

PEAK Innovation Center Fort Smith School District Roof Drainage investigation

George Feathers III, AIA, CSI, CCCA, NCARB, LEED AP
Senior Project Consultant
George.Feathers@envistaforensics.com

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Mr. Feathers earned his Bachelor of Architecture at the University of Arizona in 1989, has been a licensed architect since 1991, and is licensed in eight states, including Arkansas. During his career, he has worked on custom residences, a regional airport, municipal buildings, primary and secondary education buildings, corporate office buildings, large-scale mixed-use projects, and high-rise buildings up to 42-stories among many others. In 2013 Mr. Feathers transitioned into working at a major glazing contractor and one-year later transitioned to a building envelope consultant position. Mr. Feathers has been employed with Envista Forensics since February 2021. Mr. Feathers has gained his knowledge and experience through education and forensic investigation for multiple enclosure materials and cladding components, and specializes in many aspects of window systems, storefront/curtain wall systems, and glazing.

Today's Agenda

1. Roof Plan Drainage Overview

- Main Building Wing – North Half
- Main Building Wing – South Half
- West Wing – East Half
- Roof Drains

2. Roof Drain Lines on the Site from the Building to the Outlets

- North Side Roof Drains
- South Side Roof Drains

3. Roof Drain Lines on the Site from the Building to the Outlets

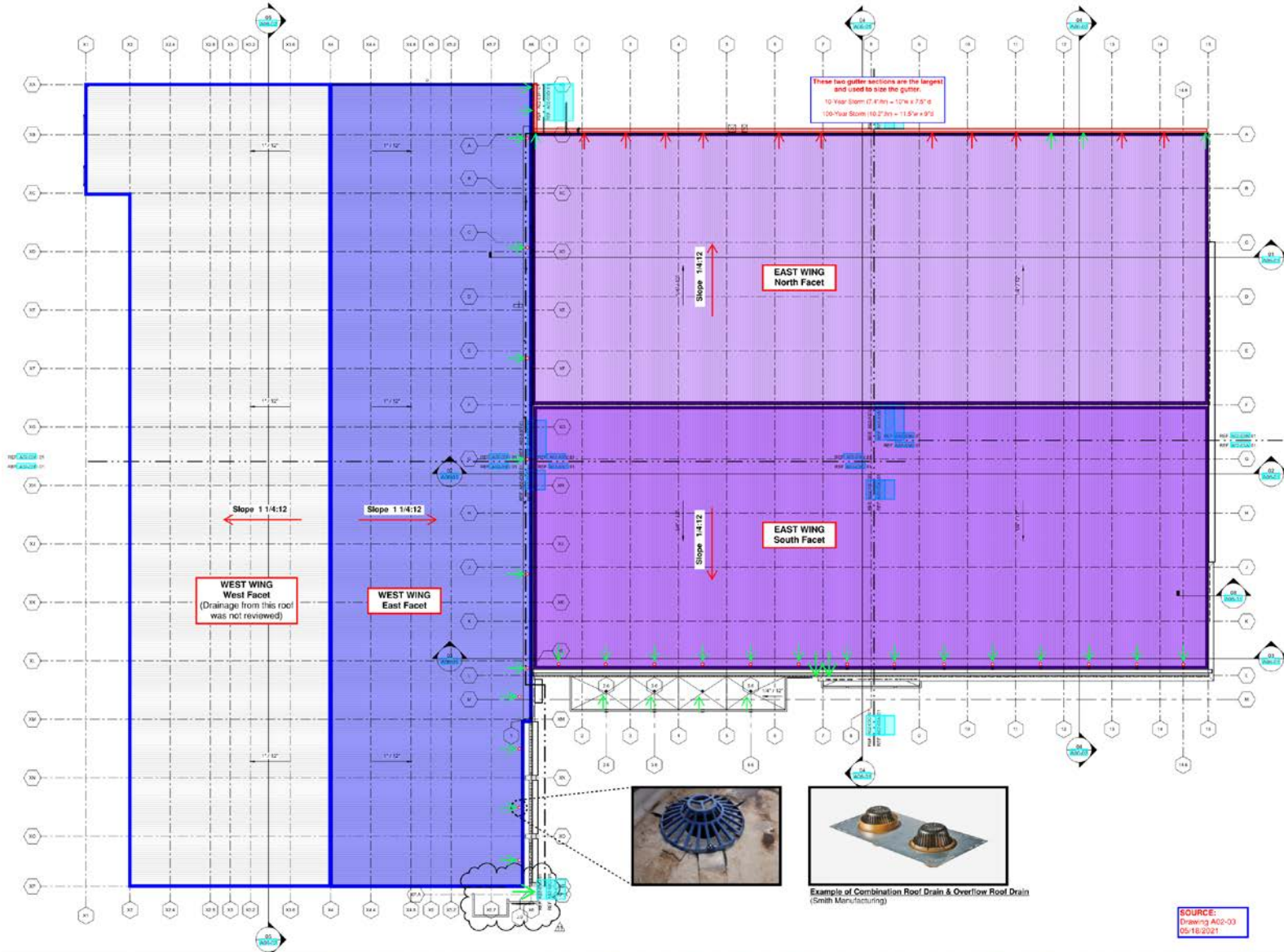
- North Side Civil Drawings Drain Lines
- South Side Civil Drawings Drain Lines

