

| STRUCTURE LOCATION | | (W) | (L) | (X) |
|--------------------|------|-------|-------|-------|
| STATION | SIDE | Feet | Feet | Feet |
| 102+62.00 | Lt. | 68.13 | 61.50 | 30.50 |
| 102+62.00 | Rt. | 68.13 | 61.50 | 30.50 |
| | | | | |
| | | | | |

- Notes:
- At locations where an extended or newly constructed drainage structure extends beyond the normal foreslope cover, the foreslope shall be flattened as indicated so as to cover the structure. Minimum earth cover is 6".
 - ① 6:1 Maximum - Slope may be flatter.
 - ② 6" Minimum for pipe installations or to top of headwall on R.C.B.
 - (W) = Pipe or R.C.B. width plus 20 feet each side.

DETAILS OF
BARNROOF FORESLOPE
AT DRAINAGE STRUCTURE



SURVEY SYMBOLS

- MM Mile Marker Post
- LIN Miscellaneous Line
- MIS Miscellaneous
- LC Lot Corner
- GDL Guard Rail Steel
- SF Silt Fence (Wetlands)
- CUL Culvert
- FW Wire Fence
- TDC Tree Deciduous
- OUT Tile Outlet
- TIL Tile Line
- STP Stump
- GP Guard Post (Less Than 4 Posts)
- TPD Telephone Pedestal
- EP Edge of Paved Roads (ML or SR)
- SH Paved Shoulder
- SNP Unpaved Shoulder
- RIP Rip-Rap
- BNK Stream Bank
- DU Centerline Draw or Stream (Up)
- D Centerline Draw or Stream (Down)
- EW Edge of Water
- SP Stream Profile
- VS Channel Cross Section
- FOA Iowa Communications Network (QLD1)
- TLB Century Link Local Network (QLD1)

UTILITY LEGEND

- FOA Iowa Communications Network (QLD1)
- TLB Century Link Local Network (QLD1)

PLAN VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

| LINEWORK | | Design Color No. | |
|--------------|-------|------------------|--|
| Green | (2) | | Existing Topographic Features and Labels |
| Blue | (1) | | Proposed Alignment, Stationing, Tic Marks, and Alignment Annotation |
| Magenta | (5) | | Existing Utilities |
| SHADING | | Design Color No. | |
| Yellow | (4) | | Highlight for Critical Notes or Features |
| Red | (3) | | Delineates Restricted Areas |
| Lavender | (9) | | Temporary Pavement Shading |
| Gray, Light | (48) | | Proposed Pavement Shading |
| Gray, Med | (80) | | Proposed Granular Shading |
| Gray, Dark | (112) | | Proposed Grade and Pave Shading "In conjunction with a paving project" |
| Brown, Light | (236) | | Grading Shading |
| Tan | (8) | | Proposed Sidewalk Shading |
| Blue, Light | (230) | | Proposed Sidewalk Landing Shading |
| Pink | (11) | | Proposed Sidewalk Ramp Shading |

PROFILE VIEW COLOR LEGEND OF PLAN AND PROFILE SHEETS

| LINEWORK | | Design Color No. | |
|-------------|-------|------------------|---------------------------------|
| Green | (2) | | Existing Ground Line Profile |
| Blue | (1) | | Proposed Profile and Annotation |
| Magenta | (5) | | Existing Utilities |
| Blue, Light | (230) | | Proposed Ditch Grades, Left |
| Black | (0) | | Proposed Ditch Grades, Median |
| Rust | (14) | | Proposed Ditch Grades, Right |

- Reference Point
- Station
- Survey Line
- Section Corner
- Ground Line Intercept
- Saw Cut
- Guardrail
- Trench Drain
- HighTension Cable Guardrail
- Sheet Pile
- Pavement Removal
- Clearing & Grubbing Area

RIGHT-OF-WAY LEGEND

- Proposed Right-of-Way
- Existing Right of Way
- Existing and Proposed Right-of-Way
- Easement and Existing Right-of-Way
- Easement (Temporary)
- Easement
- Access Control
- Property Line

