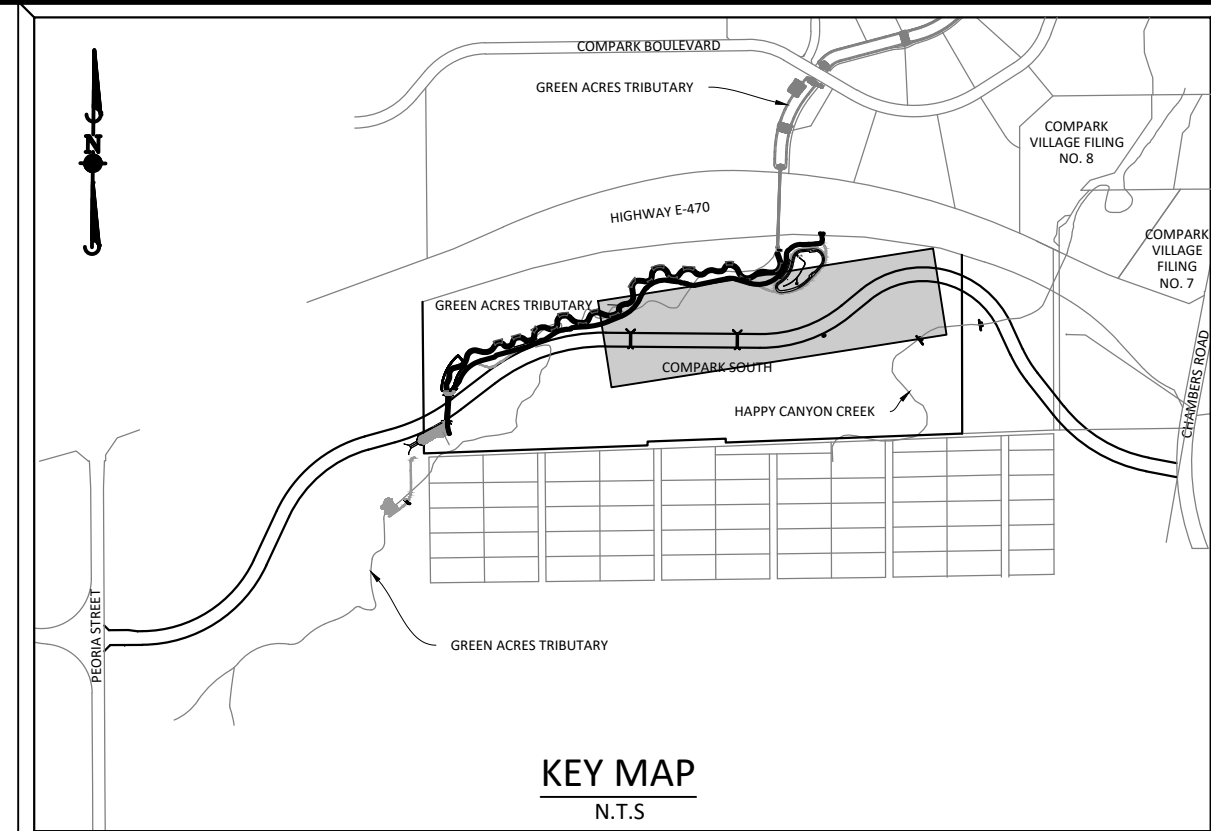
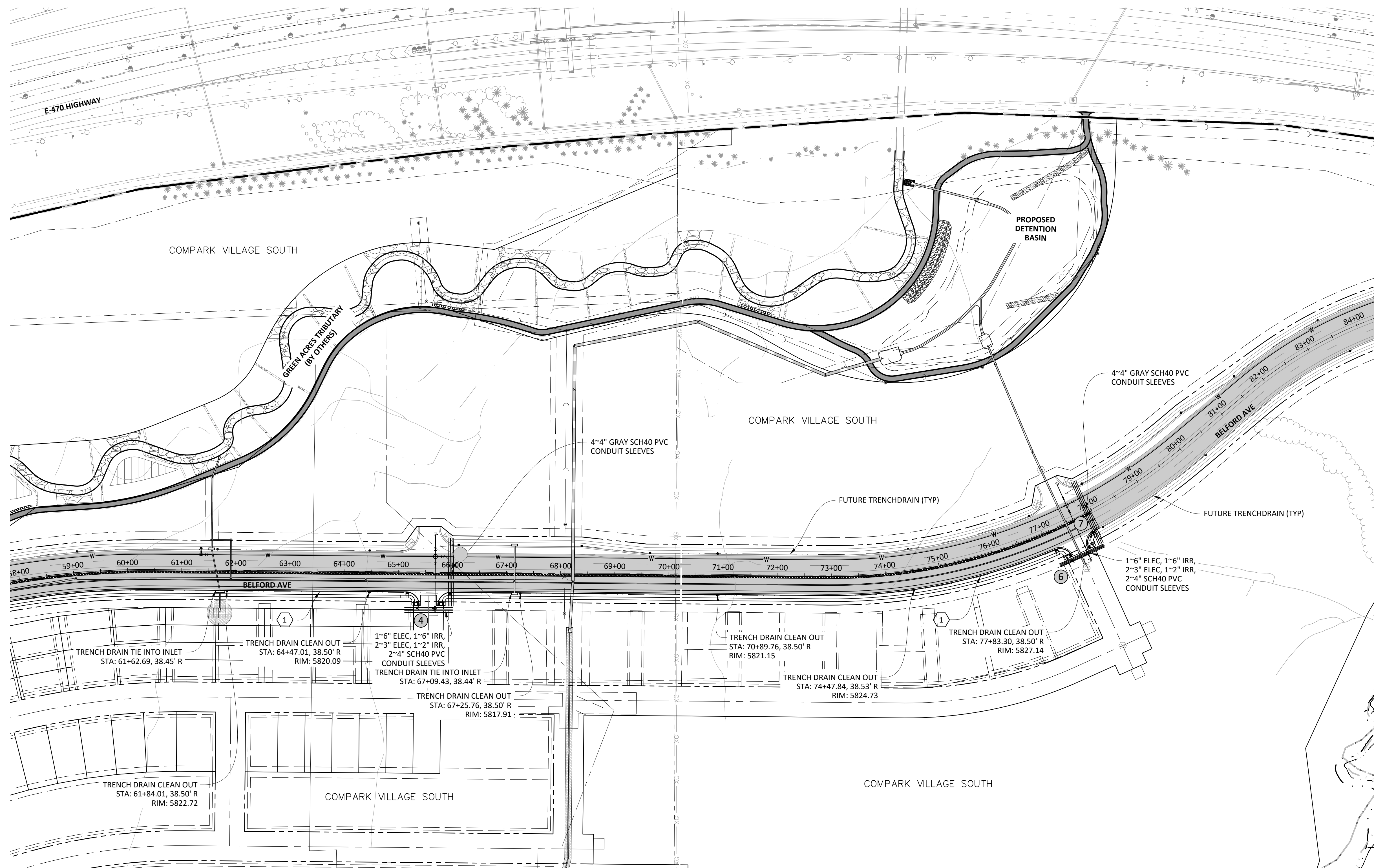
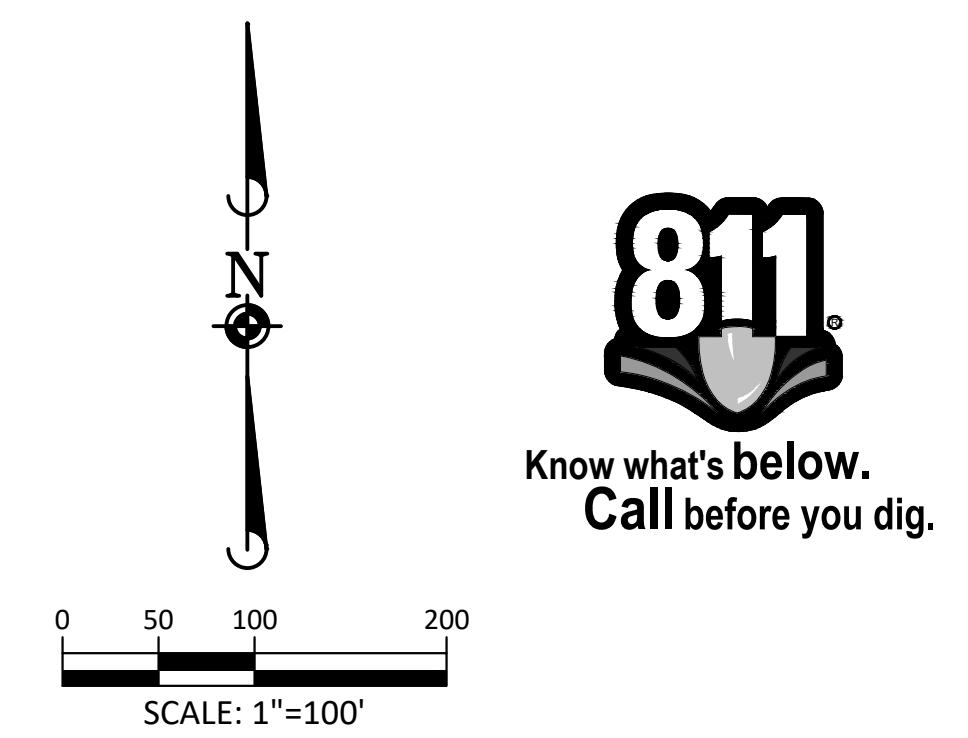


Plotted: 7/31/2020 2:03 PM. Draw Name: P:\C\c\c3\CompSouth12-Filing 1. No.GAT\CompSouth03-Ultimate-Belford Ave.dwg\Final Drawings\Plan Set\Town\CLCPK3-Traffic-Signal-Interconnect (0.dwg). Updated By: VMCGuire



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)



LEGEND

- ② CONSTRUCTION NOTE
- ① UTILITY SLEEVE CROSSING NO.

CONSTRUCTION NOTES

- ① 4" TRENCHDRAIN (TYP.)
- ② 4" SCH 80 CONDUIT SLEEVE PIPE REQUIRED UNDER ALL ROADWAY CROSSINGS FOR TRENCHDRAIN
- ③ BORE TRENCHDRAIN UNDER EXISTING ROADWAY
- ④ 2" CONDUIT W/ 14 GA. TRACER WIRE AND PULL ROPE FOR SIGNAL INTERCONNECT
- ⑤ ALL CONDUITS TO LANDSCAPED MEDIANS SHALL BE SWEEP UP AT 90° AND SHALL TERMINATE IN A PULL BOX SET TO FINISHED GRADE.
- ⑥ ALL INTERCONNECT CONDUITS SHALL BE SWEEP UP AT 90° TO 11"x17" QUASITE PULLBOXES. 400' SPACING MAXIMUM.

NOTES:

1. INSTALL CROSSINGS TO EXTEND AT LEAST 6 FEET BEYOND THE ROW AND WALKS. INSTALL SLEEVES IN LINE WITH THE APPROPRIATE EASEMENTS.
2. EXTRA CROSSINGS ARE INSTALLED AT THE DISCRETION OF THE DEVELOPER.
3. THESE CROSSING LOCATIONS HAVE BEEN PROVIDED BY THE RESPECTIVE UTILITY COMPANIES AS OF THIS DATE. ANY CHANGES, ADDITIONS, OR RELOCATIONS RECEIVED BY MANHARD CONSULTING, LTD. AFTER PAVING HAS BEEN COMPLETED WILL HAVE TO BORED.
4. ALL ELECTRIC CONDUITS TO BE GRAY SCHEDULE 40 PVC OR BLACK SCHEDULE 40 PVC WITH A RED STRIPE. GAS CROSSINGS MUST BE SCHEDULE 40 GRAY PVC. PHONE AND TV ARE TO BE WHITE SCHEDULE 40 PVC. IRRIGATION TO BE CLASS 160 PVC PER IRRIGATION PLAN.
5. ALL CROSSINGS MUST BE 95% COMPACTION AND TESTED. MARK BOTH ENDS OF SLEEVE WITH 2 X 4 POST-PAINTED.
6. XCEL REQUIRES ALL CROSSINGS TO HAVE TRACER WIRE INSTALLED NEXT TO THE SLEEVE.
7. ALL TRENCH LINES MUST BE WITHIN 6" OF FINISHED GRADE PER XCEL STANDARDS.
8. GRADE AT TRANSFORMERS MUST BE 100% TO FINISHED GRADE.

TOWN OF PARKER APPROVALS

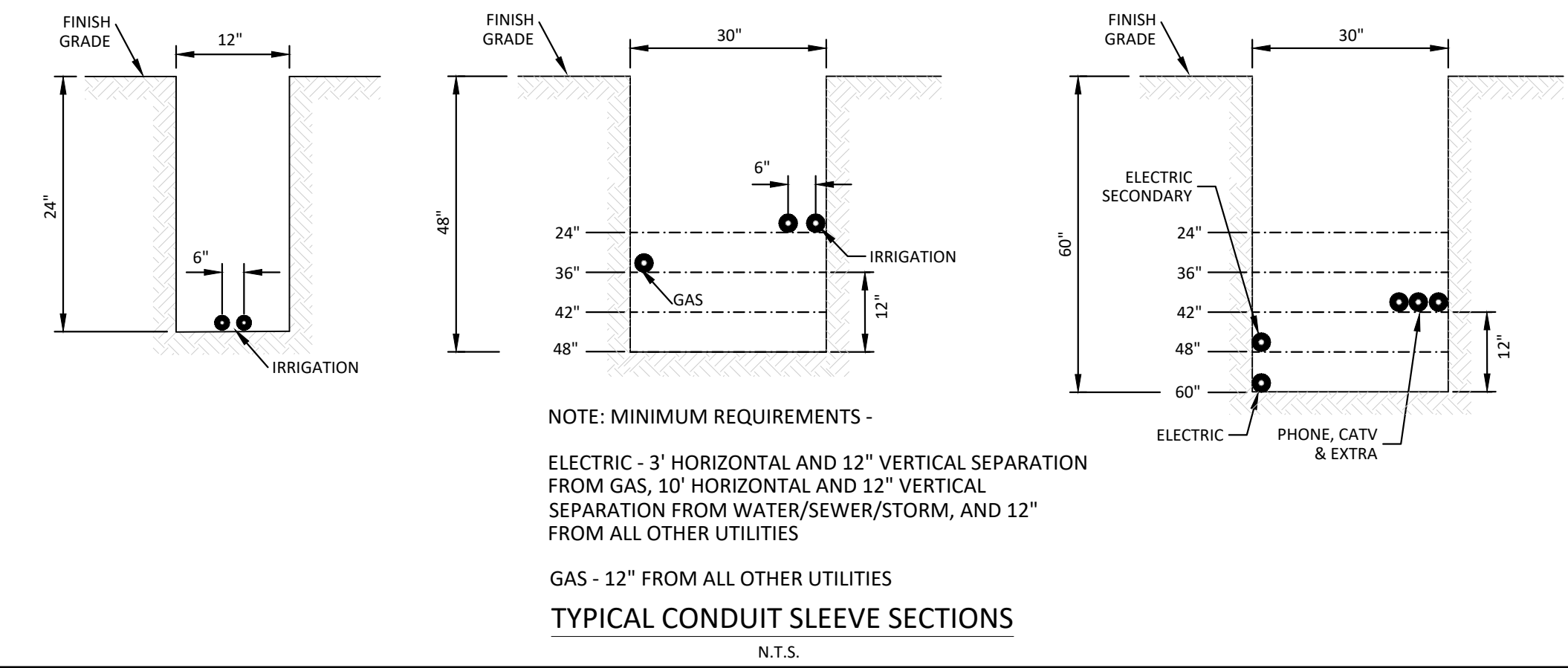
THE TOWN OF PARKER REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE TOWN'S STANDARDS AND APPROVED VARIANCES. SUBJECT TO THESE PLANS BEING STAMPED, SIGNED, AND DATED BY THE PROFESSIONAL ENGINEER OF RECORD. REVIEW BY THE TOWN DOES NOT CONSTITUTE APPROVAL OF THE PLAN DESIGN OR ACCURACY AND CORRECTNESS OF 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/PUBLIC WORKS _____ DATE _____

TRENCH DRAIN NOTES:

1. SEE DETAIL 30 OF STREET DETAILS FOR TRENCH DRAIN SPECIFICATIONS
2. TRENCH DRAINS SHALL TIE INTO STORM MANHOLES OR INLETS
3. CLEANOUTS SHALL BE PROVIDED AT ALL JUNCTIONS, ANGLE POINTS AND SPACED AT MAXIMUM 500' INTERVALS.



CAUTION:

HAVE ALL BURIED UTILITIES LOCATED PRIOR TO TRENCHING OR BORING.

DATE	REVISIONS
07/31/20	RESPONDED TO TOWN COMMENTS
08/01/20	RESPONDED TO TOWN COMMENTS
08/02/20	UPDATE GAT & ADD OFF-LINE DET BASIN
07/27/16	FINAL SUBMITTAL
07/27/16	3RD SUBMITTAL
07/27/16	2ND SUBMITTAL
07/27/16	1ST SUBMITTAL
11/20/15	1ST SUBMITTAL

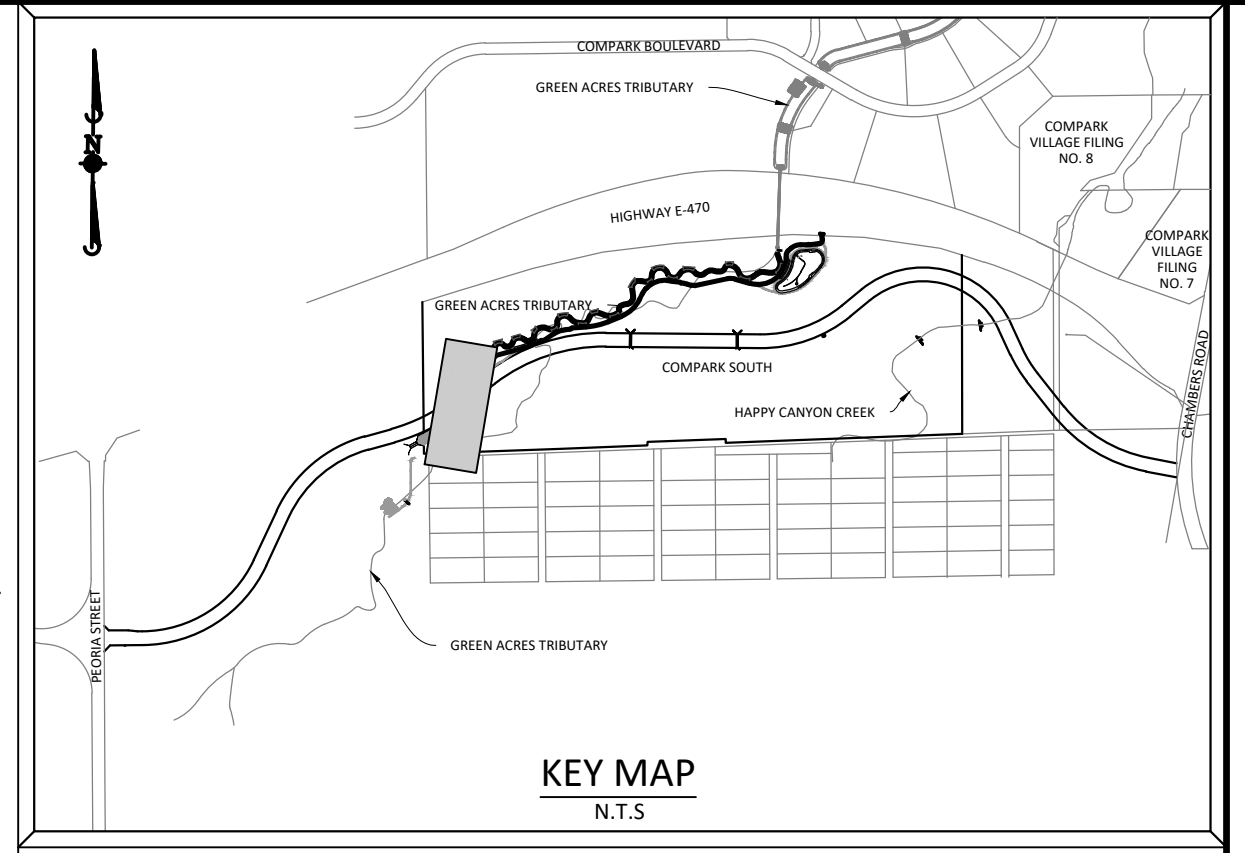
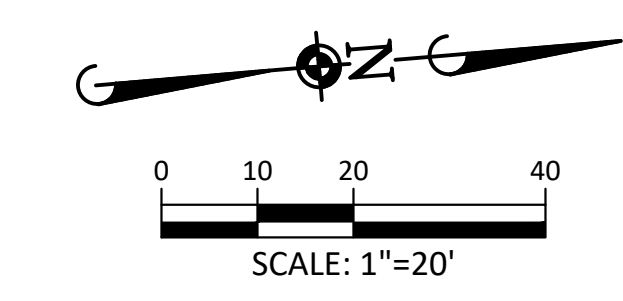
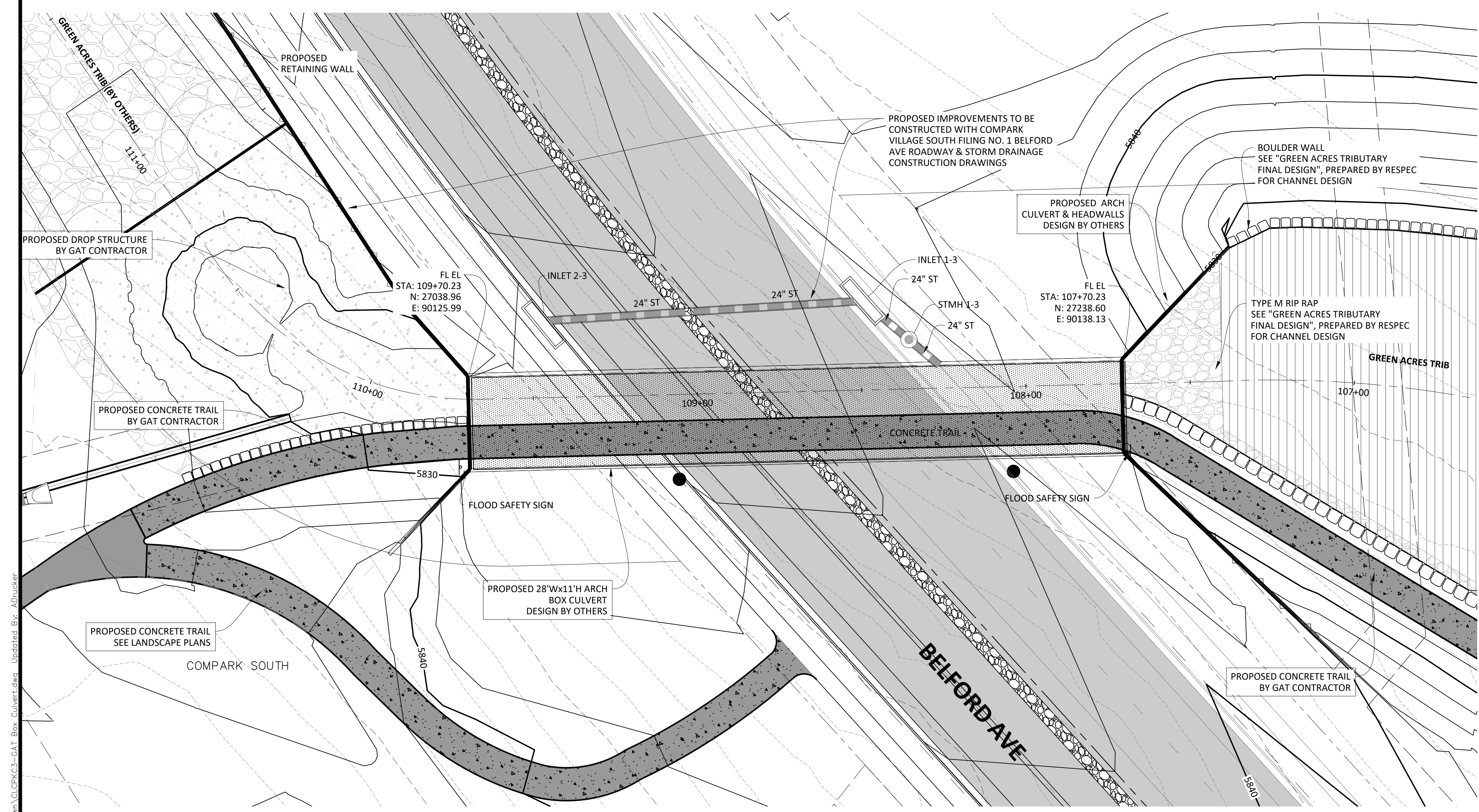
Manhard CONSULTING
 7600 East Orchard Road, Suite 100-3, Greenwood Village, CO 80111, phone: 303.780.0500 manhard.com
 Civil Engineering | Surveying & Geospatial Services | GIS
 Water Resource Management | Construction Management

COMPARK VILLAGE SOUTH, FILING NO. 1 - BELFORD AVENUE
TOWN OF PARKER, COLORADO
CONDUIT SLEEVING & TRENCH DRAIN

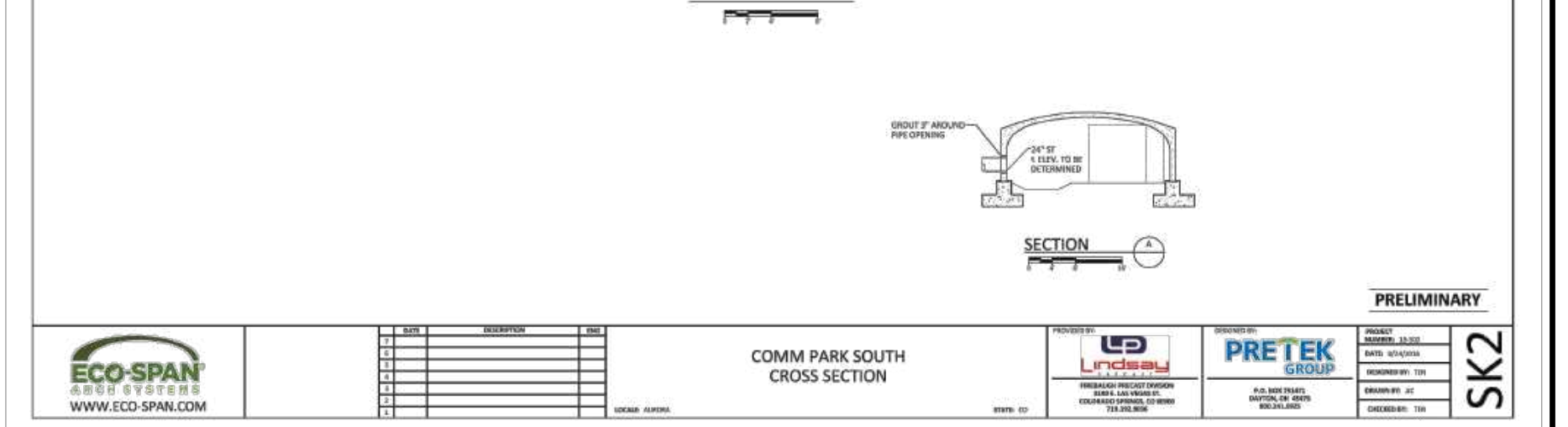
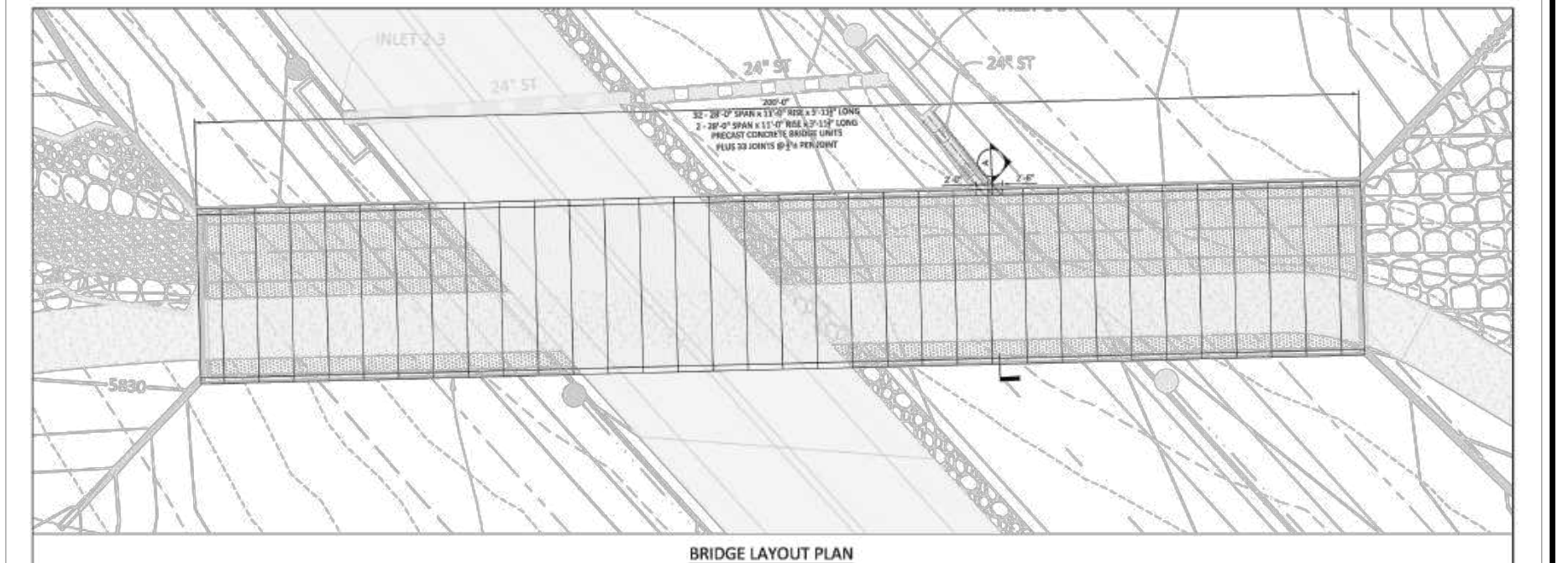
PROJ. MGR.: RJM
 PROJ. ASSOC.: BRB
 DRAWN BY: ETG
 DATE: 12/2015

SHEET
26 OF 50
 CLCPK3

PRELIMINARY - NOT FOR CONSTRUCTION



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)



PRELIMINARY

NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMITTING	08/11/2020
2	ISSUED FOR CONSTRUCTION	08/11/2020

COMMPARK SOUTH CROSS SECTION

SK2

ECO-SPAN ARCH SYSTEMS

COMM PARK SOUTH BRIDGE #1

LOCATION: AURORA CO

PREPARED FOR: Mark Wilson, THK Assoc.

PROJECT ID#: 217067134

PROJECT DATA SUMMARY:

ARCH TYPE	Span	Arch Rise	Arch Rise to Deck
	30.0 FT	11.0 FT	11.0 FT
	30.0 FT	11.0 FT	11.0 FT
	30.0 FT	11.0 FT	11.0 FT

ARCH LIMITS:

W1W1 Length	48.00 FT	W1W2 Length	48.00 FT
W1W1 Depth	28.00 FT	W1W2 Depth	28.00 FT
W1W1 Angle	45.00 DEG	W1W2 Angle	45.00 DEG
W1W1 Rise	12.00 FT	W1W2 Rise	12.00 FT

ARCH LIMIT:

W1W1 Length	48.00 FT	W1W2 Length	48.00 FT
W1W1 Depth	28.00 FT	W1W2 Depth	28.00 FT
W1W1 Angle	45.00 DEG	W1W2 Angle	45.00 DEG
W1W1 Rise	12.00 FT	W1W2 Rise	12.00 FT

PRETEK GROUP **INSTANT DESIGN**

ECO-SPAN ARCH SYSTEMS

COMM PARK SOUTH BRIDGE #1

ARCH LAYOUT PLAN

ARCH LIMIT

BACKFILL DESCRIPTION:

ITEM	DESCRIPTION	QTY	UNIT
1	GRAVEL	15,000	CU YD
2	CONCRETE	1,000	CU YD

ACCEPTABLE BACKFILL:

ITEM	DESCRIPTION	QTY	UNIT
1	GRAVEL	15,000	CU YD
2	CONCRETE	1,000	CU YD

PRETEK GROUP **INSTANT DESIGN**

ECO-SPAN ARCH SYSTEMS

COMM PARK SOUTH BRIDGE #1

FIGURE 1 - WINGWALL BACKFILL LIMITS

FIGURE 2 - PRECAST ARCH BACKFILL LIMITS

ACCEPTABLE BACKFILL:

ITEM	DESCRIPTION	QTY	UNIT
1	GRAVEL	15,000	CU YD
2	CONCRETE	1,000	CU YD

PRETEK GROUP **INSTANT DESIGN**

ECO-SPAN ARCH SYSTEMS

COMM PARK SOUTH BRIDGE #1

FIGURE 3 - ACCEPTABLE BACKFILL

ACCEPTABLE BACKFILL:

ITEM	DESCRIPTION	QTY	UNIT
1	GRAVEL	15,000	CU YD
2	CONCRETE	1,000	CU YD

PRETEK GROUP **INSTANT DESIGN**

NOTE:
PRECAST ARCH CULVERT TO BE ECO-SPAN OR APPROVED EQUAL. SUPPLIER TO PROVIDE DESIGN

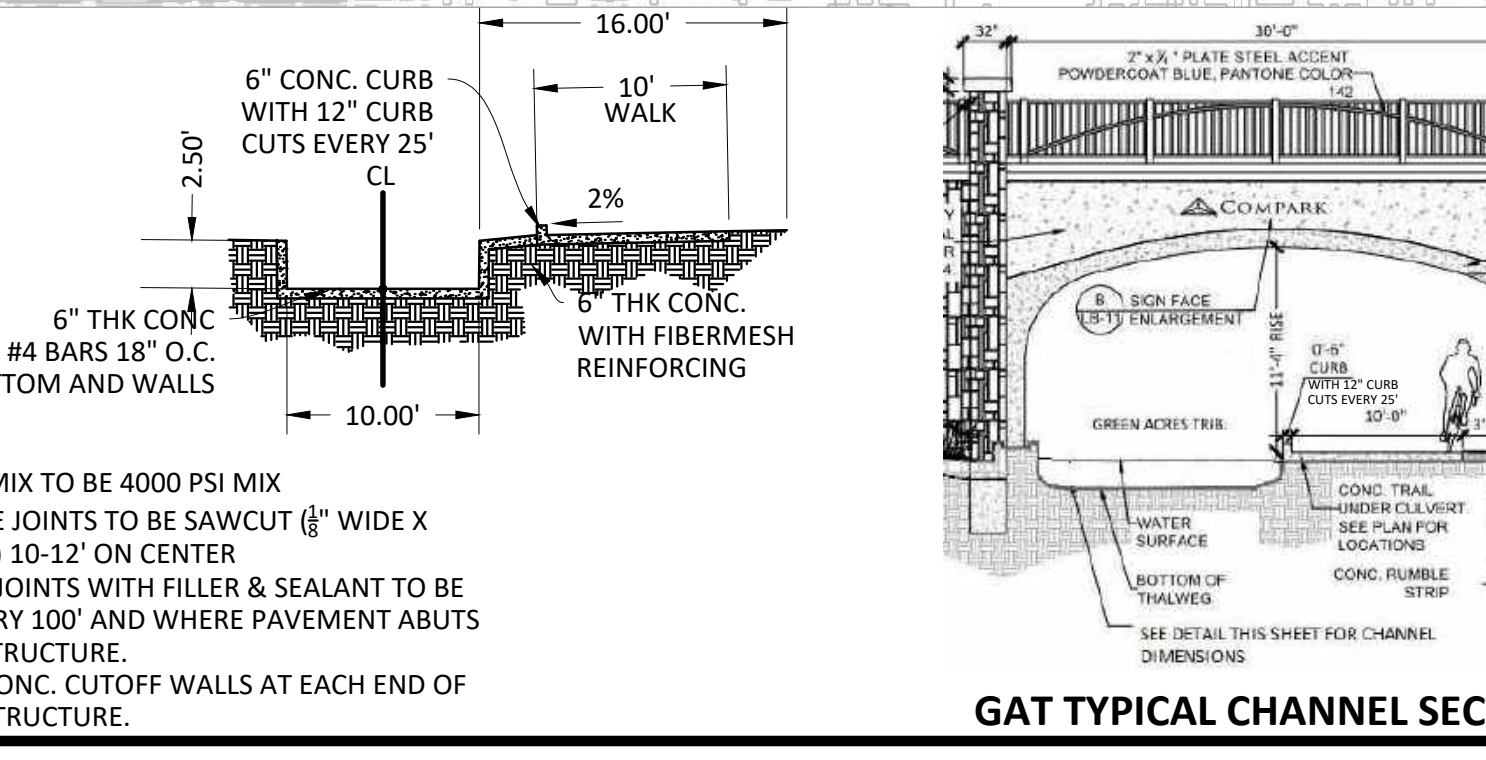
FOUNDATION DESIGN TO BE PROVIDED BY CONTRACTOR

CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION

LIMIT PE CERTIFICATION TO CIVIL

NOTE:

- CONCRETE MIX TO BE 4000 PSI MIX
- TRANSVERSE JOINTS TO BE SAWCUT (1/4" WIDE X 1-1/4" DEEP) 10'-12" ON CENTER
- EXPANSION JOINTS WITH FILLER & SEALANT TO BE PLACED EVERY 100' AND WHERE PAVEMENT ABUTS ANOTHER STRUCTURE.
- INSTALL 3" CONC. CUTOFF WALLS AT EACH END OF THE ARCH STRUCTURE.



CLIMB TO SAFETY

SUBIR A LA SEGURIDAD

811

Know what's below.
Call before you dig.

GAT TYPICAL CULVERT SAFETY SIGN

TOWN OF PARKER APPROVALS

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TOWN OF PARKER, DIRECTOR OF ENGINEERING/PUBLIC WORKS

DATE

Plotter: 8/17/2020 4:03 PM

REVISIONS

DATE	DESCRIPTION
07/31/20	RESPONDED TO TOWN COMMENTS
08/07/20	RESPONDED TO TOWN COMMENTS
08/12/20	RESPONDED TO TOWN COMMENTS
08/17/20	FINAL SUBMITTAL
08/24/20	3RD SUBMITTAL
09/01/20	4TH SUBMITTAL
09/08/20	5TH SUBMITTAL
09/15/20	6TH SUBMITTAL
09/22/20	7TH SUBMITTAL
09/29/20	8TH SUBMITTAL
10/06/20	9TH SUBMITTAL
10/13/20	10TH SUBMITTAL
10/20/20	11TH SUBMITTAL
10/27/20	12TH SUBMITTAL
11/03/20	13TH SUBMITTAL
11/10/20	14TH SUBMITTAL
11/17/20	15TH SUBMITTAL

Manhard CONSULTING

7600 East Orchard Road, Suite 100, Greenwood Village, CO 80111, phone: 303.770.0500
 Civil Engineering | Surveying & Geospatial Services | GIS
 Water Resource Management | Construction Management

COMPARK VILLAGE SOUTH, FILING NO. 1 - BELFORD AVENUE

TOWN OF PARKER, COLORADO

GAT BOX CULVERT PLAN & DETAILS

PRELIMINARY - NOT FOR CONSTRUCTION

PROJ. MGR.: RJM

PROJ. ASSOC.: BRB

DRAWN BY: ETG

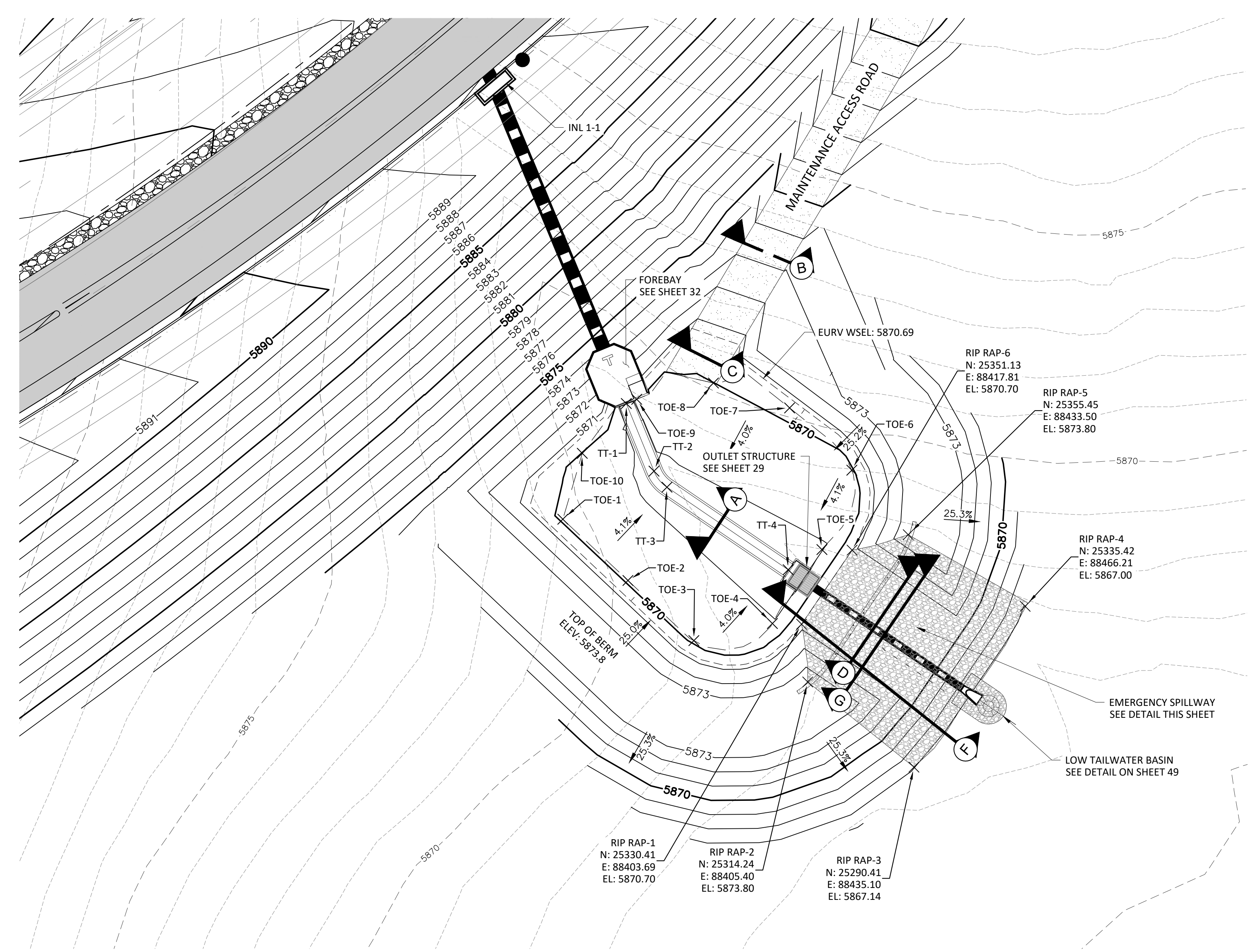
DATE: 12/2015

SHEET

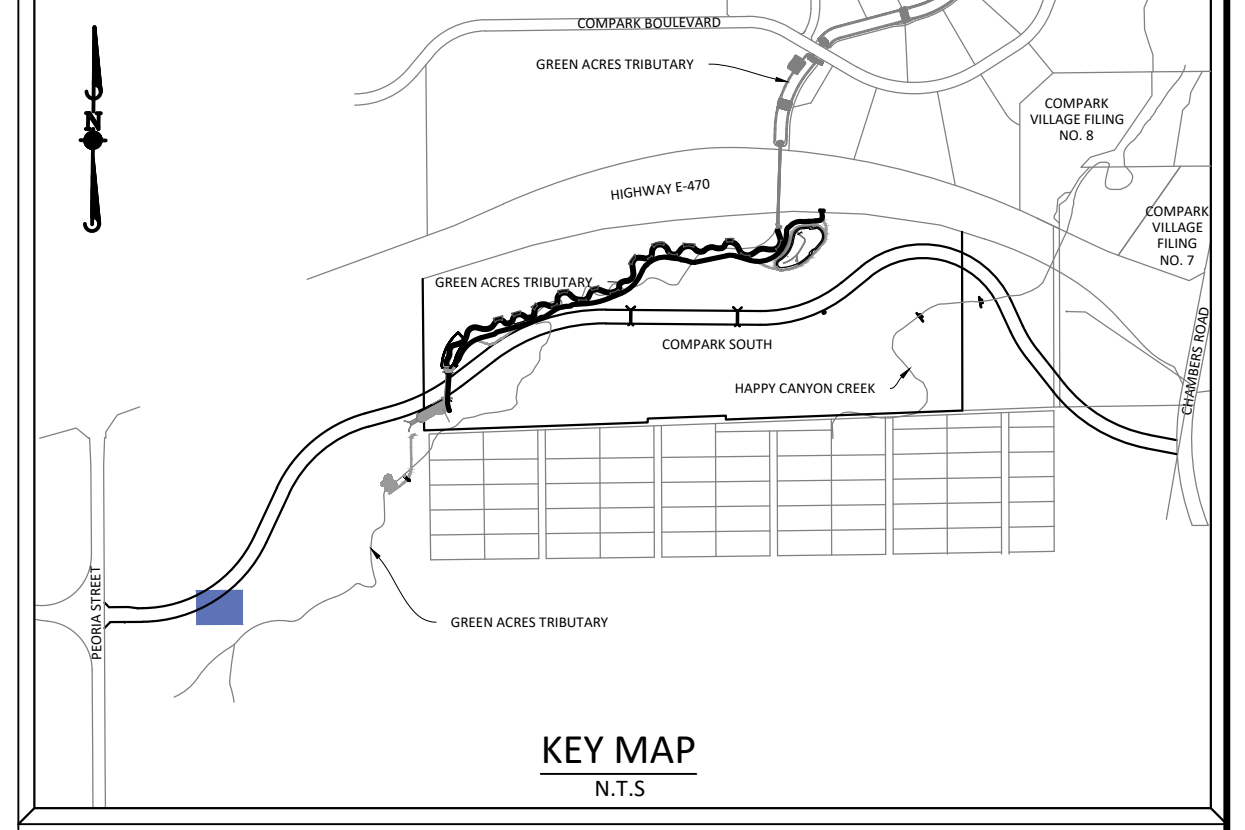
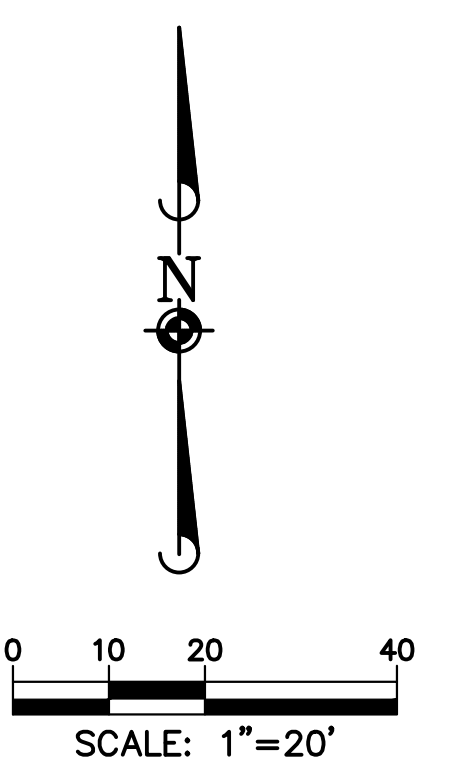
27 OF 50

CLCPK3

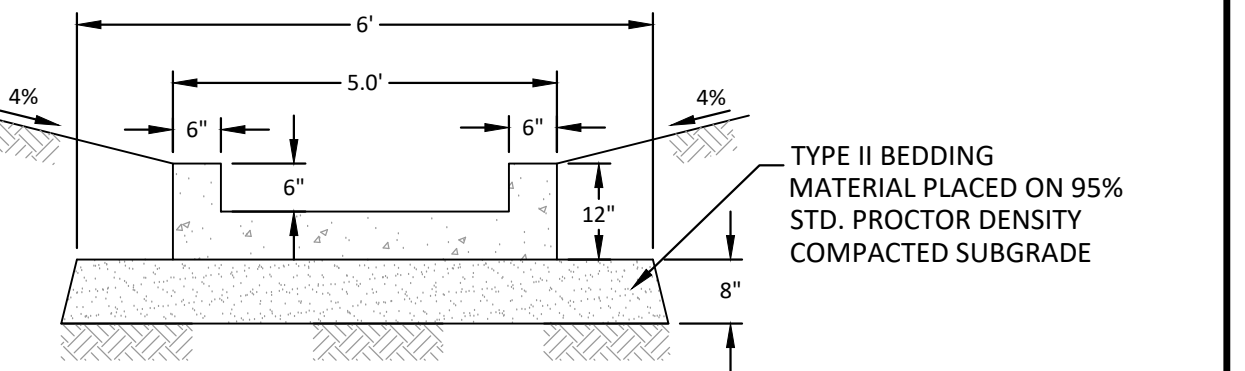
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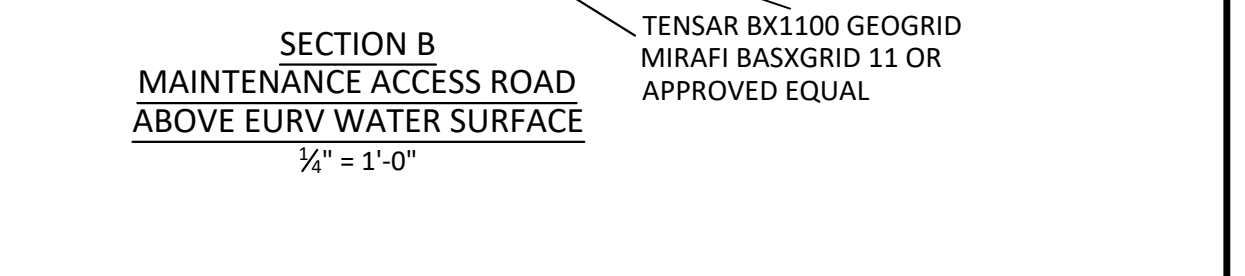
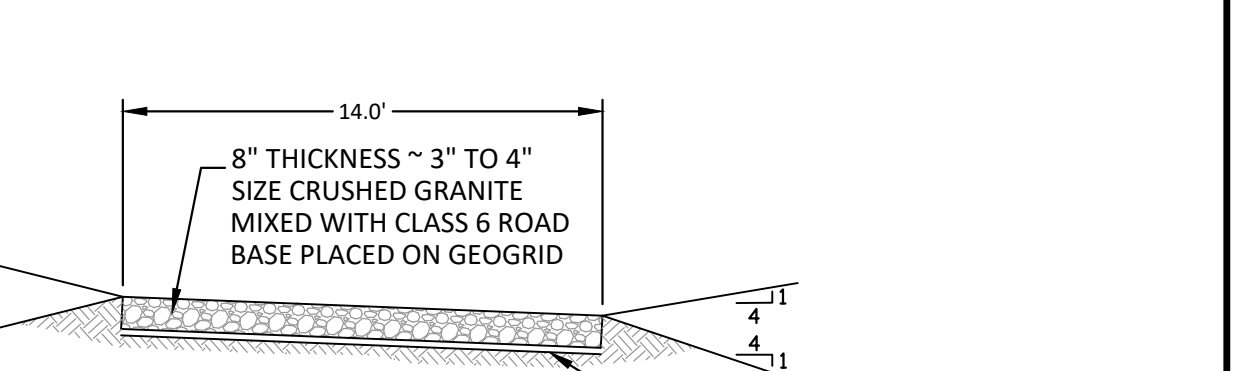
FREQUENCY STORM	REQUIRED VOLUMES (FT ³ OR AC.-FT.)	RECORD DRAWING CALCULATIONS					
		CALC. VOL.	BY:	DATE	CALC. VOL.	BY:	DATE
EURV	0.16 AC.-FT.						



