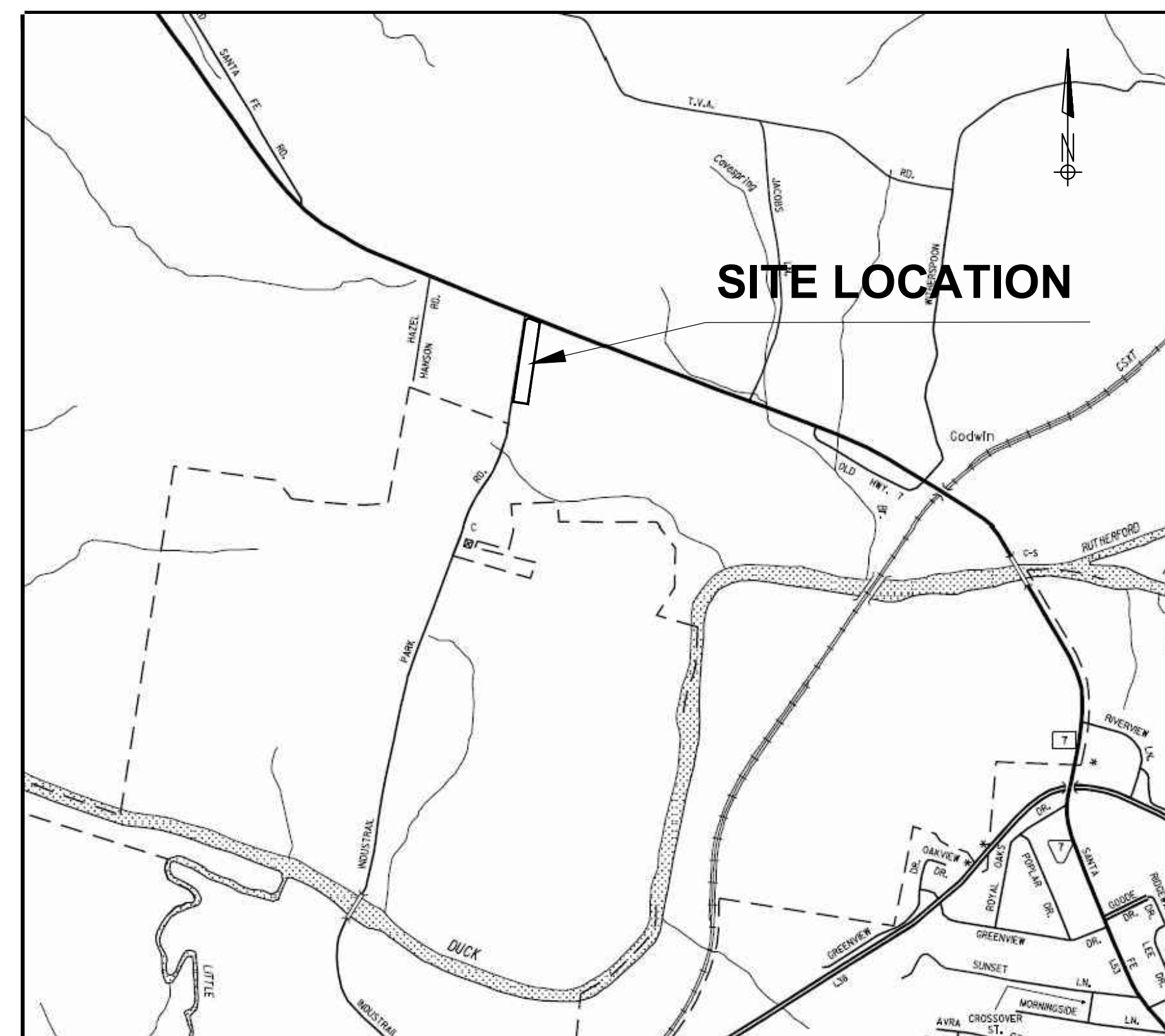


SITE CONSTRUCTION PLANS FOR  
*Sullivan Industrial Building*  
 CITY OF COLUMBIA, MAURY COUNTY, TENNESSEE



**SITE VICINITY MAP**

**SHEET INDEX**

<u>SHT. NO.</u>	<u>DESCRIPTION</u>
C0.0	TITLE SHEET
C1.0	OVERALL SITE PLAN
C2.0	SITE LAYOUT PLAN
C3.0	GRADING AND DRAINAGE PLAN
C4.0	EROSION AND SEDIMENT CONTROL PLAN (INITIAL)
C4.1	EROSION AND SEDIMENT CONTROL PLAN (FINAL)
C4.2	EROSION AND SEDIMENT CONTROL DETAILS
C5.0	UTILITY PLAN
C6.0	CONSTRUCTION DETAILS
C6.1	CONSTRUCTION DETAILS
L1.0	LANDSCAPE PLAN