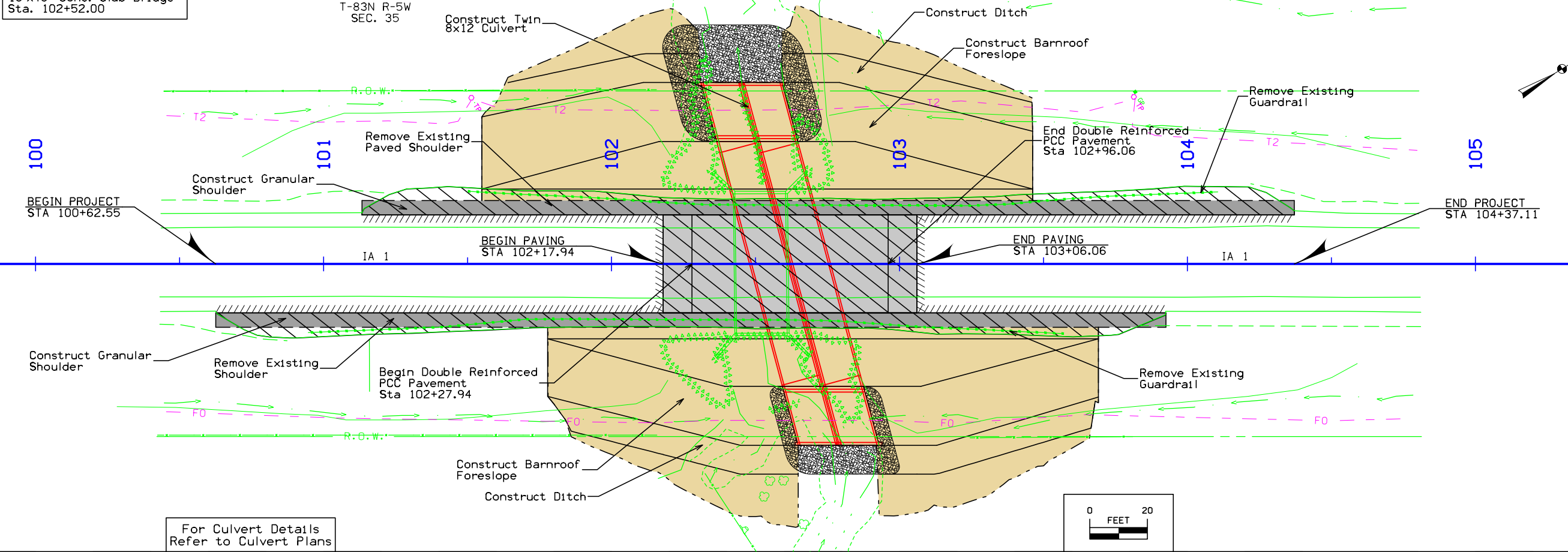
PLAN AND PROFILE LEGEND AND SYMBOL INFORMATION SHEET

(COVERS SHEET SERIES D, E, F, & K)

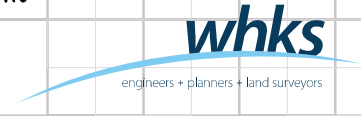
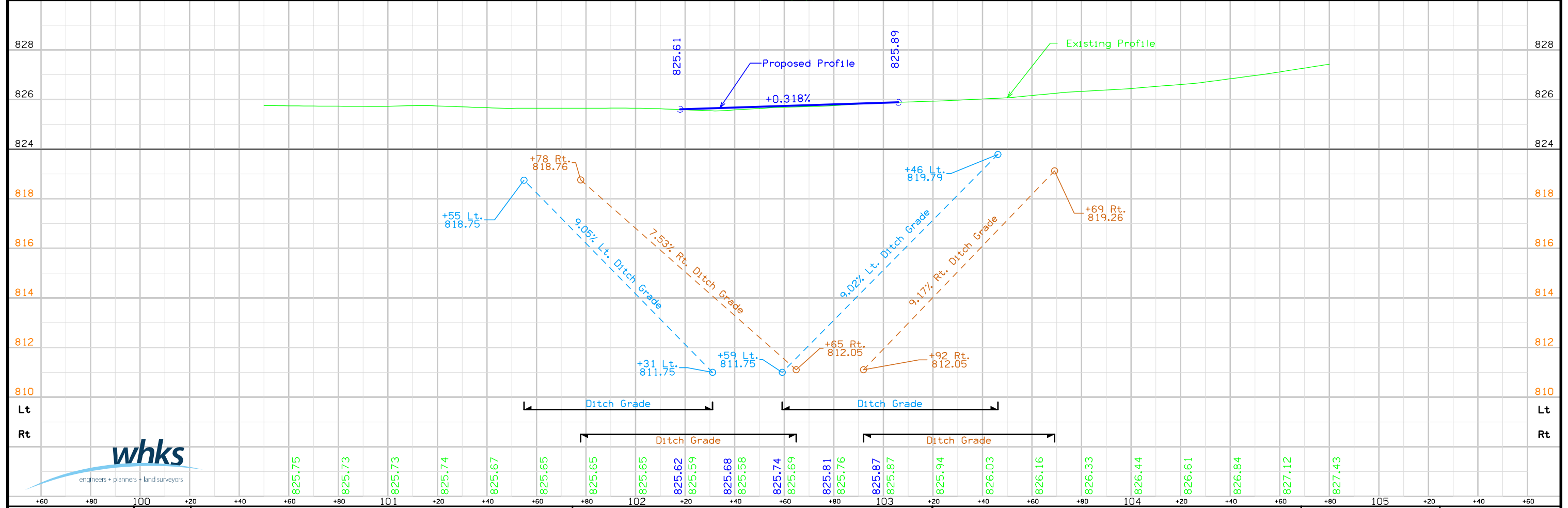
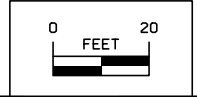


