ΕΛΛΗΝΙΚΗ ΔΗΜΟΚΡΑΤΙΑ
ΠΕΡΙΦΕΡΕΙΑ ΔΥΤΙΚΗΣ ΕΛΛΑΔΑΣ
ΔΗΜΟΣ ΑΝΔΡΙΤΣΑΙΝΑΣ - ΚΡΕΣΤΕΝΩΝ
ΔΙΕΥΘΥΝΣΗ ΤΕΧΝΙΚΩΝ ΥΠΗΡΕΣΙΩΝ

ΤΙΤΛΟΣ ΕΡΓΟΥ : **ΑΠΟΚΑΤΑΣΤΑΣΕΙΣ ΟΔΟΠΟΙΙΑΣ ΔΗΜΟΥ ΑΝΔΡΙΤΣΑΙΝΑΣ - ΚΡΕΣΤΕΝΩΝ**

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ΤΕΧΝΙΚΗ ΕΚΘΕΣΗ

ΚΡΕΣΤΕΝΑ, 9/4/2019
Η ΣΥΝΤΑΞΑΣΑ

ΚΑΛΟΓΕΡΟΠΟΥΛΟΥ ΓΕΩΡΓΙΑ

ΠΟΛΙΤΙΚΟΣ ΜΗΧΑΝΙΚΟΣ Π.Ε. M.Sc.

ΘΕΩΡΗΘΗΚΕ
ΚΡΕΣΤΕΝΑ, 9/4/2019
Η ΠΡΟΪΣΤΑΜΕΝΗ Δ.Τ.Υ

ΣΟΦΙΑΝΟΥ ΓΕΩΡΓΙΑ

ΠΟΛΙΤΙΚΟΣ ΜΗΧΑΝΙΚΟΣ Π.Ε.

AtEJ ũqũ¢

¢ɛ ɣɟɔɛ <<ɹ ´ ɛəŬŰŰůŰŕůůůgſ ɛŭɛ´ ɛɯŭgſ qɒɛɛgg ɹ ɜŭɟ dŰůŬɜŬgſ - 7ɟ ůůŰɣɜɤɜ>> ŬűɛɟŶ ůŰůɭ ɓůəůůr ůɖ Ŭɔɟ ɛŰəɯ ɜ ɛŭı ɜ ´ ɛg ɗŬ ůɜg´ ɖɟůŰůı ŰəgſůůŰſ ůi÷ ɔɛɟ ɛɜůgſ əgəəɛűɛɟ əŬəɣgſ Ŭɜŷɔəůgſ Ŭɤɜ əŬŰɛɯɤɜ ´ ɛg əŬəəɯůɟ ɔɛi÷ɜ ɐ ɣɛɛgɜ əŰɭɜɛŰɟ ɛűɯɣgſ ůɛɛůŰəəůı ůůəgſ ůŰɭɜ ´ ůɟ ɯɛɒɐ, ɛůůŰɲɛɛ ŰɭɜŮ ɒgůɖ ɐ ɓůəůůr ůɖ əgəəɛűɛɟ əŬəı ɜ ´ ɟ ɛɓəɖɛŶŰɤɜ ůŰəgſŰɛ´ ɯɣgſ əɛɯɜɲŰɭŰůgſ qɒŭůɣəəɤɜ , ɀ ŶŰůůɔ əŬəɊɣəɛgəŬŰɛg qɒɛɛgg ɹ ɜŭɟ dŰůŬɜŬgſ - 7ɟ ůůŰɣɜɤɜ.

Ɓə´ ɟ ɛgſ əŬŰŰůəůgɐ ɛŭɛɑůɜŬəɛə´ Ŭɟ ŬəŶŰɤ :

- ŦŬɟ Ŭ ɛŰŶɛɯgſ ŭɟ ɲɛɛgſ ůŰɭɜ Űɛ´ ɯɒɐ əɛɯɜɲŰɭŰqɒŭůɣəəɤɜ , ůgɜɛəɯɒɛi÷ ɛɐəɛggſ 1.530,00 ɛɣŰɟ ɤɜ.
- ŦŬɟ Ŭ ɛŰŶɛɯgſ ŭɟ ɲɛɛgſ ɛůŰŰɜi÷ Űɤɜ Ű ɛ´ ɯı ɜ əɛɯɜɛŰɐŰɤɜ ɀ ŶŰůůɔ- ÊɣəɛgəŬ, ůgɜɛəɯɒɛi÷ ɛɐəɛggſ 1.568,00 ɛɣŰɟ ɤɜ.

ɹ ɜŰɯɒůɯůɜɛ Ű ɭgſ ɛůəɣŰɭgſ ůɯɜŬə

- ¢ ´ ɟ ɛɛɣŰɟ důɖ Űɤɜ Ŭ´ ŬɯŰɯi÷ ɛůɜɤɜ Ůɟ ɔŬůɯ ɜ ɔɯŬ Ű ɭ əŬŰŰůəůgɐ Űůɜɜɯəı ɜ ɣɟ ɔɤɜ əŬəɛŭɛůŰɟ ı ɛŬŰɯgſ Ű ɭgſ ɛŭɛi÷ , əŬɗı gſəŬəɛ´ ɟ ɛɦ´ ɛəɛɔɯůɪɛ ɦgſ Ű ɭgſ ŭŰ´ Ŷɜɗgſ Ű ɯggſ.
- ¢ ůi÷ ɜŰŬɜɖ Ű ɤɜ ůɛůŰɯəı ɜ ŰŬgɛı ɜ ŭɖɛɛ´ ɟ ŶŰɭůɖgſ Ű ɯg ɣɟ ɔɛg

Ɓə´ Ŭɟ ŶɛŮŰɟ ɛɛ´ ɛg əɐűɗɖůŬɜ g´ ɦɣɖ ɔɯŬ Ű ɭɜ əi÷ ůɖ ´ ɛg ´ ɟ ɛŰŬɜɜŮŰŬəůɜŬəɖ ŬůűŶəůŬ, ɖ ŮűɯəŰɦɭɖŰŬ Ű ɭgſ əi÷ ůɖgſ, ɖ ɛɯɜɛɜɛɛɗŬ əŬəɖ Ŭ´ ɛűgɔɔɐ Ů ɣɛɓŬůɖgſ ůŰɯ Ű ɯ´ œ (´ ɟ ɛůŬɟ ɛɔɔɐ ůŰɭɜ gűɯůŰ´ɛůɖ əŬŰŶůŰŰůɖ).

