PROPOSED BLASTING PLAN

Hyak Wa. I 90

Company KLB Date OCT 5, 2010 Shot # SN 3

Location of Blast PRODUCTION 1343+84 – 1344+32 PRESPLIT 1343+84 – 1344+44

Date of Blast Planned OCT 7 Time of Blast 6:00 Rock Type LAPILLI TUFF

Name of Blaster VIC BRONSON License Number U 21291

Direction N Distance 110 Feet From I-90

# of Pre-Split Holes 60 Spacing 12" Depth 27' Slope .25/1 Charge WT 1.88 LF Drilled 1620

Holes 63 Burden 6 ft Spacing 6 ft Depth 12 Diameter 3" Stemming 6'

Holes____ Burden____ ft Spacing____ ft Depth____ Diameter____ Stemming____

Holes____ Burden____ ft Spacing____ ft Depth____ Diameter____ Stemming____

Rows____ Bench Height____ ft Yield____ cu/yds Subdrilling____

Type Stemming CRUSHED STONE 5/8" Max Weight of Explosives per Delay 15#

Explosives Type and Estimated Quantity's

Anfo 950 lbs Primer's 3/4# lbs/ea Pre-Split Powder 112.8 lbs

Stick Powder Type 1¼ x 8 POWEROITCH Amount ? lbs

Stick Powder Type SEMETEL 2" x 16" Amount ? lbs

Stick Powder Type____ Amount____ lbs

Hole to Hole Delay 25 MS Row to Row Delay 84 MS

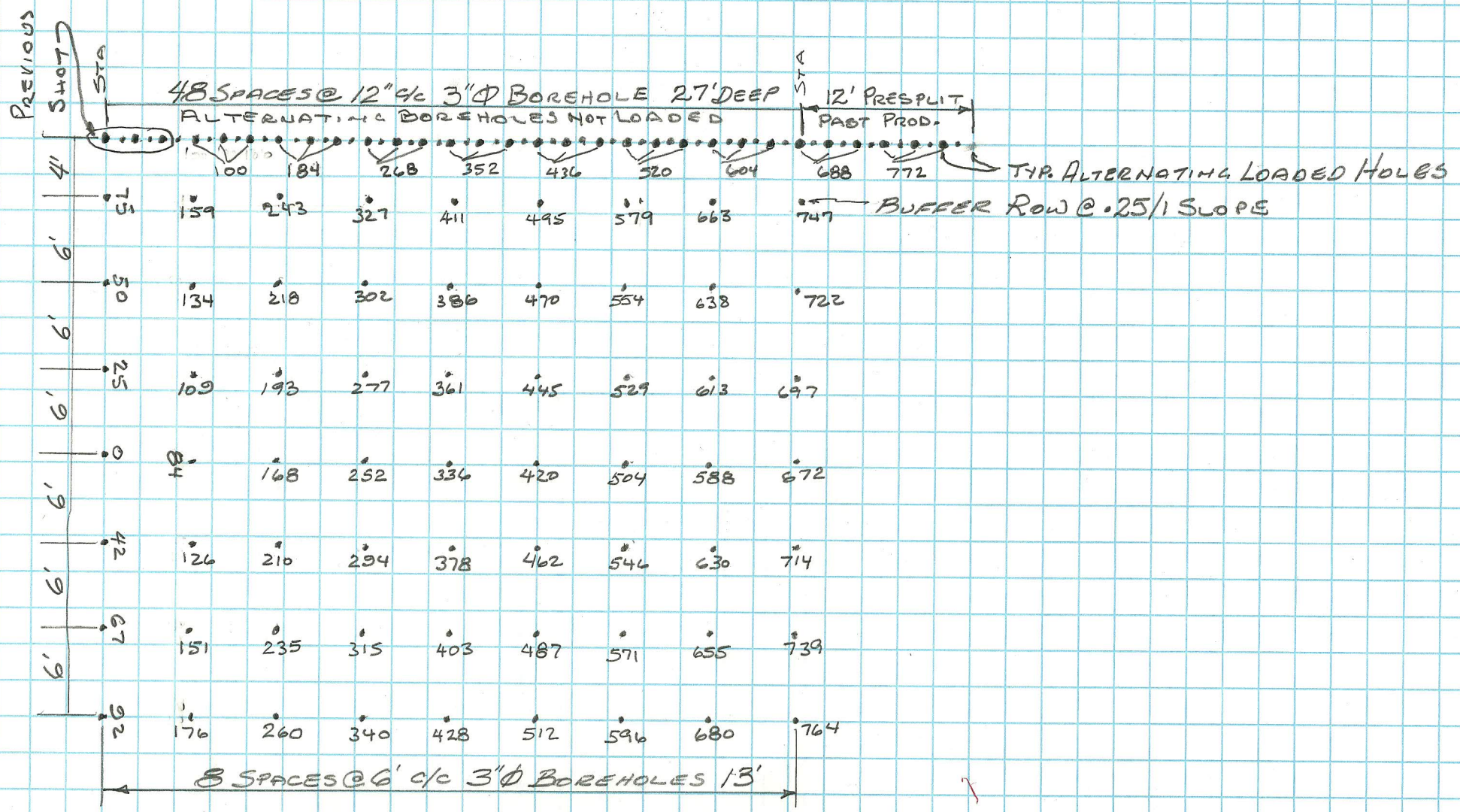
Total Weight of Explosives 1062 lbs Estimated Powder Factor ≈ 1 lbs cu/yd

