



**CREEKSIDE ENVIRONMENTAL
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September 24, 2019

Oregon Department of Environmental Quality
Cleanup Program, Northwest Region
Attn: Kevin Dana, Project Manager
700 NE Multnomah Boulevard, Suite 600
Portland, Oregon 97232

RE: RD/RA Update
Troh Legacy Landfill (ECSI No. 5257)

Mr. Dana,

Creekside Environmental Consulting (Creekside) presents this update on implementation of Remedial Design/Remedial Action (RD/RA) for the subject site located at 10010 SE Vradenburg Road, in the City of Happy Valley¹. This progress report summarizes findings of regular inspections of the Managed Soil Cap remedial action alternative and status of those components that remain to be accomplished.

The major elements of the Managed Soil Cap remedial action alternative were completed from August 2017 through September 2018 and are summarized in Creekside's November 2018 Progress Report. Briefly, with the exception of a small area (see below), Kerr Contractors have completed the installation of the Securgrid demarcation geotextile material and roughly three to eight feet of soil cap material over the Troh Legacy Landfill area. The surfaces of the soil cap have been stabilized with turf and straw wattles. Since placement and compaction of the soil cap, landfill seeps previously observed at the toe of the landfill near its eastern margin have been reduced significantly; however, are still present during the wet season.

In November 2018, Creekside and AKS observed minor sloughing of soils at the north and south buttressed slopes bordering the landfill cap. Additional silt fencing and diversionary drainage piping have been installed in both areas. No additional sloughing has been observed following installation of additional erosion control measures.

Due to steep terrain, an area at the eastern margin of the former landfill site has been covered by demarcation geotextile material; however, the embankment was not capped as per the RD/RA specifications. Test pit logs (TP17, TP18, TP19 and TP2)) indicate some pre-existing clean overburden existed above the landfill surface. The demarcation geotextile and increasing natural vegetation has secured the uncapped area. Due to this steep terrain, any soil eventually placed over the uncapped portion of the steep, eastern edge of the landfill will be difficult to compact and stabilize. In an email to ODEQ on November 12, 2018, Creekside/ENW and AKS Engineering proposed using a combination of soil and other means to act as the protective cover. Specifically:

1. An additional 0.6 feet of soil in the TP17 cap area.

¹ Formally described as the "Eastern part of Tax Lot 401 of the East Scouters Mountain Development."

2. Placement of 1.5- to 4-foot thick layer of rip-rap.

Creekside and AKS have prepared engineered drawings of the revised cap in this area (attached to this letter). The owner anticipates that the cap will be completed sometime during the Fall of 2019.

Should you have any questions regarding this summary, please do not hesitate to reach out to Creekside and/or ENW.

Sincerely,



Lynn D. Green, CEG,
Technical Manager / Principal Engineering Geologist, ENW

ATTACHMENT



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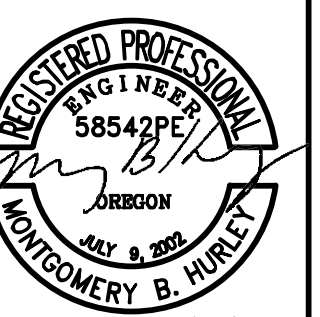
ENGINEERING · SURVEYING · NATURAL RESOURCES
 FORESTRY · PLANNING · LANDSCAPE ARCHITECTURE