ɄȺɅȾűɅȷ ū₡ ɇ₡Ɇ ɉ ȷ Ʌȷ ʔ₡Ɇ

Ɉűǡů Ű Ʋɛ Ůɞɖ ɘŬŰƳůŰŰůɖ

₡ gűǡůŰƳɛŮɞɖ ɘŬŰƳůŰŰůɖ ´Ŭȷ ɞgůǡƳɕŮɵ ŰŰ ɕŬȷ Ŭɵ Űɖȷ ǡůŰɞƳ ɛǡŬɠ ɖɛɞȷ Ůɞɐɠ ɞŭɞɨ ´ɞg ŭǡŬɞɞɕɖɖɘŮ ɔǡŬ Űɖɜ Ůɞg´ɖȷ ɏŰɖůɖ Űɖɠ ůɨ ɜŭŰŰɖɠ Űɞg ɞǡůɛɞɨ Űɤɜ ɸǡŬůɏɘɘɤɜ ɛŮ Űɞ ´Ŭȷ Ŭ ɕŰƳɛɞ ɕŭɞɦ ŭɞŰɕɞ ŬɘɘƳ ɘŬɵɔǡŬ Űɖɜ Ůɞg´ɖȷ ɏŰɖůɖ Űɤɜ ɘŬŰɞɞɤɜ Űɖɠ ´Ŭȷ ɞɞɐɠ , ůŰɖɜ ´ȷ ɞůɏɔɔǡɖ Űɤɜ ɘŬɵɘǡŮȷ ɔŮɵ ɜ Űɞgɠ.

₡ ɞŭɦɠ ůŰɞ ɛŮɓŬɵɨ ŰŮȷ ɞ ɛɏȷ ɞɠ Űɖɠ ŮɞŬɘŬůűŬɵŰɞůŮȷ ɤ ɛɏɜɖ ŮɵŰɦɠ Űɞg ɘɞɛɛŬŰɞɨ Űɤɜ 1.530 ɛɏŰȷ ɤɜ ´ɞg ´Ůȷ ɞȷ ƳűɞɜŰŰɘ ůŰɖɜ ´Ŭȷ ɞɨ ůŬ ɛŮɵɏŰɖ, ŰŰ ɞ´ɞŬ ŮɞŬɘ ɕɤɛŬŰɦŭȷ ɞɛɞɠ ´ɘƳŰɞgɠ ´Ůȷ ά ɞg 5,50 - 7,00 ɛɏŰȷ ɤɜ.

₡ ´Ŭȷ ɞɨ ůŬ ɛŮɵɏŰɖ Ŭűɞȷ Ƴ ůŰɖɜ ɓŮɵŰɤ ůɖ Űɖɠ ɓŬŰɦŰɖŰŰɠ Űɞg gűǡůŰƳɛŮɞɞg ŭȷ ɦɛɞg ɩ ůŰŰɜŬ ɘŬɨ ´ŰŮɵ Űɠ ŬɞƳɔɘŮɠ ŬůűŬɞɨ ɠ ɘŬɵ ƳɜŮŰɖɠ ɘgɘɘɞűɞȷ ɖŬɠ, ɕɤȷ ɖɠ ɜŬ Ů ɖȷ ŮƳɕŮɵ ŭgůɛŮɞɩ ɠ Űɞ ´Ůȷ ǡɓƳɘɘɞɜ.

₡ɞ´ ǡɏɠ ɎɞɞɦŰɖŰŰɠɀ ƳŰŰůɘ- ɆɏɘɞgɘŬ

₡ gűǡůŰƳɛŮɞɖ ɘŬŰƳůŰŰůɖ ´Ŭȷ ɞgůǡƳɕŮɵ ŰŰ ɕŬȷ Ŭɵ Űɖȷ ǡůŰɞƳ ɛǡŬɠ ɖɛɞȷ Ůɞɐɠ ɞŭɞɨ ´ɞg ŭǡŬɞɞɕɖɖɘŮ ɔǡŬ Űɖɜ Ůɞg´ɖȷ ɏŰɖůɖ Űɖɠ ůɨ ɜŭŰŰɖɠ Űɤɜ ɞǡůɛɩ ɜ ɀ ƳŰŰůɘ - ɆɏɘɞgɘŬ. Ⱥ´ ɘ ɘɏɜ Ůɞg´ɖȷ ŮŰŰůŰɞgɠ ɘŬŰɞɞɞgɠ Űɖɠ ´Ůȷ ɞɞɐɠ , ůŰɖɜ ´ȷ ɞůɏɔɔǡɖ Űɤɜ ɘŬɵɘǡŮȷ ɔŮɵ ɜ Űɞgɠ ŬɘɘƳ ɘŬɵ ɞȷ ǡɛɏɜɤ ŬȷɞŰɩ ɜ ɘŬŰɞɞɞ ɜ.

ɆŮɦɘɞ Űɞ ŰɐɛŬ Űɖɠ, ɖ ɞŭɦɠ ŮɞŬɘɕɤɛŬŰɦŭȷ ɞɛɞɠ´ ɘƳŰɞgɠ´ Ůȷ ά ɞg 5-7 ɛɏŰȷ ɤɜ.

₡ ´Ŭȷ ɞɨ ůŬ ɛŮɵɏŰɖ Ŭűɞȷ Ƴ ůŰɖɜ ɓŮɵŰɤ ůɖ Űɖɠ ɓŬŰɦŰɖŰŰɠ Űɞg gűǡůŰƳɛŮɞɞg ŭȷ ɦɛɞg ɩ ůŰŰɜŬ ɘŬɨ ´ŰŮɵ Űɠ ŬɞƳɔɘŮɠ ŬůűŬɞɨ ɠ ɘŬɵ ƳɜŮŰɖɠ ɘgɘɘɞűɞȷ ɖŬɠ, ɕɤȷ ɖɠ ɜŬ Ů ɖȷ ŮƳɕŮɵ ŭgůɛŮɞɩ ɠ Űɞ ´Ůȷ ǡɓƳɘɘɞɜ.

[illegible]

[illegible]

[illegible] : 300466.375, [illegible] : 4162689.868 ([illegible] '87) [illegible] : 0 +000 [illegible] 301503.743, 4163499.840 ([illegible] '87) [illegible] : 1+530 .
[illegible] 253.99[illegible] 148.74[illegible] .

