

TASK ORDER

Project: Stormwater Capital Planning Services
2016 Stormwater Comprehensive Model

Task Order No: 4

Issued To: Wessler Engineering, Inc.

All work shall be performed in accordance with the Agreement between the Board of Public Works and Safety, City of West Lafayette, Indiana and Wessler Engineering executed March 4, 2014.

I. Project Description

The Owner desires a comprehensive stormwater model that will complement its existing GIS and combined sewer system hydraulic model. The model will be used to assess the quantity of runoff generated by the different areas of the City and the adequacy of the existing stormwater infrastructure. The model will be a planning tool for future stormwater capital improvement projects.

Creating a comprehensive hydrologic and hydraulic model is a process that may take a number of years. This Task Order covers the initial model setup to take place in 2016 as described in the Scope of Services.

II. Scope of Services – Basic Services

The 2016 modeling services will include collecting and analyzing existing data, developing the framework for the comprehensive model, and building the storm and combined sewer models for the area shown in Figure 1. The Engineer's tasks will include:

- A. Review and inventory of existing Purdue University XPSWMM models.
- B. Validation and limited recalibration of existing models. Flow monitoring, if required, will be contracted as an additional service. Validation will include comparing model inputs to other existing data sources including GIS and record drawings.
- C. Prepare a shapefile to be used in the West Lafayette GIS illustrating existing modeling limits.
- D. Utilizing existing models and maps, determine extents of stormwater system currently maintained and operated by Purdue University (Purdue Subsystem). Delineate drainage area, both inside and outside of campus limits, draining through Purdue Subsystem.
- E. Identify all internal and external outfalls in the Purdue Subsystem including locations where separate storm sewers discharge to combined sewer interceptors.

Mapping of combined and separate storm sewers in the Purdue Subsystem to be completed by others.

- F. Identify drainage basins, outfalls and subsystems to be included in comprehensive model(s) of Watershed WR-1Wabash River. Update Stormwater Master Plan Exhibit A-2: Watersheds and prepare new exhibit(s) for WR-1 basins, outfalls and subsystems.
- G. Review GIS data to determine what additional data must be collected to build models identified in II D.
- H. Review previously completed Purdue University campus impervious area determination and compare to current aerial photography. Update impervious area calculation, if needed, to include recent developments and improvements.
- I. Develop runoff coefficients and determine peak runoff rates and volumes generated by the Purdue University campus as a percentage of the entire city.
- J. Create new XPSWMM model utilizing existing Purdue XPSWMM data, Purdue GIS, West Lafayette GIS, and field data collection (by others) for Purdue Subsystem and all West Lafayette storm sewer area upstream and downstream of Purdue Subsystem. This area is generally represented in Figure 1. The XPSWMM model will utilize naming conventions consistent with West Lafayette GIS standards and be compatible with the existing West Lafayette CSO model.
- K. Perform limited calibration with available flow data. Provide recommendations for additional flow monitoring, if required.
- L. Analysis of future scenarios, alternatives and improvements will be made under future task orders.

III. Probable Project Schedule

Basic Services defined in Article II shall be complete within 90 days of a signed Task Order. Engineer will provide weekly progress updates to Owner via email.

IV. Compensation

Compensation for Basic Services as defined in Article II shall be on the basis of the actual man-hours and expenses incurred in performing the Services at the Engineer's current Hourly Rate and Reimbursable Expense Schedule. The total Not to Exceed fee shall be Seventy-Two Thousand Five Hundred Dollars (\$72,500.00).

V. Project Staff

The anticipated Project Staff is listed below:

Principal Engineer	Martin Wessler, P.E.
Sr. Project Manager I	William Leber, P.E.
Project Engineer III	Emily Nelson, P.E.
Project Engineer I	Alex Ray, E.I.
Engineer	Kasey Marley, E.I.

Accepted By:

Authorized By:

WESSLER ENGINEERING, INC.

BOARD OF PUBLIC WORKS & SAFETY
CITY OF WEST LAFAYETTE, INDIANA

Martin A. Wessler, P.E.
CEO

Date: _____, 2016

Date: _____, 2016

ADDRESS FOR GIVING NOTICE:

Wessler Engineering
6219 S. East Street
Indianapolis, IN 46227

ADDRESS FOR GIVING NOTICE:

City of West Lafayette
609 West Navajo Street
West Lafayette, Indiana 47906



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ATTACHMENT NO. 1 2016 HOURLY RATE and REIMBURSABLE EXPENSE SCHEDULE

<u>Position</u>	<u>Hourly Rate*</u>
Principal Engineer	\$195.00
Senior Project Manager II/Senior Project Engineer II	\$190.00
Senior Project Manager I/Senior Project Engineer I	\$170.00
Project Manager II/Project Engineer IV	\$155.00
Project Manager/Project Engineer III	\$145.00
Survey Manager	\$130.00
Assistant Project Manager/Project Engineer II	\$120.00
Project Engineer I	\$110.00
Field Services Manager	\$105.00
Senior Designer	\$110.00
Designer	\$100.00
Engineer/Senior RPR	\$95.00
Operations Specialist	\$110.00
Project Coordinator	\$90.00
Environmental Services Project Manager	\$120.00
Environmental Scientist II	\$95.00
Environmental Scientist	\$80.00
Technician IV/Resident Project Representative IV	\$90.00
Technician III/Resident Project Representative III	\$80.00
Technician II/Resident Project Representative II	\$70.00
Technician I/Resident Project Representative I	\$60.00
Survey Crew Manager	\$85.00
Survey Crew Chief	\$75.00
Project Secretary	\$60.00

Reimbursable Expenses shall be charged as follows.