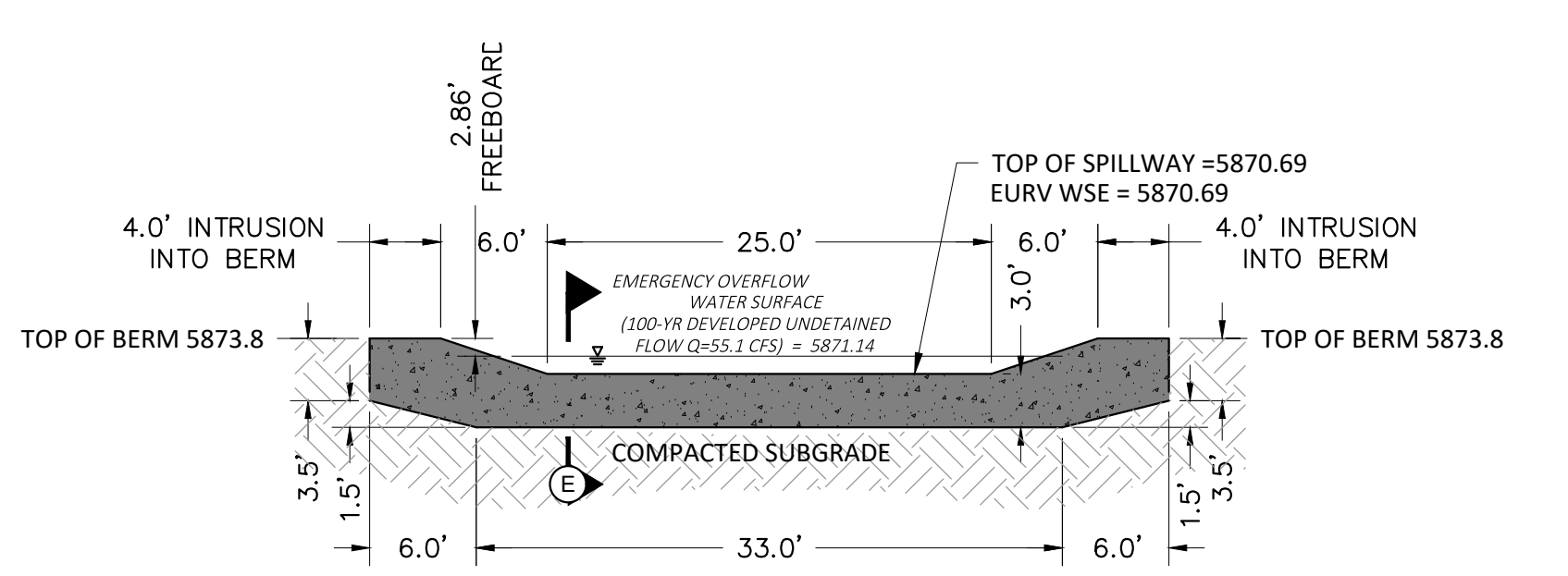
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 DOUGLAS COUNTY BM 1.115010
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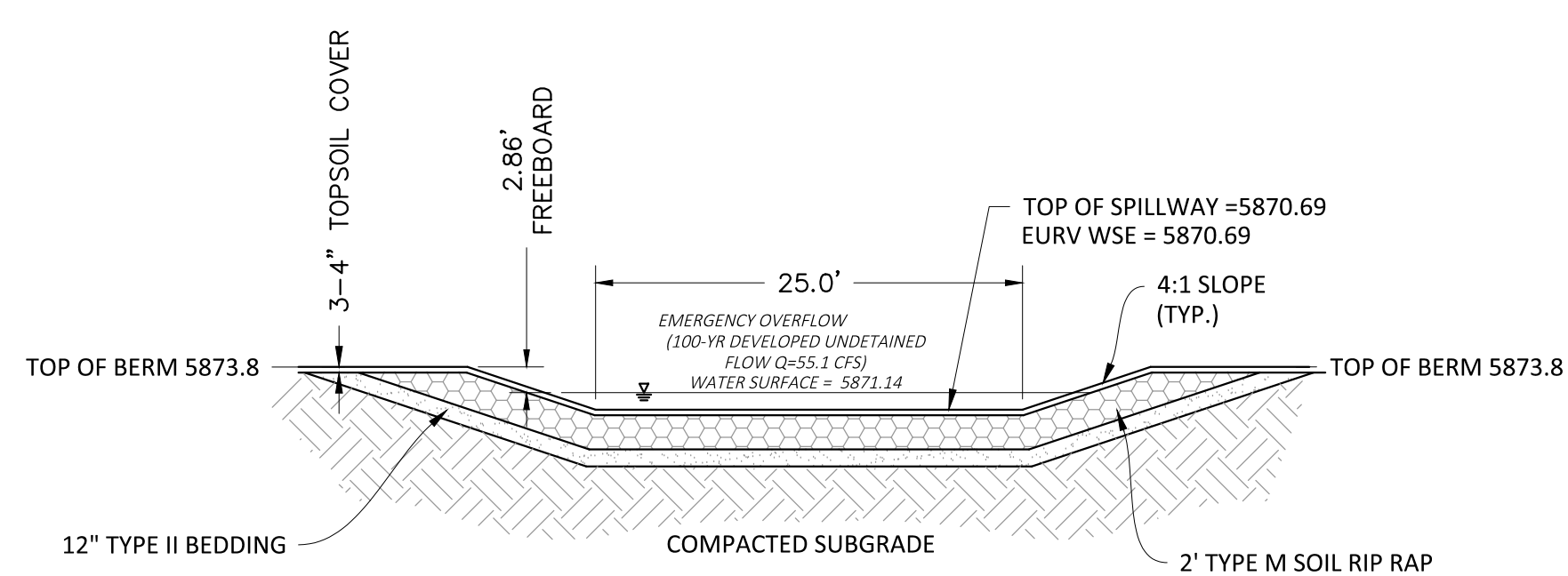
NOTE: USE 4 POUNDS PER CU. YD. OF FIBRE MESH TO REINFORCE CONCRETE



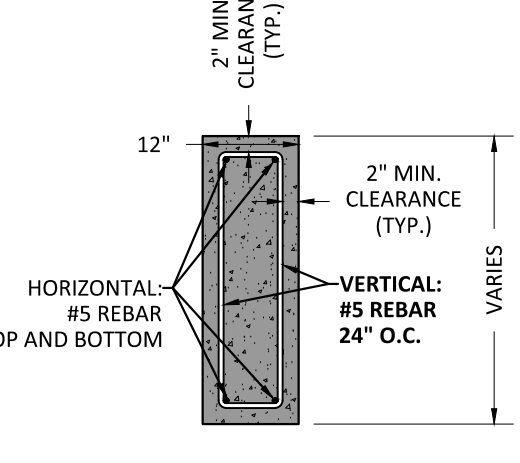
Point	Elevation	Northing	Easting	Description
TOE-1	5869.80	25359.77	88336.93	POND TOE
TOE-2	5869.79	25342.64	88355.14	POND TOE
TOE-3	5869.79	25325.82	88373.57	POND TOE
TOE-4	5869.06	25330.60	88395.52	POND TOE
TOE-5	5868.93	25351.29	88409.37	POND TOE
TOE-6	5869.88	25373.50	88417.74	POND TOE
TOE-7	5870.15	25390.92	88400.34	POND TOE
TOE-8	5869.99	25397.88	88379.04	POND TOE
TOE-9	5869.95	25393.34	88357.58	POND TOE
TOE-10	5869.96	25378.21	88342.37	POND TOE
TT-1	5868.45	25392.15	88354.68	Trickle Channel
TT-2	5868.35	25373.23	88362.42	Trickle Channel
TT-3	5868.32	25368.74	88366.05	Trickle Channel
TT-4	5868.11	25345.64	88399.94	Trickle Channel



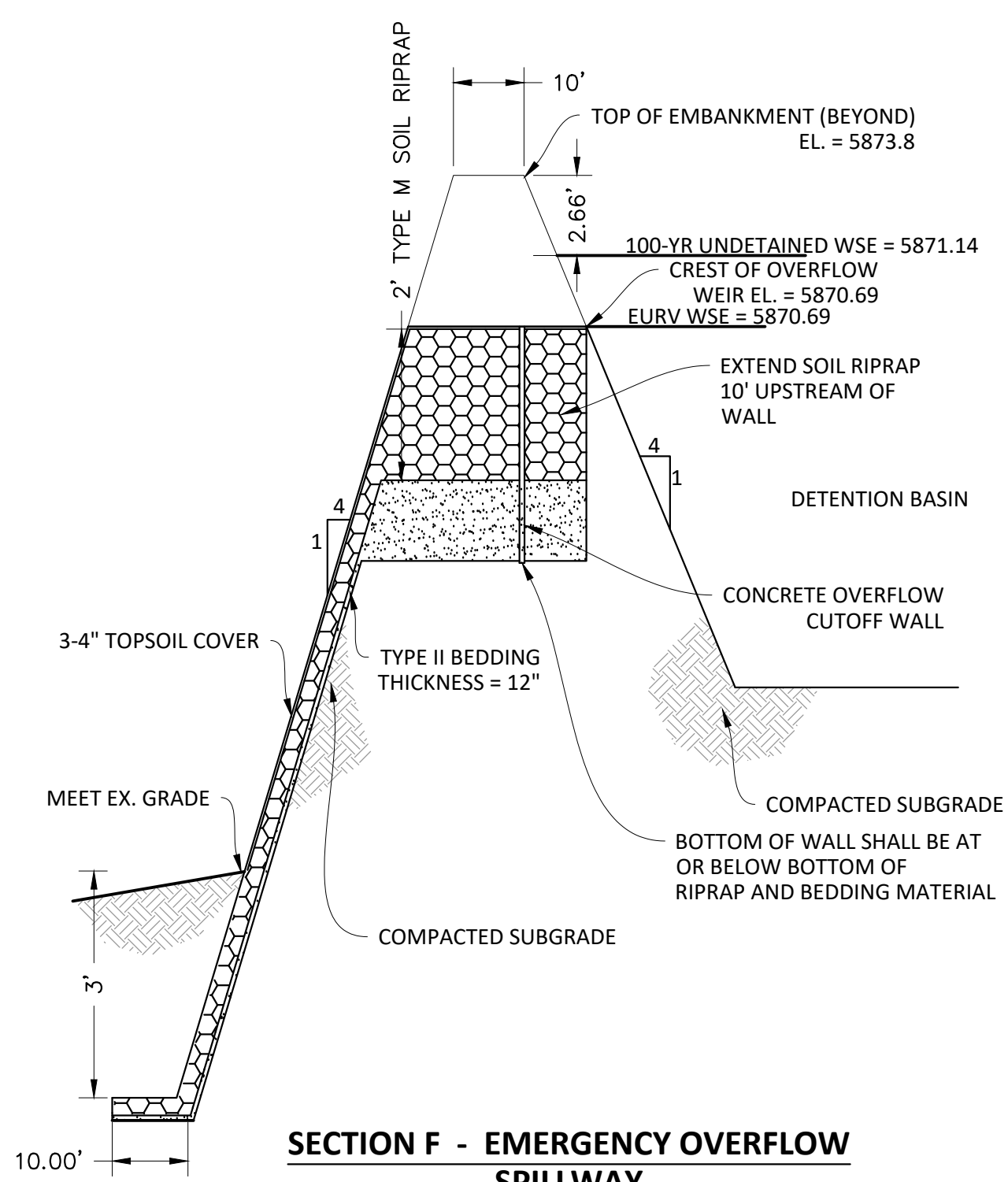
SECTION D - EMERGENCY OVERFLOW SPILLWAY CUTOFF WALL
 1" = 10'



SECTION G - EMERGENCY OVERFLOW SPILLWAY



SECTION E - EMERGENCY OVERFLOW SPILLWAY
 1" = 2'



SECTION F - EMERGENCY OVERFLOW SPILLWAY
 1" = 20'H
 1" = 2'V



- NOTE:**
- PRIOR TO FINAL TOP SOILING, SEEDING AND MULCHING, CONTRACTOR SHALL OBTAIN FINAL AS-BUILT VOLUME CHECK AND CERTIFICATION FROM THE ENGINEER. FAILURE TO DO SO WILL REQUIRE THE CONTRACTOR TO REMOVE AND REPLACE TOP SOIL MATERIALS AT HIS/HER EXPENSE.
 - REFER TO GENERAL NOTES ON SHEET 2 AND DETAILS ON FOLLOWING SHEETS
 - EMBANKMENT FILL SHALL MEET THE MINIMUM REQUIREMENTS OF TOWN OF PARKER AND THE GEOTECHNICAL REPORT. SEE GENERAL NOTES ON SHEET 2.
 - THIS WATER QUALITY BASIN HAS BEEN SIZED TO SERVE AS A TEMPORARY SEDIMENT BASIN DURING CONSTRUCTION. ONCE CONSTRUCTION IS COMPLETE, THE SPILLWAY SHALL BE LOWERED TO THE EURV WATER SURFACE ELEVATION, AS SHOWN ON THE DETAIL ON THIS SHEET.

TOWN OF PARKER APPROVALS

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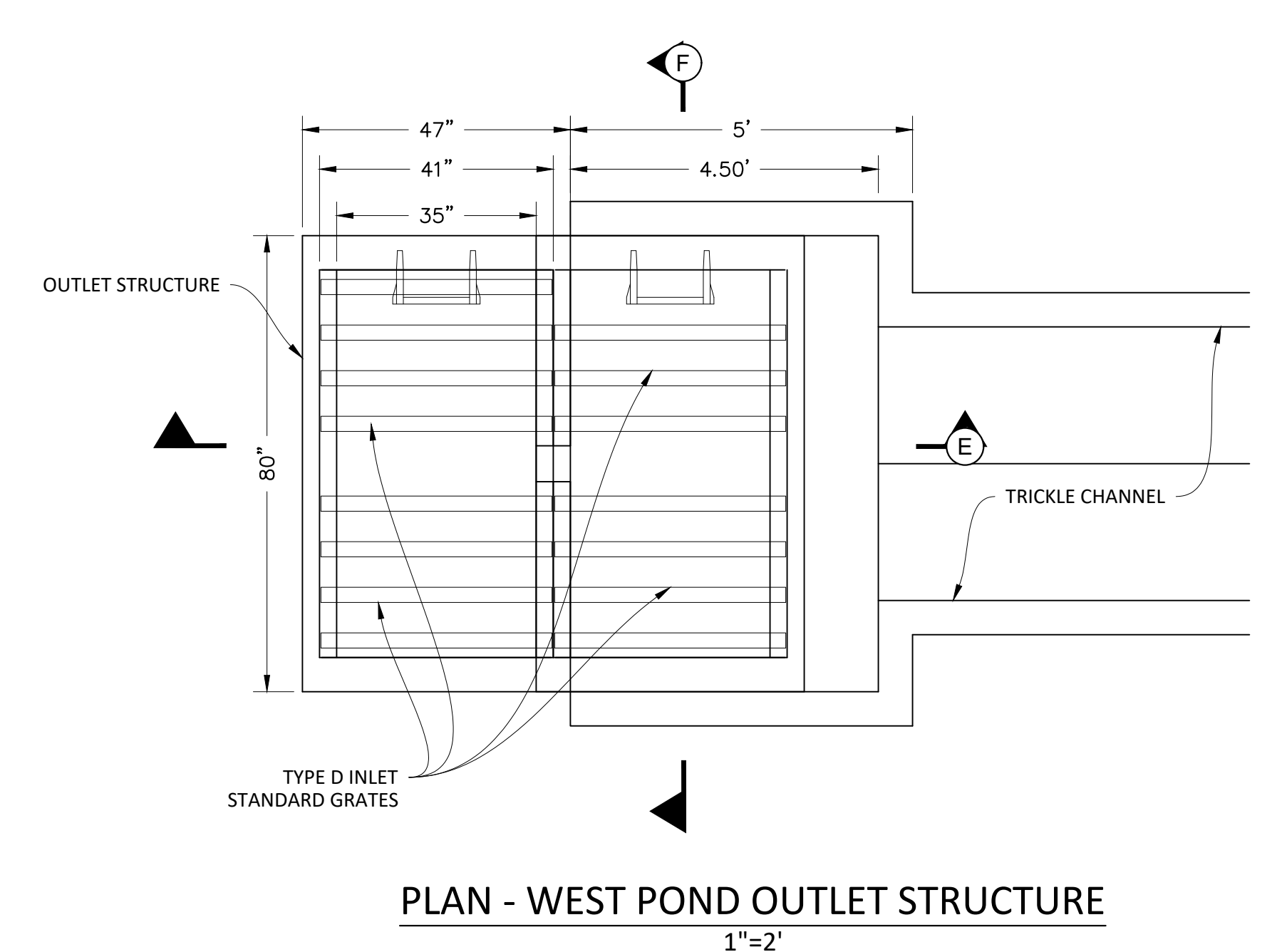
TOWN OF PARKER, DIRECTOR OF ENGINEERING/PUBLIC WORKS _____ DATE _____

DATE	REVISIONS
H 07/31/20	RESPONDED TO TOWN COMMENTS
G 05/07/20	RESPONDED TO TOWN COMMENTS
F 03/02/20	UPDARE GAT & ADD OFF-LINE DET BASIN
E 12/27/16	FINAL SUBMITTAL
D 06/24/16	1 ST SUBMITTAL
C 06/24/16	1 ST SUBMITTAL
B 04/17/16	2 ND SUBMITTAL
A 11/2015	1 ST SUBMITTAL

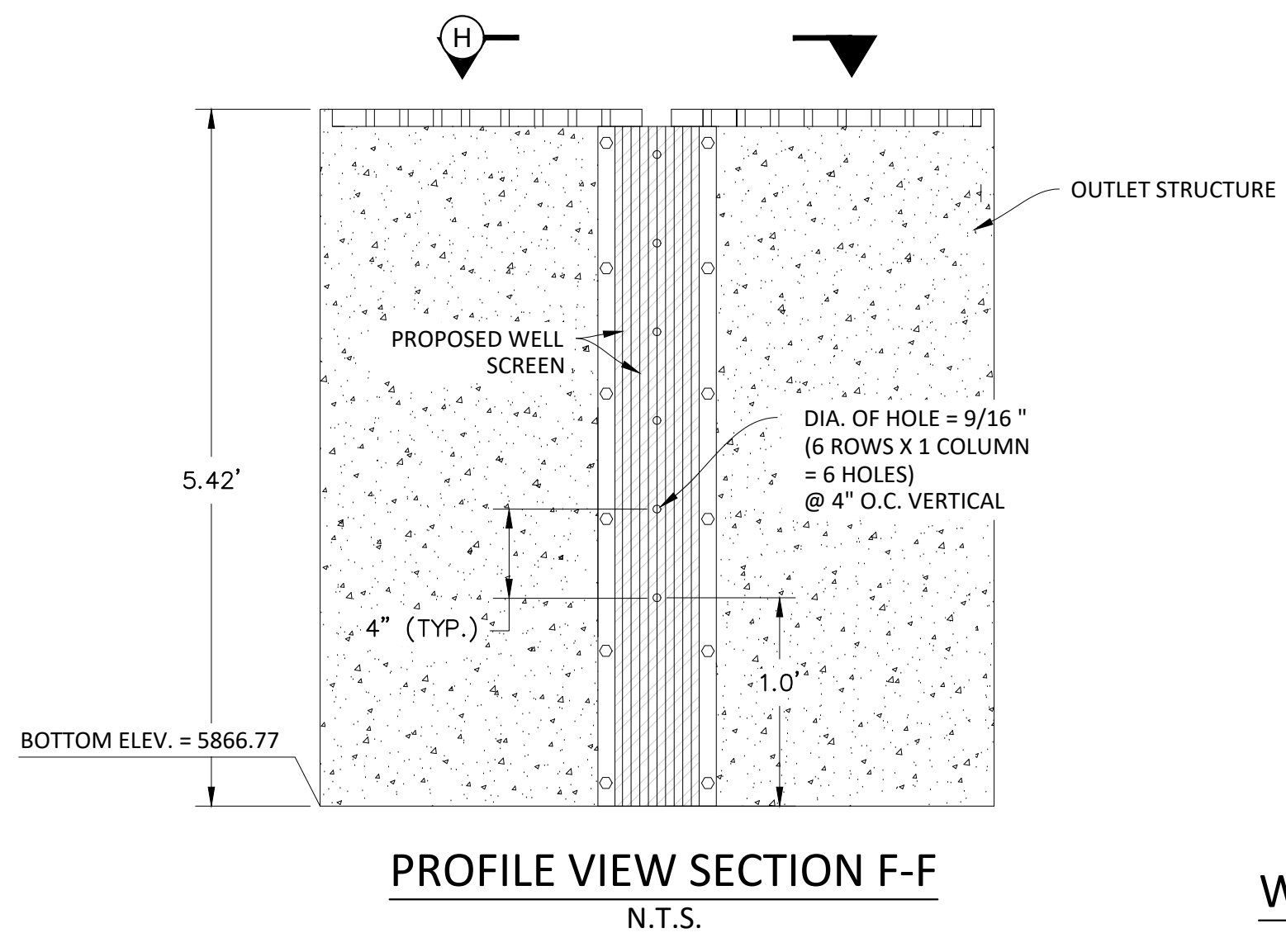
Manhard CONSULTING
 7600 East Orchard Road, Suite 300, Greenwood Village, CO 80111, phone: 303.778.0500 manhard.com
 Civil Engineering | Surveying & Geospatial Services | GIS | Construction Management | Water Resource Management

COMPARK VILLAGE SOUTH, FILING NO. 1 - BELFORD AVENUE
TOWN OF PARKER, COLORADO
WEST WATER QUALITY POND PLAN

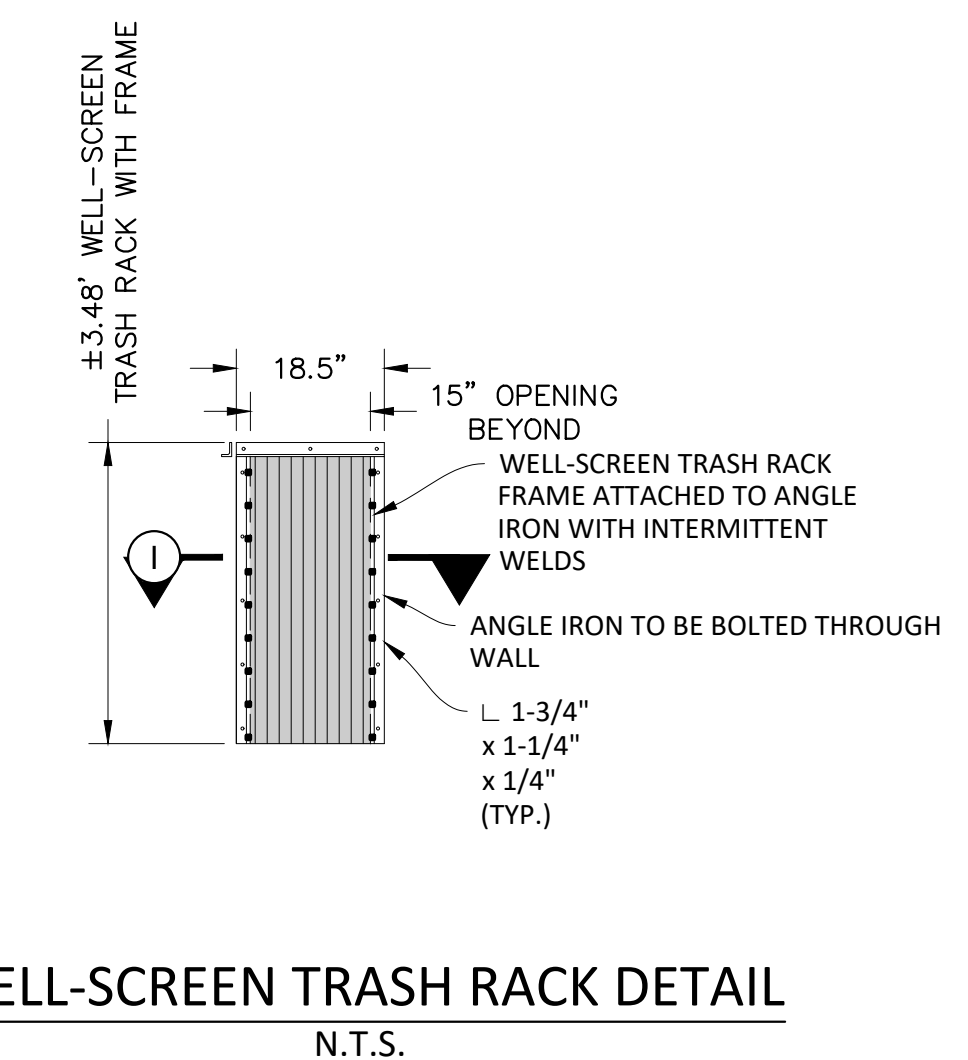
NOTE: DRAINAGE STRUCTURES REQUIRE FINAL SHOP DRAWINGS AND STRUCTURAL ENGINEERING TO BE SUBMITTED TO THE TOWN OF PARKER AND MANHARD CONSULTING FOR FINAL REVIEW AND APPROVAL. ANY CHANGE IN STRUCTURE TYPE, CONFIGURATION OR SHAPE WILL REQUIRE A "NOTICE OF CHANGE" AND WILL REQUIRE REVISIONS TO THE CIVIL DRAWINGS TO REFLECT THEIR CHANGES.



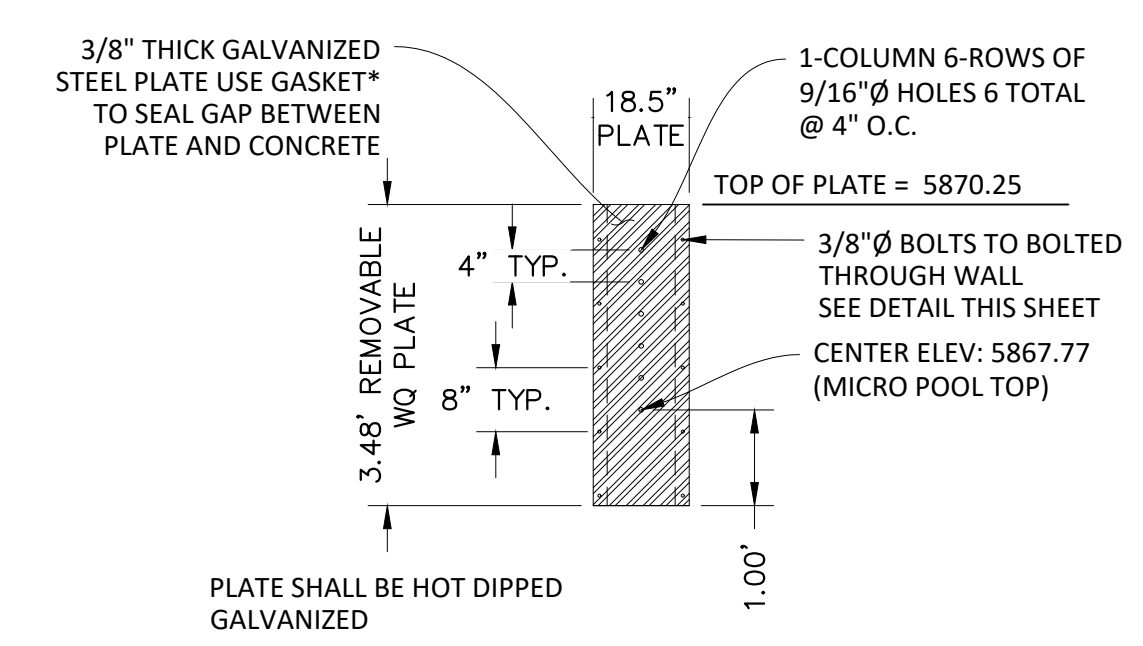
PLAN - WEST POND OUTLET STRUCTURE
1"=2'



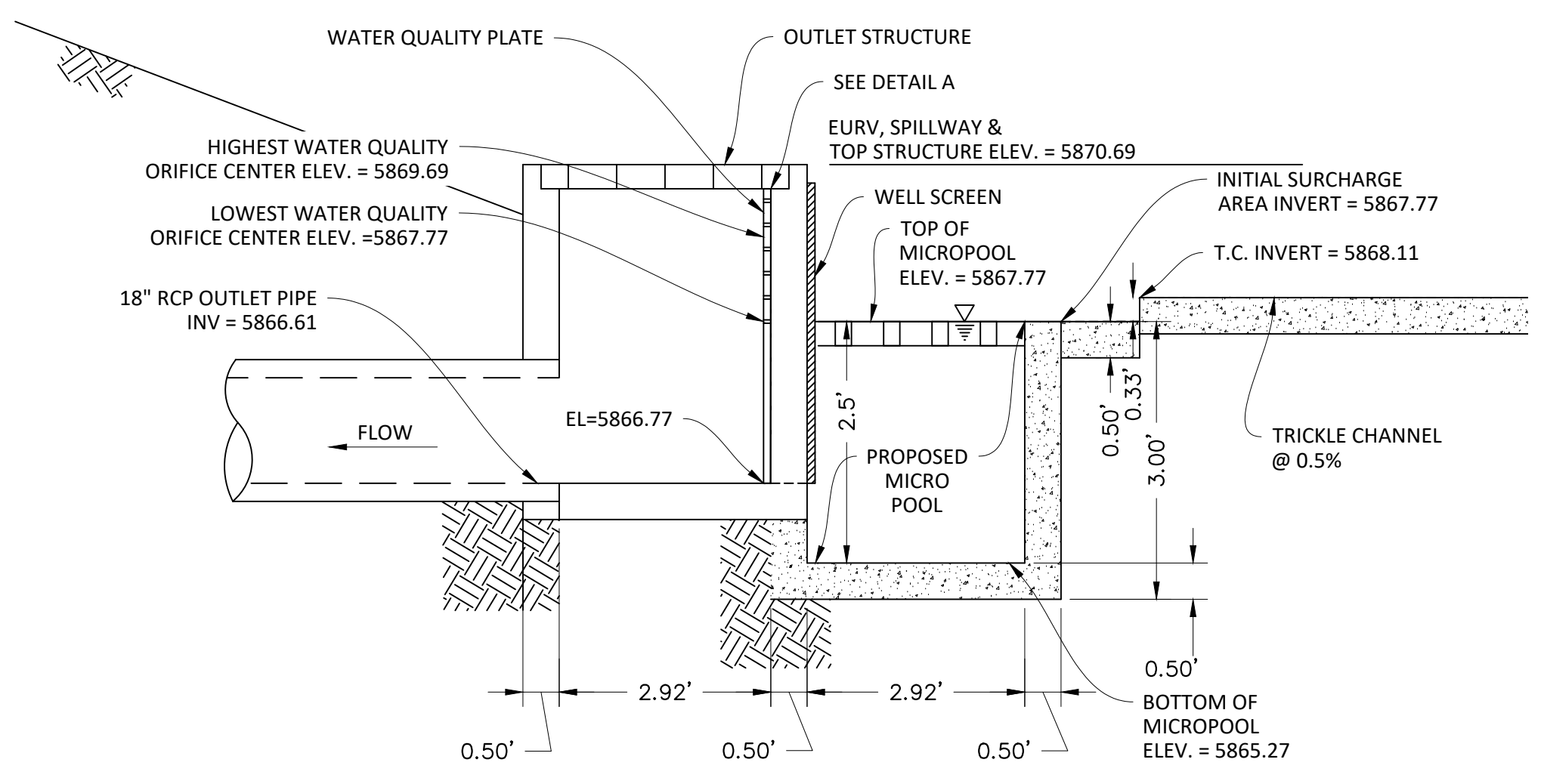
PROFILE VIEW SECTION F-F
N.T.S.



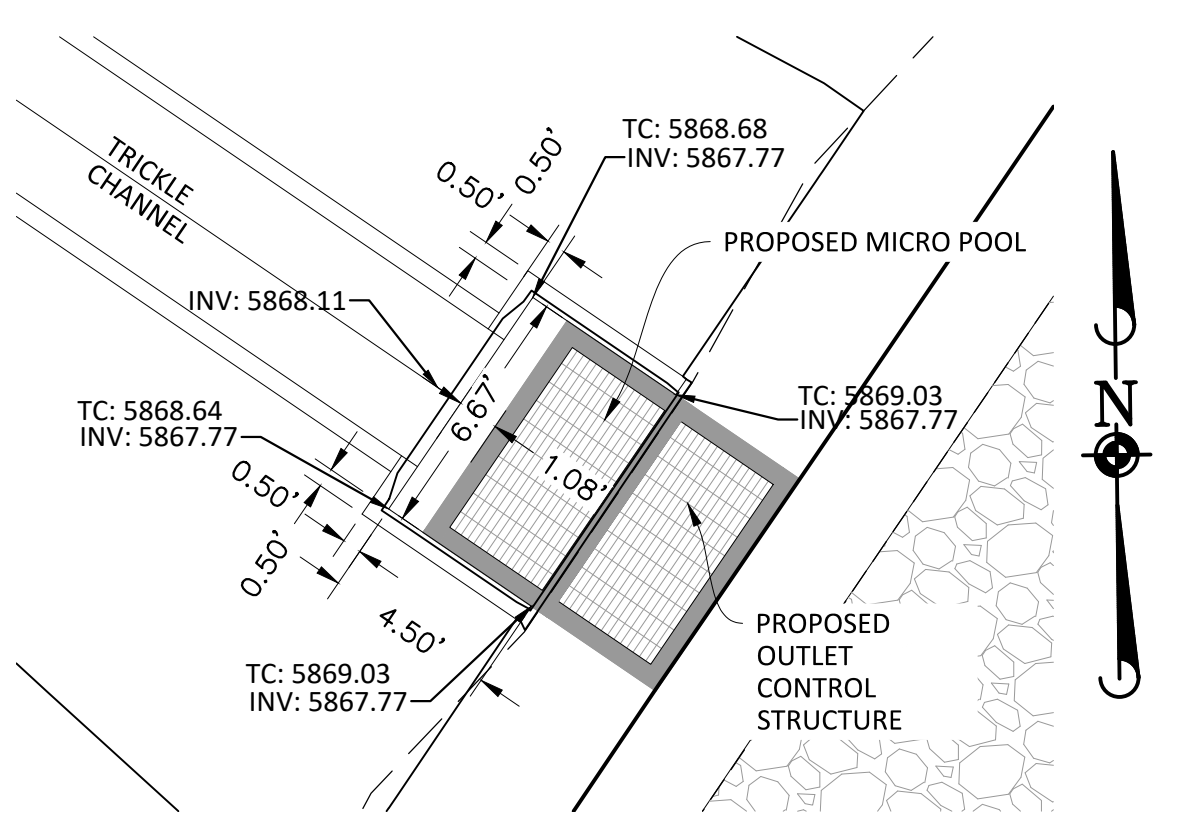
WELL-SCREEN TRASH RACK DETAIL
N.T.S.



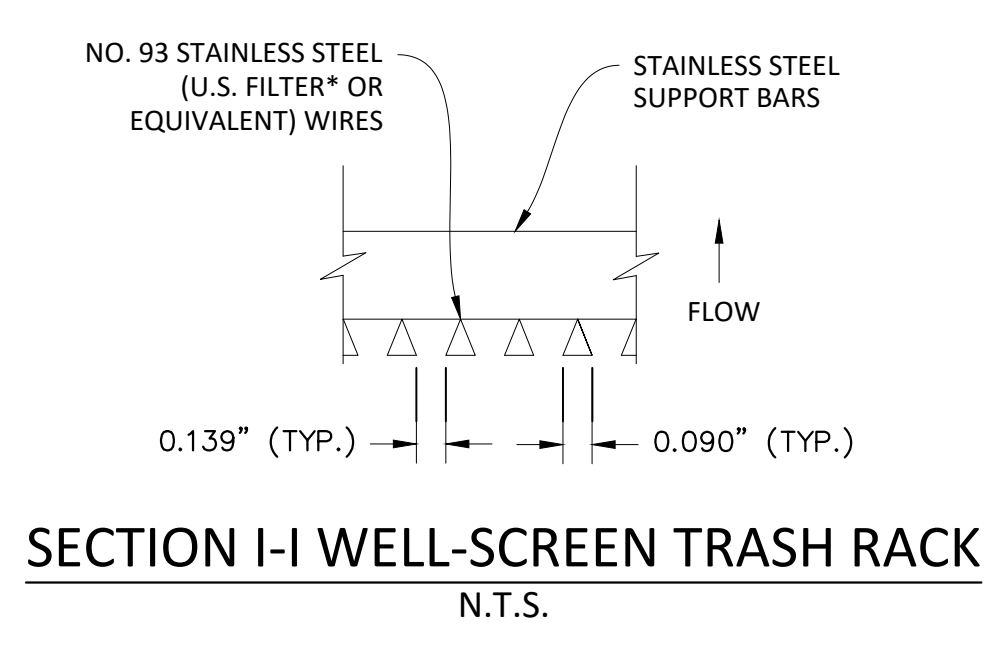
WATER QUALITY CONTROL PLATE
N.T.S.



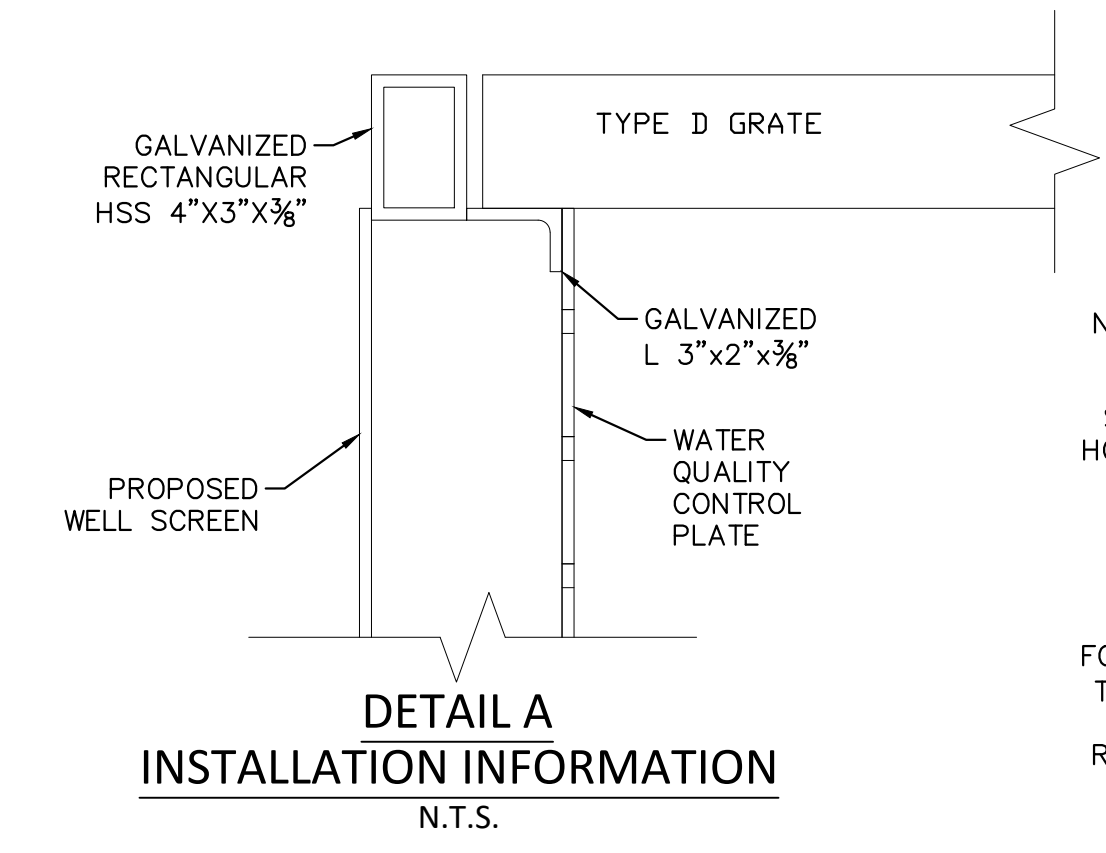
PROFILE VIEW SECTION E-E
N.T.S.



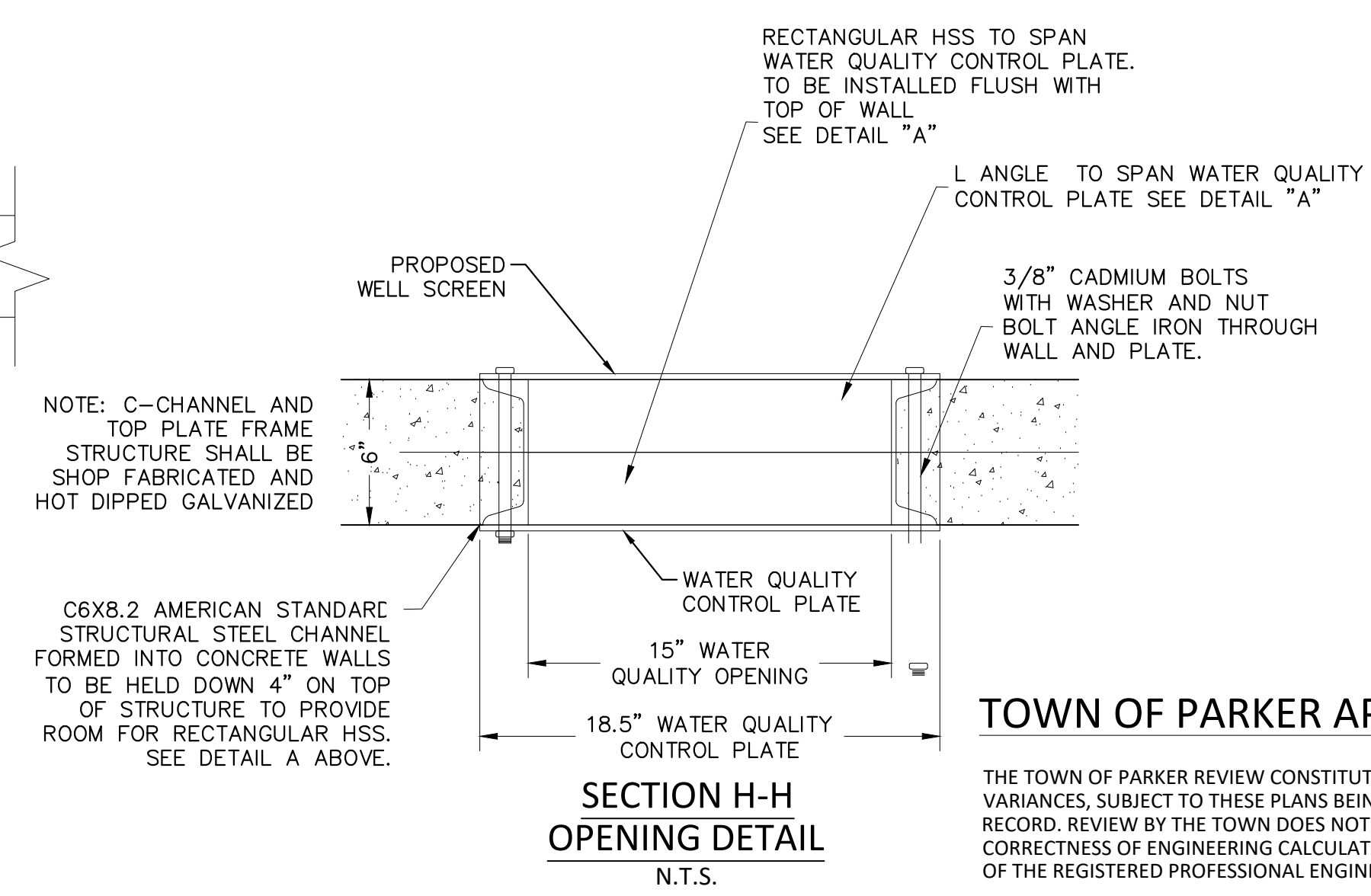
WEST POND INITIAL SURCHARGE AREA
1"=5'



SECTION I-I WELL-SCREEN TRASH RACK
N.T.S.



DETAIL A
INSTALLATION INFORMATION
N.T.S.



SECTION H-H
OPENING DETAIL
N.T.S.

- NOTES:
- REFER TO CDOT M-604-11 STANDARD, TYPE 'D' INLET, FOR CONCRETE, STEEL, GRATE, AND STEP REQUIREMENTS, REINFORCING BARS SHALL BE PLACED IN ALL INTERIOR, EXTERIOR AND BASE WALLS.
 - STEPS SHALL BE PROVIDED IN ACCORDANCE WITH AASHTO M 199.
 - GRATES SHALL BE STANDARD GRATE TYPE.
 - CONTRACTOR SHALL PROVIDE SHOP DRAWINGS TO ENGINEER FOR REVIEW, PRIOR TO CONSTRUCTION.
 - CONTRACTOR TO HAVE PROFESSIONAL ENGINEER DESIGN AND CERTIFY THE OUTLET STRUCTURE.
- * PROVIDE NEOPRENE GASKET (CLOSED CELL MEDIUM GASKET WITH ADHESIVE ON ONE SIDE, 1/4-IN. THICK X 2-IN. WIDE) BETWEEN THE WATER QUALITY PLATE AND THE CONCRETE OUTLET STRUCTURE.

