STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

Project:

Scooter's Kiosk Drive-Thru Lee's Summit, Jackson County, Missouri MO 150 Highway and SW Regatta Drive

Date: October 18, 2017

Prepared for the Owner & Developer:

Freedom Enterprises, LLC 4501 College Boulevard, Suite 170 Leawood, KS 66211

Prepared by the Civil Engineer:

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I. NARRATIVE

a. Regulatory Background

The Missouri Department of Natural Resources (MoDNR has established a program to protect waters of the State of Missouri from construction site storm water runoff. The storm water program requires owners (the permittee) of projects, who engage in construction activities disturbing one (1) or more acres to have authorization (permitted) to discharge storm water runoff under the State construction storm water general permit. Owners must submit a Notice of Intent (NOI) to comply with the general permit at least sixty (60) days before starting construction. Owners must receive a permit from MoDNR prior to commencing any land disturbance activity.

Owners may elect to authorize (in writing) an officer of their contractor to obtain and maintain the permit.

The primary requirement of MoDNR's general construction storm water permit is for the permittee to develop and implement a Storm Water Pollution Prevention Plan (SWPPP). The purpose of this "Storm Water Pollution Prevention Plan" (SWPPP) is to provide design, implementation, and maintenance of "Best Management Practices" (BMPs) for the project site. The SWPPP includes, but is not limited to this document, the Erosion and Sedimentation Control Plan included in the Construction Drawings with the Detail Sheets, Site landscaping plans, the Notice of Intent, Co-Permittee or Transfer forms, Permit Authorization, General Permit, Notice of Termination, all records of inspections and activities which are created during the course of the project, and other documents as may be included by reference to this SWPPP. Changes, modifications, revisions, additions, or deletions shall become part of this SWPPP as they occur.

Public Posting (Including SWPPP Information Sign)

Install the SWPPP Information Sign per specification and post Site Maps and Details Sheets on the jobsite trailer wall (or other Owner agreed upon location) before beginning BMP installation. The following information must be posted near the construction exit in a prominent place for public viewing until termination of permit coverage has been obtained by filing the Notice of Termination (NOT): 1) Notice of Intent; 2) Permit Authorization; and 3) The location of the SWPPP on site. Reference the Entrance Sign (SWPPP Information Sign) detail for proper posting of documents.

Retention of Records

A complete copy of the SWPPP, including copies of all inspection reports, plan revisions, etc., shall be kept at the project site (or at the location as specified on the NOI if not at the project site) during the duration of the project (until NOT is filed) and kept in the permanent project records of the General Contractor for at least three years following submission of the Notice of Termination (NOT). The SWPPP shall be made available during inspections

Contractor/Sub-Contractor List

The General Contractor must provide names and addresses of all subcontractors working on this project who will be involved with the major construction activities that disturb site soil or otherwise affect BMP implementation. This information shall be kept in the SWPPP Binder.

Contractor/Sub-Contractor Certification Form

The General Contractor and all contractors and/or subcontractors that will implement, maintain and/or impact the pollution control measures in the SWPPP and/or are involved in ground-disturbing activities on the site must sign a copy of the Contractor certification included in the Appendix. An authorized representative from each company on the construction project must sign this form certifying that company representatives understand the General Permit authorizing storm water discharges during construction. This information shall be kept in the SWPPP Binder.

Additional Requirements:

This SWPPP was developed to fulfill construction storm water permit requirements for the <u>Scooter's Kiosk Drive-Thru</u>, Lee's Summit, Missouri project. Ultimately, it is the responsibility of the permittee or his general contractor (if so designated) to assure the adequacy of site pollutant discharge controls. Actual physical site conditions or contractor practices could make it necessary to install more structural controls than are shown on the plans. (For example, localized concentrations of runoff could make it necessary to install additional sediment barriers.) Assessing the need for additional controls and implementing them or adjusting existing controls will be a continuing aspect of this SWPPP until the site achieves final stabilization.

b. Site Location and Existing Conditions

The site is 0.95 acres and is located at the NW corner of SW Leman's Lane and SW Regatta Drive in Lee's Summit, Jackson County, Missouri. Existing site condition is currently undeveloped open space.

Drainage on the site flows to the southwestern corner of the site where it is captured by an existing public storm sewer along SW Lemans Drive. Existing vegetation consists of turfed grass.

c. Proposed Construction and Land Disturbance Activities

Proposed construction activities include the construction of a Scooter's Kiosk Drive-Thru, parking lot, drive lanes, site sidewalk paving, and landscaping. Storm water drainage will be conveyed in the parking lot in conjunction with the enclosed storm sewer system. The site will be re-seeded and landscaped upon completion of the finish grading. All seeded and planted areas will be inspected for bare spots, washouts, and healthy growth. The remainder of site shall have paving and buildings stabilizing exposed ground.

d. Work Schedule/Project Phasing

Construction activities will commence Fall 2017 with an estimated completion date of Spring 2018. Onsite working hours will be from 7:00 A.M. to 7:00 P.M., Monday through Saturday. The entire project will be constructed as one phase.

e. Potential Storm Water Contaminants

Pollutants that result from clearing, grading, excavation, and building materials and have the potential to be present in storm water runoff are listed in Table 1. This table includes information regarding the material type, chemical and physical description, and the specific storm water pollutants associated with each material.