<u>Item and Unit</u>	<u>Unit Cost</u>
Mileage (per mile)	At current IRS published rate
Copies:(each) Black & White	\$0.12
8.5"x11" / 11"x17"	\$1.00
24"x36"	\$0.20/\$0.40
Color	\$0.50/\$1.00
8.5"x11" / 11"x17"	
12"x18"/ 24"x36"	
Plots-Bond: (each)	
GPS Survey Equipment/Robotic Total Station/Pole Camera	\$15.00 per hour
Postage/shipping/freight, Lodging and Per Diems	At Cost
Subcontractor/Subconsultant fees	Cost + 10%

*Expert Witness Services (Court Hearings or Testimony, Depositions, Arbitration or Mediation Hearings) shall be charged at 150% of the Hourly Rate listed in this Schedule

This Schedule is subject to change

January 1, 2016

LEGEND

MODELING AREA

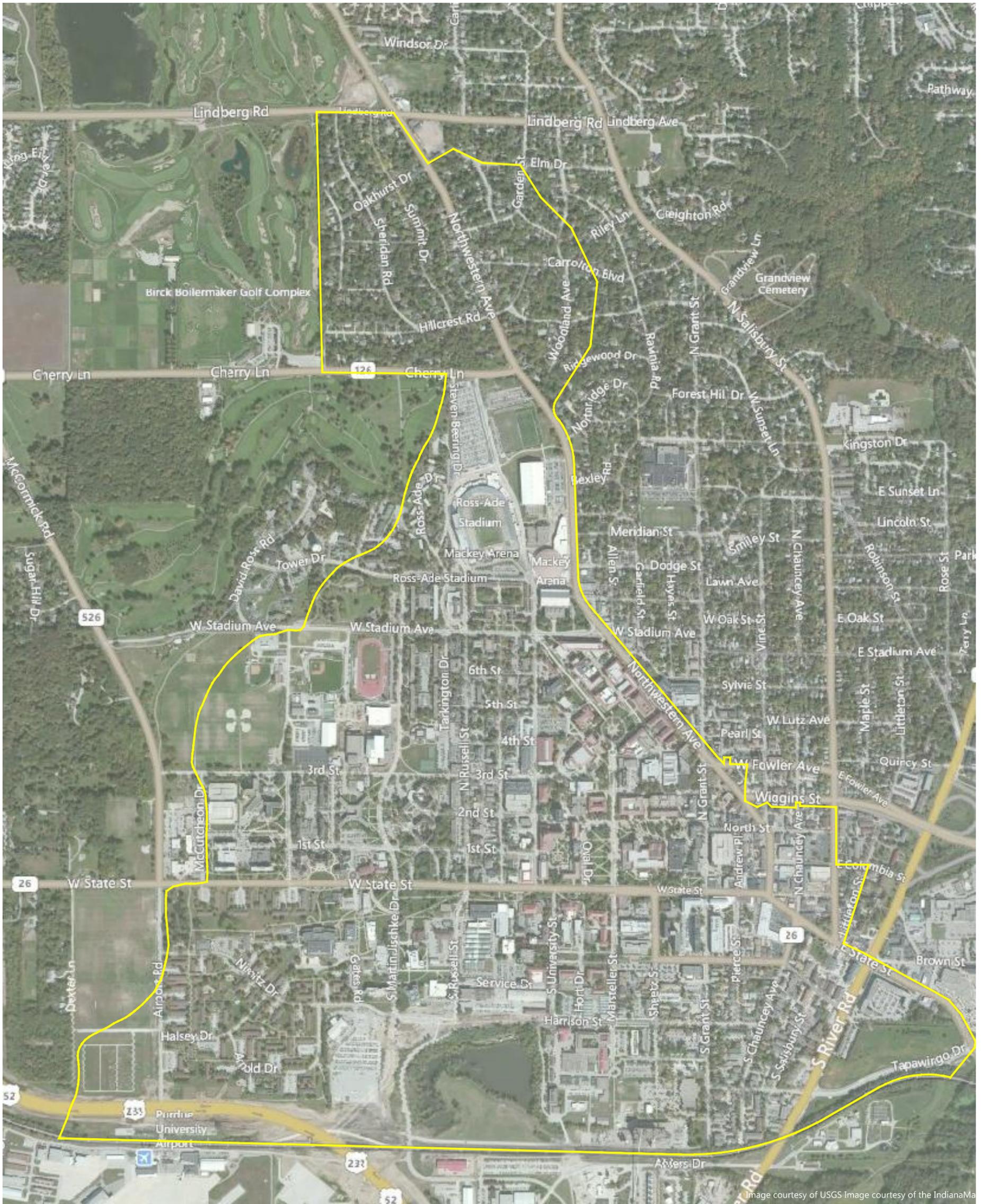


Image courtesy of USGS Image courtesy of the IndianaMa



PROJECT NO. 165914-01-002

EXHIBIT A-1 SYSTEM MODELING BASIN

STORMWATER CAPITAL IMPROVEMENTS
MASTER PLAN
CITY OF WEST LAFAYETTE, INDIANA
NOVEMBER 2015