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 AND 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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DATE	REVISIONS
H 07/31/20	RESPONDED TO TOWN COMMENTS
G 05/07/20	RESPONDED TO TOWN COMMENTS
F 03/02/20	URD/DATE GAT & ADD OFF-LINE DET BASIN
E 12/21/16	FINAL SUBMITTAL
D 06/24/16	1 ST SUBMITTAL
C 06/24/16	1 ST SUBMITTAL
B 4/17/16	2 ND SUBMITTAL
A 11/2015	1 ST SUBMITTAL

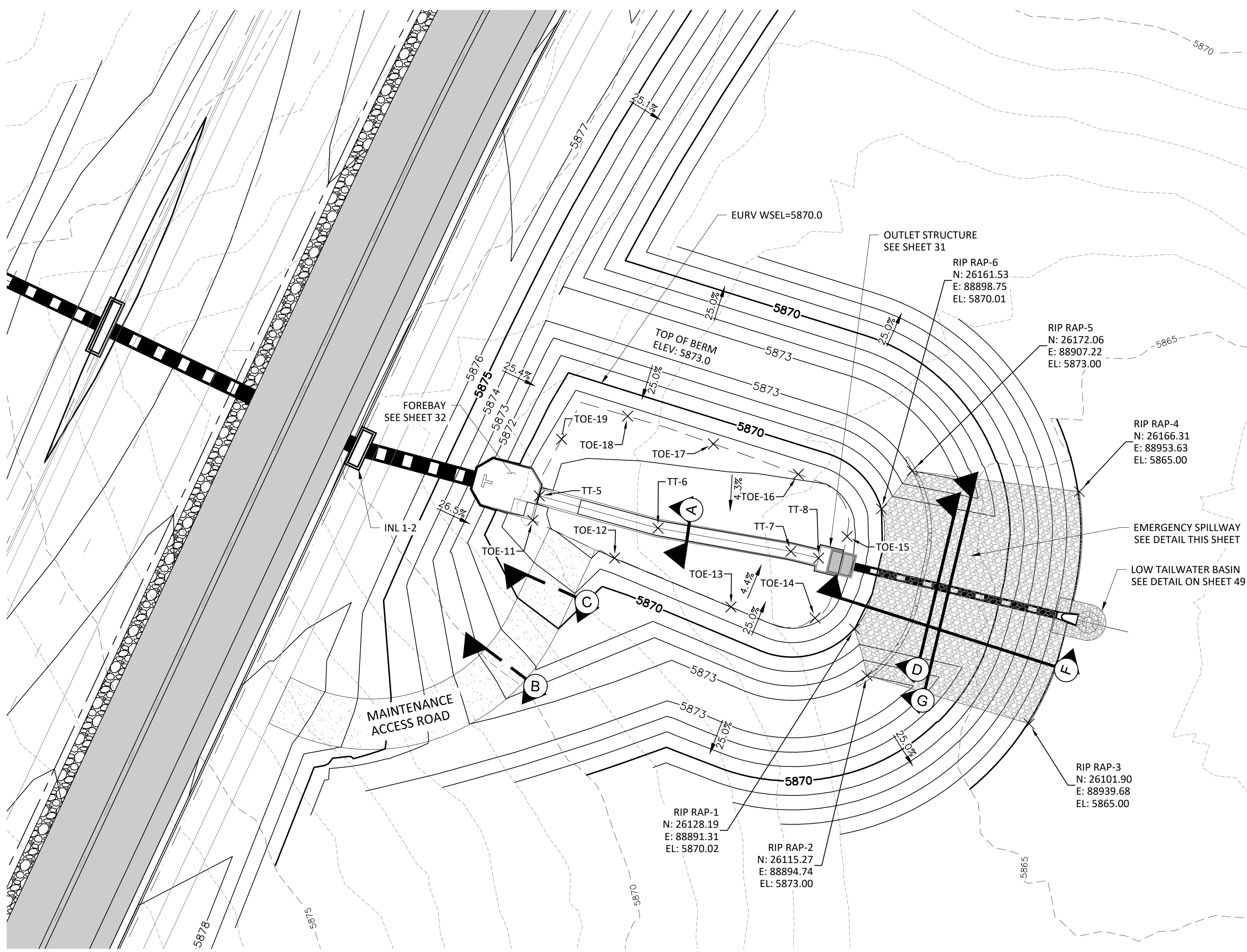
Manhard CONSULTING
7600 East Orchard Road, Suite 100-1003, Greenwood Village, CO 80111, phone: 303.770.0500 manhard.com
Civil Engineering | Surveying & Geospatial Services | GIS | Construction Management | Water Resource Management

COMPARK VILLAGE SOUTH, FILING NO. 1 - BELFORD AVENUE
TOWN OF PARKER, COLORADO
OUTLET STRUCTURE WEST

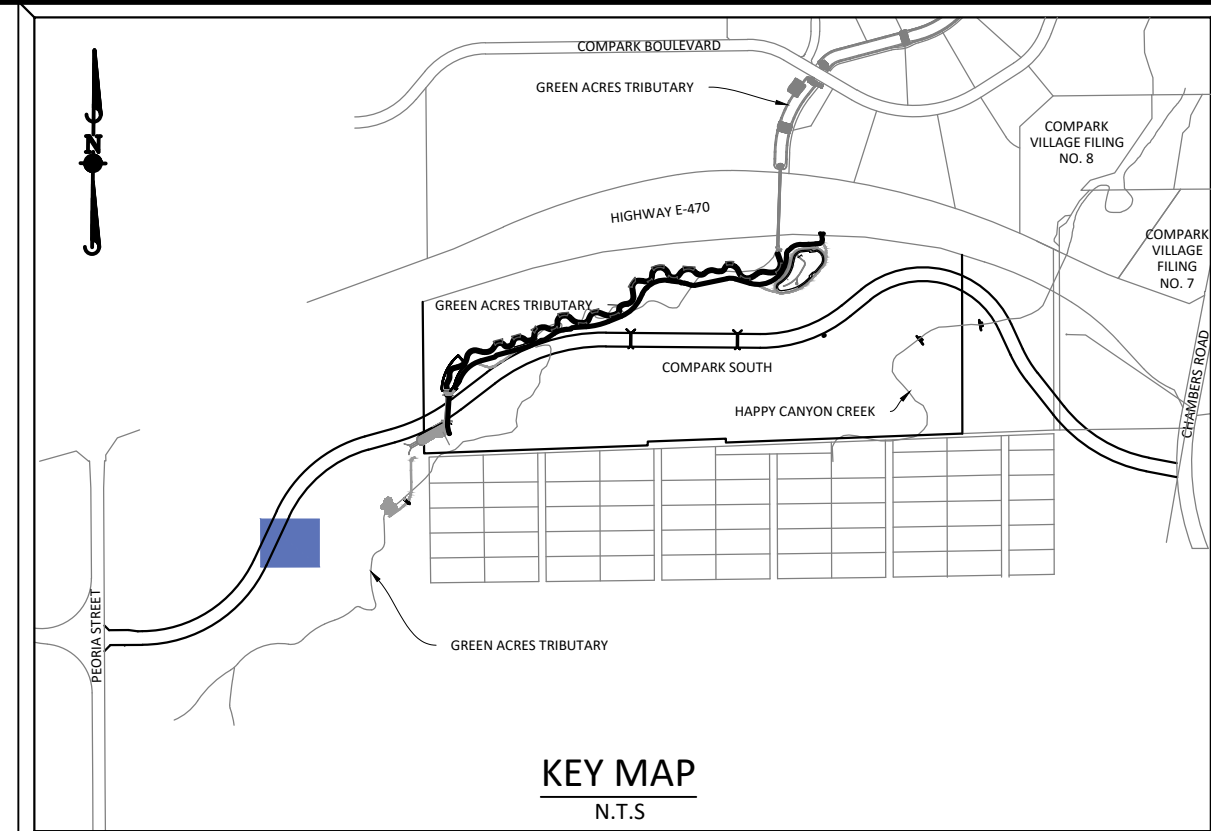
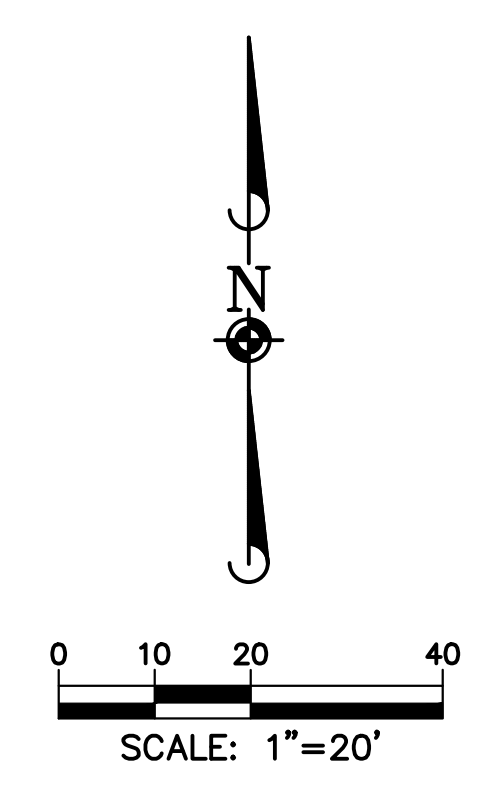
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PRELIMINARY - NOT FOR CONSTRUCTION

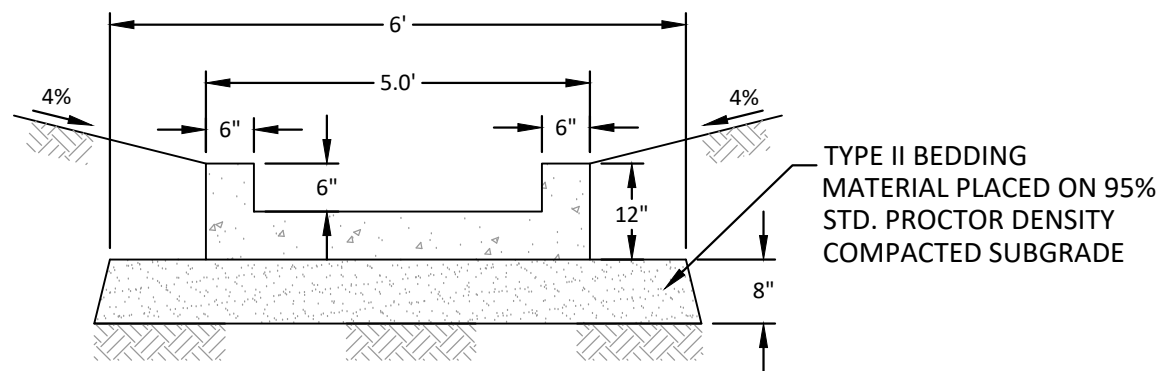
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FREQUENCY STORM	REQUIRED VOLUMES (FT ³ OR AC.-FT.)	RECORD DRAWING CALCULATIONS					
		CALC. VOL.	BY:	DATE	CALC. VOL.	BY:	DATE
EURV	0.23 AC.-FT.						

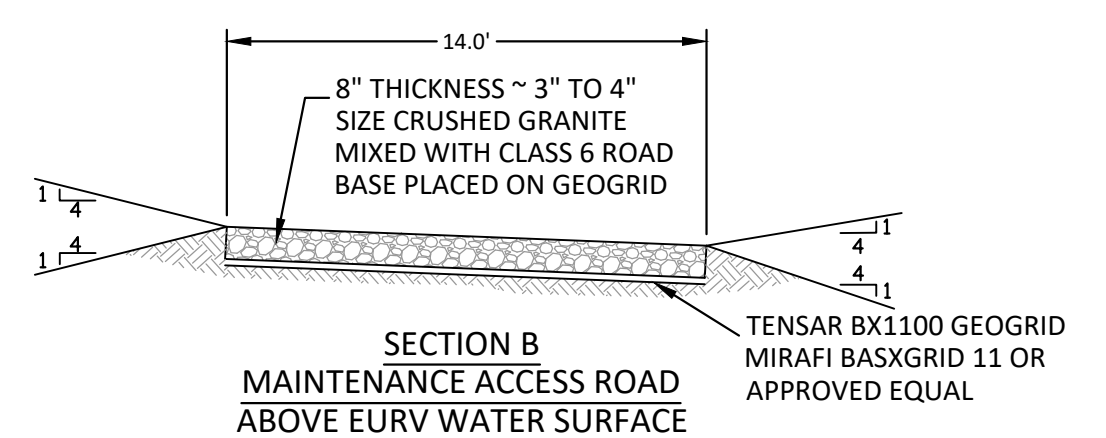


SOURCE BENCHMARKS:
 DOUGLAS COUNTY BM 1.115010
 A DOUGLAS COUNTY GIS MONUMENT SET IN CONCRETE LOCATED APPROXIMATELY 130 FEET SOUTHWESTERLY OF THE CENTERLINE OF CHAMBERS ROAD AND 95 FEET NORTHWESTERLY OF THE CENTERLINE OF COMPARK BOULEVARD. ELEVATION = 5752.84 (NAVD 88)

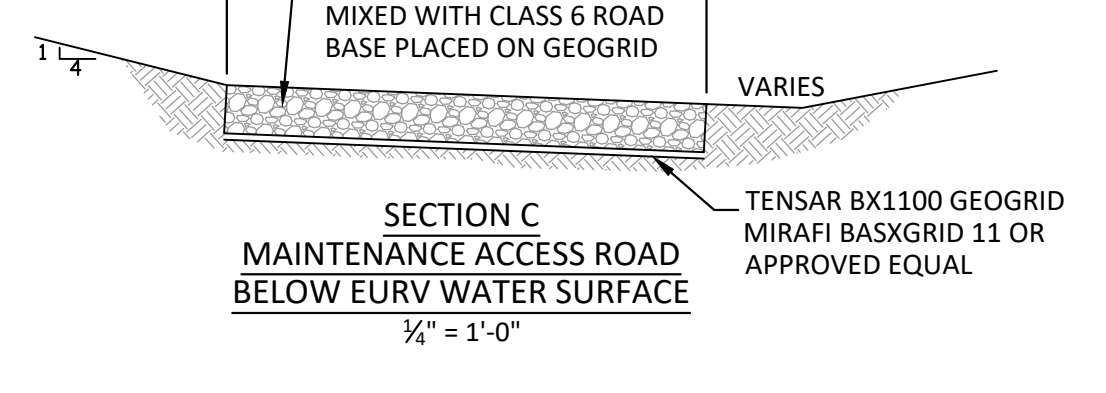


SECTION A
 5.0' WIDE TRICKLE CHANNEL
 1/4" = 1'-0"

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



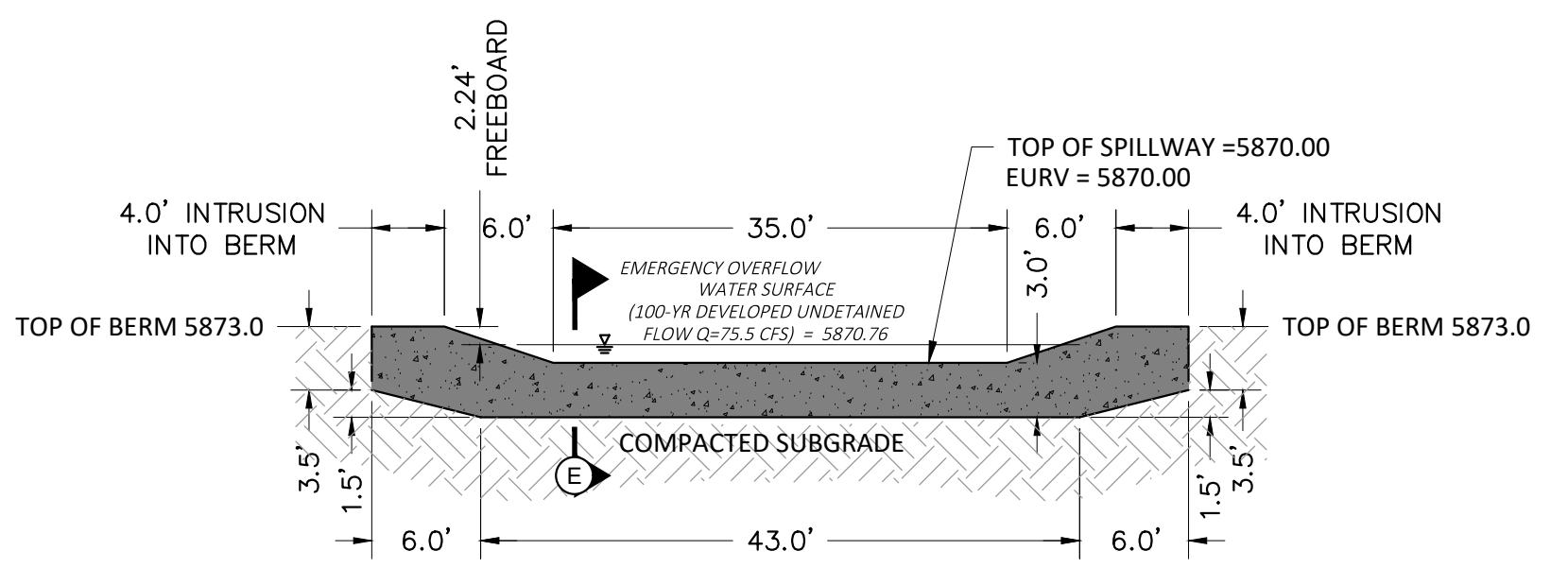
SECTION B
 MAINTENANCE ACCESS ROAD ABOVE EURV WATER SURFACE
 1/4" = 1'-0"



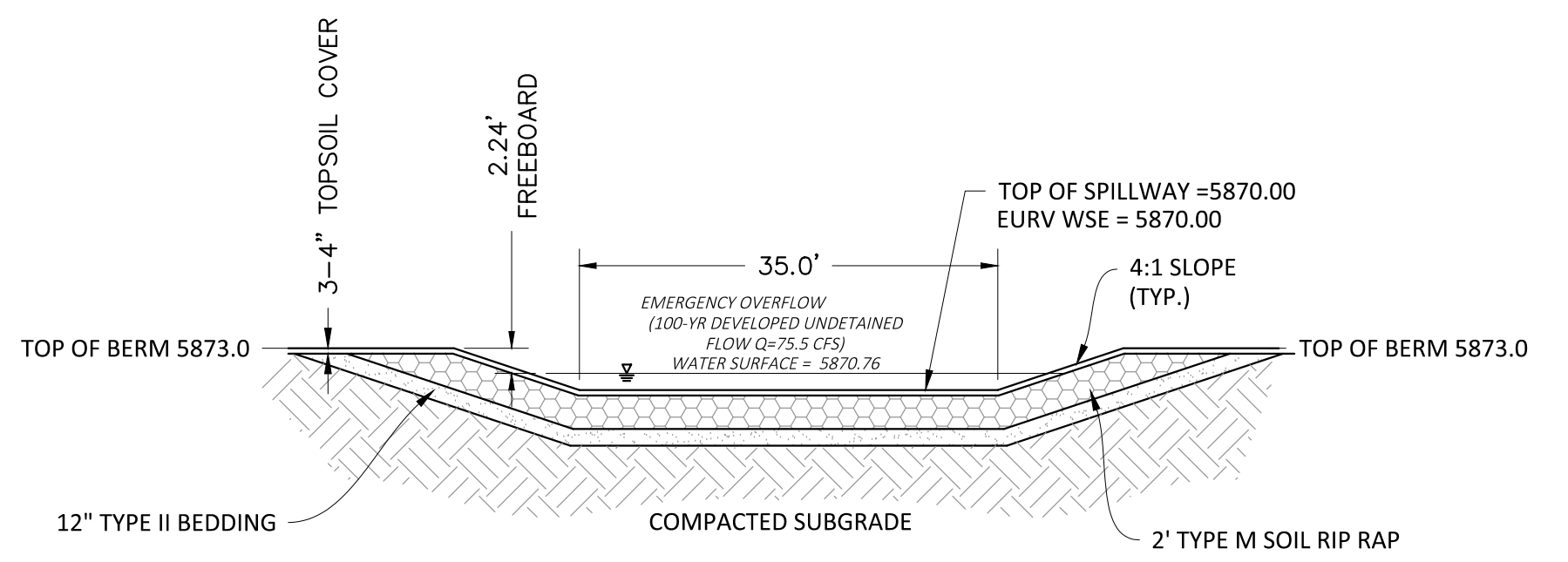
SECTION C
 MAINTENANCE ACCESS ROAD BELOW EURV WATER SURFACE
 1/4" = 1'-0"

Point Table

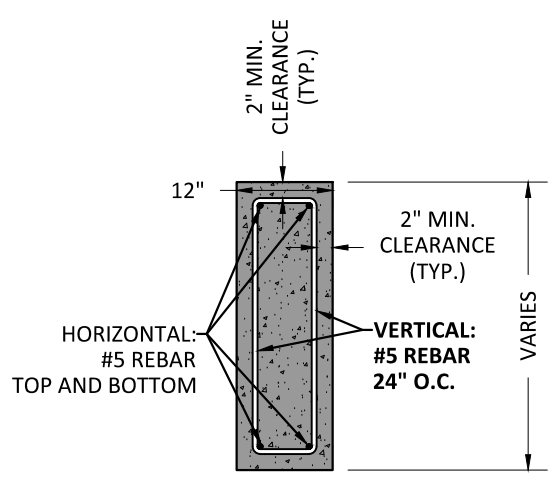
Point	Elevation	Northing	Easting	Description
TOE-11	5868.56	26158.38	88802.07	POND TOE
TOE-12	5867.99	26147.91	88824.77	POND TOE
TOE-13	5867.99	26134.33	88857.03	POND TOE
TOE-14	5867.77	26131.25	88880.33	POND TOE
TOE-15	5867.43	26153.85	88889.22	POND TOE
TOE-16	5868.07	26171.11	88875.68	POND TOE
TOE-17	5868.29	26179.55	88852.15	POND TOE
TOE-18	5868.47	26187.25	88828.37	POND TOE
TOE-19	5868.16	26180.86	88810.05	POND TOE
TT-5	5867.06	26165.13	88803.90	Trickle Channel
TT-6	5866.89	26156.19	88836.79	Trickle Channel
TT-7	5866.70	26149.71	88873.62	Trickle Channel
TT-8	5866.66	26147.87	88881.32	Trickle Channel



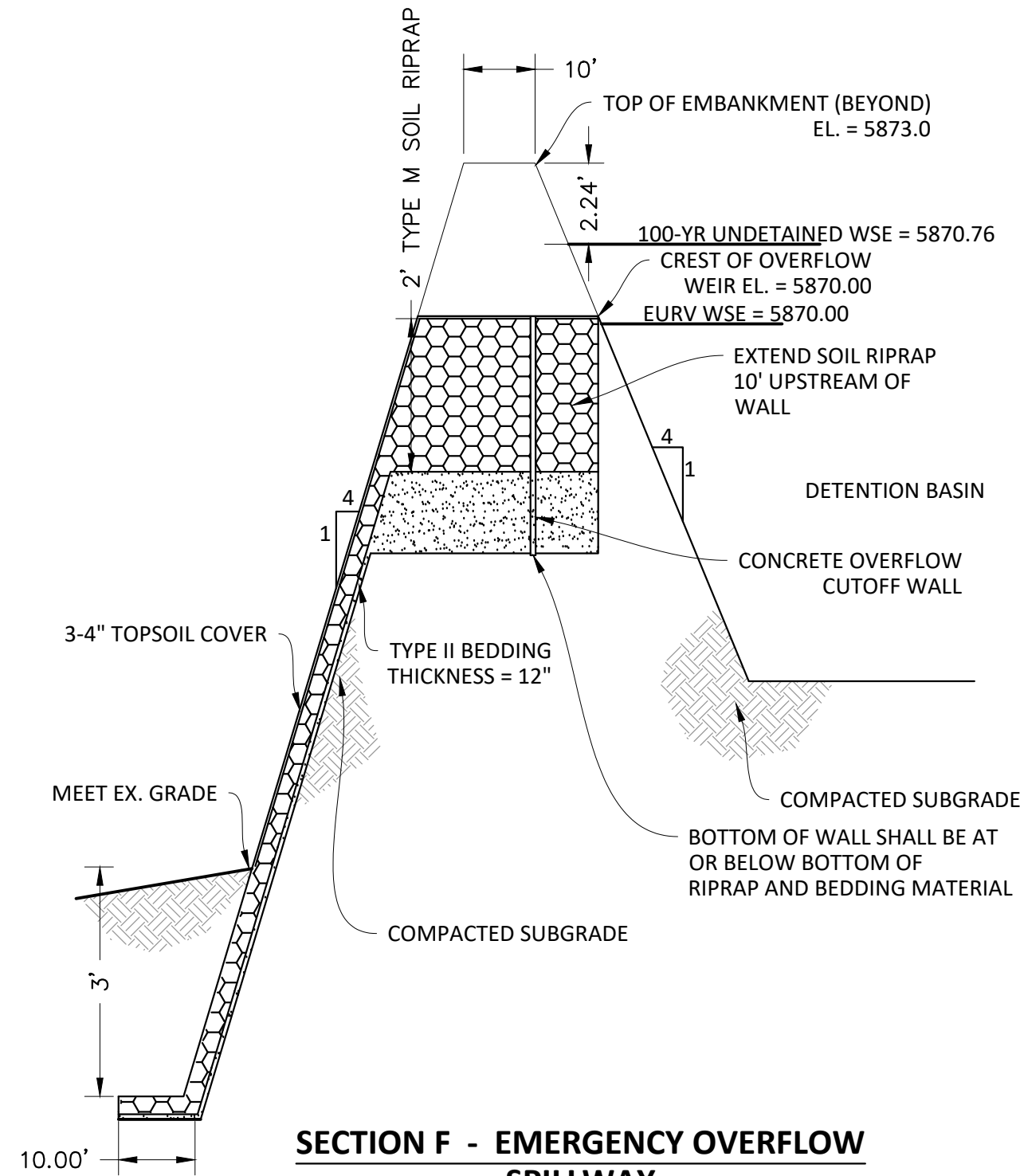
SECTION D - EMERGENCY OVERFLOW SPILLWAY CUTOFF WALL
 1" = 10"



SECTION G - EMERGENCY OVERFLOW SPILLWAY
 1" = 10"



SECTION E - EMERGENCY OVERFLOW SPILLWAY
 1" = 2"



SECTION F - EMERGENCY OVERFLOW SPILLWAY
 1" = 20'H
 1" = 2'V



NOTE:

- PRIOR TO FINAL TOP SOILING, SEEDING AND MULCHING, CONTRACTOR SHALL OBTAIN FINAL AS-BUILT VOLUME CHECK AND CERTIFICATION FROM THE ENGINEER. FAILURE TO DO SO WILL REQUIRE THE CONTRACTOR TO REMOVE AND REPLACE TOP SOIL MATERIALS AT HIS/HER EXPENSE.
- REFER TO GENERAL NOTES ON SHEET 2 AND DETAILS ON FOLLOWING SHEETS
- EMBANKMENT FILL SHALL MEET THE MINIMUM REQUIREMENTS OF TOWN OF PARKER AND THE GEOTECHNICAL REPORT. SEE GENERAL NOTES ON SHEET 2.
- THIS WATER QUALITY BASIN HAS BEEN SIZED TO SERVE AS A TEMPORARY SEDIMENT BASIN DURING CONSTRUCTION. ONCE CONSTRUCTION IS COMPLETE, THE SPILLWAY SHALL BE LOWERED TO THE EURV WATER SURFACE ELEVATION, AS SHOWN ON THE DETAIL ON THIS SHEET.

TOWN OF PARKER APPROVALS

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TOWN OF PARKER, DIRECTOR OF ENGINEERING/PUBLIC WORKS _____ DATE _____

DATE	REVISIONS
H 07/31/20	RESPONDED TO TOWN COMMENTS
G 05/01/20	RESPONDED TO TOWN COMMENTS
F 03/02/20	URDALE GAT & ADD OFF-LINE DET BASIN
E 12/27/16	FINAL SUBMITTAL
D 06/24/16	1 ST SUBMITTAL
C 06/24/16	1 ST SUBMITTAL
B 04/11/16	2 ND SUBMITTAL
A 11/2015	1 ST SUBMITTAL

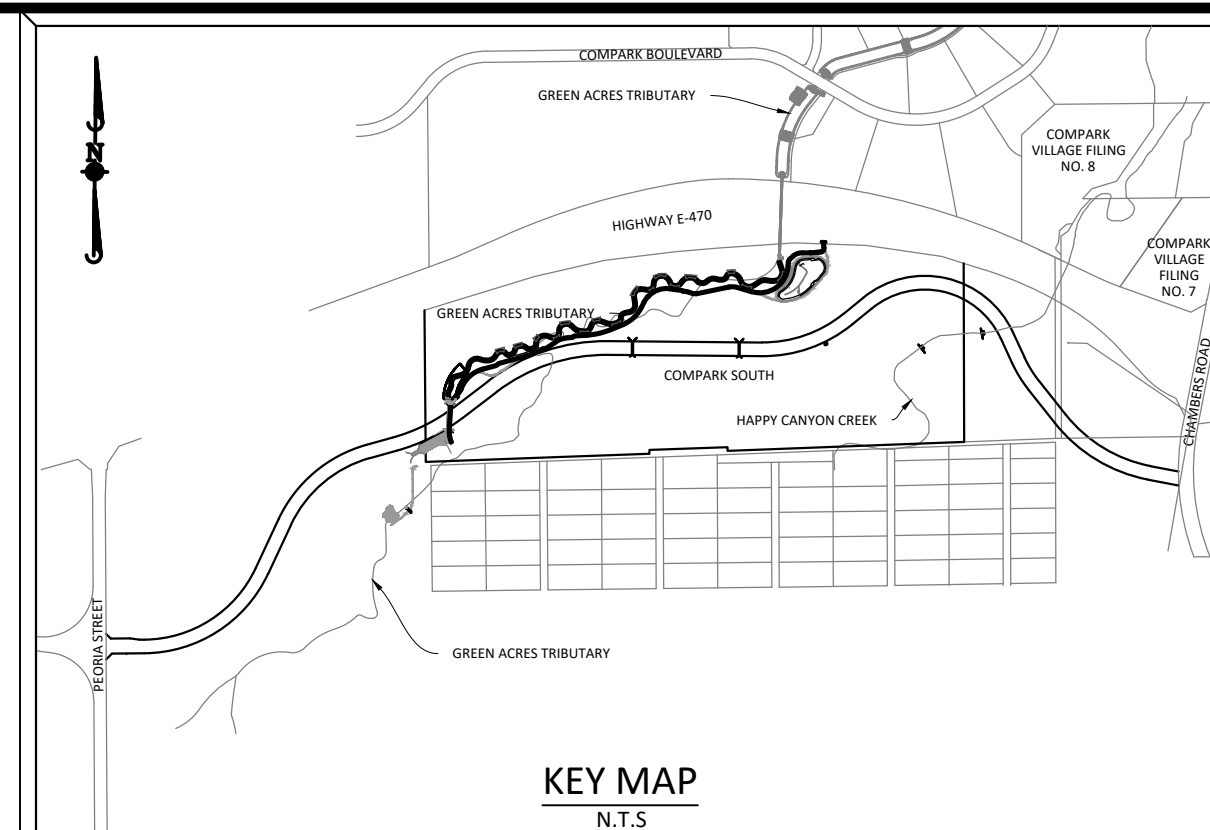
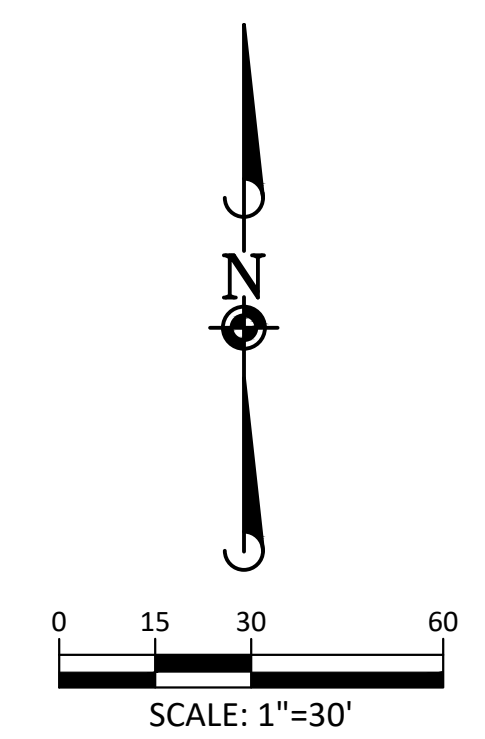
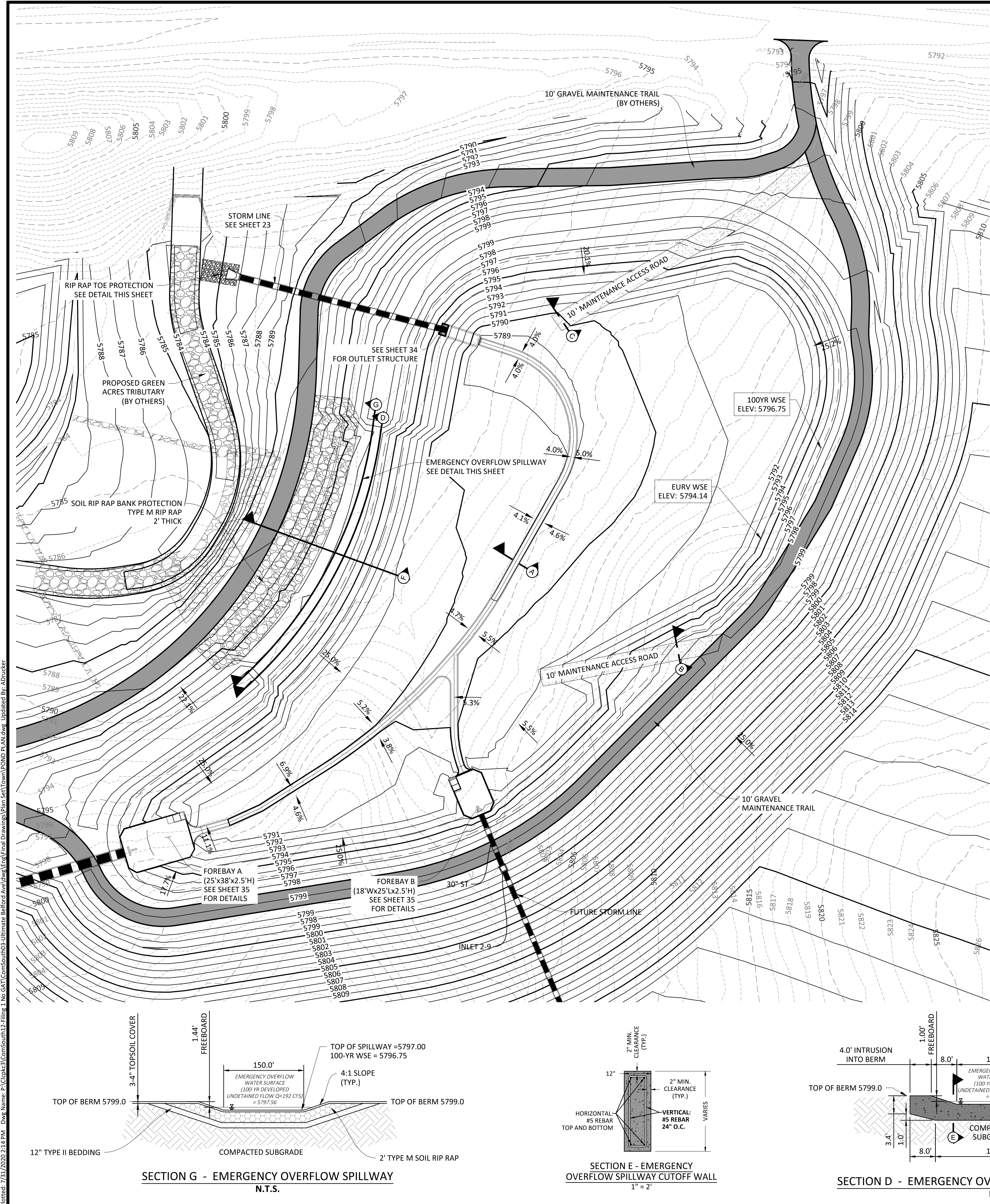
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 7600 East Orchard Road, Suite 100-303, Greenwood Village, CO 80121, phone: 303.778.0500 manhard.com
 Civil Engineering | Surveying & Geospatial Services | GIS | Construction Management | Water Resource Management

COMPARK VILLAGE SOUTH, FILING NO. 1 - BELFORD AVENUE
 TOWN OF PARKER, COLORADO
 EAST WATER QUALITY POND PLAN

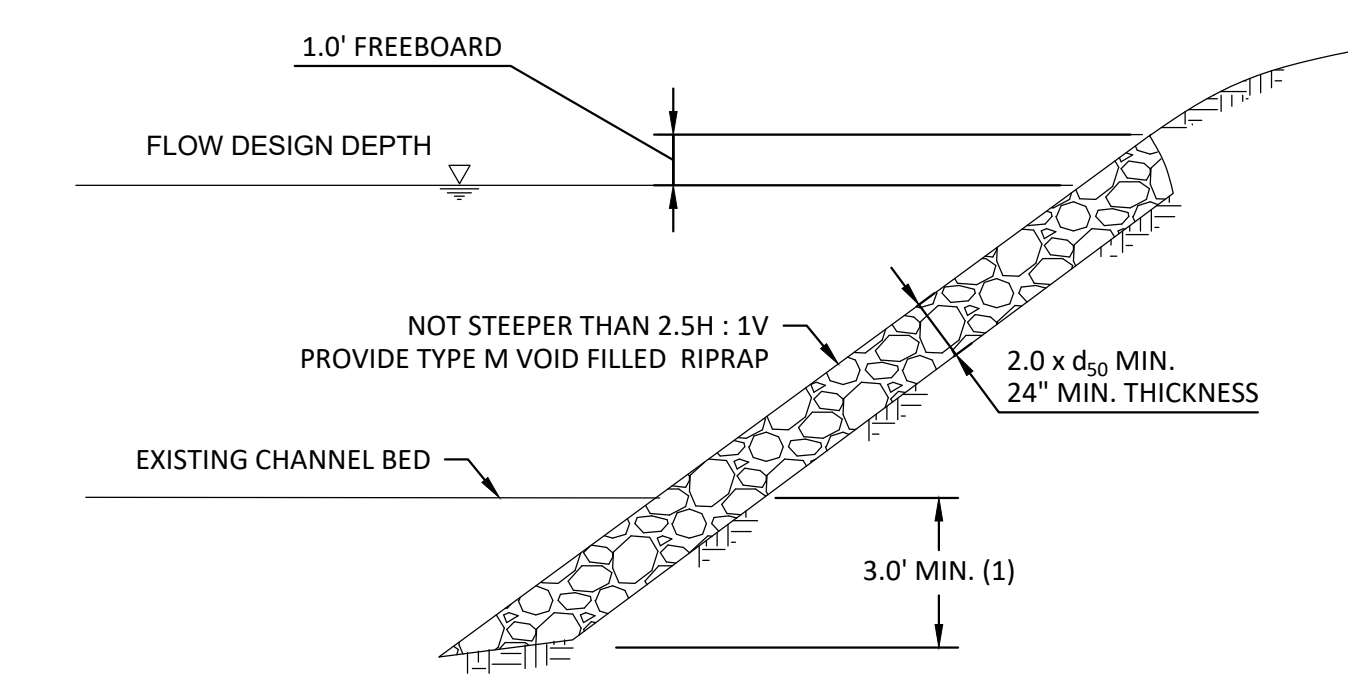
PROJ. MGR.: RJM
 PROJ. ASSOC.: BRB
 DRAWN BY: ETG
 DATE: 12/2015

SHEET
30 OF 50
 CLCPK3

PRELIMINARY - NOT FOR CONSTRUCTION

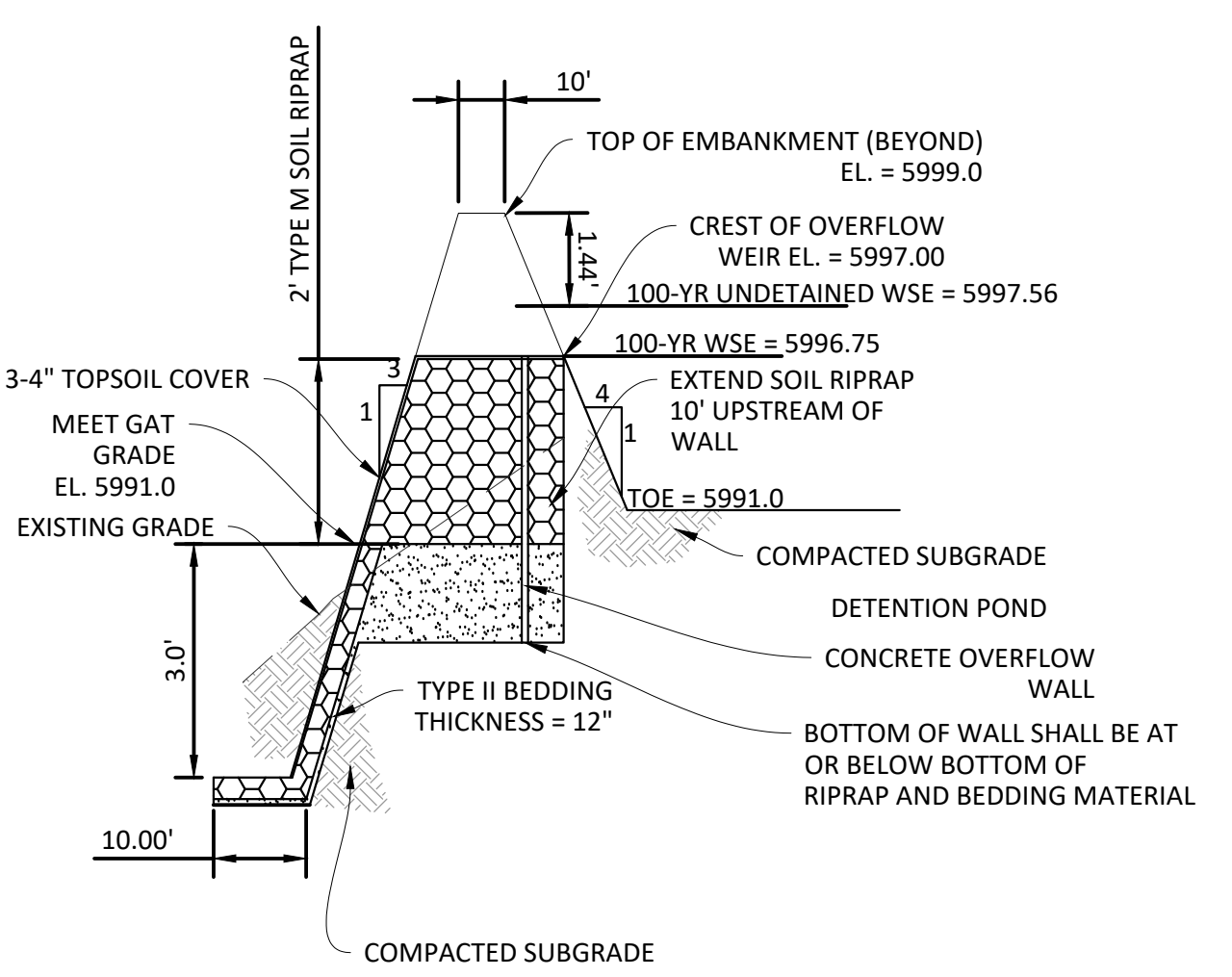


SOURCE BENCHMARKS:
 DOUGLAS COUNTY BM 1.115010
 A DOUGLAS COUNTY GIS MONUMENT SET IN CONCRETE LOCATED APPROXIMATELY 130 FEET SOUTHWESTERLY OF THE CENTERLINE OF CHAMBERS ROAD AND 95 FEET NORTHWESTERLY OF THE CENTERLINE OF COMPARK BOULEVARD. ELEVATION = 5752.84 (NAVD 88)

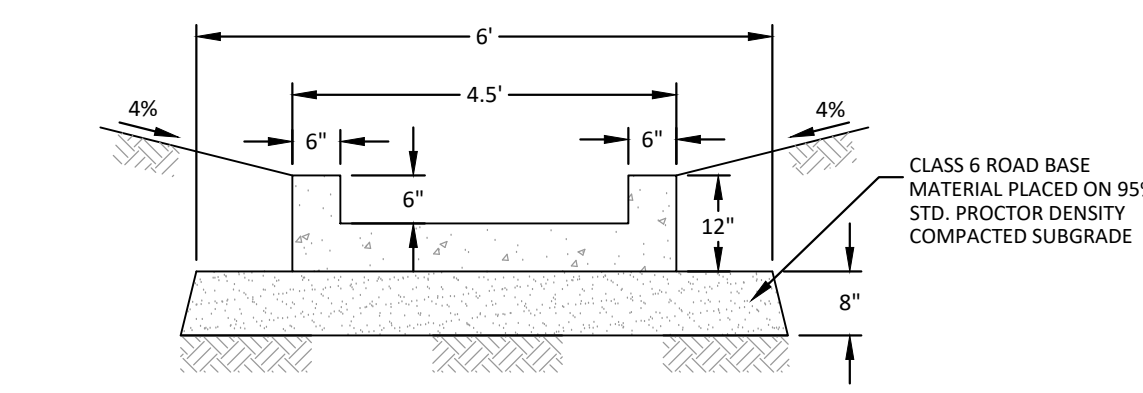


- (1) 5 - FEET MINIMUM IN SANDY OR EROSION SOILS
- (2) ELIMINATE GRANULAR BEDDING WHEN SOIL-RIPPAP IS USED

RIPP-RAP TOE PROTECTION
N.T.S.

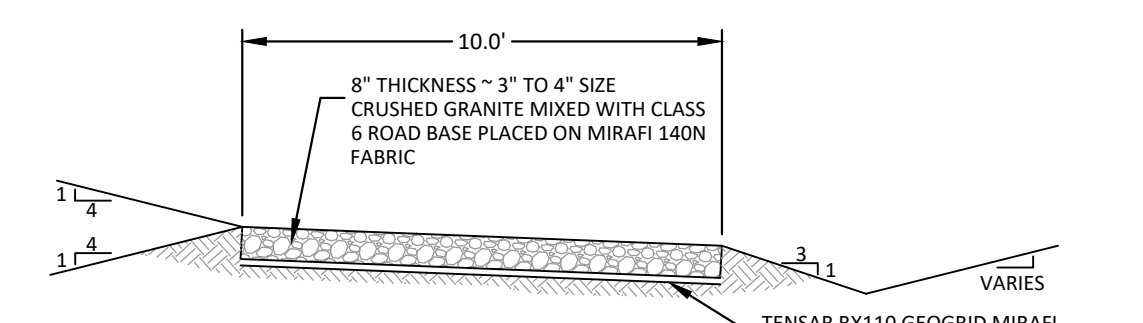


SECTION F - EMERGENCY OVERFLOW SPILLWAY
N.T.S.



