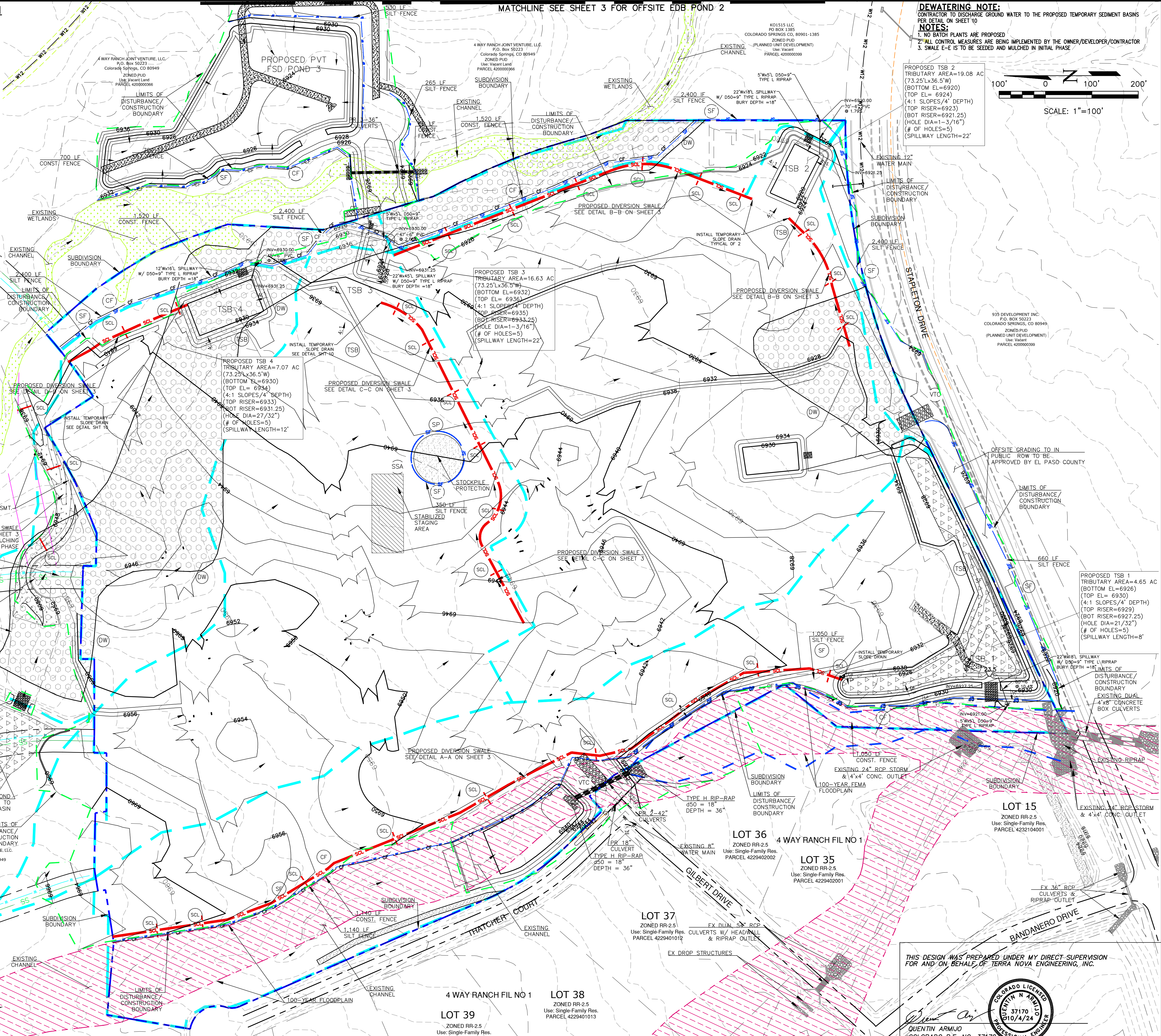


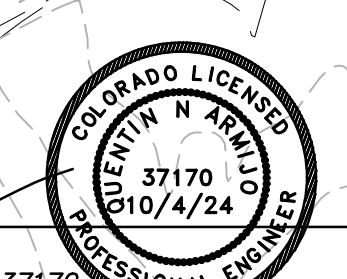
EROSION CONTROL LEGEND

KEY	TITLE	SYMBOL	IMPLEMENTATION PHASE
SF	SILT FENCE	— SF —	INITIAL
CF	CONSTRUCTION FENCE	— CF —	INITIAL
SCL	SEDIMENT CONTROL LOGS	— SCL —	INITIAL
SP	STOCKPILE PROTECTION	[Symbol]	INITIAL
VTC	VEHICLE TRACKING CONTROL	[Symbol]	INITIAL
SSA	STABILIZED STAGING AREA	[Symbol]	INITIAL
TSB	TEMPORARY SEDIMENT BASIN	[Symbol]	INITIAL
DW	DEWATERING	[Symbol]	INITIAL

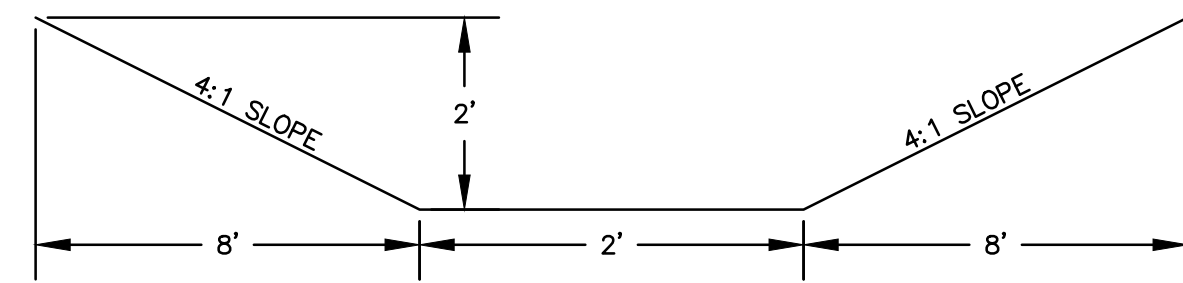
GRADING LEGEND	
8' EXISTING CONTOUR	— 8810 —
1' EXISTING CONTOUR	— 8802 —
5' PROPOSED CONTOUR	— 8810 —
1' PROPOSED CONTOUR	— 8802 —
LIMITS OF DISTURBANCE/CONSTRUCTION BOUNDARY	[Symbol]
SUBDIVISION BOUNDARY	[Symbol]
CUT/FILL LINE	[Symbol]
TRIBUTARY AREA TO TSB	[Symbol]
DIRECTION OF SURFACE FLOW	[Symbol]
HIGH POINT	HPX
LOW POINT	LPX
A LOT	"A"
B LOT	"B"
WALK OUT LOT MODIFIED	"WCM"
GARDEN LEVEL LOT MODIFIED	"GLM"
100-YEAR FLOODPLAIN	[Symbol]
AREAS OF DE-WATERING	[Symbol]



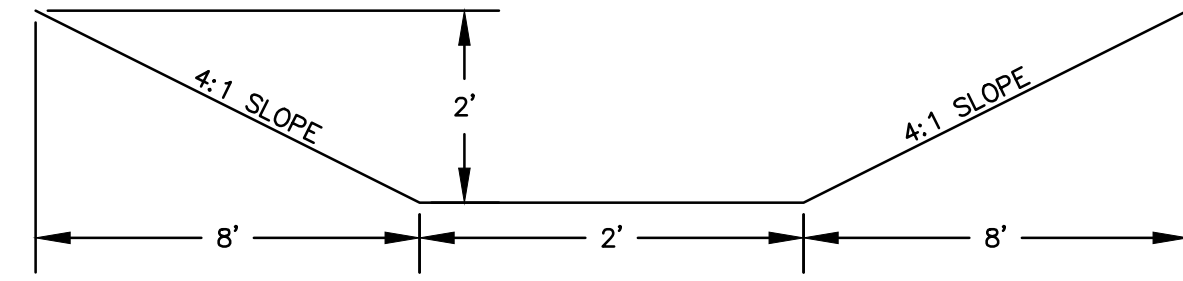
THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.



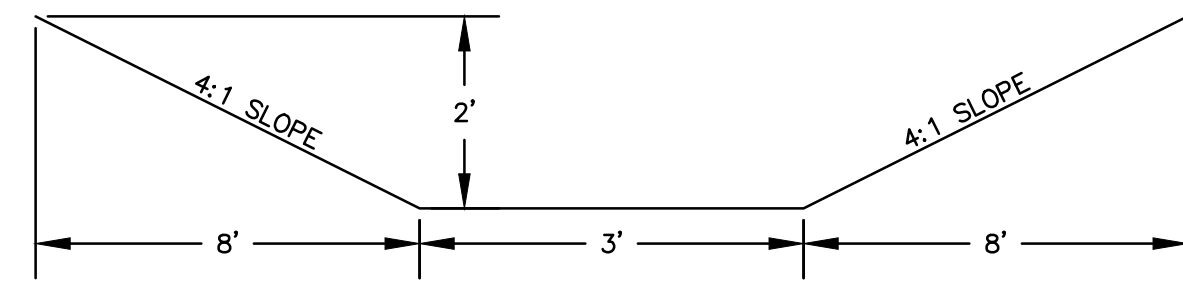
DATE	
DESCRIPTION	
REVISIONS	
NO.	
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE ARCHITECT/ENGINEER/TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECT AND FOR THE PURPOSES AUTHORIZED BY WRITTEN AUTHORIZATION.	
PREPARED FOR:	ACM ALF VIII JV SUB ATTN: JASON POCK 100 E. MISSISSIPPI AVE., STE 500 DENVER, CO 80246 303-984-9800
DESIGNED BY	DLF
DRAWN BY	QNA
CHECKED BY	QNA
H-SCALE	1" = 100'
V-SCALE	N/A
JOB NO.	1715.00
DATE ISSUED	10/4/24
SHEET NO.	2 OF 52



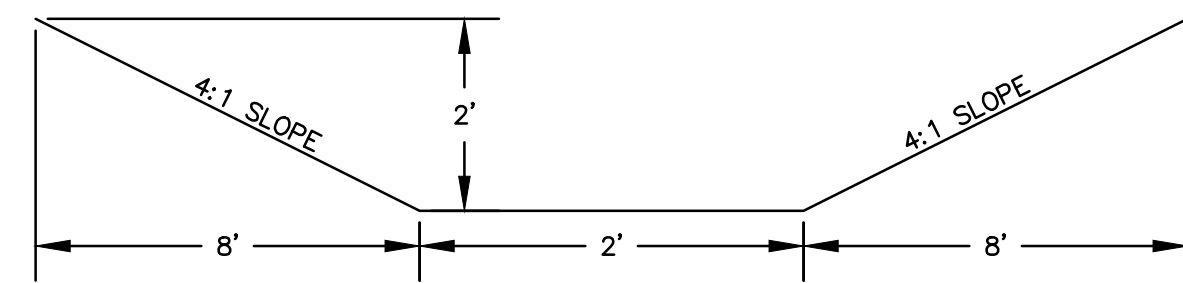
DIVERSION SWALE A-A
SEE PREVIOUS SHEET



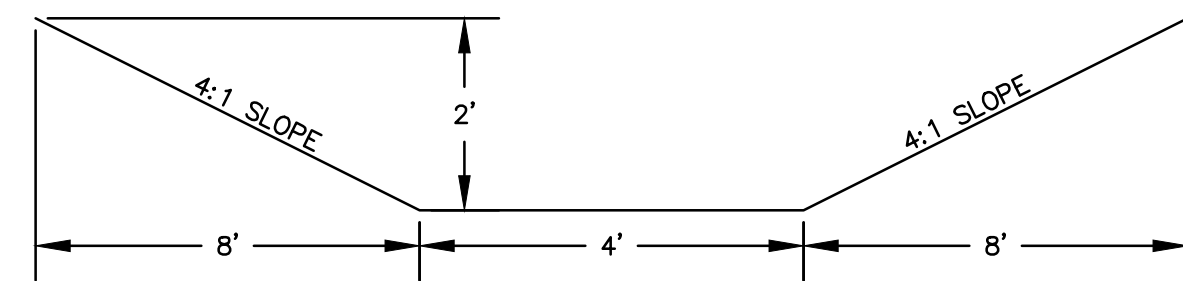
DIVERSION SWALE B-B
SEE PREVIOUS SHEET



DIVERSION SWALE C-C
SEE PREVIOUS SHEET



DIVERSION SWALE D-D
SEE PREVIOUS SHEET

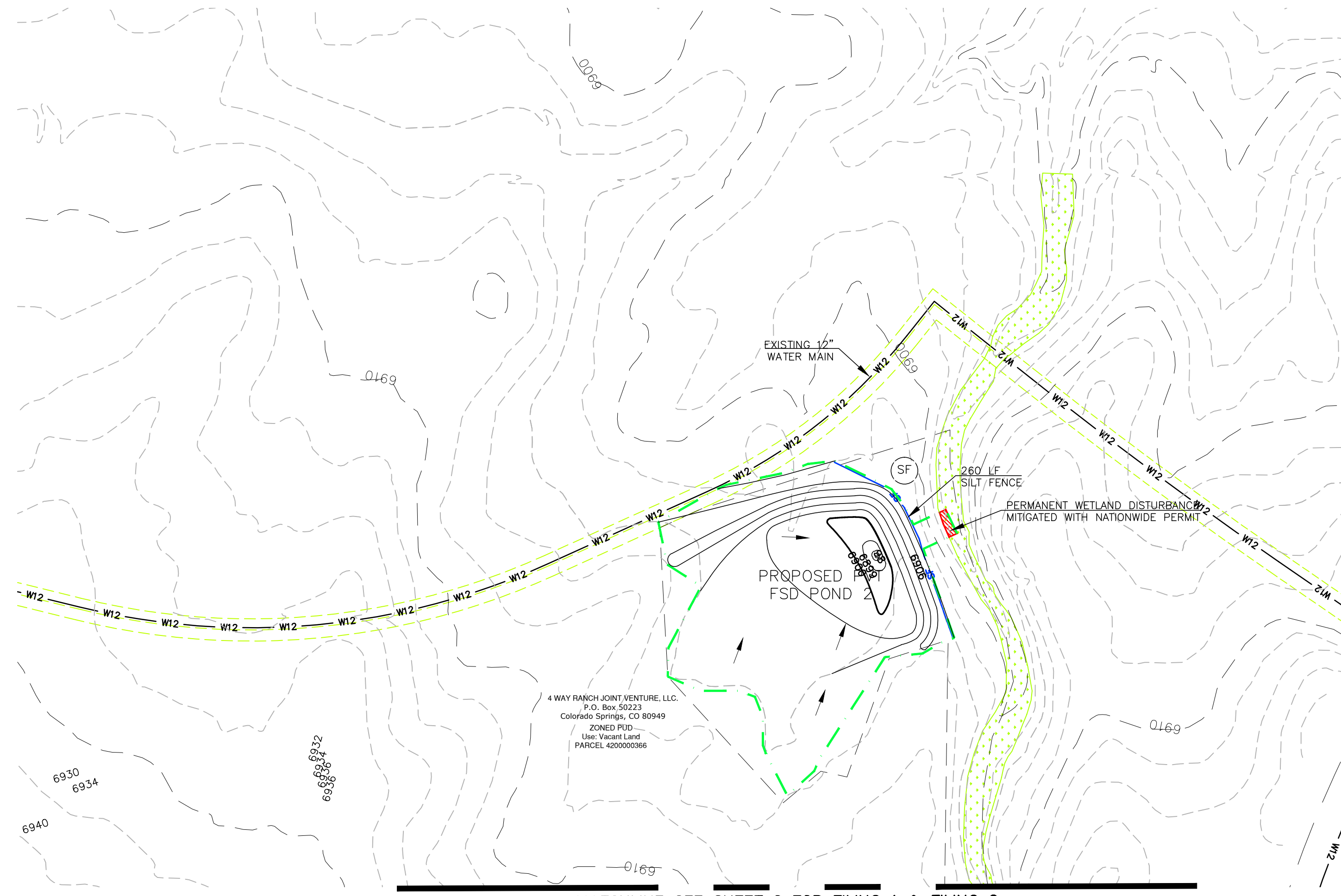


DIVERSION SWALE E-E
SEE PREVIOUS SHEET

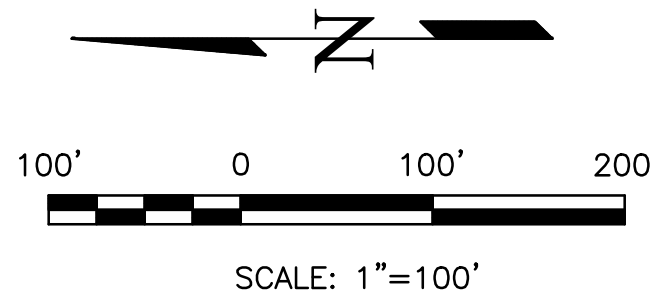
NOTES:
NO BATCH PLANTS ARE PROPOSED
ALL CONTROL MEASURES ARE BEING IMPLEMENTED BY THE OWNER/DEVELOPER/CONTRACTOR

GRADING LEGEND

10' EXISTING CONTOUR		6810
2' EXISTING CONTOUR		6802
LIMITS OF DISTURBANCE/ CONSTRUCTION BOUNDARY		
SUBDIVISION BOUNDARY		
TRIBUTARY AREA TO TSB		
PROPOSED DIVERSION SWALE		
DIRECTION OF SURFACE FLOW		
EXISTING WETLANDS		
100-Y FEMA FLOODPLAIN		
AREAS OF DE-WATERING		
PERMANENT WETLAND DISTURBANCE		



MATCHLINE SEE SHEET 2 FOR FILING 1 & FILING 2



GENERAL NOTES

- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES ALONG THE SITE. THE OMISSION FROM OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NON-EXISTENCE OF OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- THE CONTRACTOR WILL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES, BUILDINGS, FENCES, AND ROADWAYS FROM DAMAGE DUE TO THIS OPERATION. ANY DAMAGE TO THE ABOVE WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR.
- BULK GRADING SHALL BE COMPLETED TO A SUBGRADE TOLERANCE OF PLUS OR MINUS 0.2'.
- CONTRACTOR TO OBTAIN COPIES OF THE SOILS REPORT FROM THE GEOTECHNICAL ENGINEER AND TO BE KEPT ONSITE DURING ALL EARTHWORK OPERATIONS.
- MAXIMUM CUT/FILL SLOPES SHALL NOT EXCEED 3:1, UNLESS OTHERWISE NOTED.
- ALL BOTTOM OF WALL (BW) CALLOUTS ARE FOR THE BOTTOM OF WALL AT GRADE. THEY DO NOT REPRESENT THE BOTTOM OF THE CONSTRUCTED WALL OR FOOTING, WHICH IS NOT SPECIFIED ON THESE PLANS.

SOIL TYPES

ON-SITE SOILS ARE HYDROLOGIC GROUPS "A" (COLUMBINE GRAVELLY SANDY LOAM) AND "B" (STAPLETON SANDY LOAM) (PER NRCS WEB SOIL SURVEY MAP)

AREA OF DISTURBANCE

ESTIMATED AREA OF DISTURBANCE = 69.00 ACRES

REVISED TO 72.46

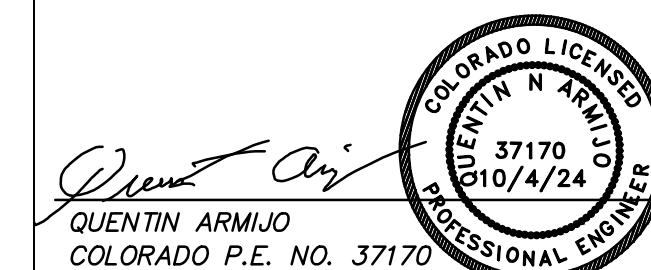
EARTHWORK VOLUMES

ESTIMATED CUT = 73,990 CY, ESTIMATED FILL = 287,149* CY, NET = 213,159 CY <FILL>
*20% COMPACTION ASSUMED FOR PLACEMENT OF FILL

BLACK SQUIRREL CREEK NOTE:

IF AN UNDERDRAIN SYSTEMS ARE NEEDED FOR HOMES LOCATED WITH HIGH GROUNDWATER WILL NEED TO DISCHARGE INTO A GROUNDWATER RECHARGE FACILITY, NOT A STORM DRAIN SYSTEM.

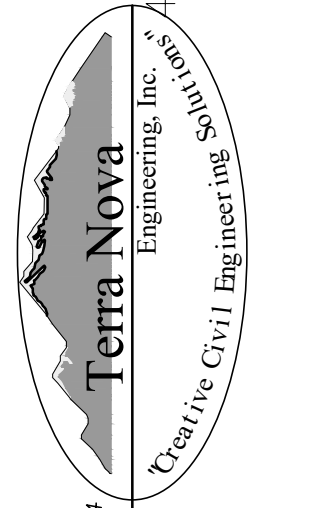
THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.



REVISIONS	NO.	DESCRIPTION	DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE LOCAL JURISDICTIONAL AGENCIES, TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECTS AUTHORIZED BY WRITTEN AUTHORIZATION.

PREPARED FOR:
ACM ALF VIII JV SUB II LLC
ATTN: JASON POCK
100 E. MISSISSIPPI AVE., STE 500
DENVER, CO 80246
303-984-9800



721 S. 23RD STREET
COLORADO SPRINGS, CO 80904
OFFICE: 719-635-6422
FAX: 719-635-6426
www.tnecinc.com

WATERBURY FILING NO. 1
GRADING EROSION CONTROL PLAN
INITIAL EROSION CONTROL PLAN 2

DESIGNED BY	DLF
DRAWN BY	QNA
CHECKED BY	QNA
H-SCALE	NA
V-SCALE	N/A
JOB NO.	2356.00
DATE ISSUED	10/4/24
SHEET NO.	3 OF 52

EROSION CONTROL LEGEND

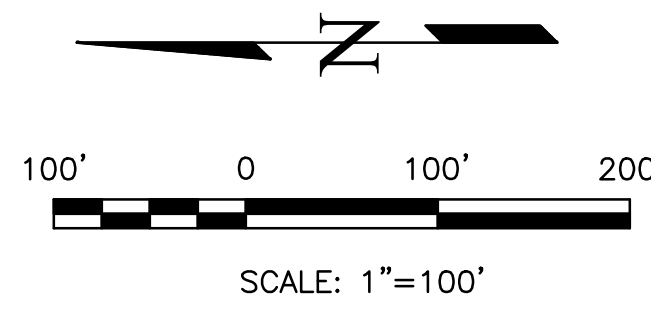
KEY	TITLE	SYMBOL	IMPLEMENTATION PHASE
SF	SILT FENCE		INITIAL
CF	CONSTRUCTION FENCE		INITIAL
CIP	CULVERT INLET PROTECTION		INTERIM
IP	INLET PROTECTION		INTERIM
SBB	STRAW BALE BARRIER		INTERIM
SP	STOCKPILE PROTECTION		INITIAL
VTC	VEHICLE TRACKING CONTROL		INITIAL
CWA	CONCRETE WASHOUT AREA		INTERIM
SSA	STABILIZED STAGING AREA		INITIAL
TSM	TEMPORARY SEEDING AND MULCHING		INTERIM
DW	DEWATERING		INITIAL
TSB	TEMPORARY SEDIMENT BASIN		INITIAL

GRADING LEGEND

8' EXISTING CONTOUR		6810
1' EXISTING CONTOUR		6802
5' PROPED CONTOUR		6810
1' PROPED CONTOUR		6802
LIMITS OF DISTURBANCE/ CONSTRUCTION BOUNDARY		
SUBDIVISION BOUNDARY		
CUT/FILL LINE		
TRIBUTARY AREA TO TSB		
DIRECTION OF SURFACE FLOW		4.0%
HIGH POINT		HPX
LOW POINT		LPX
A LOT		"A"
B LOT		"B"
WALK OUT LOT MODIFIED		"WO"
GARDEN LEVEL LOT MODIFIED		"G"
100-Y FEMA FLOODPLAIN		
AREAS OF DE-WATERING		

WETLANDS LEGEND

EXISTING WETLANDS	
PERMANENT WETLAND DISTURBANCE	

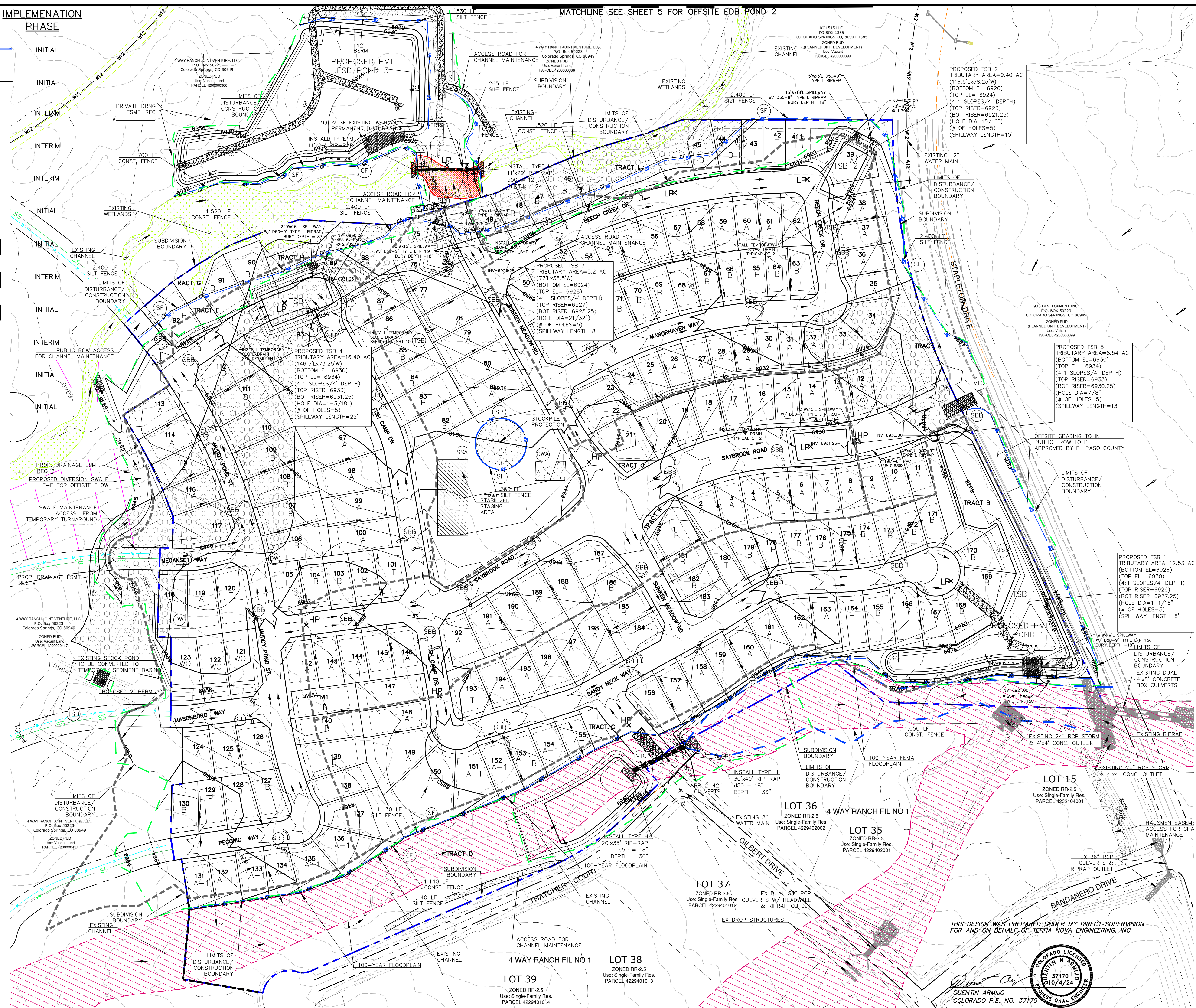


VEGETATION NOTE:

EXISTING VEGETATION CONSISTS OF NATIVE PRAIRIE GRASSES AND SHRUBS WITH FAIR TO GOOD COVERAGE OF 50% TO 70%.

NOTES:
NO BATCH PLANTS ARE PROPOSED.
ALL CONTROL MEASURES ARE BEING IMPLEMENTED BY THE OWNER/DEVELOPER/CONTRACTOR.

GENERAL NOTE:
ALL AREAS TO BE VEGETATED WITH PERMANENT SEEDING SHOULD ALSO BE TEMPORARY STABILIZED VIA TRACK ROLLING OR SOME OTHER MEANS.



DATE	DESCRIPTION

UNTL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE COLORADO DEPARTMENT OF REVENUE AND LOCAL DEVELOPMENT ENGINEERING, TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECT AND FOR THE WRITTEN AUTHORIZATION.

PREPARED FOR:
ACM ALF VIII JV SUB II LLC
ATTN: JASON POCK
100 E. MISSISSIPPI AVE., STE 50
DENVER, CO 80246
303-984-9800

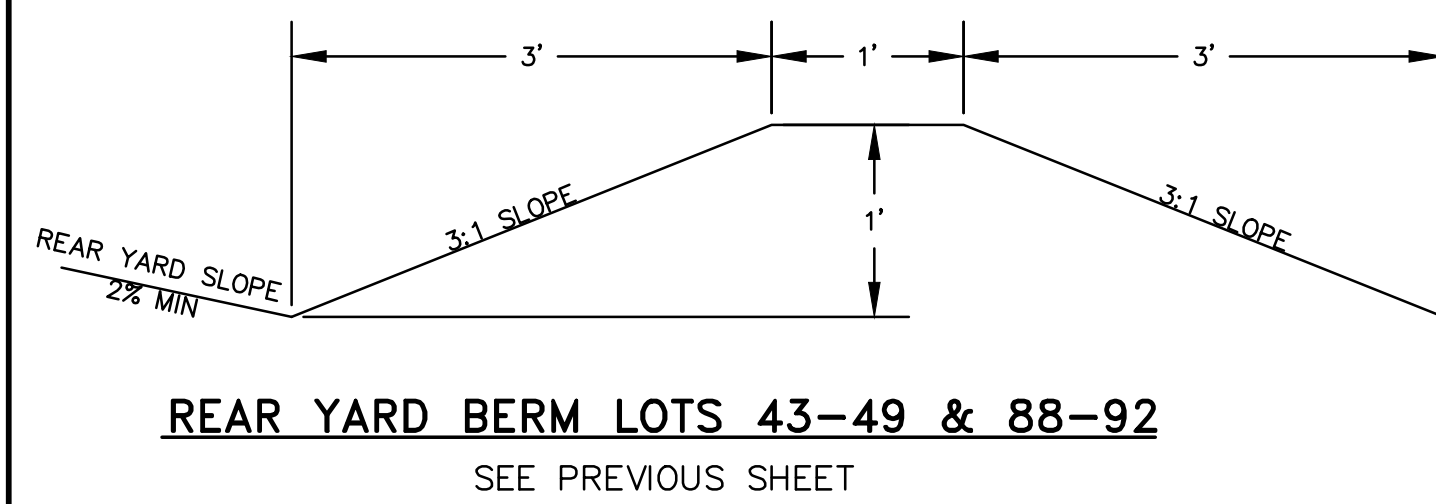
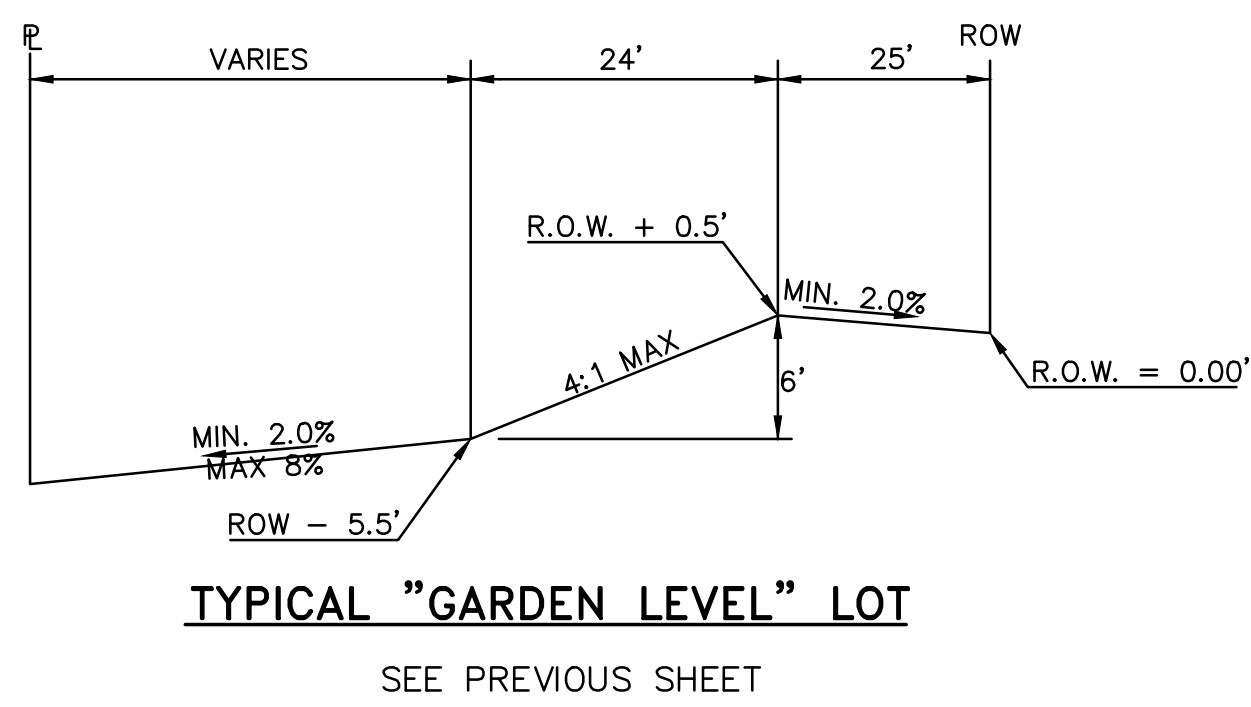
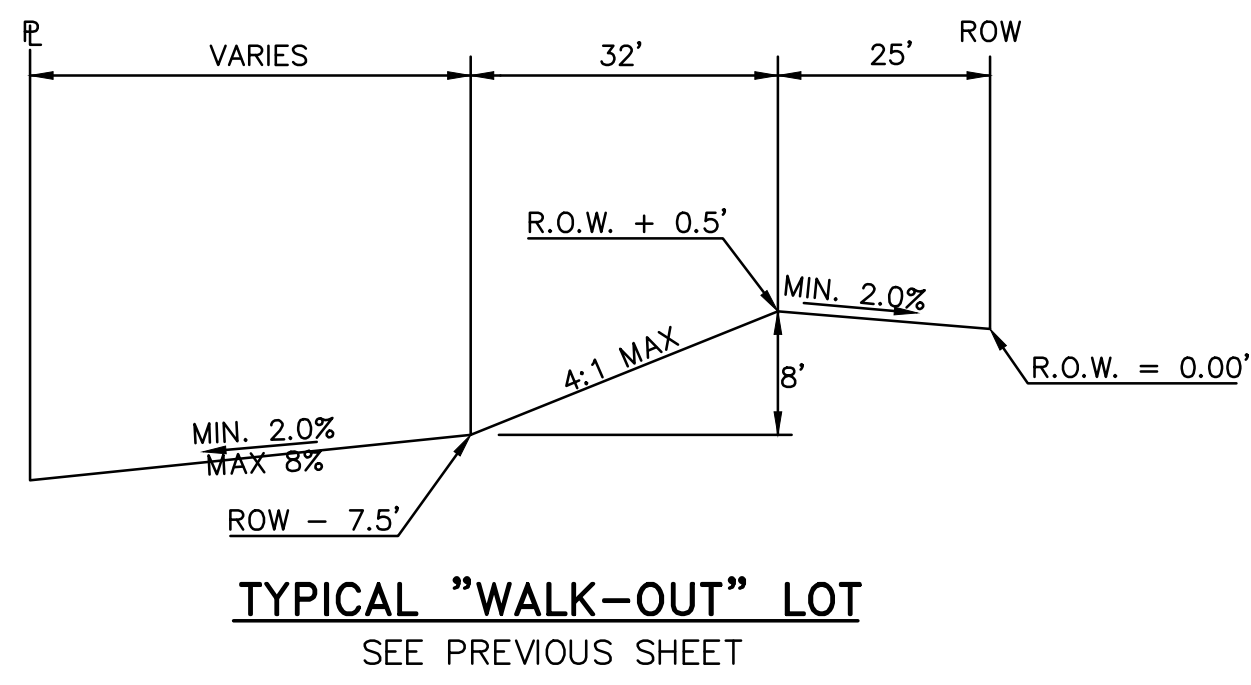
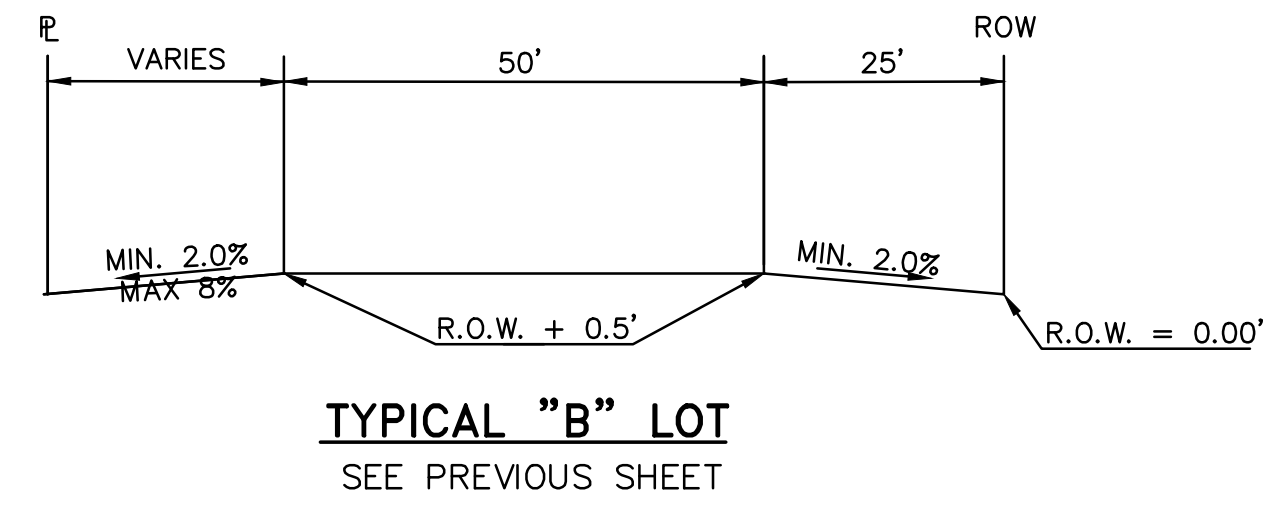
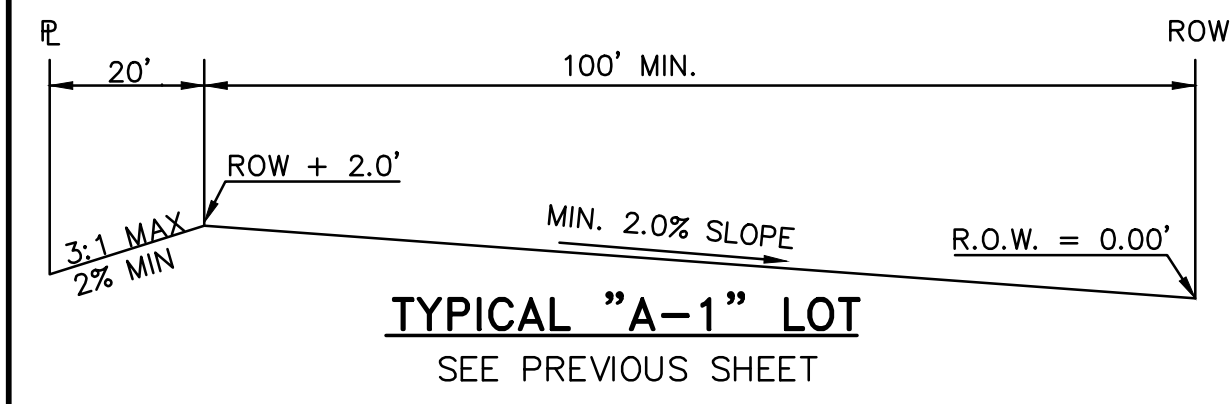
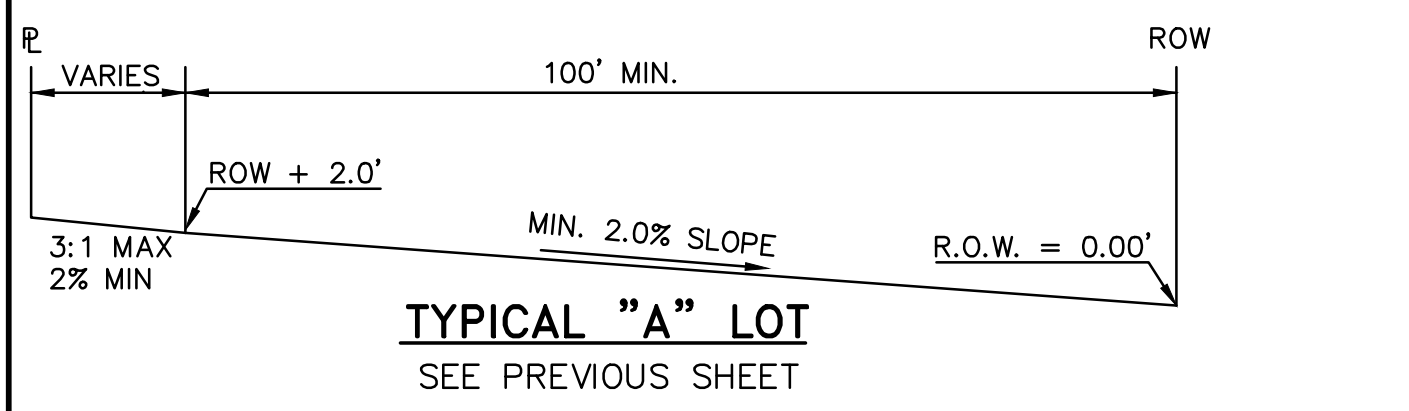
721 S. 23RD STREET
COLORADO SPRINGS, CO 80904
OFFICE: 719-635-6422
FAX: 719-635-6426
www.tnoinc.com

WATERBURY FILING NO. 1

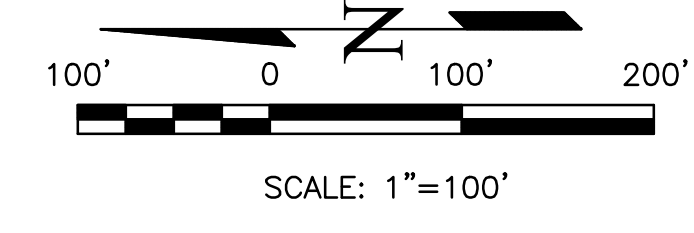
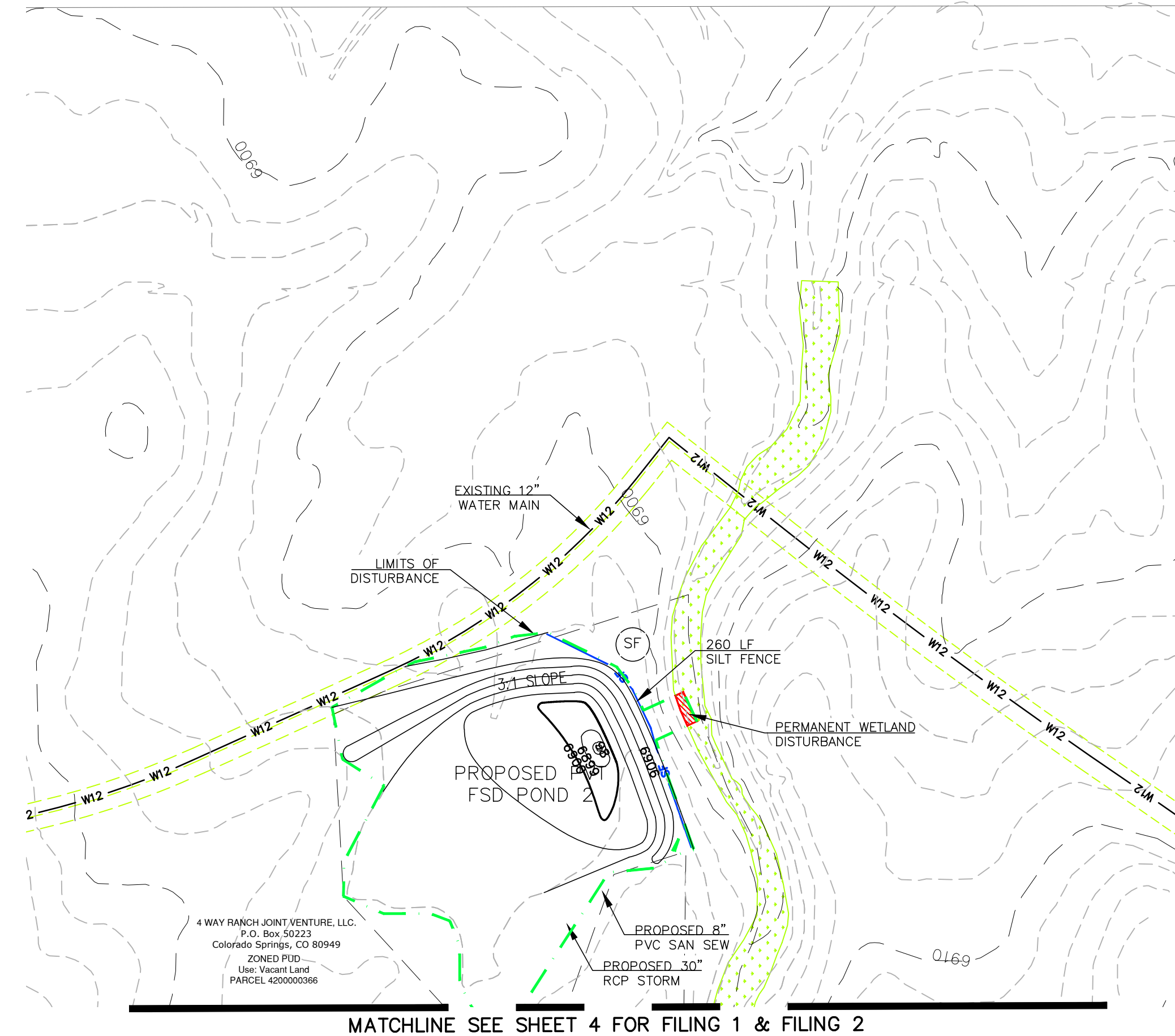
DESIGNED BY DLF
DRAWN BY QNA
CHECKED BY QNA

H-SCALE 1" = 100'
V-SCALE N/A
JOB NO. 2356.00
DATE ISSUED 10/4/24
SHEET NO. 4 OF 52

QUENTIN ARMJO
COLORADO P.E. NO. 37170



- NOTES:**
NO BATCH PLANTS ARE PROPOSED
ALL CONTROL MEASURES ARE BEING IMPLEMENTED BY THE OWNER/DEVELOPER/CONTRACTOR
- GRADING LEGEND**
- 8' EXISTING CONTOUR
 - 1' EXISTING CONTOUR
 - 5' PROPEL CONTOUR
 - 1' PROPEL CONTOUR
 - LIMITS OF DISTURBANCE/ CONSTRUCTION BOUNDARY
 - SUBDIVISION BOUNDARY
 - CUT/FILL LINE
 - TRIBUTARY AREA TO TSB
 - DIRECTION OF SURFACE FLOW
 - HIGH POINT
 - LOW POINT
 - A LOT
 - B LOT
 - WALK OUT LOT MODIFIED
 - GARDEN LEVEL LOT MODIFIED
- WETLANDS LEGEND**
- EXISTING WETLANDS
 - PERMANENT WETLAND DISTURBANCE



REVISIONS	NO.	DESCRIPTION	DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REGULATORY AGENCIES, THESE DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION. TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PURPOSES AUTHORIZED BY WRITTEN AUTHORIZATION.

PREPARED FOR:
ACM ALF VIII JV SUB II LLC
ATTN: JASON POKK
100 E. MISSISSIPPI AVE., STE 500
DENVER, CO 80246
303-984-9800

Terra Nova
Engineering, Inc.
Civil Engineering, Inc.

721 S. 23RD STREET
COLORADO SPRINGS, CO 80904
OFFICE: 719-635-6422
FAX: 719-635-6426
www.tnengine.com

WATERBURY FILING NO. 1

GRADING EROSION & STORMWATER CONTROL PLAN
INTERIM EROSION CONTROL PLAN 2

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

Quentin Armijo
QUENTIN ARMIJO
COLORADO P.E. NO. 37170

DESIGNED BY	DLF
DRAWN BY	QNA
CHECKED BY	QNA
H-SCALE	NA
V-SCALE	N/A
JOB NO.	2356.00
DATE ISSUED	10/4/24
SHEET NO.	5 OF 52

EROSION CONTROL LEGEND

KEY	TITLE	SYMBOL	IMPLEMENTATION PHASE
SF	SILT FENCE		INITIAL
CF	CONSTRUCTION FENCE		INITIAL
CIP	CULVERT INLET PROTECTION		INTERIM
IP	INLET PROTECTION		INTERIM
SBB	STRAW BALE BARRIER		INTERIM
SP	STOCKPILE PROTECTION		INITIAL
VTC	VEHICLE TRACKING CONTROL		INITIAL
CWA	CONCRETE WASHOUT AREA		INTERIM
SSA	STABILIZED STAGING AREA		INITIAL
TSM	TEMPORARY SEEDING AND MULCHING		INITIAL
PSM	PERMANENT SEEDING AND MULCHING		FINAL
DW	DE-WATERING		INITIAL

GRADING LEGEND

8' EXISTING CONTOUR	6810
1' EXISTING CONTOUR	6802
5' PROPOSED CONTOUR	6810
1' PROPOSED CONTOUR	6802
LIMITS OF DISTURBANCE/CONSTRUCTION BOUNDARY	
SUBDIVISION BOUNDARY	
CUT/FILL LINE	
TRIBUTARY AREA TO TSB	
DIRECTION OF SURFACE FLOW	
HIGH POINT	HPX
LOW POINT	LPX
A LOT	"A"
B LOT	"B"
WALK OUT LOT MODIFIED	"WO"
GARDEN LEVEL LOT MODIFIED	"G"

WETLANDS LEGEND

EXISTING WETLANDS	
PERMANENT WETLAND DISTURBANCE	

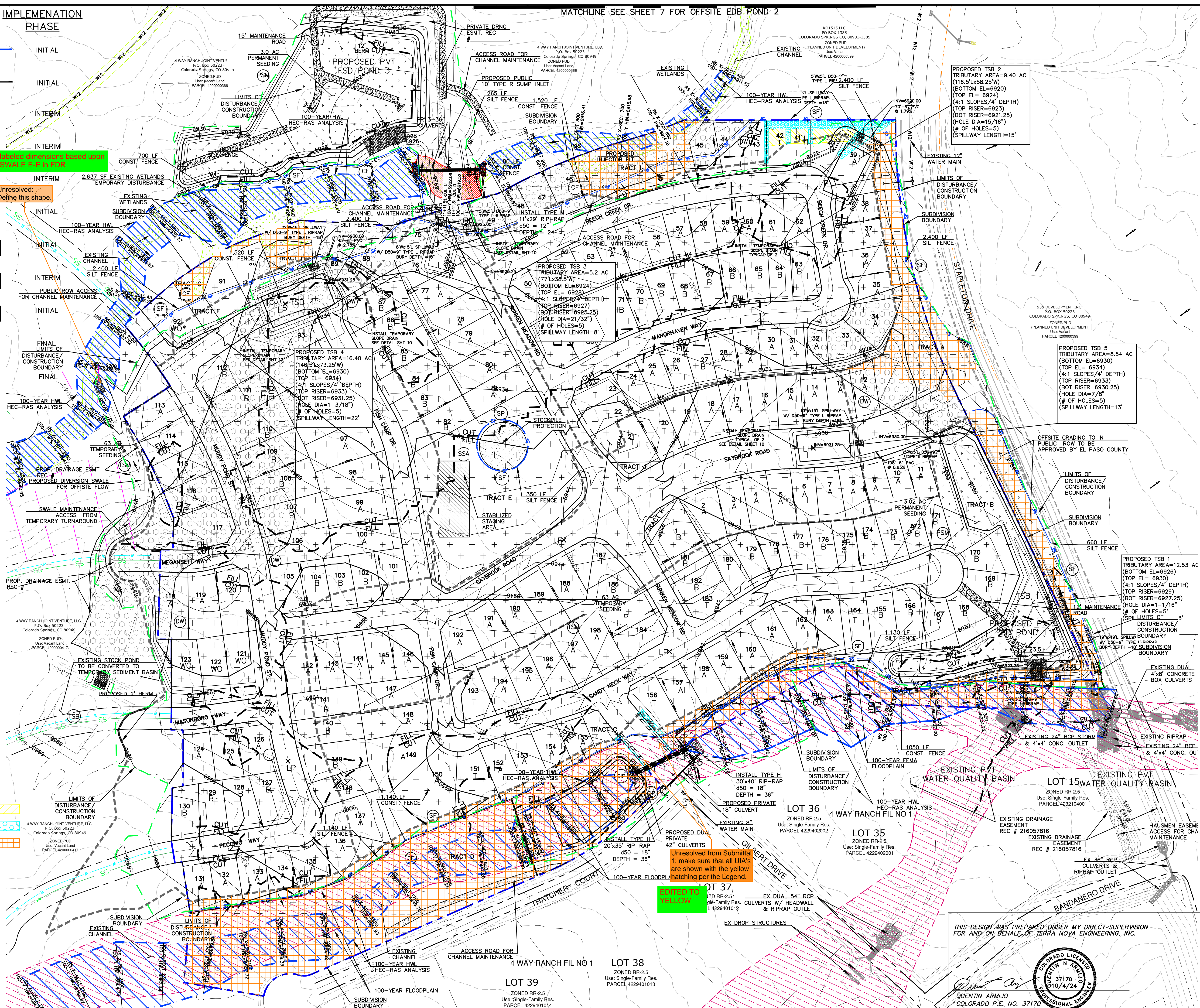
RUNOFF REDUCTION LEGEND

UNCONNECTED IMPERVIOUS AREA	
RECEIVING PERVIOUS AREA	
EXCLUDED UNDEVELOPED PERVIOUS AREA PER THE EXCLUSION IN EGM APPENDIX 1.7.1.B.7 - SITES WITH LAND DISTURBANCE TO UNDEVELOPED LAND THAT WILL REMAIN UNDEVELOPED	

VEGETATION NOTE:
EXISTING VEGETATION CONSISTS OF NATIVE PRAIRIE GRASSES AND SHRUBS WITH FAIR TO GOOD COVERAGE OF 50% TO 70%

GENERAL NOTE:
ALL AREAS TO BE VEGETATED WITH PERMANENT SEEDING SHOULD ALSO BE TEMPORARY STABILIZED VIA TRACK ROLLING OR SOME OTHER MEANS.

GENERAL NOTE:
1. NO BATCH PLANTS ARE PROPOSED
2. ALL CONTROL MEASURES ARE BEING IMPLEMENTED BY THE OWNER/DEVELOPER/CONTRACTOR
3. FOR INFORMATION ONLY? FOR PRE-SUBDIVISION SITE GRADING THERE WILL BE NO CURB AND GUTTER AND STORM DRAIN, ONLY SEEDING AND MULCHING.



MATCHLINE SEE SHEET 7 FOR OFFSITE EDB POND 2

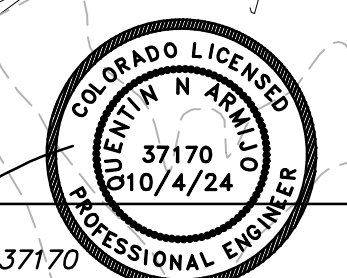
PROPOSED TSB 2
TRIBUTARY AREA=9.40 AC
(116.5'x58.25'W)
(BOTTOM EL=6920)
(TOP EL=6924)
(4:1 SLOPES/4' DEPTH)
(TOP RISER=6923)
(BOT RISER=6921.25)
(HOLE DIA=15/16")
(# OF HOLES=5)
(SPILLWAY LENGTH=15')

PROPOSED TSB 5
TRIBUTARY AREA=8.54 AC
(BOTTOM EL=6930)
(TOP EL= 6934)
(4:1 SLOPES/4' DEPTH)
(TOP RISER=6933)
(BOT RISER=6929.25)
(HOLE DIA=7/8")
(# OF HOLES=5)
(SPILLWAY LENGTH=13')

PROPOSED TSB 1
TRIBUTARY AREA=12.53 AC
(BOTTOM EL=6926)
(TOP EL= 6930)
(4:1 SLOPES/4' DEPTH)
(TOP RISER=6929)
(BOT RISER=6927.25)
(HOLE DIA=1-1/16")
(# OF HOLES=5)
(SPILLWAY LENGTH=3')

Unreviewed from Submittal 1, make sure that all UIAs are shown with the yellow hatching per the Legend.

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.



DATE: _____

REVISIONS:

NO.	DESCRIPTION

UNTL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE ENGINEER, ALL EROSION CONTROL MEASURES ARE TO BE CONSIDERED AS TENTATIVE. TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECT AND ONLY FOR THE PURPOSES AUTHORIZED BY WRITTEN AUTHORIZATION.

PREPARED FOR:

ACM ALF VIII JV SUB II LLC
ATTN: JASON POCK
100 E. MISSISSIPPI AVE., STE 500
DENVER, CO 80246
303-984-9800

721 S. 23RD STREET
COLORADO SPRINGS, CO 80904
OFFICE: 719-635-6422
FAX: 719-635-6426
www.tnove.com

WATERBURY FILING NO. 1

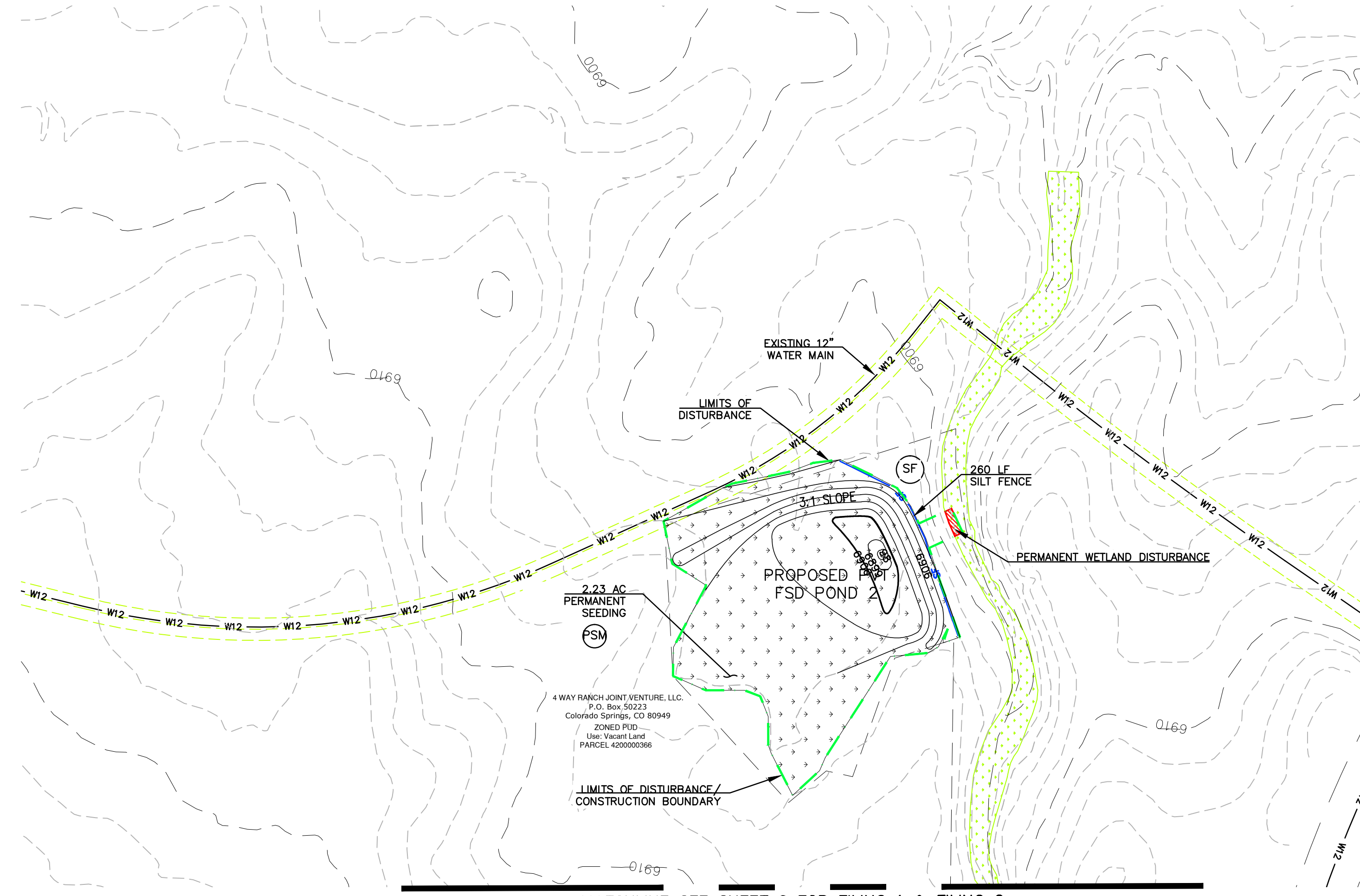
DESIGNED BY DLF
DRAWN BY QNA
CHECKED BY QNA
H-SCALE 1" = 100'
V-SCALE N/A
JOB NO. 2356.00
DATE ISSUED 10/4/24
SHEET NO. 6 OF 52

EROSION CONTROL LEGEND

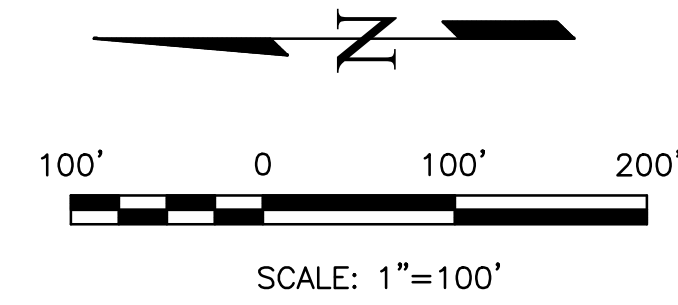
KEY	TITLE	SYMBOL
SF	SILT FENCE	SF
CF	CONSTRUCTION FENCE	CF
CIP	CULVERT INLET PROTECTION	CIP
IP	INLET PROTECTION	IP
SBB	STRAW BALE BARRIER	SBB
SP	STOCKPILE PROTECTION	SP
VTC	VEHICLE TRACKING CONTROL	VTC
CWA	CONCRETE WASHOUT AREA	CWA
SSA	STABILIZED STAGING AREA	SSA
TSM	TEMPORARY SEEDING AND MULCHING	TSM
PSM	PERMANENT SEEDING AND MULCHING	PSM
DW	DE-WATERING	DW

MINIMUM FINISHED FLOOR ELEVATIONS BASED 100-Y HWL

Lot 44	Min. FF	6915.00
Lot 45	HWL	6916.00
Lot 46	HWL	6919.00
Lot 47	HWL	6920.00
Lot 48	HWL	6921.00
Lot 49	HWL	6921.00
Lot 75	HWL	6925.00
Lot 88	HWL	6927.50
Lot 89	HWL	6928.00
Lot 90	HWL	6933.50
Lot 91	HWL	6935.00
Lot 92	HWL	6938.50
Lot 113	HWL	6941.00
Lot 131	HWL	6963.00
Lot 132	HWL	6961.00
Lot 133	HWL	6960.00
Lot 134	HWL	6959.00
Lot 135	HWL	6958.00
Lot 136	HWL	6956.00
Lot 137	HWL	6954.00
Lot 150	HWL	6952.00
Lot 151	HWL	6949.00
Lot 152	HWL	6947.00
Lot 153	HWL	6944.00
Lot 154	HWL	6944.00
Lot 155	HWL	6944.00
Lot 156	HWL	6941.00
Lot 157	HWL	6941.00
Lot 158	HWL	6938.00
Lot 159	HWL	6938.00
Lot 160	HWL	6938.00
Lot 161	HWL	6937.00
Lot 162	HWL	6936.00
Lot 163	HWL	6936.00
Lot 164	HWL	6935.00
Lot 165	HWL	6935.00



MATCHLINE SEE SHEET 6 FOR FILING 1 & FILING 2



NOTES:
 NO BATCH PLANTS ARE PROPOSED
 ALL CONTROL MEASURES ARE BEING IMPLEMENTED BY THE OWNER/DEVELOPER/CONTRACTOR

GRADING LEGEND

8' EXISTING CONTOUR	8810
1' EXISTING CONTOUR	8802
5' PROPED CONTOUR	8810
1' PROPED CONTOUR	8802
LIMITS OF DISTURBANCE/ CONSTRUCTION BOUNDARY	[Green dashed line]
SUBDIVISION BOUNDARY	[Blue dashed line]
CUT/FILL LINE	[Black dashed line]
TRIBUTARY AREA TO TSB	[Dotted pattern]
DIRECTION OF SURFACE FLOW	[Arrow with 4.0% slope]
HIGH POINT	HPX
LOW POINT	LPX
A LOT	"A"
B LOT	"B"
WALK OUT LOT MODIFIED	"WO"
GARDEN LEVEL LOT MODIFIED	"G"

100-Y FEMA FLOODPLAIN	[Pink hatched area]
100-Y HWL PER HECRAS ANALYSIS	[Blue hatched area]
AREAS OF DE-WATERING	[Circle pattern]

WETLANDS LEGEND

EXISTING WETLANDS	[Green dotted pattern]
PERMANENT WETLAND DISTURBANCE	[Red hatched pattern]

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.



REVISIONS	NO.	DESCRIPTION	DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE RELEVANT AGENCIES, TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECT AND FOR THE PURPOSES AUTHORIZED BY WRITTEN AUTHORIZATION.

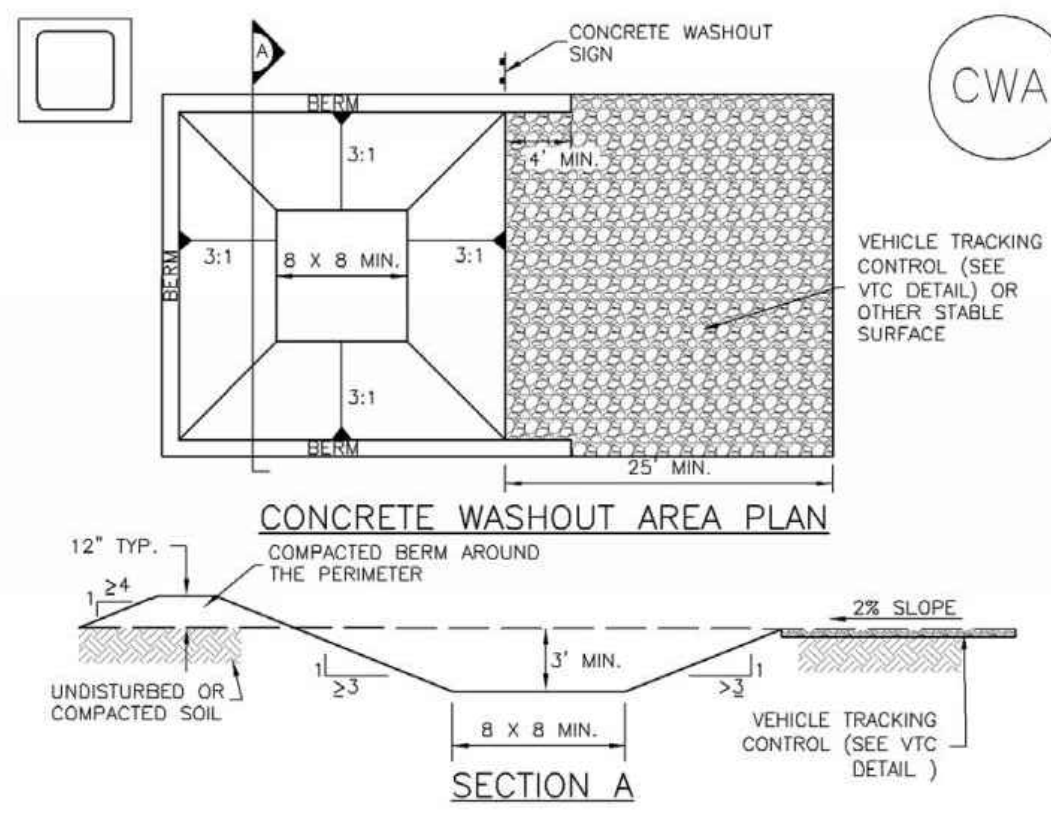
PREPARED FOR:
 ACM ALF VIII JV SUB II LLC
 ATTN: JASON POCK
 100 E. MISSISSIPPI AVE., STE 500
 DENVER, CO 80246
 303-984-9800

Terra Nova
 Engineering, Inc.
 Civil Engineering
 721 S. 23RD STREET
 COLORADO SPRINGS, CO 80904
 OFFICE: 719-635-6422
 FAX: 719-635-6426
 www.tnecinc.com

WATERBURY FILING NO. 1
 GRADING EROSION & CONTROL PLAN
 FINAL EROSION CONTROL PLAN 2

DESIGNED BY	DLF
DRAWN BY	QNA
CHECKED BY	QNA
H-SCALE	NA
V-SCALE	N/A
JOB NO.	2356.00
DATE ISSUED	10/4/24
SHEET NO.	7 OF 52

Concrete Washout Area (CWA) MM-1



CONCRETE WASHOUT AREA PLAN
SECTION A

CWA-1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

1. SEE PLAN VIEW FOR: -CWA INSTALLATION LOCATION.
2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.
3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.
5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.
6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP TRUCKS.
8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

November 2010 Urban Drainage and Flood Control District CWA-3
 Urban Storm Drainage Criteria Manual Volume 3

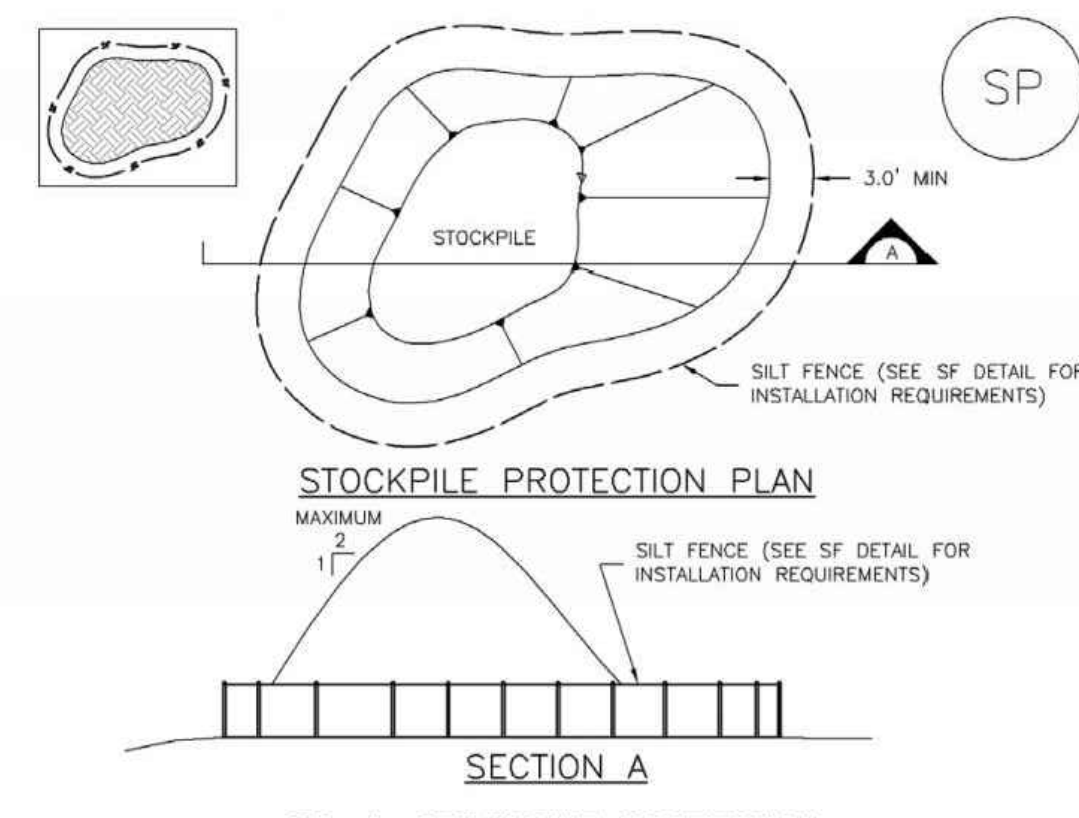
MM-1 Concrete Washout Area (CWA)

CWA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 4. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.
 5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
 6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
 7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.
- (DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

CWA-4 Urban Drainage and Flood Control District November 2010
 Urban Storm Drainage Criteria Manual Volume 3

Stockpile Management (SP) MM-2



STOCKPILE PROTECTION PLAN

SECTION A

SP-1. STOCKPILE PROTECTION

STOCKPILE PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR: -LOCATION OF STOCKPILES. -TYPE OF STOCKPILE PROTECTION.
2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.
3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS).
4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

November 2010 Urban Drainage and Flood Control District SP-3
 Urban Storm Drainage Criteria Manual Volume 3

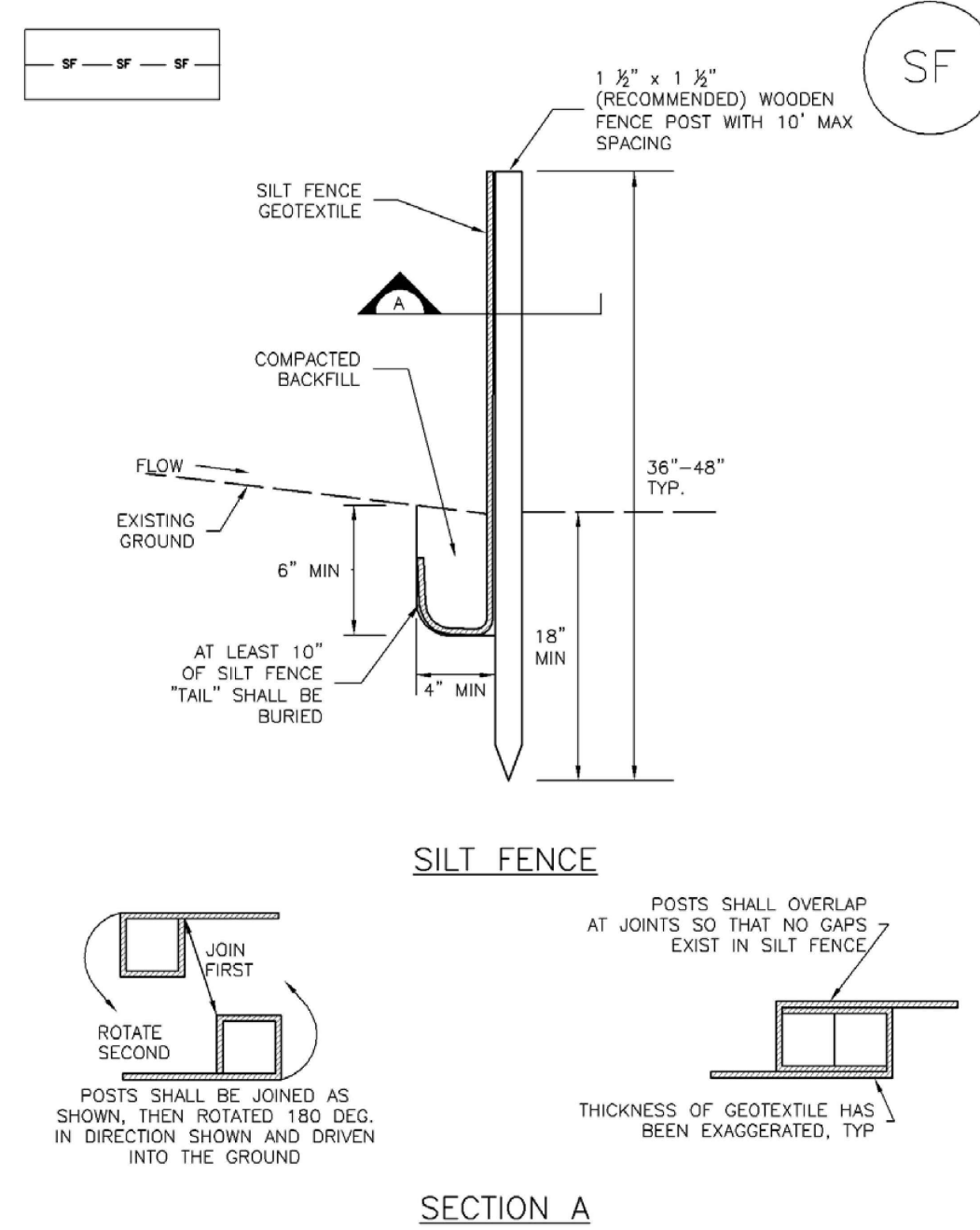
MM-2 Stockpile Management (SM)

STOCKPILE PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- STOCKPILE PROTECTION MAINTENANCE NOTES**
4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.
 5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.
- (DETAILS ADAPTED FROM PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

SP-4 Urban Drainage and Flood Control District November 2010
 Urban Storm Drainage Criteria Manual Volume 3

Silt Fence (SF) SC-1



SILT FENCE

SECTION A

SF-1. SILT FENCE

November 2010 Urban Drainage and Flood Control District SF-3
 Urban Storm Drainage Criteria Manual Volume 3

SC-1 Silt Fence (SF)

SILT FENCE INSTALLATION NOTES

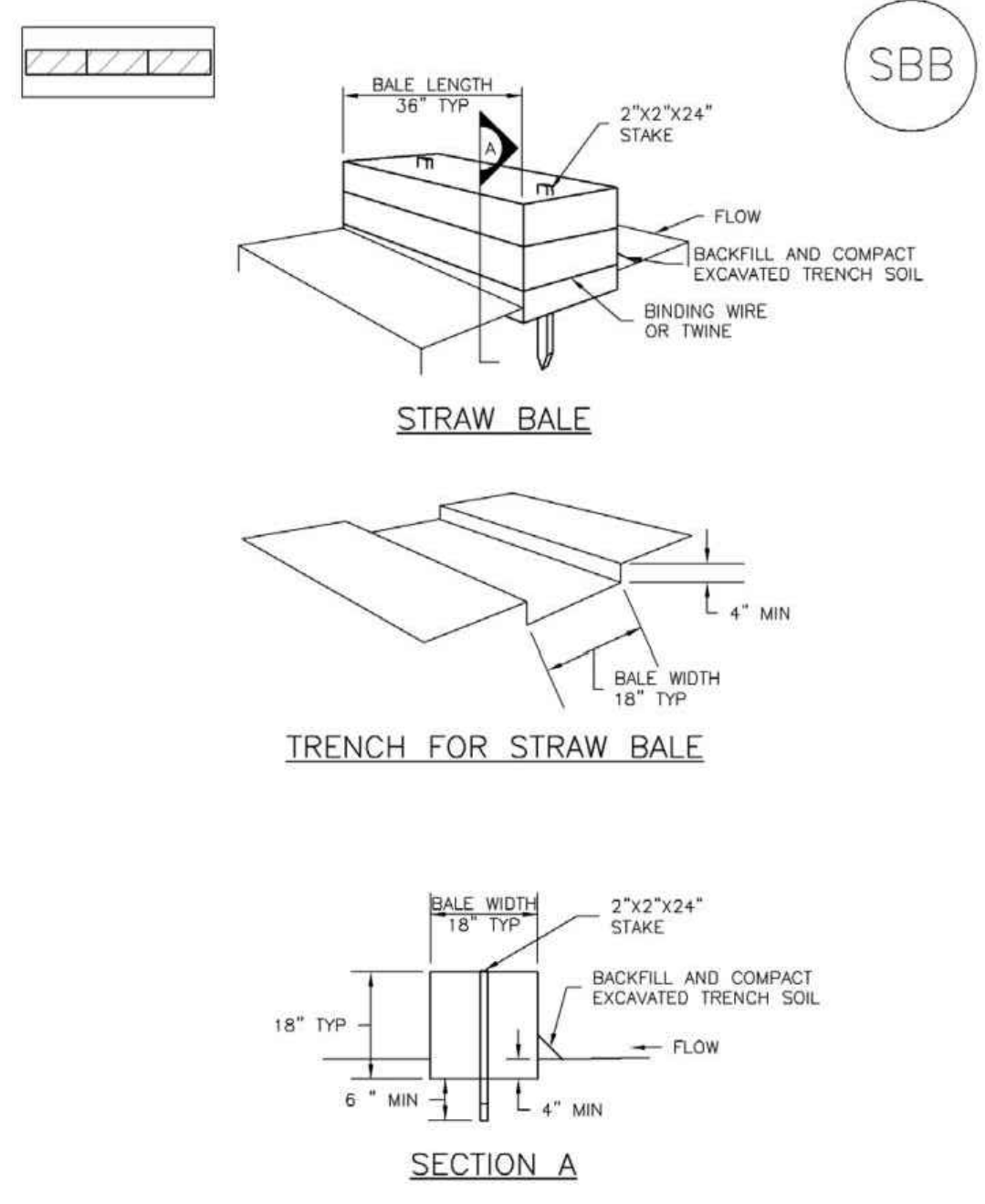
1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PENETRATING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2-5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.
2. A UNIFORM 6" x 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.
3. COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.
4. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.
5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.
6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J-HOOK". THE "J-HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' - 20').
7. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

SILT FENCE MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 4. SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".
 5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.
 6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.
 7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.
- (DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, NOT AVAILABLE IN AUTOCAD)
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

SF-4 Urban Drainage and Flood Control District November 2010
 Urban Storm Drainage Criteria Manual Volume 3

SC-3 Straw Bale Barrier (SBB)



STRAW BALE

TRENCH FOR STRAW BALE

SECTION A

SBB-1. STRAW BALE

SBB-2 Urban Drainage and Flood Control District November 2010
 Urban Storm Drainage Criteria Manual Volume 3

Straw Bale Barrier (SBB) SC-3

STRAW BALE INSTALLATION NOTES

1. SEE PLAN VIEW FOR: -LOCATION(S) OF STRAW BALES.
2. STRAW BALES SHALL CONSIST OF CERTIFIED WEED FREE STRAW OR HAY. LOCAL JURISDICTIONS MAY REQUIRE PROOF THAT BALES ARE WEED FREE.
3. STRAW BALES SHALL CONSIST OF APPROXIMATELY 5 CUBIC FEET OF STRAW OR HAY AND WEIGH NOT LESS THAN 35 POUNDS.
4. WHEN STRAW BALES ARE USED IN SERIES AS A BARRIER, THE END OF EACH BALE SHALL BE TIGHTLY ABUTTING ONE ANOTHER.
5. STRAW BALE DIMENSIONS SHALL BE APPROXIMATELY 36"x18"x18".
6. A UNIFORM ANCHOR TRENCH SHALL BE EXCAVATED TO A DEPTH OF 4". STRAW BALES SHALL BE PLACED SO THAT BINDING TWINE IS ENCOMPASSING THE VERTICAL SIDES OF THE BALES. ALL EXCAVATED SOIL SHALL BE PLACED ON THE UPHILL SIDE OF THE STRAW BALE(S) AND COMPACTED.
7. TWO (2) WOODEN STAKES SHALL BE USED TO HOLD EACH BALE IN PLACE. WOODEN STAKES SHALL BE 2"x2"x24". WOODEN STAKES SHALL BE DRIVEN 6" INTO THE GROUND.

STRAW BALE MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 4. STRAW BALES SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, ROTTEN, OR DAMAGED BEYOND REPAIR.
 5. SEDIMENT ACCUMULATED UPSTREAM OF STRAW BALE BARRIER SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 1/4 OF THE HEIGHT OF THE STRAW BALE BARRIER.
 6. STRAW BALES ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
 7. WHEN STRAW BALES ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.
- (DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

November 2010 Urban Drainage and Flood Control District SBB-3
 Urban Storm Drainage Criteria Manual Volume 3

REVISIONS	NO.	DESCRIPTION	DATE

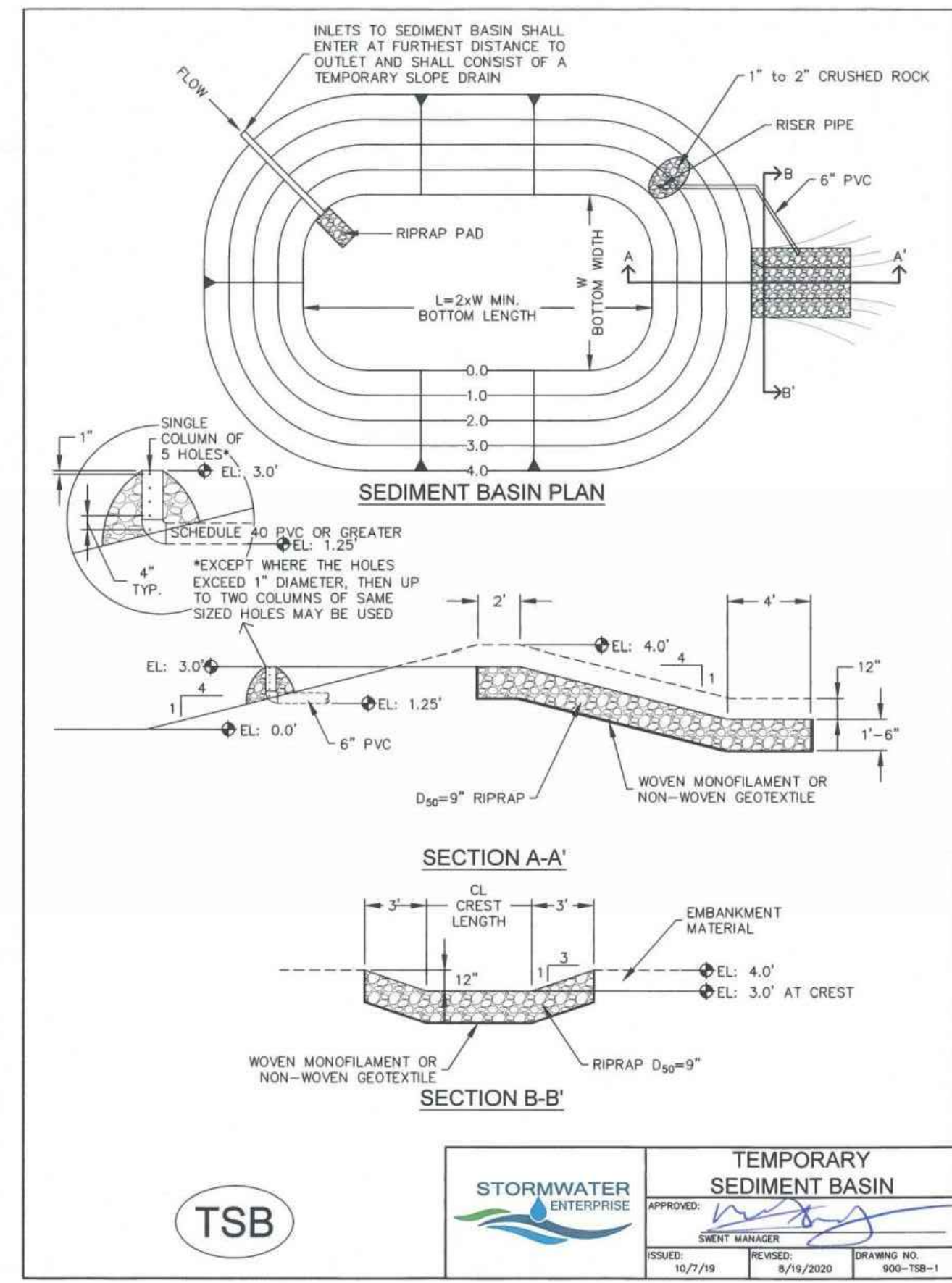
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE ENGINEER, THE USER SHALL BE RESPONSIBLE FOR ANY ERRORS. TERRA NOVA ENGINEERING, INC. APPROVES THE USE ONLY FOR THE PROJECT AND FOR THE PURPOSES AUTHORIZED BY WRITTEN AUTHORIZATION.

