













STORM - 5C



BACKFILL MATERIAL (NO. 8 COARSE AGREGATE)









STORM - 7



BACKFILL MATERIAL (NO. 8 COARSE AGREGATE)

SITE NAME	B2 SEQUENCE DESCRIBING STORMWATER QUALITY MEASUR
The area scheduled for construction is known as "Franklin Flats" (hereinafter referred to as the "Project")	Pre-construction Activity 1. The exact locations of all existing utilities within the p
PROJECT LOCATION The property is located approximately 400 feet east of the intersection of Hamilton Avenue and Upper Shelbyville Road in Franklin	 Schedule pre-construction meeting with local stormw Install protection fencing for existing trees to remain i
Indiana, at a latitude of 39°29'22" N and a longitude of 86°02'21" W.	Construction Site Access 1. Install gravel construction entrance
OWNER'S INFORMATION	 Post the NOI and contact information at the construct Install construction staging pads, fueling station, mate stabilize construction routes
Address: 10 W. Carmel Drive, Suite 100, Carmel, IN 46032 Contact: Ryan Thomas	Perimeter Controls
Title: Vice President, Construction Telephone: 317-848-6500 Email: rthomas@lauth.net	Initial Land Clearing and Grading Activities
OPERATOR'S INFORMATION	 Add protection measures to existing inlets. Strip the topsoil and stabilize the topsoil stockpile.
Name: Lauth Group Address: 10 W. Carmel Drive, Suite 100, Carmel, IN 46032	Secondary Land Grading Activities 1. Begin site grading/construction of detention basins (if
Contact: Ryan Thomas Title: Vice President, Construction	more than 10 days. 2. Complete the cut and fills on the site. Final grade and
Telephone: 317-848-6500 Email: rthomas@lauth.net	 Dianket. 3. Install storm sewer system and install inlet protection prior to installing outlets.
	Surface Stabilization
All parties defined as owners must submit a Notice of Intent (NOI) at least 48 hours prior to commencement of on-site construction activities. Submittal of late NOI's is not prohibited; however, authorization under the construction general permit is only for discharges that occur after permit coverage is granted. Unpermitted discharges may be subject to enforcement actions by the EPA.	2. Apply permanent seeding and stabilize slopes in area
For the purposes of this permit, an owner is defined as any party meeting either of the following requirements:	Building Construction 1. Prior to building construction install stone surface for 2. Building pode left dermost for more than 10 days mu
 The party has operational control over the construction plans and specifications, including the ability to make modifications to those plans and specifications. 	 Start building construction. Install staging area for building
 The party has day-to-day operational control of those activities at a project that are necessary to ensure compliance with a stormwater pollution prevention plan for the site or other permit conditions. 	Final Shaping/Landscaping 1. Utilize topsoil salvage in applicable areas and apply p 2. Apply permanant spectra of the
<u>A2 11" x 17" PLAT</u>	 Apply permanent second around the permater of the Complete utility installation, curbs, paving, and building Install landscaping plant material and stabilize all dist
Refer to the Site Layout Plan.	5. Remove all erosion and sediment control practices w
A3 PROJECT NARRATIVE The project consists of the construction of six (6) ±11,900 square foot multifamily apartment buildings, asphalt parking lots and	Construction entrances will be in place prior to any site constru
drives, and associated utility infrastructure. There will be a total of 150 units. A wet detention pond will also be constructed for stormwater management.	Refer to the Erosion Control Details for details.
A4 VICINITY MAP	Sheet flow areas will be protected by seed and mulch or hydro
Refer to the Cover Sheet	the slope exceeds 4:1 (horizontal to vertical). Silt fencing will be Erosion Control Plan for locations and the Erosion Control Def
A5 LEGAL DESCRIPTION OF THE PROJECT SITE Section: 13	B5 SEDIMENT CONTROL MEASURES FOR CONCENTRATED FL
Township: 12N Range: 4E	Proposed swales will be stabilized with erosion control blanked protection measures. Refer to the Erosion Control Plan for loc
A6 LOCATION OF ALL LOTS AND PROPOSED SITE IMPROVEMENTS	B6 STORM SEWER INLET PROTECTION MEASURE LOCATIONS
The site is not subdivided into lots; therefore, all proposed site improvements are shown on the included plans.	The contractor shall install appropriate inlet protection measur Erosion Control Details for details. Straw bales will not be allow
A7 HYDROLOGIC UNIT CODE (HUC) 05120204090050	B7 RUNOFF CONTROL MEASURES
A8 STATE AND FEDERAL WATER QUALITY PERMITS	 N/A
Indiana Department of Environmental Management (IDEM) Rule 5	B8 STORMWATER OUTLET PROTECTION MEASURES
A9 SPECIFIC POINTS WHERE STORMWATER DISCHARGE WILL LEAVE THE SITE	Riprap aprons will be utilized for protection at stormater outlet
Stormwater drainage from the site will be conveyed via sheet flow and storm sewer and outlet to an on-site detention pond that will dishcarge into Hurricane Creek.	B9 GRADE STABILIZATION STRUCTURE LOCATIONS
A10 LOCATION AND NAME OF ALL WETLANDS, LAKES, AND WATERCOURSES ON AND ADJACENT TO THE SITE	B10 LOCATION, DIMENSIONS, SPECIFICATIONS, AND CONSTRUCTIONS, AND CONST
A 11 IDENTIFICATION OF ALL RECEIVING WATERS	Refer to the Erosion Control Plan for locations of each stormw Construction Details.
Hurricane Creek is the ultimate receiving water for this project	B11 TEMPORARY SURFACE STABILIZATION METHODS APPRO
A12 IDENTIFICATION OF ALL POTENTIAL DISCHARGES TO GROUNDWATER	Surface stabilization is required on any bare or thinly vegetate days or more. Refer to the Temporary Seeding Detail within th
There are no locations on site where surface water may be discharged into groundwater.	and mulching. The surface stabilization for the lots needs to be If this is not possible, then silt fencing will need to be installed
The project site is located within Zone AE as indicated on the Johnson County, IN Flood Insurance Rate Map 18081C0231E dated	B12 PERMANENT SURFACE STABILIZATION SPECIFICATIONS
1/29/21. A portion of the adjcaent floodway also encroaches into the site.	 Loosen lawn area to a minimum depth of 6 inches. Mix soil amendments such as peat, compost, or manure shall be appli Provide fortilizer with percentage of nitragen required to provide
Pre-Construction 10-year discharge = 1.79 cfs	area and not less than 4 percent phosphoric acid and 2 percent mixing of fertilizer if planting will not follow placing of planting s