[illegible]

[illegible] 5.5 [illegible] 1511 [illegible] 1511 [illegible] 10 [illegible] 5 [illegible]

[illegible] 1? [illegible] 800 [illegible] 37 [illegible]

[illegible] 157 [illegible]

[illegible] 9140,00 [illegible] 1328,00 [illegible]

[illegible] (1:500), [illegible] (1:1000/1:100) [illegible] (1:100). [illegible] 1:500 [illegible] 87 [illegible] ANADELTA [illegible]

[illegible] :

[illegible]

[illegible] : 315793.456, [illegible] : 4157595.317 ([illegible] '87) [illegible] : 0 +000 [illegible] : 315214.837, [illegible] : 4158212.408 ([illegible] ' 87) [illegible] : 1+568.

[illegible]

[illegible] 5.5 [illegible] 1562 [illegible] 10 [illegible] 5 [illegible].

[illegible] 1.568 [illegible] 24 [illegible].

[illegible] 226.63[illegible] 108.39[illegible]. [illegible] 139.23[illegible].

[illegible]

[illegible] 3206,00 [illegible] 4269,00 [illegible].

[illegible] (1:500), [illegible] (1:1000/1:100) [illegible] (1:100). [illegible] 1:500 [illegible] 87, [illegible] ANADELTA [illegible].

ȿ Ůȿǘǥǥɉ ɔɶϒ ɞŬɉ Ŭəǘɉ ȿűǘϒ əŬə´ Ŭɉ ϒεŮǘɉ ɞɘɛŮəɏǘɉǥ ɞŭɞɨ

ȼ ɞŭɧǥ ´ ɞg ɗŬ ŭɖɛɶgɉ ɔɖɗŮɑɗŬ Ŭɜɐəŭəůǘɖɜ ɃεϒŭŬ ɞŭɩ ɜ ȷ (ɞŭɞɑ´ ɞg ŭȿŬǘɉ ɏɢɞgɜ ´ Ůɉ ɶɢɏǥ Ůəǘɧǥ ůɢŬɶɞg εŮ ɓŬůɶɐ əŮȿǘɞgɉ ɔɶŬ ǘɖ ůɨ ɜŭŬǘɖ, Ƀζ ɃȺ-ȹ) əŬə ůǘɖɜ əŬǘɖɔɞɉ ɖŬ V (ŭŮǥǘɉ Ůɨ ɞgůŬ Ŭɓɉ ɞǘɶɐ ɞŭɧǥ). ŪŬ ɏɢŮəŮɜȿŬɖŬ Ů ȿűϒɜŮȿŬ əgəəɞűɞɉ ɖŬǥ əŬəɗŬ Ů ȿǘɉ ɏ´ ŮǘŬəɜŬ əgəəɞűɞɉ ɞɨ ɜ ´ Ŭɜǘɧǥ Ůɶɞgǥ ɞɢɐεŬǘŬ. ȼ ǘŬɢɨ ǘɖǘŬ εŮəɏǘɖǥ ŮɜŬə Ve= 40 km/h əŬəɖ Ů ȿǘɉ Ů ɧεŮɜɖ ǘŬɢɨ ǘɖǘŬ ŮɜŬə V Ò60 km/h.

ȼg´ ɶɐ ŭȿŬǘɜεɐ

<u>ȼɞ´ ɶɐ Ȼɞɶɧǘɖǘ ȹȿŬůɏəəϒɜ</u>

ÿ ůɞɜ Ŭűɞɉ ϒ ǘŬ ǘŮɜɜϒ ɞŬɉ Ŭəǘɉ ȿűǘɶϒ ǘɖǥ ǘg´ ɶɐǥ ŭȿŬǘɜεɐǥ ´ ɞg ɗŬ ɢɉ ɖůɶɞ´ ɞɶɖɗŬɉ ǘɜ ɞŭɧůǘɉ ϒεŬ ɗŬ ɏɢŮə´ əϒǘɜǥ 5.5 εɏǘɉ Ŭ,εŮŮ Ůɜŭŭgεɏɜɖ ǘϒűɉ ɞ 1.20 εɏǘɉ ϒɜ Ůə ǘɖǥ εȿŬǥ´ əŮgɉ ϒǥ ǘɜg əŬǘŬůǘɉ ɩ εŬǘɜǥ əŬəɉ Ůɖɉ ɞg 0.50 εɏǘɉ ϒɜ Ůə ǘɖǥ ϒəəɖǥ.

ȼɞ ɞŭɧůǘɉ ϒεŬ ɗŬ Ŭ´ ɞǘŮəŮǘǘəŬ´ ɧ ŭɨ ɞ əϒɉ ɖǘŮǥ əgəəɞűɞɉ ɖŬǥ ɖ əϒɗŮεɖŬ ´ əϒǘɜgǥ 2.75 εɏǘɉ ϒɜ Ůɜɩ ɖ ɞŭɞůǘɉ ϒůɖŬ ɗŬ Ŭ´ ɞǘŮəŮǘǘəŬ´ ɧ g´ ɧɓŬůɖ εŮǘɓəɖǘɜɨ ´ ϒɢɞgǥ, ɓϒůɖ ´ ϒɢɞgǥ 10 ŮəŬǘɜůǘ ɜ əŬəŬůűŬəǘɶɐ ůǘɩ ůɖ ůgε´ gəɜϒεɏɜɞg ´ ϒɢɞgǥ 5 ŮəŬǘɜůǘ ɜ.

ȼɏəɞgǥ ɖ əəůɖ ǘɜ ´ ɉ Ŭɜɩ ɜ ůŮɖɏůŮǥ ɞɉ gɔεϒǘɜ ŮɜŬə2:1 (ɨ ɣ ɞǥ´ ɉ ɞǥ ɓϒůɖ) əŬəǘɜ Ů ɶϒεϒǘɜ 2:3.

Ɇɢɏŭɶ ǘɖǥ ǘg´ ɶɐǥ ŭȿŬǘɜεɐǥ Ŭəɞəɞgɗŭɑ

ȼɞ´ ⱺѦɠ ⅄ɞⱻɧ ǘɖǘǘɠ ɀ ϒǘǘůɘ- Ɇ ɏɘɞɡɘǓ

ӯ ůɞɜ Ǔǘɞɟ ϒ ǗǓ ǗǗɞɜⱺϒ ɕǓɟ Ǔɘǘɖɟ ⱻůǘⱺϒ ǘɖɠ ǘɠ´ ⱺɐɠ ŭⱻǓǘɞɛɐɠ ´ ɞɡ ɗǓ ɕɟ ɖůⱺɞ´ ɞⱺɖɗǓɖ ǘɞ ɞŭɧůǗ ɤ ɛ Ǔ ɗǓ ɏɕǗɘ´ ɘϒǘɞɠ 5.5 ɛɏǗ Ǔ,ɛ ǗǗ ǗɞŭǗɡɛɏɜɖ ǗϒǗɟ ɞ 1.20 ɛɏǗ ɤ ɜ Ǘɘ ǘɖɠ ɛⱻǓɠ ´ ɘǗɡɟ ϒɠ ǘɞɡ ɘǓǗǗůǗ ɩ ɛ Ǔǘɞɠ ɘǓɘǗ Ǘɖůɛ Ǔǘɞɠ 0.25 ɛɏǗ ɤ ɜ Ǘɘ ǘɖɠ ϒɘɘɖɠ ´ ɘǗɡɟ ϒɠ.