PREPARED FOR:
 ACM ALF VIII JV SUB II LLC
 ATTN: JASON POCK
 100 E. MISSISSIPPI AVE., STE 500
 DENVER, CO 80246
 303-984-9800

Terra Nova Engineering, Inc.
 Civil Engineering
 721 S. 23RD STREET
 COLORADO SPRINGS, CO 80904
 OFFICE: 719-635-6422
 FAX: 719-635-6426
 www.tnainc.com

WATERBURY FILING NO. 1
 GRADING AND EROSION CONTROL PLAN
 EROSION CONTROL DETAILS

DESIGNED BY	DLF
DRAWN BY	QNA
CHECKED BY	QNA
H-SCALE	NA
V-SCALE	N/A
JOB NO.	2356.00
DATE ISSUED	10/4/24
SHEET NO.	9 OF 52

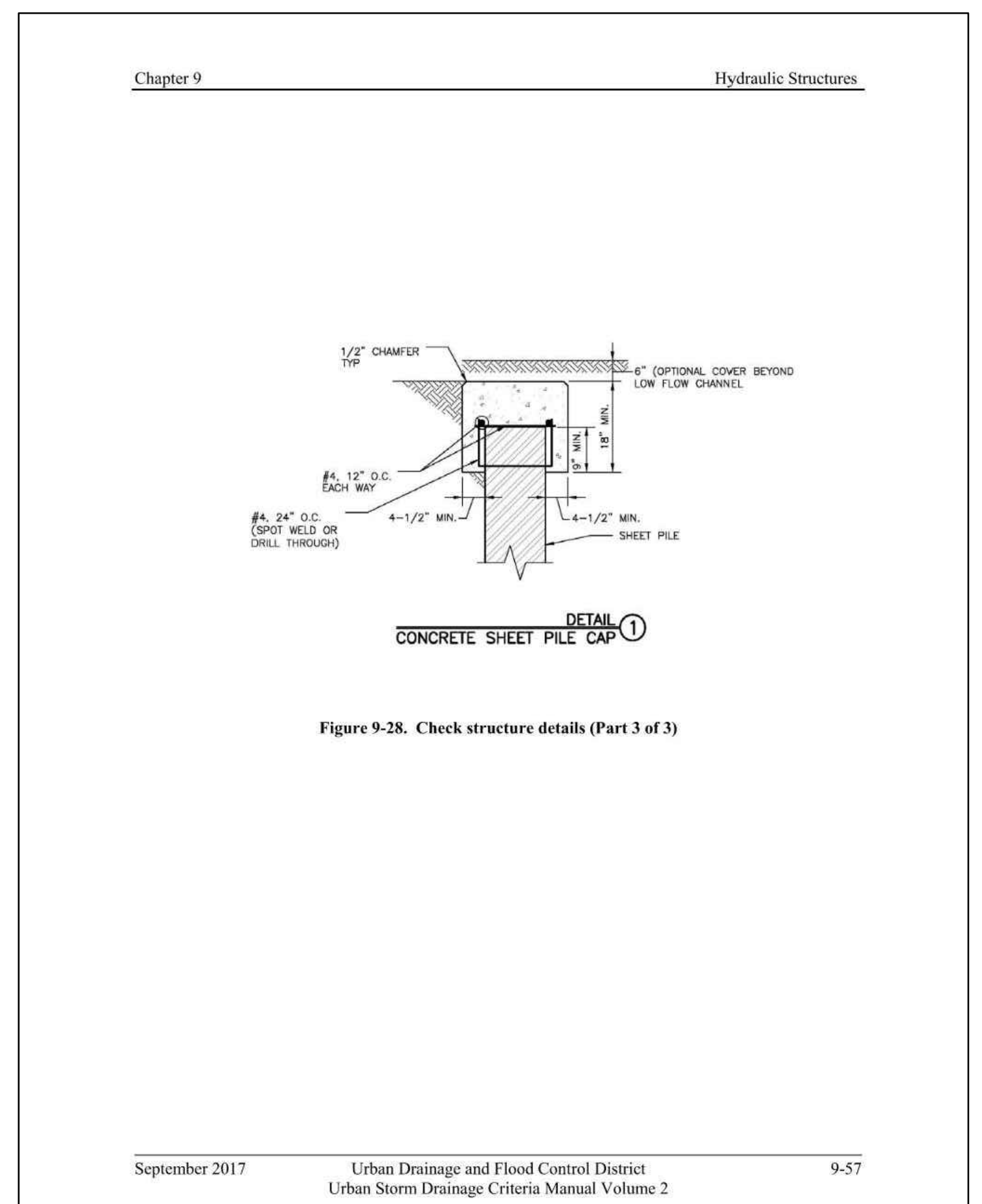
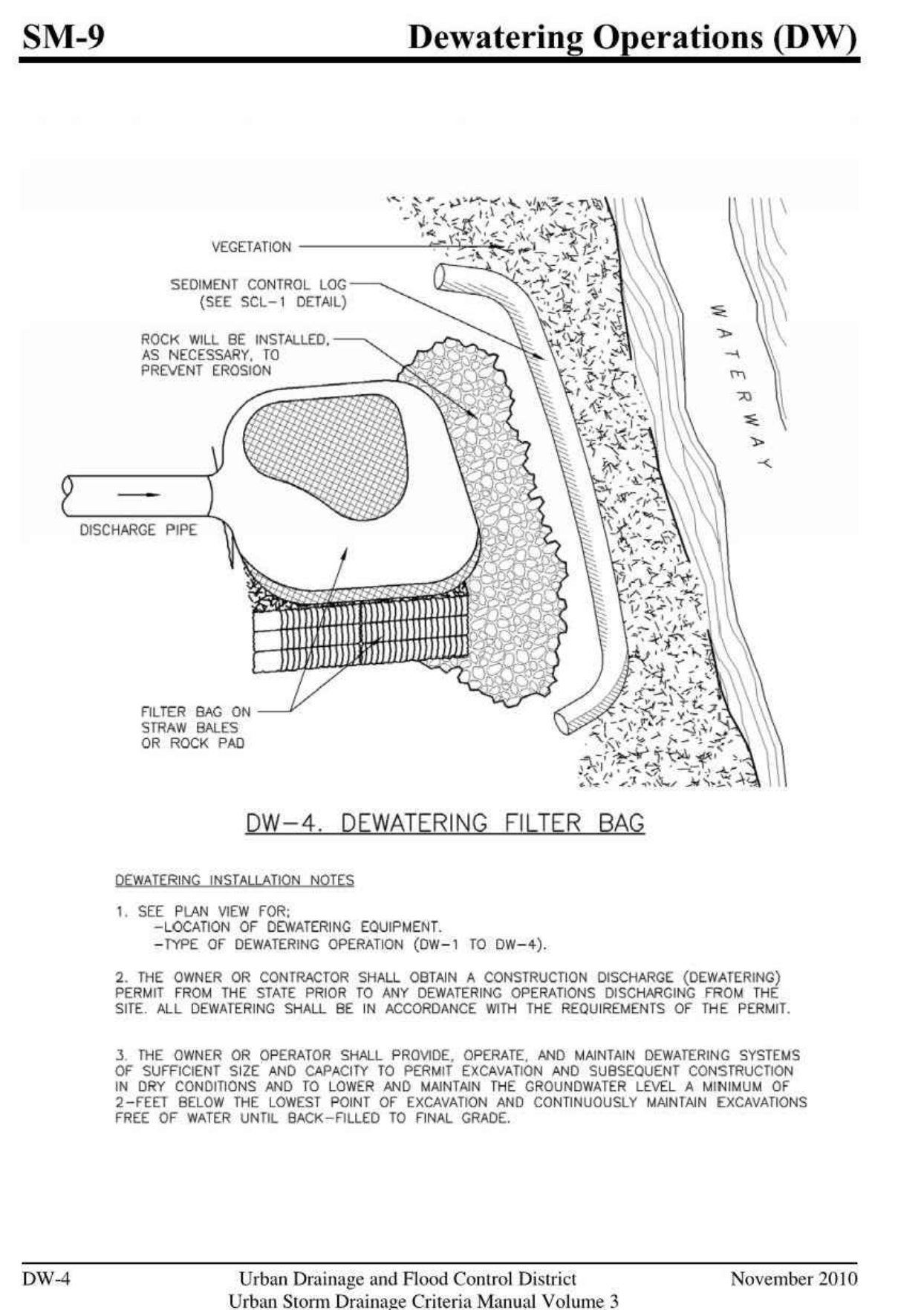
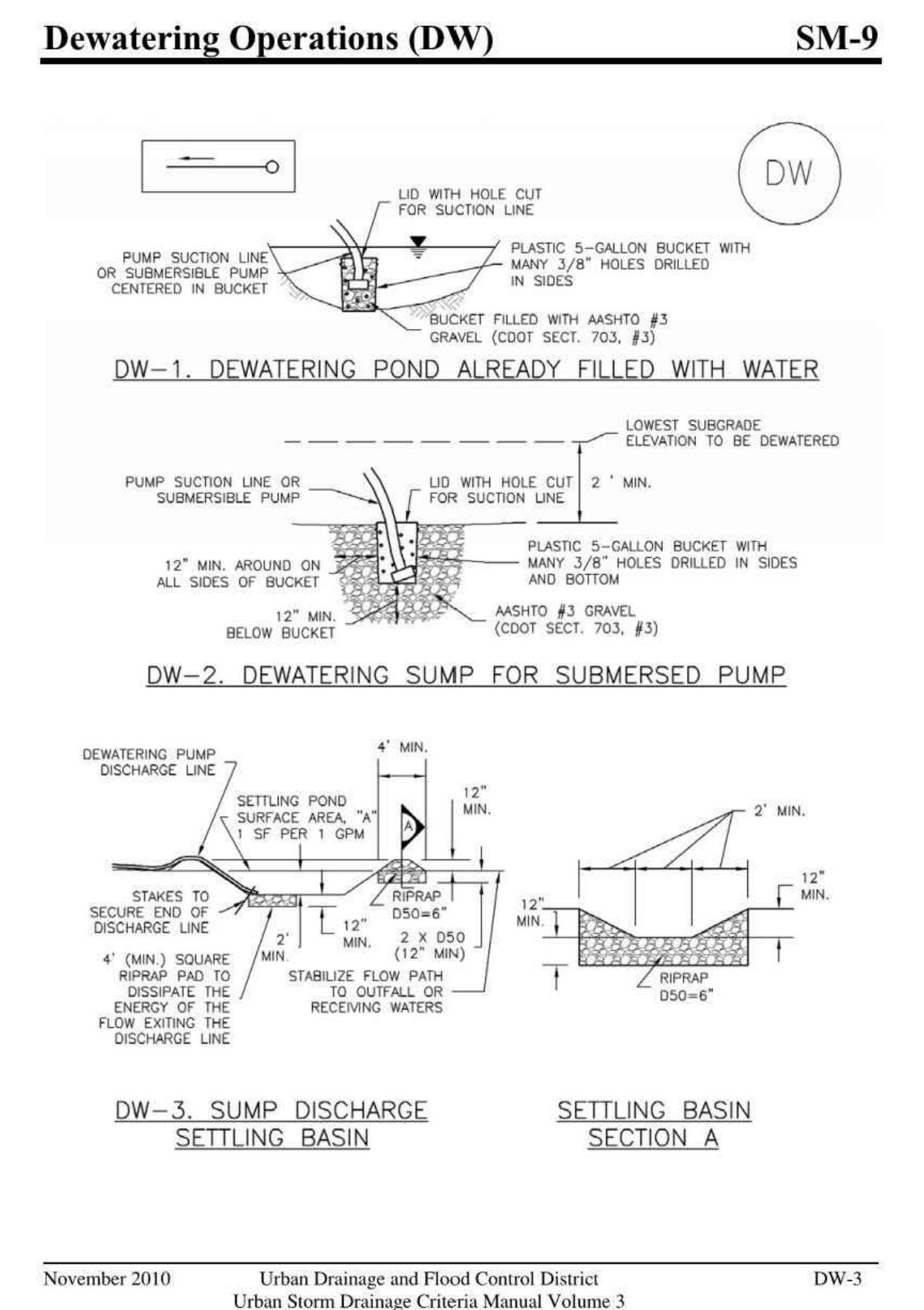
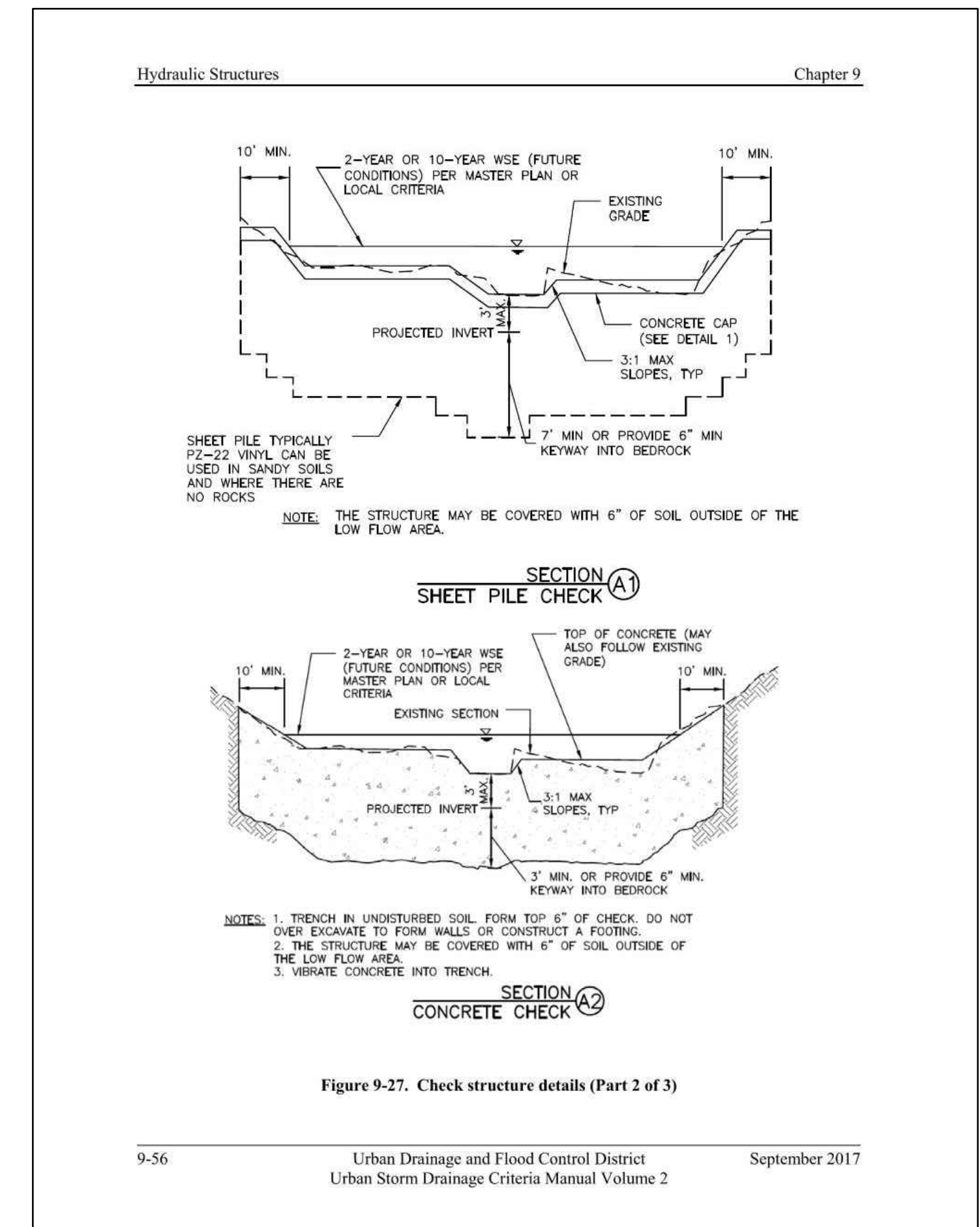
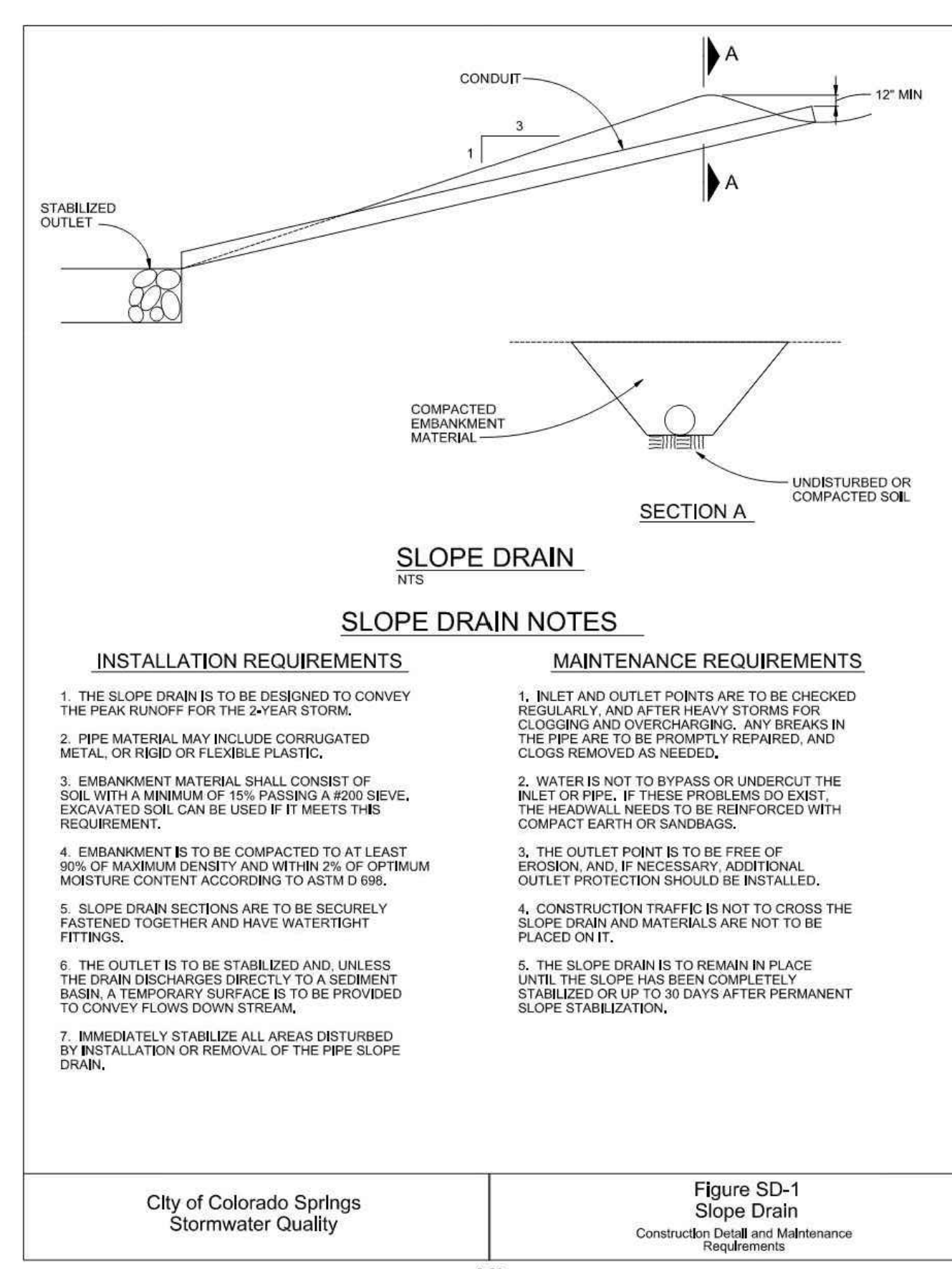


INSTALLATION NOTES

- FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.
- EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE, GREATER THAN 3 INCHES, AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE No. 200 SIEVE.
- EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D-698.
- PIPE SCHEDULE 40 OR GREATER SHALL BE USED.
- THE DETAILS SHOWN ON THESE SHEETS PERTAIN TO STANDARD SEDIMENT BASIN(S) FOR DRAINAGE AREAS LESS THAN 15 ACRES. SEE CONSTRUCTION DRAWINGS FOR EMBANKMENT, STORAGE VOLUME, SPILLWAY, OUTLET, AND OUTLET PROTECTION DETAILS FOR ANY SEDIMENT BASIN(S) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS LARGER THAN 15 ACRES. DESIGN CALCULATIONS MUST BE APPROVED PRIOR TO IMPLEMENTATION.

MAINTENANCE NOTES

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- SEDIMENT ACCUMULATED IN BASIN SHALL BE REMOVED AS NEEDED TO MAINTAIN CONTROL MEASURE EFFECTIVENESS, TYPICALLY WHEN SEDIMENT DEPTH REACHES ONE FOOT (I.E. TWO FEET BELOW SPILLWAY CREST).
- SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED.
- PERMANENTLY STABILIZE AREA AFTER SEDIMENT BASIN REMOVAL.



DESIGNED BY DLF
DRAWN BY QNA
CHECKED BY QNA
H-SCALE NA
V-SCALE N/A
JOB NO. 2356.00
DATE ISSUED 10/4/24
SHEET NO. 10 OF 52

REVISIONS

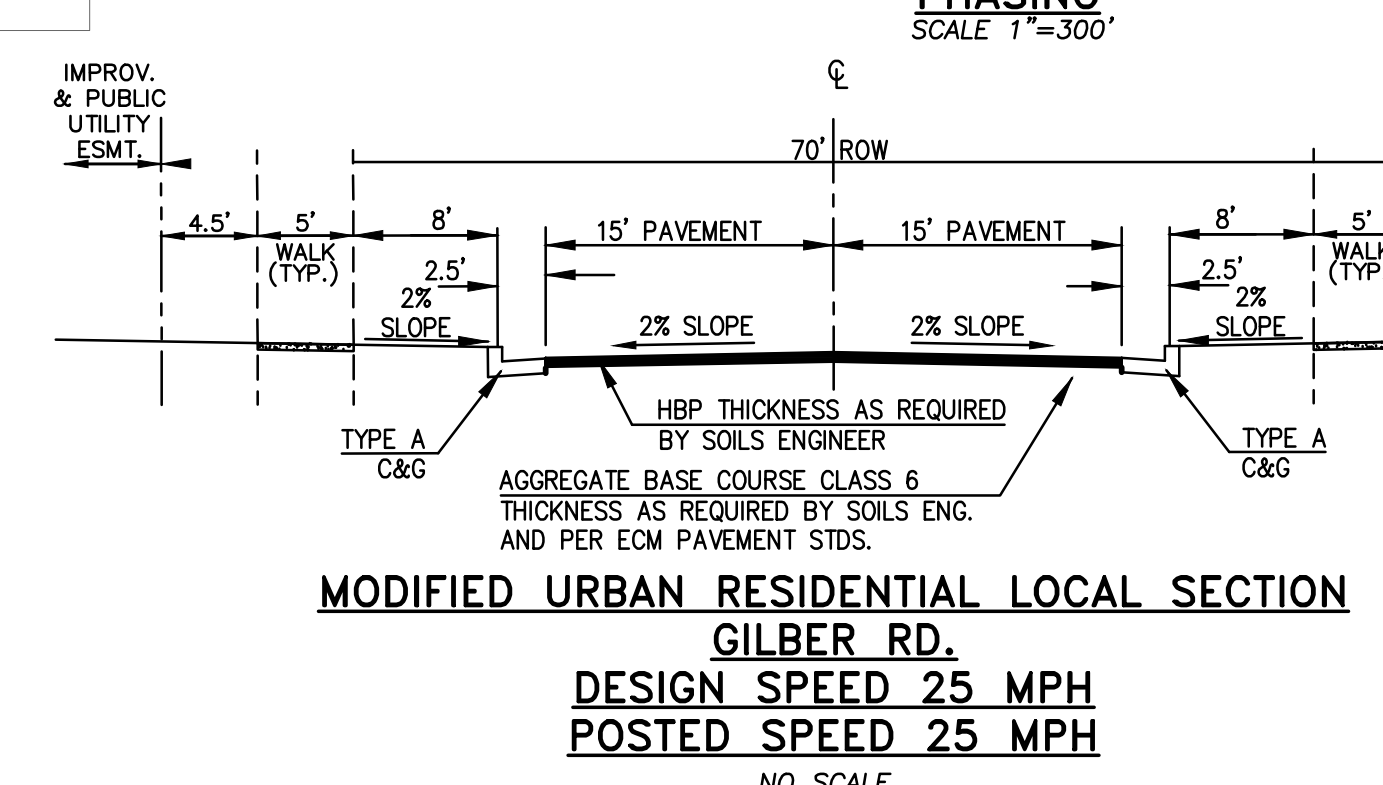
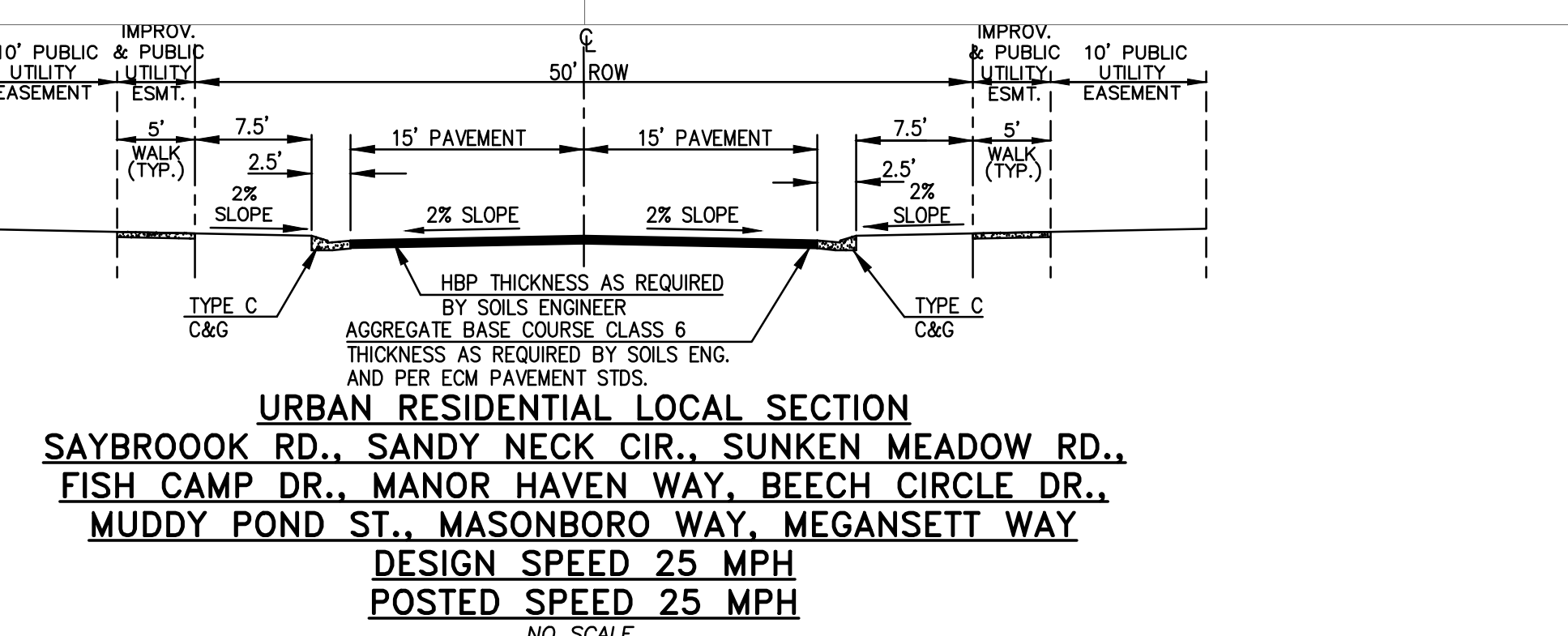
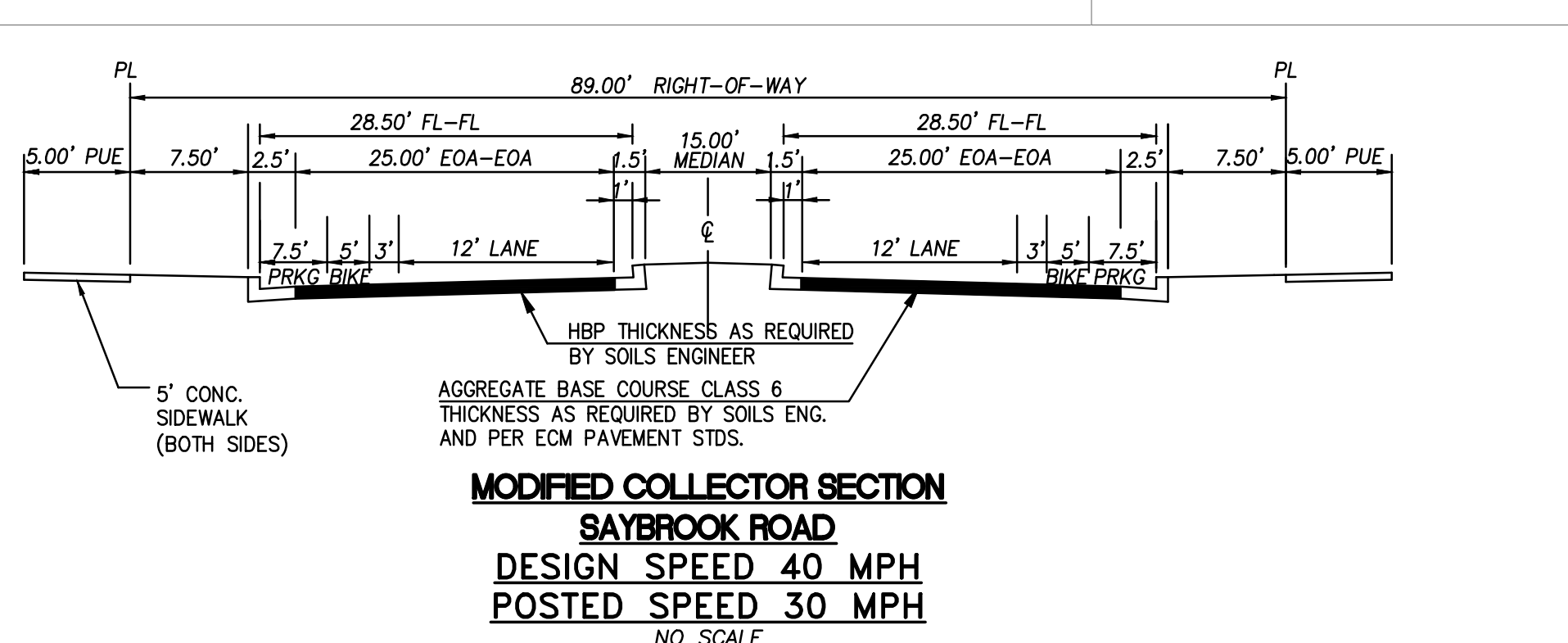
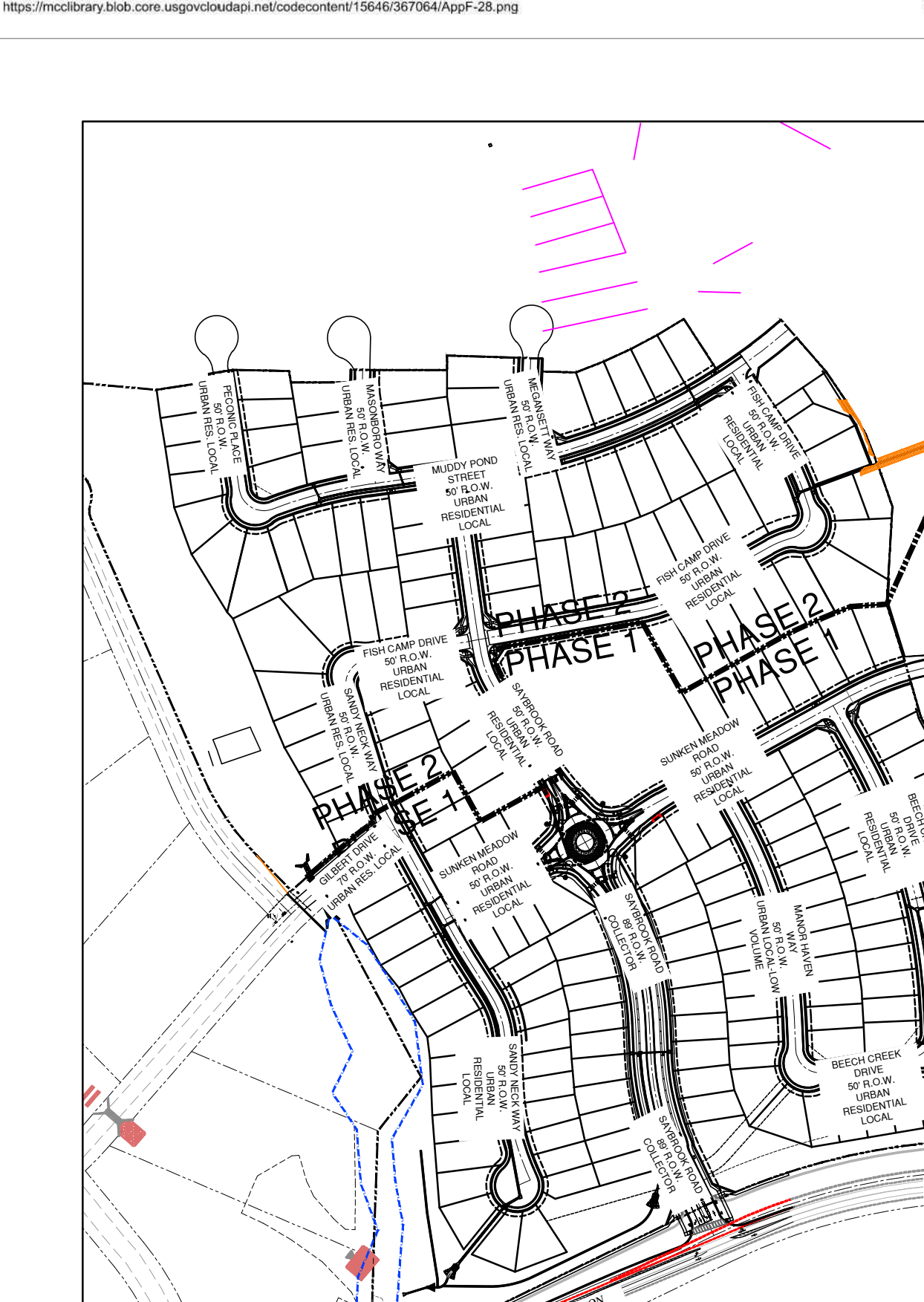
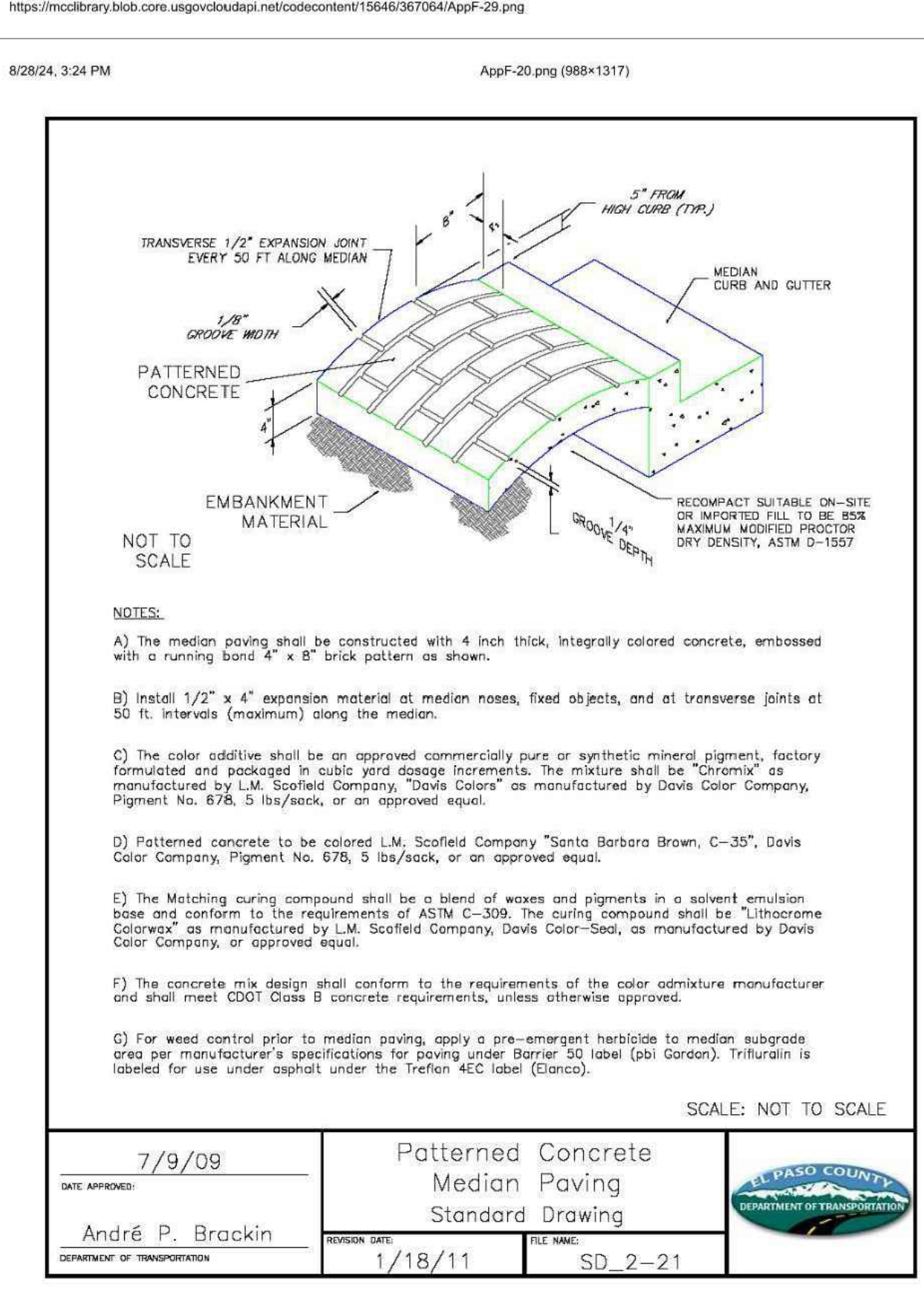
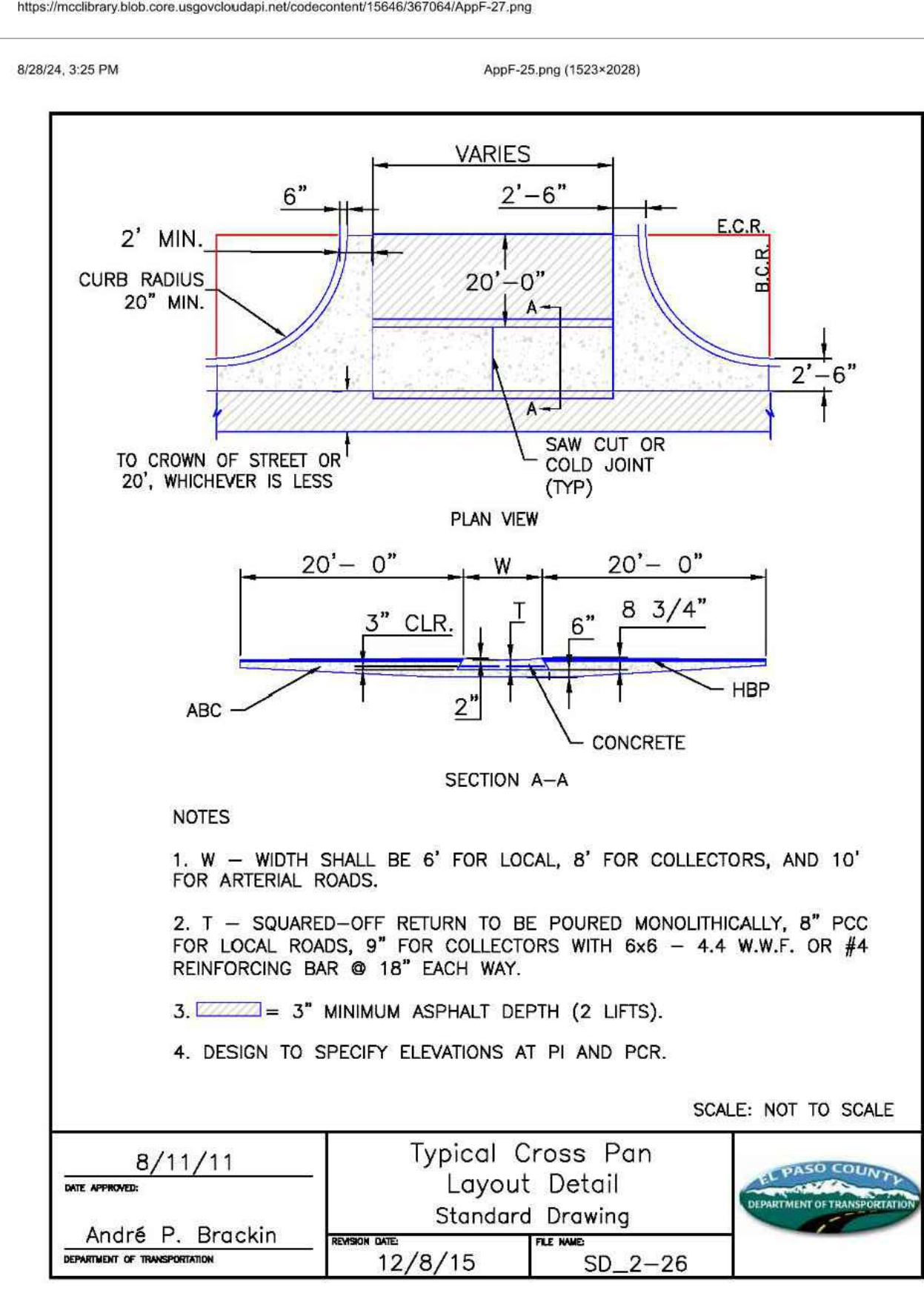
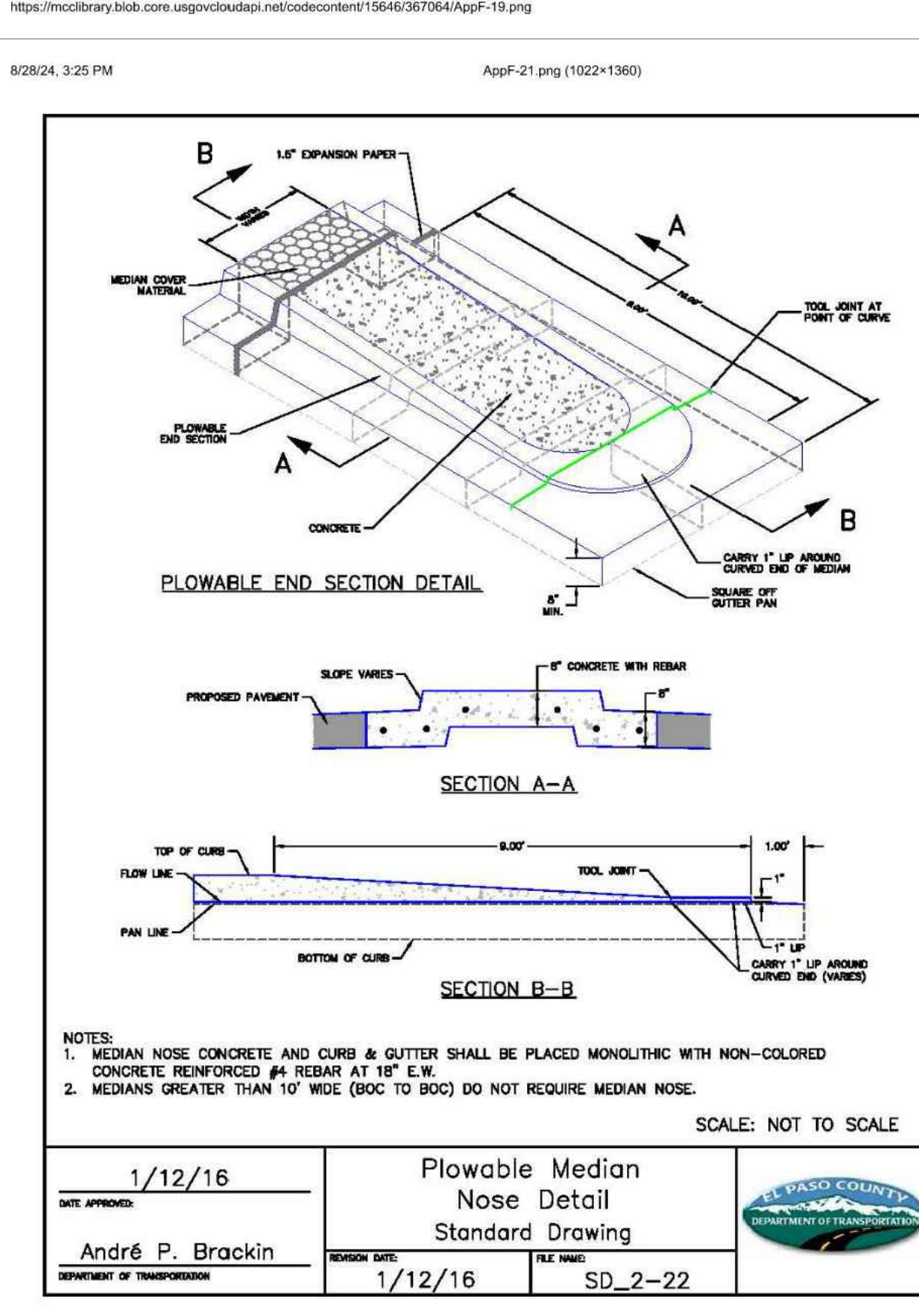
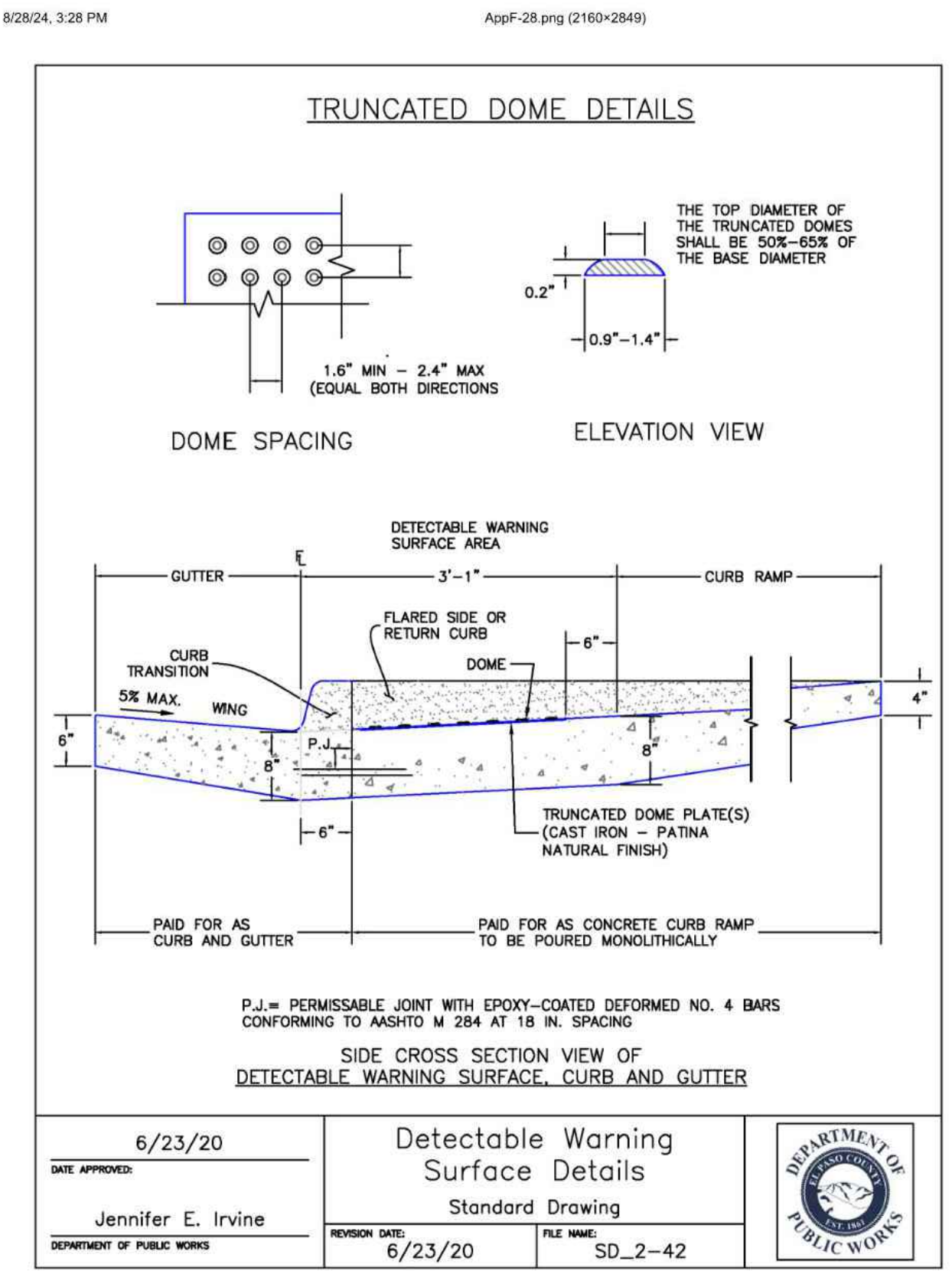
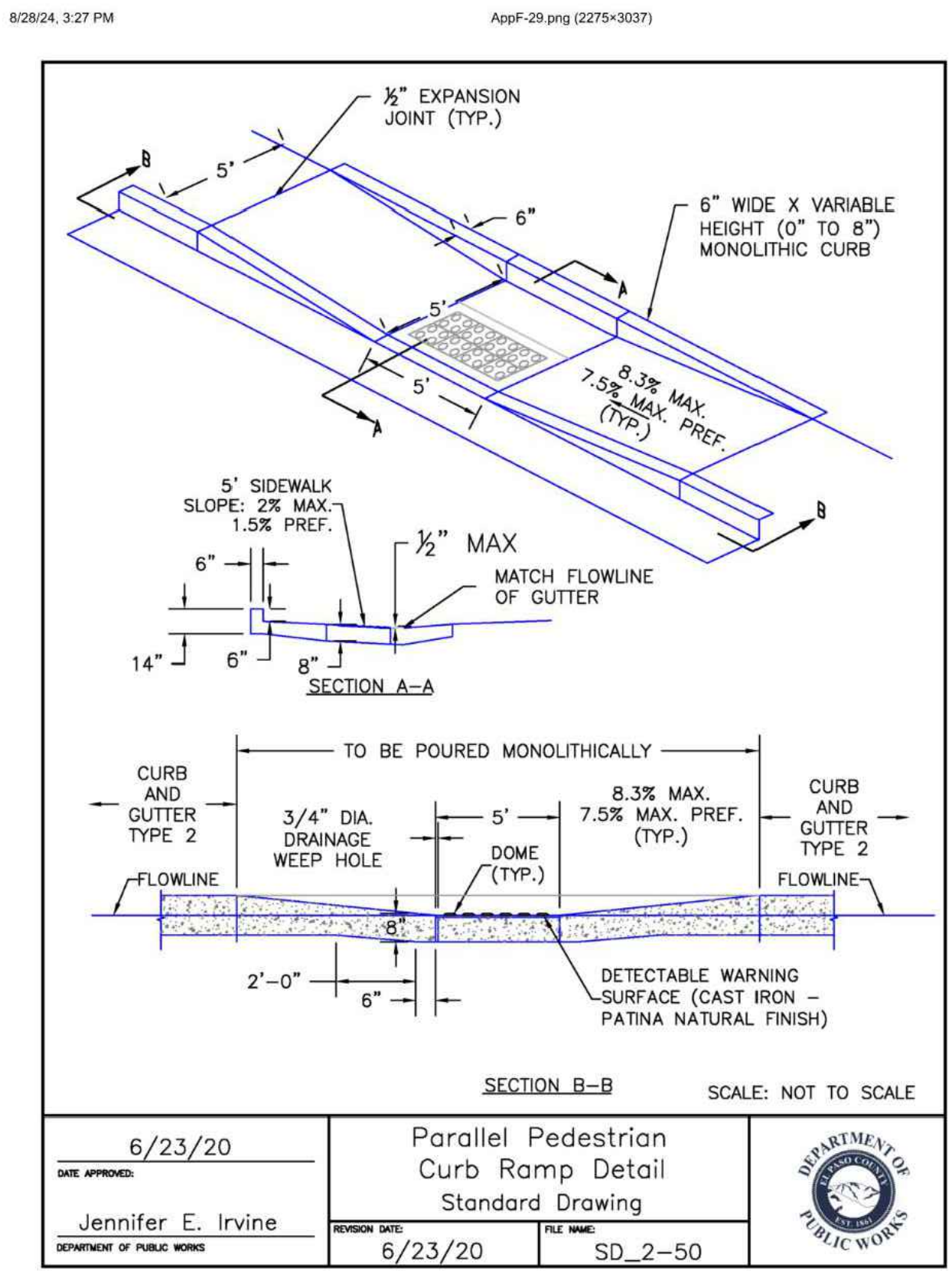
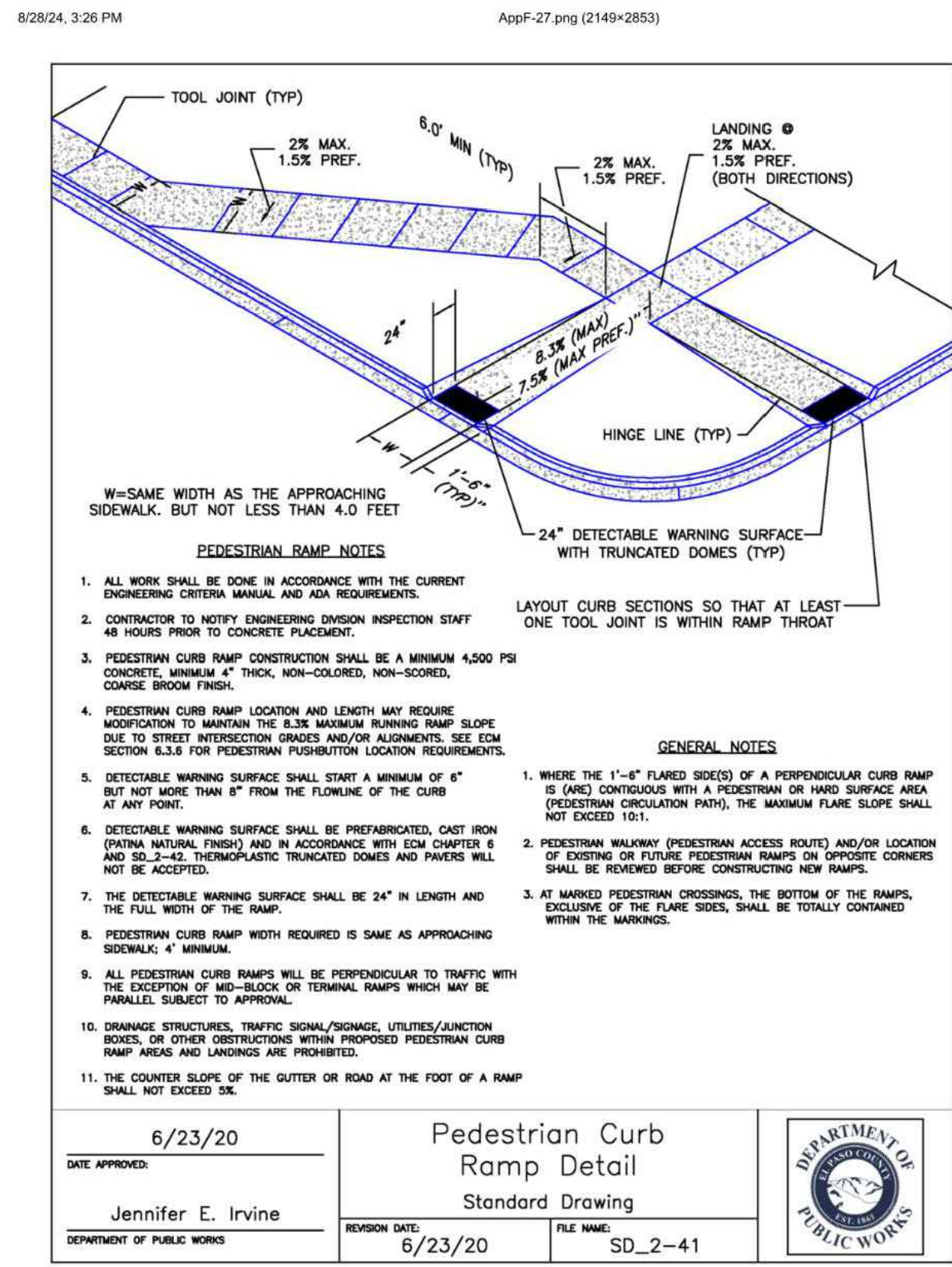
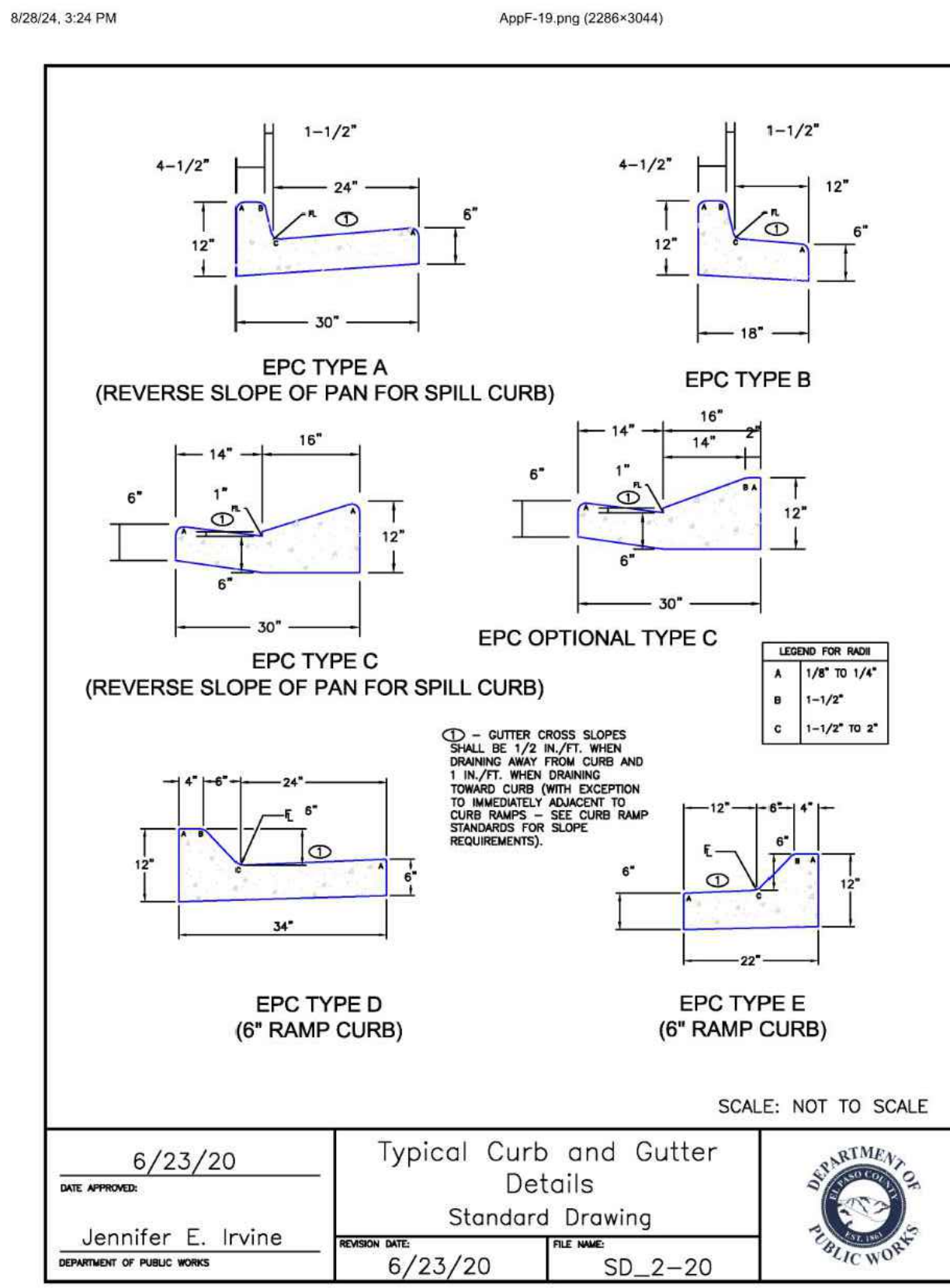
NO. DESCRIPTION DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE ENGINEER, THESE DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION. ANY CHANGES TO THESE DRAWINGS MUST BE APPROVED BY THE ENGINEER.

PREPARED FOR:
ACM ALF VIL JV SUB II LLC
ATTN: JASON POKK
100 E. MISSISSIPPI AVE., STE 500
DENVER, CO 80246
303-984-9800

Terra Nova Engineering, Inc.
Civil Engineering
721 S. 23RD STREET
COLORADO SPRINGS, CO 80904
OFFICE: 719-635-6422
FAX: 719-635-6426
www.tnainc.com

WATERBURY FILING NO 1
GRADING AND EROSION CONTROL PLAN
EROSION CONTROL DETAILS



REVISIONS

NO.	DESCRIPTION	DATE

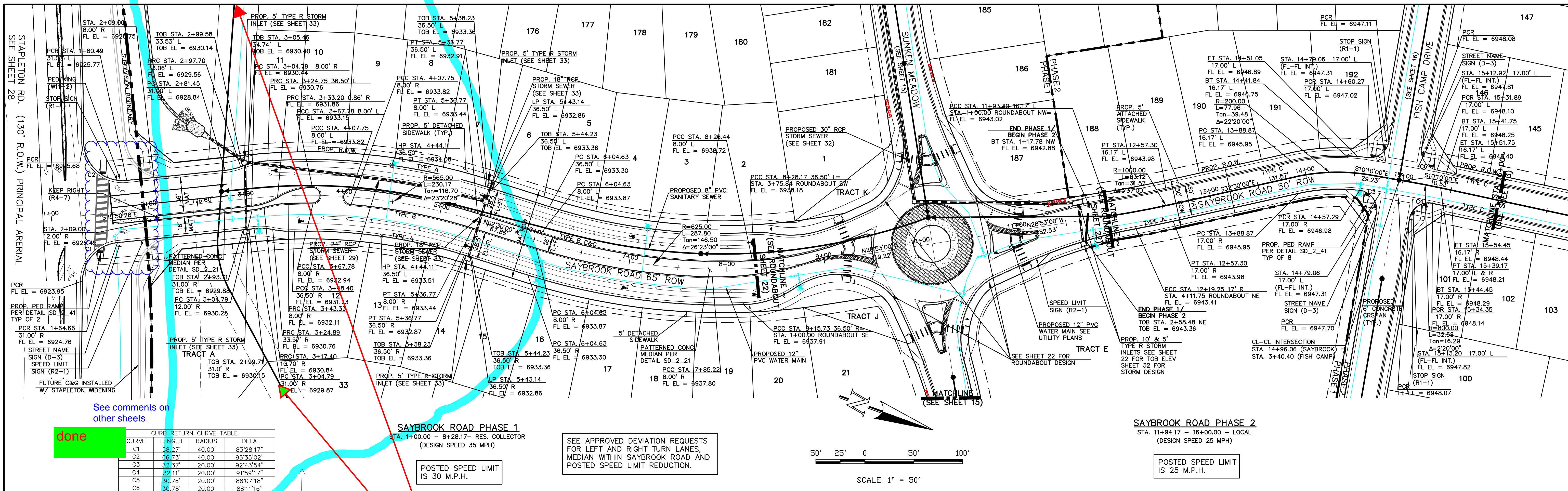
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE REVIEWING AGENCIES: TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECT AND FOR THE USES AUTHORIZED BY WRITTEN AUTHORIZATION.

PREPARED FOR:
ACM ALF VIII JV SUB II LLC
ATTN: JASON POKK
100 E. MISSISSIPPI AVE., STE 500
DENVER, CO 80246
303-984-9800

DESIGNED BY: DLF
DRAWN BY: QNA
CHECKED BY: QNA

H-SCALE: NA
V-SCALE: N/A

JOB NO. 2356.00
DATE ISSUED: 10/4/24
SHEET NO. 11 OF 52



See comments on other sheets

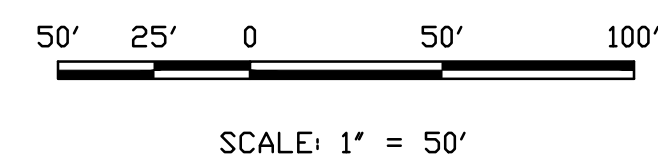
done

CURVE	LENGTH	RADIUS	DELA
C1	58.27'	40.00'	83°28'17"
C2	66.73'	40.00'	95°35'02"
C3	32.37'	20.00'	92°43'54"
C4	32.11'	20.00'	91°59'17"
C5	30.76'	20.00'	88°07'18"
C6	30.78'	20.00'	88°11'16"

Provide reference to sheet with specific details on groundwater/soils mitigation at the south end of Saybrook.

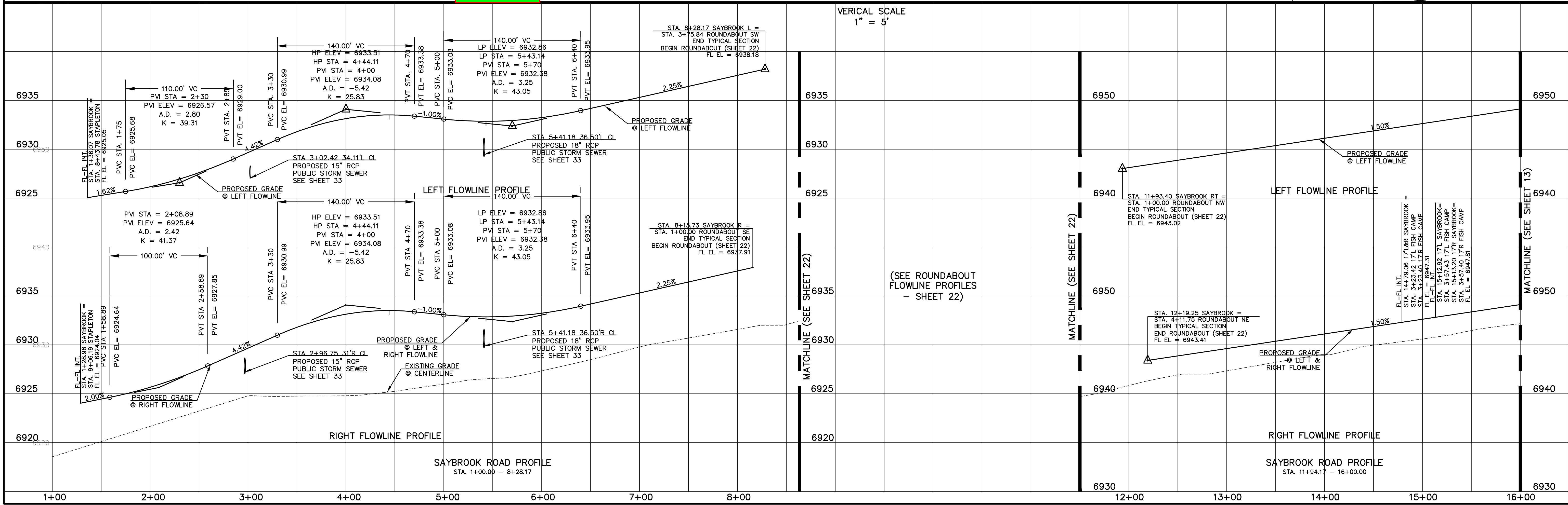
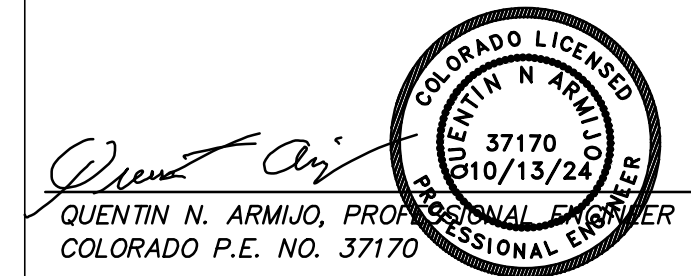
We have an easement in vicinity that runs entire length of this area

SEE APPROVED DEVIATION REQUESTS FOR LEFT AND RIGHT TURN LANES, MEDIAN WITHIN SAYBROOK ROAD AND POSTED SPEED LIMIT REDUCTION.



POSTED SPEED LIMIT IS 25 M.P.H.

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.



DATE: _____

DESCRIPTION: _____

REVISIONS: _____

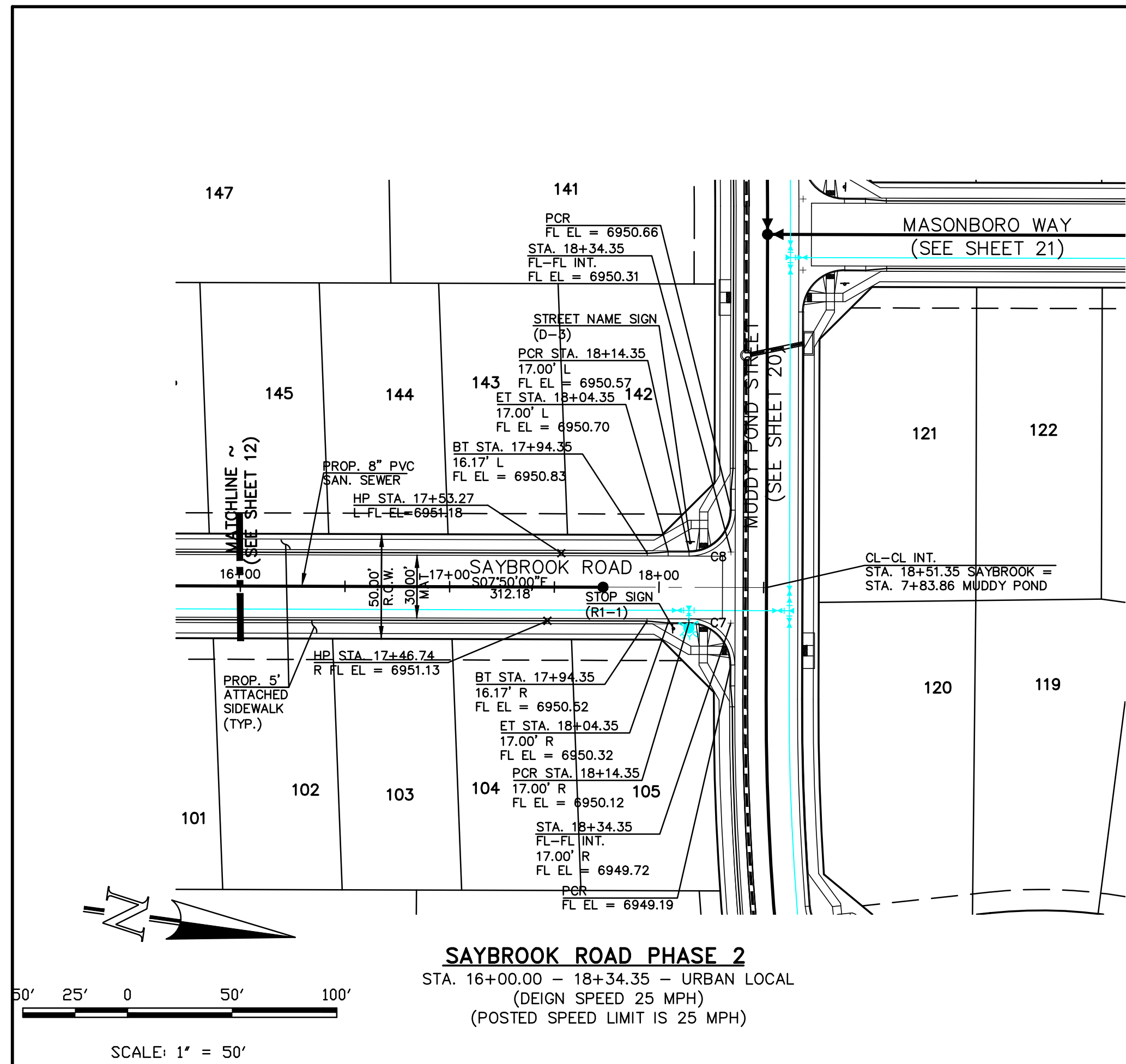
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE LOCAL AGENCIES TERRA NOVA ENGINEERING AND SURVEYING, INC. APPROVES THEIR USE ONLY DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR: **ACM ALF VIII JV SUB II LLC**
JASON POKK
 00 E. MISSISSIPPI AVE., STE 500
 DENVER, CO 80246
 303-984-9800

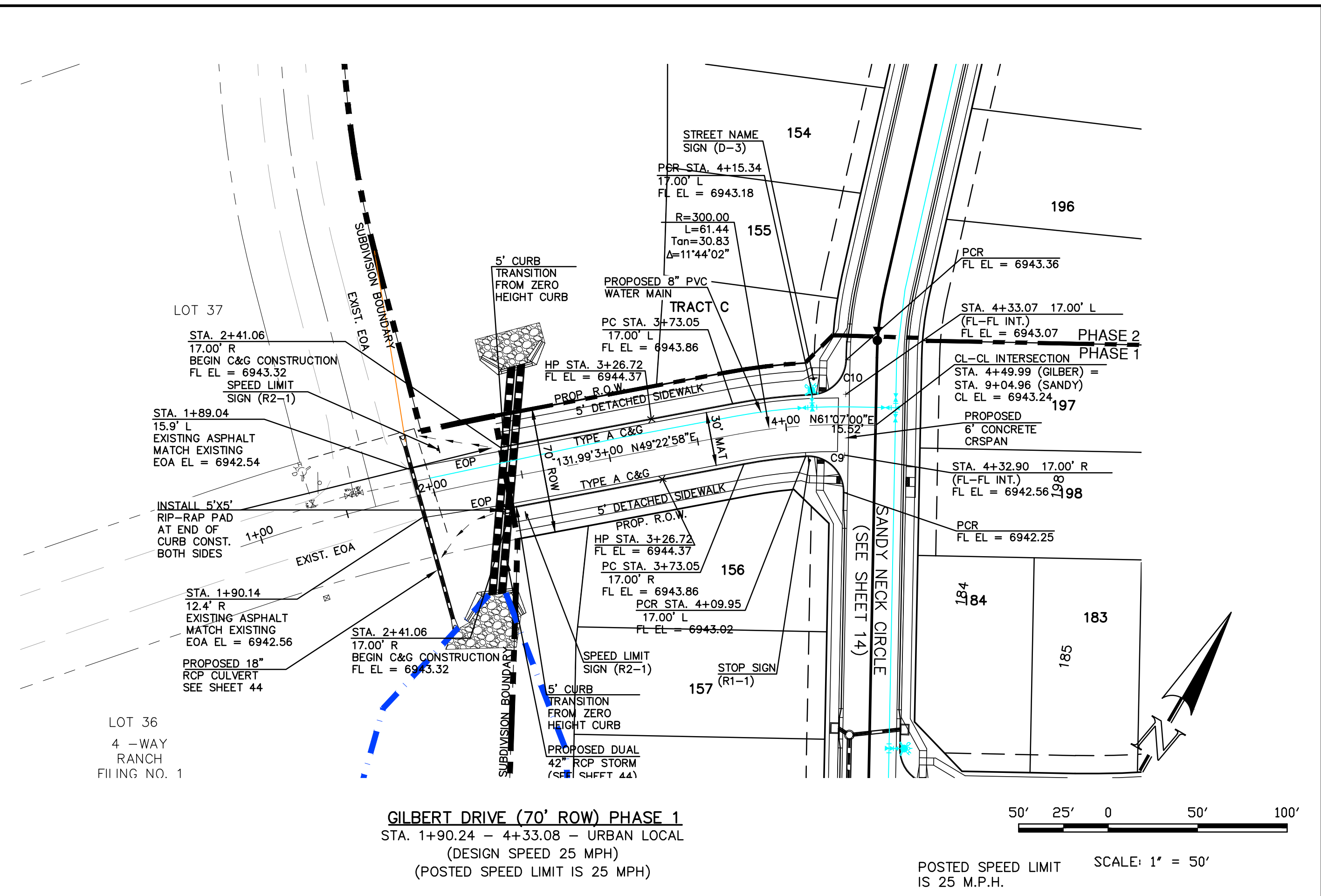
731 S. 2900 STREET
 COLORADO SPRINGS, CO 80904
 OFFICE: 719-635-6422
 FAX: 719-635-6426
 www.tnec.com

Terra Nova
 Engineering, Inc.
 Colorado Licensed Professional Engineer

DESIGNED BY: QNA
 DRAWN BY: QNA
 CHECKED BY: _____
 H-SCALE 1"=50'
 V-SCALE 1"=5'
 JOB NO. 2356.00
 DATE ISSUED 10/4/24
 SHEET NO. 12 OF 52



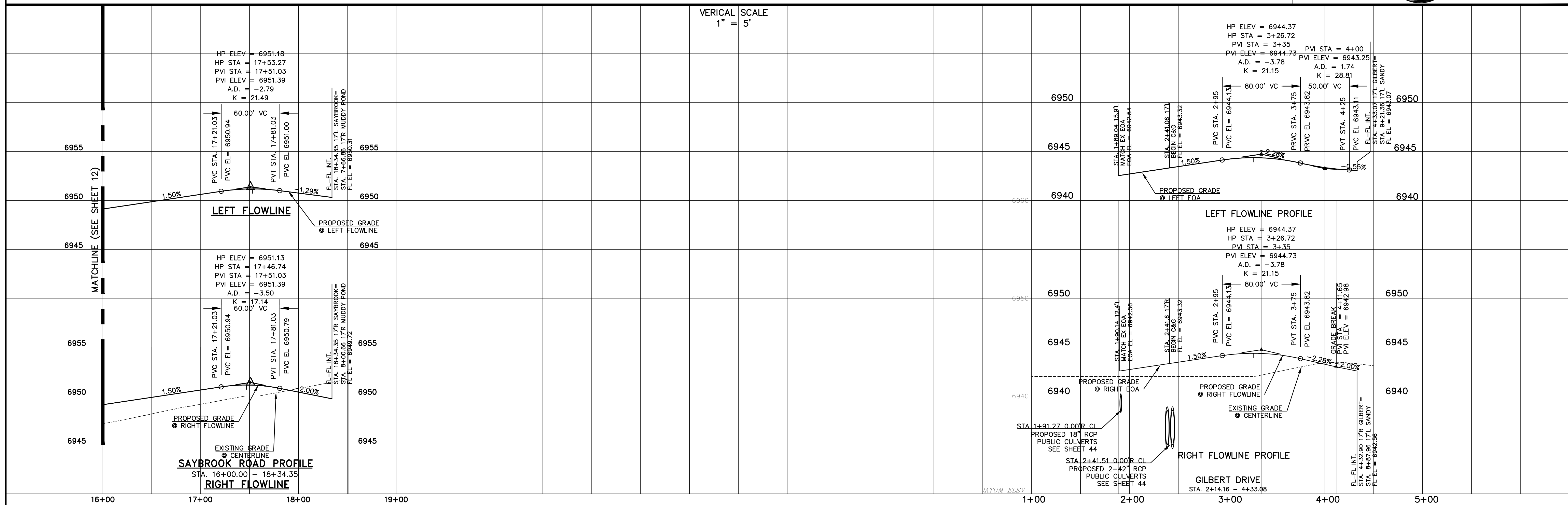
CURVE	LENGTH	RADIUS	DELA
C7	31.42'	20.00'	90°00'00"
C8	31.42'	20.00'	90°00'00"
C9	33.05'	20.00'	94°41'12"
C10	30.14'	20.00'	86°20'39"



THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

Quentin N. Armijo
 QUENTIN N. ARMIJO, PROFESSIONAL ENGINEER
 COLORADO P.E. NO. 37170

COLORED LICENSED
 QUENTIN N. ARMIJO
 37170
 10/13/24



REVISIONS	NO.	DESCRIPTION	DATE

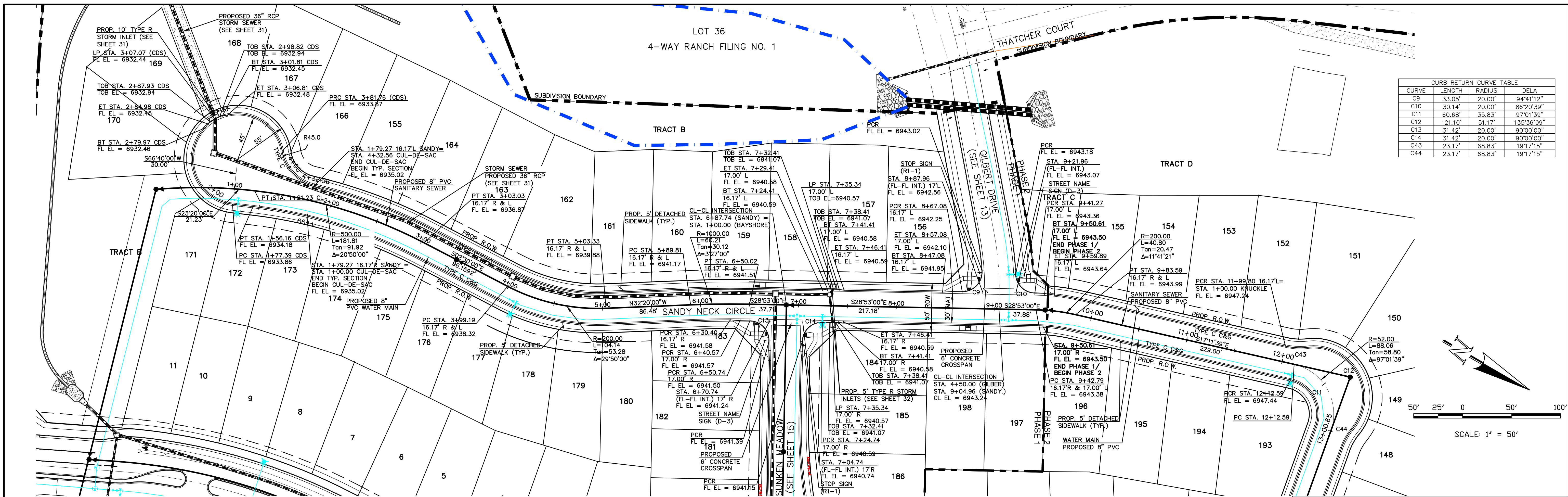
UNTIL SUCH TIME AS APPROVED DRAWINGS ARE APPROVED BY THE ENGINEER IN CHARGE OF THE PROJECT, ALL CHANGES SHALL BE MADE BY THE ENGINEER IN CHARGE OF THE PROJECT.

PREPARED FOR:
 ACM ALF VIII JV SUB II LLC
 JASON POCK
 100 E. MISSISSIPPI AVE., STE 500
 DENVER, CO 80246
 303-984-9800

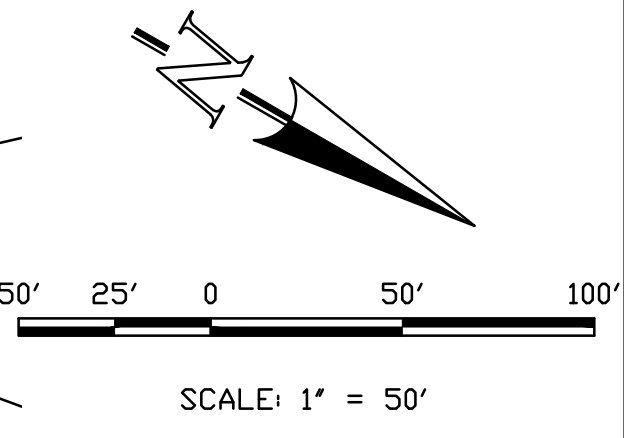
DESIGNED BY QNA
 DRAWN BY QNA
 CHECKED BY
 H-SCALE 1"=50'
 V-SCALE 1"=5'
 JOB NO. 2356.00
 DATE ISSUED 10/4/24
 SHEET NO. 13 OF 52

WATERBURY FILING NO. 1
 CONSTRUCTION SET
 STREET PLAN AND PROFILE
 SAYBROOK ROAD CONT'D & GILBERT DRIVE

Terra Nova Engineering, Inc.
 Professional Engineer
 721 S. 2960 STREET
 COLORADO SPRINGS, CO 80904
 OFFICE: 719-635-6422
 FAX: 719-635-6426
 www.tnengine.com



CURVE	LENGTH	RADIUS	DELA
C9	33.05'	20.00'	94°41'12"
C10	30.14'	20.00'	86°20'39"
C11	60.68'	35.83'	97°01'39"
C12	121.10'	51.17'	135°36'09"
C13	31.42'	20.00'	90°00'00"
C14	31.42'	20.00'	90°00'00"
C43	23.17'	68.83'	191°7'15"
C44	23.17'	68.83'	191°7'15"



SANDY NECK CIRCLE PHASE 1 & 2
 STA. 1+00.00 - 11+00.00 - URBAN LOCAL
 (DESIGN SPEED 25 MPH)
 (POSTED SPEED LIMIT IS 25 MPH)

POSTED SPEED LIMIT IS 25 M.P.H.

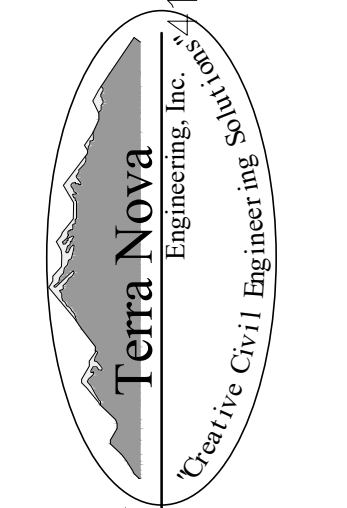
THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.



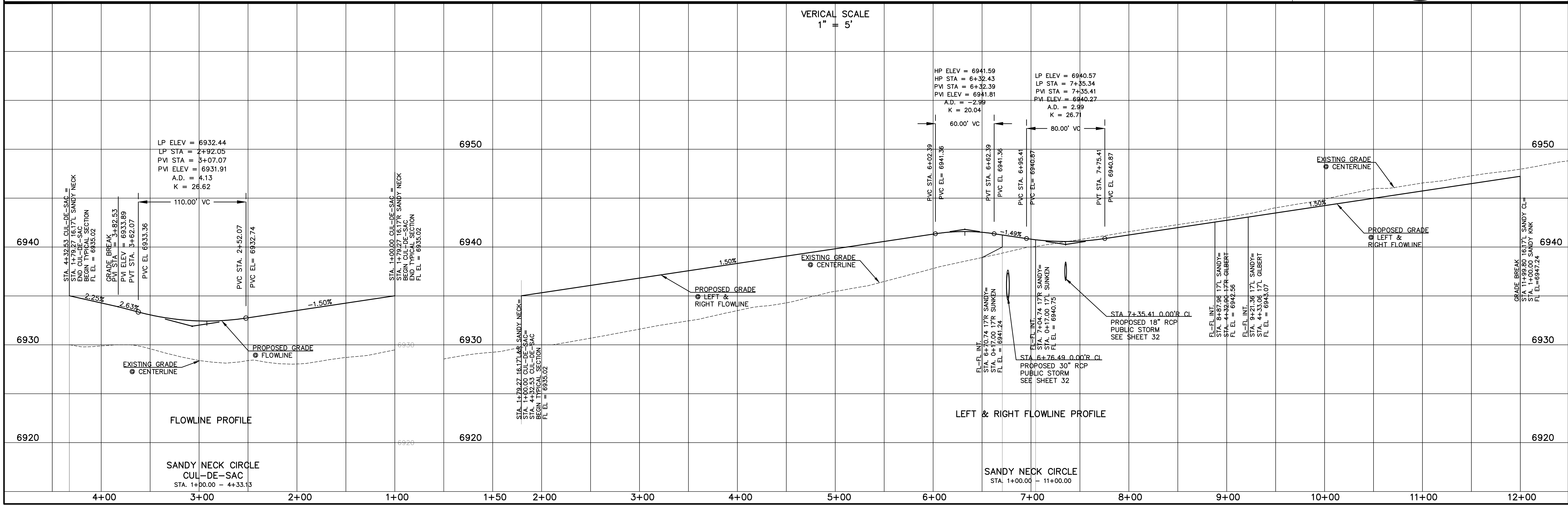
NO.	DESCRIPTION	DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE BOARD OF ARCHITECTS, ENGINEERS AND SURVEYORS, INC. AND APPROVED FOR THEIR USE ONLY AS DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR:
ACM ALF VIII JV SUB II LLC
JASON POKK
 100 E. MISSISSIPPI AVE., STE 5
 DENVER, CO 80246
 303-984-9800

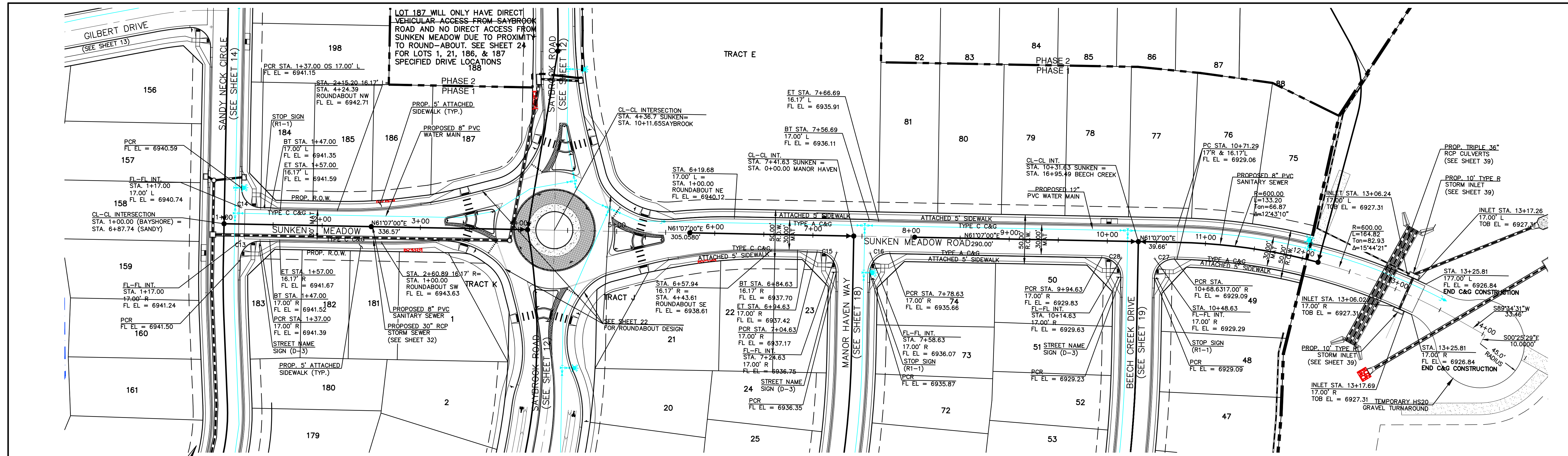


721 S. 29th STREET
 COLORADO SPRINGS, CO 80904
 OFFICE: 719-635-6422
 FAX: 719-635-6426
 www.tnase.com



WATERBURY FILING NO. 1
 CONSTRUCTION SET
 STREET PLAN AND PROFILE
 SANDY NECK CIR.