Table 1
Potential Construction Site Storm Water Pollutants

Trade Name Material	Chemical/Physical	Storm Water Pollutants ⁽¹⁾
	Description ⁽¹⁾	
Pesticides (insecticides,	Various colored to colorless	Chlorinated hydrocarbons,
fungicides, herbicides,	liquid, powder, pellets, or	organophosphates,
rodenticides)	grains	carbamates, arsenic
Fertilizer	Liquid or solid grains	Nitrogen, phosphorous
Plaster	White granules or powder	Calcium sulphate, calcium
		carbonate, sulfuric acid
Cleaning solvents	Colorless, blue, or yellow-	Perchloroethylene,
	green liquid	methylene chloride,
		trichloroethylene, petroleum
		distillates
Asphalt	Black solid	Oil, petroleum distillates
Concrete	White solid	Limestone, sand
Glue, adhesives	White or yellow liquid	Polymers, epoxies
Paints	Various colored liquid	Metal oxides, Stoddard

		solvent, talc, calcium carbonate, arsenic
Curing compounds	Creamy white liquid	Naphtha
Wastewater from construction equipment washing	Water	Soil, oil & grease, solids
Sanitary wastes/sewage	Water, fecal matter	Bacteria, ammonia,
		nutrients
Wood preservatives	Clear amber or dark brown	Stoddard solvent, petroleum
	liquid	distillates, arsenic, copper,
		chromium
Hydraulic oil/fluids	Brown oily petroleum hydrocarbon	Mineral oil
Gasoline	Colorless, pale brown or pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, xylene, MTBE
Diesel fuel	Clear, blue-green to yellow liquid	Petroleum distillate, oil & grease, naphthalene, xylenes
Kerosene	Pale yellow liquid petroleum hydrocarbon	Coal oil, petroleum distillates
Antifreeze/coolant	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)
Erosion	Solid Particles	Soil, sediment

⁽¹⁾Data obtained from MSDSs when available

Non-storm water discharges that are expected from the site during the construction period:

- Water from waterline flushing
- Uncontaminated groundwater (from excavation)
- Irrigation water

f. Storm Water Controls/Best Management Practices (BMPs)

The primary potential sources of storm water contamination for this project include erosion and construction material spillage.

Erosion and Sediment Control

Soil stabilization and structural controls will be the primary methods of erosion control used on-site to control run-off velocity and protect soil particles from precipitation. Soil stabilization is defined as using in place existing vegetation, or by providing temporary/permanent seeding, parking lots or buildings to stabilize

the ground. Structural controls shall consist of temporary and permanent site improvements such as storm sewer piping and inlets and silt fence, rock check dams, diversion berms, and gravel entrances. The following BMPs will be implemented

- Silt fence will be placed along the perimeter of the area to be cleared and graded before any clearing or grading occurs.
- All ruts caused by equipment will be graded.
- Within 14 days of clearing and grading, areas not immediately affected by construction activities will be seeded and mulched with straw. The straw mulch is to be tacked into place by a cultipacker or disk.
- Soil stockpiles will be stabilized with temporary seed and mulch no later than 14 days from the last construction activity in that area.
- Construction entrances shall be provided for off-site vehicles leaving
 graded areas and entering paved streets. Sufficiently long graveled
 surfaces shall be provided to reduce the amount of sediment being
 transported onto pavement. Graveled areas shall also be provided for
 contractor staging and material storage areas. Paved areas will be cleaned
 daily to remove any excess mud, dirt or rock.
- Dump trucks hauling material from the construction site will be covered with a tarpaulin.
- Paved streets outside the construction area will be swept to remove excess mud, dirt, or rock tracked from the site.
- Gravel bags, gutter buddies, or other approved inlet protection methods as shown on the plans shall be used to prevent sediment from entering storm water inlets.

Erosion control BMPs, locations and design specifications are included in the Drawings (see Erosion and Sediment Control Plan).

Construction Materials

To prevent construction materials from washing into receiving water bodies, or the undisturbed areas of the site, the following BMPs will be implemented.

