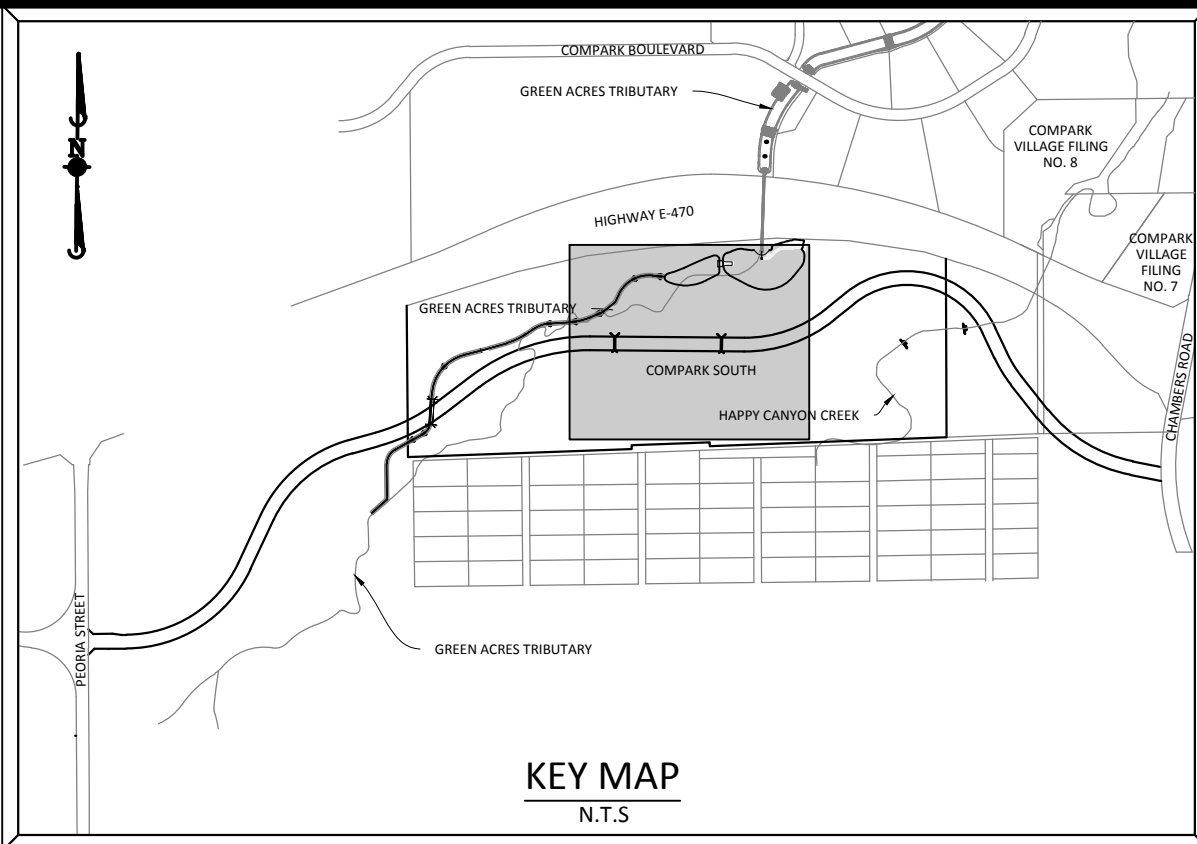
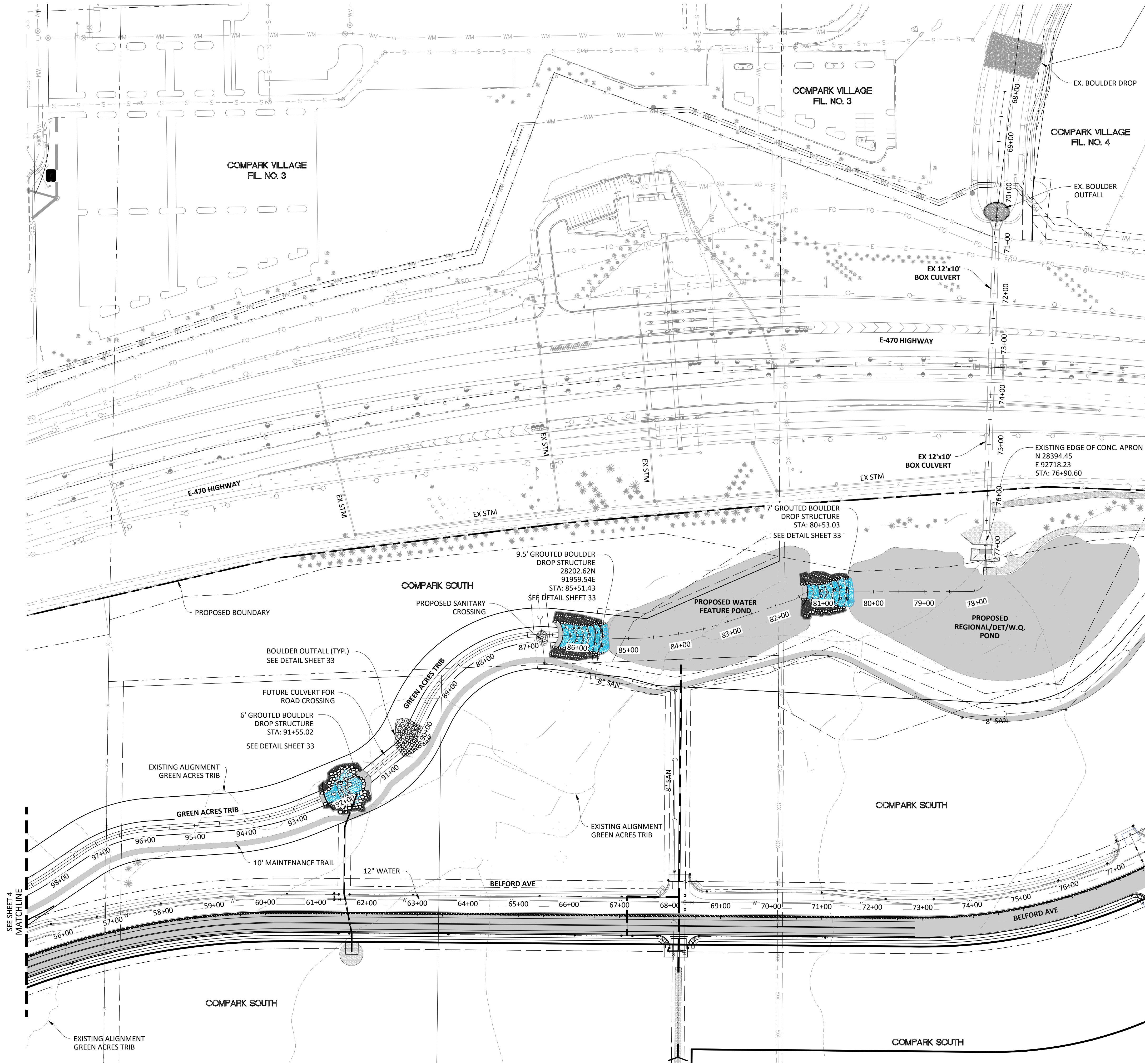
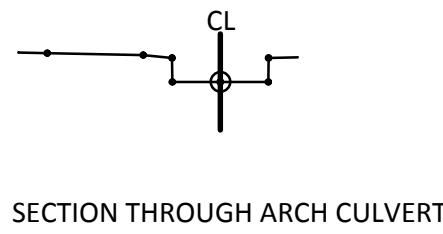
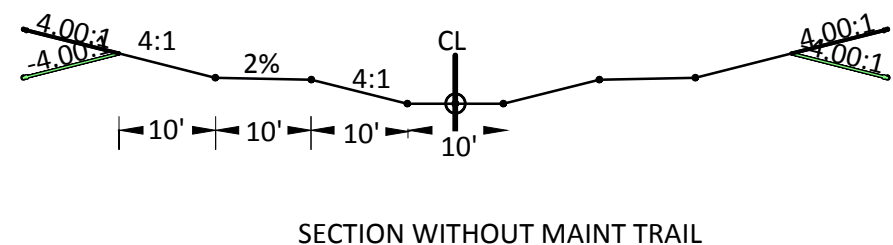
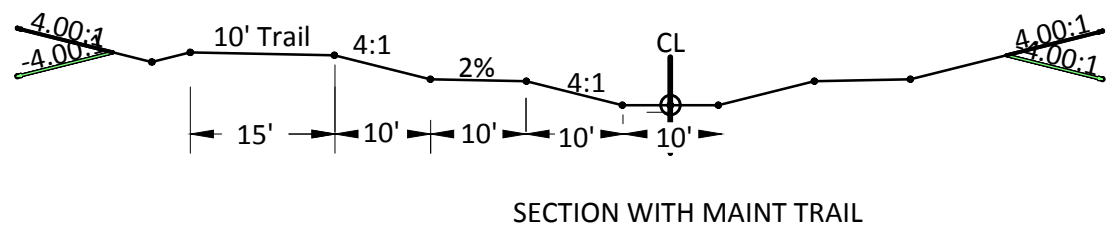
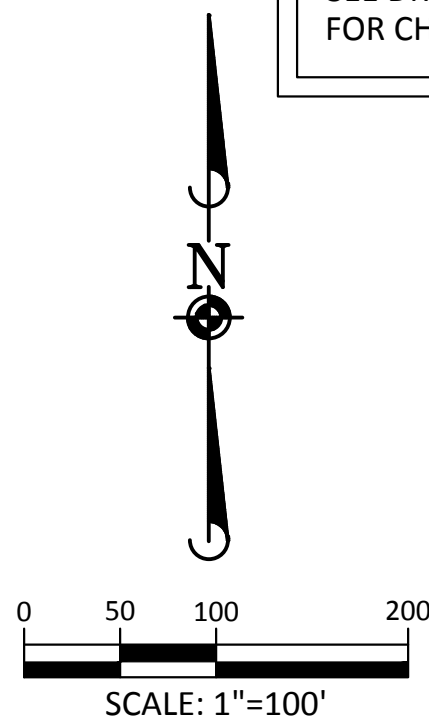


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SOURCE BENCHMARKS:
DOUGLAS COUNTY BM 1.115010
A DOUGLAS COUNTY GIS MONUMENT SET IN CONCRETE LOCATED APPROXIMATELY 130 FEET
SOUTHWESTERLY OF THE CENTERLINE OF CHAMBERS ROAD AND 95 FEET NORTHWESTERLY OF
THE CENTERLINE OF COMPARK BOULEVARD. ELEVATION = 5752.84 (NAVD 88)

NOTE:
SEE DRAINAGE PLAN/PROFILE SHEETS 8-12
FOR CHANNEL HORIZONTAL CONTROL



GAT TYPICAL CHANNEL SECTIONS

TOWN OF PARKER APPROVALS

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TOWN OF PARKER, DIRECTOR OF ENGINEERING

DATE

**COMPARK VILLAGE SOUTH GREEN ACRES TRIBUTARY
TOWN OF PARKER, COLORADO
CHANNEL ALIGNMENT PLAN**

PROJ. MGR.: RLB
PROJ. ASSOC.: ASD
DRAWN BY: ETG
DATE: 11/2015
SHEET
3 OF 35
CLCPKC3

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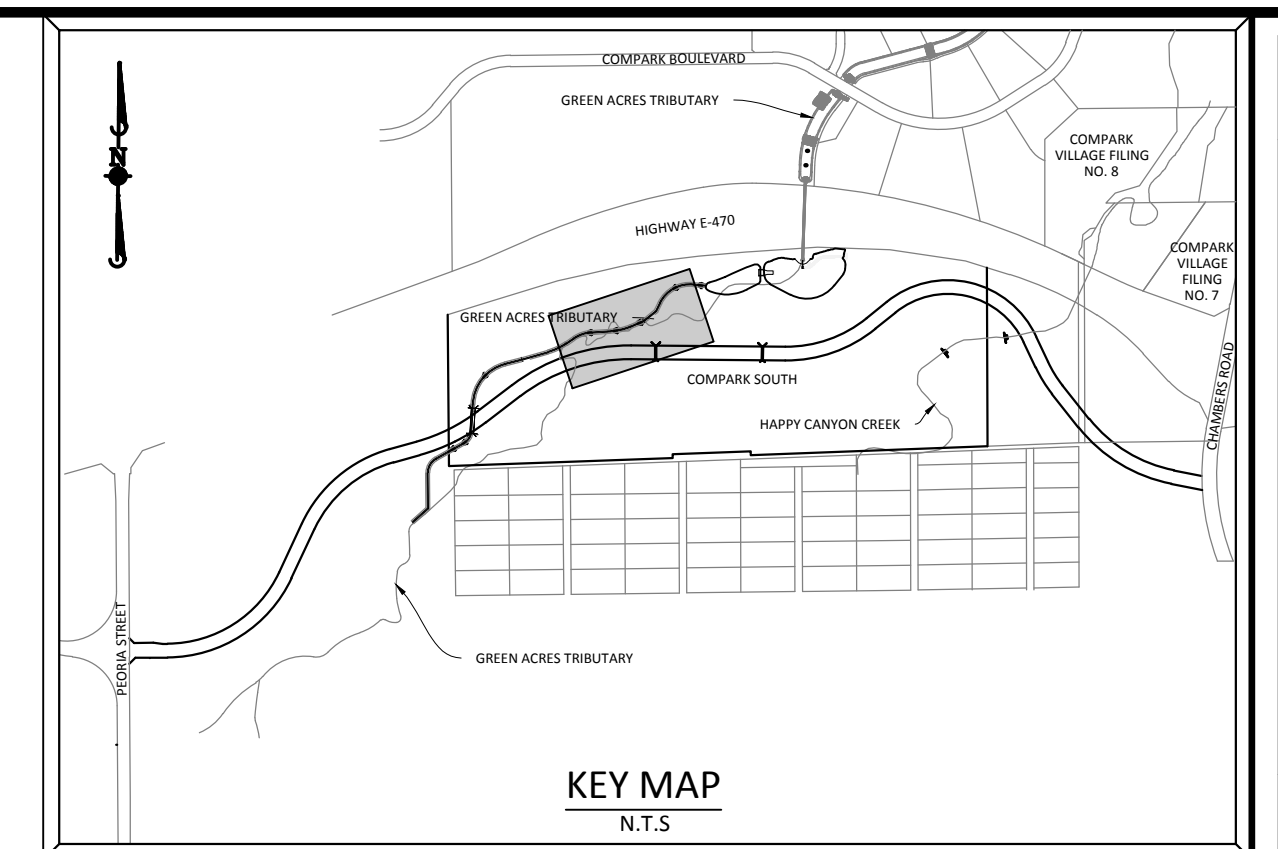
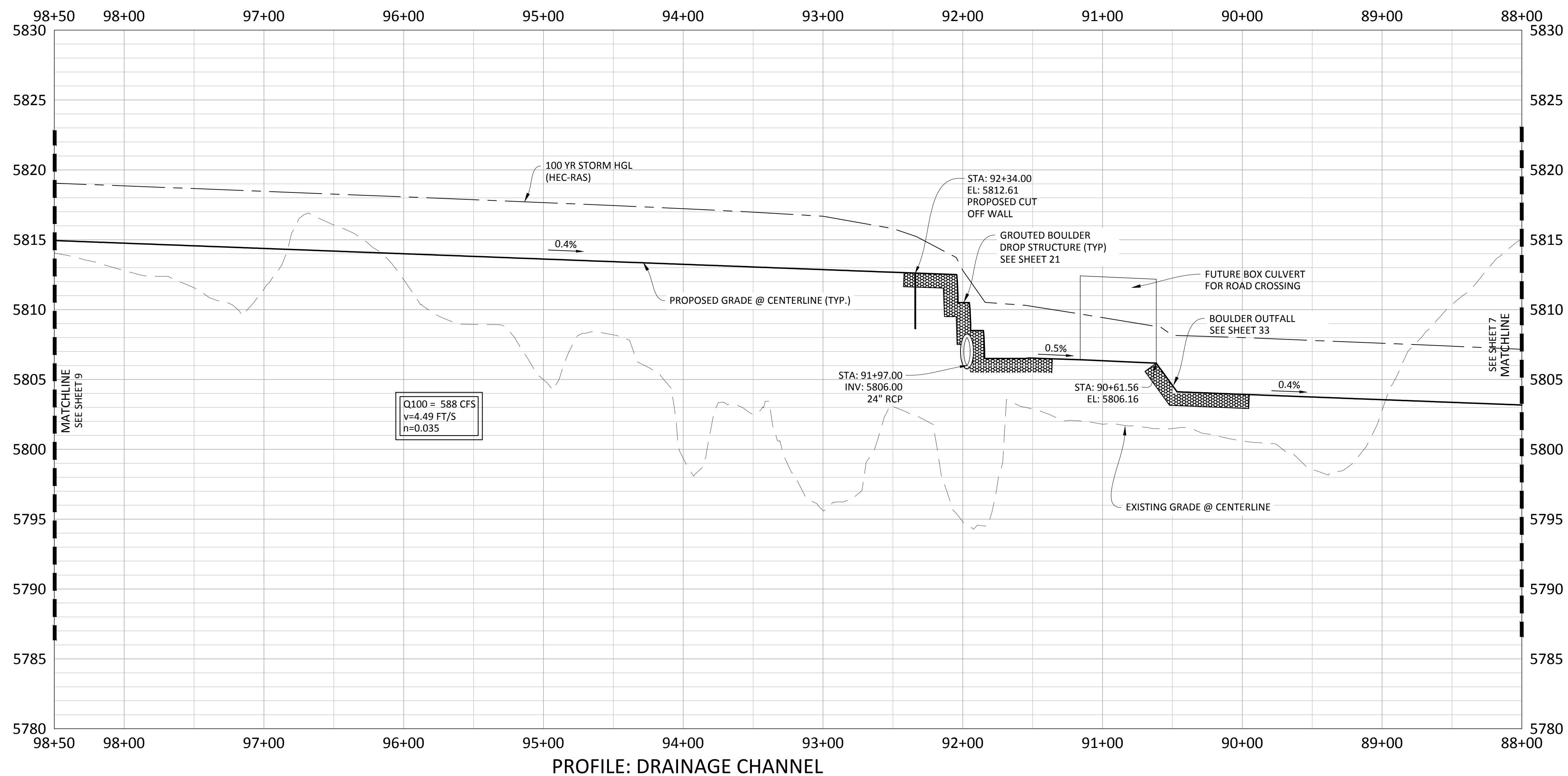
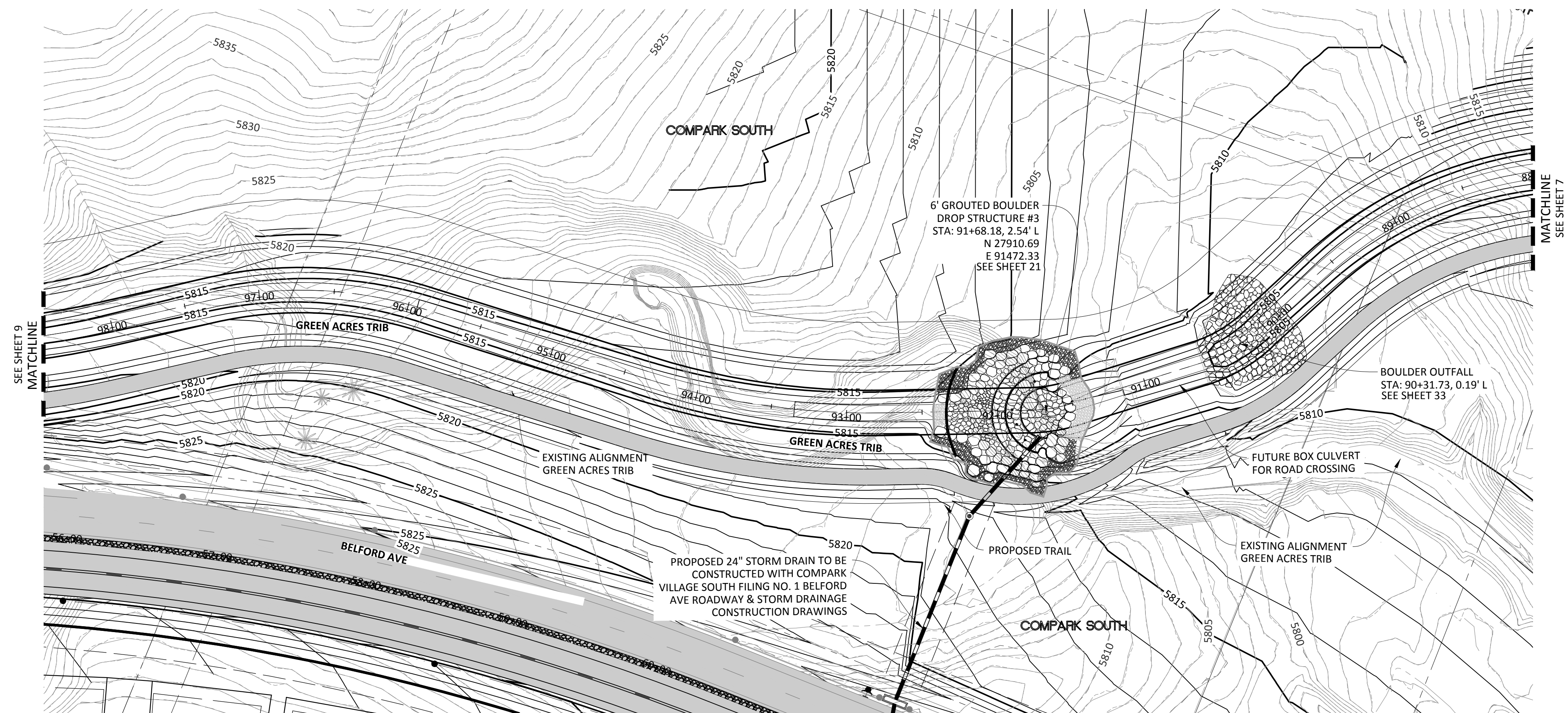
1ST SUBMITTAL
2ND SUBMITTAL

DATE

REVISIONS

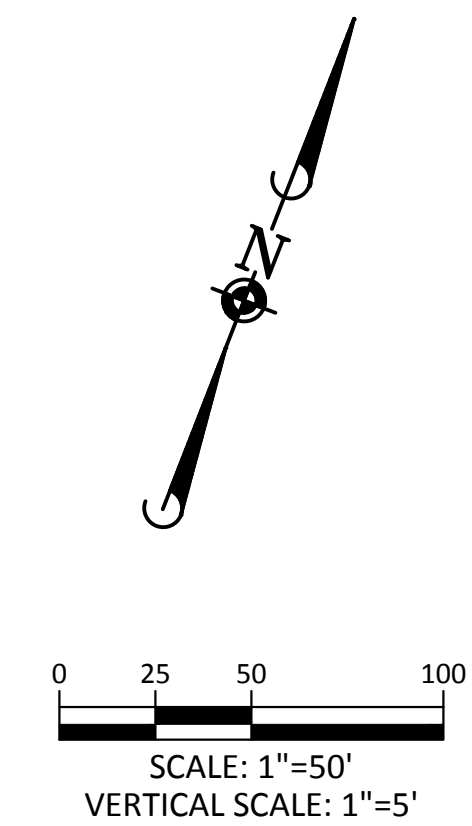
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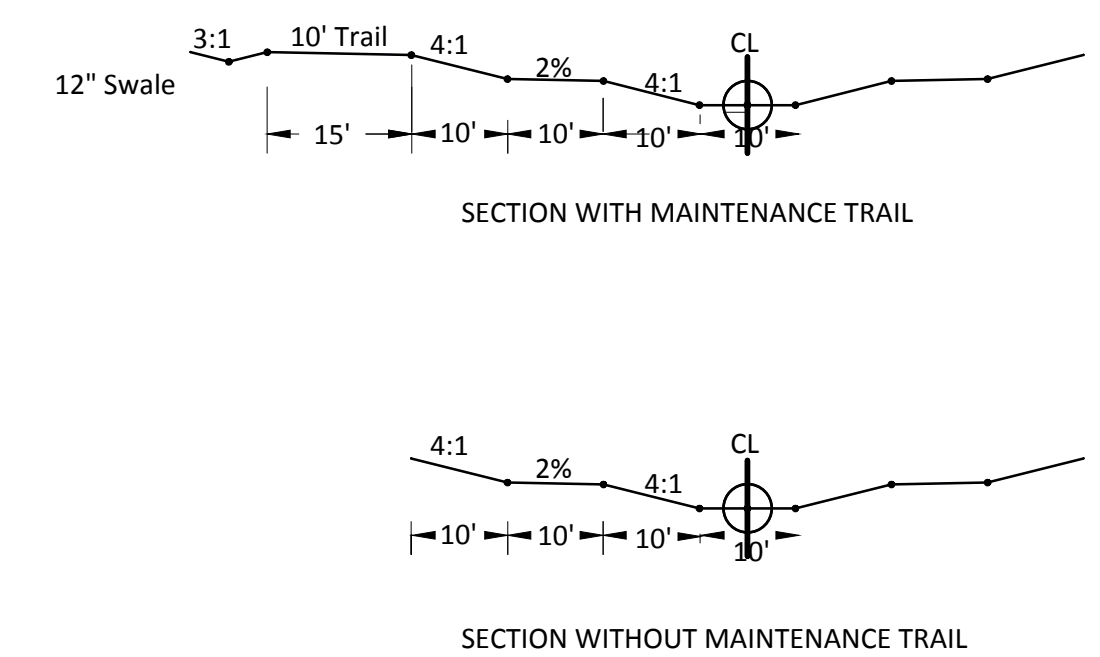


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Know what's **below**.
Call before you dig.