Post-Construction 10-year discharge = 0.55 cfs	 2.) Fertilizer for lawns: provide a fast release fertilizer with a composition phosphorous, and 2 percent potassium by weight. 3.) Slow release fertilizer for trees and shrubs: grapular fertilizer
North: Agricultural	potassium made up of a composition by weight of 5 percent. 4.) Grade lawn and grass areas to a smooth, even surface wit
South: Single-Family East: Agricultural Weat: Baliniaua/Churah	planted within immediate future. Remove trash, debris, stones planting or maintenance operations. Sow seed using a spread
A16 LOCATIONS AND APPROXIMATE BOUNDARIES OF ALL DISTURBED AREAS	5.) Distribute seed evenly over entire area by sowing equal qu6.) Rake seed lightly into top 1/8 inch of soil, roll lightly, and was
Approximate boundaries of disturbed areas are as identified on the Erosion Control Plan.	 7.) Install erosion control blankets as indicated on the Erosion 8.) Protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect seeded areas against erosion by spreading clean, support of the protect
A17 IDENTIFICATION OF EXISTING VEGETATIVE COVER	9.) Water newly planted lawn areas and keep moist until new g construction activities including tree and shrub installation.
Approximate areas of existing vegetative cover are as shown on the Existing Conditions Plan or Topographic Survey.	 Refer to the Permanent Seeding Details within the Erosion specifications and mulching specifications.
The Natural Resources Conservation Service (NRCS) Web Soil Survey of Johnson County, Indiana indicates Ockley Ioam (ObaA),	B13 MATERIAL HANDLING AND SPILL PREVENTION PLAN
Rensselaer silty clay loam (Re), Sleeth loam (Sk), Ockley loam-Urban Land Complex (YobA), and Rensselaer silty clay loam-Urban Land Complex (YreA) are located on the site.	Solid Waste Disposal No solid material, including building materials, is permitted to b including disposable materials incidental to construction activit
The on-site soil will be treated as recommended by the geotechnical engineer if the conditions are unsuitable for the proposed construction.	containers must be emptied periodically and the collected mat municipality to accept the waste for disposal.
A19 LOCATIONS, SIZE, AND DIMENSIONS FOR THE PROPSOED STORMWATER SYSTEMS	A foreman or supervisor should be designated in writing to ove
Locations of stormwater systems: Refer to the Site Utility Plan Size of storm sewers: Refer to the Site Utility Plan or Storm Sewer Profiles	Hazardous Waste
Details of storm inlets and manholes: Refer to the Construction Details	Whenever possible, minimize the use of hazardous materials a disposed in the manner specified by federal, state, or local reg
Aphalt trail and drive construction within the righto-of-way.	Use containment berms in fueling and maintenance areas and
A21 LOCATIONS OF PROPOSED SOIL STOCKPILES AND/OR BORROW/DISPOSAL	A foreman or supervisor should be designated in writing to over waste procedures. The location of any hazardous waste storage by the operator following on site location of the facility
Excess soil shall be immediately stockpiled, surrounded with silt fence, and seeded and/or removed from the project site in accordance with all applicable laws. If topsoil stockpiles are anticipated for this project, they are shown on the Erosion Control Plan.	Dust Control/Off-Site Vehicle Tracking
A22 EXISTING SITE TOPOGRAPHY	During construction, water trucks should be used, as needed, site should stabilized to reduce dust.
Refer to the Existing Conditions Plan or Topographic Survey	Construction traffic should enter and exit the site at a Construction traffic should enter and exit the site at a Construction of soil and mud that is tractive the amount of soil and mud that is tractive the amount of soil and mud that is tractive the amount of soil and mud that is tractive the amount of soil and mud that is tractive the amount of soil and mud that is tractive the amount of soil and mud that is tractive the amount of soil and mud that is tractive the amount of soil and mud that is tractive the amount of soil and mud that is tractive the amount of soil and mud that is tractive the amount of soil and mud that is tractive the amount of soil and mud that is tractive the amount of soil and mud that is tractive the amount of soil and mud that is tractive the amount of soil and mud that is tractive the amount of soil and mud that is tractive the amount of soil amount o
A23 PROPOSED FINAL SITE TOPOGRAPHY Refer to the Site Grading Plan	accumulations of sediment must be removed a frequency suffi
B1 DESCRIPTION OF POTENTIAL POLLUTANT SOURCES ASSOCIATED WITH CONSTRUCTION ACTIVITIES	Contractors and subcontractors must comply with all state and facilities shall be provided at the site by each contractor or sub
The following potential pollutant sources may be associated with construction activities on site:	be utilized by all construction personnel and be serviced regular responsibility of the contractors and subcontractors. The locati
2. Construction waste material 3. Fuel storage areas and fueling stations	prevention plan by the operator following on-site location of sa Water Source
4. Exposed soils 5. Leaking vehicles and equipment 6. Sentence wests from termoremy to list for silling	Water used to establish and maintain grass, to control dust, ar supply or private well approved by the State or local health de
o. Sanitary waste from temporary tollet facilities 7. Litter 8. Windblown dust	
9. Soil tracking off site from construction equipment	
 1. Structural fill 2. Pavement base stone 	
3. HDPE, PVC, RCP, or Ductile Iron Pipe 4. Precast concrete, HDPE, or PVC drainage and sanitary structures 5. Riprap	

project limits are to verified prior to construction. vater authority 48 hours prior to start of construction.

in place within the project limits

ction entrance. NOI to remain posted for duration of the project. terial storage areas, concrete washout, construction parking areas, and

n of the perimeter silt fence. Add stone if needed.

f applicable) and stabilize any soil stockpiles that will be left dormant for

seed the pond slopes (if applicable). Stabilize slopes with erosion control n immediately upon complete of the inlet and install rip-rap outlet protection

as where rough grading has been completed eas where final grading has been completed.

paved areas. ust be temporarily seeded

uilding materials and stabilize.

permanent seeding.

ing construction. sturbed areas.

when areas have a uniform grass cover.

