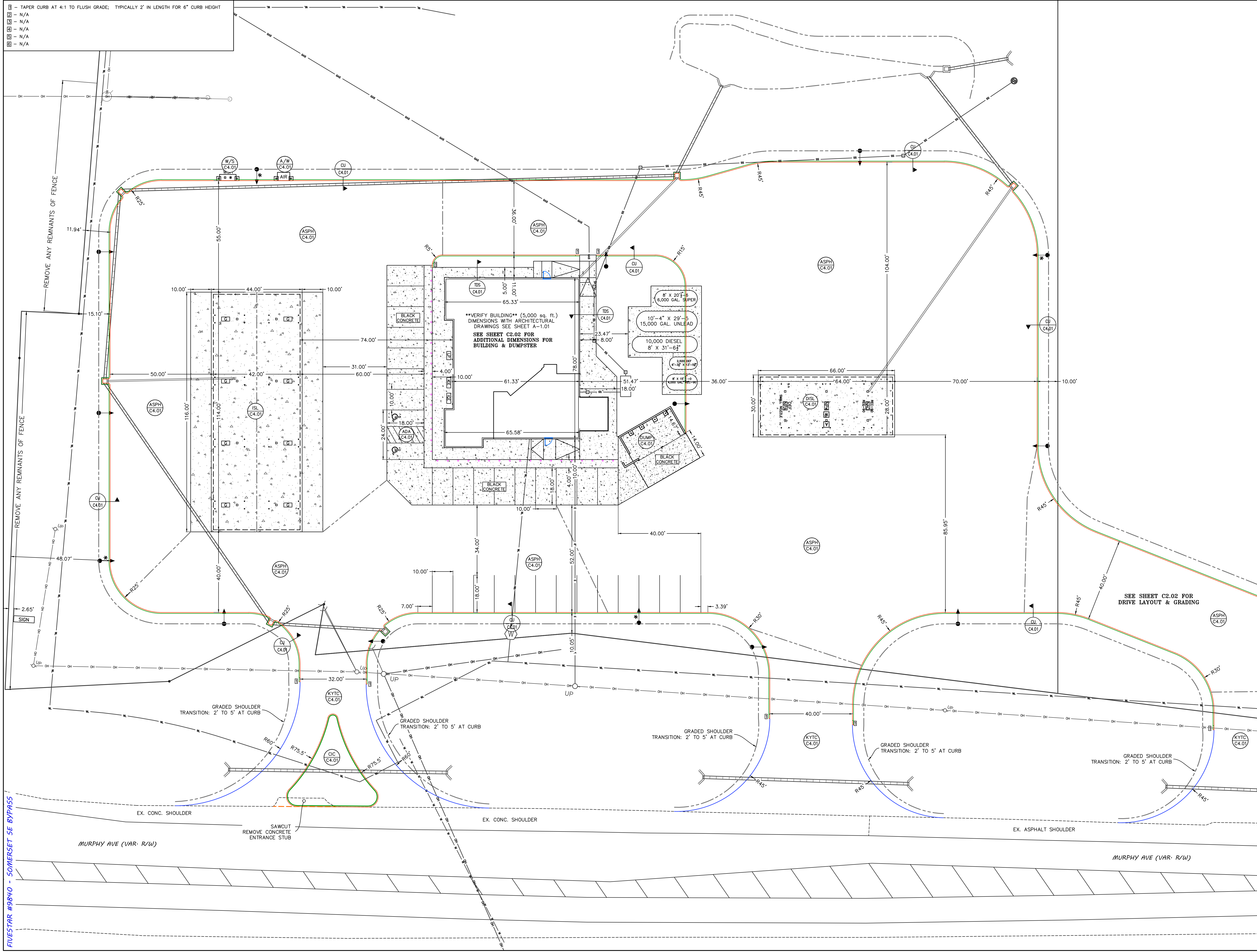
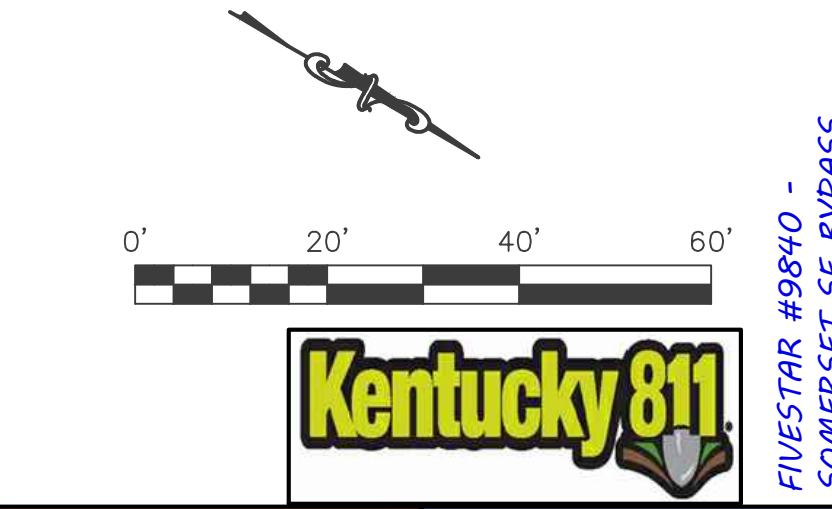
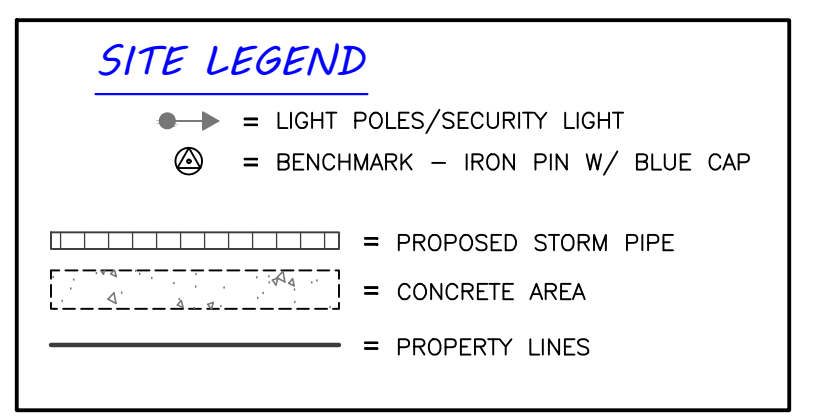


- ▭ - TAPER CURB AT 4:1 TO FLUSH GRADE; TYPICALLY 2' IN LENGTH FOR 6" CURB HEIGHT
- - N/A
- - N/A
- - N/A
- - N/A
- - N/A