DESIGNED BY QNA
 DRAWN BY QNA
 CHECKED BY
 H-SCALE 1"=50'
 V-SCALE 1"=5'
 JOB NO. 2356.00
 DATE ISSUED 10/4/24
 SHEET NO. 14 OF 52

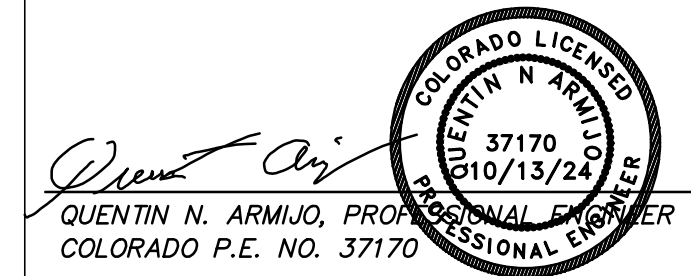


CURB RETURN CURVE TABLE

CURVE	LENGTH	RADIUS	DELA
C13	31.42'	20.00'	90°00'00"
C14	31.42'	20.00'	90°00'00"
C15	31.42'	20.00'	90°00'00"
C16	32.51'	20.00'	93°07'57"
C27	31.42'	20.00'	90°00'00"
C28	31.42'	20.00'	90°00'00"

SUNKEN MEADOW ROAD
 STA. 1+00.00 - STA. 13+25.81 - URBAN LOCAL
 (DESIGN SPEED 25 MPH)
 (POSTED SPEED LIMIT IS 25 MPH)

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION
 FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.



REVISIONS

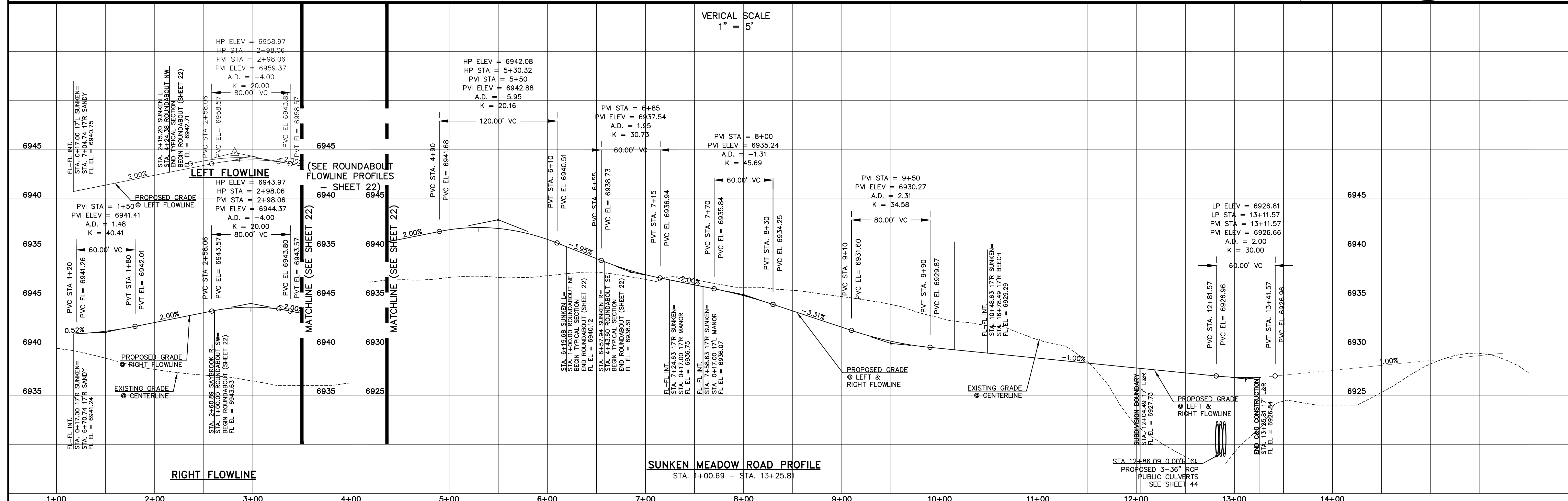
NO.	DESCRIPTION	DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE BOARD OF ARCHITECTS, ENGINEERS AND SURVEYORS, INC. AND THEIR USE ONLY AUTHORIZED BY WRITTEN AUTHORIZATION.

PREPARED FOR:
ACM ALF VJ SUB II LLC
JASON POKK
 P.O. BOX 50223
 DENVER, CO 80246
 303-984-9800

721 S. 29th STREET
 COLORADO SPRINGS, CO 80904
 OFFICE: 719-635-6422
 FAX: 719-635-6426
 www.tnec.com

Terra Nova
 Engineering, Inc.
 A Terra Nova Group Company
 Professional Engineer
 Colorado License No. 37170



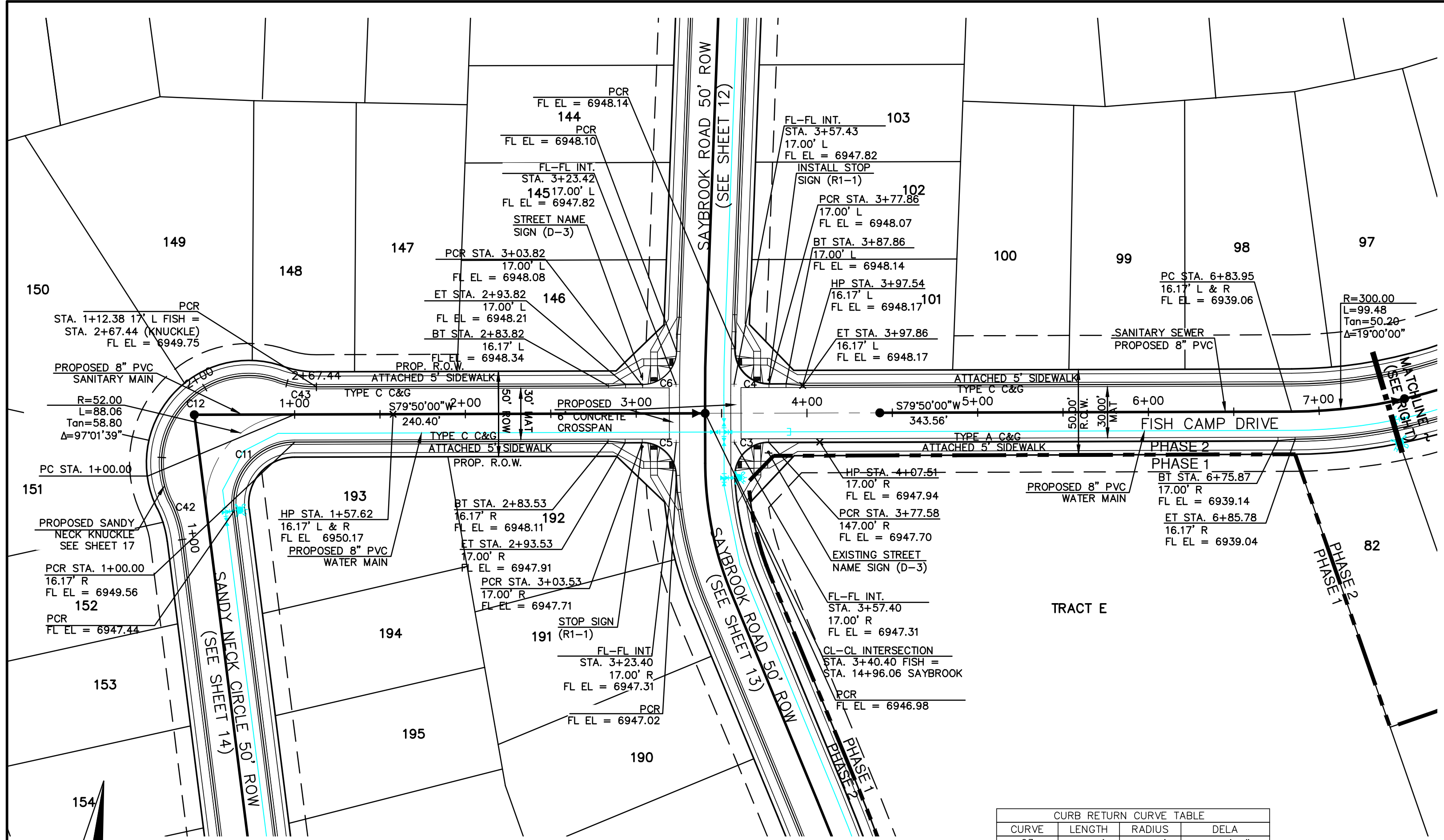
WATERBURY FILING NO. 1

CONSTRUCTION SET
 STREET PLAN AND PROFILE
 SUNKEN MEADOW ROAD

DESIGNED BY QNA
 DRAWN BY QNA
 CHECKED BY

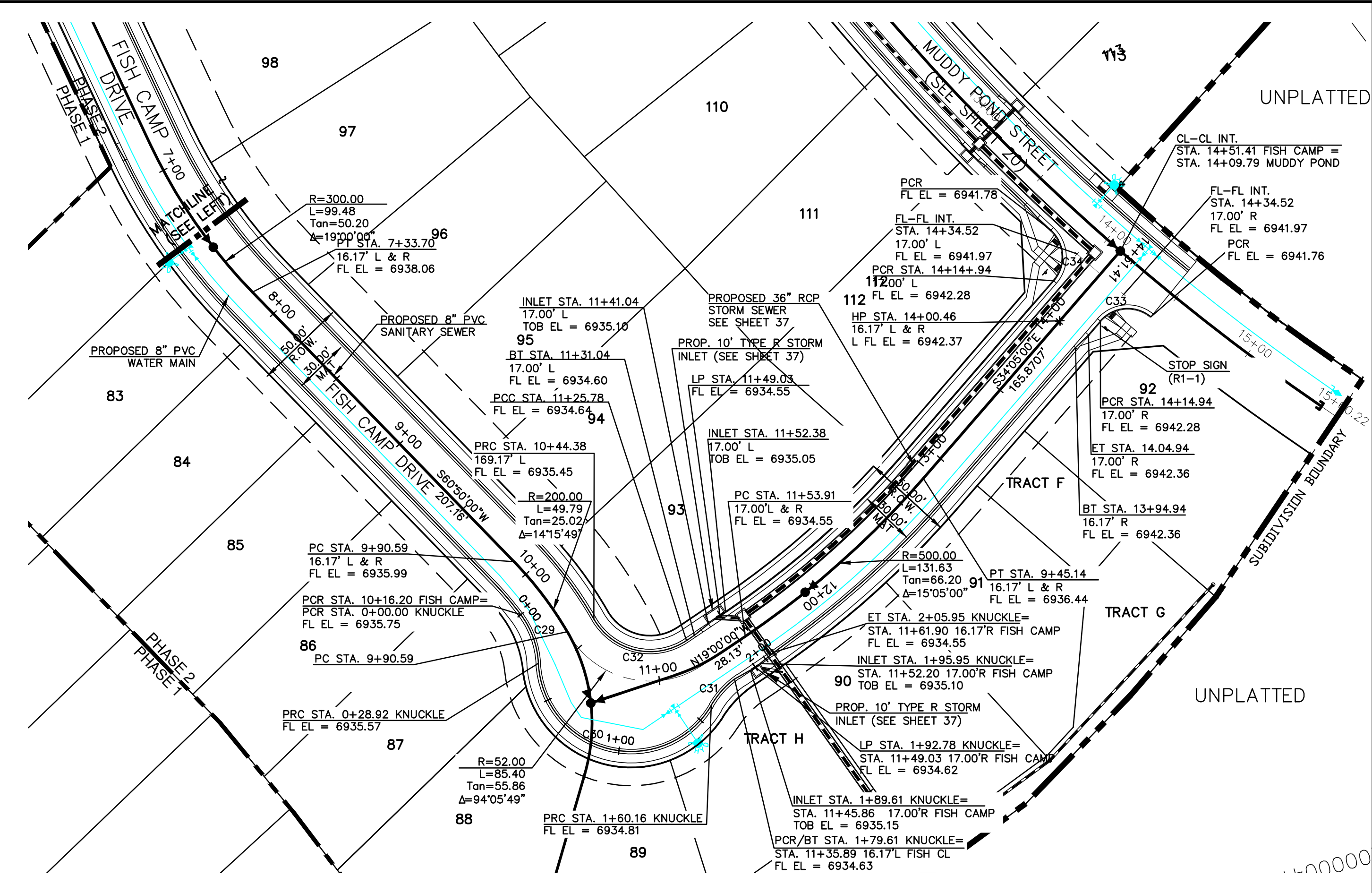
H-SCALE 1"=50'
 V-SCALE 1"=5'

JOB NO. 2356.00
 DATE ISSUED 10/4/24
 SHEET NO. 15 OF 52

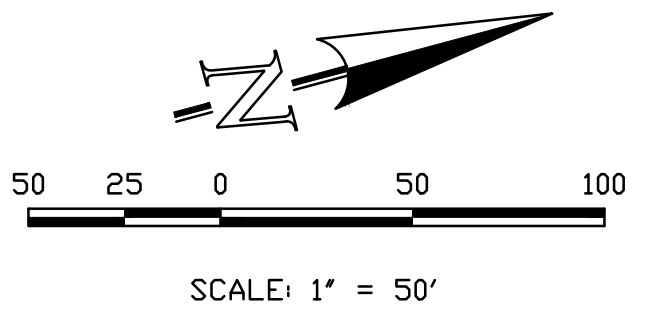


FISH CAMP DRIVE PHASE 2
STA. 1+00.00 - 6+00.00 - URBAN LOCAL
(DESIGN SPEED 25 MPH)
(POSTED SPEED LIMIT IS 25 MPH)

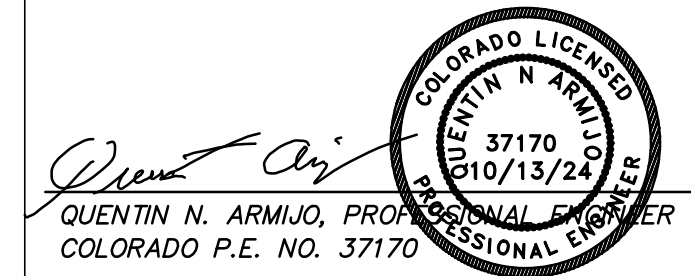
CURB RETURN CURVE TABLE			
CURVE	LENGTH	RADIUS	DELA
C3	32.37'	20.00'	92°43'54"
C4	32.11'	20.00'	91°59'17"
C5	30.76'	20.00'	88°07'18"
C6	30.78'	20.00'	88°11'16"
C11	69.88'	35.83'	97°01'39"
C12	121.10'	51.17'	135°36'09"
C19	28.92'	48.83'	33°56'21"
C30	131.24'	51.17'	146°57'06"
C31	19.44'	48.83'	22°48'47"
C32	58.84'	35.83'	94°05'49"
C33	30.84'	20.00'	88°21'09"
C34	30.84'	20.00'	88°21'09"
C43	23.17'	68.83'	191°71'5"
C44	23.17'	68.83'	191°71'5"



FISH CAMP DRIVE PHASE 2
STA. 6+00.00 - 14+74.56 - URBAN LOCAL
(DESIGN SPEED 25 MPH)
(POSTED SPEED LIMIT IS 25 MPH)

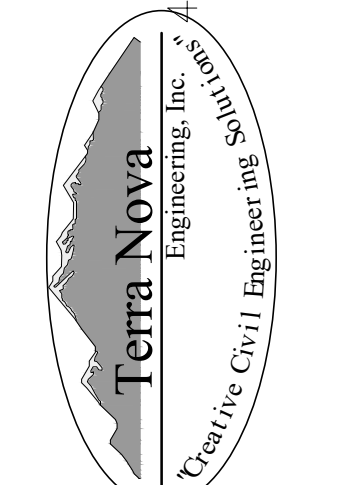


THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION
FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

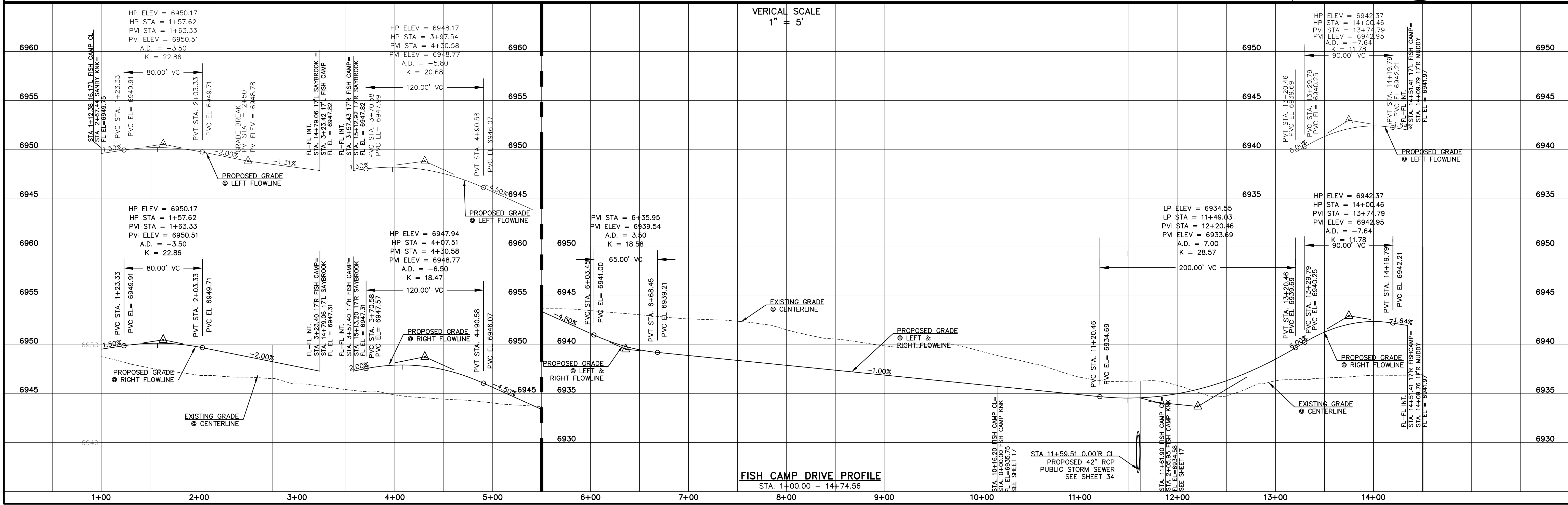


NO.	DESCRIPTION

PREPARED FOR:
ACM ALF VIII JV SUB II LLC
JASON POKK
00 E. MISSISSIPPI AVE., STE 500
DENVER, CO 80246
303-984-9800



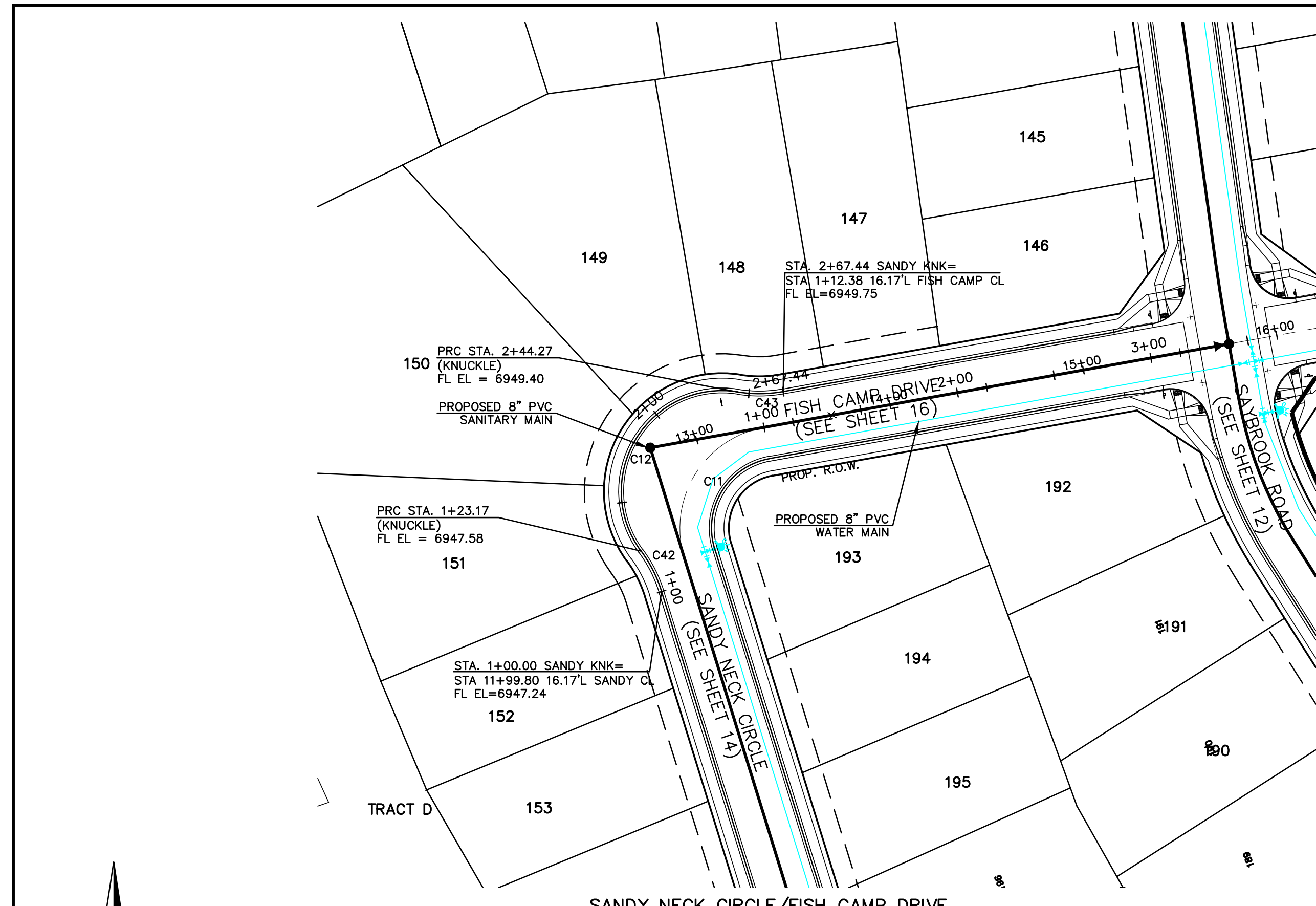
731 S. 2960 STREET
COLORADO SPRINGS, CO 80904
OFFICE: 719-635-6422
FAX: 719-635-6426
www.tnec.com



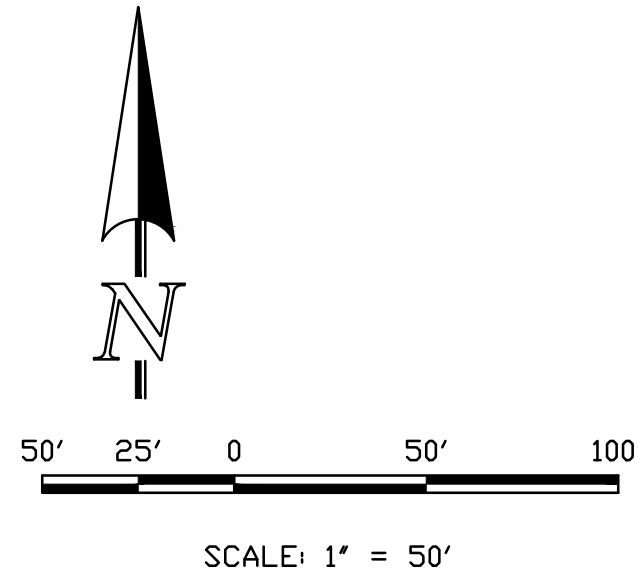
FISH CAMP DRIVE PROFILE
STA. 1+00.00 - 14+74.56

WATERBURY FILING NO. 1
CONSTRUCTION SET
STREET PLAN AND PROFILE
FISH CAMP DRIVE

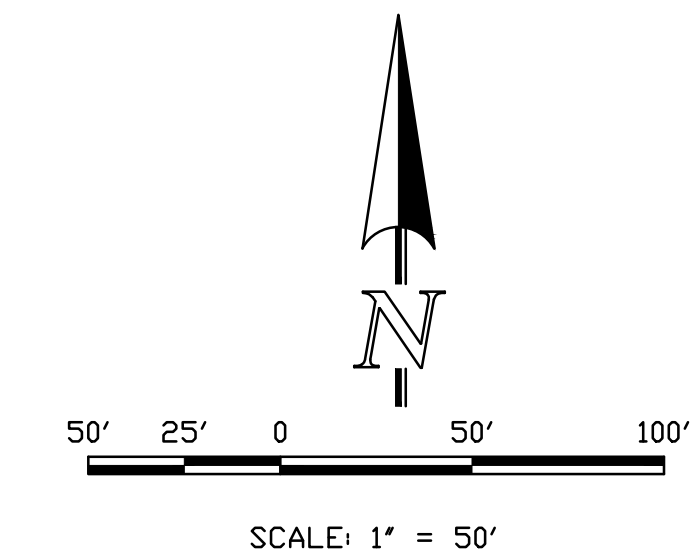
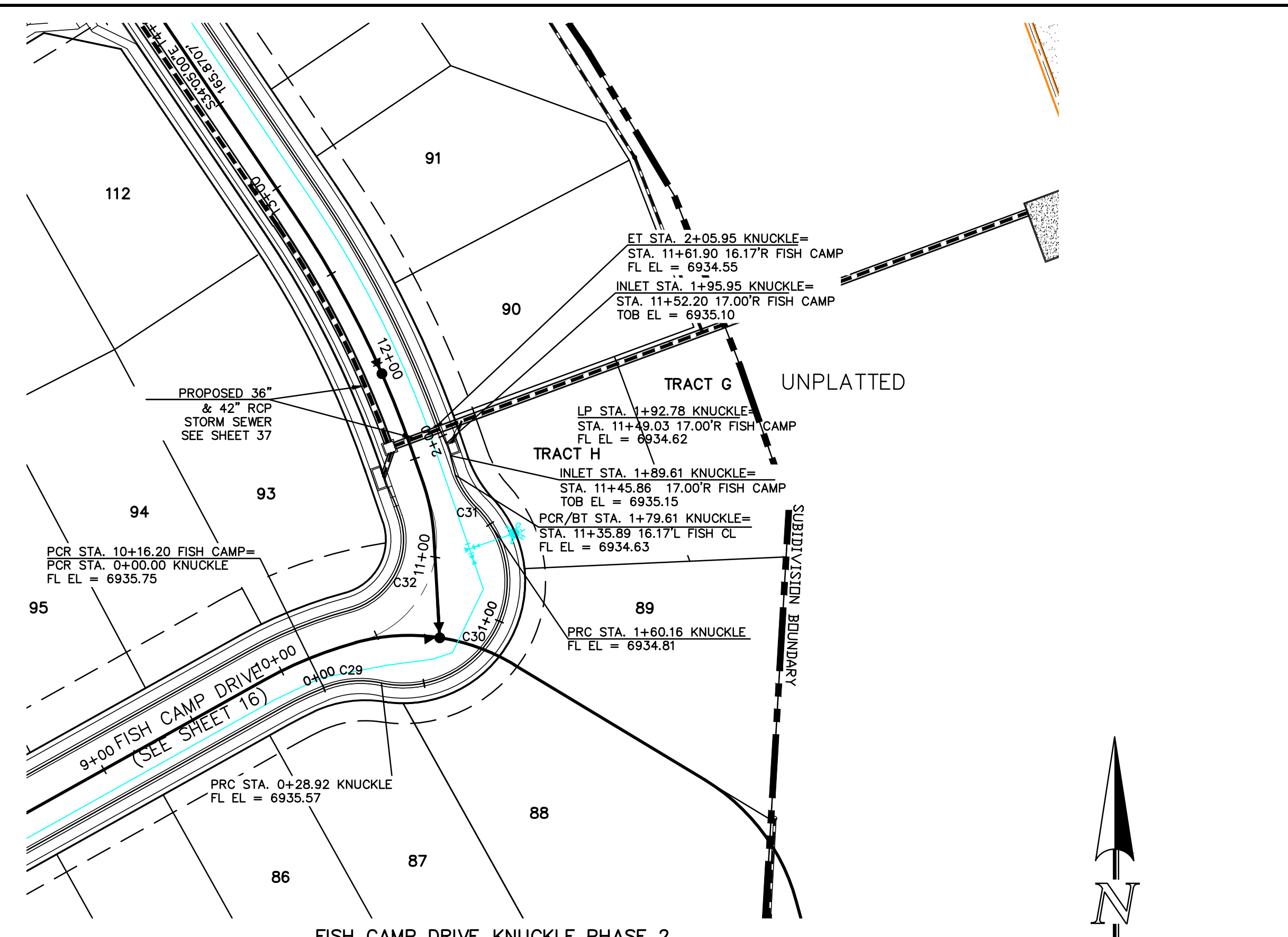
DESIGNED BY QNA
DRAWN BY QNA
CHECKED BY
H-SCALE 1"=50'
V-SCALE 1"=5'
JOB NO. 2356.00
DATE ISSUED 10/4/24
SHEET NO. 16 OF 52



CURVE	LENGTH	RADIUS	DELA
C11	60.68'	35.83'	97°01'39"
C12	121.10'	51.17'	135°36'09"
C29	28.92'	48.83'	33°56'21"
C30	131.24'	51.17'	146°57'06"
C31	19.44'	48.83'	22°48'47"
C32	58.84'	35.83'	94°05'49"
C43	23.17'	68.83'	191°7'15"
C44	23.17'	68.83'	191°7'15"



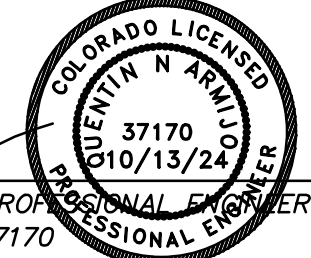
**SANDY NECK CIRCLE/FISH CAMP DRIVE
KNUCKLE PHASE 2**
 STA. 1+00.00 - 2+67.44 URBAN LOCAL
 (DESIGN SPEED 25 MPH)
 POSTED SPEED LIMIT
 IS 25 M.P.H.



FISH CAMP DRIVE KNUCKLE PHASE 2
 STA. 1+00.00 - 2+05.95 URBAN LOCAL
 (DESIGN SPEED 25 MPH)
 POSTED SPEED LIMIT
 IS 25 M.P.H.

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION
 FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

Quentin N. Armijo
 QUENTIN N. ARMUJO, PROFESSIONAL ENGINEER
 COLORADO P.E. NO. 37170

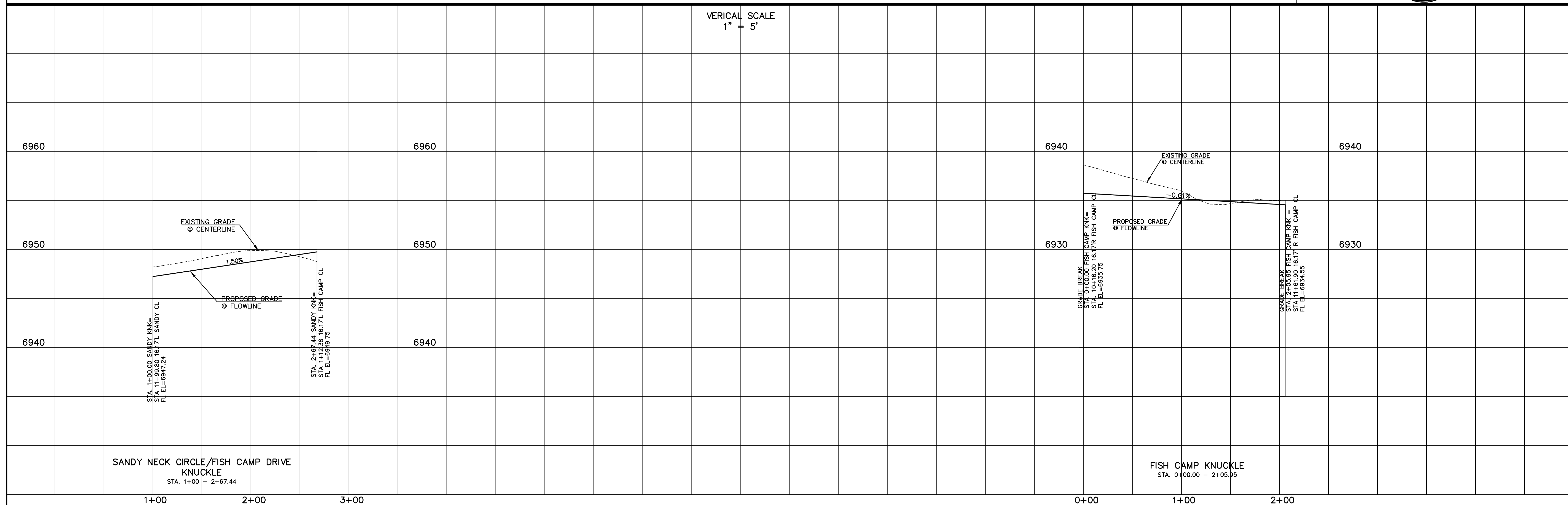


PREPARED FOR:
ACM ALF VII JV SUB II LLC
JASON POCK
 00 E. MISSISSIPPI AVE., STE 510
 DENVER, CO 80246
 303-948-9800

REVISIONS

NO.	DESCRIPTION	DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES TERRA NOVA ENGINEERING APPROVES THEIR USE ONLY FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.



721 S. 23RD STREET
 COLORADO SPRINGS, CO 80904
 OFFICE: 719-635-4422
 FAX: 719-635-6426
 www.tnecinc.com

Terra Nova
 Engineering, Inc.
 Creative Civil Engineering

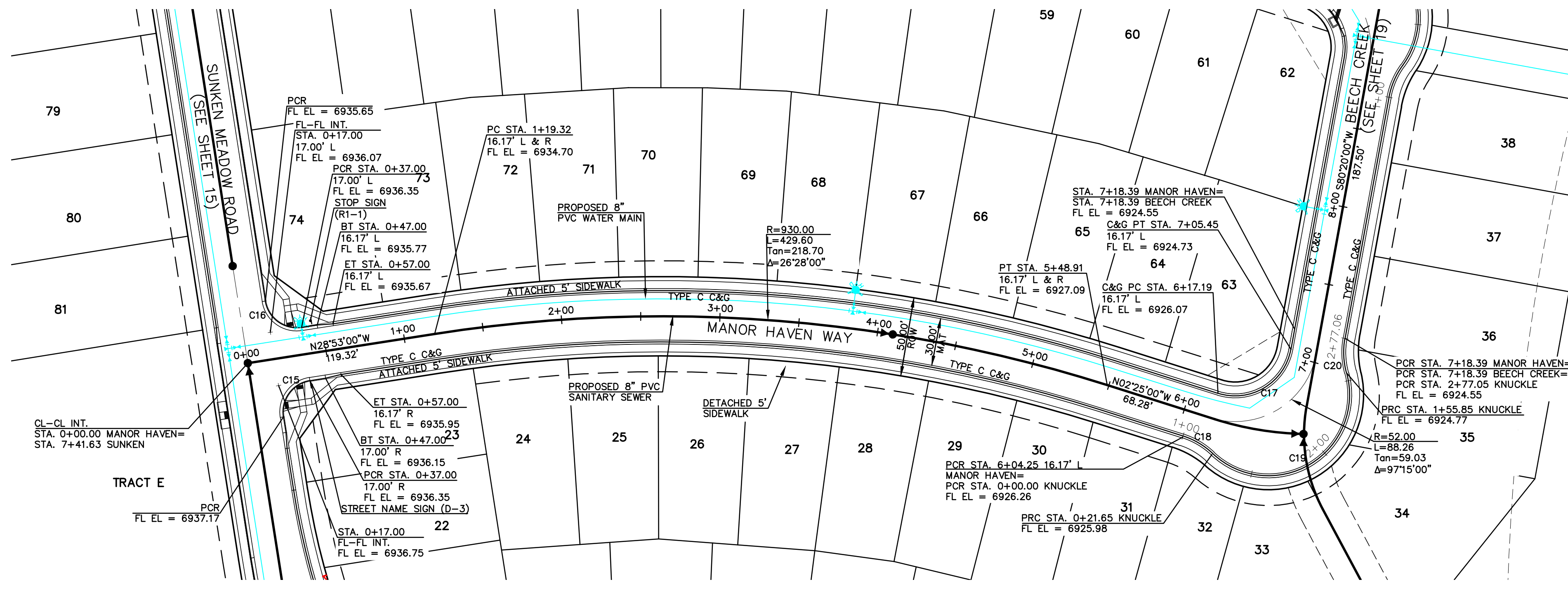
WATERBURY FILING NO. 1

CONSTRUCTION SET
 STREET PLAN AND PROFILE
 SANDY NECK/FISH CAMP KNUCKLE - FISH CAMP KNUCKLE

DESIGNED BY QNA
 DRAWN BY QNA
 CHECKED BY

H-SCALE 1"=50'
 V-SCALE 1"=5'

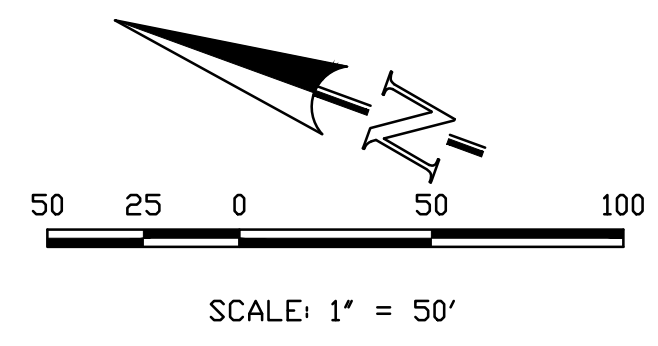
JOB NO. 2356.00
 DATE ISSUED 10/4/24
 SHEET NO. 17 OF 52



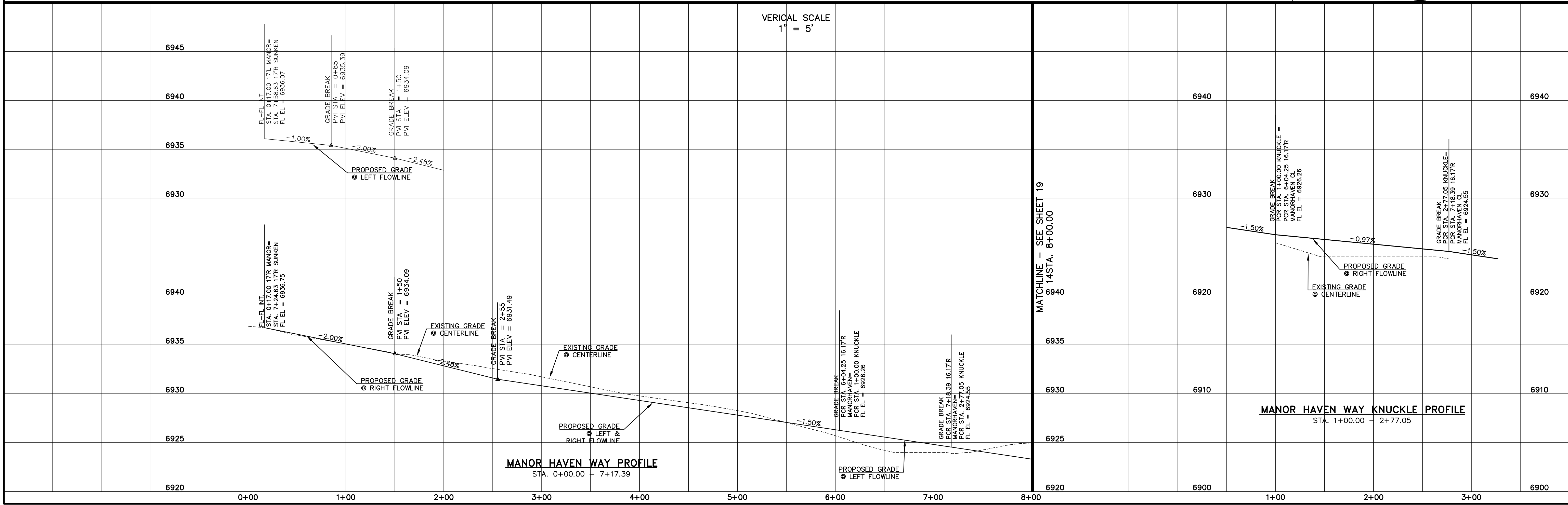
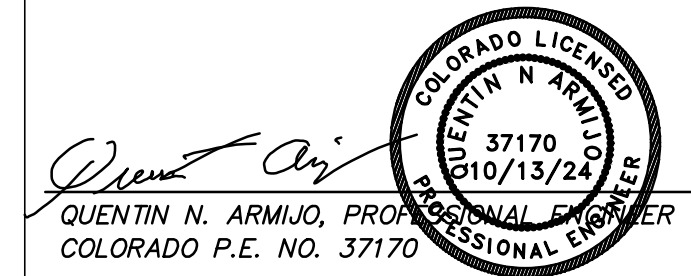
MANOR HAVEN WAY KNUCKLE PHASE 2
 STA. 1+00.00 - 2+77.05 - URBAN LOCAL
 (DESIGN SPEED 25 MPH)
 (POSTED SPEED LIMIT IS 25 MPH)

MANOR HAVEN WAY PHASE 2
 STA. 0+00.00 - 7+17.39 - URBAN LOCAL
 (DESIGN SPEED 25 MPH)
 (POSTED SPEED LIMIT IS 25 MPH)

CURVE	LENGTH	RADIUS	DELA
C15	31.42'	20.00'	90°00'00"
C16	32.51'	20.00'	93°07'57"
C17	60.82'	35.83'	97°15'00"
C18	22.02'	48.83'	25°50'31"
C19	133.01'	51.17'	148°56'02"
C20	22.02'	48.83'	25°50'31"



THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.



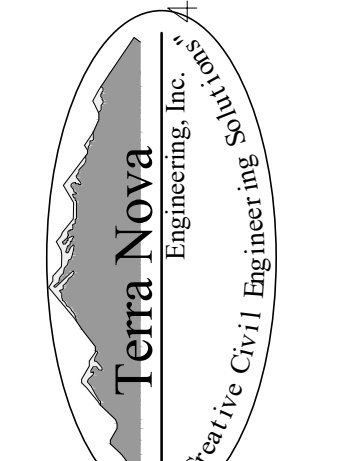
MANOR HAVEN WAY PROFILE
 STA. 0+00.00 - 7+17.39

MANOR HAVEN WAY KNUCKLE PROFILE
 STA. 1+00.00 - 2+77.05

NO.	DESCRIPTION	DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE BOARD OF EXAMINERS TERRA NOVA ENGINEERING AND SURVEYING, INC. APPROVES THEIR USE ONLY DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR:
ACM ALF VIII JV SUB II LLC
JASON POCK
 00 E. MISSISSIPPI AVE., STE 500
 246949
 303-948-9800



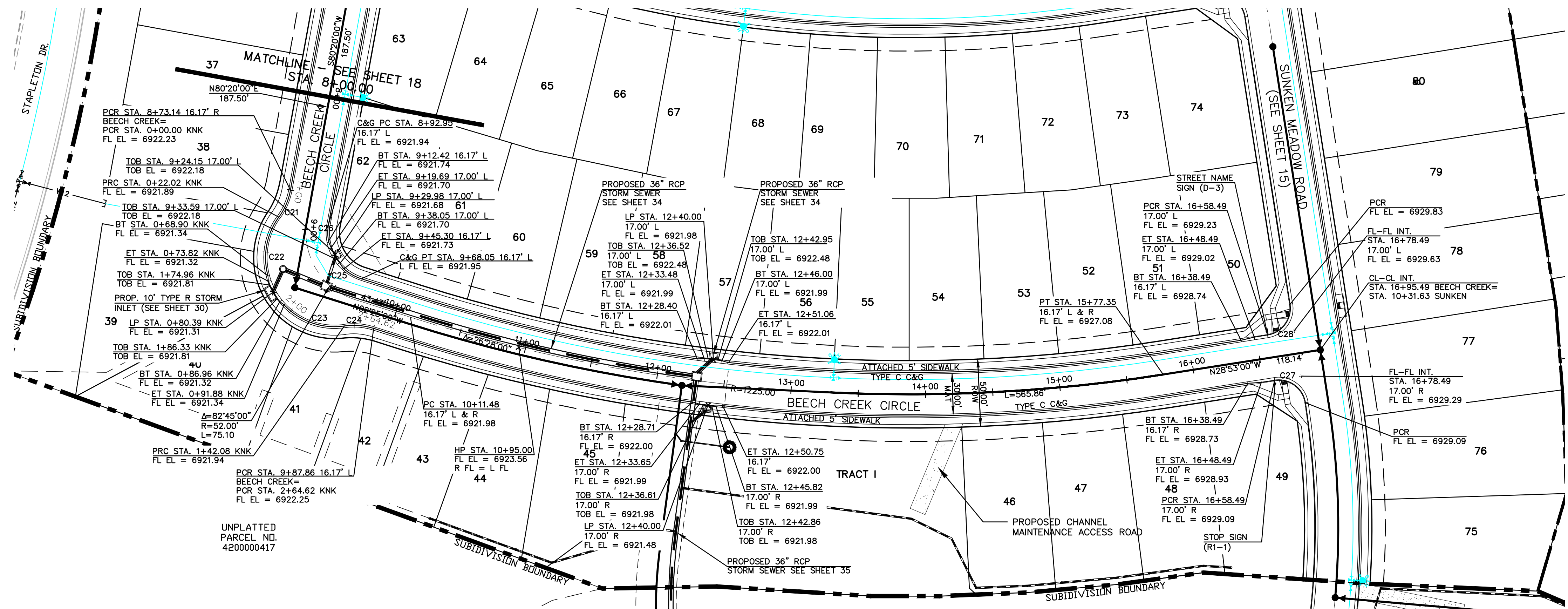
721 S. 2900 STREET
 COLORADO SPRINGS, CO 80904
 OFFICE: 719-635-6422
 FAX: 719-635-6426
 www.tnase.com

WATERBURY FILING NO. 1
 CONSTRUCTION SET
 STREET PLAN AND PROFILE
 MANOR HAVEN WAY

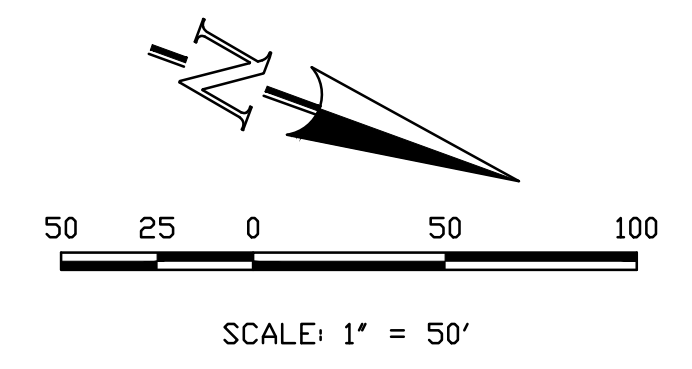
DESIGNED BY QNA
 DRAWN BY QNA
 CHECKED BY
 H-SCALE 1"=50'
 V-SCALE 1"=5'
 JOB NO. 2356.00
 DATE ISSUED 10/4/24
 SHEET NO. 18 OF 52

BEECH CREEK KNUCKLE PHASE 2
 STA. 1+00.00 - 2+77.05 - URBAN LOCAL
 (DESIGN SPEED 25 MPH)
 (POSTED SPEED LIMIT IS 25 MPH)

CURVE	LENGTH	RADIUS	DELA
C21	22.02'	48.83'	25°50'31"
C22	45.94'	51.17'	51°26'26"
C23	49.27'	51.17'	55°10'01"
C24	22.02'	48.83'	25°50'31"
C25	15.04'	35.83'	24°03'23"
C26	12.80'	35.83'	20°27'48"
C27	31.42'	20.00'	90°00'00"
C28	31.42'	20.00'	90°00'00"



BEECH CREEK CIRCLE PHASE 2
 STA. 8+00.00 - 16+95.49 - URBAN LOCAL
 (DESIGN SPEED 25 MPH)
 (POSTED SPEED LIMIT IS 25 MPH)



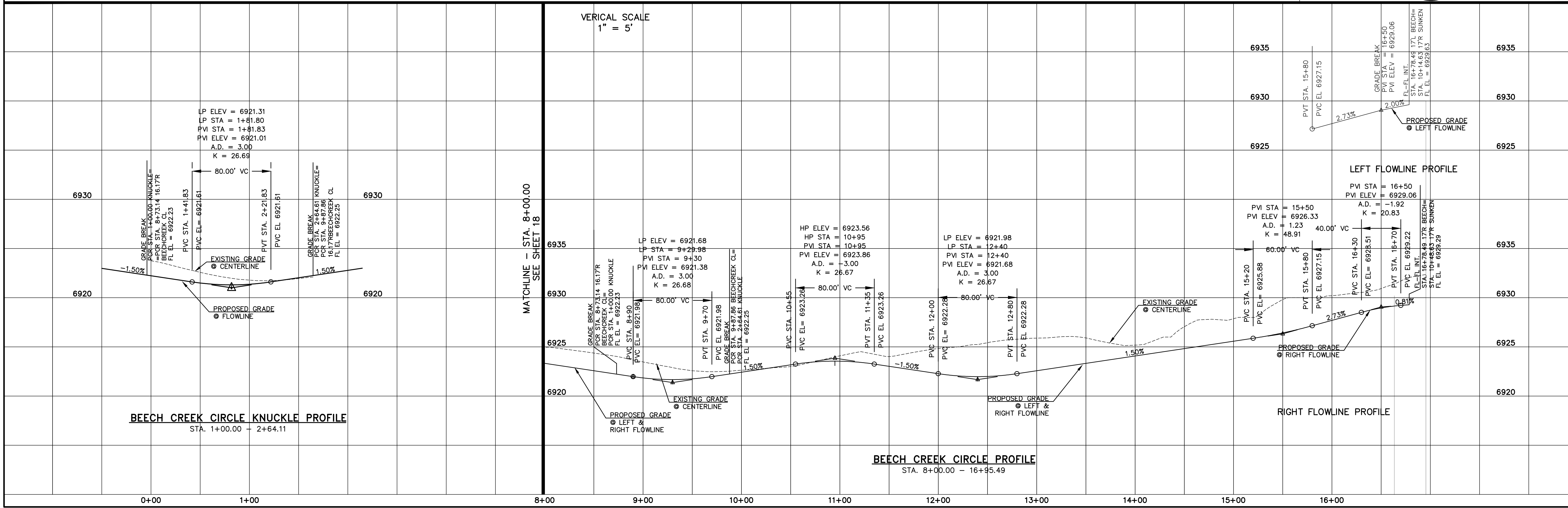
THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

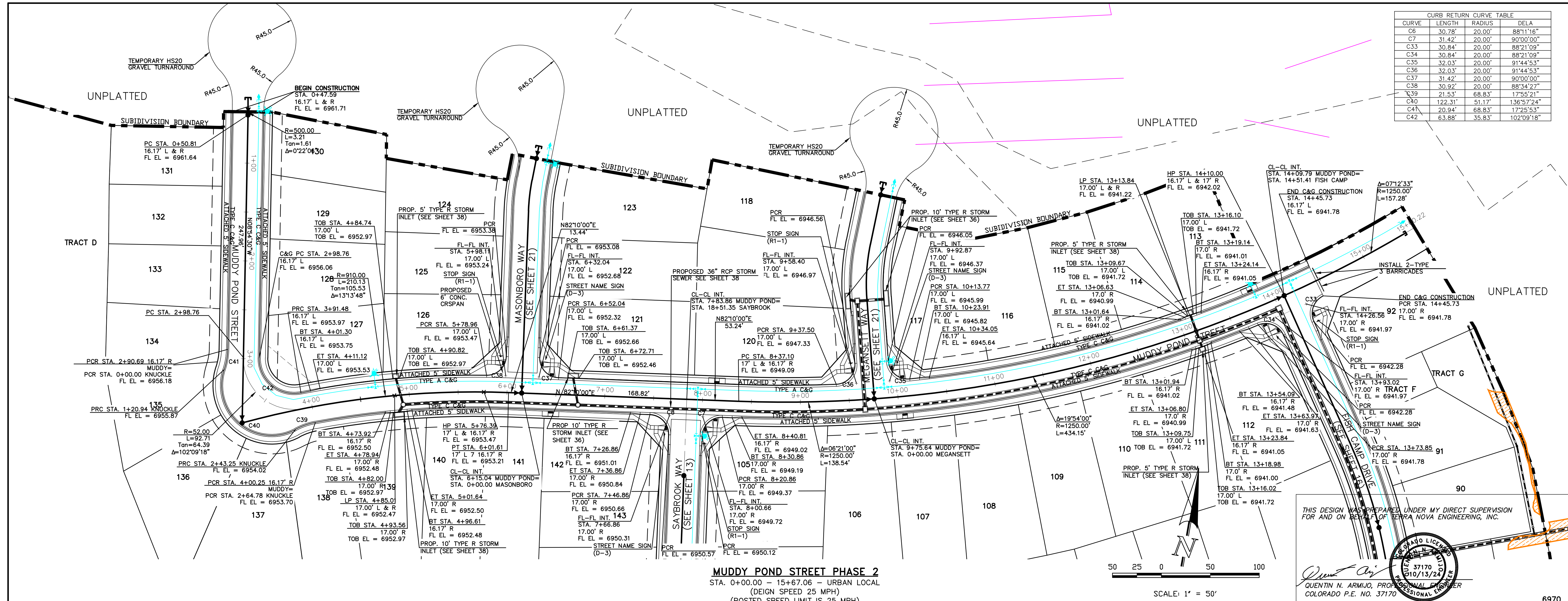
QUENTIN N. ARMIJO, PROFESSIONAL ENGINEER
 COLORADO P.E. NO. 37170

REVISIONS
 NO. DESCRIPTION
 UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE ENGINEER IN CHARGE OF THE PROJECT.
 TERRA NOVA ENGINEERING AND SURVEYING, INC. APPROVES THEIR USE ONLY AS DESIGNATED BY WRITTEN AUTHORIZATION.
 PREPARED FOR:
ACM ALF VIII JV SUB II LLC
JASON POKK
 4100 E. MISSISSIPPI
 DENVER, CO 80246
 303-984-9800

721 S. 2950 STREET
 COLORADO SPRINGS, CO 80904
 OFFICE: 719-635-6422
 FAX: 719-635-6426
 www.tnase.com
Terra Nova
 Engineering, Inc.
 A Terra Nova Group
 Creative Civil Engineer

WATERBURY FILING NO. 1
 CONSTRUCTION SET
 STREET PLAN AND PROFILE
 BEECH CREEK CIRCLE
 DESIGNED BY QNA
 DRAWN BY QNA
 CHECKED BY
 H-SCALE 1"=50'
 V-SCALE 1"=5'
 JOB NO. 2356.00
 DATE ISSUED 10/4/24
 SHEET NO. 19 OF 52





CURVE	LENGTH	RADIUS	DELA
C6	30.78'	20.00'	88°11'16"
C7	31.42'	20.00'	90°00'00"
C33	30.84'	20.00'	88°21'09"
C34	30.84'	20.00'	88°21'09"
C35	32.03'	20.00'	91°44'53"
C36	32.03'	20.00'	91°44'53"
C37	31.42'	20.00'	90°00'00"
C38	30.92'	20.00'	88°34'27"
C39	21.53'	68.83'	17°55'21"
C40	122.31'	51.17'	136°57'24"
C41	20.94'	68.83'	17°25'53"
C42	63.88'	35.83'	102°09'18"

DATE: _____

DESCRIPTION: _____

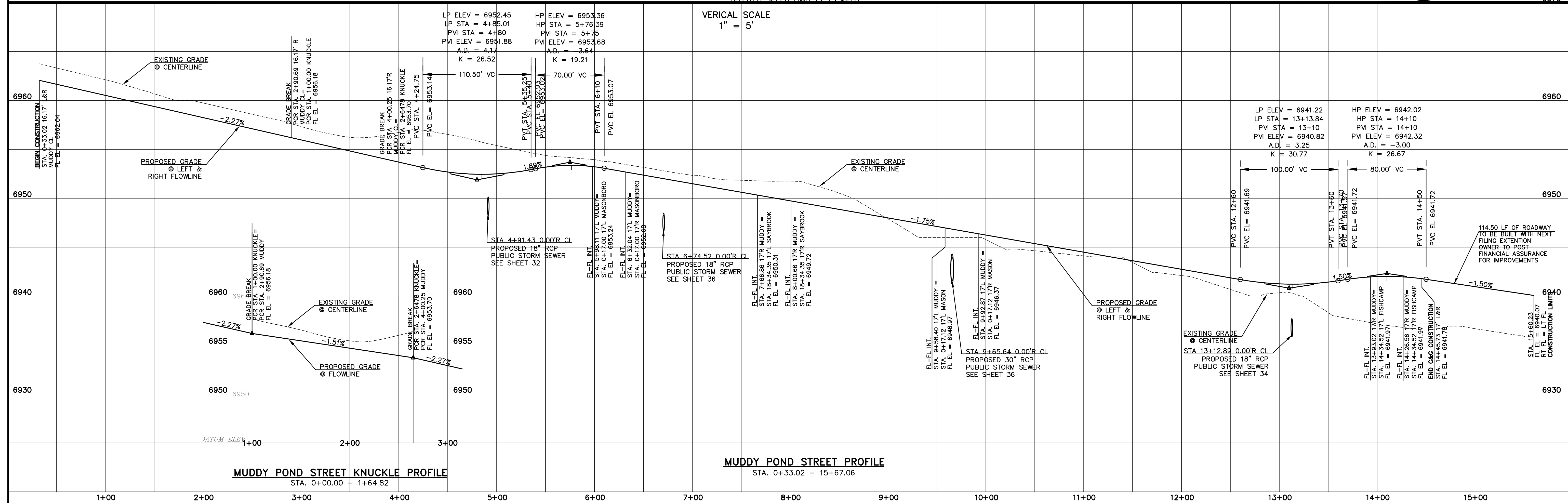
REVISIONS: _____

UNTL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE BOARD OF ENGINEERS AND SURVEYORS, TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY AS AUTHORIZED BY WRITTEN AUTHORIZATION.

PREPARED FOR: **ACM ALF VIII JV SUB II LLC**
JASON POCK
 100 E. MISSISSIPPI AVE., STE. 500
 DENVER, CO 80246
 303-984-9800

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

Quentin N. Armijo
QUENTIN N. ARMIJO, PROFESSIONAL ENGINEER
 COLORADO P.E. NO. 37170



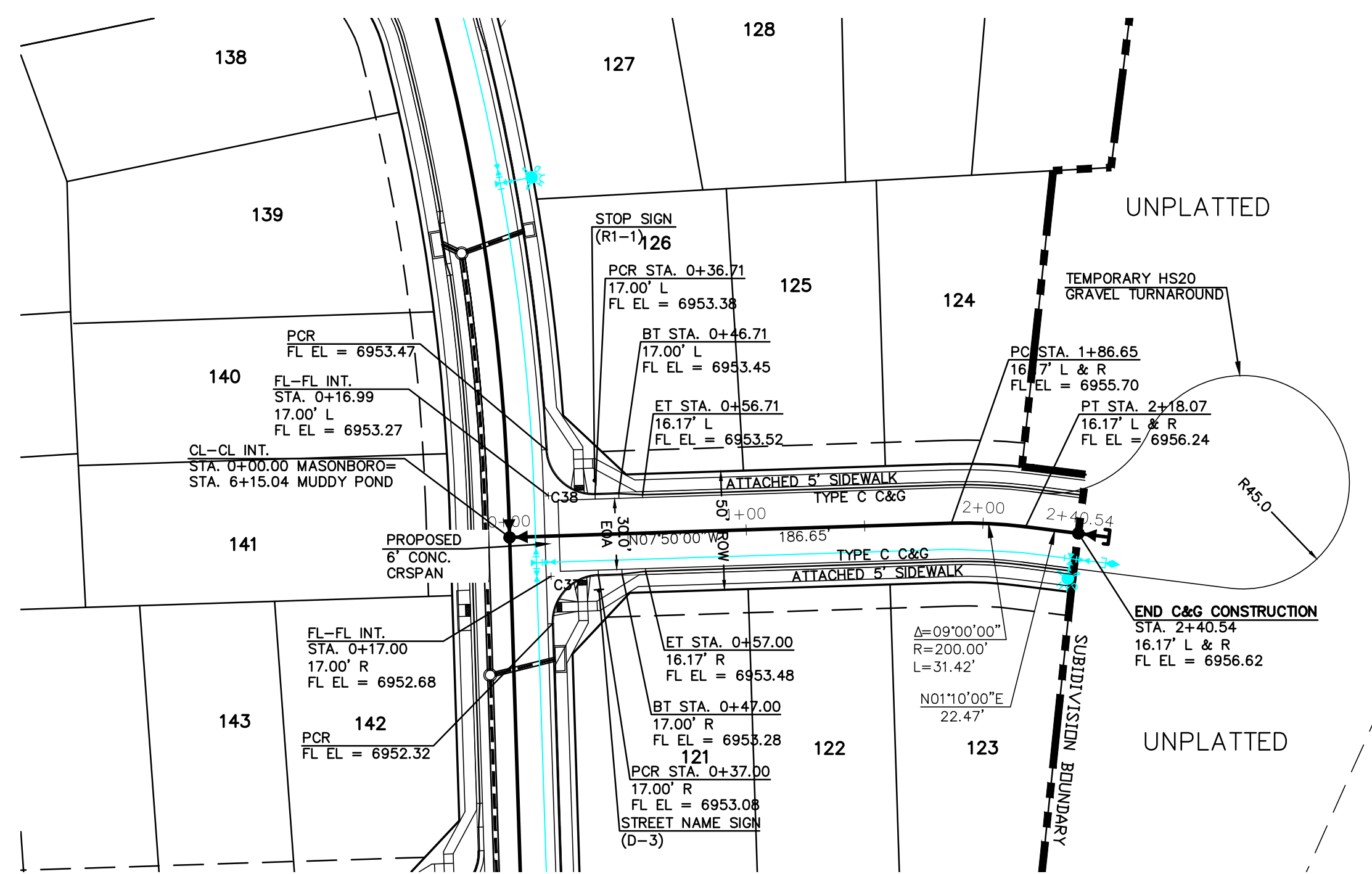
721 S. 29th STREET
 COLORADO SPRINGS, CO 80904
 OFFICE: 719-635-6422
 FAX: 719-635-6426
 www.tnase.com

Terra Nova
 Engineering, Inc.
 a Terra Nova Group Company

DESIGNED BY: QNA
 DRAWN BY: QNA
 CHECKED BY: _____

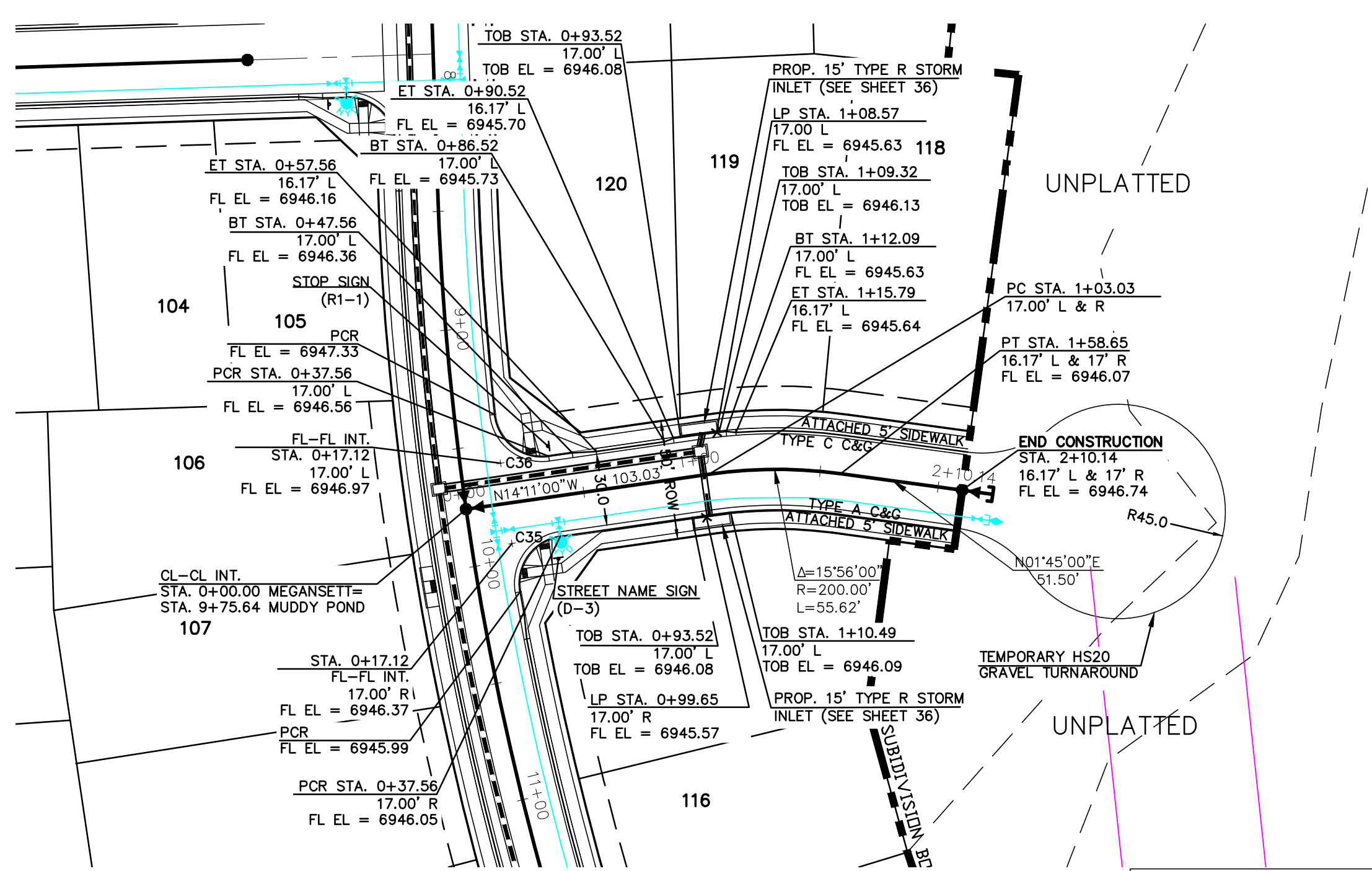
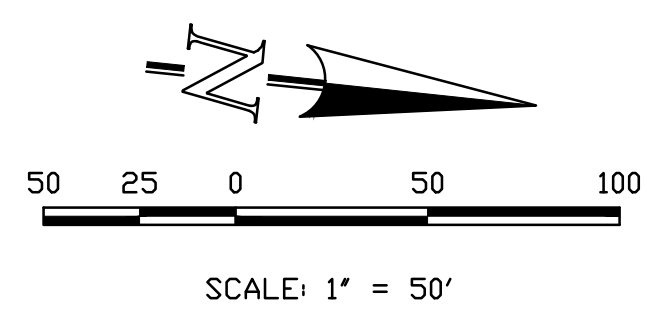
H-SCALE: 1"=50'
 V-SCALE: 1"=5'

JOB NO. 2356.00
 DATE ISSUED 10/4/24
 SHEET NO. 20 OF 52

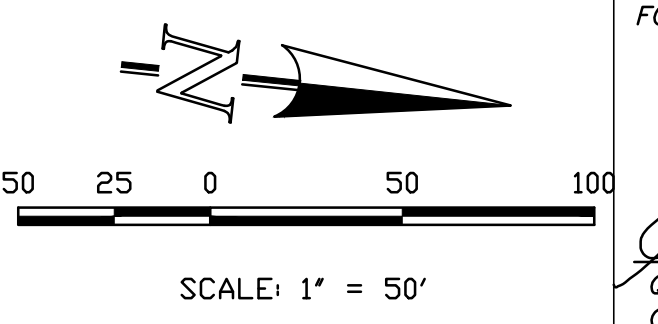


CURVE	LENGTH	RADIUS	DELA
C35	32.03'	20.00'	91°44'53"
C36	32.03'	20.00'	91°44'53"
C37	31.42'	20.00'	90°00'00"
C38	30.92'	20.00'	88°34'27"

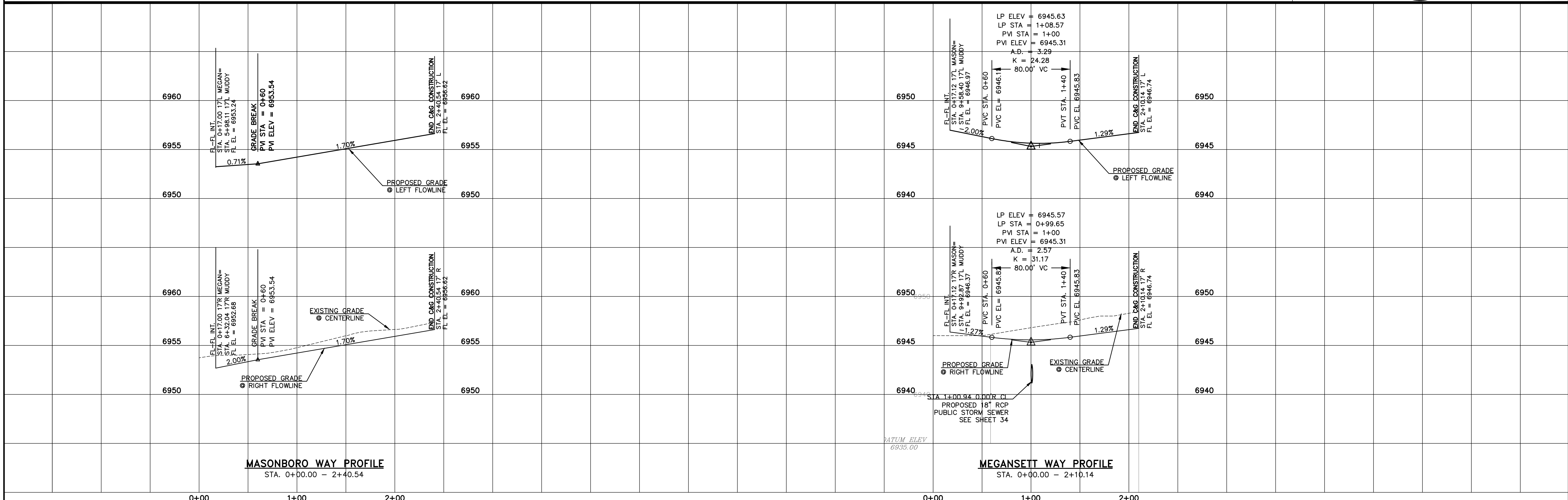
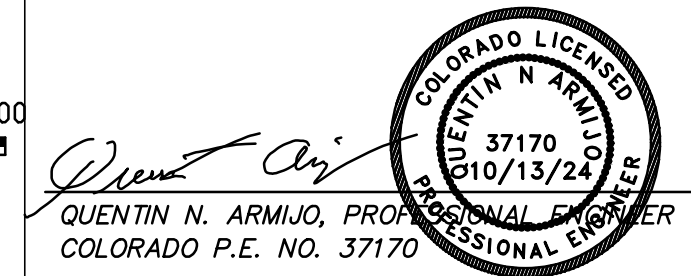
MASONBORO WAY PHASE 2
 STA. 0+00.00 - 2+40.54 - URBAN LOCAL
 (DESIGN SPEED 25 MPH)
 (POSTED SPEED LIMIT IS 25 MPH)



MEGANSETT WAY PHASE 2
 STA. 0+00.00 - 2+10.14 - URBAN LOCAL
 (DESIGN SPEED 25 MPH)
 (POSTED SPEED LIMIT IS 25 MPH)



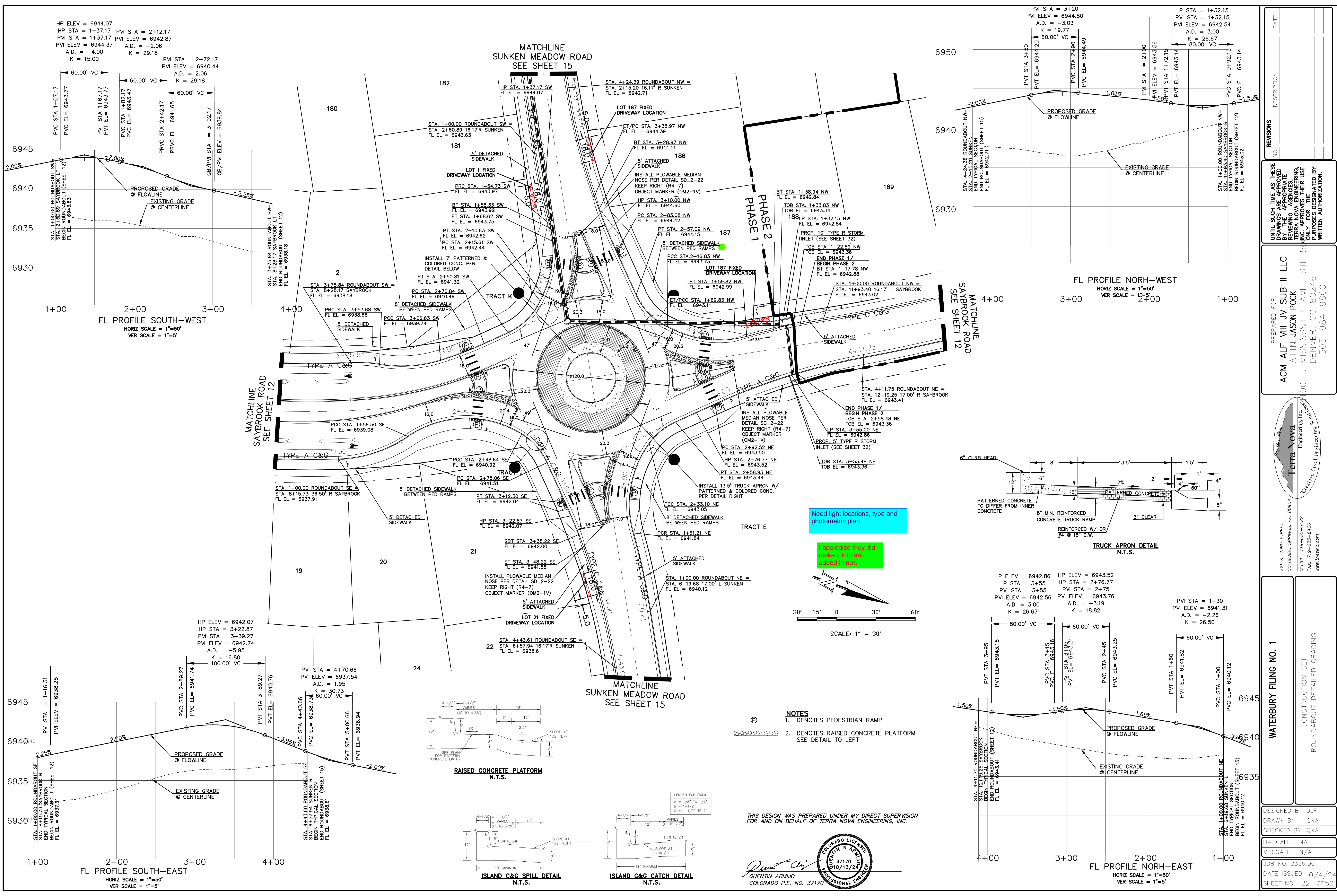
THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION
 FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.



MASONBORO WAY PROFILE
 STA. 0+00.00 - 2+40.54

MEGANSETT WAY PROFILE
 STA. 0+00.00 - 2+10.14

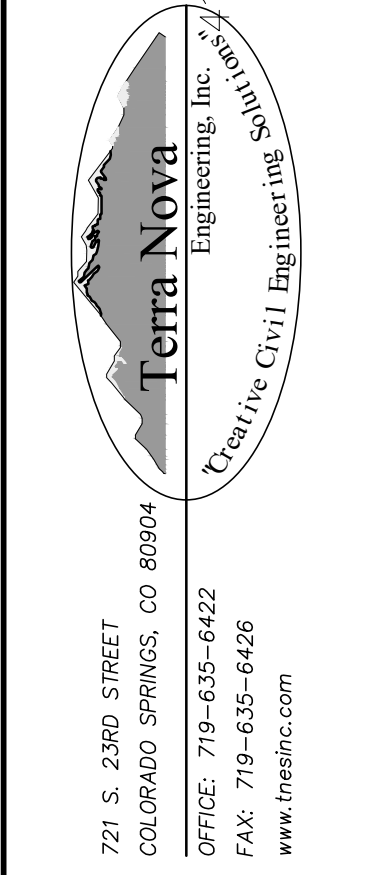
DATE	
DESCRIPTION	
REVISIONS	
NO.	
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE LOCAL AGENCIES TERRA NOVA ENGINEERING AND SURVEYING, INC. APPROVES THEIR USE ONLY DESIGNATED BY WRITTEN AUTHORIZATION.	
PREPARED FOR: ACM ALF VIII JV SUB II LLC JASON POCK 00 E. MISSISSIPPI AVE., STE 500 DENVER, CO 80246 303-984-9800	
 Terra Nova Engineering, Inc. Professional Engineer 721 S. 2960 STREET COLORADO SPRINGS, CO 80904 OFFICE: 719-635-6422 FAX: 719-635-6426 www.tnase.com	
WATERBURY FILING NO. 1 CONSTRUCTION SET STREET PLAN AND PROFILE MASONBORO WAY & MEGANSETT WAY	
DESIGNED BY	QNA
DRAWN BY	QNA
CHECKED BY	
H-SCALE	1"=50'
V-SCALE	1"=5'
JOB NO.	2356.00
DATE ISSUED	10/4/24
SHEET NO.	21 OF 52



NO.	DESCRIPTION	DATE

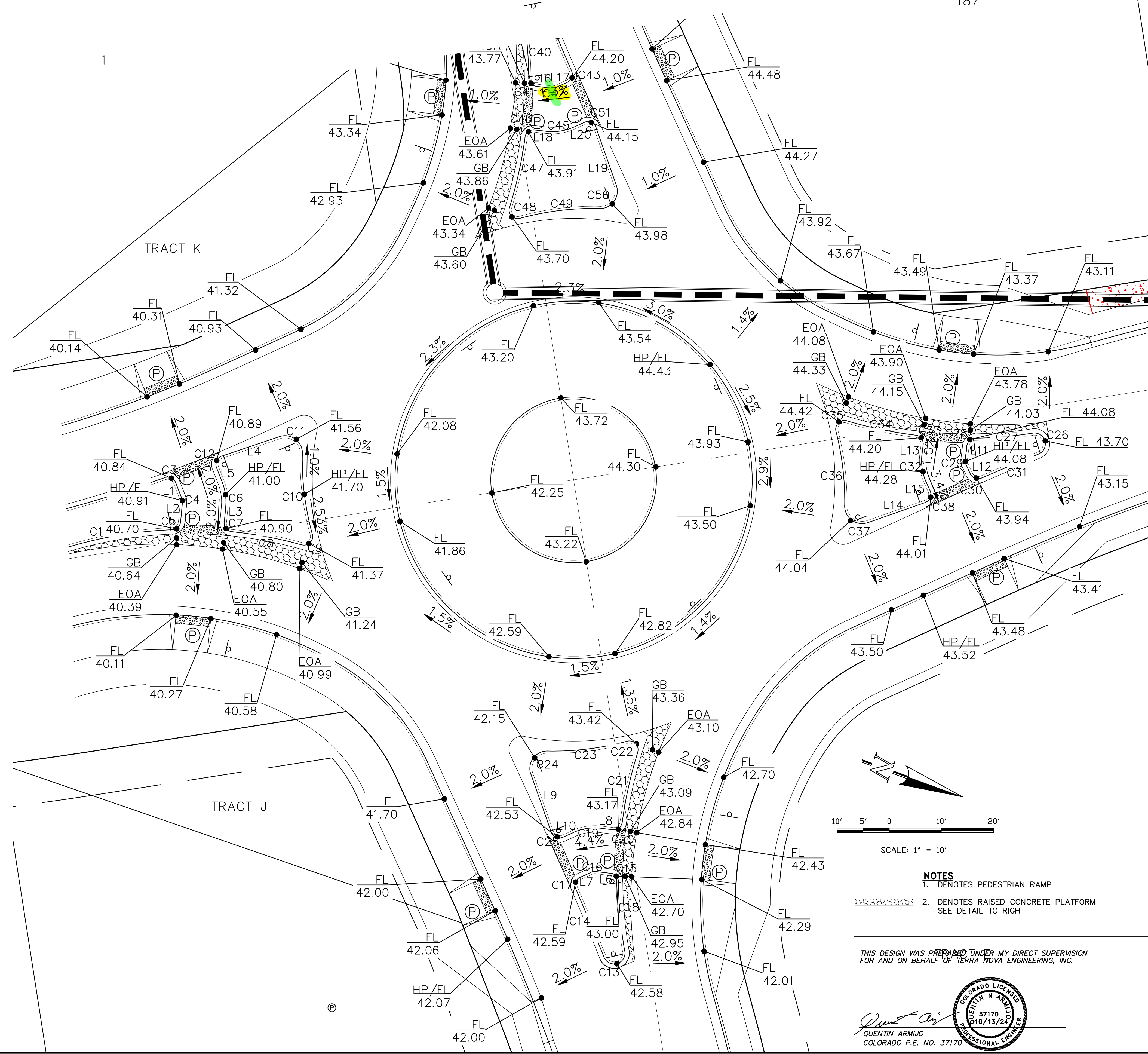
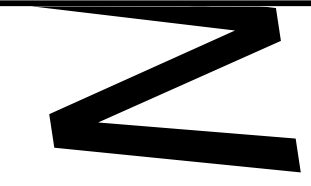
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE LOCAL JURISDICTIONAL AGENCIES, TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECT AND ONLY AS AUTHORIZED BY WRITTEN AUTHORIZATION.

PREPARED FOR:
ACM ALF VIII JV SUB II LLC
 ATTN: JASON POCK
 100 E. MISSISSIPPI AVE., STE. 500
 DENVER, CO 80246
 303-984-9800



WATERBURY FILING NO. 1
 CONSTRUCTION SET
 ROUNDABOUT DETAILED GRADING

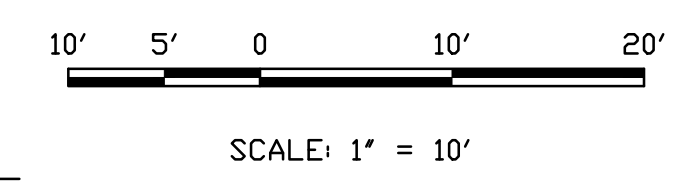
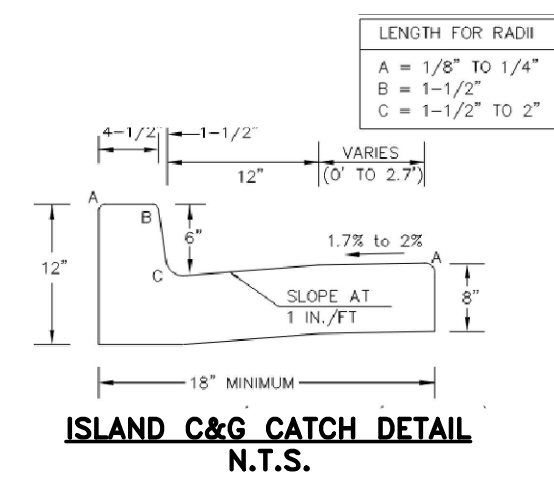
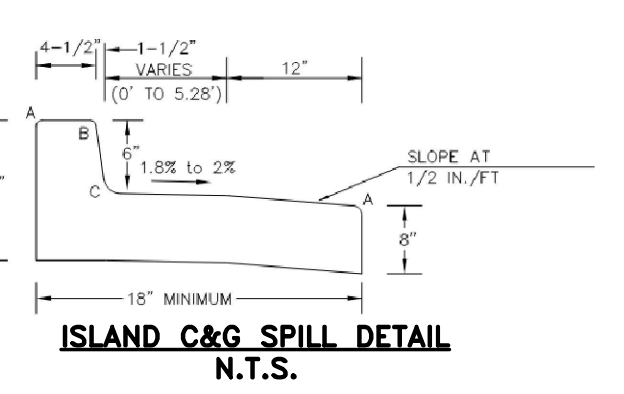
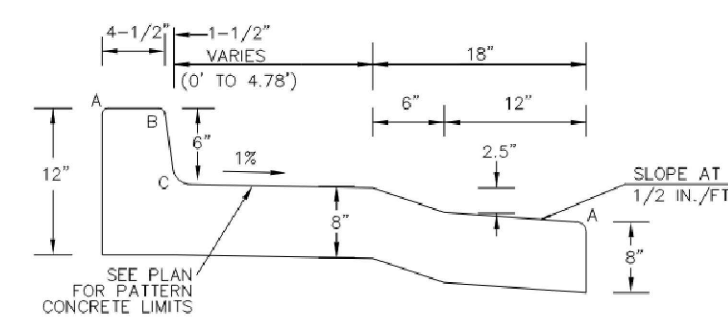
DESIGNED BY DLF
 DRAWN BY QNA
 CHECKED BY QNA
 H-SCALE NA
 V-SCALE N/A
 JOB NO. 2356.00
 DATE ISSUED 10/4/24
 SHEET NO. 22 OF 52



ROUNDABOUT ISLAND CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	TYPE C&G
C1	28.99'	97.00'	1707'24"	SPILL
C2	91.94'	301.90'	1726'57"	SPILL
C3	3.10'	2.00'	88'40'34"	SPILL
C4	0.93'	2.00'	26'37'49"	CARRY
C5	2.87'	2.00'	82'16'43"	SPILL
C6	5.58'	12.00'	26'37'49"	SPILL
C7	3.13'	2.00'	89'35'44"	SPILL
C8	16.28'	97.00'	9'36'56"	CARRY
C9	4.22'	2.00'	120'52'49"	CARRY
C10	18.69'	64.00'	16'44'06"	SPILL
C11	7.68'	4.00'	109'57'33"	SPILL
C12	3.23'	2.00'	92'32'44"	SPILL
C13	7.35'	2.50'	168'26'54"	SPILL
C14	16.00'	97.00'	9'26'59"	SPILL
C15	2.89'	2.00'	82'54'05"	SPILL
C16	1.08'	2.00'	30'50'43"	SPILL
C17	3.11'	2.00'	89'12'04"	SPILL
C18	16.99'	500.00'	1'56'47"	SPILL
C19	6.46'	12.00'	30'50'43"	CARRY
C20	3.11'	2.00'	88'58'41"	CARRY
C21	16.45'	97.00'	9'43'01"	SPILL
C22	4.28'	2.00'	122'37'40"	SPILL
C23	18.43'	64.00'	16'29'57"	SPILL
C24	7.72'	4.00'	110'36'47"	CARRY
C25	3.31'	2.00'	94'50'33"	CARRY
C26	7.28'	2.50'	166'54'50"	SPILL
C27	13.23'	97.00'	7'48'45"	SPILL
C28	2.86'	2.00'	81'56'28"	CARRY
C29	1.10'	2.00'	31'27'17"	CARRY
C30	3.11'	2.00'	89'07'39"	CARRY
C31	14.18'	500.00'	1'37'28"	SPILL
C32	6.59'	12.00'	31'27'17"	SPILL
C33	3.14'	2.00'	89'55'48"	SPILL
C34	16.12'	97.00'	9'31'15"	SPILL
C35	4.22'	2.00'	120'56'17"	SPILL
C36	17.27'	64.00'	15'27'31"	SPILL
C37	7.71'	4.00'	110'22'54"	SPILL
C38	3.32'	2.00'	95'11'04"	SPILL
C39	7.35'	2.50'	168'26'54"	CARRY
C40	16.00'	97.00'	9'26'59"	SPILL
C41	2.89'	2.00'	82'54'05"	SPILL
C42	1.08'	2.00'	30'50'43"	SPILL
C43	3.11'	2.00'	89'12'04"	CARRY
C44	16.99'	500.00'	1'56'47"	CARRY
C45	6.46'	12.00'	30'50'43"	CARRY
C46	3.11'	2.00'	88'58'41"	CARRY
C47	16.45'	97.00'	9'43'01"	SPILL
C48	4.28'	2.00'	122'37'40"	SPILL
C49	18.43'	64.00'	16'29'57"	SPILL
C50	7.72'	4.00'	110'36'47"	SPILL
C51	3.31'	2.00'	94'50'33"	CARRY

ROUNDABOUT ISLAND LINE TABLE			
LINE	LENGTH	BEARING	TYPE C&G
L1	3.92	S48°49'28"W	CARRY
L2	4.47	S75°27'16"W	CARRY
L3	3.57	N75°27'16"E	SPILL
L4	13.96	S38°37'48"E	SPILL
L5	3.79	N48°49'28"E	SPILL
L6	3.46	S13°23'02"E	SPILL
L7	2.80	S44°13'45"E	SPILL
L8	2.72	N13°23'02"W	CARRY
L9	14.08	N50°36'49"E	SPILL
L10	2.60	N44°13'45"W	CARRY
L11	3.19	S76°55'44"W	CARRY
L12	2.34	S45°28'28"W	CARRY
L13	2.21	S76°55'44"W	SPILL
L14	13.90	N39°20'28"W	SPILL
L15	2.09	S45°28'28"W	SPILL
L16	3.46	N44°13'45"W	SPILL
L17	2.80	N13°23'02"E	SPILL
L18	2.72	S13°23'02"E	CARRY
L19	14.08	S50°36'49"W	CARRY
L20	2.60	S44°13'45"E	CARRY

NOTE
LINE AND CURVE TABLES REFER TO THE
FLOWLINE OF THE C&G



- NOTES
1. DENOTES PEDESTRIAN RAMP
 2. DENOTES RAISED CONCRETE PLATFORM
SEE DETAIL TO RIGHT

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION
FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

DESIGNED BY DLF
DRAWN BY QNA
CHECKED BY QNA
H-SCALE NA
V-SCALE N/A
JOB NO. 2356.00
DATE ISSUED 10/4/24
SHEET NO. 23 OF 52

QUENTIN ARMIJO
COLORADO P.E. NO. 37170

WATERBURY FILING NO. 1
CONSTRUCTION SET
ROUNDABOUT DETAILED GRADING

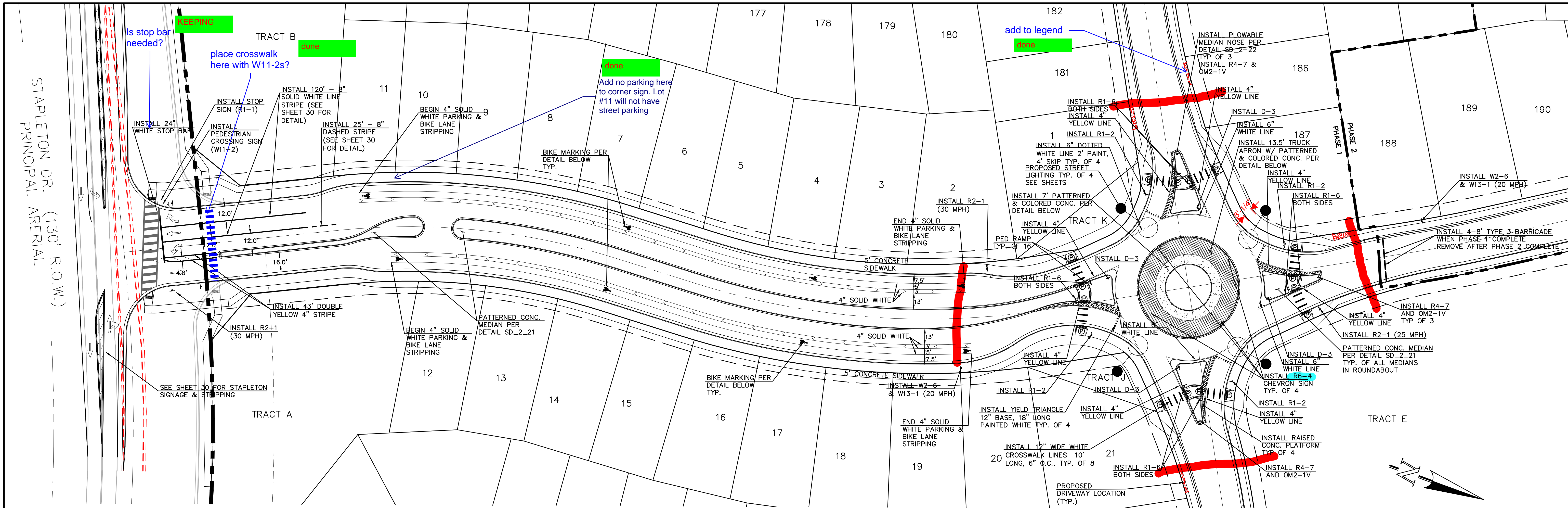
DESIGNED BY DLF
DRAWN BY QNA
CHECKED BY QNA
H-SCALE NA
V-SCALE N/A
JOB NO. 2356.00
DATE ISSUED 10/4/24
SHEET NO. 23 OF 52

PREPARED FOR:
ACM ALF VIII JV SUB II LLC
ATTN: JASON POCK
100 E. MISSISSIPPI AVE., STE 500
DENVER, CO 80246
303-984-9800

Terra Nova Engineering, Inc.
Civil Engineering
721 S. 23RD STREET
COLORADO SPRINGS, CO 80904
OFFICE: 719-635-6422
FAX: 719-635-6426
www.tnec.com

REVISIONS
NO. DESCRIPTION DATE

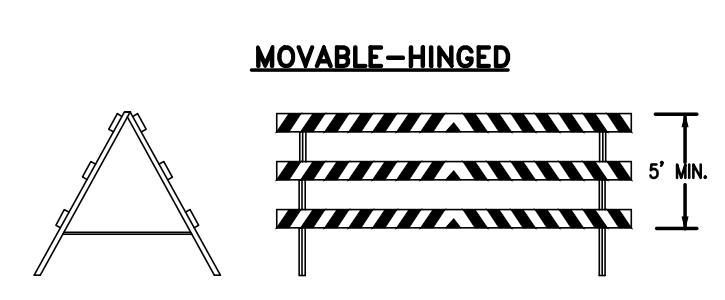
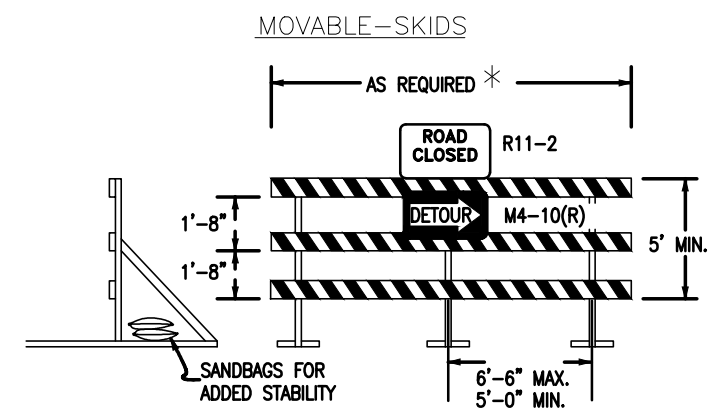
UNTIL SUCH TIME AS THESE
DRAWINGS ARE APPROVED
BY THE APPLICABLE
REVIEWING AGENCIES
TERRA NOVA ENGINEERING,
INC. APPROVES THEIR USE
ONLY FOR THE PROJECT
AND PURPOSES AUTHORIZED BY
WRITTEN AUTHORIZATION.