**MARTIN ENGINEERING & SURVEYING, LLC**

5226 Main Street, Suite C-3  
 Spring Hill, Tennessee 37174

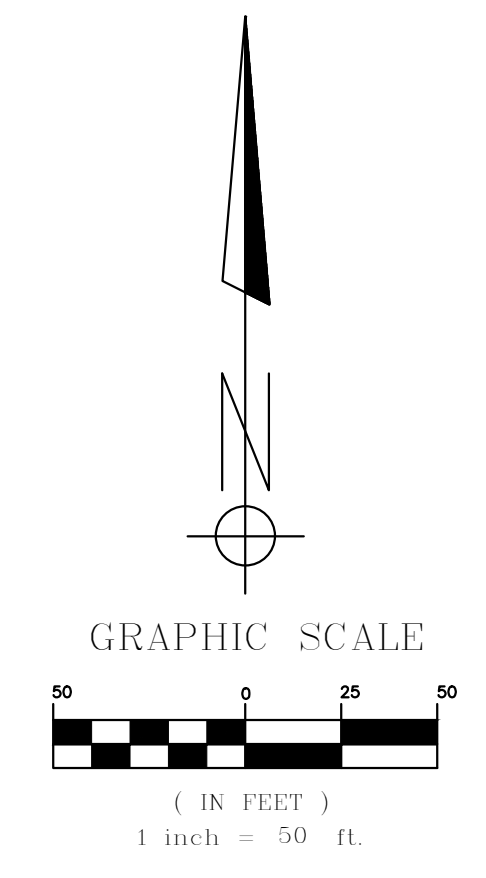
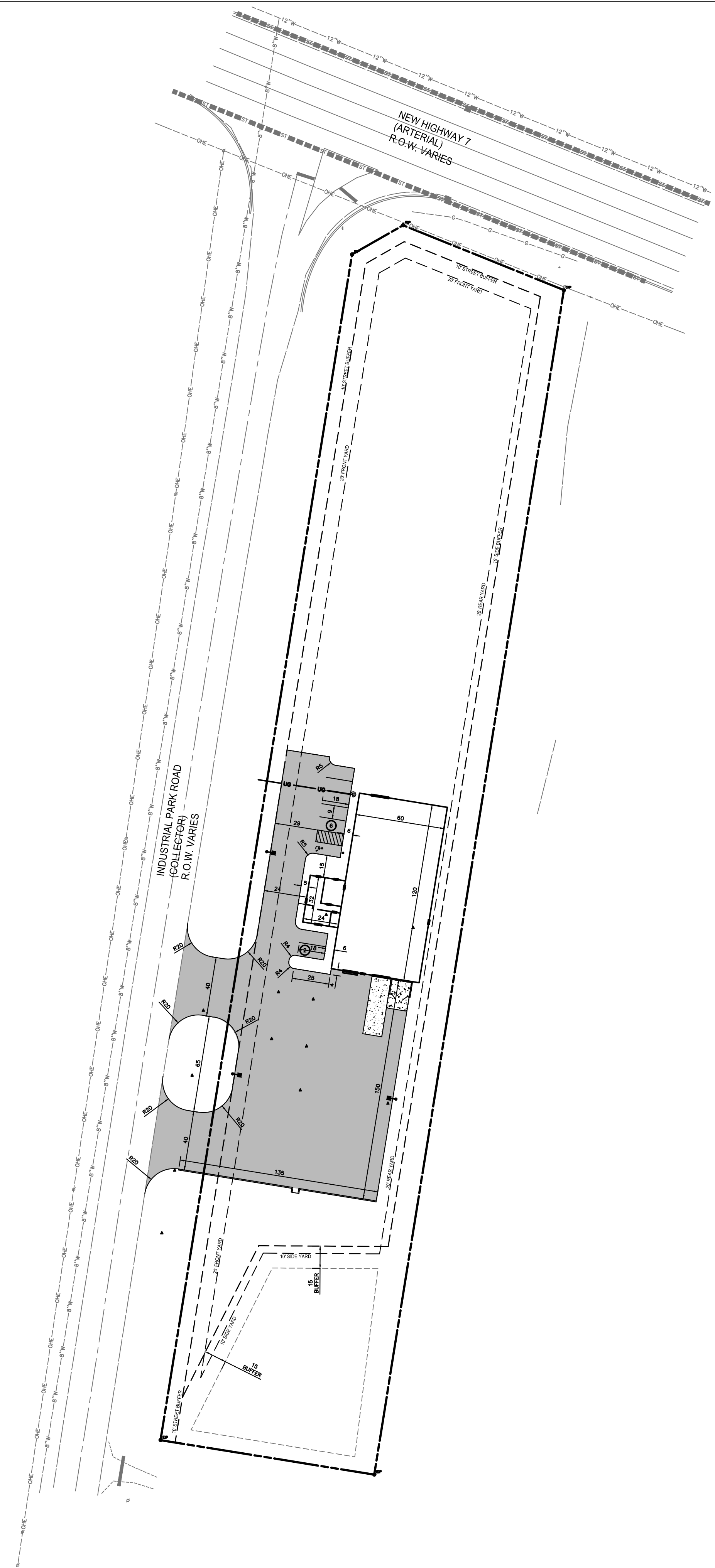
Office: 615.812.2147

gary@martinengrg.com



Date: December 7, 2017      Scale: NTS

C0.0



**DEVELOPMENT SUMMARY**

MAP 76 PARCEL 54.00

**ZONING**  
 EXISTING: INDUSTRIAL RESTRICTIVE  
 PROPOSED: INDUSTRIAL RESTRICTIVE

**SETBACKS**  
 FRONT: 20'  
 SIDE: 10'  
 REAR: 20'

**USE:**  
 INDUSTRIAL

BUILDING SQUARE FOOTAGE: 7,968 SF

**PARKING REQUIREMENTS (1 SPACE/1,000SF)**  
 REQUIRED: 8 SPACES  
 PROPOSED: 8 SPACES

**SITE AREA**  
 119,776 SQUARE FEET  
 2.75 ACRES

**PROJECT DESCRIPTION:**  
 DEVELOP THE EXISTING 2.75 ACRE PROPERTY WITH A 7,968 SQUARE FOOT INDUSTRIAL BUILDING AND ASSOCIATED APPURTENANCES

**OWNER/DEVELOPER:** MIKE SULLIVAN  
 1412 TROTWOOD AVENUE  
 COLUMBIA, TN 38401  
 931-380-2516

**NOTE:**  
 THIS PROPERTY IS LOCATED WITHIN OTHER AREAS ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON F.E.M.A. FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NOS. 47119C0165E, DATED APRIL 16, 2007.

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 Spring Hill, TN 37174  
 615.812.2147  
 gary@martinengr.com