ECIFICATIONS

ruction or demolition. Entrances are shown on the Erosion Control Plan.

oseeding. Erosion control blankets will be installed on sloped areas where be utilized to prevent sedimentation from leaving the site. Refer to the etails for details.

OW AREAS

ets. Straw bales and silt fences will not be allowed as concentrated flow ations and the Erosion Control Details for details.

S AND SPECIFICATIONS

res at each inlet. Refer to the Erosion Control Plan for locations and the wed as inlet protection measures. These inlet protection measures should

RUCTION DETAILS OF EACH STORMWATER QUALITY MEASURE vater quality measure and the Erosion Control Details and Site

OPRIATE FOR EACH SEASON

ed areas that is scheduled or likely to remain inactive for a period of 10 ne Erosion Control Details for specifics on soil amendments, seed mixture e established as soon as possible to prevent dirt wash-out into the streets. I along the back of curbs.

il amendments and fertilizers with topsoil at rates specified. Organic soil lied at 2" depth evenly over soil and incorporated into the top 6" of topsoil. de not less than 1 pound of actual nitrogen per 1,000 square feet of lawn ent potassium. At least 50 percent of nitrogen to be organic form. Delay soil within a few days.

composition of 1 lb per 1,000 square feet of actual nitrogen, 4 percent zer consisting of 50 percent water-insoluble nitrogen, phosphorous and

ith loose, uniformly fine texture. Limit fine grading to areas that can be s larger than 1 inch diameter, and other objects that may interfere with der of seeding machine. Do not seed when wind velocity exceeds 5 miles

uantity in 2 directions at right angles to each other. vater with a fine spray.

n Control Plan.

seed-free straw mulch after completion of speeding operations. Spread hes loose measurements over seeded areas. grass is established. Immediately repair any lawn areas disturbed by

on Control Detail Sheet, for timing of permanent seeding, grass seed

be discharged to surface waters or buried on site. All solid waste materials, ity, must be collected in containers or closed dumpsters. The collection terial hauled to a landfill permitted by the State and/or appropriate local

versee, enforce, and instruct construction workers on proper solid waste

and generation of hazardous wastes. All hazardous waste materials will be gulations or by the manufacturer

d where potential for spills is high.

versee, enforce, and instruct construction workers on proper hazardous age areas should be indicated on the stormwater pollution prevention plan

by each contractor or subcontractor to reduce dust. After construction, the

iction Entrance with a rock pad or equivalent device. The purpose of the cked onto existing street. If sediment escapes the construction site, off-site ficient to minimize off-site impacts.

d local sanitary sewer, portable toilet, or septic system regulations. Sanitary bcontractor throughout construction activities. The sanitary facilities should larly. All expenses associated with providing sanitary facilities are the tion of any sanitary facilities should be indicated on the stormwater pollution aid facilities.

and for other construction purposes must originate from a public water epartment.

Equipment Fueling and Storage Areas

Equipment fueling, maintenance, and cleaning should only be completed in protected areas (i.e., bermed area). Leaking equipment and maintenance fluids will be collected and not allowed to discharge onto soil where they may be washed away during a rain event.

Equipment wash-down (except wheel washes) should take place within an area surrounded by a berm. The use of detergents is prohibited.

Hazardous Material Storage

Chemicals, paint, solvents, fertilizers, and other toxic or hazardous materials should be stored in their original containers (if original container is not resealable, store the products in a clearly labeled, waterproof container). Except during application, the containers should be kept in trucks or in bermed areas within covered storage facilities. Runoff containing such materials shall be collected, removed from the site, and disposed of in accordance with the federal state, and local regulations.

As may be required by federal, state or local regulations, the Contractor should have a Hazardous Materials Management Plan and/or Hazardous Materials Spill and Prevention Program in place. A foreman or supervisor should be designated in writing to oversee, enforce, and instruct construction workers on proper hazardous materials storage and handling procedures. The location of any hazardous material storage areas should be indicated on the stormwater pollution prevention plan by the operator following on-site location of the storage areas.

Material Handling and Spill Prevention

Discharge of hazardous substances or oil into stormwater is subject to reporting requirements. In the event of a spill of a hazardous substance, the operator is required to notify the National Response Center (1-800-424-8802) to properly report the spill. In addition, the operator shall submit a written description of the release (including the type and amount of material released, the date of the release, the circumstances of the release, and the steps to be taken to prevent future spill) to the local governing authority. The SWPPP must be revised within 14 calendar days after the release to reflect the release, stating the information above along with modifications minimize the possibility of future occurrences. Each contractor and subcontactor is responsible for complying with these reporting requirements.

Concrete Washout All concrete trucks waste material shall be completely contained and disposed in accordance with all local, state, and federal

regulations. A pit or container is required when cleaning concrete chutes.

Spill Response Pla

Minor - Small spills that typically involve oil, gasoline, paint, hydraulic fluid, etc. can be controlled by the first responder at the discovery of the spill. • Contain spill to prevent material from entering storm or groundwater. Do not flush with water or bury.

