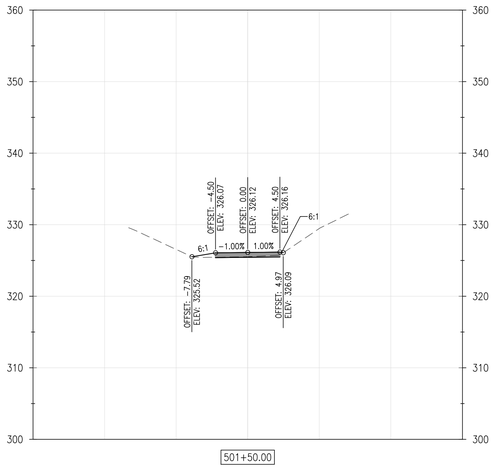

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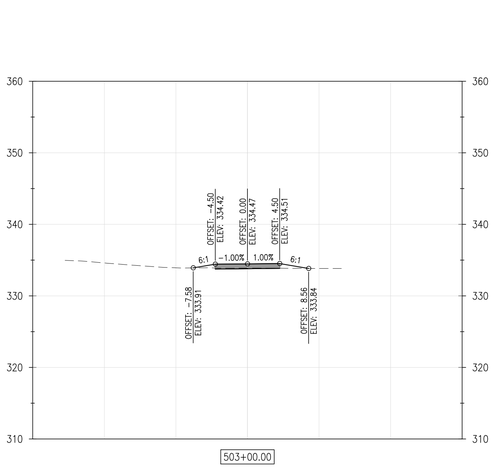

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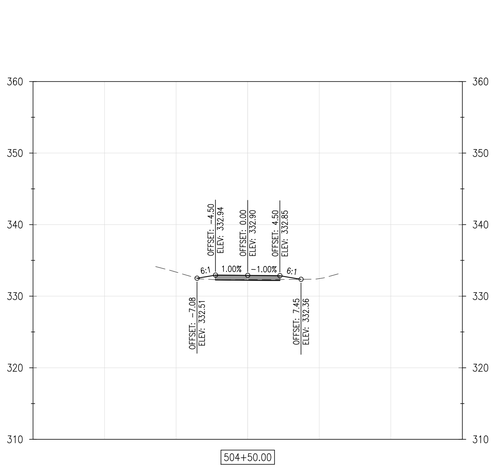

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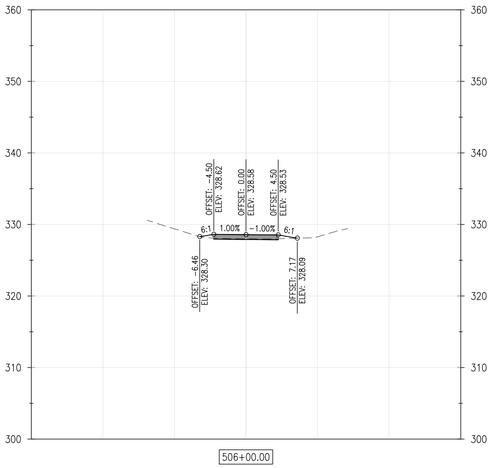

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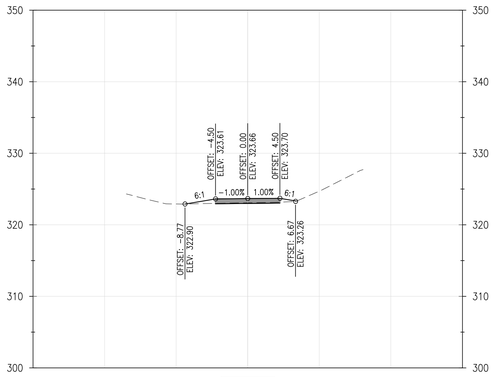

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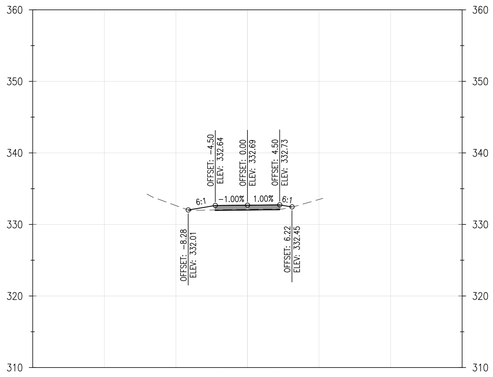

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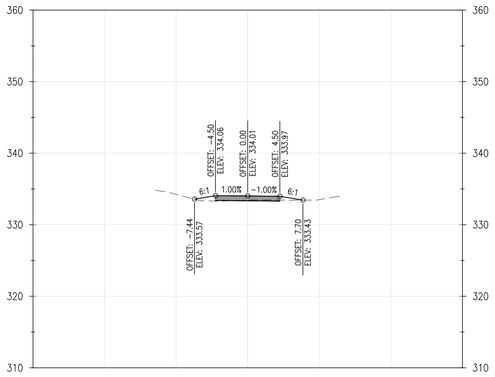

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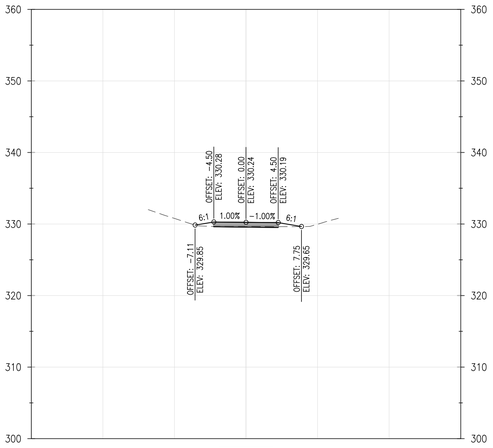

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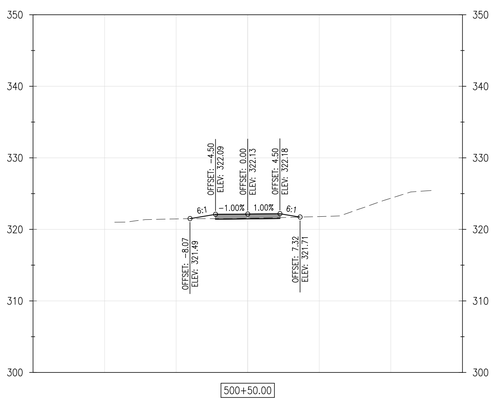

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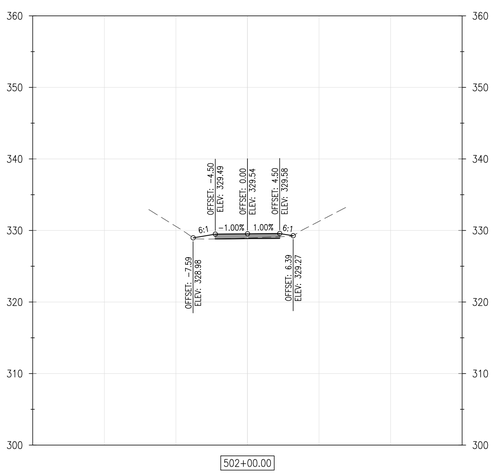

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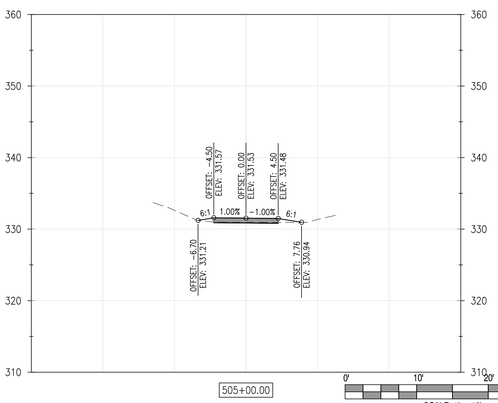


505+00.00

0' 10' 20' 30'
SCALE: 1" = 10'

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

CROSS SECTIONS

SEAL:

WALTER J. HOEY III
REGISTERED
NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:

CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

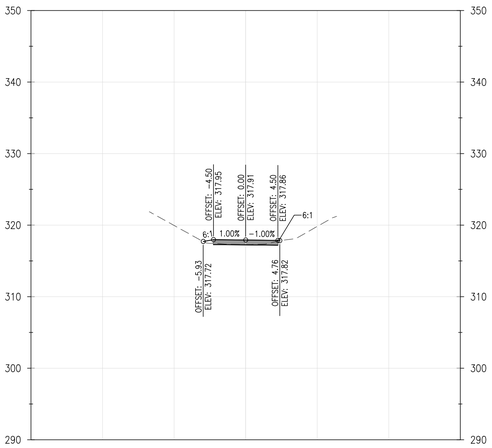
CHECKED BY: SLR

DATE: NOVEMBER 14, 2016

SCALE: 1" = 10'

SHEET NO.: C5.8

CONTRACT NO.: 2016-WCCSP-100



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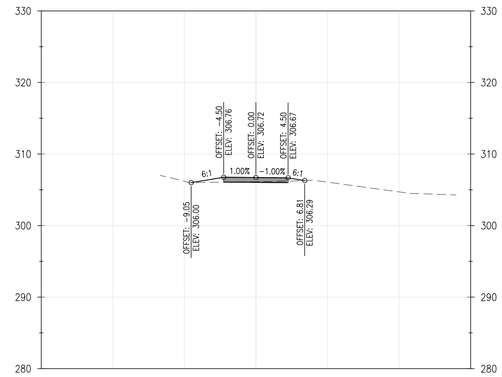

