

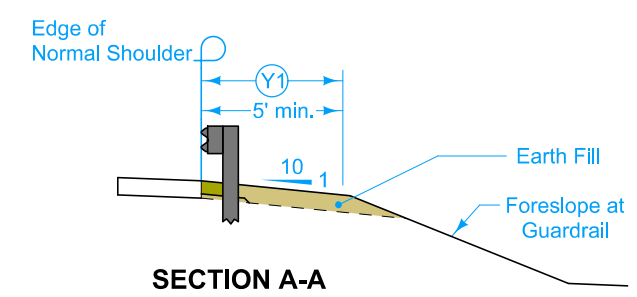
PLAN

Construct earth fill in conformance with requirements for construction of embankments.

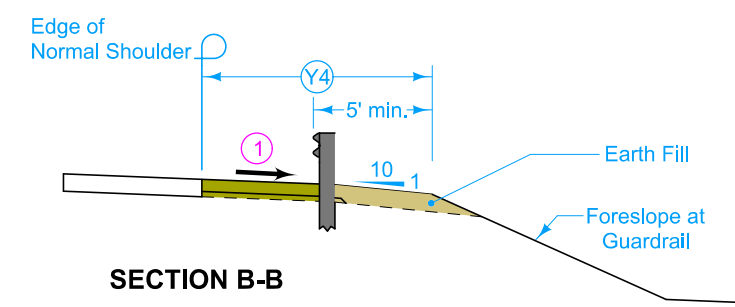
Construct paved shoulder in front of guardrail as shown on Typical 7156.

Guardrail may or may not be attached to face of obstacle.

- ① Match slope of adjacent shoulder.
- ⓧ Measured from Location Station.
- Ⓨ Distance from edge of normal shoulder to toe of 10:1 slope



SECTION A-A



SECTION B-B

| Ⓨ4 feet | Ⓩ feet |
|------------|-----------|
| 5 | 39 |
| 6 | 43 |
| 7 | 47 |
| 8 | 50 |
| 9 | 54 |
| 10 | 57 |
| 11 | 61 |
| 12 | 65 |
| 13 | 69 |
| 14 | 72 |
| 15 | 76 |
| 16 | 80 |
| 17 | 83 |
| 18 | 87 |
| 19 | 91 |
| 20 | 95 |