SAYBROOK AND ROUNDABOUT SIGNING & STRIPING

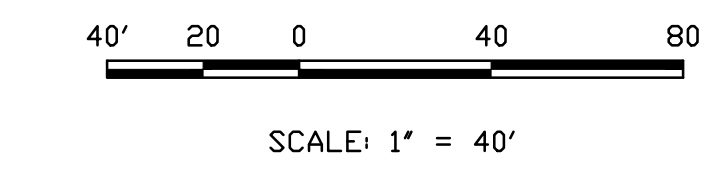
RAIL LENGTH TABLE *

TYPE	BARRICADE	LENGTH
F - A	M - A	8' - 14'
F - B	M - B	15' - 24'
F - C	M - C	25' - 35'
F - D	M - D	> 35'

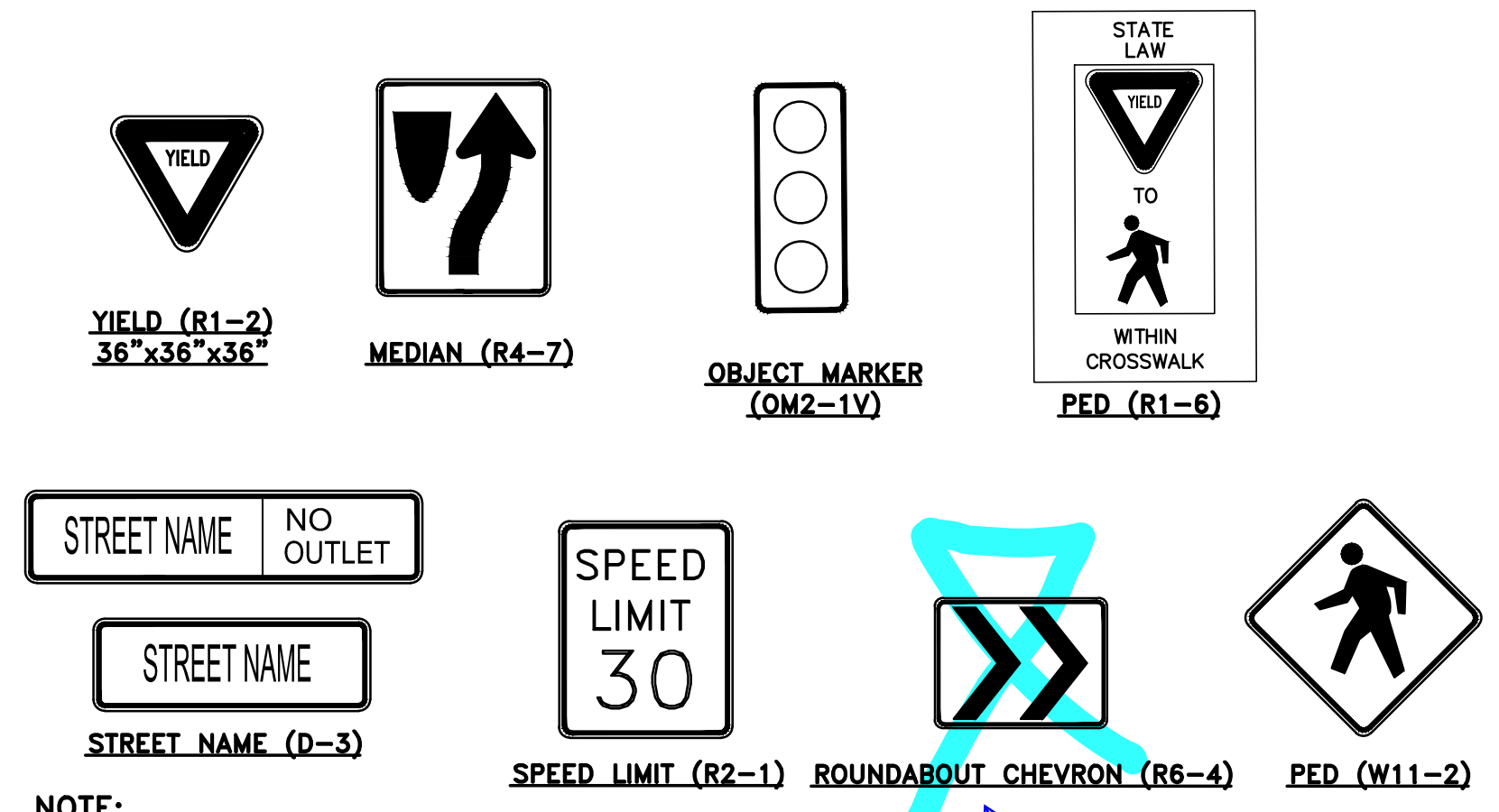
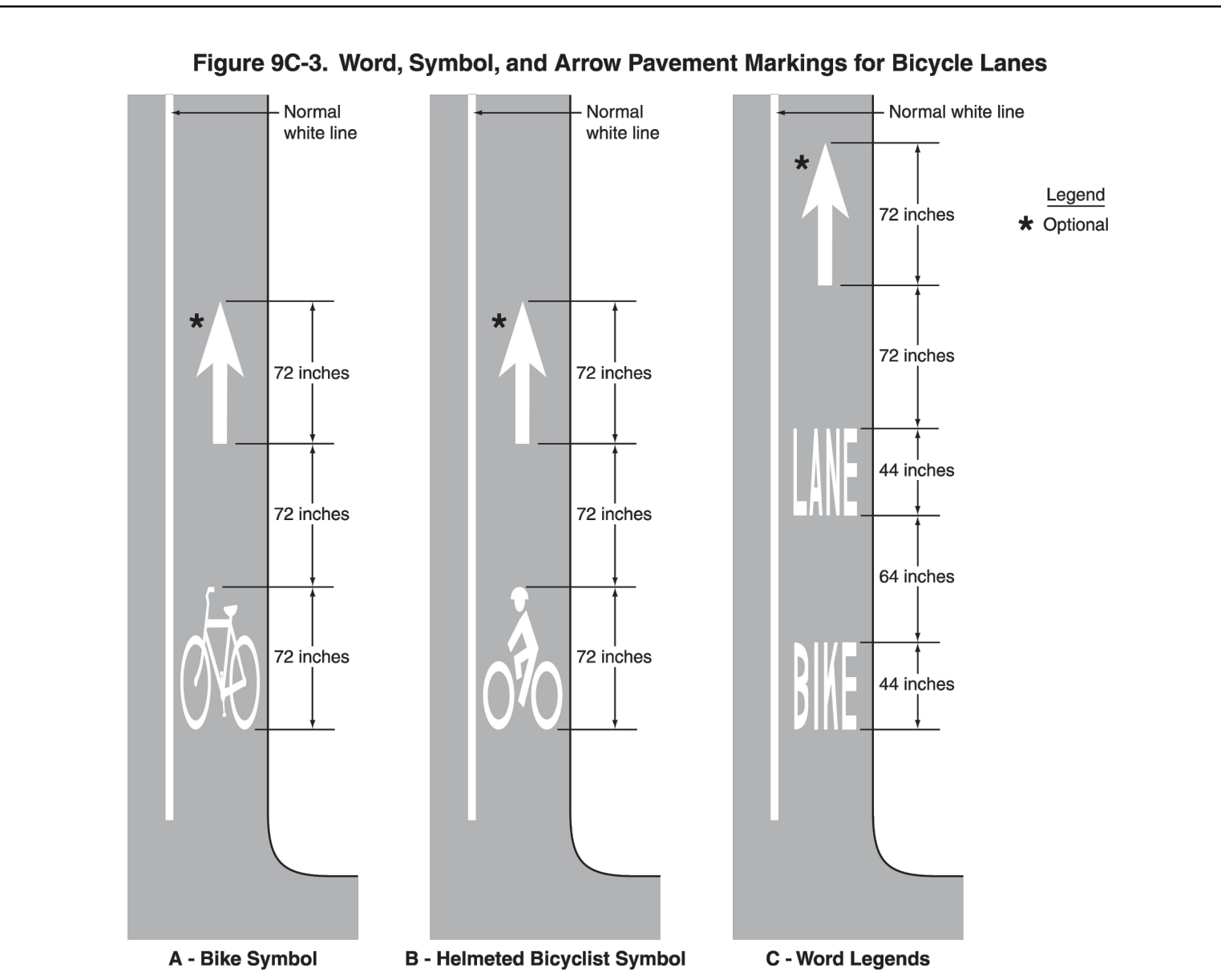


- BARRICADE NOTES**
- TYPE 3 BARRICADES HAVE 3 REFLECTORIZED RAIL FACES IF FACING TRAFFIC IN ONE DIRECTION AND 6 IF FACING TRAFFIC IN TWO DIRECTIONS.
 - THE PORTION OF THE POST ABOVE THE GROUND LINE SHALL BE PAINTED IN ACCORDANCE WITH THE APPROPRIATE GENERAL NOTE.
 - DETACHABLE EXTENSION WING RAILS FOR BYPASSING OF CONSTRUCTION EQUIPMENT ARE PERMITTED, WHEN NECESSARY, ON FIXED OR MOVABLE TYPE 3 BARRICADES. THE LENGTH SHALL BE ADEQUATE TO CLOSE THE BORROW PIT AND/OR SHOULDER AS REQUIRED.

TYP. TYPE 3 BARRICADES



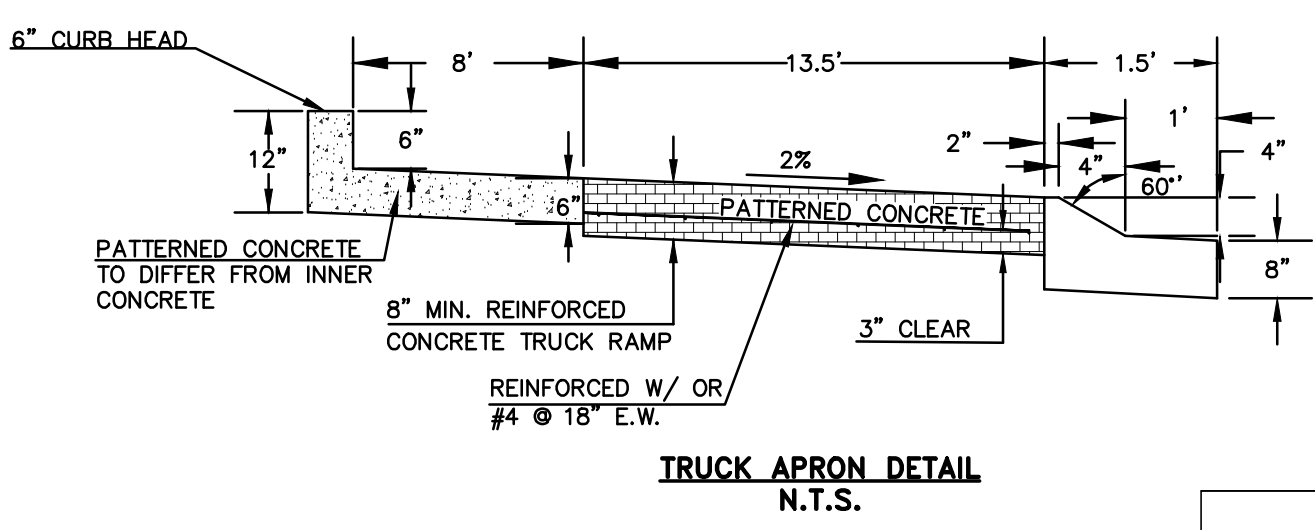
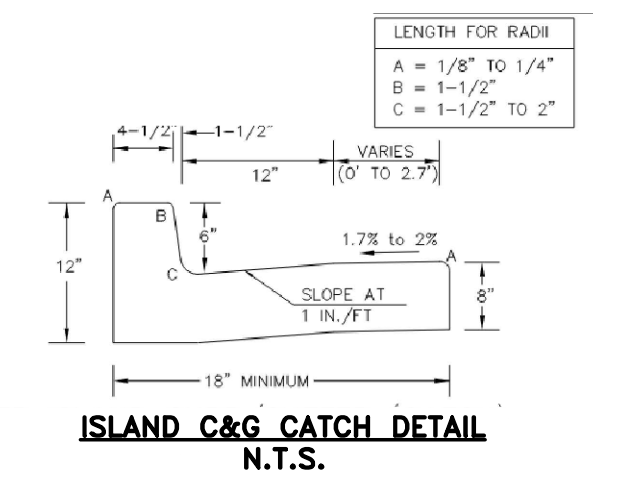
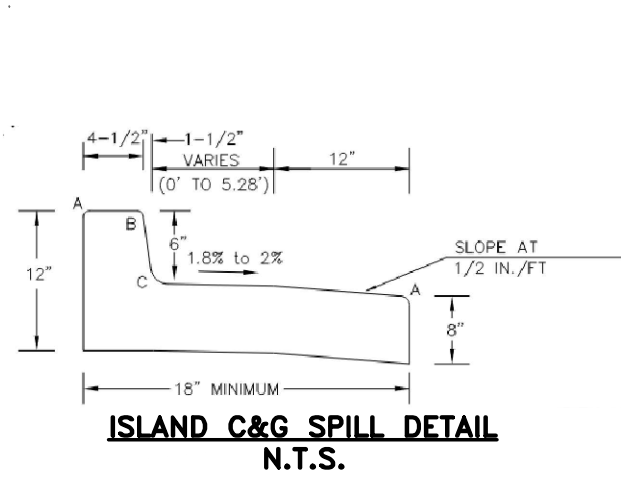
Add "No Parking Here to Roundabout" signs



NOTE:
ALL INTERNAL SIGNS SHALL BE 4" FONT LETTER SIZE.

Add note for letter and sign size at Stapleton intersection

one-way signs per updated MUTCD



- NOTES**
- ⊙ DENOTES PEDESTRIAN RAMP
 - ⊙ DENOTES RAISED CONCRETE PLATFORM SEE DETAIL TO LEFT

REVISIONS

NO.	DESCRIPTION	DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE REVIEWING AGENCIES, TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECTS AUTHORIZED BY WRITTEN AUTHORIZATION.

PREPARED FOR:
ACM ALF VIII JV SUB II LLC
ATTN: JASON POCK
100 E. MISSISSIPPI AVE., STE 500
DENVER, CO 80246
303-984-9800

Terra Nova Engineering, Inc.
Civil Engineering, Inc.
721 S. 23RD STREET
COLORADO SPRINGS, CO 80904
OFFICE: 719-635-6422
FAX: 719-635-6426
www.tnainc.com

WATERBURY FILING NO. 1

CONSTRUCTION SET
SIGNING & STRIPING
SAYBROOK & ROUNDABOUT

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

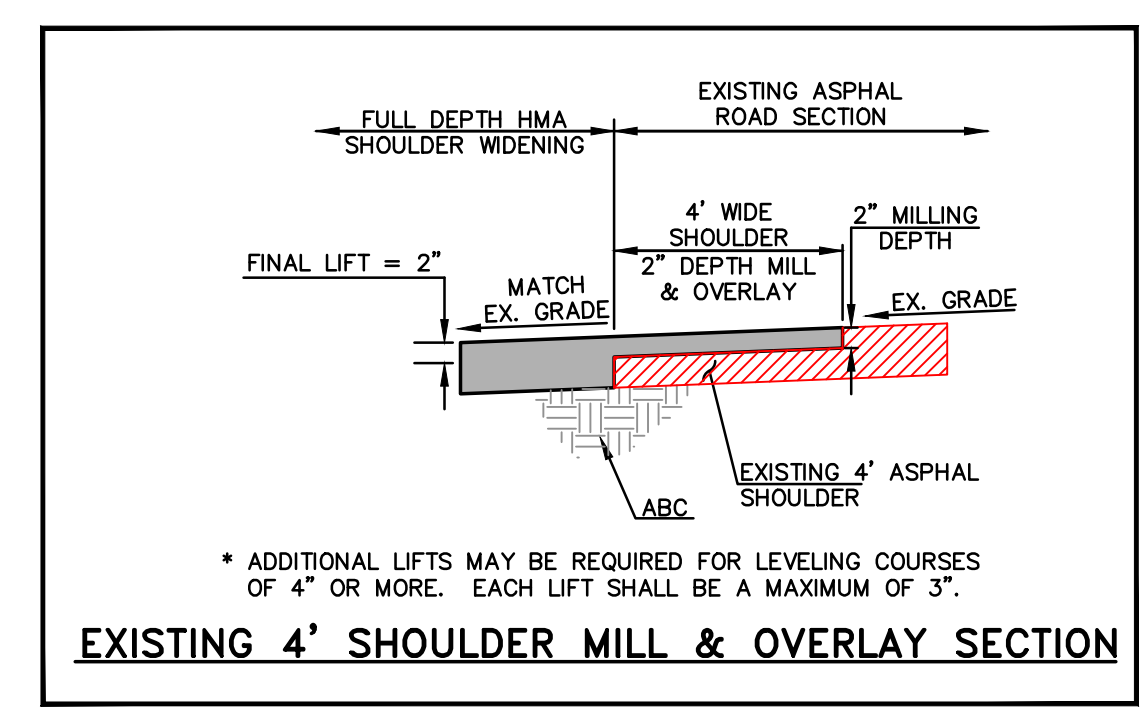
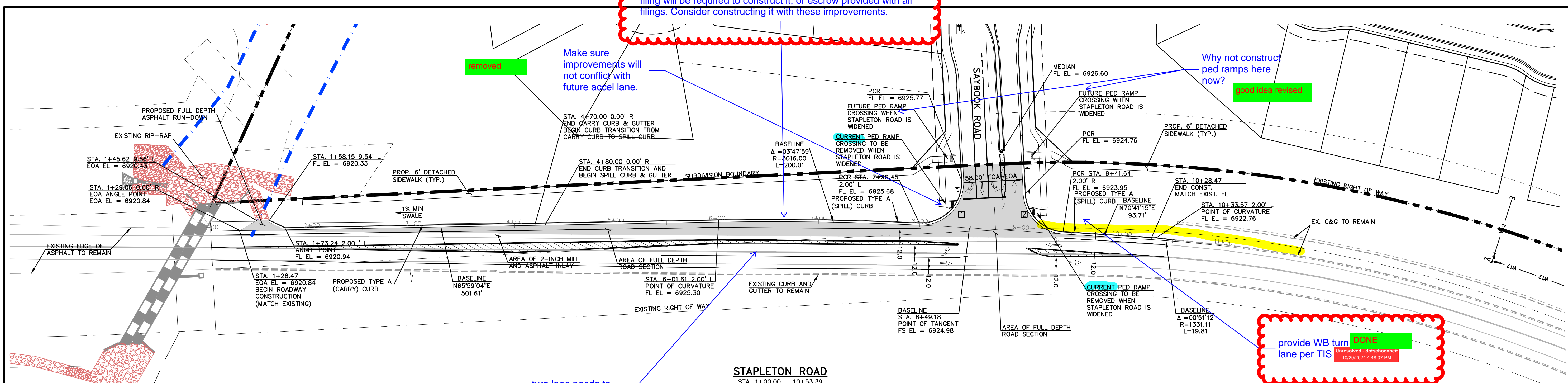
DESIGNED BY DLF
DRAWN BY QNA
CHECKED BY QNA

H-SCALE NA
V-SCALE N/A

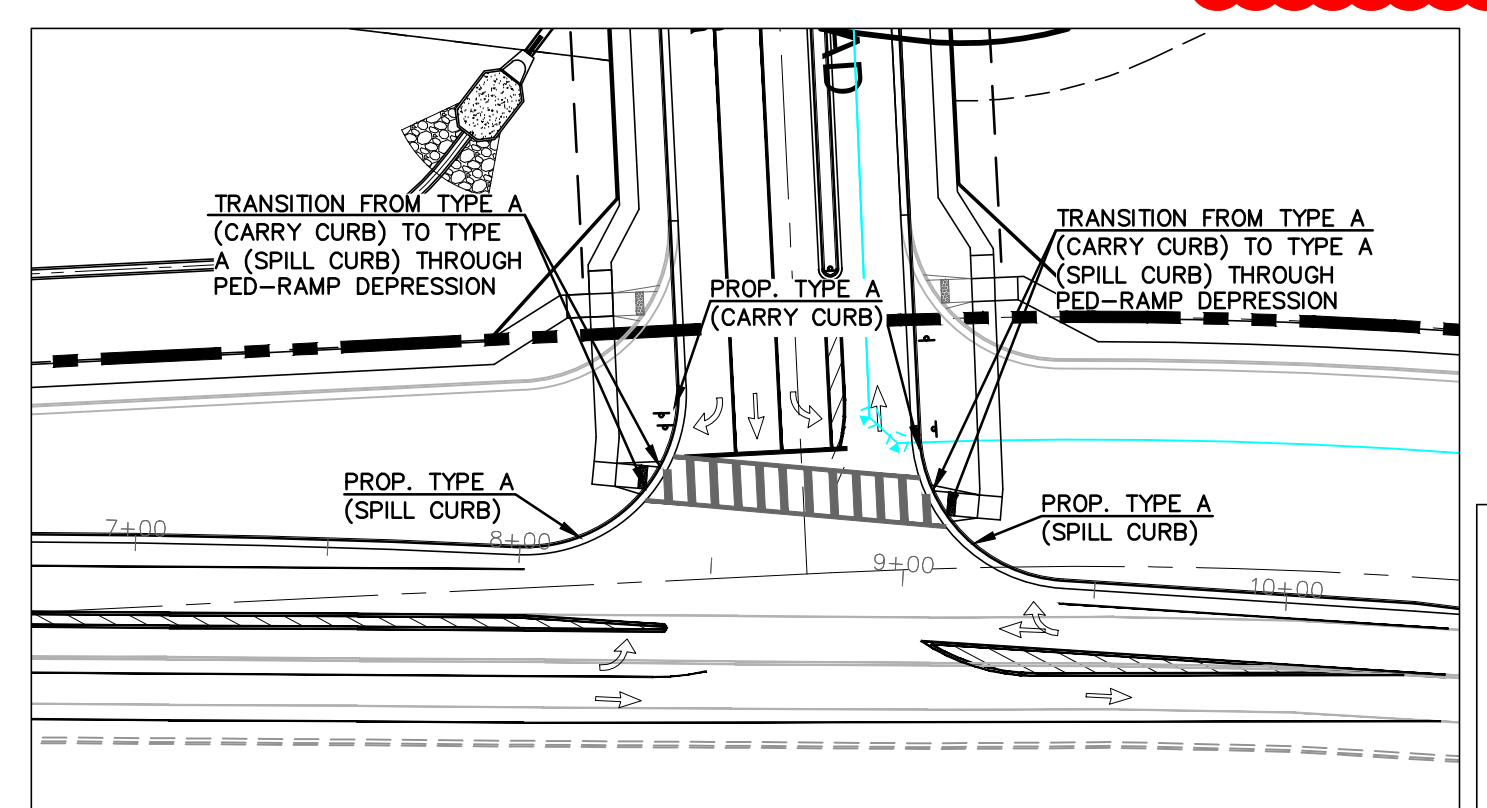
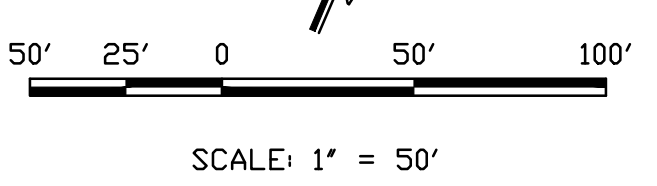
JOB NO. 2356.00
DATE ISSUED 10/4/24
SHEET NO. 24 OF 52

QUENTIN ARMIJO
COLORADO P.E. NO. 37170

If a right-turn acceleration lane is required in the future, a future filing will be required to construct it, or escrow provided with all filings. Consider constructing it with these improvements.



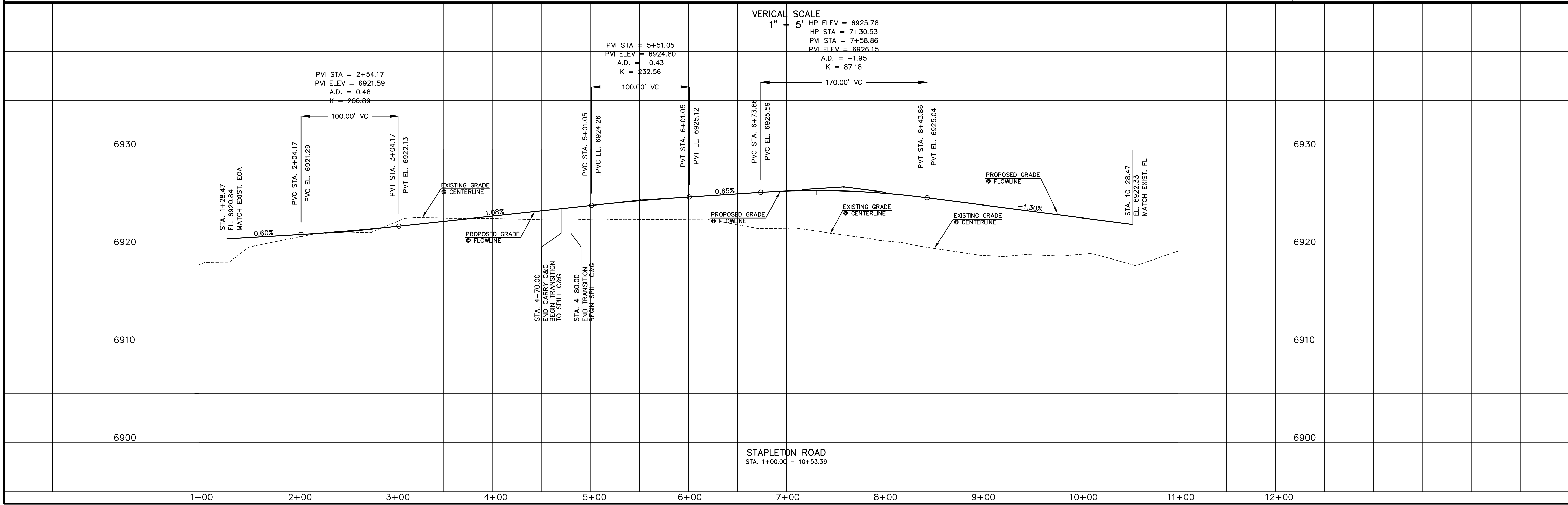
DESIGN SPEED IS 50 M.P.H.



CURB FL CURVE TABLE			
CURVE	LENGTH	RADIUS	DELA ANGLE
1	66.73	40.00	95°35'02"
2	58.27	40.00	83°28'17"

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

QUENTIN N. ARMIJO, PROFESSIONAL ENGINEER
COLORADO P.E. NO. 37170



REVISIONS

NO.	DESCRIPTION	DATE

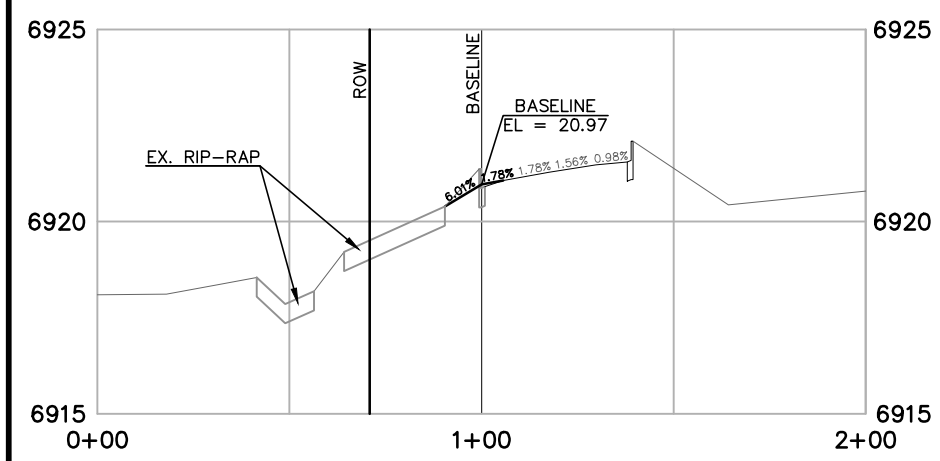
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE BOARD OF COUNTY COMMISSIONERS, TERRA NOVA ENGINEERING AND SURVEYING, INC. APPROVES THEIR USE ONLY DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR:
ACM ALF VII JV SUB II LLC
JASON POKK
00 E. MISSISSIPPI AVE., STE 500
DENVER, CO 80246
303-984-9800

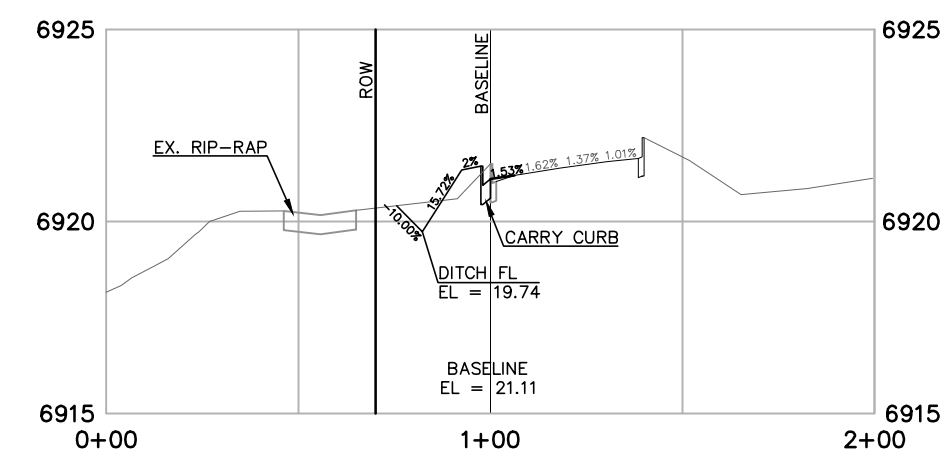
721 S. 2900 STREET
COLORADO SPRINGS, CO 80904
OFFICE: 719-635-6422
FAX: 719-635-6426
www.tneng.com

WATERBURY FILING NO. 1
CONSTRUCTION SET
STREET PLAN AND PROFILE
STAPLETON ROAD

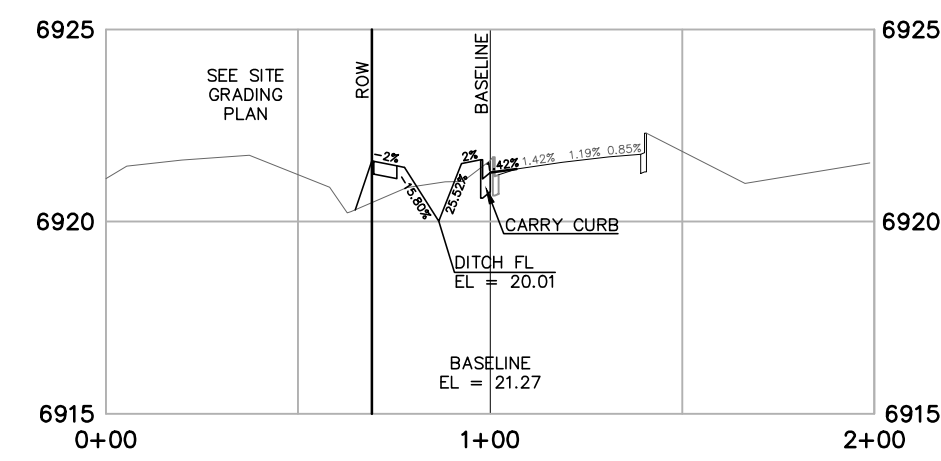
DESIGNED BY QNA
DRAWN BY QNA
CHECKED BY
H-SCALE 1"=50'
V-SCALE 1"=5'
JOB NO. 2356.00
DATE ISSUED 10/4/24
SHEET NO. 28 OF 52



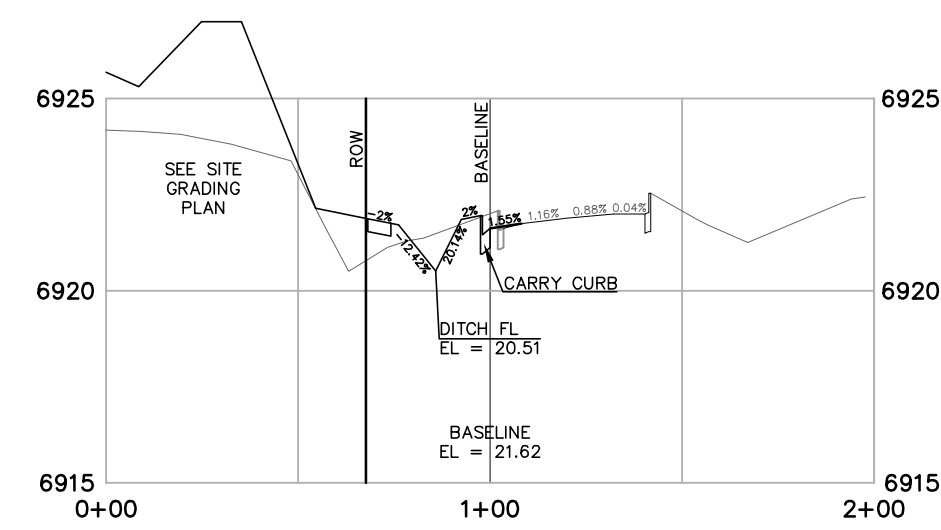
STAPLETON DRIVE
SECTION 1+50.00
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1"=5'



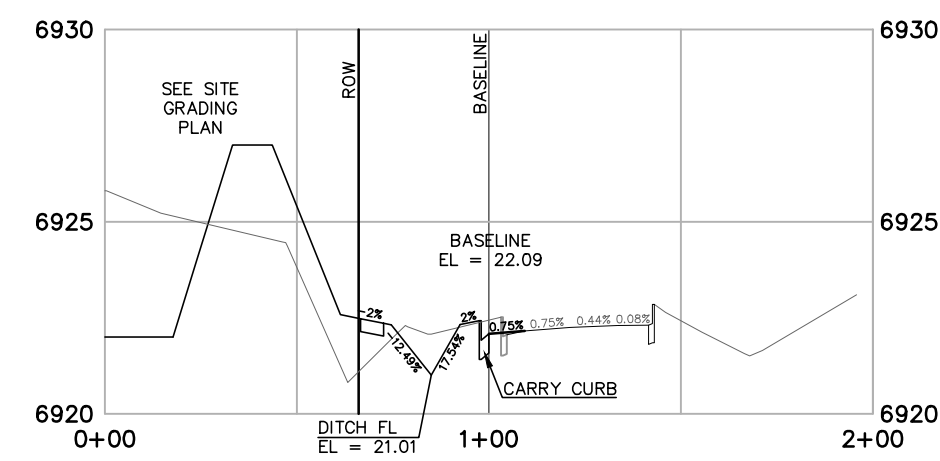
STAPLETON DRIVE
SECTION 1+73.24
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1"=5'



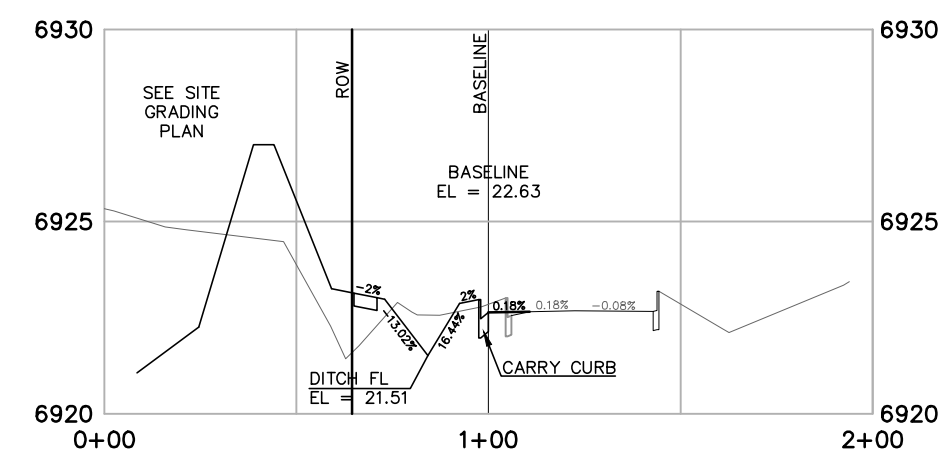
STAPLETON DRIVE
SECTION 2+00.00
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1"=5'



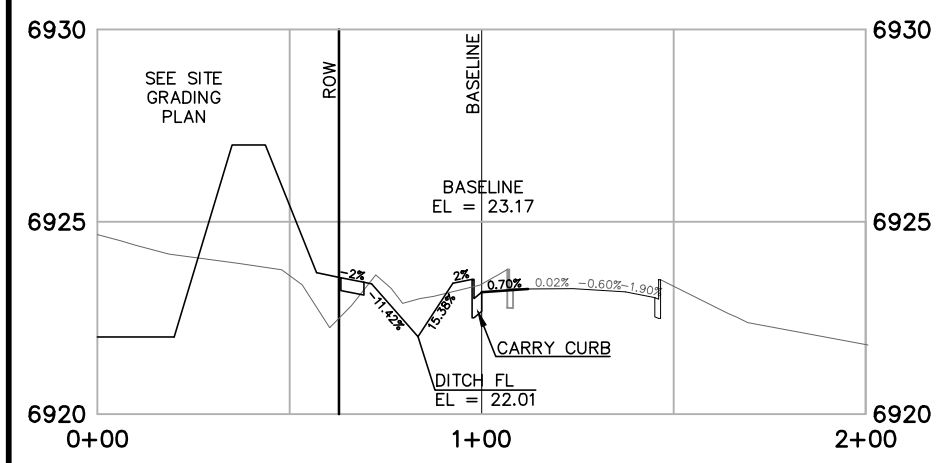
STAPLETON DRIVE
SECTION 2+50.00
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1"=5'



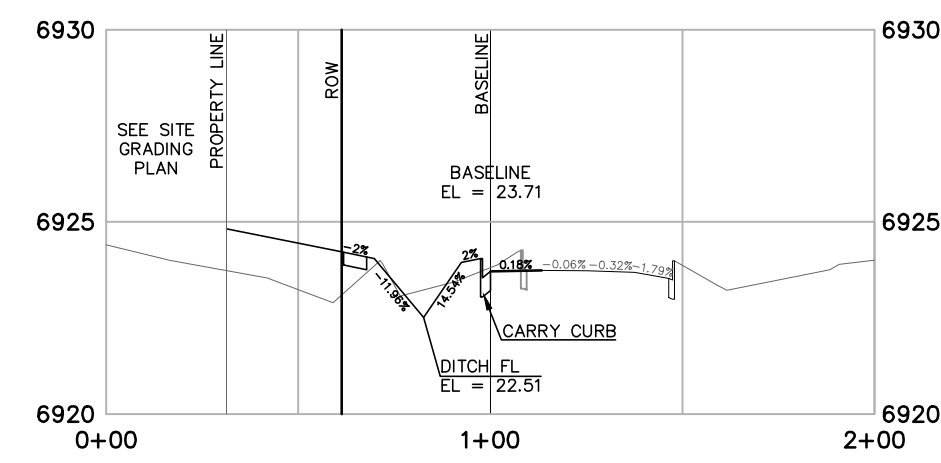
STAPLETON DRIVE
SECTION 3+00.00
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1"=5'



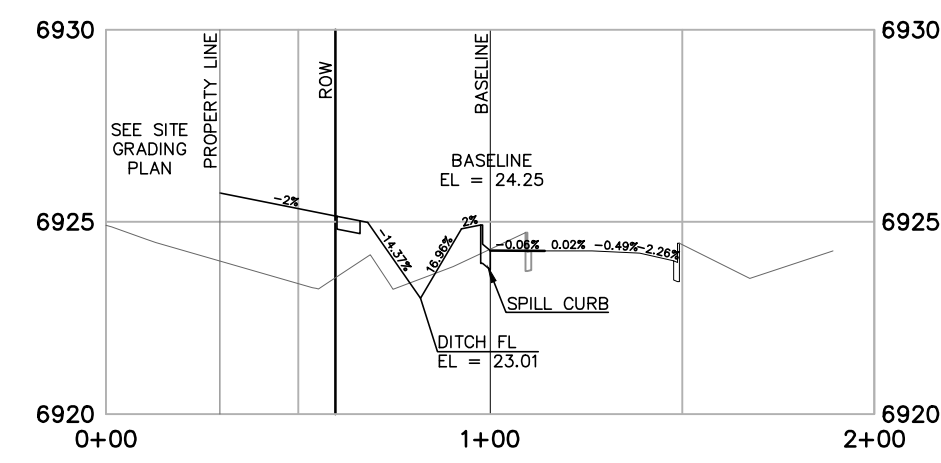
STAPLETON DRIVE
SECTION 3+50.00
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1"=5'



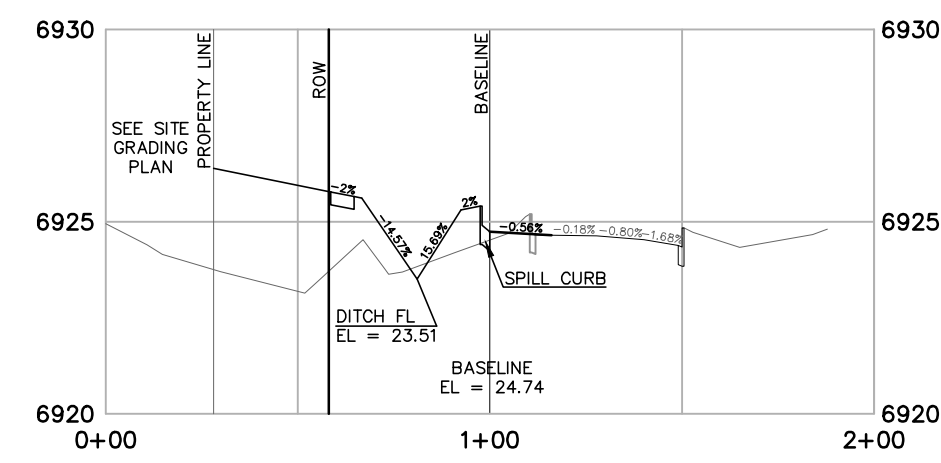
STAPLETON DRIVE
SECTION 4+00.00
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1"=5'



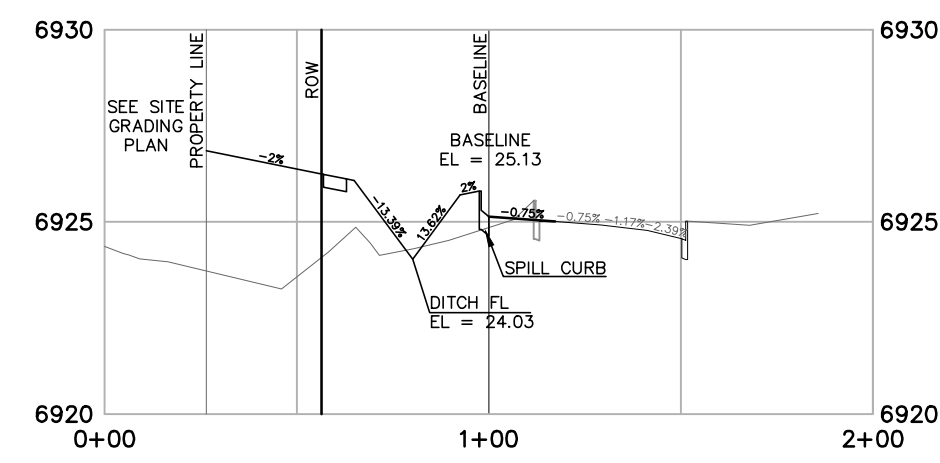
STAPLETON DRIVE
SECTION 4+50.00
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1"=5'



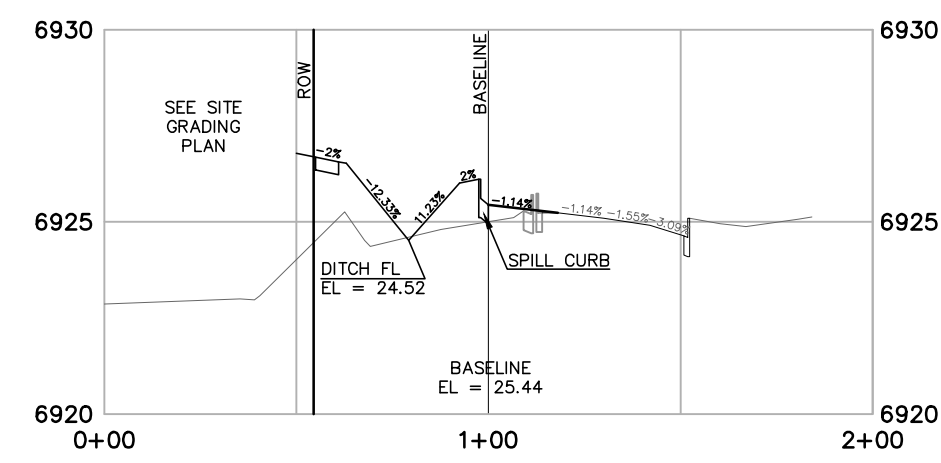
STAPLETON DRIVE
SECTION 5+00.00
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1"=5'



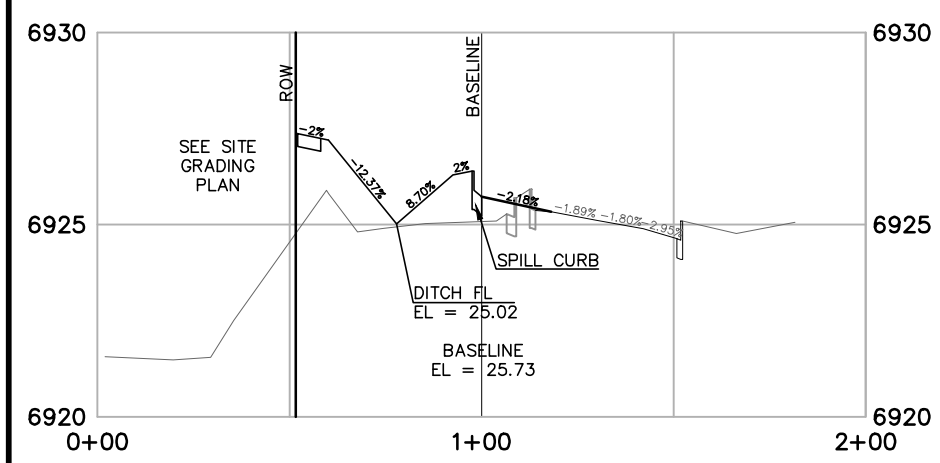
STAPLETON DRIVE
SECTION 5+50.00
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1"=5'



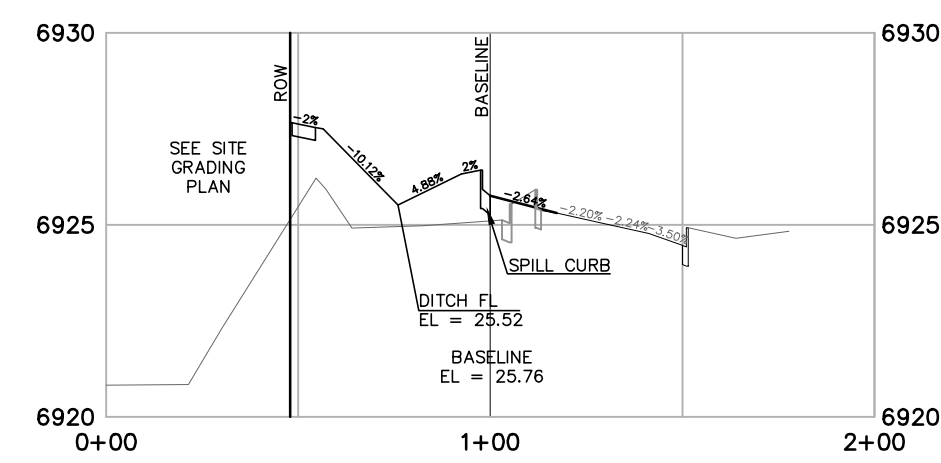
STAPLETON DRIVE
SECTION 6+01.61
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1"=5'



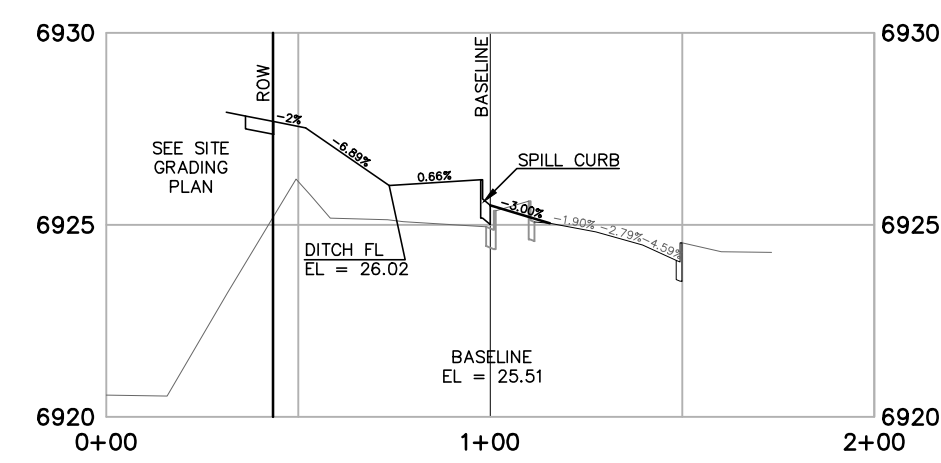
STAPLETON DRIVE
SECTION 6+50.00
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1"=5'



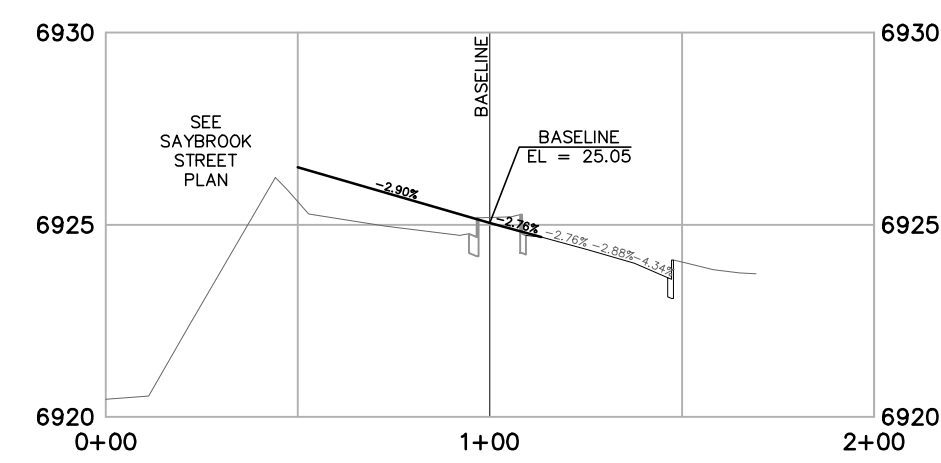
STAPLETON DRIVE
SECTION 7+00.00
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1"=5'



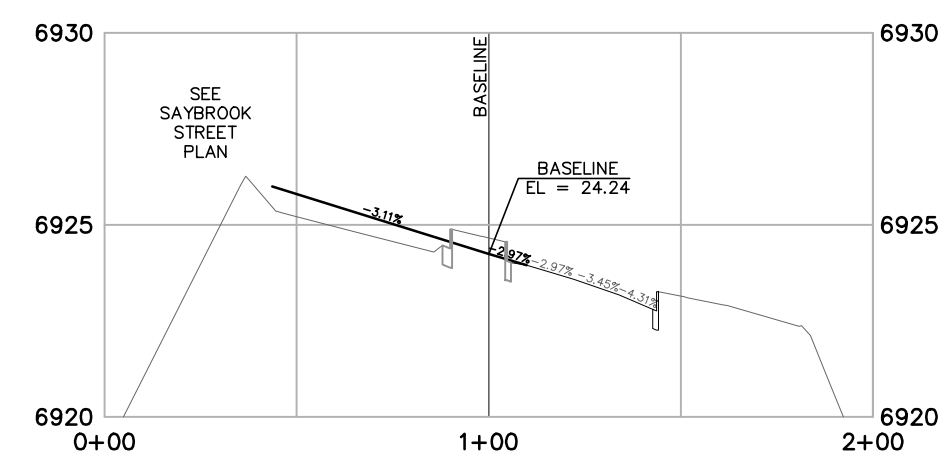
STAPLETON DRIVE
SECTION 7+50.00
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1"=5'



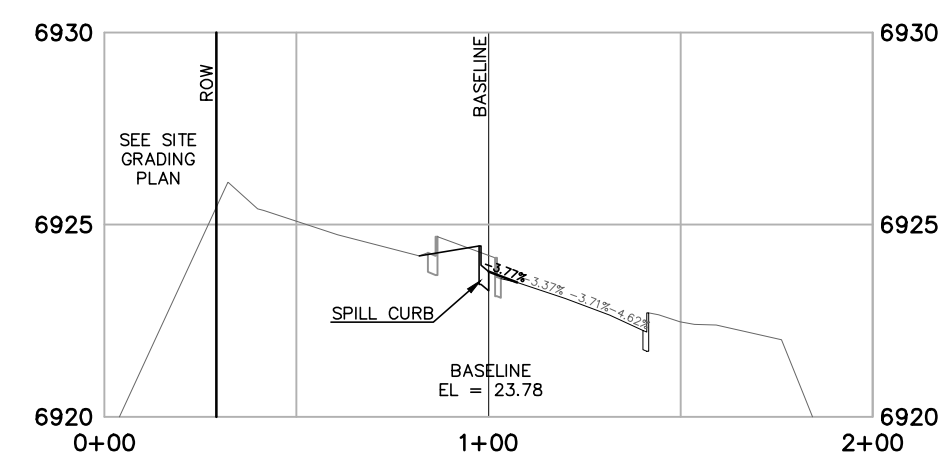
STAPLETON DRIVE
SECTION 7+99.45
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1"=5'



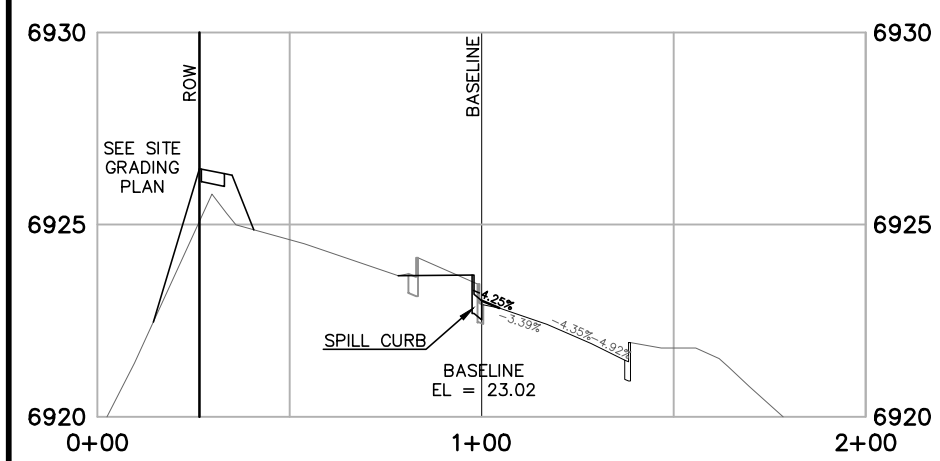
STAPLETON DRIVE
SECTION 8+43.78
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1"=5'



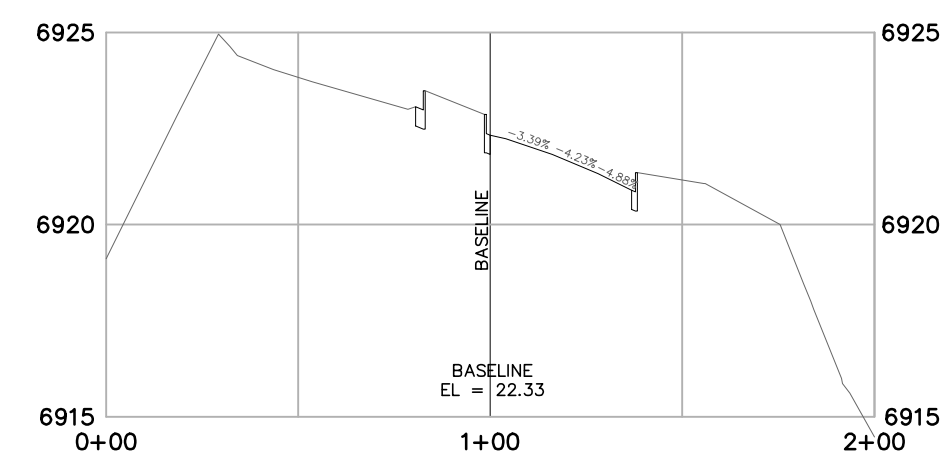
STAPLETON DRIVE
SECTION 9+06.19
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1"=5'



STAPLETON DRIVE
SECTION 9+41.64
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1"=5'



STAPLETON DRIVE
SECTION 10+00.00
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1"=5'



STAPLETON DRIVE
SECTION 10+53.39
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1"=5'

REVISIONS	NO.	DESCRIPTION	DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE LOCAL JURISDICTIONAL AGENCIES, TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECTS AUTHORIZED BY WRITTEN AUTHORIZATION.

PREPARED FOR:
ACM ALF VIII JV SUB II LLC
ATTN: JASON POCK
100 E. MISSISSIPPI AVE., STE 500
DENVER, CO 80246
303-984-9800

721 S. 23RD STREET
COLORADO SPRINGS, CO 80904
OFFICE: 719-635-6422
FAX: 719-635-6426
www.tnecinc.com

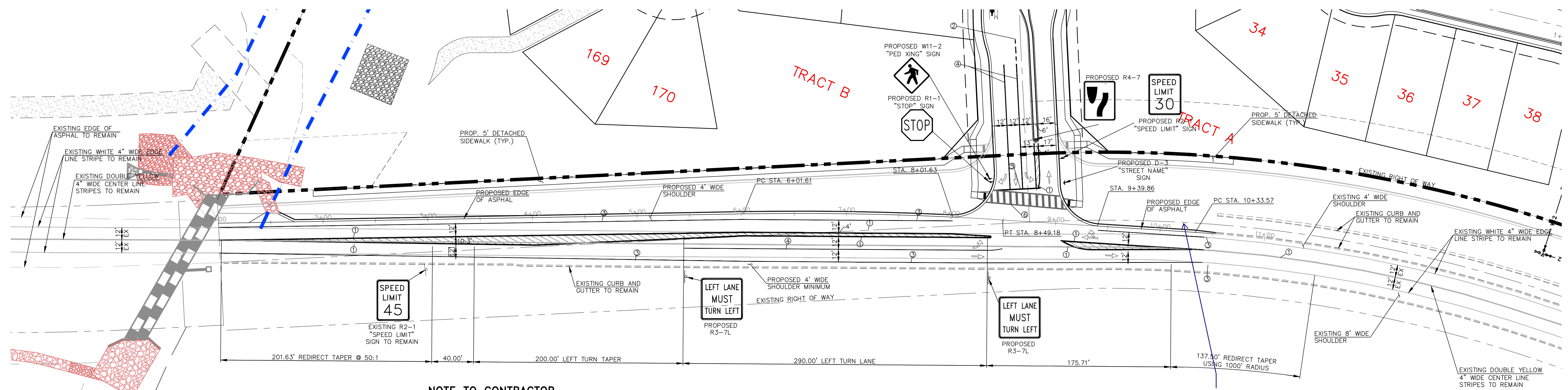
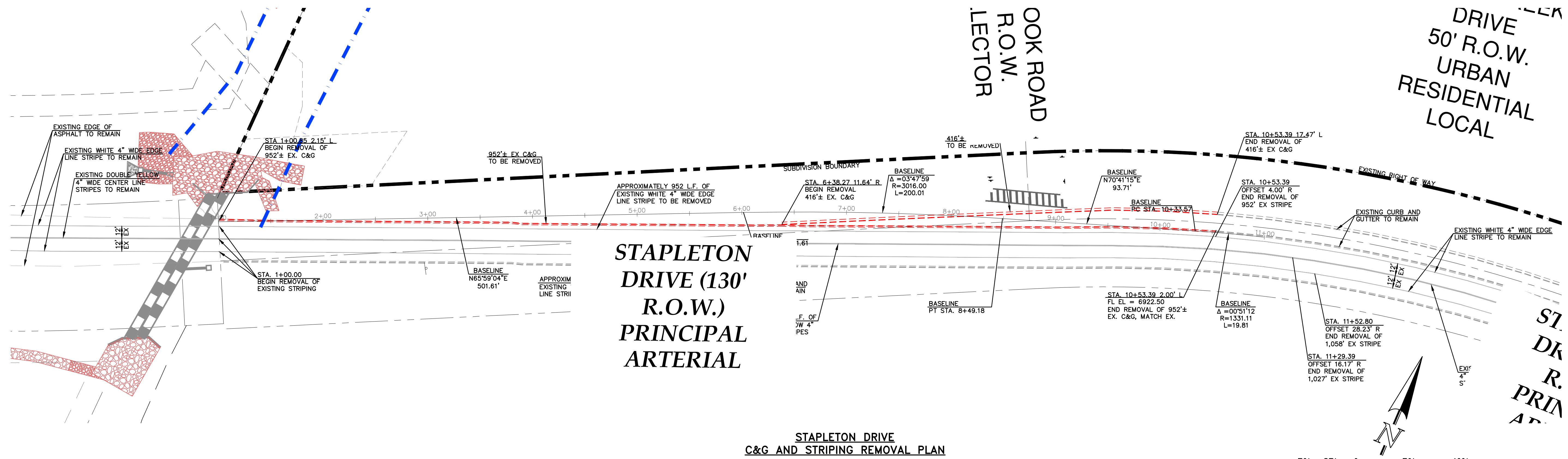
WATERBURY FILING NO. 1

CONSTRUCTION SET
STAPLETON DRIVE
CROSS SECTIONS

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

QUENTIN ARMJO
COLORADO P.E. NO. 37170

DESIGNED BY	DLF
DRAWN BY	QNA
CHECKED BY	QNA
H-SCALE	NA
V-SCALE	N/A
JOB NO.	2356.00
DATE ISSUED	10/4/24
SHEET NO.	29 OF 52



NOTE TO CONTRACTOR
 SIGNS AND POLES SHALL BE PER CDOT STANDARDS S-614-8, S-614-2, AND S-614-3, LATEST REVISION.

ALL SIGNAGE INSTALLATION IS TO BE IN COMPLIANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

ALL 4", 8" SOLID OR SKIP PAVEMENT MARKING ARE TO BE EPOXY.

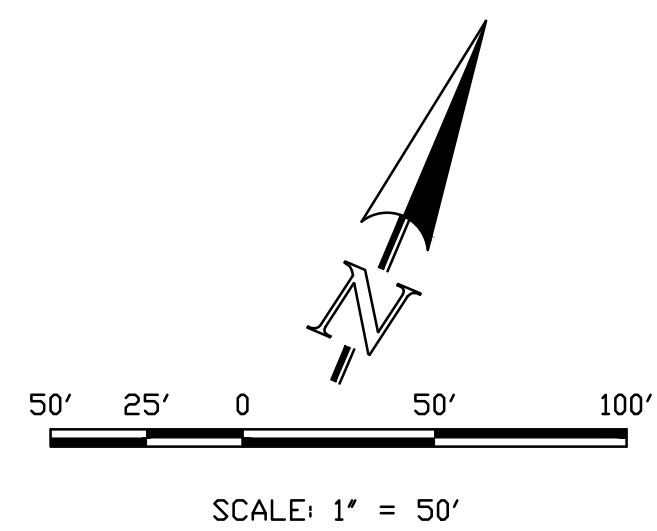
STOP BARS ARE TO BE 90 MIL PREFORMED THERMOPLASTIC PAVEMENT MARKING TYPE B. (INLAYED)

STAPLETON DRIVE SIGNING AND STRIPING PLAN

DESIGN SPEED IS 50 M.P.H.

STRIPING LEGEND		
STRIPE	PAVEMENT MARKINGS	MARKING DESCRIPTION
1	CENTER LINES (EPOXY)	DOUBLE SOLID YELLOW, 4" WIDE-SPACED 3" APART
2	LANE LINES (EPOXY)	BROKEN WHITE, 4" WIDE-10' SEGMENTS WITH 30' GAPS
3	EDGE LINES (EPOXY)	SOLID WHITE, 4" WIDE
4	CHANNELIZING LINES (EPOXY)	SOLID WHITE, 8" WIDE
5	STOP LINES (THERMO PLASTIC)	SOLID WHITE, 24" WIDE
6	CROSSWALK LINES (THERMO PLASTIC)	SOLID WHITE 24" WIDE PERPENDICULAR, SOLID WHITE 12" WIDE PARALLEL

NOTE: ALL STRIPING INSTALLATION SHALL BE PER COLORADO DEPARTMENT OF TRANSPORTATION "M&S STANDARDS" STANDARD PLAN NO. S-627-1



THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

DESIGNED BY DLF
 DRAWN BY QNA
 CHECKED BY QNA
 H-SCALE NA
 V-SCALE N/A
 JOB NO. 2356.00
 DATE ISSUED 10/14/24
 SHEET NO. 30 OF 52

REVISIONS
 NO. DESCRIPTION DATE

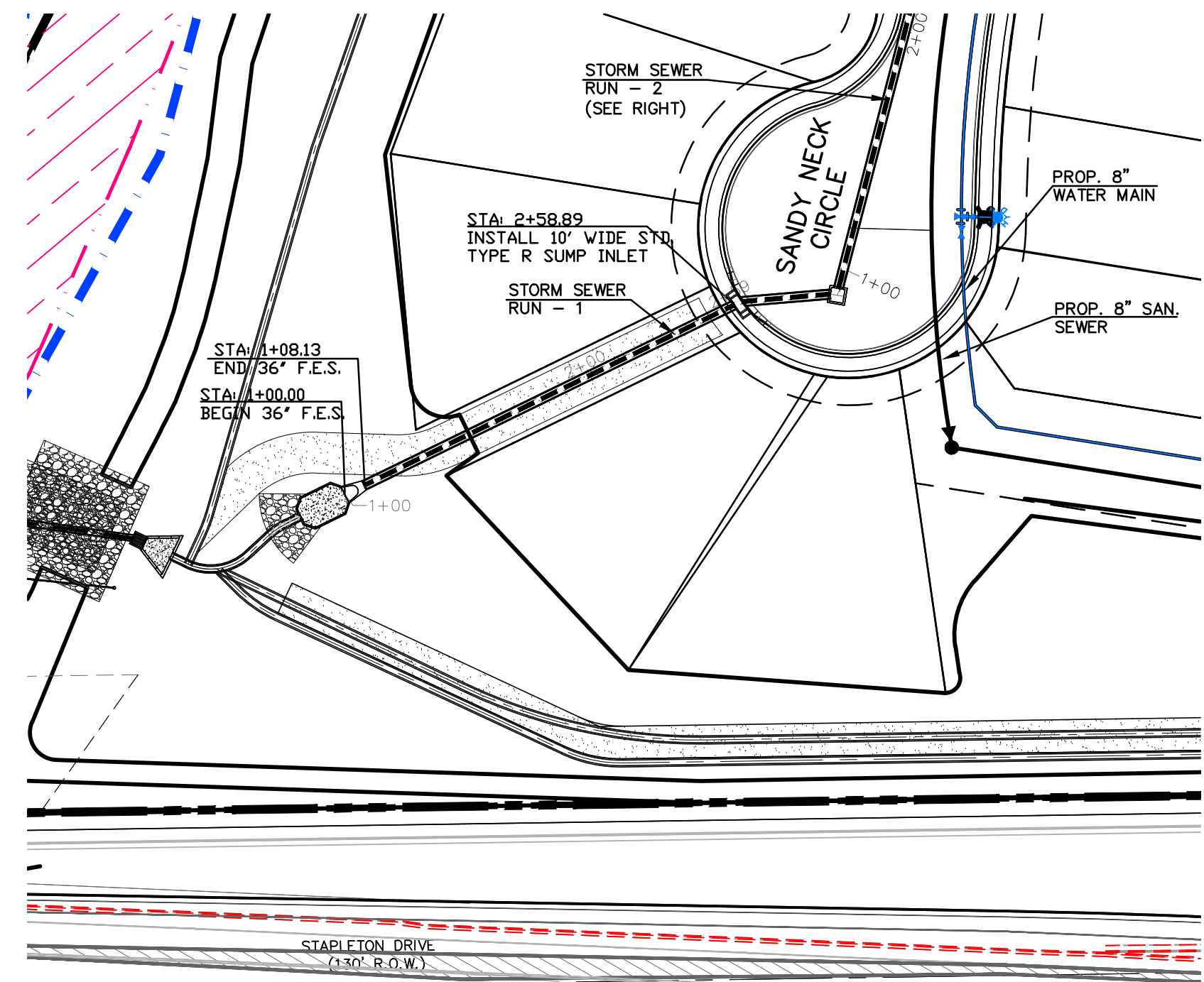
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE LOCAL AGENCIES TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECT AND FOR THE PURPOSES AUTHORIZED BY WRITTEN AUTHORIZATION.

PREPARED FOR:
 ACM ALF VIII JV SUB II LLC
 ATTN: JASON POKK
 100 E. MISSISSIPPI AVE., STE 500
 DENVER, CO 80246
 303-984-9800

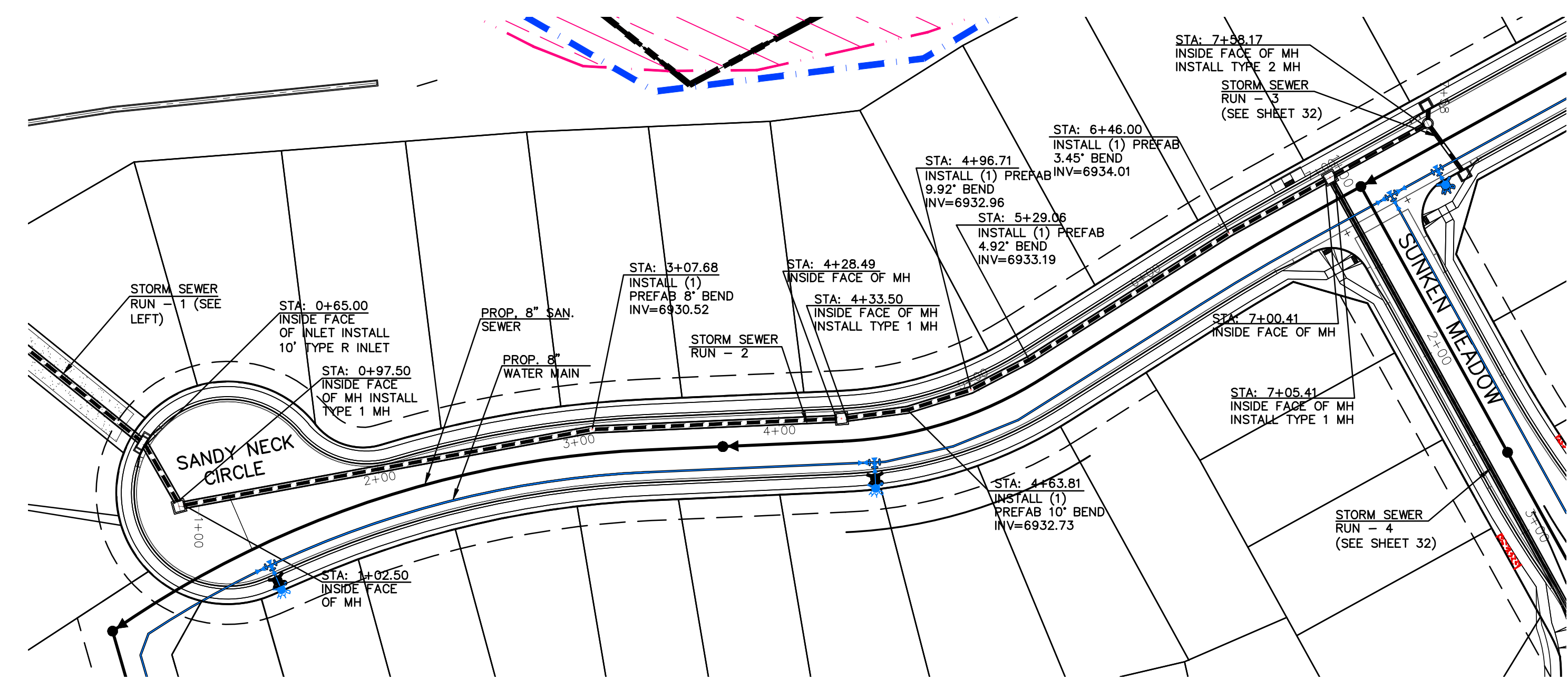
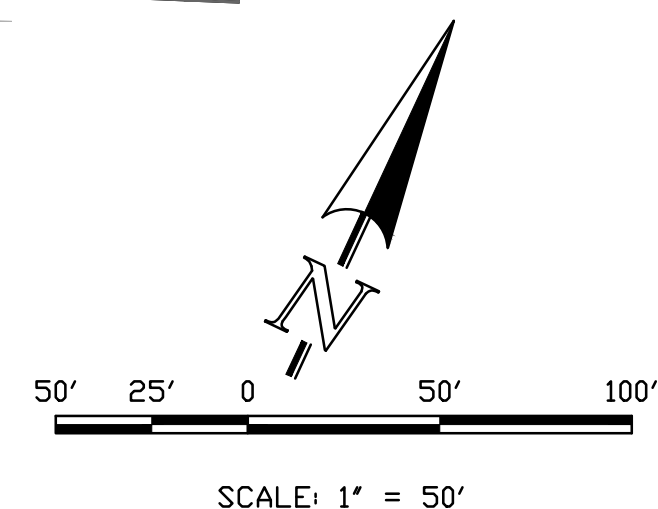
Terra Nova Engineering, Inc.
 721 S. 23RD STREET
 COLORADO SPRINGS, CO 80904
 OFFICE: 719-635-6422
 FAX: 719-635-6426
 www.tnec.com

WATERBURY FILING NO. 1
 SIGNING & STRIPING
 C&G AND STRIPING REMOVAL
 STAPLETON DRIVE

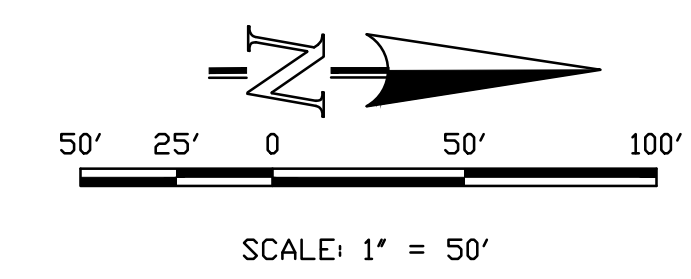
DESIGNED BY DLF
 DRAWN BY QNA
 CHECKED BY QNA
 H-SCALE NA
 V-SCALE N/A
 JOB NO. 2356.00
 DATE ISSUED 10/14/24
 SHEET NO. 30 OF 52



STORM SEWER RUN-1 (PIPE RUN 7) PHASE 1
 PROPOSED PUBLIC RCP STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.

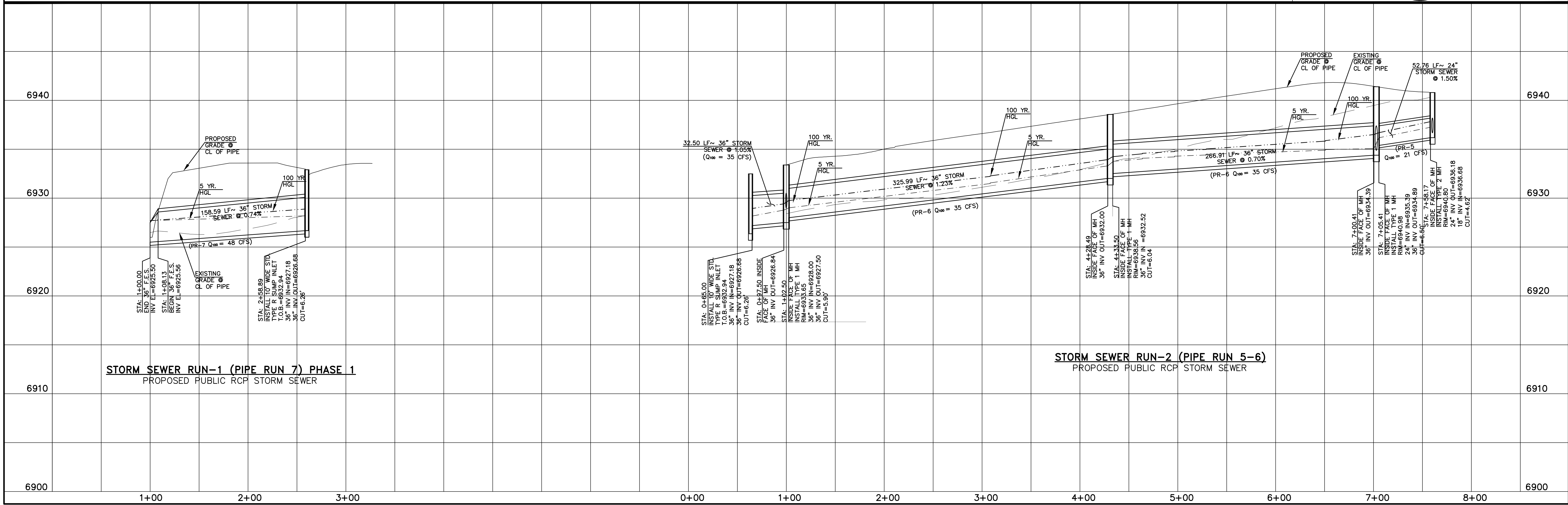


STORM SEWER RUN-2 (PIPE RUN 5-6) PHASE 1
 PROPOSED PUBLIC RCP STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.



THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION
 FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

Quentin N. Armijo
 QUENTIN N. ARMIJO, PROFESSIONAL ENGINEER
 COLORADO P.E. NO. 37170



STORM SEWER RUN-1 (PIPE RUN 7) PHASE 1
 PROPOSED PUBLIC RCP STORM SEWER

STORM SEWER RUN-2 (PIPE RUN 5-6)
 PROPOSED PUBLIC RCP STORM SEWER

DATE	
DESCRIPTION	
REVISIONS	
NO.	
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE REVIEWING AGENCIES TERRA NOVA ENGINEERING AND SURVEYING, INC. APPROVES THEIR USE ONLY DESIGNATED BY WRITTEN AUTHORIZATION.	
PREPARED FOR:	ACM ALF VIII JV SUB II LLC
	JASON POCK
	00 E. MISSISSIPPI AVE., STE 500
	DENVER, CO 80246
	303-984-9800
DESIGNED BY	QNA
DRAWN BY	QNA
CHECKED BY	
H-SCALE	1"=50'
V-SCALE	1"=5'
JOB NO.	2356.00
DATE ISSUED	10/4/24
SHEET NO.	31 OF 52

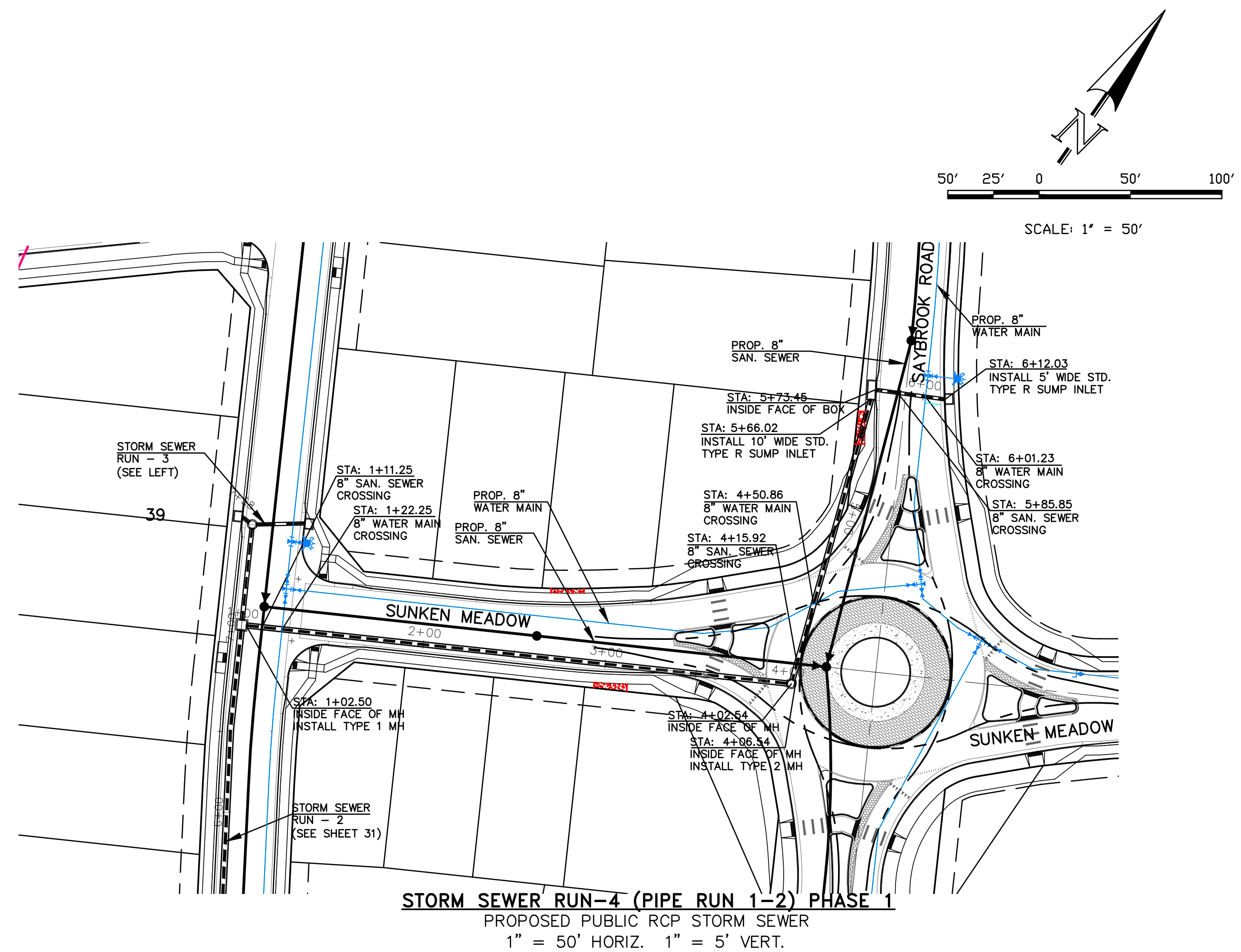
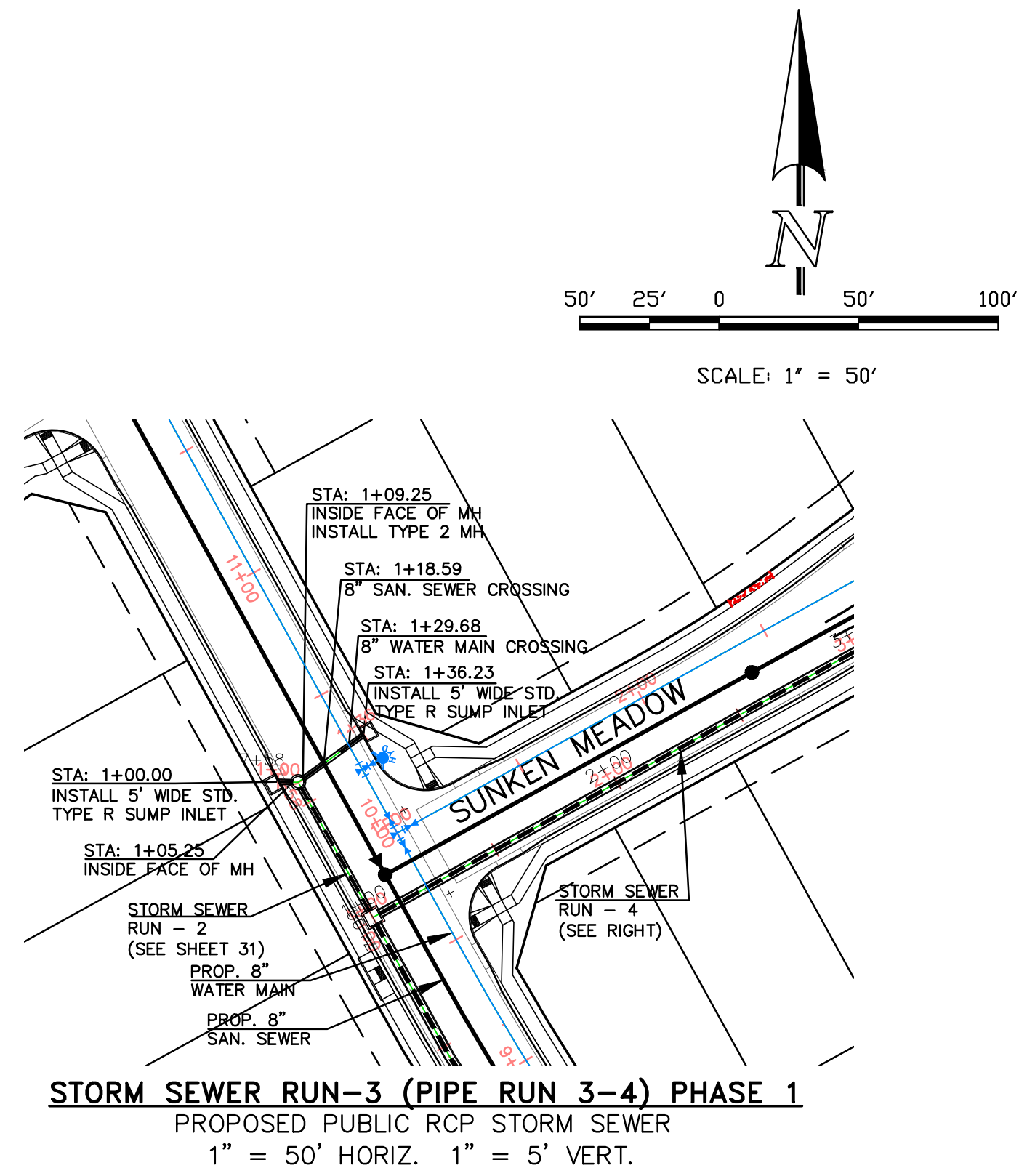
721 S. 2900 STREET
 COLORADO SPRINGS, CO 80904
 OFFICE: 719-635-6422
 FAX: 719-635-6426
 www.tnva.com

Terra Nova
 Engineering, Inc.
 Professional Engineer

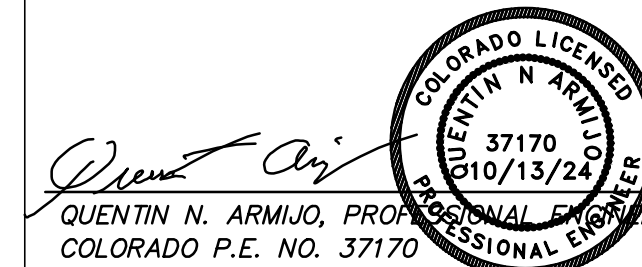
COLOrado LICENSED
 QUENTIN N. ARMIJO
 37170
 10/13/24

WATERBURY FILING NO. 1

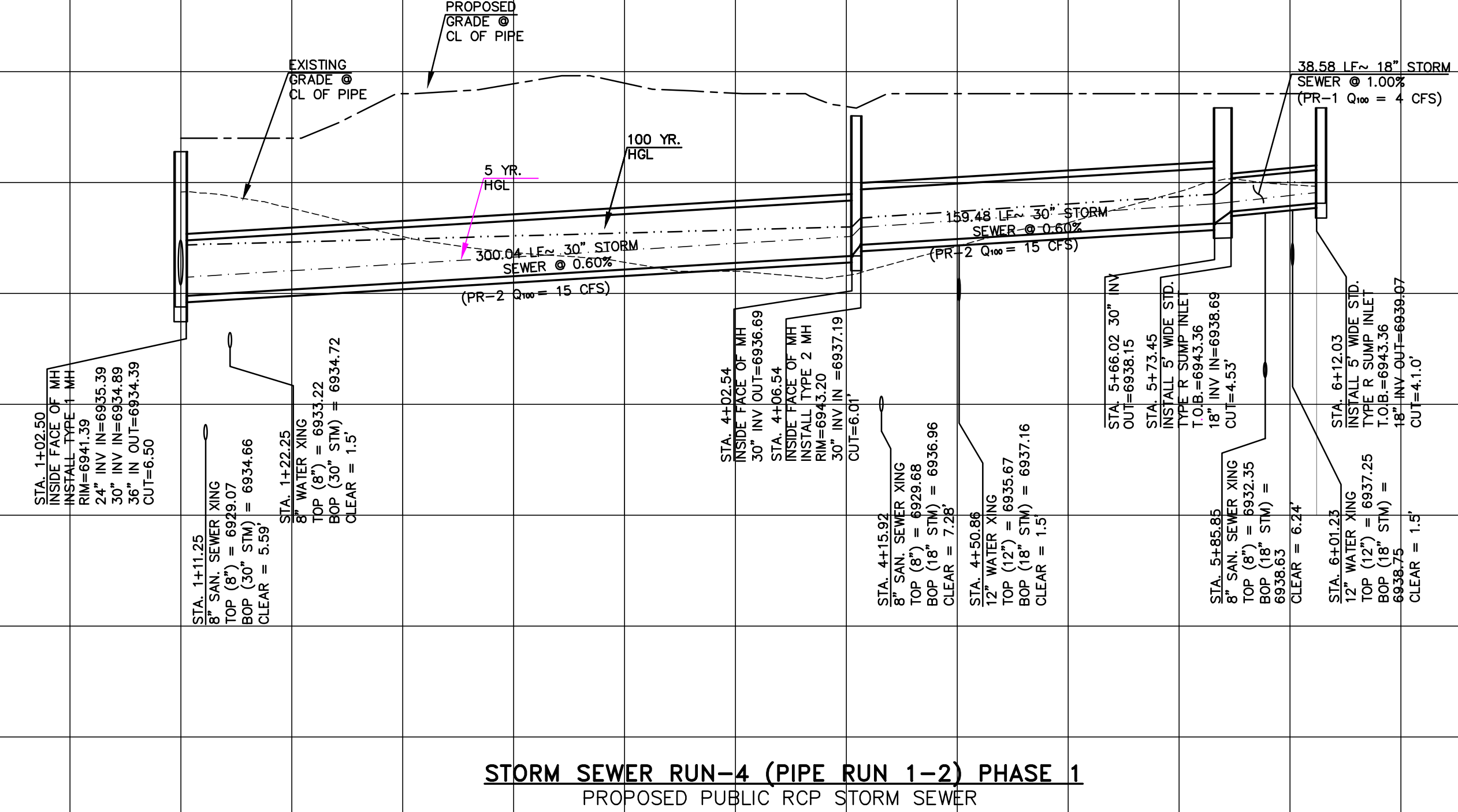
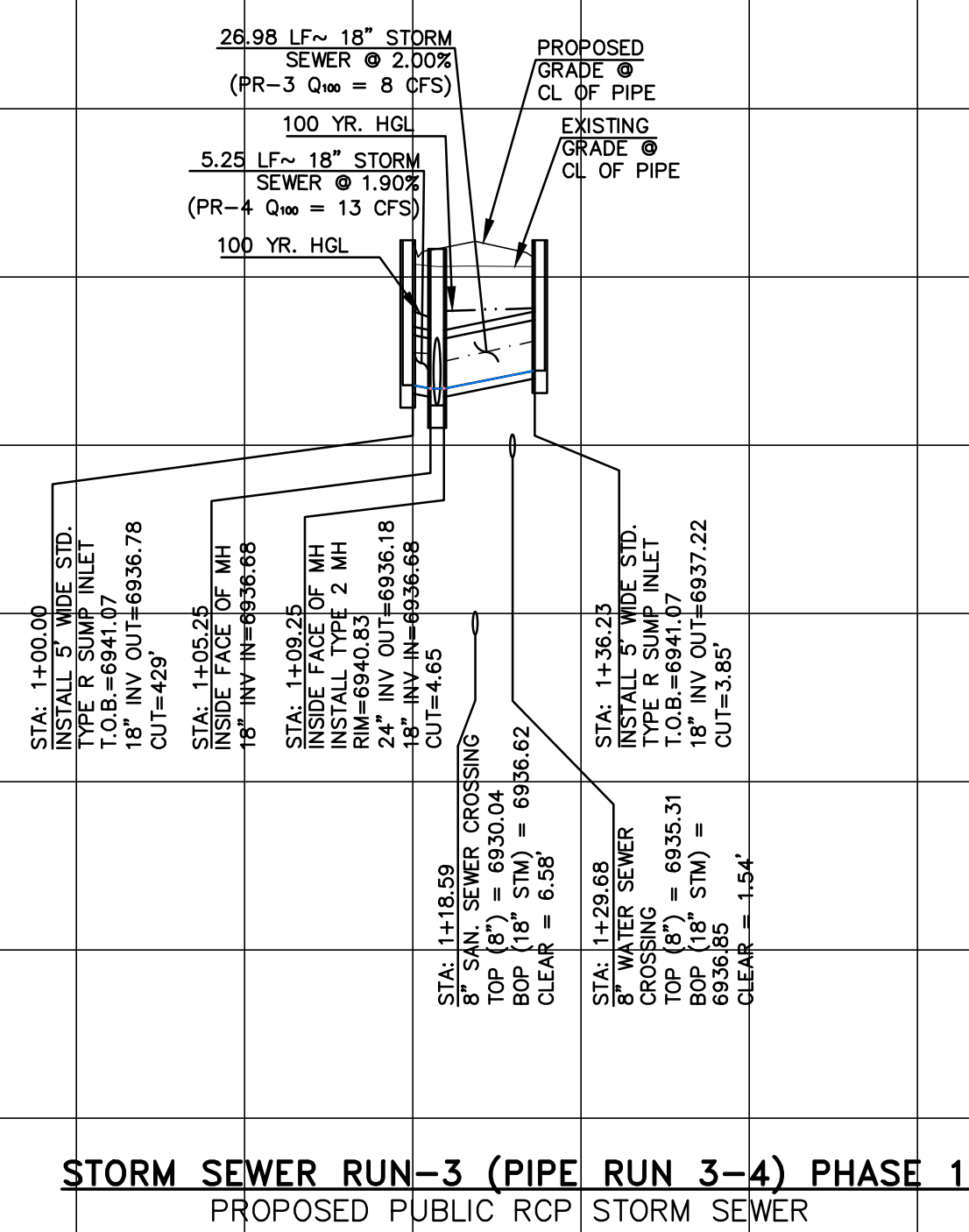
CONSTRUCTION SET
 STORM SEWER PLAN AND PROFILE
 STORM RUNS 1 & 2



THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.



6950												6950
6940												6940
6930												6930
6920												6920
6910												6910



REVISIONS	NO.	DESCRIPTION	DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE AGENCIES TERRA NOVA ENGINEERING AND SURVEYING, INC. APPROVES THEIR USE ONLY DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR:
ACM ALF VIII JV SUB II LLC
JASON POCK
00 E. MISSISSIPPI AVE., STE 500
DENVER, CO 80246
303-984-9800

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

QUENTIN N. ARMILIO, PROFESSIONAL ENGINEER
COLORADO P.E. NO. 37170

Terra Nova Engineering, Inc.
Professional Engineer
721 S. 2900 STREET
COLORADO SPRINGS, CO 80904
OFFICE: 719-635-6422
FAX: 719-635-6426
www.tnec.com

DESIGNED BY QNA
DRAWN BY QNA
CHECKED BY
H-SCALE 1"=50'
V-SCALE 1"=5'
JOB NO. 2356.00
DATE ISSUED 10/4/24
SHEET NO. 32 OF 52

WATERBURY FILING NO. 1
CONSTRUCTION SET
STORM SEWER PLAN AND PROFILE
STORM RUNS 3 & 4

REVISIONS	NO.	DESCRIPTION	DATE
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE BOARD OF ENGINEERS AND SURVEYORS AND APPROVED FOR THEIR USE ONLY AS DESIGNATED BY WRITTEN AUTHORIZATION.			

PREPARED FOR:
ACM ALF VIII JV SUB II LLC
JASON POCK
 00 E. MISSISSIPPI AVE., STE 500
 DENVER, CO 80246
 303-984-9800

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF **TERRA NOVA ENGINEERING, INC.**

Quentin N. Armijo
 QUENTIN N. ARMILJO, PROFESSIONAL ENGINEER
 COLORADO P.E. NO. 37170

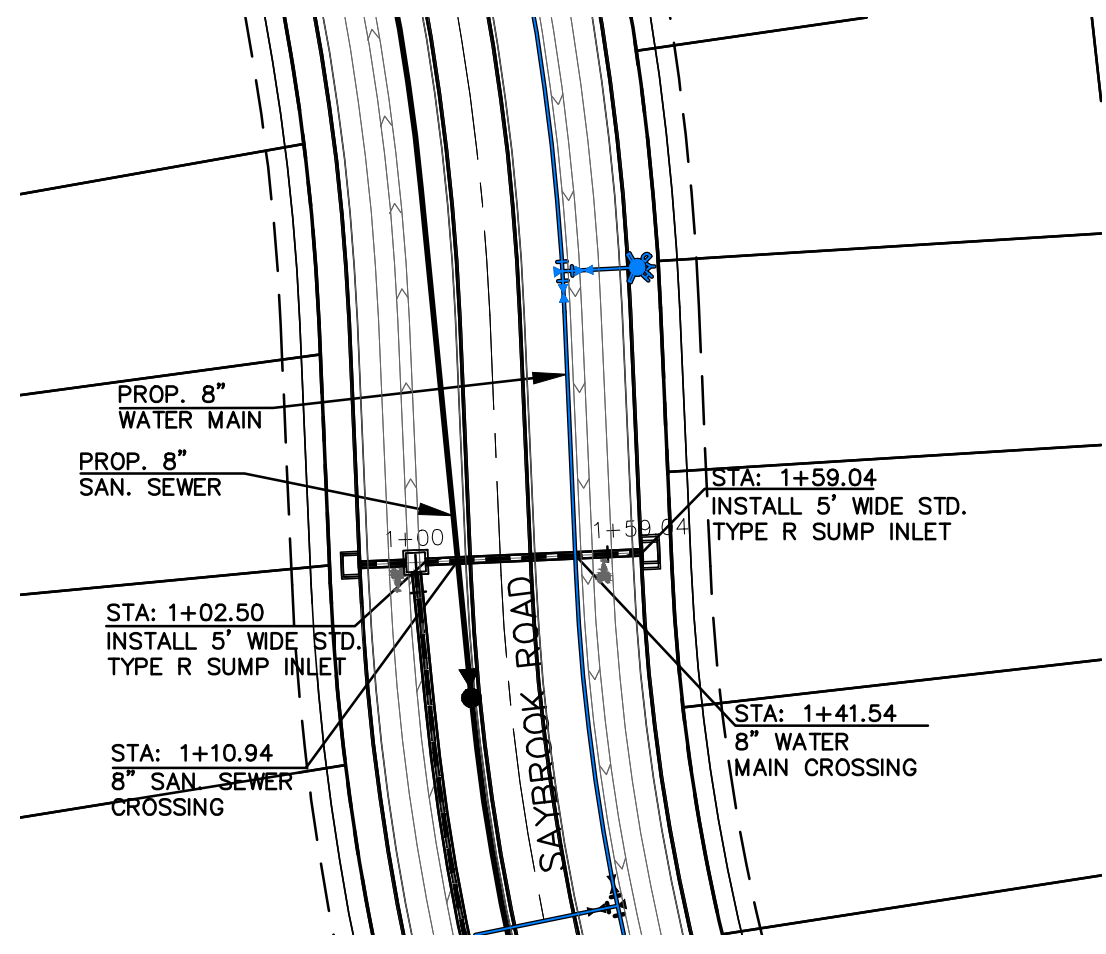
Terra Nova
 Engineering, Inc.
 721 S. 29th STREET
 COLORADO SPRINGS, CO 80904
 OFFICE: 719-635-6422
 FAX: 719-635-6426
 www.tneng.com

WATERBURY FILING NO. 1

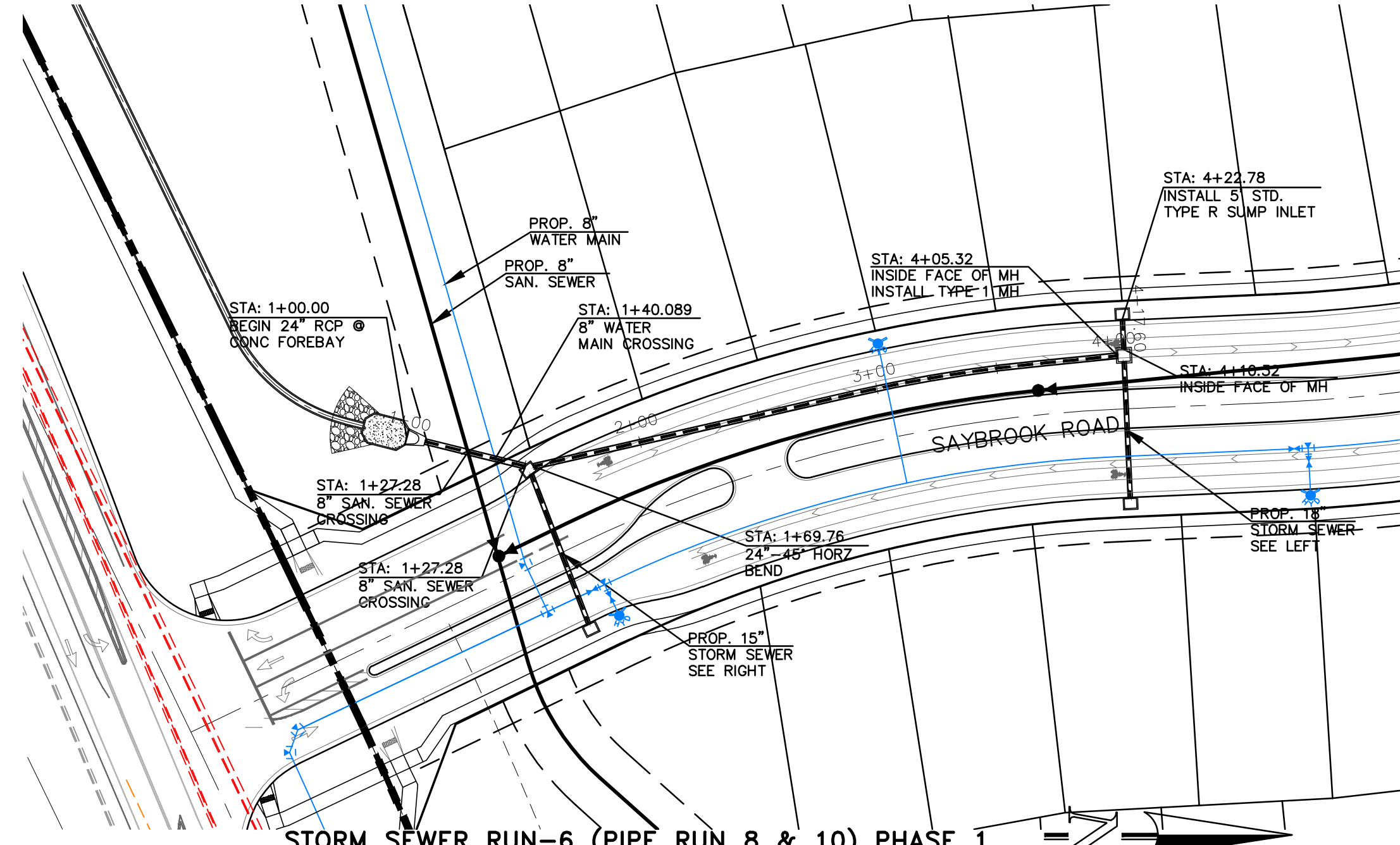
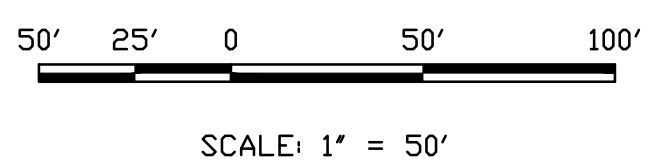
CONSTRUCTION SET
 STORM SEWER PLAN AND PROFILE
 STORM RUNS 5, 8 & 10

DESIGNED BY QNA
 DRAWN BY QNA
 CHECKED BY _____

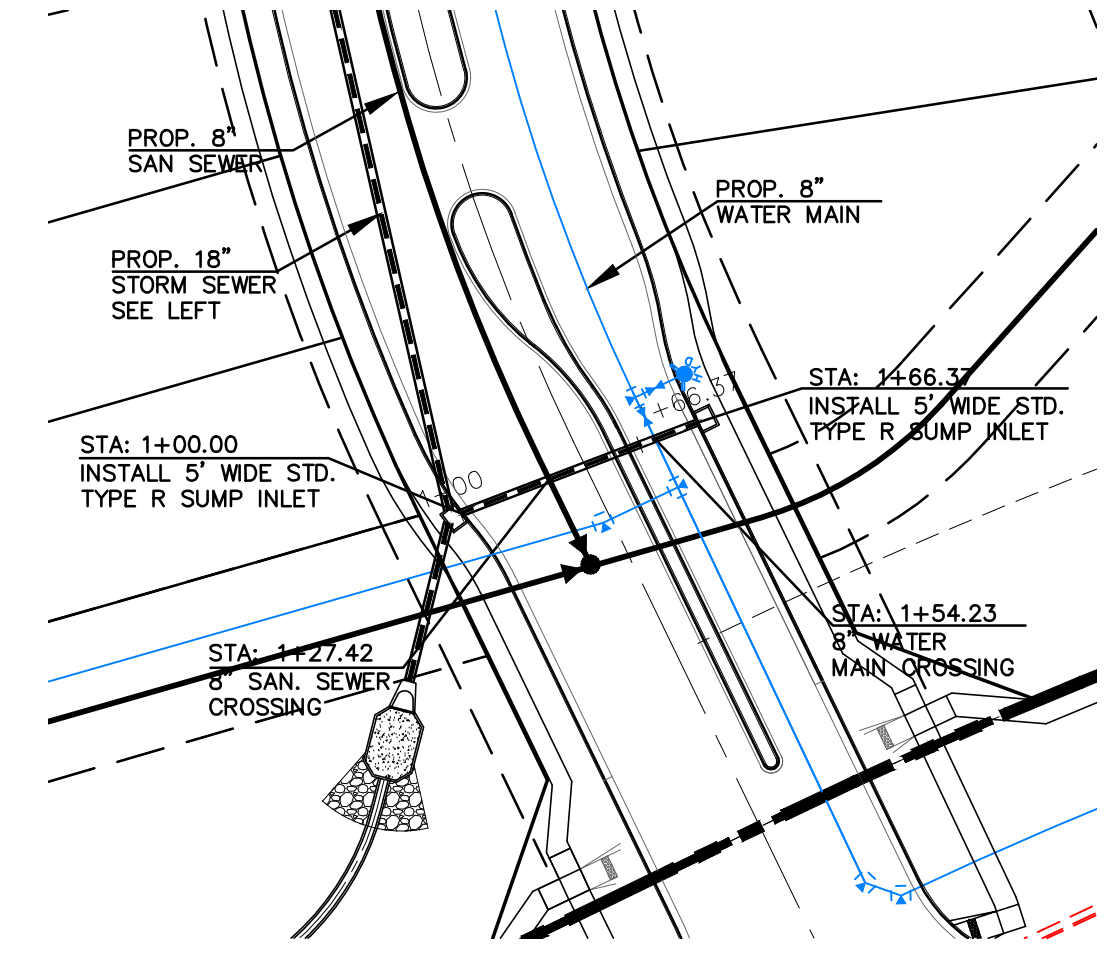
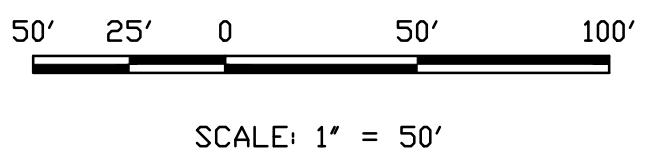
H-SCALE 1"=50'
 V-SCALE 1"=5'
 JOB NO. 2356.00
 DATE ISSUED 10/4/24
 SHEET NO. 33 OF 52



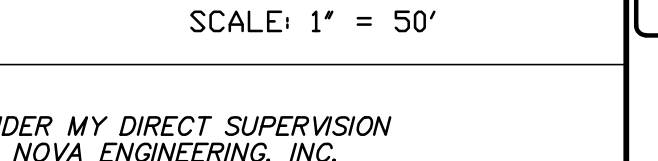
STORM SEWER RUN-5 (PIPE RUN 9) PHASE 1
 PROPOSED PUBLIC RCP STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.



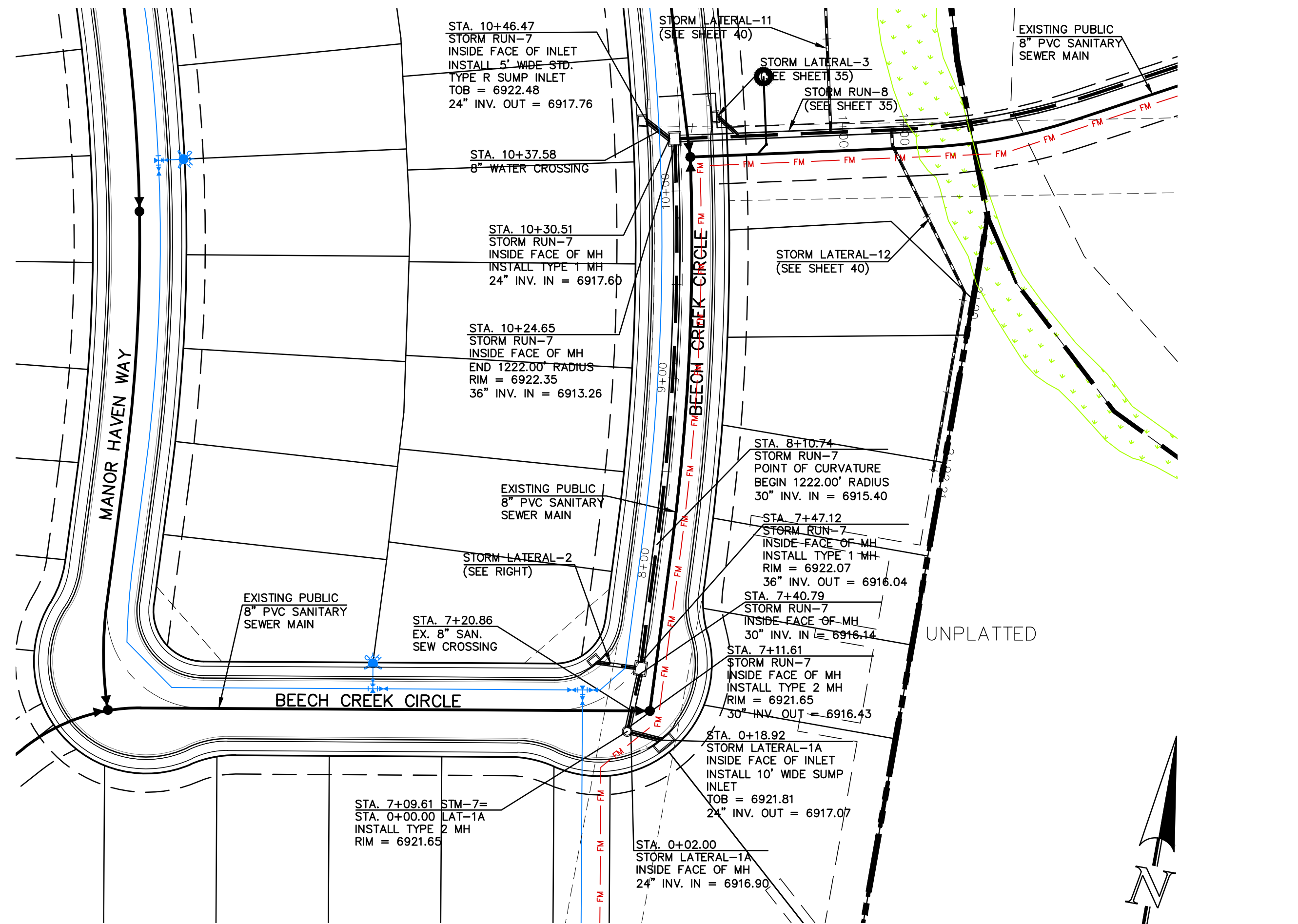
STORM SEWER RUN-6 (PIPE RUN 8 & 10) PHASE 1
 PROPOSED PUBLIC RCP STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.



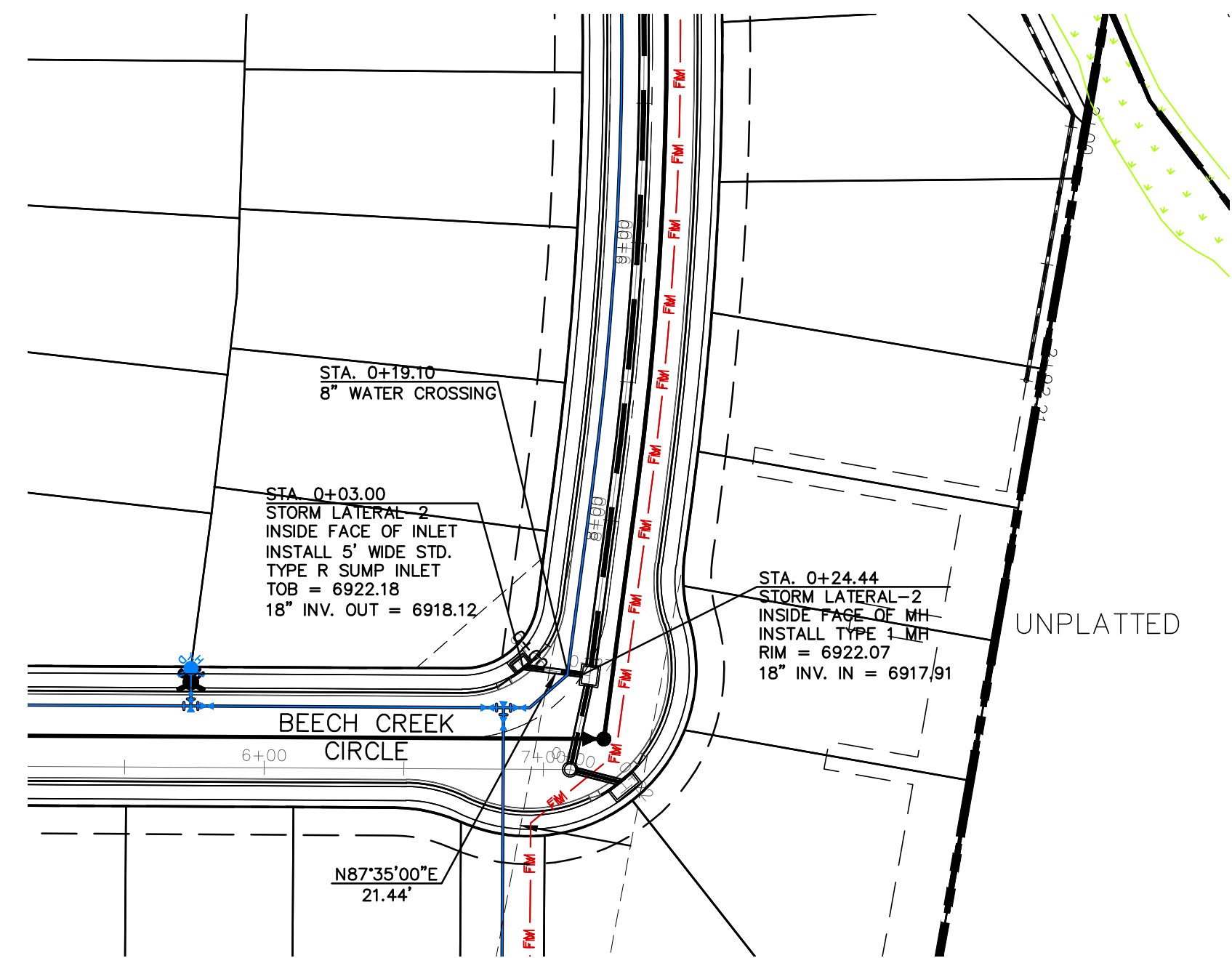
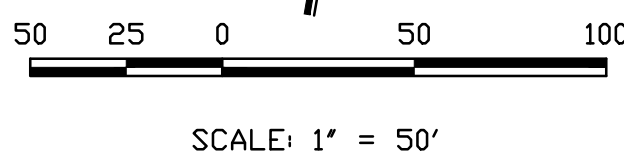
STORM SEWER LATERAL-11 (PIPE RUN 10A) PHASE 1
 PROPOSED PUBLIC RCP STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.



Station	Profile Data	Profile Data	Profile Data
6950			
6940	56.54 LF~18" STORM SEWER @ 1.00% (PR-9 Q ₁₀₀ = 8 CFS) PROPOSED GRADE @ CL OF PIPE EXISTING GRADE @ CL OF PIPE 100 YR. HGL	50.40 LF~24" STORM SEWER @ 0.60% (PR-10B Q ₁₀₀ = 20 CFS) PROPOSED GRADE @ CL OF PIPE EXISTING GRADE @ CL OF PIPE 5 YR. HGL 100 YR. HGL 245.24 LF~24" STORM SEWER @ 0.95% (PR-10 Q ₁₀₀ = 16 CFS) PROPOSED GRADE @ CL OF PIPE EXISTING GRADE @ CL OF PIPE 5 YR. HGL 100 YR. HGL 12.46 LF~18" STORM SEWER @ 1.00% (PR-8 Q ₁₀₀ = 8 CFS) PROPOSED GRADE @ CL OF PIPE EXISTING GRADE @ CL OF PIPE 5 YR. HGL 100 YR. HGL	66.37 LF~15" STORM SEWER @ 0.50% (PR-10A Q ₁₀₀ = 3 CFS) PROPOSED GRADE @ CL OF PIPE EXISTING GRADE @ CL OF PIPE 5 YR. HGL 100 YR. HGL
6930			
6920			
6910	STA. 1+02.50 TOP (6") = 6928.00 BOP (18" STM) = 6929.50 CLEAR = 1.5' STA. 1+10.94 TOP (6") = 6928.00 BOP (18" STM) = 6929.50 CLEAR = 1.5' STA. 1+41.54 TOP (6") = 6928.00 BOP (18" STM) = 6929.50 CLEAR = 1.5' STA. 1+59.04 TOP (6") = 6928.00 BOP (18" STM) = 6929.50 CLEAR = 1.5' STA. 1+10.94 TOP (6") = 6928.00 BOP (18" STM) = 6929.50 CLEAR = 1.5' STA. 1+41.54 TOP (6") = 6928.00 BOP (18" STM) = 6929.50 CLEAR = 1.5' STA. 1+59.04 TOP (6") = 6928.00 BOP (18" STM) = 6929.50 CLEAR = 1.5' STA. 1+10.94 TOP (6") = 6928.00 BOP (18" STM) = 6929.50 CLEAR = 1.5' STA. 1+41.54 TOP (6") = 6928.00 BOP (18" STM) = 6929.50 CLEAR = 1.5' STA. 1+59.04 TOP (6") = 6928.00 BOP (18" STM) = 6929.50 CLEAR = 1.5'	STA. 1+00.00 TOP (6") = 6930.40 BOP (18" STM) = 6931.86 CLEAR = 1.46' STA. 1+22.28 TOP (6") = 6925.98 BOP (18" STM) = 6927.44 CLEAR = 1.46' STA. 1+50.40 TOP (6") = 6930.40 BOP (18" STM) = 6931.86 CLEAR = 1.46' STA. 1+99.76 TOP (6") = 6925.98 BOP (18" STM) = 6927.44 CLEAR = 1.46' STA. 1+41.54 TOP (6") = 6928.00 BOP (18" STM) = 6929.50 CLEAR = 1.5' STA. 1+59.04 TOP (6") = 6928.00 BOP (18" STM) = 6929.50 CLEAR = 1.5' STA. 1+10.94 TOP (6") = 6928.00 BOP (18" STM) = 6929.50 CLEAR = 1.5' STA. 1+41.54 TOP (6") = 6928.00 BOP (18" STM) = 6929.50 CLEAR = 1.5' STA. 1+59.04 TOP (6") = 6928.00 BOP (18" STM) = 6929.50 CLEAR = 1.5' STA. 1+10.94 TOP (6") = 6928.00 BOP (18" STM) = 6929.50 CLEAR = 1.5' STA. 1+41.54 TOP (6") = 6928.00 BOP (18" STM) = 6929.50 CLEAR = 1.5' STA. 1+59.04 TOP (6") = 6928.00 BOP (18" STM) = 6929.50 CLEAR = 1.5'	STA. 1+00.00 TOP (6") = 6930.40 BOP (18" STM) = 6931.86 CLEAR = 1.46' STA. 1+27.42 TOP (6") = 6925.98 BOP (18" STM) = 6927.44 CLEAR = 1.46' STA. 1+27.42 TOP (6") = 6925.98 BOP (18" STM) = 6927.44 CLEAR = 1.46' STA. 1+41.54 TOP (6") = 6928.00 BOP (18" STM) = 6929.50 CLEAR = 1.5' STA. 1+54.23 TOP (6") = 6928.00 BOP (18" STM) = 6929.50 CLEAR = 1.5'
	STORM SEWER RUN-5 (PIPE RUN 9) PHASE 1	STORM SEWER RUN-6 (PIPE RUN 8 & 10) PHASE 1	STORM SEWER LATERAL-11 (PIPE RUN 10A) PHASE 1
	PROPOSED PUBLIC RCP STORM SEWER	PROPOSED PUBLIC RCP STORM SEWER	PROPOSED PUBLIC RCP STORM SEWER
	1+00 2+00	1+00 2+00 3+00 4+00 5+00 6+00	1+00 2+00

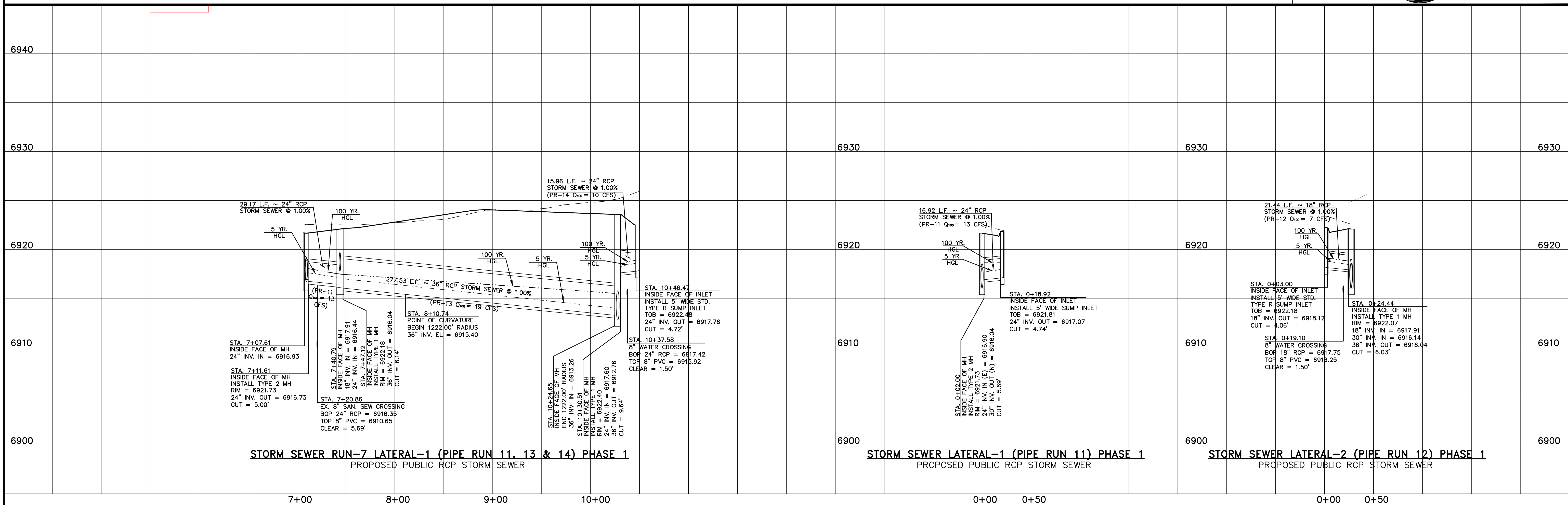


STORM SEWER RUN-7 & LATERAL-1 (PIPE RUN 11, 13 & 14) PHASE 1
 PROPOSED PUBLIC RCP STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.



STORM SEWER LATERAL-2 (PIPE RUN 12) PHASE 1
 PROPOSED PUBLIC RCP STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.

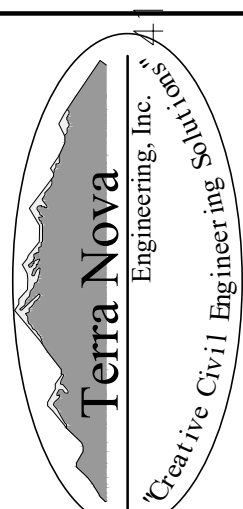
THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION
 FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

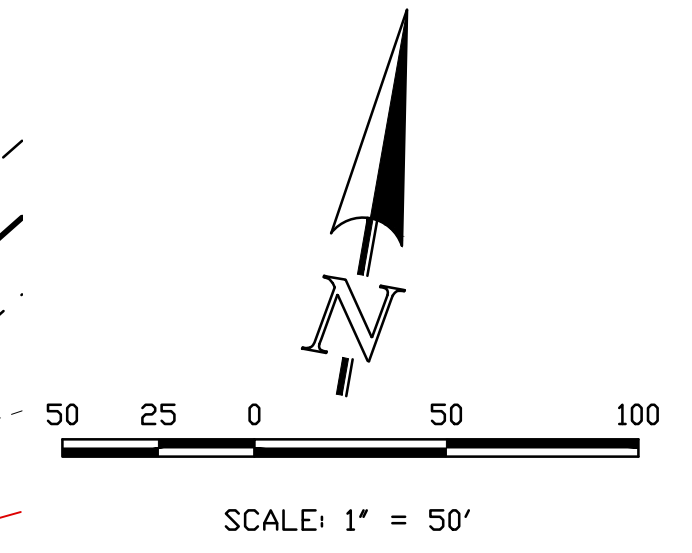
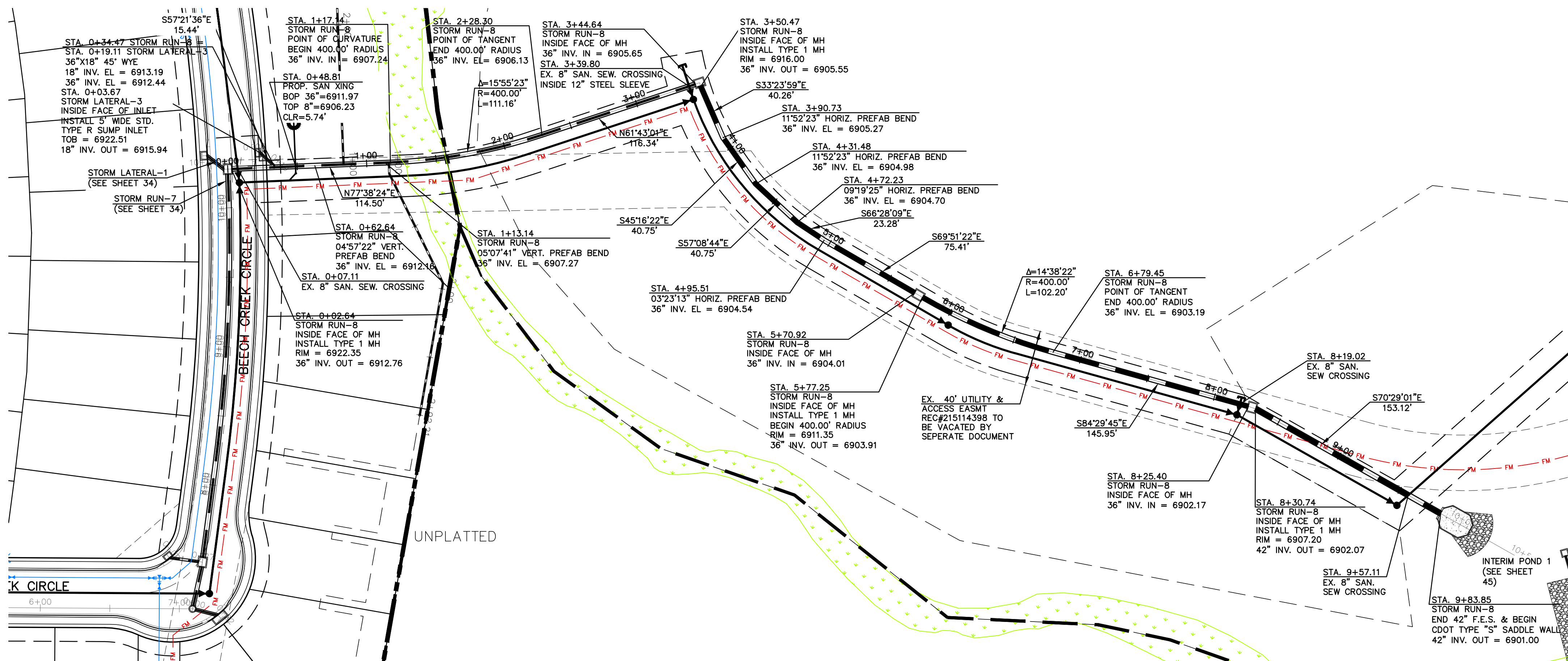


STORM SEWER RUN-7 LATERAL-1 (PIPE RUN 11, 13 & 14) PHASE 1
 PROPOSED PUBLIC RCP STORM SEWER

STORM SEWER LATERAL-1 (PIPE RUN 11) PHASE 1
 PROPOSED PUBLIC RCP STORM SEWER

STORM SEWER LATERAL-2 (PIPE RUN 12) PHASE 1
 PROPOSED PUBLIC RCP STORM SEWER

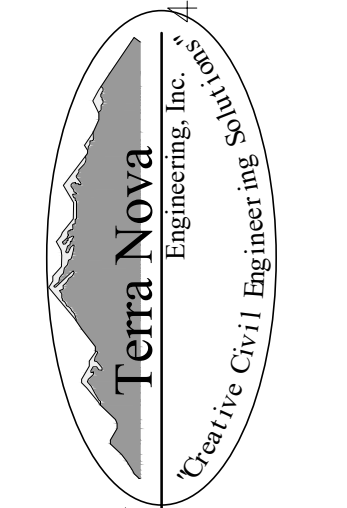
DATE	
DESCRIPTION	
REVISIONS	
NO.	
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE BOARD OF ARCHITECTS, ENGINEERS, SURVEYORS AND LAND SURVEYING, APPROVED FOR THEIR USE ONLY AND DESIGNATED BY WRITTEN AUTHORIZATION.	
PREPARED FOR: ACM ALF VIII JV SUB II LLC JASON POCK 00 E. MISSISSIPPI AVE., STE 500 DENVER, CO 80246 303-984-9800	
 Terra Nova Engineering, Inc. Professional Engineer Colorado P.E. No. 37170	
721 S. 2900 STREET COLORADO SPRINGS, CO 80904 OFFICE: 719-635-6422 FAX: 719-635-6426 www.tnase.com	
WATERBURY FILING NO. 1 CONSTRUCTION SET STORM SEWER PLAN AND PROFILE STORM RUN-7 & LATERALS 1-2	
DESIGNED BY QNA DRAWN BY QNA CHECKED BY H-SCALE 1"=50' V-SCALE 1"=5' JOB NO. 2356.00 DATE ISSUED 10/4/24 SHEET NO. 34 OF 52	



STORM SEWER LATERAL-3 & RUN-8 (PIPE RUN 16 & 17) PHASE 1
 PROPOSED PUBLIC RCP STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION
 FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

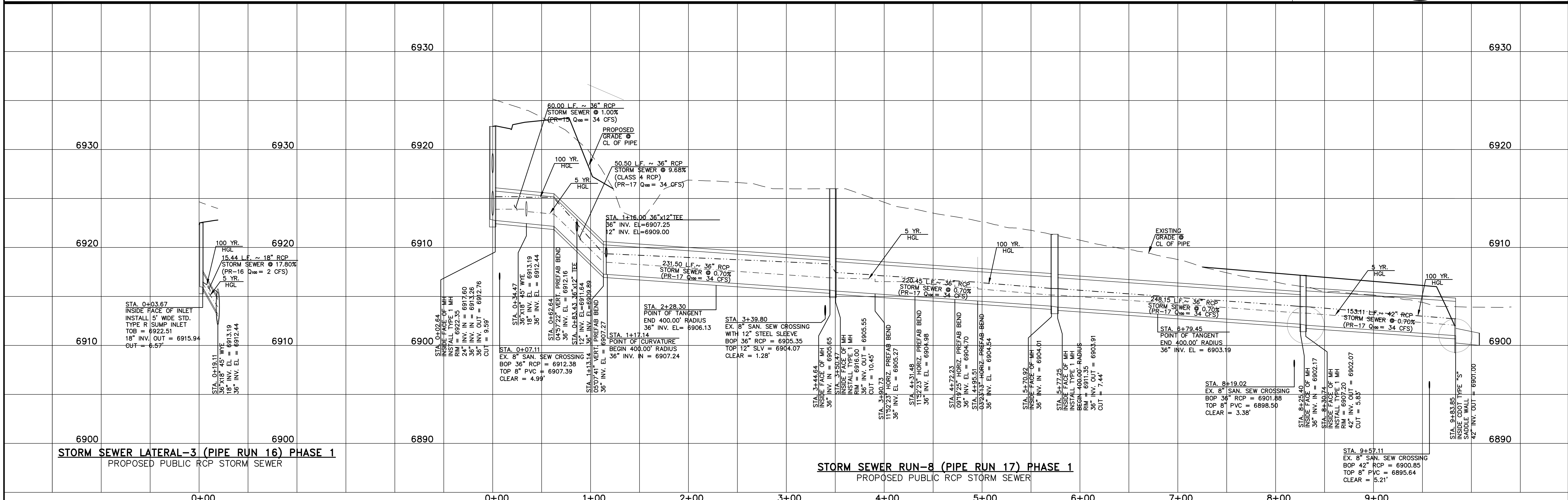
Quentin N. Armijo
 QUENTIN N. ARMIJO, PROFESSIONAL ENGINEER
 COLORADO P.E. NO. 37170



721 S. 2900 STREET
 COLORADO SPRINGS, CO 80904
 OFFICE: 719-635-6422
 FAX: 719-635-6426
 www.tnase.com

WATERBURY FILING NO. 1
 CONSTRUCTION SET
 STORM SEWER PLAN AND PROFILE
 LATERAL 3 & STORM RUN-8

DESIGNED BY QNA
 DRAWN BY QNA
 CHECKED BY
 H-SCALE 1"=50'
 V-SCALE 1"=5'
 JOB NO. 2356.00
 DATE ISSUED 10/4/24
 SHEET NO. 35 OF 52



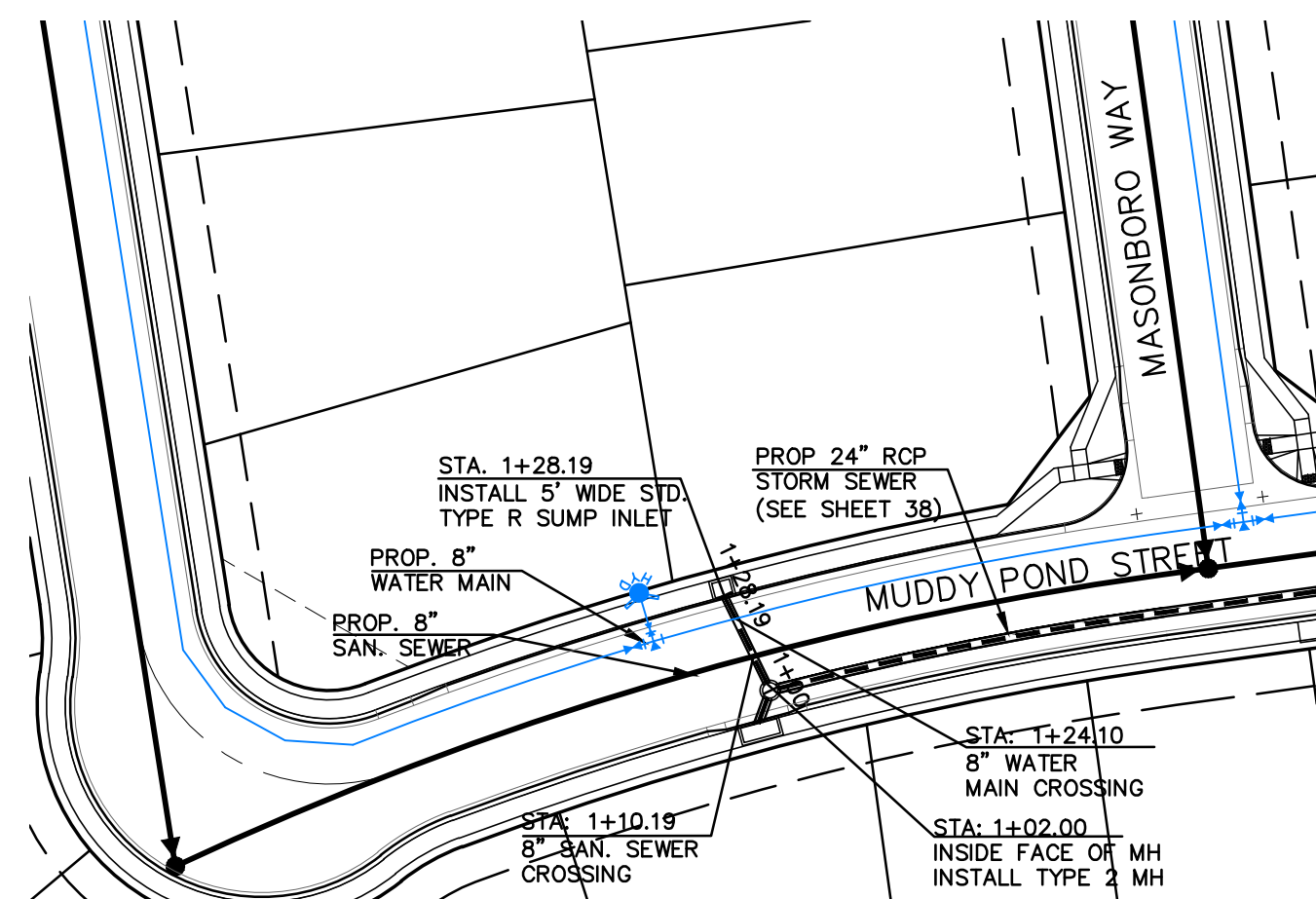
STORM SEWER LATERAL-3 (PIPE RUN 16) PHASE 1
 PROPOSED PUBLIC RCP STORM SEWER

STORM SEWER RUN-8 (PIPE RUN 17) PHASE 1
 PROPOSED PUBLIC RCP STORM SEWER

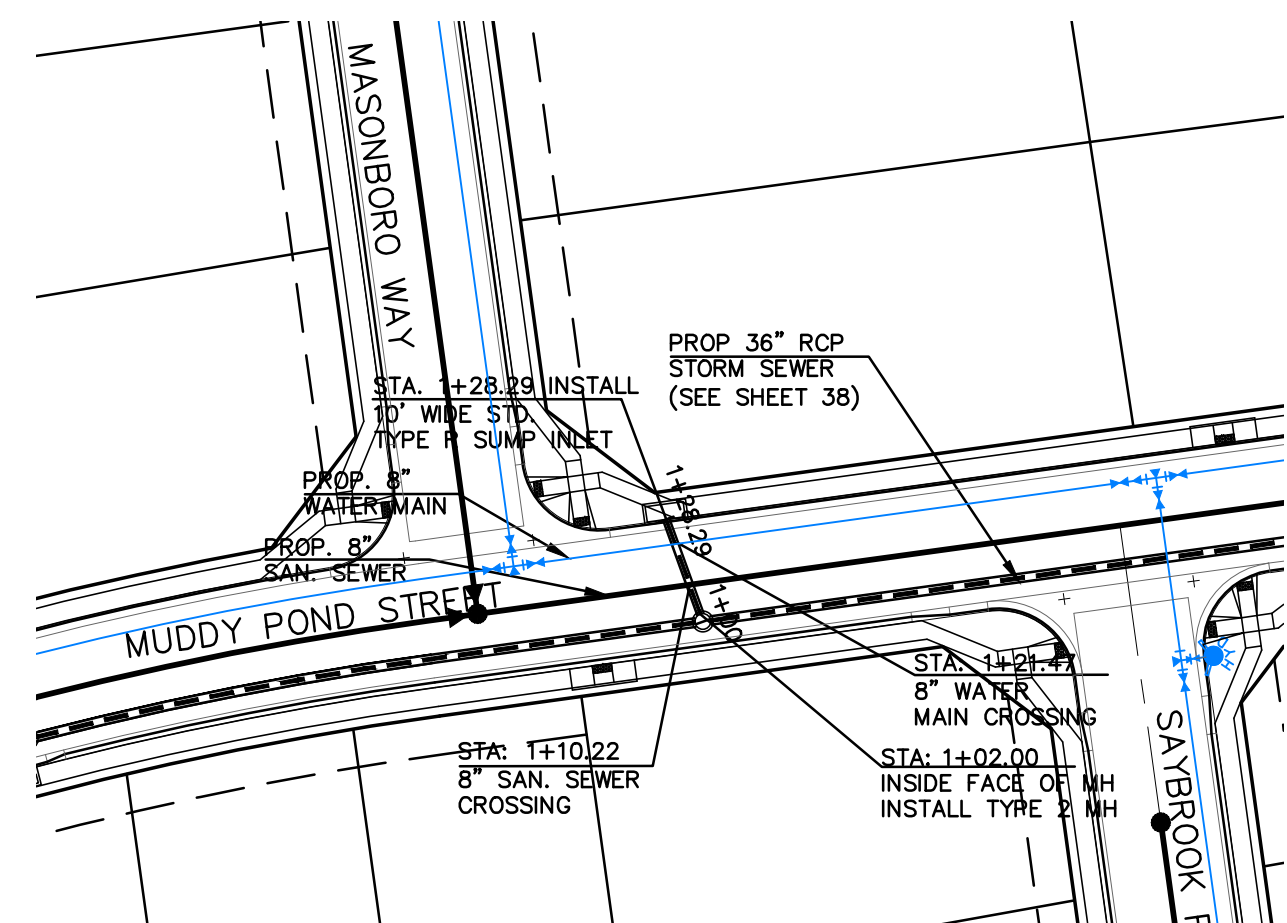
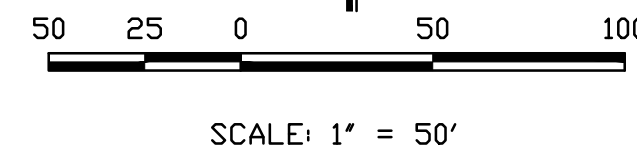
UNTL SUCH TIME AS THESE
 DRAWINGS ARE APPROVED
 BY THE APPLICABLE
 REVIEWING AGENCIES
 TERRA NOVA ENGINEERING
 AND SURVEYING, INC.
 APPROVES THEIR USE ONLY
 AS DESIGNATED BY WRITTEN
 AUTHORIZATION.

PREPARED FOR:
 ACM ALF VIII JV SUB II LLC
 JASON POKK
 00 E. MISSISSIPPI AVE., STE 500
 DENVER, CO 80246
 303-984-9800

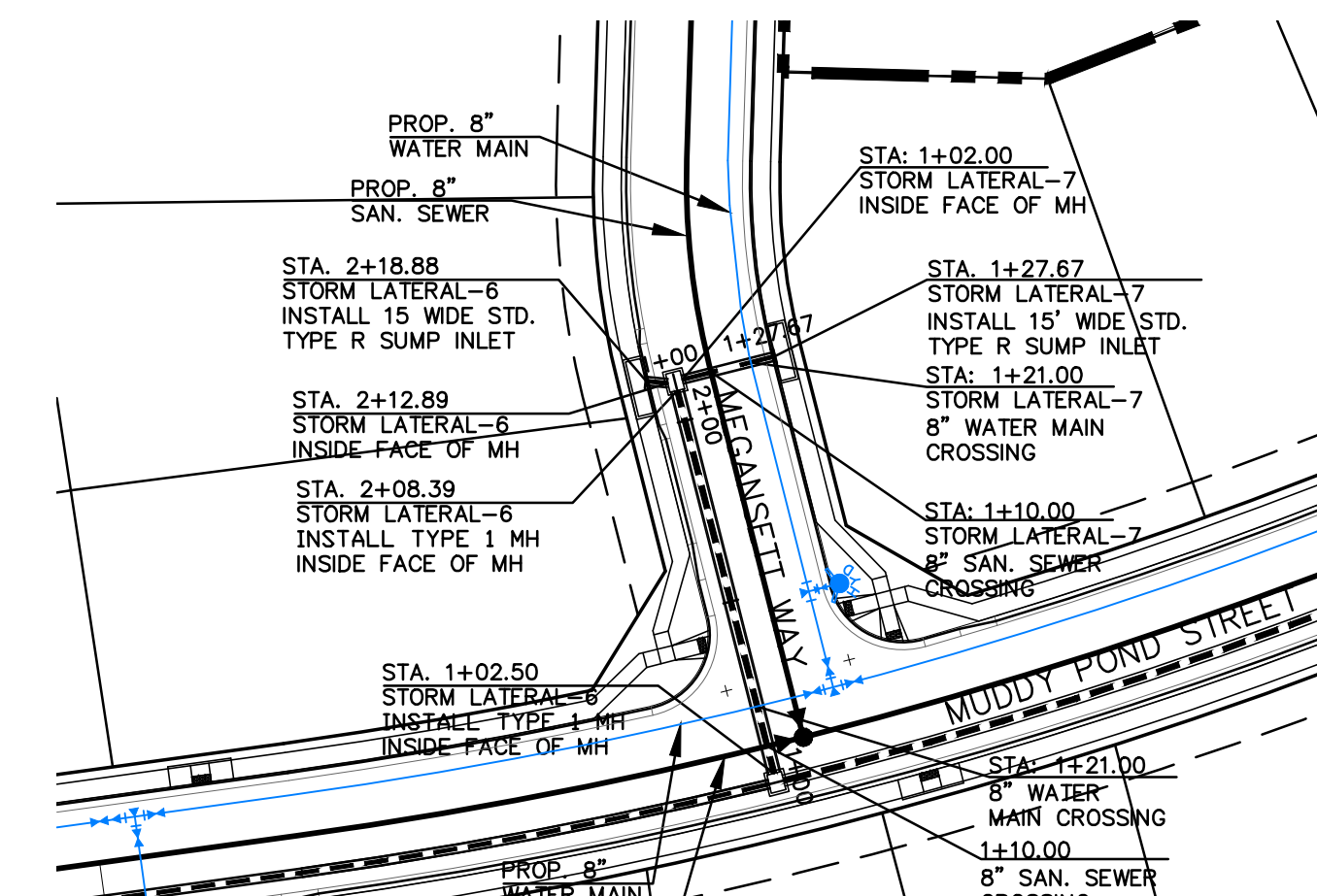
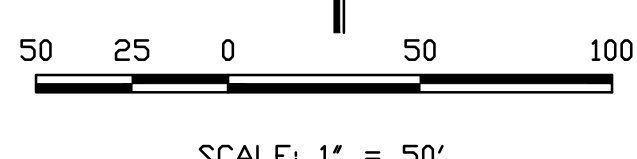
NO.	DESCRIPTION	DATE



STORM SEWER LATERAL - 4 (PIPE RUN 19) PHASE 2
PROPOSED PUBLIC RCP STORM SEWER
1" = 50' HORIZ. 1" = 5' VERT.



STORM SEWER LATERAL - 5 (PIPE RUN 21) PHASE 2
PROPOSED PUBLIC RCP STORM SEWER
1" = 50' HORIZ. 1" = 5' VERT.



STORM SEWER LATERAL - 6 & 7 (PIPE RUN 23, 24 & 25) PHASE 2
PROPOSED PUBLIC RCP STORM SEWER
1" = 50' HORIZ. 1" = 5' VERT.



THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION
FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

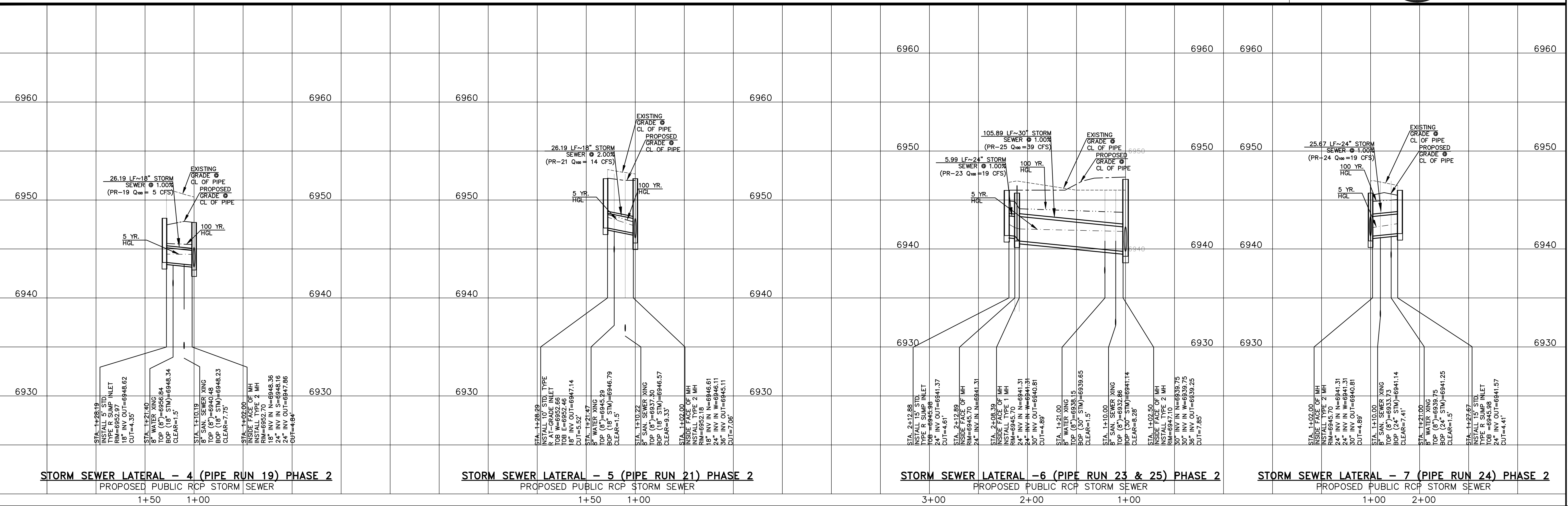
QUENTIN N. ARMIJO, PROFESSIONAL ENGINEER
COLORADO P.E. NO. 37170

REVISIONS

NO.	DESCRIPTION	DATE

UNTIL SUCH TIME AS THESE
DRAWINGS ARE REVISED
BY THE APPROPRIATE
REVIEWING AGENCIES,
AND SURVEYING, INC. ONLY
FOR THE PURPOSES
DESIGNATED BY WRITTEN
AUTHORIZATION.

PREPARED FOR:
ACM ALF VIII JV SUB II LLC
JASON POCK
00 E. MISSISSIPPI AVE., STE 500
DENVER, CO 80246
303-984-9800



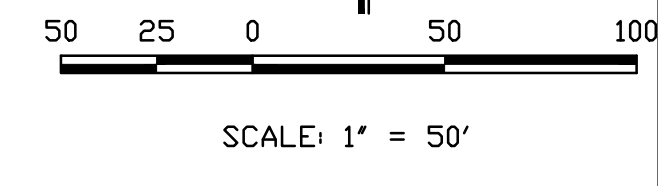
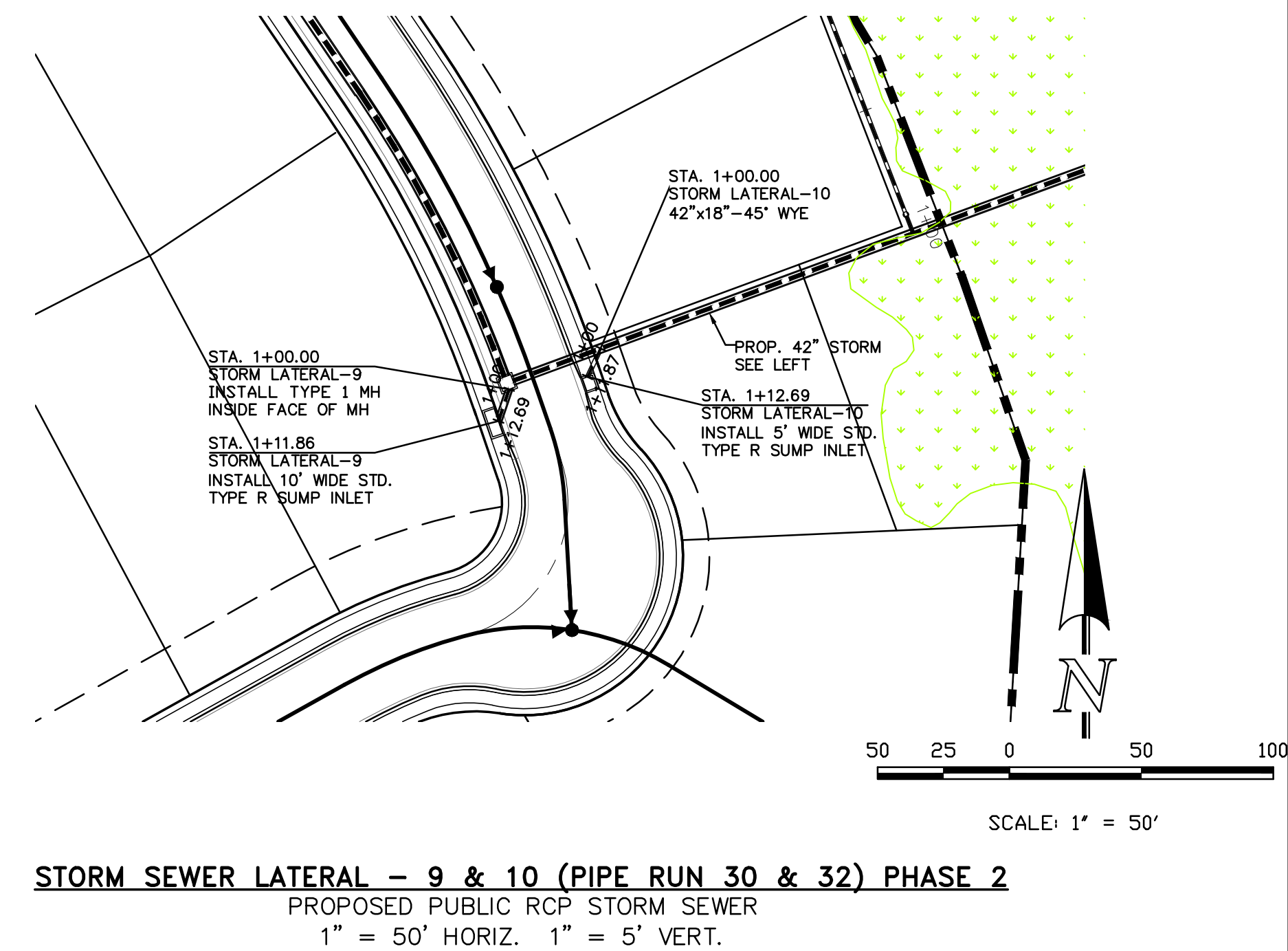
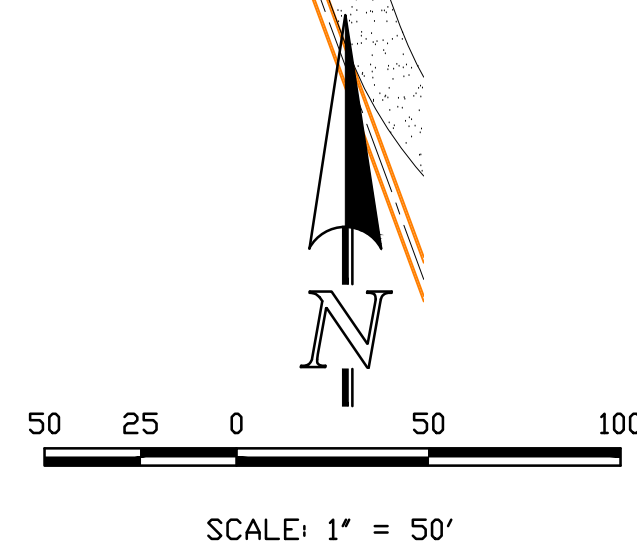
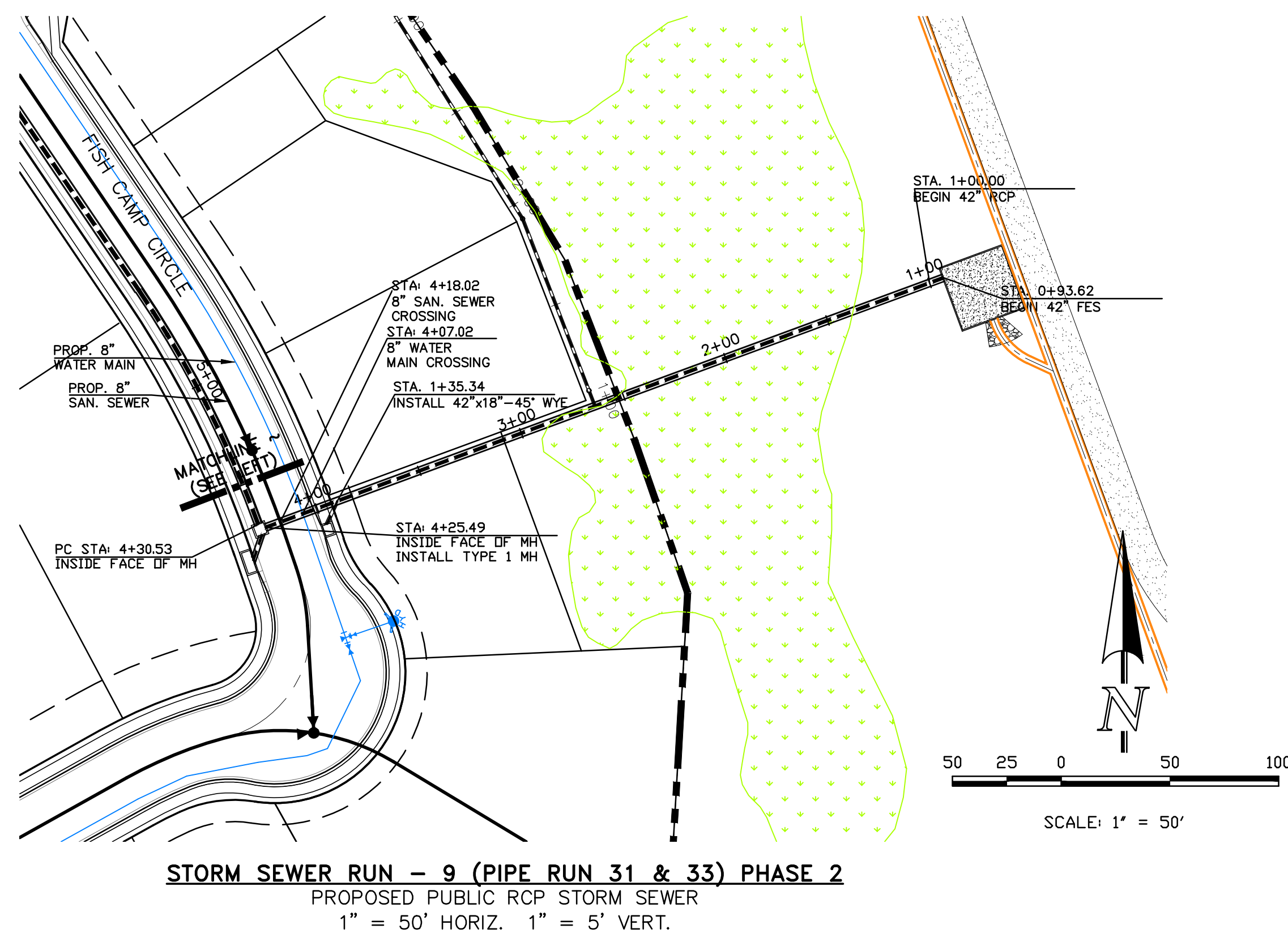
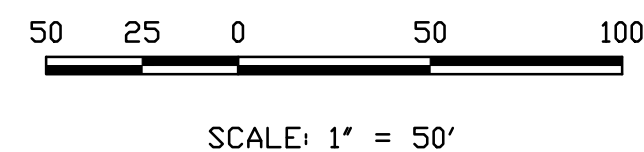
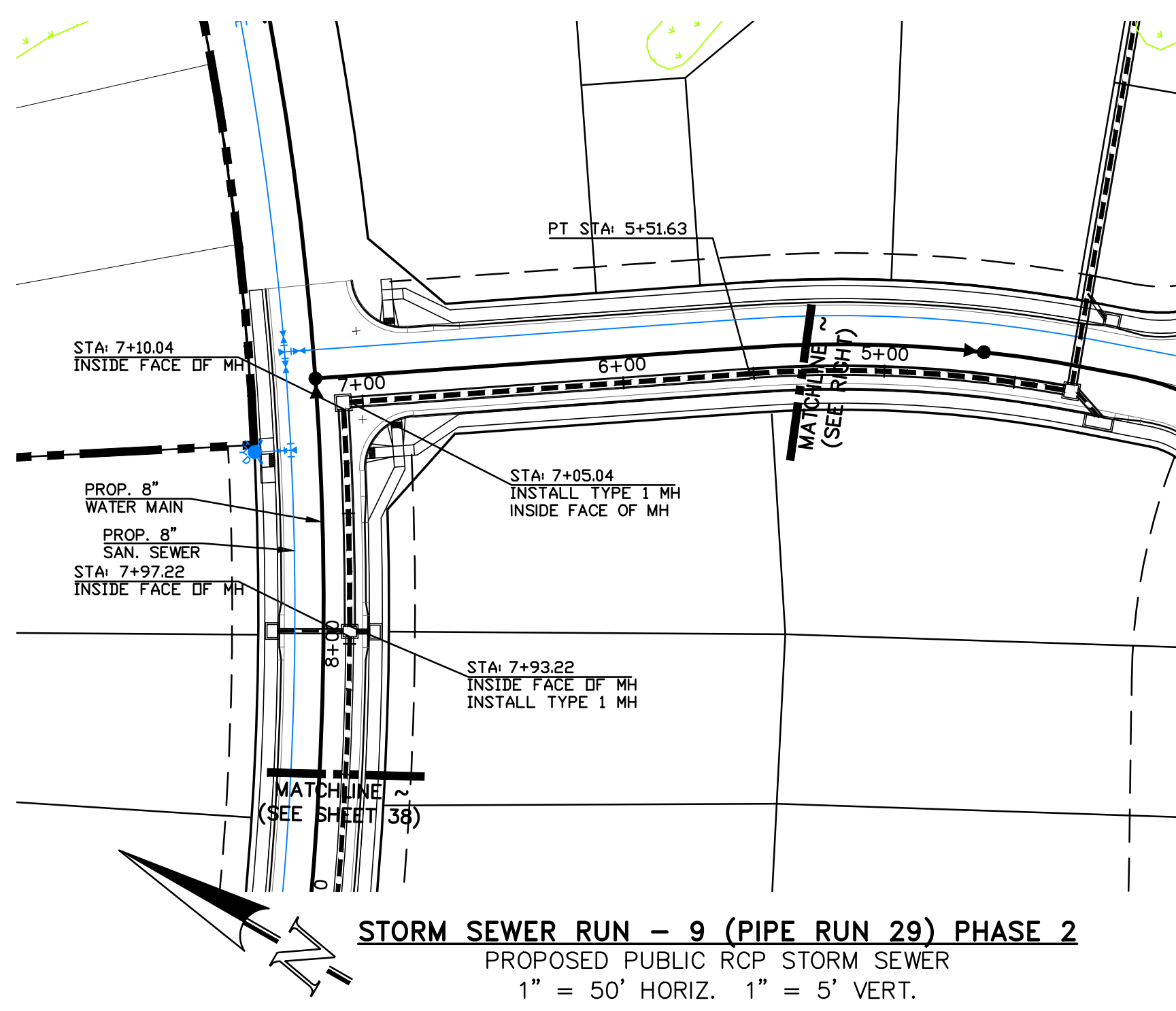
DESIGNED BY QNA
DRAWN BY QNA
CHECKED BY

H-SCALE 1"=50'
V-SCALE 1"=5'

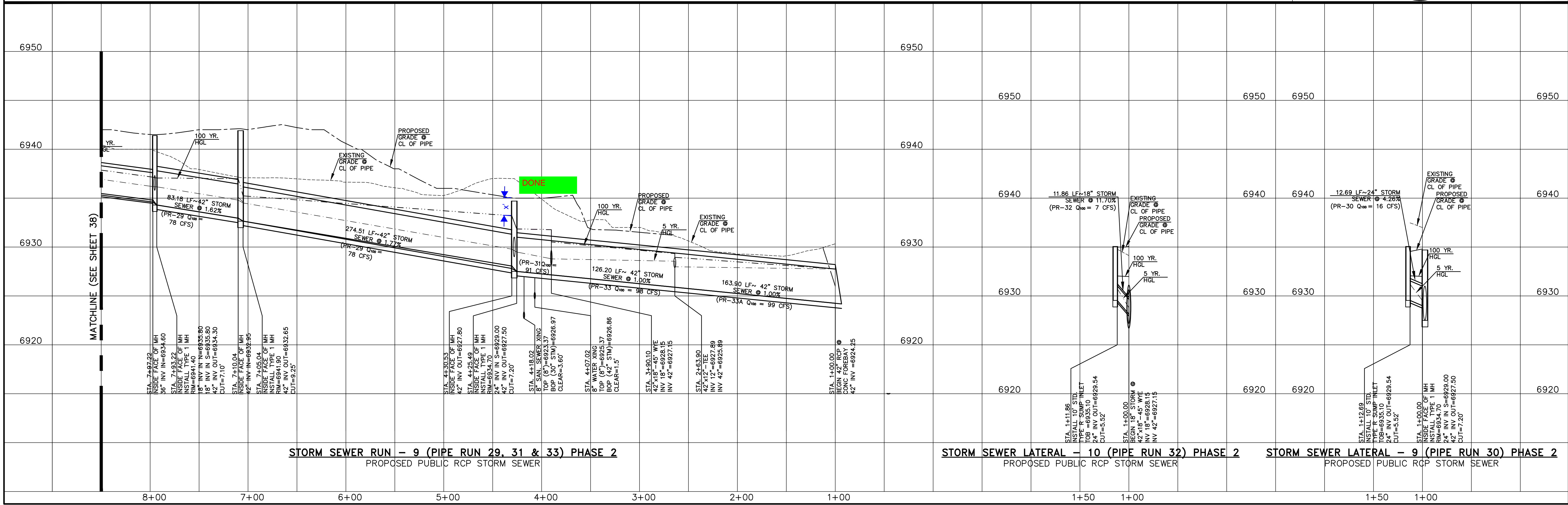
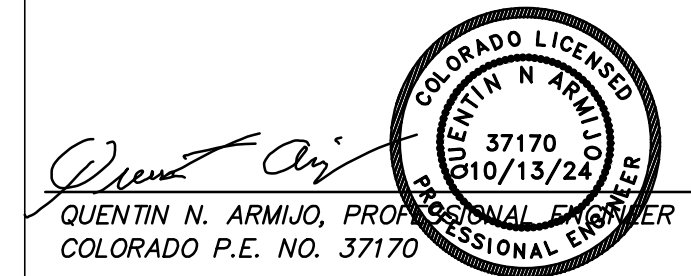
JOB NO. 2356.00
DATE ISSUED 10/4/24
SHEET NO. 36 OF 52

WATERBURY FILING NO. 1
CONSTRUCTION SET
STORM SEWER PLAN AND PROFILE
LATERALS 4-6

721 S. 23RD STREET
COLORADO SPRINGS, CO 80904
OFFICE: 719-635-6422
FAX: 719-635-6426
www.tnaseinc.com



THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.



DATE: _____

REVISIONS:

NO.	DESCRIPTION

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE RELEVANT AGENCIES TERRA NOVA ENGINEERING AND SURVEYING, INC. APPROVES THEIR USE ONLY AUTHORIZED BY WRITTEN AUTHORIZATION.