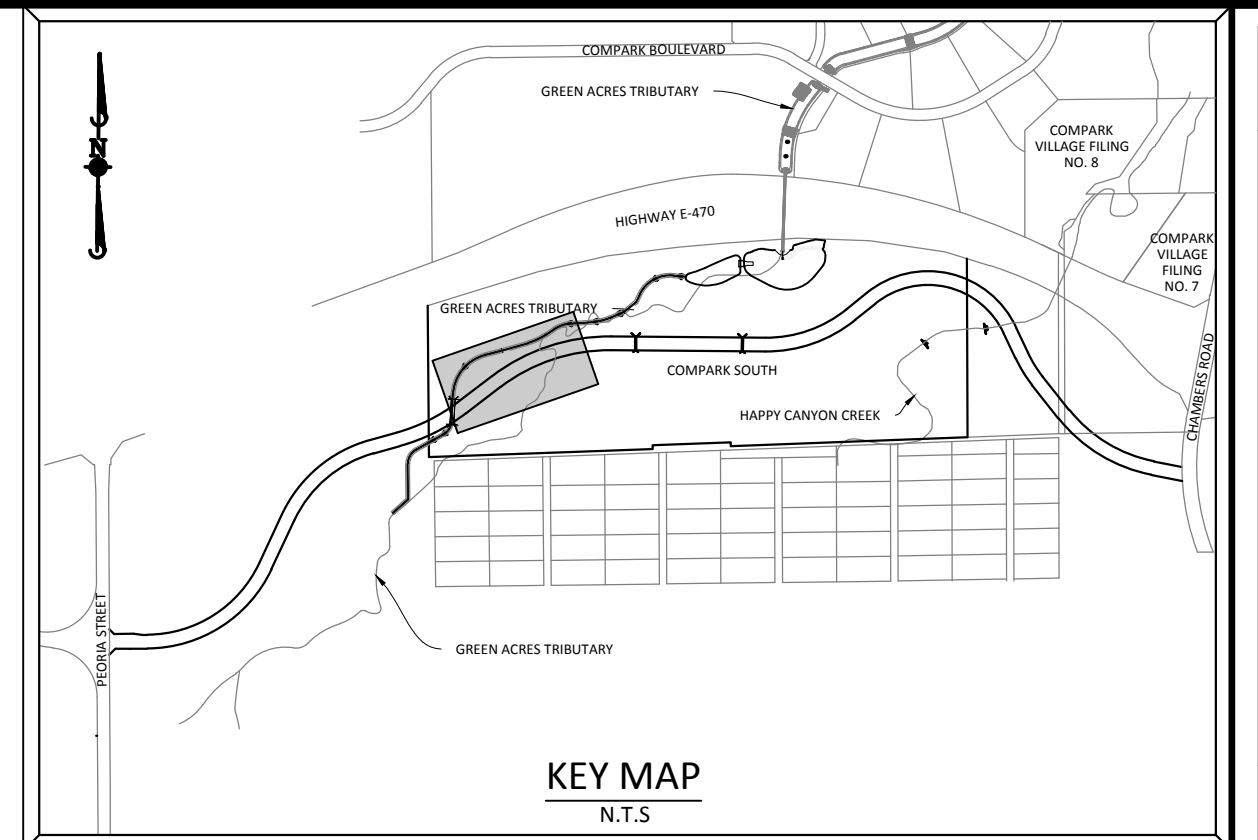
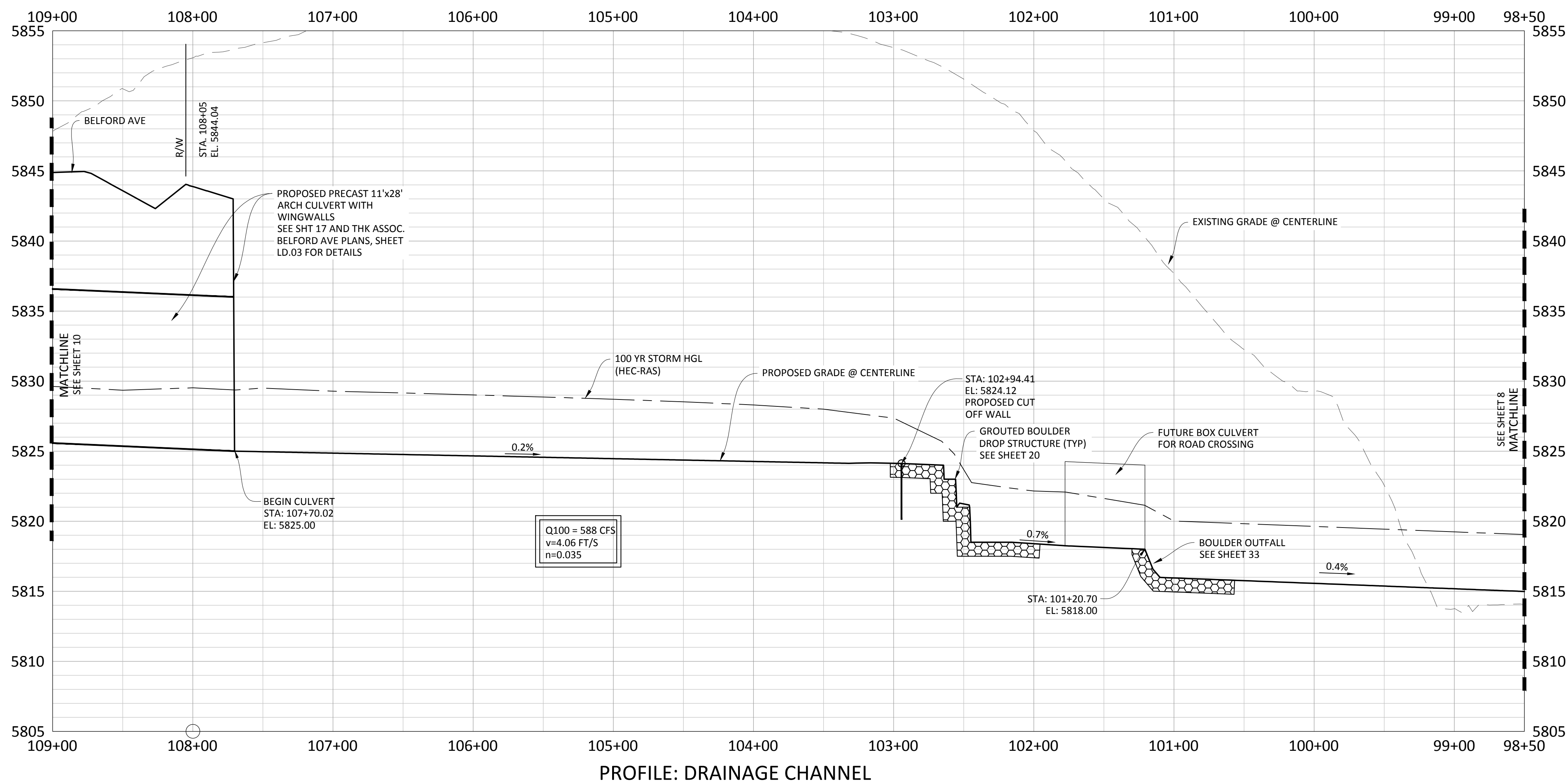
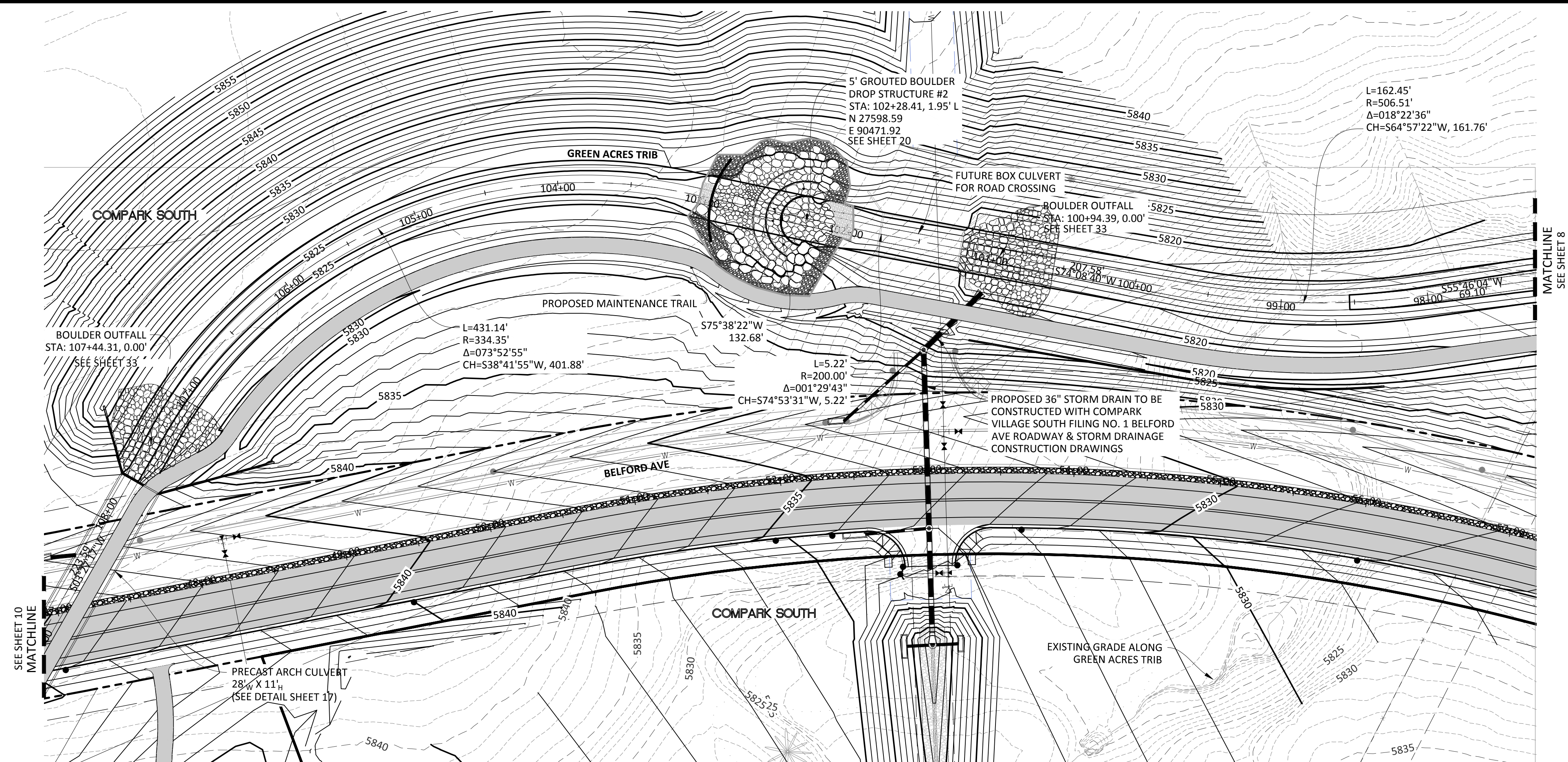


GAT CHANNEL TYPICAL SECTIONS

TOWN OF PARKER APPROVALS

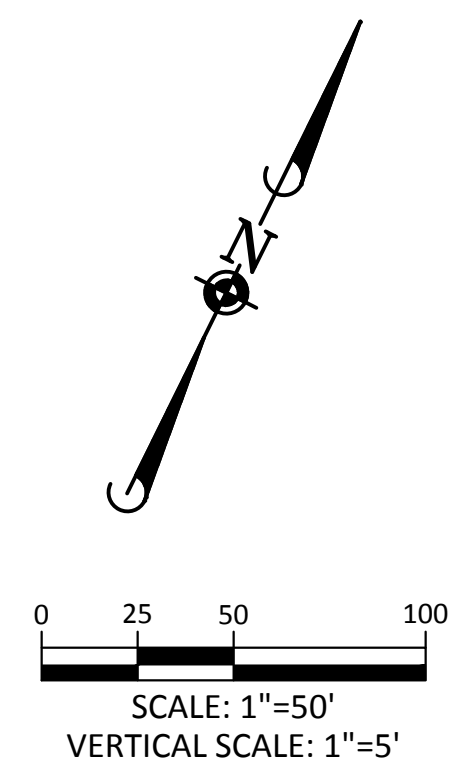
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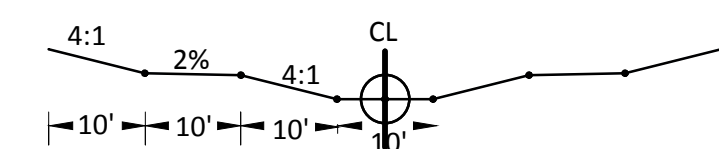
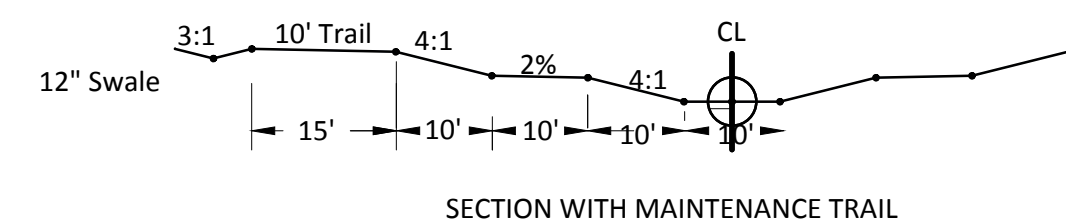
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Know what's **below**.
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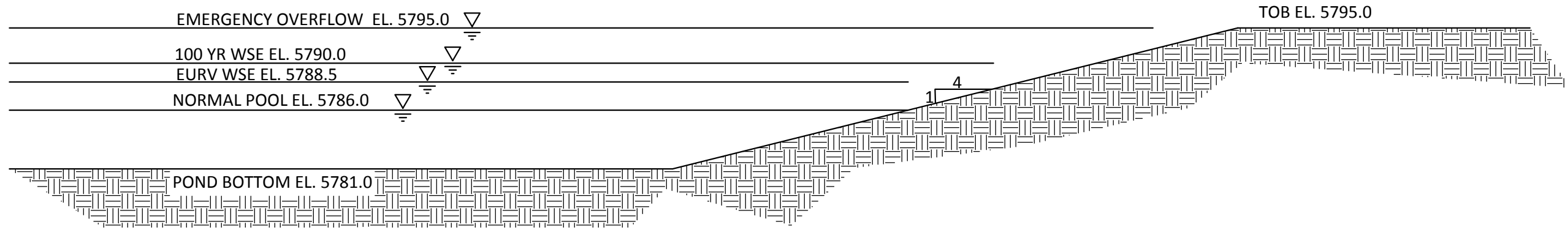
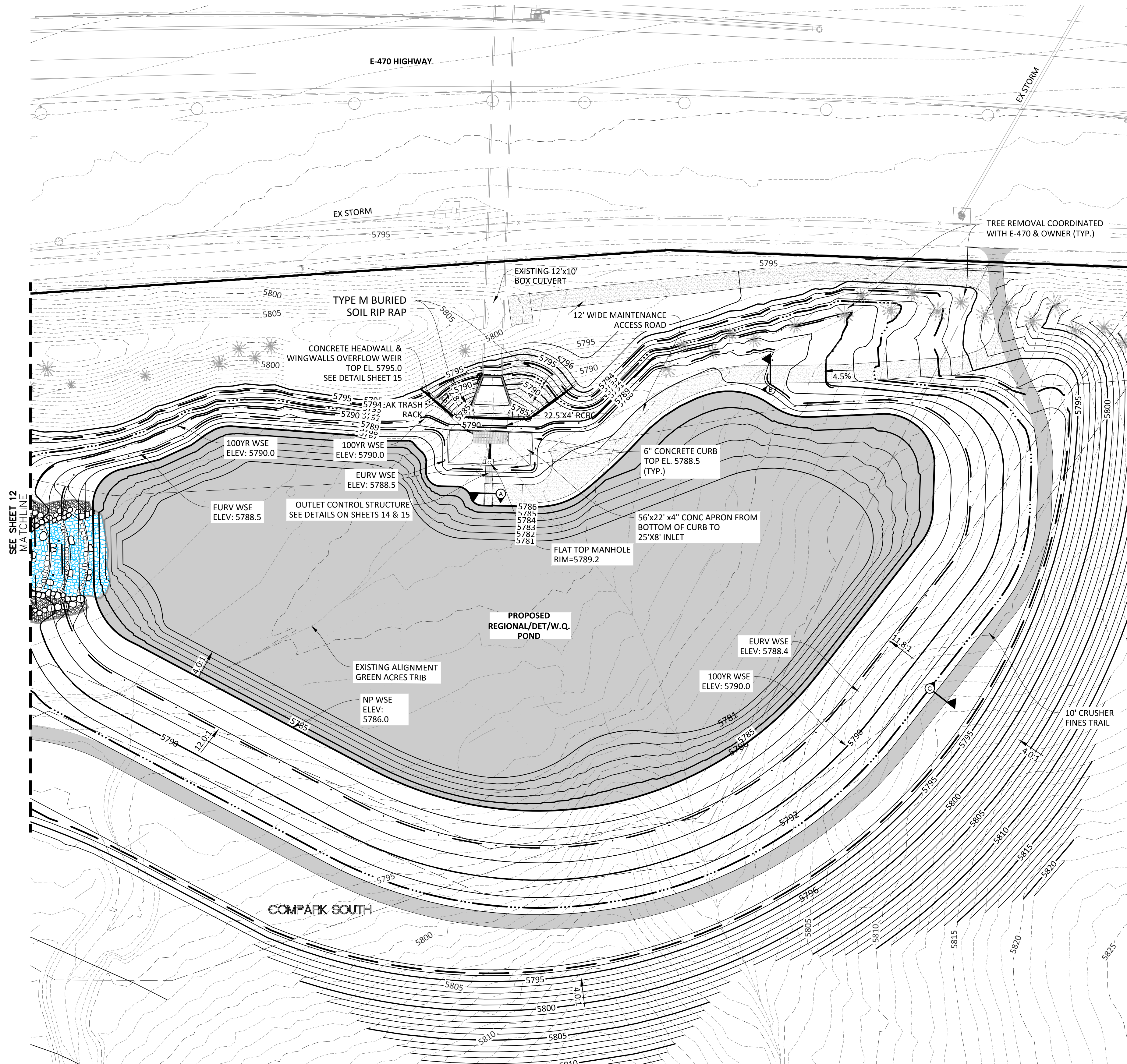
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TOWN OF PARKER APPROVALS