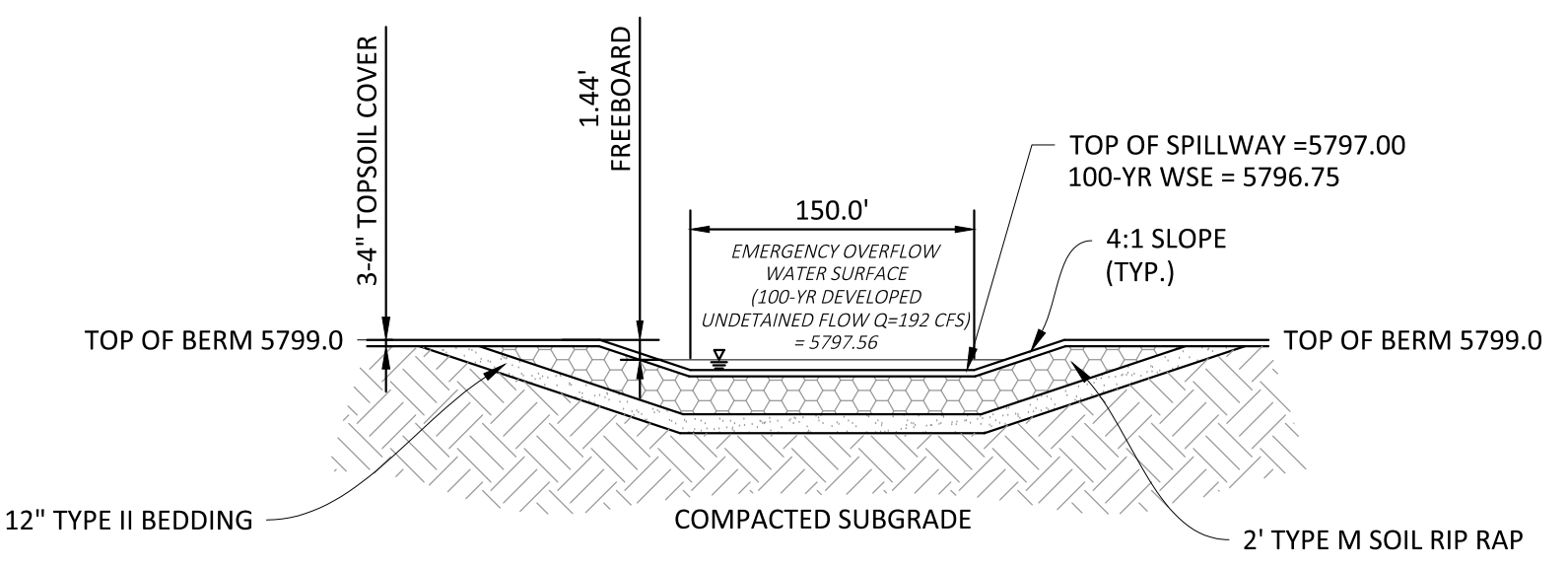
SECTION B
MAINTENANCE ACCESS ROAD ABOVE EURV WATER SURFACE
1/4" = 1'-0"

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

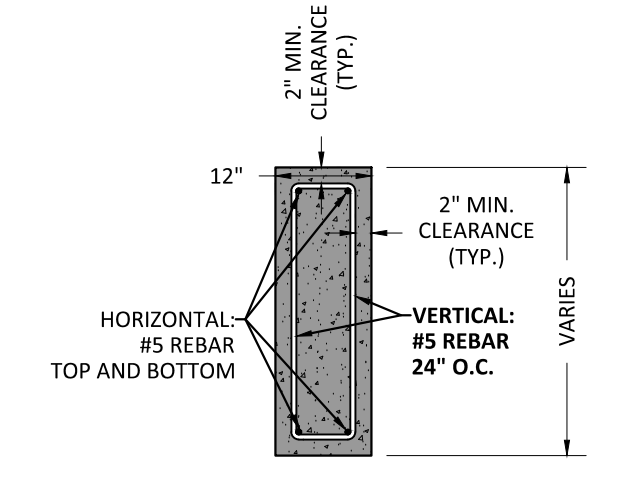


SECTION C
MAINTENANCE ACCESS ROAD BELOW EURV WATER SURFACE
1/4" = 1'-0"

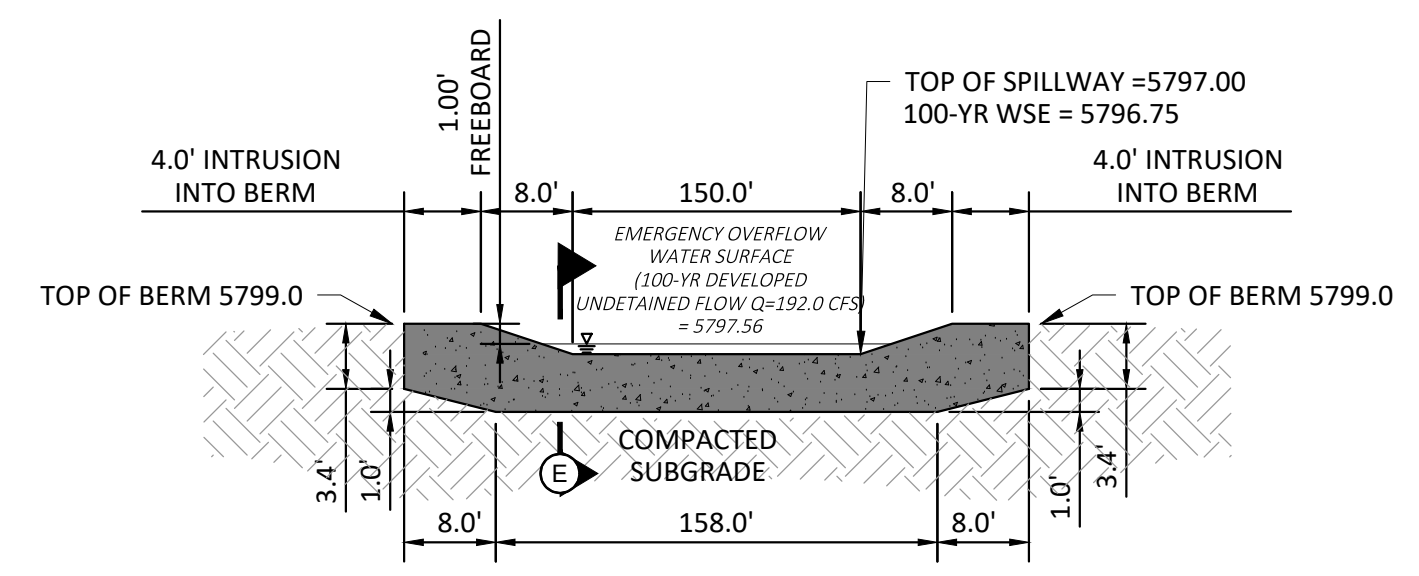
- NOTE:
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 3. EMBANKMENT FILL SHALL MEET THE MINIMUM REQUIREMENTS OF TOWN OF PARKER AND THE GEOTECHNICAL REPORT. SEE GENERAL NOTES ON SHEET 2.



SECTION G - EMERGENCY OVERFLOW SPILLWAY
N.T.S.



SECTION E - EMERGENCY OVERFLOW SPILLWAY CUTOFF WALL
1" = 2'



SECTION D - EMERGENCY OVERFLOW SPILLWAY CUTOFF WALL
N.T.S.



DATE	REVISIONS
11/07/20	RESPONDED TO TOWN COMMENTS
02/01/20	RESPONDED TO TOWN COMMENTS
03/02/20	UPDATE GAT & ADD OFF-LINE DET BASIN
12/17/16	FINAL SUBMITTAL
12/17/16	3RD SUBMITTAL
07/11/16	2ND SUBMITTAL
04/11/16	1ST SUBMITTAL
11/12/15	1ST SUBMITTAL
	EG

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 Water Resource Management & Construction Management

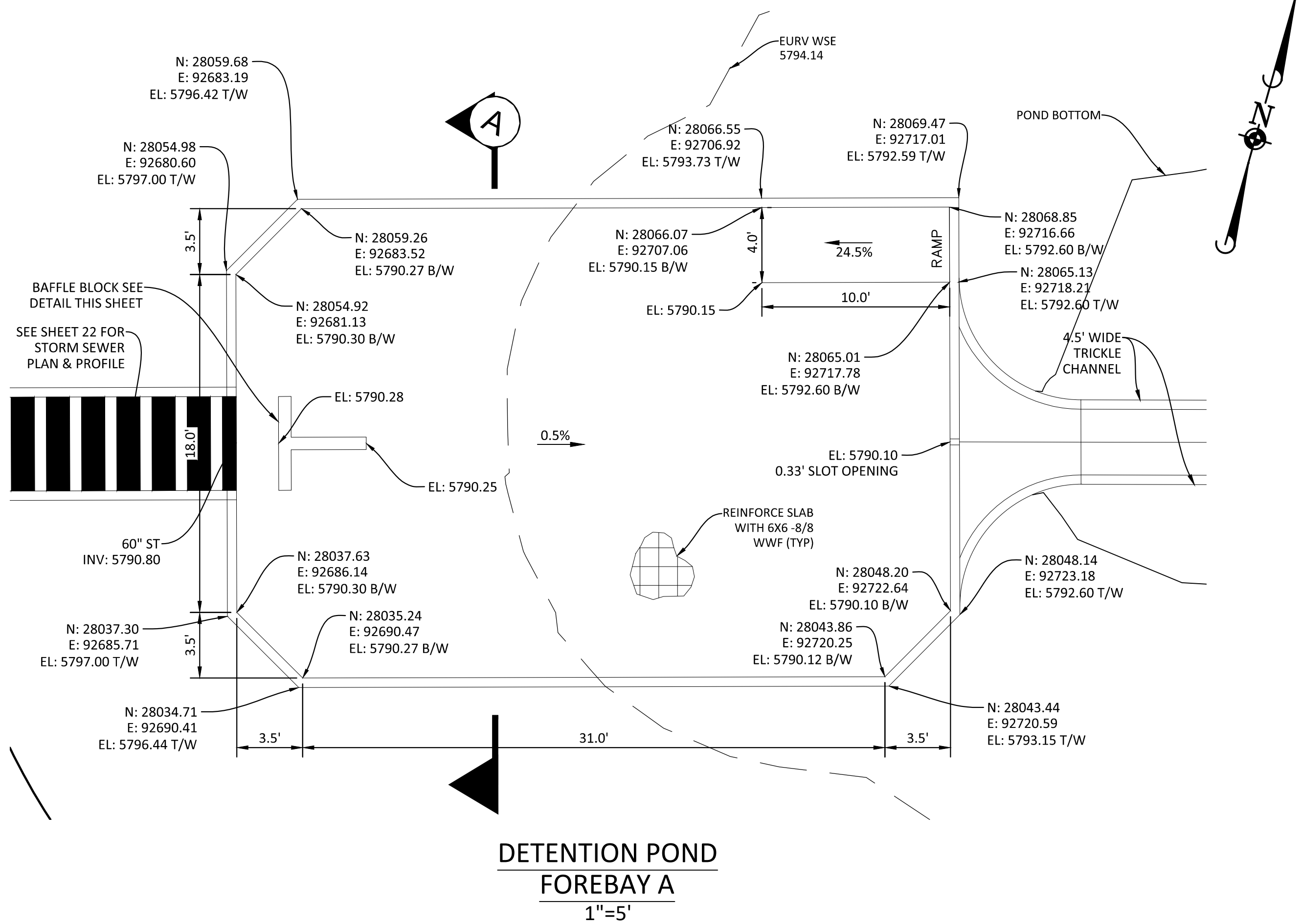
COMPARK VILLAGE SOUTH, FILING NO. 1 - BELFORD AVENUE
TOWN OF PARKER, COLORADO
DETENTION POND PLAN

PROJ. MGR.: RIM
 PROJ. ASSOC.: BRB
 DRAWN BY: ETG
 DATE: 12/2015

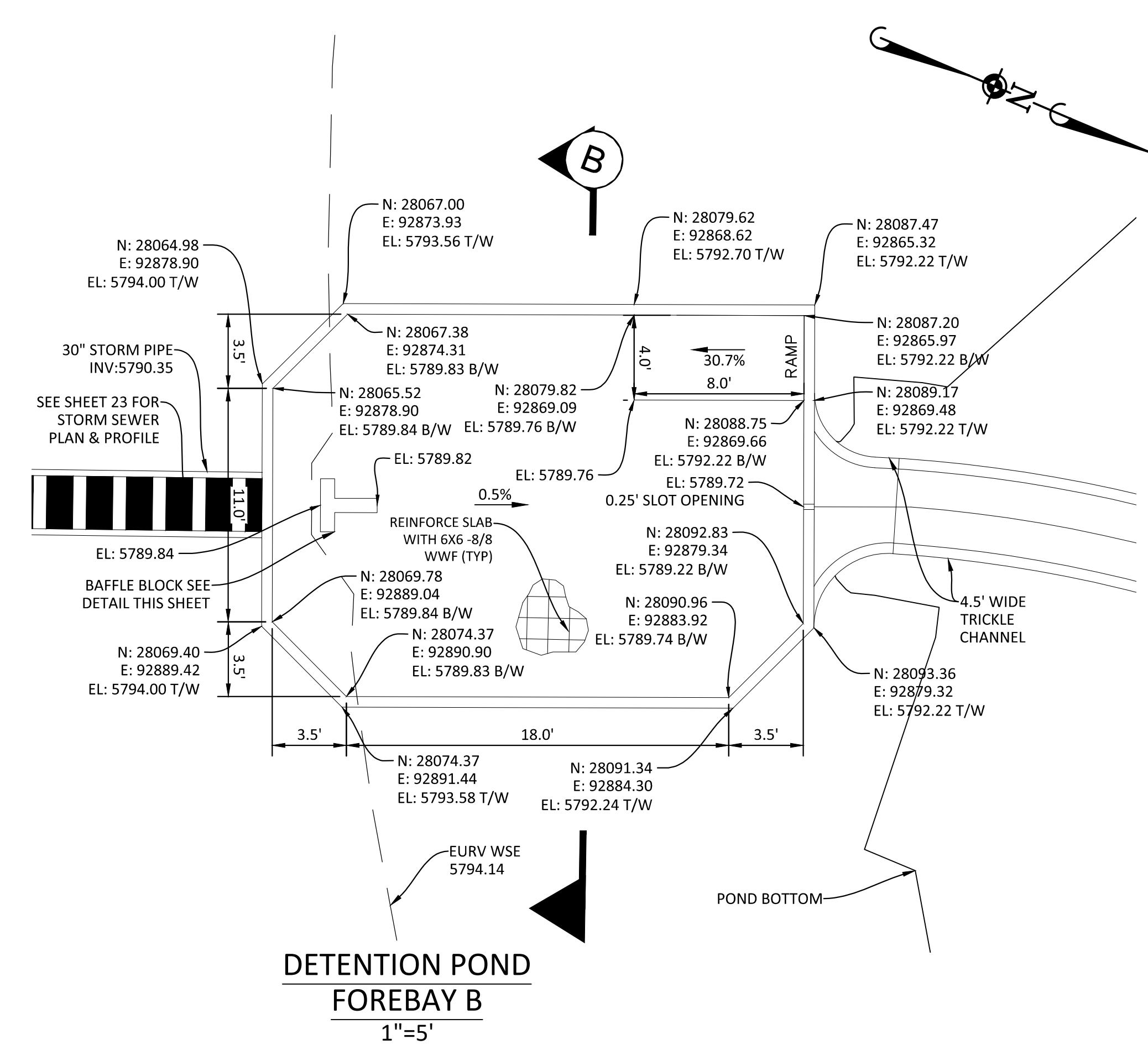
SHEET **33** OF **50**
 CLCPK3

PRELIMINARY - NOT FOR CONSTRUCTION

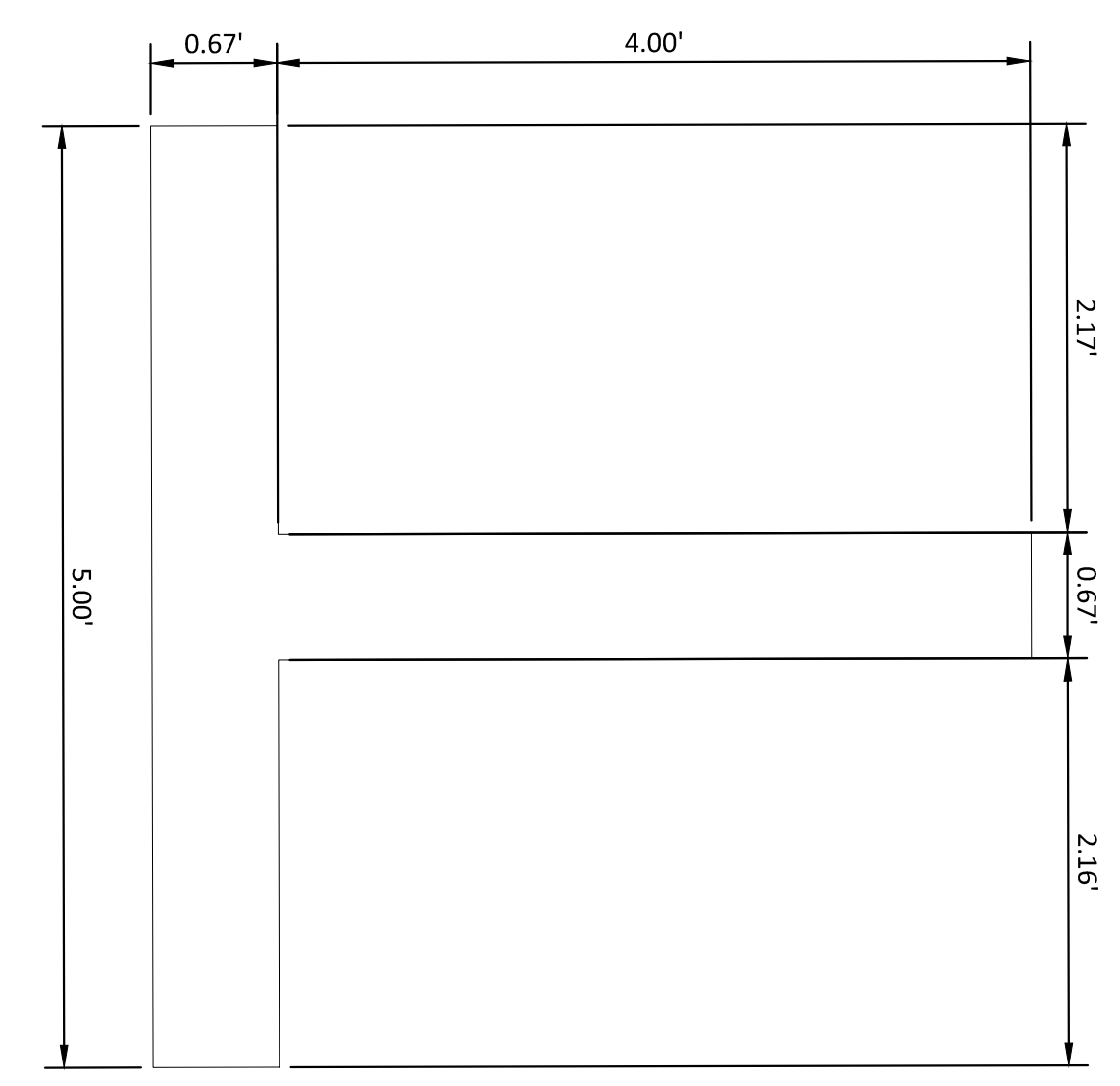
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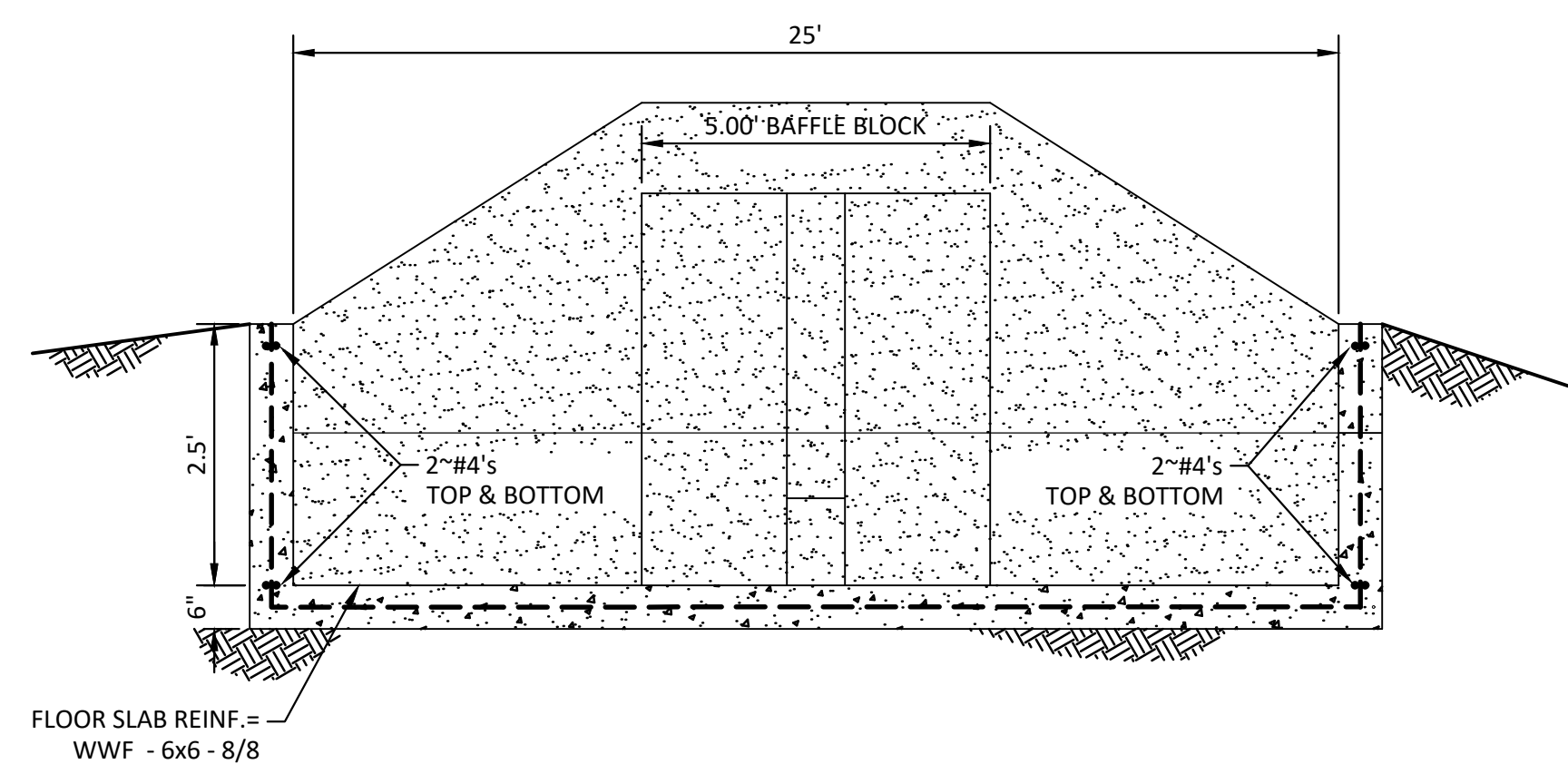
DETENTION POND FOREBAY A
 1"=5'



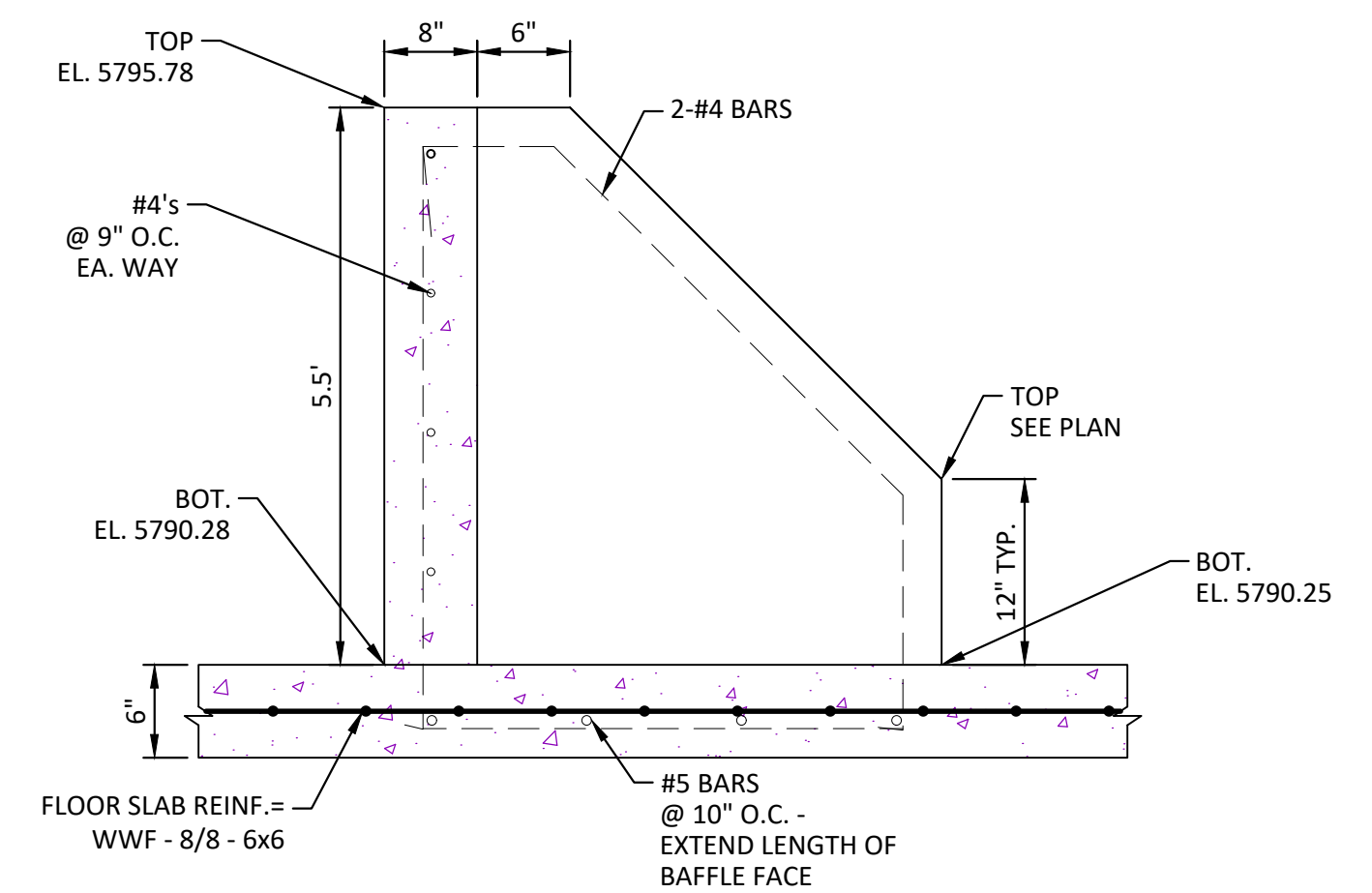
DETENTION POND FOREBAY B
 1"=5'



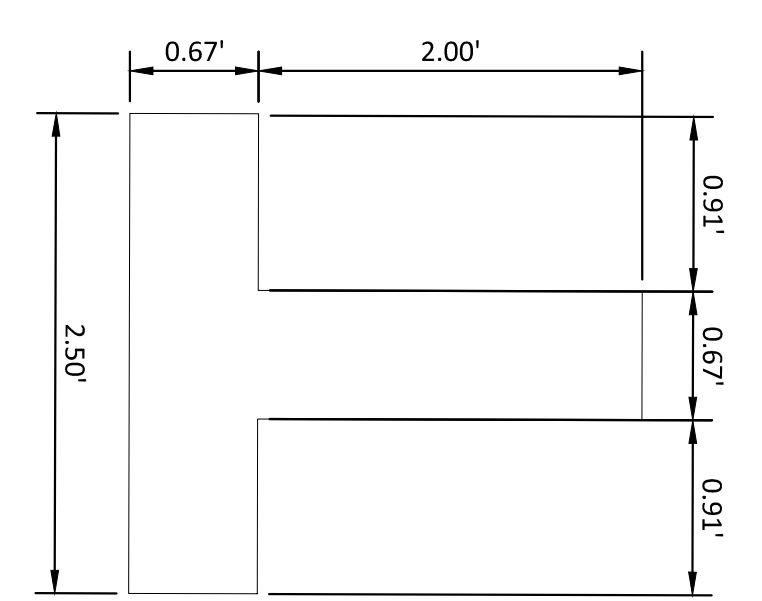
DETENTION POND FOREBAY A Baffle Block Detail
 1"=1'



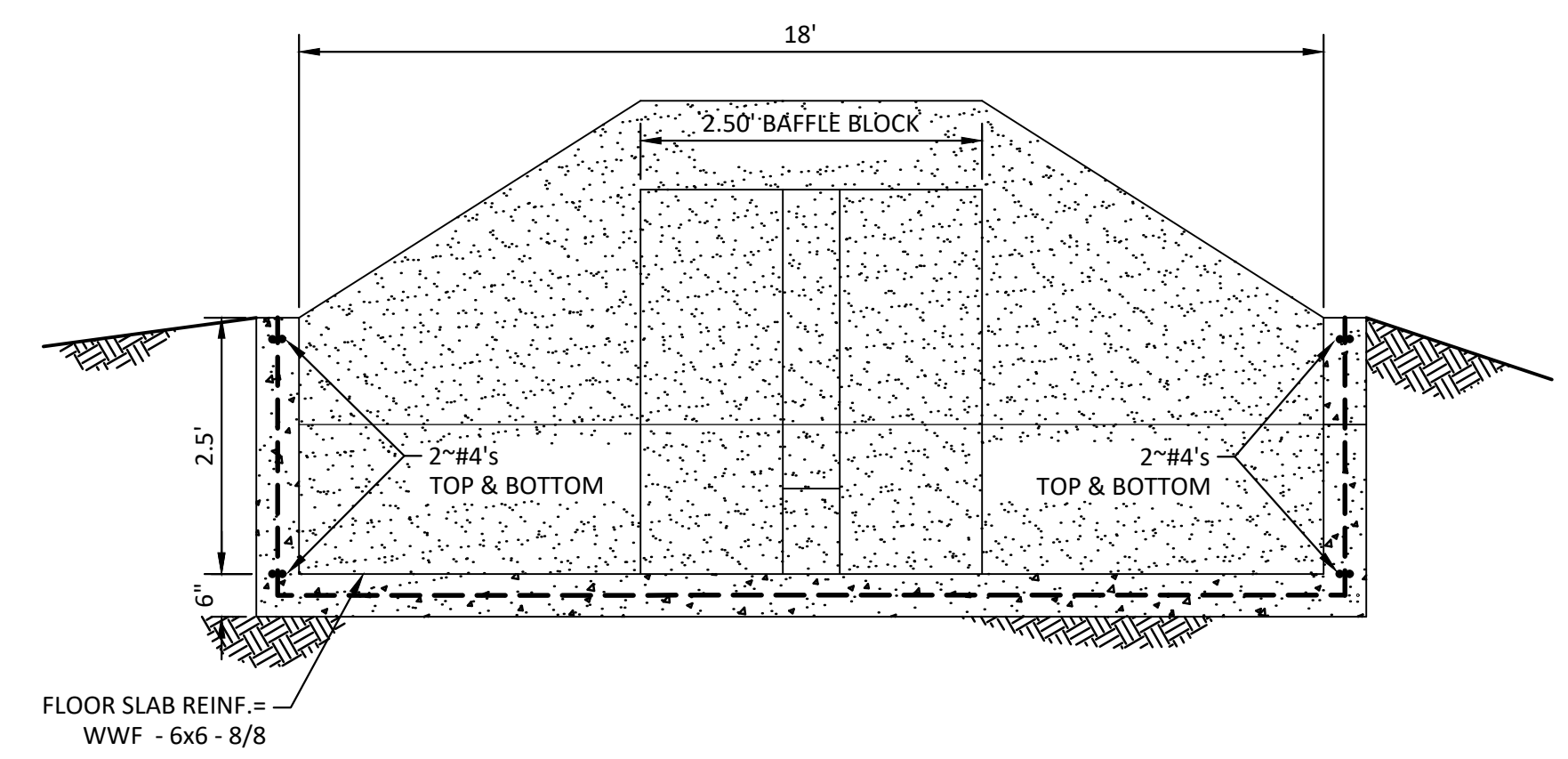
SECTION A-A
 N.T.S.



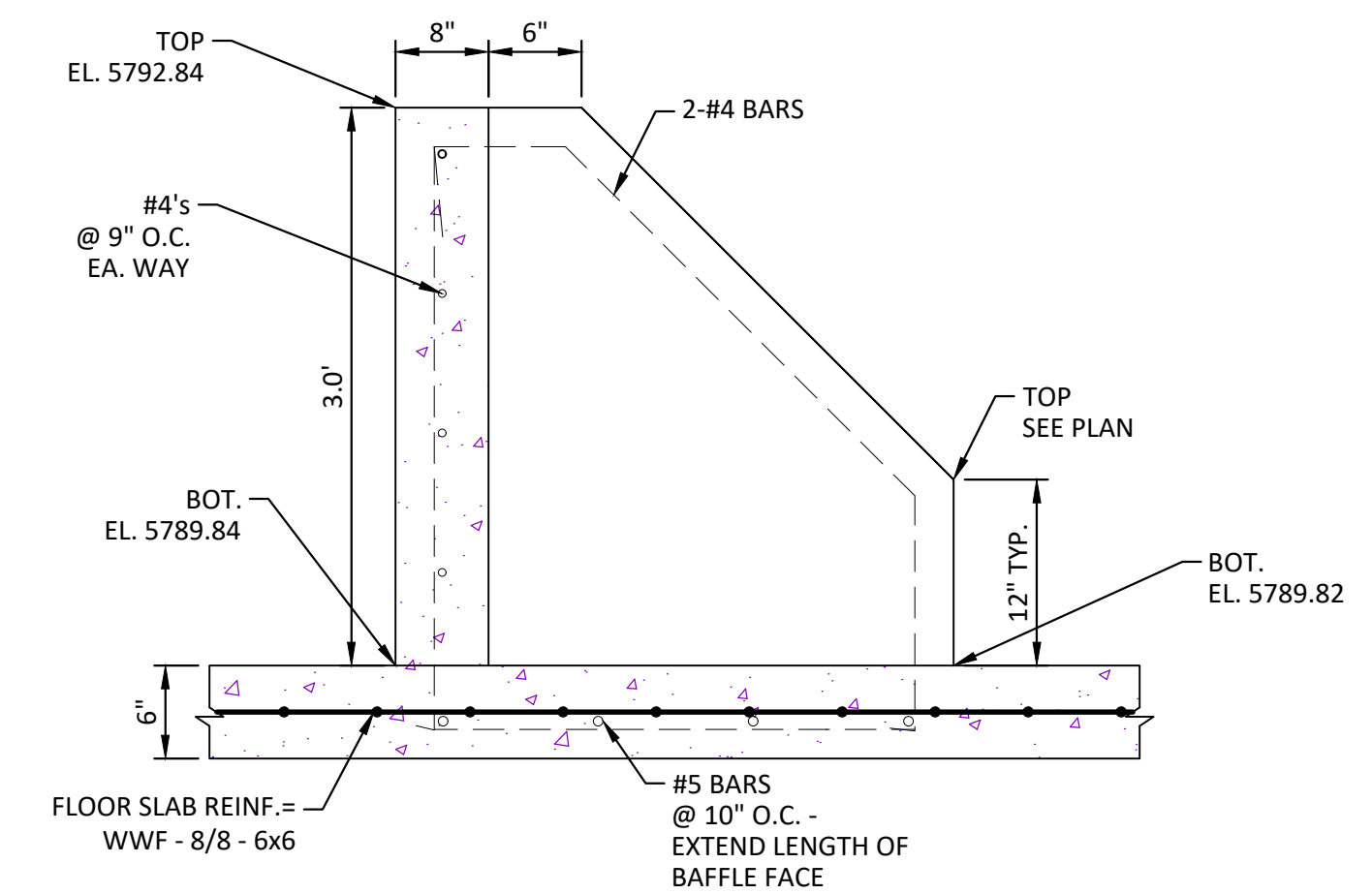
BAFFLE BLOCK REINFORCING DETAIL
 1"=0.5'



DETENTION POND FOREBAY B Baffle Block Detail
 1"=1'



SECTION B-B
 N.T.S.



BAFFLE BLOCK REINFORCING DETAIL
 1"=0.5'

DATE	REVISIONS
07/31/20	RESPONDED TO TOWN COMMENTS
08/01/20	RESPONDED TO TOWN COMMENTS
08/02/20	UPDATE GAT & ADD OFF-LINE DET BASIN
08/27/20	FINAL SUBMITTAL
09/01/20	3RD SUBMITTAL
09/17/20	2ND SUBMITTAL
11/03/20	1ST SUBMITTAL

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 7600 East Orchard Road, Suite 100, Park Valley, CO 80131, phone: 303.780.0500 manhard.com
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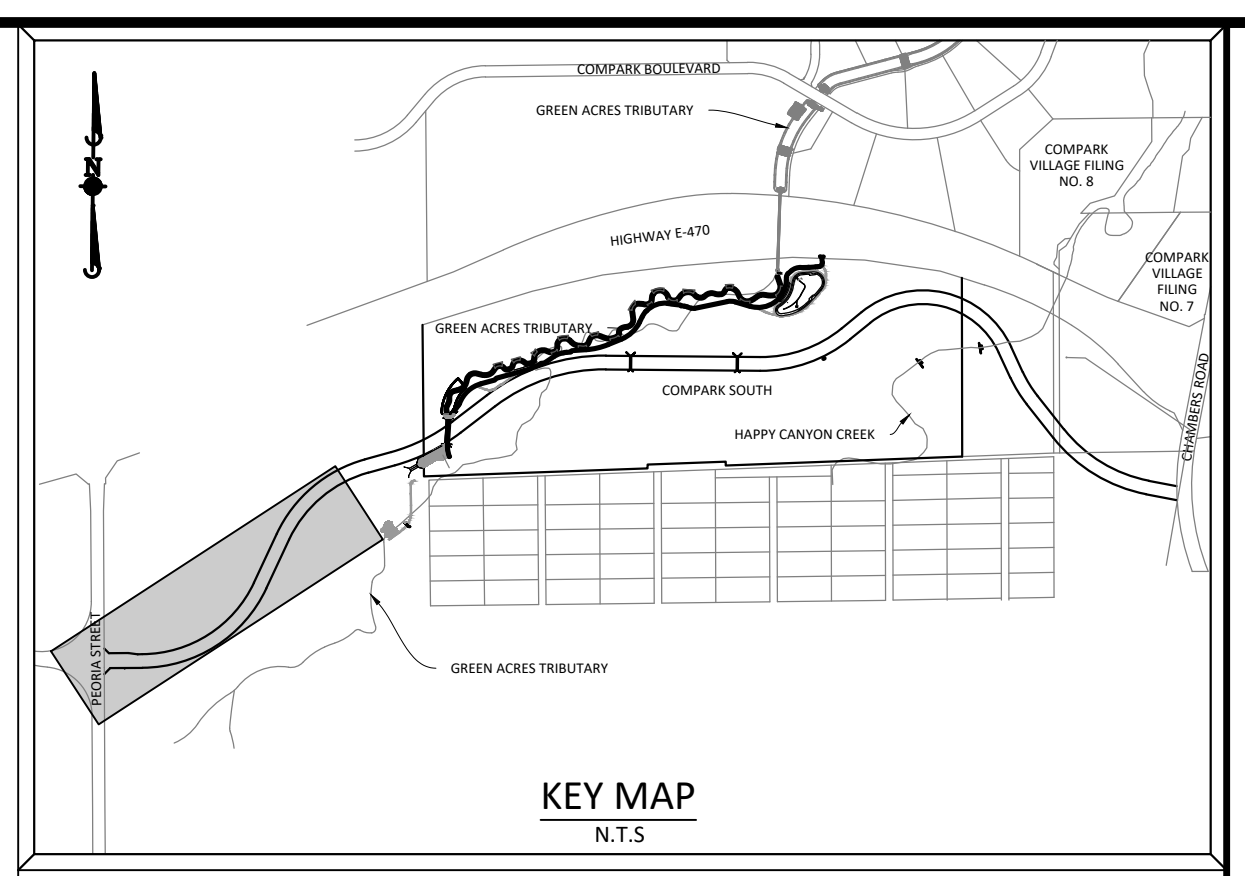
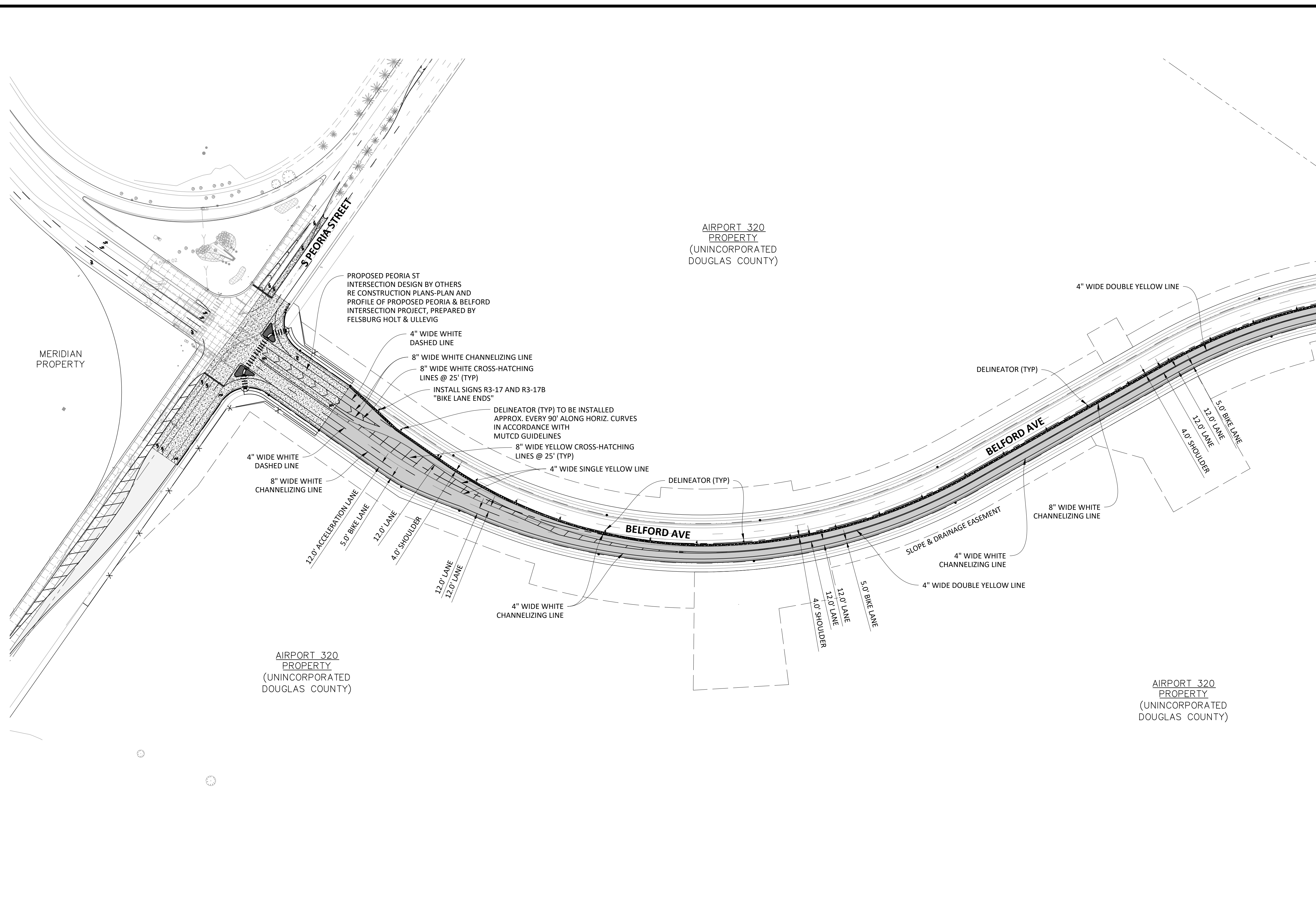
COMPARK VILLAGE SOUTH, FILING NO. 1 - BELFORD AVENUE
 TOWN OF PARKER, COLORADO
 DETENTION POND FOREBAY PLAN

PROJ. MGR.: RJM
 PROJ. ASSOC.: BRB
 DRAWN BY: ETG
 DATE: 12/2015

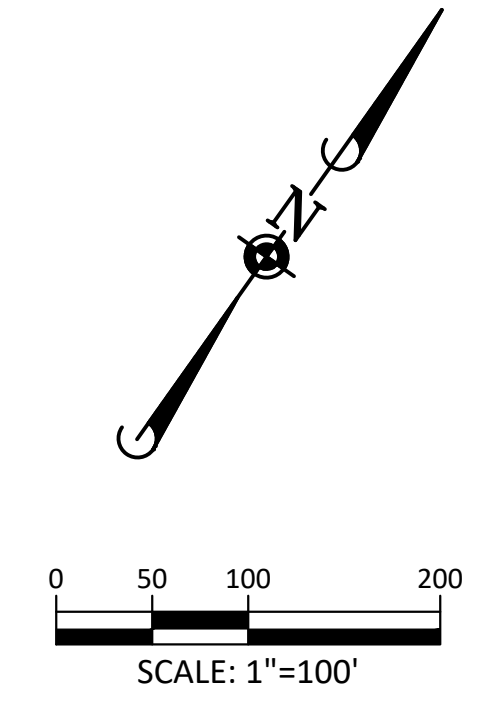
SHEET
35 OF 50
 CLCPK3

PRELIMINARY - NOT FOR CONSTRUCTION

Plotted: 7/31/2020 2:16 PM. Draw Name: P:\C\c\c\3\CompSouth12-Filing_1_No.GAT\CompSouth03-Ultimate_Belford Ave.dwg\Leaf\Final Drawings\Plans Set\Town\CLCPKC3-Signage and Striping (1).dwg. Updated by: MMKGure



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)



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

LEGEND

- CROSS WALK 24" X 10" WHITE EVENLY SPACED
- THROUGH LANE
- LEFT TURN ONLY
- RIGHT TURN ONLY
- LEFT OR THROUGH ONLY
- RIGHT OR THROUGH ONLY

NOTES

1. ALL LANES ARE 12' WIDE UNLESS LABELED OTHERWISE.
2. RETROREFLECTIVE ELEMENTS FOR DELINEATORS SHALL HAVE A MIN. DIMENSION OF 3"
3. DELINEATORS SHALL BE MOUNTED IN SUITABLE SUPPORTS AT A MOUNTING HEIGHT, MEASURED VERTICALLY FROM THE BOTTOM OF THE LOWEST RETROREFLECTIVE DEVICE TO THE ELEVATION OF THE NEAR EDGE OF THE ROADWAY, OF APPROX. FOUR (4) FEET, PER MUTCD GUIDELINES.

SIGNAGE AND STRIPING NOTES:

1. All traffic control devices shall conform to the most recent version of the federal Manual on Uniform Traffic Control Devices (MUTCD), Colorado Supplemental MUTCD, and the Town of Parker Roadway Design and Construction Criteria Manual. Further specifications and illustrations are located in the Colorado Department of Transportation (CDOT) M and S Standards.
2. A field inspection of location and installation of all signs and markings shall be performed by the Town of Parker.
3. The contractor installing signs shall be responsible for the locating and protecting of all underground utilities.
4. Type III (lighted) barricades shall be set at the ends of roadways separating finished (and/or accepted) and unfinished construction areas and shall be maintained by the contractor/developer. A "Road Closed Ahead" and "To Be Extended" warning signs shall be installed appropriately in advance of the Type III barricades.
5. Special care shall be taken in sign locations to ensure an unobstructed view of each sign.
6. Where stop sign control is appropriate, 36 inch stop signs shall be used for approaches to any roadway that is classified as a collector or greater.

SIGNAGE AND STRIPING NOTES (CONT):

7. A 7 foot minimum post length shall be maintained from the bottom of the sign panel to the ground. This requirement for vertical clearance is for all signs.
8. Delineation of roadways shall be as specified in the Colorado Department of Transportation M and S Standards.
9. Raised median island noses shall have R4-7 signs at each end and a 4"x12" high intensity yellow sign blank located midway between the R4-7 sign and finished grade on each post.
10. Signage and striping has been determined by information available at the time of review. Prior to the initiation of any warranty period, the Town of Parker reserves the right to require modifications to existing, or installation of, additional signage and/or pavement marking if it is determined that conditions warrant such modification according to the MUTCD or the CDOT M and S Standards. All signage and striping shall fall under the requirements of the two-year warranty period for new construction. Additionally, all pavement markings shall not lift or peel during the first year after installation.
11. Diamond grade material shall be used on all stop signs and overhead signs. All other roadside traffic control devices shall use high intensity grade sheeting. No fluorescent yellow green sheeting shall be used unless specifically approved by the Town of Parker.

SIGNAGE AND STRIPING NOTES (CONT):

12. All street name signs shall be high intensity, extruded, green and white blades. Arterial and collector street name signs shall be 9 inch blades and have mixed case lettering. Local street name signs shall be 6 inches blades with mixed case lettering.
13. All layouts for internally illuminated street name signs shall be submitted to the Town for review and approval prior to fabrication.
14. All removed signs shall be returned to the Town of Parker.
15. Crosswalks: Shall be constructed using preformed thermo-plastic or an approved equal.

Shall be Longitudinal 2 feet by 10 feet (Continental) type or other approved by the Town of Parker.

Shall line up with handicap ramps.

Shall be centered within lanes and placed on lane and curb lines so as to avoid vehicle wheel paths.

SIGNAGE AND STRIPING NOTES (CONT):

16. All pavement marking material (including words and symbols) shall be as follows:

For Concrete Surface:
Long line markings (channelization lines, skips, etc.) shall be epoxy paint. Other paint may be used for temporary application only when approved by the Town of Parker.

Words, symbols, and crosswalks/stop bars shall be methyl-mythacralate, preformed thermoplastic (90 mil), preformed plastic (90 mil), inlayed tape (STAMARK), or as specified.

(Sand or water blast curing compound prior to installation of markings.)

For Asphalt Surface:
Long line markings (channelization lines, skips, etc.) shall be epoxy paint. Other paint may be used for temporary application only when approved by the Town of Parker.

Words, symbols, and crosswalks/stop bars shall be hot applied thermoplastic (90 mil), preformed plastic (90 mil), inlayed tape (STAMARK), Methyl-Mythacralate, or as specified.
17. Inspection and approval of striping and crosswalk layout to be done by Town of Parker Development Review Engineer (call 303-840-9546) prior to application of final striping.