Method of Initation NON ELEC Type of Detonator & Delay 25/500 HANDIDET

Notes: SEE TYPICAL SHOT DIAGRAMS

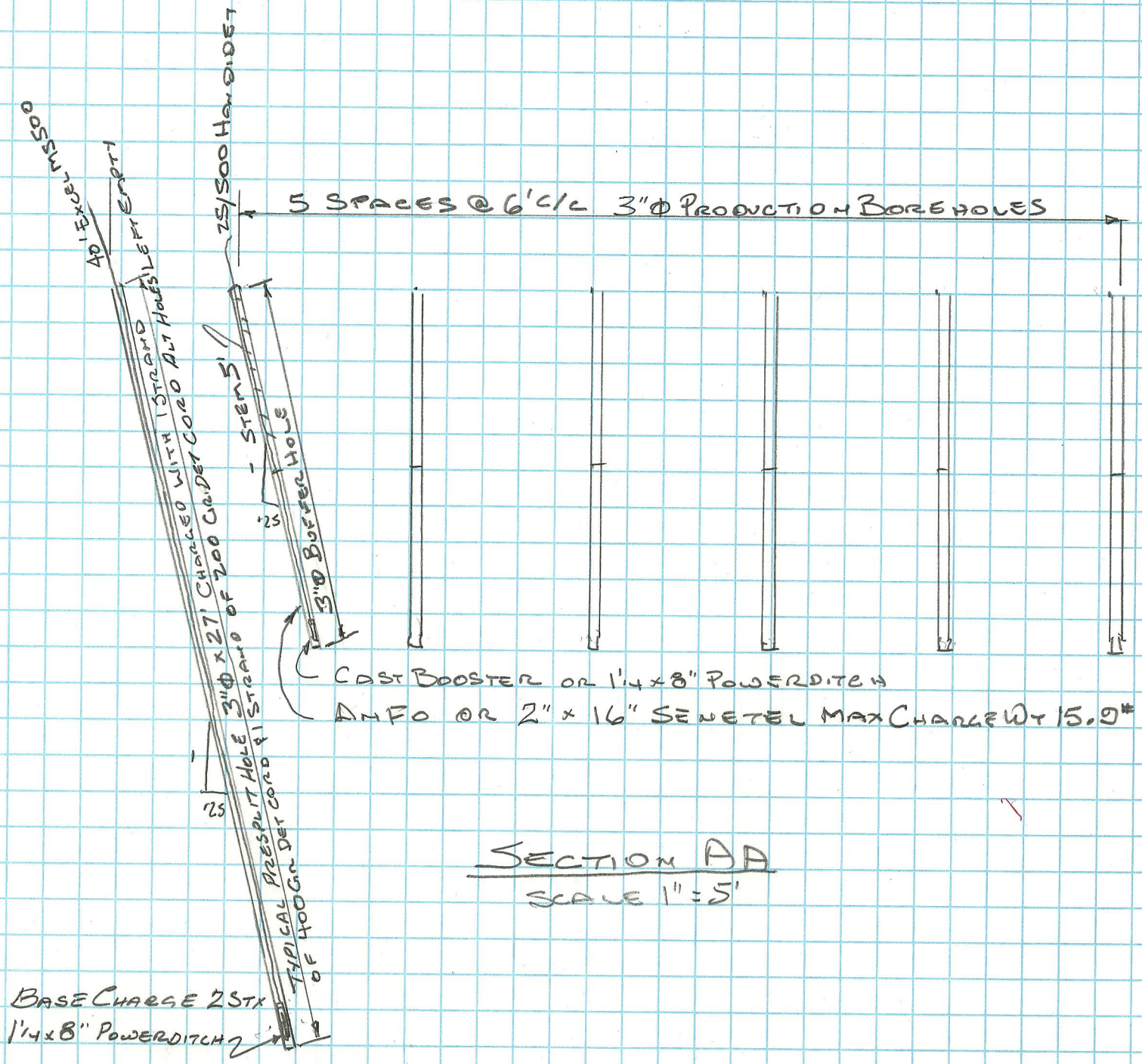
Plan Submitted By CHARLES MURPHY Date OCT 5, 2010

Note: Production blast holes will only be fired if pre-split line is blasted in combination or prior to the blast for a distance of 30 feet at the beginning and end of production blasting.



PLAN VIEW TYPICAL BLAST NEAR SOIL NAIL WALL

SCALE 1" = 10'



SECTION AA

SCALE 1" = 5'