

Contractor Case Study

Project Bluesky

Mortenson Construction

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▶▶ AGENDA

- ▶ Project Overview

- ▶ SWPPP Plan & Management

- ▶ Implementation

 - ▶ Proactive vs. Reactive

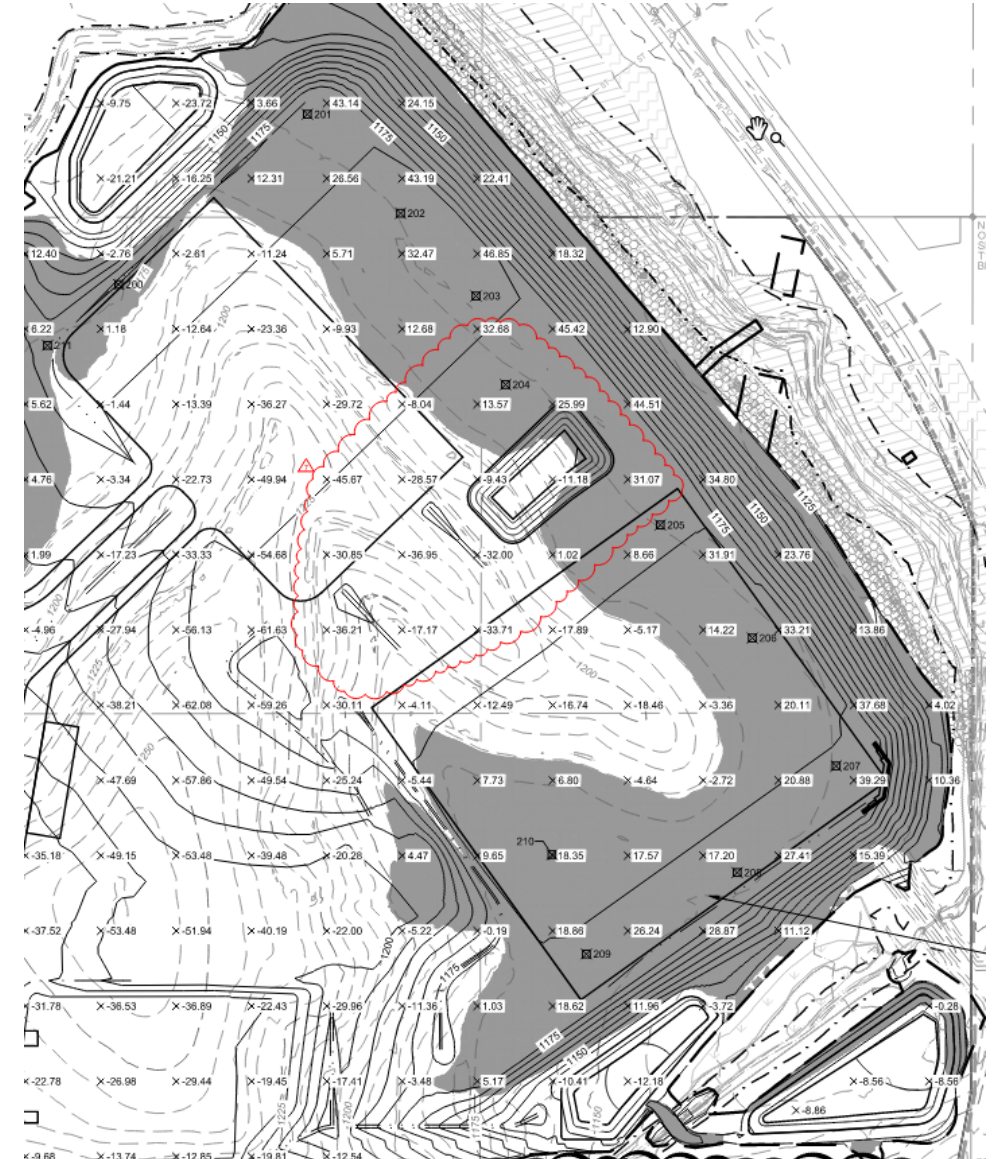
- ▶ Lessons Learned & Recap

01

Project Overview

Project Overview

- ▶ Project Bluesky
 - ▶ Large acreage site (300+ Acres)
 - ▶ 404 Permit & USACE Wetland Impacts
 - ▶ Perimeter Surface Waters
 - ▶ Topography & Site grade changes (CUT & FILL's of 50+ FT)
 - ▶ 4M+ CY of Grading
 - ▶ Soil characteristics - Highly Erodible
 - ▶ Presence of shallow groundwater.
 - ▶ 12+ MO Duration
 - ▶ Self Perform & Trade Partner Management