**OVERALL SITE PLAN**  
**1300 INDUSTRIAL PARK ROAD**  
**MAP 76 PARCEL 54.00**  
 COLUMBIA, TENNESSEE  
 MAURY COUNTY

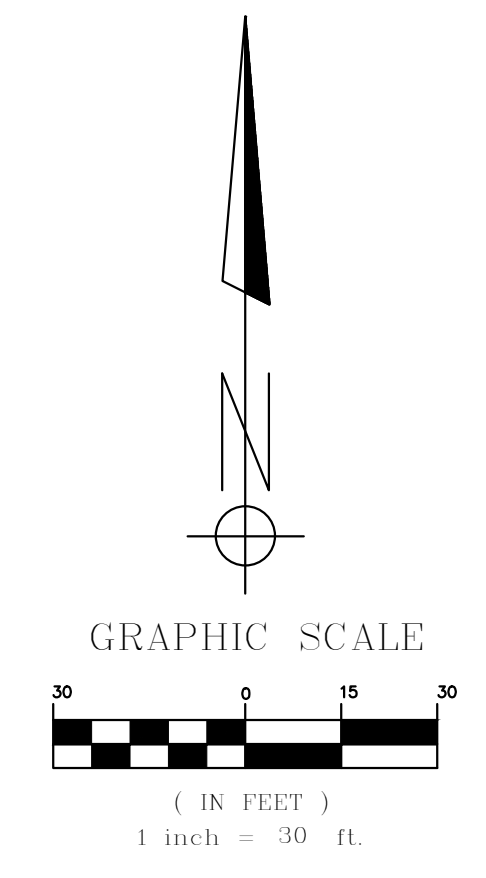
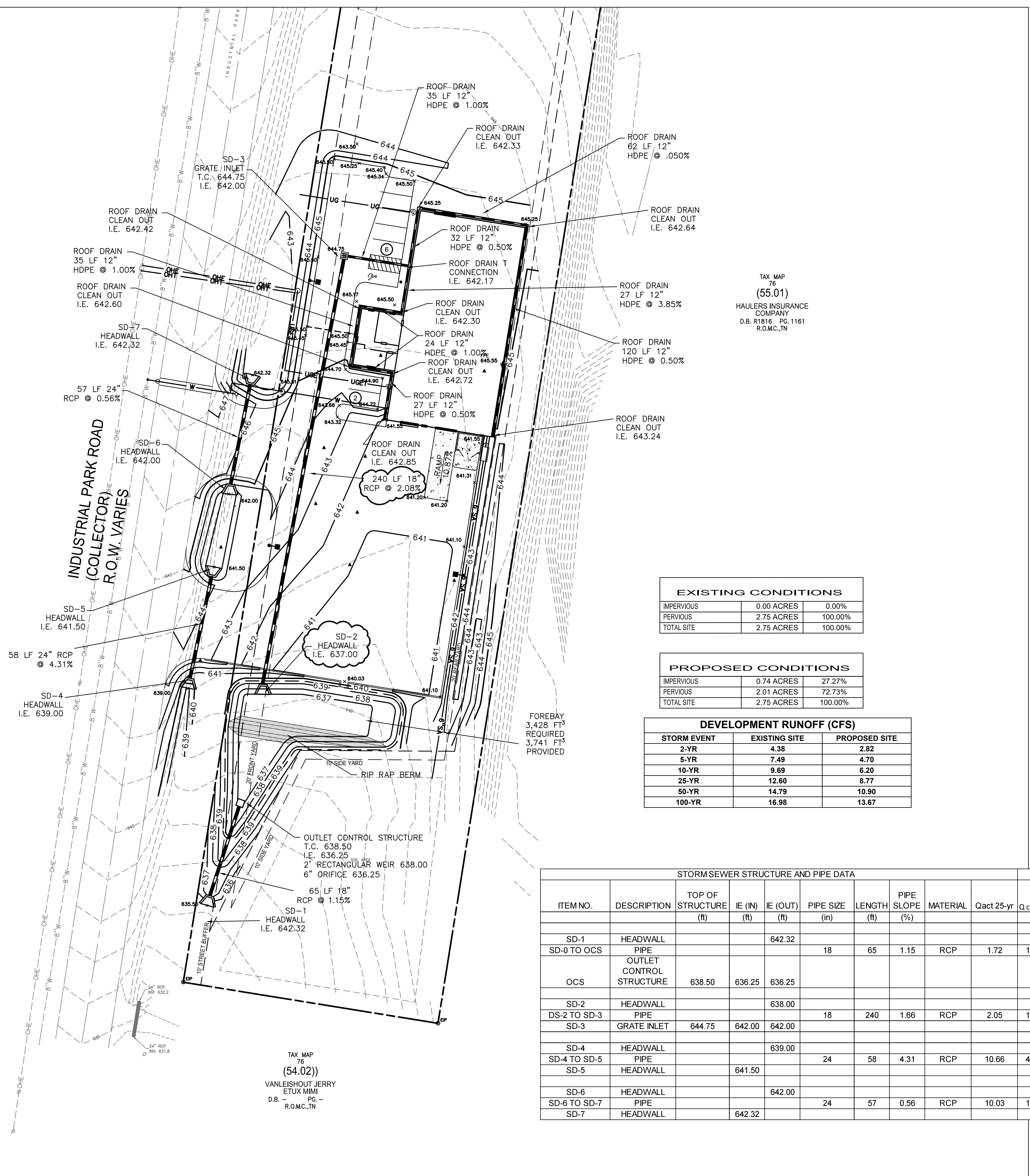
**General Notes**

No.	Revision/Issue	Date
1	Revised per Planning received 12-7-17	12-7-17

Date: 9/19/17 Scale: 1"= 50'

**C1.0**





**LEGEND**

- STORM SEWER
- CURB INLET/CATCH BASIN
- JUNCTION BOX
- HEADWALL
- RIP-RAP
- SPOT ELEVATION

**GENERAL GRADING NOTES:**

- A. THE GENERAL CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.
- B. WARRANTY/DISCLAIMER  
THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, THE ENGINEER CAN NOT WARRANT THESE DESIGNS OR PLANS AS CONSTRUCTED EXCEPT IN THE SPECIFIC CASES WHERE THE ENGINEER IS RETAINED TO CONSTRUCTION.
- C. SAFETY NOTICE TO CONTRACTOR  
IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE DUTY OF THE ENGINEER OR THE OWNER'S REPRESENTATIVE TO CONDUCT CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE.
- D. ALL SLOPES TO BE GRADED TO 3:1 OR FLATTER UNLESS OTHERWISE INDICATED ON THIS SHEET.
- E. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH AND FOUR-INCHES OF TOPSOIL APPLIED. IF ADEQUATE TOP-SOIL IS NOT AVAILABLE ON-SITE, THE CONTRACTOR SHALL PROVIDE TOPSOIL, APPROVED BY THE OWNER, AS NEEDED. THE AREA SHALL THEN BE SEEDED, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL ANY AREAS DISTURBED FOR ANY REASON PRIOR TO FINAL ACCEPTANCE OF THE PROJECT SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- F. ENGINEER'S NOTICE TO CONTRACTOR  
THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- G. NOTICE TO CONTRACTOR  
PRIOR TO THE CONSTRUCTION OF OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, WATER MAIN OR ANY OF THE DRY UTILITIES INCLUDED WITHIN THE JOINT TRENCH, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTION AND ALL UTILITY CROSSINGS AND INFORM MARTIN ENGINEERING AND THE DEVELOPER OF ANY CONFLICTS OR REQUIRED DEVIATIONS FROM THE PLAN. NOTIFICATION SHALL BE MADE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. MARTIN ENGINEERING AND ITS CLIENTS SHALL BE HELD HARMLESS IN THE EVENT THAT THE CONTRACTOR FAILS TO MAKE SUCH NOTIFICATION.