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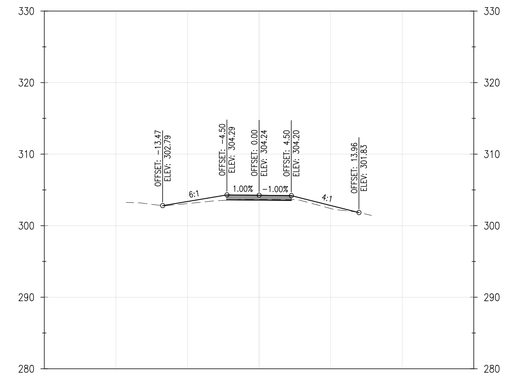

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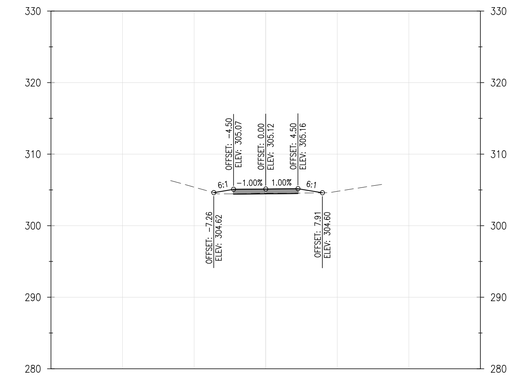

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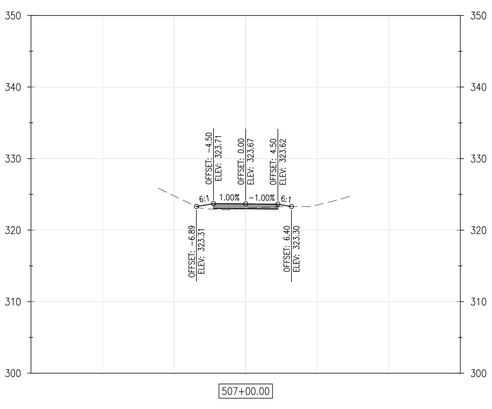

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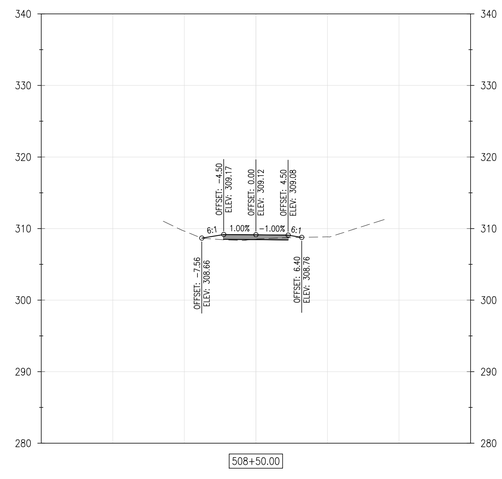

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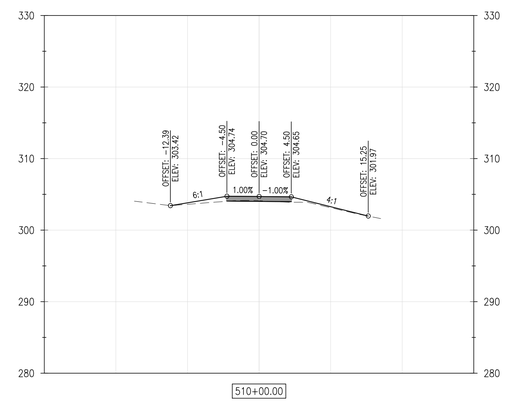

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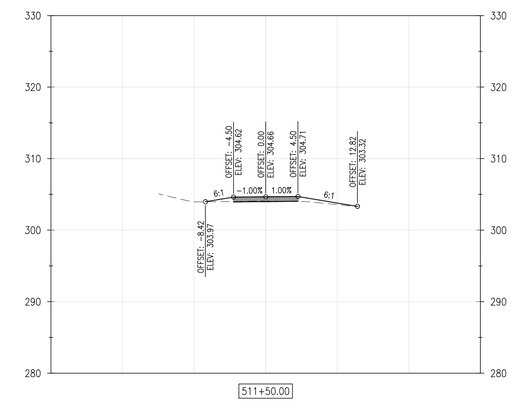

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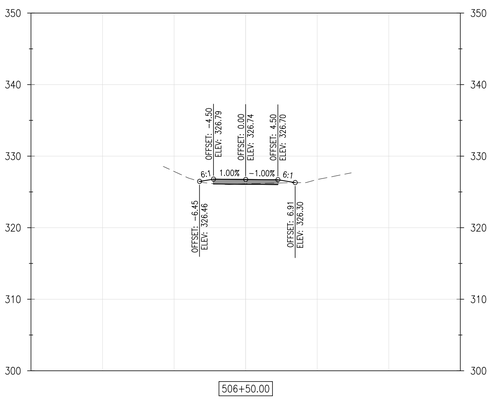

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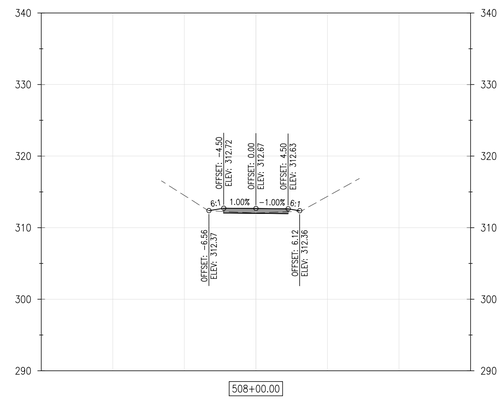

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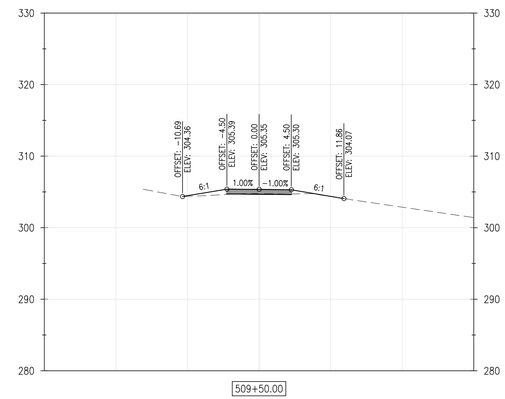

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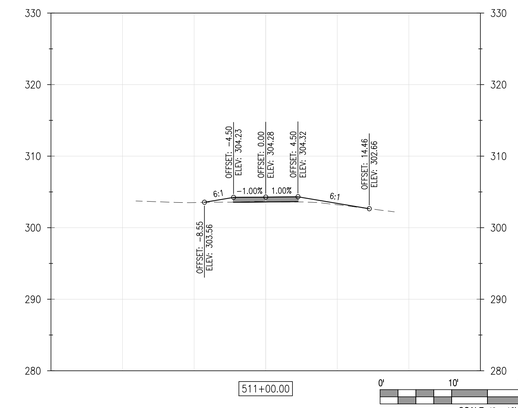

511+00.00

0' 10' 20' 30'
SCALE: 1" = 10'

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

CROSS SECTIONS

SEAL:

WALTER J. HOEY III
REGISTERED
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DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:

CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

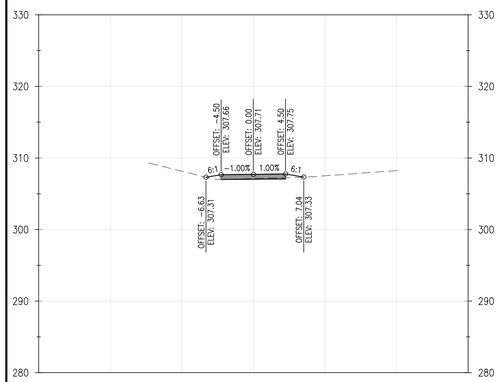
CHECKED BY: SLR

DATE: NOVEMBER 14, 2016

SCALE: 1" = 10'

SHEET NO.: C5.9

CONTRACT NO.: 2016-WCCSP-100



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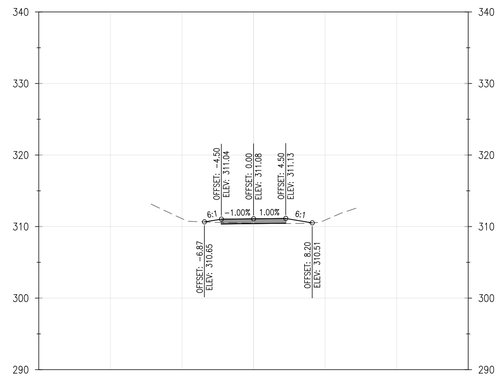