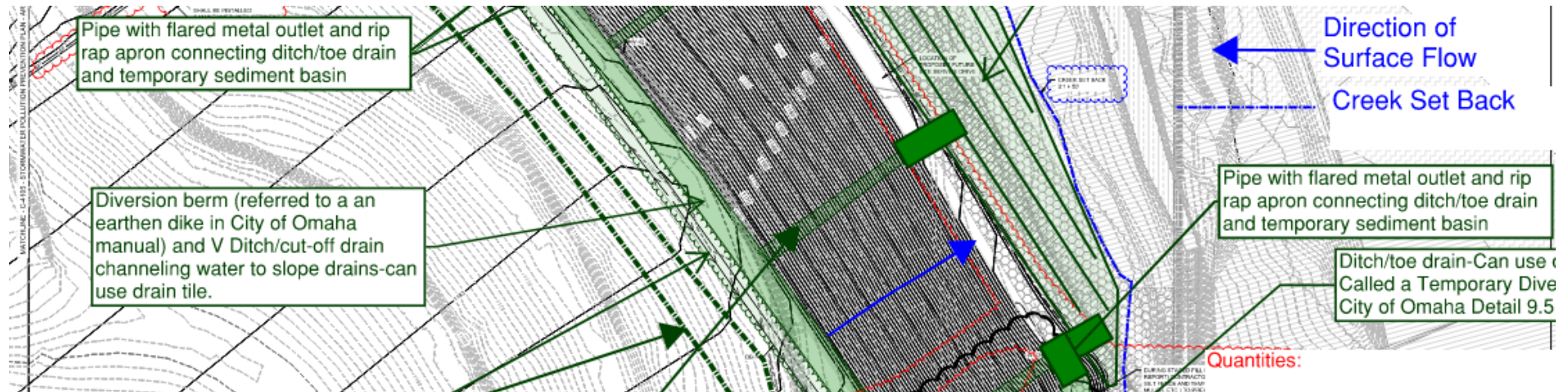
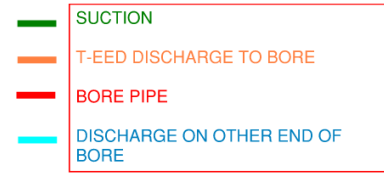
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SWPPP Plan & Management

SWPPP Plan & Management

► Pre-Construction:

- Review and markup of plans by the Sr. Environmental Specialist with continuous field adjustments by knowledgeable field personnel.
- Baseline requirements vs. NEED of the project
- Omaha Regional Stormwater Design Manual Reviews.
- 404 Permit Coordination
- Temporary & Permanent Impacts with EOR & AHJ



▶▶ SWPPP Plan & Management

▶ Construction:

- ▶ Dedicated SWPPP Crew & Leaders
- ▶ Project Team Buy-In & Culture
- ▶ 3rd Party Partnerships
- ▶ AHJ Relationships & Coordination



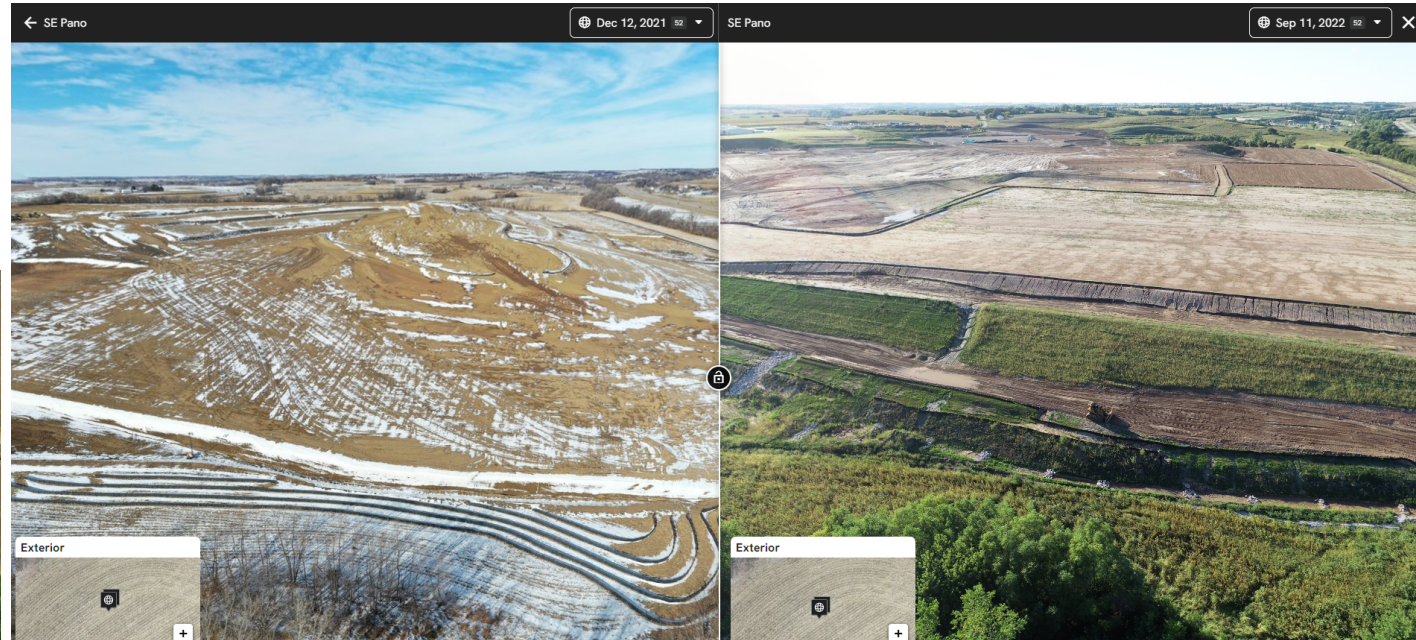
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Implementation