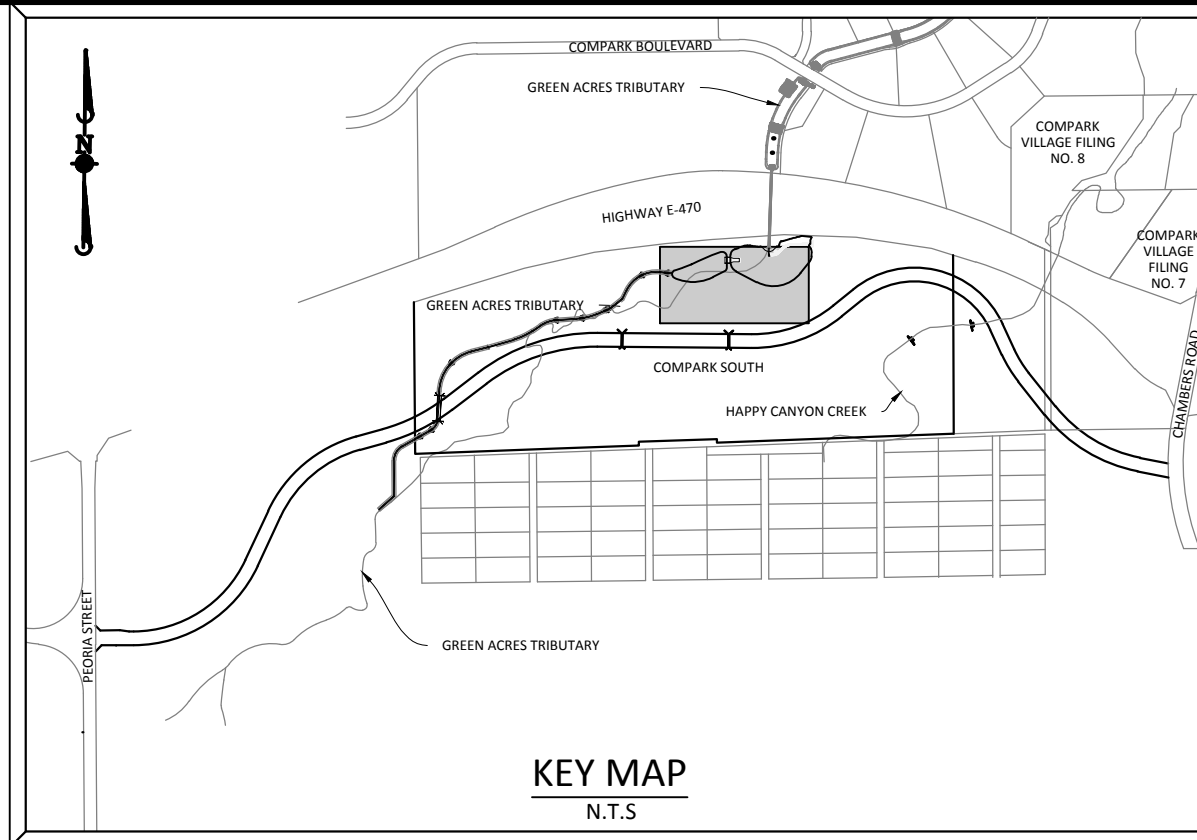
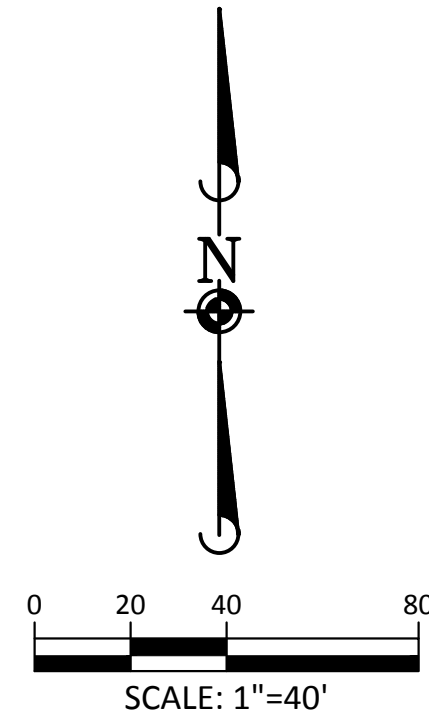
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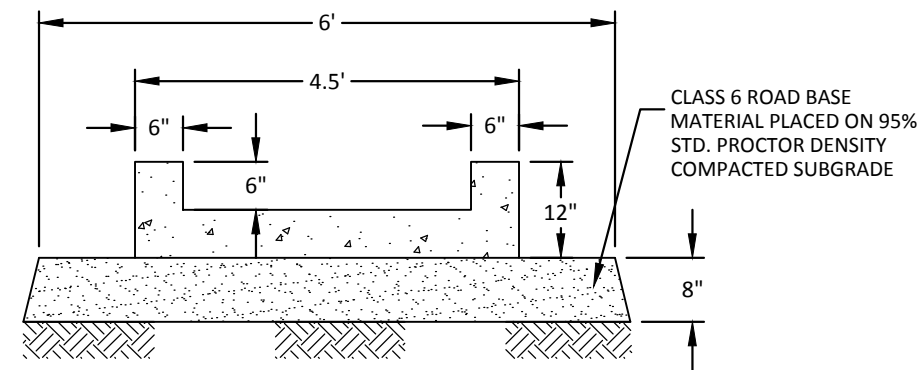
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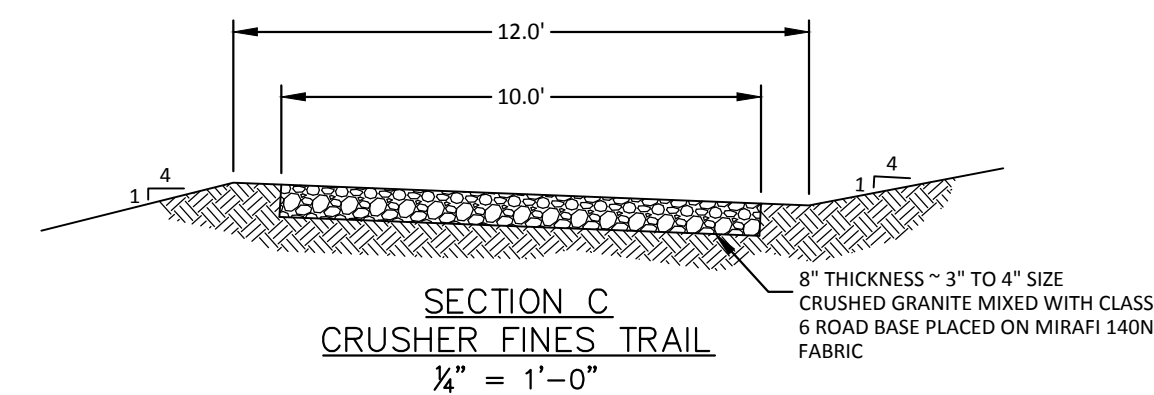
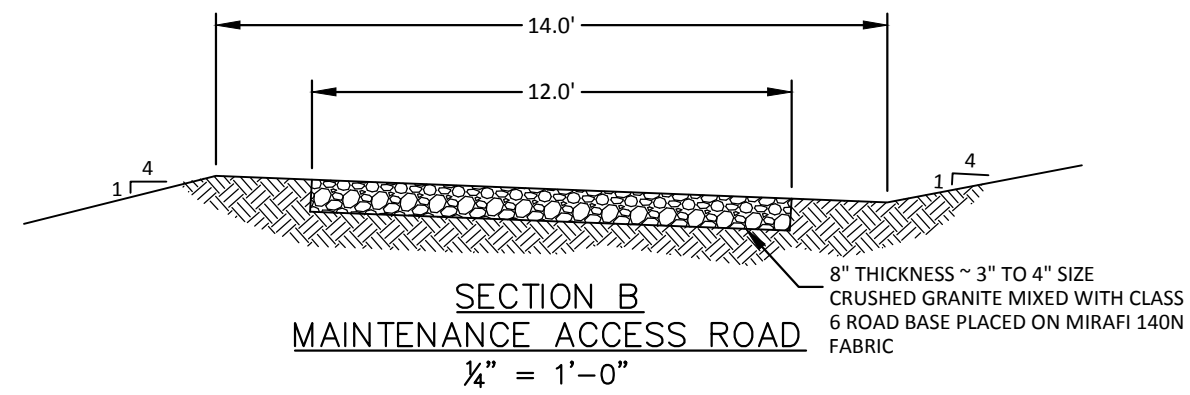
TYPICAL POND SECTION
SCALE: 1"=10'



SOURCE BENCHMARKS:
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THE CENTERLINE OF COMPARK BOULEVARD. ELEVATION = 5752.84 (NAVD 88)



NOTE: USE 4 POUNDS PER CU. YD.
OR FIBRE MESH TO REINFORCE
CONCRETE



	VOLUME	WSE	DISCHARGE
100 YR	13.1 AC-FT	5790.0	569.1 CFS
EURV	7.7 AC-FT	5788.5	3.2 CFS

NOTE: A FLOODPLAIN DEVELOPMENT PERMIT IS REQUIRED FOR CONSTRUCTION WITHIN THE ZONE A OF THE GREEN
ACRES TRIBUTARY

TOWN OF PARKER APPROVALS

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TOWN OF PARKER, DIRECTOR OF ENGINEERING DATE

COMPARK VILLAGE SOUTH GREEN ACRES TRIBUTARY

TOWN OF PARKER, COLORADO

DETENTION POND PLAN

PROJ. MGR.: RLB
PROJ. ASSOC.: ASD
DRAWN BY: ETG
DATE: 11/2015

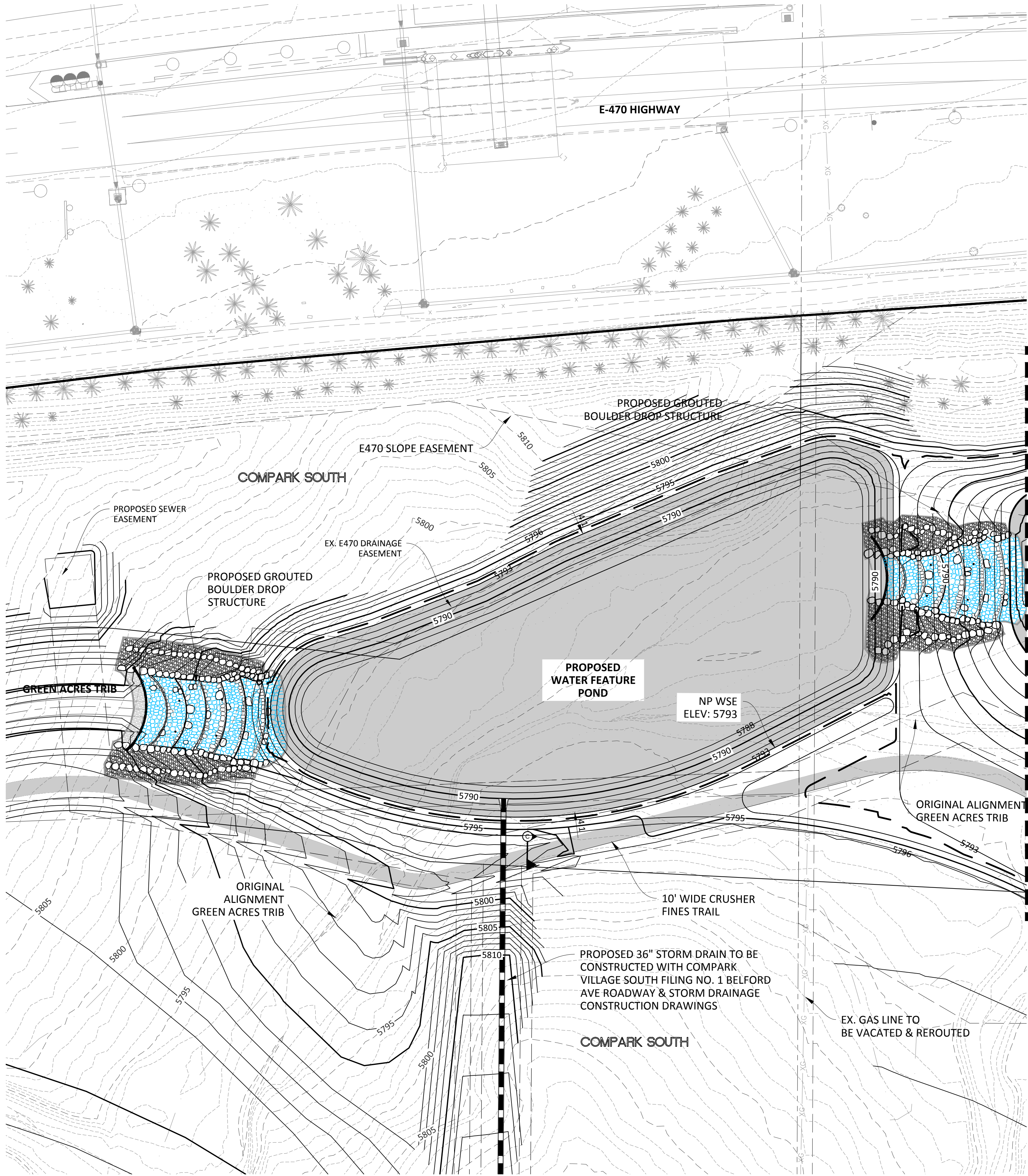
SHEET
11 OF **35**
CLPCPK3

DATE	REVISIONS
06/2016	2ND SUBMITTAL
11/2015	1ST SUBMITTAL

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Plotted: 6/11/2016 11:34 AM Draw Name: P:\Cpck3\CompSouth02\GreenAcresTrib.dwg(Eng) Final Drawings\Plus\South\CLCPKC3_Drainage-Bond Plan (1).dwg Updated By: afrucker



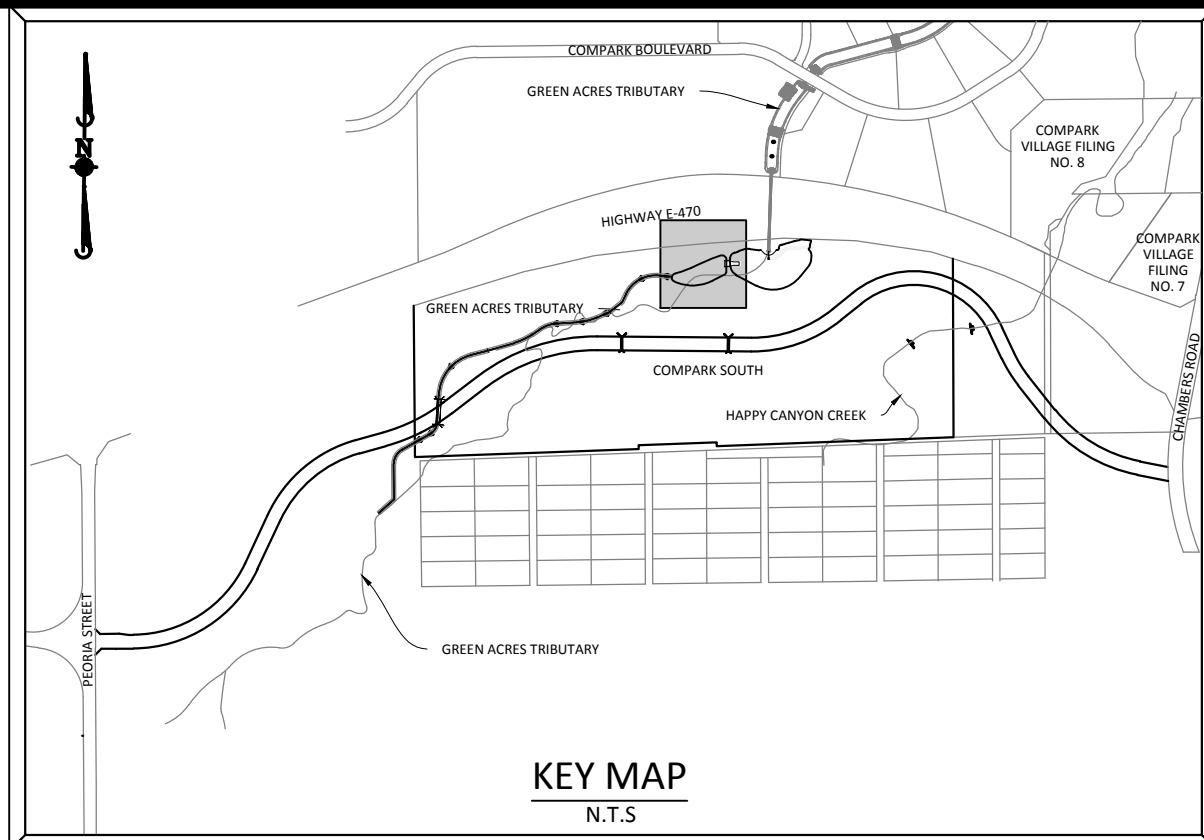
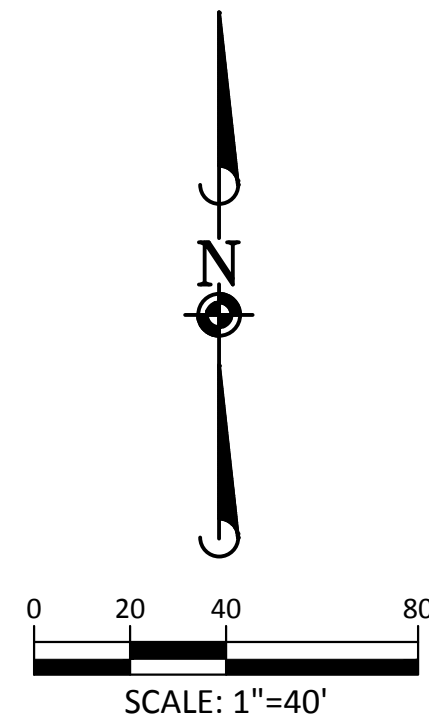
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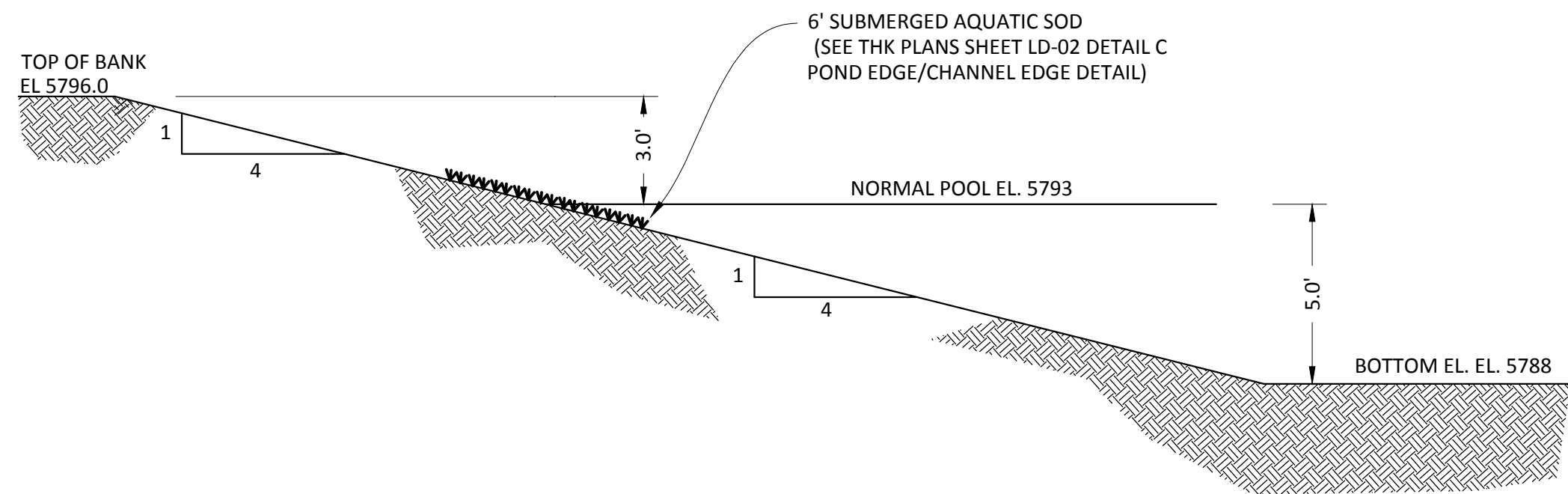
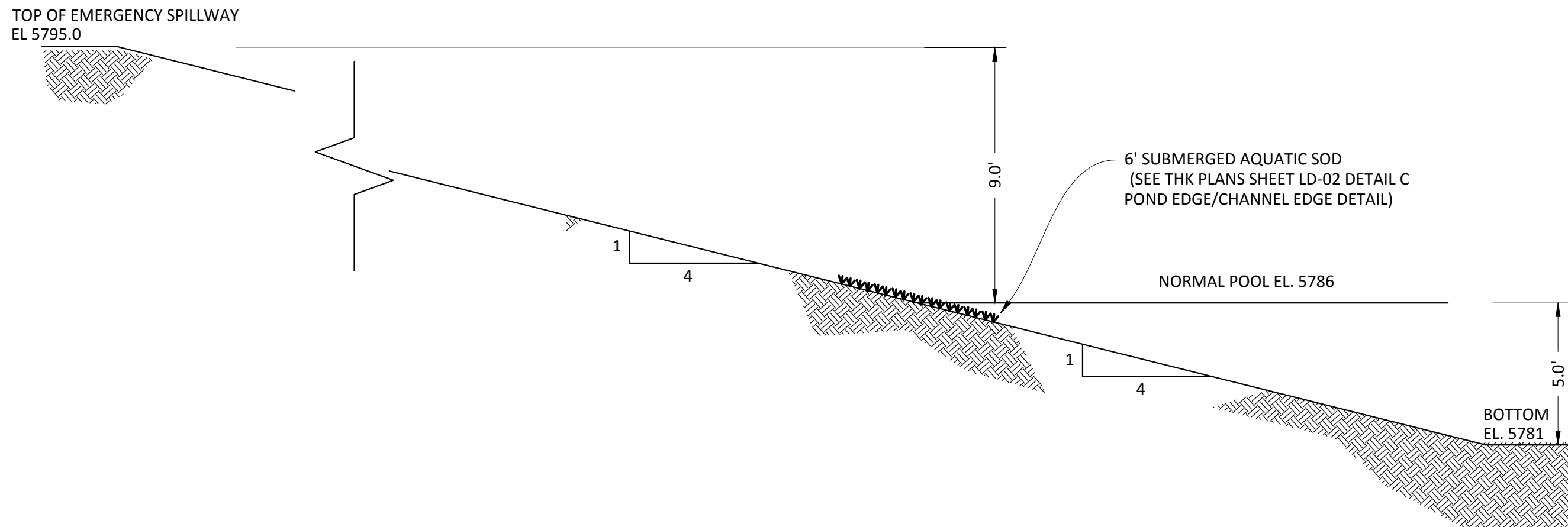
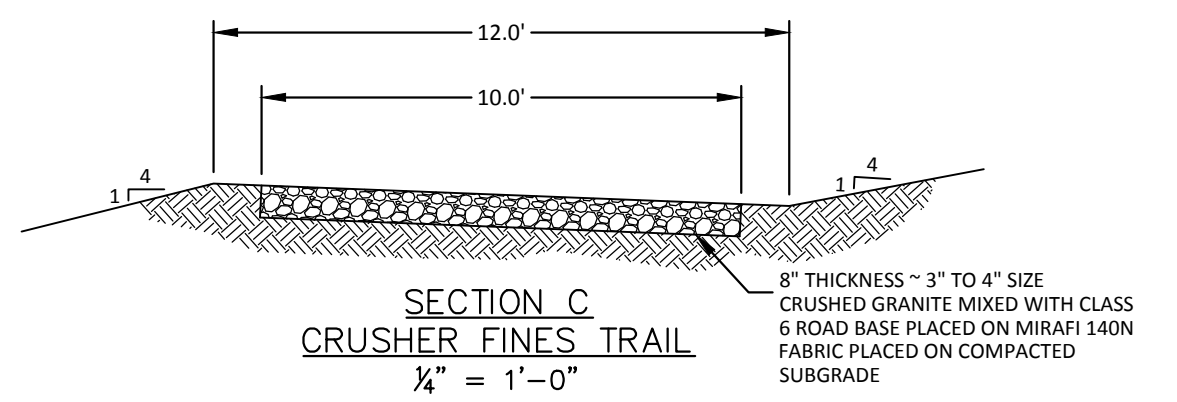
TOWN OF PARKER, DIRECTOR OF ENGINEERING