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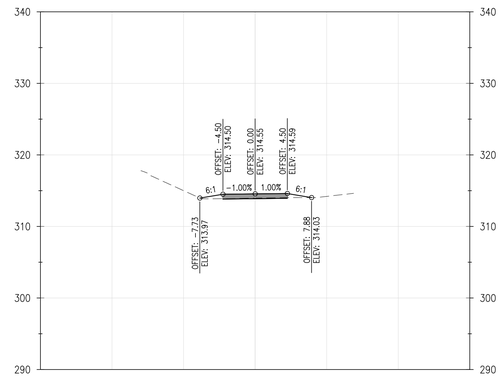

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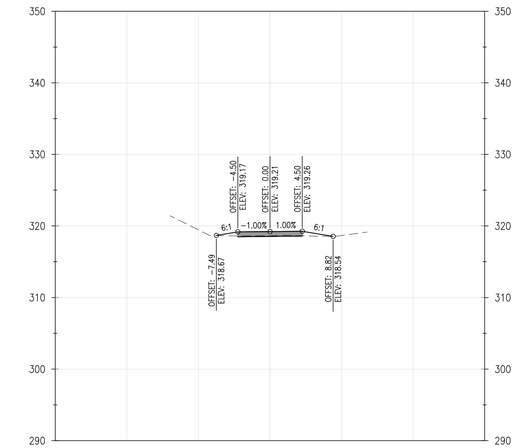

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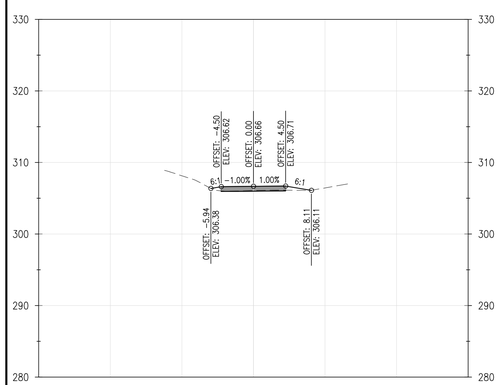

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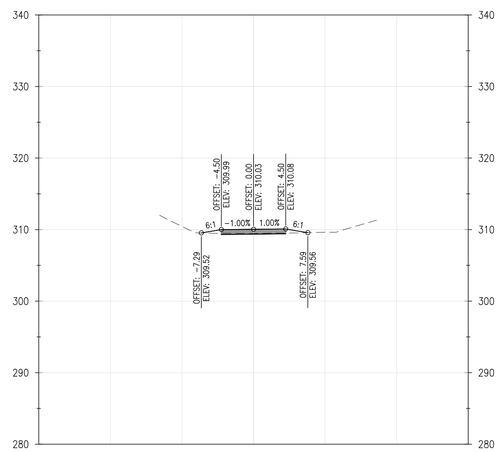

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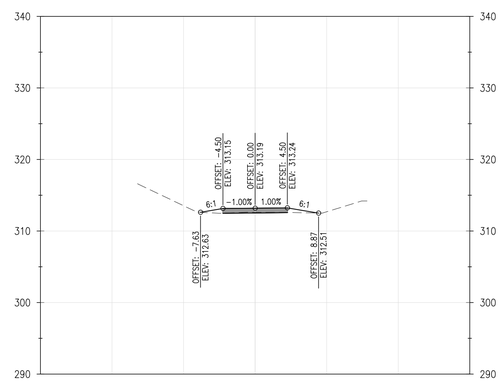

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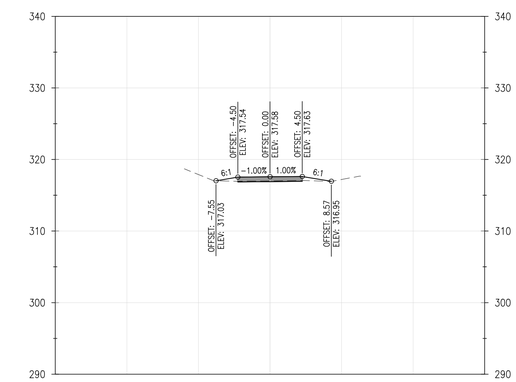

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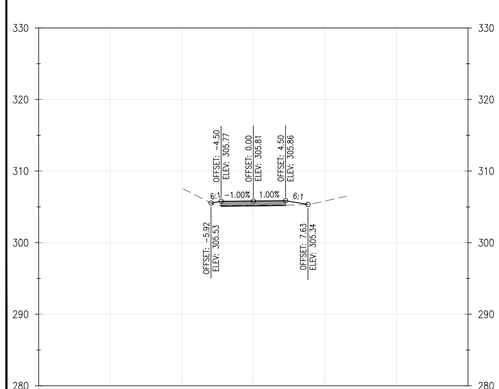

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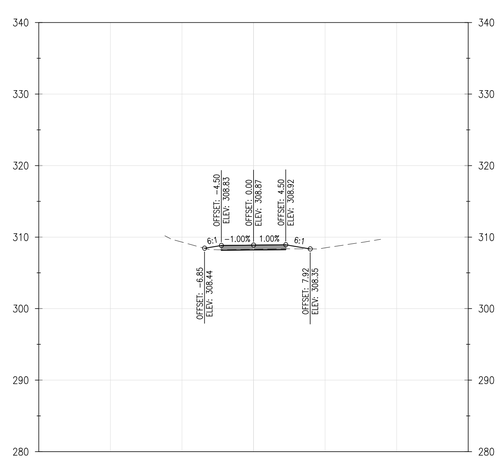

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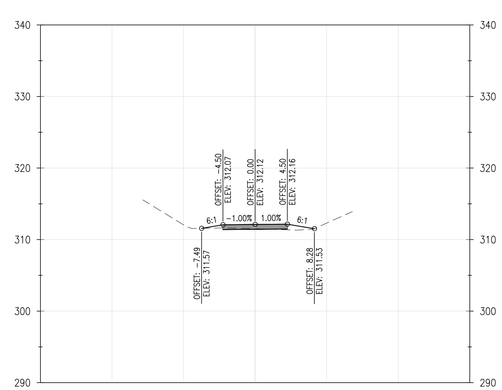

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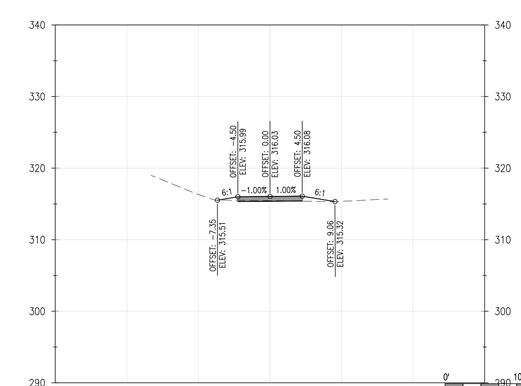


517+00.00

0' 10' 20' 30'
SCALE: 1" = 10'

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

CROSS SECTIONS

SEAL:

WALTER J. HOEY, III
REGISTERED
NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:

CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

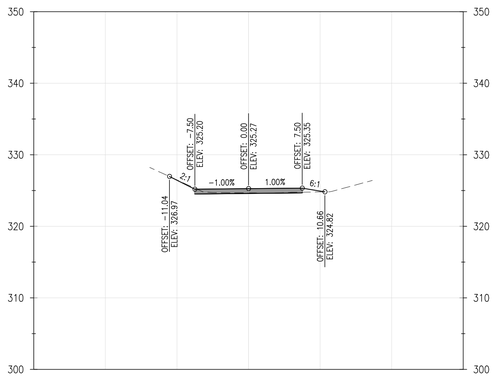
CHECKED BY: SLR

DATE: NOVEMBER 14, 2016

SCALE: 1" = 10'

SHEET NO.: C5.10

CONTRACT NO.: 2016-WCCSP-100



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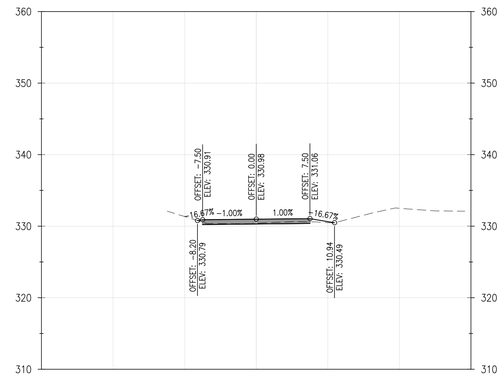

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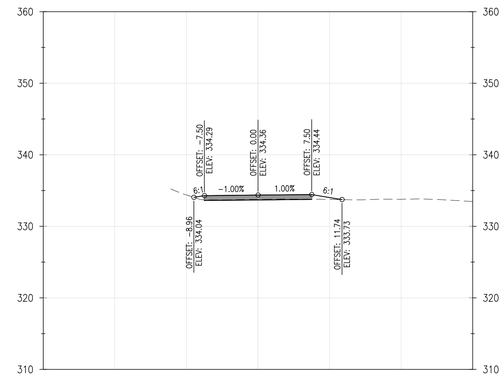