TOWN OF PARKER APPROVALS

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TOWN OF PARKER, DIRECTOR OF ENGINEERING/PUBLIC WORKS _____ DATE _____

DATE	REVISIONS
H 07/31/20	RESPONDED TO TOWN COMMENTS
G 05/01/20	RESPONDED TO TOWN COMMENTS
F 03/02/20	UPDATE GAT & ADD OFF-LINE DET BASIN
E 12/27/16	FINAL SUBMITTAL
D 07/27/16	1ST SUBMITTAL
C 07/27/16	2ND SUBMITTAL
B 07/27/16	3RD SUBMITTAL
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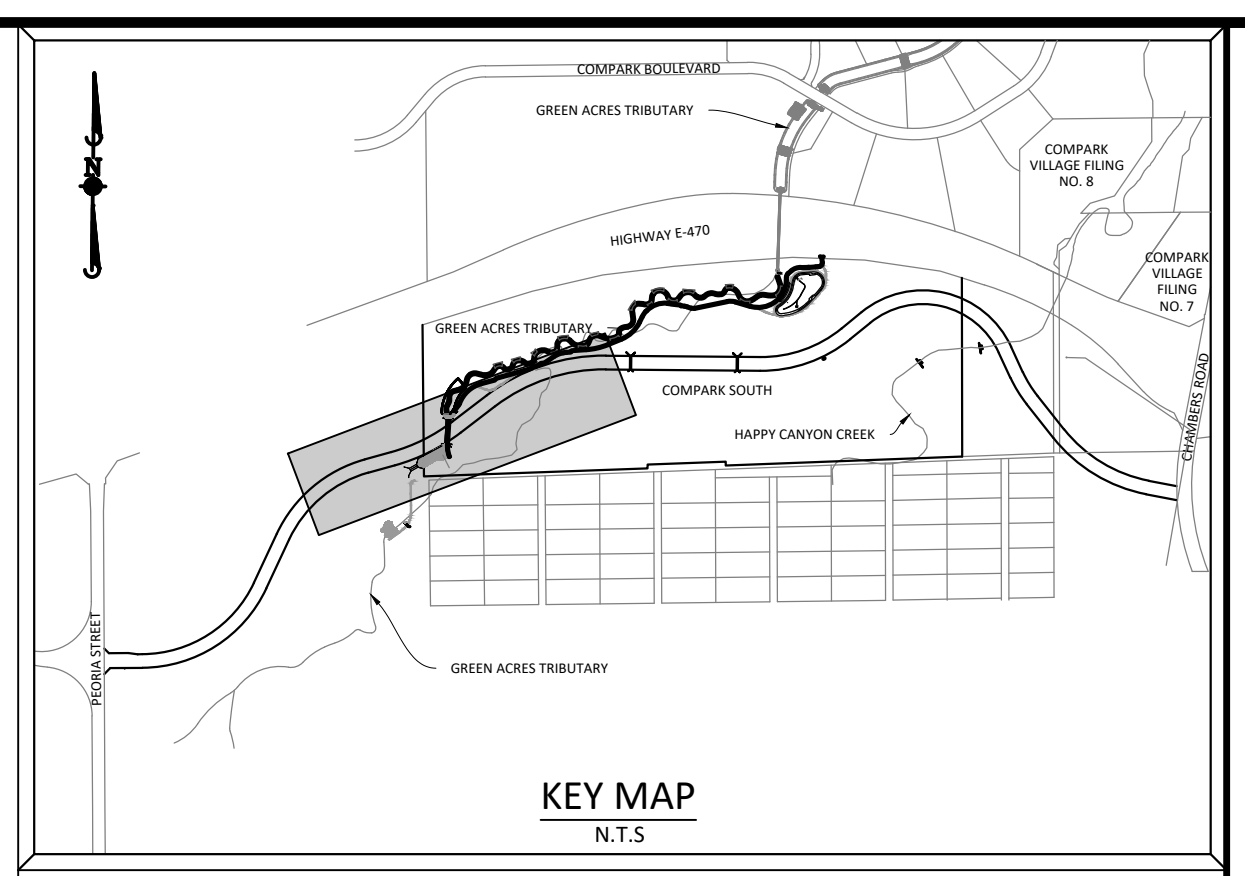
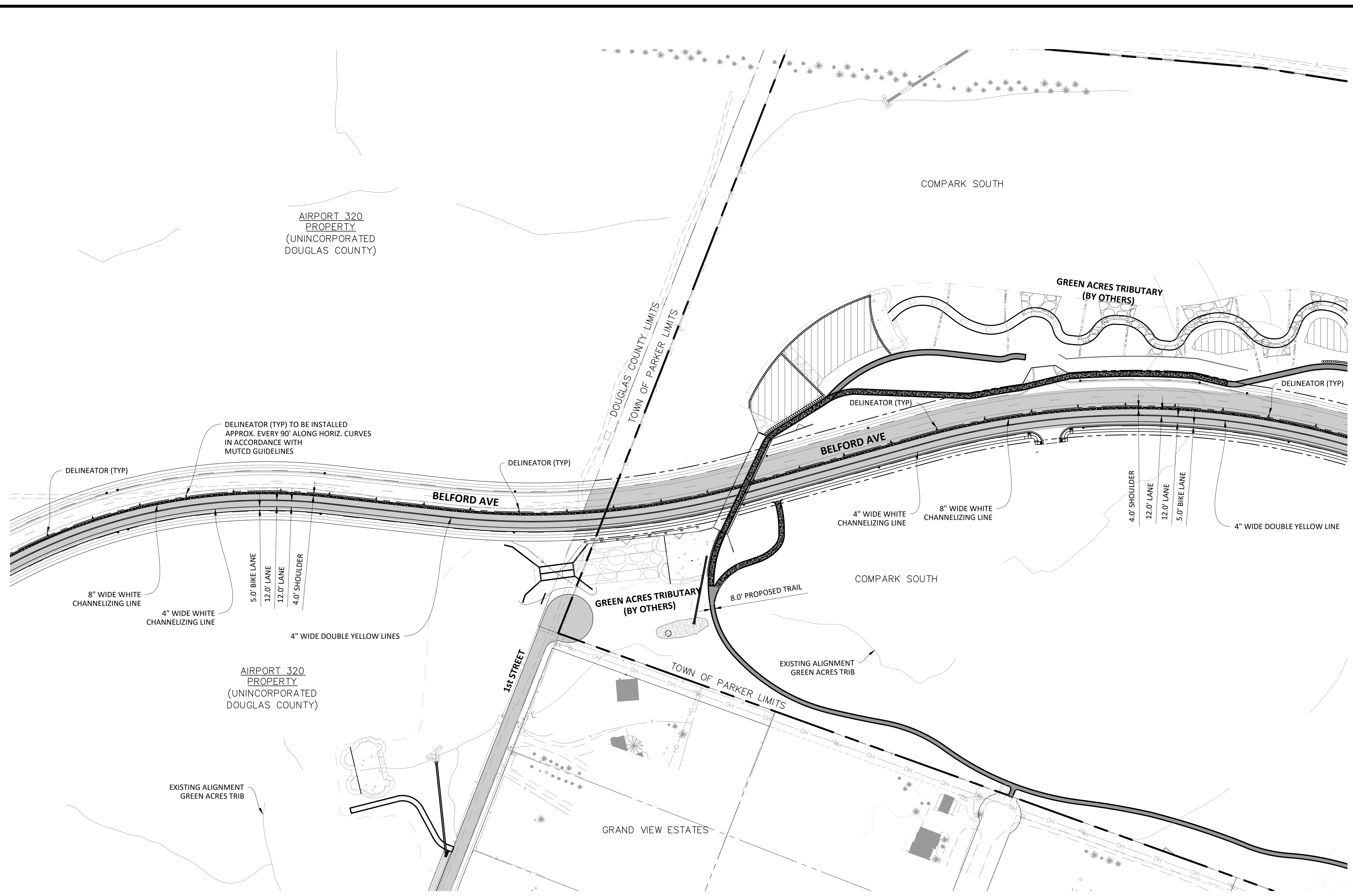
Manhard CONSULTING
7600 East Orchard Road, Suite 100, Greenwood Village, CO 80111, phone: 303.770.0500
Civil Engineering | Surveying & Geospatial Services | GIS | Construction Management | Water Resource Management

COMPARK VILLAGE SOUTH, FILING NO. 1 - BELFORD AVENUE
TOWN OF PARKER, COLORADO
SIGNAGE AND STRIPING

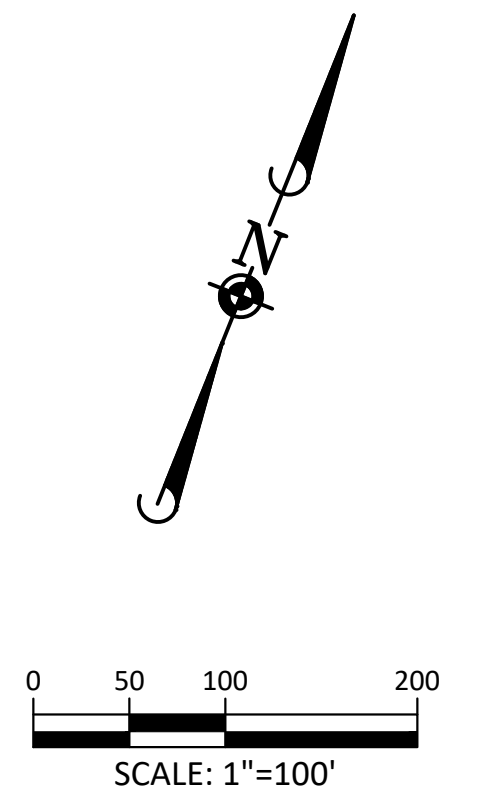
PROJ. MGR.: RJM
PROJ. ASSOC.: BRB
DRAWN BY: ETG
DATE: 12/2015
SHEET 36 OF 50
CLCPKC3

PRELIMINARY - NOT FOR CONSTRUCTION

Plotted: 7/31/2020 2:17 PM. Draw Name: P:\C\clck3\CompSouth2\Filing_1_No.GAT\CompSouth2\Final Drawings\Plan Set\Town\CLCPK3-Signage and Striping (2).dwg. Updated By: JHawthorne



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)



Know what's below.
Call before you dig.

LEGEND	
	CROSS WALK 24" X 10' WHITE EVENLY SPACED
	THROUGH LANE
	LEFT TURN ONLY
	RIGHT TURN ONLY
	LEFT OR THROUGH ONLY
	RIGHT OR THROUGH ONLY

NOTES	
1.	ALL LANES ARE 12' WIDE UNLESS LABELED OTHERWISE.
2.	RETROREFLECTIVE ELEMENTS FOR DELINEATORS SHALL HAVE A MIN. DIMENSION OF 3"
3.	DELINEATORS SHALL BE MOUNTED IN SUITABLE SUPPORTS AT A MOUNTING HEIGHT, MEASURED VERTICALLY FROM THE BOTTOM OF THE LOWEST RETROREFLECTIVE DEVICE TO THE ELEVATION OF THE NEAR EDGE OF THE ROADWAY, OF APPROX. FOUR (4) FEET, PER MUTCD GUIDELINES.

SIGNAGE AND STRIPING NOTES:

- All traffic control devices shall conform to the most recent version of the federal Manual on Uniform Traffic Control Devices (MUTCD), Colorado Supplemental MUTCD, and the Town of Parker Roadway Design and Construction Criteria Manual. Further specifications and illustrations are located in the Colorado Department of Transportation (CDOT) M and S Standards.
- A field inspection of location and installation of all signs and markings shall be performed by the Town of Parker.
- The contractor installing signs shall be responsible for the locating and protecting of all underground utilities.
- Type III (lighted) barricades shall be set at the ends of roadways separating finished (and/or accepted) and unfinished construction areas and shall be maintained by the contractor/developer. A "Road Closed Ahead" and "To Be Extended" warning signs shall be installed appropriately in advance of the Type III barricades.
- Special care shall be taken in sign locations to ensure an unobstructed view of each sign.
- Where stop sign control is appropriate, 36 inch stop signs shall be used for approaches to any roadway that is classified as a collector or greater.

SIGNAGE AND STRIPING NOTES (CONT):

- A 7 foot minimum post length shall be maintained from the bottom of the sign panel to the ground. This requirement for vertical clearance is for all signs.
- Delineation of roadways shall be as specified in the Colorado Department of Transportation M and S Standards.
- Raised median island noses shall have R4-7 signs at each end and a 4"x12" high intensity yellow sign blank located midway between the R4-7 sign and finished grade on each post.
- Signage and striping has been determined by information available at the time of review. Prior to the initiation of any warranty period, the Town of Parker reserves the right to require modifications to existing, or installation of, additional signage and/or pavement marking if it is determined that conditions warrant such modification according to the MUTCD or the CDOT M and S Standards. All signage and striping shall fall under the requirements of the two-year warranty period for new construction. Additionally, all pavement markings shall not lift or peel during the first year after installation.
- Diamond grade material shall be used on all stop signs and overhead signs. All other roadside traffic control devices shall use high intensity grade sheeting. No fluorescent yellow green sheeting shall be used unless specifically approved by the Town of Parker.

SIGNAGE AND STRIPING NOTES (CONT):

- All street name signs shall be high intensity, extruded, green and white blades. Arterial and collector street name signs shall be 9 inch blades and have mixed case lettering. Local street name signs shall be 6 inches blades with mixed case lettering.
- All layouts for internally illuminated street name signs shall be submitted to the Town for review and approval prior to fabrication.
- All removed signs shall be returned to the Town of Parker.
- Crosswalks: Shall be constructed using preformed thermo-plastic or an approved equal.
 Shall be Longitudinal 2 feet by 10 feet (Continental) type or other approved by the Town of Parker.
 Shall line up with handicap ramps.
 Shall be centered within lanes and placed on lane and curb lines so as to avoid vehicle wheel paths.

SIGNAGE AND STRIPING NOTES (CONT):

- All pavement marking material (including words and symbols) shall be as follows:
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 Long line markings (channelization lines, skips, etc.) shall be epoxy paint. Other paint may be used for temporary application only when approved by the Town of Parker.
 Words, symbols, and crosswalks/stop bars shall be methyl-methacrylate, preformed thermoplastic (90 mil), preformed plastic (90 mil), inlayed tape (STAMARK), or as specified.
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 For Asphalt Surface:
 Long line markings (channelization lines, skips, etc.) shall be epoxy paint. Other paint may be used for temporary application only when approved by the Town of Parker.
 Words, symbols, and crosswalks/stop bars shall be hot applied thermoplastic (90 mil), preformed plastic (90 mil), inlayed tape (STAMARK), Methyl-Mythacralate, or as specified.
- Inspection and approval of striping and crosswalk layout to be done by Town of Parker Development Review Engineer (call 303-840-9546) prior to application of final striping.

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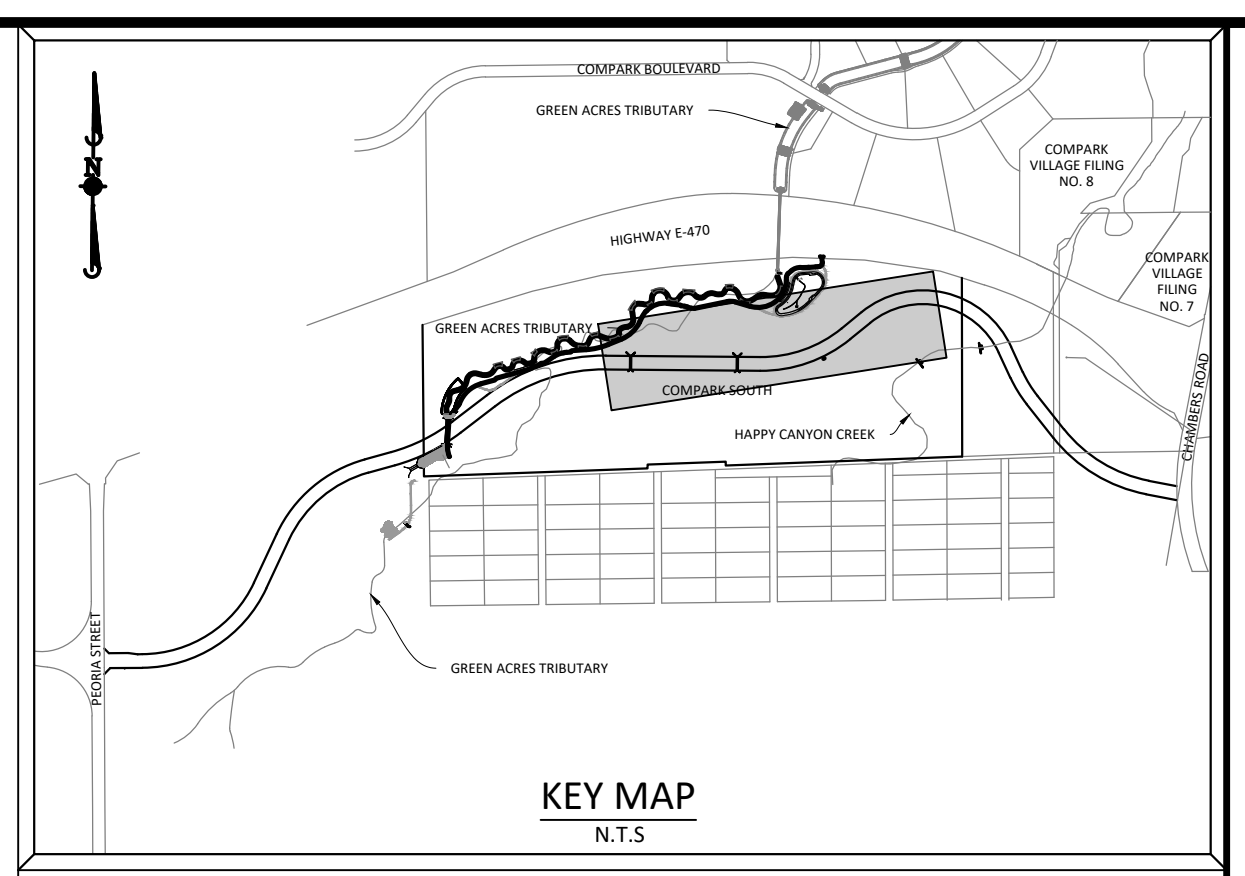
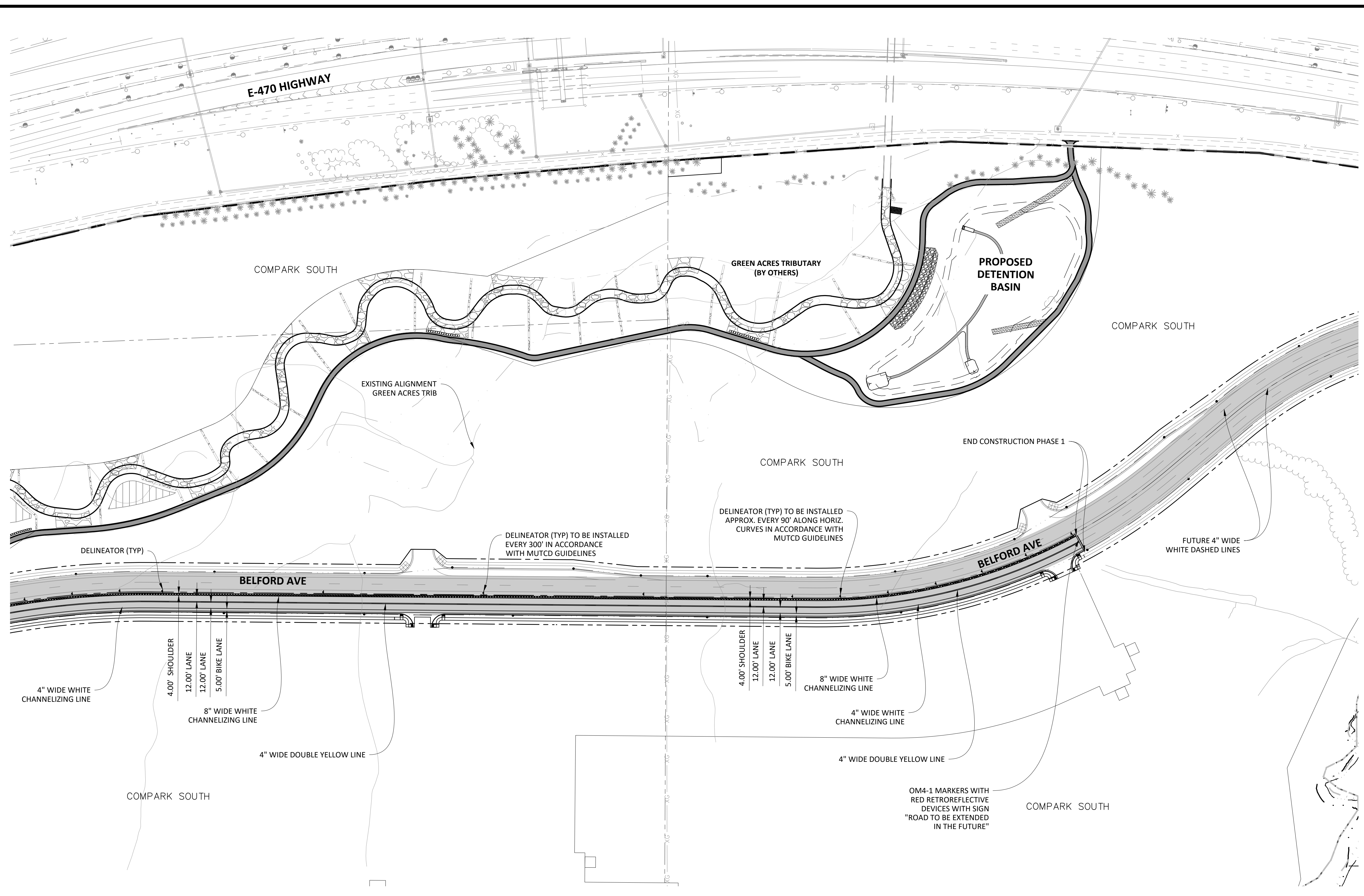
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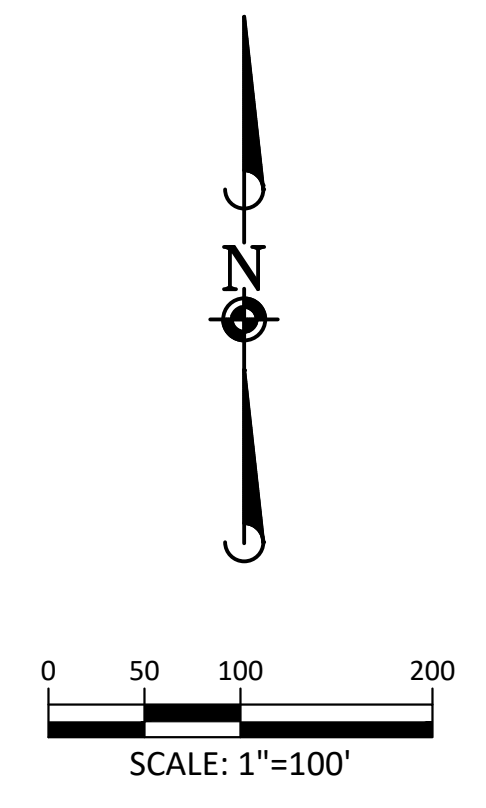
PROJ. MGR.: RJM
 PROJ. ASSOC.: BRB
 DRAWN BY: ETG
 DATE: 12/2015

SHEET
37 OF 50
 CLCPK3

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811
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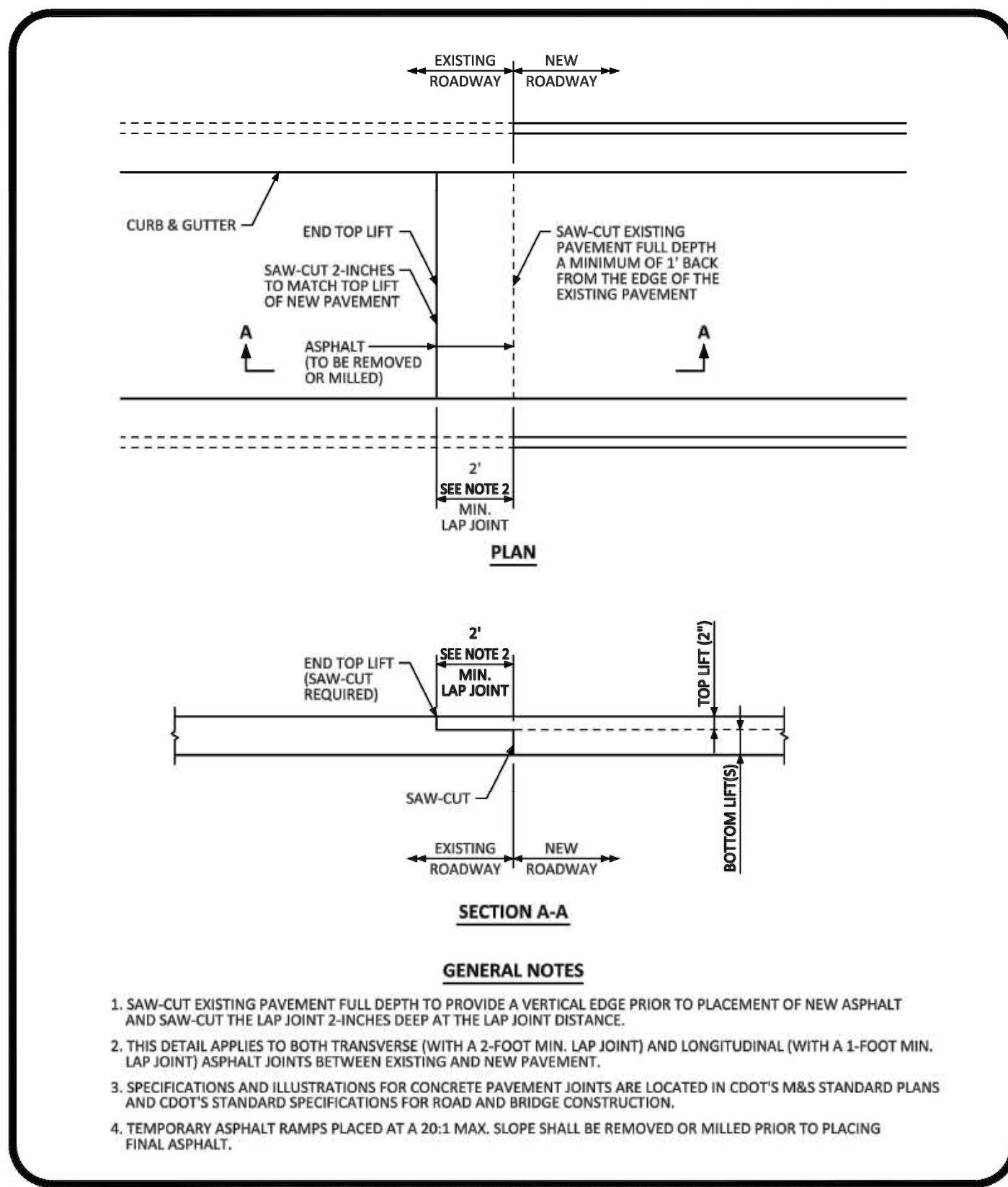
COMPARK VILLAGE SOUTH, FILING NO. 1 - BELFORD AVENUE
TOWN OF PARKER, COLORADO
SIGNAGE AND STRIPING

PROJ. MGR.: RJM
 PROJ. ASSOC.: BRB
 DRAWN BY: ETG
 DATE: 12/2015

SHEET 38 OF 50
 CLCPKC3

Plotted: 7/31/2020 2:18 PM. Draw Name: P:\Clcck3\CompSouth12\Filing_1_No.GAT\CompSouth12\Filing_1_No.GAT\Final Drawings\Plan Set\Town\CLCPKC3-Signage and Striping (3).dwg. Updated By: JHawthorne

PRELIMINARY - NOT FOR CONSTRUCTION



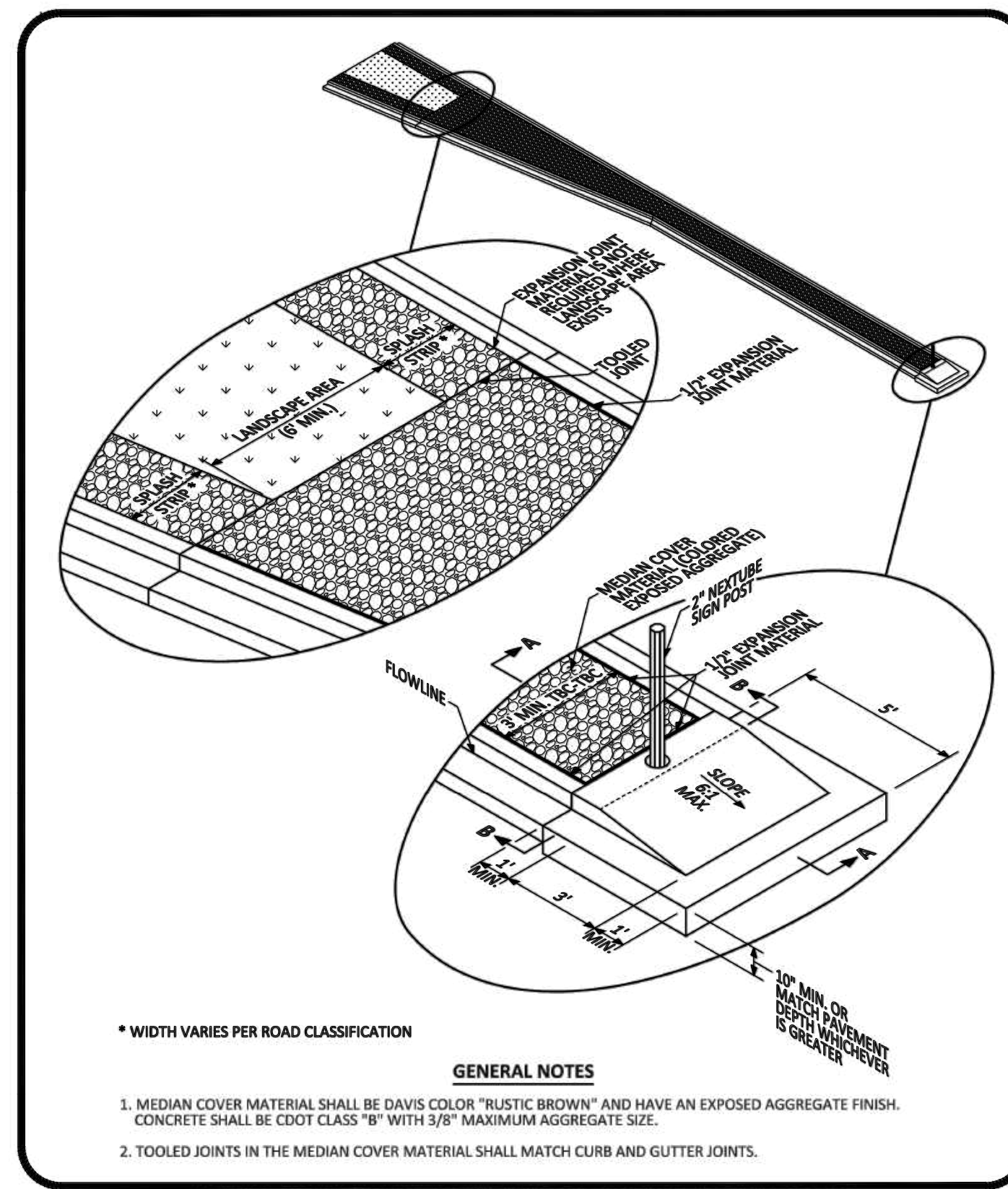
NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

PARKER COLORADO ASPHALT CONNECTION BETWEEN EXISTING AND NEW PAVEMENT STANDARD DETAIL

DATE DECEMBER 2016

DETAIL 26

1 OF 1



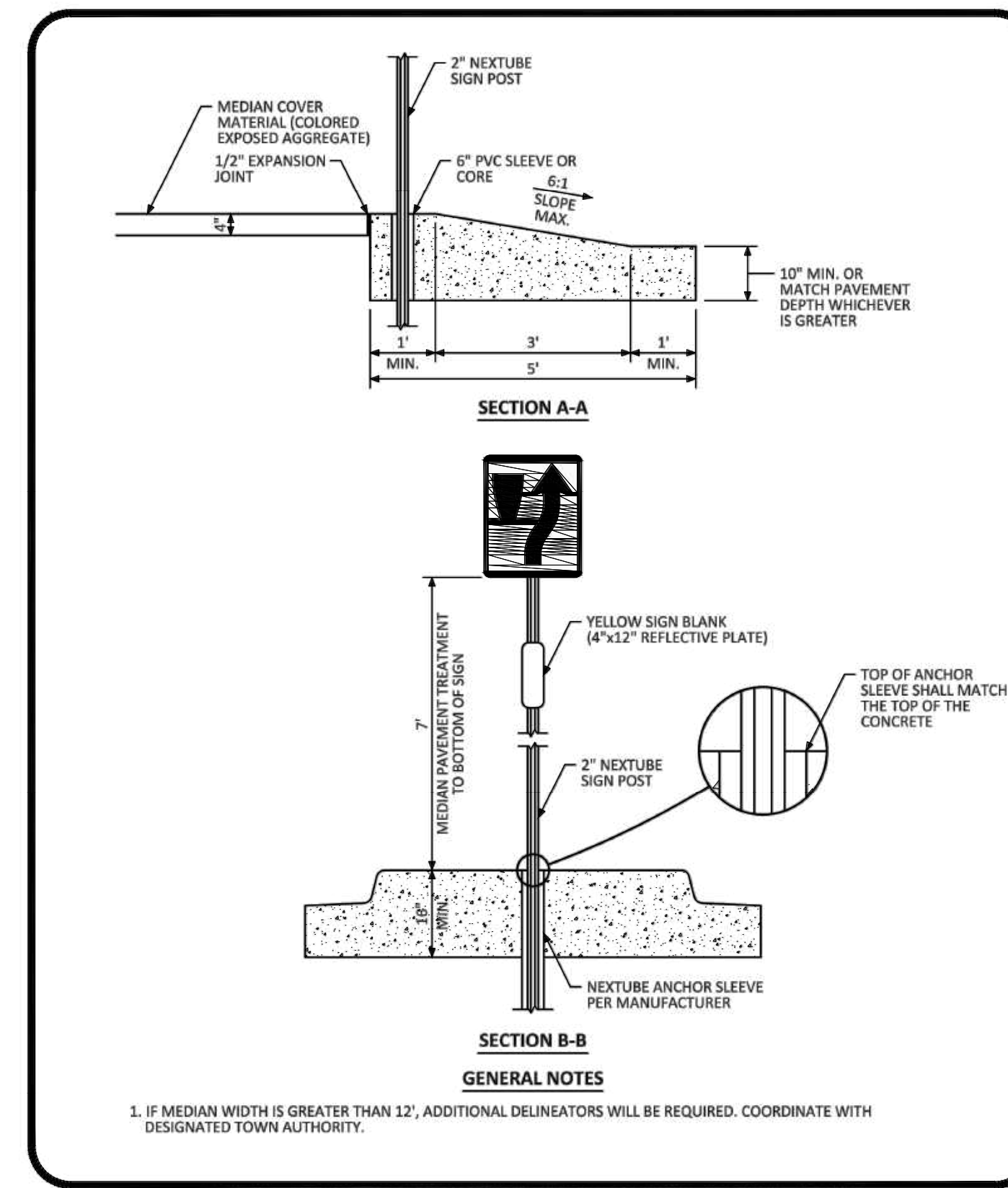
NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

PARKER COLORADO MEDIAN BULL NOSE ISOMETRIC STANDARD DETAIL

DATE DECEMBER 2016

DETAIL 27

1 OF 2



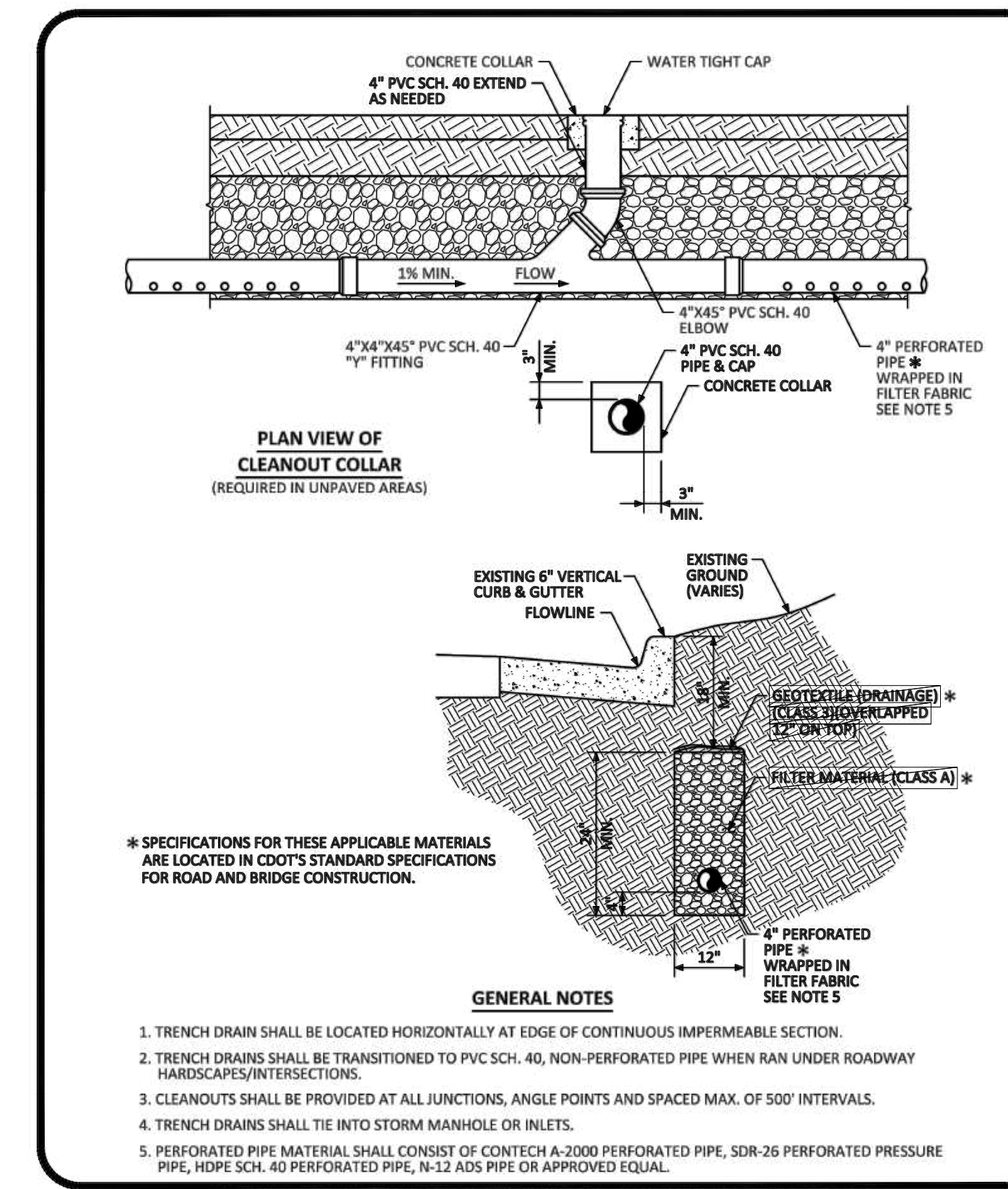
NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

PARKER COLORADO MEDIAN BULL NOSE TYPICAL SECTIONS STANDARD DETAIL

DATE DECEMBER 2016

DETAIL 27

2 OF 2



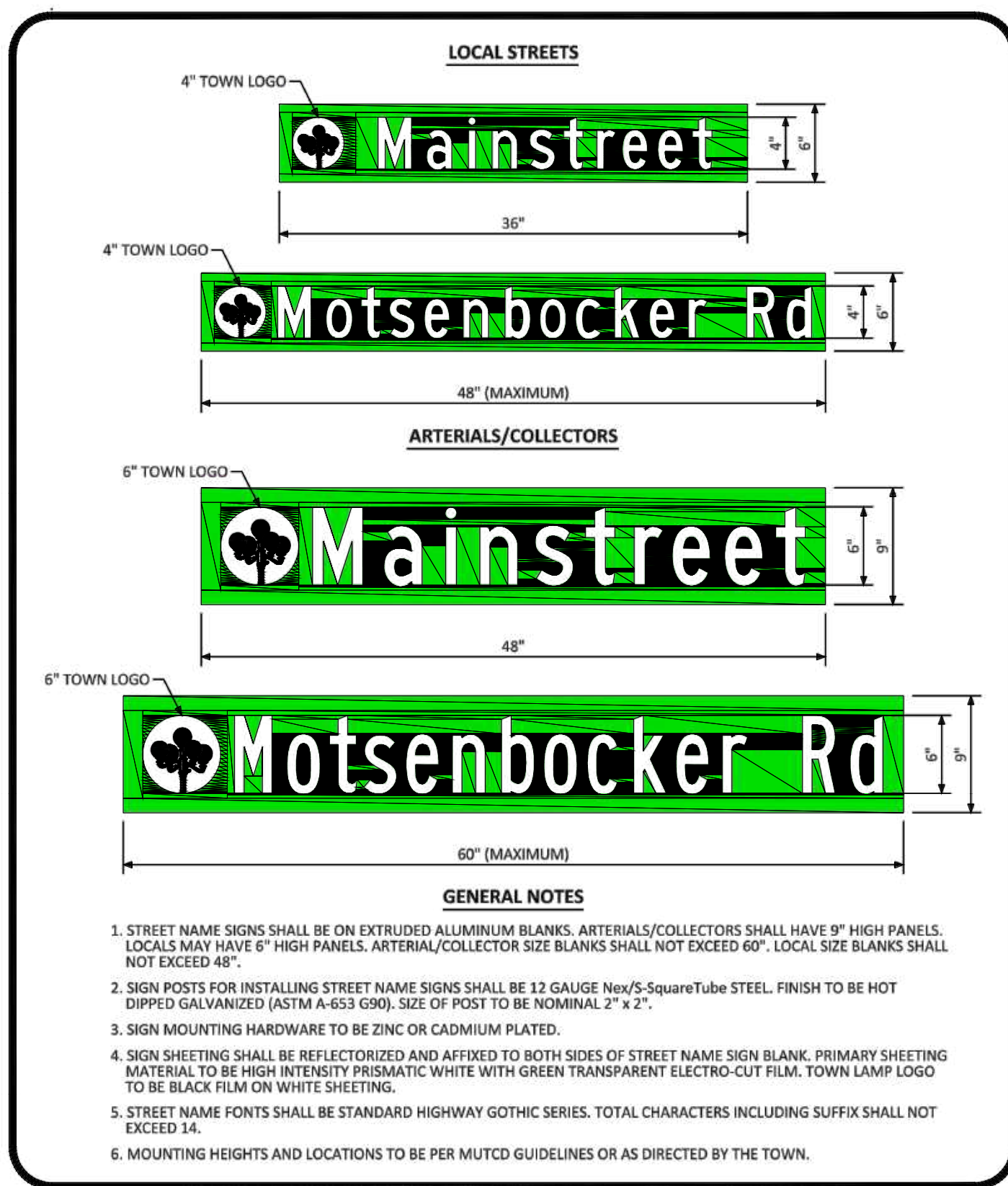
NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

PARKER COLORADO TRENCH DRAIN DETAIL SECTION STANDARD DETAIL

DATE DECEMBER 2016

DETAIL 30

1 OF 1



NO CHANGES ARE TO BE MADE TO THIS DRAWING WITHOUT WRITTEN PERMISSION OF THE TOWN OF PARKER.

PARKER COLORADO GROUND MOUNTED STREET NAME PANELS

DATE DECEMBER 2016

DETAIL 32

1 OF 1

DATE	REVISIONS
07/17/20	RESPONDED TO TOWN COMMENTS
09/01/20	RESPONDED TO TOWN COMMENTS
09/02/20	UPDATE GAT & ADD OFF-LINE LET BASIN
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COMPARK VILLAGE SOUTH, FILING NO. 1 - BELFORD AVENUE

TOWN OF PARKER, COLORADO

STREET DETAILS

PROJ. MGR.: RJM
 PROJ. ASSOC.: BRB
 DRAWN BY: ETG
 DATE: 12/2015

SHEET

40 OF **50**

CLCPKC3

Plotted: 8/7/2020 4:50 PM. Draw Name: P:\CLCPKC3\CompSouth12\Filing_1_No_GAT\CompSouth03-Ultimate_Belford Ave.dwg\Title Drawings\Plans\Sk1\Town\CLCPKC3-Street Details.dwg. Updated By: ADuckler

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PRELIMINARY - NOT FOR CONSTRUCTION

GENERAL NOTES (CONTINUE ON SHEET 2)

- TOLERANCE FOR TOP OF GUARDRAIL BEAM IS ±1 IN.
- RATE OF SLOPE DEPENDS ON GUARDRAIL LOCATION:
 - FOR GUARDRAIL FACE 2 FT OR LESS FROM THE NORMAL EDGE OF PAVED SHOULDER, CONTINUE THE RATE OF SLOPE OF THE NORMAL PAVED SHOULDER TO THE BREAKPOINT.
 - FOR GUARDRAIL FACE MORE THAN 2 FT FROM THE NORMAL EDGE OF THE PAVED SHOULDER, THE SLOPE SHALL BE 10:1 OR FLATTER.
- WHEN SPECIFIED ON THE PLANS, EXTEND A 2 IN MINIMUM THICKNESS PAVED SURFACE TO 1 FT BEHIND THE GUARDRAIL POSTS OR TO THE EROSION CONTROL CURB AS SHOWN ON PLANS. ASPHALT CUTTING & PATCHING OR OTHER APPROVED METHOD SHALL BE USED TO MINIMIZE DAMAGE TO ALL PAVED SURFACES UNDER GUARDRAIL INSTALLATIONS. ALL REPAIRS TO THE PAVED AREA WILL NOT BE MEASURED AND PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE WORK. A MINIMUM 3 IN THICK FIBER REINFORCED CONCRETE PAVEMENT MAY ALSO BE USED FOR PAVING BENEATH THE GUARDRAIL. INSTALL THE POST IN A 1/2 IN OVERSIZED FORMED HOLE FOR GUARDRAIL RUNS AND TERMINALS AS DIRECTED. PAVING PRIOR TO GALVANIZING SHALL BE MADE UNDER A PAVEMENT OR CONCRETE PAY ITEM WITH QUANTITIES SHOWN ON THE PLANS.
- THE MINIMUM GUARDRAIL OFFSET FROM PAVED SHOULDER EDGE SHALL BE:
 - 0 FT FOR SHOULDERS 8 FT OR WIDER
 - 2 FT FOR SHOULDERS 6 FT OR LESS
 THE GUARDRAIL OFFSET FROM PAVED INSIDE SHOULDER EDGE OF A DIVIDED HIGHWAY SHALL BE:
 - 0 FT MINIMUM FOR SHOULDERS 6 FT OR WIDER
 - 2 FT DESIRABLE FOR 4 FT SHOULDERS
 THE ABOVE 2 FT GUARDRAIL TO SHOULDER OFFSET IS DESIRABLE BUT NOT REQUIRED FOR:
 - FOR AN EXISTING HIGHWAY WITH A DESIGN SPEED LESS THAN 50 MPH, THE MINIMUM OFFSET IS 4 FT FROM THE TRAVELLED WAY.
 - FOR A ONE-WAY ONE-LANE RAMP, AND WHERE ONE OR MORE OF THE FOLLOWING ARE TRUE:
 - THE NON-OFFSET GUARDRAIL BEGINS AT LEAST 100 FT BEYOND RAMP NOSE.
 - THE NON-OFFSET GUARDRAIL IS NOT LOCATED ON THE RAMP EXIT OR ENTRANCE CURVE CONNECTION TO THE MAJOR HIGHWAY.
 - THE RAMP SHOULDERS ARE 4 FT OR WIDER.
 USE OF GREATER THAN MINIMUM OFFSET DIMENSIONS IS ENCOURAGED TO MEET THE DESIRABLE GOAL OF PLACING THE GUARDRAIL AS FAR AS POSSIBLE FROM THE TRAVEL WAY, EVEN FOR SHORT DISTANCES, WHILE PROVIDING A SMOOTH CHANGE IN GUARDRAIL ALIGNMENT.
- IF 2 FT CANNOT BE PROVIDED BETWEEN THE BACK OF THE GUARDRAIL POST AND THE BREAKPOINT, USE 7 FT GUARDRAIL POSTS. REFER TO THE "RESTRICTIVE ROADSIDE INSTALLATION" DETAIL.
- WHEN SPECIFIED ON THE PLANS, INSTALL A 1 IN HIGH TYPE 6 CURB WITH ITS FACE AT OR BEHIND THE RAIL FACE, AS AN ALTERNATIVE WHEN SPECIFIED ON THE PLANS, INSTALL A 2 IN x 6 IN TREATED (ASTM A 133) WOOD CURB FASTEN WITH 4 IN LAG BOLT AND WASHER AT EACH WOOD POST, OR WITH A 1/4 IN DIA BOLT WITH WASHER AND NUT AT EACH STEEL POST. IF THE 2 IN x 6 IN WOOD CURB IS SPECIFIED, IT WILL BE INCLUDED IN THE COST OF THE GUARDRAIL. IF APPROVED BY THE ENGINEER, A 2 IN x 4 IN TREATED WOOD CURB MAY BE SUBSTITUTED FOR THE 2 IN x 6 IN CURB AND SET ON TOP OF PAVEMENT SURFACE AND ATTACHED AS DESCRIBED ABOVE. NO SPlicing SHALL BE ALLOWED IN WOOD CURBS. ADJACENT BOARDS SHALL BE BUTTED TOGETHER AND BOLTED AT A POST LOCATION. JOINTS SHALL BE LOCATED AT THE POSTS.