EXISTING CONDITIONS		
IMPERVIOUS	0.00 ACRES	0.00%
PERVIOUS	2.75 ACRES	100.00%
TOTAL SITE	2.75 ACRES	100.00%

PROPOSED CONDITIONS		
IMPERVIOUS	0.74 ACRES	27.27%
PERVIOUS	2.01 ACRES	72.73%
TOTAL SITE	2.75 ACRES	100.00%

DEVELOPMENT RUNOFF (CFS)		
STORM EVENT	EXISTING SITE	PROPOSED SITE
2-YR	4.38	2.82
5-YR	7.49	4.70
10-YR	9.69	6.20
25-YR	12.60	8.77
50-YR	14.79	10.90
100-YR	16.98	13.67

STORM SEWER STRUCTURE AND PIPE DATA										
ITEM NO.	DESCRIPTION	TOP OF STRUCTURE (ft)	IE (IN) (ft)	IE (OUT) (ft)	PIPE SIZE (in)	LENGTH (ft)	PIPE SLOPE (%)	MATERIAL	Q <sub>act</sub> 25-yr	Q <sub>cap</sub> CFS
SD-1	HEADWALL			642.32						
SD-0 TO OCS	PIPE				18	65	1.15	RCP	1.72	11.26
OCS	OUTLET CONTROL STRUCTURE	638.50	636.25	636.25						
SD-2	HEADWALL			638.00						
DS-2 TO SD-3	PIPE				18	240	1.66	RCP	2.05	13.53
SD-3	GRATE INLET	644.75	642.00	642.00						
SD-4	HEADWALL			639.00						
SD-4 TO SD-5	PIPE				24	58	4.31	RCP	10.66	46.96
SD-5	HEADWALL			641.50						
SD-6	HEADWALL			642.00						
SD-6 TO SD-7	PIPE				24	57	0.56	RCP	10.03	16.92
SD-7	HEADWALL			642.32						

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**GRADING AND DRAINAGE PLAN**  
**1300 INDUSTRIAL PARK ROAD**  
**MAP 76 PARCEL 54.00**  
 COLUMBIA, TENNESSEE  
 MAURY COUNTY

**General Notes**

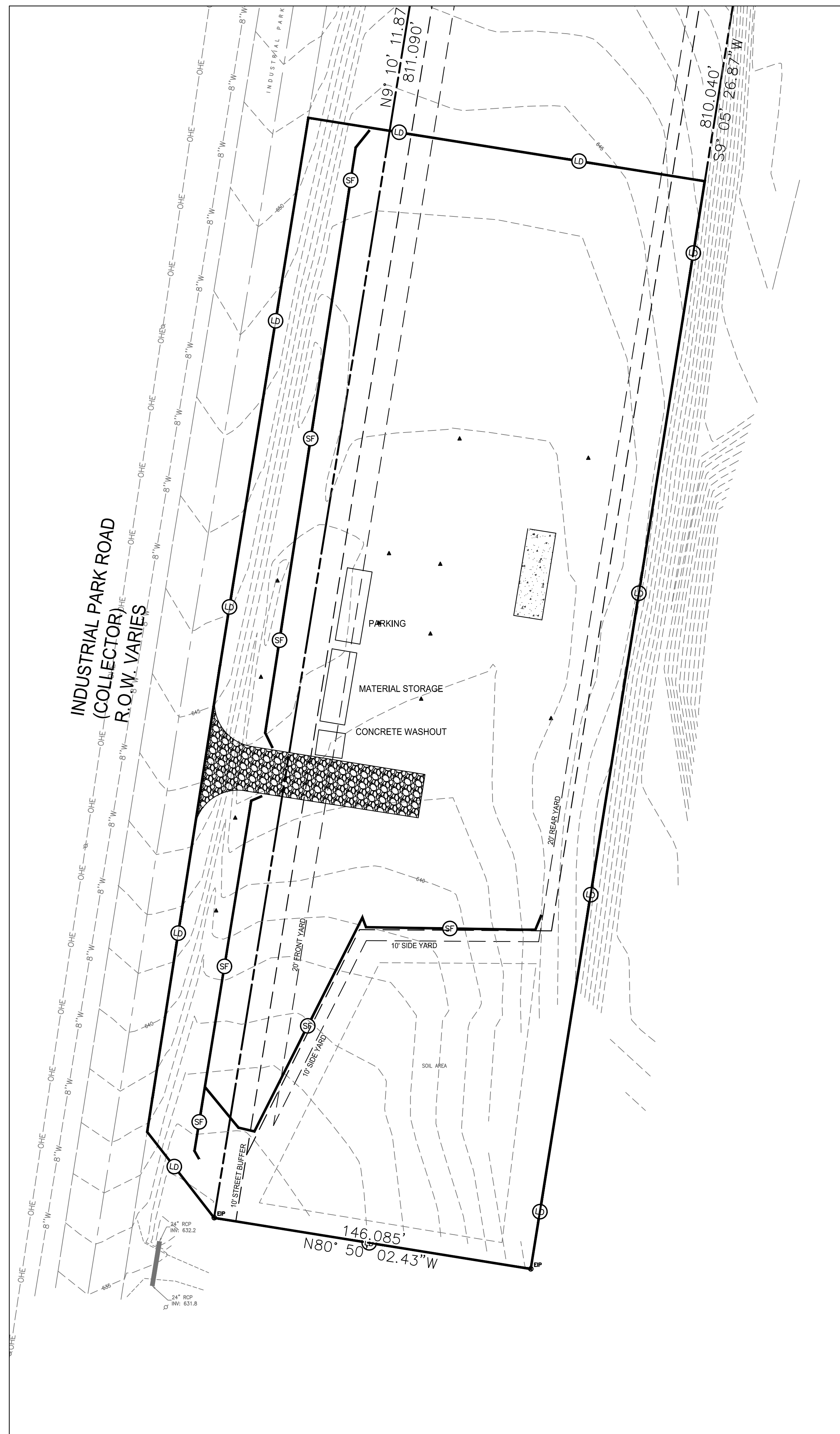
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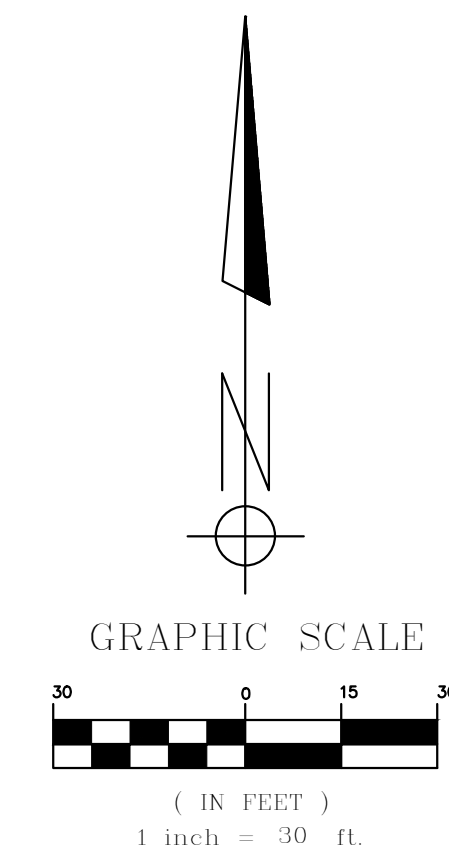
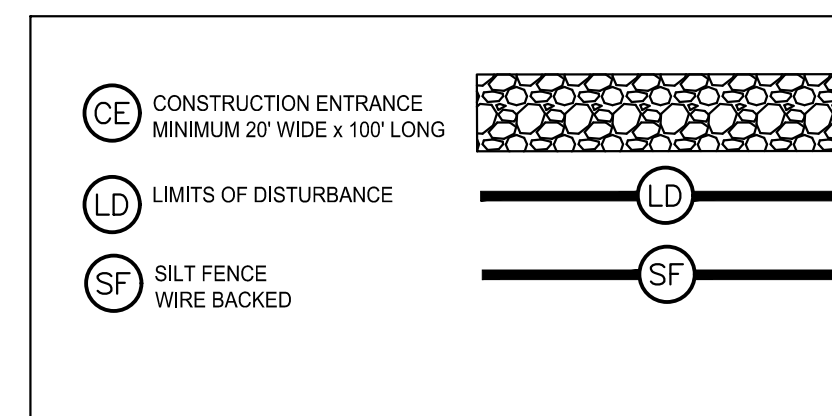
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**NOTE:**  
 THIS PROPERTY IS LOCATED WITHIN OTHER AREAS ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON F.E.M.A. FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NOS. 47119C0165E, DATED APRIL 16, 2007.