- LAYOUT NOTES:**
1. PRIOR TO CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION SHALL BEGIN PRIOR TO THE CONTRACTOR RECEIVING AND REVIEWING THE REQUIRED PERMITS AND APPROVALS.
  2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DRAINAGE AND UTILITY CONNECTIONS TO ENSURE THEY CAN BE PROPERLY CONNECTED.
  3. IN THE EVENT OF A CONFLICT BETWEEN THIS DRAWING AND ANY OTHER DRAWING AND/OR SPECIFICATION, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATION.
  4. UNLESS NOTED OTHERWISE, THE DIMENSIONS AND COORDINATES SHOWN HEREON ARE TO THE EDGE OF THE ROAD CONCRETE, EDGE OF ASPHALT, FACE OF CURB, OR OUTSIDE FACE OF BUILDINGS/STRUCTURES.
  5. ALL RIGID AND/OR FLEXIBLE PAVEMENT AND STONE SHALL MEET THE MATERIALS, EQUIPMENT, CONSTRUCTION, & TESTING REQUIREMENTS OF THESE DRAWINGS AND/OR THE KENTUCKY TRANSPORTATION CABINET STANDARD SPECIFICATIONS.
  6. ALL SETBACKS SHALL BE IN ACCORDANCE WITH THE LOCAL ZONING ORDINANCE.
  7. ALL PAVEMENT MARKINGS WITHIN THE DEVELOPMENT SHALL BE PAINTED. ALL PAVEMENT MARKINGS ON CITY OR STATE R/W SHALL CONFORM TO THE REGULATIONS OF THEIR RESPECTIVE OWNER.
  8. ANY WORK WITHIN THE KYTC R/W WILL REQUIRE AN ENCROACHMENT PERMIT. ALL DISTURBED PORTIONS OF THE RIGHT OF WAY SHALL BE RESTORED TO GRASS AS PER KENTUCKY DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION).
  9. THE LOCATIONS OF THE EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE. THE EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY COORDINATING WITH THE RESPECTIVE UTILITY COMPANIES INVOLVED. PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD THE EXISTING UTILITIES FROM DAMAGES DURING THE CONSTRUCTION OF THIS PROJECT.
  10. ALL CURB STOPS AND CURB CUTS ABUTTING TRAVELED WAYS SHALL TAPER TO ASPHALT GRADE AT A MIN. 4:1 SLOPE.



**NEWCOMB OIL CO., LLC**  
 951 WITHROW CT.  
 BARDSTOWN, KY 40004



**LEBANON OFFICE:**  
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 LEBANON, KY 40033

**NATHAN ALLAN KING**  
 P.E. #24283 P.L.S. #3831  
 BUSINESS: (270) 692-0089  
 MOBILE: (270) 590-4603  
 Nathan@mkwm.net

REVISIONS:	DATE:
PLAN CREATION	8-9-2024

SCALE: 1" = 20' DATE: 8-9-23

SHEET: **C1.01**

FIVESTAR #9840 - SOMERSET SE BYPASS

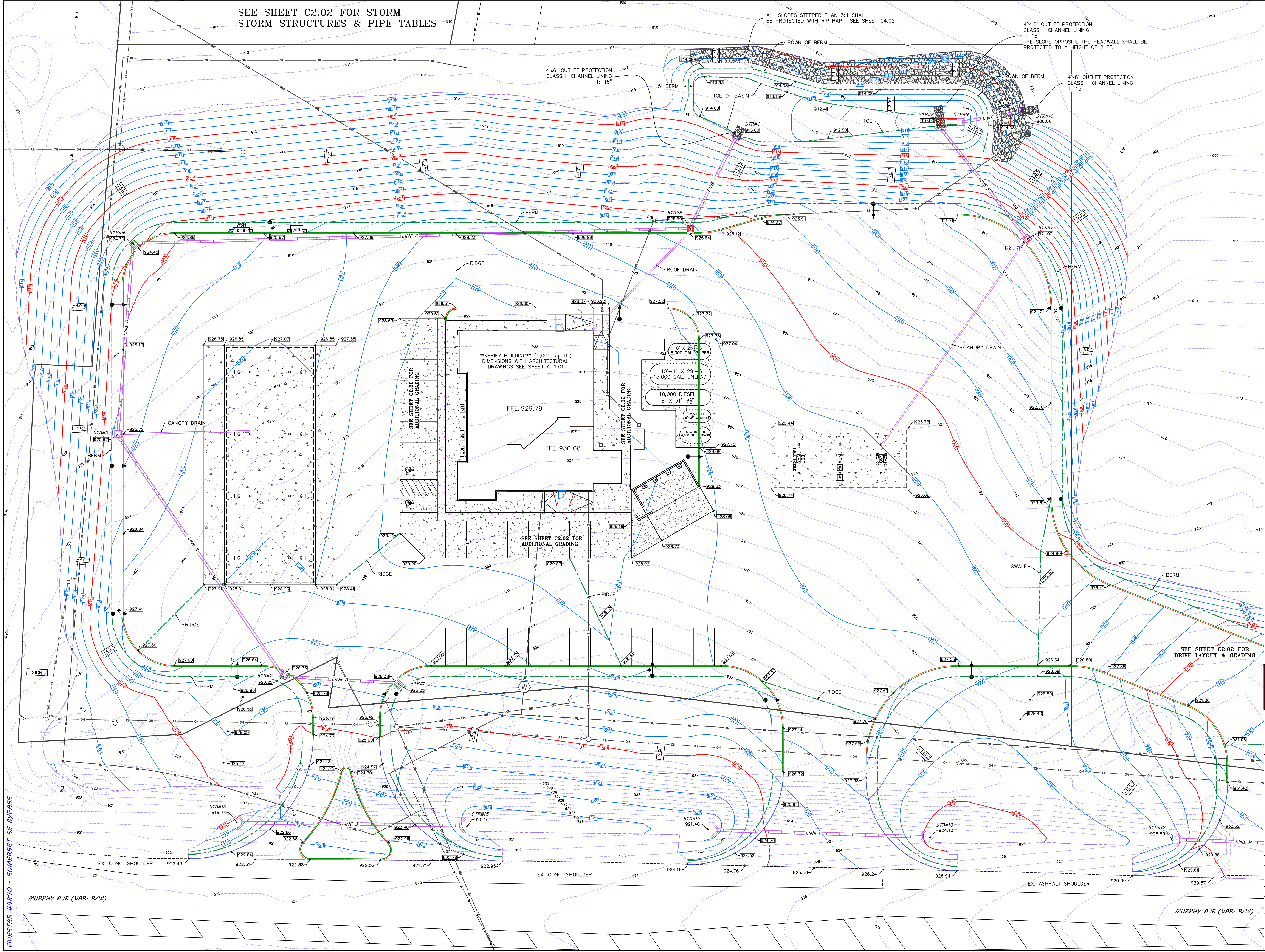
FIVESTAR #9840 - SOMERSET SE BYPASS



SEE SHEET C2.02 FOR STORM  
STORM STRUCTURES & PIPE TABLES

ALL SLOPES STEEPER THAN 3:1 SHALL  
BE PROTECTED WITH RIP RAP. SEE SHEET C4.02

4"x10" OUTLET PROTECTION  
CLASS II CHANNEL LINING  
T: 15"  
THE SLOPE OPPOSITE THE HEADWALL SHALL BE  
PROTECTED TO A HEIGHT OF 2 FT.



- DRAIN & GRADE NOTES:**
1. PRIOR TO CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR ENSURING ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION SHALL BEGIN PRIOR TO THE CONTRACTOR RECEIVING AND REVIEWING THE REQUIRED PERMITS AND APPROVALS.
  2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DRAINAGE AND UTILITY CONNECTIONS TO ENSURE THEY CAN BE PROPERLY CONNECTED.
  3. NO DISTURBANCE TO THE NATURAL GROUND SHALL TAKE PLACE PRIOR TO HAVING THE PROPOSED EROSION CONTROL PLAN APPROVED AND IN PLACE.
  4. IN THE EVENT OF A CONFLICT BETWEEN THIS DRAWING AND ANY OTHER DRAWING AND/OR SPECIFICATION, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATION.
  5. UNLESS NOTED OTHERWISE, THE SPOT ELEVATIONS SHOWN ARE TO THE BOTTOM FACE OF CURB OR SIDEWALK.
  6. THE AGGREGATE BASE & ASPHALT COURSES SHALL MEET THE MATERIALS, EQUIPMENT, CONSTRUCTION, & TESTING REQUIREMENTS OF THESE DRAWINGS AND THE CURRENT EDITION OF THE KENTUCKY TRANSPORTATION CABINET STANDARD SPECIFICATIONS.
  7. ALL SETBACKS SHALL BE IN ACCORDANCE WITH THE LOCAL ZONING ORDINANCE.
  8. THE LOCATIONS OF THE EXISTING UTILITIES SHOWN ON THESE DRAWINGS ARE APPROXIMATE. THE EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY COORDINATING WITH THE RESPECTIVE UTILITY COMPANIES INVOLVED. PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD THE EXISTING UTILITIES FROM DAMAGE DURING THE CONSTRUCTION OF THIS PROJECT.
  9. THE CONTRACTOR SHALL VERIFY POSITIVE FLOW FOR ALL STORM SEWER PIPE. DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
  10. ALL DISTURBED AREAS OUTSIDE THE PROJECT LIMITS, INCLUDING ADJOINING PROPERTIES AND/OR RIGHT-OF-WAY SHALL BE REPAIRED, SEEDED, AND STRAWED.
  11. ALL CURB STOPS AND CURB CUTS ADJUTING TRAVELED WAYS SHALL TAPER TO ASPHALT GRADE AT A MIN. 4:1 SLOPE.
  12. ALL SIDEWALKS & ADA RAMPS SHALL BE BUILT TO ADA STANDARDS.