Remove Existing Structure
18'x48' Conc. Slab Bridge
Sta. 102+52.00

LINN TWP.
T-83N R-5W
SEC. 35



For Culvert Details
Refer to Culvert Plans



Survey Information

Linn County
 NHSN-001-6(33)--2R-57
 PIN 15-57-001-020
 IA 1 - Bridge replacement in Linn County over E. Abbe Creek 1.4 Miles North of Mt. Vernon City Limits
 SAP 0842

General Information

Measurement units for this survey are US survey feet. This survey is for replacement of a structure. This project is a full DTM survey. This survey is along E. Abbe Creek. The survey limit was 200 ahead, back and right, left of the existing structure.

Vertical Control

Vertical datum for this survey is relative to NAVD88 Opus Datum. The as built plans are relative to an unknown datum. A level loop was run through all project control using the computed OPUS elevations on CP10 and CP13 held fixed.

BM #500 EL= 823.276 this survey
 BM #10A EL= 827.63 F-564(4) 1950 AB Plan Sheet 12

BM #502 EL= 823.854 this survey
 BM #11A EL= 828.25 F-564(4) 1950 AB Plan Sheet 12

BM #506 EL= 868.348 this survey
 BM #868.3 EL= 868.316 USGS 3rd order BM NGVD29 DATUM

CP #10 EL= 824.654 this survey
 CP #10 EL= 824.654 NAVD88 Opus

CP #13 EL= 838.066 this survey
 CP #13 EL= 838.066 NAVD88 Opus

Horizontal Control

Two hour and 15 minute Opus observations were used to verify the values of two points named CP10 and CP13. In this total station survey, the averaged NAD83 (2011) Epoch2010 RTN IA North Zone 1401 position was held fixed on point # CP10 and the computed azimuth to point CP13 was used as a back sight. Additional control points were placed throughout the project using a Total Station.

Opus observation at CP 10 3452474.374 N, 5494827.205 E, 824.654
 Opus observation at CP 13 3453784.650 N, 5495571.968 E, 838.066

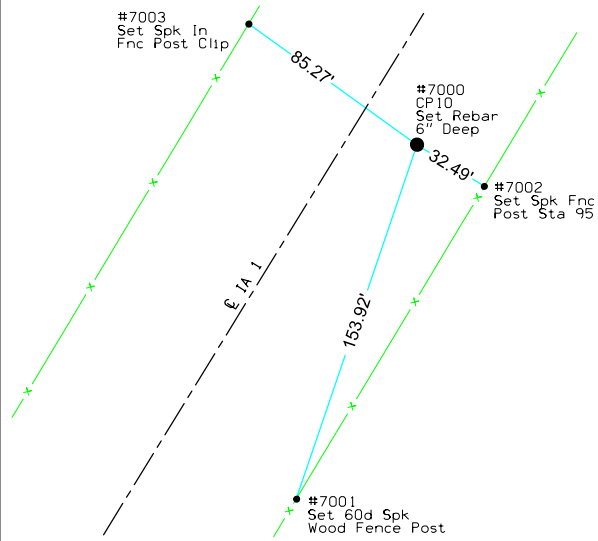
Alignment Information

The horizontal alignment for this survey is a retrace of F-565 (4) AB Plan. Survey stationing was equated to the AB plans at bridge Sta 102+52, carried backward and forward throughout the project.