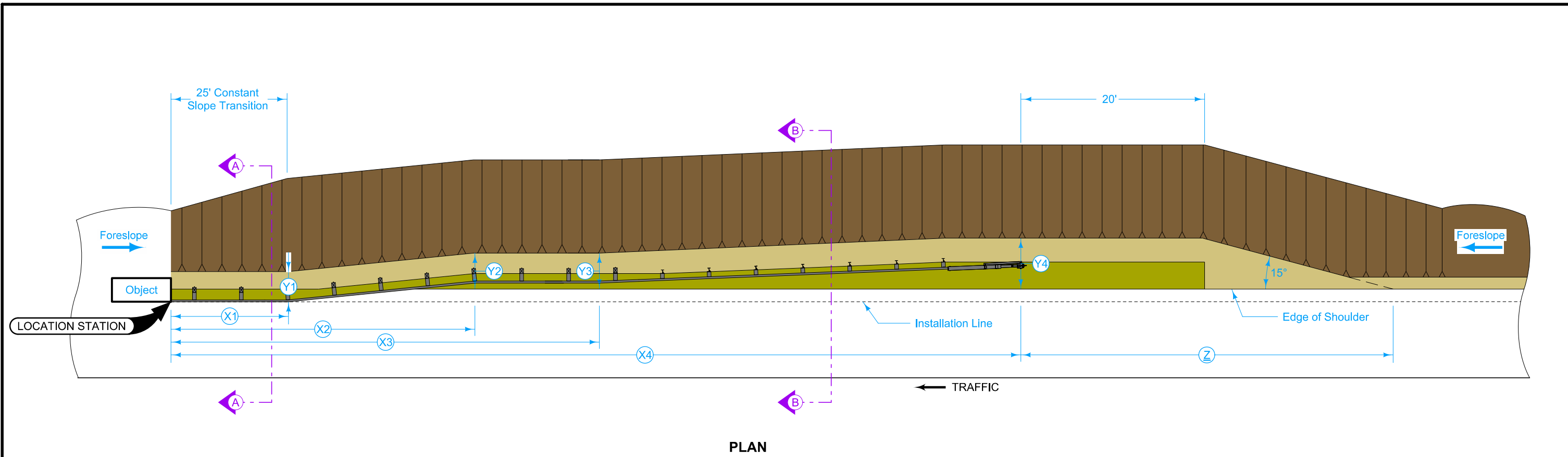
LEGEND

- Foreslope at Guardrail
- Slope - 10:1
- Match adjacent shoulder.

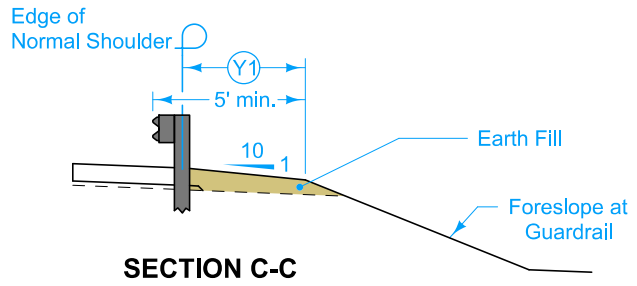
GUARDRAIL INSTALLATION LINE AT OR WITHIN 10 FEET OF SHOULDER

Possible Tabulation:
107-23

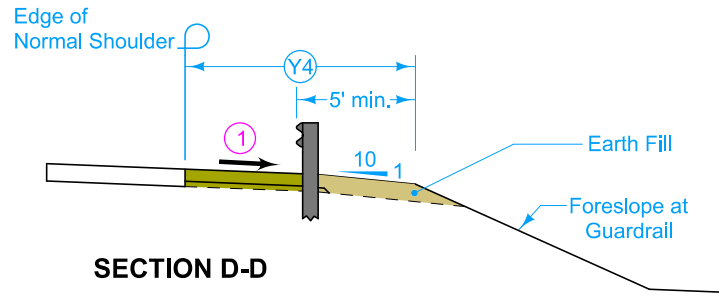
| | |
|---|---------------|
| STANDARD ROAD PLAN | REVISION |
| | 2 04-20-21 |
| EW-301 | |
| SHEET 1 of 5 | |
| REVISIONS: Changes Obstacle to Object, Modified guardrail. | |
| <small>APPROVED BY DESIGN METHODS ENGINEER</small> | |
| GUARDRAIL GRADING | |



PLAN



SECTION C-C



SECTION D-D

- ① Match slope of adjacent shoulder.
- ⓧ Measured from Location Station.
- Ⓨ Distance from edge of normal shoulder to toe of 10:1 slope

