENT TO PROPERTY LINE**	**6250-TC-003**
SCALE: N/A		

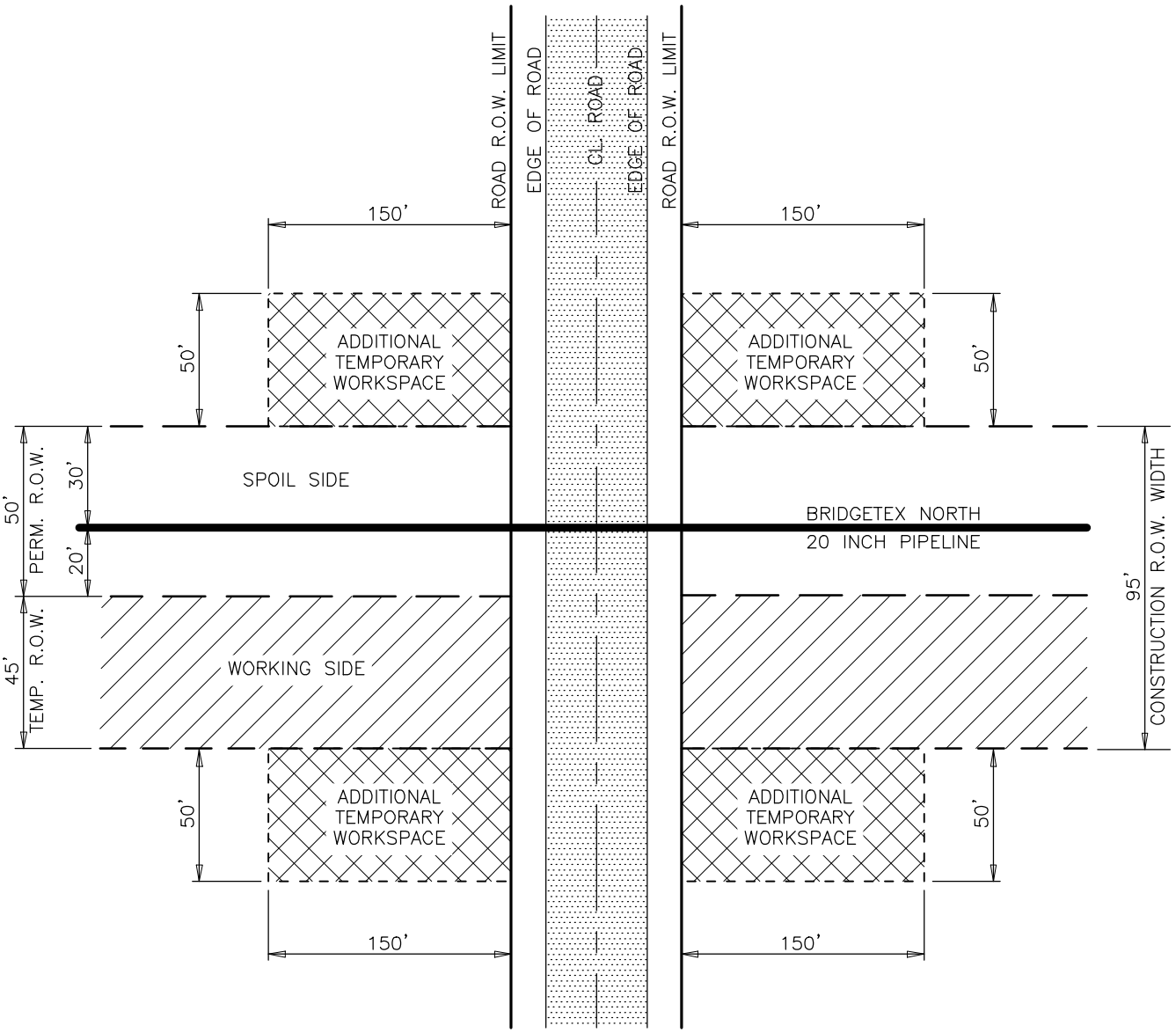


PLAN VIEW

SCALE: N.T.S.

SEE DWG. 6601–TC–010 (SHEET 2 OF 2) FOR NOTES.

DRAWN BY: SSL	MAGELLAN MIDSTREAM PARTNERS, L.P.	*Magellan Pipeline Company, L.P.*
REVISED: MAB 1/28/15		
DATE: 10/1/2012	TYPICAL OPEN CUT STREAM CROSSING	6601-TC-009
SCALE: N/A		



GENERAL NOTES:

1.) SEE ALIGNMENT SHEET FOR ACTUAL R.O.W. CONFIGURATION.
2.) SEE R.O.W. LANDOWNER RESTRICTION LIST FOR ACTUAL PERMANENT, TEMPORARY AND ATWS R.O.W. WIDTHS.

DRAWN BY: KDF	MAGELLAN MIDSTREAM PARTNERS, L.P.	*Magellan Pipeline Company, L.P.*
APPROVED:		
DATE: 05-NOV-12	TYPICAL BORED ROAD CROSSING RIGHT-OF-WAY	7045-TC-040
SCALE: N.T.S.		

APPENDIX C

PROJECT SITE DRAWINGS

APPENDIX C

PENDING PROJECT AUTHORIZATION

APPENDIX D

PERMITS

APPENDIX D

PENDING PROJECT AUTHORIZATION

APPENDIX E
THREATENED AND ENDANGERED SPECIES INFORMATION

APPENDIX E

PENDING PROJECT AUTHORIZATION

APPENDIX F
CONSTRUCTION RESTORATION PLAN

APPENDIX F

PENDING PROJECT AUTHORIZATION