ȼɞ ɞŭɧůǗ ɤ ɛ Ǔ ɗǓ Ǔ´ ɞǗǗɘǗɖǗǗɘǓ´ ɧ ŭɨ ɞ ɘɤ ɟ ɖǗɠ ɘɡɘɘɞǘɞɟ ɖǗɠ ɖ ɘϒɗǗ ɛ ɖǓ ´ ɘϒǘɞɡɠ 2.75 ɛɏǗ ɤ ɜ Ǘɞɩ ɖ ɞŭɞůǗ ɤ ůɖǓ ɗǓ Ǔ´ ɞǗǗɘǗɖǗǗɘǓ´ ɧ ɡ´ ɧƃǓůɖ ɛ ǗǗǗƃɘɖǘɞɨ ´ ϒɕɞɡɠ, ƃϒůɖ ´ ϒɕɞɡɠ 10 ǗɘǓǘɞůǗ ɜ ɘǓɘǓůǘǓɘǘɞɛ ůǗ ɩ ůɖ ůɡɛ´ ɡɘɜɤ ɛɏɜɞɡ ´ ϒɕɞɡɠ 5 ǗɘǓǘɞůǗ ɜ.

ȼɏɘɞɠ ɖ ɘɘɖůɖ ǘɤ ɜ ´ ɟ Ǔɞɩ ɜ ůǗɖɏůǗɞɠ ɕɟ ɡɔɛ ϒǗɤ ɜ ǗɞǓɘ 2:1 (ɨ ɣ ɞɠ ´ ɟ ɞɠ ƃϒůɖ) ɘǓɘǘɤ ɜ Ǘ ⱺɤ ɛ ϒǘɤ ɜ 2:3.

Ɇɕɏŭⱺ ǘɖɠ ǘɠ´ ⱺɐɠ ŭⱻǓǘɞɛɐɠ Ǔɘɞɘɞɡɗǘɑ

ũŮǂ ɛŮǖʇ ʚɤ ůǗɞɕŮŭŬ΄ ɞg ǕǘŬʇ ɛђůǕɖəŬɜ

<u>ȼɞ΄ ʚɐ ȾɞʚђǘɖǘǗ ɖɕŬůɏəəɤ ɜ</u>

ȼŬ ɞʇ ʚɞɜǗɕɔʇ Ŭǘʚɤ ůǗɞɕŮŭŬ΄ ɞg ǕǘŬʇ ɛђůǕɖəŬɜ ŮɞŬəǗǗ Ůɐɐǥ:

Ŭ/Ŭ	ɟ (m)	Y(m)	R(m)	ɔ(g)
Ⱦ1	300466.375	4162689.868	0	0
Ⱦ2	300463.302	4162711.044	10.00	75.2570
Ⱦ3	300479.902	4162720.832	15.00	46.3110
Ⱦ4	300512.844	4162714.336	16.57	100.2690
Ⱦ5	300520.86	4162755.918	80.00	22.7020
Ⱦ6	300490.375	4162937.711	20.00	83.2180
Ⱦ7	300587.453	4162982.205	80.00	53.1600
Ⱦ8	300614.341	4163067.314	80.00	13.4370
Ⱦ9	300656.543	4163141.525	15.00	86.5040
Ⱦ10	300714.815	4163123.175	6.48	153.7320
Ⱦ11	300690.137	4163164.443	10.00	111.3220
Ⱦ12	301241.366	4163372.611	160.00	2.7310
Ⱦ13	301461.425	4163445.096	80.00	44.4790
Ⱦ14	301493.562	4163497.053	15.00	43.6710
Ⱦ15	301504.445	4163500.792	0	0

Ƀə ůgɜǗŮǗǗbɛɏɜŮǥ ɟ əŬə Ɉ ŮɞŬə ůǗɞ ůɨ ůǕɖɛŬ ȺũȄɉ 87.ȼ R ŮɞŬə ɖ Ǘɞɐ ǗɖǦ ɞʇ ʚɞɜǗɕɔʇ Ǘǘʚɐǥ ŬəǗɞŬǥ. (H ΄ Ŭʇ ɤɛŮǖ ɞǥ əŬɛ΄ ɨ əɖǥ ůgɜŬʇ ɛɞɔɐǥ ŭŮɞ Ŭ΄ ŬɕǗŮŭǗəɔɕŬ Ǘɖɜ əŬǗɖɔɞʇ ɖŬ Ǘɖǥ ɞŭɞɨ). ȼ ɔɤ ɜɖŬ ɔ (ůŮbŬɗɛɞɨ g) ŮɞŬəɖ Ůɨɤ ǗŮʇ ʚɐ ɔɤ ɜɖŬ Ǘɖǥ΄ ɞəgɔɤ ɜʚɐǥ.

ȼŬ ɔŮǂ ɛŮǖʇ ʚɤ ůǗɞɕŮŭŬ΄ ɞg ɏɞɞgɜ ǕǘŬʇ ɛɞůǗŭůǕɖɜ Ůʇ gɖʇ ɤ Ǘɖǥ ɛɖəɞǗɞɛɐǥ ǘŬɕɞɜǗǗə ůǗɞɜ ΄ ɕŬəŬ΄ ɞg Ŭəɞəgɖŭɕ:

Ⱦɞʇ gǘɐ	ɟ ʚ-Ŭɏůɖ	Ɉɣ ђɛŮǖ ɞ	ɹ əǗɕŬ	Ⱦəŭɖ%
Ⱦ1	0	254.00	0.000	0.00
Ⱦ2	231.056	249.89	1400	-1.78
Ⱦ3	411.196	233.50	1400	-9.10
Ⱦ4	591.256	221.21	2000	-6.82
Ⱦ5	687.432	209.69	2000	-11.98
Ⱦ6	958.95	184.36	1500	-9.33
Ⱦ7	1259.598	159.48	1500	-8.27
Ⱦ8	1469.213	150.14	1500	-4.45
Ⱦ9	1532.569	148.82	0.000	-2.09