**SITE LEGEND**

- = LIGHT POLES/SECURITY LIGHT
- ⊙ = BENCHMARK
- +930.00 = PROPOSED GRADE SPOT SHOT
- +690.00 = INDICATES TOP OF CURB/SIDEWALK
- +690.00 = EXISTING GRADE SPOT SHOT
- ▭ = PROPOSED STORM PIPE
- ▭ = CONCRETE AREA
- = PROPERTY LINES
- 690 = EXISTING CONTOURS
- 690 = PROPOSED CONTOURS
- - - = DISTURB LIMITS

0' 20' 40' 60'

**Kentucky 811**

FIVESTAR #9840 - SOMERSET SE BYPASS

**FIVESTAR**

**Newcomb OIL CO.**

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**KWM**  
LAND SURVEYING & ENGINEERING

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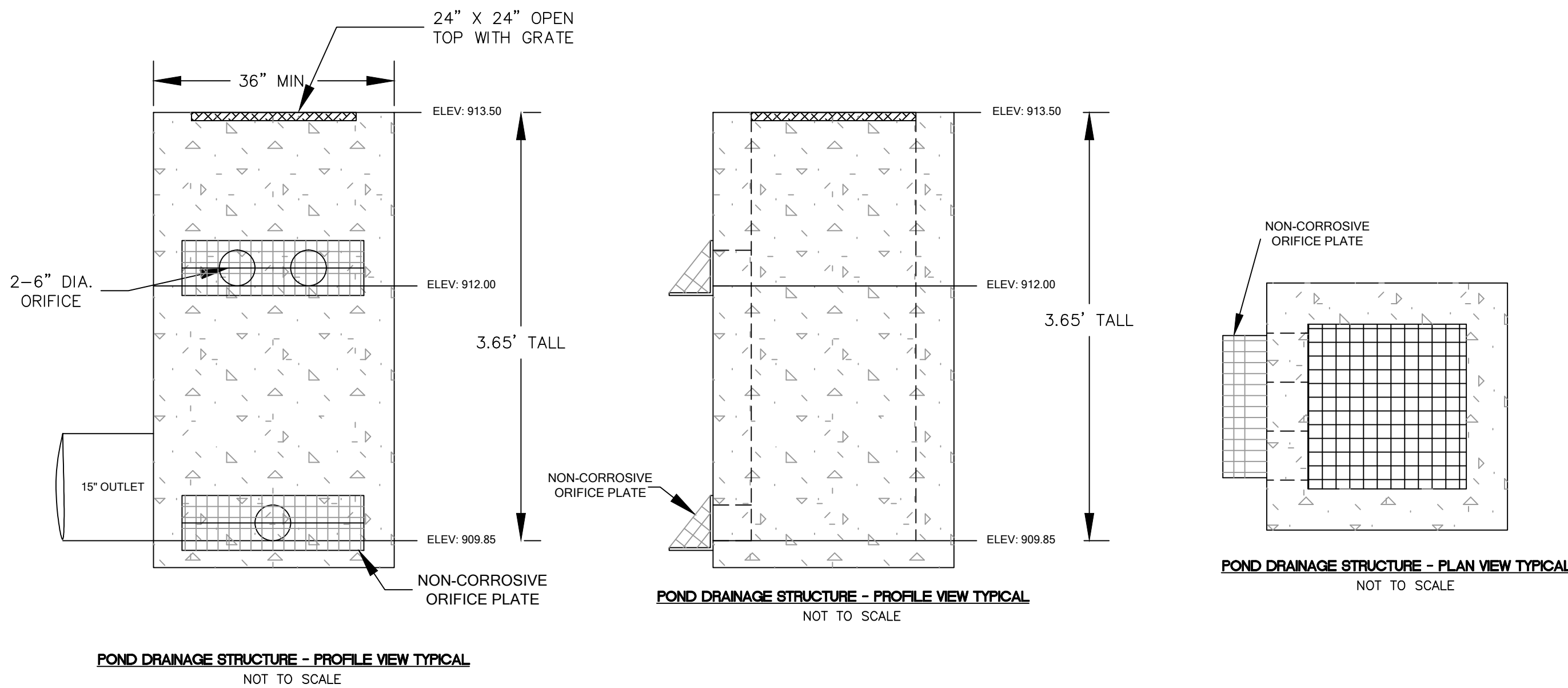
SHEET: PROPOSED GRADE & DRAIN **C2.01**

FIVESTAR #9840 - SOMERSET SE BYPASS

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OUTLET STRUCTURE - STR#9



PIPE TABLE				
NAME	SIZE (INCHES)	LENGTH (FT)	SLOPE (%)	COMMENTS
LINE A	12	55	1.0±	
LINE B	12	141	1.0±	
LINE C	12	91	1.0±	
LINE D	12	268	1.0±	
LINE E	12	48	8.1±	
LINE F	12	67	7.5±	
LINE G	12	30	10.8±	
LINE H	15	85	2.2±	GRADE DETERMINED BY EXISTING DITCH GRADE
LINE I	15	100	2.7±	GRADE DETERMINED BY EXISTING DITCH GRADE
LINE J	15	106	0.4±	GRADE DETERMINED BY EXISTING DITCH GRADE

ALL PIPE TO BE HDPE WITH WATERTIGHT CONNECTIONS.  
ALL PIPE TO BE N12 OR NULFO (WATER TIGHT) PIPE, EXCEPT WHERE OTHERWISE NOTED ON PLANS. EQUIVALENT PIPE MAY BE UTILIZED WITH ENGINEER'S APPROVAL.

