**Stormwater Drainage Systems – UNL Lincoln Campus**

**City Campus Watershed:** Storm water drains into either Salt Creek or Antelope Creek which subsequently drains into Salt Creek.

**East Campus Watershed:** Storm water drains into Dead Man’s Run which subsequently drains into Salt Creek.

**UNL Drainage Systems:** Both City and East Campuses are served by a combination of UNL and City of Lincoln owned and maintained storm drainage systems. Those owned by UNL, serve only UNL facilities and property, whereas those owned by the City of Lincoln serve a combination of UNL and non UNL facilities.

**Compliance:** The design and construction of all storm water conveyance systems on City and East campuses shall strive to meet the objectives within the current revision of the City of Lincoln Department of Public Works – Drainage Criteria Manual found here: [http://lincoln.ne.gov/city/pworks/watrshed/require/drainage/](http://lincoln.ne.gov/city/pworks/watrshed/require/drainage/)

**Water Quality and NPDES Storm Water Management Plan:** UNL’s SMS4 NPDES Permit requires all projects (e.g., new buildings, renovations of existing buildings, additions to existing buildings, construction of new parking lots, renovation of existing parking lots) to consider the feasibility of post-construction runoff controls. All new development or significant redevelopment projects on the UNL City and East Campuses that disturb land in excess of 1/2 acre in size shall include Low Impact Development (LID) Best Management Practices (BMPs) to provide for post-construction water quality control of the maximum extent feasible but no less than the first one-half inch of runoff from the site. BMPs shall conform to the City of Lincoln Drainage Criteria Manual, Chapter 8, Stormwater Best Management Practices. Selected BMPs shall be specified in final design documents, and final construction documents shall contain schedules and procedures for inspection and maintenance of the BMPs. If the design cannot achieve the stormwater quality requirement within the project footprint because of technical constraints, LID measures of comparable significance may be applied at nearby or other alternate locations on UNL property (e.g., downstream from the project). Examples of technical constraints are as follows: Retaining stormwater on-site would adversely impact receiving water flows; Site has shallow bedrock, contaminated soils, high groundwater table, underground facilities or utilities; Site is too small to infiltrate significant volume.

**Water Quantity:** Post-development stormwater flow rates and volumes should not exceed pre-development conditions during the 100-year, 24-hour storm event, to the extent practicable.

**Calculations:** UNL requires that the Architect/Engineer (A/E) prepare and submit relevant stormwater calculations. Calculations shall be provided to FMP during the project design review process.

1. **Water Quality (Requirement):** Prepare and submit calculations of the amount of water captured and treated on-site by the specifically selected Low Impact Development method(s). At a minimum the post-construction BMP(s) must capture and treat on-site the first half of precipitation.
2. **Water Quantity (Goal):** Prepare and submit calculations that compare pre- and post-development flow rates and volume. To the extent feasible, design post-construction BMPs that are do not result in increased post-development flow rates and volume to the level of the 100-year, 24-hour storm event.

**Future Considerations:** All storm drainage piping shall be sized and configured appropriately to serve the ultimate future need for drainage in the geographical area being served.

**Manholes:** A manhole shall be provided at each change in direction of the piping system as well as at not greater than 400 feet.
**Storm Grates:** All storm grates shall be “bicycle safe” in design and include an integrally cast label stating, "No Dumping – Drains to Stream”.

**Surface Drainage:** Positive surface drainage shall be provided such that storm water drains away from all structures. Surface runoff shall not be allowed to flow across pedestrian walkways, bicycle paths, drives or parking areas in a manner compatible with sustainable and low impact storm water management design.