ȼϭ΄ ϡϑɣʛ Ꮌϭϡħ Ǖɖ Ǖǖɖʛ ɀ ϒǕǖůɘ- ɆɎɘϭɡɘǓ

ȼǓ ϭɟ ϡϭɜǕϡɔɟ Ǖǘϡϒ ůǕϡϕǕǕ΄ ϭɡ ǕǘǓɟ ɛħůǕɖɘǓɜ ǕɞǓɘǕǕ ǕϧɐƭƮ:

Ǖ/Ǔ	ɟ (m)	Y(m)	R(m)	ɔ(g)
Ꮌ1	315793.457	4157595.318	0	0
Ꮌ2	315817.577	4157638.855	30	39.451
Ꮌ3	315804.506	4157753.249	5	187.465
Ꮌ4	315793.871	4157625.613	40	72.287
Ꮌ5	315697.064	4157590.037	30	94.104
Ꮌ6	315677.144	4157631.828	30	25.272
Ꮌ7	315607.484	4157694.046	60	24.116
Ꮌ8	315502.749	4157732.302	60	27.369
Ꮌ9	315470.521	4157729.727	15	43.760
Ꮌ10	315434.411	4157694.915	30	35.582
Ꮌ11	315340.862	4157675.154	30	35.055
Ꮌ12	315302.734	4157688.747	15	179.094
Ꮌ13	315249.800	4157668.289	5	45.281
Ꮌ14	315330.473	4157735.854	40	22.114
Ꮌ15	315383.386	4157755.158	60	31.214
Ꮌ16	315496.584	4157881.479	50	92.681
Ꮌ17	315448.492	4157935.742	30	23.797
Ꮌ18	315342.670	4157989.740	180	8.223
Ꮌ19	315294.574	4158006.898	30	74.763
Ꮌ20	315292.103	4158052.827	30	51.069
Ꮌ21	315244.518	4158094.130	15	103.045
Ꮌ22	315283.446	4158134.868	30	82.019
Ꮌ23	315253.795	4158185.979	50	28.586
Ꮌ24	315214.837	4158212.409	0	0

Ƀɘ ůɡɜǕǕǕƃɛɏɜǕʛ ɟ ɘǓɘ Ɉ ǕɞǓɘ ůǕɜ ůɨ ůǕɖɛǓ ȺũɆɉ 87.ȼ R ǕɞǓɘ ɖ Ǖɛɐ Ǖɖʛ ϭɟ ϡϭɜǕϡɔɟ Ǘǘϡɐʛ ǓɘǕɞǓʛ. (H ΄ Ǔɟ ϒɛǕǕɟ ϭʛ ɘǓɛ΄ ɨ ɘɖʛ ůɡɜǓɟ ɛϭɔɐʛ ŭůɜ Ǔ΄ ǓɘǕǕǕǕɘɔɘǓ Ǖɖɜ ɘǓǕɖɔϭɟ ɗǓ Ǖɖʛ ϭŭϭɨ). ȼ ɔɤ ɜǓ ɔ (ůǓƃǓɗɛϭɨ ɡ) ǕɞǓɘɖ Ǖɤ Ǖɟ ϡɐ ɔɤ ɜǓ Ǖɖʛ ΄ ϭɘɡɔɤ ɜϡɐʛ.

ɇŬ ɔŮɤ ɛŮǰ ɘɎ ůŰɞɕŮŬ´ ɞg ɏɞɞgɜ ŰűŬɟ ɛɞůŰŰůŰɖɜ Ůɟ gɖɟ Ɏ Űɖɠ ɛɖəɞŰɞɛɐɠ űŬɷɞɜŰŰə ůŰɞɜ ´ ɷŬəŬ´ ɞg Ŭəɞəɞgɖůɷ:

Ɉɞɟ gűɐ	ɟ ɘɦ.Ūɏůɖ	Ɉɣ ɧɛŮǰ ɞ	ɟ əŰɷŬ	Ɉəɷůɖ%
Ɉ1	0.00	226.63	0	
Ɉ2	22.48	225.89	800	-3.31
Ɉ3	62.99	222.35	800	-8.74
Ɉ4	96.33	219.19	1350	-9.46
Ɉ5	165.99	213.07	1350	-8.78
Ɉ6	453.09	171.6	1350	-14.45
Ɉ7	684.17	151.1	800	-8.87
Ɉ8	798.96	133.39	1350	-15.43
Ɉ9	992.27	122.27	800	-5.76
Ɉ10	1041.4	118.23	800	-8.21
Ɉ11	1159.05	101.87	700	-13.91
Ɉ12	1308.96	122.04	1200	13.46
Ɉ13	1423.88	129.01	1350	6.06
Ɉ14	1486.41	135.63	800	10.58
Ɉ15	1559.14	138.97	800	4.59
Ɉ16	1568.00	139.36	0	2.96

[illegible]

[illegible]

[illegible] 800 [illegible]

[illegible]	[illegible]	[illegible]	[illegible]
1	0+270.58	[illegible] 0.800	6.00
2	0+365.06	[illegible] 0.800	6.10
3	0+529.21	[illegible] 0.800	6.10
4	0+774.59	[illegible] 0.800	5.60
5	0+899.58	[illegible] 0.800	7.20
6	1+279.63	[illegible] 0.800	6.00
		[illegible]	37.00 m

[illegible]

[illegible]			
[illegible]	[illegible] (ε)	[illegible] (ε)	[illegible] (ε)
	0+273.43	0+607.63	334.20
		[illegible]	334.20
[illegible]			
[illegible]			
	[illegible] (ε)	[illegible] (ε)	[illegible] (ε)
	0+000.00	0+273.43	273.43
	0+626.94	1+530.00	903.06
		[illegible]	1176.49

[illegible] : 1176.49+334.20 = 1510.69 [illegible]

ɇɞ´ ꞩɏɠ ƛɞꞩɧǗɖǕɠ ɀ ƳǗǕɘ- ɆɏəɞɡəǓ

ũǗꞩꞩƳ ɏɢǗəɖɗǗɑ´ ɟ ɧɜɞꞩǓ ɩ ůǗǕɜǓ Ǔ´ ǓꞩǕꞩɨ ɜǗəǗ ǗəƳɢꞩůǗ ŭɡɜǓǕƳ ǗꞩɜꞩƳ. ŌǗůɘɔꞩǓ ǗɖɜǗəƳɟ ůꞩǓ Ǔ´ ɞɢɏǗɠůɖ ´ ɟ ɞɓəɏ´ ɞɜǗəɗ ǘɟ ǗƳǗǓ ɡŭɟ ɞůɡəəɞɔɐɠ Ǘ ´ ɞɡ ū 1ʔ əǓəɗ ůɤ əɖɜɤ ǗɑǓɔɤ ɔɞɑū 800 ůǗɠ ´ Ǔɟ ǓəƳǗɤ ɗɏůǗɠ:

ǓǓ	ɟ .Ū.	Ɇɤ əɖɜɤ Ǘɧɠ Ǔɔɤ ɔɧɠ	ɀ ɐəɞɠ
1	0+289.80	ū 0.800	6.00
2	0+449.92	ū 0.800	7,50
3	0+709.50	ū 0.800	6.00
4	1+046.14	ū 0.800	6.00
5	1+419.74	ū 0.800	7.10
		ɆɈʔɃʂɃ	32.60

Ⱥ´ ɑůɖɠ ɖ əǓǗǕůəǗɡɐ Ǘɖɠ Ǘ ǗꞩŭǗɡɛɏɜɖɠ Ǘɤǘɟ ɞɡ ɗǓ ɔɶǗꞩůǗǓ Ǘɐɠ ůɖɛǗǓ:

ɢǗꞩƳ ɞɟ ꞩɔɟ Ǔɛɛɐ			
ƛǓǗǕůəǗɡɐ	ɟ ´ ɧ ɟ .Ū.(ɛ)	Ōɤ ɠ ɟ .Ū.(ɛ)	ɀ ɐəɞɡɠ(ɛ)
	0+000.00	0+118.88	118.88
	0+777.65	1+137.37	359.72
		ɆɈʔɃʂɃ	478.60

ɟ ɟ ꞩůǗɟ ɐ ɞɟ ꞩɔɟ Ǔɛɛɐ			
ƛǓǗǕůəǗɡɐ			
	ɟ ´ ɧ ɟ .Ū.(ɛ)	Ōɤ ɠ ɟ .Ū.(ɛ)	ɀ ɐəɞɡɠ(ɛ)
	0+109.02	0+782.28	673.26
	1+158.58	1+568.00	409.42
		ɆɈʔɃʂɃ	1082.68

ũǗꞩꞩɧ Ɇɨ ɜɞəɞ : 478.60+1082.68 = 1561.28 ɛ

ɇɏəɞɠ ůǗɖɜ ɟ .Ū. 1+ 143.90, ɧ´ ɞɡ ɓɟ ɑɨəǗǕǕɘ ɡ´ Ƴɟ ɞɞɜ ǗǗɜꞩɧ ɏɟ ɔɞ, ´ ɟ ɞɓəɏ´ ǗǕǕɘ ůǗɖɜ ´ Ǔɟ ɞɨ ůǓ ɛǗɏǗɖ ɖ əǓǗǕůəǗɡɐ 4 ´ Ǘɟ ɡɔɧǗꞩɤɜ ɨ ɣ ɞɡɠ 2.5 ɛɏǗ ɤɜ əǓɘɛɐəɞɡɠ 3.00 ɛɏǗ ɤɜ ´ ɟ ɞɠ ǗɑɢɡůɖǗɡ ǗɜꞩɞɨǗꞩɞɨ .

ɆɈʔɇȺɇȷ ũʐ ȺʔȺɆ Ʉȷ ɆɆȷ ʂɋ ʔ (ɆȺ ȺũɆȷ 87)

<u>ɇɞ´ ɚɐ Ⱦɞɚɧ Űɖ Ű ɸɚŬůɣəəɤ ɜ</u>

Ⱦɤ ŭɚɧɠ ɸɚŬŰɛɛ.	ȷ ɚɛ. Ūɤůɖ	X (m)	Y (m)	H(m) Ⱥɟ ɡɖȷ Ɏ
ȷ ȷ	0	300466.37	4162689.87	253.99
ȷ 2	11.779	300464.68	4162701.52	253.78
ɋ 2	17.431	300464.40	4162707.15	253.68
ɋɸ2	20.515	300465.29	4162710.09	253.63
ɋ '2	23.6	300467.03	4162712.63	253.57
ȷ '2	29.252	300471.59	4162715.93	253.47
ȷ 3	30.149	300472.36	4162716.38	253.45
ɋ 3	36.171	300477.73	4162719.09	253.35
ɋɸ3	38.616	300480.10	4162719.69	253.30
ɋ '3	41.061	300482.53	4162719.90	253.26
ȷ '3	47.083	300488.49	4162719.14	253.15
ȷ 4	50.833	300492.17	4162718.41	253.09
ɋ 4	59.355	300500.62	4162717.49	252.94
ɋɸ4	68.14	300508.84	4162720.28	252.78
ɋ '4	76.924	300514.52	4162726.85	252.62
ȷ '4	85.447	300516.83	4162735.03	252.47
ȷ 5	86.669	300517.06	4162736.23	252.45
ɋ 5	97.919	300518.93	4162747.32	252.25
ɋɸ5	106.559	300519.50	4162755.93	252.10
ɋ '5	115.198	300519.14	4162764.56	251.94
ȷ '5	126.448	300517.54	4162775.69	251.75
1	146.448	300514.24	4162795.42	251.39
2	166.448	300510.93	4162815.14	251.04
3	186.448	300507.62	4162834.87	250.66
4	206.448	300504.31	4162854.59	250.07
5	226.448	300501.01	4162874.32	249.20
6	246.448	300497.70	4162894.04	248.03
7	266.448	300494.39	4162913.77	246.58
ȷ 6	270.117	300493.78	4162917.39	246.28
ɋ 6	280.387	300492.96	4162927.59	245.40
ɋɸ6	288.324	300495.21	4162935.15	244.68
ɋ '6	296.26	300500.20	4162941.25	243.96
ȷ '6	306.531	300509.11	4162946.30	243.02
8	326.531	300527.29	4162954.63	241.20
ȷ 7	343.737	300542.93	4162961.80	239.64