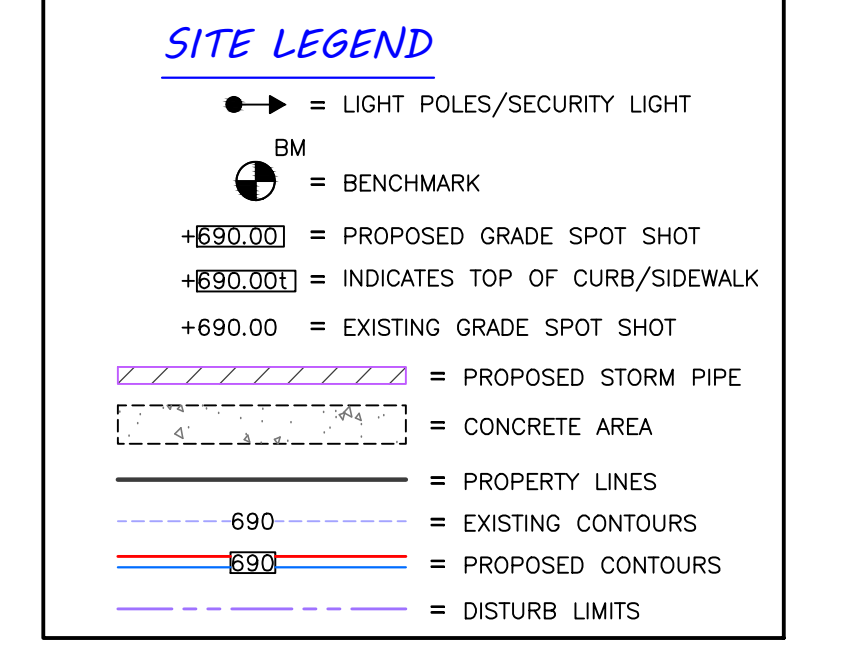
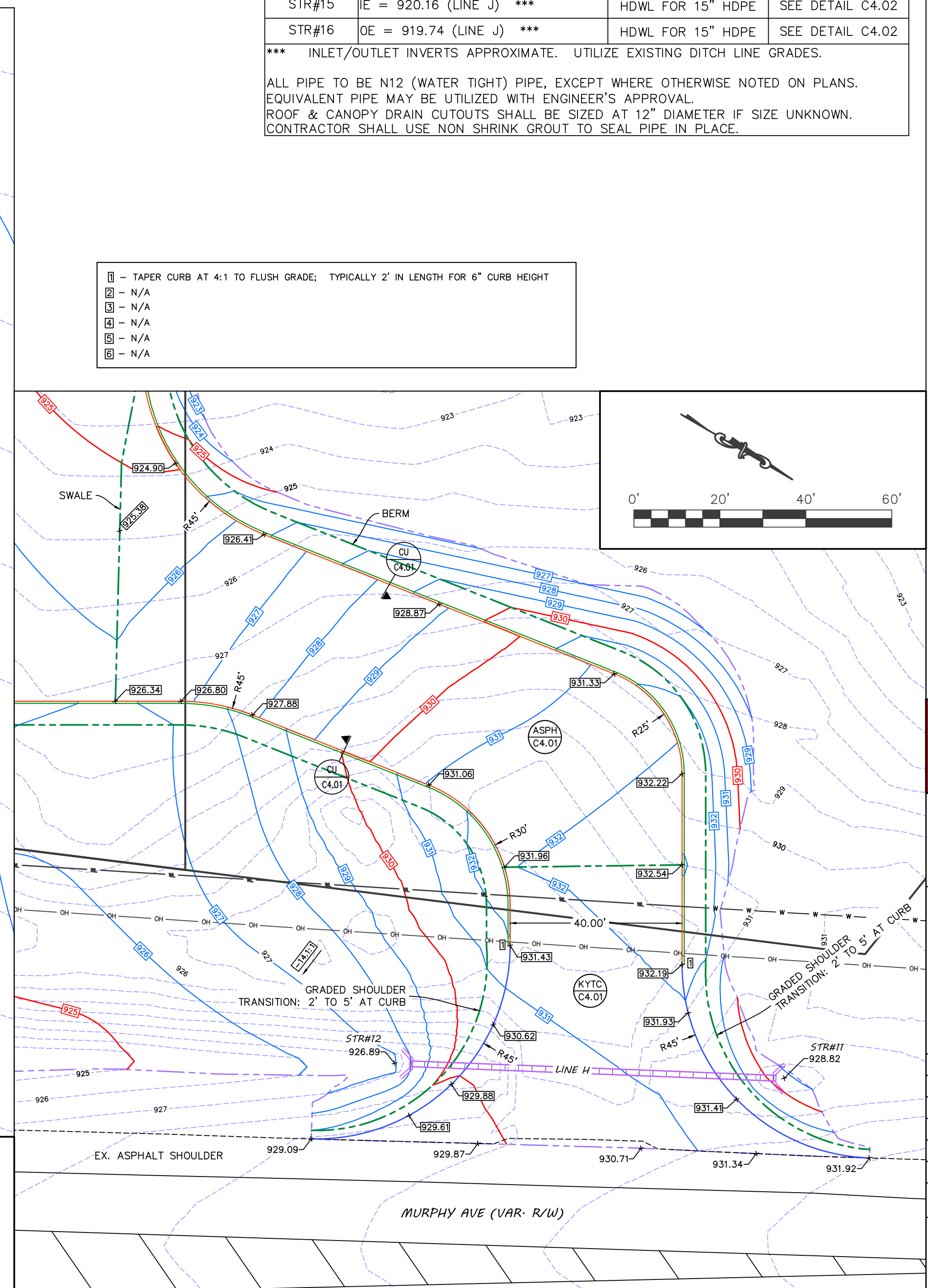
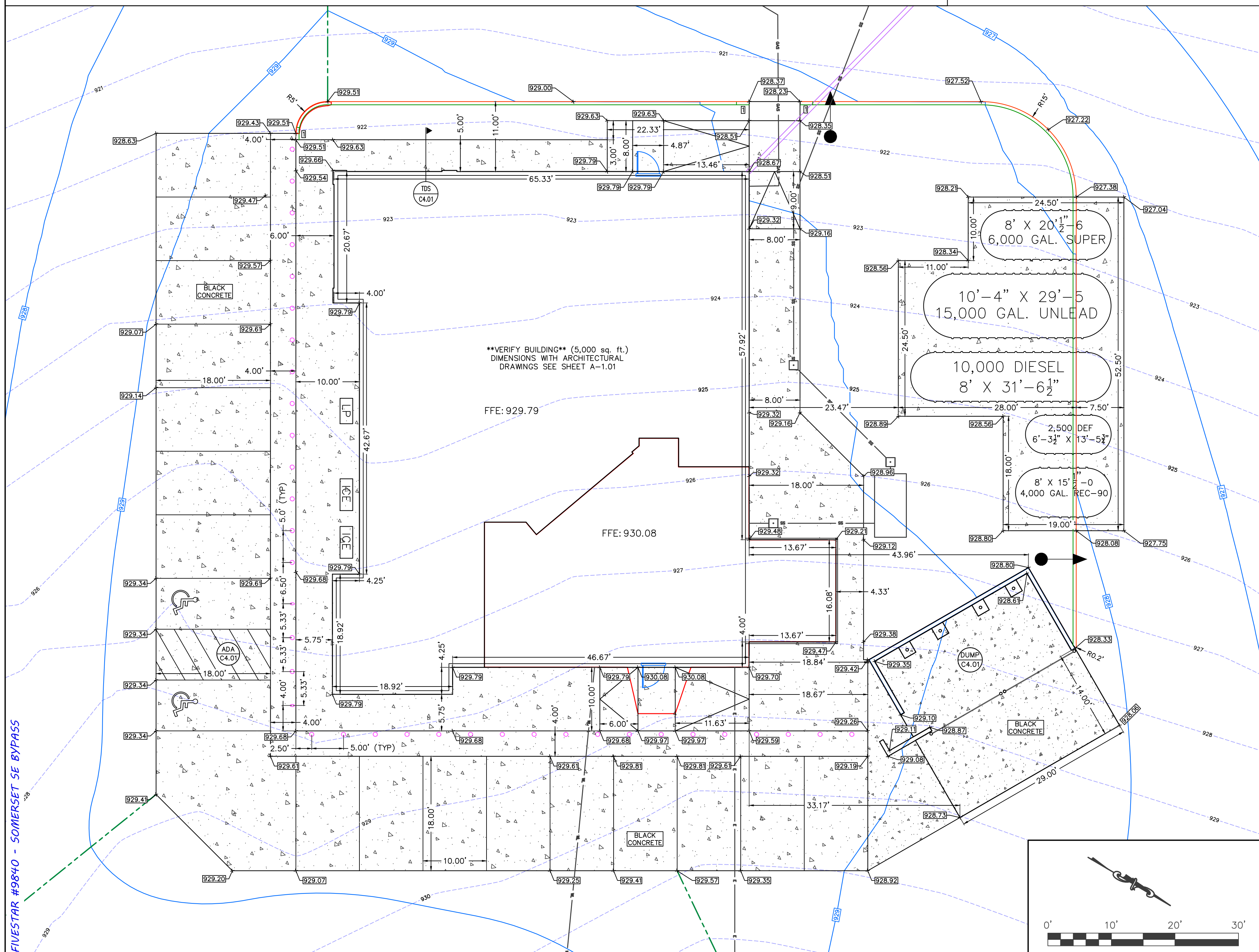
STRUCTURE TABLE			
NAME	DETAILS	TYPE	GRATE
STR#1	T.G. = 926.25 INV OUT = 923.25 (LINE A)	24" X 24" STD. DBI DROP BOX INLET OR EQUIV.	JBS 7514 OR APPROVED EQUIV.
STR#2	T.G. = 926.25 INV IN = 922.70 (LINE A) INV OUT = 922.70 (LINE B)	24" X 24" STD. DBI DROP BOX INLET OR EQUIV.	JBS 7514 OR APPROVED EQUIV.
STR#3	T.G. = 925.62 INV IN = 921.30 (LINE B) INV IN = 922.30 (CANOPY DRAIN) INV OUT = 921.30 (LINE C)	24" X 24" STD. DBI DROP BOX INLET OR EQUIV.	JBS 7514 OR APPROVED EQUIV.
STR#4	T.G. = 924.30 INV IN = 920.30 (LINE C) INV OUT = 920.30 (LINE D)	24" X 24" STD. DBI DROP BOX INLET OR EQUIV.	JBS 7514 OR APPROVED EQUIV.
STR#5	T.G. = 925.50 INV IN = 917.50 (LINE D) INV IN = 923.50 (ROOF DRAIN) INV OUT = 917.50 (LINE E)	24" X 24" STD. DBI DROP BOX INLET OR EQUIV.	JBS 7514 OR APPROVED EQUIV.