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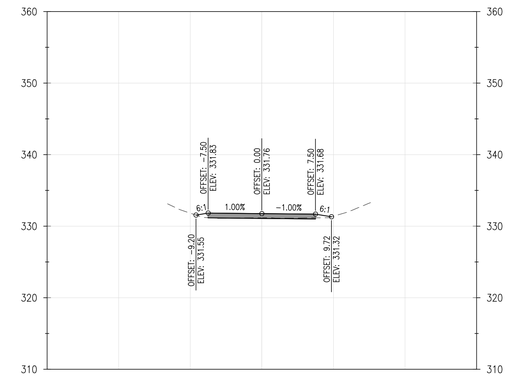

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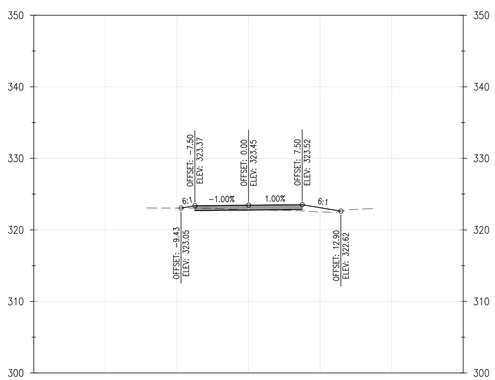

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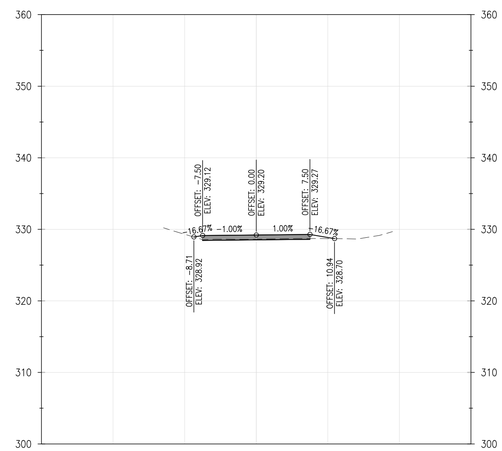

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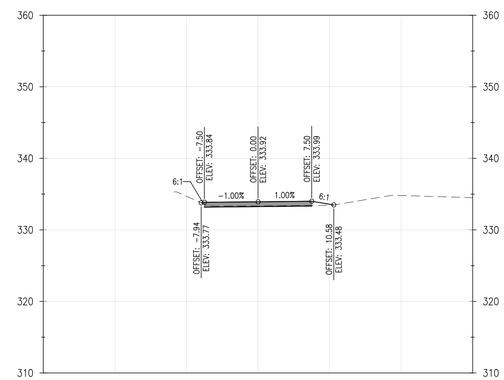

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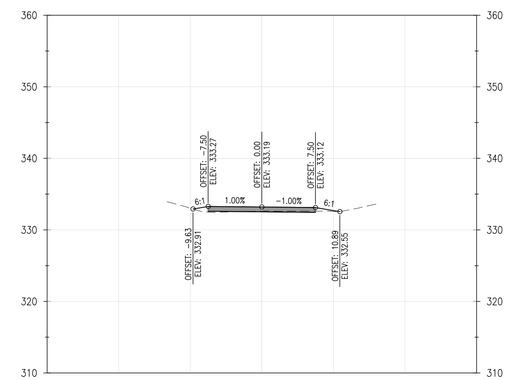

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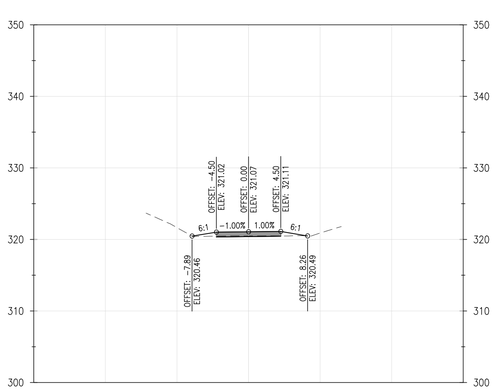

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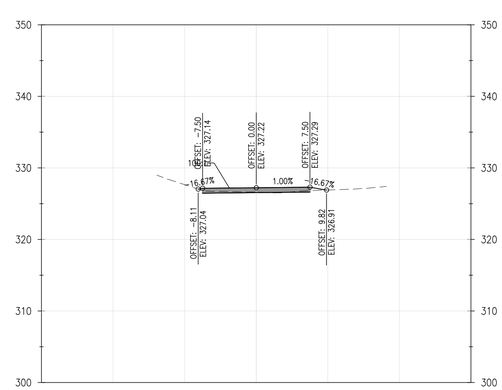

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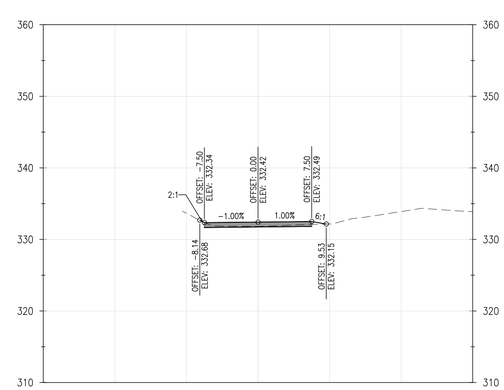

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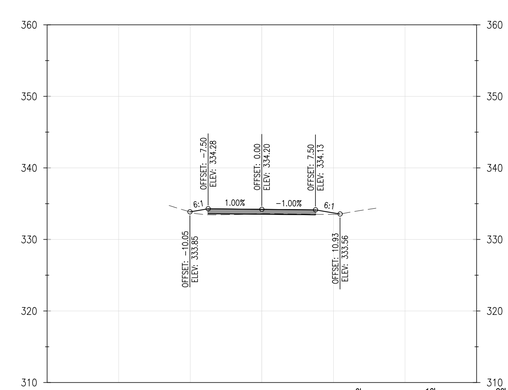


523+00.00

0' 10' 20' 30'
SCALE: 1" = 10'

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

CROSS SECTIONS

SEAL:

WALTER J. HOSKINS, III
REGISTERED
NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:

CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

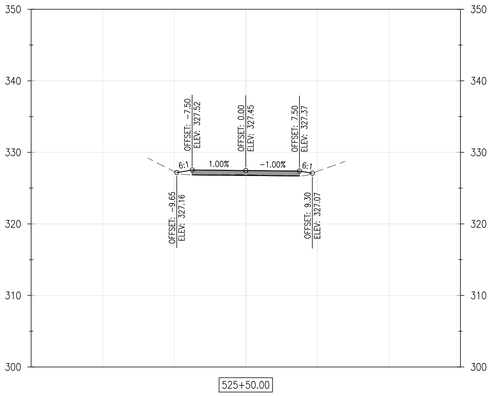
CHECKED BY: SLR

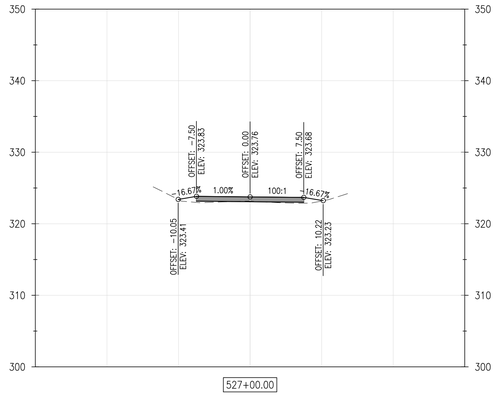
DATE: NOVEMBER 14, 2016

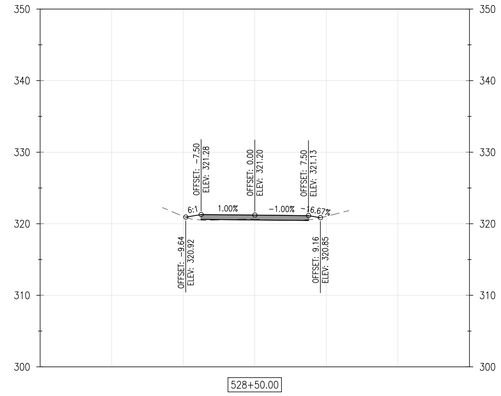
SCALE: 1" = 10'