Rainwater on the Roof Surface

- How the Rainwater is Drained from the Roof Surfaces
- Gutters & Downspouts
- Roof Drains



Roof Plan Drainage Overview



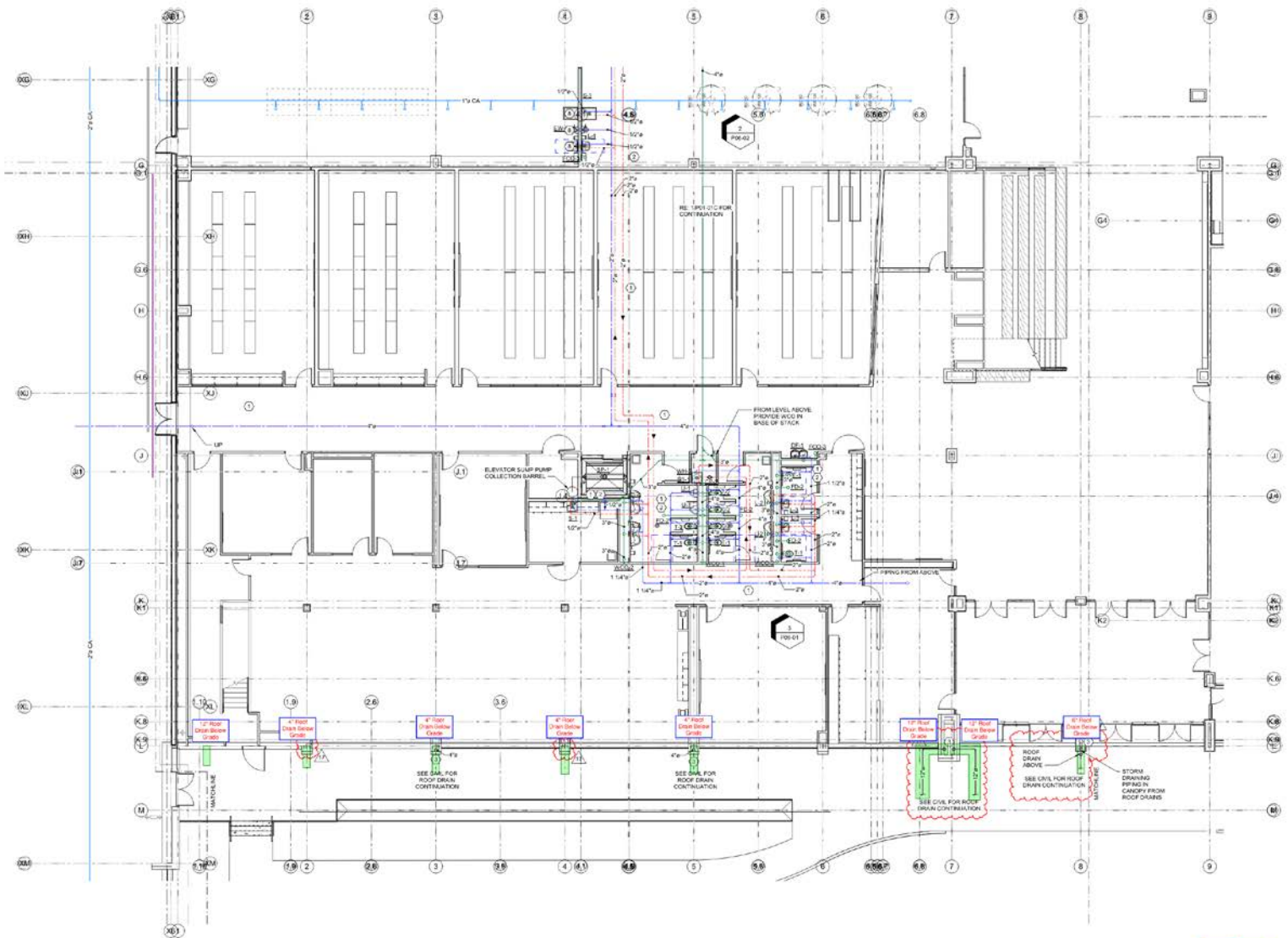
Rainwater Enters the Roof Drainage System