STR#6	OE = 913.60 (LINE E)	HDWL FOR 12" HDPE	SEE DETAIL C4.01
STR#7	T.G. = 921.00 INV IN = 918.00 (CANOPY DRAIN) INV OUT = 915.00 (LINE F)	24" X 24" STD. DBI DROP BOX INLET OR EQUIV.	JBS 7514 OR APPROVED EQUIV.
STR#8	OE = 910.00 (LINE F)	HDWL FOR 12" HDPE	SEE DETAIL C4.01
STR#9	T.G. = 913.50 INV IN = 909.85 (BASIN) INV OUT = 909.85 (LINE G)	24" X 24" STD. DBI DROP BOX INLET OR EQUIV.	JBS 7514 OR APPROVED EQUIV.
STR#10	OE = 906.60 (LINE G)	HDWL FOR 12" HDPE	SEE DETAIL C4.01
STR#11	IE = 928.82 (LINE H) ***	HDWL FOR 15" HDPE	SEE DETAIL C4.02
STR#12	OE = 926.89 (LINE H) ***	HDWL FOR 15" HDPE	SEE DETAIL C4.02
STR#13	IE = 924.10 (LINE I) ***	HDWL FOR 15" HDPE	SEE DETAIL C4.02
STR#14	OE = 921.40 (LINE I) ***	HDWL FOR 15" HDPE	SEE DETAIL C4.02
STR#15	IE = 920.16 (LINE J) ***	HDWL FOR 15" HDPE	SEE DETAIL C4.02
STR#16	OE = 919.74 (LINE J) ***	HDWL FOR 15" HDPE	SEE DETAIL C4.02