- Silt fence or mulch berms will be placed along the perimeter of the area to be cleared and graded before any clearing or grading occurs.
- All ruts caused by equipment will be graded.
- Within 14 days of clearing and grading, areas not immediately affected by construction activities will be seeded and mulched with straw. The straw mulch is to be tacked into place by a cultipacker or disk.
- Soil stockpiles will be stabilized with temporary seed and mulch no later than 14 days from the last construction activity in that area.
- Construction entrances shall be provided for off-site vehicles leaving graded areas and entering paved streets. Sufficiently long graveled surfaces shall be provided to reduce the amount of sediment being

- transported onto pavement. Graveled areas shall also be provided for contractor staging and material storage areas. Paved areas will be cleaned daily to remove any excess mud, dirt or rock.
- Dump trucks hauling material from the construction site will be covered with a tarpaulin.
- Paved streets outside the construction area will be swept to remove excess mud, dirt, or rock tracked from the site.
- Gravel bags, gutter buddies, or other approved inlet protection methods as shown on the plans shall be used to prevent sediment from entering storm water inlets.
- Building sites will be regularly policed and solid waste will be removed at regular intervals. All waste materials will be collected and stored in a securely lidded metal dumpster. All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied when full or weekly, whichever comes first.
- On site burning will only be allowed if specifically permitted by local jurisdictional authority. Any on site burning must comply with state and county requirements also.
- All sanitary wastes will be contained and collected from portable units throughout the entire construction phase. They must be utilized by all construction personnel. They will be serviced (emptied) a minimum of weekly, or when full by a licensed sanitary waste management contractor.
- Fertilizers and other soil amendments will be applied only in the minimum amounts recommended by the manufacturer.
- Fertilizers will be covered or stored in sealable containers to avoid spills.
- All vehicles on site will be monitored for leaks and receive regular maintenance to reduce the chance of leakage.
- Petroleum Products
 - O Petroleum products will be stored in tightly sealed containers or storage tanks which are clearly labeled. Storage tanks shall be in sound condition free of rust or other damage, which might compromise containment. Hoses, valves, fittings, caps, filler nozzles, and associated hardware shall be maintained in proper working condition at all times. Fueling, servicing, and repair of equipment within 50 feet of a stream is prohibited. Any fuel storage facility over 1000 gallons will require a specific spill prevention plan that meets state and federal requirements.
 - o Above ground storage tanks will have secondary containment structures or berms. Secondary containment will be constructed of sufficiently impervious material with enough storage to contain the volume of the tank plus at least 6 inches freeboard.
- All liquid materials stored on-site will be in their original containers, tightly sealed, and kept in a neat, orderly manner.
- All paint containers and curing compounds will be tightly sealed and stored when not required for use. Excess paint will not be discharged to

- the storm system, but will be properly disposed according to the manufacturer's instructions.
- Concrete washout from ready mix trucks will be allowed on the construction site, but only in specifically designated containment areas that have been prepared to prevent contact between the concrete and/or wash water and storm water that will be discharged from the site or in locations where waste concrete can be placed into forms to make riprap or other useful concrete products. The cured residue from the concrete washout containment areas shall be disposed in accordance with applicable state and federal regulations. The jobsite superintendent is responsible for assuring that these procedures are followed. Washout on individual lots will not be permitted. Recycling of concrete wash water and disposal off site is encouraged.
- Form release oil used for decorative stonework will be applied over a
 pallet covered with an absorbent material to collect excess fluid. The
 absorbent material will be replaced and disposed of properly, when
 saturated.
- Building materials, when stored, will be kept away from drainage courses.
- Spill procedures:
 - o Spill kits will be included with all fueling sources and maintenance activities.
 - All personnel will be aware of proper spill cleanup procedures.
 - Spill containment equipment may include brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, saw dust, containment booms, and metal trash containers. All spills will be cleaned up immediately upon discovery.
 - Large spills of flammable or hazardous materials should be reported immediately to the local fire department by calling 911.
 Large spills must also be reported to the City &/or County Environmental Departments.

g. Sequence of Major Construction Activities

Described below are the major construction activities that are the subject of this SWPPP. They are presented in the order (or sequence) they are expected to begin, but each activity will not necessarily be completed before the next begins. Also, these activities could occur in a different order if necessary to maintain adequate erosion and sedimentation control. The Contractor shall update all activities and the timeframe (beginning and ending dates) and shall be noted on the Site Map and Record of Stabilization and Construction Activity Dates:

• Construct rock pads for construction entrance/exit. This will be the first construction work on the project.