10010 SE VRADENBURG ROAD
 ENG-01-17 PUD-02-15

HAPPY VALLEY
 TAX LOTS 400 & 401
 CLACKAMAS COUNTY TAX MAPS 1 2E 25D

**TROH LANDFILL
 CROSS SECTIONS**

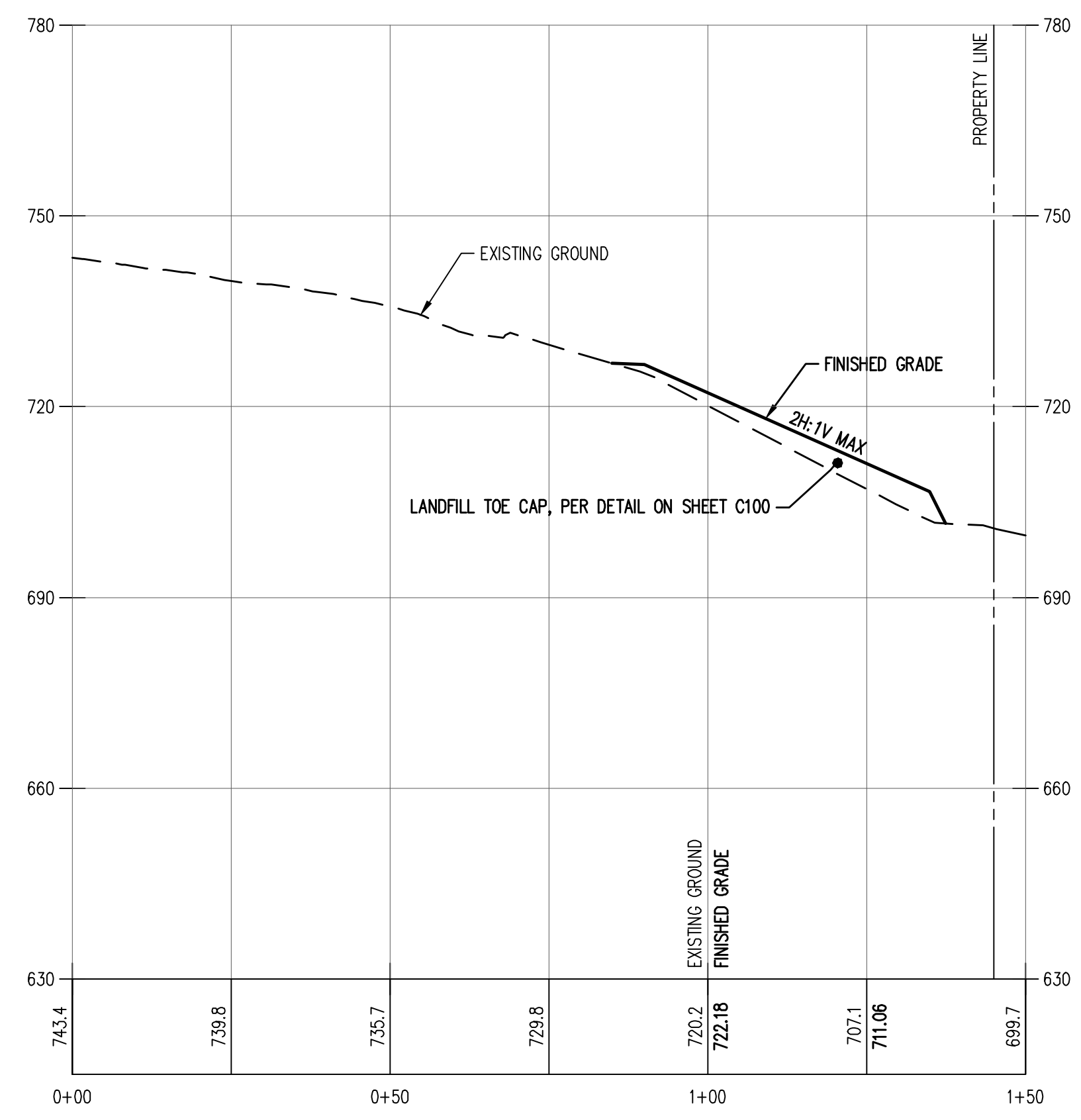
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 DRAWN BY: JRN
 CHECKED BY: MBH
 SCALE: AS NOTED
 DATE: 08/12/2019