\*\*\* INLET/OUTLET INVERTS APPROXIMATE. UTILIZE EXISTING DITCH LINE GRADES.

ALL PIPE TO BE N12 (WATER TIGHT) PIPE, EXCEPT WHERE OTHERWISE NOTED ON PLANS. EQUIVALENT PIPE MAY BE UTILIZED WITH ENGINEER'S APPROVAL.  
ROOF & CANOPY DRAIN CUTOUTS SHALL BE SIZED AT 12" DIAMETER IF SIZE UNKNOWN.  
CONTRACTOR SHALL USE NON SHRINK GROUT TO SEAL PIPE IN PLACE.

Drain & Grade Notes:

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**Kentucky 811**  
**FIVESTAR**  
**Newcomb OIL CO.**

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 BARDSTOWN, KY 40004

**KWM**  
 ENGINEERING & SURVEYING

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REVISIONS:	DATE:
PLAN CREATION	8-9-2024
SCALE: VARIES	DATE: 8-9-23
SHEET: <b>DETAIL SHEET PROPOSED GRADE &amp; DRAIN</b>	
<b>C2.02</b>	

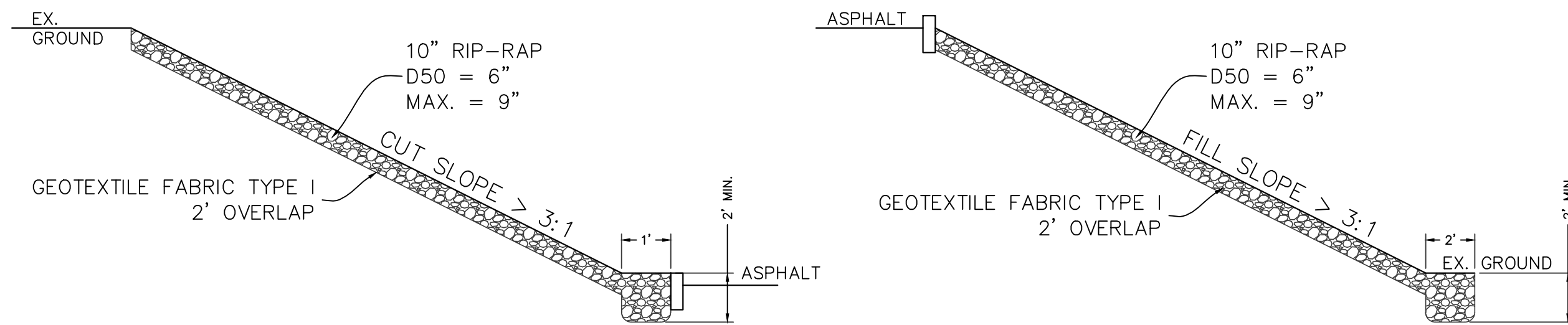
FIVESTAR #9840 - SOMERSET SE BYPASS

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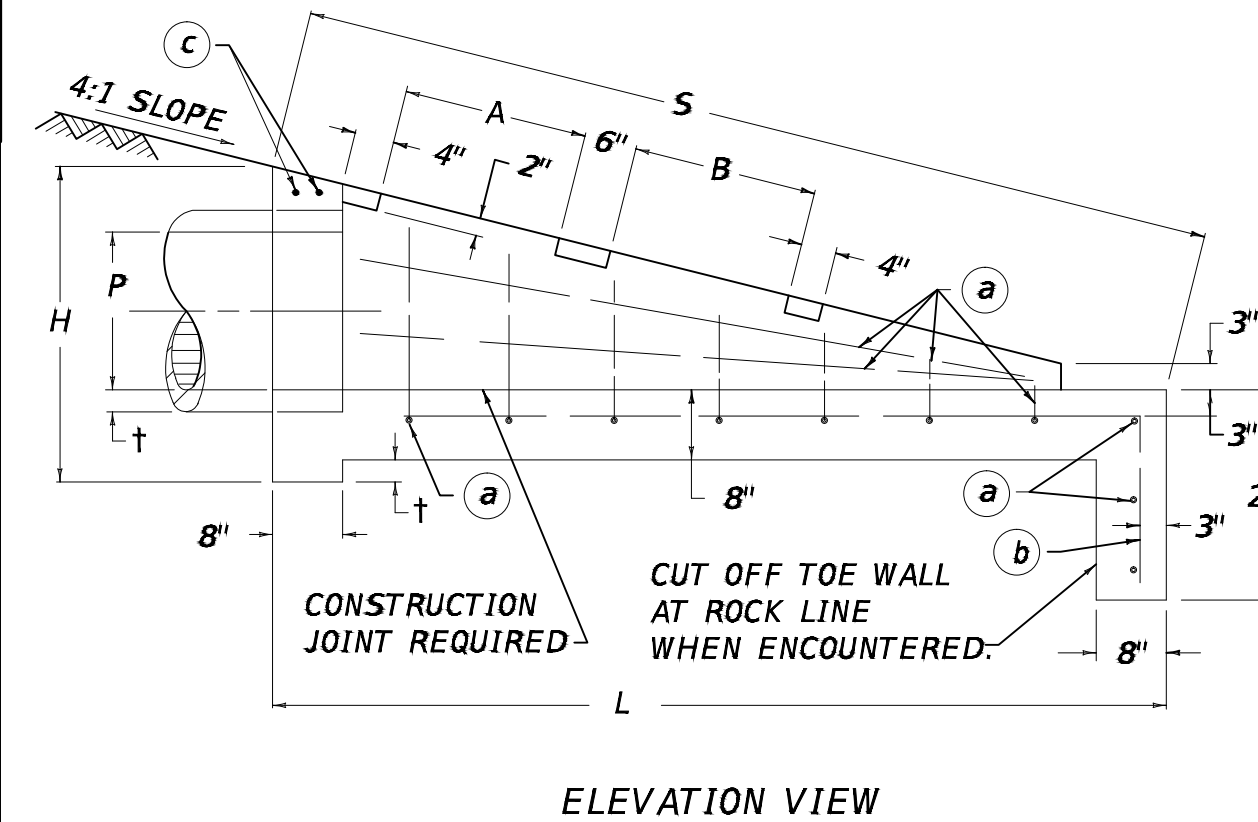
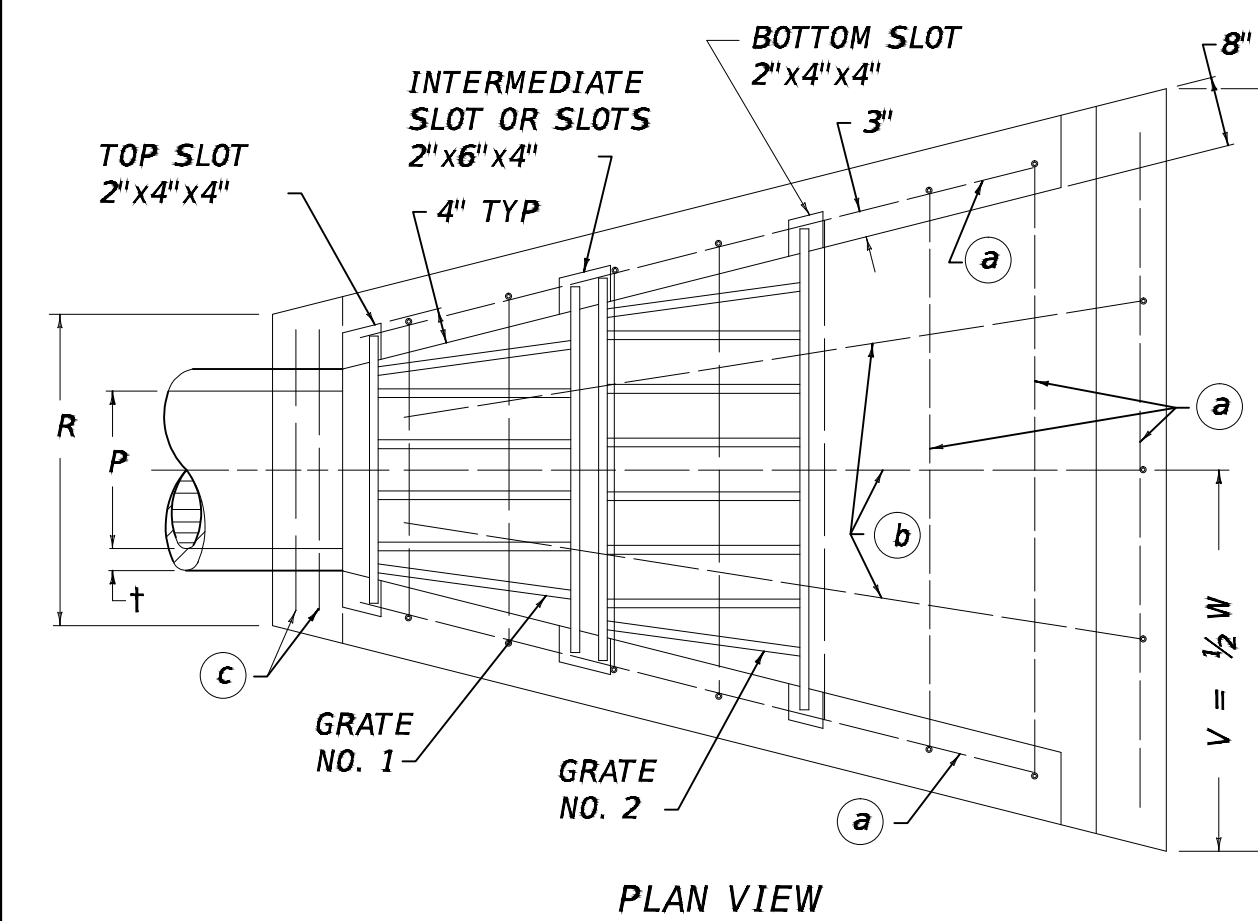