TAX MAP  
 76  
 (54.02)  
 VANLEISHOUT JERRY  
 ETUX MIMI  
 D.B. PG.  
 R.O.M.C., TN



LEGEND



GENERAL EROSION NOTES

- A. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF TENNESSEE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
- B. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DISPOSED OF IN A MANNER THAT PREVENTS CONTACT BETWEEN THESE MATERIALS AND STORM WATER THAT IS DISCHARGED FROM THE SITE. CONTROL OF OTHER SITE WASTES SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, LITTER, AND SANITARY WASTES THAT MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY IS ALSO REQUIRED BY THE GRADING PERMITTEE.
- C. MAINTAIN ON THE SITE OR HAVE READILY AVAILABLE SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
- D. DUST CONTROL ON THE SITE SHALL BE MINIMIZED BY SPRAYING WATER ON DRY AREAS OF THE SITE. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
- E. NO RUBBISH, TRASH, GARBAGE, OR OTHER SUCH MATERIALS SHALL BE DISCHARGED INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
- F. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
- G. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS STOPPED FOR AT LEAST 15 DAYS, SHALL BE TEMPORARILY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.
- H. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.
- I. TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD IF WASHING IS USED. PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
- J. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
- K. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
- L. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF WITHIN 30 DAYS AFTER FINAL STABILIZATION. FINAL STABILIZATION HAS OCCURRED WHEN ALL SOIL DISTURBING ACTIVITIES ARE COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70% OF THE COVER FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES HAS BEEN EMPLOYED.

NOTE:  
CONTRACTOR TO PROVIDE AN AREA FOR CONCRETE WASH DOWN AND EQUIPMENT FUELING IN ACCORDANCE WITH CITY OF COLUMBIA STANDARDS. CONTRACTOR TO COORDINATE EXACT LOCATION WITH CITY OF COLUMBIA DURING PRE-CONSTRUCTION MEETING.