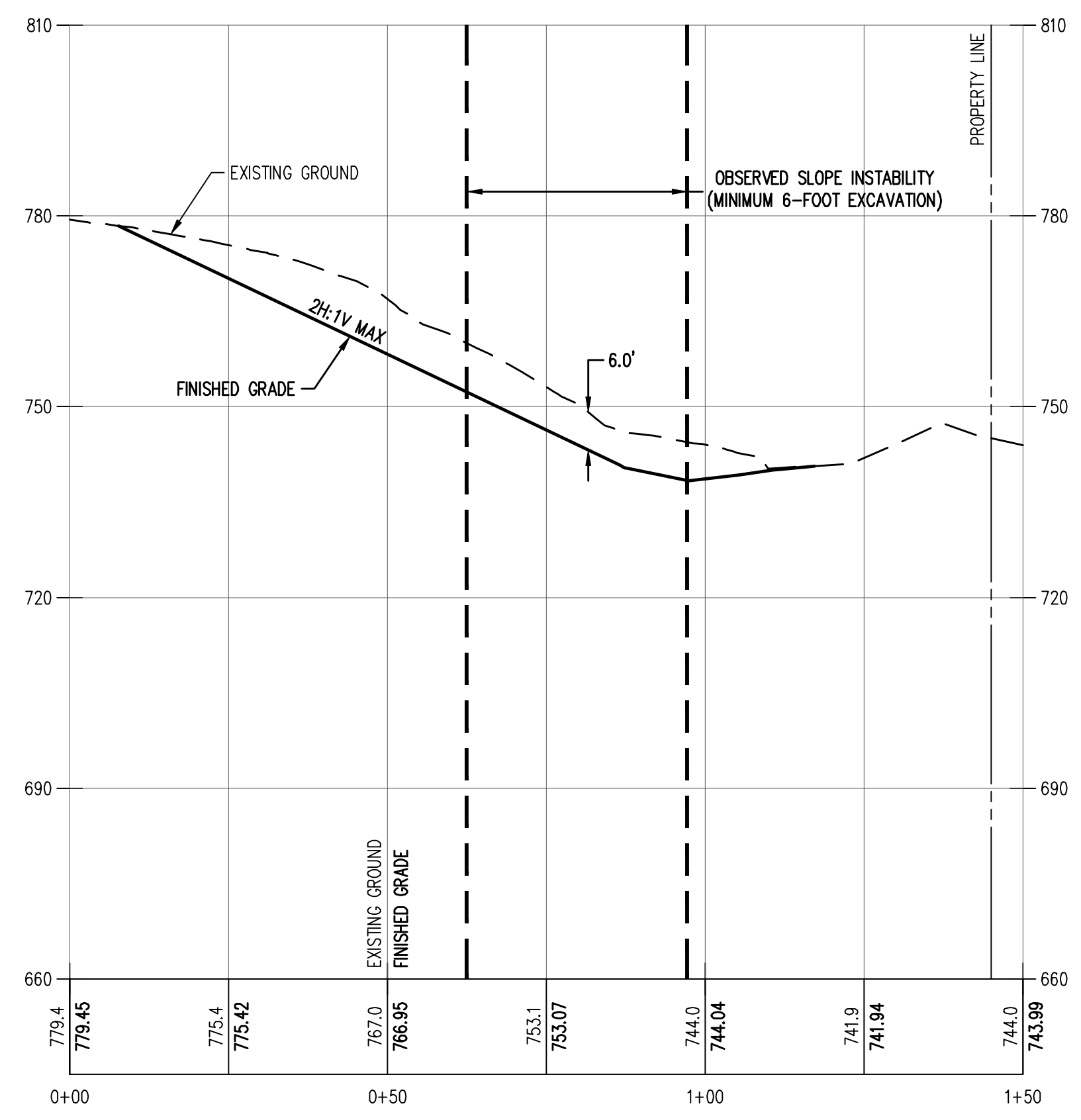
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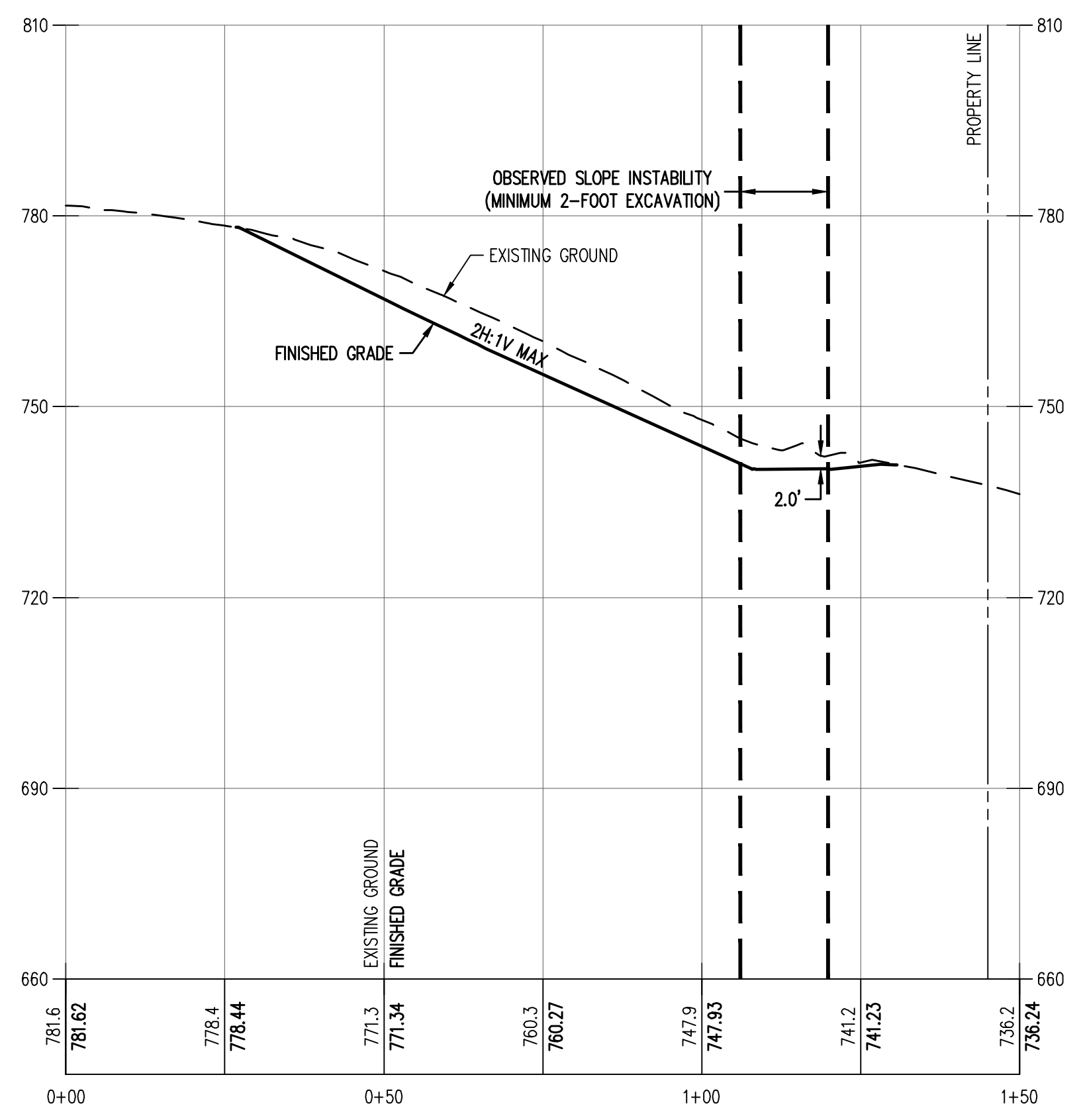
SHEET
C002



SECTION A-A
 Hor. Scale: 1" = 20'
 Vert. Scale: 1" = 20'



SECTION B-B
 Hor. Scale: 1" = 20'
 Vert. Scale: 1" = 20'



SECTION C-C
 Hor. Scale: 1" = 20'
 Vert. Scale: 1" = 20'