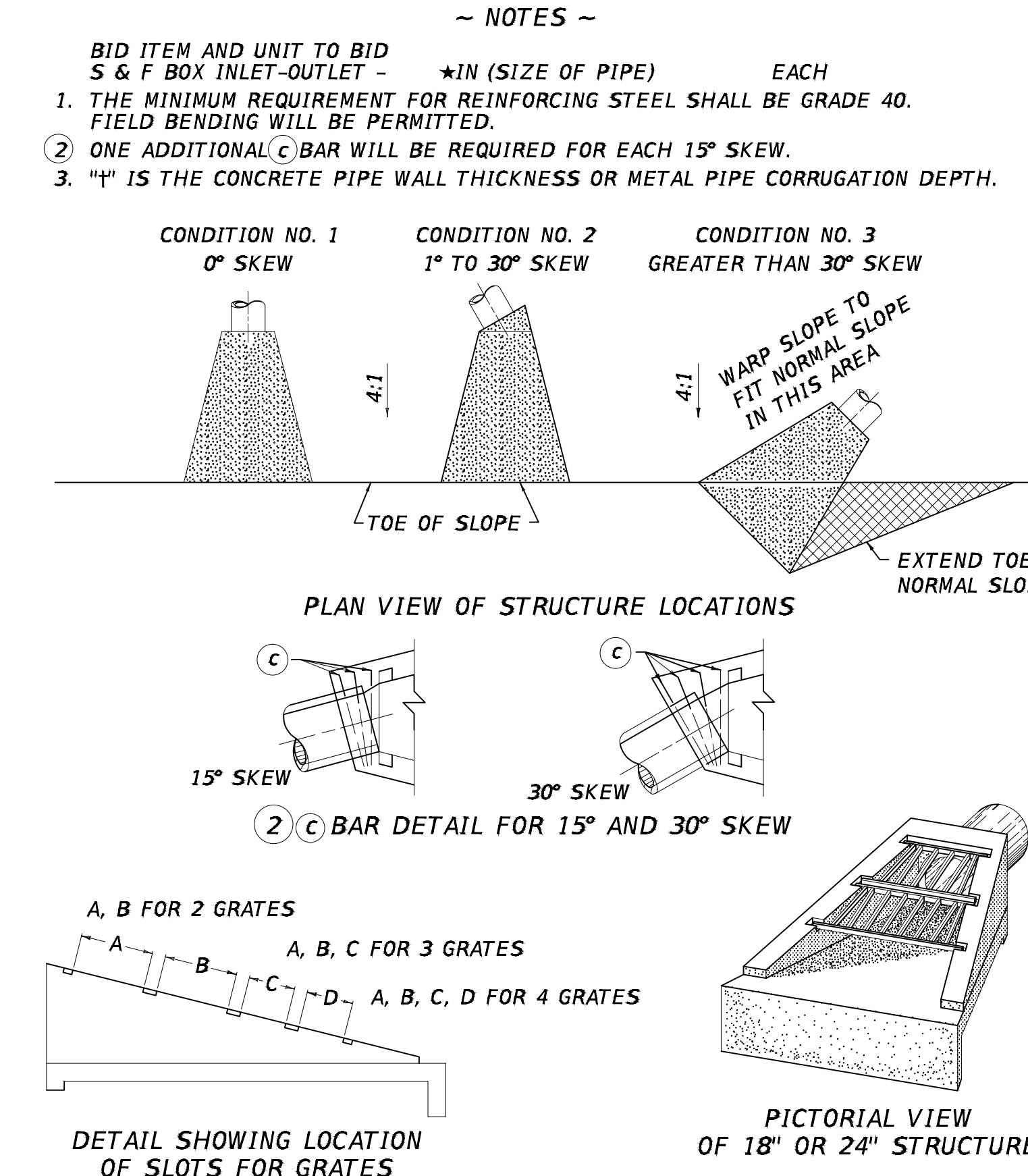




## RIP-RAP SLOPE PROTECTION



DIMENSIONS											NO. OF GRATES REQ'D.		NO. 4 REINFORCEMENT BARS NUMBER - LENGTH AND WEIGHT				CLASS A CONC.	
P	H	L	S	R	V	W	A	B	C	D	2'	3'	(a)	(b)	(c)	(c)	LBS.	CU.YDS.
18"	3'-0"	8'-6"	8'-9 1/8"	2'-11 1/2"	3'-7 1/2"	7'-3"	1'-9"	1'-9"	-----	-----	2	---	14 @ 6'-5"	3 @ 8'-6"	2 @ 2'-8"	81	1.8	
24"	3'-7"	10'-8"	11'-0"	3'-6 1/2"	4'-5 1/2"	8'-11"	2'-9"	2'-9"	-----	-----	---	2	16 @ 8'-0"	3 @ 10'-6"	2 @ 3'-3"	111	2.7	
30"	4'-2"	12'-10"	13'-2 3/4"	4'-1 1/2"	5'-3 1/2"	10'-7"	2'-9"	2'-9"	1'-9"	-----	1	2	---	3 @ 12'-9"	2 @ 3'-10"	146	3.8	
36"	4'-9"	15'-0"	15'-5 1/2"	4'-8 1/2"	6'-1 1/2"	12'-3"	2'-9"	2'-9"	1'-9"	1'-9"	2	2	20 @ 11'-4"	3 @ 15'-0"	2 @ 4'-5"	187	5.1	

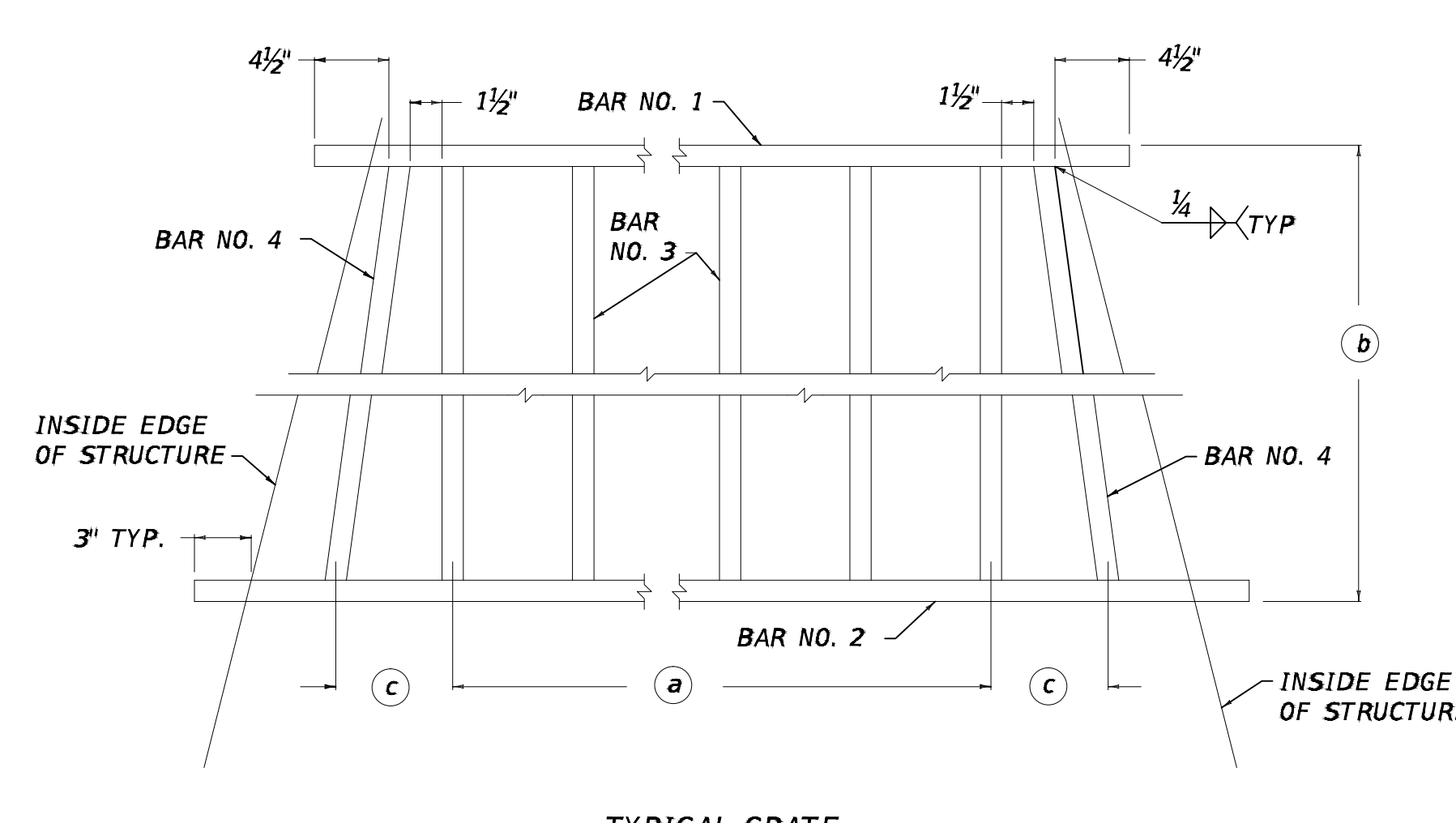


PICTORIAL VIEW OF 18" OR 24" STRUCTURE  
USE WITH CUR. STD. DWG. RDB-106

KENTUCKY DEPARTMENT OF HIGHWAYS  
SLOPED AND FLARED BOX INLET - OUTLET  
18" - 24" - 30" - 36" ALL SKEWS  
STANDARD DRAWING NO. RDB-105-06  
SUBMITTED: 12-01-15 DATE: 12-01-15  
APPROVED: 12-01-15 DATE: 12-01-15