NOTE:  
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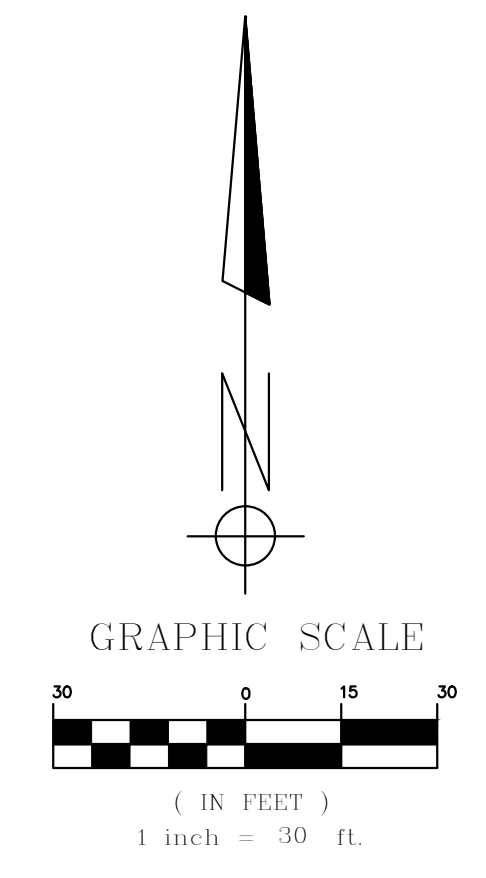
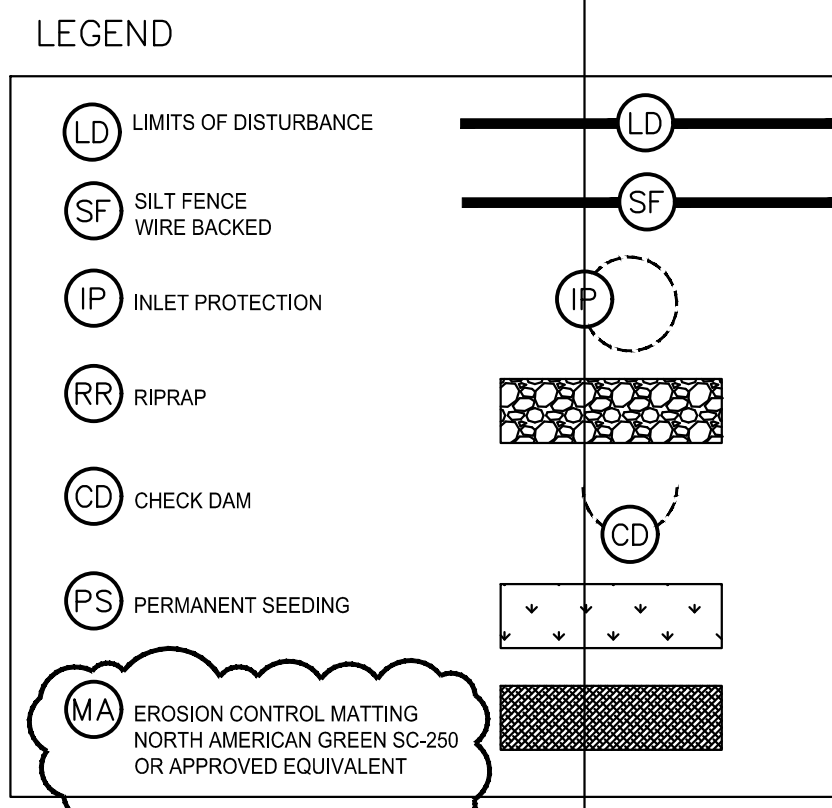
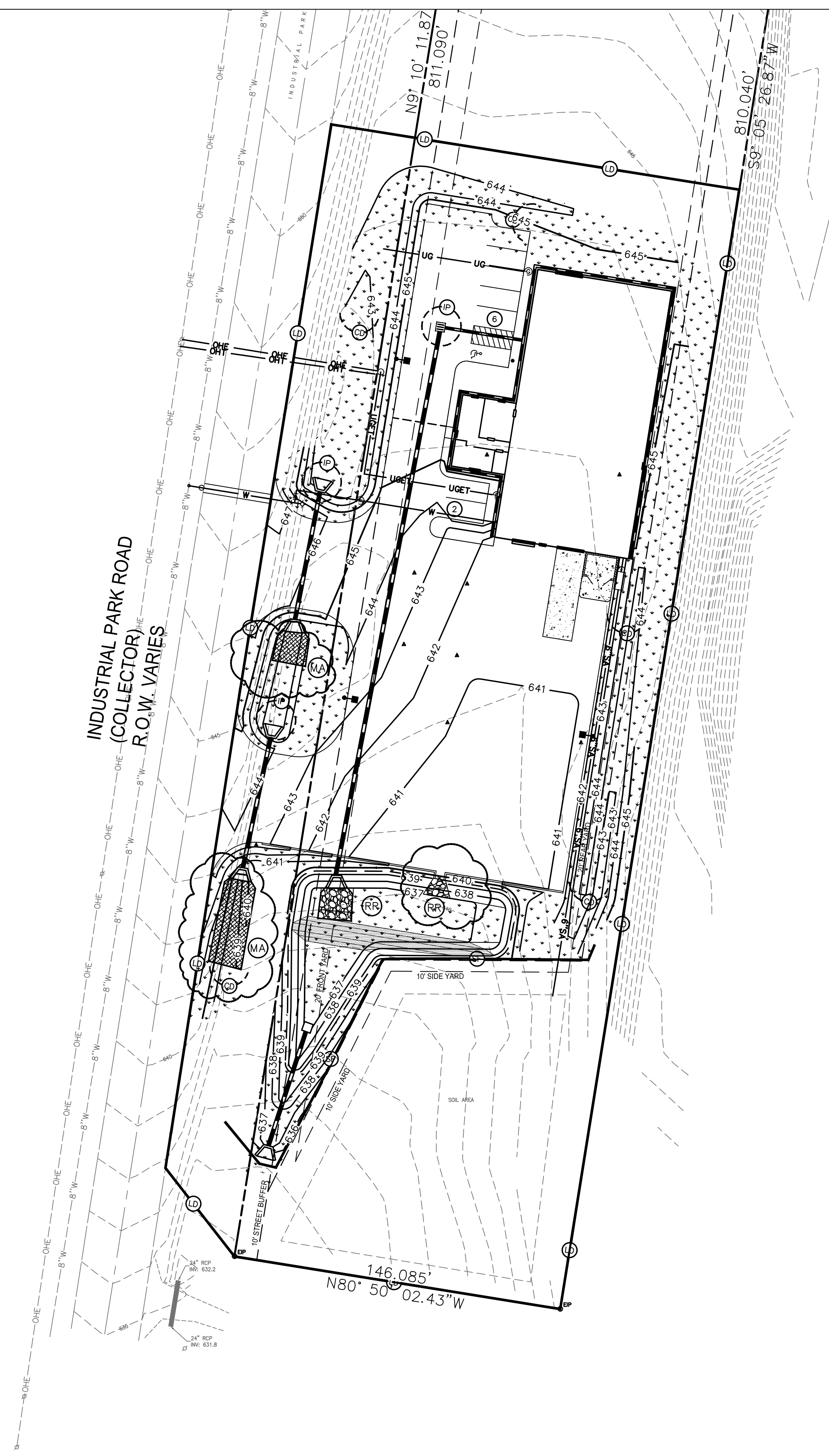
**INITIAL EROSION CONTROL PLAN**  
**1300 INDUSTRIAL PARK ROAD**  
**MAP 76 PARCEL 54.00**  
**COLUMBIA, TENNESSEE**  
**MAURY COUNTY**

General Notes

No.	Revision/Issue	Date
1	Revised per Planning received 12-7-17	12-7-17

Date: 9/19/17 Scale: 1" = 30'

**C4.0**



- GENERAL EROSION NOTES**
- A. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF TENNESSEE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
  - B. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DISPOSED OF IN A MANNER THAT PREVENTS CONTACT BETWEEN THESE MATERIALS AND STORM WATER THAT IS DISCHARGED FROM THE SITE. CONTROL OF OTHER SITE WASTES SUCH AS DISCARDED BUILDING MATERIALS, CHEMICALS, LITTER, AND SANITARY WASTES THAT MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY IS ALSO REQUIRED BY THE GRADING PERMITTEE.
  - C. MAINTAIN ON THE SITE OR HAVE READILY AVAILABLE SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLotation BOOMS TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
  - D. DUST CONTROL ON THE SITE SHALL BE MINIMIZED BY SPRAYING WATER ON DRY AREAS OF THE SITE. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
  - E. NO RUBBISH, TRASH, GARBAGE, OR OTHER SUCH MATERIALS SHALL BE DISCHARGED INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
  - F. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
  - G. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS STOPPED FOR AT LEAST 15 DAYS, SHALL BE TEMPORARILY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.
  - H. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.
  - I. TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
  - J. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
  - K. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
  - L. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF WITHIN 30 DAYS AFTER FINAL STABILIZATION. FINAL STABILIZATION HAS OCCURRED WHEN ALL SOIL DISTURBING ACTIVITIES ARE COMPLETED AND A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70% OF THE COVER FOR UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES HAS BEEN EMPLOYED.
- MAINTENANCE**
- ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON AT LEAST TWICE EVERY SEVEN CALENDAR DAYS AT LEAST 72 HOURS APART. IT SHALL ALSO BE INSPECTED WITHIN 24 HOURS OF THE END OF A RAINFALL EVENT, AND SHOULD BE CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING WITHIN 1 CALENDAR DAYS.
1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE FIXED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR SHALL BE REPLACED IF THEY SHOW SIGNS OF DETERIORATION.
  2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED.
  3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-THIRD TO ONE-HALF THE HEIGHT OF THE SILT FENCE.
  4. STEEP SLOPES (3% GRADE OF GREATER) SHALL BE TEMPORARILY STABILIZED NOT LATER THAN 7 DAYS AFTER CONSTRUCTION ACTIVITY ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED.