PREPARED FOR: **ACM ALF VIII JV SUB II LLC**
JASON POCK
 00 E. MISSISSIPPI AVE., STE 500
 DENVER, CO 80246
 303-984-9800

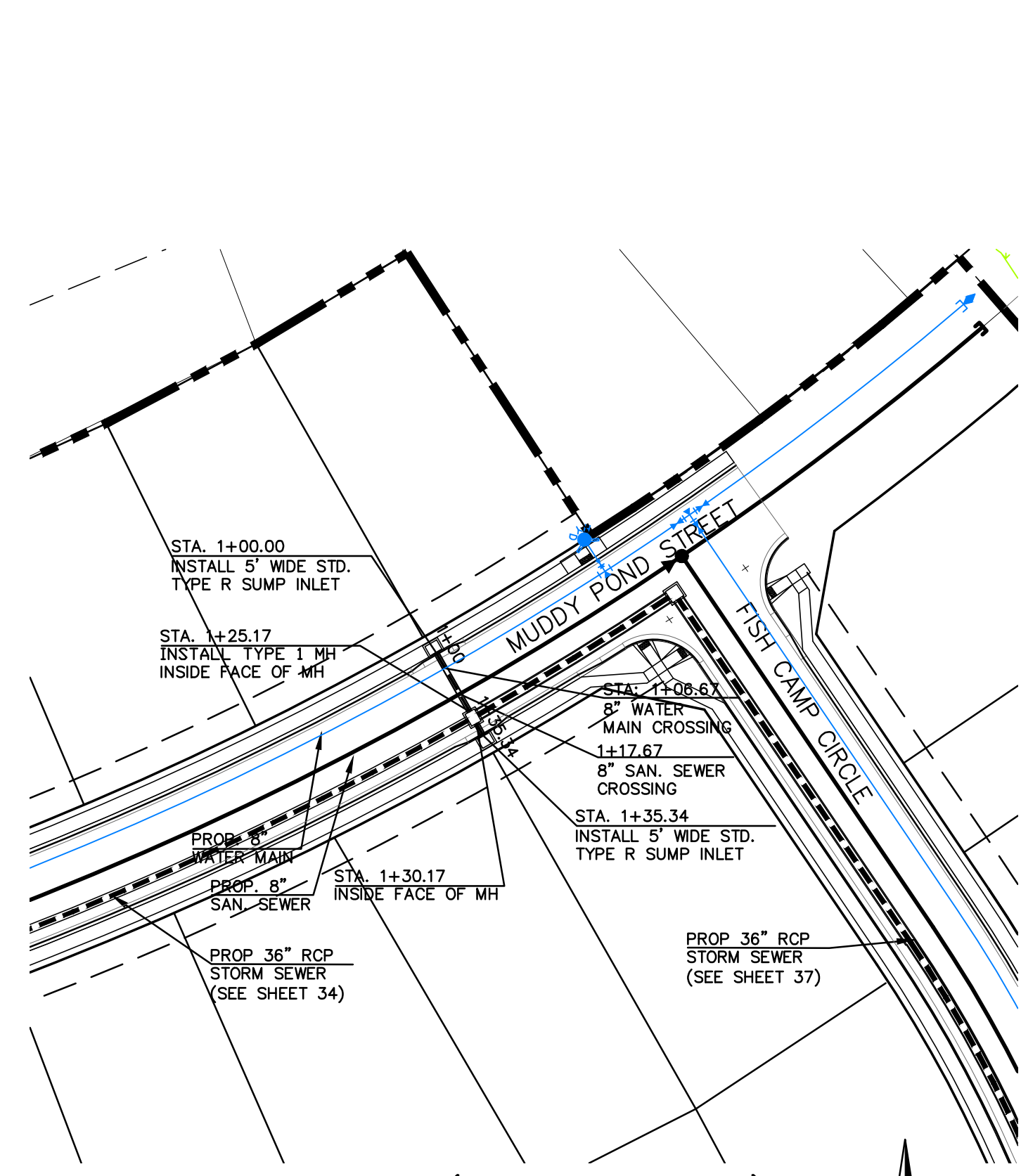
DESIGNED BY: QNA
 DRAWN BY: QNA
 CHECKED BY: _____

H-SCALE: 1"=50'
 V-SCALE: 1"=5'

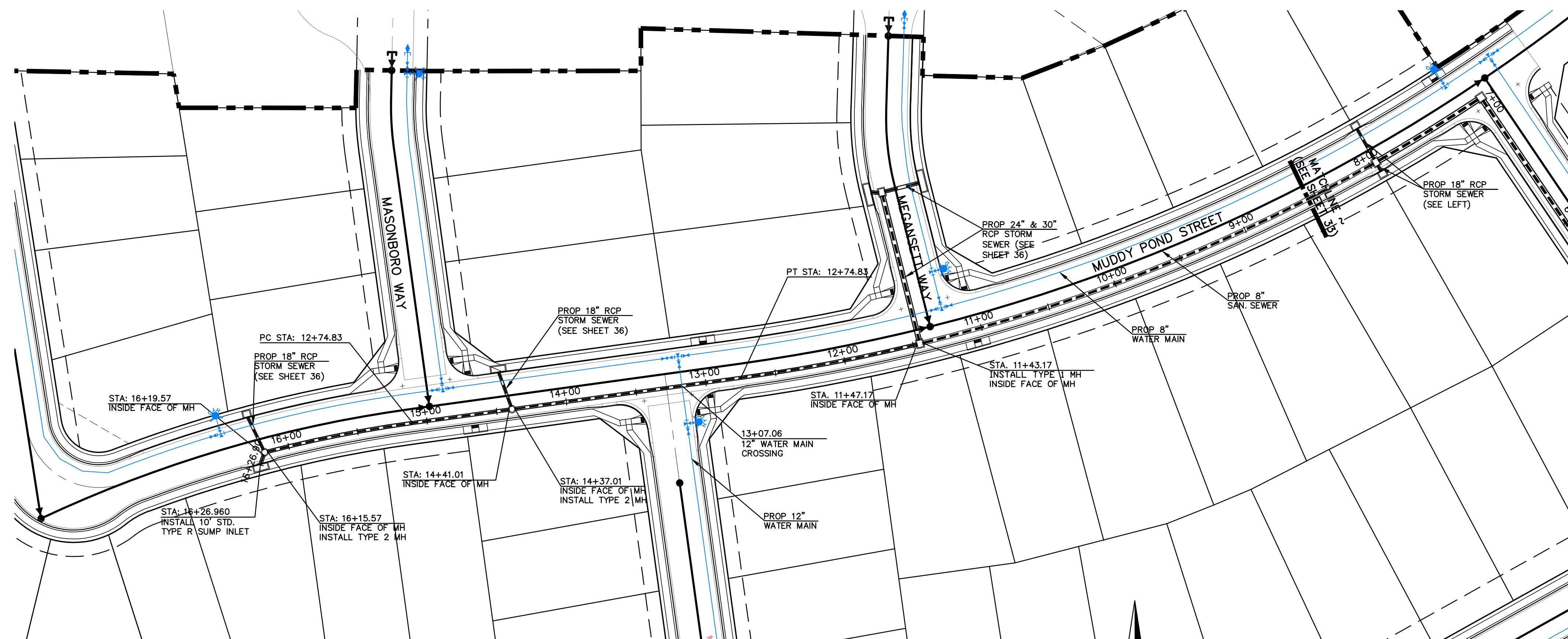
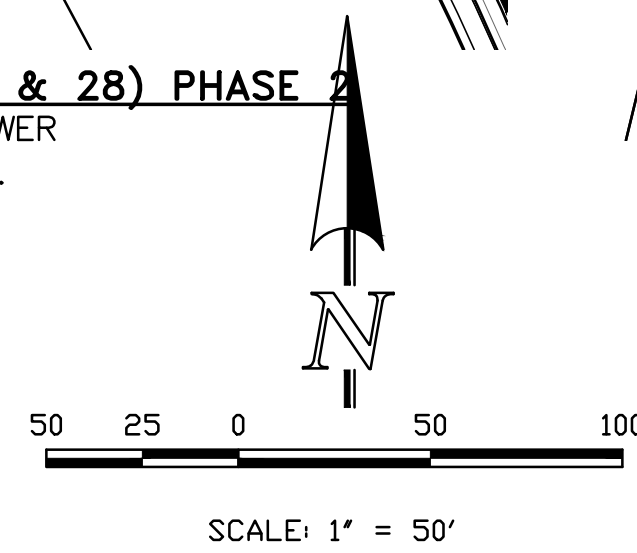
JOB NO. 2356.00
 DATE ISSUED 10/4/24
 SHEET NO. 37 OF 52

Terra Nova
 Engineering, Inc.
 Professional Engineer
 721 S. 2900 STREET
 COLORADO SPRINGS, CO 80904
 OFFICE: 719-635-6422
 FAX: 719-635-6426
 www.tnase.com

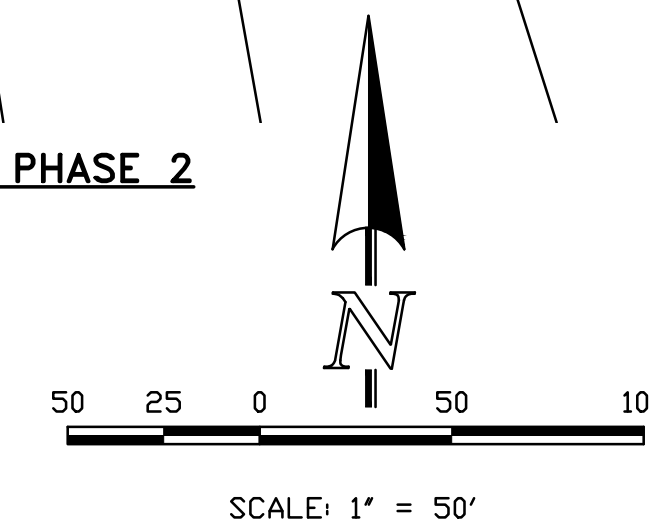
WATERBURY FILING NO. 1
 CONSTRUCTION SET
 STORM SEWER PLAN AND PROFILE
 RUNS 9 & 10 AND LATERAL 9 & 10



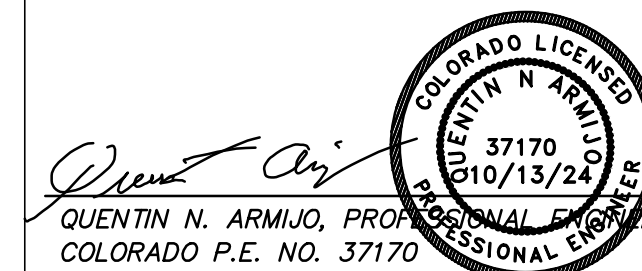
STORM SEWER LATERAL - 8 (PIPE RUN 27 & 28) PHASE 2
 PROPOSED PUBLIC RCP STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.



STORM SEWER RUN - 9 (PIPE RUN 20, 22 & 26) PHASE 2
 PROPOSED PUBLIC RCP STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.



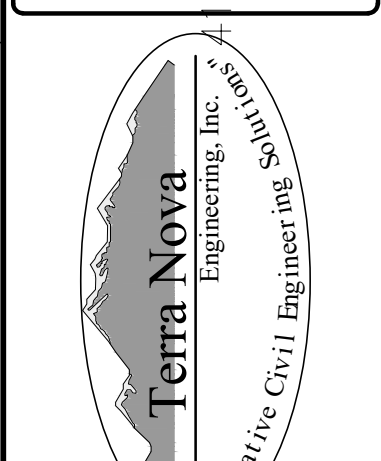
THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION
 FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.



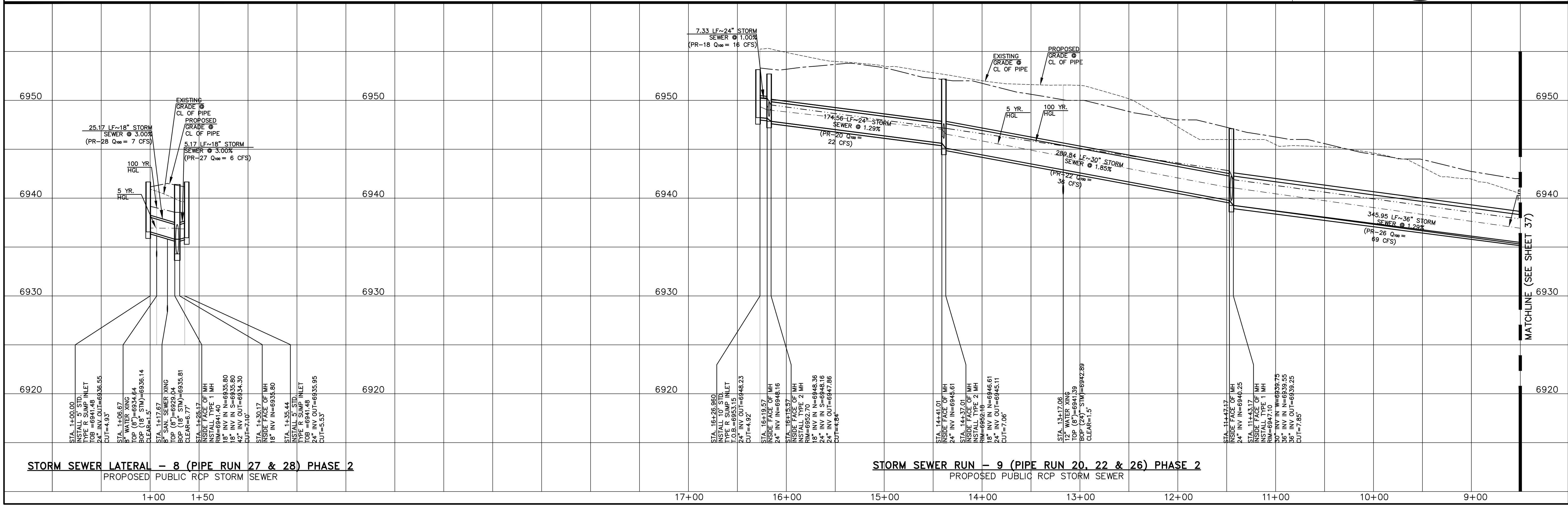
REVISIONS	NO.	DESCRIPTION	DATE

UNTL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE BOARD OF PROFESSIONAL ENGINEERS AND SURVEYORS, INC. APPROVES THEIR USE ONLY DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR:
ACM ALF VIII JV SUB II LLC
JASON POCK
 00 E. MISSISSIPPI AVE., STE 500
 DENVER, CO 80246
 303-984-9800



721 S. 2960 STREET
 COLORADO SPRINGS, CO 80904
 OFFICE: 719-635-6422
 FAX: 719-635-6426
 www.tnashc.com

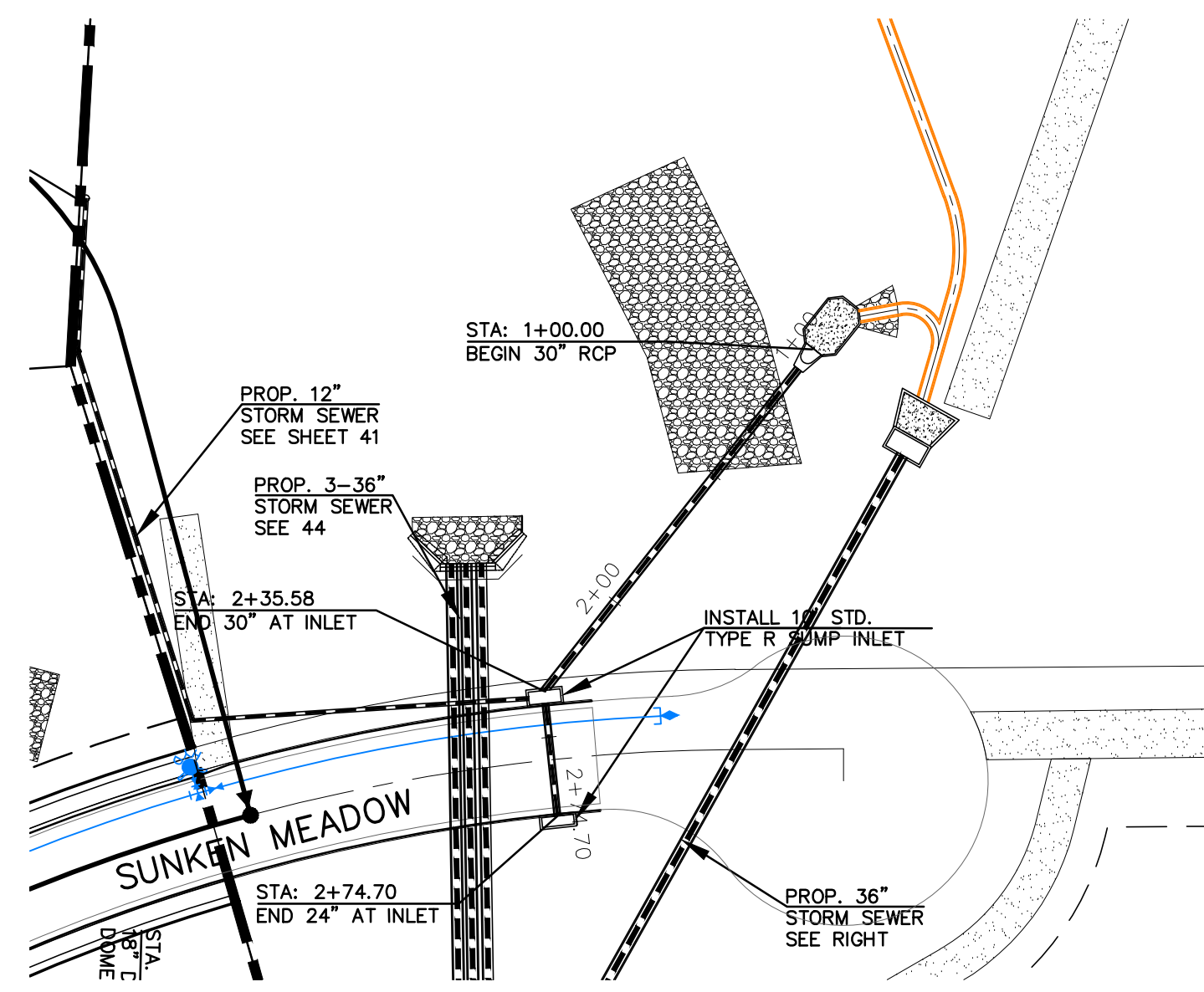


STORM SEWER LATERAL - 8 (PIPE RUN 27 & 28) PHASE 2
 PROPOSED PUBLIC RCP STORM SEWER

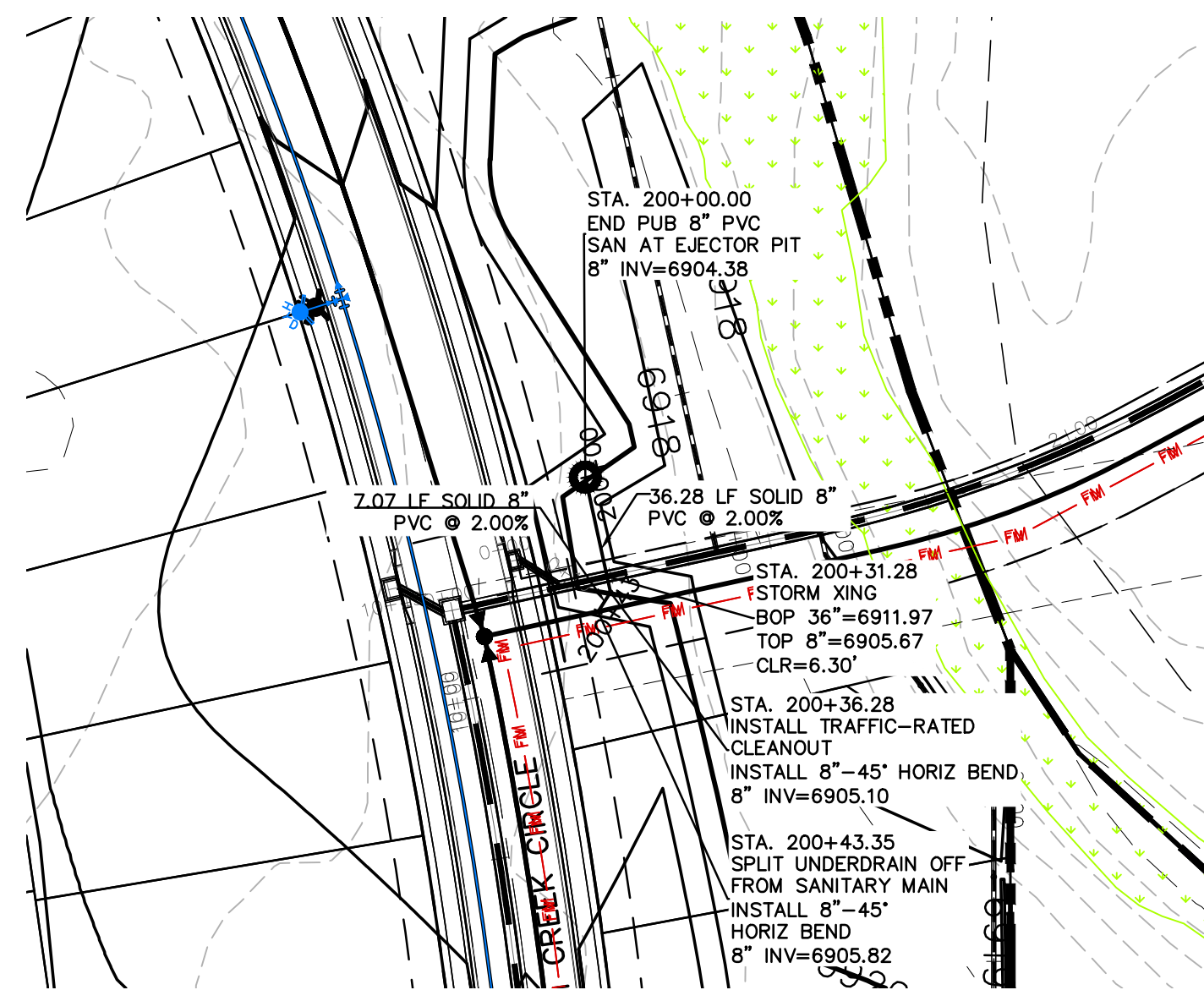
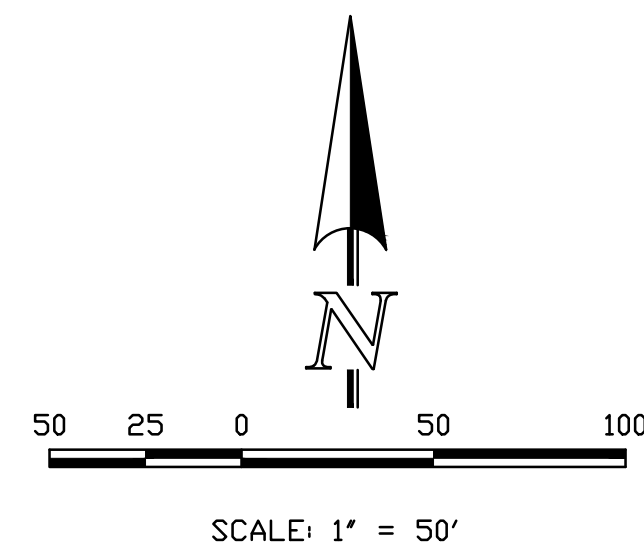
STORM SEWER RUN - 9 (PIPE RUN 20, 22 & 26) PHASE 2
 PROPOSED PUBLIC RCP STORM SEWER

WATERBURY FILING NO. 1
 CONSTRUCTION SET
 STORM SEWER RUN 9 & LATERAL 8

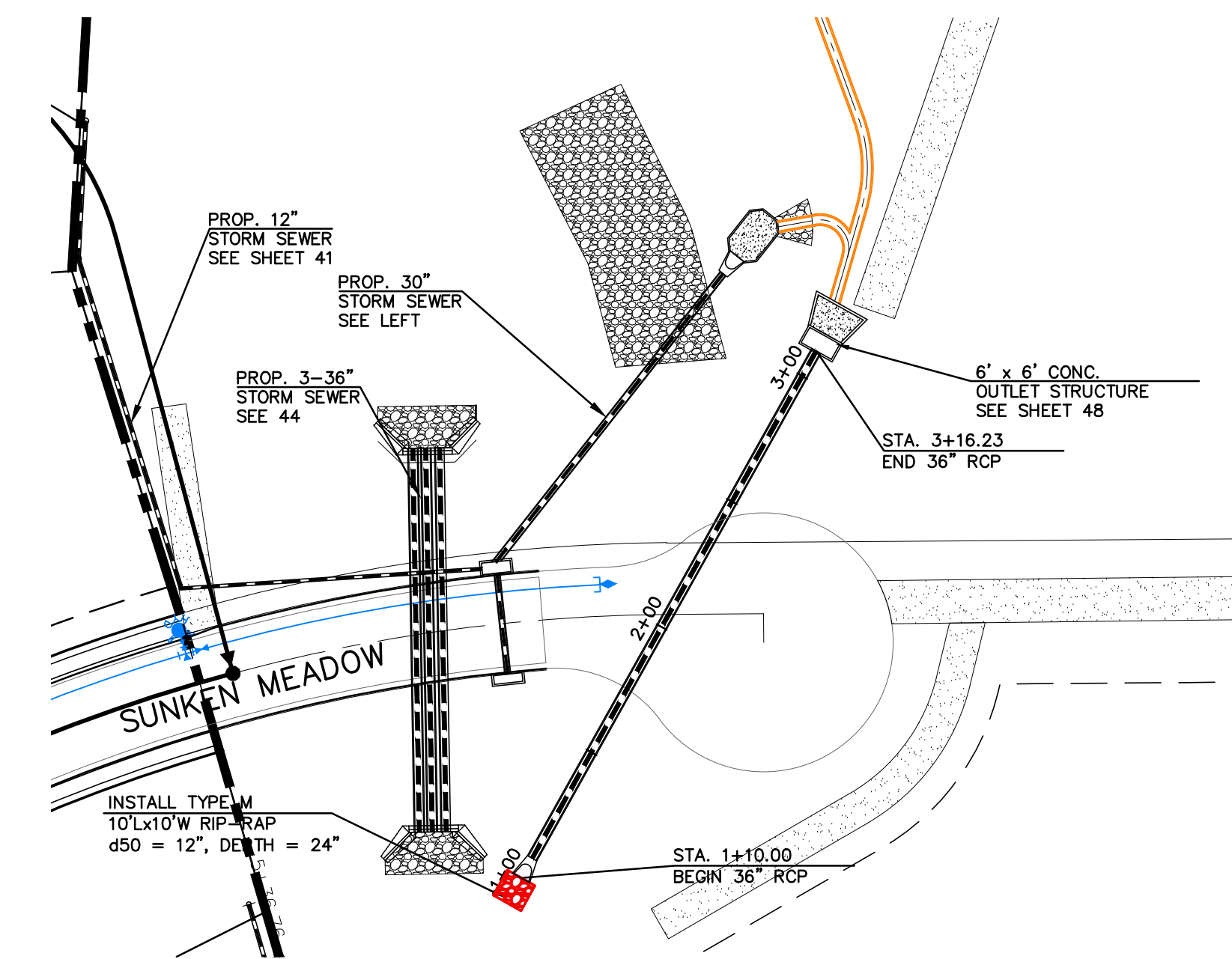
DESIGNED BY QNA
 DRAWN BY QNA
 CHECKED BY
 H-SCALE 1"=50'
 V-SCALE 1"=5'
 JOB NO. 2356.00
 DATE ISSUED 10/4/24
 SHEET NO. 38 OF 52



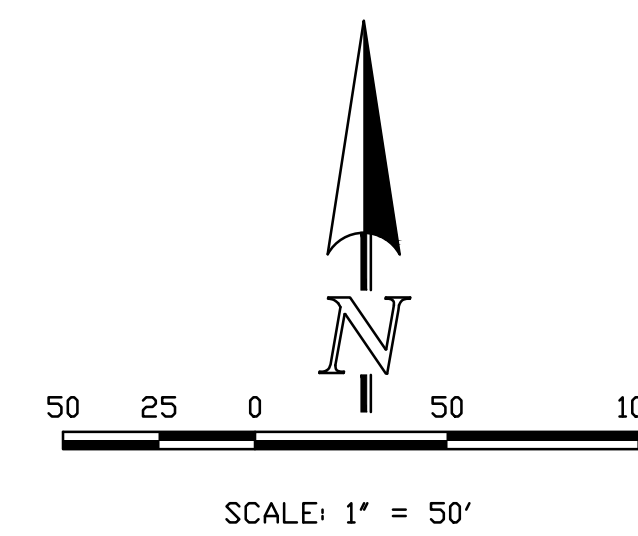
STORM SEWER LATERAL - 10 (PIPE RUN 34) PHASE 1
 PROPOSED PRIVATE RCP STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.



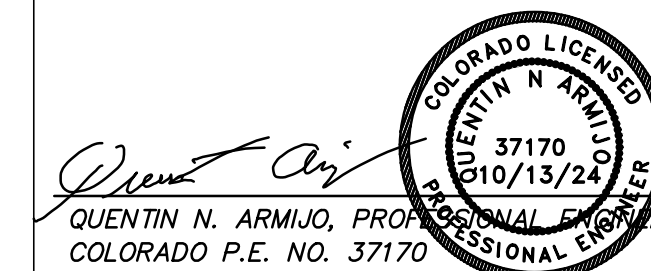
SANITARY SEWER UNDERDRAIN OUTFALL TO EJECTOR PIT - PHASE 1
 PROPOSED PUBLIC 8" PVC
 1" = 50' HORIZ. 1" = 5' VERT.



STORM SEWER RUN - 12 (PIPE RUN 35) PHASE 1
 PROPOSED PRIVATE RCP STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.



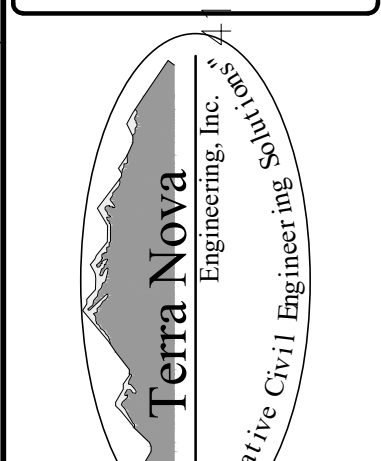
THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.



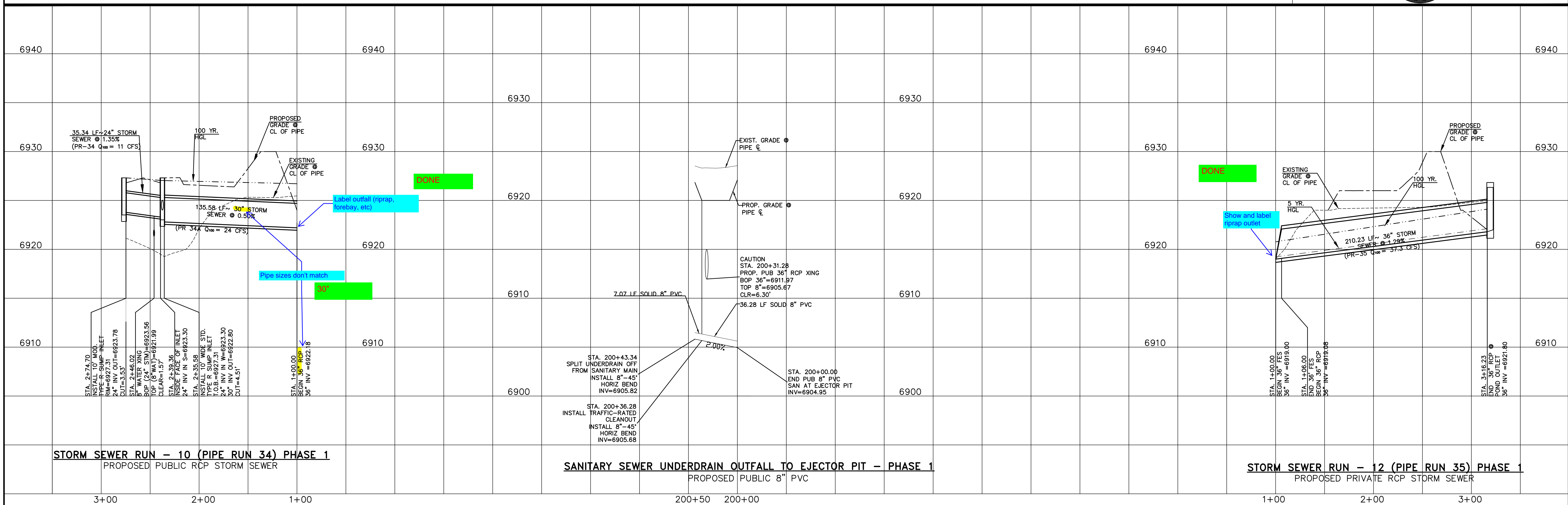
NO.	REVISIONS	DESCRIPTION	DATE

UNTL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE LOCAL AGENCIES TERRA NOVA ENGINEERING AND SURVEYING, INC. APPROVES THEIR USE ONLY DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR:
 ACM ALF VIII JV SUB II LLC
 JASON POKK
 00 E. MISSISSIPPI AVE., STE 500
 DENVER, CO 80246
 303-984-9800



721 S. 2900 STREET
 COLORADO SPRINGS, CO 80904
 OFFICE: 719-635-6422
 FAX: 719-635-6426
 www.tneng.com



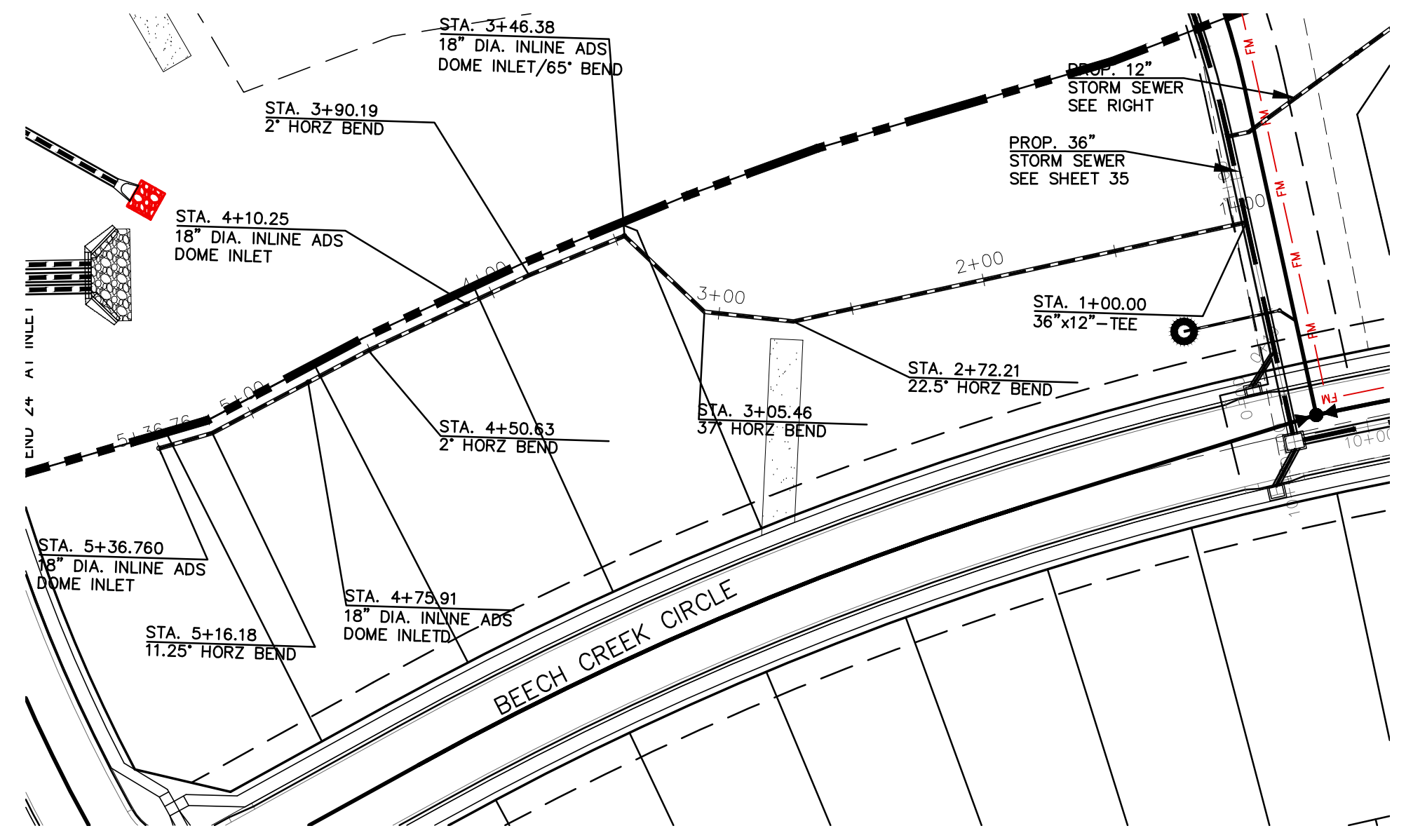
STORM SEWER RUN - 10 (PIPE RUN 34) PHASE 1
 PROPOSED PUBLIC RCP STORM SEWER

SANITARY SEWER UNDERDRAIN OUTFALL TO EJECTOR PIT - PHASE 1
 PROPOSED PUBLIC 8" PVC

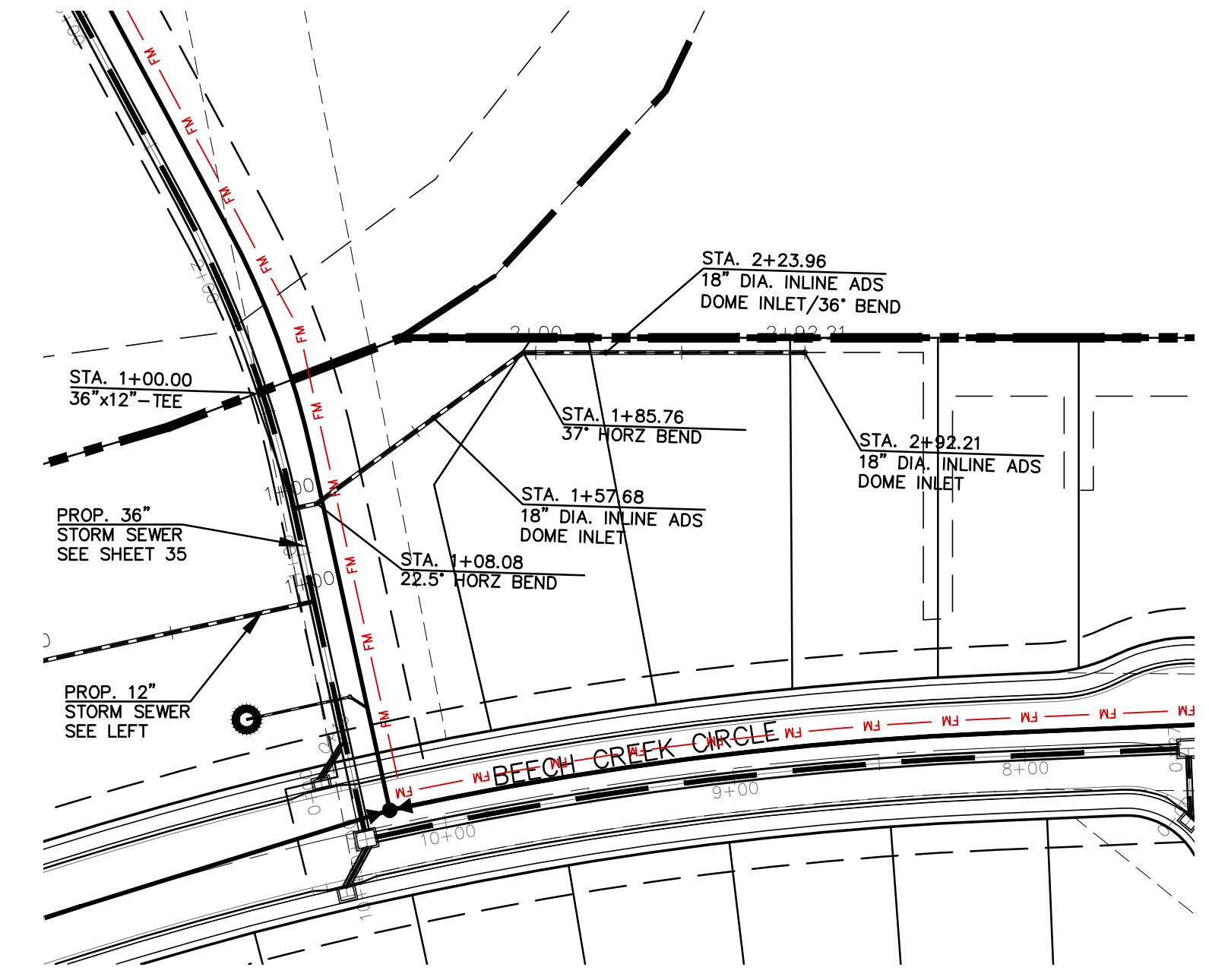
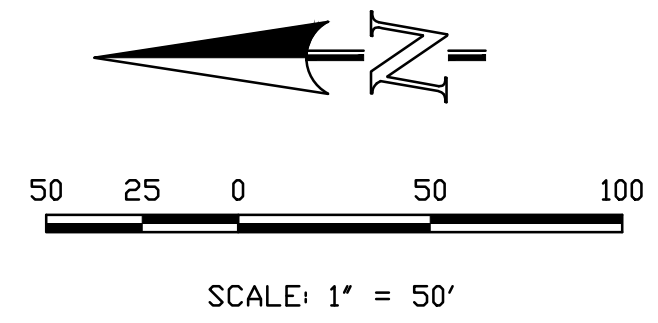
STORM SEWER RUN - 12 (PIPE RUN 35) PHASE 1
 PROPOSED PRIVATE RCP STORM SEWER

WATERBURY FILING NO. 1
 CONSTRUCTION SET
 STORM SEWER RUN 10, 11 & 12

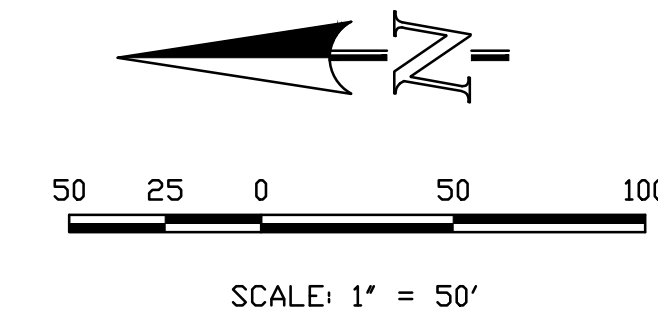
DESIGNED BY QNA
 DRAWN BY QNA
 CHECKED BY
 H-SCALE 1"=50'
 V-SCALE 1"=5'
 JOB NO. 2356.00
 DATE ISSUED 10/4/24
 SHEET NO. 39 OF 52



STORM SEWER LATERAL-12 (PIPE RUN 39) PHASE 1
 PROPOSED PRIVATE 12" HDPE STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.

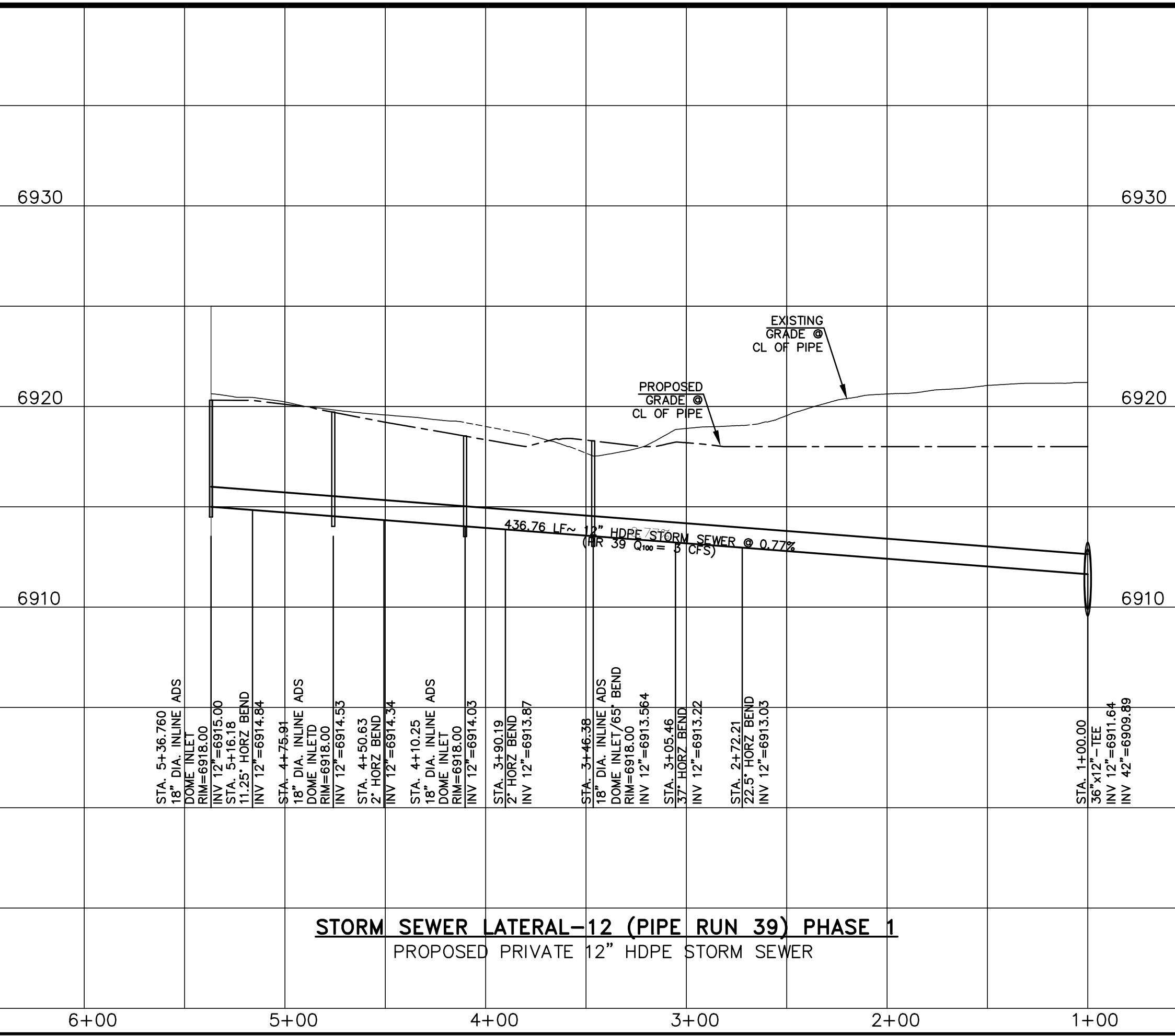


STORM SEWER LATERAL-13 (PIPE RUN 40) PHASE 1
 PROPOSED PRIVATE 12" HDPE STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.

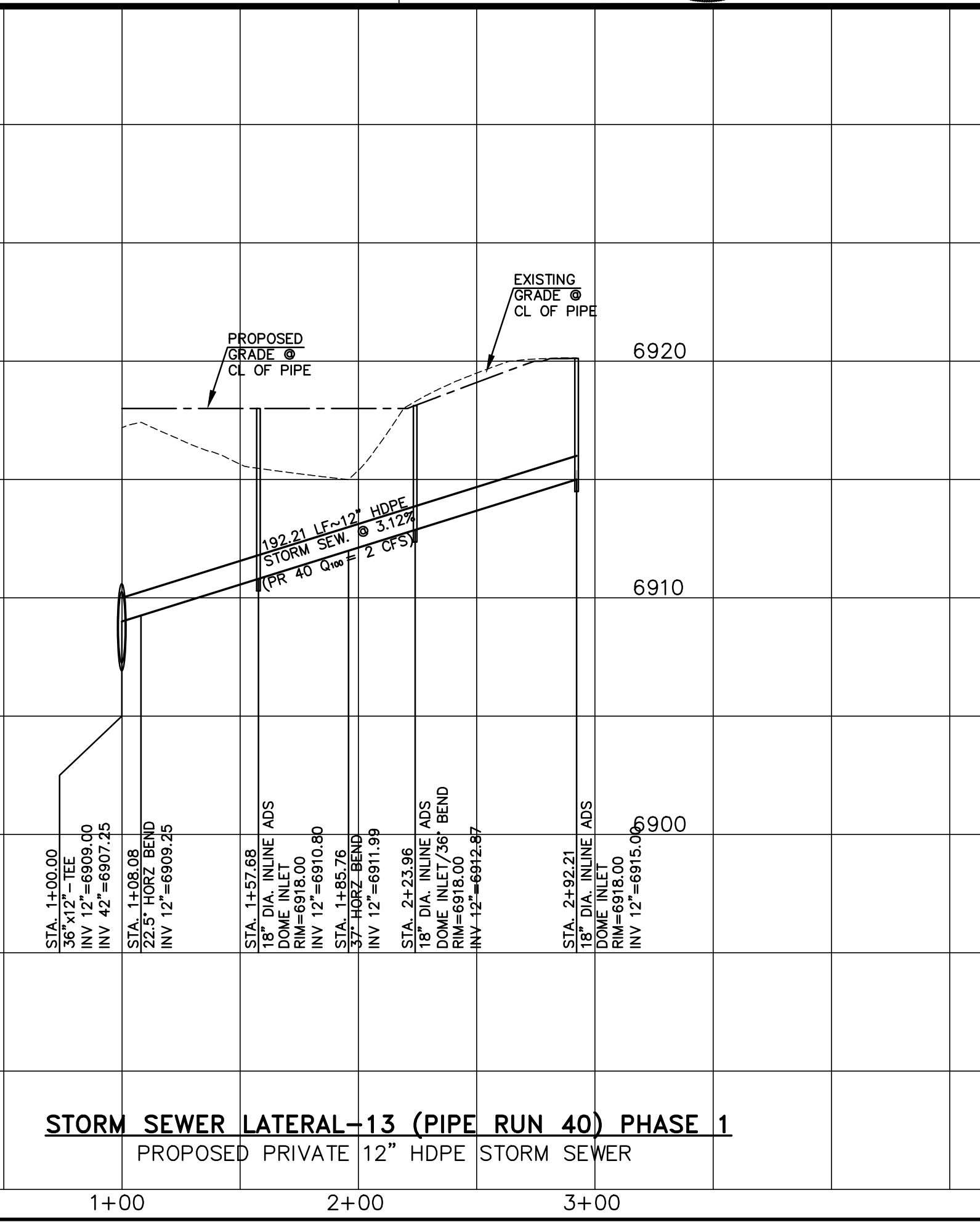


THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION
 FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

Quentin N. Armijo
 QUENTIN N. ARMIJO, PROFESSIONAL ENGINEER
 COLORADO P.E. NO. 37170



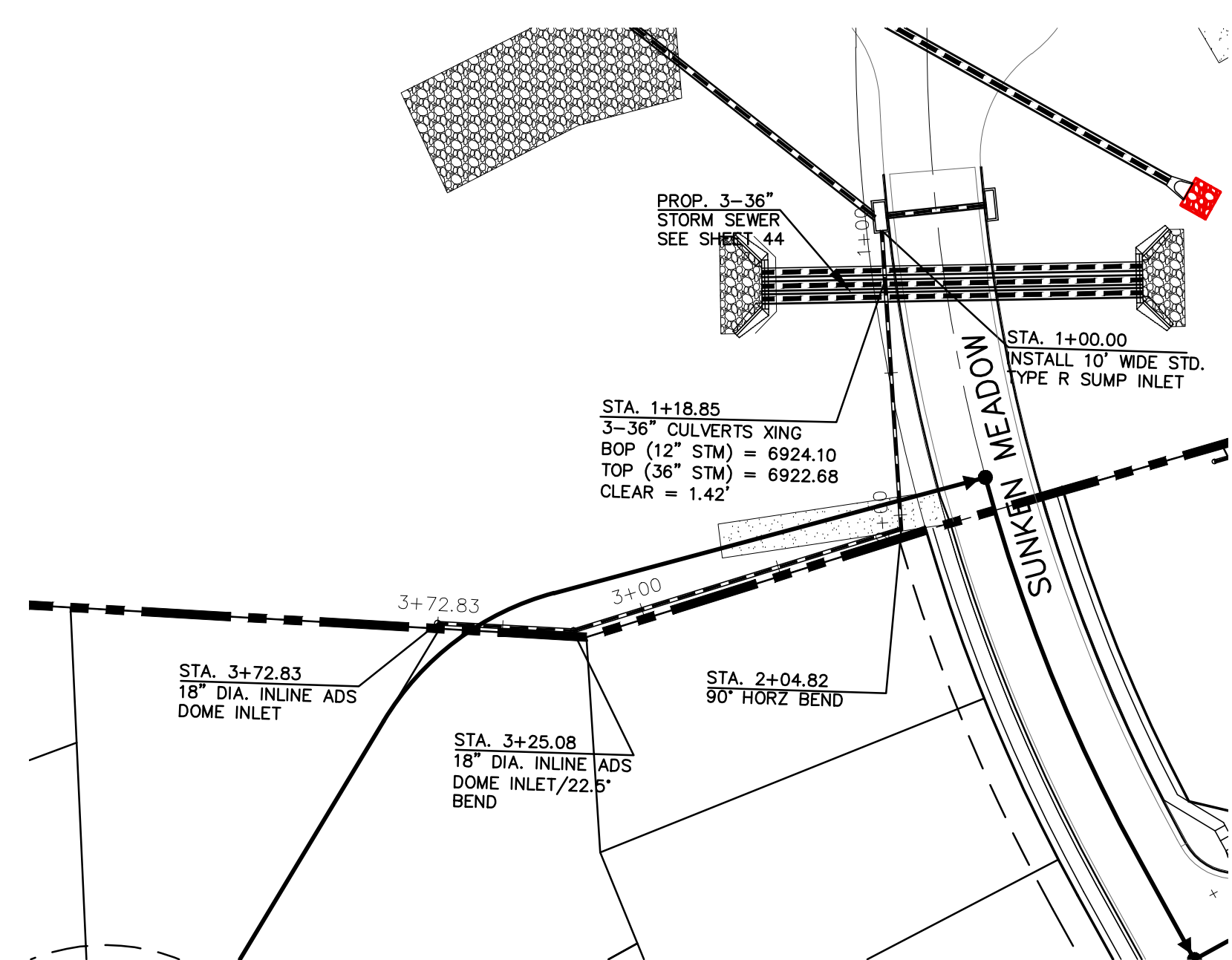
STORM SEWER LATERAL-12 (PIPE RUN 39) PHASE 1
 PROPOSED PRIVATE 12" HDPE STORM SEWER



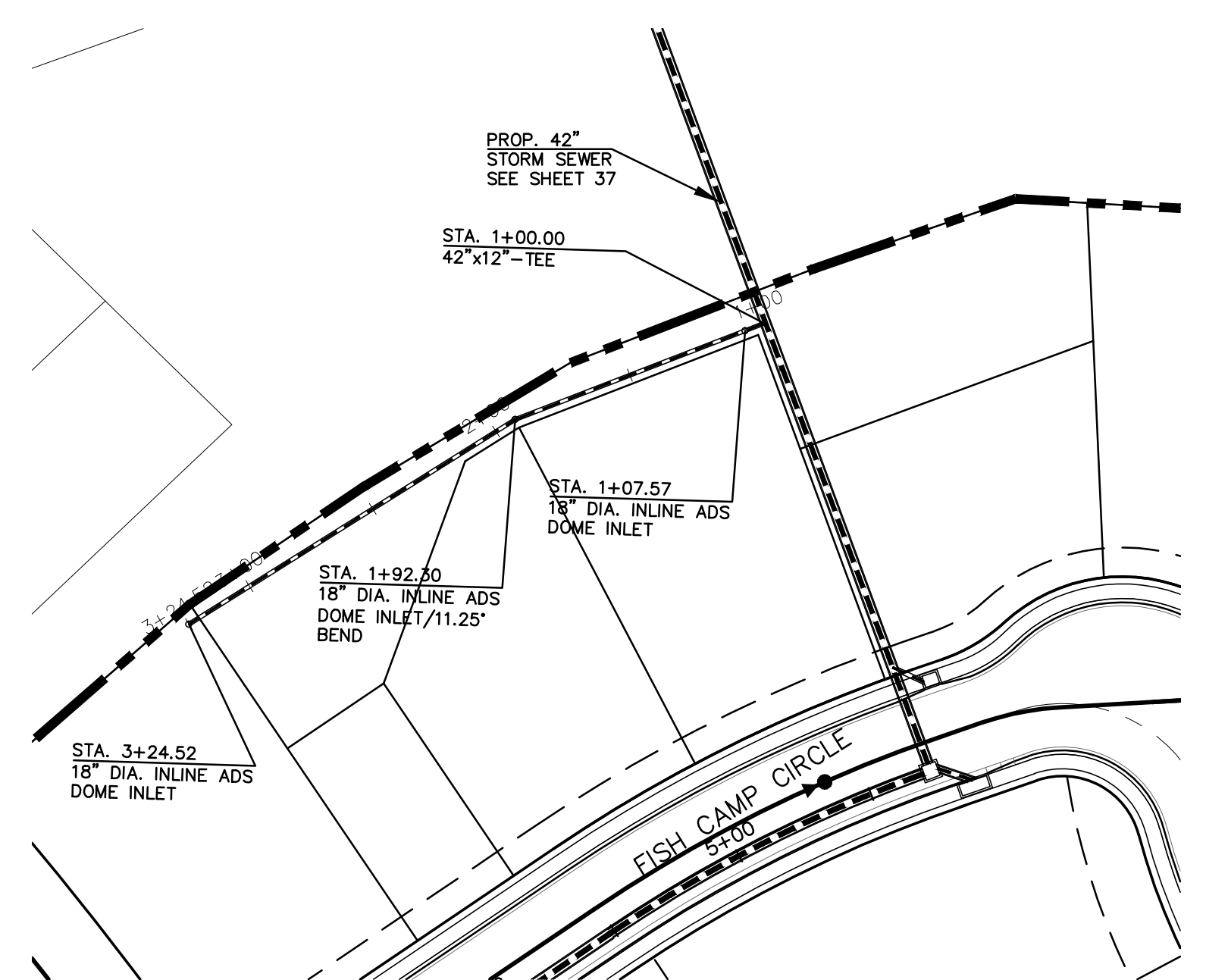
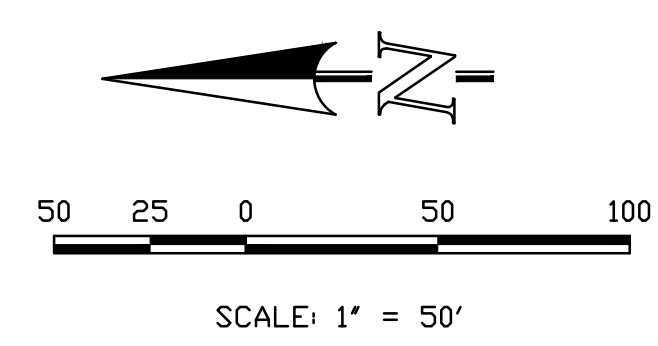
STORM SEWER LATERAL-13 (PIPE RUN 40) PHASE 1
 PROPOSED PRIVATE 12" HDPE STORM SEWER

DATE	
DESCRIPTION	
REVISIONS	
NO.	
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED FOR CONSTRUCTION BY THE CITY OF DENVER, COLORADO. APPROVED FOR THE CITY OF DENVER, COLORADO: _____	
PREPARED FOR: ACM ALF VIII JV SUB II LLC JASON POCK 00 E. MISSISSIPPI AVE., STE 500 DENVER, CO 80246 303-984-9800	
 Terra Nova Engineering, Inc. Professional Engineer 721 S. 2900 STREET COLORADO SPRINGS, CO 80904 OFFICE: 719-635-6422 FAX: 719-635-6426 www.tnase.com	
DESIGNED BY QNA DRAWN BY QNA CHECKED BY _____ H-SCALE 1"=50' V-SCALE 1"=5' JOB NO. 2356.00 DATE ISSUED 10/4/24 SHEET NO. 40 OF 52	

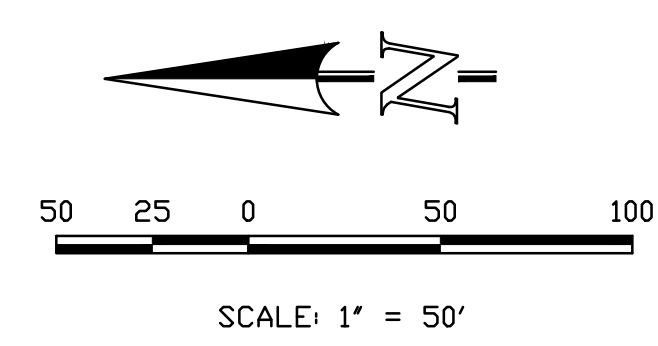
WATERBURY FILING NO. 1
 CONSTRUCTION SET
 STORM SEWER LATERAL 13, 14



STORM SEWER LATERAL-14 PIPE RUN 38 PHASE 2
 PROPOSED PRIVATE 12" HDPE STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.

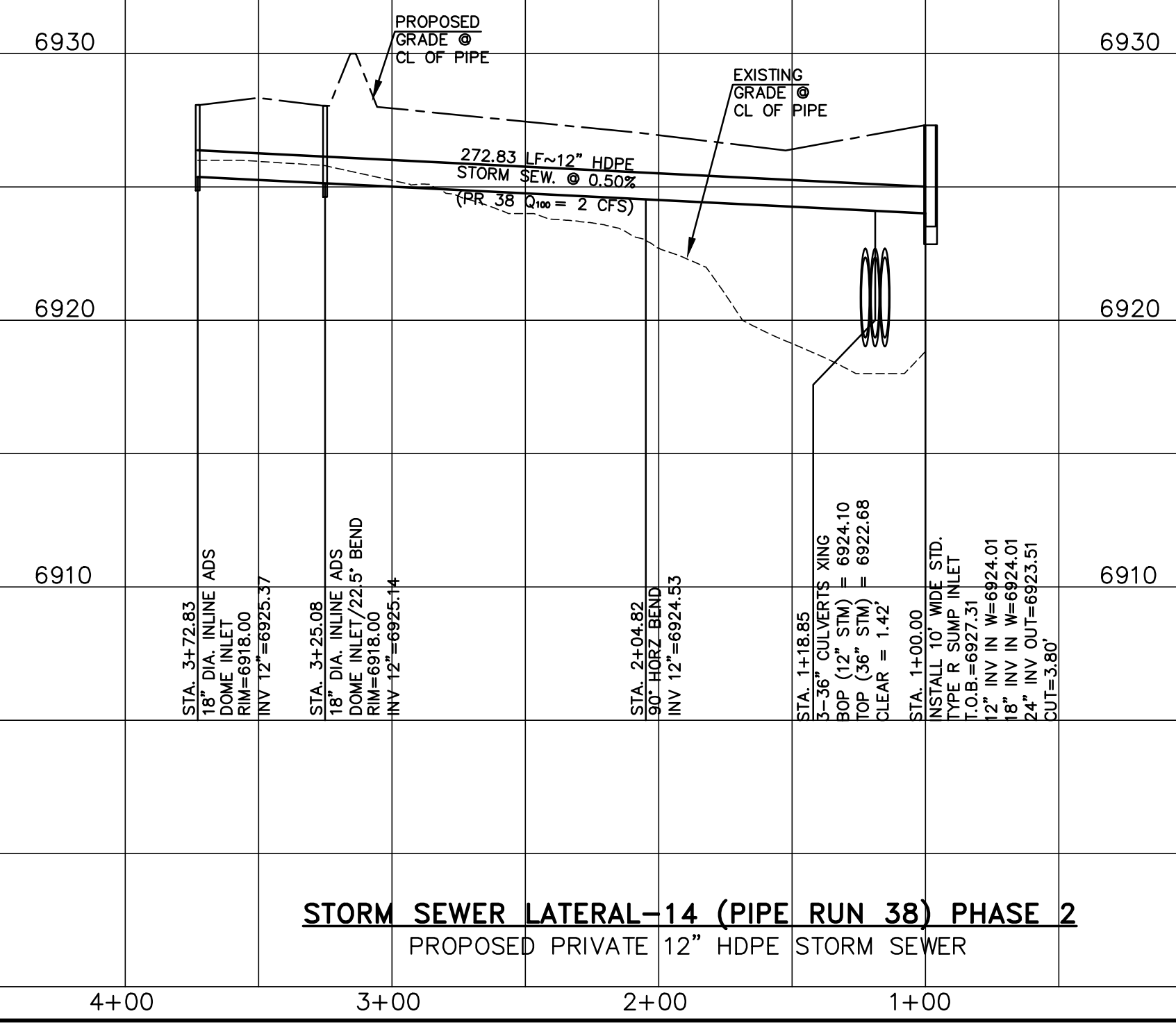


STORM SEWER LATERAL-15 (PIPE RUN 37) PHASE 2
 PROPOSED PRIVATE 12" HDPE STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.

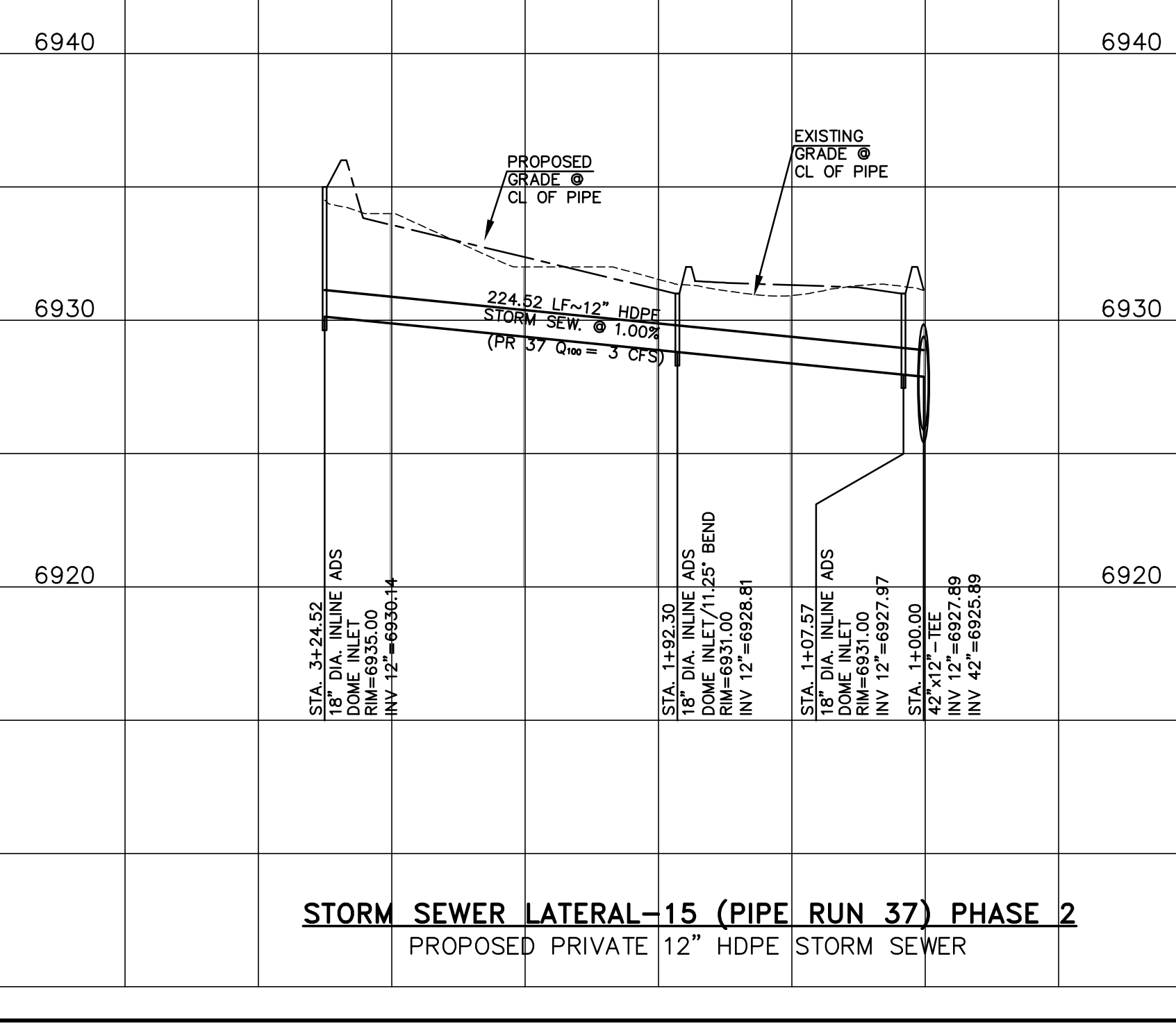


THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION
 FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

Quentin N. Armijo
 QUENTIN N. ARMILLO, PROFESSIONAL ENGINEER
 COLORADO P.E. NO. 37170



STORM SEWER LATERAL-14 (PIPE RUN 38) PHASE 2
 PROPOSED PRIVATE 12" HDPE STORM SEWER



STORM SEWER LATERAL-15 (PIPE RUN 37) PHASE 2
 PROPOSED PRIVATE 12" HDPE STORM SEWER

NO.	DESCRIPTION	DATE

UNLESS OTHERWISE SPECIFIED, THESE DRAWINGS SHALL BE APPROVED BY THE APPROPRIATE AGENCIES. TERRA NOVA ENGINEERING, INC. APPROVES THESE DRAWINGS FOR THE PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.

PREPARED FOR:
ACM ALF VII JV SUB II LLC
JASON POCK
 100 E. MISSISSIPPI AVE., STE 500
 DENVER, CO 80246
 303-984-9800

721 S. 23RD STREET
 COLORADO SPRINGS, CO 80904
 OFFICE: 719-635-6422
 FAX: 719-635-6426
 www.tnec.com

Terra Nova
 Engineering, Inc.
 Creative Civil Engineering

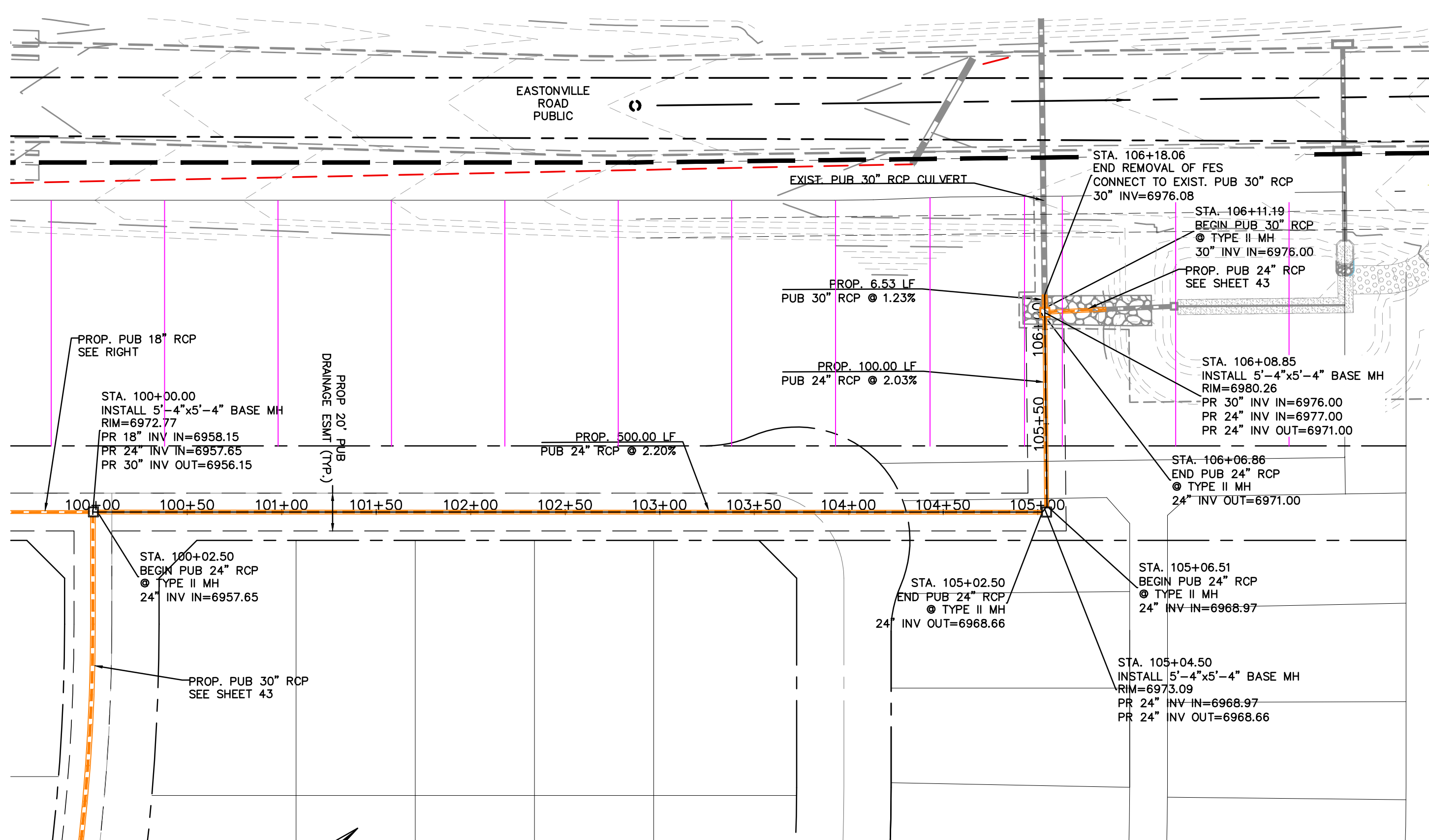
WATERBURY FILING NO. 1

CONSTRUCTION SET
 STORM SEWER LATERAL 11, 12

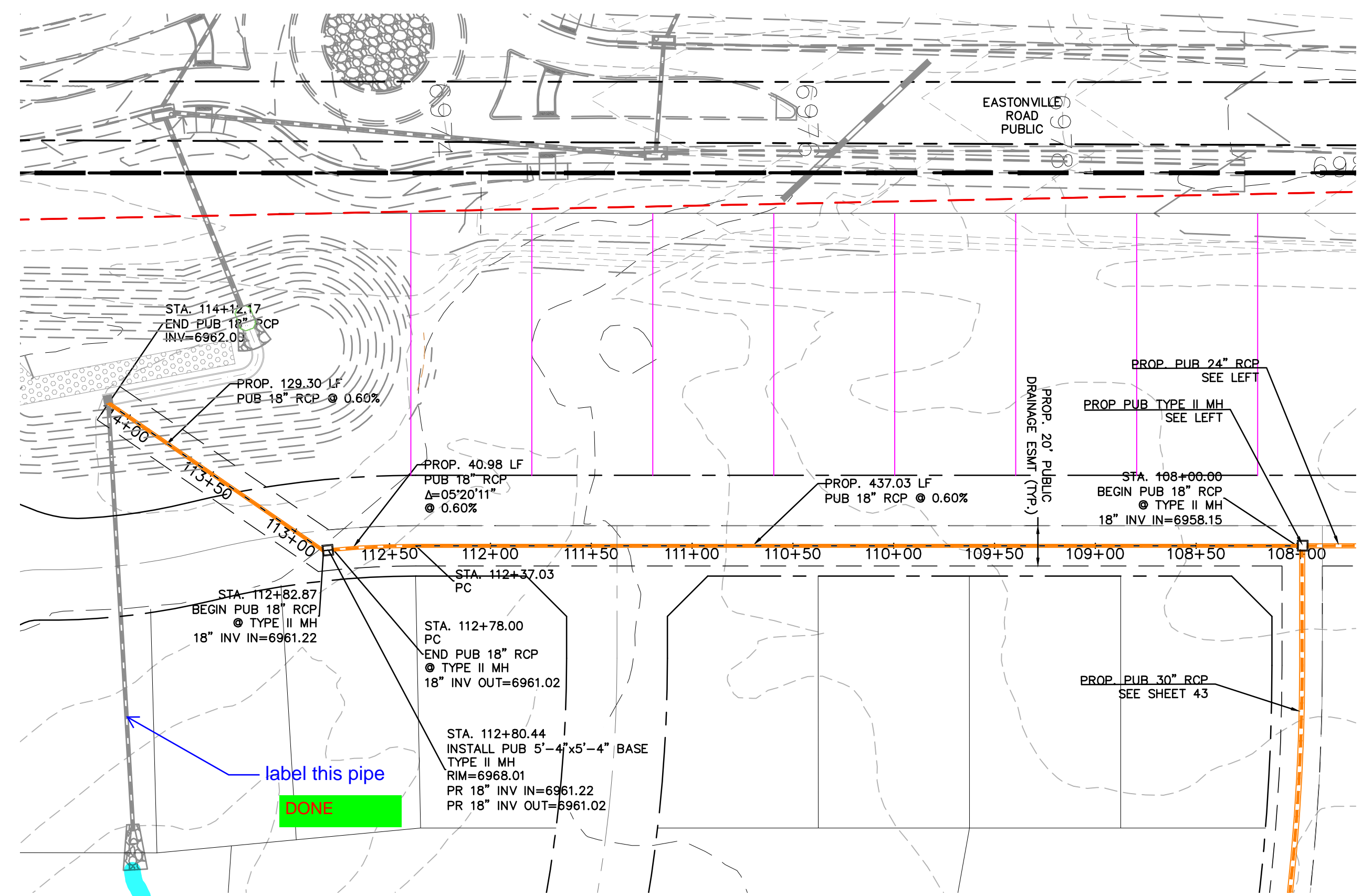
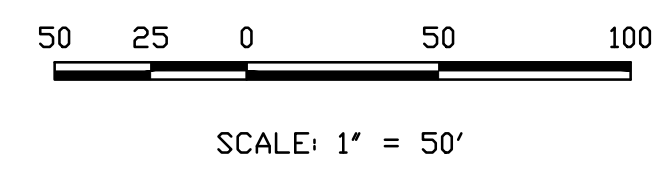
DESIGNED BY QNA
 DRAWN BY QNA
 CHECKED BY

H-SCALE 1"=50'
 V-SCALE 1"=5'

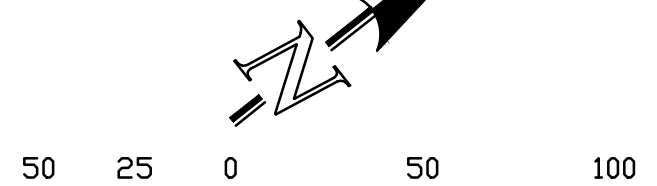
JOB NO. 2356.00
 DATE ISSUED 10/4/24
 SHEET NO. 41 OF 52



STORM SEWER RUN-16 (PIPE RUN 43) PHASE 1
 PROPOSED PUBLIC 24" RCP STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.



STORM SEWER RUN-17 (PIPE RUN 44) PHASE 1
 PROPOSED PRIVATE 18" RCP STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.

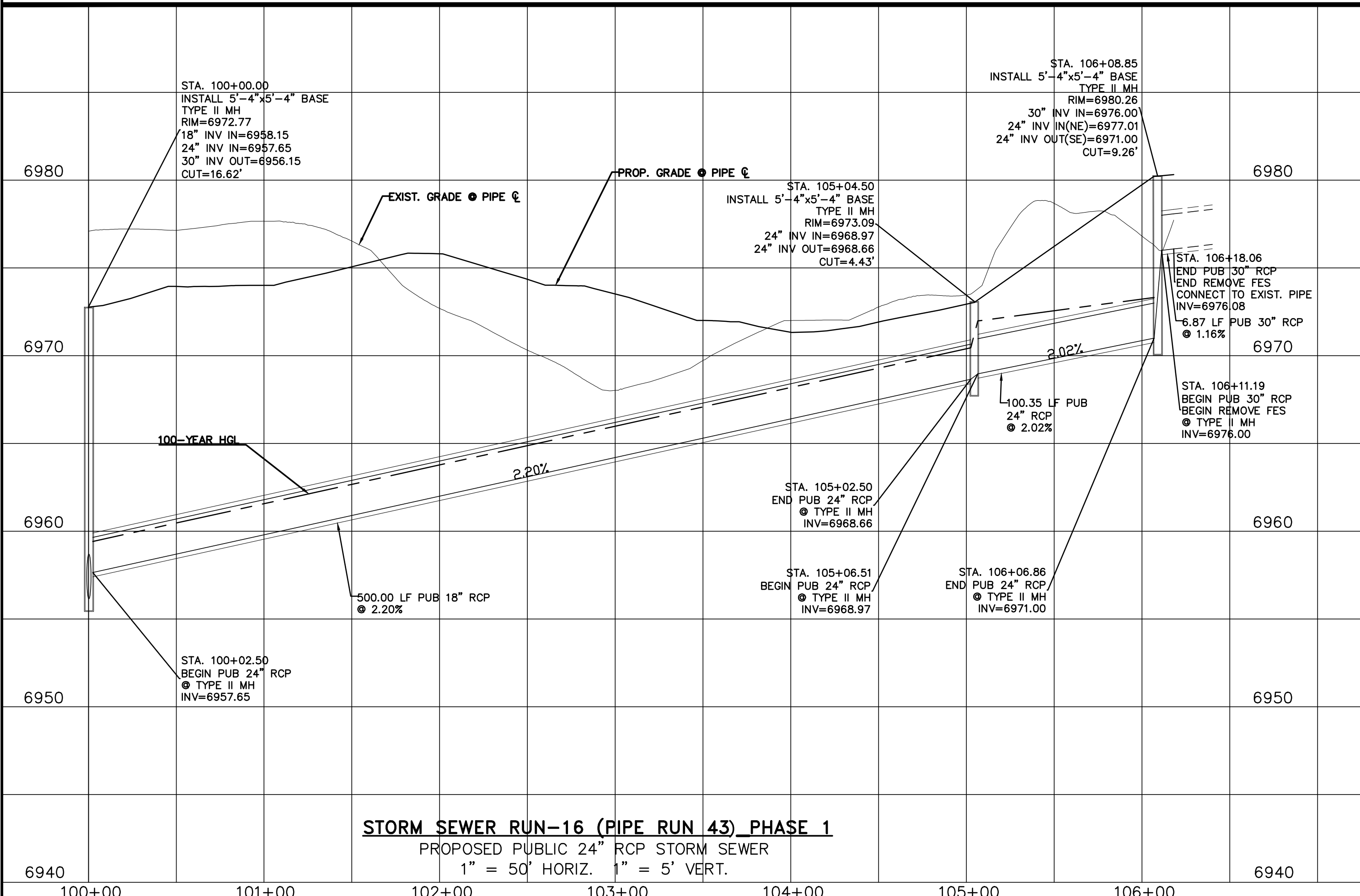


THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION
 FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

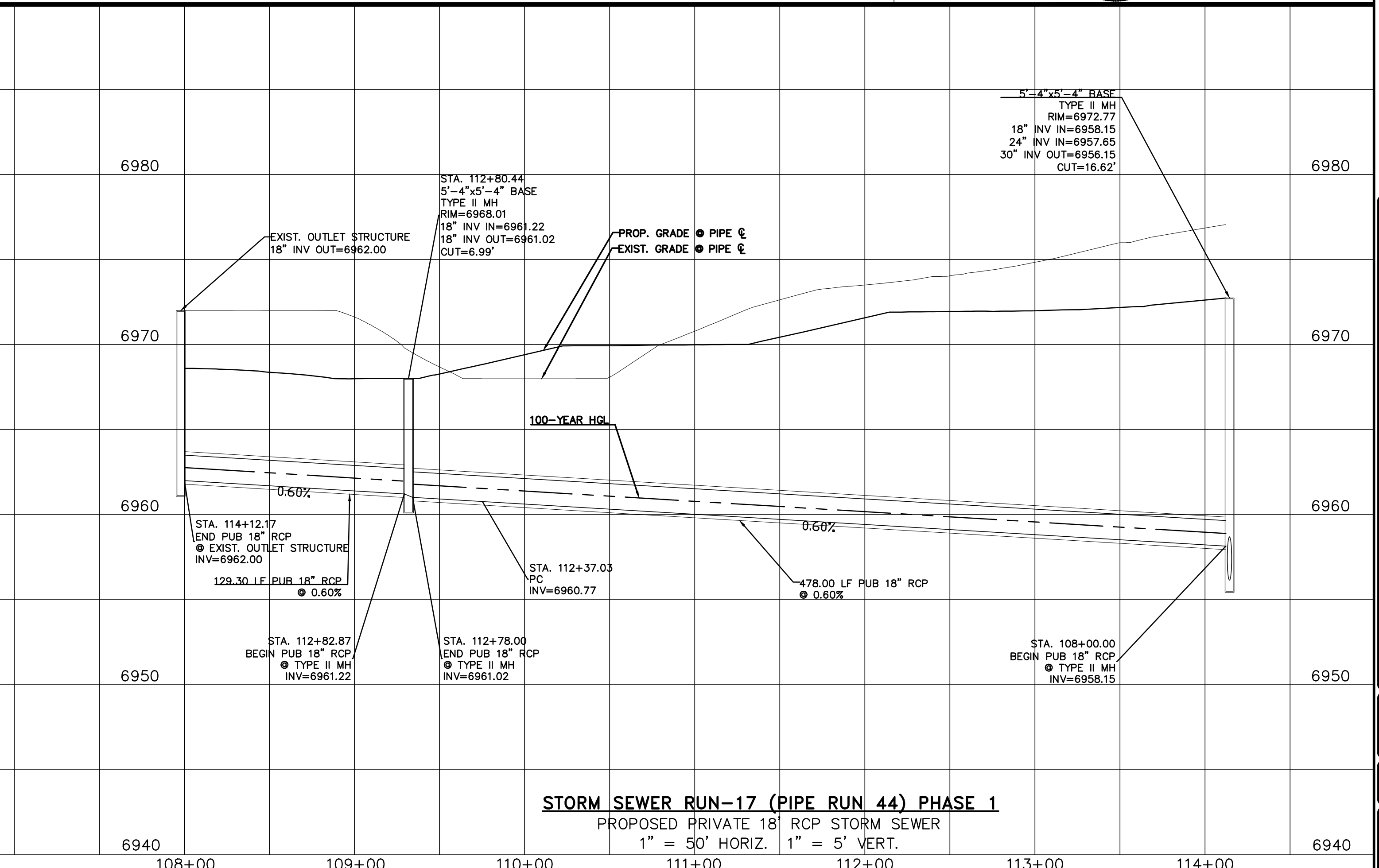
Quentin N. Armiujo
 QUENTIN N. ARMIUJO, PROFESSIONAL ENGINEER
 COLORADO P.E. NO. 37170

NO.	REVISIONS	DESCRIPTION	DATE

PREPARED FOR:
ACM ALF VII JV SUB II LLC
JASON POCK
 00 E. MISSISSIPPI AVE., STE 500
 DENVER, CO 80246
 303-984-9800



STORM SEWER RUN-16 (PIPE RUN 43) PHASE 1
 PROPOSED PUBLIC 24" RCP STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.

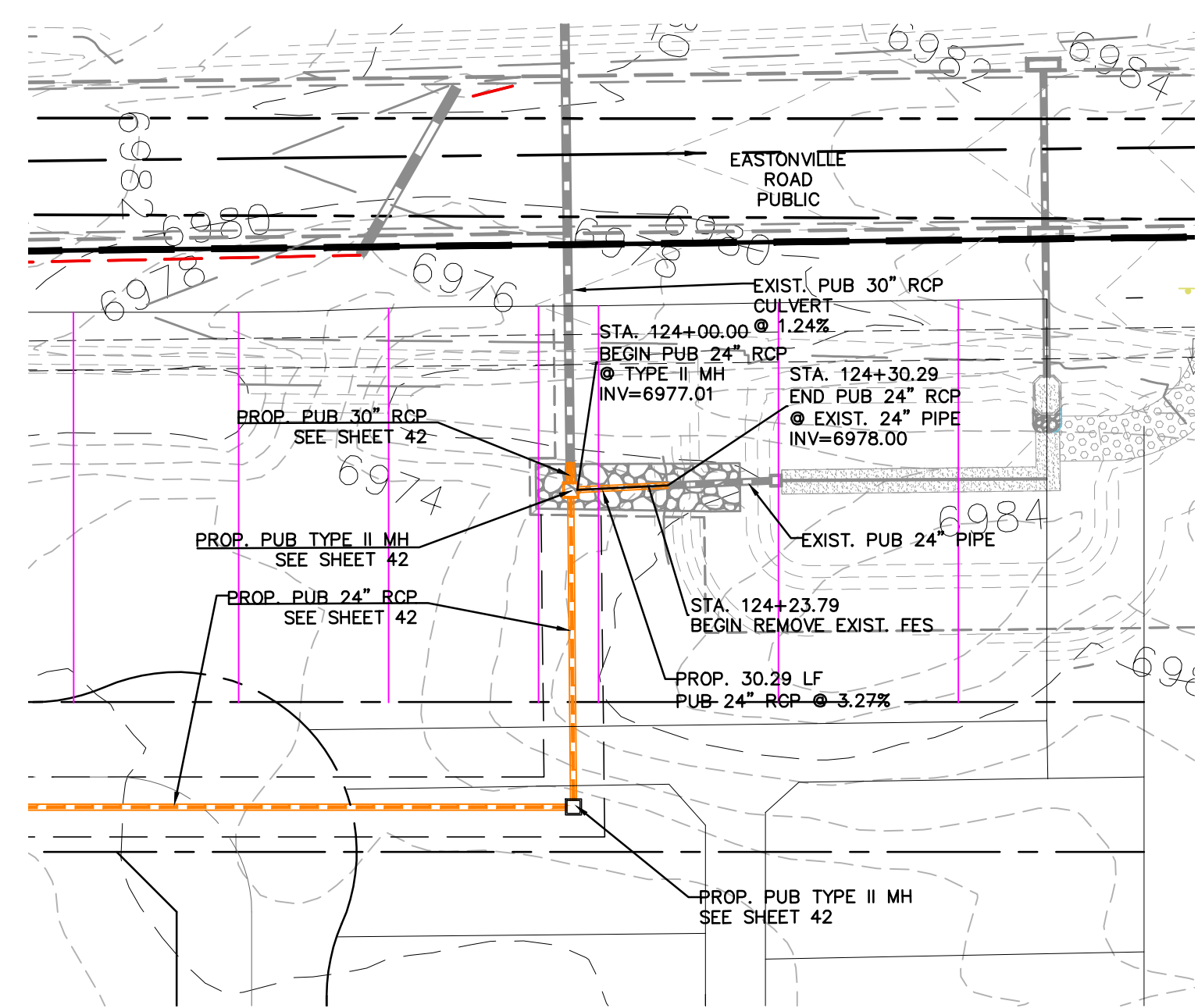


STORM SEWER RUN-17 (PIPE RUN 44) PHASE 1
 PROPOSED PRIVATE 18" RCP STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.