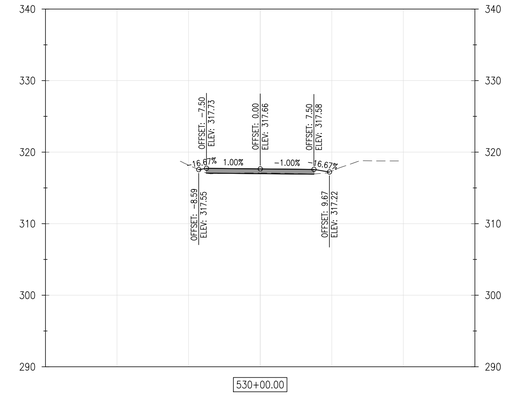
SHEET NO.: C5.11

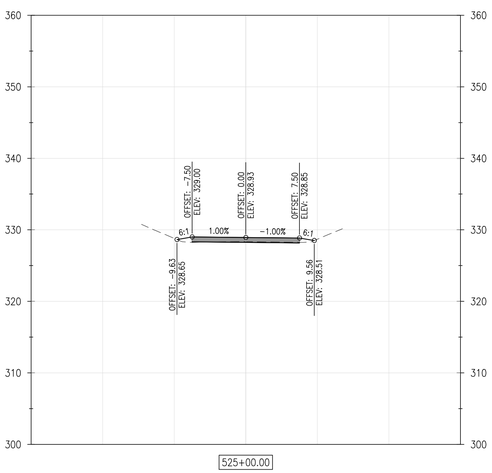
CONTRACT NO.: 2016-WCCSP-100

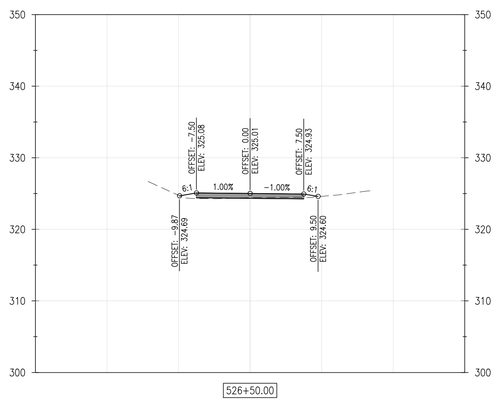


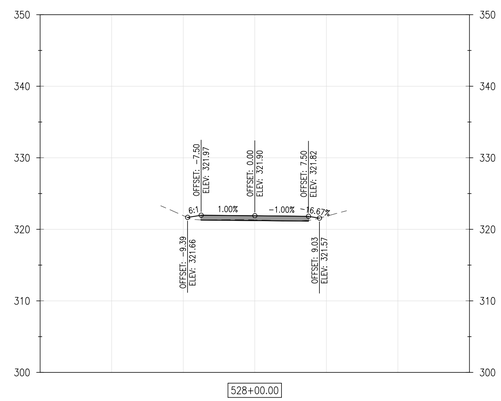


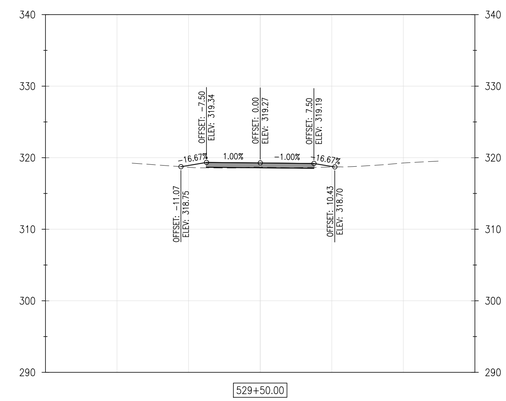


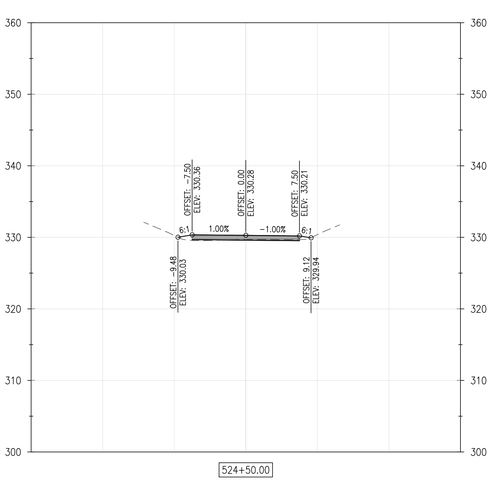


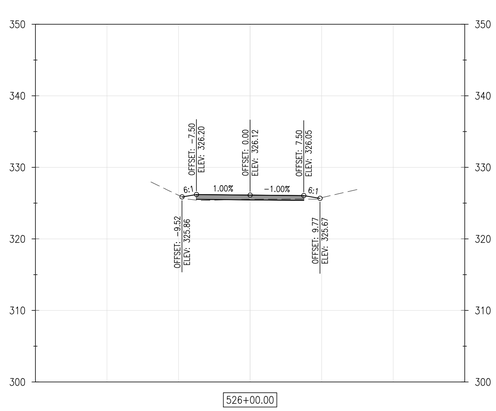


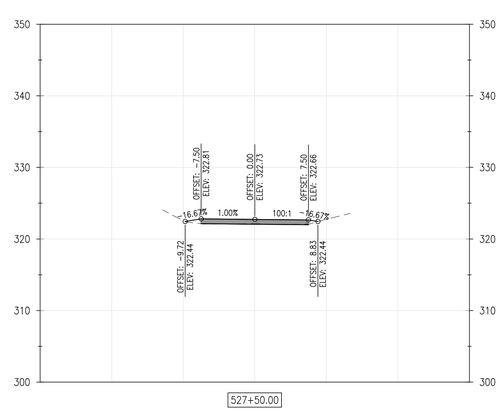


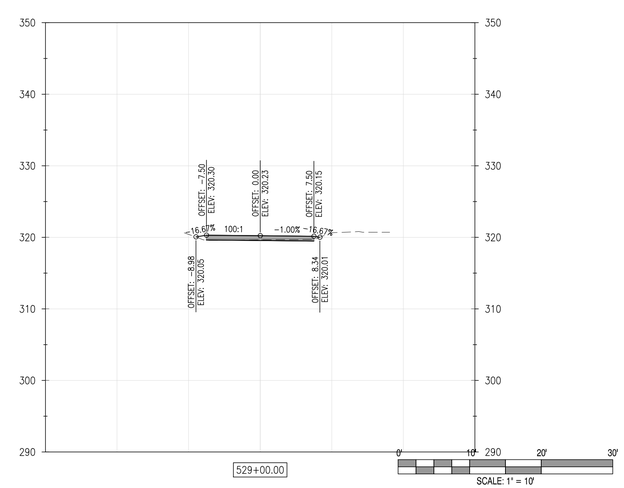












REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

CROSS SECTIONS

SEAL:

WALTER J. HOEY, III
REGISTERED
NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:

CENTURY ENGINEERING
CONSULTING ENGINEERS, SURVEYORS
4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

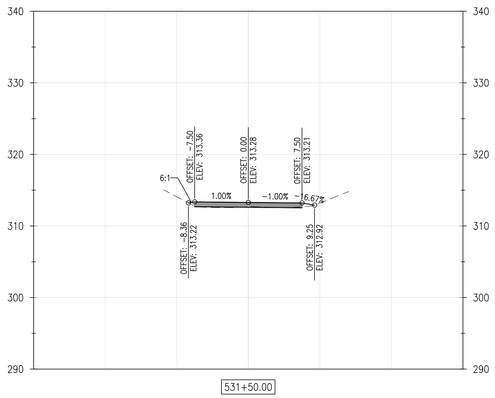
CHECKED BY: SLR

DATE: NOVEMBER 14, 2016

SCALE: 1" = 10'

SHEET NO.: C5.12

CONTRACT NO.: 2016-WCCSP-100



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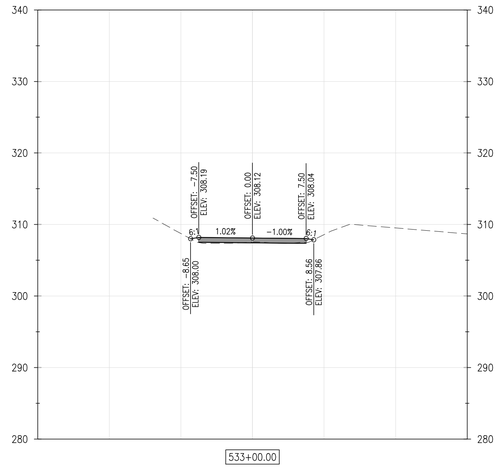

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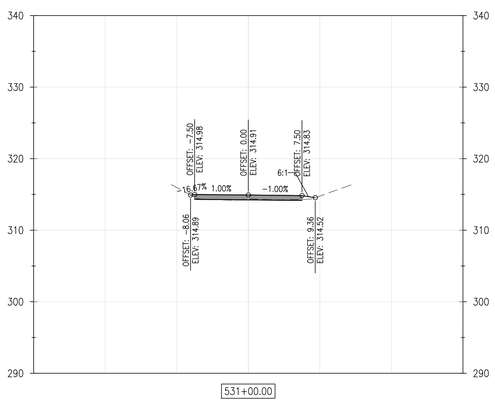

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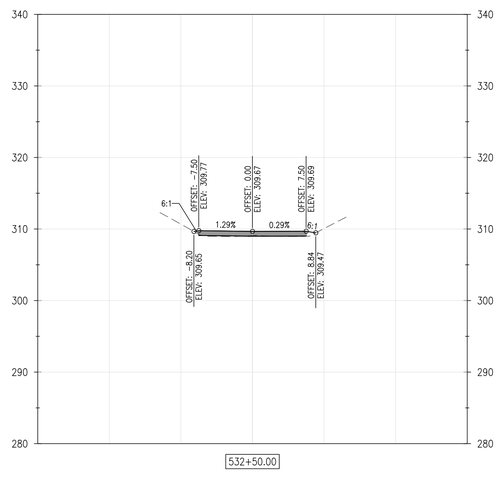