- Use absorbent material to clean-up spill material and any subsequently contaminated soil and dispose of properly. Semi-Significant Spills - Approximately ten gallons or less of pollutant with no contamination of ground or surface waters. Minor spills can be generally controlled by the first responder with help from other site personnel. This response may require other
- operations to stop to make sure the spill is guickly and safely addressed. At the discovery of the spill: • Contain spill to prevent material from entering storm or ground water. Do not flush with water or bury. • Use absorbent material to clean-up spills and dispose of properly. Spills on impervious surfaces should be disposed of as soon as possible to prevent migration deeper into the soil and groundwater. Dispose of contaminated soils or absorbents
- properly. • Contact 911 if the spill could be a safety issue
- Contact supervisors and designated site inspectors, including MS4 personnel, immediately.
- · Contaminated solids are to be removed to an approved landfill. Major or Hazardous Spills - More than ten gallons, there is the potential for death, injury or illness to humans or animals, or has the potential for surface or groundwater pollution
- Control or contain the spill without risking bodily harm. Temporarily plug storm drains if possible to prevent migration of the spill into the stormwater syster • Immediately contact the local Fire Department at 911 to report any hazardous material spill.
- Contact supervisors and designated site inspectors immediately. Governing authorities, including MS4 personnel, responsible for stormeater facilities should be contacted as well. The contractor is responsible for having these contact numbers available at the job site. A written report should be submitted to the owner as soon as possible • As soon as possible but within 2 hours of discovery, contact the local agency responsible for spill management. The following
- information should be noted for future reports to the agency: Name, address and phone number of person making the spill report
- The location of the spill
- The time of the spill • Identification of the spilled substance
- Approximate quantity of the substance that has been spilled or may be further spilled
- •• The duration and source of the spill • Name and location of the damaged waters
- •• Name of spill response organization
- What measures were taken in the spill response • Other information that may be significant

Additional regulations or requirement may be present. A spill response professional should be consulted to make sure all appropriate and required steps have been taken. Contaminated solids should only be removed from the site after approval is give by the appropriate agency.

B14 MONITORING AND MAINTENANCE GUIDELINES FOR EACH PROPOSED STORMWATER QUALITY MEASURE

Inspection Schedule/Reporting All impacted areas, as well as all erosion and sediment control devices, will be inspected every seven (7) calendar days and within 24 hours after a rianfall of 0.5 inch or greater. Where sites have been final or temporarily stabilized or on sites where runoff is unlikely due to winter conditions (e.g. site is covered with snow, ice, or frozen ground exists), such inspections shall be conducted at least once every month.

Inspections shall be conducted and a written report prepared, by a designated and qualified person familiar with the USEPA NPDES Storm Water General Permit, this SWPPP, and the Project.

Inspection reports shall be completed including scope of the inspection, name(s) and gualifications of personnel making the inspection, the date of the inspection, observations relating to the implementation of the SWPPP, and any actions taken as a result of incidents of noncompliance noted during the inspection. The inspection report should state whether the site was in compliance or identify and incidents of noncompliance. The contractor shall keep a copy of the inspection reports on site and permanently for a period of two years following construction. The on-site reports may be requested by inspections conducted by the local governing authority.

Construction Entrance

Locations where vehicles exit the site shall be inspected for evidence of off-site sediment tracking. Each contractor and subcontractor shall be responsible for maintaining the Construction Entrance and other controls as described in this SWPPP.

Material Storage Inspections Inspectors must evaluate areas used for storage of materials that are exposed to precipitation. The purpose is to ensure that

materials are protected and/or impounded so that pollutants cannot discharge from storage areas. Off-site material storage areas used solely b the subject project are considered to be part of the project and must be included in the erosion control plans and site inspection reports.

Soil Stabilization Inspections

Seeded areas will be inspected to confirm that a healthy stand of vegetation is maintained. The site has achieved final stabilization once all areas are covered with pavement or have a stand of vegetation with at least 70% of the background vegetation density. The density of 70% or greater must be maintained to be considered as stabilized. The operator or their representative will water, fertilize, and reseed disturbed areas as needed to achieve this goal.

Erosion and Sediment Control Inspections

All controls should be inspected at least once every seven (7) calendar days and following any storm event of 0.5 inch or greater. The following is a list of inspection/maintenance practices that will be used for specific controls: 1. Geotextiles/Erosion Control Mats: Missing or loose matting must be replaced or re-anchored.

- 2. Inlet Protection: If silt fence inlet protection is to be used, sediment should be removed when it reaches approximately one-half the height of the fence. If a sump is used, sediment should be removed when the volume of the basin is reduced by
- 3. Mulching: Inspect for thin or bare spots caused by natural decomposition or weather-related events. Mulch in high traffic areas should be replaced on a regular basis to maintain uniform protection.
- 4. Silt Fence: Removal of built-up sediment will occur when the sediment reaches one-third the height of the fence. 5. Stabilized Construction Entrance: Periodic re-grading and top dressing with additional stone.
- 6. Vegetation: Protect newly seeded areas from excessive runoff and traffic until vegetation is established. Establish a watering and fertilizing schedule. 7. Good Housekeeping: Litter, construction debris, and construction chemicals exposed to stormwater shall be prevented from
- becoming a pollutant source for stormwater discharges through screening of outfalls and daily pickup of litter.

In the event that sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to minimize adverse impacts. An example of this may be the situation where sediment has washed into the street and could be carried into the storm sewers by the next rainfall and/or pose a safety hazard to user of public street.

Modifications/Revisions to SWPPP Based on inspection results, any necessary modification to this SWPPP shall be implemented within seven (7) calendar days of the inspection. A modification is necessary if a control measure or operational procedure does not provide adequate pollutant control. All revisions shall be recorded on a Record of Revisions within seven (7) calendar days of the inspection.

It is the responsibility of the operator to maintain effective pollutant discharge controls. Physical site conditions or contractor/subcontractor practices could make it necessary to install more control than were originally planned. Fore example, localized concentrations of surface runoff or unusually steep areas could required additional silt barrier or other structural controls. Assessing the need for and installing additional controls will be a continuing contractor/subcontractor responsibility until final stabilization is achieved. Contractors and subcontractors implementing this SWPPP must remain alert to the need to periodically refine and update this SWPPP in order to accomplish the intended goals.