- Temporary perimeter sediment controls will be installed before any clearing and grading begins.
- Clear and grub the improvement areas. (Sediment barriers already installed down slope per "B" above); Clearing and grading will not occur in an area until it is necessary for construction to proceed (see Project Phasing). Stripping of vegetation on the site will be limited to those areas where construction will start within 14 days or sooner where feasible. All clearing and stripping will follow the construction schedule for the development.
- Excavation and embankment to form the building pad and pavement areas;
- Underground Utilities Sediment barriers shall be utilized as required to bound the down slope side of utility construction and soil stockpiles;
- Final Grading Sediment barriers shall be maintained down slope from disturbed soil during this operation; and
- Paving and Building Construction.
- Once construction activity ceases permanently in an area, that area will be stabilized with permanent seed and mulch (or sod) and landscaping.

h. BMP Inspection and Maintenance Procedures

Visual inspections of all cleared and graded areas of the construction site will be performed at a minimum of once every 14 days, and within 24 hours of the end of a storm with rainfall amounts greater than 0.5 inches. The inspections will be conducted by the SWPPP Coordinator or a designated team member. The inspection will verify that the structural BMPs are in good condition and are minimizing erosion. The inspection will also verify that BMPs used to contain construction materials and petroleum products are effective. The following inspection and maintenance practices will be used to maintain erosion and sediment controls:

- Built up sediment will be removed from perimeter controls when it has reached one-half the height of the control.
- Silt fences will be inspected for depth of sediment, undermining, tears, and attachment to fence posts. Posts will also be inspected to make sure they are firmly in the ground.
- Straw wattles and mulch berms will be inspected for depth of sediment, undermining, and sound placement. Mulch berms will also be inspected for blow out.

- If failure is recurrent, some other sediment control must be substituted and noted in the SWPPP (note the location and type of substitute BMP on the Erosion and Sediment Control Plan).
- Temporary and permanent seeding will be inspected for bare spots, washouts, and healthy growth.
- Stabilized construction entrances will be inspected to determine if soil is leaving the site. A layer of clean gravel should be placed whenever excess soil has accumulated on the surface of the construction entrance.
 Stabilized construction entrances will be inspected to determine if soil is leaving the site. A layer of clean gravel should be placed wherever excess soil has accumulated on the surface of the construction entrance.

Visual inspections of all cleared and graded areas of the construction site will be performed at a minimum of once every 14 days and within 24 hours of the end of a storm with rainfall amounts greater than 0.5 inches. Based on the results of the inspection, necessary control modifications shall be implemented within 7 days. Visual inspection activities can be documented as needed using other appropriate forms/logs, and attached to the SWPPP. If construction activities or BMPs change during this project, the SWPPP will be amended appropriately.