NORMAL ROADSIDE INSTALLATION WHEN FILL REQUIRES GUARDRAIL

RESTRICTIVE ROADSIDE INSTALLATION WITH 7 FOOT GUARDRAIL POSTS

ROADSIDE INSTALLATION WITH EROSION CONTROL CURB

URBAN ROADSIDE INSTALLATION WITH CURB AND GUTTER

OPTION A

OPTION B (PREFERRED)

NORMAL CENTER-TO-CENTER POST SPACING

LOCATION	SPACING
ALL LOCATIONS EXCEPT BRIDGE RAIL LOCATIONS	6'-3"
BRIDGE OR STRUCTURE APPROACH	SEE SHEETS 11 & 19

EMBANKMENT WITH GUARDRAIL

(NOTE: THE CATCHPOINT REMAINS THE SAME AS THAT FOR "NORMAL" FILL SLOPE. FOR THE WIDER 72" DISTANCES, THE VARIABLE SLOPE MAY "CATCH" AT THE POSTS.)

SECTION A-A

LEAVE-OUT AREA IS NOT REQUIRED WHEN NOT MIX ASPHALT PAVEMENT IS LESS THAN 2 INCHES

* VARIES

LEAVE-OUT AREA FOR GUARDRAIL POSTS LOCATED IN PAVEMENT

NOTE: LEAVE-OUT AREAS SHALL BE PROVIDED FOR ALL GUARDRAIL POSTS LOCATED IN PAVEMENT* TO ALLOW THE POSTS TO ROTATE IN THEIR EMBEDMENT SUCH THAT VEHICLE IMPACT LOADS ARE DISTRIBUTED THROUGH THE POST INTO THE EMBEDMENT MATERIAL PRIOR TO THE POSTS BREAKING PREMATURELY.

GENERAL NOTES (CONTINUED FROM SHEET 1)

- SEE SHEETS 7 AND 9 FOR CURB TREATMENTS AT GUARDRAIL TERMINALS.
- IF THIS DIMENSION WILL BE LESS THAN 28 INCHES, RESET GUARDRAIL HEIGHT TO 28 INCHES OR ABOVE.
- ALL W-BEAM SPLICES AND SPLICES OF TERMINAL CONNECTORS TO W-BEAM SHALL BE LAPED IN THE DIRECTION OF TRAFFIC UNLESS OTHERWISE NOTED IN THE PLANS OR BY THE MANUFACTURER.
- MATERIAL TYPE AND SHAPE OF POSTS AND BLOCKS SHALL BE THE SAME THROUGHOUT THE PROJECT EXCEPT WHEN SPECIFIC POSTS AND BLOCKS ARE SPECIFIED, IN AT END ANCHORS AND BOX CULVERTS.
- WHEN SPECIFIED ON THE CONTRACT, 7 FT POSTS SHALL BE INSTALLED INSTEAD OF THE STANDARD 6 FT POSTS. THE 7 FT POSTS SHALL BE MARKED WITH THE NUMBER 7 TO ENSURE PERMANENT IDENTIFICATION. STEEL POSTS SHALL BE STAMPED PRIOR TO GALVANIZING. THE NUMBER 7 SHALL BE A MINIMUM 2 IN TALL AND LOCATED AS SHOWN ON THE ELEVATION VIEW ON SHEET 1.
- THE STANDARD 3 IN L x 1/2 IN L x 1/2 IN RECTANGULAR WASHER USED UNDER POST HEADS IN THE PAST MAY REMAIN IN EXISTING INSTALLATIONS BUT SHALL NOT BE USED IN NEW CONSTRUCTION, REPAIRS, OR RESETTING OF RAIL, EXCEPT WHEN SPECIFICALLY IDENTIFIED ON THE STANDARD PLAN.
- STANDARD GALVANIZED ROUND STEEL WASHERS SHALL BE USED UNDER ALL NUTS IN CONTACT WITH WOOD POSTS.
- AN ADDITIONAL HOLE SHALL BE PROVIDED IN THE POSTS TO FACILITATE FUTURE RAISING OF THE RAIL ELEMENTS AND BLOCKS FOR OVERLAYS.
- RETROREFLECTOR TABS SHALL BE INSTALLED AT 25 FT INTERVALS (SEE SHEETS 8 AND 9 FOR EXCEPTIONS). RETROREFLECTOR TABS WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE WORK. THE TABS SHALL BE MOUNTED SO THE BOLT SLOT FACES AWAY FROM TRAFFIC AND THE RETROREFLECTOR SURFACE FACES THE APPROACHING TRAFFIC FOR ONE-WAY ROADS FOR TWO-WAY ROADS, BOTH SIDES OF THE TABS SHALL BE RETROREFLECTIVE, SO THAT DELINEATION IS PROVIDED FOR BOTH DIRECTIONS OF TRAVEL. THE RETROREFLECTIVE SHEETING COLOR SHALL MATCH THE COLOR OF THE ADJACENT TRAVEL WAY EDGE LINE. SEE THE RETROREFLECTOR TAB DETAIL ON SHEET 3.
- AT THE TIME OF INSTALLATION, WOOD POSTS OR BLOCKS WITH SEASONING CHECKS GREATER THAN 1/4 IN SHALL NOT BE USED WHEN THE CHECK EXTENDS THE FULL LENGTH OF THE PIECE.
- WOOD BLOCKS SHALL BE CUT FROM THE SAME CROSS-SECTION SPECIES, AND GRADE, AND SHALL RECEIVE THE SAME PRESERVATIVE TREATMENT AS THE POSTS WHEN WOOD POSTS ARE USED.
- REFERENCES SUCH AS @PDB01, @PDE01, AND @PWE01 IN THIS STANDARD PLAN SPECIFY HARDWARE DETAILS FROM @BA GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE PREPARED BY THE AASHTO-AGC-ARBA JOINT COOPERATIVE COMMITTEE.
- RAIL BLOCKS MANUFACTURED FROM SYNTHETIC MATERIAL WILL BE ACCEPTED AS ALTERNATIVES TO WOOD BLOCKS FOR USE WITH STEEL POSTS PROVIDED THAT THE BLOCKS HAVE RECEIVED FINISH APPROVAL.
- WOOD POSTS SHALL BE MADE OF TIMBER WITH AN EXTREME FIBER STRESS IN BENDING OF 1200 PSI STRESS GRADING AND POST DIMENSIONS SHALL CONFORM WITH THE RULES OF THE WEST COAST INSPECTION BUREAU, OR THE SOUTHERN PINE BUREAU OR THE WESTERN WOOD PRODUCTS ASSOCIATION. TIMBER FOR POSTS SHALL BE EITHER ROUGH SAWN (UNGRADED) OR S4S (GRADED) FOR ALL SIZES WITH NOMINAL DIMENSIONS INDICATED. ONLY ONE TYPE OF SURFACE FINISH SHALL BE USED FOR POSTS AND BLOCKS IN ANY ONE CONTINUOUS LENGTH OF GUARDRAIL.
- GLULAM POSTS AND BLOCKS WILL BE ACCEPTED AS ALTERNATIVES PROVIDED THAT THE SUPPLIED MATERIALS HAVE RECEIVED FINISH APPROVAL AND ARE CERTIFIED AS IDENTICAL TO THE SPECIMENS USED FOR TESTING AND APPROVAL.
- PRESSURE TREATMENT OF POSTS AND BLOCKS SHALL CONFORM TO ASTM A 133 EXCEPT THAT BLOCKS NEED NOT BE INCISED. PRESERVATION ASSAY RETENTION REPORTS SHALL BE SUBMITTED TO THE ENGINEER. THE CONTRACTOR SHALL CERTIFY THAT THE SPECIES AND GRADE MEET THE REQUIREMENTS OF THE CONTRACT.
- W-BEAM AND THREE-BEAM GUARDRAIL POSTS SHALL BE MANUFACTURED USING ASTM A 270 (ASTM A 709 GRADE 36 STEEL UNLESS CORROSION RESISTANT STEEL IS REQUIRED), IN WHICH CASE THE POST SHALL BE MANUFACTURED FROM ASTM A 270 (ASTM A 709 GRADE 50 STEEL). THE DIMENSIONS OF THE CROSS-SECTION SHALL CONFORM TO A W6 X 9 SECTION AS DEFINED IN ASTM A 160 (ASTM A 6) W6 X 8.5 WIDE FLANGE STEEL POSTS ARE AN ACCEPTABLE ALTERNATIVE TO THE W6 X 9.
- AFTER THE SECTION IS CUT AND ALL HOLES ARE DRILLED OR PUNCHED THE COMPONENT SHALL BE ZINC-COATED CONFORMING TO ASTM M 113 (ASTM A 123) UNLESS CORROSION-RESISTANT STEEL IS USED WHEN CORROSION-RESISTANT STEEL IS USED THE PORTION OF THE POST TO BE EMBEDDED IN SOIL SHALL BE ZINC-COATED CONFORMING TO ASTM M 113 (ASTM A 123) AND THE PORTION ABOVE THE SOIL SHALL NOT BE ZINC-COATED, PAINTED OR OTHERWISE TREATED.
- FIELD MODIFICATION TO RAIL ELEMENTS IS ALLOWED PER MANUFACTURER'S RECOMMENDATIONS, OR WITH THE APPROVAL OF THE STANDARD AND SPECIFICATIONS UNIT. POSTS SHALL NOT BE MODIFIED. COMPONENTS ON WHICH THE SPLITTER COATING HAS BEEN DAMAGED SHALL BE EITHER RE-GALVANIZED OR RE-COATED IN CONFORMANCE WITH ASTM M 36, OR PAINTED WITH ONE FULL BRUSH COAT OF ZINC RICH PAINT CONFORMING TO MILITARY SPECIFICATION DOD-2035A.

WOOD POST & BLOCK

(NOMINAL DIMENSIONS ARE SHOWN FOR THE POSTS & BLOCKS)

STEEL POST & NOTCHED BLOCK

(NOMINAL DIMENSIONS ARE SHOWN FOR THE POSTS & BLOCKS)

DOUBLE BLOCK AND GUARDRAIL TYPE 3 (DOUBLE) FOR MEDIAN BARRIER

TIMBER

STEEL

GENERAL NOTES (CONTINUED FROM SHEET 2)

- LEAVE-OUT AREA IS NOT REQUIRED WHEN NOT MIX ASPHALT PAVEMENT IS LESS THAN 2 INCHES
- * VARIES

TERMINAL SECTION (FLARED)

TERMINAL SECTION (CONNECTOR)

W-BEAM RAIL SECTION

W-BEAM RAIL SPLICE

THREE BEAM TERMINAL SECTION (CONNECTOR)

THREE BEAM DETAIL

RECTANGULAR WASHER
(TO BE USED ONLY WHERE SPECIFIED)

RETROREFLECTOR TAB

NOTE: RETROREFLECTOR TABS SHALL BE MANUFACTURED FROM 12 TO 14 GAUGE STEEL AND SHALL CONFORM TO THE REQUIREMENTS OF S STANDARD S-602-L.

BUTTON HEAD BOLT WITH OVAL SHOULDER

WASHER

HEX NUT

WASHERS NOT USED AT RAIL SPLICES

PART	MATERIAL SPEC.	GALVANIZING SPEC.	CORROSION-RESISTANT SPEC.
W-BEAM RAIL & TERMINAL SECTIONS	ASTM M 180, CLASS A OR B	ASTM M 180, TYPE 1 OR 2	ASTM M 180, TYPE 4
BASE PLATE	ASTM A 36	ASTM M 111	N.A.
NUTS, BOLTS & STUDS FOR GENERAL USE	ASTM A 307		
HIGH STRENGTH BOLTS & NUTS	ASTM A 325	ASTM M 232, CLASS C	
HIGH STRENGTH BOLTS & NUTS	ASTM A 449	OR	
ROUND STEEL WASHERS	ASTM F 436	ASTM B 695 CLASS 50 TYPE 1	
RECTANGULAR WASHERS	ASTM M 180		
OTHER FITTINGS	ASTM A 36	ASTM M 111	

GENERAL NOTES (CONTINUED FROM SHEET 2)

- THE MGS TRANSITION FROM A TYPE 3 GUARDRAIL SHALL BE COMPLETED OUTSIDE THE MGS END ANCHORAGE LIMITS.

PLAN VIEW

ELEVATION VIEW

TRANSITION FROM 28 INCH GUARDRAIL TO 31 INCH MGS

ALTERNATE PLAN VIEW - ALIGNMENT TAPER

Computer File Information		Sheet Revisions		Colorado Department of Transportation		MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 3 W-BEAM 31 INCHES		STANDARD PLAN NO. M-606-1	
Creation Date: 11/01/18	Initiator: JJP	Date:	Comments:	2829 West Howard Place, 3rd Floor, Denver, CO 80204, Phone: 303-757-9921, FAX: 303-757-9868		Issued By: Project Development Branch November 1, 2018		Sheet No. 3 of 19	
Last Modification Date: 12/21/18	Initiator: LTA	12/21/18	Revised the "Notes" per detail as Preferred.	Division of Project Support		JJP/LTA			
Full Path: www.codot.gov/business/designsupport				Division of Project Support		JJP/LTA			
Drawing File Name: 0606103019.dgn				Division of Project Support		JJP/LTA			
CAD Ver.: MicroStation V8	Scale: Not to Scale	Units: English		Division of Project Support		JJP/LTA			

Computer File Information		Sheet Revisions		Colorado Department of Transportation		MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 3 W-BEAM 31 INCHES		STANDARD PLAN NO. M-606-1	
Creation Date: 11/01/18	Initiator: JJP	Date:	Comments:	2829 West Howard Place, 3rd Floor, Denver, CO 80204, Phone: 303-757-9921, FAX: 303-757-9868		Issued By: Project Development Branch November 1, 2018		Sheet No. 4 of 19	
Last Modification Date: 12/21/18	Initiator: LTA	12/21/18	Revised per design support	Division of Project Support		JJP/LTA			
Full Path: www.codot.gov/business/designsupport				Division of Project Support		JJP/LTA			
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CAD Ver.: MicroStation V8	Scale: Not to Scale	Units: English		Division of Project Support		JJP/LTA			

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DATE	REVISIONS
07/17/20	RESPONDED TO TOWN COMMENTS
07/20/20	UPDATE GAT & ADD OFF-LINE DET BASIN
07/27/16	FINAL SUBMITTAL
07/17/16	3RD SUBMITTAL
07/17/16	2ND SUBMITTAL
07/17/16	1ST SUBMITTAL

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COMPARK VILLAGE SOUTH, FILING NO. 1 - BELFORD AVENUE

TOWN OF PARKER, COLORADO

STREET DETAILS

PRELIMINARY - NOT FOR CONSTRUCTION

PROJ. MGR.: RJM	PROJ. ASSOC.: BRB
DRAWN BY: ETG	CHECKED BY: JJP
DATE: 12/2015	

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CLPKC3

Computer File Information
 Creation Date: 11/01/18 Initials: JJP
 Last Modification Date: 12/21/18 Initials: LTA
 Full Path: www.codot.gov/business/designsupport
 Drawing File Name: 6060106019.dgn
 CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English

Sheet Revisions

Date	Comments

Colorado Department of Transportation
 2829 West Howard Place
 CDOT HQ, 3rd Floor
 Denver, CO 80204
 Phone: 303-757-9021 FAX: 303-757-9868
 Division of Project Support JJP/LTA

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 3 W-BEAM 31 INCHES
 STANDARD PLAN NO. M-606-1
 Sheet No. 5 of 19

Computer File Information
 Creation Date: 11/01/18 Initials: JJP
 Last Modification Date: 12/21/18 Initials: LTA
 Full Path: www.codot.gov/business/designsupport
 Drawing File Name: 6060106019.dgn
 CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English

Sheet Revisions

Date	Comments

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 Division of Project Support JJP/LTA

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 3 W-BEAM 31 INCHES
 STANDARD PLAN NO. M-606-1
 Sheet No. 6 of 19

Computer File Information
 Creation Date: 11/01/18 Initials: JJP
 Last Modification Date: 12/21/18 Initials: LTA
 Full Path: www.codot.gov/business/designsupport
 Drawing File Name: 6060107019.dgn
 CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English

Sheet Revisions

Date	Comments

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 2829 West Howard Place
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MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 3 W-BEAM 31 INCHES
 STANDARD PLAN NO. M-606-1
 Sheet No. 7 of 19

Computer File Information
 Creation Date: 11/01/18 Initials: JJP
 Last Modification Date: 12/21/18 Initials: LTA
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Sheet Revisions

Date	Comments

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 2829 West Howard Place
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 Division of Project Support JJP/LTA

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 3 W-BEAM 31 INCHES
 STANDARD PLAN NO. M-606-1
 Sheet No. 8 of 19

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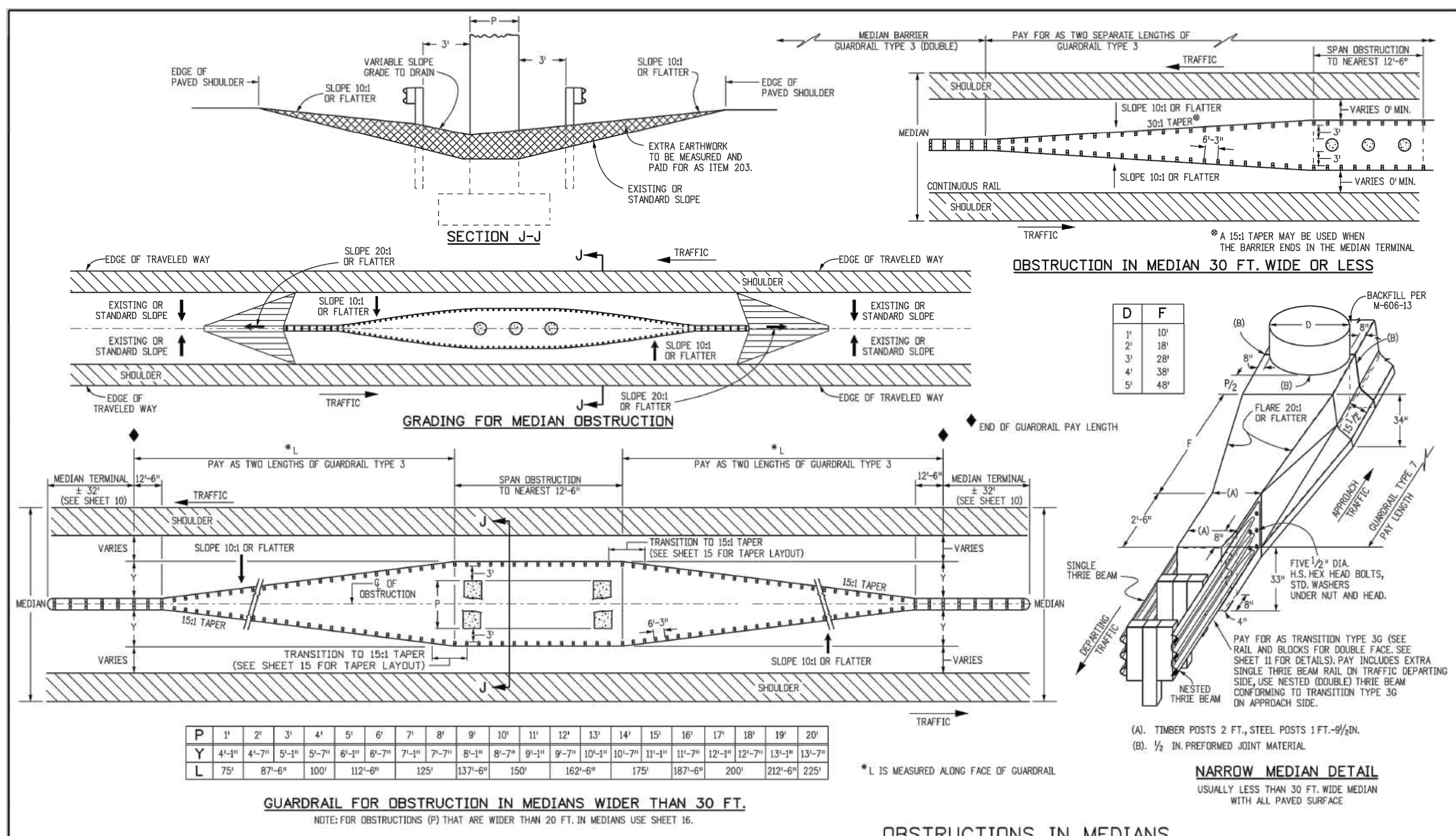
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05/07/20	UPDATE GAT & ADD OFF-LINE DET BASIN
03/02/20	FINAL SUBMITTAL
02/27/18	3RD SUBMITTAL
02/14/18	2ND SUBMITTAL
01/17/18	1ST SUBMITTAL

COMPARK VILLAGE SOUTH, FILING NO. 1 - BELFORD AVENUE
 TOWN OF PARKER, COLORADO
 STREET DETAILS

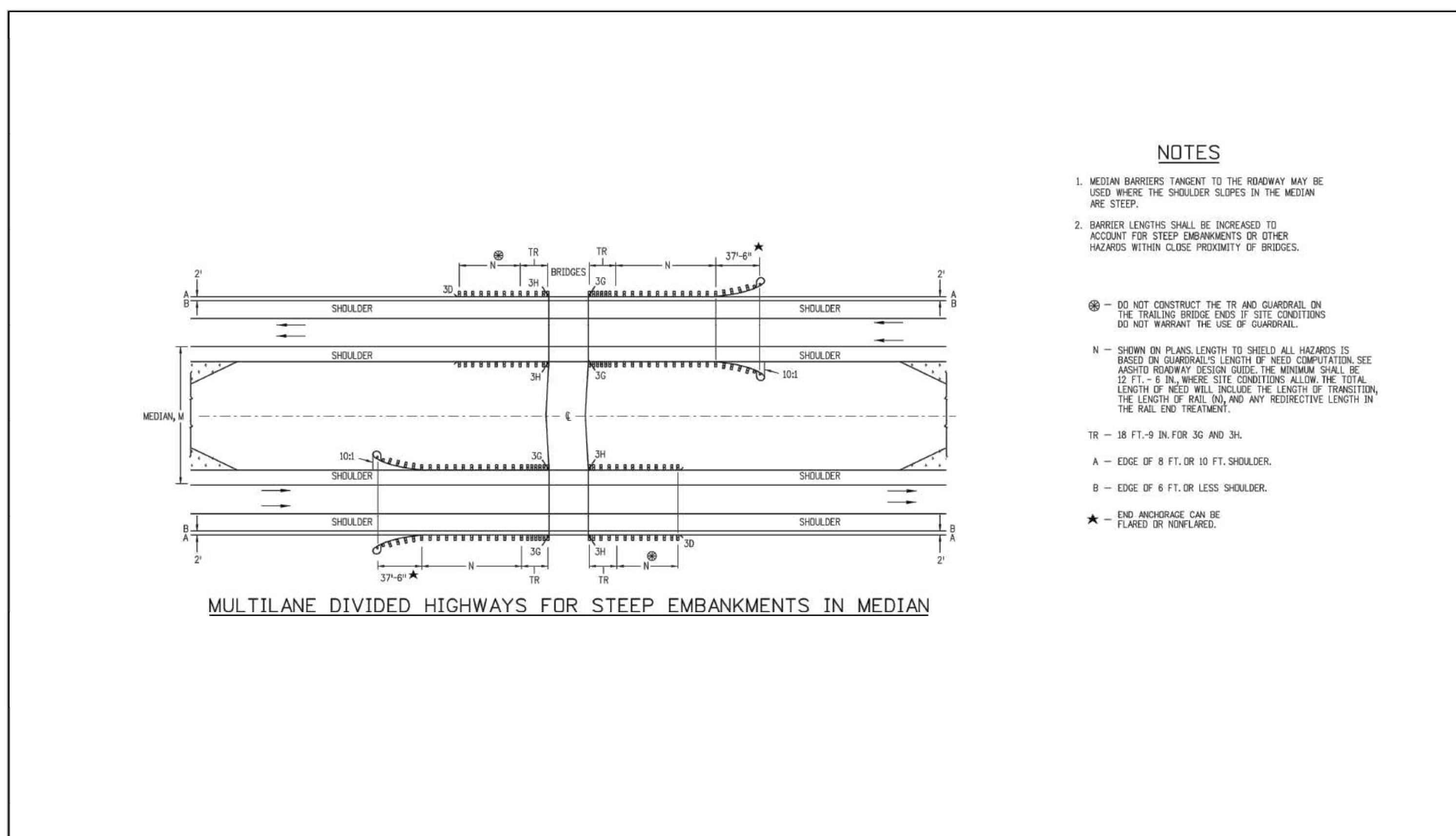
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 PROJ. ASSOC.: BRB
 DRAWN BY: ETG
 DATE: 12/2015

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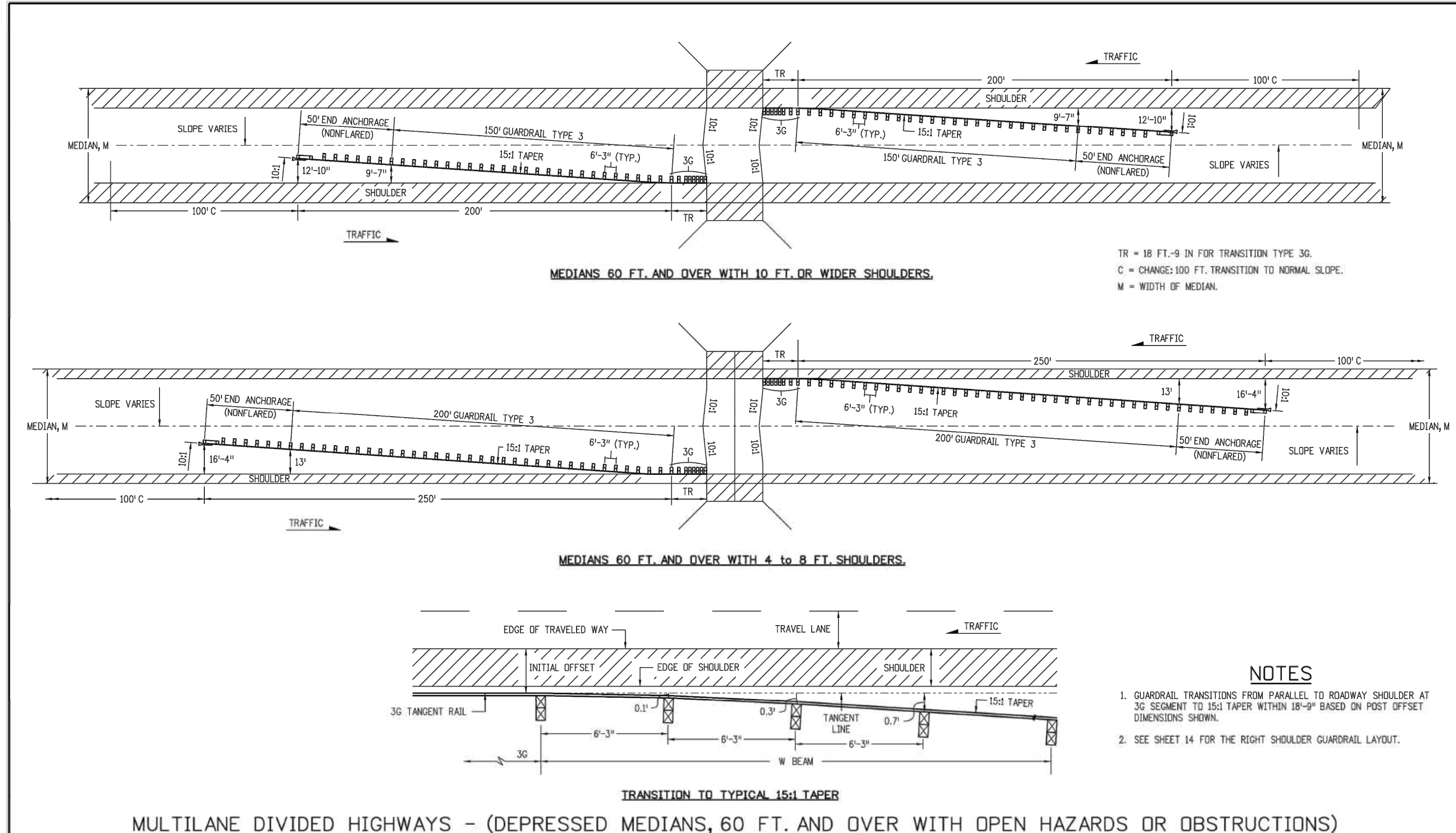
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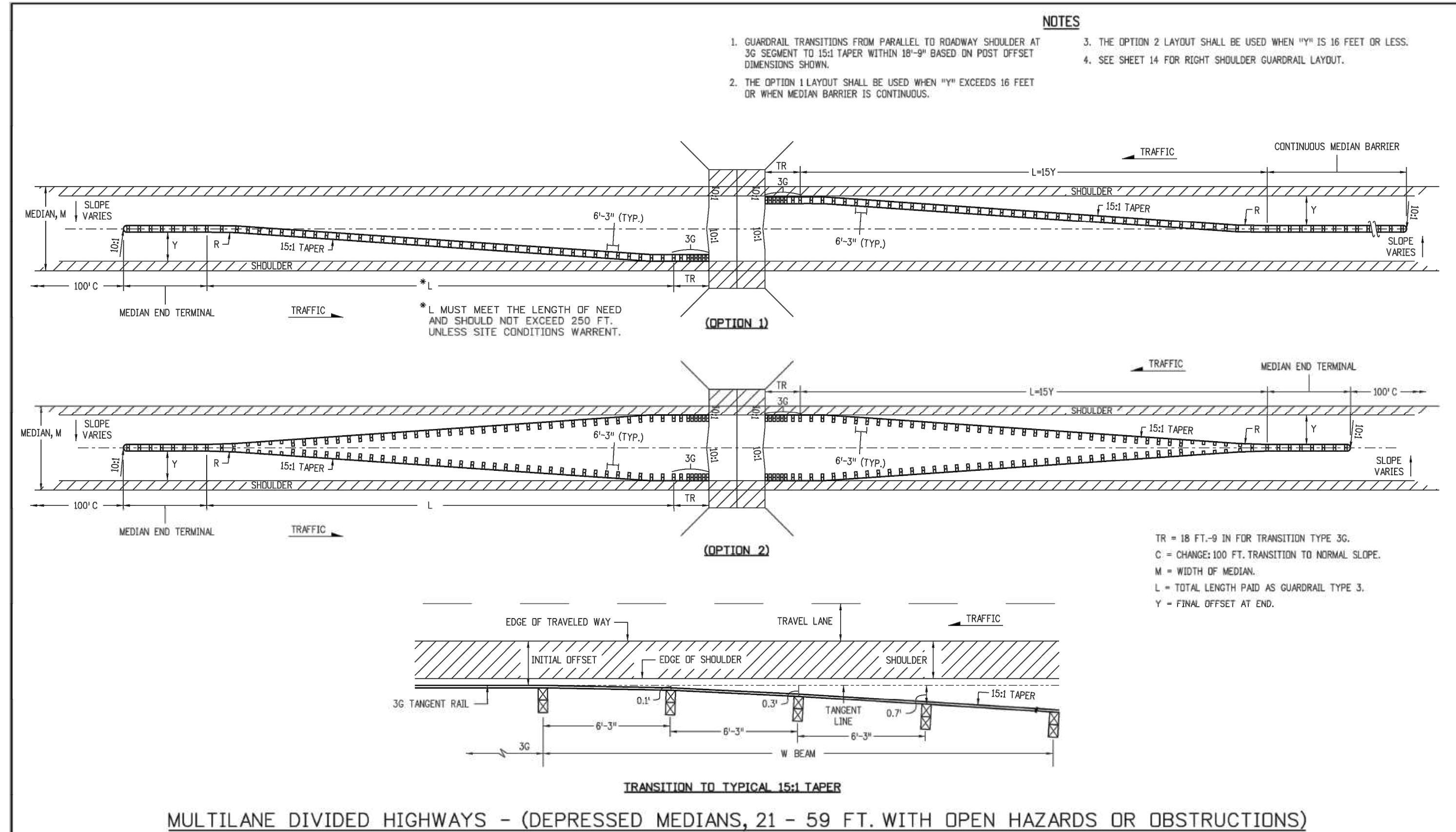
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Least Modification Date: 12/21/18	Initials: LTA			Issued By: Project Development Branch		November 1, 2018		Sheet No. 13 of 19	
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Computer File Information		Sheet Revisions		Colorado Department of Transportation		MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 3 W-BEAM 31 INCHES		STANDARD PLAN NO. M-606-1	
Creation Date: 11/01/18	Initials: JJP	Date:	Comments:	2829 West Howard Place	CDOT HQ, 3rd Floor	Denver, CO 80204	Phone: 303-757-9868	Division of Project Support	JJP/LTA
Least Modification Date: 12/21/18	Initials: LTA			Issued By: Project Development Branch		November 1, 2018		Sheet No. 14 of 19	
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Least Modification Date: 12/21/18	Initials: LTA			Issued By: Project Development Branch		November 1, 2018		Sheet No. 16 of 19	
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DATE	REVISIONS
11/01/18	RESPONDED TO TOWN COMMENTS
11/01/18	RESPONDED TO TOWN COMMENTS
05/01/20	UPDATE GAT & ADD OFF-LINE BASIN
07/07/20	FINAL SUBMITTAL
12/21/18	3RD SUBMITTAL
07/17/18	2ND SUBMITTAL
07/17/18	1ST SUBMITTAL

COMPARK VILLAGE SOUTH, FILING NO. 1 - BELFORD AVENUE

TOWN OF PARKER, COLORADO

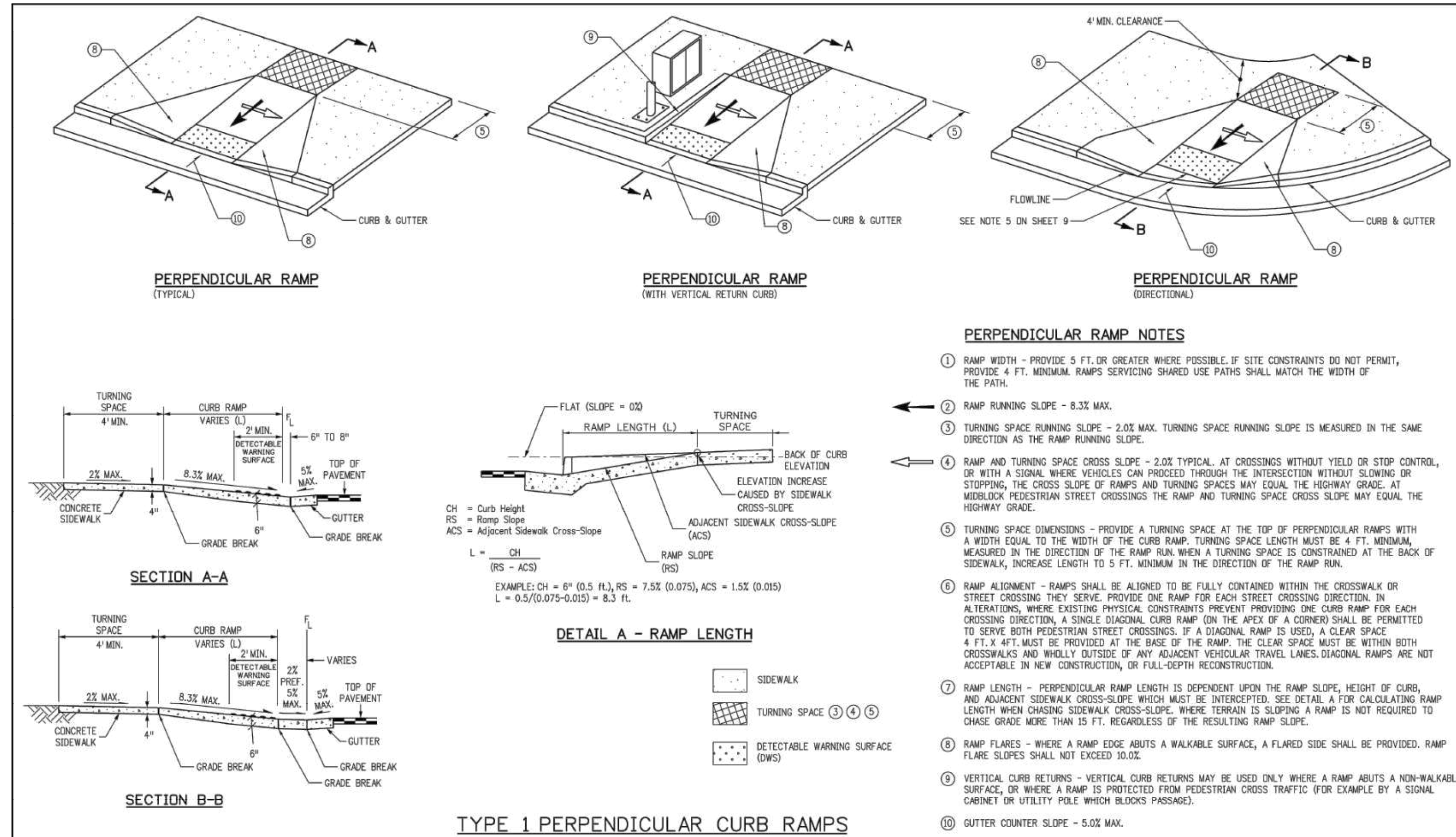
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 PROJ. ASSOC.: BRB
 DRAWN BY: ETG
 DATE: 12/2015

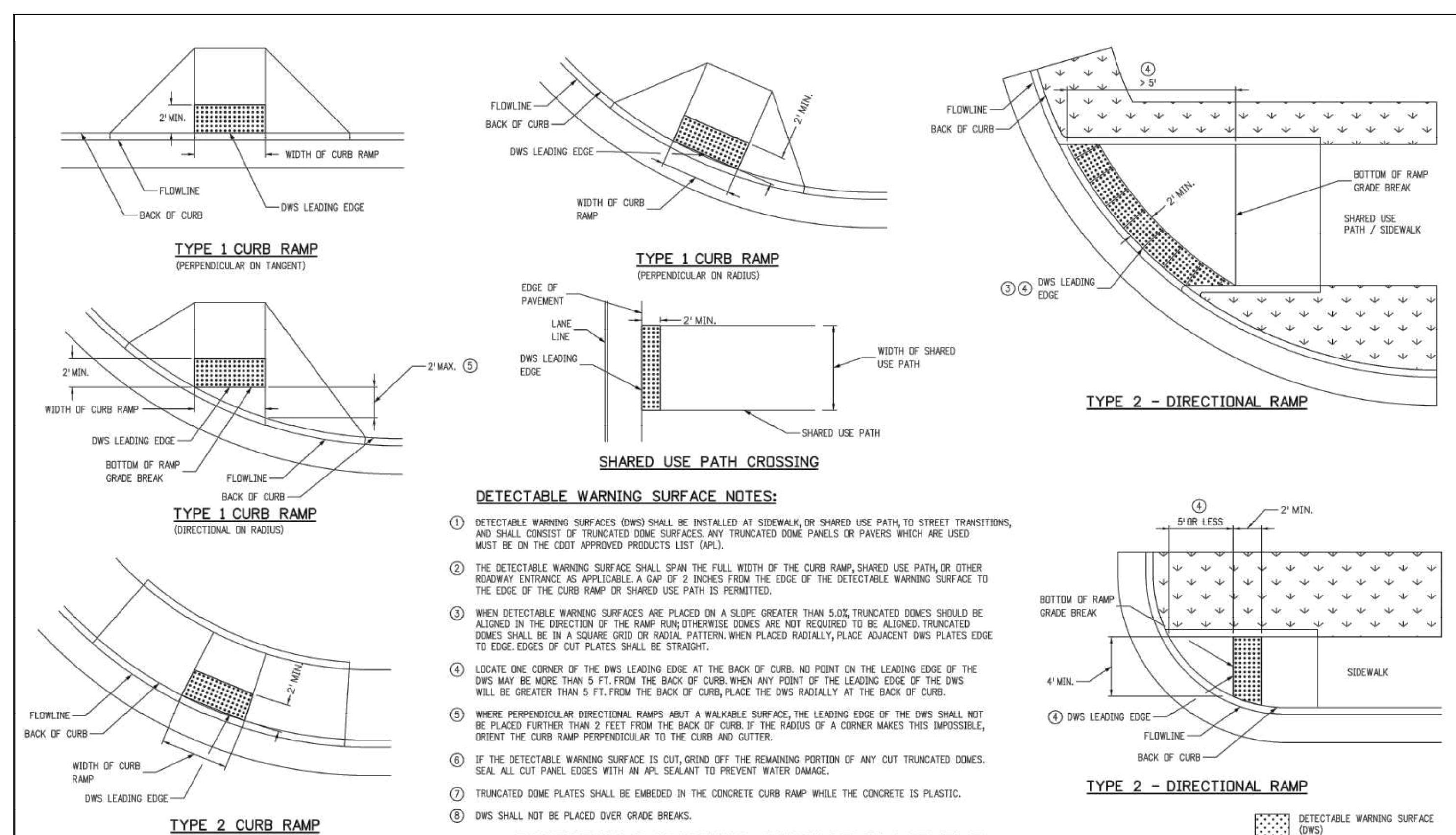
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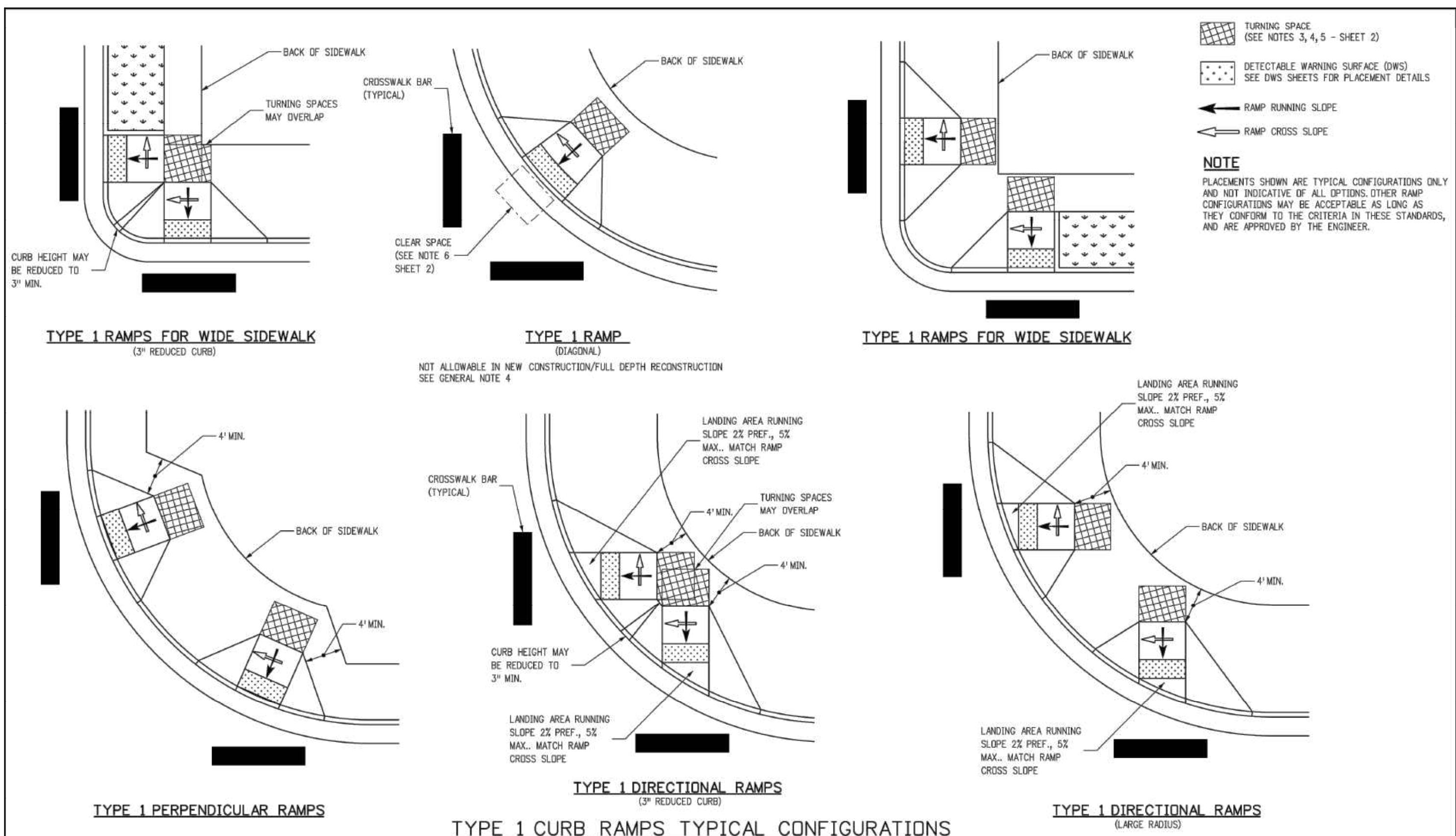
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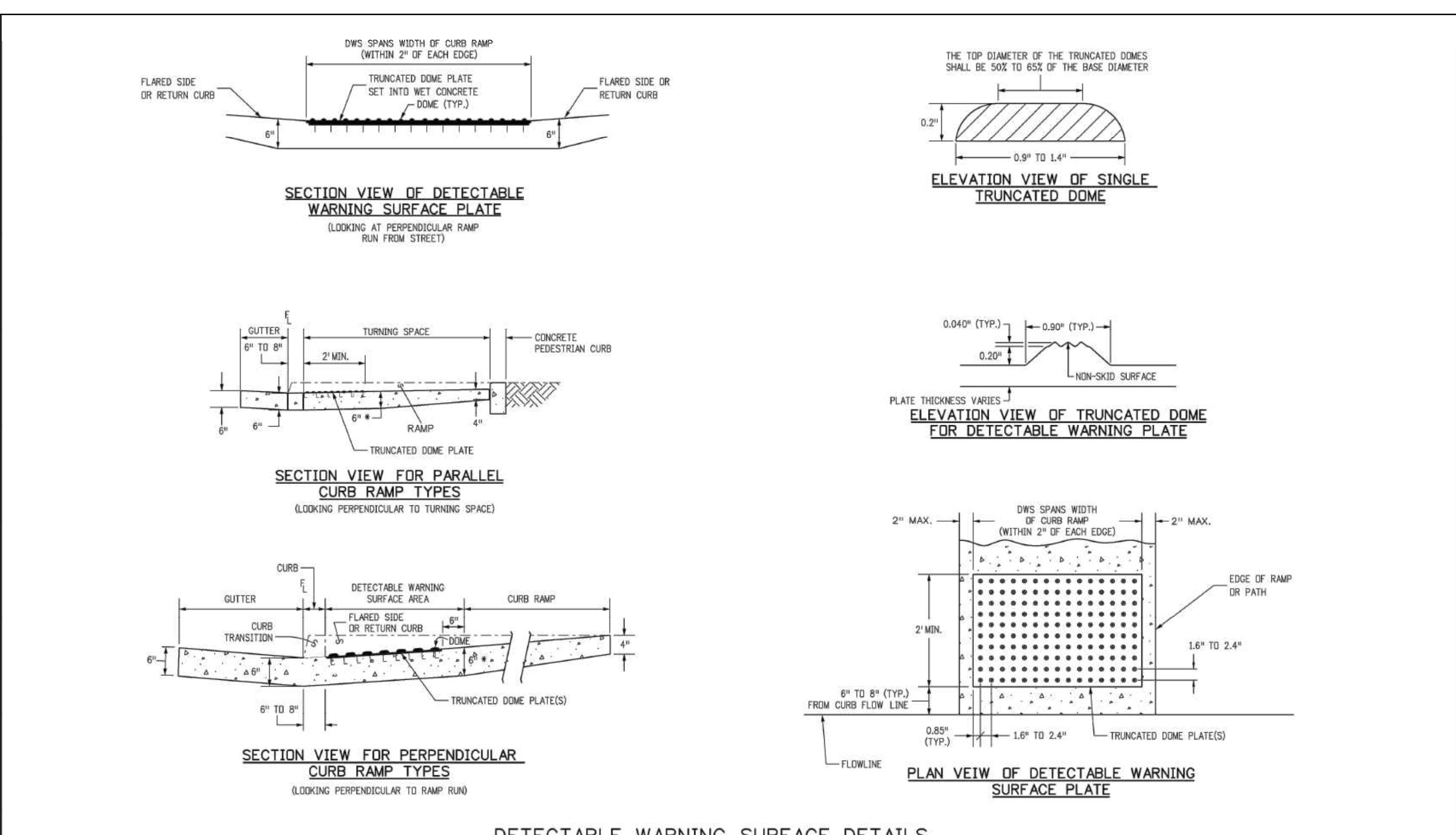
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Creation Date: 07/31/19	Designer Initials: JBK	Date:	Comments:	2829 West Howard Place	CDOT HO, 3rd Floor	CURB RAMPS	
Last Modification Date: 07/31/19	Detailer Initials: LTA			Denver, CO 80204	Phone: 303-757-9021 FAX: 303-757-9868	M-608-1	
CAD Ver.: MicroStation V8	Scale: Not to Scale			Project Development Branch		Standard Sheet No. 2 of 10	
				JBK		Issued by the Project Development Branch: July 31, 2019	