DATE



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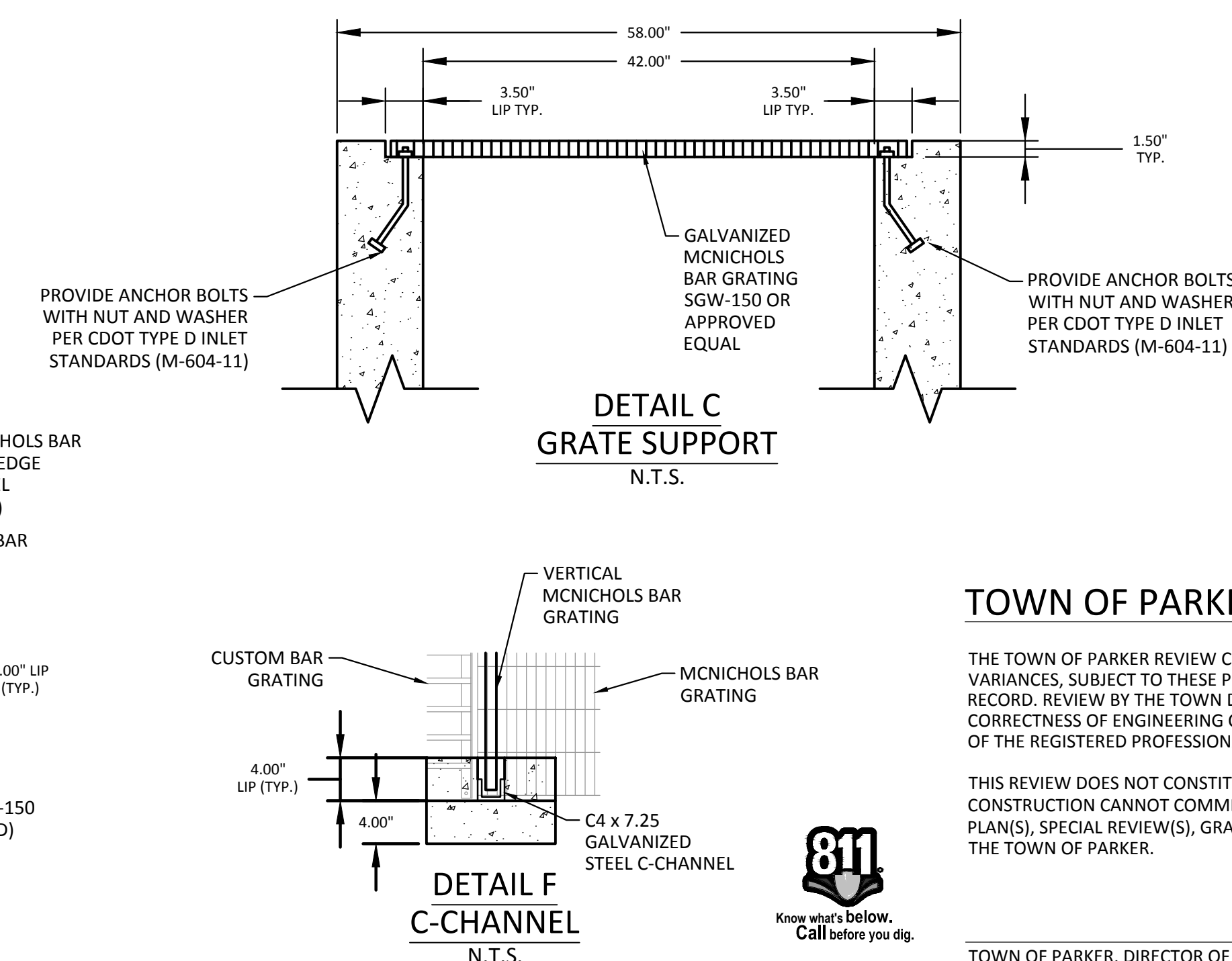
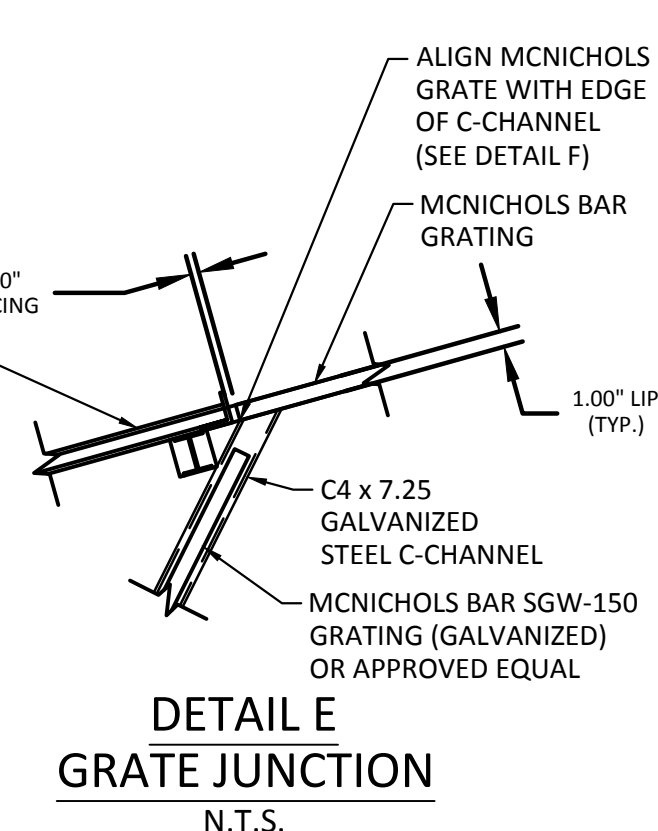
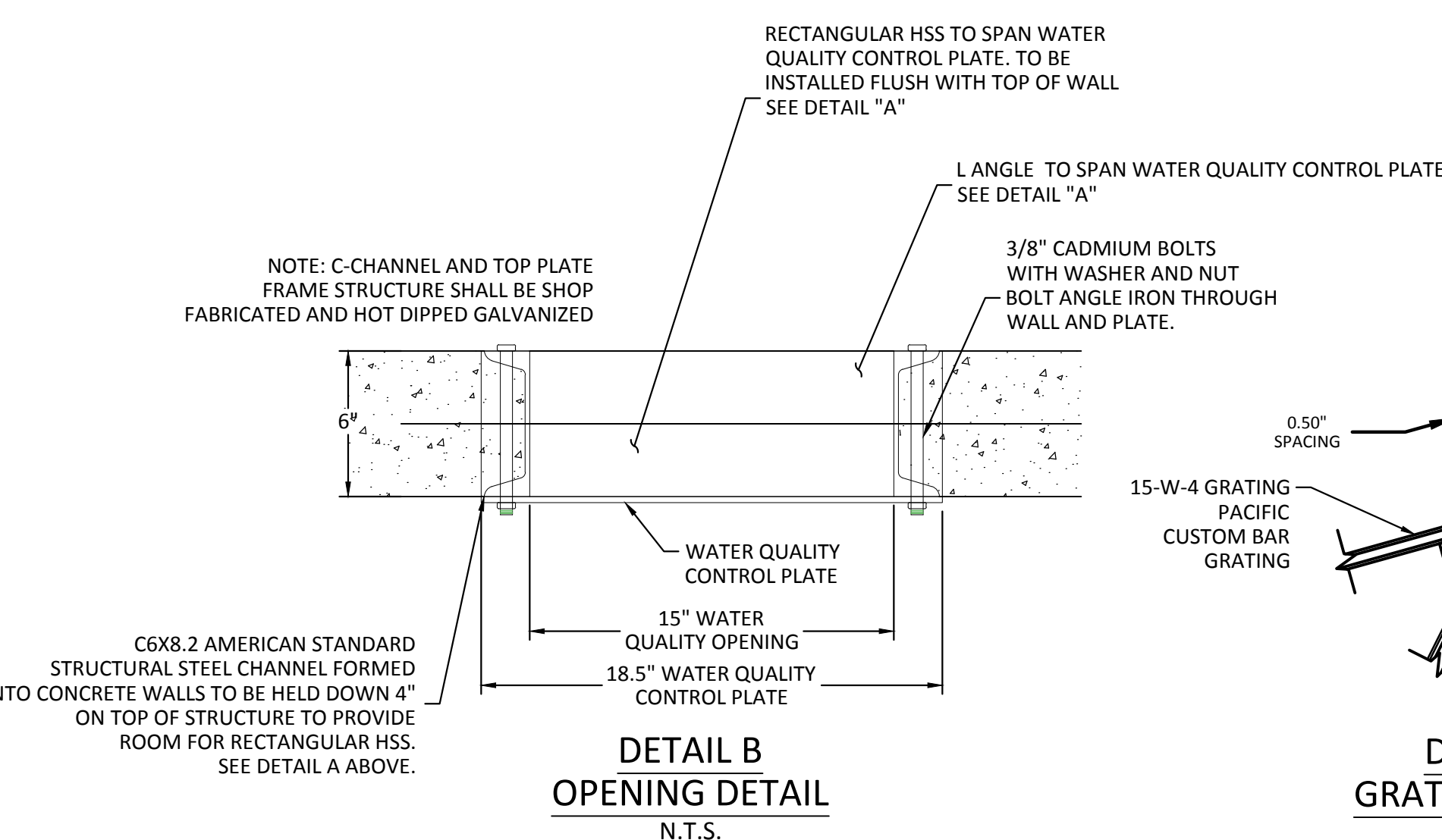
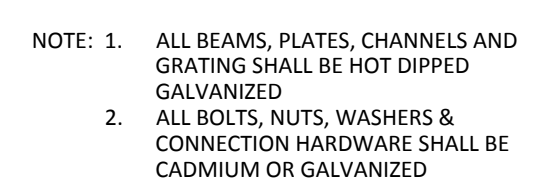
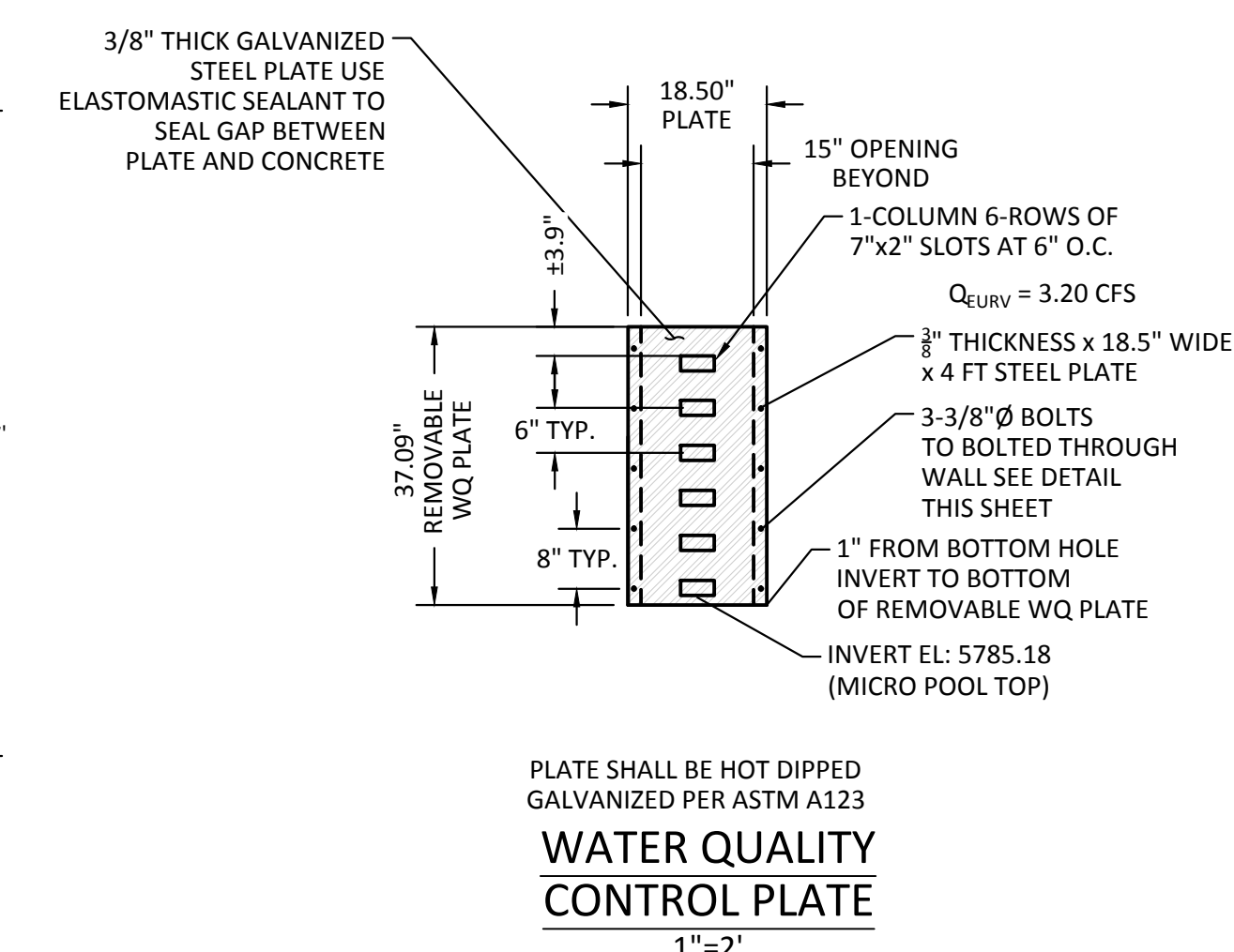
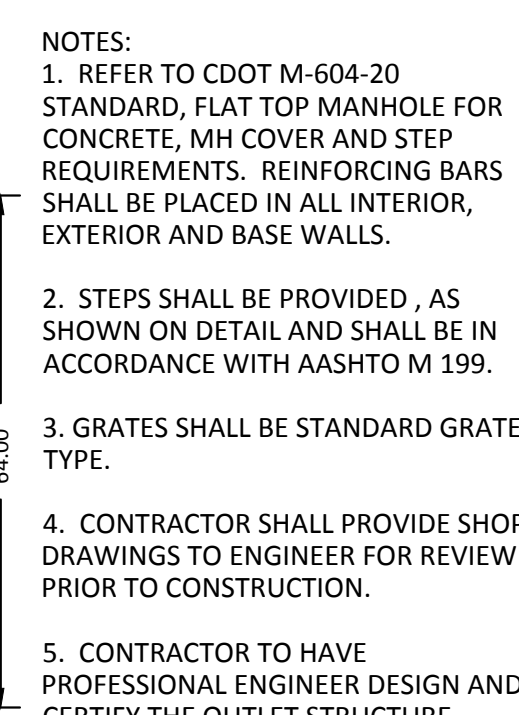
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11/2015	1ST SUBMITTAL	A		
06/2016	2ND SUBMITTAL	B		
06/2016	3RD SUBMITTAL	C		

COMPARK VILLAGE SOUTH GREEN ACRES TRIBUTARY
TOWN OF PARKER, COLORADO
DETENTION POND PLAN

PROJ. MGR.: RLB
PROJ. ASSOC.: ASD
DRAWN BY: ETG
DATE: 11/2015

SHEET
12 OF 35
CLCPKC3

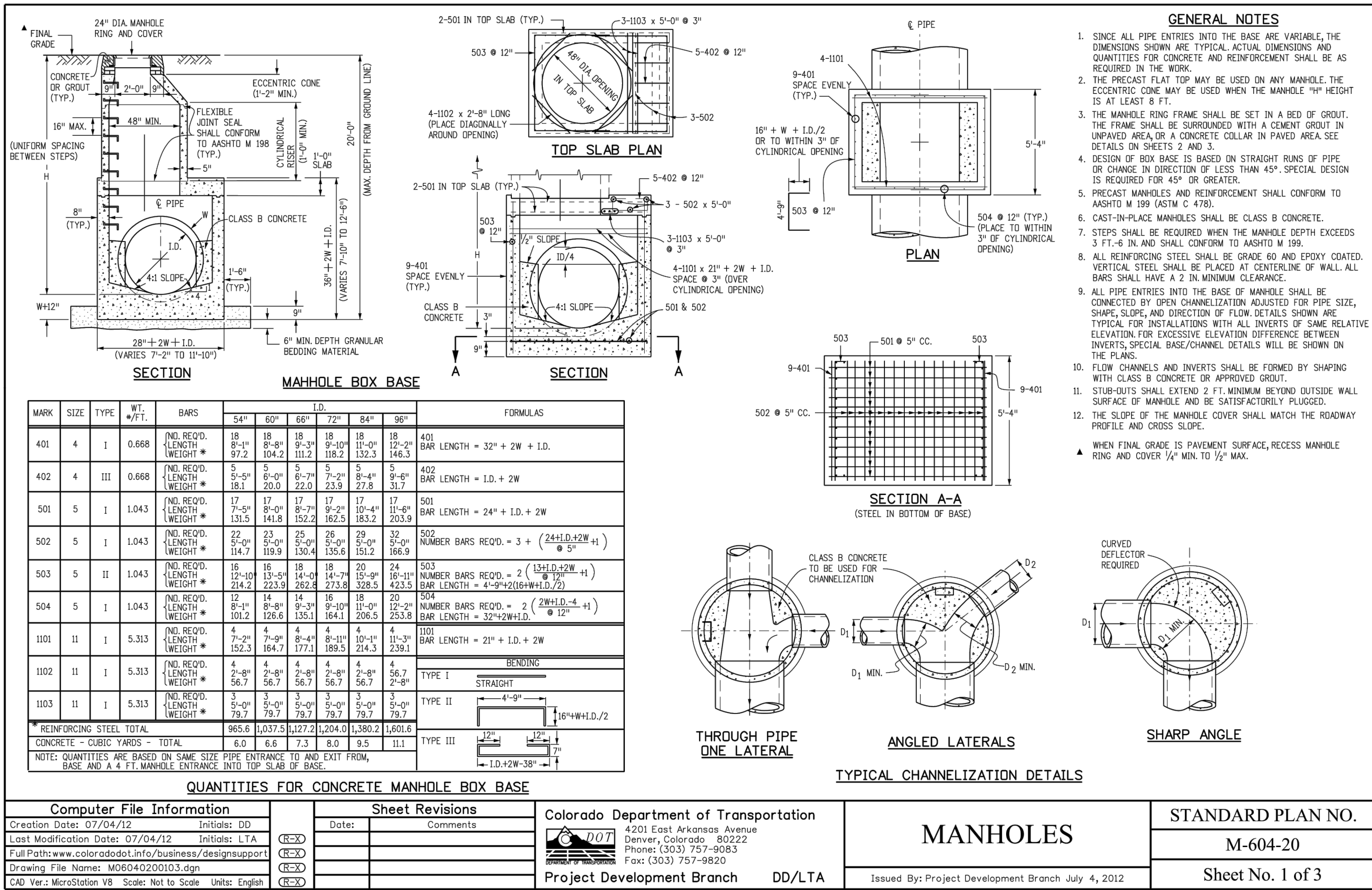
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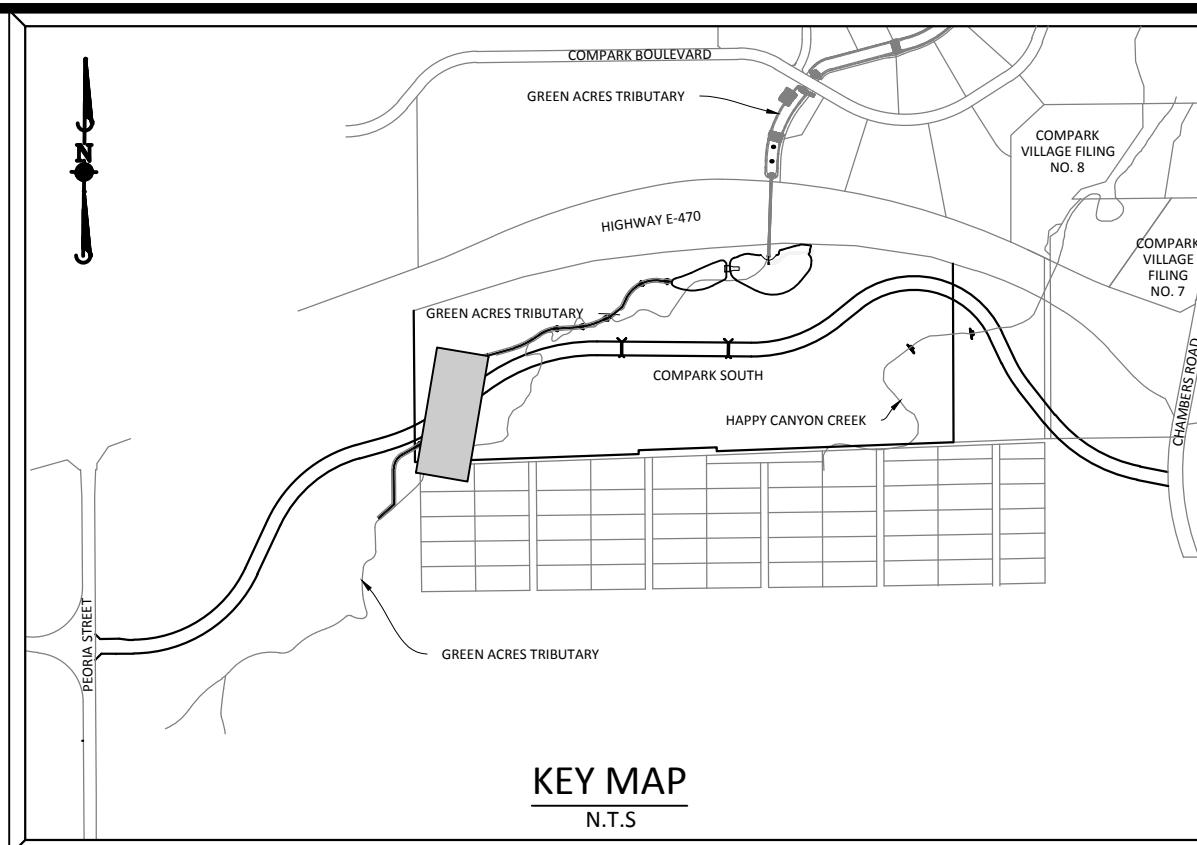


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Plotted: 6/11/2016 11:36 AM Dwg Name: P:\Cpck3\Consouth02 GreenAcresTrb.dwg\Eng\Final Drawings\Plot Set\Town\CLCPKC3 Drainage-Pond Outlet Struc.dwg Updated By: jdrucker





SECTION THROUGH ARCH CULVERT

GAT TYPICAL CHANNEL SECTION



LOCATION : AURORA CO

PREPARED FOR: Mark Wilson, THK Assoc.

PROJECT ID#: 217067134

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PROJECT DATA SUMMARY:

WINGWALLS			
WW1 Angle	45 DEG	WW3 Angle (diag.)	45 DEG
WW1 Length	26.5 FT	WW3 Length (H)	26.5 FT
WW1 Height	13.3 FT	WW3 Height	13.3 FT
WW1 Drop	7.0 FT	WW3 Drop (H)	7.0 FT
WW2 Angle	45 DEG	WW4 Angle (diag.)	45 DEG
WW2 Length	26.5 FT	WW4 Length (H)	26.5 FT
WW2 Height	13.3 FT	WW4 Height (H)	13.3 FT
WW2 Drop	7.0 FT	WW4 Drop (H)	7.0 FT

NOTE: Effective waterway area based on span and clear rise.