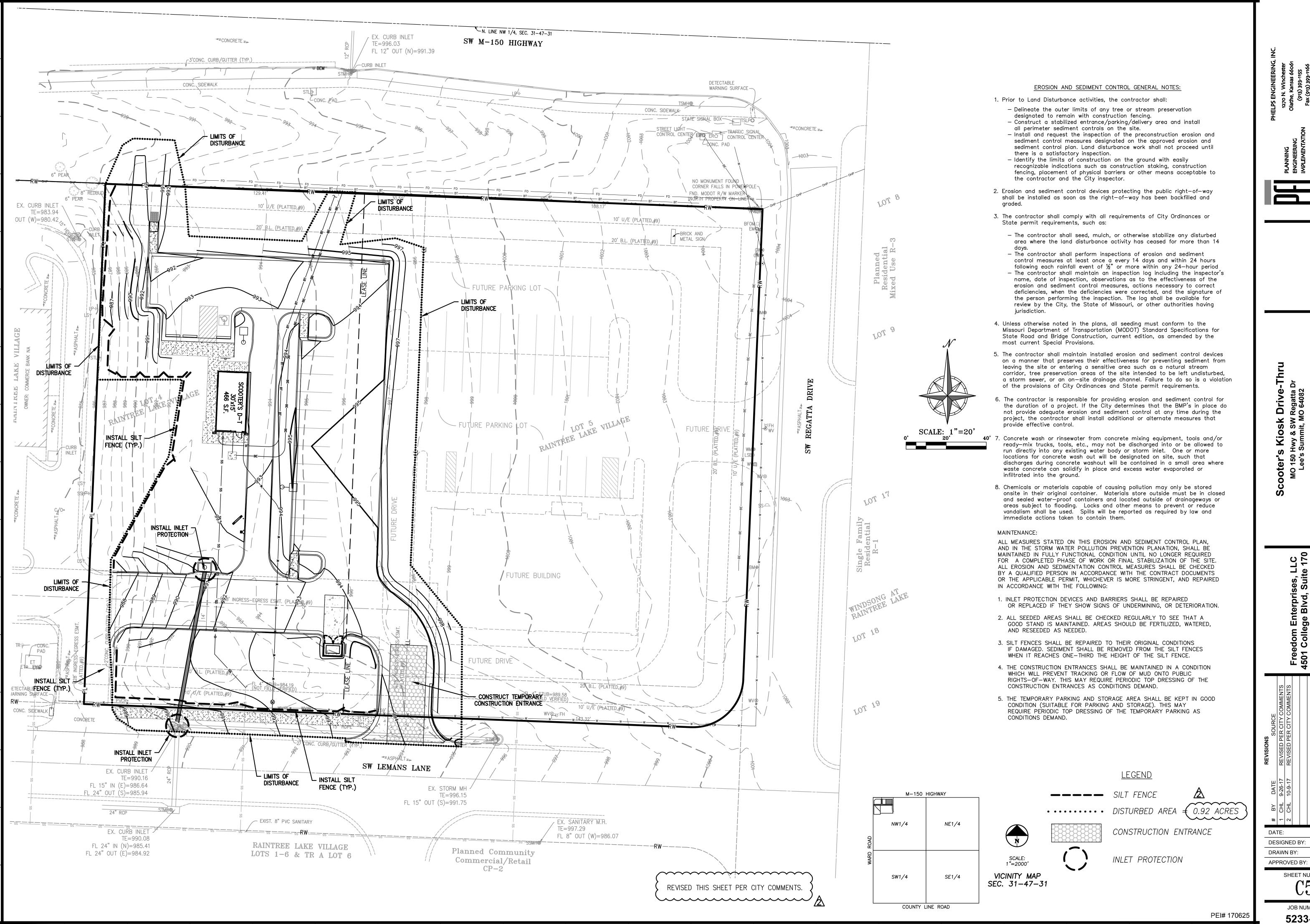
i. Project Contacts and Coordination

The construction site SWPPP Coordinator for Scooter's Kiosk Drive-Thru, Lee's Summit, MO, is yet to be determined. SWPPP Coordination duties include:

- implement the SWPPP with the aid of the SWPPP team;
- oversee maintenance practices identified as BMPs in the SWPPP;
- notify the City Inspector after installation of perimeter sediment controls and prior to any significant deviations from the SWPPP;
- conduct or provide for inspection and BMP maintenance activities;
- identify other potential pollutant sources and make sure they are added to the SWPPP;
- identify any deficiencies in the SWPPP and make sure they are corrected;
 and
- ensure that any changes in construction plans or BMPs are addressed in the SWPPP.