Notice of Termination

Compliance of the site with the General Construction Permit remains the responsibility of all operators that have submitted an NOI until such time as they have submitted a Notice of Termination (NOT). The permittee's authorization to discharge under the General Construction Permit terminates at midnight of the day the NOT is signed.

- All permittees must submit an NOT within thirty (30) days after one or more of the following conditions have been met: 1. Final stabilization has been achieved on all portions of the site for which the permittee was responsible.
- 2. Another operator/permittee has assumed control over all areas of the site that have not been finally stabilized.
- 3. In residential construction operations, temporary stabilization has been completed and the residence has been transferred to the homeowner.
- B15 EROSION AND SEDIMENT CONTROL SPECIFICATIONS FOR INDIVIDUAL BUILDING LOTS

The site is not currently subdivided, therefore the entire site is on this plan's Erosion Control Plan.

normally expected from this type of land use are:

Vegetated Swale

from bare soils.

described below.

Vegetated Swale

frequently if needed.

Wet Detention Pond

storm events

C1 DESCRIPTION OF POLLUTANTS AND THEIR SOURCES ASSOCIATED WITH THE PROPOSED LAND USE

The proposed land use is for the construction of the Franklin Flats development. The pollutants and sources of each pollutant

Pollutant Source: Passenger vehicles delivery vehicles

Type of Pollutant: Oil, gasoline, diesel fuel, any hydrocarbon associated with vehicular fuels and lubricants, grease, antifreeze, windshield cleaner solution, brake fluid, dust, rubber, glass, metal and plastic fragments, grit, road de-icing materials.

Pollutant Source: Building

Type of Pollutant: Cleaning solutions or solvents, leaks from HVAC equipment, grit from roof drainage, aggregate or rubber fragments from roofing system.

Pollutant Source: Trash Dumpster

Type of Pollutant: Cleaning solutions or solvents, litter (paper, plastic, general refuse associated with distribution operations), uneaten food products, bacteria.

Pollutant Source: Parking Lot

Type of Pollutant: Any pollutant associated with vehicular sources, grit from asphalt wearing surface, bituminous compounds from periodic maintenance (sealing, resurfacing, and patching), pavement de-icing materials, paint fragments from parking stall striping, concrete fragments, wind-blown litter from off-site sources, elevated water temperatures from contact with impervious

Pollutant Source: Lawn and Landscape Areas

purpose of these features is to filter pollutants and sediment.

Type of Pollutant: Fertilizers, soil, organic material (leaves, mulch, grass clippings) C2 SEQUENCE DESCRIBING STORMWATER QUALITY MEASURE IMPLEMENTATION

The grass-lined channels and swales will serve as the permanent water quality features after construction is complete. The

C3 DESCRIPTION OF PROPOSED POST-CONSTRUCTION STORMWATER QUALITY MEASURES

Vegetated swales are designed to reduce pollutant and sediment loads in stormwater runoff. Stormwater runoff is directioned in the swale which conveys the runoff from the site. While moving through the swale, runoff velocity is greatly decreased allowing biofiltration (uptake of nutrients by plants), infiltration (percolation of water through the swale's porous soil substrate), and sedimentation (settling of later suspended particles).

Permanent Vegetation Topsoil will be placed in lawn areas and seeded with grass, and graded not to exceed 3:1 slopes. Proposed landscape trees and shrubs will also be added. These bio areas will act as a natural filter strip to help improve stormwater quality. The vegetated areas will slow the velocities of stormwater runoff, reduce sediment runoff, and reduce problems associated with mud or dust

Wet ponds included a permanent pool for water quality treatment and are effective for pollutant removal and peak rate mitigation. The primary treatment mechanism is settling by gravity of particulates and their associated pollutants while stormwater is detained in the pond.

Good Housekeeping Measures Good housekeeping measures such as regular street or pavement sweeping, installation of trash receptacles, and reduction in fertilizer overspray can be incorporated by the owner and/or occupant.

C4 LOCATION, DIMENSIONS, SPECIFICATIONS, AND CONSTRUCTION DETAILS OF EACH STORMWATER QUALITY MEASURE

Refer to the Erosion Control Plans for locations and Erosion Control Details for details. C5 DESCRIPTION OF MAINTENANCE GUIDELINES FOR POST-CONSTRUCTION STORMWATER QUALITY MEASURES

Maintenance requirements for the stormwater quality measures which will remain in place after construction is complete, are

Vegetated swales require little maintenance if properly designed. Mow as needed during the growing season; inspect for erosion control problems twice during the first year, annually thereafter; and removed sediment, trash and debris annually or more

Remove debris and sediment from entire pond when necessary. Inspect perimeter of basin annually and after major storm events. Regrade soil if gullies form and replant ground. Inspect inlet and outlet devices and structures annually and after major

SOILS MAP

Ockley Loam, 0 to 2 percent slopes (ObaA) Hydrologic Soils Group B (HSG B)

Rensselaer silty clay loam (Re)

• Hydrologic Soils Group B (HSG B) Sleeth loam (Sk)

 Hydrologic Soils Group B (HSG B) Ockley Loam-Urban Land Complex, 0 to 2 percent slopes (YobA)

Hydrologic Soils Group B (HSG B)

Rensselaer sility clay loam-Urban Land Complex, 0 to 2 percent slopes (YreA) • Hydrologic Soils Group B (HSG B)







INSTALLATION:

PREFABRICATED WASHOUT SYSTEMS/CONTAINERS: 1. INSTALL AND LOCATE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

DESIGNED AND INSTALLED SYSTEMS:

- 2. UTILIZE AND FOLLOW THE DESIGN IN THE STORM WATER POLLUTION PREVENTION PLAN TO INSTALL THE SYSTEM.
- DEPENDENT UPON THE TYPE OF SYSTEM, EITHER EXCAVATE THE PIT OR INSTALL THE CONTAINMENT SYSTEM.
 A BASE SHALL BE CONSTRUCTED AND PREPARED THAT IS FREE OF ROCKS AND OTHER DEBRIS THAT MAY CAUSE TEARS OR PUNCTURES IN THE POLYETHYLENE LINING.
 INSTALL THE POLYETHYLENE LINING. FOR EXCAVATED SYSTEMS, THE LINING SHOULD EXTEND OVER THE ENTIRE EXCAVATION. THE LINING FOR BERMED SYSTEMS SHOULD BE INSTALLED
- OVER THE POOLING AREA WITH ENOUGH MATERIAL TO EXTEND THE LINING OVER THE BERM OR CONTAINMENT SYSTEM. THE LINING SHOULD BE SECURED WITH PINS, STAPLES, OR OTHER FASTENERS. 6. PLACE FLAGS, SAFETY FENCING, OR EQUIVALENT TO PROVIDE A BARRIER TO CONSTRUCTION EQUIPMENT AND OTHER TRAFFIC.
- PLACE A NON-COLLAPSING, NON-WATER HOLDING COVER OVER THE WASHOUT FACILITY PRIOR TO A PREDICTED RAINFALL EVENT TO PREVENT ACCUMULATION OF WATER AND POSSIBLE OVERFLOW OF THE SYSTEM (OPTIONAL).
 INSTALL SIGNAGE THAT IDENTIFIES CONCRETE WASHOUT AREAS.
- POST SIGNS DIRECTING CONTRACTORS AND SUPPLIERS TO DESIGNATED LOCATIONS.
 WHERE NECESSARY, PROVIDE STABLE INGRESS AND EGRESS OR ALTERNATIVE APPROACH PAD FOR CONCRETE WASHOUT SYSTEMS.

MAINTENANCE:

- 11. INSPECT DAILY AND AFTER EACH STORM EVENT. 12. INSPECT THE INTEGRITY OF THE OVERALL STRUCTURE INCLUDING, WHERE APPLICABLE, THE CONTAINMENT SYSTEM.
- 13. INSPECT THE SYSTEM FOR LEAKS, SPILLS, AND TRACKING OF SOIL BY EQUIPMENT. 14. INSPECT THE POLYETHYLENE LINING FOR FAILURE, INCLUDING TEARS AND PUNCTURES. 15. ONCE CONCRETE WASTES HARDEN, REMOVE AND DISPOSE OF THE MATERIAL.
- 16. EXCESS CONCRETE SHOULD BE REMOVED WHEN THE WASHOUT SYSTEM REACHES 50 PERCENT OF THE DESIGN CAPACITY. USE OF THE SYSTEM SHOULD BE DISCONTINUED UNTIL APPROPRIATE MEASURES CAN BE INITIATED TO CLEAN THE STRUCTURE. PREFABRICATED SYSTEMS SHOULD ALSO UTILIZE THIS CRITERION, UNLESS THE MANUFACTURER HAS ALTERNATE SPECIFICATIONS.
 17. UPON REMOVAL OF THE SOLIDS, INSPECT THE STRUCTURE. REPAIR THE STRUCTURE AS NEEDED OR CONSTRUCT A NEW SYSTEM.
- 18. DISPOSE OF ALL CONCRETE IN A LEGAL MANNER. REUSE THE MATERIAL ON SITE, RECYCLE, OR HAUL THE MATERIAL TO AN APPROVED CONSTRUCTION/DEMOLITION LANDFILL SITE. RECYCLING OF MATERIAL IS ENCOURAGED. THE WASTE MATERIAL CAN BE USED FOR MULTIPLE APPLICATIONS INCLUDING BUT NOT LIMITED TO ROADBEDS AND BUILDING. THE AVAILABILITY FOR RECYCLING SHOULD BE CHECKED LOCALLY.
- 19. THE PLASTIC LINER SHOULD BE REPLACED AFTER EVERY CLEANING; THE REMOVAL OF MATERIAL WILL USUALLY DAMAGE THE LINING. 20. THE CONCRETE WASHOUT SYSTEM SHOULD BE REPAIRED OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE.
- 21. CONCRETE WASHOUT SYSTEMS ARE DESIGNED TO PROMOTE EVAPORATION. HOWEVER, IF THE LIQUIDS DO NOT EVAPORATE AND THE SYSTEM IS NEAR CAPACITY IT MAY BE NECESSARY TO VACUUM OR REMOVE THE LIQUIDS AND DISPOSE OF THEM IN AN ACCEPTABLE METHOD. DISPOSAL MAY BE ALLOWED AT THE LOCAL SANITARY SEWER AUTHORITY PROVIDED THEIR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMITS ALLOW FOR ACCEPTANCE OF THIS MATERIAL. ANOTHER OPTION WOULD BE TO UTILIZE A SECONDARY CONTAINMENT
- SYSTEM OR BASIN FOR FURTHER DEWATERING. 22.PREFABRICATED UNITS ARE OFTEN PUMPED AND THE COMPANY SUPPLYING THE UNIT PROVIDES THIS SERVICE.
- 23.INSPECT CONSTRUCTION ACTIVITIES ON A REGULAR BASIS TO ENSURE SUPPLIERS, CONTRACTORS, AND OTHERS ARE UTILIZING DESIGNATED WASHOUT AREAS. IF CONCRETE WASTE IS BEING DISPOSED OF IMPROPERLY, IDENTIFY THE VIOLATORS AND TAKE APPROPRIATE ACTION.24. WHEN CONCRETE WASHOUT SYSTEMS ARE NO LONGER REQUIRED, THE CONCRETE WASHOUT SYSTEMS SHALL BE CLOSED. DISPOSE OF ALL HARDENED CONCRETE AND OTHER MATERIALS
- USED TO CONSTRUCT THE SYSTEM. 25.HOLES, DEPRESSIONS AND OTHER LAND DISTURBANCES ASSOCIATED WITH THE SYSTEM SHOULD BE BACKFILLED, GRADED, AND STABILIZED.