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ARCH SYSTEMS
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COMM PARK

10TH BRIDGE #1

CO	Tom Nichols PeeTalk Group (837) 416-5902
----	--

PRETEK
GROUP
P.O. BOX 751471
DAYTON, OH 45475
(800) 241-0925

PROJECT ID# 217667134
SHEET No 2 OF 6
DATE: 10/01/2015

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4 AURORA

ARK SOUTH BRIDGE

	CO
--	----

Chelson
Group
4-5925

 171 5475 S	PROJECT ID# 21
	SHEET No 5
	DATE: 10/01/



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COMM PARK SOUT

BRIDGE #1

Tom Nicholson
PnsTek Group
(937) 414-5825

PRETEK GROUP P.O. BOX 751471 LYTON, OH 45475 (800) 241-0925	PROJ.
	S
	D

217067134
4 of 5
01/2015

cc

11

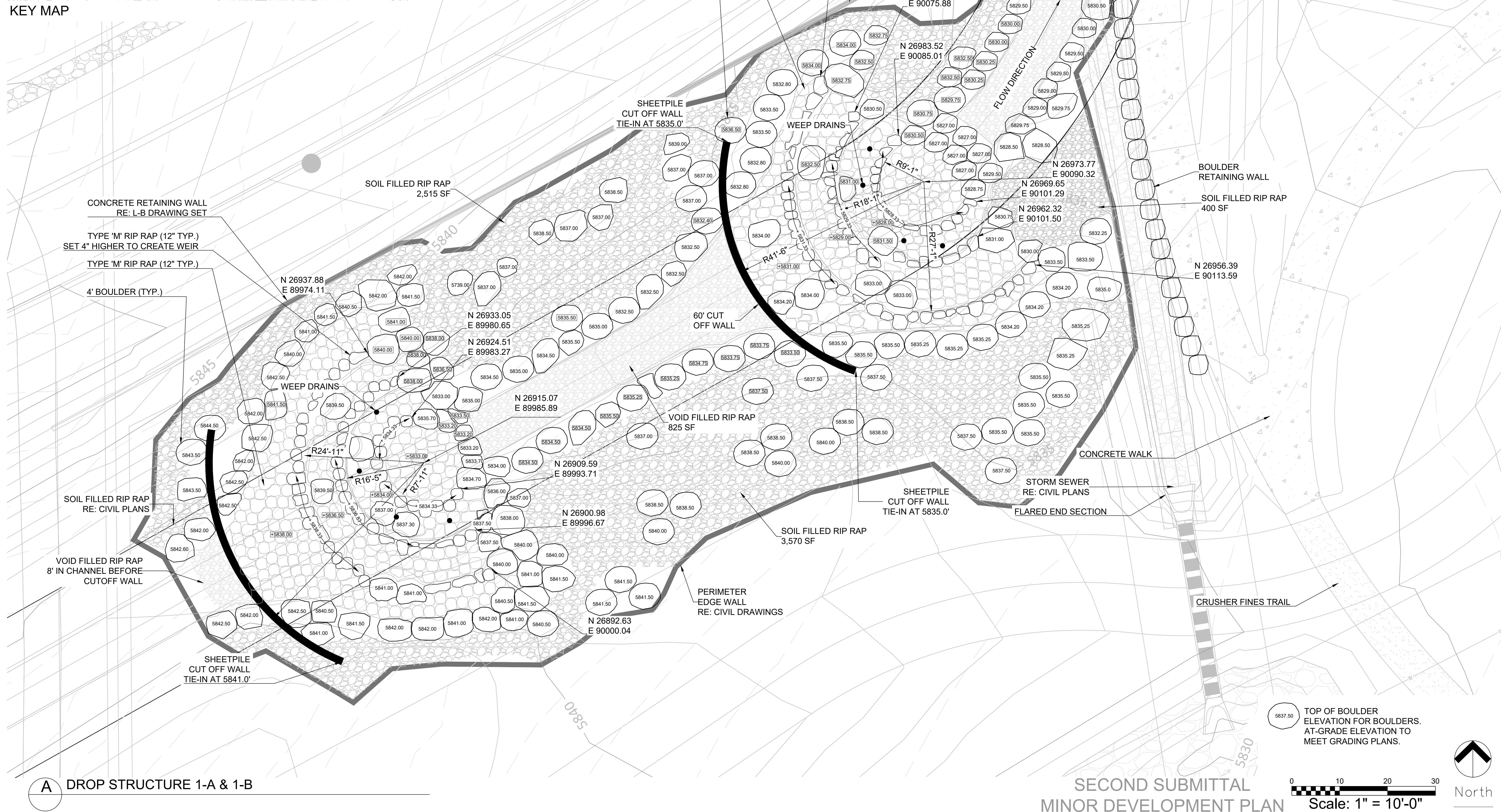
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PROJ. MGR.: RLB
PROJ. ASSOC.: ASD
DRAWN BY: ETG
DATE: 11/2015

SHEET
17 OF 35

PENDING APPROVAL

[illegible]

[illegible]

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Tel: 303.770.1201 • Fax: 303.770.1202 • Email: info@manhard.com

BELFORD AVE. LANDSCAPE PLAN

PARKER, COLORADO

COMPARK VILLAGE PLANNED DEVELOPMENT

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PROJ. MGR.:	<u>MW</u>
PROJ. ASSOC.:	<u>JB</u>
DRAWN BY:	<u>JB</u>
DATE:	<u>6/03/16</u>

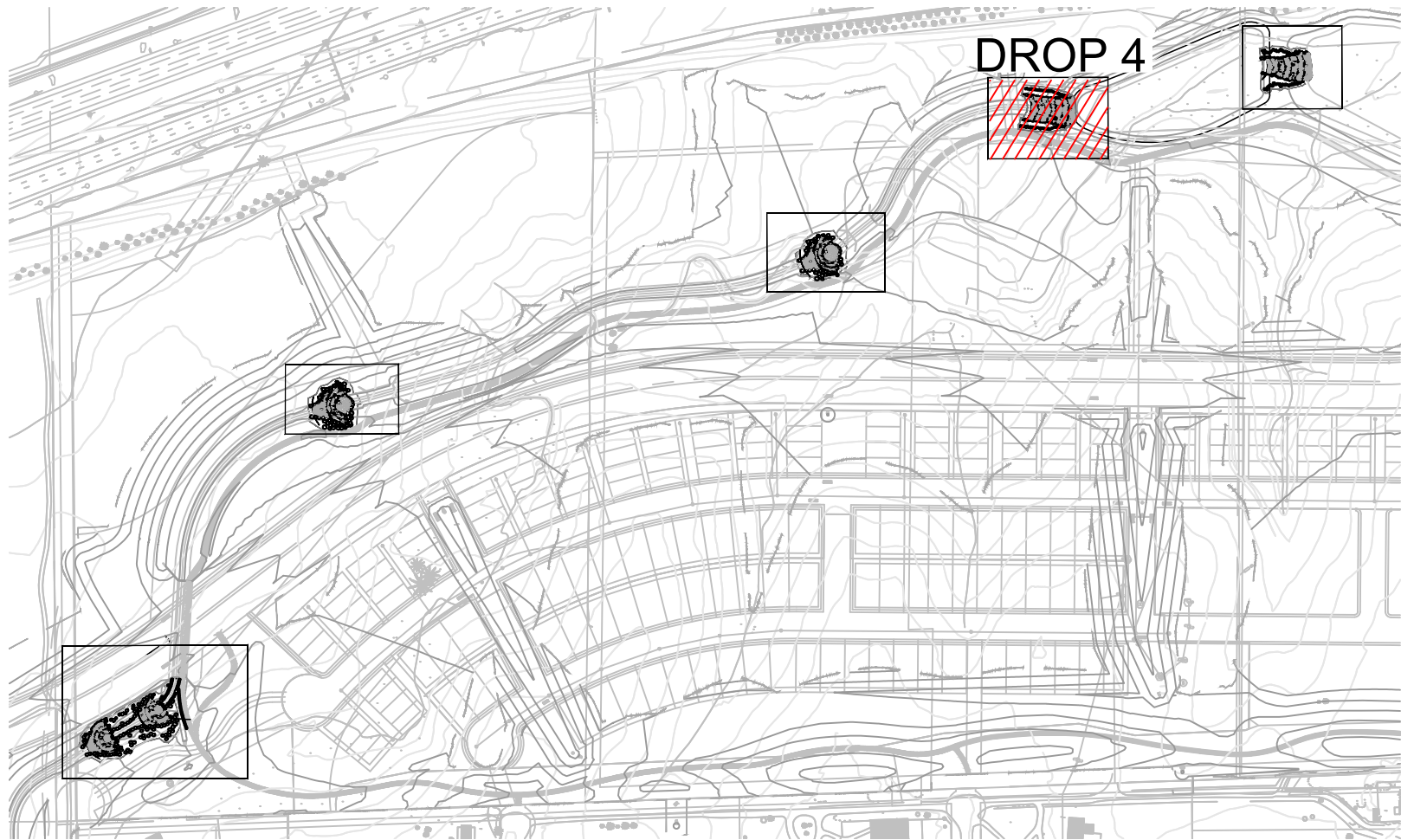
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23

SHEET 23 OF 38

7681-000

Plotted: 6/7/2016 11:34 AM Dwg Name: L:\7681-000 Vickers Trust-Mt Belford\04_CAD\4.2_Models\160605_7681_COMPARK_DROP_Boulders-clean.dwg Updated By: jbockey



A DROP STRUCTURE 4

0 10 20 30
Scale: 1" = 10'-0"



BELFORD AVE. LANDSCAPE PLAN	
PARKER, COLORADO	
COMPARK VILLAGE PLANNED DEVELOPMENT	
PROJ. MGR.: MW PROJ. ASSOC.: JB DRAWN BY: JB DATE: 6/03/16 SHEET 24 SHEET 24 OF 38 7681-000	

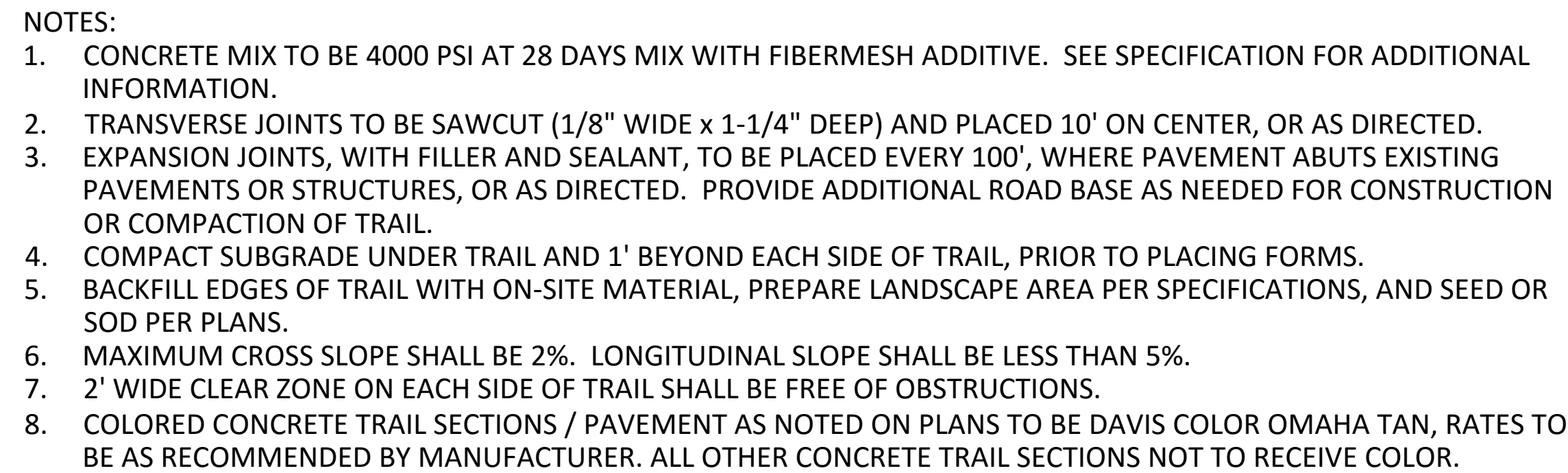


SECOND SUBMITTAL MINOR DEVELOPMENT PLAN

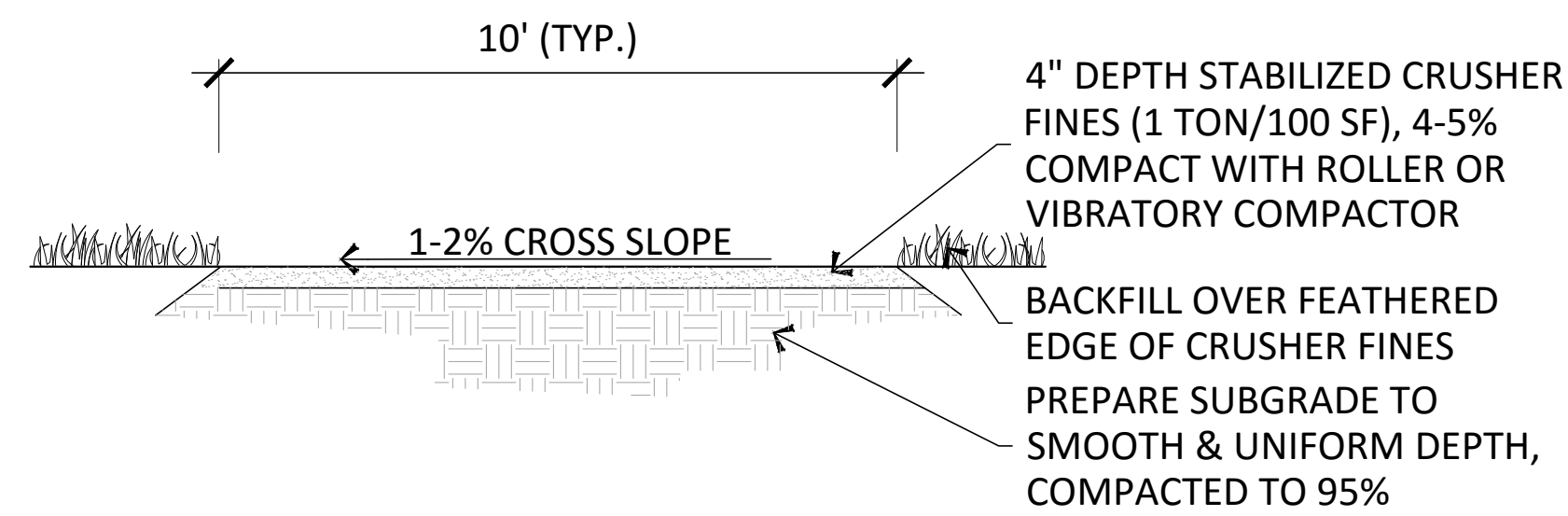


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PROJ. ASSOC.: JB
DRAWN BY: JB
DATE: 6/03/16

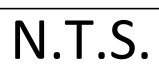
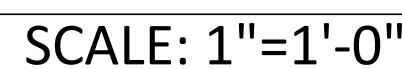
SHEET
25
SHEET 25 OF 38
7681-000



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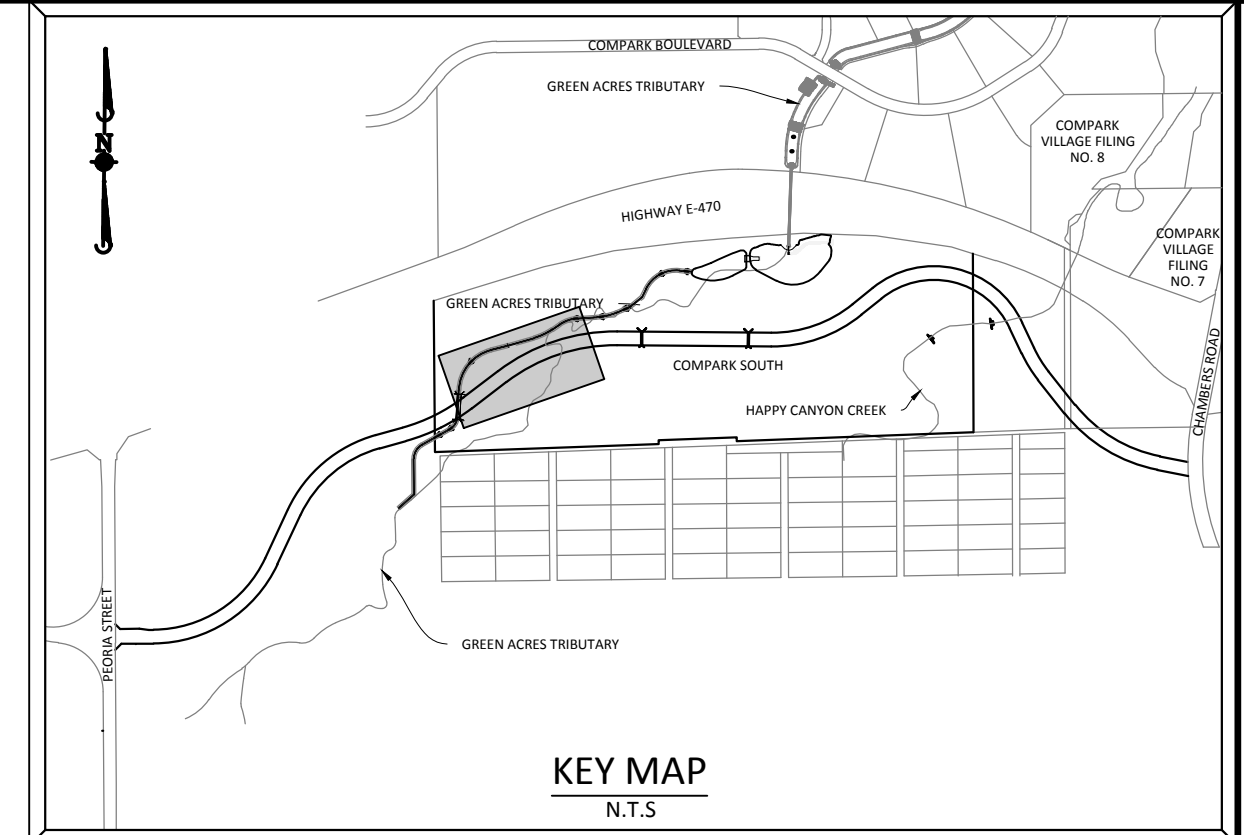
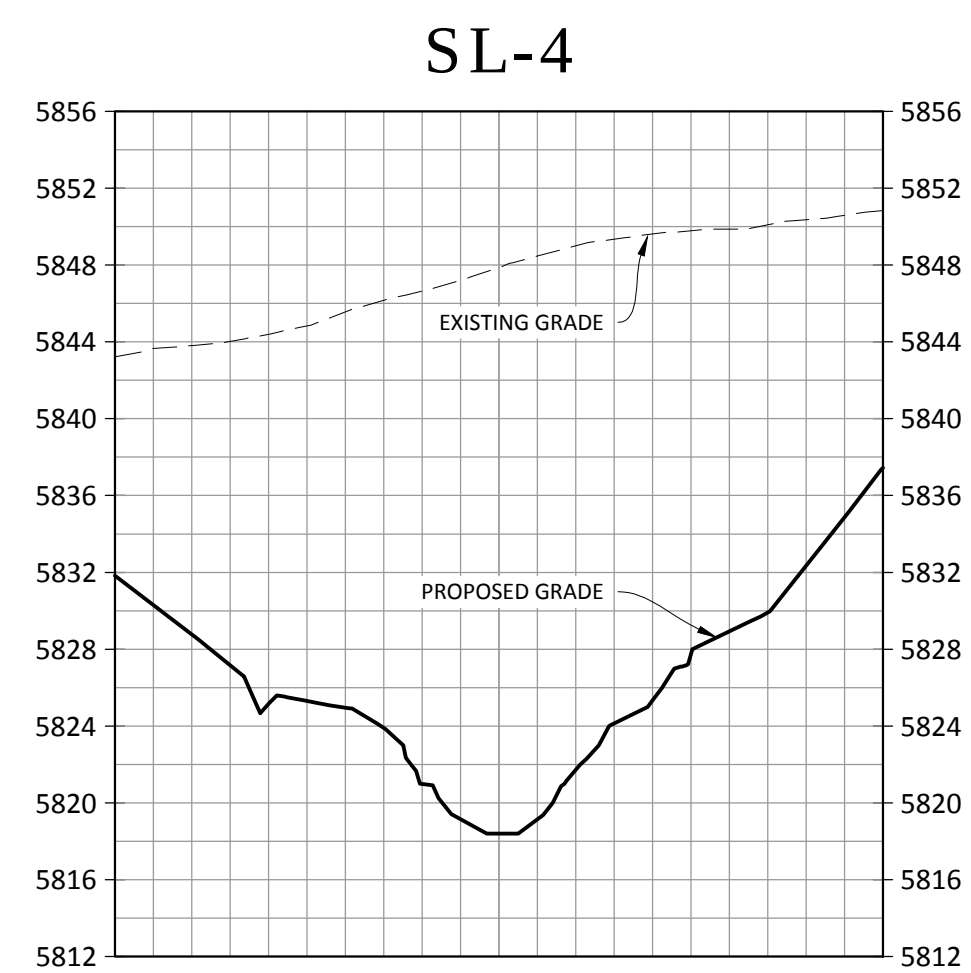
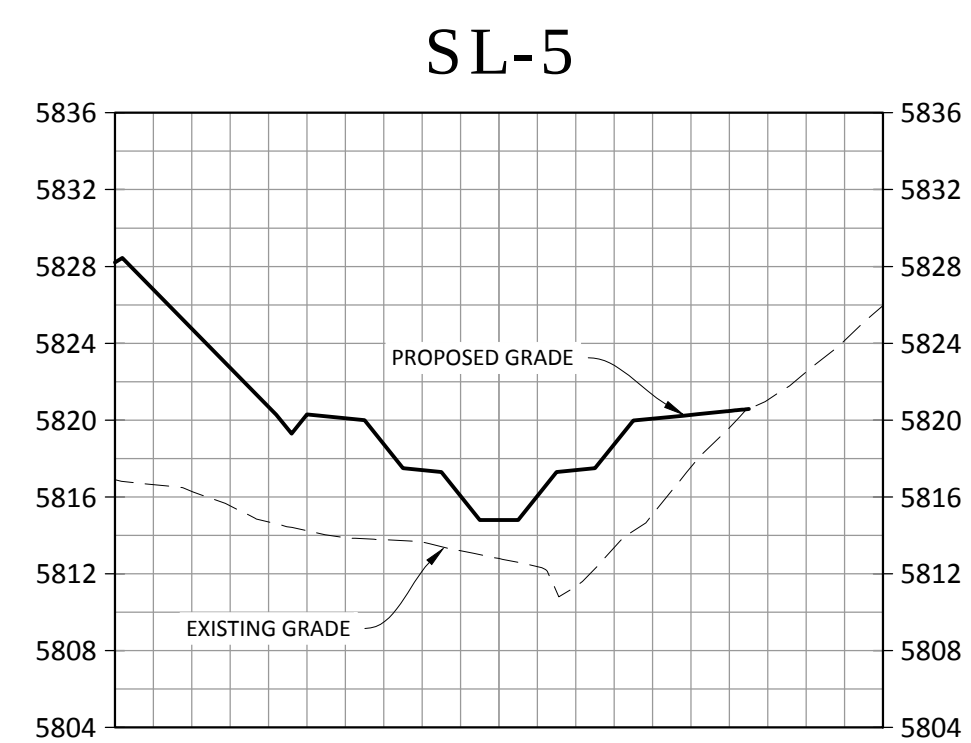
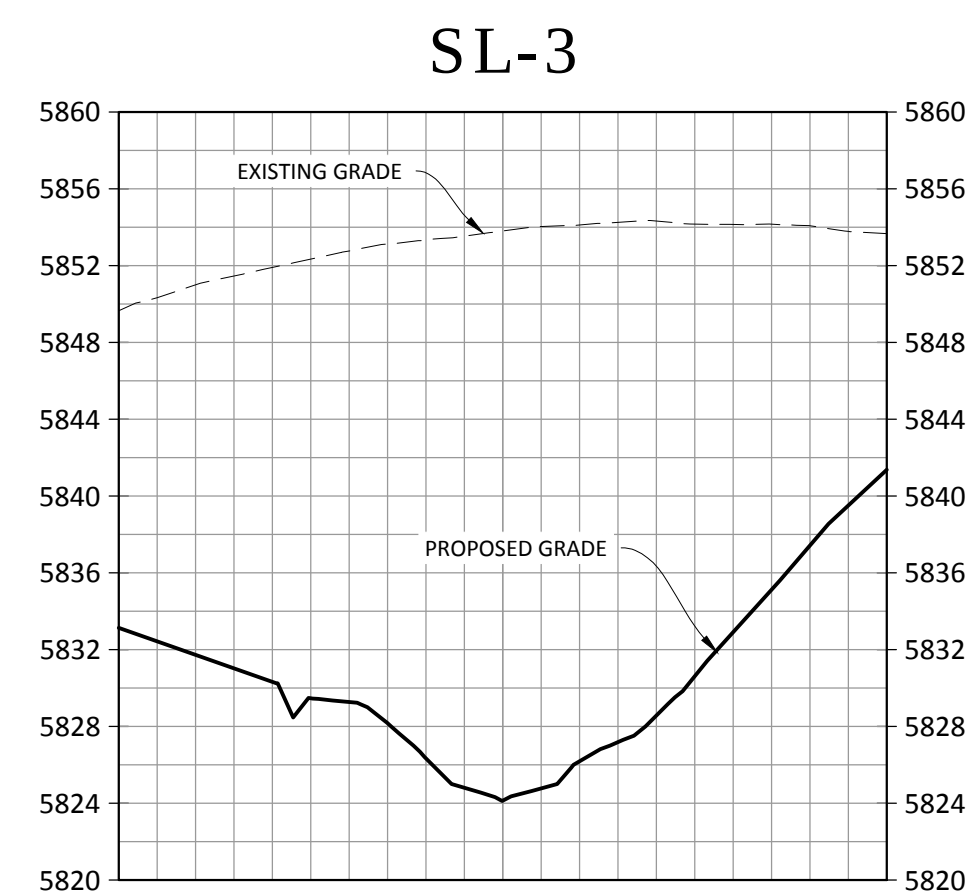
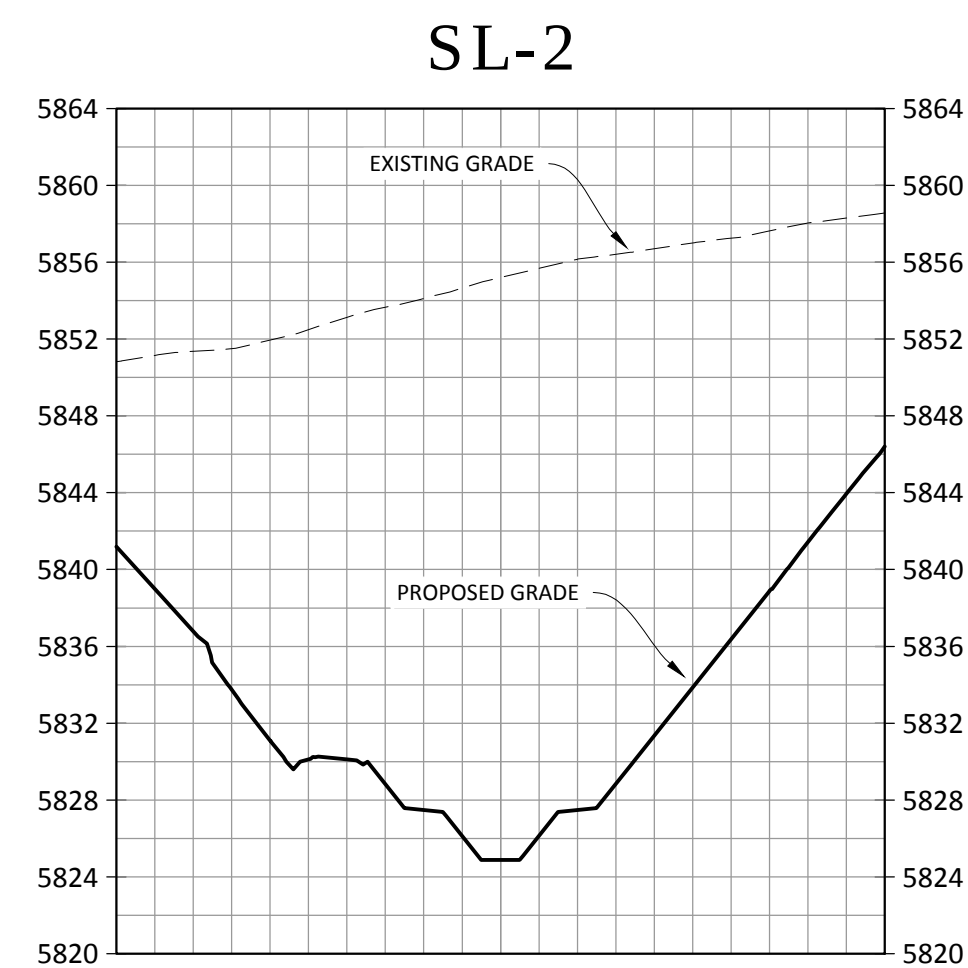
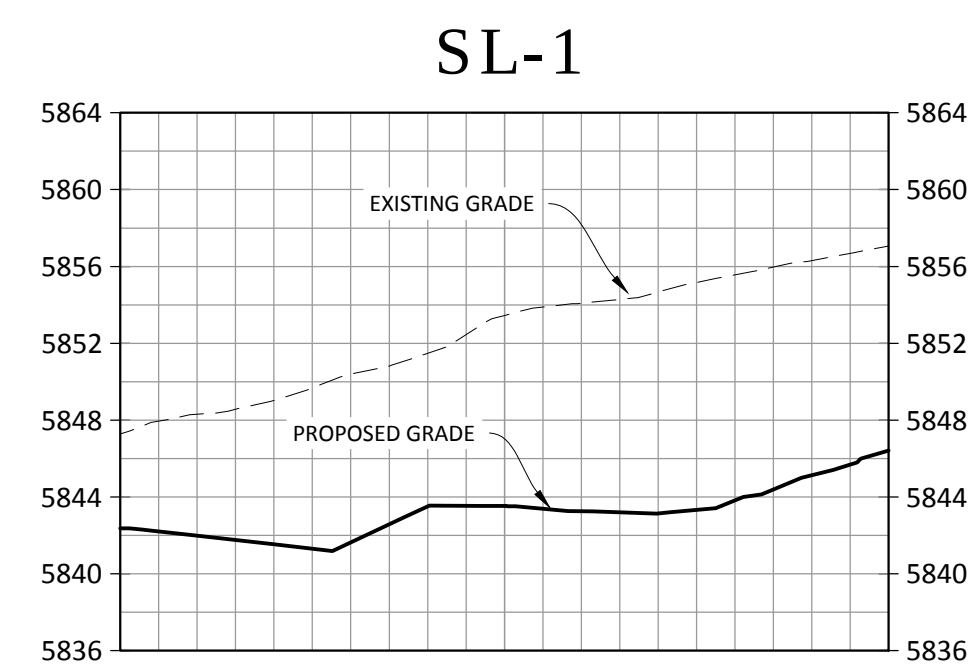
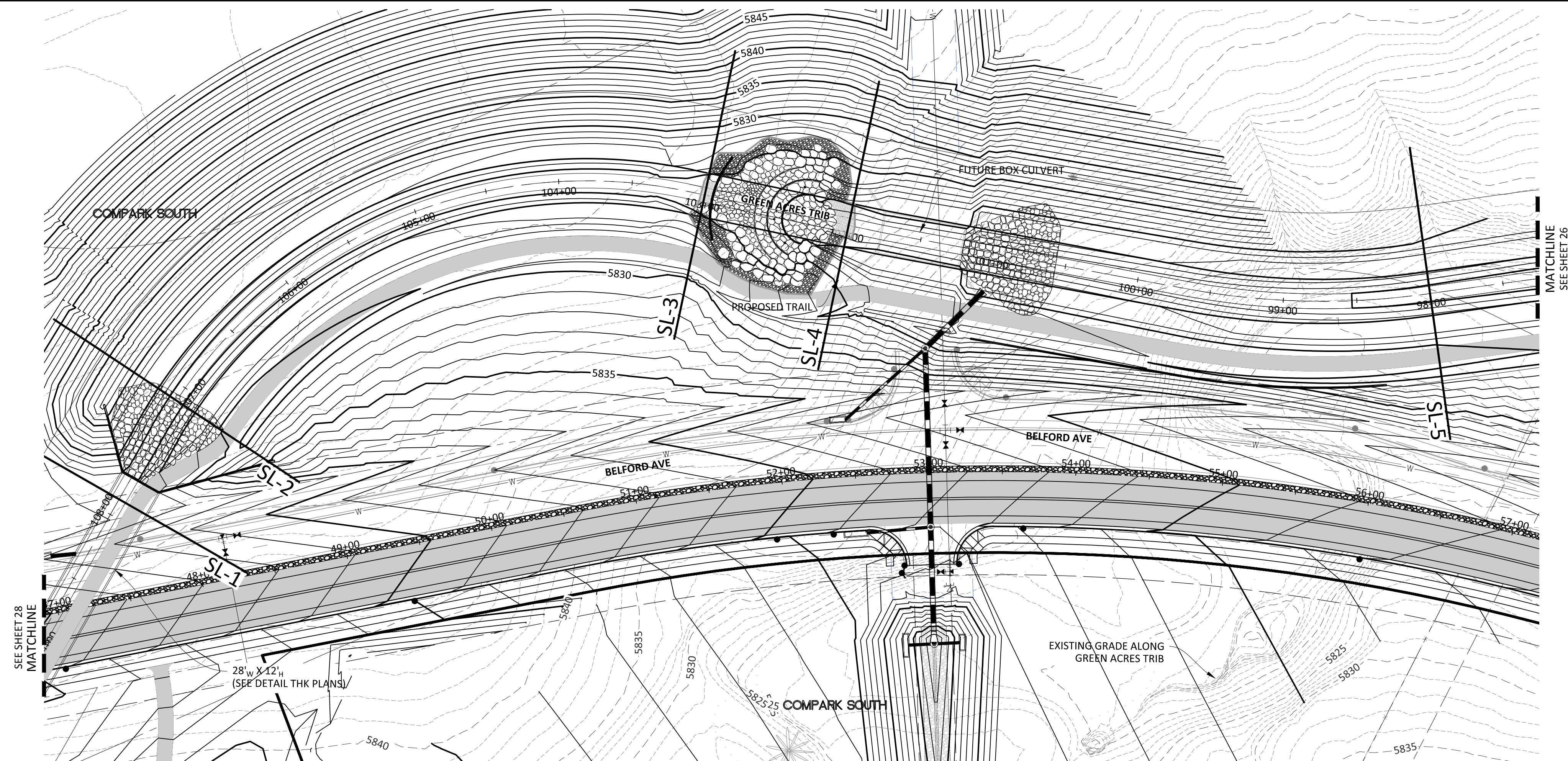