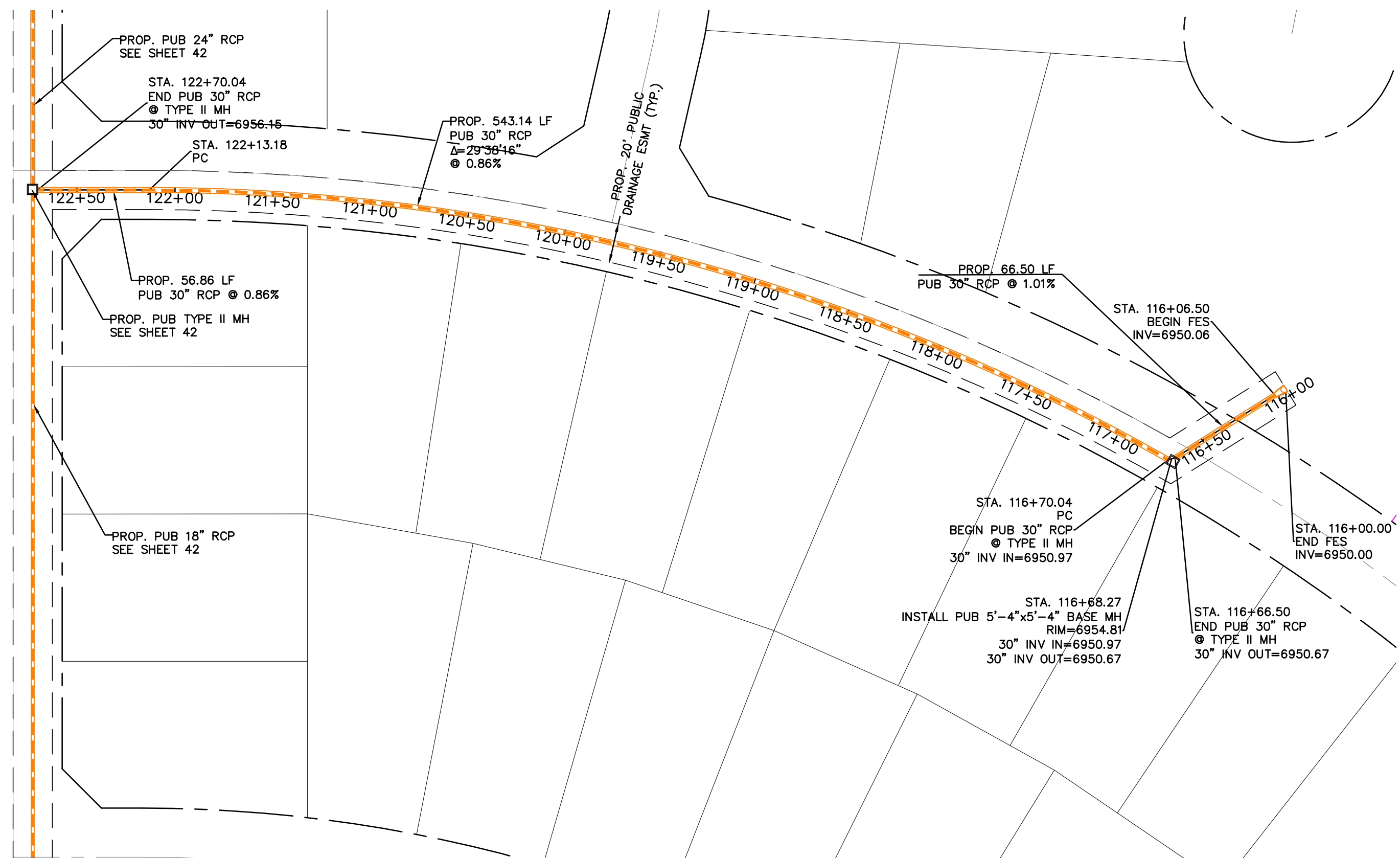
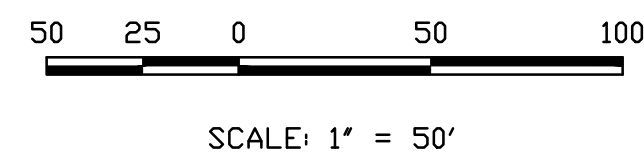
721 S. 23RD STREET
 COLORADO SPRINGS, CO 80904
 OFFICE: 719-635-6422
 FAX: 719-635-6426
 www.tnove.com

WATERBURY FILING NO. 1
 CONSTRUCTION SET
 STORM SEWER RUNS 16 & 17

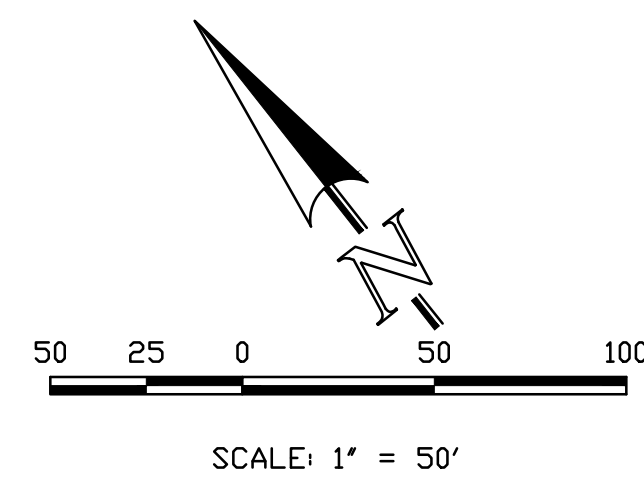
DESIGNED BY QNA
DRAWN BY QNA
CHECKED BY
H-SCALE 1"=50'
V-SCALE 1"=5'
JOB NO. 2356.00
DATE ISSUED 10/4/24
SHEET NO. 42 OF 52



STORM SEWER RUN-15 (PIPE RUN 44) PHASE 1
 PROPOSED PUBLIC 18" RCP STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.

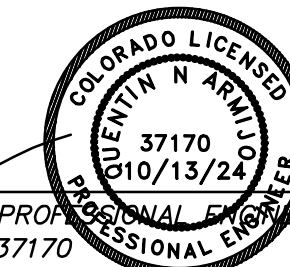


STORM SEWER RUN-18 (PIPE RUN 45) PHASE 1
 PROPOSED PUBLIC 30" RCP STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.



THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

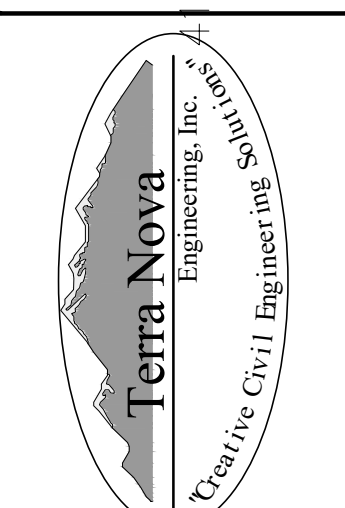
QUENTIN N. ARMUJO, PROFESSIONAL ENGINEER
 COLORADO P.E. NO. 37170



NO.	REVISIONS	DESCRIPTION	DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, THIS SUBMITTAL IS FOR INFORMATION ONLY AND DOES NOT CONSTITUTE AN APPROVAL FOR ANY PURPOSES DESIGNATED BY WRITTEN AUTHORIZATION.

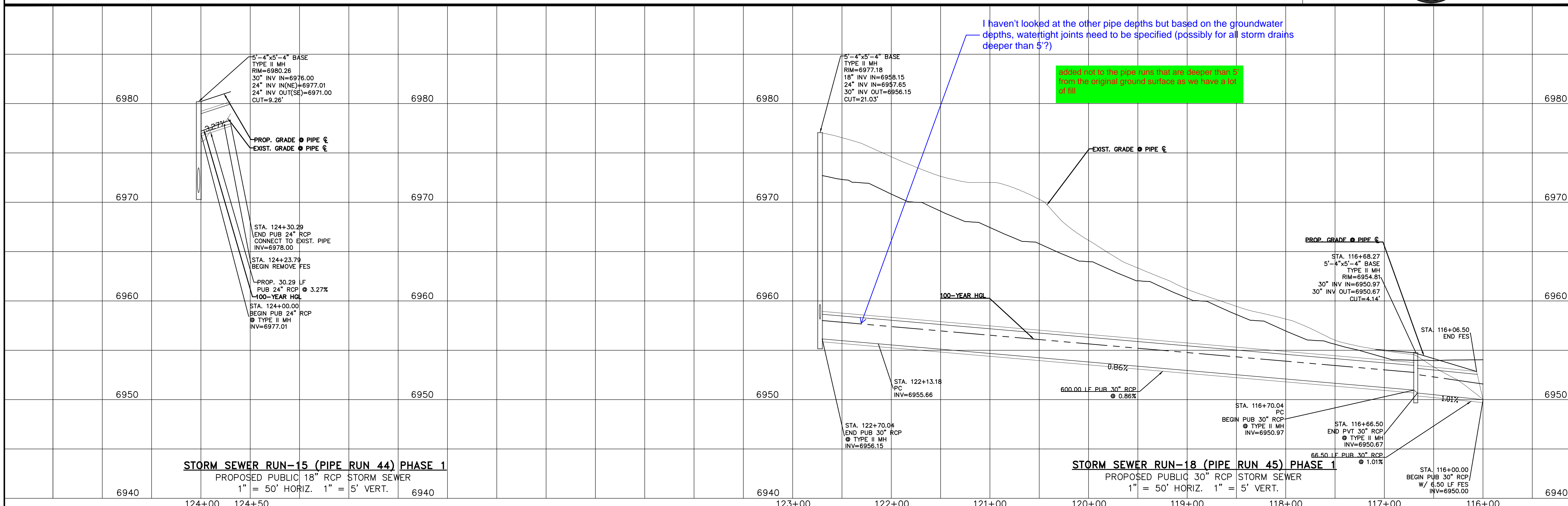
PREPARED FOR:
ACM ALF VIII JV SUB JASON POCK
 00 E. MISSISSIPPI AVE., STE 500
 DENVER, CO 80246
 303-984-9800



721 S. 23RD STREET
 COLORADO SPRINGS, CO 80904
 OFFICE: 719-635-6422
 FAX: 719-635-6426
 www.tneng.com

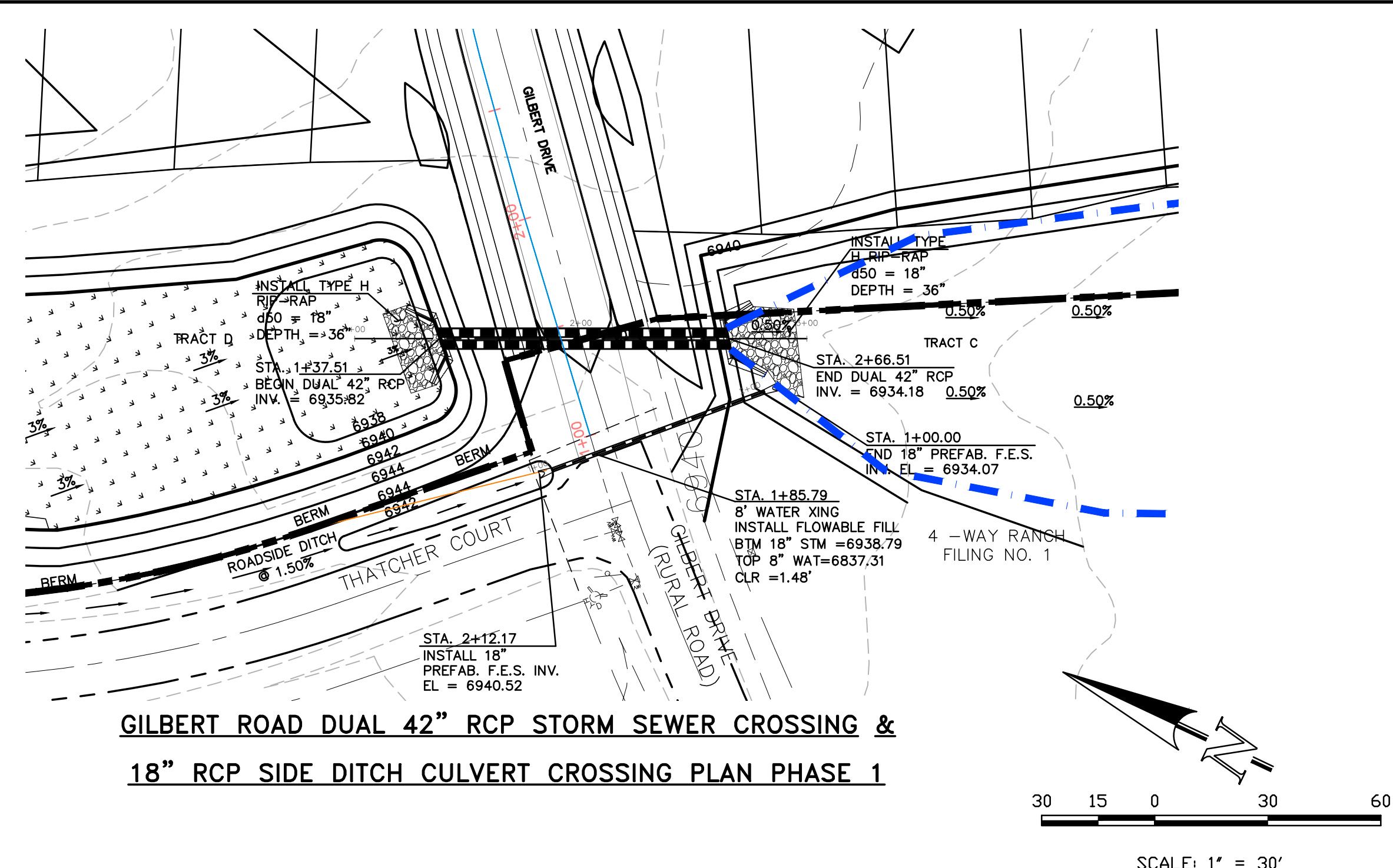
WATERBURY FILING NO. 1
 CONSTRUCTION SET
 STORM SEWER RUNS 15 & 18

DESIGNED BY QNA
 DRAWN BY QNA
 CHECKED BY
 H-SCALE 1"=50'
 V-SCALE 1"=5'
 JOB NO. 2356.00
 DATE ISSUED 10/4/24
 SHEET NO. 43 OF 52



STORM SEWER RUN-15 (PIPE RUN 44) PHASE 1
 PROPOSED PUBLIC 18" RCP STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.

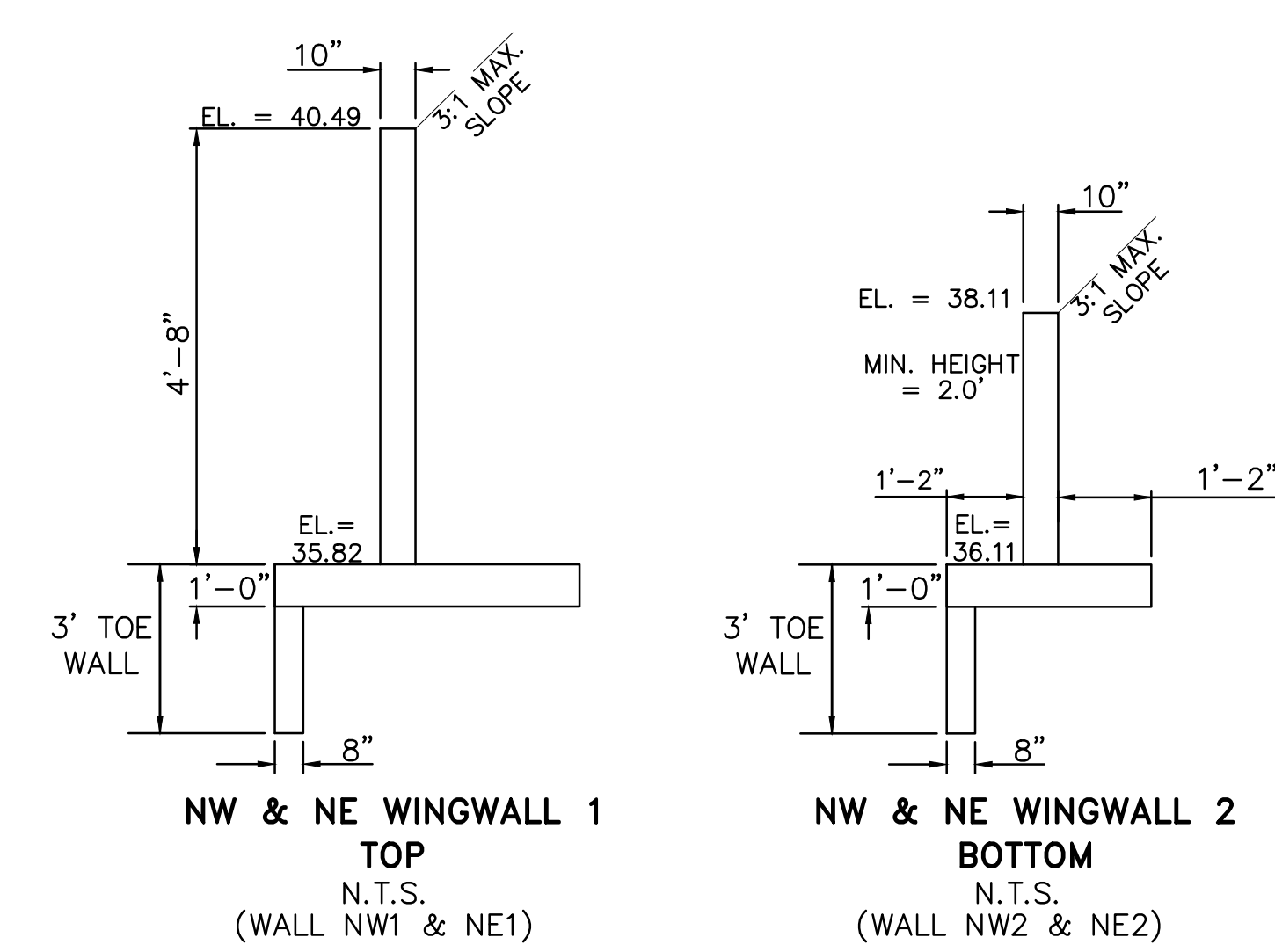
STORM SEWER RUN-18 (PIPE RUN 45) PHASE 1
 PROPOSED PUBLIC 30" RCP STORM SEWER
 1" = 50' HORIZ. 1" = 5' VERT.



GILBERT ROAD DUAL 42" RCP STORM SEWER CROSSING & 18" RCP SIDE DITCH CULVERT CROSSING PLAN PHASE 1

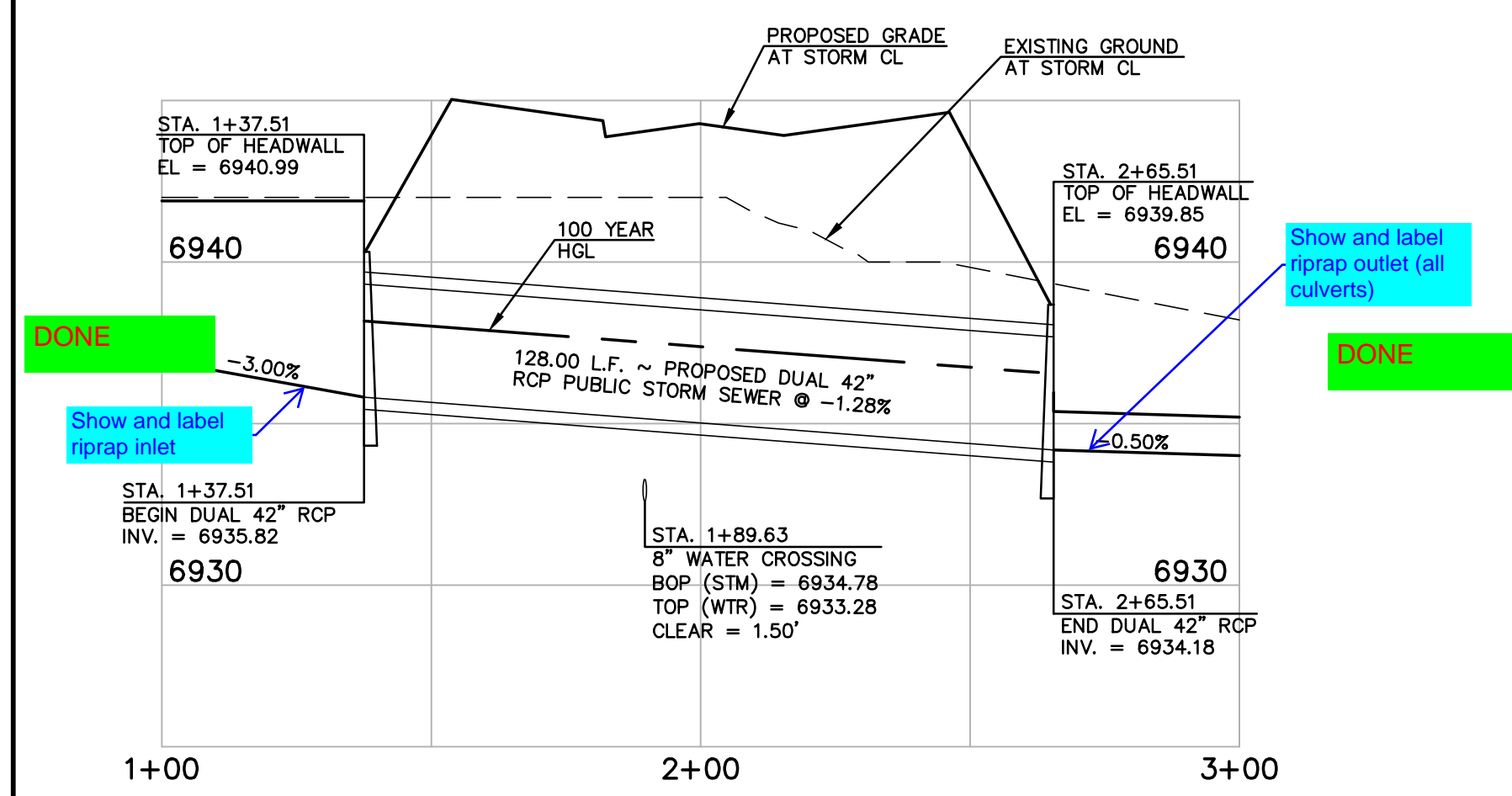
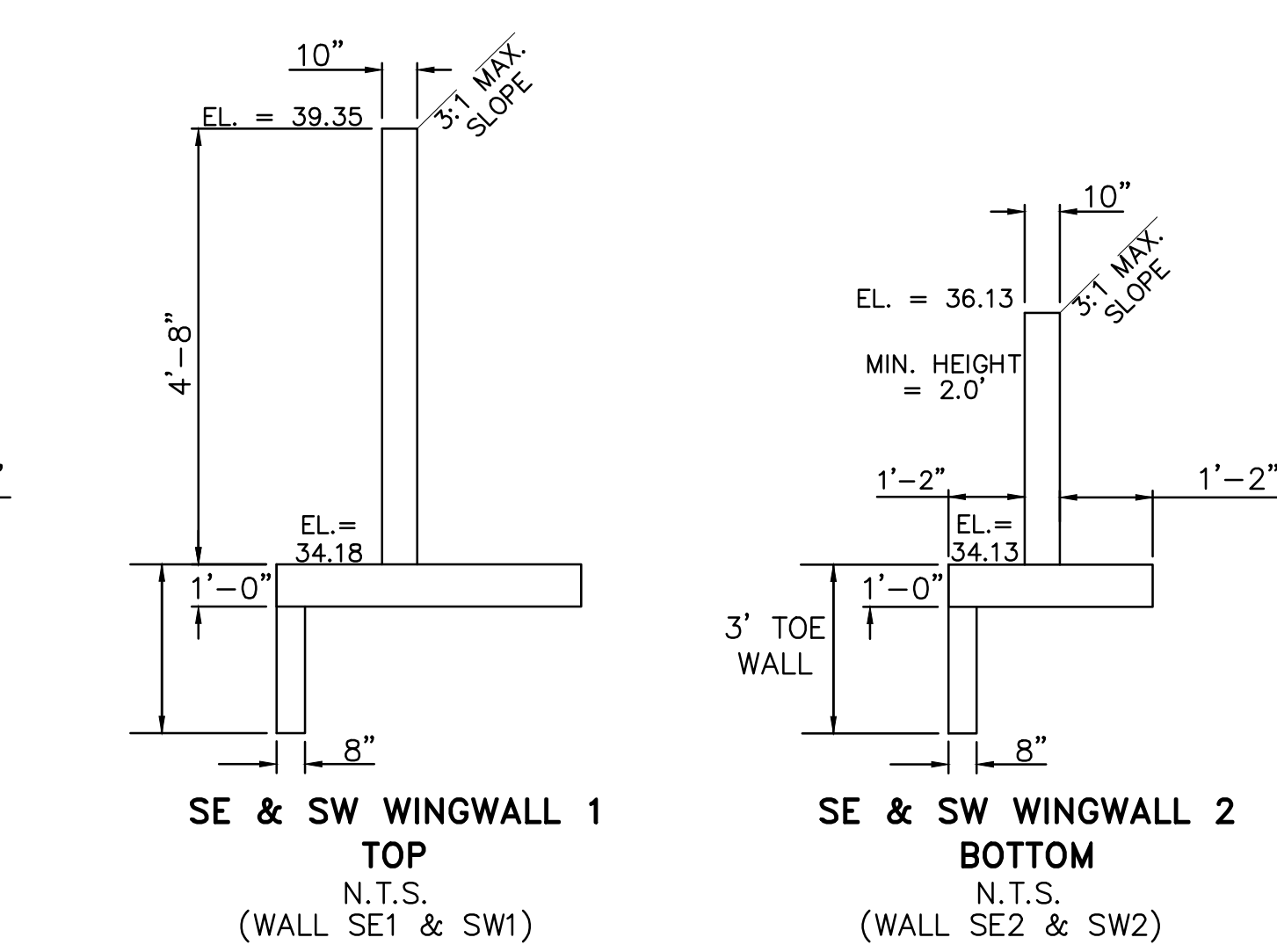
DUAL 42" NORTH HEADWALL/WINGWALLS

PER CDOT M-601-20
SEE CDOT M-601-20 FOR DESIGN REQUIREMENTS
INV. IN EL = 6935.82
EL AT TOP OF HEADWALL = 6940.99
EL AT TOP OF WINGWALL NW1 & NE1 = 6940.49
EL AT TOP OF WINGWALL NW2 & NE2 = 6938.11
EL AT TOP OF NW1 & NE1 FOOTING = 6935.82
EL AT TOP OF NW2 & NE2 FOOTING = 6936.11

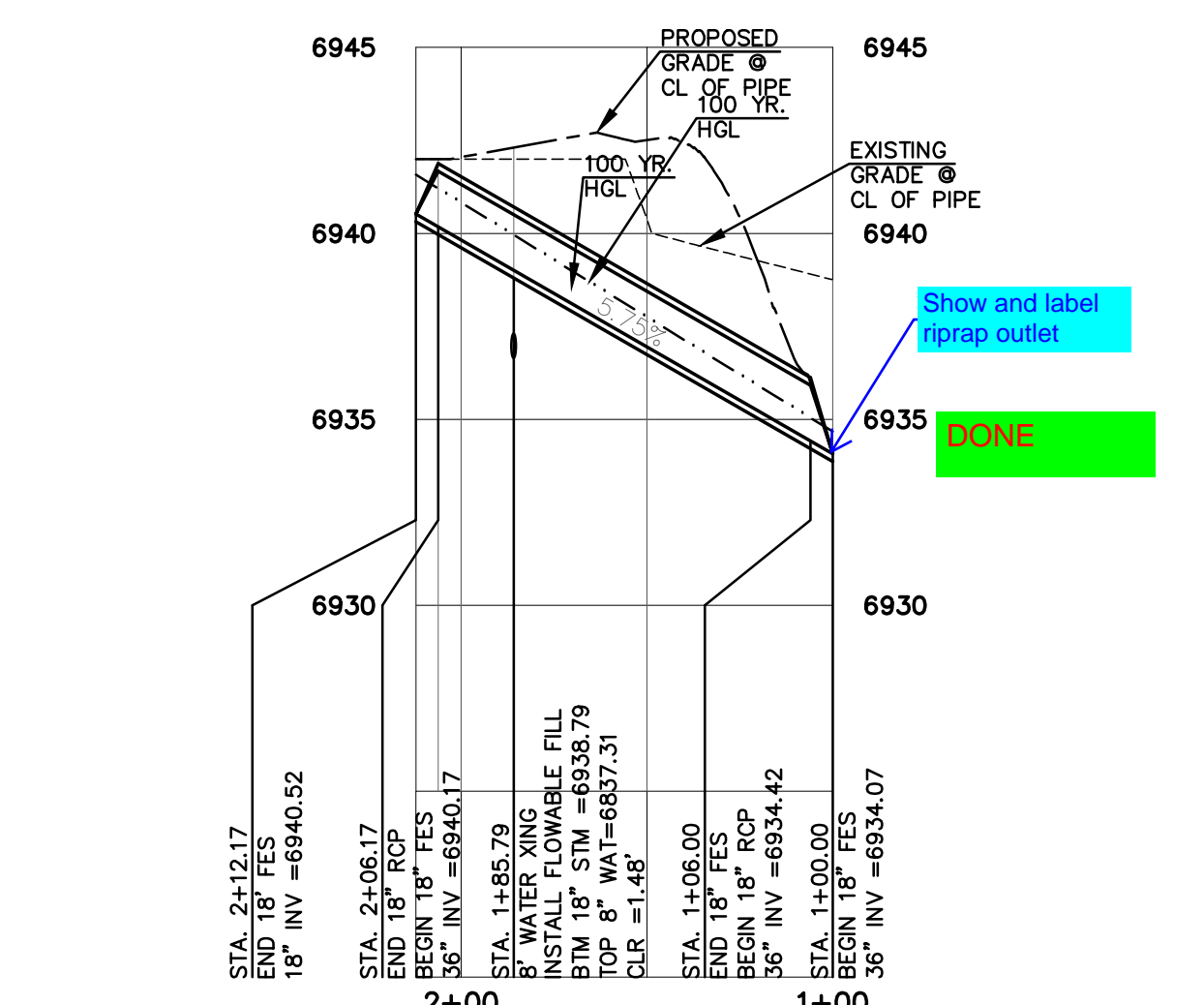


DUAL 42" SOUTH HEADWALL/WINGWALLS

PER CDOT M-601-20
SEE CDOT M-601-20 FOR DESIGN REQUIREMENTS
INV. OUT EL = 6934.18
EL AT TOP OF HEADWALL = 6939.85
EL AT TOP OF WINGWALL SE1 = 6939.35
EL AT TOP OF WINGWALL SE2 = 6936.13
EL AT TOP OF SE1 FOOTING = 6934.18
EL AT TOP OF SE2 FOOTING = 6934.13



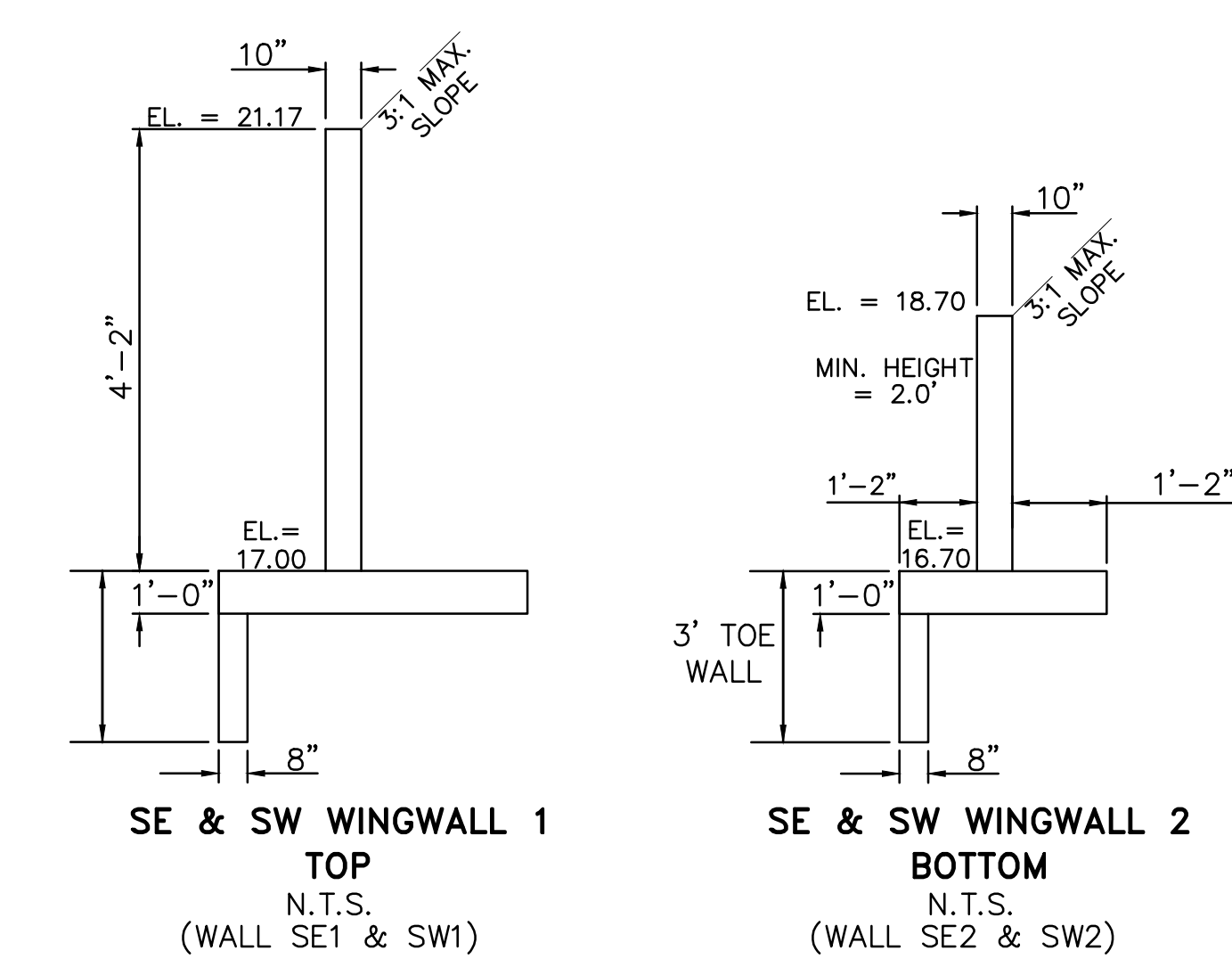
DUAL 42" RCP STORM SEWER CULVERT PROFILE PHASE 1
HORIZONTAL SCALE: 1" = 30'
VERTICAL SCALE: 1" = 5'



18" RCP STORM SEWER CULVERT PROFILE PHASE 1
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

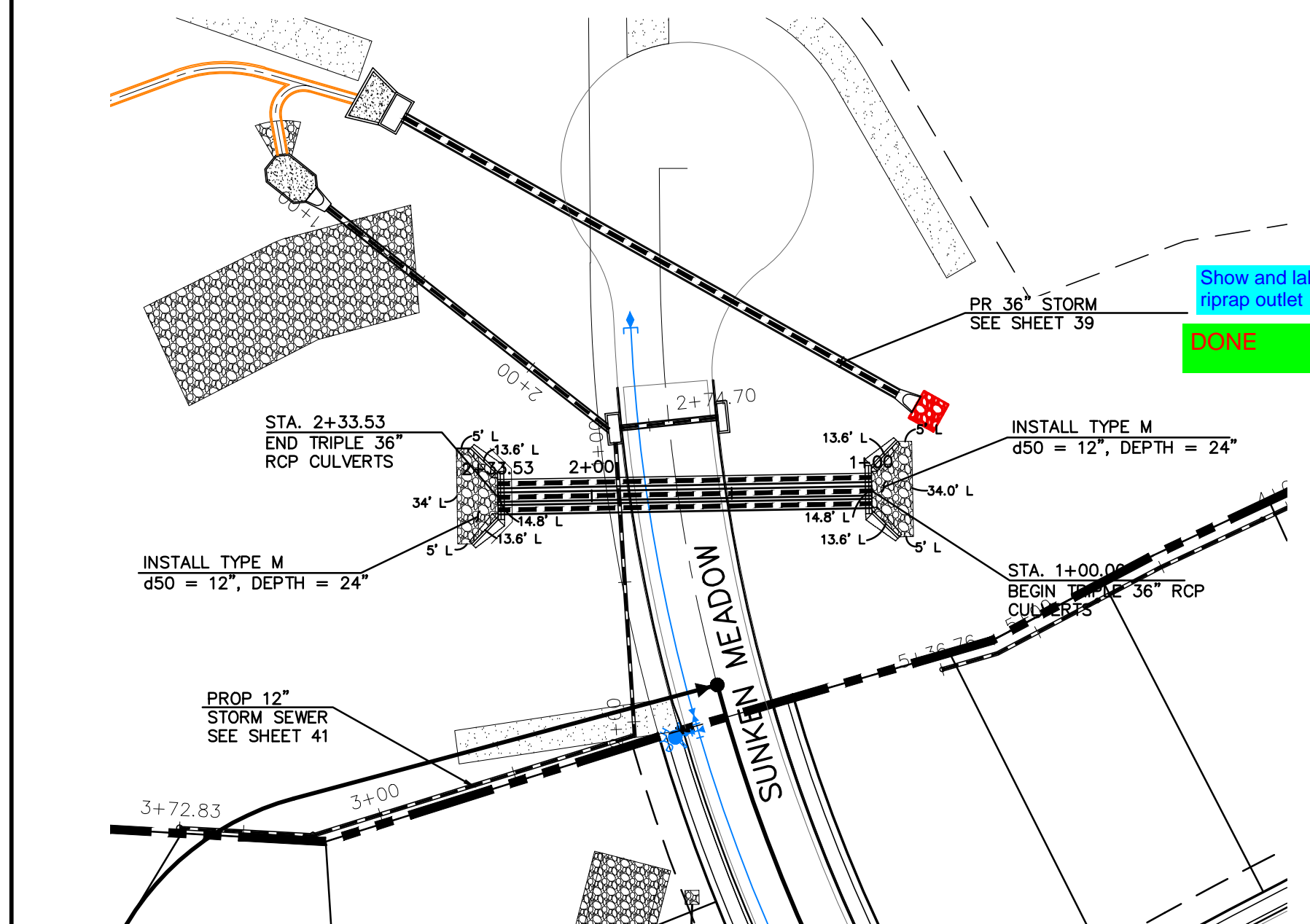
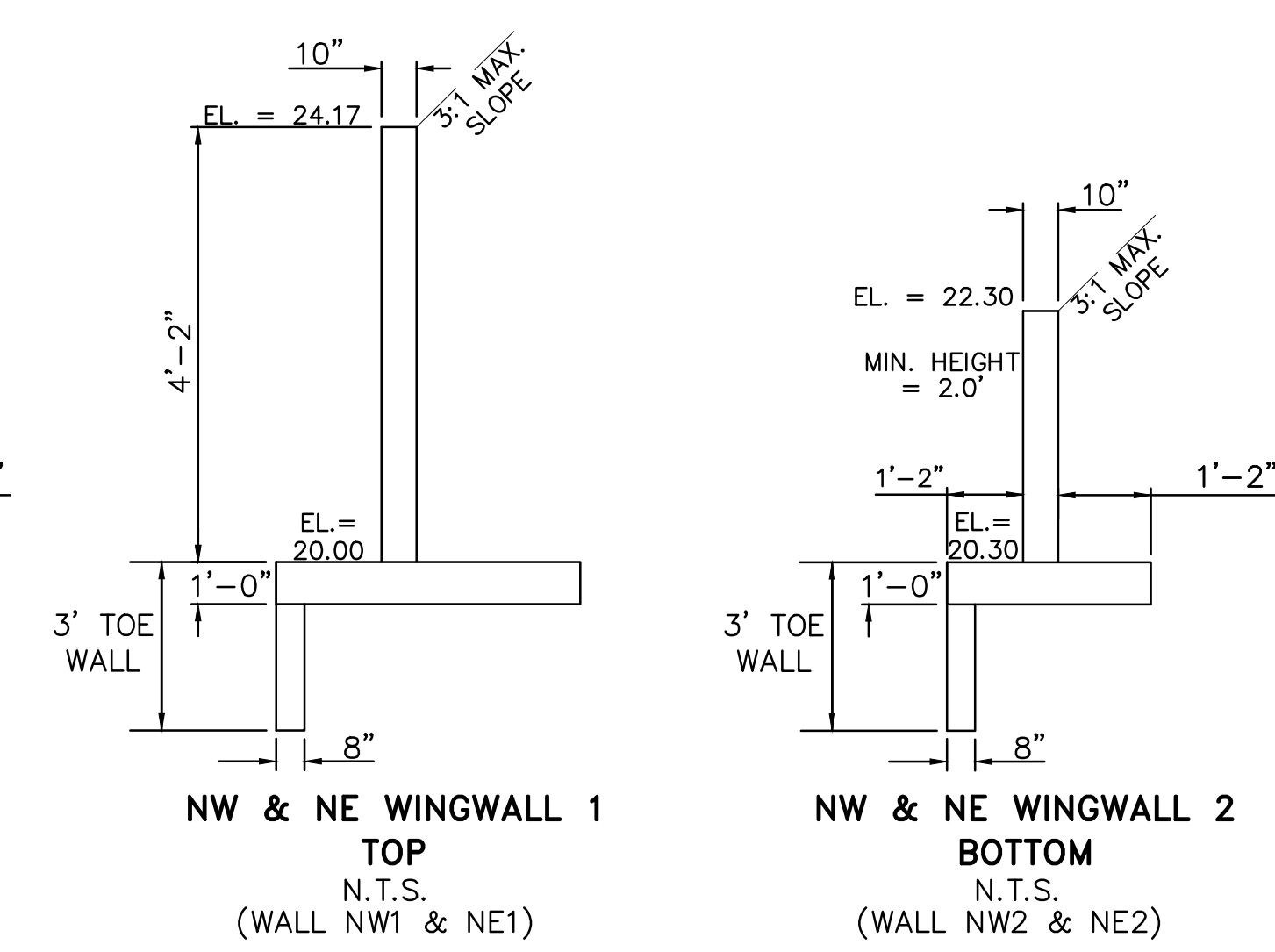
TRIPLE 36" SOUTH HEADWALL/WINGWALLS

PER CDOT M-601-20
SEE CDOT M-601-20 FOR DESIGN REQUIREMENTS
INV. OUT EL = 6917.00
EL AT TOP OF HEADWALL = 6921.67
EL AT TOP OF WINGWALL SE1 & SW1 = 6921.17
EL AT TOP OF WINGWALL SE2 & SW2 = 6918.70
EL AT TOP OF SE1 & SW1 FOOTING = 6917.00
EL AT TOP OF SE2 & SW2 FOOTING = 6916.70

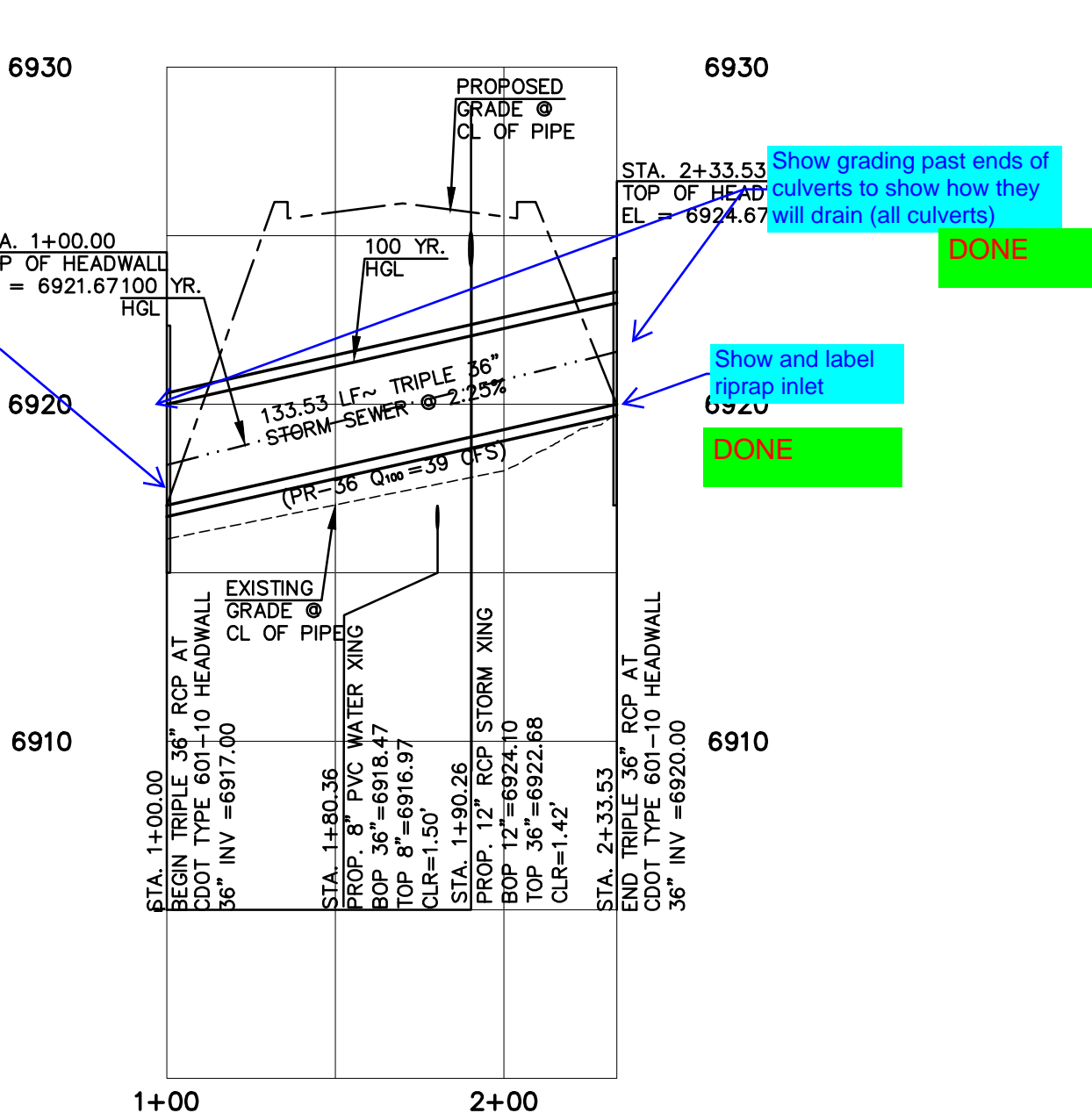


TRIPLE 36" NORTH HEADWALL/WINGWALLS

PER CDOT M-601-20
SEE CDOT M-601-20 FOR DESIGN REQUIREMENTS
INV. IN EL = 6920.00
EL AT TOP OF HEADWALL = 6924.67
EL AT TOP OF WINGWALL NW1 & NE1 = 6924.17
EL AT TOP OF WINGWALL NW2 & NE2 = 6922.30
EL AT TOP OF NW1 & NE1 FOOTING = 6920.00
EL AT TOP OF NW2 & NE2 FOOTING = 6920.30

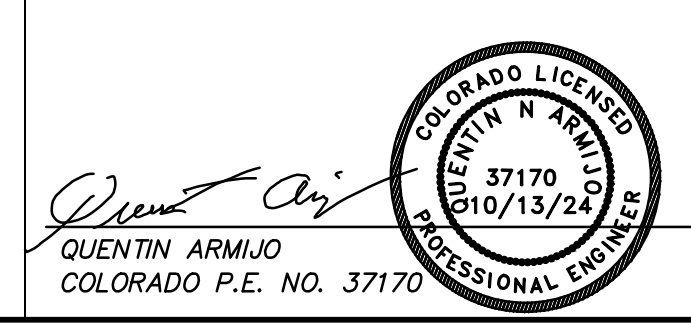


SUNKEN MEADOW TRIPLE 36" CULVERT PLAN (PIPE RUN 36) PHASE 1
PROPOSED PUBLIC RCP STORM SEWER
1" = 50' HORIZ. 1" = 5' VERT.



SUNKEN MEADOW TRIPLE 36" CULVERT PROFILE (PIPE RUN 36) PHASE 1
HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.



REVISIONS	NO.	DESCRIPTION	DATE
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE DESIGN ENGINEER, TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECT AND ONLY AS AUTHORIZED BY WRITTEN AUTHORIZATION.			

PREPARED FOR:
ACM ALF VIII JV SUB II LLC
ATTN: JASON POCK
100 E. MISSISSIPPI AVE., STE. 500
DENVER, CO 80246
303-984-9800

Terra Nova Engineering, Inc.
Civil Engineer
721 S. 23RD STREET
COLORADO SPRINGS, CO 80904
OFFICE: 719-635-6422
FAX: 719-635-6426
www.tnec.com

WATERBURY FILING NO. 1

CONSTRUCTION SET
STORM SEWER PLAN AND PROFILE
GILBERT DRIVE CROSSING CULVERTS

DESIGNED BY DLF
DRAWN BY QNA
CHECKED BY QNA
H-SCALE NA
V-SCALE N/A
JOB NO. 2356.00
DATE ISSUED 10/4/24
SHEET NO. 44 OF 52

Unresolved from submittal 1:
 1) overlapping hatching is confusing as what the purpose of each is.
 2) Per detail on next page, spillway is not to have any riprap (just compacted earth), but this hatching is used elsewhere to represent riprap. Clarify to remove discrepancies.

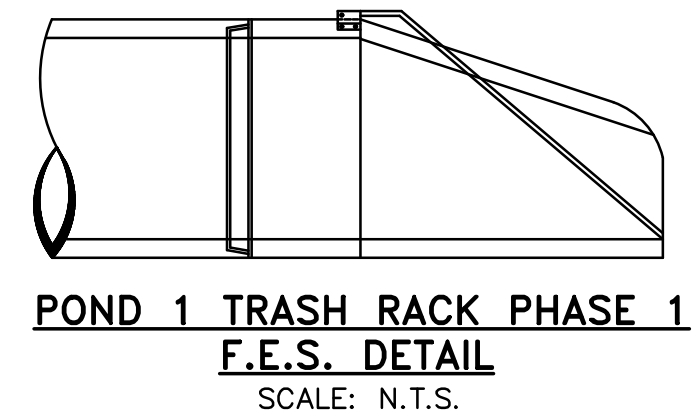
Or is there supposed to be riprap or soil riprap like with the other 2 ponds? No txt callout for riprap seen with this pond.

Survey thought I removed the one riprap layer but took down now

POND 1 WEST CONCRETE FOREBAY/MICROPOOL DETAILS PHASE 1

POND 1 EAST CONCRETE FOREBAY DETAILS PHASE 1

POND 1 FLARED END SECTION PHASE 1
SCALE: N.T.S.



24" RCP POND 1 OUTFALL PROFILE PHASE 1

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

15' MAINTENANCE ACCESS ROAD SECTION PHASE 1
NOT TO SCALE

TRICKLE CHANNEL PHASE 1 TYPICAL SECTION
N.T.S.

DETENTION POND 1 PHASE 1

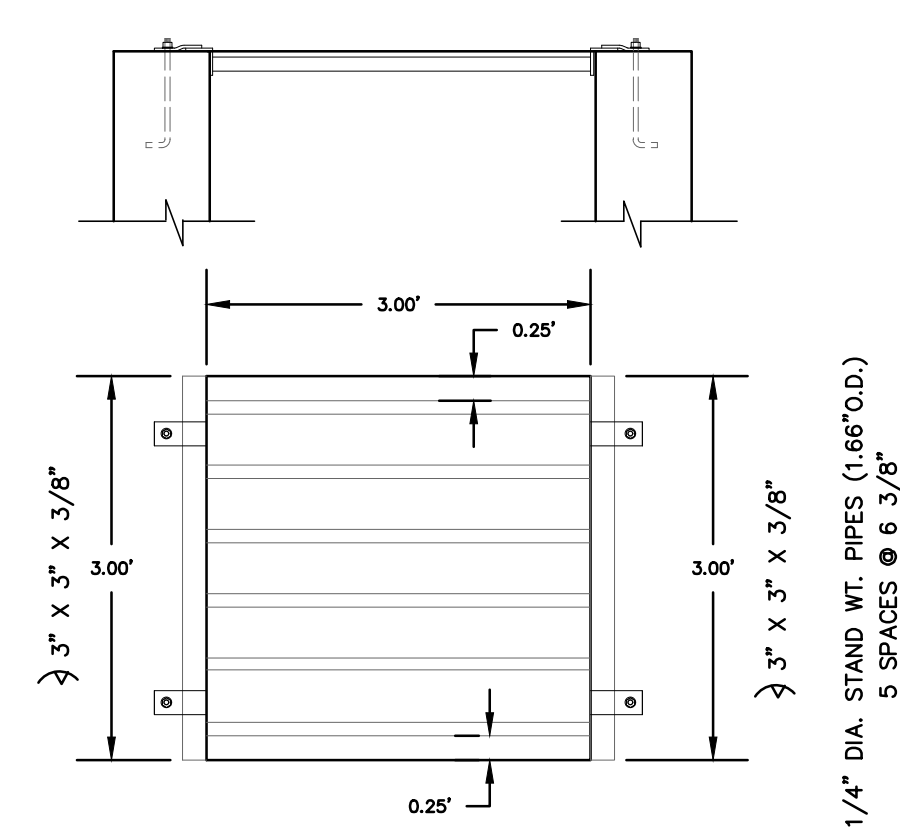
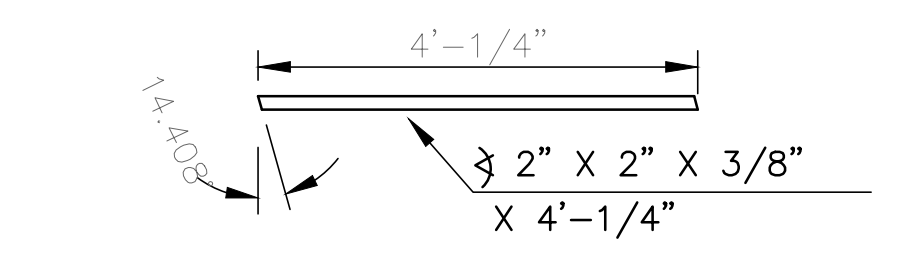
Consider placing the overflow spillway here - less impact if utilized

extend/imbed spillway

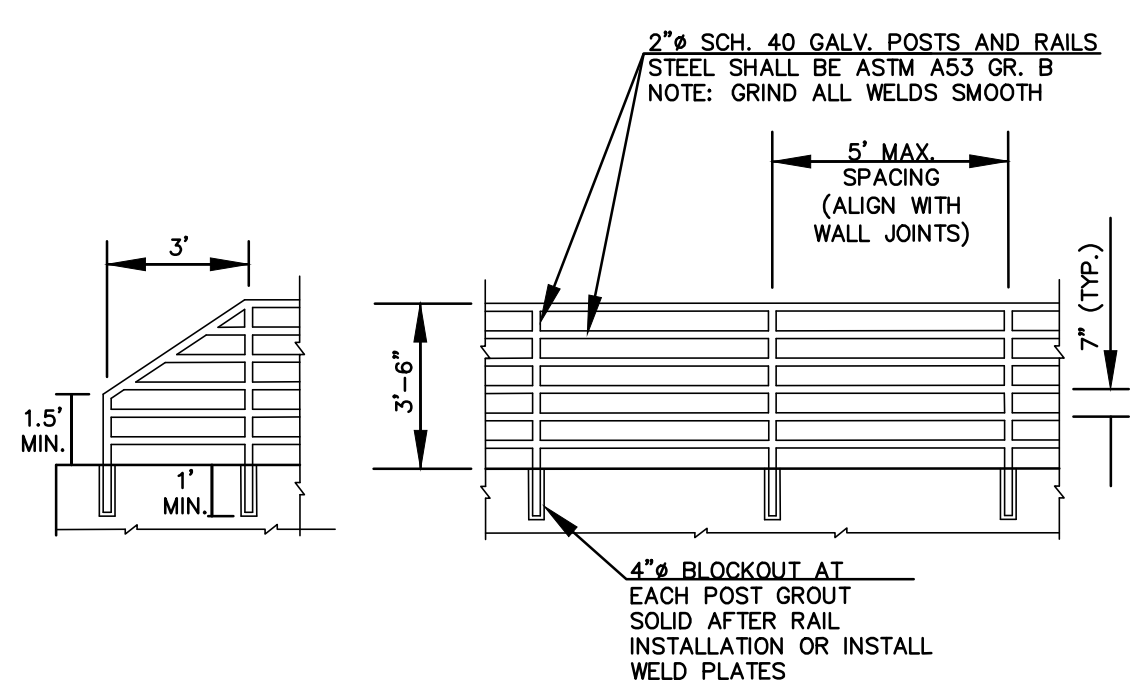
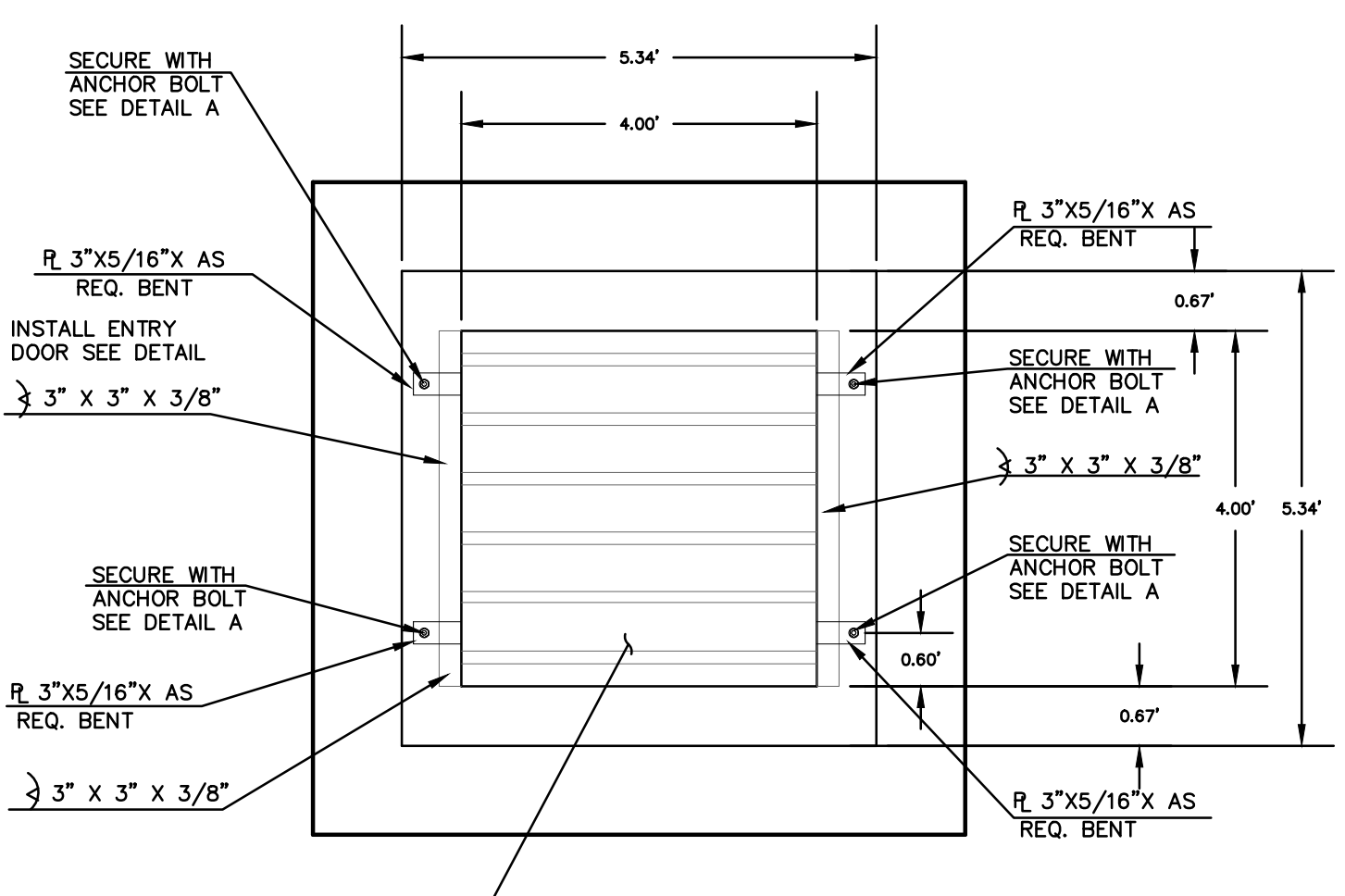
DATE	
REVISIONS	DESCRIPTION
NO.	
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY REVIEWING AGENCIES, TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECTS AUTHORIZED BY WRITTEN AUTHORIZATION.	
PREPARED FOR:	ACM ALF VIII JV SUB II LLC ATTN: JASON POCK 100 E. MISSISSIPPI AVE., STE 500 DENVER, CO 80246 303-984-9800
721 S. 23RD STREET COLORADO SPRINGS, CO 80904 OFFICE: 719-635-6422 FAX: 719-635-6426 www.tnva.com	
WATERBURY FILING NO. 1	CONSTRUCTION SET POND 1 DETAILS
DESIGNED BY DLF	DRAWN BY QNA
CHECKED BY QNA	
H-SCALE NA	V-SCALE N/A
JOB NO. 2356.00	DATE ISSUED 10/4/24
SHEET NO. 45 OF 52	

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

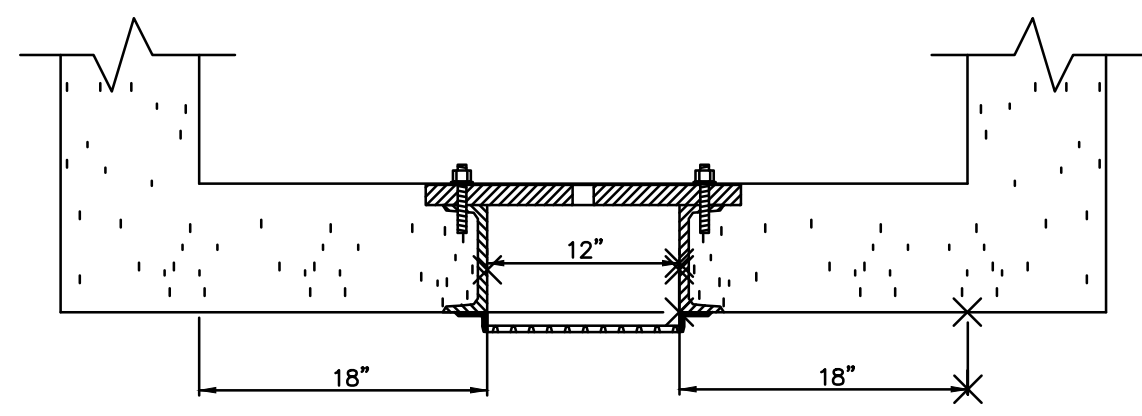




GRATE PHASE 1 CONSTRUCTION
ALL WELDED CONSTRUCTION
SCALE: N.T.S.



- NOTES:
- WELD PLATES MAY BE SUBSTITUTED FOR PIPE EMBEDMENT.
 - CONTRACTOR SHALL SUBMIT HANDRAIL SHOP DRAWINGS TO ENGINEER OF RECORD FOR APPROVAL PRIOR TO FABRICATION.
 - DESIGN CRITERIA SHALL BE IN ACCORDANCE WITH AASHTO STANDARDS. HANDRAIL DESIGN SHALL BE COMPATIBLE WITH THE DESIGN OF THE WINGWALLS AND HEADWALLS.
 - RAILING POSTS SHALL BE SET TO NORMAL TO GRADE. RAILS SHALL RUN PARALLEL TO THE SLOPES OF TOPS OF THE WALLS.
 - ALL RAILS SHALL HAVE EXPANSION JOINTS SPACED AT 40'-0" MAX. JOINT ENDS SHALL BE FREE OF ANY SHARP EDGES OR CORNERS.



SECTION B-B
SCALE: N.T.S.

STEEL FABRICATION NOTES:

FABRICATED STEEL STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AISC AND AWS SPECIFICATIONS.

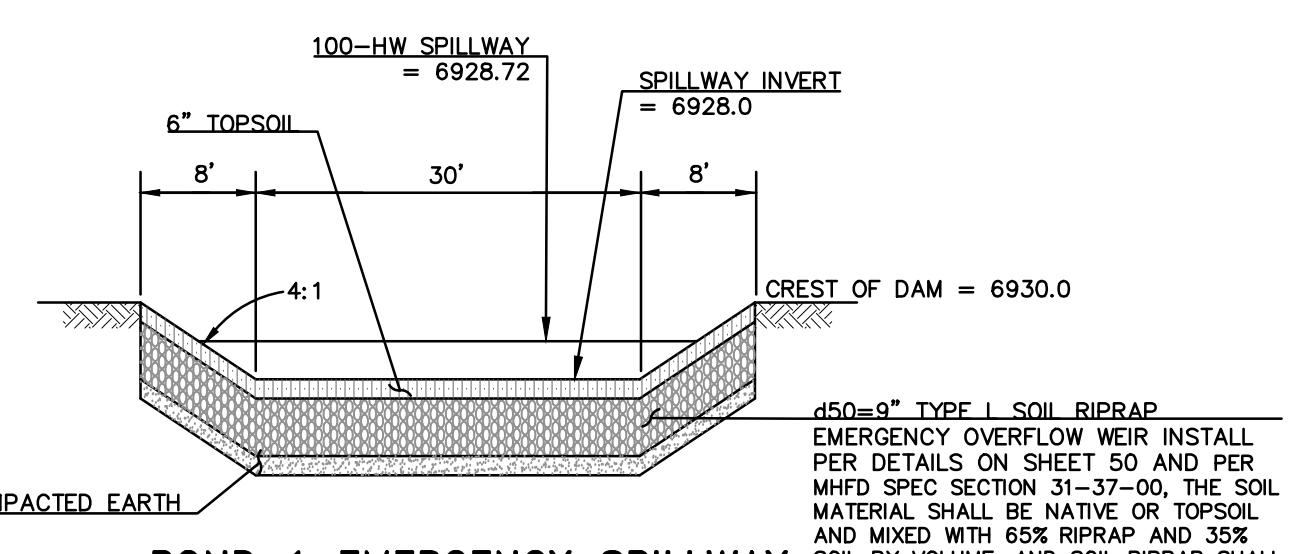
3. THE OUTLET STRUCTURE BARGRATE IS DESIGNED FOR A VERTICAL LOAD OF 300 LBS./SQ. FT.

ALL STRUCTURAL STEEL SHAPES TO INCLUDE: ANGLE, PLATE, AND BAR SHALL MEET ASTM A36 SPECIFICATIONS, FY = 36 KSI MINIMUM. STRUCTURAL TUBING SHALL MEET ASTM A500 GRADE B SPECIFICATIONS, FY = 48 KSI MINIMUM. STEEL PIPE SHALL BE STANDARD WEIGHT PIPE ASTM A53 GRADE B, FY = 35 KSI MINIMUM.

WELDS NOT INDICATED SHALL BE 1/8" MINIMUM FILLET OR GROOVE, CONTINUOUS SO FAR AS POSSIBLE. CONSIDER VANDALISM LOADS, WELD ACCORDINGLY AT CRITICAL LOCATIONS.

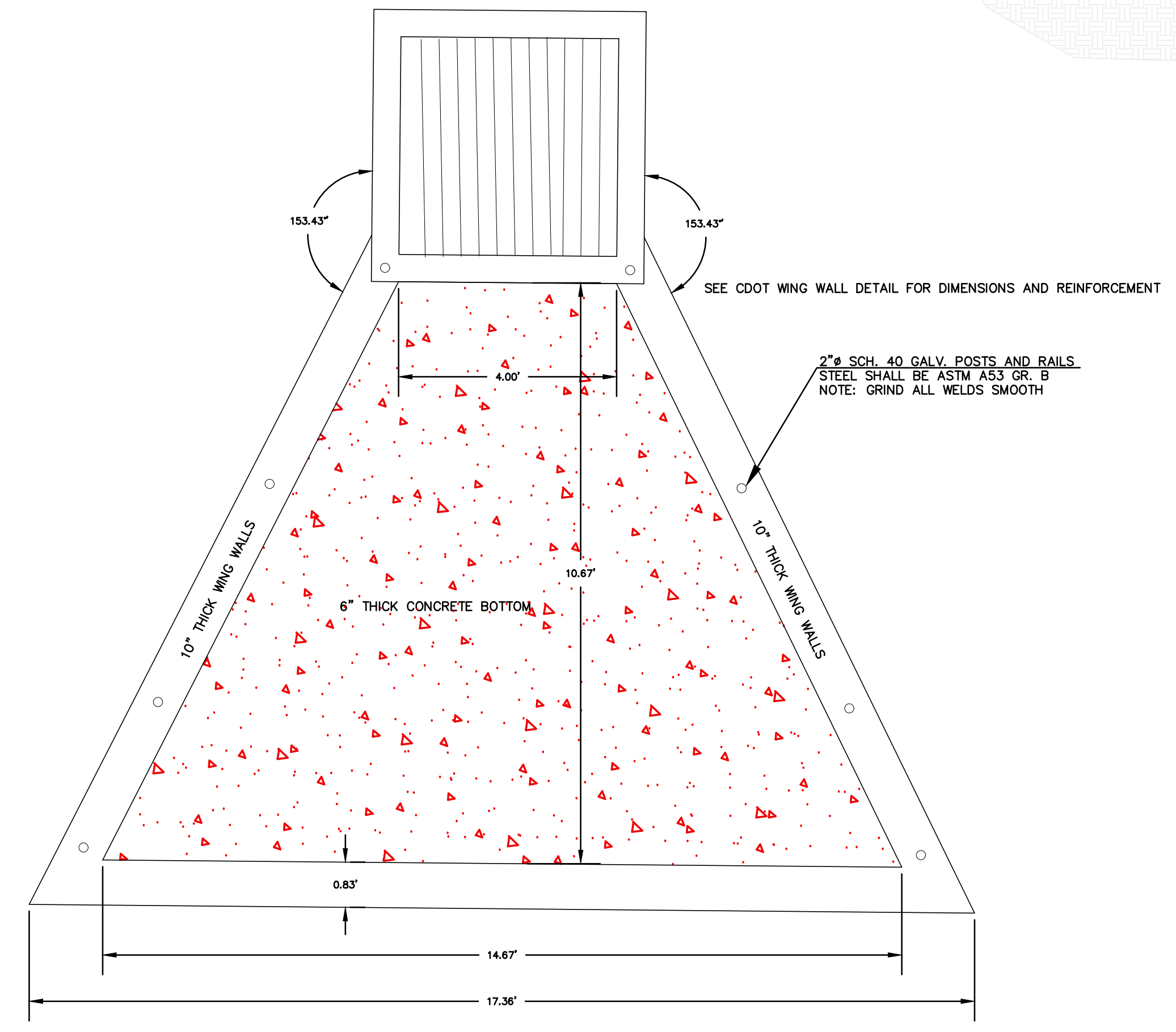
6. PRIOR TO PAINTING REMOVE ALL OIL, SCALE, AND SLAG, GRIND OFF BURRS AND SHARP EDGES.

PAINT WITH ONE SHOP COAT OF ZINC RICH PRIMER AND TWO COATS OF ALUMINUM PAINT, AASHTO M-69



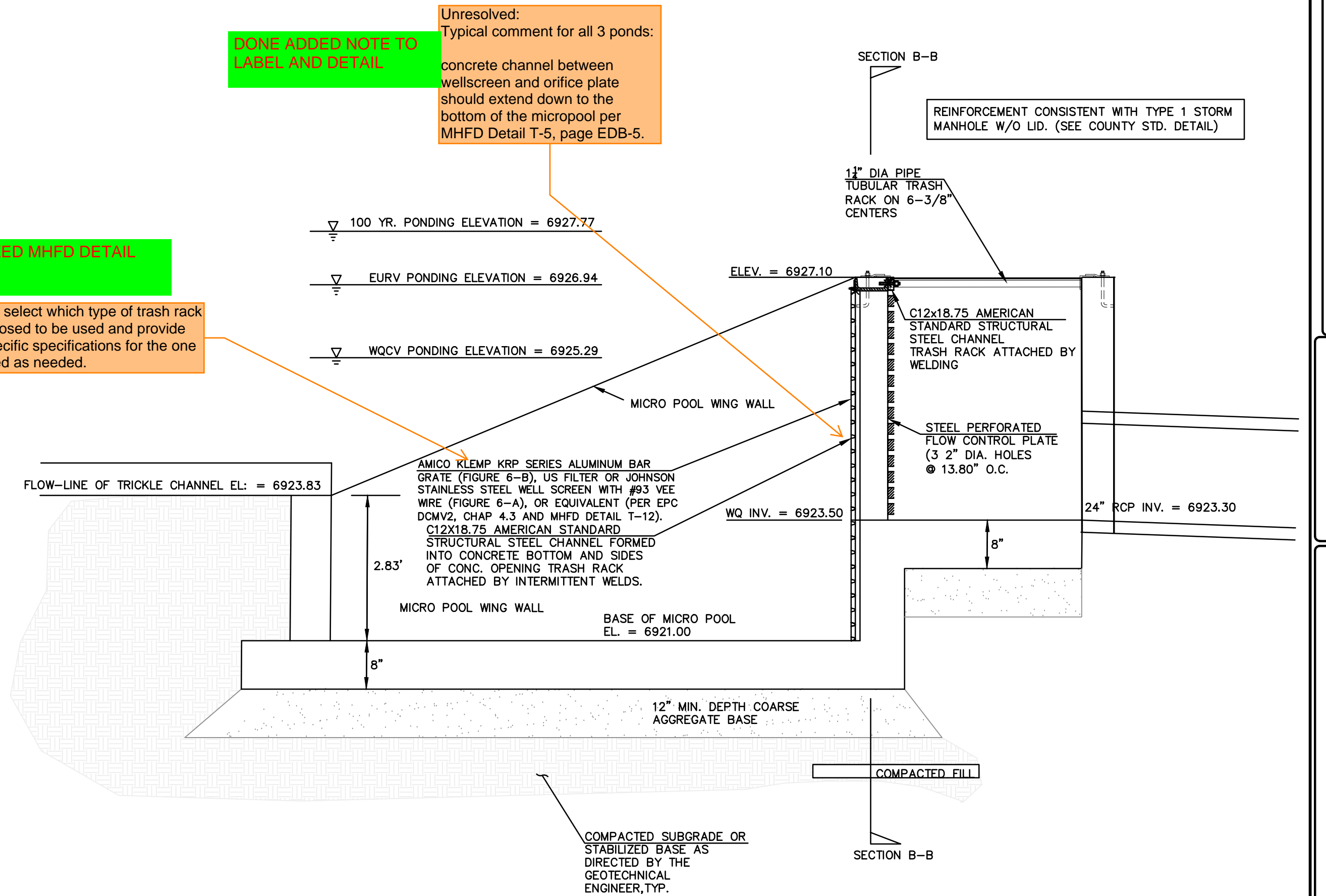
POND 1 EMERGENCY SPILLWAY CROSS SECTION PHASE 1
SCALE: N.T.S.

POND 1 CONCRETE MICROPOOL PHASE 1
SCALE: N.T.S.

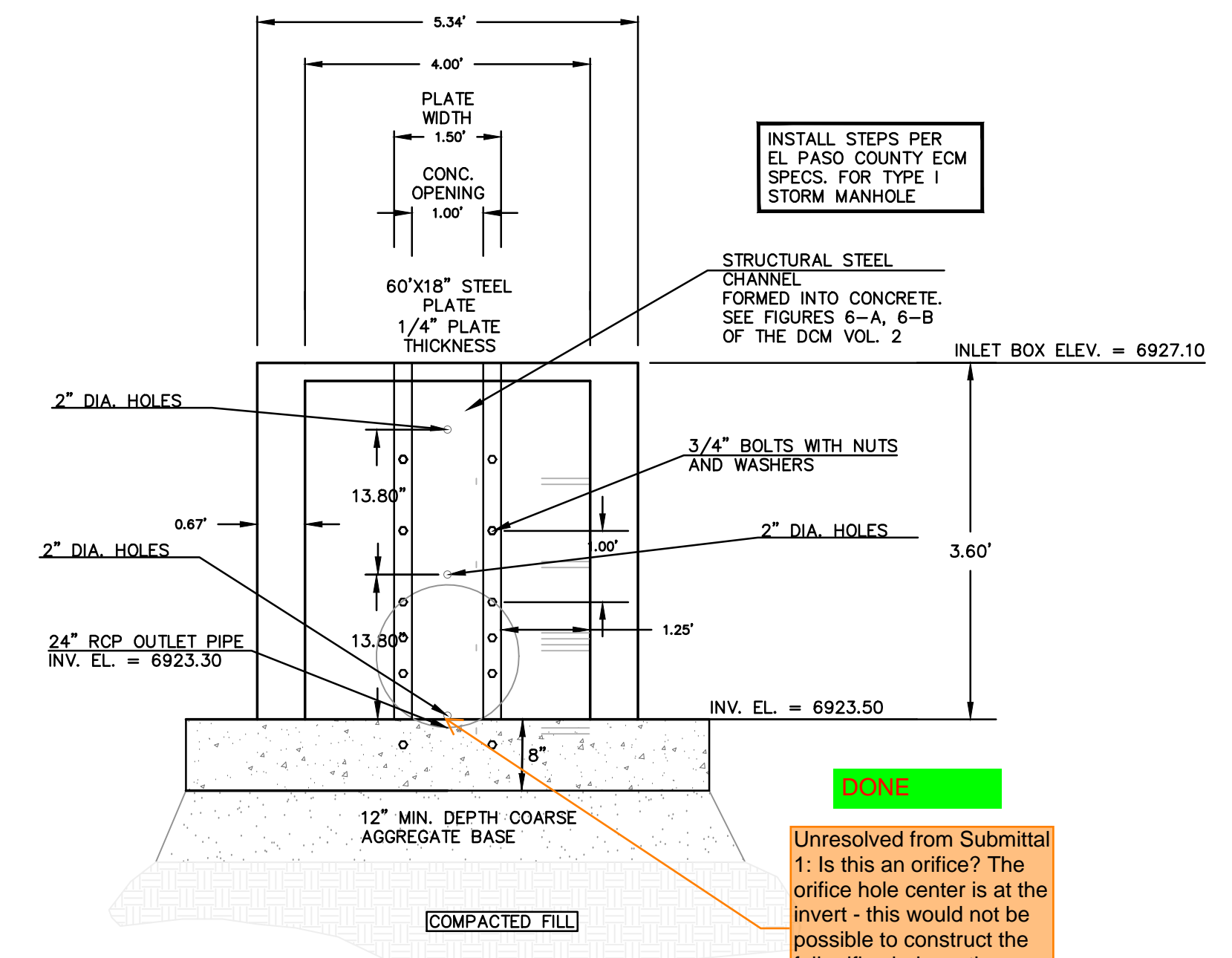


PICKED MHFD DETAIL
Please select which type of trash rack is proposed to be used and provide the specific specifications for the one selected as needed.

DONE ADD NOTE TO LABEL AND DETAIL
Unresolved: Typical comment for all 3 ponds: concrete channel between wellscreen and orifice plate should extend down to the bottom of the micropool per MHFD Detail T-5, page EDB-5.



POND 1 OUTLET STRUCTURE PHASE 1 MODIFIED TYPE 1 MH
SCALE: N.T.S.



POND 1 OUTLET STRUCTURE PHASE 1 MODIFIED TYPE 1 MH
SCALE: N.T.S.

DONE
Unresolved from Submittal 1: Is this an orifice? The orifice hole center is at the invert - this would not be possible to construct the full orifice hole as the bottom half is lower than the structural steel plate.

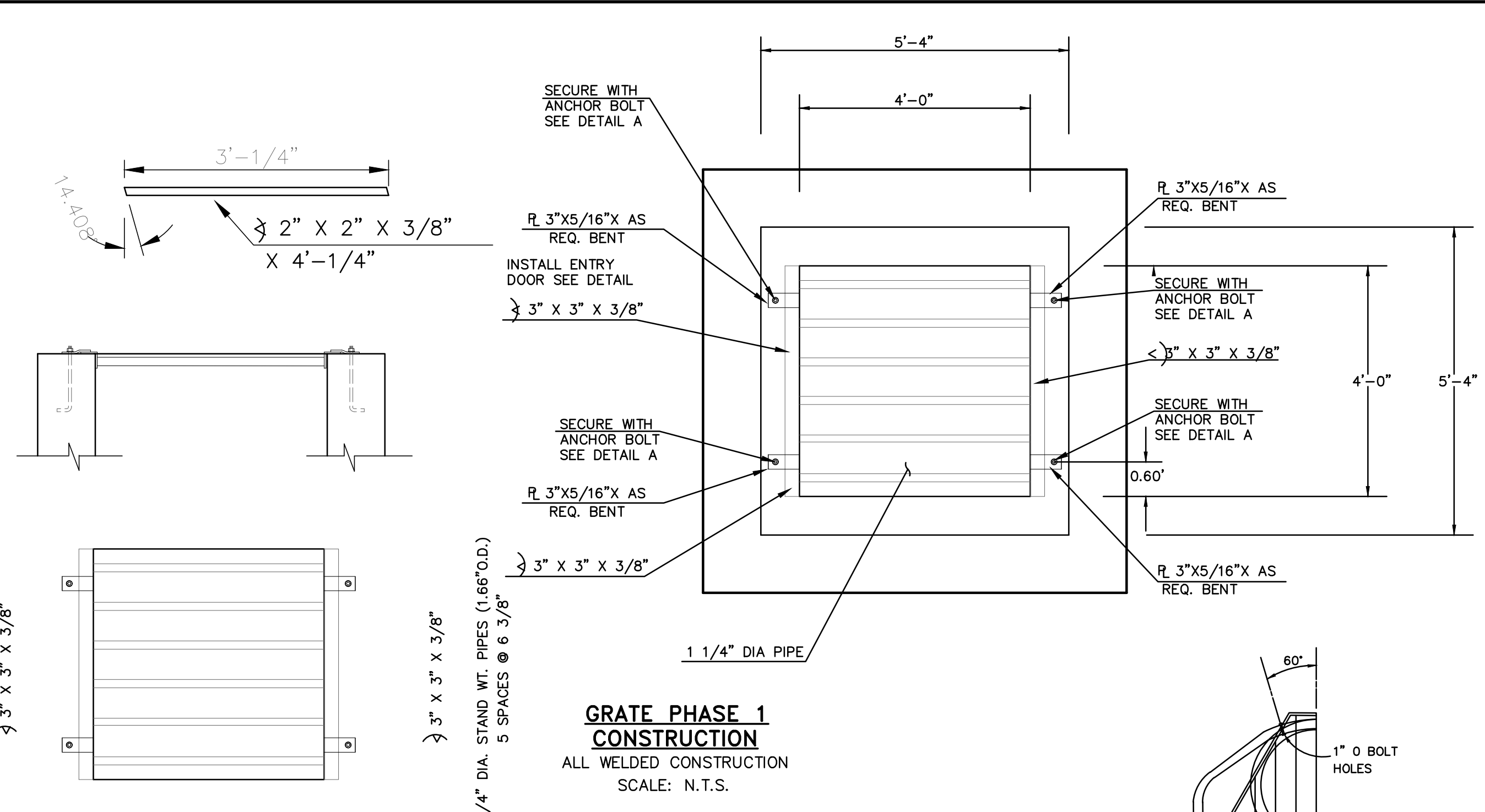
WARNING
THIS AREA IS A STORMWATER FACILITY AND IS SUBJECT TO PERIODIC FLOODING

PET WASTE MUST BE PICKED UP

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.



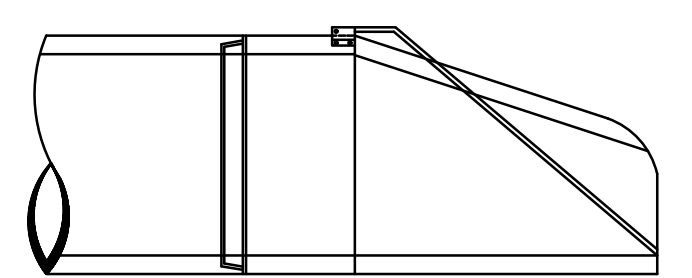
DATE	
DESCRIPTION	
REVISIONS	
NO.	
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE ENGINEER OF RECORD, TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECT AND FOR THE PURPOSES AUTHORIZED BY WRITTEN AUTHORIZATION.	
PREPARED FOR:	ACM ALF VIII JV SUB II LLC
ATTN:	JASON POCK
ADDRESS:	100 E. MISSISSIPPI AVE., SE 50 DENVER, CO 80246
PHONE:	303-984-9800
DESIGNED BY:	DLF
DRAWN BY:	QNA
CHECKED BY:	QNA
H-SCALE:	NA
V-SCALE:	N/A
JOB NO.:	2356.00
DATE ISSUED:	10/4/24
SHEET NO.:	46 OF 52



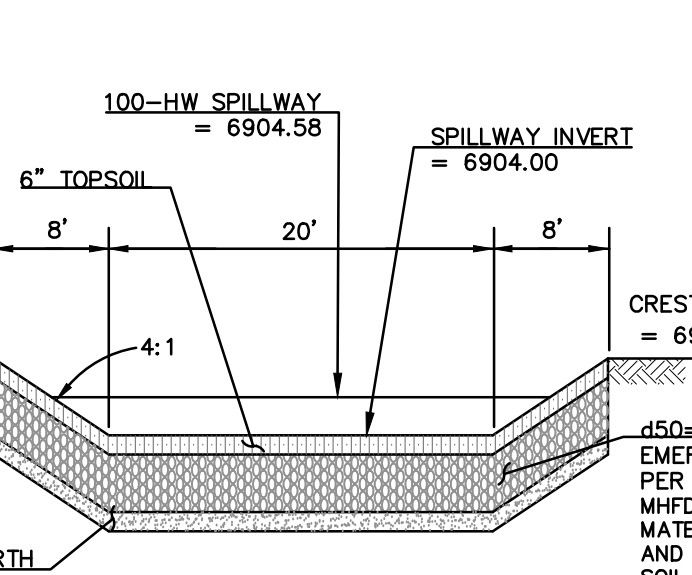
GRATE PHASE 1 CONSTRUCTION
ALL WELDED CONSTRUCTION
SCALE: N.T.S.

REINFORCEMENT CONSISTENT WITH TYPE 1 STORM MANHOLE W/O LID. (SEE COUNTY STD. DETAIL)

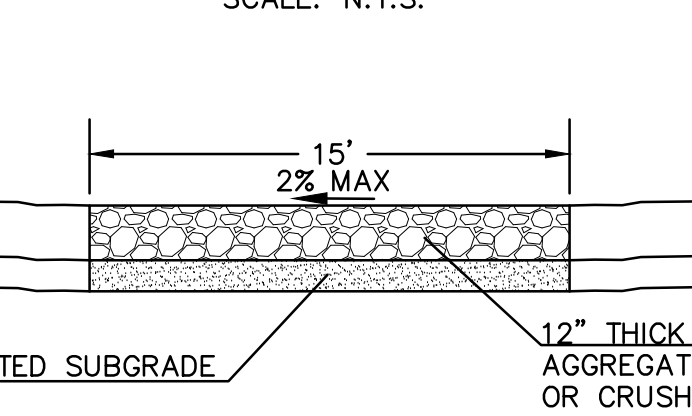
POND 2 FLARED END SECTION
SCALE: N.T.S.



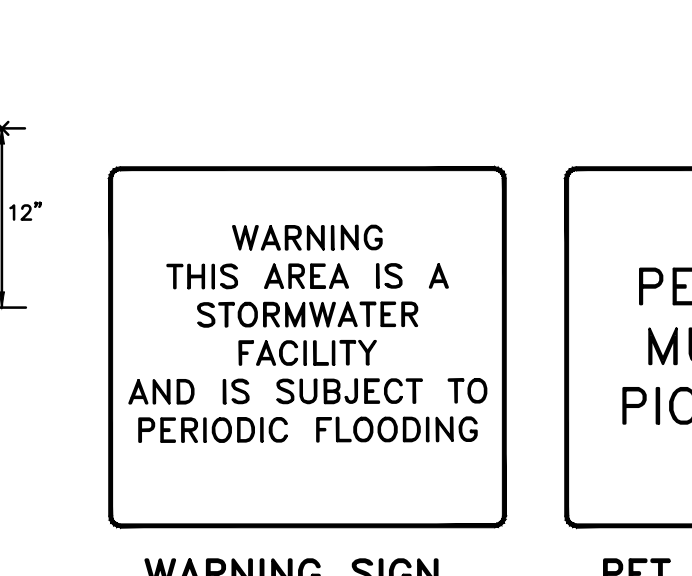
POND 2 TRASH RACK DETAIL: F.E.S. DETAIL
SCALE: N.T.S.



POND 2 EMERGENCY SPILLWAY CROSS SECTION PHASE 1
SCALE: N.T.S.