II. DRAWINGS

a. Erosion and Sediment Control Plan



JOB NUMBER

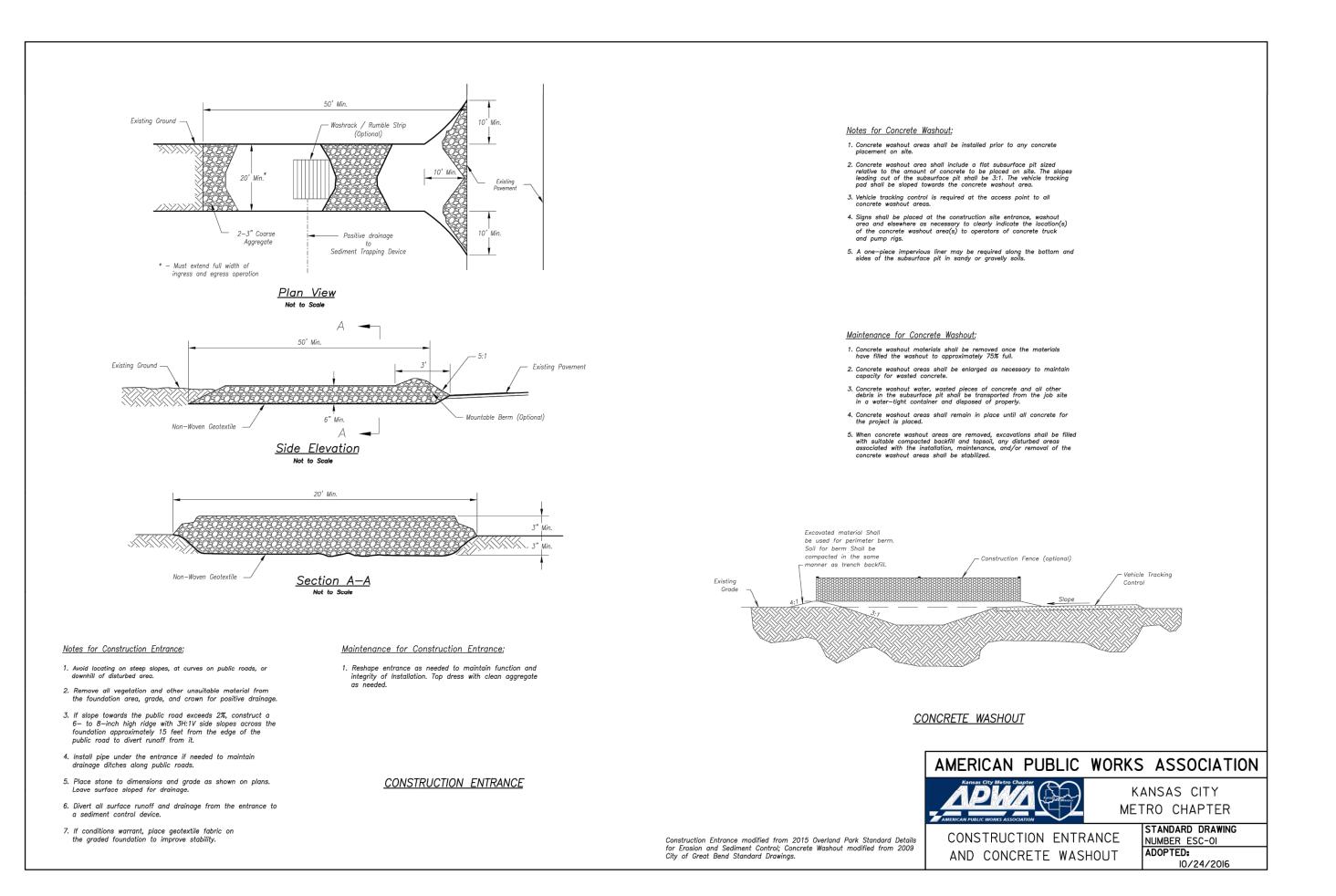
SHEET NUMBER

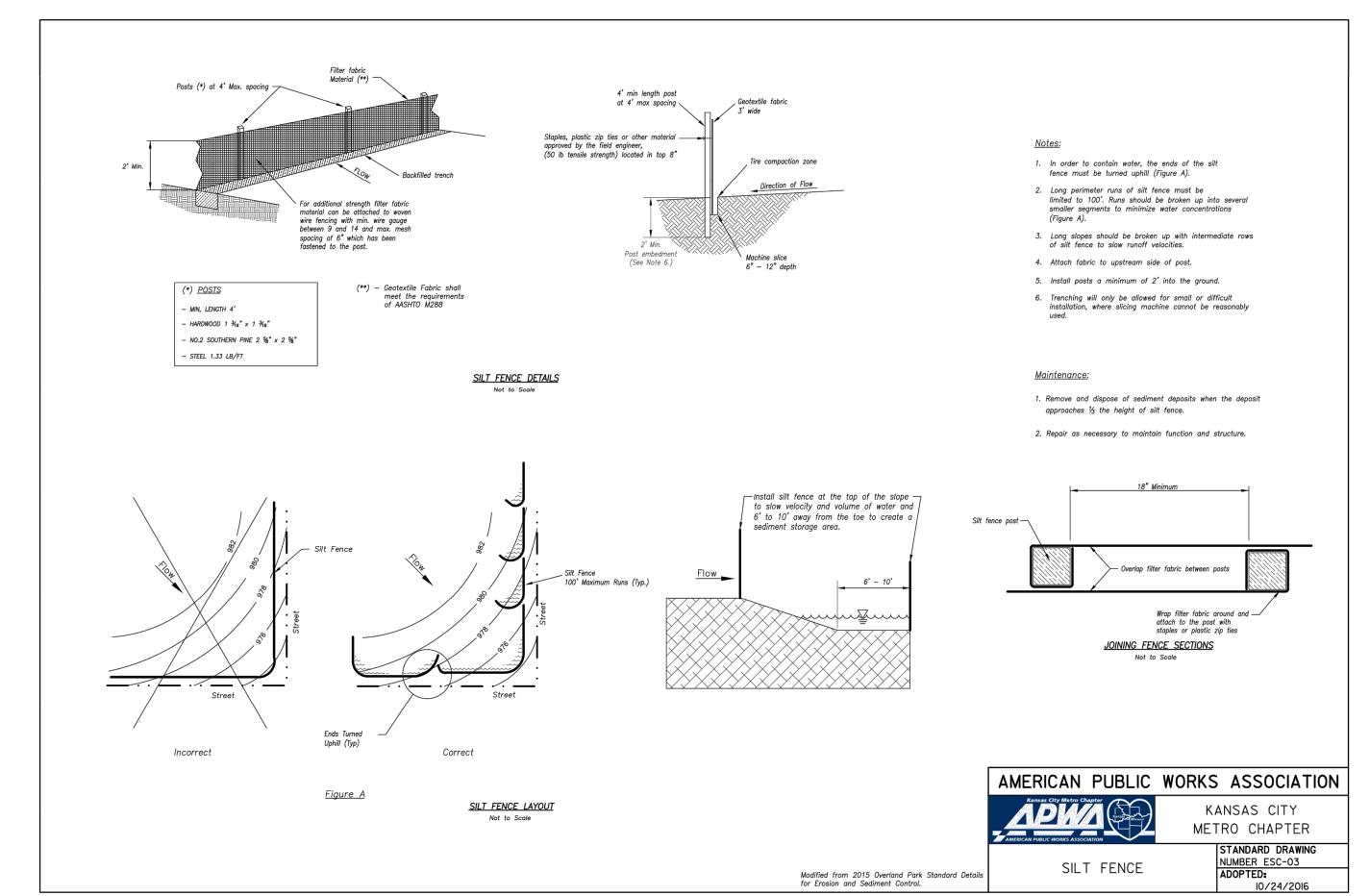
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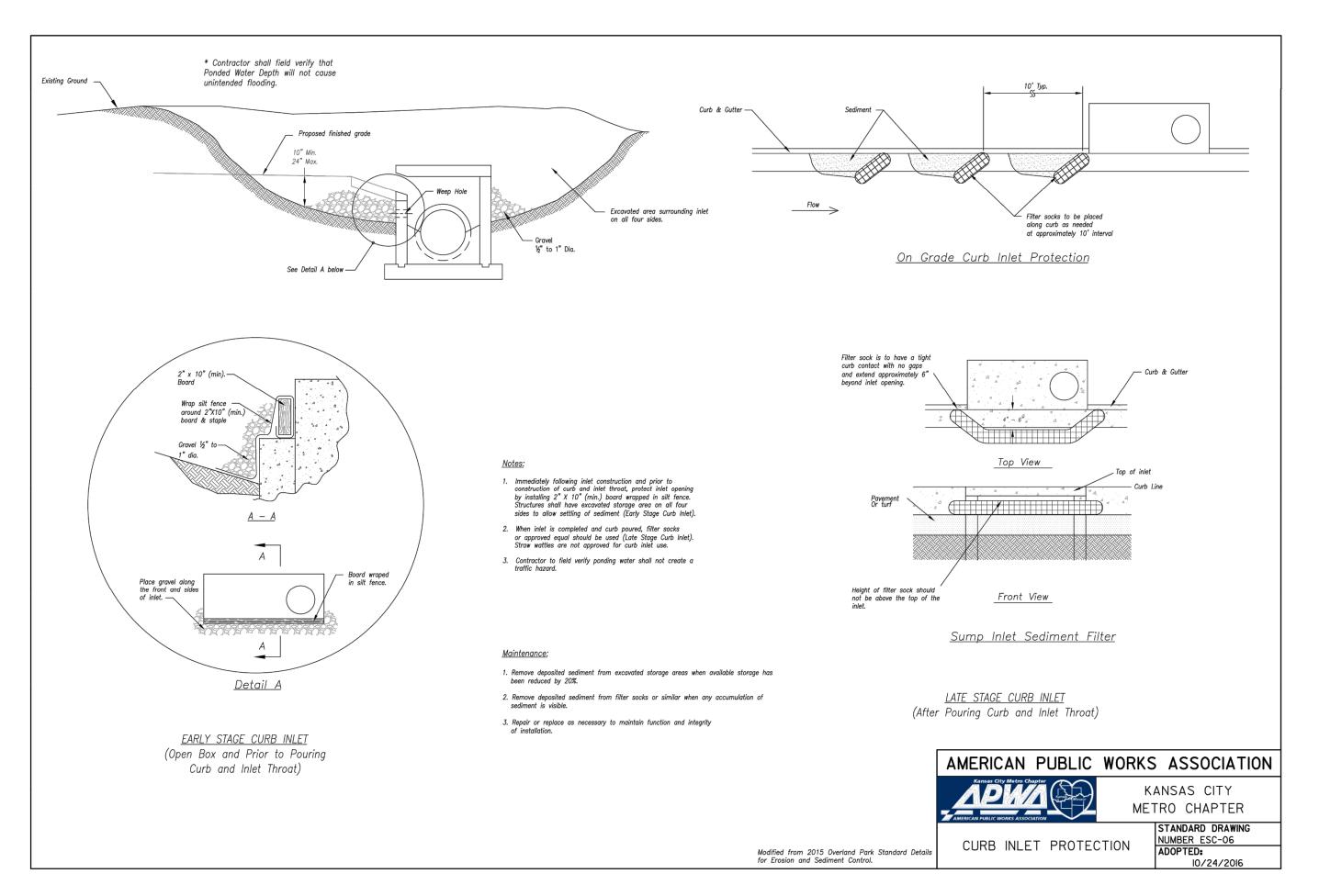
JDC

edom Enterprises, l College Blvd, Suite Leawood, KS 66211

5233-17









PEI# 170625

JOB NUMBER **5233-17**

SHEET NUMBER

DESIGNED BY:

APPROVED BY:

DRAWN BY:

09.06.17

DAF

CHL

JDC

III. PERMITS

(not applicable due to disturbed area less than 1.0 acre).

IV. SITE INSPECTION FORMS/LOGS

(Permittee or Contractor shall attach all site inspection forms, daily activity logs, etc.)