NOTE:  
CONTRACTOR TO PROVIDE AN AREA FOR CONCRETE WASH DOWN AND EQUIPMENT FUELING IN ACCORDANCE WITH CITY OF COLUMBIA STANDARDS. CONTRACTOR TO COORDINATE EXACT LOCATION WITH CITY OF COLUMBIA DURING PRE-CONSTRUCTION MEETINGS.

NOTE:  
ALL EROSION CONTROL MEASURES TO BE REMOVED PRIOR TO AS-BUILT APPROVAL.

**NOTE:**  
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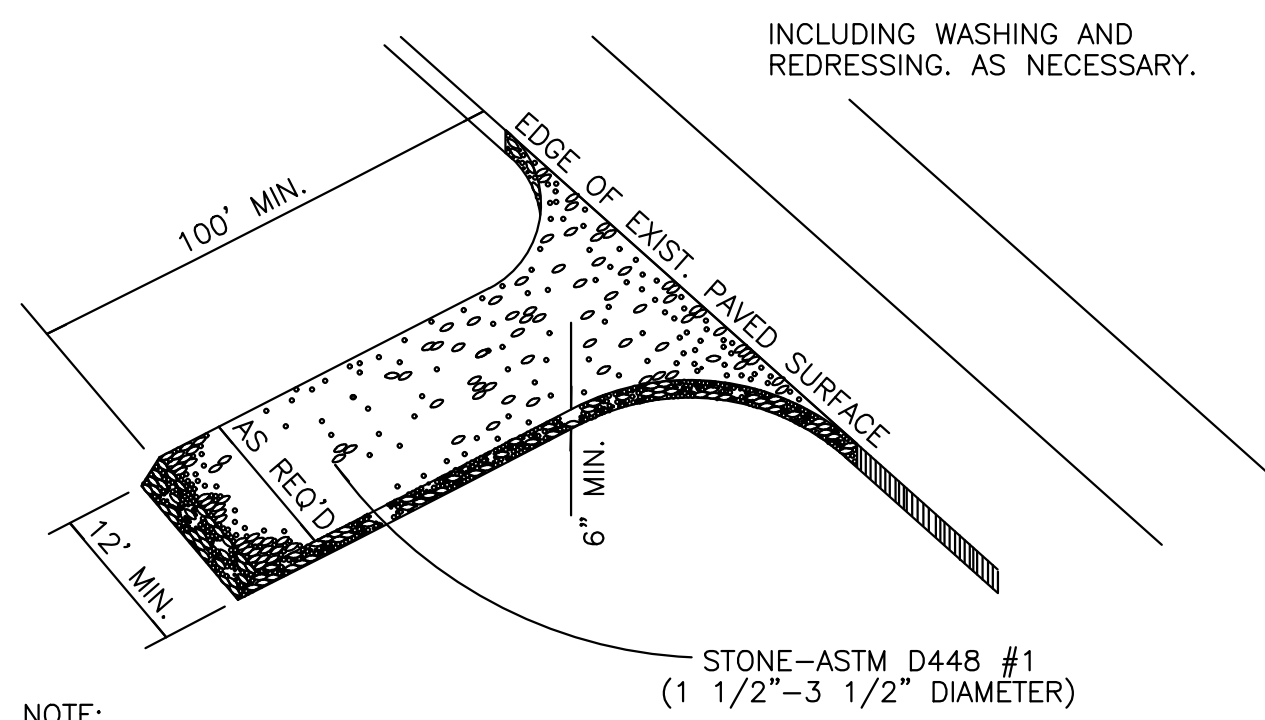
**FINAL EROSION CONTROL PLAN**  
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**MAP 76 PARCEL 54.00**  
**COLUMBIA, TENNESSEE**  
**MAURY COUNTY**

**General Notes**

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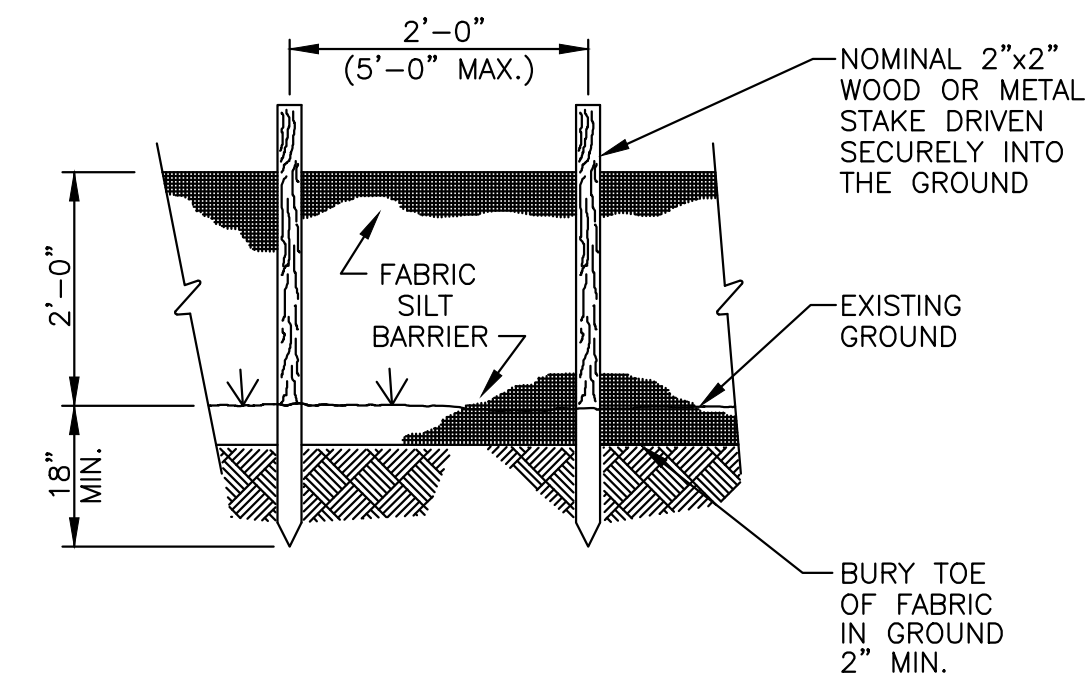
Date **9/19/17** Scale **1"= 30'**