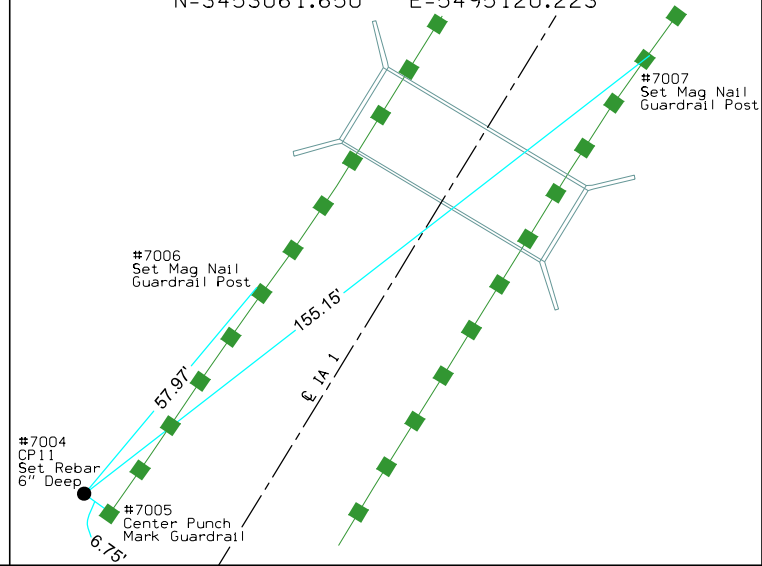
| BENCHMARKS | | ELEVATION | |
|--------------|---|--|---------|
| No. 500 Sta. | 88+36.333 23.256 Rt. Y:3451912.306 X:5494478.767 | Fd IHC BM on InHdwl----- | 823.276 |
| No. 501 Sta. | 93+47.497 59.837 Rt. Y:3452328.701 X:5494777.501 | Set 2-60d spks in West side brace post----- | 824.198 |
| No. 502 Sta. | 102+52.235 24.563 Rt. Y:3453118.057 X:5495221.023 | Fd IHC BM on Inlet HDWL of 12 x 10 RCB =AB BM10A Plan EL=827.63----- | 823.854 |
| No. 503 Sta. | 110+02.752 45.251 Rt. Y:3453746.715 X:5495631.503 | MAG NAIL on Inlet end of 18" CMP----- | 835.436 |
| No. 504 Sta. | 120+60.081 92.952 Rt. Y:3454622.655 X:5496225.597 | Cut "X" on West bolt of Lum Base----- | 860.047 |
| No. 505 Sta. | 133+22.922 35.199 Rt. Y:3455728.904 X:5496837.412 | Cut "X" on East end of 54" RCP----- | 852.519 |
| No. 506 Sta. | 142+14.071 79.875 Rt. Y:3456464.832 X:5497341.944 | Fd USGS 3rd order BM on top conc HDWL stamped Linn Co Eng published EL=868.316 NGVD29 DATUM----- | 868.348 |



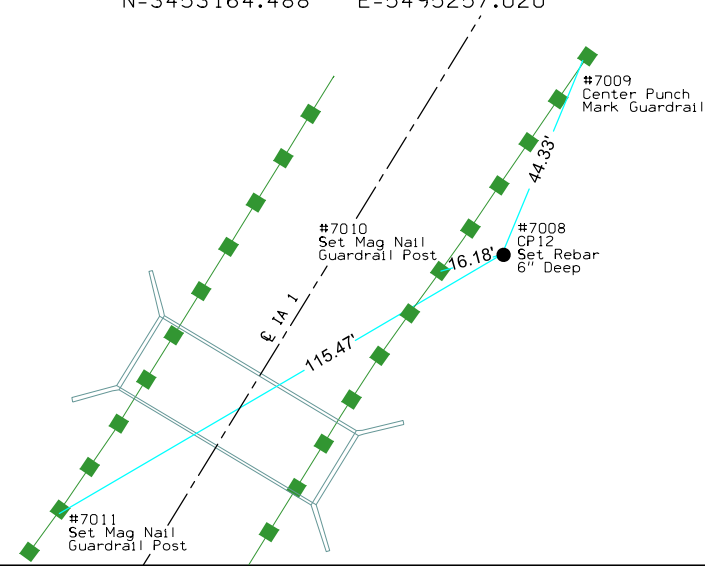
C.P. STA 94+97.64 RIGHT 25.94
 C.P. 10, Set 5/8" Rebar 6" Deep
 N=3452474.374 E=5494827.205