CONCRETE WASHOUT DETAIL

NOT TO SCALE





INSTALLATION NOTES:

1. REMOVE ALL VEGETATION AND OTHER OBJECTIONABLE MATERIAL FROM THE FOUNDATION AREA. 2. GRADE FOUNDATION AND CROWN FOR POSITIVE DRAINAGE. IF THE SLOPE OF THE CONSTRUCTION ENTRANCE IS TOWARD A PUBLIC ROAD AND EXCEEDS TWO PERCENT, CONSTRUCT AN EIGHT INCH HIGH DIVERSION RIDGE WITH A RATIO OF 3-TO-1 SIDE SLOPES ACROSS THE FOUNDATION AREA ABOUT 15 FEET FROM THE ENTRANCE TO DIVERT RUNOFF AWAY FROM THE ROAD. 3. INSTALL A CULVERT PIPE UNDER THE PAD IF NEEDED TO MAINTAIN PROPER PUBLIC ROAD DRAINAGE. 4. IF WET CONDITIONS ARE ANTICIPATED, PLACE GEOTEXTILE FABRIC ON THE GRADED FOUNDATION TO IMPROVE STABILITY. 5. PLACE AGGREGATE (INDOT CA NO. 2) TO THE DIMENSIONS AND GRADE SHOWN IN THE CONSTRUCTION PLANS, LEAVING THE SURFACE SMOOTH AND SLOPED FOR DRAINAGE 6. TOP-DRESS THE FIRST 50 FEET ADJACENT TO THE PUBLIC ROADWAY WITH TWO TO THREE INCHES OF WASHED AGGREGATE (INDOT CA NO. 53) [OPTIONAL, USED PRIMARILY WHERE THE PURPOSED OF THE PAD IS KEEP SOIL FROM ADHERING TO VEHICLE TIRES] 7. WHERE POSSIBLE, DIVERT ALL STORM WATER RUNOFF AND DRAINAGE FROM THE

MAINTENANCE NOTES:

INSPECT DAILY.
 RESHAPE PAD AS NEEDED FOR DRAINAGE AND RUNOFF CONTROL.
 TOP DRESS WITH CLEAN AGGREGATE AS NEEDED.

INGRESS, / EGRESS PAD TO A SEDIMENT TRAP OR BASIN.

 IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS.
 FLUSHING SHOULD ONLY BE USED IF THE WATER CAN BE CONVEYED INTO A SEDIMENT TRAP OR BASIN.

TEMPORARY CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE

<u>SILT FENCE</u>

LOCATION

- INSTALLED PARALLEL TO THE SLOPE CONTOUR
 MINIMUM 10 FEET BEYOND THE TOE OF SLOPE TO PROVIDE A BROAD, SHALLOW SEDIMENT POOL.
- ACCESSIBLE FOR MAINTENANCE (REMOVAL OF SEDIMENT AND SILT FENCE REPAIR)

 INSTALLATION
- 1. LAYOUT THE LOCATION OF THE FENCE SO THAT IT IS PARALLEL TO THE CONTOUR OF THE SLOPE AND AT LEAST 10 FEET BEYOND THE TOE OF THE SLOPE TO PROVIDE A SEDIMENT STORAGE AREA. TURN THE ENDS OF THE FENCE UP SLOPE SUCH THAT THE POINT OF CONTACT BETWEEN THE GROUND AND THE BOTTOM OF THE FENCE END TERMINATES AT A HIGHER ELEVATION THAN THE TOP OF THE FENCE AT ITS LOWEST POINT.
- EXCAVATE AN EIGHT-INCH DEEP BY FOUR-INCH WIDE TRENCH ALONG THE ENTIRE LENGTH OF THE FENCE LINE. INSTALLATION BY PLOWING IS ALSO ACCEPTABLE.
 INSTALL THE SILT FENCE WITH THE FILTER FABRIC LOCATED ON THE UP-SLOPE SIDE OF THE EXCAVATED TRENCH AND THE SUPPORT PORTS ON THE DOWN SLOPE SIDE OF THE TRENCH.
- EXCAVATED TRENCH AND THE SUPPORT POSTS ON THE DOWN-SLOPE SIDE OF THE TRENCH.
 DRIVE THE SUPPORT POSTS AT LEAST 18 INCHES INTO THE GROUND, TIGHTLY STRETCHING THE FABRIC BETWEEN THE POSTS AS EACH IS DRIVEN INTO THE SOIL. A MINIMUM OF 12 INCHES OF THE FILTER FABRIC SHOULD EXTEND INTO THE TRENCH. (IF IT IS NECESSARY TO JOIN THE ENDS OF THE TWO FENCE, USE THE WRAP JOINT METHOD SHOWN.)
- LAY THE LOWER FOUR INCHES OF FILTER FABRIC ON THE BOTTOM OF THE TRENCH AND EXTEND IT TOWARD THE UP-SLOPE SIDE OF THE TRENCH.
- 6. BACKFILL THE TRENCH WITH SOIL MATERIAL AND COMPACT IT IN PLACE.

MAINTENANCE

- INSPECT WITHIN 24 HOURS OF A RAIN EVENT AND AT LEAST ONCE EVERY SEVEN CALENDAR DAYS.
 IF FABRIC TEARS, STARTS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE
- THE AFFECTED PORTION IMMEDIATELY. NOTE: ALL REPAIRS SHOULD MEET SPECIFICATIONS AS OUTLINED WITHIN THIS MEASURE.
- REMOVE DEPOSITED SEDIMENT WHEN IT IS CAUSING THE FILTER FABRIC TO BULGE OR WHEN IT REACHES ONE-HALF THE HEIGHT OF THE FENCE AT ITS LOWEST POINT. WHEN CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE THE FENCE AND SEDIMENT DEPOSITS, GRADE THE SITE TO BLEND WITH THE SURROUNDING AREA, AND STABILIZE.



DROP BAG INLET PROTECTION

NOT TO SCALE













CONCRETE SIDEWALK DETAIL









CURB TAPER DETAIL NOT TO SCALE

/- ALUMINUM METAL (SIGN)

RESERVED

PARKING

VAN ACCESSIBLE

12"

NOTES: 12"X18" 18 GAUGE HOT DIP GALVANIZED NON-REFLECTIVE

ADA PARKING SIGN DETAIL

NOT TO SCALE

GREEN-ILLUMINATING

(LETTERS) TYP.