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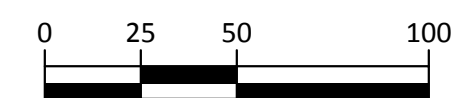
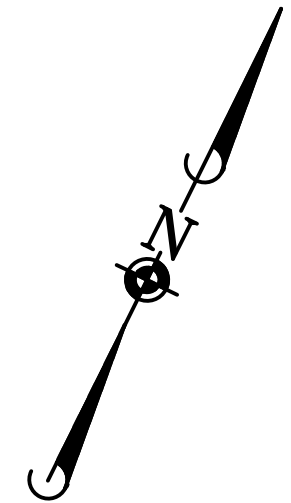
GENERAL NOTES

1. CONTRACTOR TO VERIFY FIELD CONDITIONS AND NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH THE WORK.
2. CONTRACTOR SHALL HAVE UTILITIES STAKED OR LOCATED (811) AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
3. ALL DROP STRUCTURE BOULDER AND WEIR LOCATIONS TO BE FIELD VERIFIED BY THE LANDSCAPE ARCHITECT OR ENGINEER PRIOR TO GROUTING IN PLACE.



SOURCE BENCHMARKS:

DOUGLAS COUNTY BM 1.115010
A DOUGLAS COUNTY GIS MONUMENT SET IN CONCRETE LOCATED APPROXIMATELY 130 FEET
SOUTHWESTERLY OF THE CENTERLINE OF CHAMBERS ROAD AND 95 FEET NORTHWESTERLY OF
THE CENTERLINE OF COMPARK BOULEVARD. ELEVATION = 5752.84 (NAVD 88)



SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



Know what's **below**.
Call before you dig.

TOWN OF PARKER APPROVALS

THE TOWN OF PARKER REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE TOWN'S STANDARDS AND APPROVED VARIANCES, SUBJECT TO THESE PLANS BEING STAMPED, SIGNED, AND DATED BY THE PROFESSIONAL ENGINEER OF RECORD. REVIEW BY THE TOWN DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN OR ACCURACY OR CORRECTNESS OF ENGINEERING CALCULATIONS. ERRORS IN THE DESIGN OR CALCULATIONS REMAIN THE RESPONSIBILITY OF THE REGISTERED PROFESSIONAL ENGINEER WHOSE STAMP AND SIGNATURE ARE AFFIXED TO THIS DOCUMENT.

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TOWN OF PARKER, DIRECTOR OF ENGINEERING

DATE _____

	DATE	REVISIONS	SUBMITTAL ST.
B	06/2016	2ND SUBMITTAL	
A	11/2015	1ST SUBMITTAL	EG

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COMPARK VILLAGE SOUTH GREEN ACRES TRIBUTARY

TOWN OF PARKER, COLORADO

CHANNEL CROSS SECTIONS

PROJ. MGR.: RLB
PROJ. ASSOC.: ASD
DRAWN BY: ETG
DATE: 11/2015

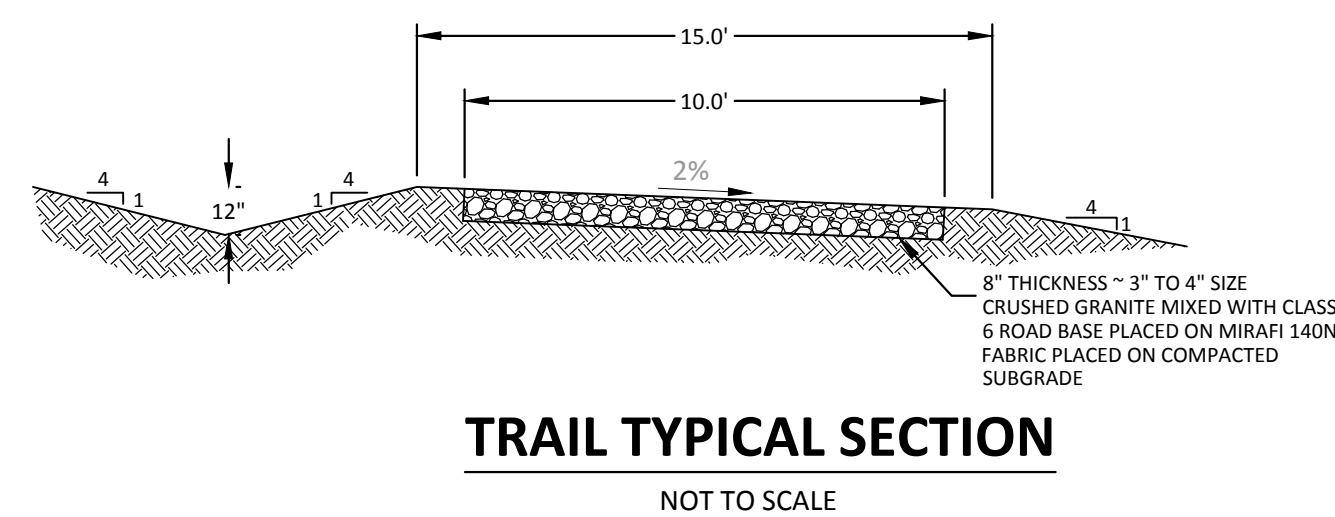
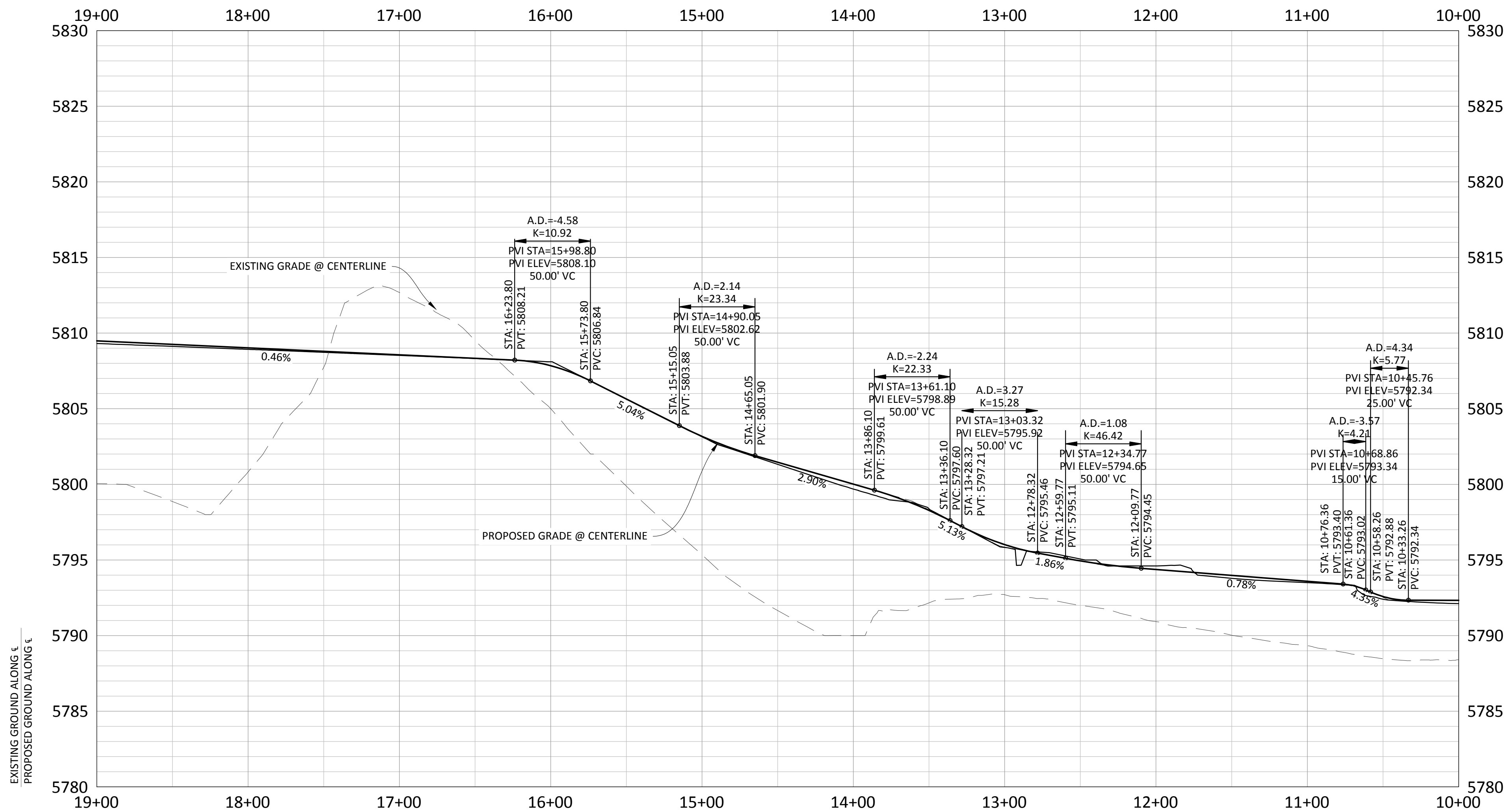
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27 OF 35

CLCPKC3 ---

PENDING APPROVAL

Printed: 6/11/2016 11:50 AM Draw Name: P:\Graphics\ConsSouth02\GreenAcresTrail.dwg (Final Drawings) Plot Set Town\CLCPK3\Trail.dwg (1) dwg Updated By: adrusker



TOWN OF PARKER APPROVALS

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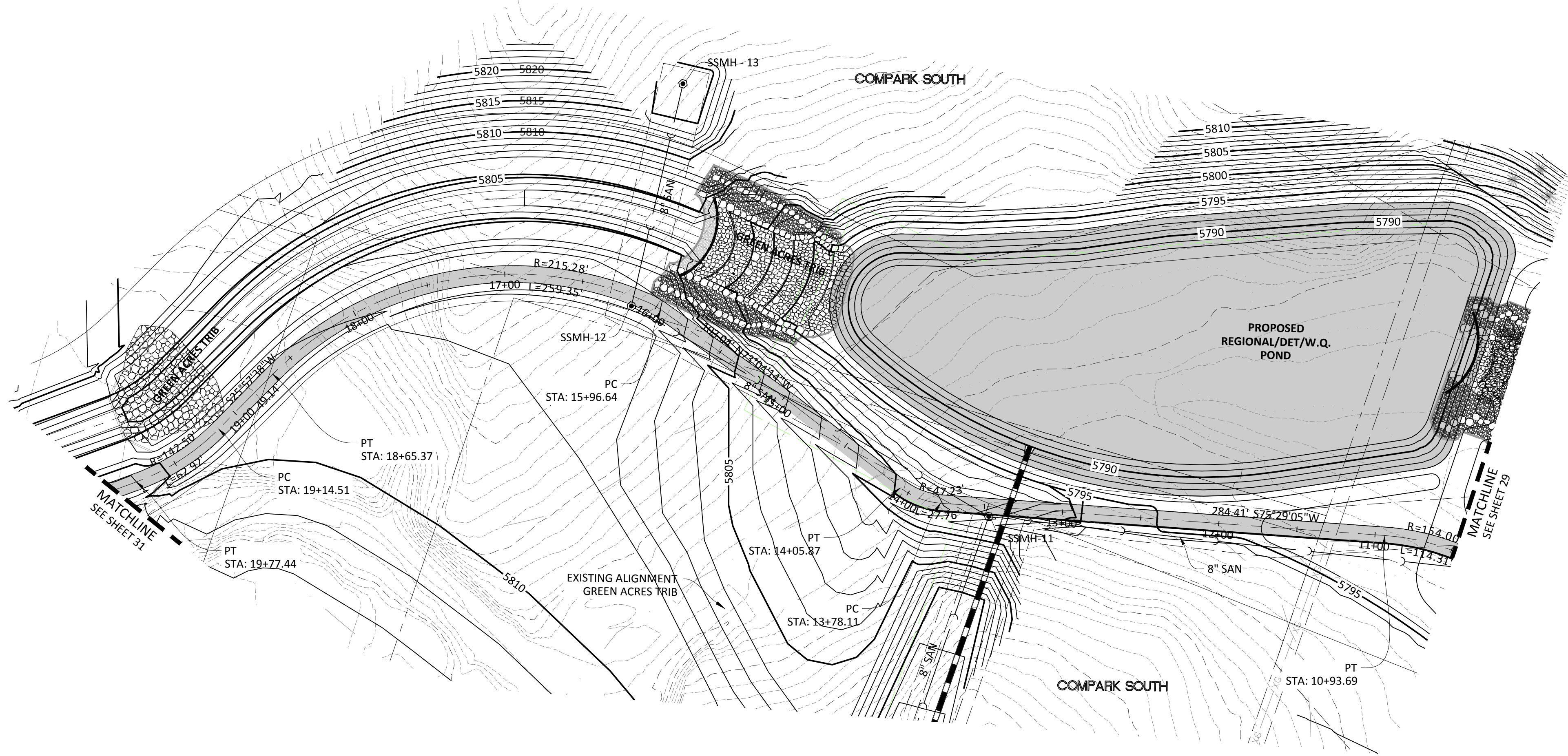
TOWN OF PARKER, DIRECTOR OF ENGINEERING

DATE

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PROJ. MGR.: RLB
PROJ. ASSOC.: ASD
DRAWN BY: ETG
DATE: 11/2015
SHEET
30 OF 35
CLCPK3

PENDING APPROVAL



SOURCE BENCHMARKS:

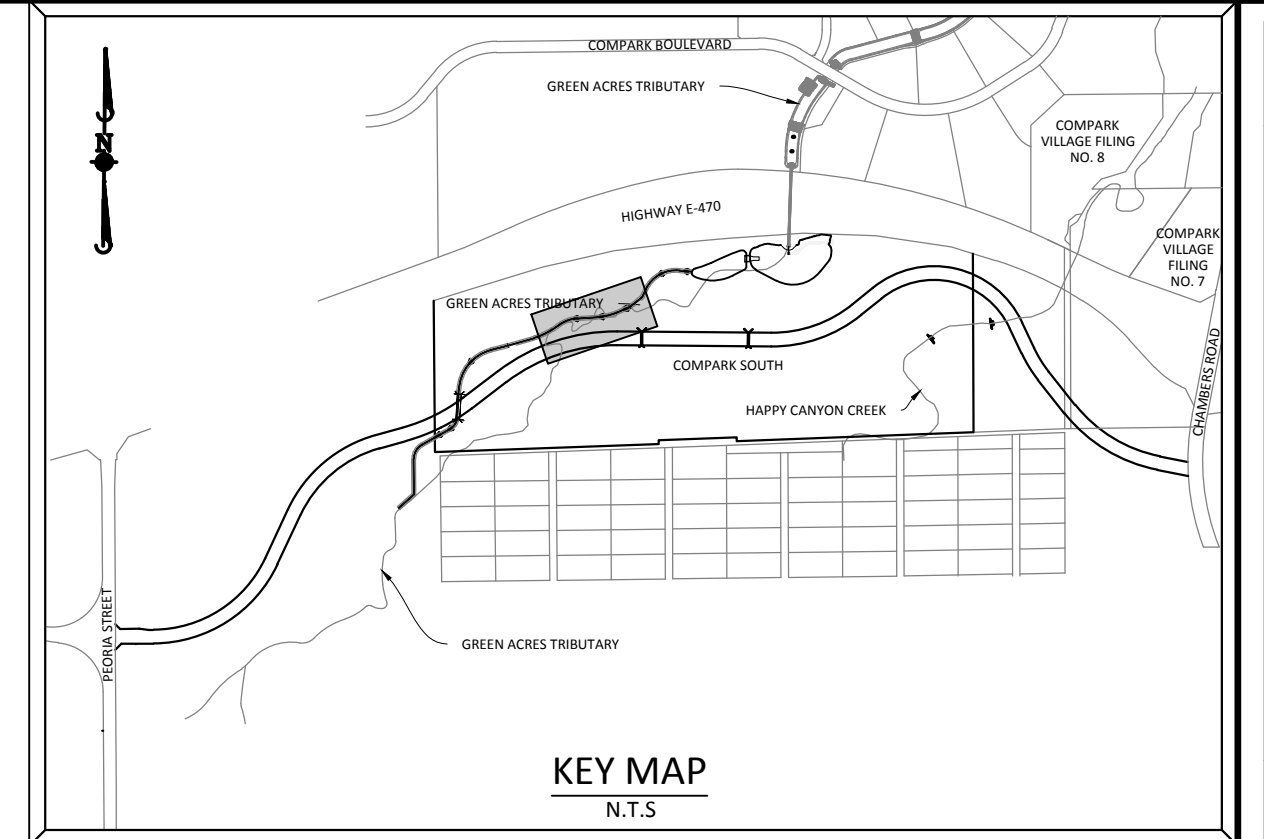
DOUGLAS COUNTY BM 1.115010
A DOUGLAS COUNTY GIS MONUMENT SET IN CONCRETE LOCATED APPROXIMATELY 130 FEET SOUTHWESTERLY OF THE CENTERLINE OF CHAMBERS ROAD AND 95 FEET NORTHWESTERLY OF THE CENTERLINE OF COMPARK BOULEVARD. ELEVATION = 5752.84 (NAVD 88)

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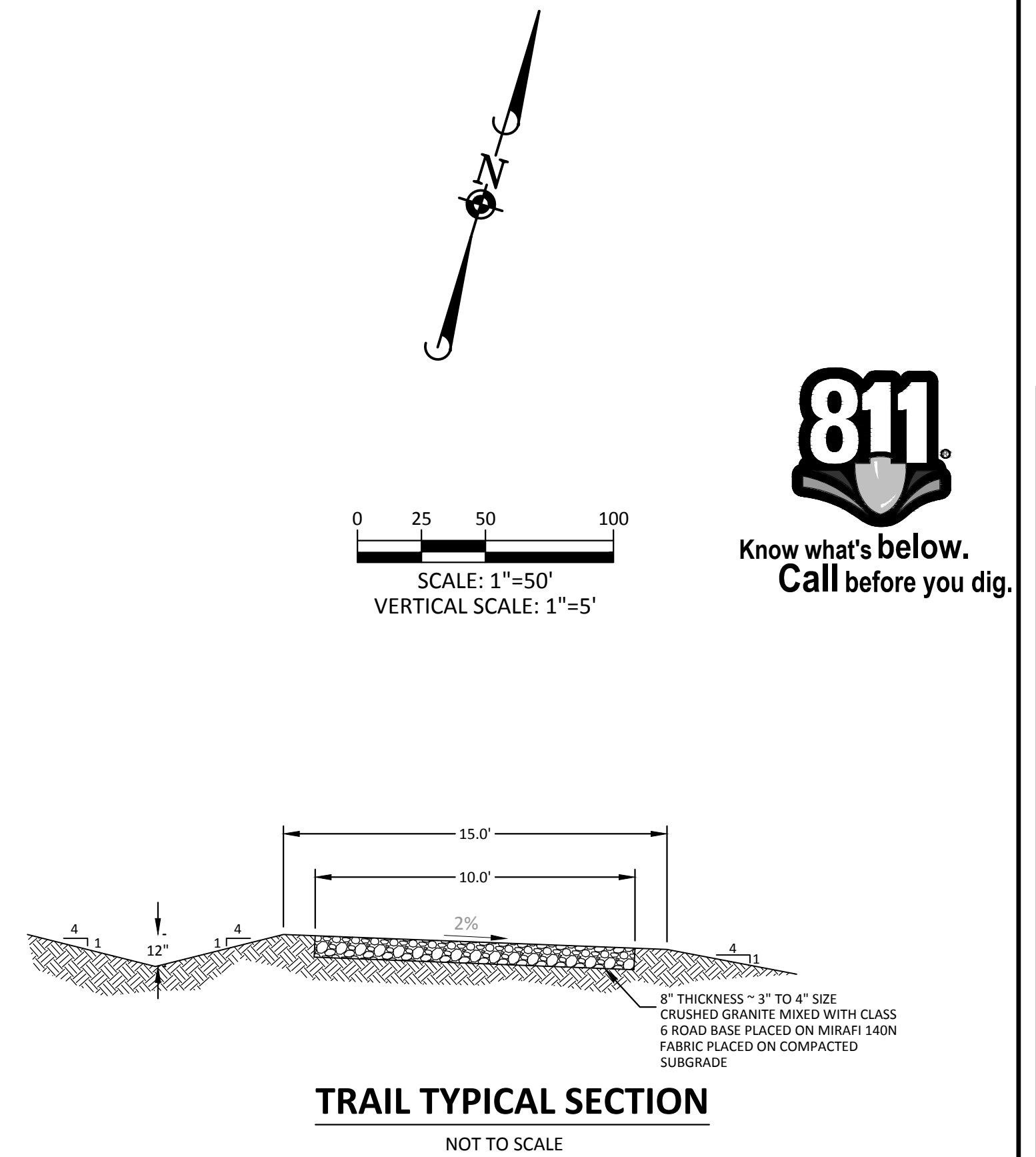
COMPARK VILLAGE SOUTH GREEN ACRES TRIBUTARY
TOWN OF PARKER, COLORADO
MAINTENANCE TRAIL PLAN & PROFILE

PROJ. MGR.: RLB
PROJ. ASSOC.: ASD
DRAWN BY: ETG
DATE: 11/2015
SHEET
30 OF 35
CLCPK3

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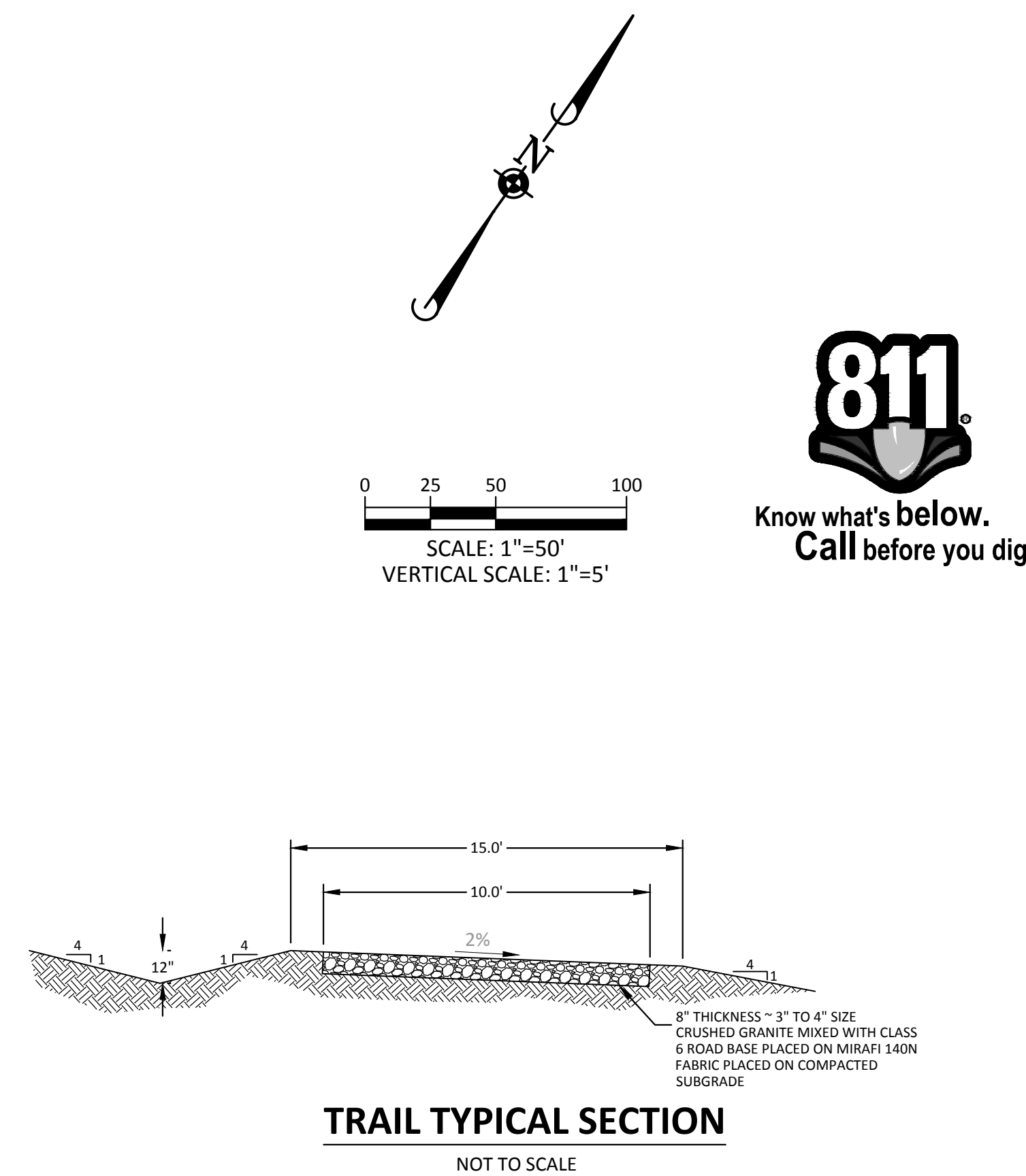
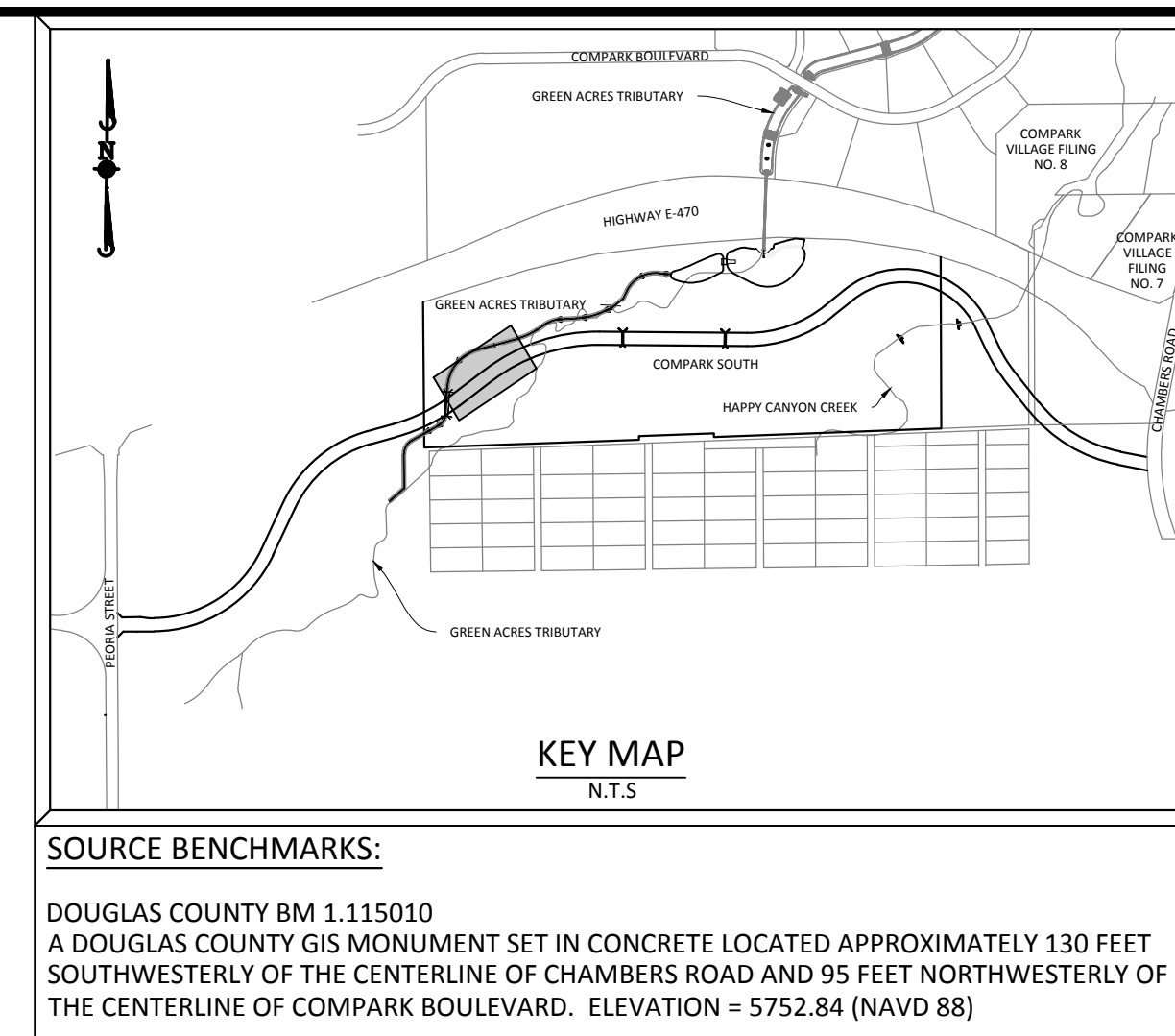


DOUGLAS COUNTY BM 1.115010
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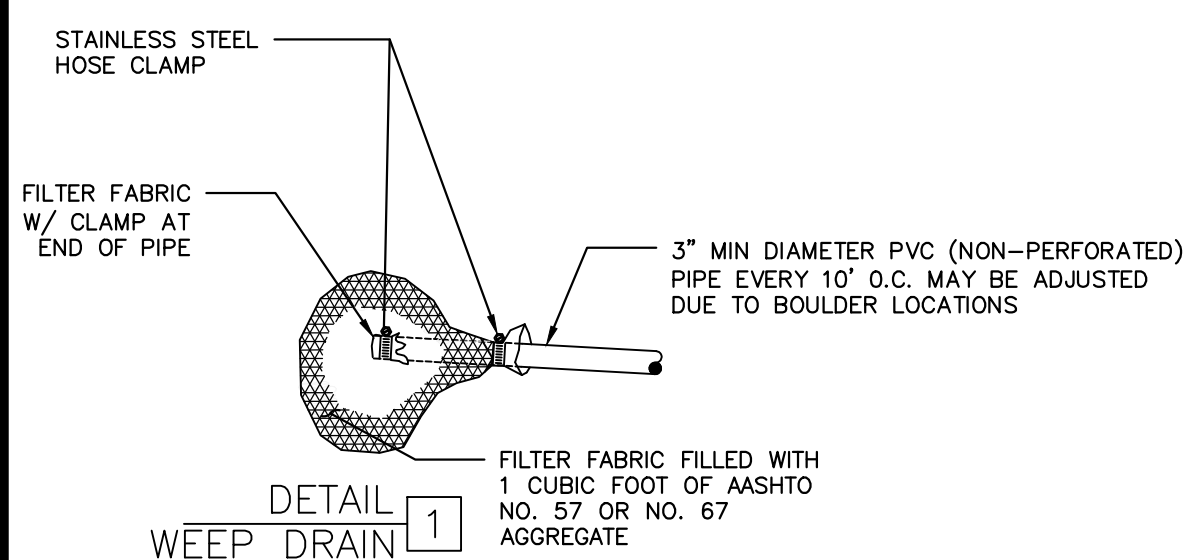
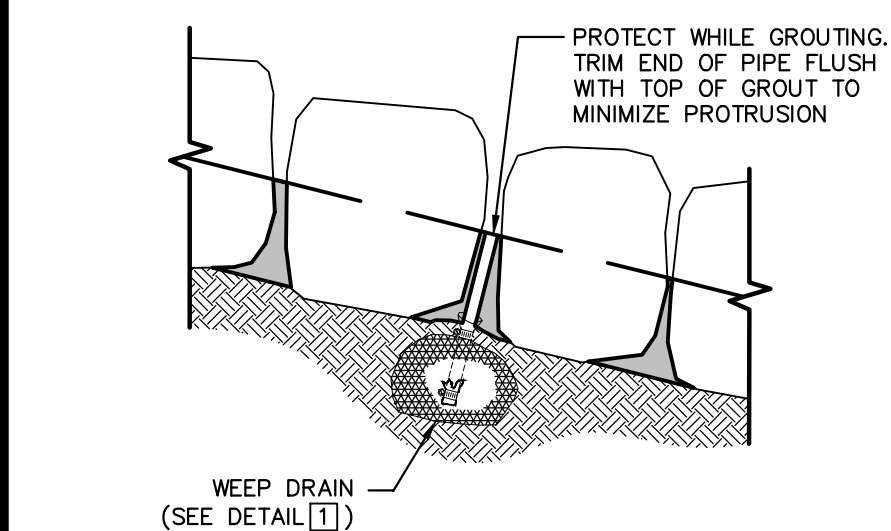
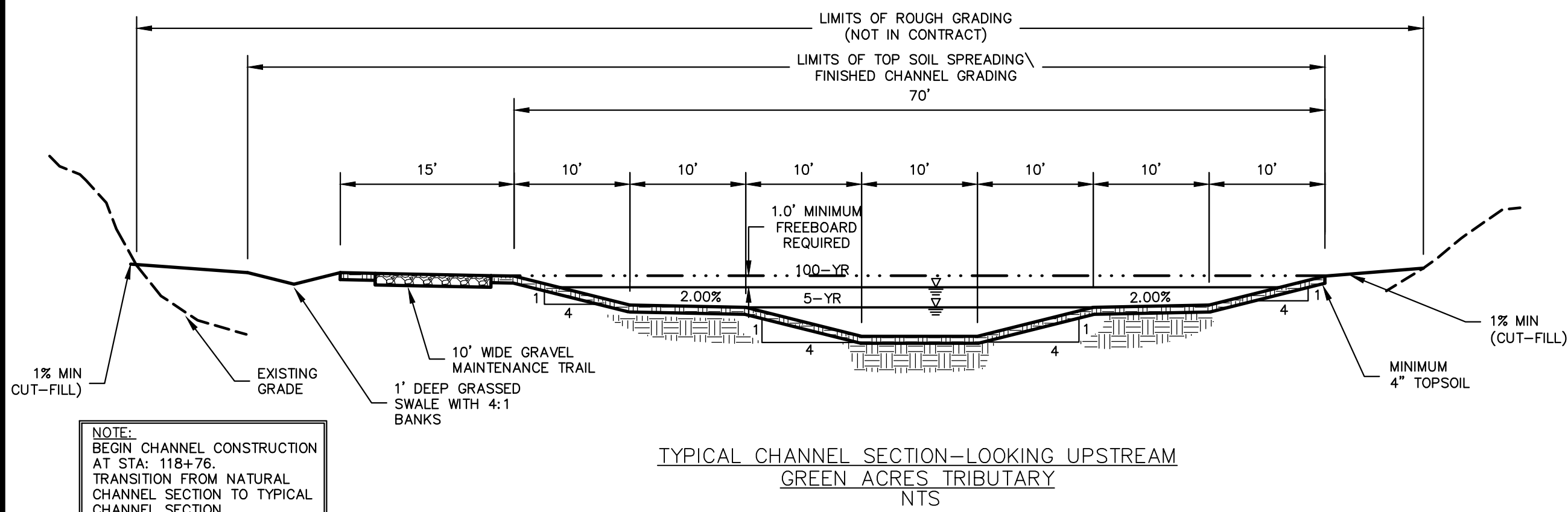