- How the Building Design Channels Rainwater to the Ground Level
- Analysis of the Rainwater Flow Points



Plumbing

Side



1 LEVEL 01 PLUMBING PLAN - AREA C
1/8" = 1'-0"

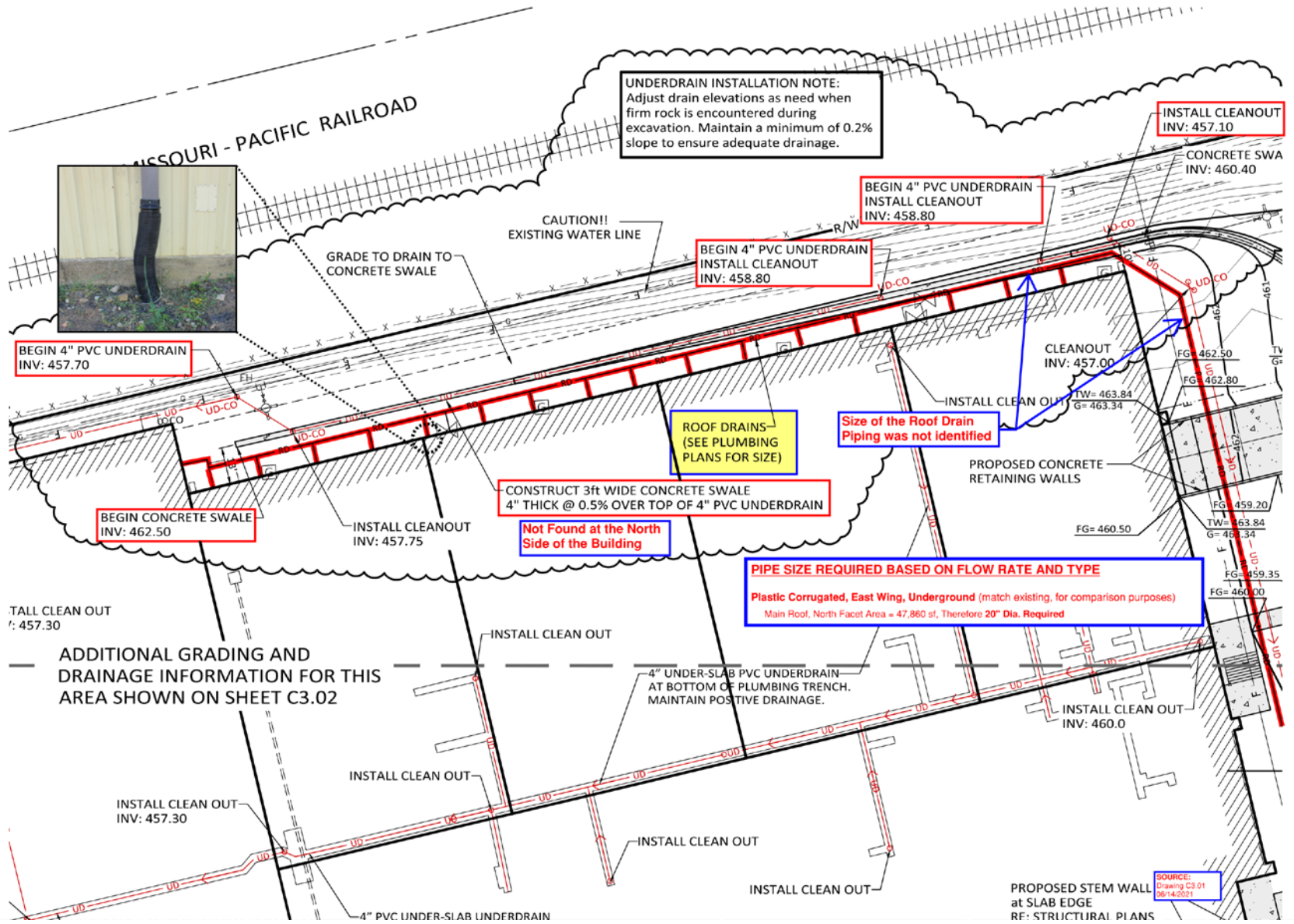
SOURCE
Drawing F01-01C
08/02/2021

Below Grade Roof Drain Piping