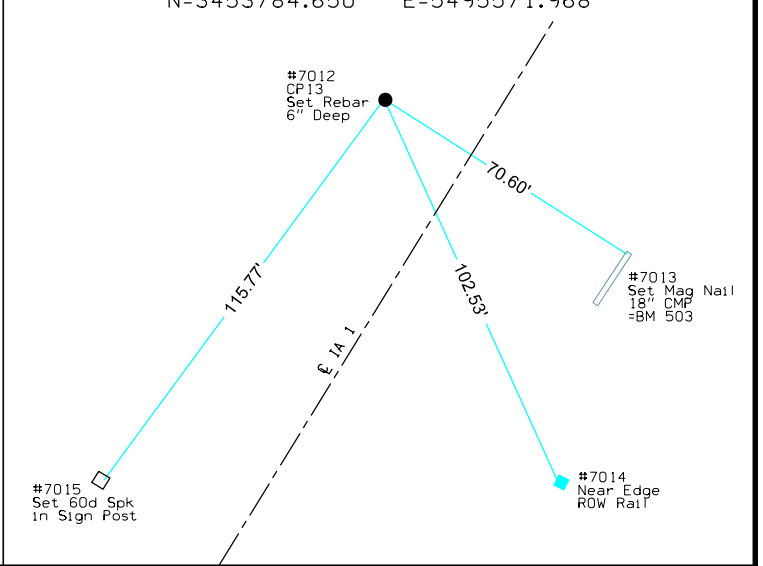
C.P. STA 101+51.41 LEFT 31.80
 C.P. 11, Set 5/8" Rebar 6" Deep
 N=3453061.650 E=5495120.223



C.P. STA 103+10.64 RIGHT 30.93
 C.P. 12, Set 5/8" Rebar 6" Deep
 N=3453164.488 E=5495257.020



C.P. STA 110+03.91 LEFT 25.33
 C.P. 13, Set 5/8" Rebar 6" Deep
 N=3453784.650 E=5495571.968