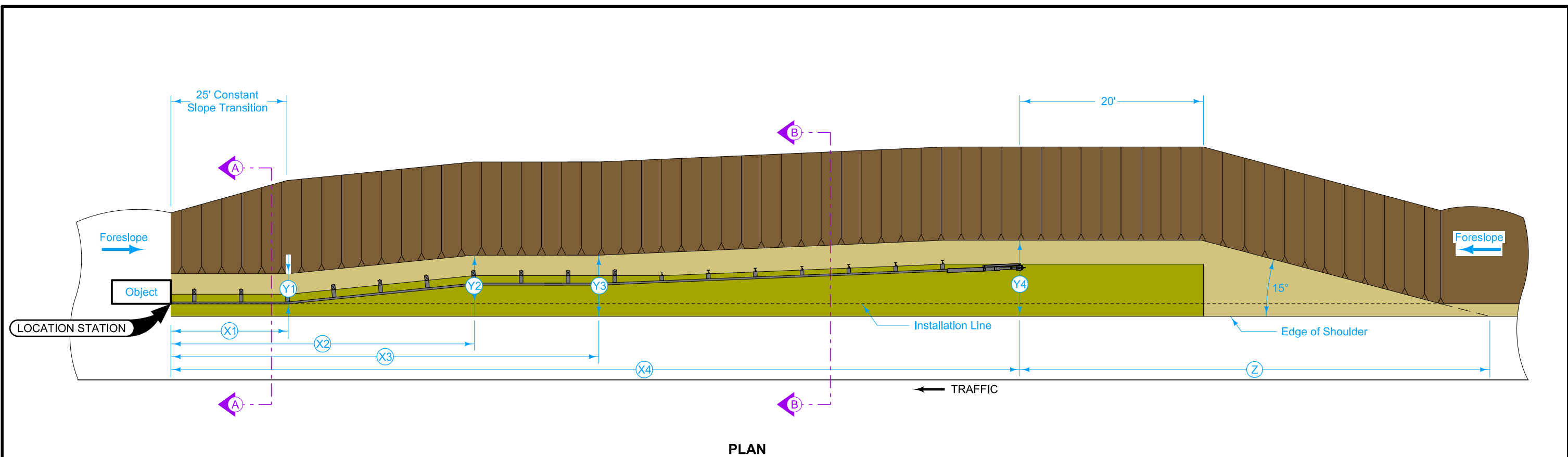
LEGEND

| | |
|--|--------------------------|
| | Foreslope at Guardrail |
| | Slope - 10:1 |
| | Match adjacent shoulder. |

| Ⓨ4 | Ⓩ |
|------|------|
| feet | feet |
| 5 | 39 |
| 6 | 43 |
| 7 | 47 |
| 8 | 50 |
| 9 | 54 |
| 10 | 57 |
| 11 | 61 |
| 12 | 65 |
| 13 | 69 |
| 14 | 72 |
| 15 | 76 |
| 16 | 80 |
| 17 | 83 |
| 18 | 87 |
| 19 | 91 |
| 20 | 95 |

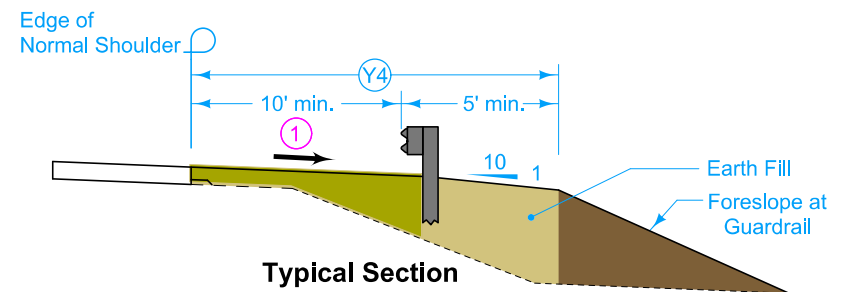
GUARDRAIL INSTALLATION LINE WITHIN SHOULDER

| | | |
|--|----------|---------------|
| | REVISION | |
| | 2 | 04-20-21 |
| STANDARD ROAD PLAN | | EW-301 |
| | | SHEET 2 of 5 |
| REVISIONS: Changes Obstacle to Object, Modified guardrail. | | |
| <i>Shawn Miller</i> APPROVED BY DESIGN METHODS ENGINEER | | |
| GUARDRAIL GRADING | | |



PLAN

- ① Match slope of adjacent shoulder.
- ⓧ Measured from Location Station.
- Ⓨ Distance from edge of normal shoulder to toe of 10:1 slope