(BACKGROUND)

- BLUE-ILLUMINATING (SYMBOL BLOCK)

GREEN-ILLUMINATING

(BORDER) TYP.



ADA PARKING SYMBOL DETAIL NOT TO SCALE



12"

RESERVED

Parking B

NOT TO SCALE

METAL SIGN: BOLT TO CHANNEL PIPE

grade —

CONCRETE ENCASEMENT

12" DIA

ADA PARKING SIGN DETAIL

OUTLET STRUCTURE FRONT & SIDE VIEWS NOT TO SCALE

POND OUTLET STRUCTURE - OCS-1





CITY OF FRANKLIN - STANDARD SPECIFICATIONS



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CITY OF FRANKLIN - STANDARD SPECIFICATIONS



CITY OF FRANKLIN - STANDARD SPECIFICATIONS

Illustration 5-1

MANHOLE FRAME AND LID (SET FLUSH WITH FINISHED GRADE UNLESS NOTED OTHERWISE) FINISHED GRADE (SLOPE TO PREVENT STORM DRAINAGE FROM radius not less than 1/2 Manhole i.d. \neg ENTERING MANHOLE) CHIMNEY SEAL (SEE DETAIL) MAXIMUM 12" LEVELING RINGS 5" MIN. MANHOLE STEPS @ 16" O.C. _____i / DIA. VARIES 4'-0" MINIMUM ASTM C-478 PRECAST CONC. - PRECAST ECCENTRIC CONE -CONCRETE - GASKETED JOINT (T ASTM C-443 CONCRETE BENCH - SLOPE 1" PER FOOT TO WALL, BENCH HEIGHT EQUAL TO 0.8 PIPE DIAMETER (MINIMUM CONCRETE STRENGTH OF 2500 PSI) RUBBER RING PER ASTM C-923 1. FOR ALL MANHOLES 6'-0" OR LESS IN DEPTH - PROVIDE RISER WITH FLAT TOP IN LIEU OF ECCENTRIC CONE IN PRECAST CONCRETE BASE TO BE PLACED ON 6" OF COMPACTED STONE ACCORDANCE WITH ASTM C-478 2. THE CROWN OF THE INFLUENT PIPE SHALL BE AT OR ABOVE THE CROWN OF THE OUTLET PIPE DROP MANHOLES SHALL BE USED WHENEVER THE DISTANCE FROM THE INVERT OF THE INCOMMING LINE AND BOTTOM OF MANHOLE IS GREATER THAN TWO FEET. STANDARD MANHOLE DETAIL CITY of FRANKLIN, INDIANA DPW FIGURE

> MAXIMUM WIDTH-DIAMETER OF PIPE + 1' -BACKFILL-PER SPECS. г 6" MIN. METALLIC MARKING TAPE -FOR PVC PIPE CLASS I OR I-BEDDING DIA./2 (MIN. 4") → FORCE MAIN PIPE TRENCH DETAIL CITY of FRANKLIN, INDIANA DPW FIGURE Illustration 7-3

CITY OF FRANKLIN - STANDARD SPECIFICATIONS

Illustration 7-1

		SEE SURFACE REPLACEMENT DETAILS	
		IN PUBLIC R/W AREAS	
		6" MIN, , Bc , 6" MIN,	- COMP IN PA
			- UNDIS SOIL
		12" COVER PIPE ZONE	HA TH Bo
		HAND TAMPED OR WALKED IN #8 CR PLACED IN LAYERS TO 12" OVER THI	USHED E TOP
		 M = MAXIMUM ALLOWABLE TRENCH WIDTH FOR PIPE AS NOT TO EXCEED FOUR (4) FEET FOR 6" THROUGH NOR SIX (6) FEET FOR 27" THROUGH 48" PIPE D = PIPE DIAMETER (INTERNAL) Bc = PIPE DIAMETER (EXTERNAL) 	PER A 24" PIF
N	OTE	ES:	
	1.	BEDDING STOPS AT A POINT 12" ABOVE THE TOP OF THE BACKFILLING ABOVE THIS POINT SHALL BE IN ACCORDANCI SPECIFICATIONS.	PIPE. E WITH
	2.	WORK FALLING UNDER THE JURISDICTION OF THE INDIANA COMMISSION SHALL UTILIZE COMPACTED GRANULAR BACKF INITIAL AND FINAL BACKFILL ANYWHERE WITHIN 12 FEET O PAVEMENT. OTHERWISE, COMPACTED GRANULAR BACKFILL ONLY BE USED UNDER PAVEMENT SURFACES OR OTHER SI DESIGNATED AREAS.	STATE ILL MAT F THE I MATER PECIFIC,
1) 2)	F D	FIRST CLASS PIPE LAYING MET TLEXIBLE (PVC, RPVC, ABS & HDF DUCTILE IRON WITHIN PVM'T LIMI	HOD PE F TS
REVISION DATE		CITY of FRANKLIN. INDIANA	
		DPW FIGURE	

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CITY OF FRANKLIN - STANDARD SPECIFICATIONS



NOTES:

INSTALL CONC. BENCH IN --BOTTOM OF MANHOLE AS SHOWN TO EXISTING SEWER OUTLET 4" BEDDING —

1-71

1-76

8 CRUSHED STONE R THE TOP OF PIPE. PE AS PER ASTM DUGH 24" PIPE ANA STATE HIGHWAY

ACKFILL MATERIAL FOR ET OF THE EDGE OF KFILL MATERIAL SHALL R SPECIFICALLY

ETHOD FOR:

IDPE PIPE) AND MITS

1-70

THE PIPE. DANCE WITH THE

IN PAVED AREAS HAUNCHING

(Bc\2)

THE LARGER OF Bc/4 OR 4"

COMPACTED GRANULAR



DPW

Illustration 7-2

CITY OF FRANKLIN - STANDARD SPECIFICATIONS











FORCEMAIN DISCHARGE TO GRAVITY MANHOLE



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