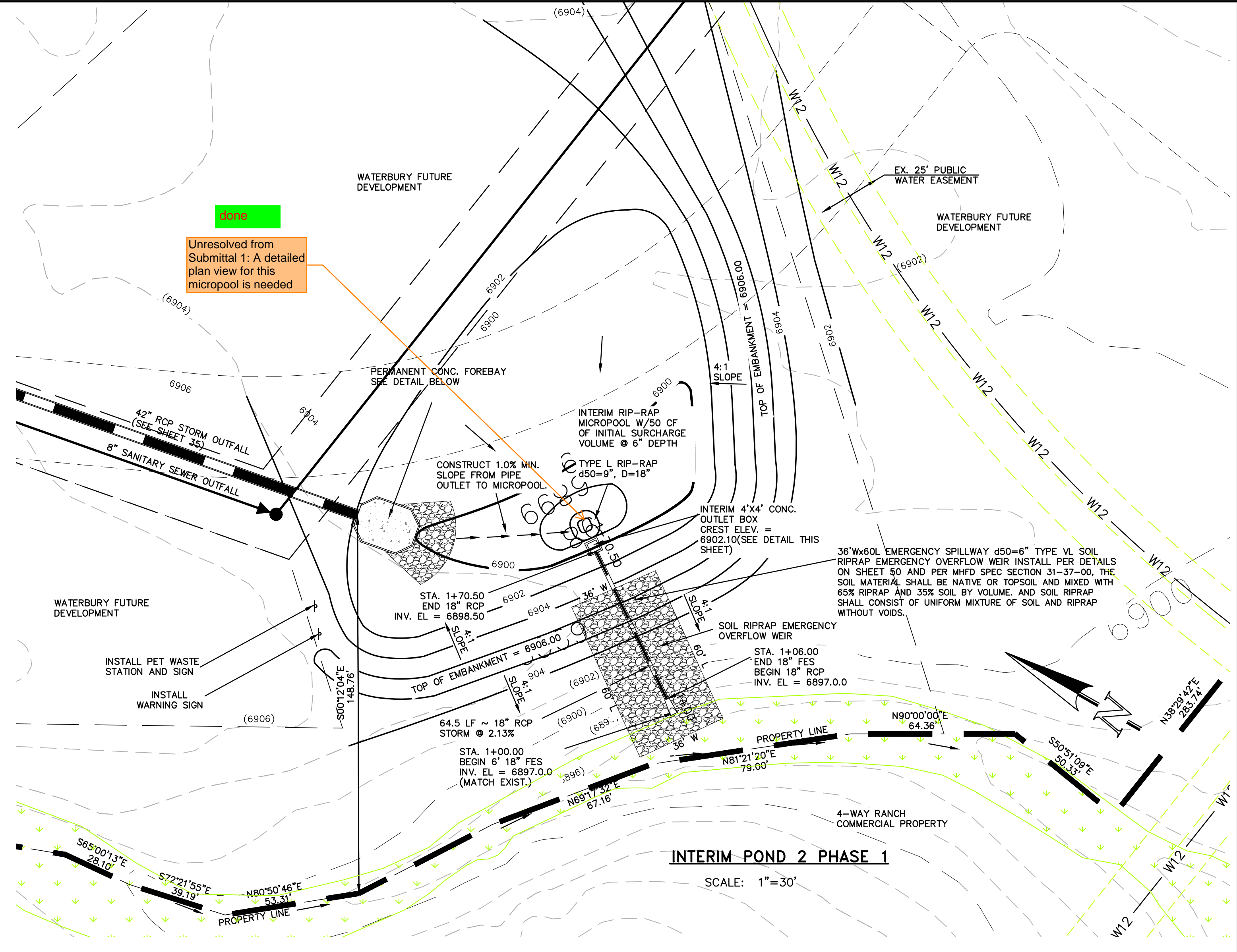


15' MAINTENANCE ACCESS ROAD SECTION PHASE 1
NOT TO SCALE

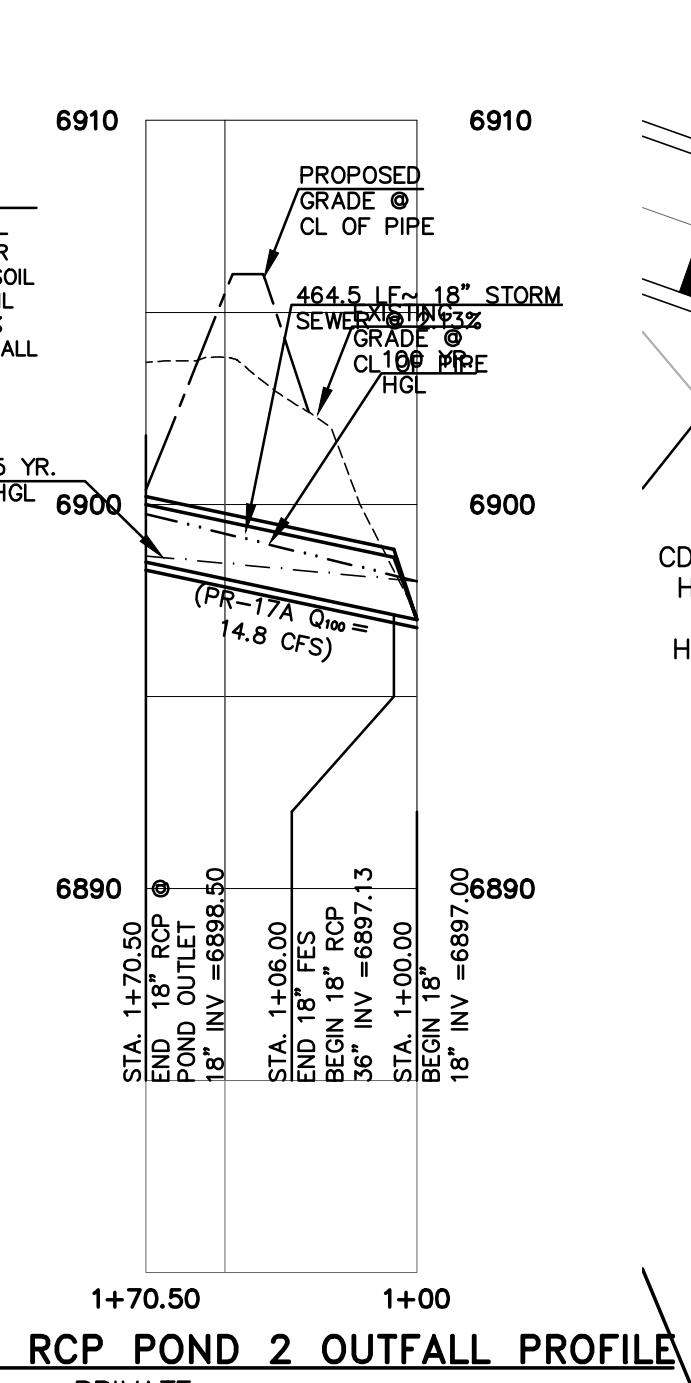


WARNING
THIS AREA IS A STORMWATER FACILITY AND IS SUBJECT TO PERIODIC FLOODING

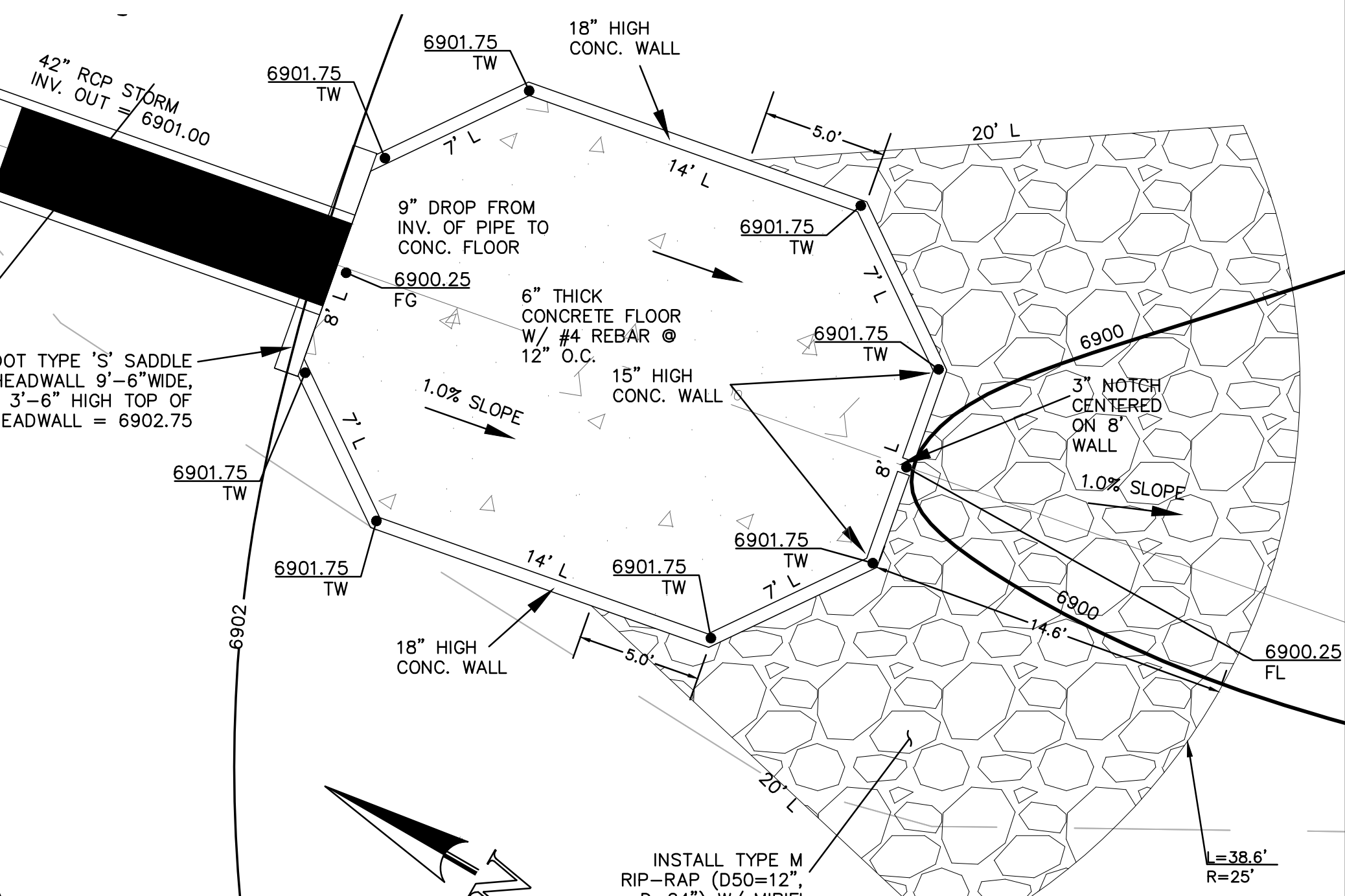
PET WASTE MUST BE PICKED UP



INTERIM POND 2 PHASE 1
SCALE: 1"=30'



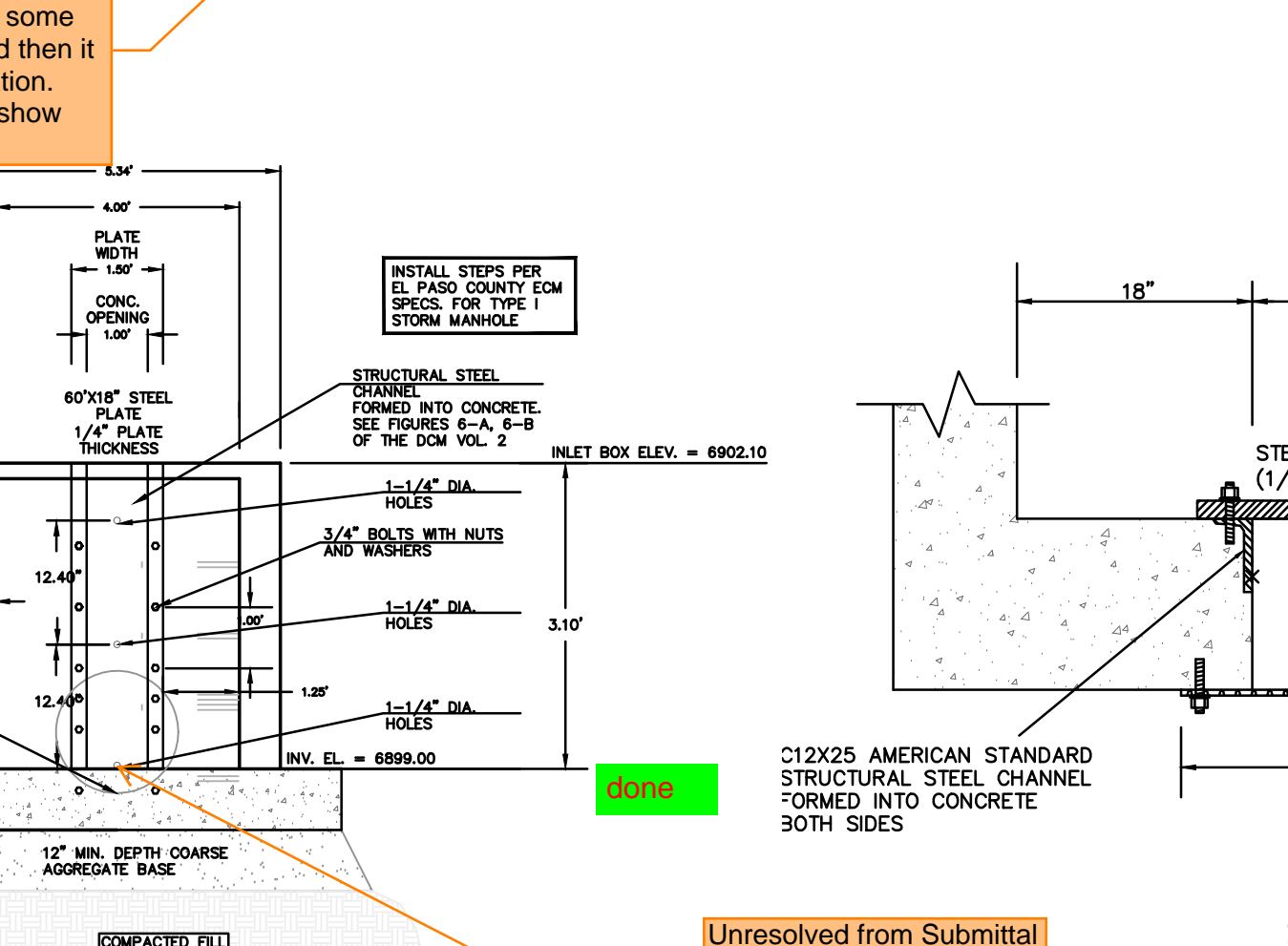
24" RCP POND 2 OUTFALL PROFILE
PRIVATE HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



POND 2 PERMANENT FOREBAY DETAIL PHASE 1
SCALE: 1"=5'

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

POND 2 CONCRETE OUTLET BOX DETAILS PHASE 1
SCALE: N.T.S.



POND 2 OUTLET STRUCTURE MODIFIED TYPE 1 MH PHASE 1
SCALE: N.T.S.



UNRESOLVED FROM SUBMITTAL 1: IS THIS AN ORIFICE? THE ORIFICE HOLE CENTER IS AT THE INVERT - THIS WOULD NOT BE POSSIBLE TO CONSTRUCT THE FULL ORIFICE HOLE AS THE BOTTOM HALF IS LOWER THAN THE STRUCTURAL STEEL PLATE.

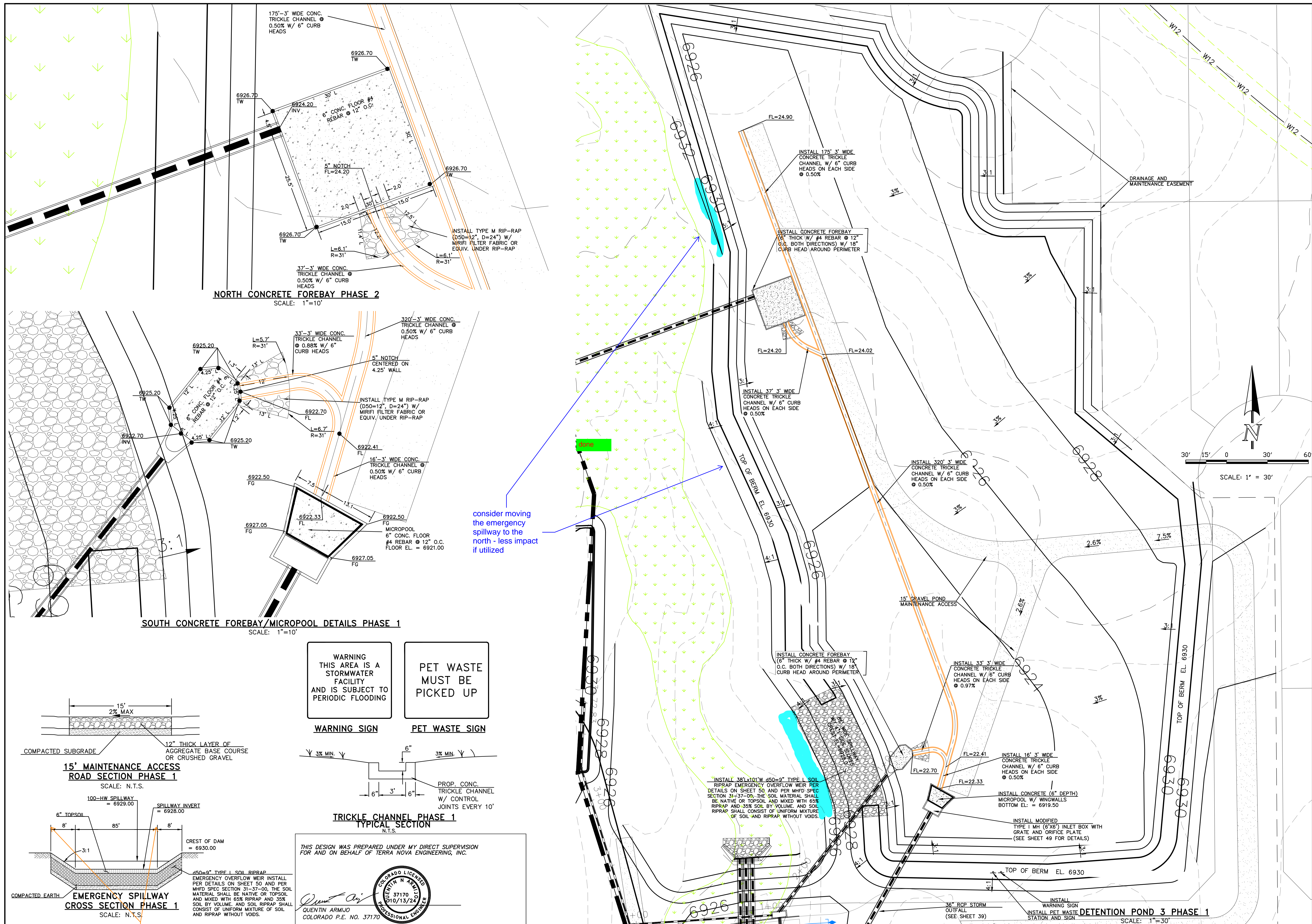
Does this have a bottom?

UNRESOLVED FROM SUBMITTAL 1: WHAT IS THIS MATERIAL TYPE AND DEPTH?

NO LONGER HAS

What are the dimensions of this micropool? It appears to have some bottom width and then it goes up in elevation. Clarify and fully show micropool.

DATE	
REVISIONS	
NO.	
DESCRIPTION	
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPLICABLE REVIEWING AGENCIES, TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECT AND ONLY AS AUTHORIZED BY WRITTEN AUTHORIZATION.	
PREPARED FOR:	ACM ALF VIII JV SUB II LLC
ATTN:	JASON POKK
ADDRESS:	1000 E. MISSISSIPPI AVE., STE 500
CITY:	DENVER, CO 80246
PHONE:	303-984-9800
721 S. 23RD STREET COLORADO SPRINGS, CO 80904 OFFICE: 719-635-6422 FAX: 719-635-6426 www.terra-nova.com	
WATERBURY FILING NO. 1 CONSTRUCTION SET POND 2 DETAILS	
DESIGNED BY	DLF
DRAWN BY	QNA
CHECKED BY	QNA
H-SCALE	NA
V-SCALE	N/A
JOB NO.	2356.00
DATE ISSUED	10/4/24
SHEET NO.	47 OF 52



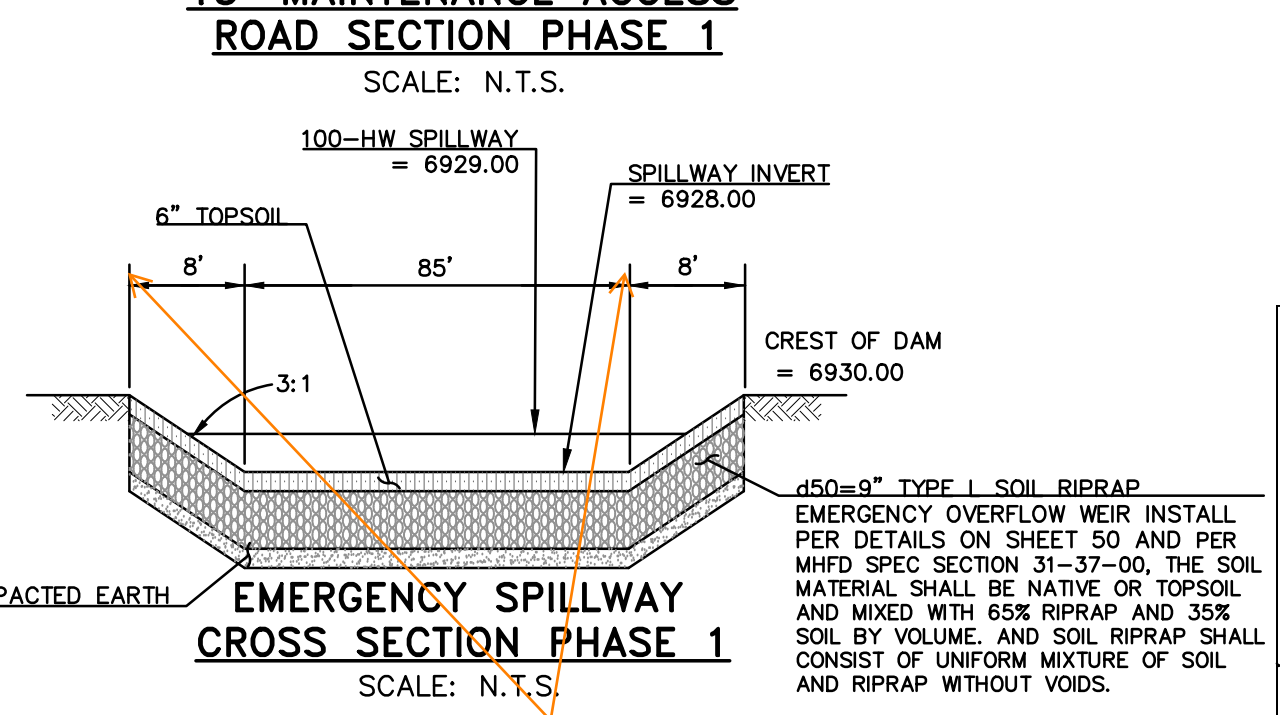
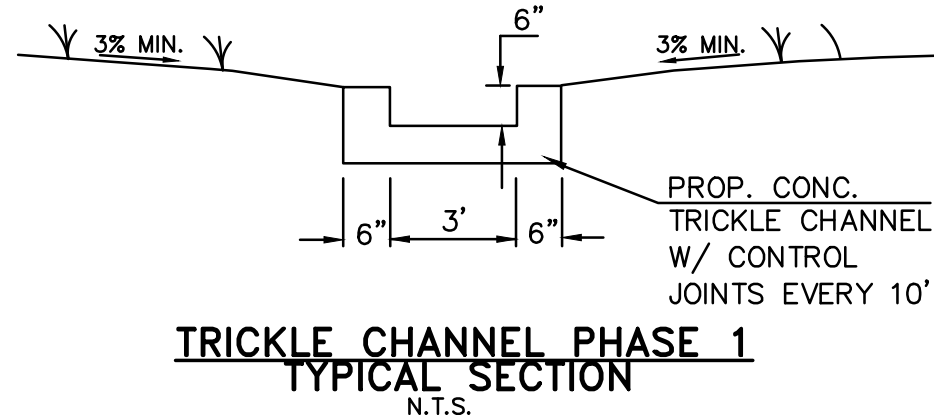
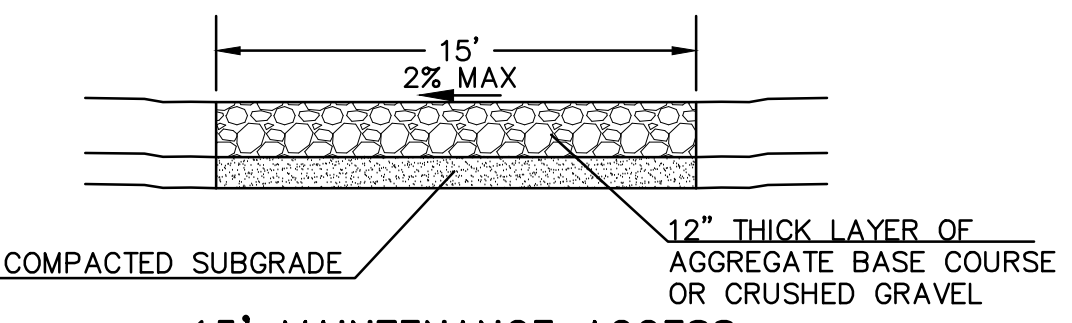
NORTH CONCRETE FOREBAY PHASE 2
SCALE: 1"=10'

SOUTH CONCRETE FOREBAY/MICROPOOL DETAILS PHASE 1
SCALE: 1"=10'

WARNING
THIS AREA IS A
STORMWATER
FACILITY
AND IS SUBJECT TO
PERIODIC FLOODING

**PET WASTE
MUST BE
PICKED UP**

WARNING SIGN **PET WASTE SIGN**



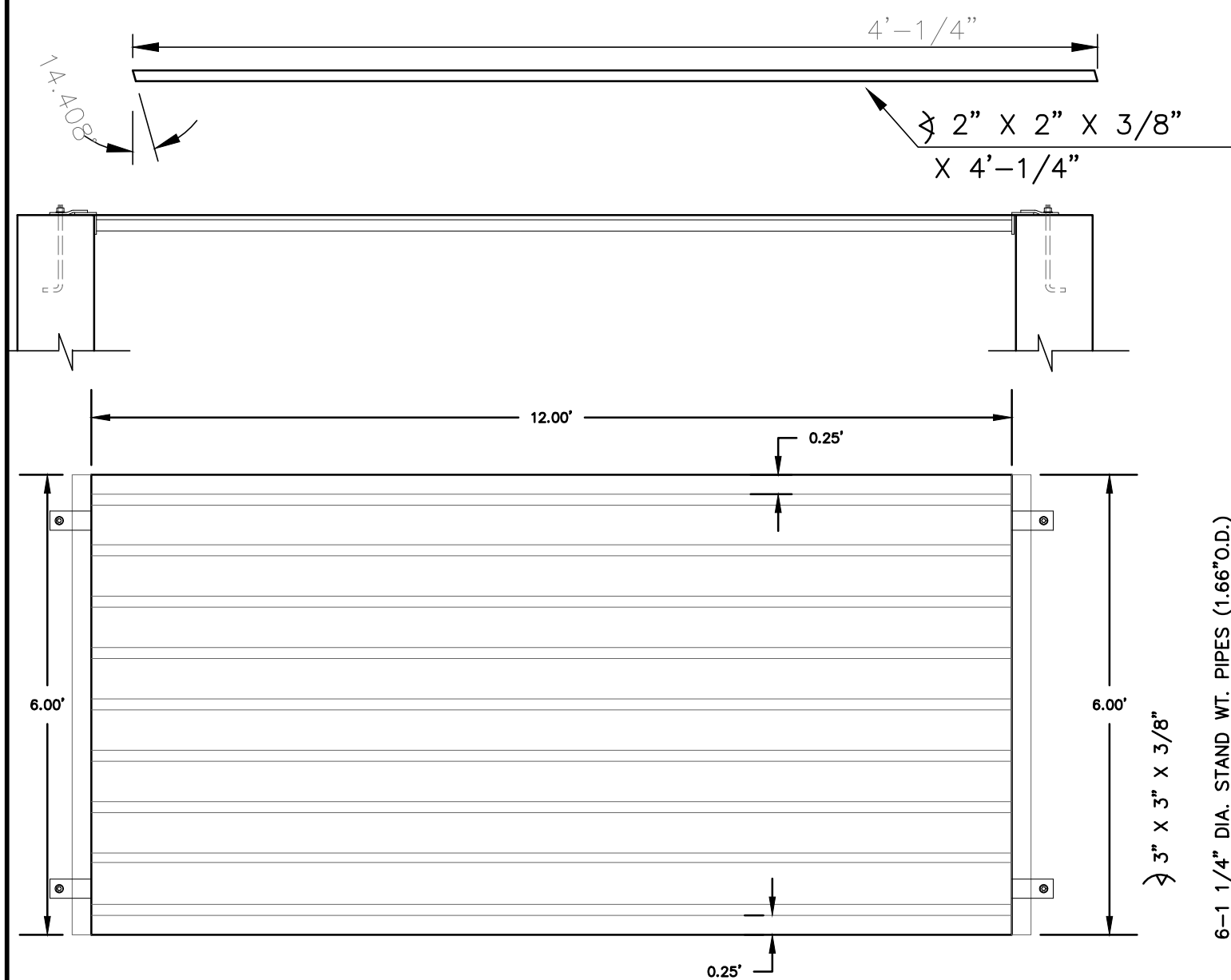
THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

Quentin Armi
QUENTIN ARMI
COLORADO P.E. NO. 37170

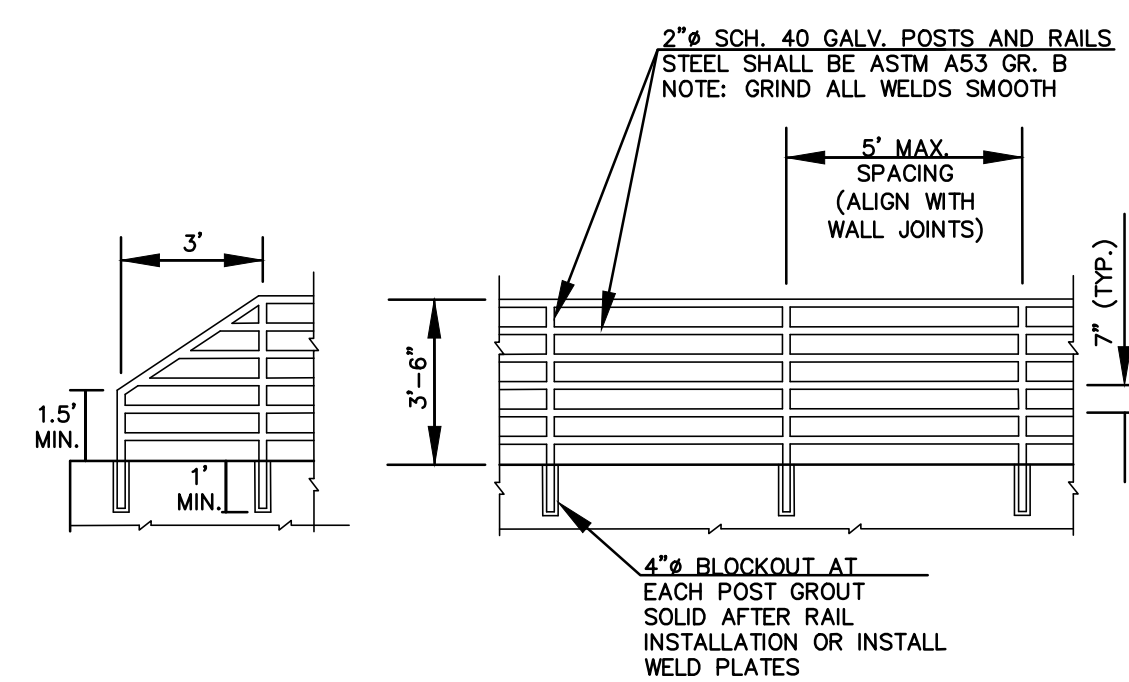
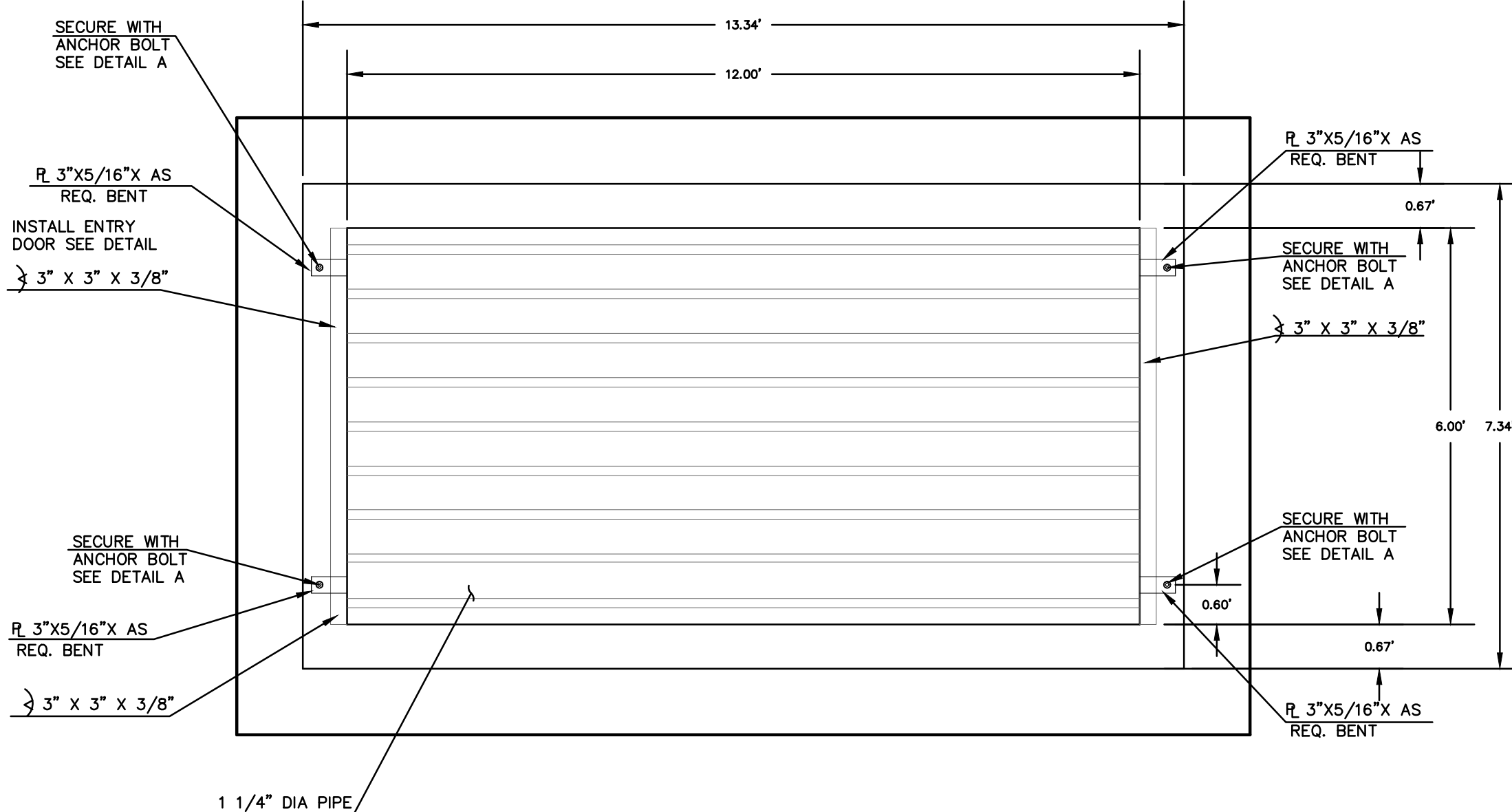
DATE	
DESCRIPTION	
REVISIONS	
NO.	
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPLICABLE REVIEWING AGENCIES, TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECTS AUTHORIZED BY WRITTEN AUTHORIZATION.	
PREPARED FOR: ACM ALF VIII JV SUB II LLC ATTN: JASON POCK 100 E. MISSISSIPPI AVE., STE 500 DENVER, CO 80246 303-984-9800	
 Terra Nova Engineering, Inc. Civil Engineering 711 S. 23RD STREET COLORADO SPRINGS, CO 80904 OFFICE: 719-635-6422 FAX: 719-635-6426 www.tnecinc.com	
WATERBURY FILING NO. 1	
CONSTRUCTION SET POND 3 DETAILS	
DESIGNED BY DLF	
DRAWN BY QNA	
CHECKED BY QNA	
H-SCALE NA	
V-SCALE N/A	
JOB NO. 2356.00	
DATE ISSUED 10/4/24	
SHEET NO. 48 OF 52	

Unresolved from Submittal 1: with 2ft elevation change and 3:1 slopes, these should be 6ft

REVISED TO 4:1

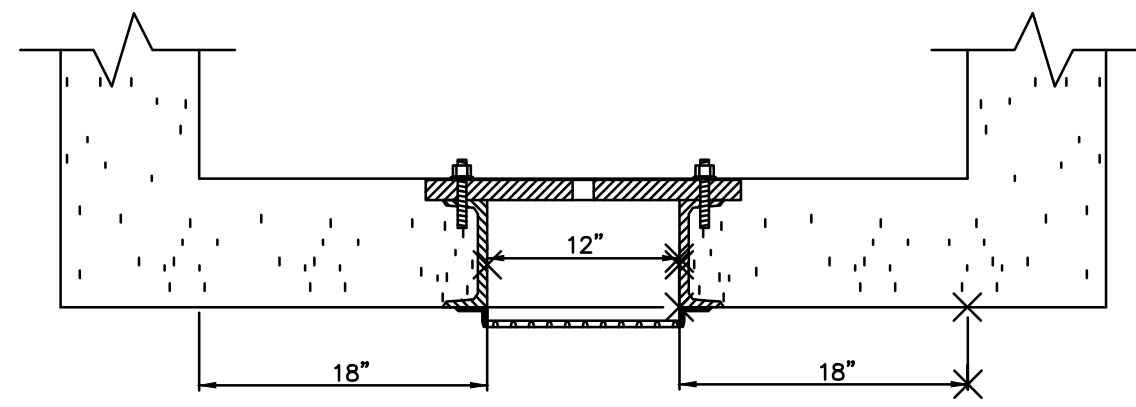


POND 3 GRATE PHASE 1 CONSTRUCTION
ALL WELDED CONSTRUCTION
SCALE: N.T.S.



NOTES:

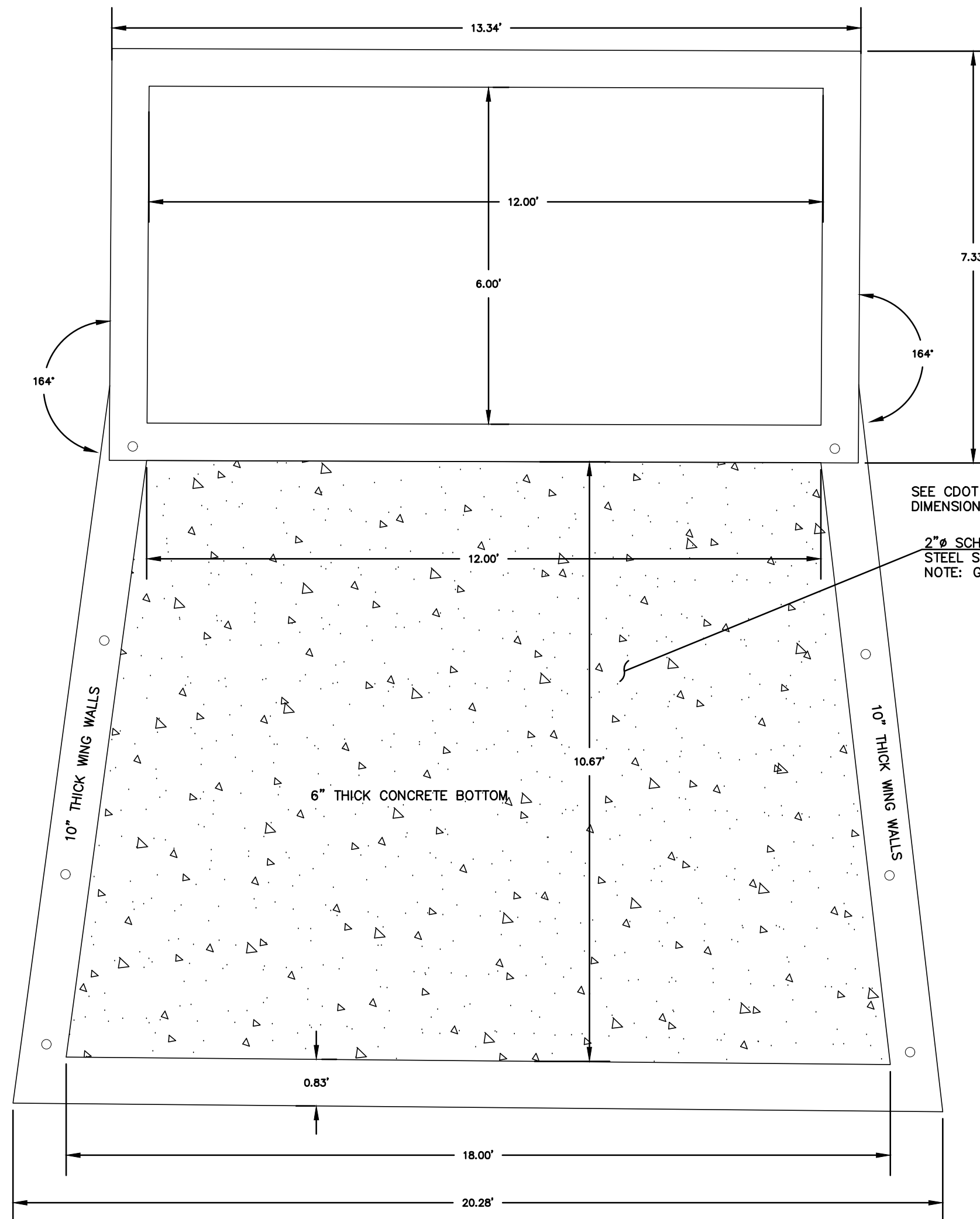
1. WELD PLATES MAY BE SUBSTITUTED FOR PIPE EMBEDMENT.
2. CONTRACTOR SHALL SUBMIT HANDRAIL SHOP DRAWINGS TO ENGINEER OF RECORD FOR APPROVAL PRIOR TO FABRICATION.
3. DESIGN CRITERIA SHALL BE IN ACCORDANCE WITH AASHTO STANDARDS.
4. HANDRAIL DESIGN SHALL BE COMPATIBLE WITH THE DESIGN OF THE WINGWALLS AND HEADWALLS.
5. RAILING POSTS SHALL BE SET TO NORMAL TO GRADE. RAILS SHALL RUN PARALLEL TO THE SLOPES OF TOPS OF THE WALLS.
6. ALL RAILS SHALL HAVE EXPANSION JOINTS SPACED AT 40'-0" MAX. JOINT ENDS SHALL BE FREE OF ANY SHARP EDGES OR CORNERS.



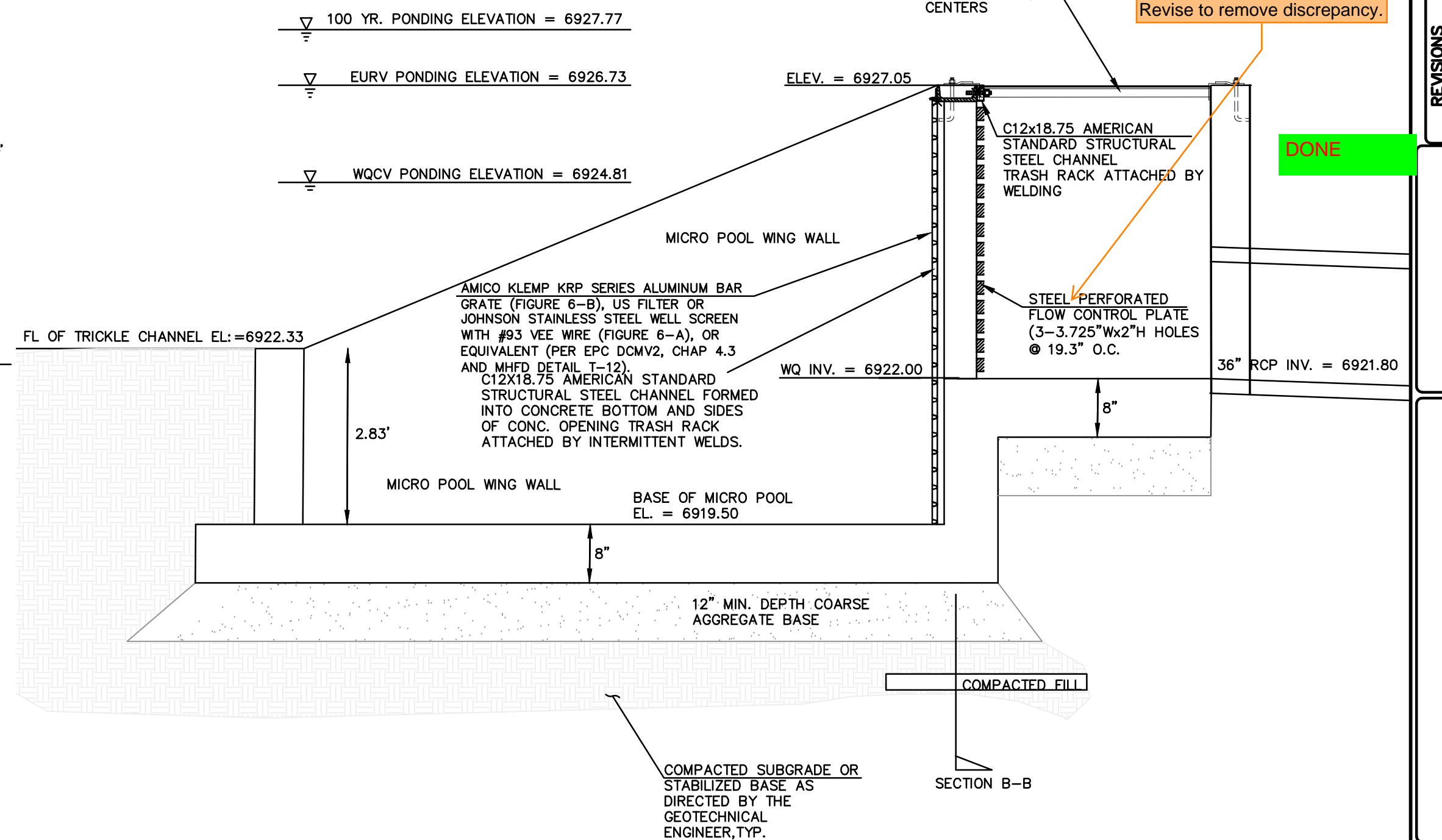
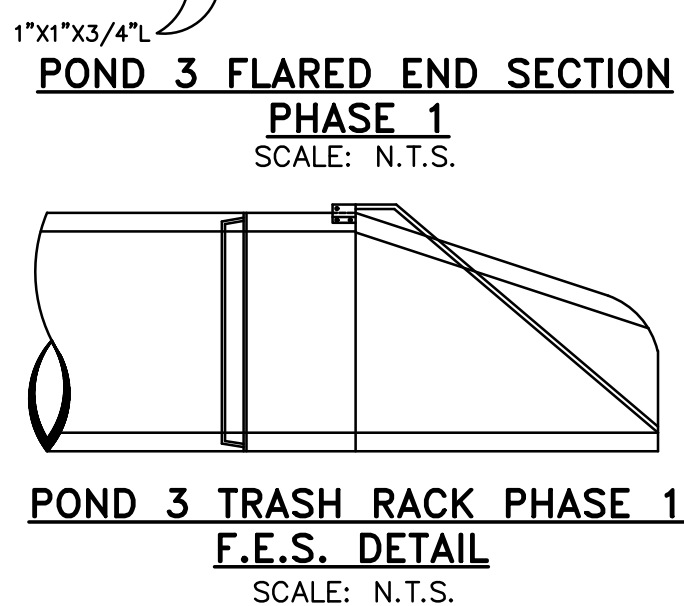
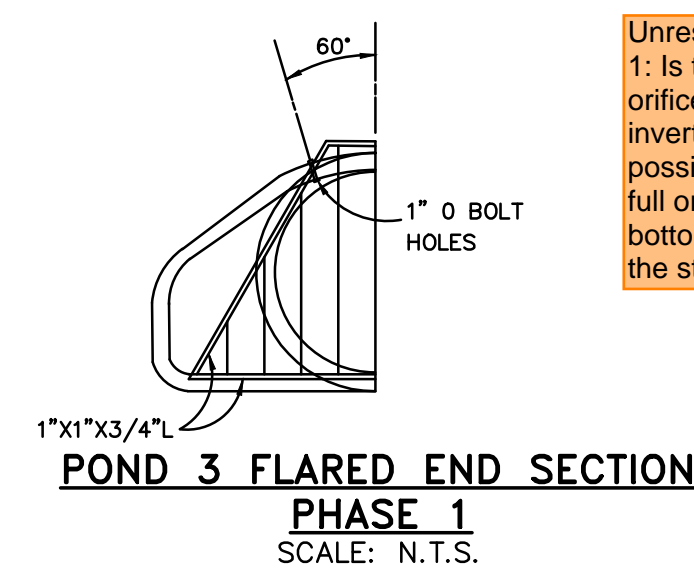
SECTION B-B
SCALE: 1"=1'

STEEL FABRICATION NOTES:

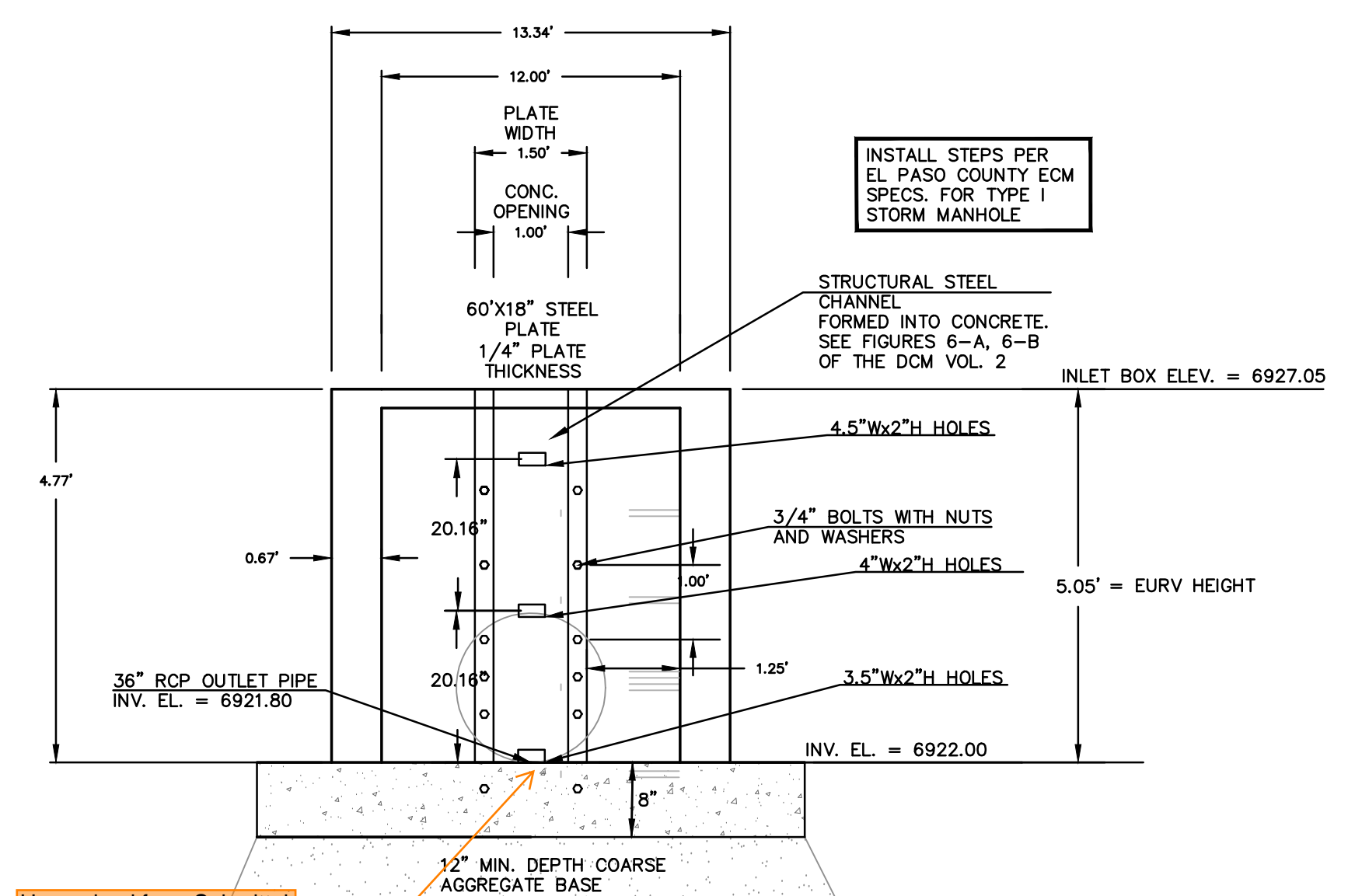
- FABRICATED STEEL STRUCTURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH AISC AND AWS SPECIFICATIONS.
3. THE OUTLET STRUCTURE BARGRATE IS DESIGNED FOR A VERTICAL LOAD OF 300 LBS./SQ. FT.
- ALL STRUCTURAL STEEL SHAPES TO INCLUDE: ANGLE, PLATE, AND BAR SHALL MEET ASTM A36 SPECIFICATIONS, FY = 36 KSI MINIMUM. STRUCTURAL TUBING SHALL MEET ASTM A500 GRADE B SPECIFICATIONS, FY = 48 KSI MINIMUM. STEEL PIPE SHALL BE STANDARD WEIGHT PIPE ASTM A53 GRADE B, FY = 35 KSI MINIMUM.
- WELDS NOT INDICATED SHALL BE 1/8" MINIMUM FILLET OR GROOVE, CONTINUOUS SO FAR AS POSSIBLE. CONSIDER VANDALISM LOADS, WELD ACCORDINGLY AT CRITICAL LOCATIONS.
8. PRIOR TO PAINTING REMOVE ALL OIL, SCALE, AND SLAG, GRIND OFF BURRS AND SHARP EDGES.



POND 3 CONCRETE MICROPOOL PHASE 1
SCALE: N.T.S.



POND 3 OUTLET STRUCTURE MODIFIED TYPE 1 MH PHASE 1
SCALE: N.T.S.



POND 3 OUTLET STRUCTURE MODIFIED TYPE 1 MH PHASE 1
SCALE: N.T.S.

Unresolved from Submittal 1: Is this an orifice? The orifice hole center is at the invert - this would not be possible to construct the full orifice hole as the bottom half is lower than the structural steel plate.

DONE

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.



DATE	
DESCRIPTION	
REVISIONS	
NO.	
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPLICABLE AGENCIES: TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECT AND ONLY AS AUTHORIZED BY WRITTEN AUTHORIZATION.	
PREPARED FOR:	ACM ALF VIII JV SUB II LLC
ATTN:	JASON POCK
ADDRESS:	100 E. MISSISSIPPI AVE., STE 500 DENVER, CO 80246
PHONE:	303-984-9800
ADDRESS:	721 S. 23RD STREET, COLORADO SPRINGS, CO 80904
PHONE:	719-635-6422
FAX:	719-635-6426
WEBSITE:	www.tnec.com
WATERBURY FILING NO. 1	
CONSTRUCTION SET	POND 3 DETAILS
DESIGNED BY:	DLF
DRAWN BY:	QNA
CHECKED BY:	QNA
H-SCALE:	NA
V-SCALE:	N/A
JOB NO.:	2356.00
DATE ISSUED:	10/4/24
SHEET NO.:	49 OF 52

Riprap Materials

STEP 1 (Materials):

- Riprap should be crushed, angular granite.
- Verify that riprap meets requirements for color, size and gradation. Confirm size and gradations by checking delivery tickets and measure dimensions of the rock using a tape measure.
- Due to quarry availability and material variability, it may be necessary to adjust the size. Get approval from the Engineer before making any material adjustments.

The District has 5 different riprap sizes or gradations:

- Type VL (D50 6")
- Type L (D50 9")
- Type M (D50 12")
- Type H (D50 18")
- Type VH (D50 24")



Type VH Riprap (D50 = 24-inches)

Conventional and Soil Riprap Construction Guidance Checklist

4

Riprap Materials

Table 1: Riprap Gradation

Riprap Designation	% Smaller than Given Size by Weight	Intermediate Rock Dimension (inches)	d_{50} (inches)
Type VL	70 - 100	12	6
	50 - 70	9	
	35 - 50	6	
	2 - 10	2	
Type L	70 - 100	15	9
	50 - 70	12	
	35 - 50	9	
	2 - 10	3	
Type M	70 - 100	21	12
	50 - 70	18	
	35 - 50	12	
	2 - 10	4	
Type H	70 - 100	30	18
	50 - 70	24	
	35 - 50	18	
	2 - 10	6	
Type VH	70 - 100	41	24
	50 - 70	33	
	35 - 50	24	
	2 - 10	9	

* d_{50} - Mean Particle Size

Conventional and Soil Riprap Construction Guidance Checklist

6

Soil Riprap Mixing

STEP 2 (Soil Riprap Mixing):

- Soil riprap is created by mixing 2/3 riprap with 1/3 soil by volume. Soil material should be native or topsoil.
- Front end loaders or excavators should be used to scoop up the riprap and soil material and add into a combined mixing pile.
- Verify that the proper proportions of the riprap and soil are used.
- Verify that the materials are thoroughly mixed using a loader or large track excavator. The final product should consist of a uniform mixture of soil and riprap without voids.



Soil riprap being mixed

Conventional and Soil Riprap Construction Guidance Checklist

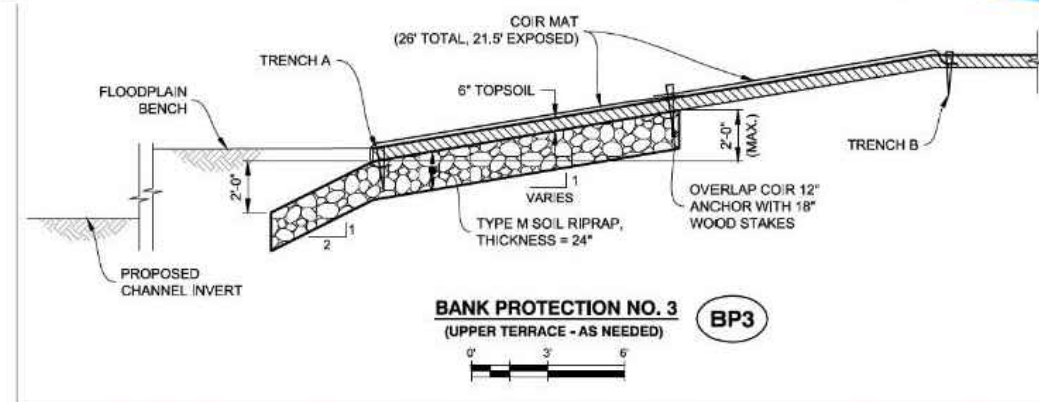
7

Conventional/Soil Riprap Subgrade

STEP 3 (Subgrade):

Verify that the subgrade is prepared prior to riprap installation.

- Confirm that areas to receive riprap are excavated to a depth that accounts for the riprap thickness, topsoil and granular bedding thickness if specified.
- Subgrade should be firm and unyielding.
- There should be no groundwater present during riprap installation.



Excavated subgrade for riprap

Conventional and Soil Riprap Construction Guidance Checklist

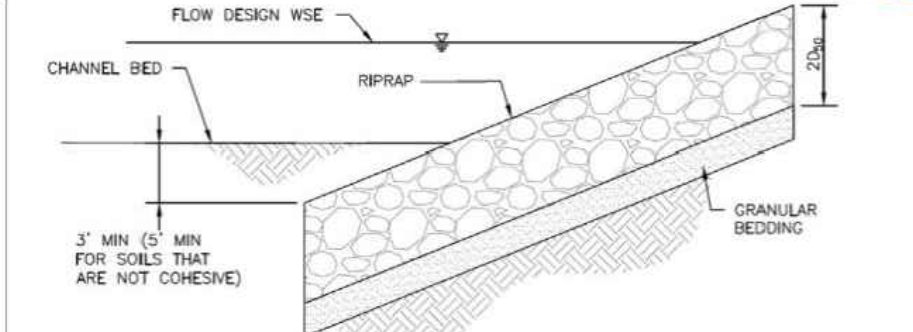
8

Conventional/Soil Riprap Installation

STEP 4 (Bedding):

Granular bedding material is generally required under conventional riprap to prevent piping of underlying subgrade soils. It is not typically required for soil riprap. Verify that:

- Granular bedding is crushed, angular rock that meets gradation requirements.
- Granular bedding is placed at specified thickness.



Conventional Riprap with Bedding



Granular Bedding

Conventional and Soil Riprap Construction Guidance Checklist

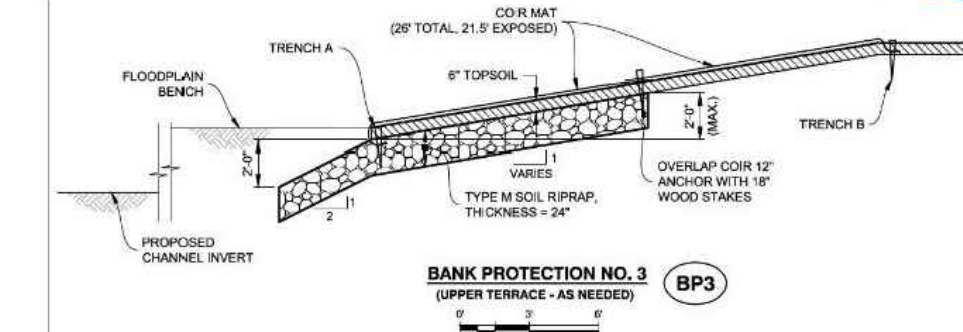
9

Conventional/Soil Riprap Installation

STEP 5 (Installation):

Riprap should be installed to the lines and grades shown on the plans. Verify that:

- Riprap is placed at thickness specified.
- Riprap is placed and well distributed such that there are no large accumulations of either smaller or larger sizes of stone. If segregation occurs during placement, riprap will need to be reworked to ensure that it is well mixed.
- Larger rock material is flush to the top surface and arranged to minimize voids with smaller rock material in between.



Soil riprap installation complete before topsoil placement

Conventional and Soil Riprap Construction Guidance Checklist

10

Conventional/Soil Riprap Installation

STEP 5 (Installation continued):

- Make sure that conventional and soil riprap is consolidated and compacted with an excavator bucket (plated) or a tracked piece of equipment to smooth the surface and interlock the rock material.
- For soil riprap, verify that there are no excessively thick zones or pockets of soil that could create a weak spot and be prone to washing out.



Conventional and Soil Riprap Construction Guidance Checklist

11

Conventional/Soil Riprap Installation

STEP 5 (Installation continued):

- Following placement, soil riprap is sometimes specified to be buried with several inches of topsoil.



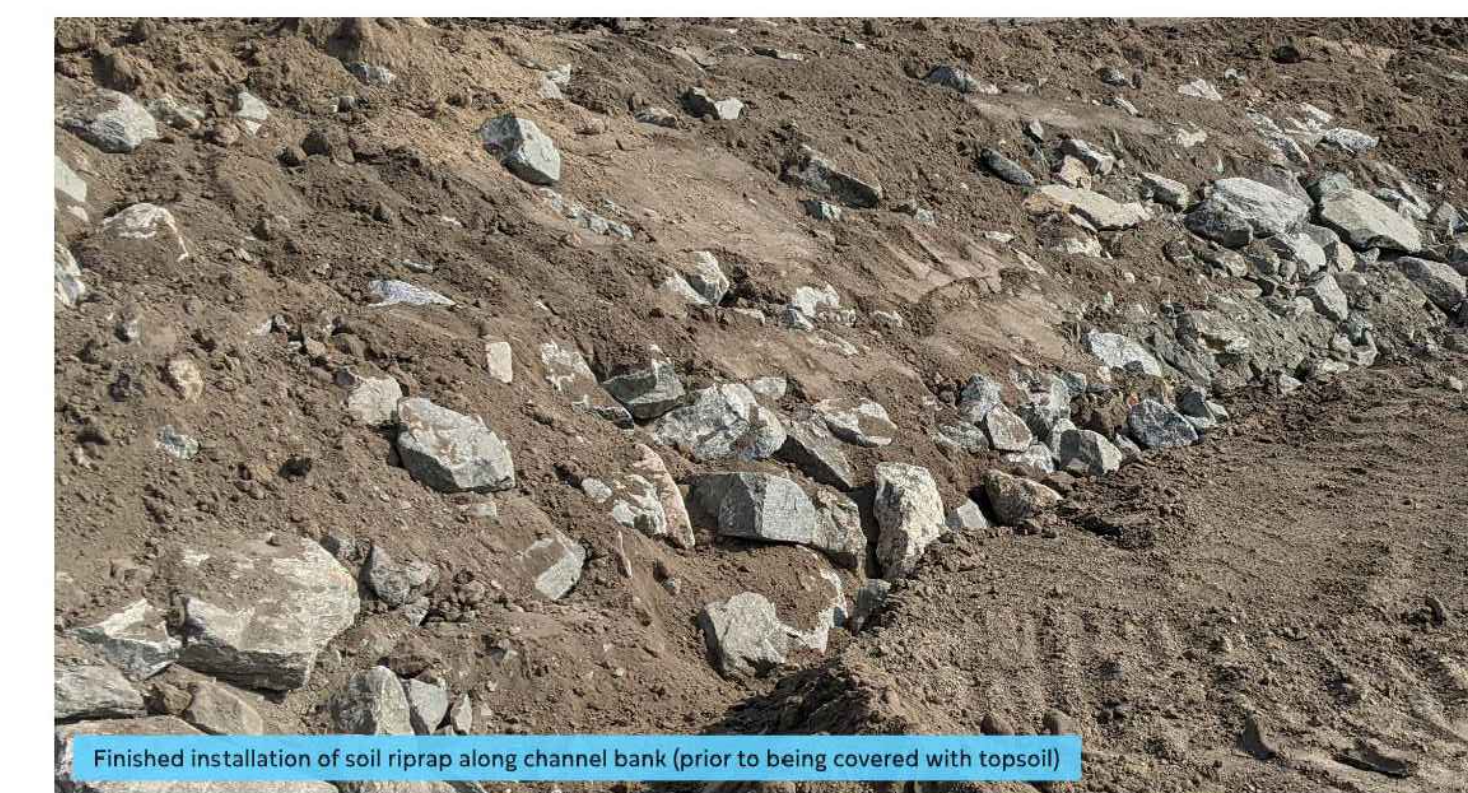
Soil riprap installed and ready to be covered with topsoil

Conventional and Soil Riprap Construction Guidance Checklist

12

Finished Installation

After mixing, placing and compacting, soil riprap should be smooth on the surface and all the voids filled with soil.



Finished installation of soil riprap along channel bank (prior to being covered with topsoil)

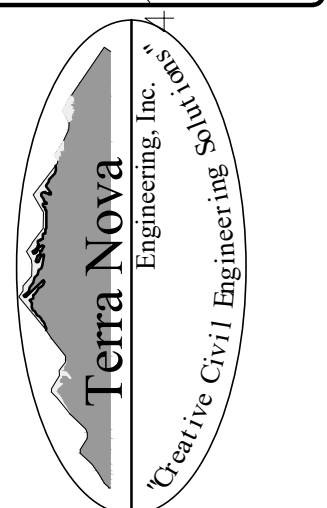
Conventional and Soil Riprap Construction Guidance Checklist

14

REVISIONS	NO.	DESCRIPTION	DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE REVIEWING AGENCIES, TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED BY WRITTEN AUTHORIZATION.

PREPARED FOR:
ACM ALF VIII JV SUB II LLC
ATTN: JASON POCK
700 E. MISSISSIPPI AVE., STE 500
DENVER, CO 80246
303-984-9800

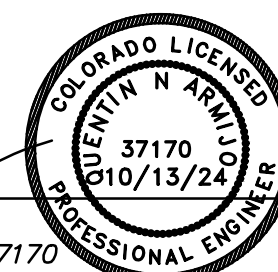


721 S. 23RD STREET
COLORADO SPRINGS, CO 80904
OFFICE: 719-635-6422
FAX: 719-635-6426
www.tneshc.com

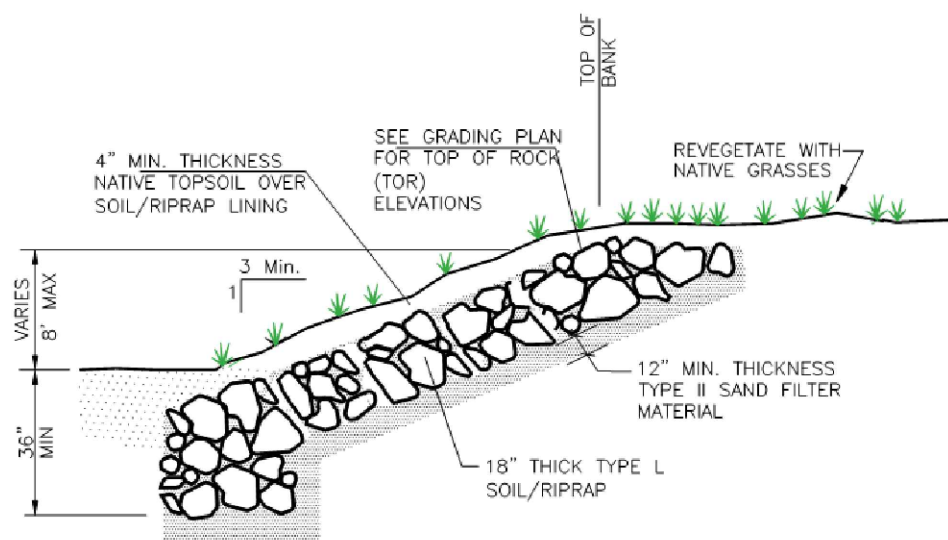
WATERBURY FILING NO. 1
CONSTRUCTION SET
SOIL RIPRAP DETAILS

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

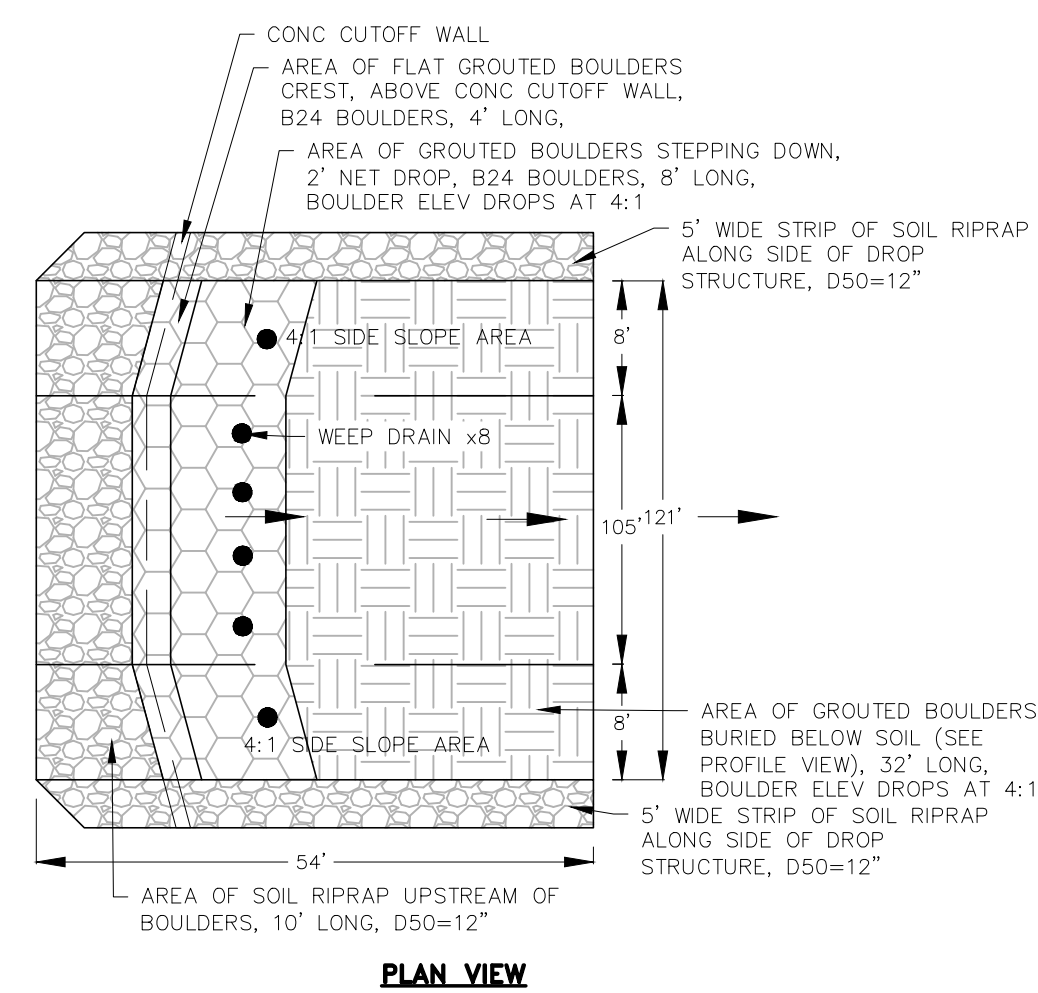
DESIGNED BY DLF
DRAWN BY QNA
CHECKED BY QNA
H-SCALE NA
V-SCALE N/A
JOB NO. 2356.00
DATE ISSUED 10/4/24
SHEET NO. 50 OF 52



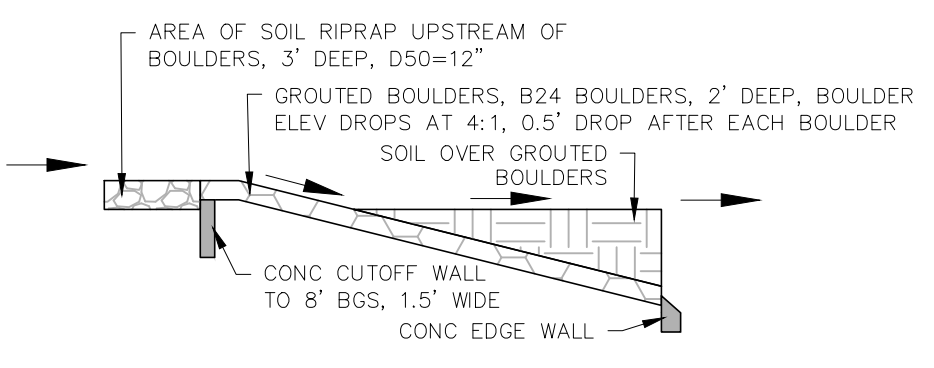
Quentin Armijo
COLORADO P.E. NO. 37170



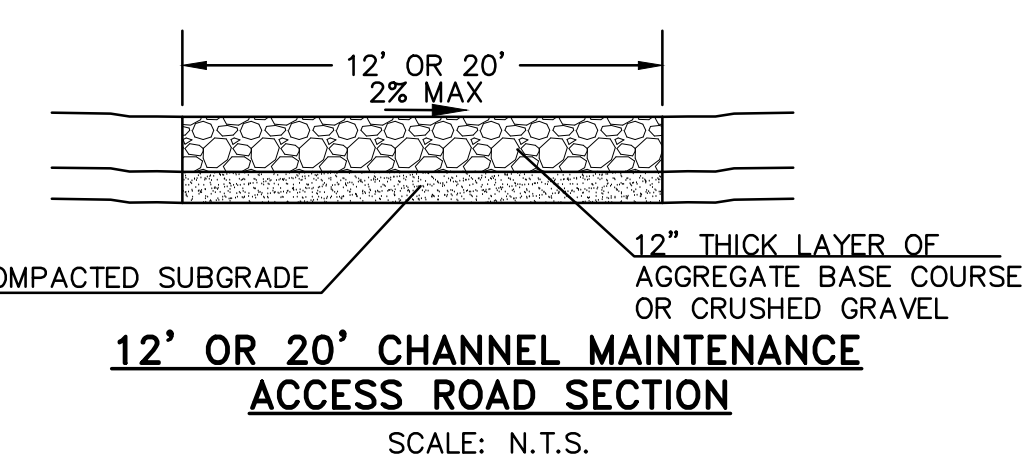
TYPICAL SOIL/RIPRAP BANK LINING
SCALE: N.T.S.



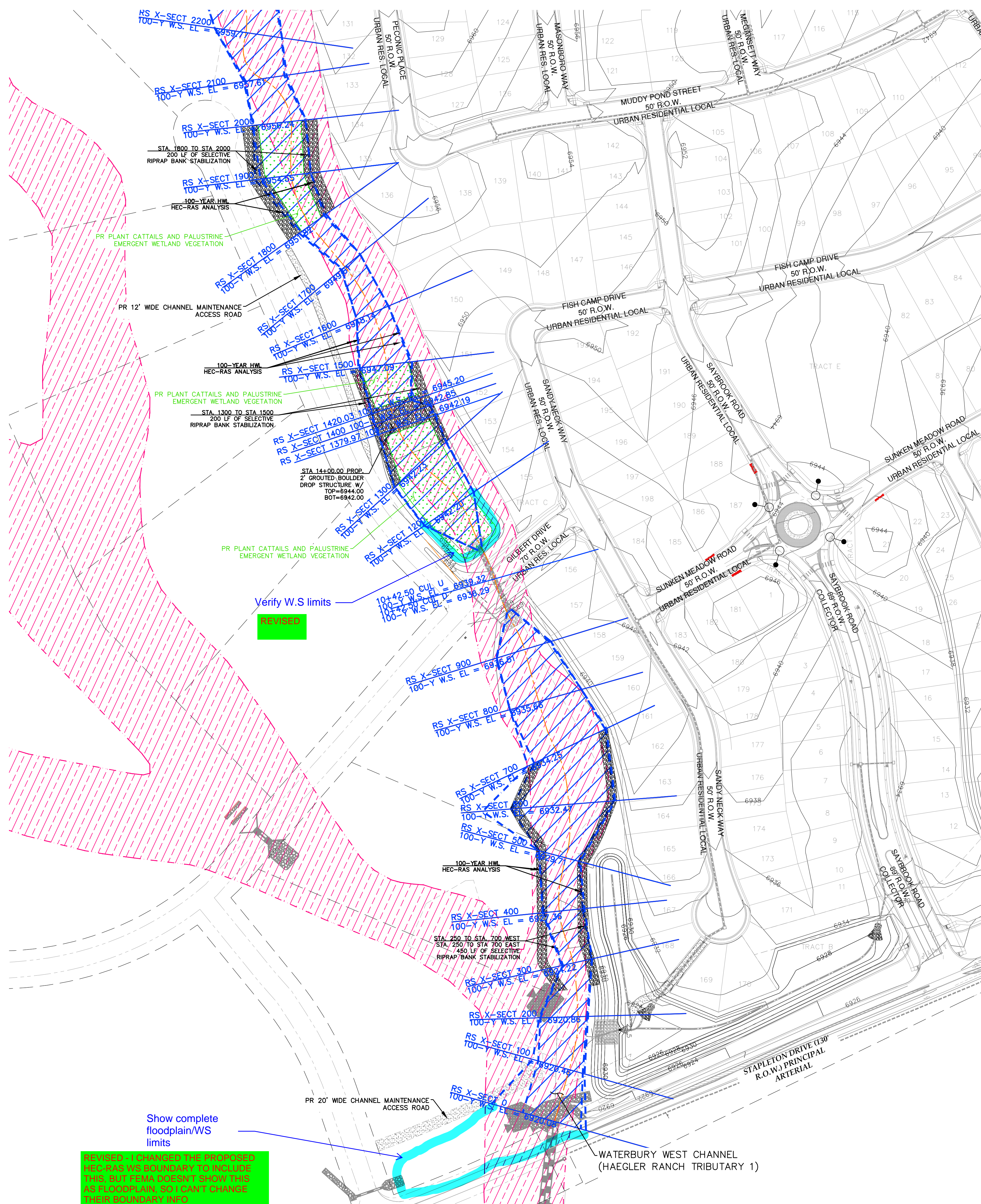
PLAN VIEW



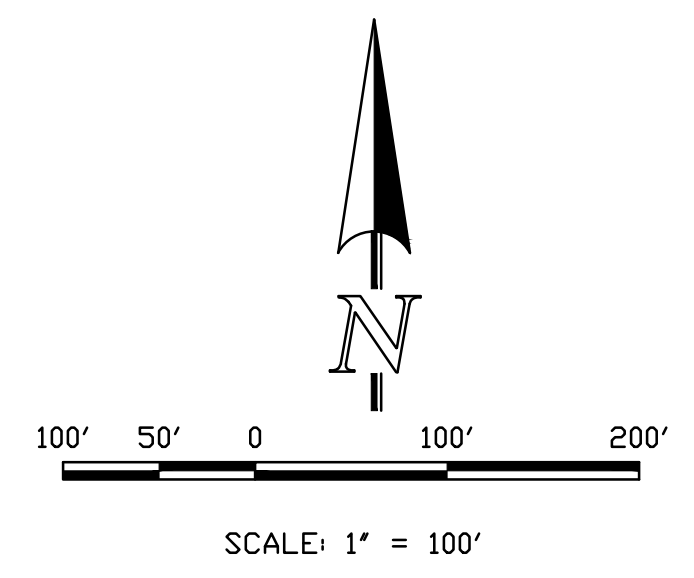
PROFILE VIEW (CENTER LINE)
GROUTED BOULDER DROP STRUCTURE DETAIL
NOT TO SCALE



12' OR 20' CHANNEL MAINTENANCE ACCESS ROAD SECTION
SCALE: N.T.S.



REVISED: I CHANGED THE PROPOSED W.S. AND HIS BOUNDARY TO INCLUDE THIS, BUT TERRA DOESN'T SHOW THIS AS FLOODPLAIN, SO I CAN'T CHANGE THEIR BOUNDARY INFO



GENERAL NOTES

- B24 BOULDERS ARE 24" MIN.

CONSTRUCTION REQUIREMENT NOTES

- GROUT DEPTH RANGES FROM HALF TO FULL BOULDER HEIGHT. ALL GROUT SHALL BE A MINIMUM HALF BOULDER HEIGHT.
- AN EDGE WALL IS REQUIRED AROUND THE ENTIRE DROP STRUCTURE.
- THE MAX ALLOWABLE INDIVIDUAL DROP HEIGHT OFF A BOULDER IS 1.5' (0.5' USED IN DESIGN).

CHANNEL REVEGETATION SPECS (OUTSIDE WETLANDS)

SEED DISTURBED CHANNEL AREA PER COLORADO SPRINGS SCM TABLE 5-1 EL PASO COUNTY CONSERVATION DISTRICT ALL-PURPOSE MIX FOR UPLAND, TRANSITION AND PERMANENT CONTROL MEASURE AREAS AND COLORADO SPRINGS DCM VOL 1 TABLE 14-10 'WILDFLOWER MIX'. SEED ALL DISTURBED.

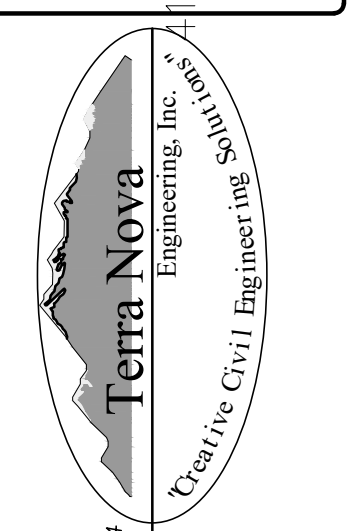
Verify W.S limits
REVISED

Provide a legend
DONE

REVISIONS	NO.	DESCRIPTION	DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE ENGINEER, TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECT AND FOR THE WRITTEN AUTHORIZATION.

PREPARED FOR:
ACM ALF VIII JV SUB II LLC
ATTN: JASON POCK
100 E. MISSISSIPPI AVE., STE 500
DENVER, CO 80246
303-984-9800



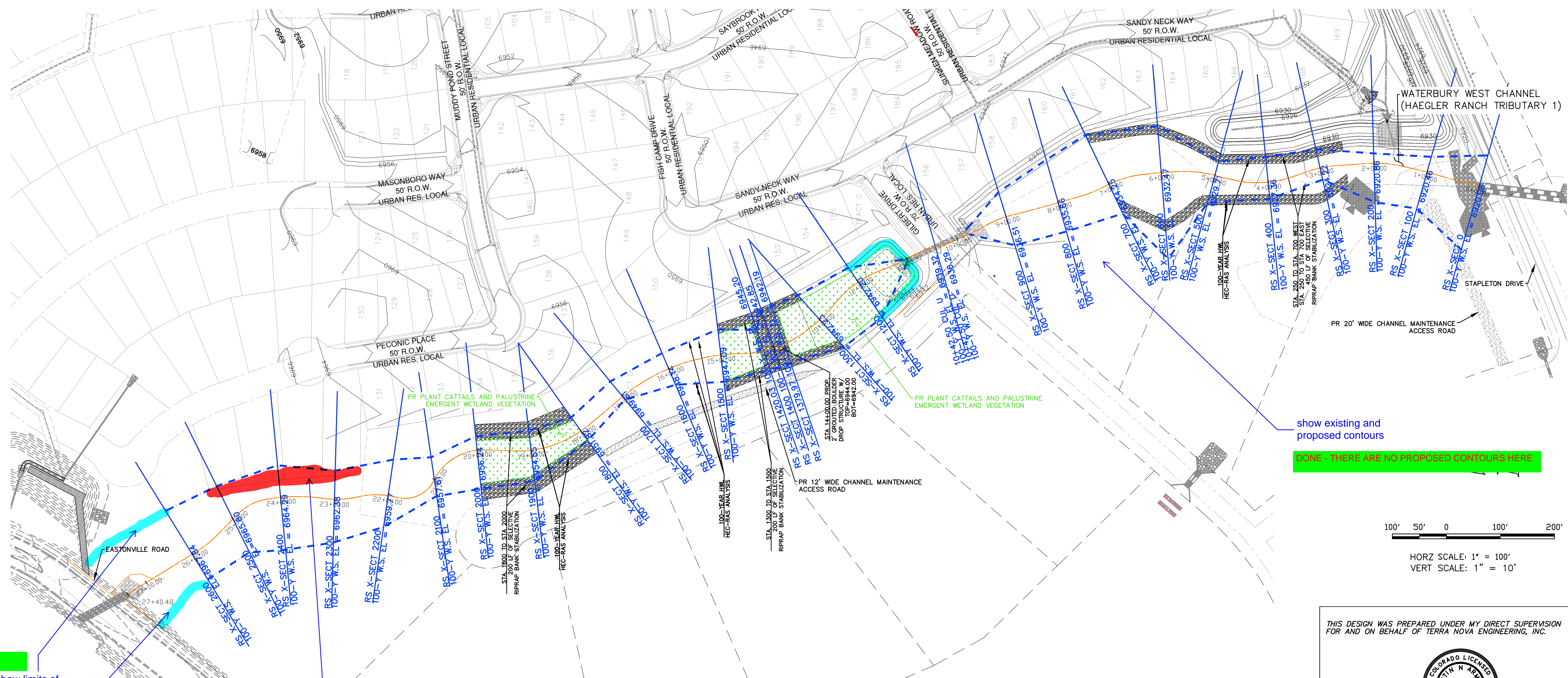
WATERBURY FILING NO. 1
CONSTRUCTION SET
WEST CHANNEL - CHANNEL IMPROVEMENTS PLAN

DESIGNED BY DLF
DRAWN BY QNA
CHECKED BY QNA
H-SCALE AS SHOWN
V-SCALE N/A
JOB NO. 2356.00
DATE ISSUED 10/4/24
SHEET NO. 51 OF 52

THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

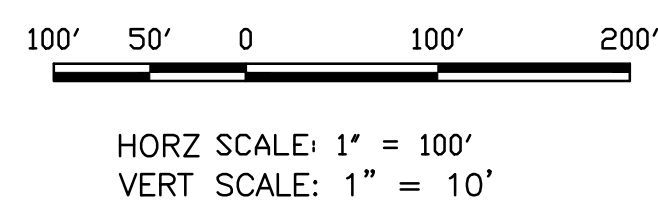


QUENTIN ARMILJO
COLORADO P.E. NO. 37170



WATERBURY WEST CHANNEL (HAEGLER RANCH TRIBUTARY 1) PLAN & PROFILE VIEW
 HORZ SCALE: 1"=100' - VERT SCALE: 1"=10'

show existing and proposed contours
 DONE - THERE ARE NO PROPOSED CONTOURS HERE



THIS DESIGN WAS PREPARED UNDER MY DIRECT SUPERVISION FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

QUENTIN ARMJO
 COLORADO P.E. NO. 37170

DONE
 Show limits of floodplain

DONE
 Show all culverts and features, etc.

DONE
 lots can't be in the floodplain

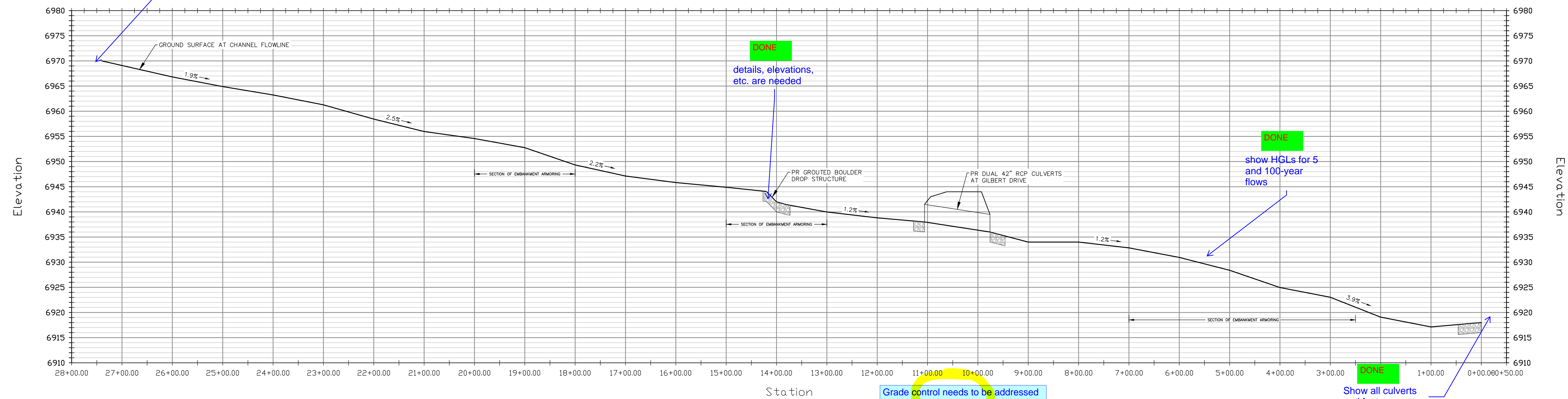
DONE
 details, elevations, etc. are needed

DONE
 show HGLs for 5 and 100-year flows

Grade control needs to be addressed per ECM 3.3.3 C and H

Show all culverts and features, etc.

Provide a P&P for the east channel also.



REVISIONS	NO.	DESCRIPTION	DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE REVIEWING AGENCIES, TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECT AND ONLY AS AUTHORIZED BY WRITTEN AUTHORIZATION.

PREPARED FOR:
 ACM ALF VIII JV SUB II LLC
 ATTN: JASON POCK
 100 E. MISSISSIPPI AVE., STE 500
 DENVER, CO 80246
 303-984-9800

Terra Nova
 Engineering, Inc.
 721 S. 23RD STREET
 COLORADO SPRINGS, CO 80904
 OFFICE: 719-635-6422
 FAX: 719-635-6426
 www.tnec.com

WATERBURY FILING NO. 1
 CONSTRUCTION SET
 WEST CHANNEL - PLAN AND PROFILE

DESIGNED BY DLF
 DRAWN BY QNA
 CHECKED BY QNA
 H-SCALE AS SHOWN
 V-SCALE AS SHOWN
 JOB NO. 2356.00
 DATE ISSUED 10/4/24
 SHEET NO. 52 OF 52