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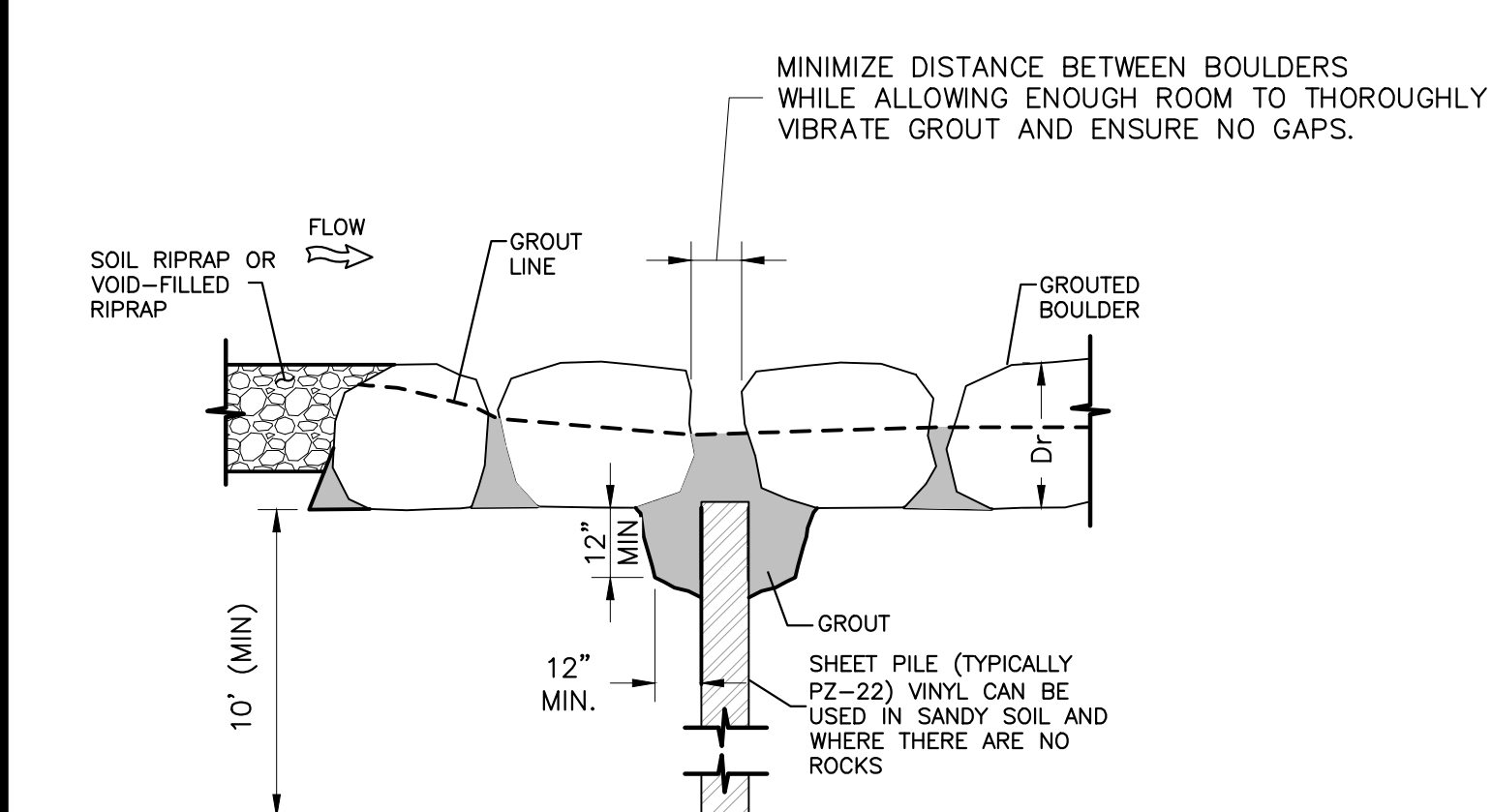
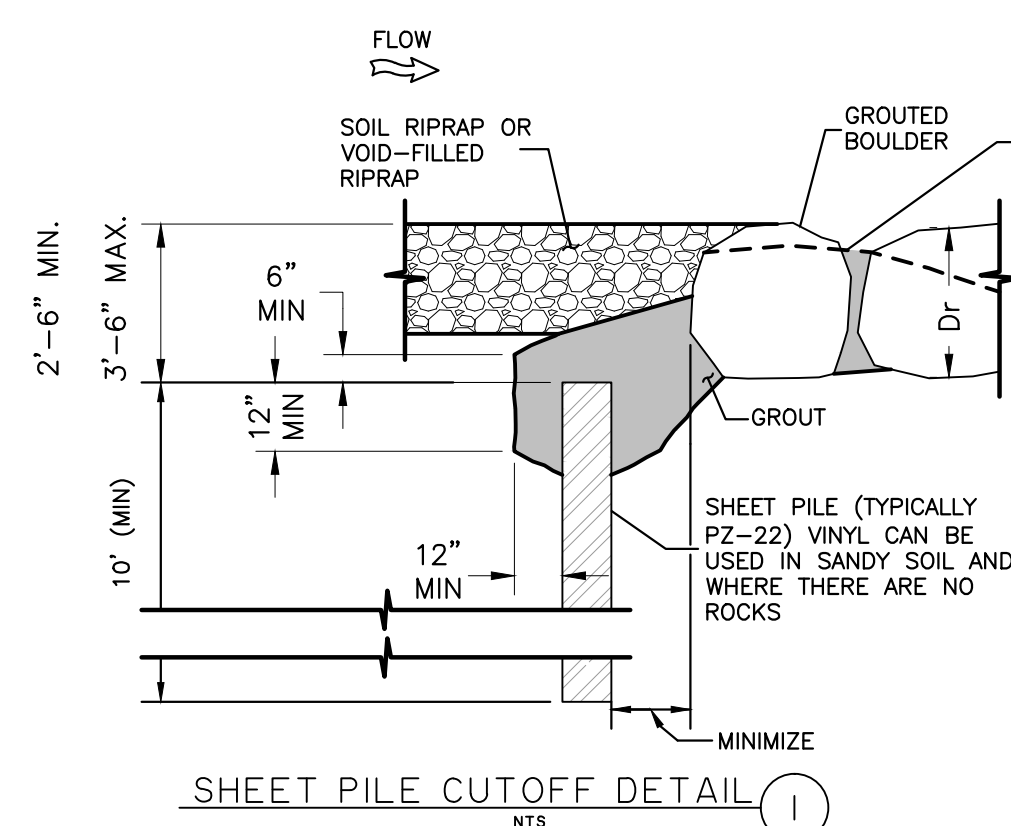
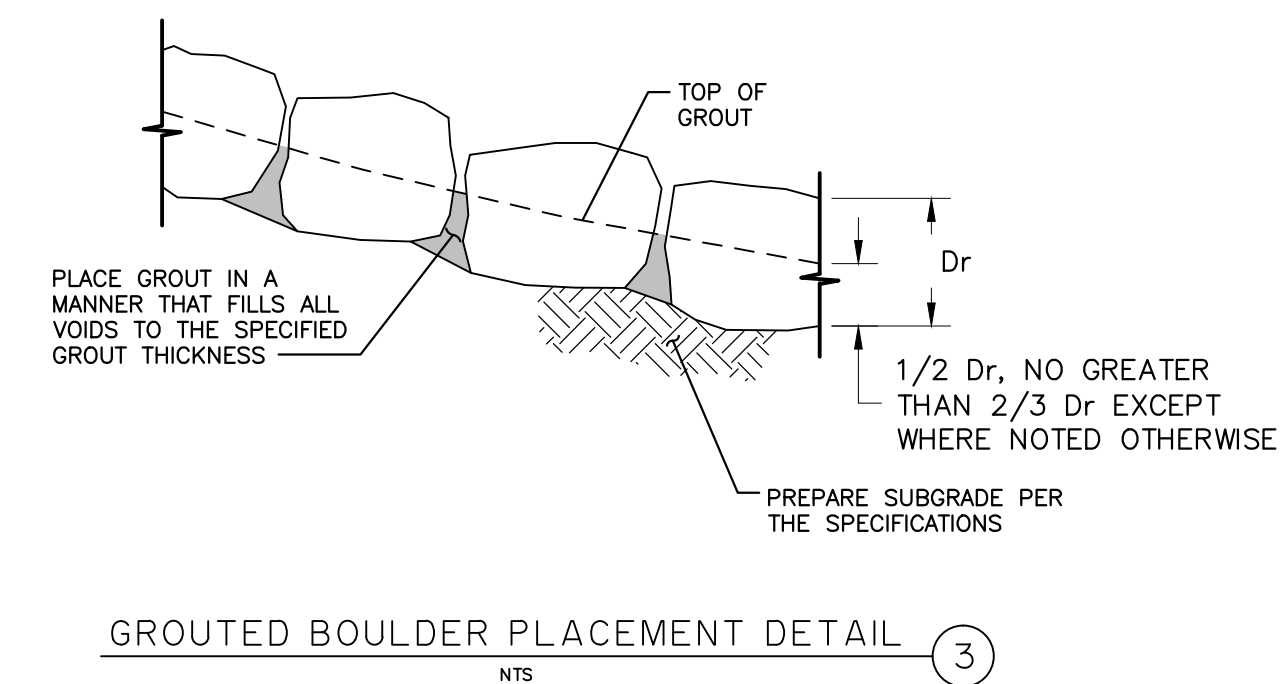
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DATE: 11/15/15

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32 OF 35
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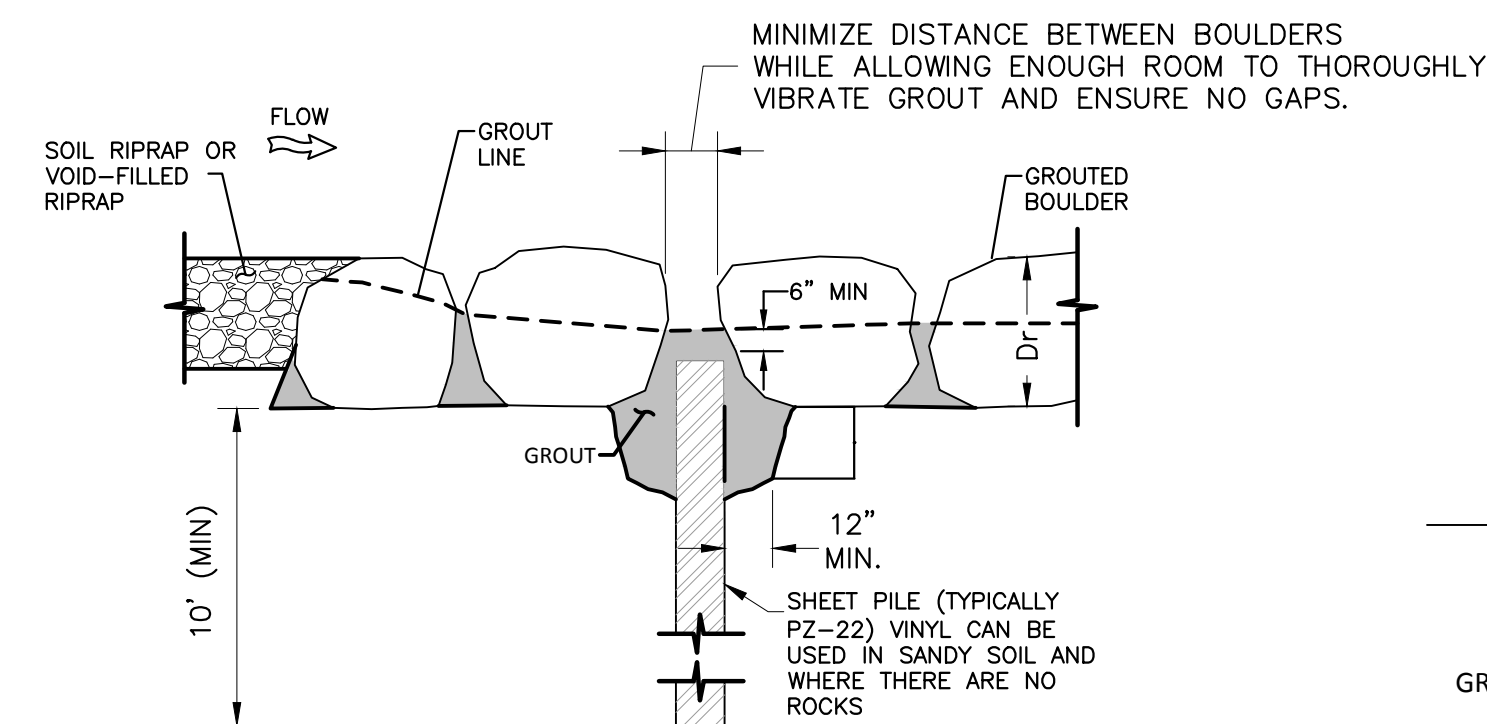
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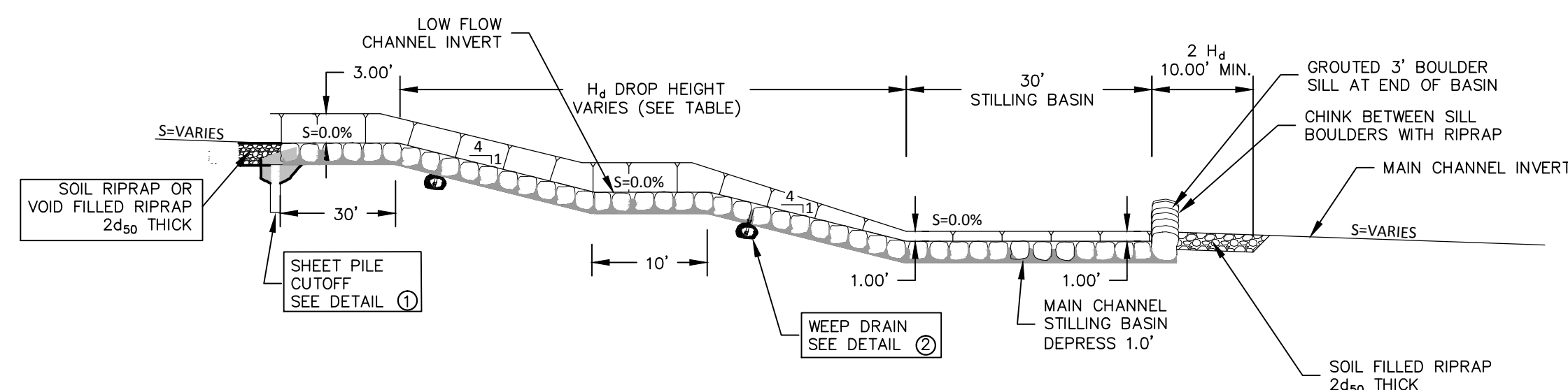
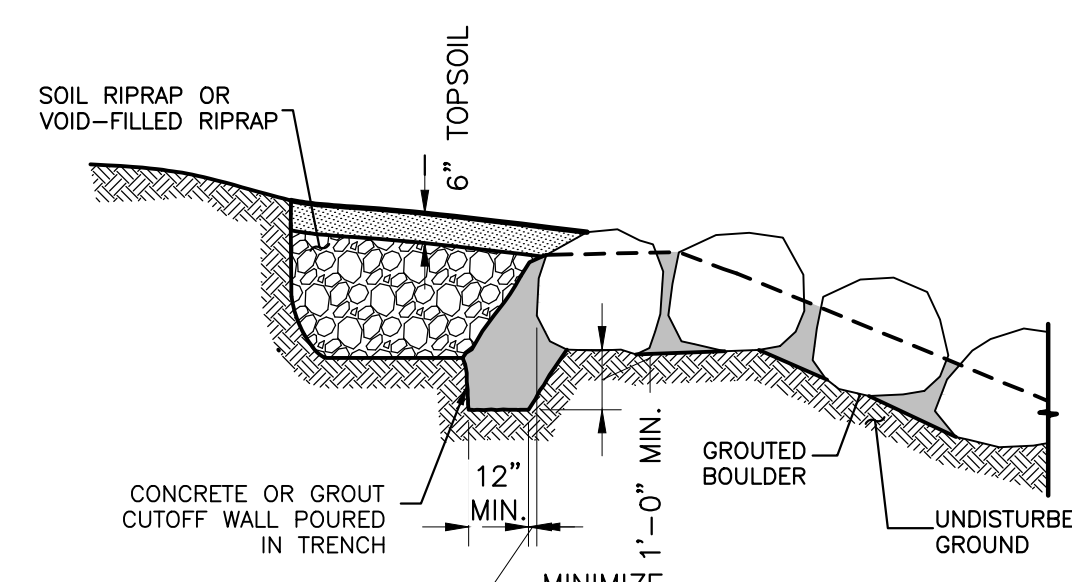
NOTE: INSTALL WEEP DRAINS FOR DROPS AND WALLS 5' AND GREATER AT 10' O.C. AT ELEVATIONS AND LOCATIONS SHOWN ON THE DRAWINGS



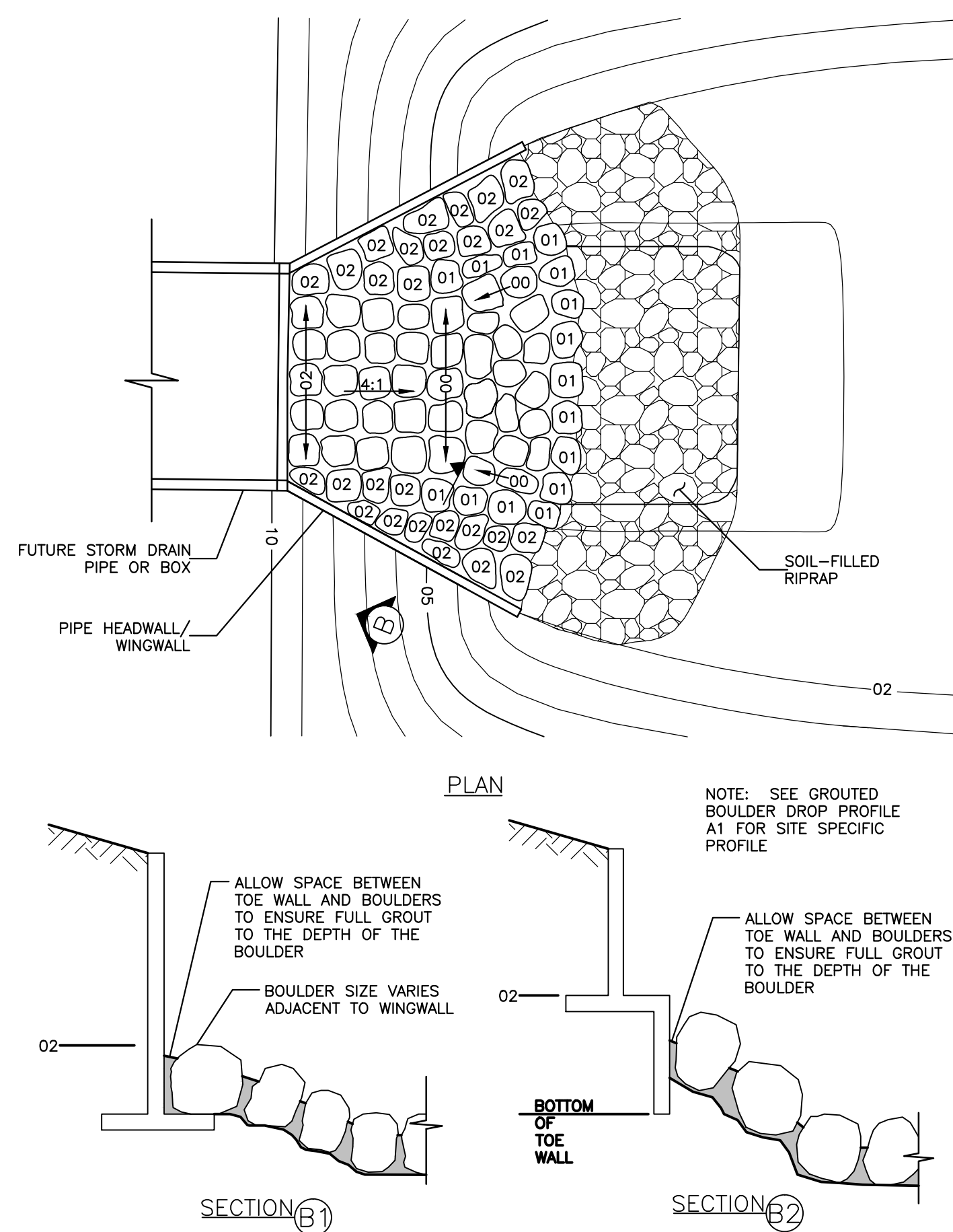
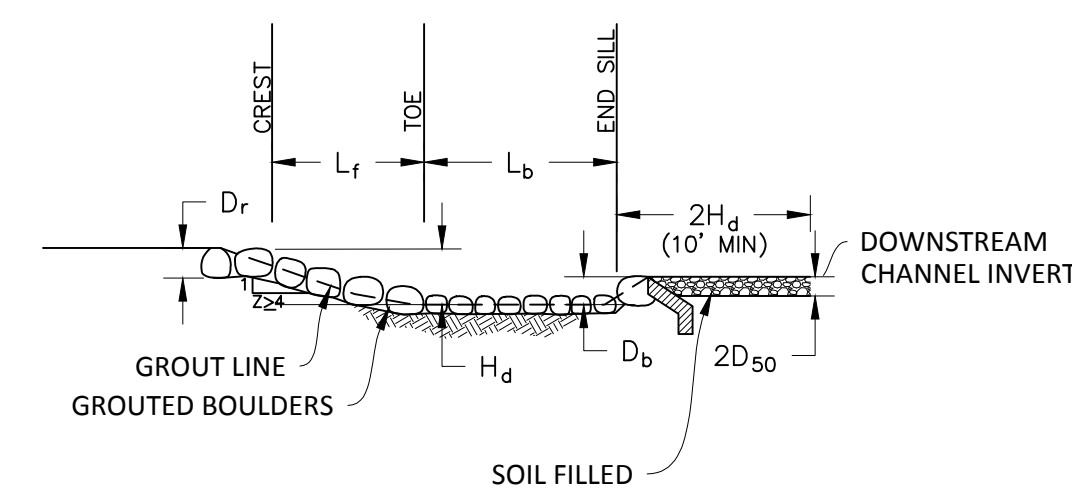
SHEET PILE CONNECTION BETWEEN BOULDERS (SMALLER THAN 24")



SHEET PILE CONNECTION BETWEEN BOULDERS (GREATER THAN 24")



STA	H _d
81+19	7.0'
86+30	9.5'
92+05	6.0'
102+65	5.5'
110+74	4.0'
111+91	5.0'



GROUT & BOULDER NOTES

MATERIAL SPECIFICATIONS

1. ALL GROUT SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH EQUAL TO 3200 PSI.
2. ONE CUBIC YARD OF GROUT SHALL HAVE A MINIMUM OF SIX (6) SACKS OF TYPE I PORTLAND CEMENT.
3. A MAXIMUM OF 25% TYPE F FLY ASH MAY BE SUBSTITUTED FOR THE PORTLAND CEMENT.
4. THE AGGREGATE SHALL BE COMPRISED OF 70% NATURAL SAND (FINES) AND 30% 3/4-INCH ROCK (COARSE).
5. THE GROUT SLUMP SHALL BE BETWEEN 4-INCHES TO 6-INCHES.
6. AIR ENTRAINMENT SHALL BE BETWEEN 5.5% AND 7.5%.
7. TO CONTROL SHRINKAGE AND CRACKING, 15 POUNDS OF FIBERESH, OR EQUIVALENT, SHALL BE USED PER CUBIC YARD OF GROUT.
8. COLOR ADDITIVE IN REQUIRED AMOUNTS SHALL BE USED WHEN SO SPECIFIED BY CONTRACT.

PLACEMENT SPECIFICATIONS

1. PLACE BOULDERS WITH THE REQUIRED BOULDER HEIGHT VERTICAL. SEE PLANS BY THK ASSOCIATES FOR BOULDER SIZES AND HEIGHTS. PLACE BOULDERS AS TIGHTLY TOGETHER AS POSSIBLE (WITHOUT TOUCHING) WHILE PROVIDING ENOUGH ROOM BETWEEN THEM TO THOROUGHLY WIDE THE GROUT AND TO ENSURE NO GAPS IN THE GROUT. THE SMALL DIMENSION OF 2'x4 MAY BE USED AS A GUIDE TO CHECK MINIMUM SPACING.
2. BOULDERS ARE TO BE PLACED ONE BOULDER DEEP WITH TOPS OF BOULDERS DESCENDING AT IRREGULAR INTERVALS.
3. ROCKS SHALL BE SELECTED AND PLACED SUCH THAT A RELATIVELY FLAT HORIZONTAL SURFACE IS EXPOSED.
4. DURING ROCK PLACEMENT, CONTRACTOR SHALL COORDINATE LOCATION ORIENTATION WITH OWNER, ENGINEER AND LANDSCAPE ARCHITECT.
5. PRIOR TO GROUTING ROCK IN PLACE, CONTRACTOR SHALL NOTIFY OWNER, ENGINEER AND LANDSCAPE ARCHITECT FOR FINAL APPROVAL.
6. AFTER INSPECTION AND APPROVAL, GROUT SHALL BE ADDED TO A LEVEL APPROXIMATELY $\frac{1}{2}$ THE BOULDER HEIGHT.
7. BEFORE GROUTING, CLEAN ALL DIRT AND MATERIAL FROM ROCK THAT COULD PREVENT THE GROUT FROM BINDING TO THE ROCK. KEEP BOULDERS FROM TOUCHING, AVOID SLIDING BOULDERS AGAINST SUBGRADE TO PROPERLY POSITION.
8. SPECIAL PROCEDURES WILL BE REQUIRED FOR GROUT PLACEMENT WHEN THE AIR TEMPERATURES ARE LESS THAN 40°F OR GREATER THAN 90°F. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM THE DESIGN ENGINEER OF THE PROCEDURES TO BE USED FOR PROTECTING THE GROUT.
9. GROUT SHALL BE DELIVERED BY MEANS OF A LOW PRESSURE (LESS THAN 10 PSI) GROUT PUMP USING A 2-INCH DIAMETER (MAXIMUM) NOZZLE.
10. FULL DEPTH PENETRATION OF THE GROUT INTO THE BOULDER VOIDS SHALL BE ACHIEVED BY INJECTING GROUT STARTING WITH THE NOZZLE NEAR THE BOTTOM AND RAISING IT AS THE GROUT FILLS. A VIBRATING ROD INTO PLACE USING A PENCIL VIBRATOR.
11. ALL GROUT BETWEEN BOULDERS SHALL BE TREATED WITH A BROOM FINISH.
12. AFTER GROUT PLACEMENT, EXPOSED BOULDER FACES SHALL BE CLEANED AND FREE OF GROUT.
13. ALL FINISHED GROUT SURFACES SHALL BE SPRAYED WITH A CLEAR LIQUID MEMBRANE CURING COMPOUND AS SPECIFIED IN ASTM C309.
14. GROUTED BASIN WILL NOT BE DRAINED AND WILL BE PERMITTED TO COLLECT SEDIMENT.