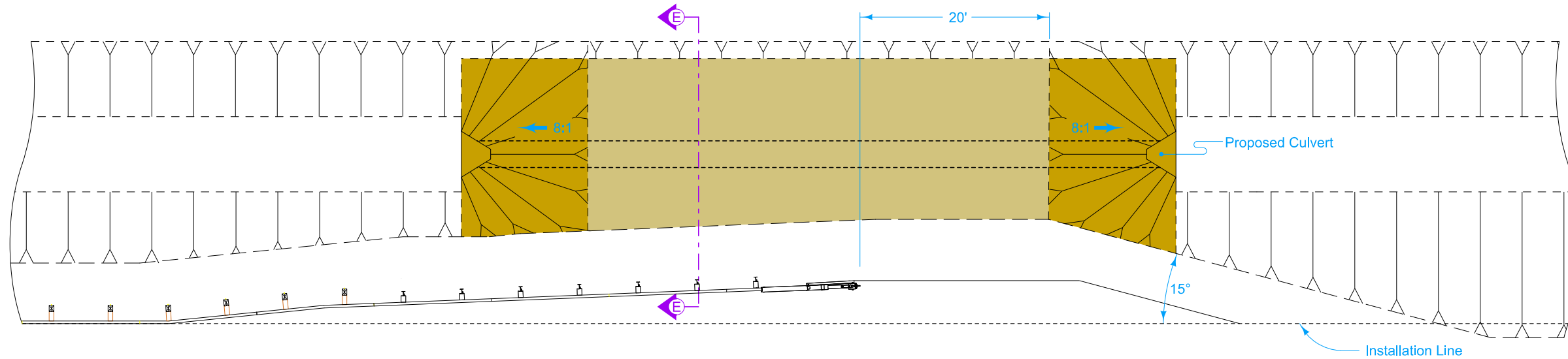
Typical Section

| Ⓨ4 feet | Ⓩ feet |
|------------|-----------|
| 5 | 39 |
| 6 | 43 |
| 7 | 47 |
| 8 | 50 |
| 9 | 54 |
| 10 | 57 |
| 11 | 61 |
| 12 | 65 |
| 13 | 69 |
| 14 | 72 |
| 15 | 76 |
| 16 | 80 |
| 17 | 83 |
| 18 | 87 |
| 19 | 91 |
| 20 | 95 |

| LEGEND | |
|--------|--------------------------|
| | Foreslope at Guardrail |
| | Slope - 10:1 |
| | Match adjacent shoulder. |

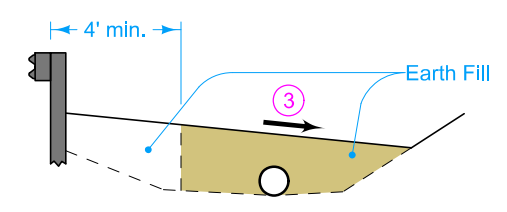
GUARDRAIL INSTALLATION LINE BEYOND 10 FEET FROM SHOULDER

| | | |
|--|----------|---------------|
| | REVISION | |
| | 2 | 04-20-21 |
| STANDARD ROAD PLAN | | EW-301 |
| | | SHEET 3 of 5 |
| REVISIONS: Changes Obstacle to Object, Modified guardrail. | | |
| <i>Shawn Miller</i> APPROVED BY DESIGN METHODS ENGINEER | | |
| GUARDRAIL GRADING | | |



PLAN

- ② See sheets 1, 2, or 3 for unshaded areas.
- ③ 10:1 preferred; no steeper than 6:1.