9	363.737	300560.84	4162970.69	237.82
q 7	370.404	300566.49	4162974.22	237.21
qp7	390.472	300581.51	4162987.45	235.38
q '7	410.539	300592.78	4163003.99	233.64
10	417.206	300595.59	4163010.04	233.12
J '7	437.206	300602.21	4163028.90	231.72
11	457.206	300608.23	4163047.97	230.36
J 8	463.383	300610.09	4163053.86	229.94
q 8	474.633	300613.73	4163064.51	229.17
qp8	477.451	300614.81	4163067.11	228.98
q '8	480.269	300615.98	4163069.67	228.79
J '8	491.519	300621.31	4163079.58	228.02
12	511.519	300631.20	4163096.96	226.65
13	531.519	300641.09	4163114.35	225.29
J 9	547.125	300648.80	4163127.91	224.21
q 9	554.015	300652.65	4163133.61	223.70
qp9	560.761	300658.17	4163137.38	223.19
q '9	567.507	300664.79	4163138.38	222.64
J '9	574.397	300671.48	4163136.82	222.07
J 10	592.645	300688.89	4163131.34	220.42
q 10	606.901	300702.37	4163132.12	219.02
qp10	607.598	300702.83	4163132.64	218.95
q '10	608.296	300703.23	4163133.21	218.88
J '10	622.551	300700.86	4163146.51	217.37
J 11	626.419	300698.88	4163149.83	216.94
q 11	635.772	300695.41	4163158.42	215.87
qp11	639.839	300695.95	4163162.42	215.39
q '11	643.906	300698.02	4163165.89	214.91
J '11	653.258	300706.07	4163170.46	213.78
14	673.258	300724.78	4163177.53	211.43
15	693.258	300743.49	4163184.59	209.25
16	713.258	300762.20	4163191.66	207.28
17	733.258	300780.91	4163198.72	205.42
18	753.258	300799.62	4163205.79	203.55
19	773.258	300818.33	4163212.86	201.68
20	793.258	300837.04	4163219.92	199.82
21	813.258	300855.75	4163226.99	197.95
22	833.258	300874.46	4163234.05	196.08
23	853.258	300893.17	4163241.12	194.22
24	873.258	300911.88	4163248.18	192.35
25	893.258	300930.59	4163255.25	190.49
26	913.258	300949.30	4163262.32	188.62
27	933.258	300968.01	4163269.38	186.75
28	953.258	300986.73	4163276.45	184.89

29	973.258	301005.44	4163283.51	183.17
30	993.258	301024.15	4163290.58	181.52
31	1013.258	301042.86	4163297.65	179.86
32	1033.258	301061.57	4163304.71	178.21
33	1053.258	301080.28	4163311.78	176.55
34	1073.258	301098.99	4163318.84	174.90
35	1093.258	301117.70	4163325.91	173.24
36	1113.258	301136.41	4163332.97	171.59
37	1133.258	301155.12	4163340.04	169.93
38	1153.258	301173.83	4163347.11	168.28
39	1173.258	301192.54	4163354.17	166.62
40	1193.258	301211.25	4163361.24	164.97
41	1213.258	301229.96	4163368.30	163.31
ı 12	1219.208	301235.52	4163370.41	162.82
q 12	1224.833	301240.80	4163372.36	162.36
qp12	1225.451	301241.38	4163372.57	162.30
q '12	1226.07	301241.96	4163372.77	162.25
ı '12	1231.695	301247.30	4163374.57	161.79
42	1251.695	301266.29	4163380.82	160.27
43	1271.695	301285.29	4163387.08	159.03
44	1291.695	301304.29	4163393.34	158.05
45	1311.695	301323.28	4163399.59	157.16
46	1331.695	301342.28	4163405.85	156.27
47	1351.695	301361.27	4163412.11	155.38
48	1371.695	301380.27	4163418.36	154.49
49	1391.695	301399.27	4163424.62	153.59
50	1411.695	301418.26	4163430.88	152.70
ı 13	1413.43	301419.91	4163431.42	152.63
51	1433.43	301438.71	4163438.22	151.74
q 13	1442.282	301446.68	4163442.06	151.34
qp13	1455.802	301457.96	4163449.50	150.75
q '13	1469.323	301467.82	4163458.72	150.24
52	1478.175	301473.41	4163465.58	149.98
ı '13	1498.175	301484.42	4163482.27	149.54
ı 14	1507.679	301489.42	4163490.35	149.34
q 14	1512.679	301492.28	4163494.45	149.23
qp14	1515.324	301494.19	4163496.27	149.18
q '14	1517.969	301496.39	4163497.73	149.12
ı '14	1522.968	301501.01	4163499.61	149.02
ı ∉	1526.597	301504.45	4163500.79	148.94

ȼɞ΄ ɐɏɣɠ ƛɞɐɧŰɖŰůɠ ɀ ƳŰŮɘ- ȾɎɘɞɡɘŬ

ƛɤ ŭɐɧɠ ɊɐŬŰɛɛ.	ɉ ɚɛ. ŪɎůɖ	X (m)	Y (m)	H(m) Ⱥɟ ɡɗɟ Ƴ
ɉ ɉ	0	315793.46	4157595.32	226.63
1	20	315803.15	4157612.81	225.74
ɉ 2	35.13	315810.48	4157626.04	224.73
ɋ 2	45.13	315814.83	4157635.04	223.91
ɋɊ2	49.42	315815.96	4157639.18	223.53
ɋ '2	53.72	315816.5	4157643.43	223.16
ɉ '2	63.72	315815.91	4157653.41	222.27
2	83.72	315813.64	4157673.28	220.38
3	103.72	315811.37	4157693.15	218.54
ɉ 3	109.02	315810.77	4157698.41	218.08
ɋ 3	114.02	315809.4	4157703.17	217.64
ɋɊ3	118.88	315805.24	4157705.29	217.21
ɋ '3	123.74	315801.14	4157703.04	216.78
ɉ '3	128.74	315799.92	4157698.25	216.34
4	148.74	315798.26	4157678.32	214.43
ɉ 4	164.9	315796.92	4157662.21	212.67
5	184.9	315793.75	4157642.51	210.21
ɋ 4	186.75	315793.15	4157640.76	209.97
ɋɊ4	198.54	315787.48	4157630.48	208.36
ɋ '4	210.32	315779.07	4157622.28	206.67
6	212.17	315777.55	4157621.23	206.4
ɉ '4	232.17	315759.4	4157612.95	203.51
7	252.17	315740.63	4157606.05	200.62
ɉ 5	263.85	315729.67	4157602.02	198.94
ɋ 5	278.14	315715.94	4157598.18	196.87
ɋɊ5	293.17	315701.2	4157600.20	194.7
ɋ '5	308.2	315689.25	4157609.05	192.53
ɉ '5	322.49	315682.12	4157621.39	190.46
ɉ 6	322.99	315681.9	4157621.85	190.39
ɋ 6	332.99	315677.11	4157630.61	188.95
ɋɊ6	333.95	315676.55	4157631.38	188.81
ɋ '6	334.9	315675.97	4157632.14	188.67
ɉ '6	344.9	315668.9	4157639.19	187.23
8	364.9	315653.98	4157652.52	184.34
9	384.9	315639.06	4157665.84	181.45
ɉ 7	405.7	315623.55	4157679.69	178.44
ɋ 7	425.7	315607.94	4157692.15	175.59