- a. Maintenance Inspection Report
- b. Record of Site Stabilization and Construction Activity Dates

Maintenance Inspection Report #_____

Storm Sewer Inlet	Barrier	s (sand	l bags,	gutter buddies, straw wattles)
BMP Condition	Yes	No	N/A	list locations needing BMPs and/or maintenance.
Inspection Checklist:				
Other (Describe:)
Rough Grading Building Construction				
Clearing and Grubbing —— Public Improvements				
Installation of Perim		C Measi	ıres	Finish Grading
Stage of Construction: Pre-construction Me	eting			Temporary Stabilization
Inspector Name (print) and	Signatu	re:		
Rain in last 24 hours (inche	es):			
Weather Conditions:				
Owner:				
Project Name/Location:				
Date of mopeonom.		Ttous	JII 101 II	
Date of Inspection:		Reaso	on for in	aspection*
	pecuc	,,,,	Port	

BMP Condition	Yes	No	N/A	If "no", list locations needing BMPs and/or maintenance.
Storm Sewer Inlet	Barrie	rs (sand	d bags,	gutter buddies, straw wattles)
Are storm sewer inlet				
barriers properly placed?				
Are storm sewer inlet				
barriers in good				
condition?				
Are barriers controlling				
flows into the inlet?				
Is sediment height less				
than ½ the barrier height?				
Are all storm water inlets				
protected?				
Are storm sewer boxes				
and/or pipes free of				
sediment?				
Perimeter Controls (diversions, silt fence, straw wattles, mulch berms, etc.)				
Is offsite storm water				
drainage diverted?				
Are perimeter controls up				
and in good condition?				

BMP Condition	Yes	No	N/A	If "no", list locations needing BMPs and/or
		. ~		maintenance.
77 11 00 1	Perime	eter Co	ntrols (continued)
Have all offsite properties				
and drainages been				
protected by perimeter				
controls?	4 1 11	1.0	4	T7 . 4
	tabilize	ea Cons	structio	n Entrances
Is there adequate clean gravel present?				
Is soil and gravel staying onsite?				
Are contractors using the				
stabilized construction				
entrance?				
		Stream	<u>Crossi</u>	ngs
Are temporary crossings				
controlling erosion?				
Are culverts adequately				
sized?				
	Ten	nporar	y Stabil	lization
Are seeded areas properly				
established?				
Is mulch crimped in and				
holding seed in place?				
Are erosion control				
blankets and mats in good condition?				
Are soil piles seeded,				
mulched and bordered				
down slope by sediment				
barriers?				
Sediment Basin				
Is the basin less than ½				
full of sediment from				
original design?				
Are side slopes in good				
condition?				
Is the basin containing				
storm water flows?				
Is the outfall in good				
condition?				

BMP Condition	Yes	No	N/A	If "no",
				list locations needing BMPs and/or maintenance.
	Swal	les and	Draina	ige Ways
Are ditch bottoms				
protected from				
undercutting and erosion?				
Are ditch checks properly				
maintained?				
Are outfalls properly				
stabilized?				
		Slope	Protect	ion
Are all slopes protected				
with vegetative cover,				
terraces or erosion control				
blankets?				
	Ge	neral S	ite Con	ditions
Is trash and construction				
debris properly contained				
onsite?				
Are porta-potties properly				
located and maintained?				
Are all vehicles properly				
maintained to avoid				
leakage?				
Are all chemicals properly				
containerized and stored?				
Are concrete washout				
areas established and				
maintained?				
C M E	-11		!! DX	//D
				MPs or maintenance, describe
corrective measures and in	пртетне	manoi	ı umen	rame:
-				

* Reason for Inspection note: Visual inspections of all cleared and graded areas of the construction site will be performed at a minimum once every 14 days and within 24 hours of the end of a storm with rainfall amounts greater than 0.5 inches. Based on the results of the inspection, necessary control modifications shall be implemented within 7 days. This report shall be kept on file by the General Contractor as part of the Storm Water Pollution Prevention Plan for at least **3 years** from the date of completion and submission of the Notice of Termination.

Certification Statement

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Printed Name:			=
Address:			-
Phone:			-
	(Authorized Signature**)	Date:	
	(Authorized Signature)		

^{**}It is the Owners (Permittee) responsibility to insure that the inspector has been properly authorized under the applicable General Permit Regulations to sign these inspection forms.

RECORD OF SITE STABILIZATION and CONSTRUCTION **ACTIVITY DATES**

A record of dates when stabilization measures are initiated, when major grading activities occur, and when construction activities temporarily or permanently cease on a portion of the site shall be maintained until final site stabilization is achieved and the Notice of Termination is filed. Make additional copies of this form and keep with SWPPP as needed.

MAJOR STABILIZATION AND GRADING ACTIVITIES

Description of		
Activity:		
Site Contractor:		
Begin (date):	End(date):	
Location:		
Description of		
Activity:		
Site Contractor:		
Begin (date):	End(date):	
Location:		
Description of		
Site Contractor:		
	End(date):	
Description of		
Activity:		
Site Contractor:		
Begin (date):	End(date):	
Location:		
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Site Contractor:		
	End(date):	
Location:		