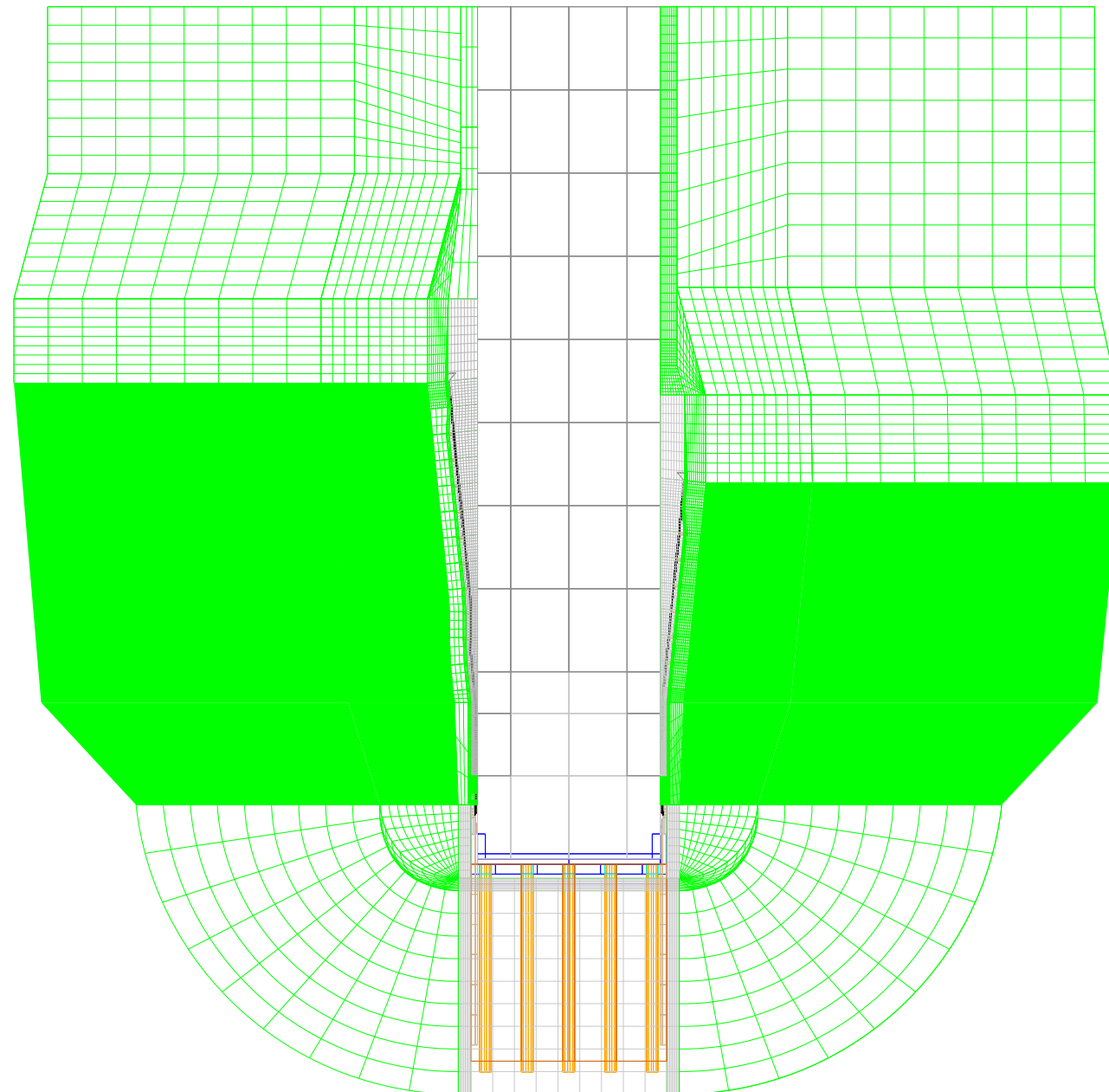
SECTION E-E

| LEGEND | |
|--------|--------------|
| | Slope - 10:1 |
| | Slope - 8:1 |


FILL OVER PIPE CULVERT ②

| | |
|--|--------------|
| | REVISION |
| | 2 04-20-21 |
| STANDARD ROAD PLAN | EW-301 |
| SHEET 4 of 5 | |
| REVISIONS: Changes Obstacle to Object, Modified guardrail. | |
| <small>APPROVED BY DESIGN METHODS ENGINEER</small> | |
| GUARDRAIL GRADING | |

This image can be viewed in 3D on the the ERL or at our website <http://www.iowadot.gov/design/stdrdpln.htm>



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| | | |
|---|---|----------|
|  | REVISION | |
| | 2 | 04-20-21 |
| STANDARD ROAD PLAN | EW-301 | |
| | SHEET 5 of 5 | |
| REVISIONS: | Changes Obstacle to Object, Modified guardrail. | |
| <i>Steve Miller</i> APPROVED BY DESIGN METHODS ENGINEER | | |
| GUARDRAIL GRADING | | |