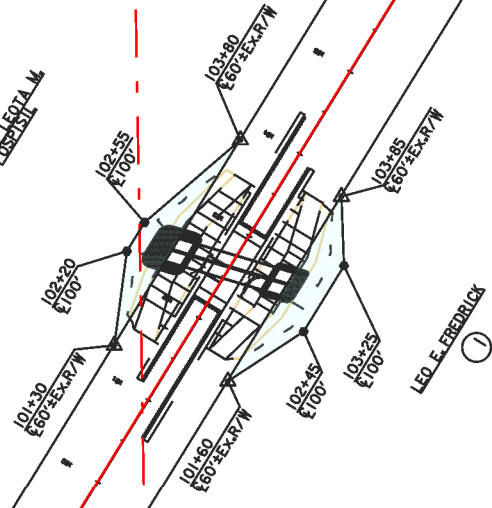





NW 1/4 SE 1/4
SEC. 35-T83N-R5W

NE 1/4 SE 1/4
SEC. 35-T83N-R5W

3
PAUL & LYDIA M.
PROBATE

1
LEO E. FERBRICK



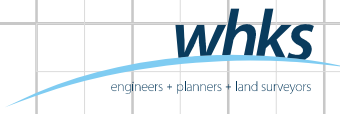
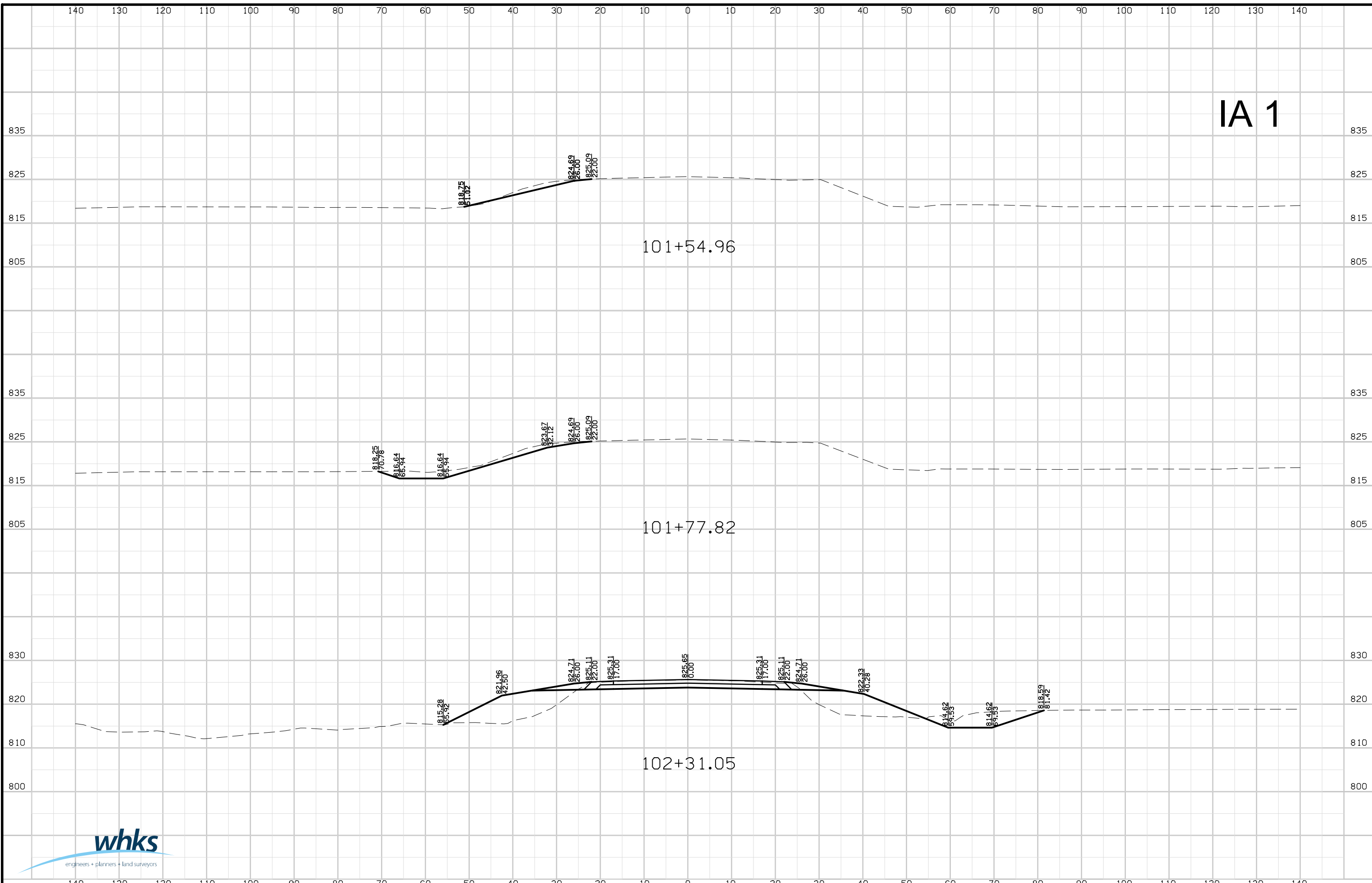
| | |
|---|-----------------------|
| Right of Way Design Information | |
| THIS SHEET INCLUDED FOR INFORMATION ONLY | |
| ROW Team: GETTINGS/CUVA/GROAT | |
| ROW #: NHSN-1-6(34)-2R-57 | |
| Plan Date: 11-20-14 | |
| Color Legend: | |
|  | Property Lines |
|  | Temporary Easement |
|  | Permanent Acquisition |