BOX INLET - OUTLET SIZE	GRATE	BAR NO. 1		BAR NO. 2		BARS NO. 3		BARS NO. 4		LBS. STRUCTURAL STEEL	
		NO.	SIZE	LENGTH	LENGTH	NO. BARS	LENGTH	LENGTH	EACH GRATE	TOTAL	
18"	2'-0"	1	2'-6 1/2"	3'-5 3/4"	4	1'-10"	1'-10 1/4"	116	272		
		2	3'-7 5/8"	4'-6 7/8"	6	1'-10"	1'-10 1/4"	156			
24"	3'-0"	1	3'-1 1/2"	4'-6 3/8"	5	2'-10"	2'-10 3/8"	187	454		
		2	4'-8 1/2"	6'-1 5/8"	8	2'-10"	2'-10 3/8"	267			
30"	3'-0"	1	3'-8 1/2"	5'-1 1/2"	6	2'-10"	2'-10 3/8"	215	796		
		2	5'-3 1/2"	6'-8 3/8"	9	2'-10"	2'-10 3/8"	294			
		3	6'-10 1/2"	7'-9 3/4"	13	1'-10"	1'-10 1/4"	287			
36"	2'-0"	1	4'-3 1/2"	5'-8 1/2"	7	2'-10"	2'-10 3/8"	242	1218		
		2	5'-10 1/2"	7'-3 3/8"	10	2'-10"	2'-10 3/8"	321			
		3	7'-5 1/2"	8'-4 3/4"	14	1'-10"	1'-10 1/4"	308			
		4	8'-6 3/4"	9'-5 7/8"	16	1'-10"	1'-10 1/4"	347			

NOTES  
1. ALL COMPONENTS ARE 1" X 2" STRUCTURAL STEEL BARS.  
2. (a) EQUALLY SPACE BARS NO. 3.  
(b) SIZE OF GRATE EITHER 2'-0" OR 3'-0".  
(c) 5/2" FOR 2'-0" GRATE, 7" FOR 3'-0" GRATE.



USE WITH CUR. STD. DWG. RDB-105  
KENTUCKY DEPARTMENT OF HIGHWAYS  
GRATES FOR SLOPED AND FLARED BOX INLET - OUTLET  
STANDARD DRAWING NO. RDB-106-05  
SUBMITTED: 12-01-15 DATE: 12-01-15  
APPROVED: 12-01-15 DATE: 12-01-15

Kentucky 811  
FIVE STAR  
Newcomb OIL CO.

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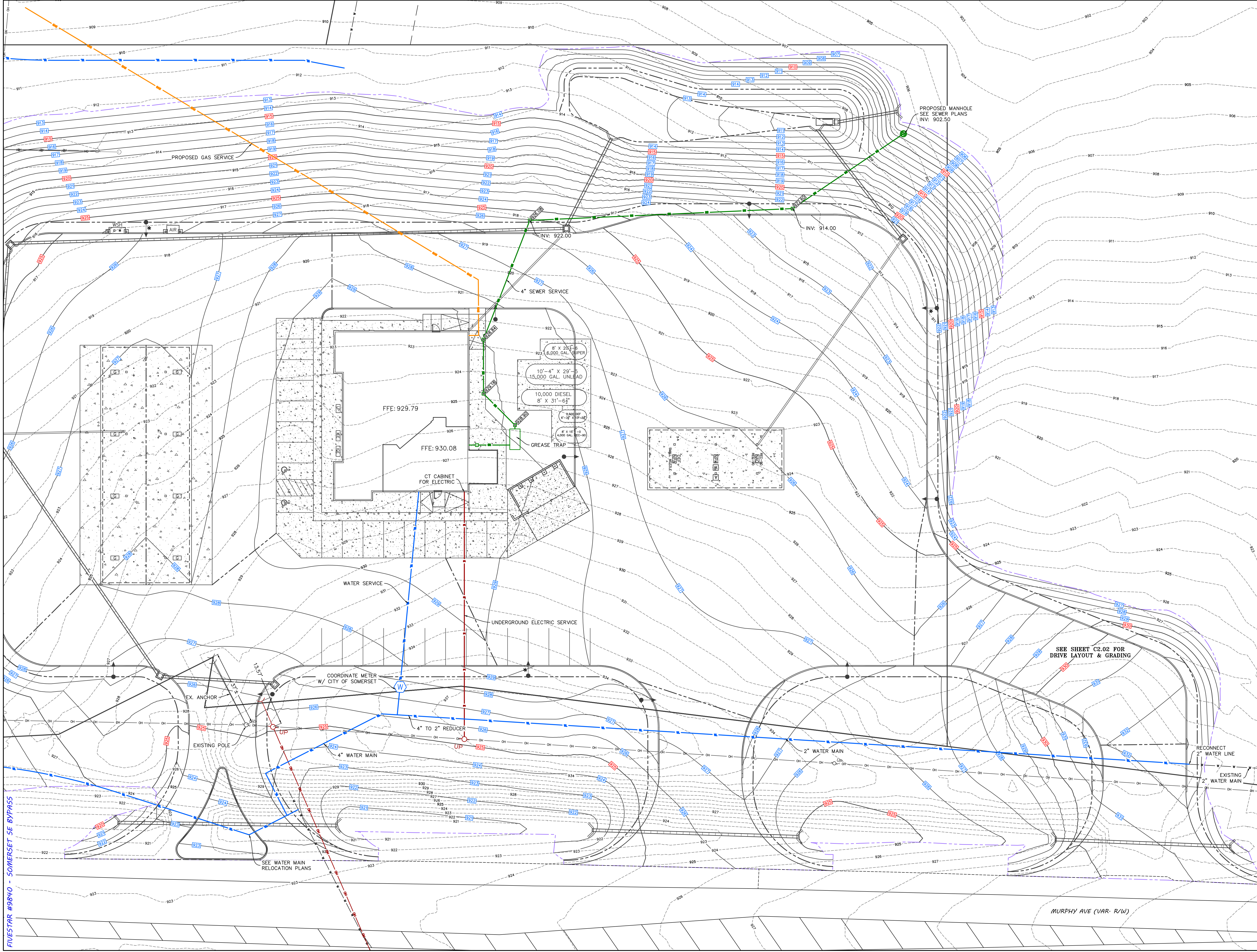
KW & M  
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Nathan@nykw.com.net

REVISIONS:	DATE:
PLAN CREATION	8-9-2024
NOT TO SCALE	
SHEET:	DATE: 8-9-23
HEADWALL DETAILS	C4.02

FIVESTAR #9840 - SOMERSET SE BYPASS

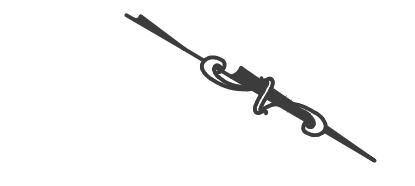
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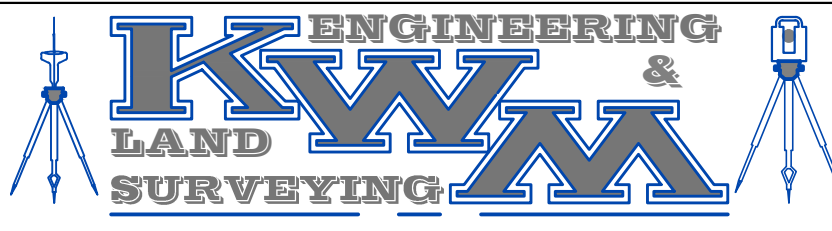


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SHEET: **C5.01**  
 UTILITY LAYOUT

MURPHY AVE (VAR. R/W)