Implementation

Challenges

- ▶ Unable to use some basins as that would involve crossing jurisdictional waters (Waters of the US).
- ▶ Terraces: Large elevation change from highest elevation onsite to lowest discharge points.
- ▶ Avoiding discharges to perimeter surface waters.
- ▶ Soil characteristics - highly erodible.
- ▶ Design Changes
- ▶ Presence of shallow groundwater.



Implementation

▶ Construction:

- ▶ Continual improvement to foresee and address challenges due to weather, expanded scope, changes in personnel.
 - ▶ Audit Process (Internal & Customer)
 - ▶ Additional Inspections/Observations
 - ▶ Drone/Technology
- ▶ Transparency with Customer & Stakeholders
- ▶ Proactive vs. Reactive
 - ▶ Rain Events
 - ▶ Topsoil & Perm Seeding (Timeliness)
 - ▶ Trade Partner Management & Accountability



Implementation



Implementation



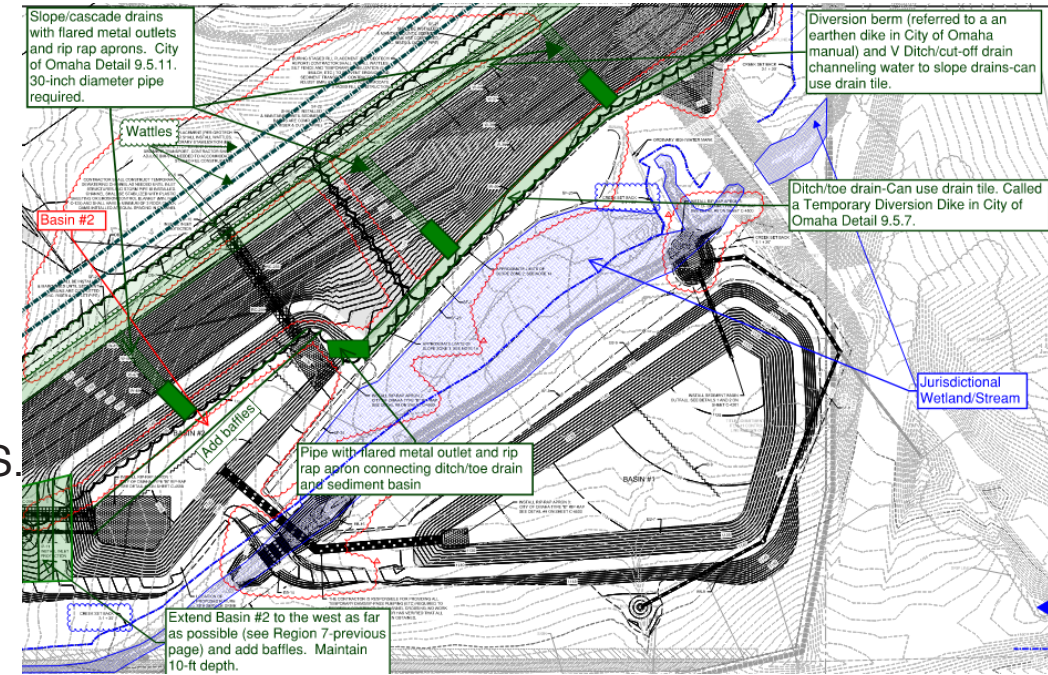
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Lessons Learned & Recap

▶▶ Lessons Learned

▶ Preconstruction:

- ▶ Redesign and plan for additional costs during bidding for the project. (*Transparency*)
- ▶ Review plans and try to control the stormwater before it approaches the perimeter controls. (*Proactive*)
- ▶ Redundant perimeter controls, especially near Waters of the US.



▶▶ Lessons Learned

▶ During Construction:

- ▶ Continuous field fitting of BMPs.
- ▶ Stabilize areas as soon as possible.
- ▶ Inspections performed regularly and after rain events.
- ▶ Maintenance performed regularly and after rain events: “If you see something, say something.”
- ▶ Communication with subcontractors before and during work activity with follow-up visits at worksites.
- ▶ Project Culture with Focus on SWPPP.



▶▶ Lessons Learned

▶ *“We embraced stormwater protections and management from the start instead of fighting it.”*



QUESTIONS? COMMENTS?



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