PARCEL CHECK LIST

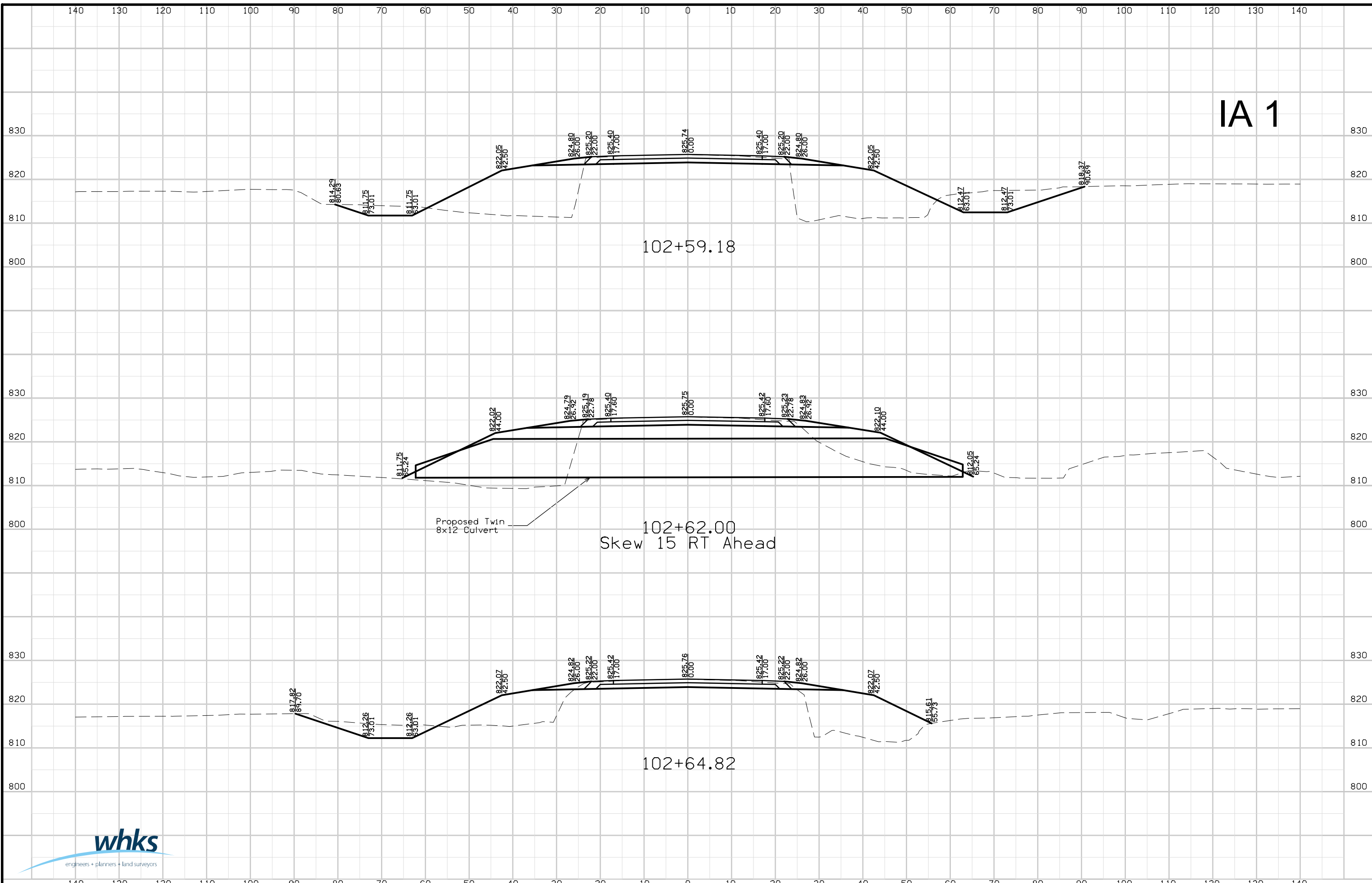
Linn ROW: NHSN-001-6(34)--2R-57 PIN 15-57-001-020
 Approx 1 mi N of Mt Vernon

| PARCEL NO. | OWNER NAME | STATE | | COUNTY | | CITY | | BORROW | | | | | | |
|------------|----------------------|-------|---------|--------|------|------|------|--------|------|------|------------|-------|-------|--|
| | | FEE | EASE | FEE | EASE | FEE | EASE | EXCESS | FEE | T.E. | MITIGATION | OTHER | HOUSE | |
| 1 | Leo E Fredrick - Fee | | 0.14 AC | | | | | | | | | | | |
| 2 | Paul Pospisil - Fee | | 0.13 AC | | | | | | | | | | | |
| 2 Parcels | "TOTALS | 0 AC | 0.27 AC | 0 AC | 0 AC | 0 AC | 0 AC | 0 AC | 0 AC | 0 AC | 0 AC | | 0 AC | |
| | | 0 SF | | 0 SF | 0 SF | 0 SF | 0 SF | 0 SF | 0 SF | 0 SF | | | | |

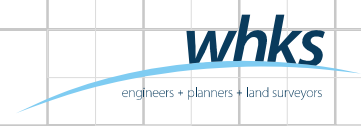
IA 1



IA 1



Proposed Twin 8x12 Culvert
102+62.00
Skew 15 RT Ahead



IA 1