Computer File Information		Sheet Revisions		Colorado Department of Transportation		STANDARD PLAN NO.	
Creation Date: 07/31/19	Designer Initials: JBK	Date:	Comments:	2829 West Howard Place	CDOT HO, 3rd Floor	CURB RAMPS	
Last Modification Date: 07/31/19	Detailer Initials: LTA			Denver, CO 80204	Phone: 303-757-9021 FAX: 303-757-9868	M-608-1	
CAD Ver.: MicroStation V8	Scale: Not to Scale			Project Development Branch		Standard Sheet No. 9 of 10	
				JBK		Issued by the Project Development Branch: July 31, 2019	



Computer File Information		Sheet Revisions		Colorado Department of Transportation		STANDARD PLAN NO.	
Creation Date: 07/31/19	Designer Initials: JBK	Date:	Comments:	2829 West Howard Place	CDOT HO, 3rd Floor	CURB RAMPS	
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CAD Ver.: MicroStation V8	Scale: Not to Scale			Project Development Branch		Standard Sheet No. 3 of 10	
				JBK		Issued by the Project Development Branch: July 31, 2019	



Computer File Information		Sheet Revisions		Colorado Department of Transportation		STANDARD PLAN NO.	
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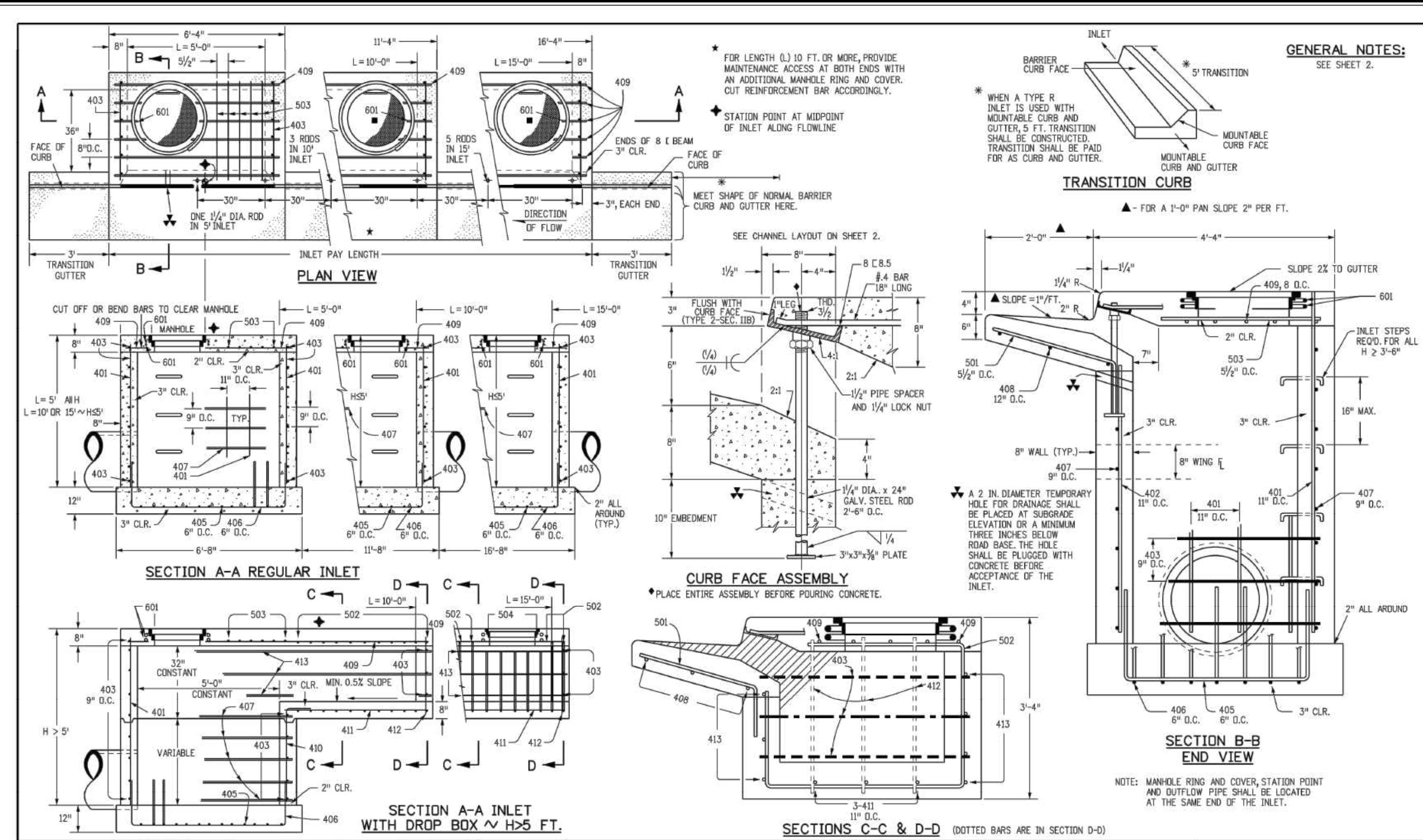
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DATE	REVISIONS
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G 05/01/20	RESPONDED TO TOWN COMMENTS
F 03/02/20	UPDATE GAT & ADD OFF-LINE BERT BASIN
E 12/27/16	FINAL SUBMITTAL
D 07/17/16	3RD SUBMITTAL
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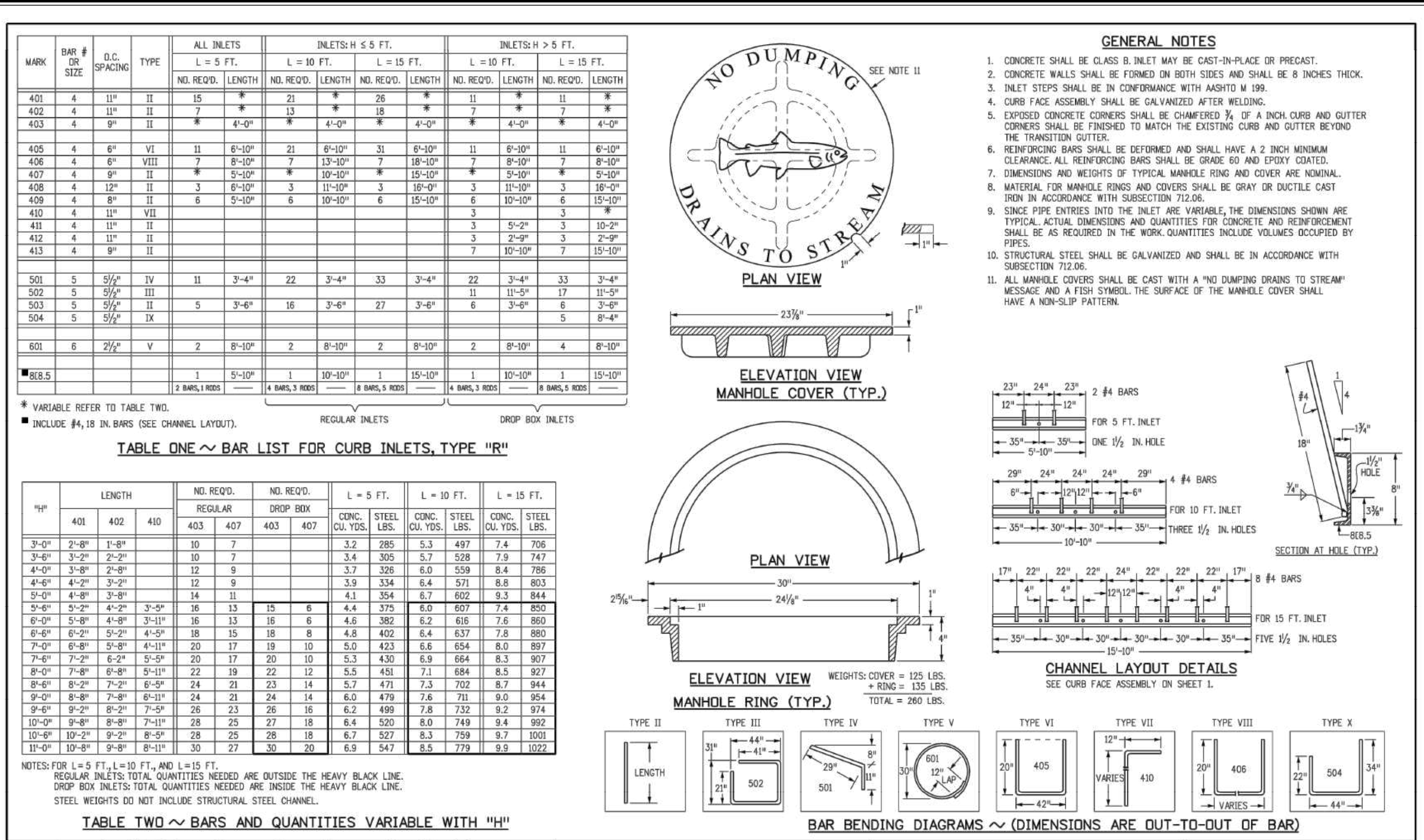
PROJECT MGR: RJM
 PROJ ASSOC: BRB
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 DATE: 12/2015
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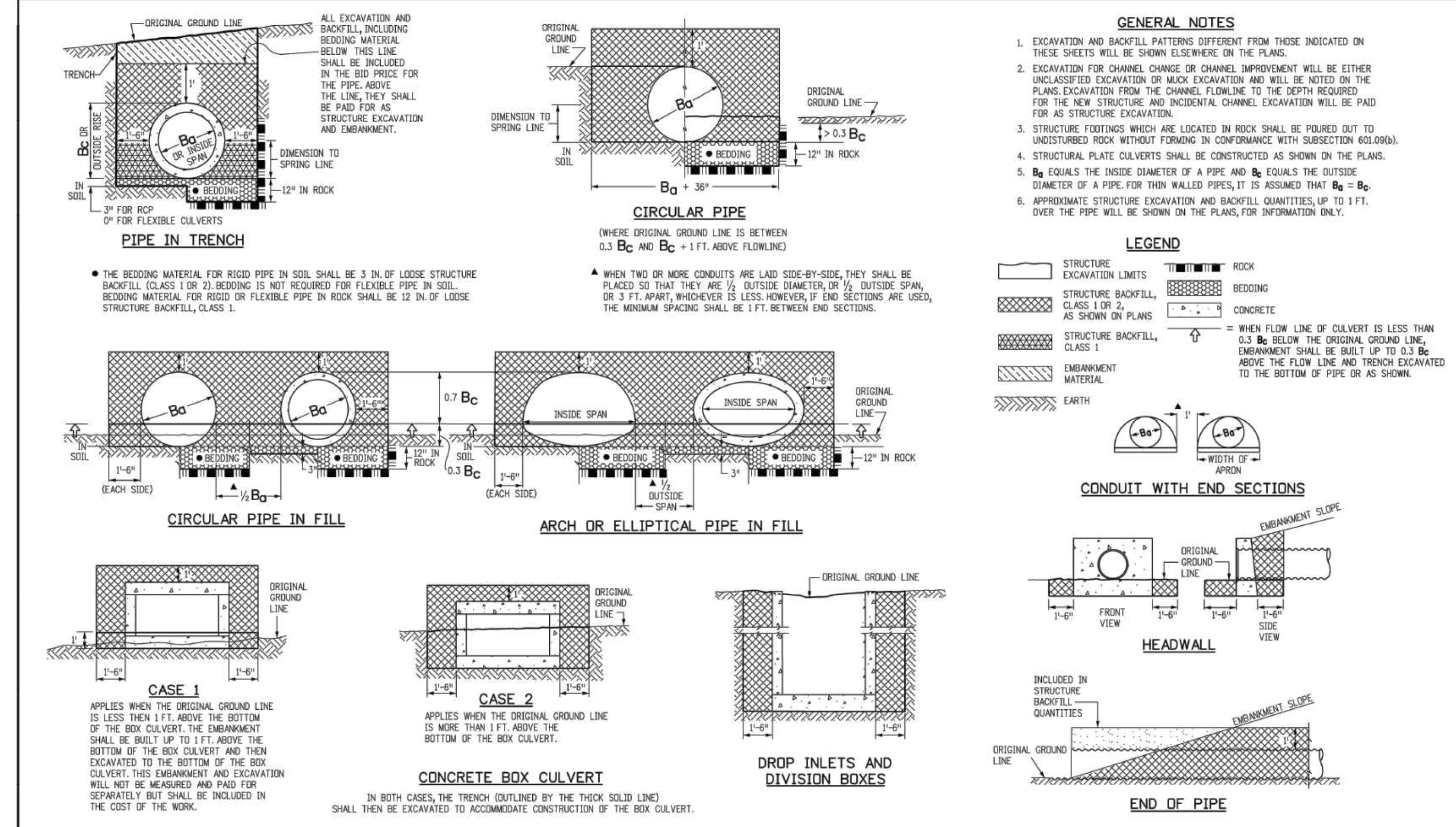
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 TOWN OF PARKER, COLORADO
 STREET DETAILS
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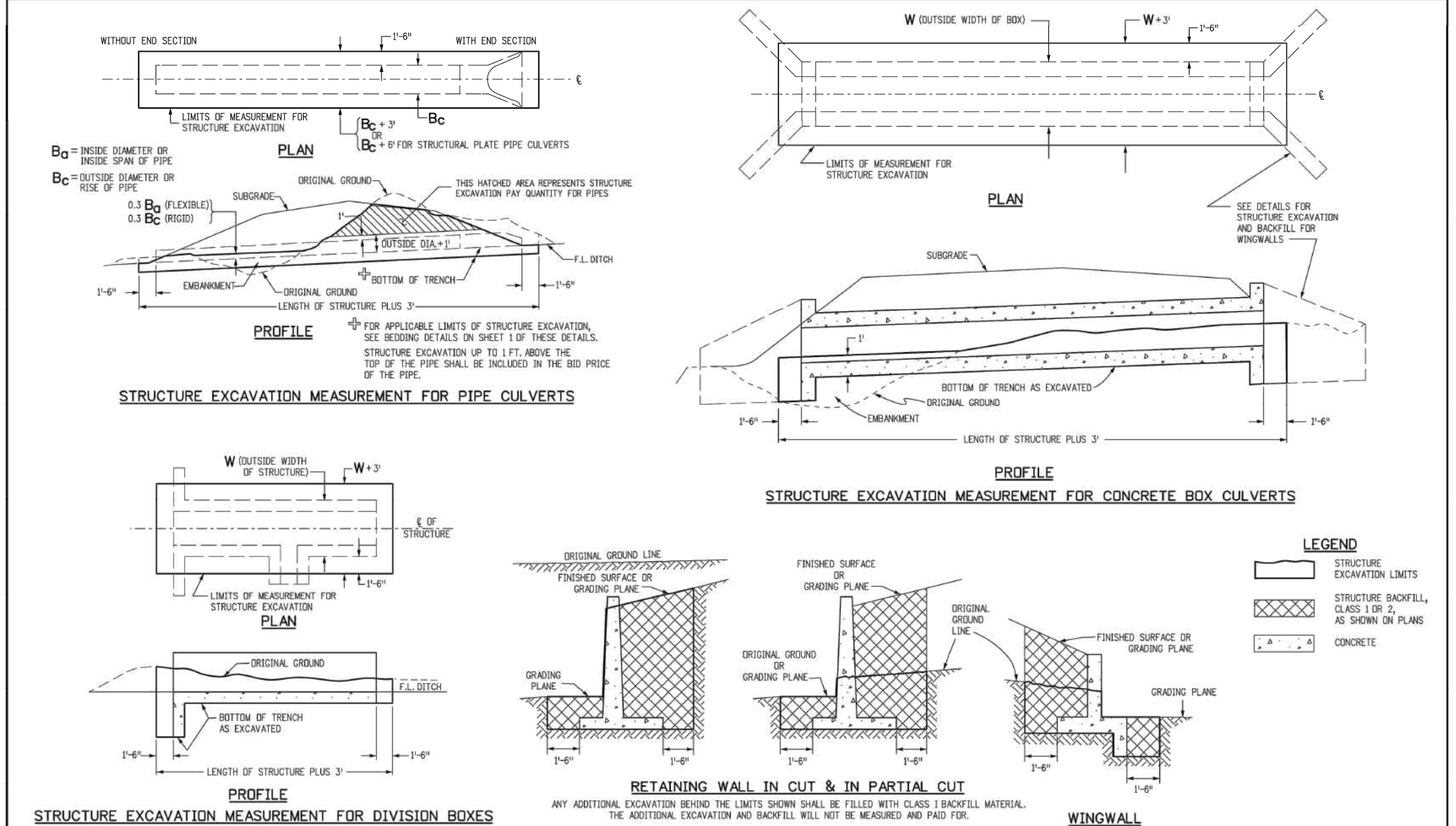
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Creation Date: 07/31/19	Date: _____	2829 West Howard Place	Issued by the Project Development Branch July 31, 2019	Standard Sheet No. 1 of 2
Designer: JBK	Comments: _____	CDOT HQ, 3rd Floor		
Last Modification Date: 07/31/19		Denver, CO 80204		
Detailer: LTA		Phone: 303-757-9868		
CAD Ver.: MicroStation V8		Project Development Branch		



Computer File Information	Sheet Revisions	Colorado Department of Transportation	CURB INLET TYPE R	STANDARD PLAN NO. M-604-12
Creation Date: 07/31/19	Date: _____	2829 West Howard Place	Issued by the Project Development Branch July 31, 2019	Standard Sheet No. 2 of 2
Designer: JBK	Comments: _____	CDOT HQ, 3rd Floor		
Last Modification Date: 07/31/19		Denver, CO 80204		
Detailer: LTA		Phone: 303-757-9868		
CAD Ver.: MicroStation V8		Project Development Branch		



Computer File Information	Sheet Revisions	Colorado Department of Transportation	EXCAVATION AND BACKFILL FOR STRUCTURES	STANDARD PLAN NO. M-206-1
Creation Date: 07/31/19	Date: _____	2829 West Howard Place	Issued by the Project Development Branch July 31, 2019	Standard Sheet No. 1 of 2
Designer: JBK	Comments: _____	CDOT HQ, 3rd Floor		
Last Modification Date: 07/31/19		Denver, CO 80204		
Detailer: LTA		Phone: 303-757-9868		
CAD Ver.: MicroStation V8		Project Development Branch		



Computer File Information	Sheet Revisions	Colorado Department of Transportation	EXCAVATION AND BACKFILL FOR STRUCTURES	STANDARD PLAN NO. M-206-1
Creation Date: 07/31/19	Date: _____	2829 West Howard Place	Issued by the Project Development Branch July 31, 2019	Standard Sheet No. 2 of 2
Designer: JBK	Comments: _____	CDOT HQ, 3rd Floor		
Last Modification Date: 07/31/19		Denver, CO 80204		
Detailer: LTA		Phone: 303-757-9868		
CAD Ver.: MicroStation V8		Project Development Branch		



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 Phone: 303-757-9868
 Fax: 303-757-9868
 Email: info@manhard.com

Professional Engineer
 Civil Engineering
 Surveying & Geospatial Services
 Water Resource Management
 Construction Management

COMPARK VILLAGE SOUTH, FILING NO. 1 - BELFORD AVENUE

TOWN OF PARKER, COLORADO

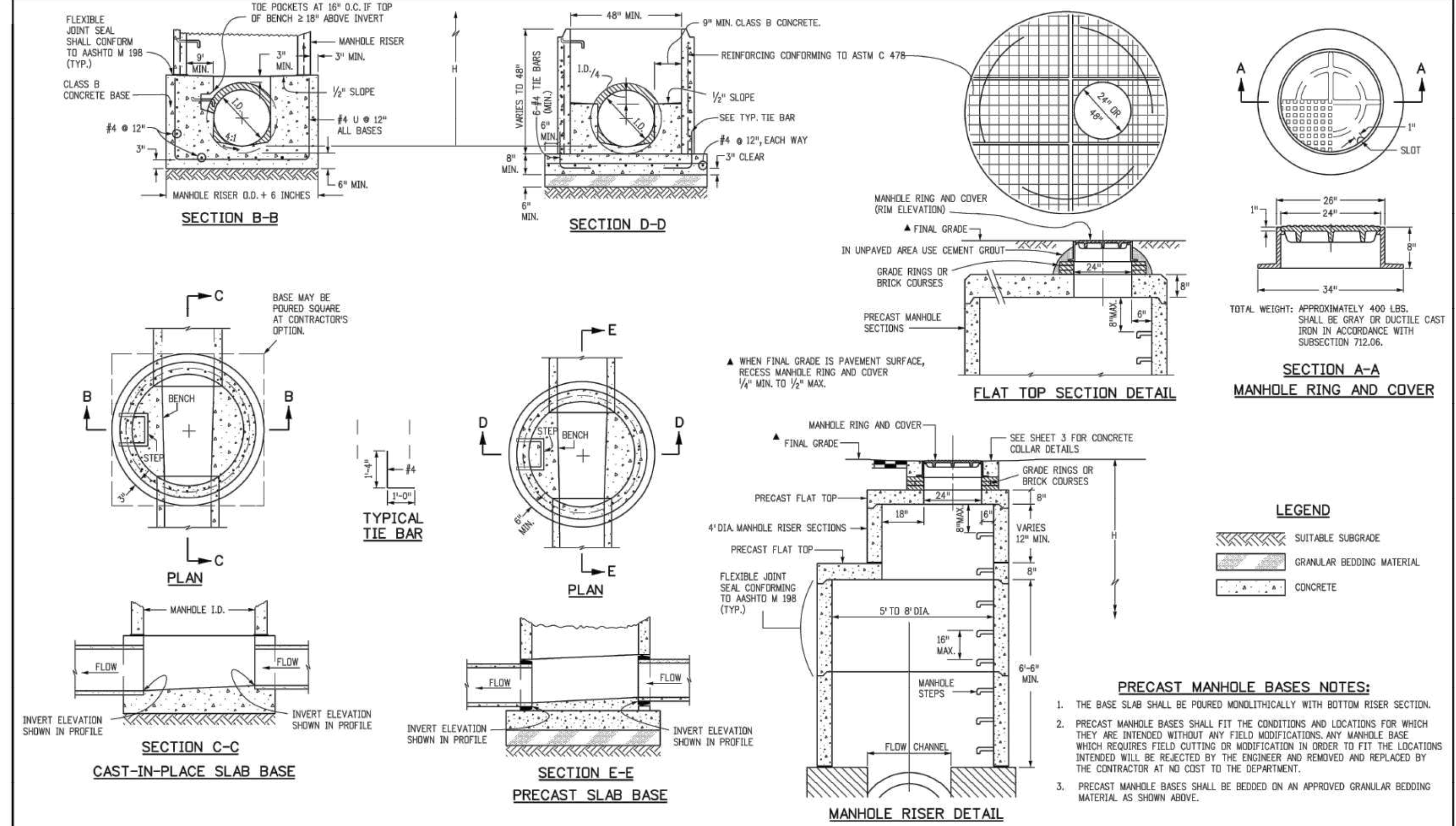
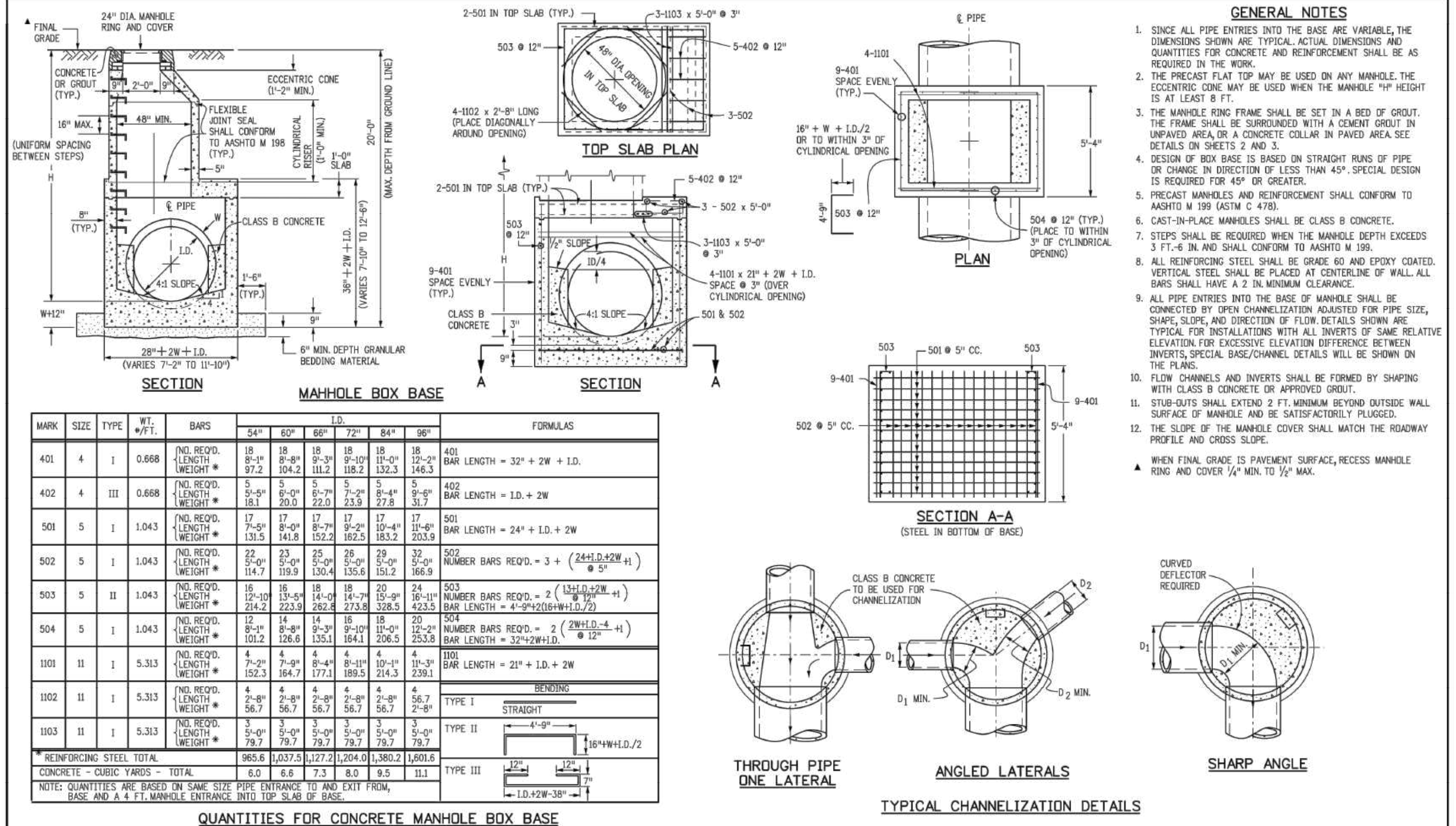
STORM DETAILS

PROJ. MGR.: RJM
 PROJ. ASSOC.: BRB
 DRAWN BY: ETG
 DATE: 12/2015

SHEET
47 OF 50

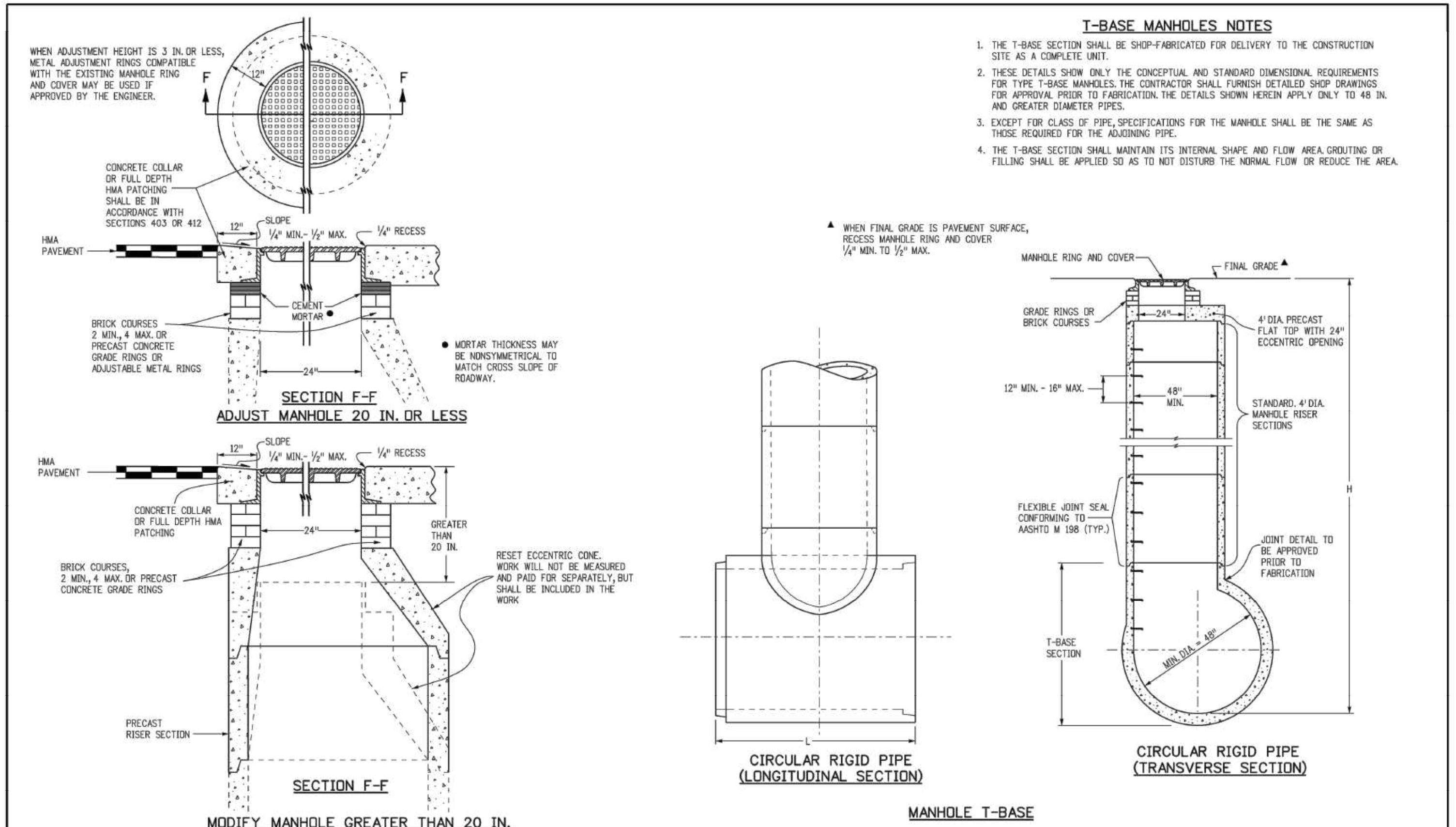
CLCPK3

PRELIMINARY - NOT FOR CONSTRUCTION

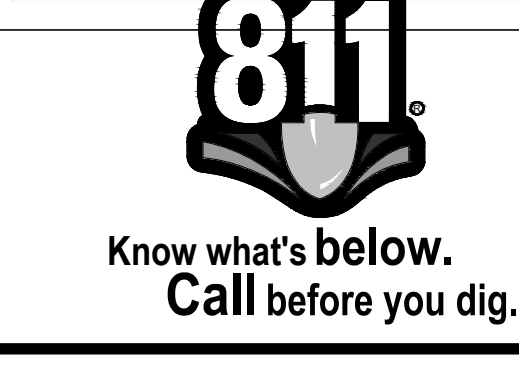
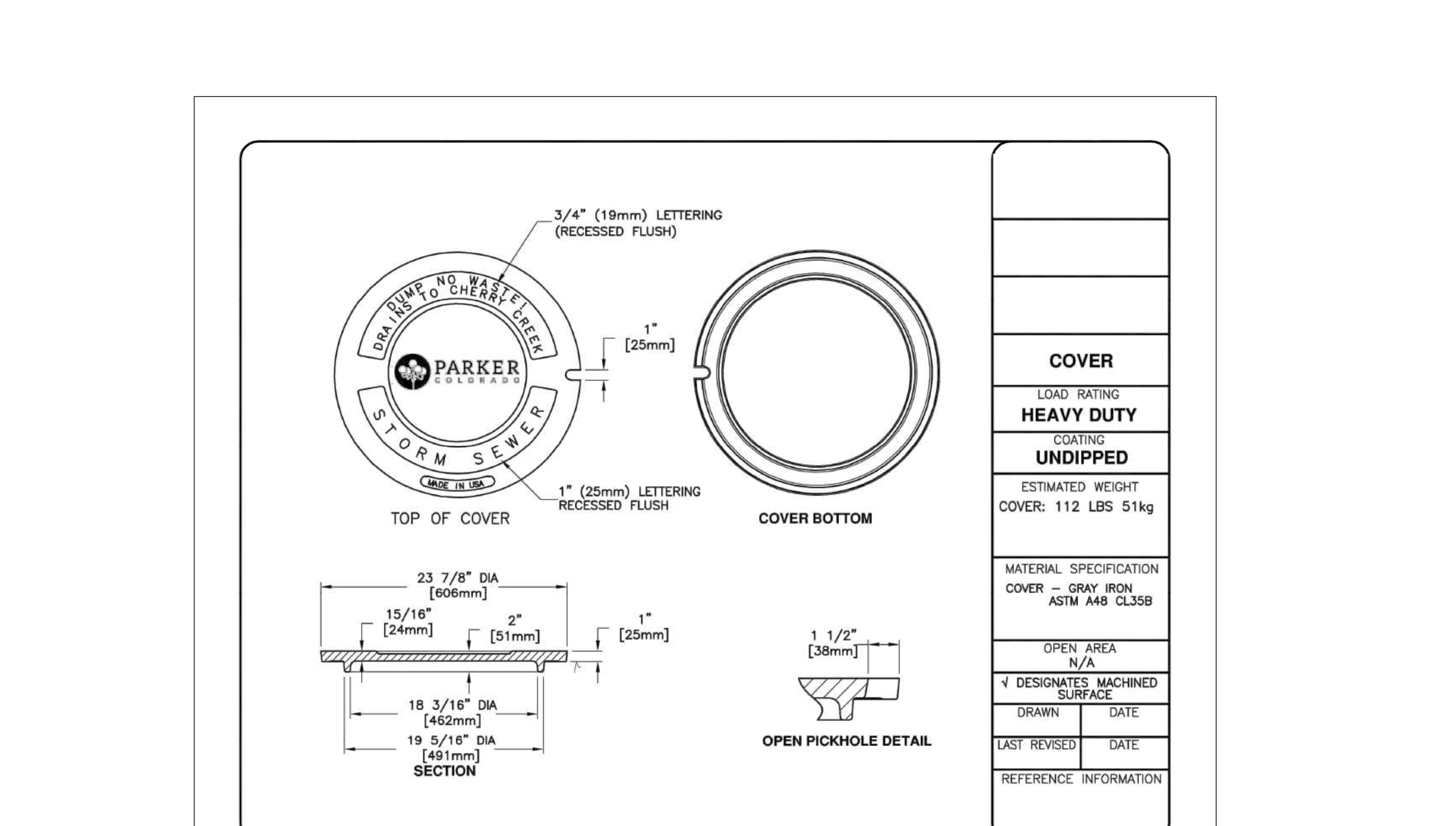


Computer File Information		Sheet Revisions		Colorado Department of Transportation		STANDARD PLAN NO.	
Creation Date: 07/31/19	Designer Initials: JBK	Date:	Comments:	2829 West Howard Place	M-604-20		
Last Modification Date: 07/31/19	Detailer Initials: LTA			CDOT HQ, 3rd Floor	Standard Sheet No. 1 of 3		
Detailer Initials: LTA				Denver, CO 80204	Project Sheet Number:		
CAD Ver.: MicroStation V8	Scale: Not to Scale	Units: English		Phone: 303-757-9021 FAX: 303-757-9888			
Project Development Branch				JBK		Issued by the Project Development Branch July 31, 2019	

Computer File Information		Sheet Revisions		Colorado Department of Transportation		STANDARD PLAN NO.	
Creation Date: 07/31/19	Designer Initials: JBK	Date:	Comments:	2829 West Howard Place	M-604-20		
Last Modification Date: 07/31/19	Detailer Initials: LTA			CDOT HQ, 3rd Floor	Standard Sheet No. 2 of 3		
Detailer Initials: LTA				Denver, CO 80204	Project Sheet Number:		
CAD Ver.: MicroStation V8	Scale: Not to Scale	Units: English		Phone: 303-757-9021 FAX: 303-757-9888			
Project Development Branch				JBK		Issued by the Project Development Branch July 31, 2019	



Computer File Information		Sheet Revisions		Colorado Department of Transportation		STANDARD PLAN NO.	
Creation Date: 07/31/19	Designer Initials: JBK	Date:	Comments:	2829 West Howard Place	M-604-20		
Last Modification Date: 07/31/19	Detailer Initials: LTA			CDOT HQ, 3rd Floor	Standard Sheet No. 3 of 3		
Detailer Initials: LTA				Denver, CO 80204	Project Sheet Number:		
CAD Ver.: MicroStation V8	Scale: Not to Scale	Units: English		Phone: 303-757-9021 FAX: 303-757-9888			
Project Development Branch				JBK		Issued by the Project Development Branch July 31, 2019	



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DATE	REVISIONS
07/31/20	RESPONDED TO TOWN COMMENTS
05/01/20	RESPONDED TO TOWN COMMENTS
03/07/20	UPDATE GAT & ADD OFF-LINE DET BASIN
12/27/19	FINAL SUBMITTAL
06/24/19	3RD SUBMITTAL
04/17/19	2ND SUBMITTAL
01/20/19	1ST SUBMITTAL

PROJ. MGR.: RJM
PROJ. ASSOC.: BRB
DRAWN BY: ETG
DATE: 12/2015

SHEET 48 OF 50

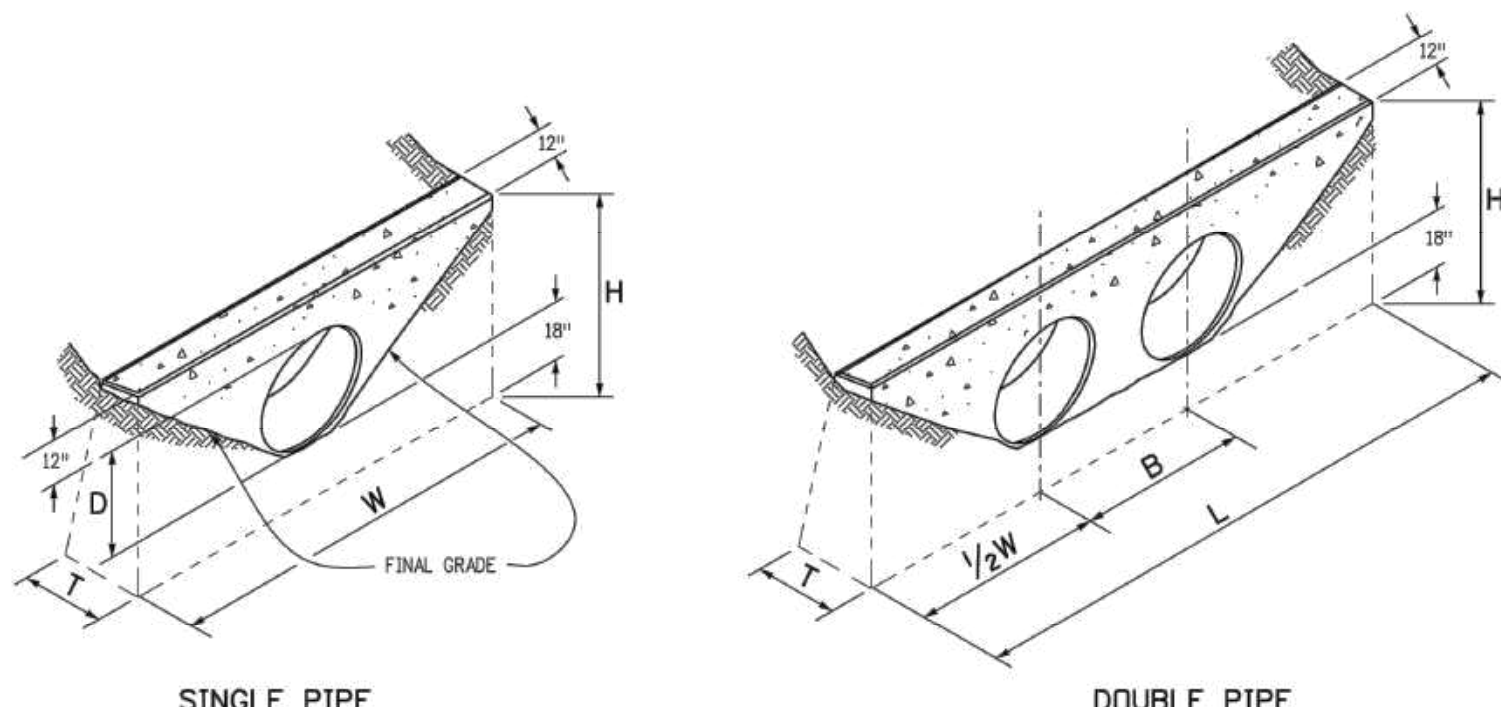
CLCPK3

COMPARK VILLAGE SOUTH, FILING NO. 1 - BELFORD AVENUE

TOWN OF PARKER, COLORADO

STORM DETAILS

PRELIMINARY - NOT FOR CONSTRUCTION



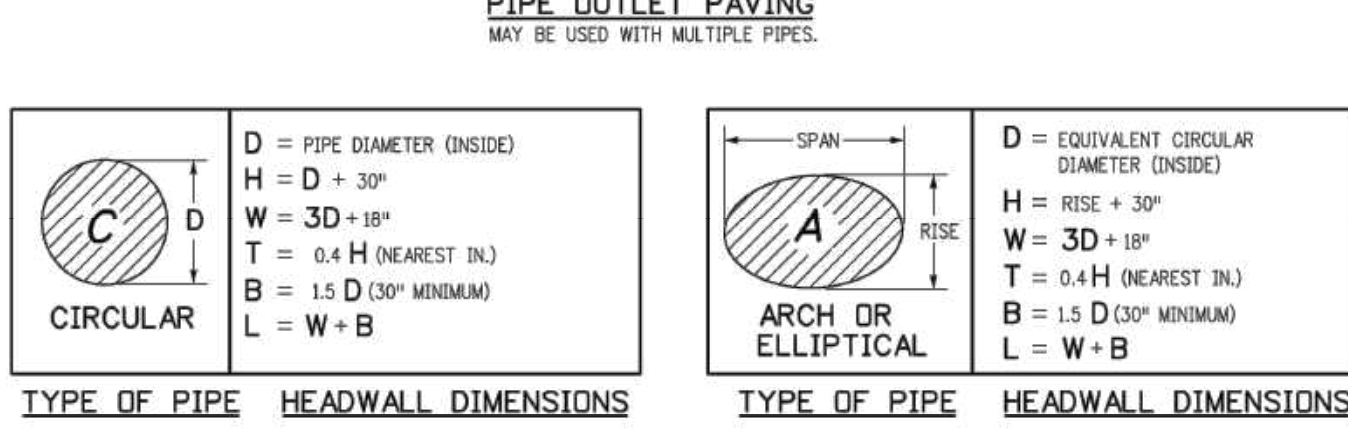
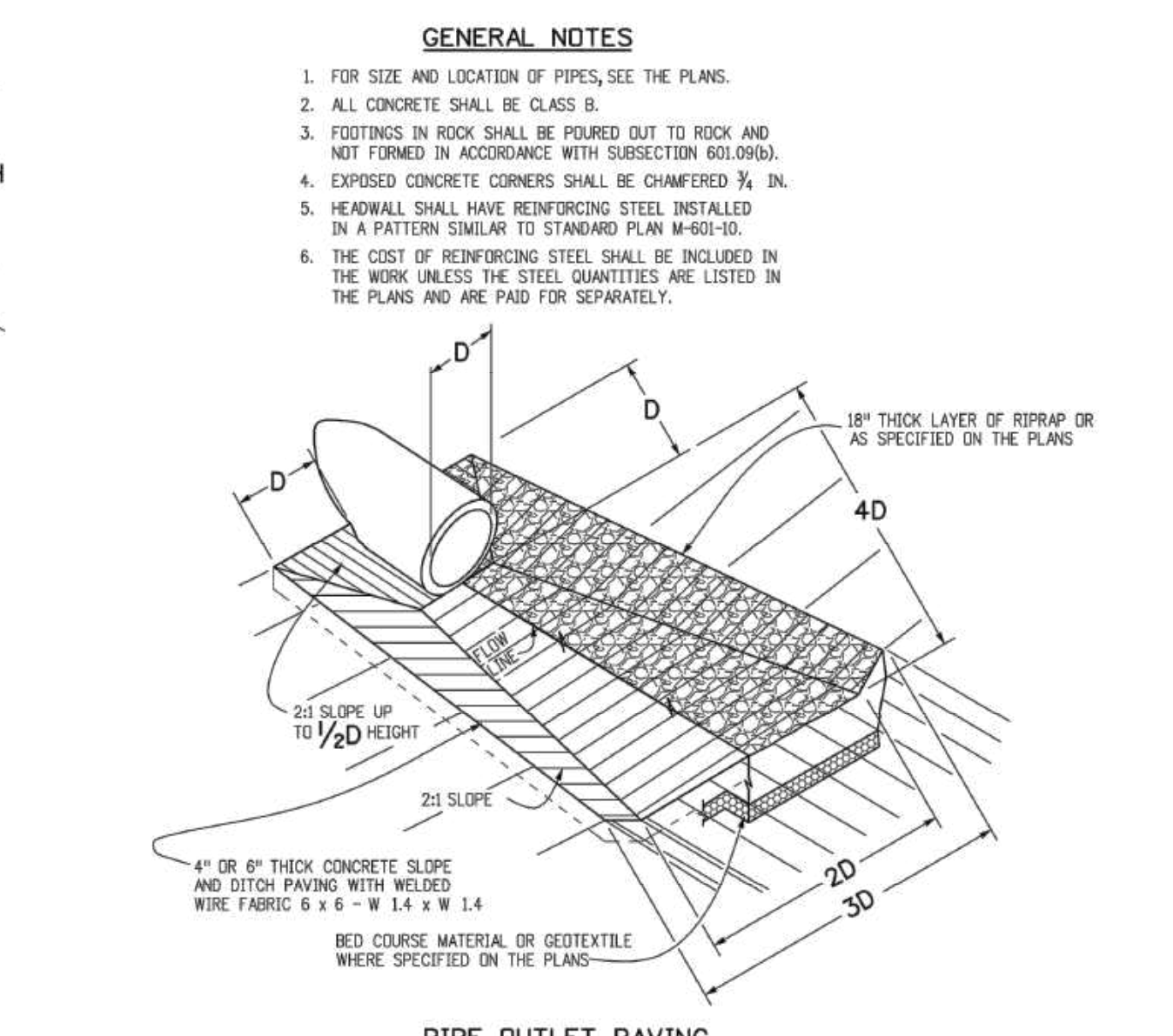
CONCRETE HEADWALL INSTALLATIONS
SEE STANDARD PLAN M-601-10 FOR REINFORCING DETAILS.