qp7	427.06	315606.78	4157692.87	175.4
q '7	428.43	315605.6	4157693.55	175.21
ȷ '7	448.43	315587.25	4157701.44	172.66
10	468.43	315568.46	4157708.30	170.41
11	488.43	315549.67	4157715.16	168.46
12	508.43	315530.89	4157722.02	166.69
ȷ 8	515.23	315524.49	4157724.36	166.08
q 8	535.23	315505.38	4157730.16	164.31
qp8	538.13	315502.52	4157730.62	164.05
q '8	541.03	315499.64	4157730.94	163.8
ȷ '8	561.03	315479.67	4157730.46	162.02
ȷ 9	562.32	315478.39	4157730.36	161.91
q 9	567.32	315473.44	4157729.68	161.46
qp9	569.97	315470.93	4157728.81	161.23
q '9	572.63	315468.62	4157727.51	160.99
ȷ '9	577.63	315464.84	4157724.25	160.55
13	597.63	315450.44	4157710.37	158.78
ȷ 10	606.25	315444.23	4157704.39	158.01
q 10	616.25	315436.67	4157697.86	157.12
qp10	619.63	315433.78	4157696.11	156.82
q '10	623.02	315430.7	4157694.70	156.52
ȷ '10	633.02	315421.06	4157692.10	155.64
14	653.02	315401.49	4157687.96	153.86
15	673.02	315381.92	4157683.83	151.95
16	693.02	315362.36	4157679.69	149.55
ȷ 11	701.48	315354.08	4157677.95	148.39
q 11	711.48	315344.21	4157676.43	146.89
qp11	714.74	315340.95	4157676.47	146.38
q '11	718	315337.72	4157676.86	145.88
ȷ '11	728	315328.14	4157679.69	144.34
ȷ 12	746.87	315310.36	4157686.03	141.48
q 12	751.87	315305.57	4157687.44	140.76
qp12	754.71	315302.75	4157687.67	140.37
q '12	757.54	315299.93	4157687.37	139.97
ȷ '12	762.54	315295.18	4157685.83	139.3
ȷ 13	777.65	315281.09	4157680.38	137.37
q 13	782.28	315276.61	4157679.40	136.81
qp13	787	315272.77	4157681.84	136.26
q '13	791.72	315272.49	4157686.38	135.73
ȷ '13	796.35	315275.52	4157689.83	135.22
17	816.35	315290.85	4157702.67	133.22
18	836.35	315306.18	4157715.51	131.51
ȷ 14	854.32	315319.96	4157727.05	130.24
q 14	867.65	315330.63	4157735.02	129.44

qp14	867.93	315330.87	4157735.16	129.42
q '14	868.21	315331.12	4157735.30	129.41
ɹ '14	881.55	315343.35	4157740.55	128.64
ɹ 15	899.09	315359.83	4157746.57	127.63
q 15	919.09	315378.19	4157754.44	126.48
qp15	923.8	315382.19	4157756.93	126.21
q '15	928.51	315385.98	4157759.72	125.94
ɹ '15	948.51	315400.12	4157773.83	124.79
19	968.51	315413.47	4157788.72	123.64
20	988.51	315426.81	4157803.62	122.46
21	1008.51	315440.16	4157818.51	120.93
22	1028.51	315453.51	4157833.41	119.23
ɹ 16	1033.35	315456.74	4157837.02	118.76
23	1053.35	315469.38	4157852.49	116.5
q 16	1062.47	315473.92	4157860.39	115.3
24	1082.47	315478.63	4157879.69	112.76
qp16	1084.31	315478.67	4157881.53	112.56
25	1086.15	315478.64	4157883.37	112.36
q '16	1106.15	315474.03	4157902.69	110.51
26	1115.26	315469.54	4157910.61	109.86
ɹ '16	1135.26	315456.98	4157926.16	108.85
ɹ 17	1137.37	315455.59	4157927.74	108.78
q 17	1147.37	315448.56	4157934.83	108.51
qp17	1147.98	315448.08	4157935.21	108.5
q '17	1148.58	315447.6	4157935.58	108.49
ɹ '17	1158.58	315438.97	4157940.60	108.39
27	1178.58	315421.15	4157949.69	108.62
28	1198.58	315403.34	4157958.78	109.42
29	1218.58	315385.52	4157967.87	110.79
30	1238.58	315367.71	4157976.96	112.75
ɹ 18	1245.05	315361.95	4157979.90	113.5
q 18	1265.05	315343.97	4157988.66	116.13
qp18	1266.67	315342.48	4157989.31	116.35
q '18	1268.3	315340.99	4157989.95	116.57
ɹ '18	1288.3	315322.28	4157997.01	119.04
ɹ 19	1291.82	315318.97	4157998.20	119.44
q 19	1303.45	315308.3	4158002.80	120.69
qp19	1315.25	315299.59	4158010.64	121.83
q '19	1327.05	315294.55	4158021.23	122.86
ɹ '19	1338.68	315293.18	4158032.76	123.76
ɹ 20	1341	315293.06	4158035.08	123.93
q 20	1351	315291.97	4158045.00	124.59
qp20	1358.03	315289.64	4158051.62	125.02
q '20	1365.07	315285.85	4158057.52	125.45

ɹ '20	1375.07	315278.68	4158064.48	126.05
31	1395.07	315263.57	4158077.59	127.27
ɹ 21	1399.58	315260.16	4158080.55	127.55
q 21	1409.06	315253.73	4158087.45	128.2
qp21	1416.46	315251.61	4158094.46	128.76
q '21	1423.86	315253.07	4158101.64	129.35
ɹ '21	1433.33	315258.83	4158109.11	130.17
ɹ 22	1439.89	315263.36	4158113.85	130.78
q 22	1452.66	315271.49	4158123.66	132.06
qp22	1465.6	315275.7	4158135.79	133.42
q '22	1478.54	315274.45	4158148.57	134.64
ɹ '22	1491.31	315268.86	4158160.02	135.63
ɹ 23	1501.52	315263.73	4158168.86	136.28
q 23	1518.19	315254.59	4158182.77	137.09
qp23	1521.08	315252.68	4158184.94	137.22
q '23	1523.98	315250.65	4158187.00	137.35
ɹ '23	1540.64	315237.41	4158197.09	138.12
32	1560.64	315220.86	4158208.32	139
ɹ ⊄	1567.92	315214.84	4158212.41	139.23