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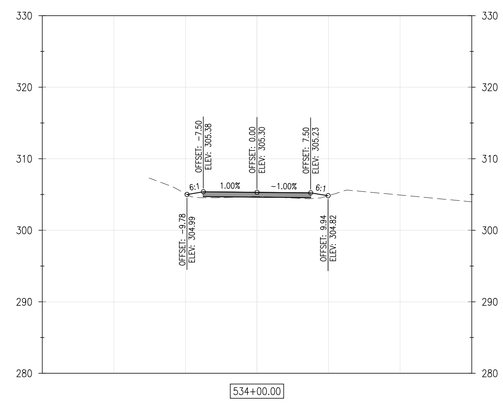

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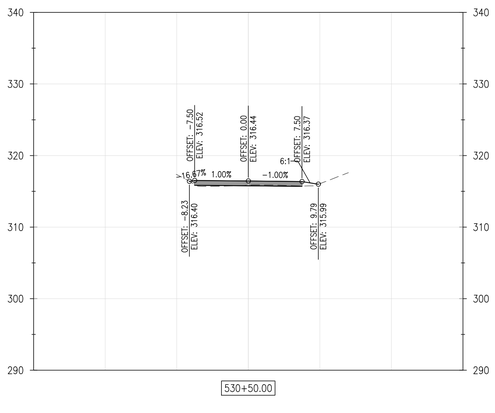

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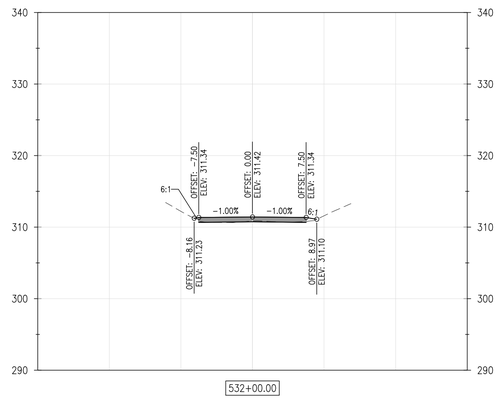

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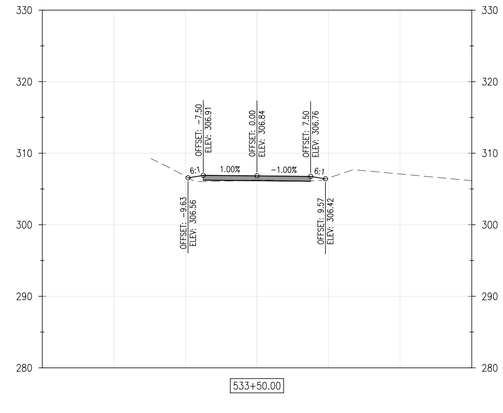

533+50.00

0' 10' 20' 30'
SCALE: 1" = 10'

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

CROSS SECTIONS

SEAL:

WALTER J. HOEY, III
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NO. 11204
DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:

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4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

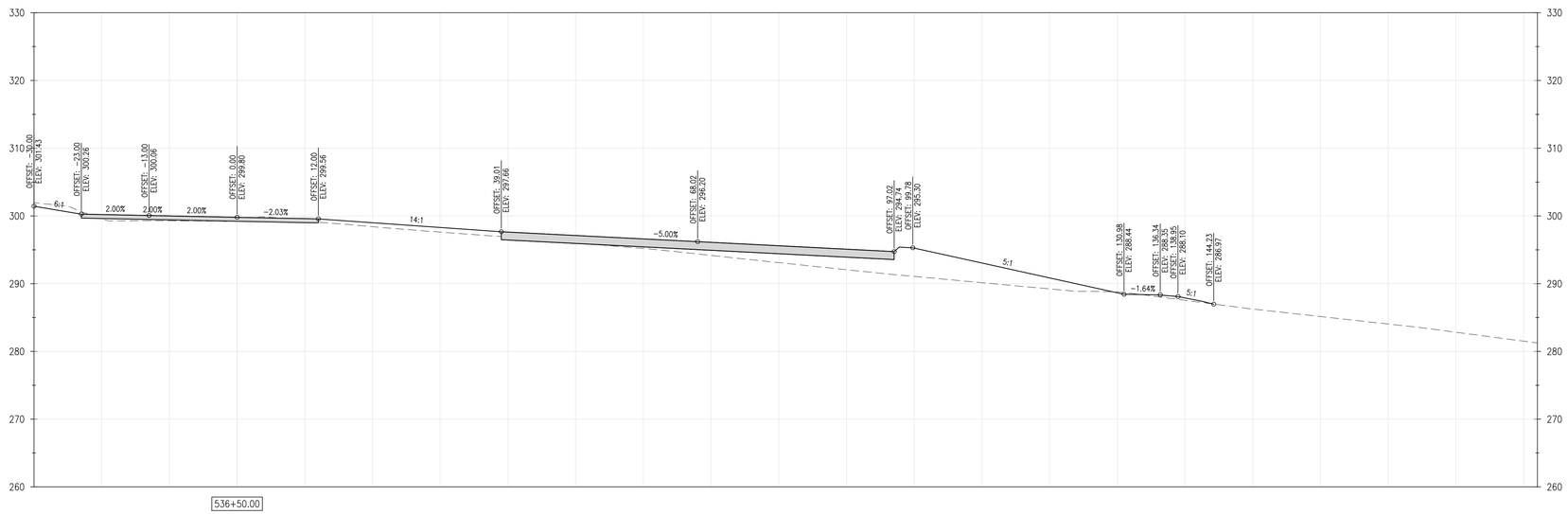
CHECKED BY: SLR

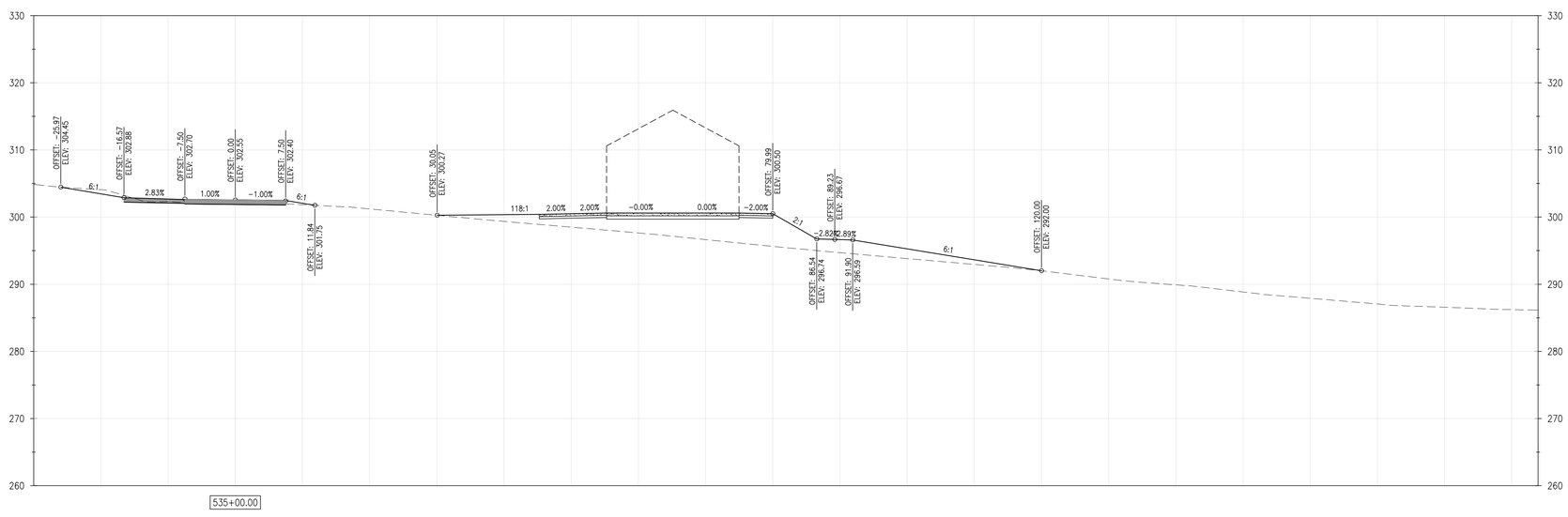
DATE: NOVEMBER 14, 2016

SCALE: 1" = 10'

SHEET NO.: C5.13

CONTRACT NO.: 2016-WCCSP-100





NOTE:
SEE 6/C4.2 FOR TYPICAL SECTION AT
PARKING LOT 3 AND ENTRANCE DRIVEWAY

0' 10' 20' 30'
SCALE: 1" = 10'