PIPE	PIPE DIAMETER (AND EQUIVALENT DIAMETER) (IN.)												
	18		24		30		36		42		48		
TYPE	SINGLE	DOUBLE	SINGLE	DOUBLE	SINGLE	DOUBLE	SINGLE	DOUBLE	SINGLE	DOUBLE	SINGLE	DOUBLE	
CIRCULAR	RIGID	1.0	1.3	1.5	2.0	2.0	2.7	2.8	3.6	3.6	4.6	6.0	
	FLEXIBLE	1.1	1.4	1.6	2.1	2.2	3.0	3.0	4.0	3.9	5.3	6.8	
ELLIPTICAL	RIGID	23 x 14		30 x 19		38 x 24		45 x 29		53 x 34		60 x 38	
	FLEXIBLE	0.9		1.2		1.3		1.6		1.7		2.2	
ARCH	METAL	22 x 13		29 x 18		36 x 22		43 x 27		50 x 31		58 x 36	
	CONCRETE	0.9		1.3		1.4		1.9		2.4		3.4	

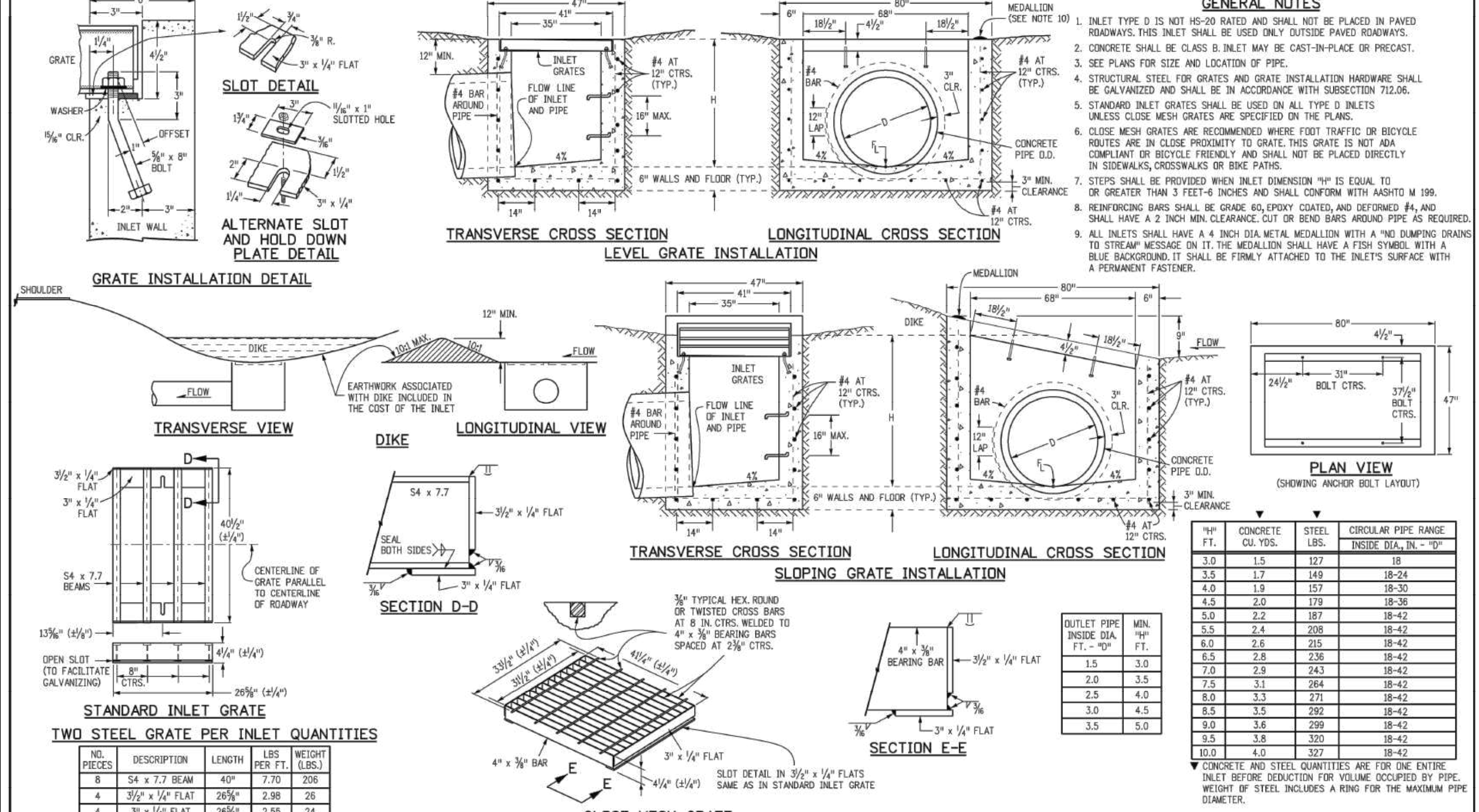
CONCRETE QUANTITIES FOR ONE CONCRETE HEADWALL (CUBIC YARDS)

THICKNESS	MATERIAL	PIPE DIAMETER (IN.)					
		18	24	30	36	42	48
4"	CONCRETE	0.4	0.8	1.2	2.6	3.6	4.7
6"	CONCRETE	2.0	3.5	5.4	7.8	10.7	13.9

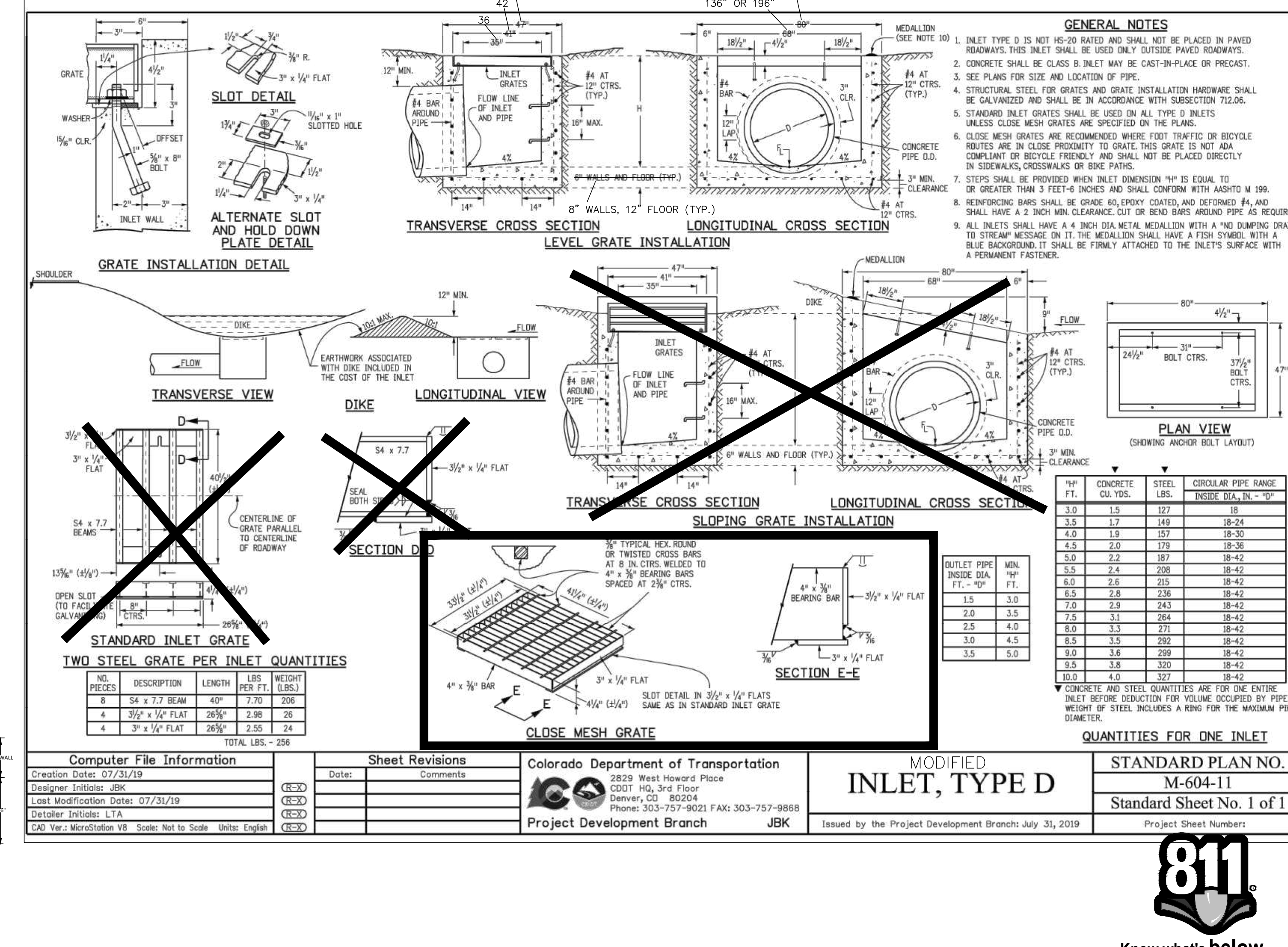
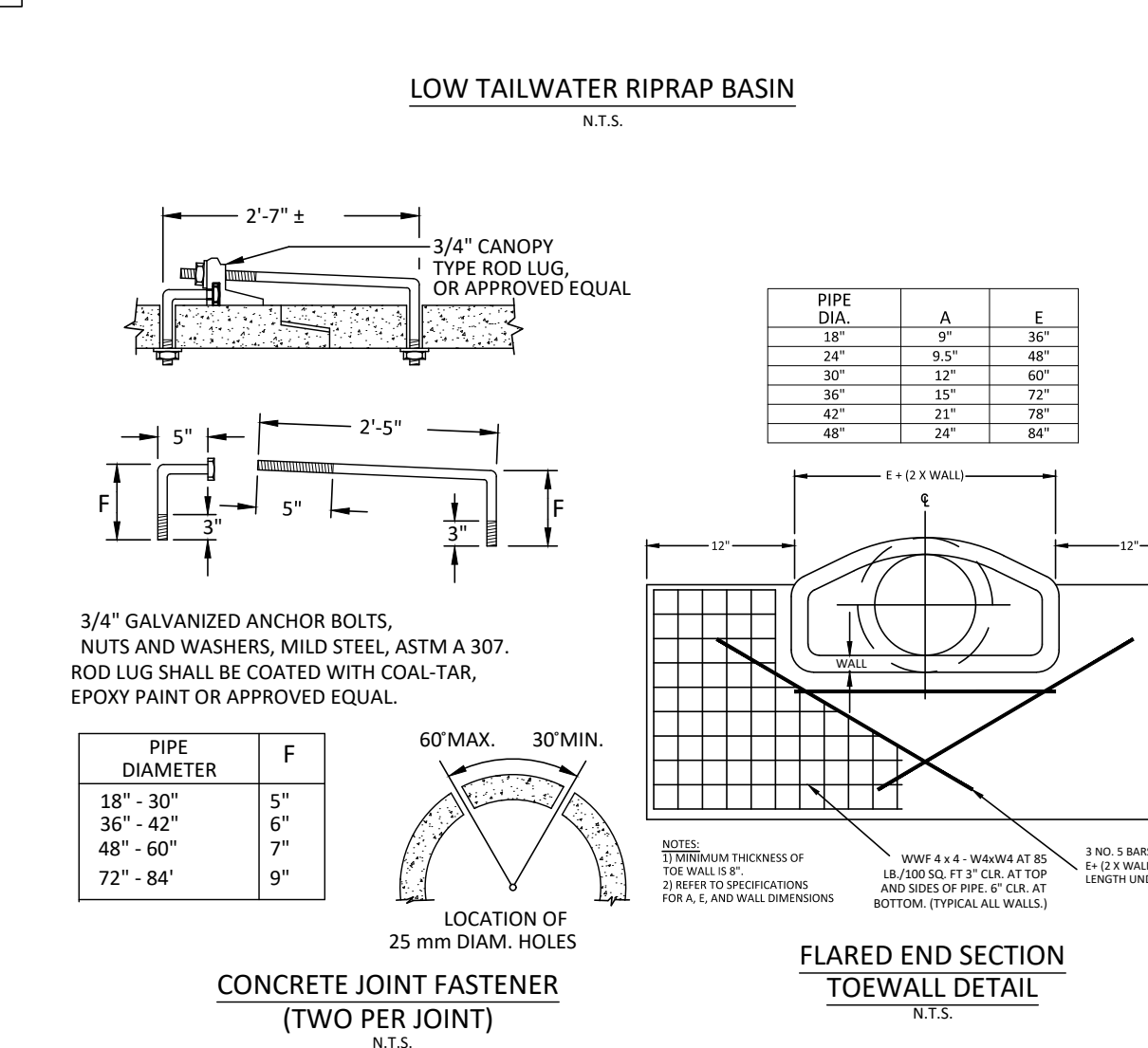
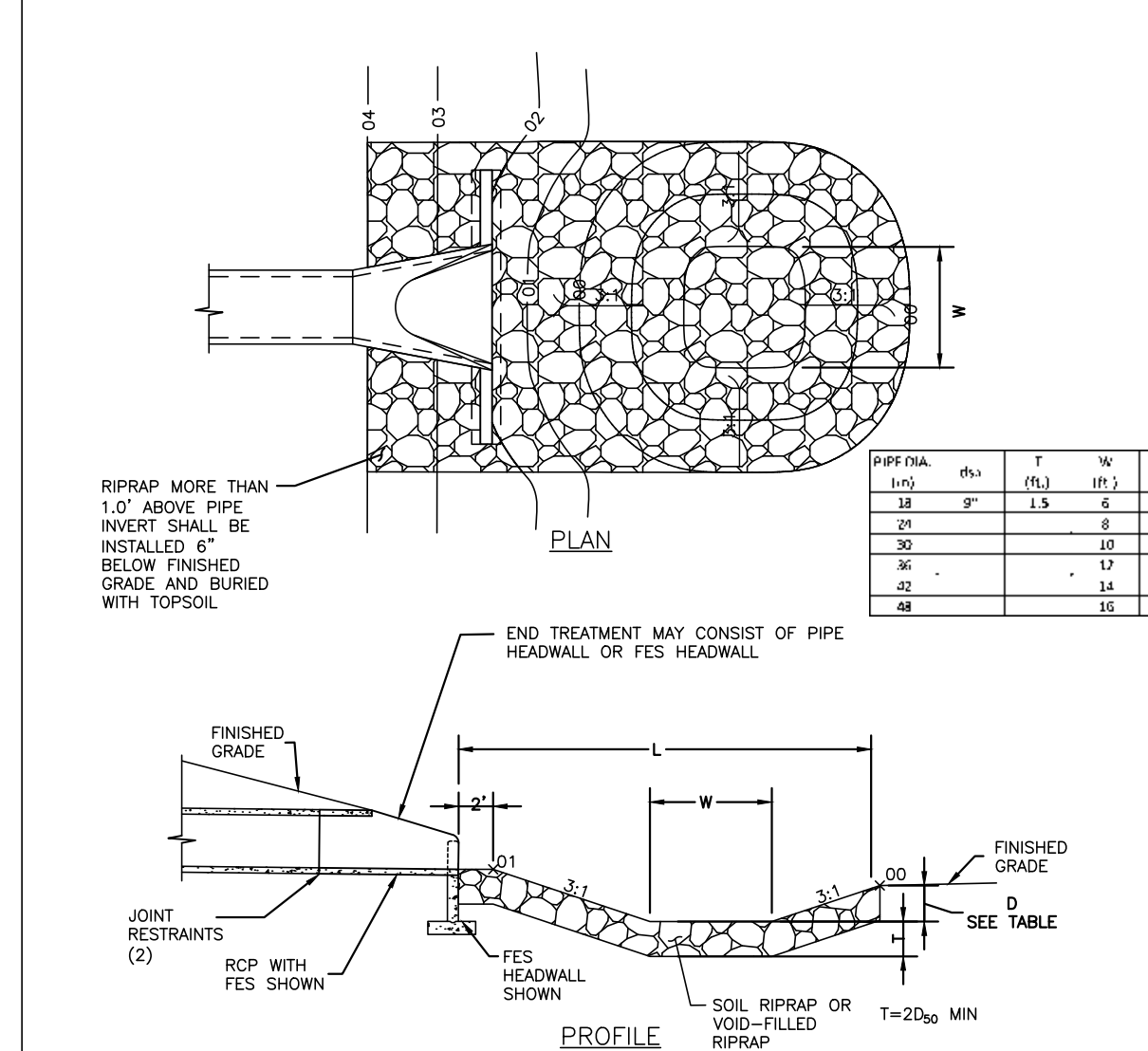
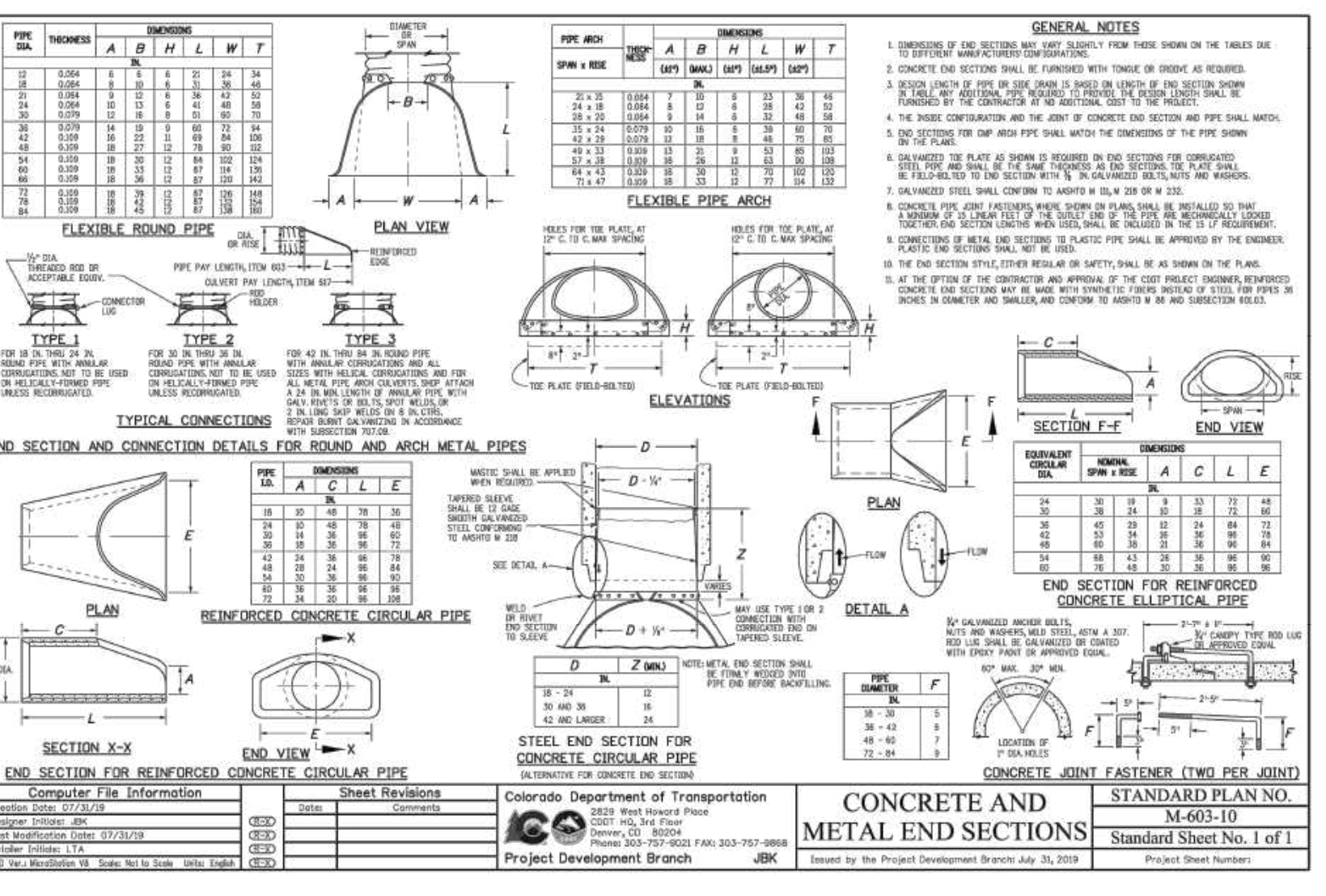
PIPE OUTLET PAVING (CUBIC YARDS)
NOTE: VOLUME OCCUPIED BY PIPE HAS BEEN DEDUCTED.



Computer File Information	Sheet Revisions	Colorado Department of Transportation	HEADWALLS AND PIPE OUTLET PAVING	STANDARD PLAN NO. M-601-12
Creation Date: 07/31/19	Date: _____	2829 West Howard Place CDOT HQ, 3rd Floor Denver, CO 80204 Phone: 303-757-9021 FAX: 303-757-9888	Issued by the Project Development Branch July 31, 2019	Standard Sheet No. 1 of 1



Computer File Information	Sheet Revisions	Colorado Department of Transportation	INLET, TYPE D	STANDARD PLAN NO. M-604-11
Creation Date: 07/31/19	Date: _____	2829 West Howard Place CDOT HQ, 3rd Floor Denver, CO 80204 Phone: 303-757-9021 FAX: 303-757-9888	Issued by the Project Development Branch July 31, 2019	Standard Sheet No. 1 of 1



Computer File Information	Sheet Revisions	Colorado Department of Transportation	MODIFIED INLET, TYPE D	STANDARD PLAN NO. M-604-11
Creation Date: 07/31/19	Date: _____	2829 West Howard Place CDOT HQ, 3rd Floor Denver, CO 80204 Phone: 303-757-9021 FAX: 303-757-9888	Issued by the Project Development Branch July 31, 2019	Standard Sheet No. 1 of 1

Printed: 7/31/2020 2:20 PM. Draw Name: P:\Cadd\3\Comp\South 2\Filing 1. No.GAT\Com\South\03\Ultimate - Belford Ave.dwg\Title\CLOCK3 Storm Details.dwg. Updated by: MM/GG/ure

Manhard CONSULTING
7600 East Orchard Road, Suite 100-100, Greenwood Village, CO 80120, phone: 303.758.0500
Civil Engineering | Surveying & Geospatial Services | Construction Management
Water, Resource Management

DATE	REVISIONS
11/11/2010	RESPONDED TO TOWN COMMENTS
05/07/2010	UPDATE GAT & ADD OFF-LINE DET BASIN
03/27/2010	FINAL SUBMITTAL
02/27/2010	3RD SUBMITTAL
02/17/10	2ND SUBMITTAL
11/20/09	1ST SUBMITTAL

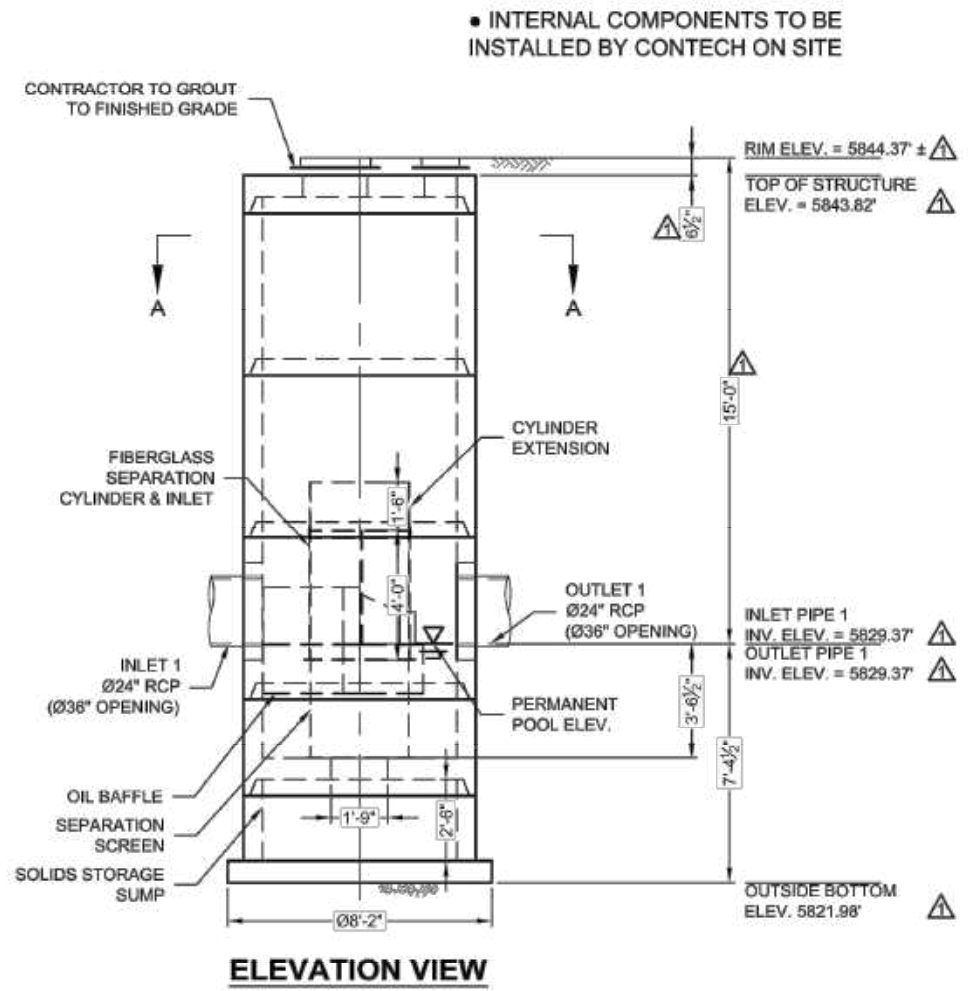
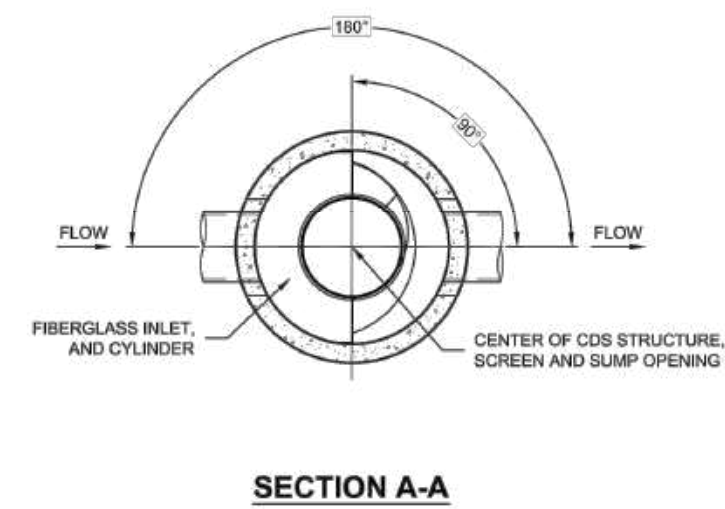
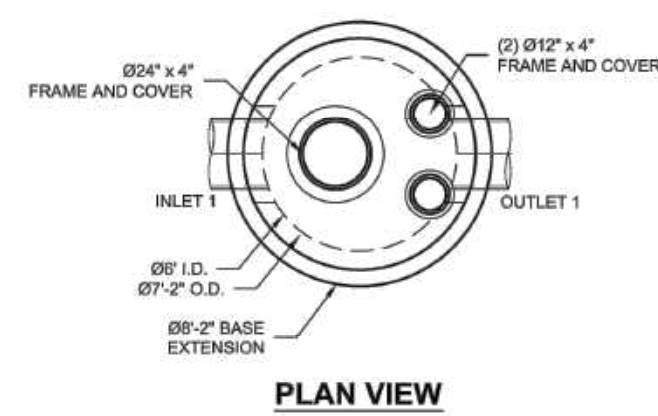
COMPARK VILLAGE SOUTH, FILING NO. 1 - BELFORD AVENUE
TOWN OF PARKER, COLORADO
STORM DETAILS

PROJ. MGR.: RJM
PROJ. ASSOC.: BRB
DRAWN BY: ETG
DATE: 12/2015

811
Know what's below. Call before you dig.

9 OF 50
CLCPK3

PRELIMINARY - NOT FOR CONSTRUCTION



MATERIAL LIST (PROVIDED BY CONTECH)

COUNT	DESCRIPTION	INSTALLED BY
1	FIBERGLASS INLET AND CYLINDER	CONTECH
1	2400 micron, 3' O.D. x 3.04' SEP. SCREEN	CONTECH
1	CYLINDER EXTENSION	CONTRACTOR
1	SEALANT FOR JOINTS (BY PRECASTER)	CONTRACTOR
1	324" x 4" FRAME & COVER, EJH1600389, OR EQUIV.	CONTRACTOR
2	312" x 4" FRAME & COVER, EJH1610201, OR EQUIV.	CONTRACTOR

- SITE DESIGN DATA**
- | | |
|----------------------------|----------|
| WATER QUALITY FLOW RATE | 0 CFS |
| PEAK FLOW RATE | 29.2 CFS |
| RETURN PERIOD OF PEAK FLOW | 100 YRS |
- GENERAL NOTES**
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
 - FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, PLEASE CONTACT YOUR CONTECH ENGINEERED SOLUTIONS LLC REPRESENTATIVE. www.conteches.com
 - CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING. CONTRACTOR TO CONFIRM STRUCTURE MEETS REQUIREMENTS OF PROJECT.
 - STRUCTURE SHALL MEET AASHTO HS-20 LOAD RATING, ASSUMING BATH COVER OF 2'-2" AND GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION. CASTINGS SHALL MEET AASHTO M589 AND BE CAST WITH THE CONTECH LOGO.
 - IF REQUIRED, PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPAIR AS NECESSARY DURING MAINTENANCE CLEANING.
 - CDS STRUCTURE SHALL BE PRECAST CONCRETE CONFORMING TO ASTM C-478 AND AASHTO LOAD FACTOR DESIGN METHOD.
- INSTALLATION NOTES**
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
 - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE.
 - CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
 - CONTRACTOR TO PROVIDE, INSTALL, AND GROUT INLET AND OUTLET PIPE(S). MATCH PIPE INVERTS WITH ELEVATIONS SHOWN. ALL PIPE CENTERLINES TO MATCH PIPE OPENING CENTERLINES.
 - CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.
- STRUCTURE WEIGHT**
APPROXIMATE HEAVIEST PICK = 10000 LBS.
STRUCTURE IS DELIVERED IN 6 PIECES
MAX FOOTPRINT = 88'-2"



LPIC0
LAYOUT 1A
3030-A-F-GIS
1020 / F172856

CONTECH ENGINEERED SOLUTIONS LLC
7600 East Orchard Road, Suite 100, Greenwood Village, CO 80111, ph:303.778.0500, manhard.com
Civil Engineering | Surveying & Geospatial Services | GIS | Water Resource Management | Construction Management

CONTRACTOR
CONTECH ENGINEERING

DESIGNER
CONTECH ENGINEERING

DATE
12/16/16

PROJECT
CDS3030 S.C. - 542846-10
COMPARK SOUTH
PARKER, CO
for SYSTEM: STMH 1-3

CONCRETE ARCH

Lower limit of sloping or benching of trench walls

Plain or Reinforced Concrete Continuous $f_c = 3500$ psi min.

Densely compacted backfill, hand-tamped (90% density, AASHTO T-180) in open areas and 95% density, AASHTO T-99 in all public R.O.W.

Compacted Granular Material (Class "B" Bedding)

B_t = Specified Trench Width
 B_w = Cradle Width
 B_c = Pipe O.D.

CONCRETE CRADLE CLASS "A" BEDDING

Lower limit of sloping or benching of trench walls

Densely compacted backfill, hand-tamped (90% density, AASHTO T-180) in open areas and 95% density, AASHTO T-99 in all public R.O.W.

Compacted Granular Material Class "B" Bedding

Plain or Reinforced Concrete Continuous $f_c = 3500$ psi min.

B_t = Specified Trench Width
 B_w = Cradle Width
 B_c = Pipe O.D.

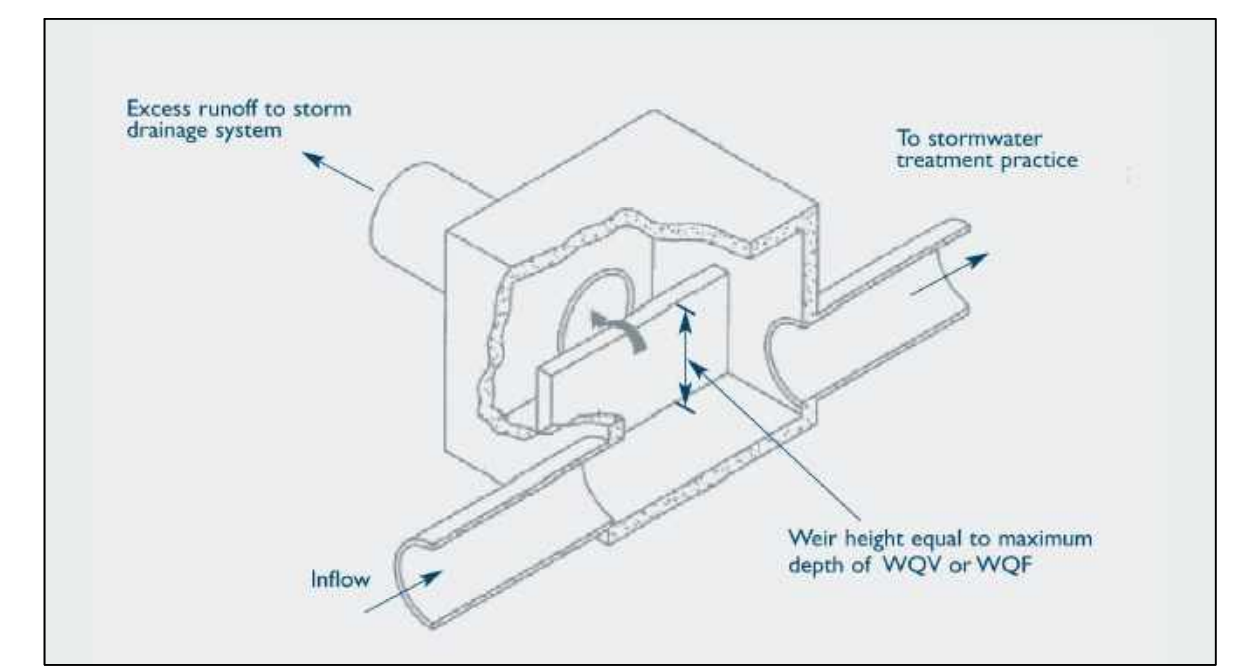
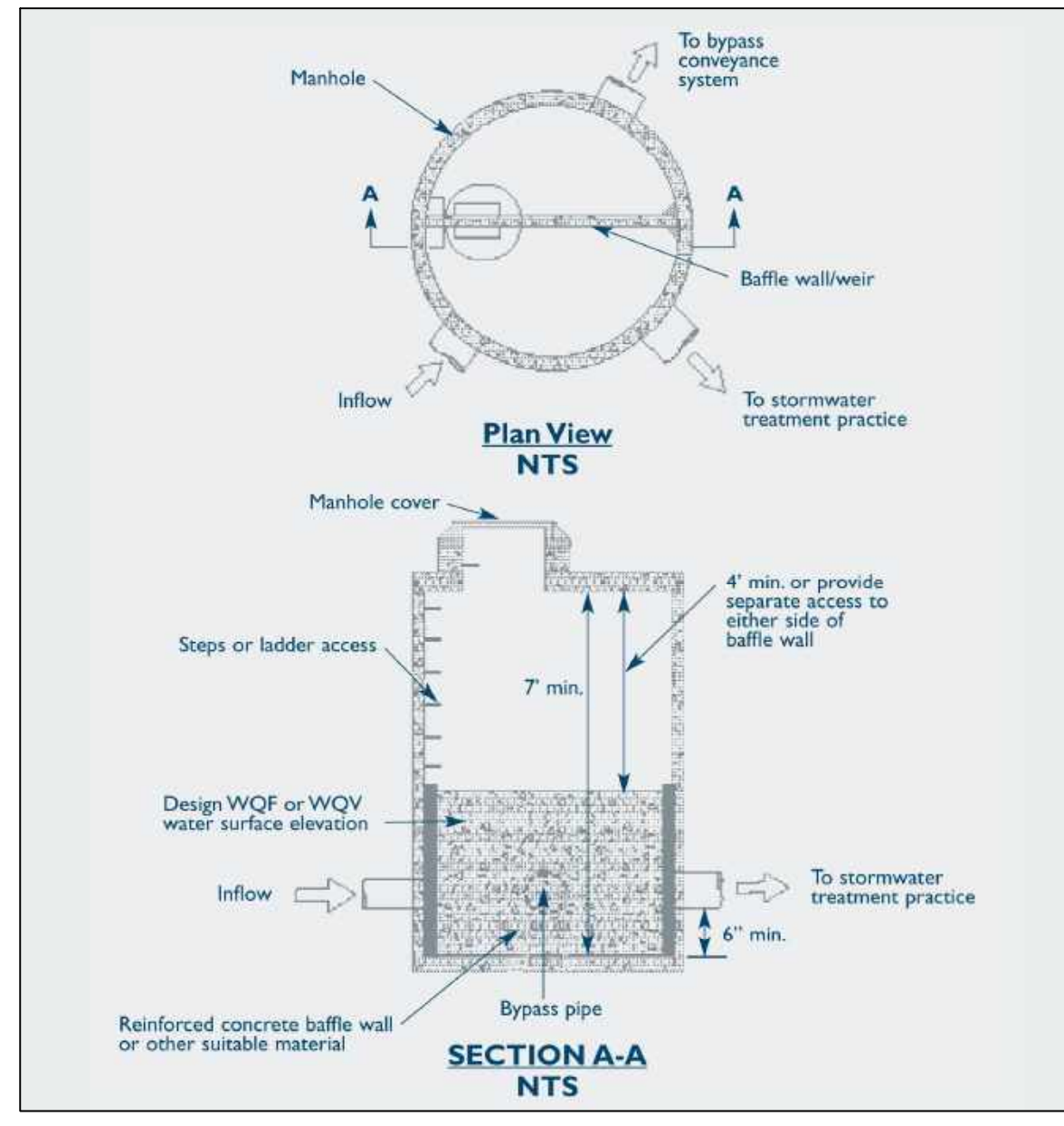
NOTE: The Design Engineer shall be responsible for structural design of the concrete cradle and/or concrete arch.

NOMINAL DIAMETER (D)	MINIMUM THICKNESS (t)	MIN. WIDTH OF GRADE (B_w)
18" & smaller	6"	$B_c + 8"$
21" to 24"	6"	$B_c + 8"$
27" to 33"	8"	$B_c + 8"$
36" to 42"	10"	$1.25 B_c$
48" & larger	1/4 D	$1.25 B_c$

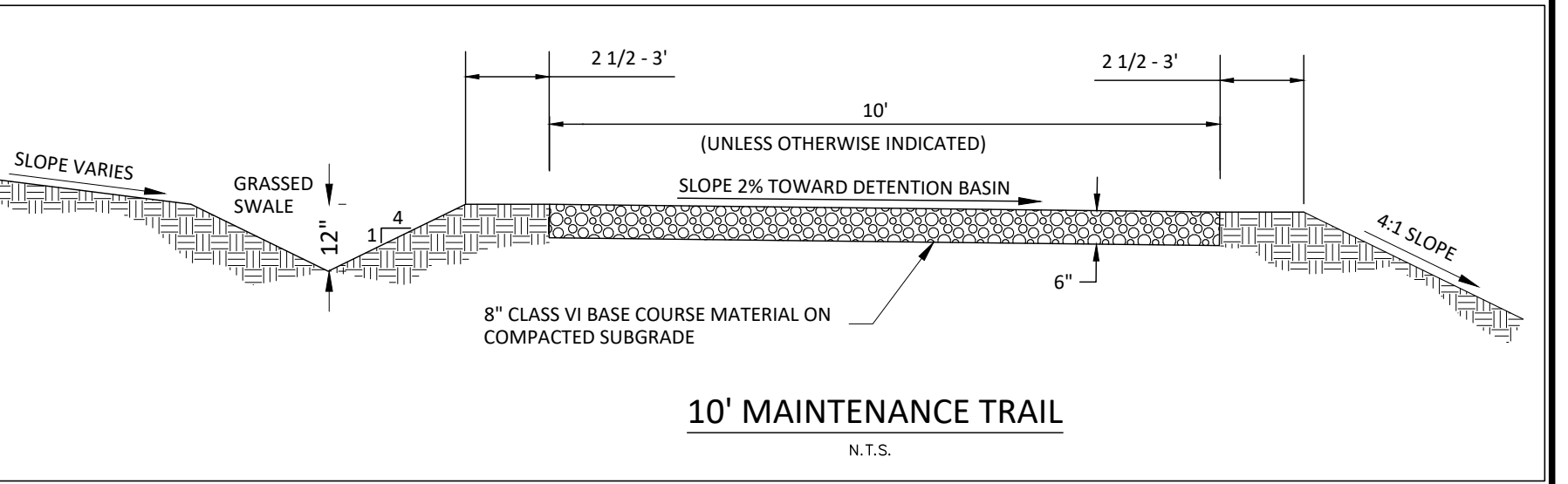
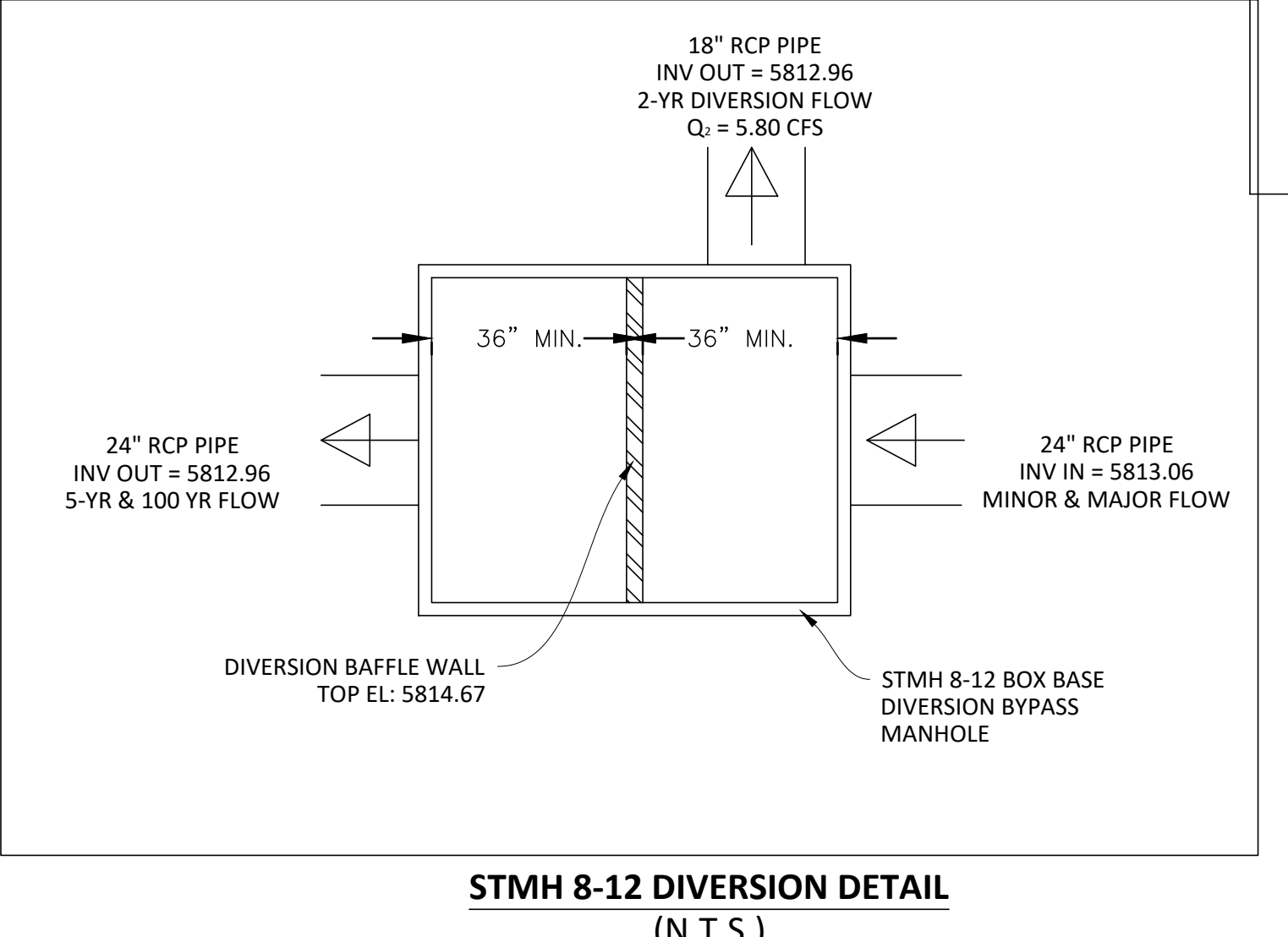
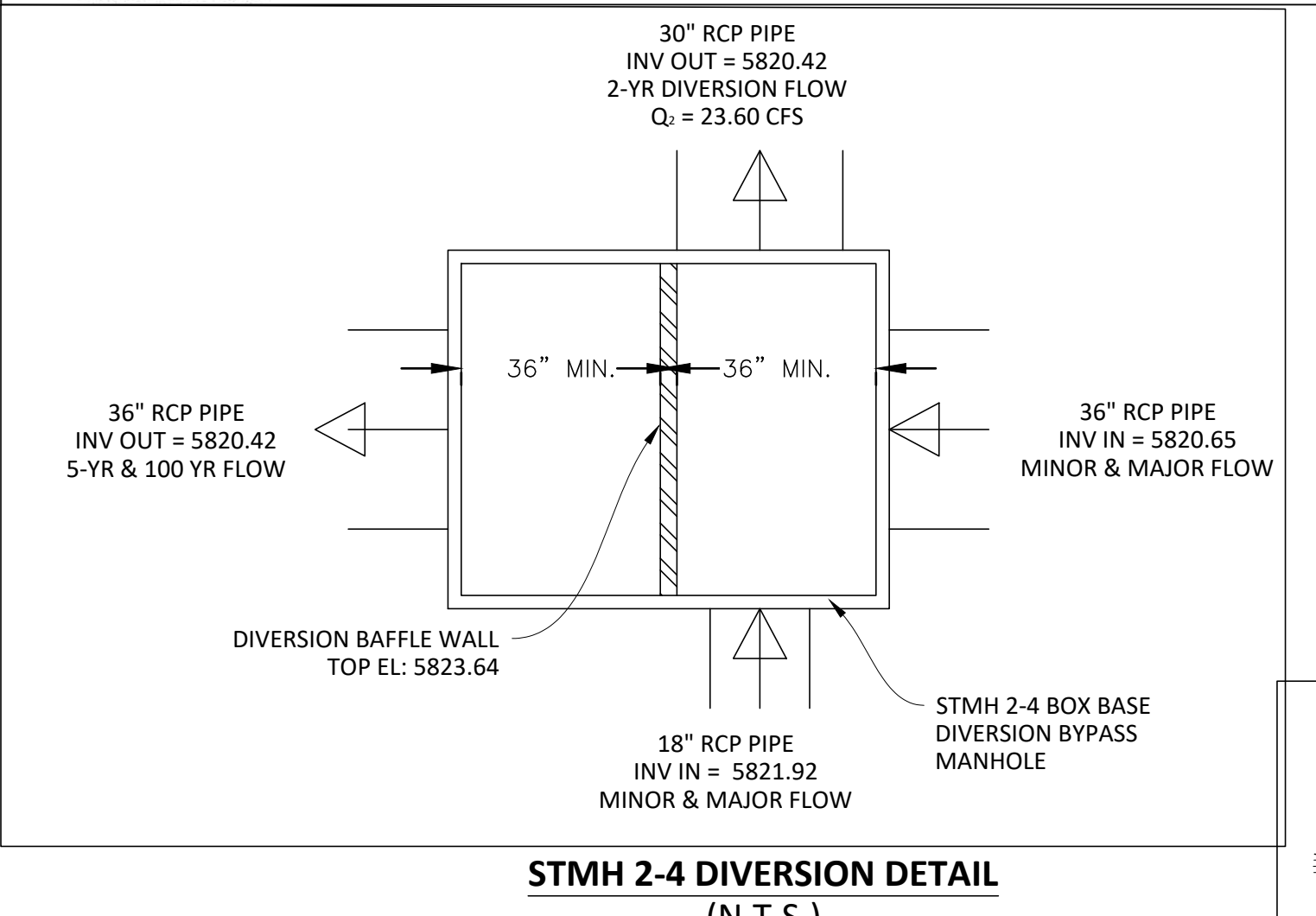
PARKER WATER & SANITATION DISTRICT
TRENCHING AND BEDDING DETAIL - CLASS "A"

SCALE: NONE
DATE: 2/96
APPROVED: PVR
1/16
10/16
DIRECTOR OF ENGINEERING

2016 REVISION



DIVERSION DETAIL (N.T.S.)



Plotted: 7/31/2020 2:21 PM. Dwg Name: P:\C3\Compark3\Compark3\Drawings\Plan Set\Town\CLCPK3 Storm Details.dwg. Updated By: MMAGuire

DATE	REVISIONS
07/31/20	RESPONDED TO TOWN COMMENTS
08/01/20	RESPONDED TO TOWN COMMENTS
08/02/20	UPDATE GAT & ADD OFF-LINE DET BASIN
07/27/16	FINAL SUBMITTAL
07/27/16	1RD SUBMITTAL
07/27/16	2RD SUBMITTAL
07/27/16	3RD SUBMITTAL
11/20/15	1ST SUBMITTAL

DRAWN BY: JAH
CHECKED BY: JAH
DATE: 12/16/16

COMPARK VILLAGE SOUTH, FILING NO. 1 - BELFORD AVENUE
TOWN OF PARKER, COLORADO
STORM DETAILS

PROJ. MGR.: RJM
PROJ. ASSOC.: BRB
DRAWN BY: ETG
DATE: 12/2015

SHEET
50 OF 50
CLCPK3



PRELIMINARY - NOT FOR CONSTRUCTION