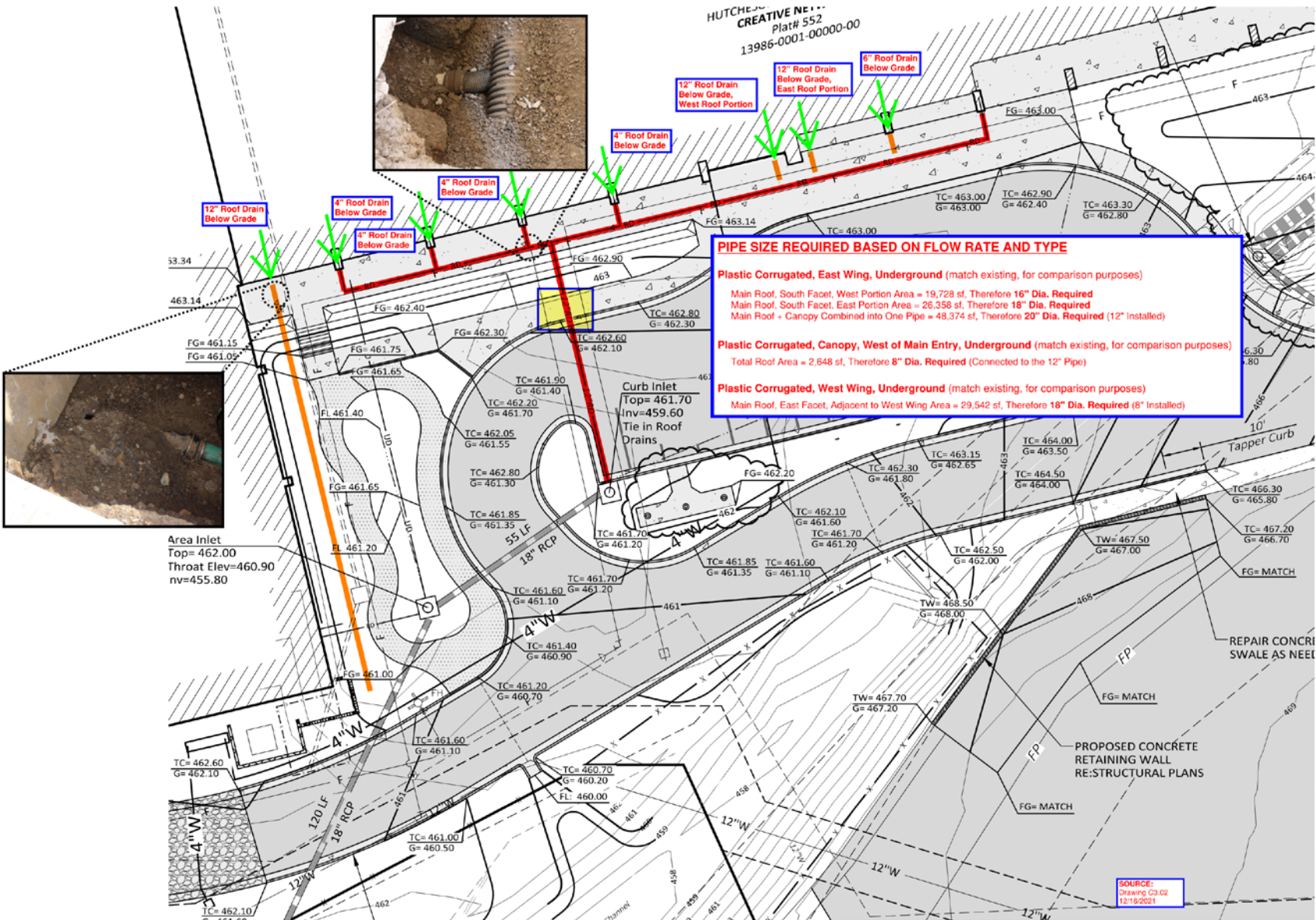
- Analysis of the Plumbing & Civil Drawings Coordination
- Analysis of the As-Built Piping Capacities



Civil Site Plan Roof Drain – North Portion



Civil Site Plan Roof Drain – South Portion



Questions?

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