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

CROSS SECTIONS

SEAL:
WALTER J. HOEY III
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PROFESSIONAL ENGINEER

CIVIL ENGINEER:
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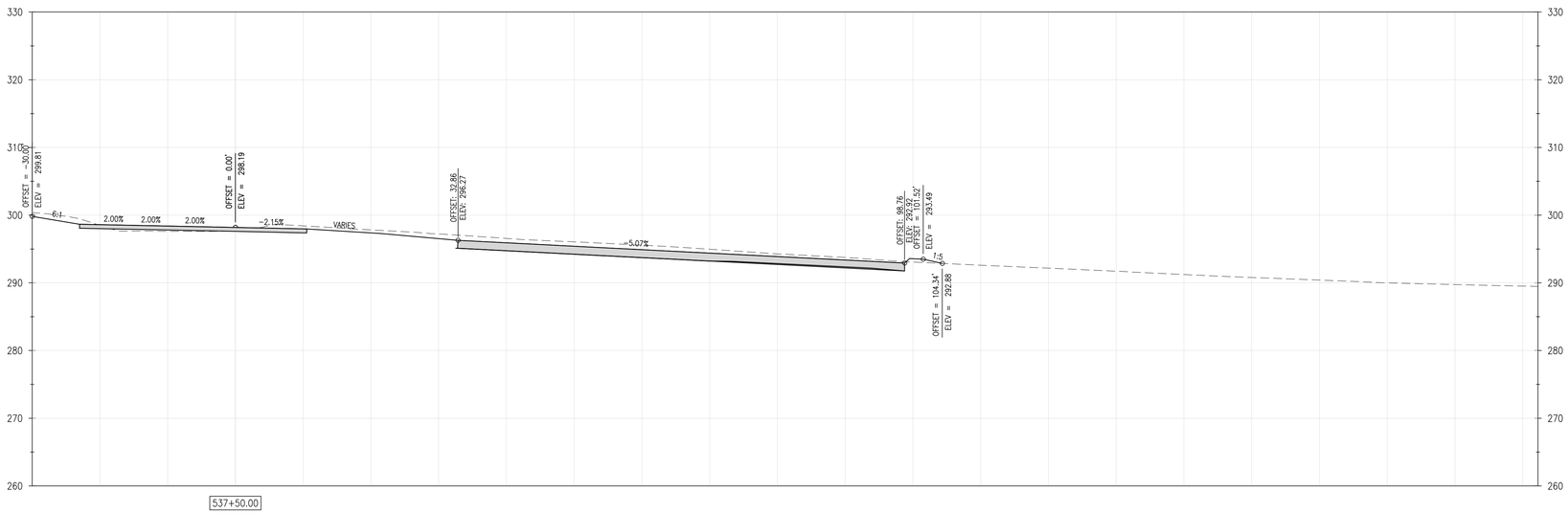
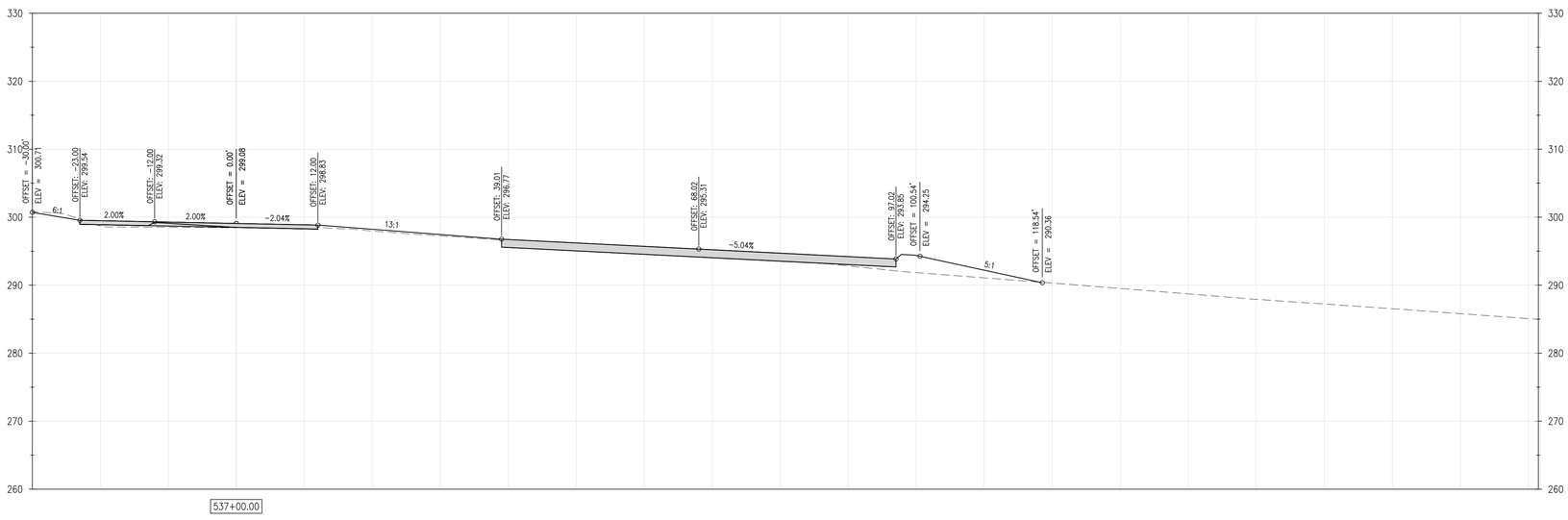
CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH
DRAWN BY: DLD
CHECKED BY: SLR
DATE: NOVEMBER 14, 2016
SCALE: 1" = 10'
SHEET NO.: C5.14
CONTRACT NO.: 2016-WCCSP-100





NOTE:
REFER TO STORMWATER MANAGEMENT SHEET SWM.10 FOR STORM SEWER LOCATIONS AND INVERTS.

NOTE:
SEE 6/C4.2 FOR TYPICAL SECTION AT PARKING LOT 3 AND ENTRANCE DRIVEWAY

0' 10' 20' 30'
SCALE: 1" = 10'

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

CROSS SECTIONS

SEAL:
WALTER J. HOEY III
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DELAWARE
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DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

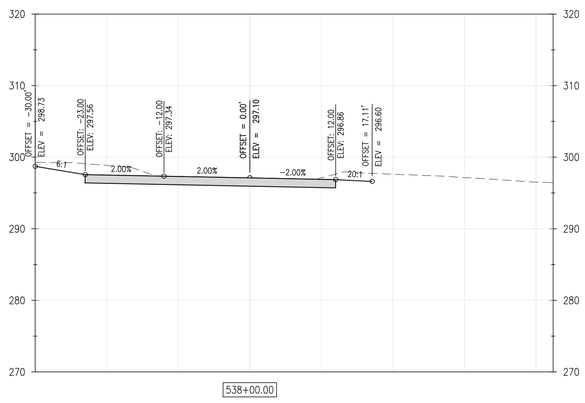
CHECKED BY: SLR

DATE: NOVEMBER 14, 2016

SCALE: 1" = 10'

SHEET NO.: C5.15

CONTRACT NO.: 2016-WCCSP-100



0' 10' 20' 30'
SCALE: 1" = 10'

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

CROSS SECTIONS

SEAL:

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4134 N. DUPONT HWY.
DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH

DRAWN BY: DLD

CHECKED BY: SLR

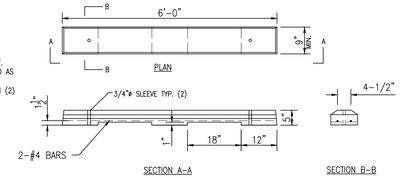
DATE: NOVEMBER 14, 2016

SCALE: 1" = 10'

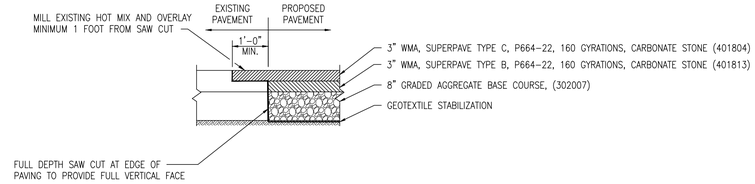
SHEET NO.: C5.16

CONTRACT NO.: 2016-WCCSP-100

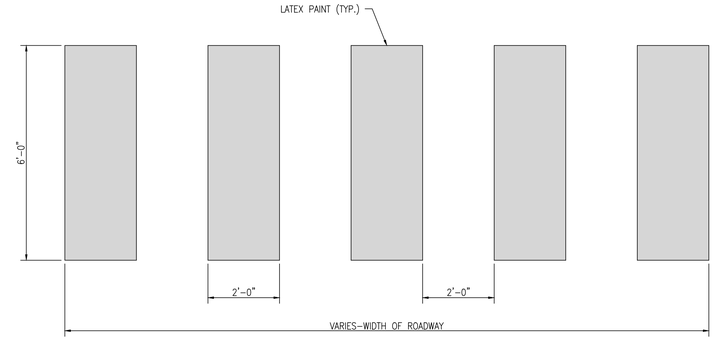
NOTES:
1. CONCRETE 5000 PSI @ 28 DAYS.
2. REBAR ASTM 615 GR. 60.
3. ALL VERTICAL SURFACES HAVE DRAFT.
4. FLOW CHANNELS SHALL BE PROVIDED AS SHOWN.
5. ATTACHT BUMPER TO PAVEMENT WITH (2) 1/2"ø X 18" LONG REBARS (TYP.).



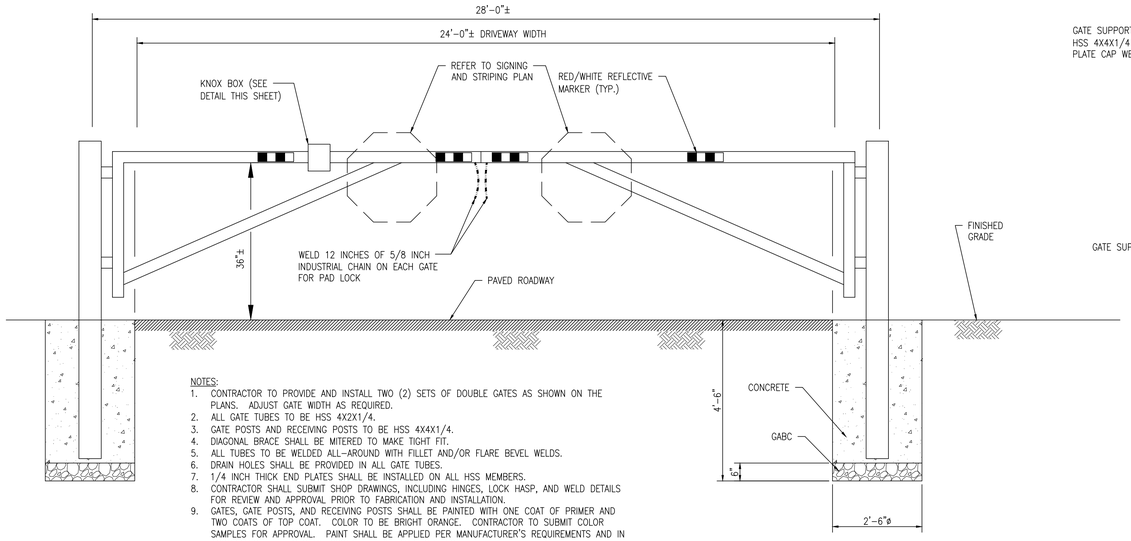
1 / C6.1 PARKING BUMPER DETAIL
SCALE: N.T.S.



2 / C6.2 SAWCUT DETAIL
SCALE: 1/2" = 1'-0"

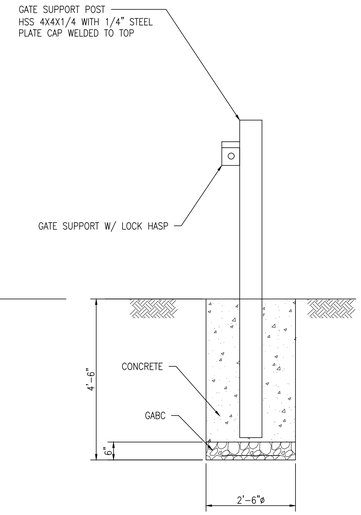


3 / C6.1 CROSSWALK STRIPING DETAIL
SCALE: 1/2" = 1'-0"

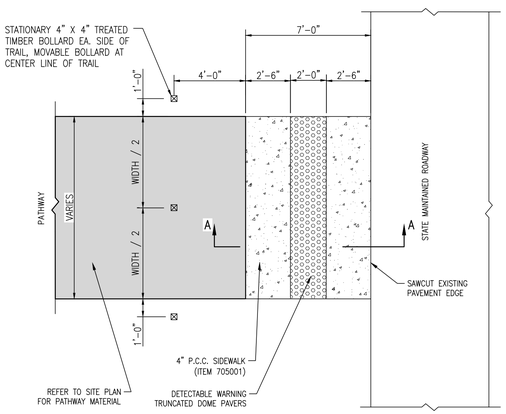


NOTES:
1. CONTRACTOR TO PROVIDE AND INSTALL TWO (2) SETS OF DOUBLE GATES AS SHOWN ON THE PLANS. ADJUST GATE WIDTH AS REQUIRED.
2. ALL GATE TUBES TO BE HSS 4X2X1/4.
3. GATE POSTS AND RECEIVING POSTS TO BE HSS 4X4X1/4.
4. DIAGONAL BRACE SHALL BE MITERED TO MAKE TIGHT FIT.
5. ALL TUBES TO BE WELDED ALL-AROUND WITH FILLET AND/OR FLARE BEVEL WELDS.
6. DRAIN HOLES SHALL BE PROVIDED IN ALL GATE TUBES.
7. 1/4 INCH THICK END PLATES SHALL BE INSTALLED ON ALL HSS MEMBERS.
8. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, INCLUDING HINGES, LOCK HASP, AND WELD DETAILS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND INSTALLATION.
9. GATES, GATE POSTS, AND RECEIVING POSTS SHALL BE PAINTED WITH ONE COAT OF PRIMER AND TWO COATS OF TOP COAT. COLOR TO BE BRIGHT ORANGE. CONTRACTOR TO SUBMIT COLOR SAMPLES FOR APPROVAL. PAINT SHALL BE APPLIED PER MANUFACTURER'S REQUIREMENTS AND IN ACCORDANCE WITH SECTION 099113 – EXTERIOR PAINTING.
10. PLACE (2) 3 INCH BY 12 INCH RED/WHITE DIAGONAL ADHESIVE REFLECTIVE PANELS ON EACH SIDE OF TOP RAIL OF EACH GATE AS SHOWN.
11. ALL OPENINGS LARGER THAN $\frac{1}{8}$" DIAMETER SHALL BE SEALED WITH STEEL PLATES AND/OR WELDMENT.

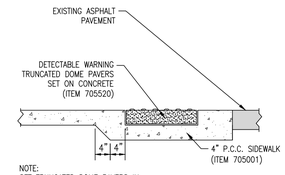
4 / C6.3 NEW GATE DETAIL
SCALE: 1/2" = 1'-0"



GATE SUPPORT POST – 2 EACH
(INSTALL ONE AT EACH GATE LEAF)



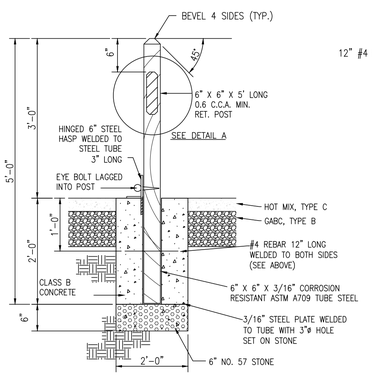
PLAN VIEW



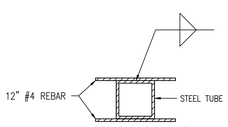
NOTE:
SET TRUNCATED DOME PAVERS IN GROUT BED AND GROUT ALL JOINTS IN ACCORDANCE WITH SECTION 705520.

SECTION A–A

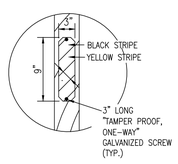
5 / C6.1 CURB RAMP DETAIL
SCALE: 1/2" = 1'-0"



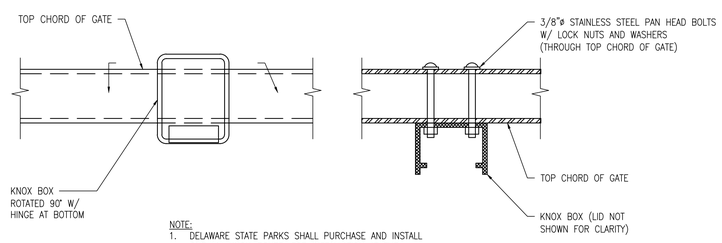
6 / C6.1 MOVABLE BOLLARD DETAIL
SCALE: 1/2" = 1'-0"



REBAR – PLAN VIEW

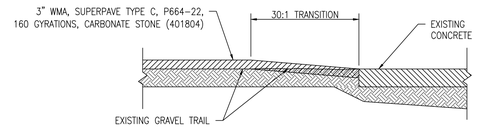


DETAIL A



NOTE:
1. DELAWARE STATE PARKS SHALL PURCHASE AND INSTALL ONE (1) KNOX-BOXES, FOR INSTALLATION AT THE VEHICLE GATE. IN AN EMERGENCY, FIRE ACCESS TO THE SUBSTATION SHALL BE ACCOMPLISHED USING A KNOX-BOX. EACH KNOX-BOX SHALL BE POSITIONED 3'-0" ABOVE FINISHED GRADE AND SHALL BE ATTACHED DIRECTLY TO THE ENTRANCE GATE.

7 / C6.1 KNOX BOX DETAIL
SCALE: 3" = 1'-0"



NOTES:
1. ADJUST THE PROFILE OF THE OVERLAY PAVING TO ASSURE A SMOOTH TRANSITION THROUGH THE BUTT JOINT.
2. CRACK SEAL THE JOINT BETWEEN THE BUTT JOINT AND THE EXISTING PAVEMENT.

8 / C6.1 PROPOSE BUTT JOINT DETAIL
SCALE: NTS

REVISIONS:

DATE:	DESCRIPTION:	BY:

WCCSP TRI-VALLEY TRAIL CONSTRUCTION PLANS

TYPICAL CONSTRUCTION DETAILS

SEAL:
WALTER J. HOEY III
REGISTERED
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DELAWARE
PROFESSIONAL ENGINEER

CIVIL ENGINEER:
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DOVER, DELAWARE 19901

CEI CONTRACT NO.: 125002.17

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL

DESIGNED BY: WJH
DRAWN BY: DLD
CHECKED BY: SLR
DATE: NOVEMBER 14, 2016
SCALE: AS NOTED
SHEET NO.: C6.1
CONTRACT NO.: 2016-WCCSP-100

O:\PROJECTS\125002.00 (DNREC Civil Engineering Services – 2012)\125002.02_(Tri-Valley Trail Concept Plan)\CADD FILES\Sheets\FinalConstructionSet\C6-1_ConstructionDetails.dwg, 11/20/2016 10:56 AM