**C4.1**

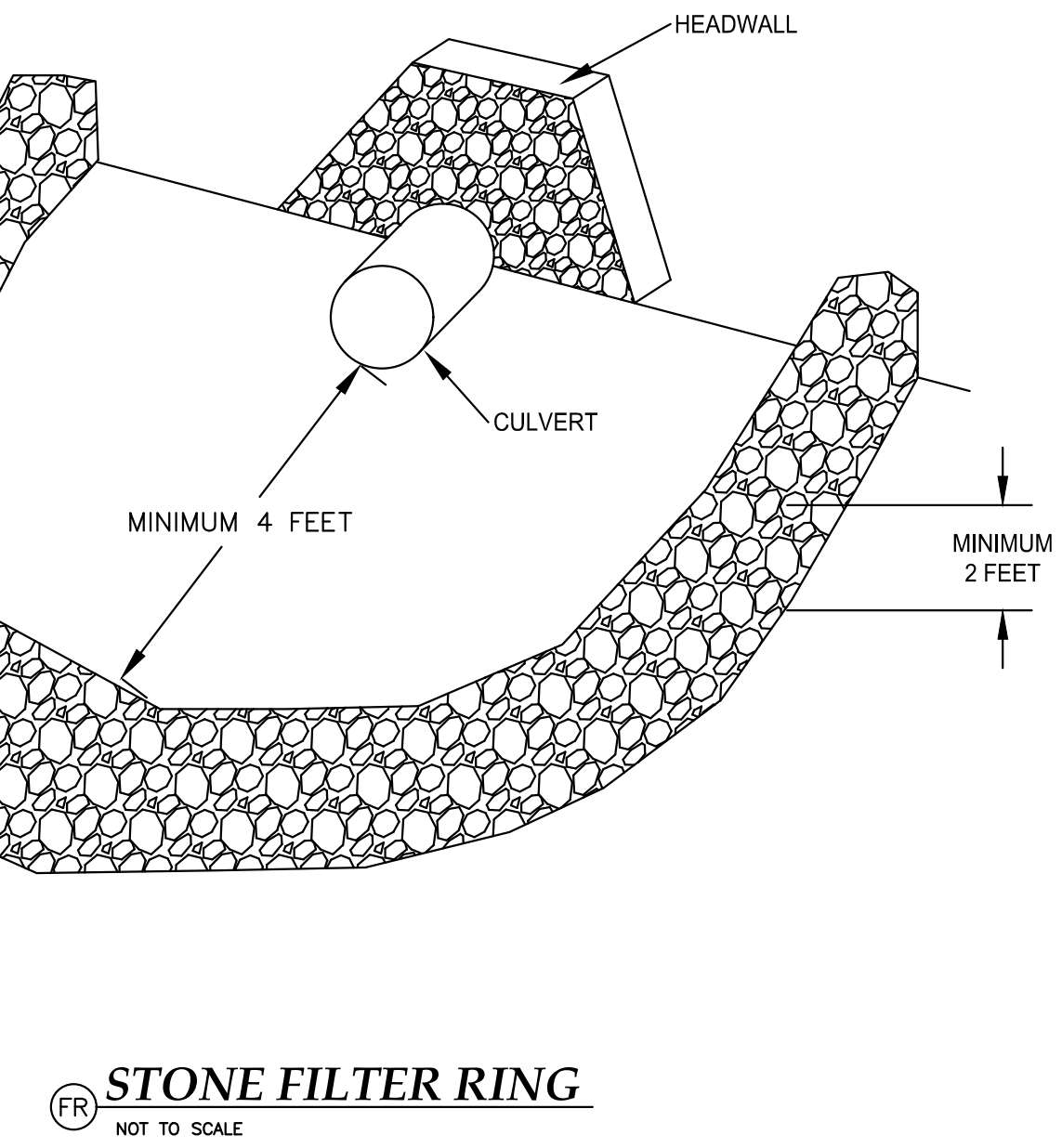
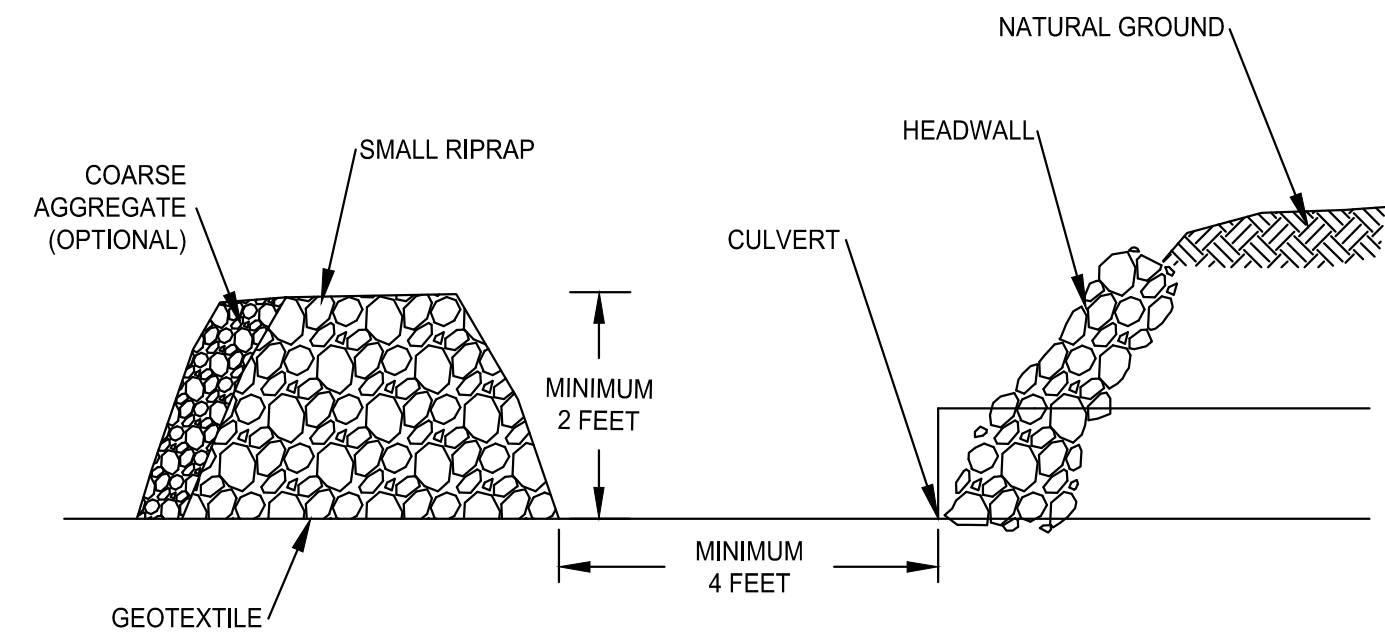


NOTE: GRAVEL PAD IS REQUIRED TO PROVIDE BUFFER AREA WHERE VEHICLES CAN BE CLEARED OF MUD AND SEDIMENT TO AVOID TRANSPORTING IT ONTO EXISTING PAVED SURFACES OR PUBLIC STREETS AND HELP CONTROL EROSION FROM SURFACE RUNOFF.

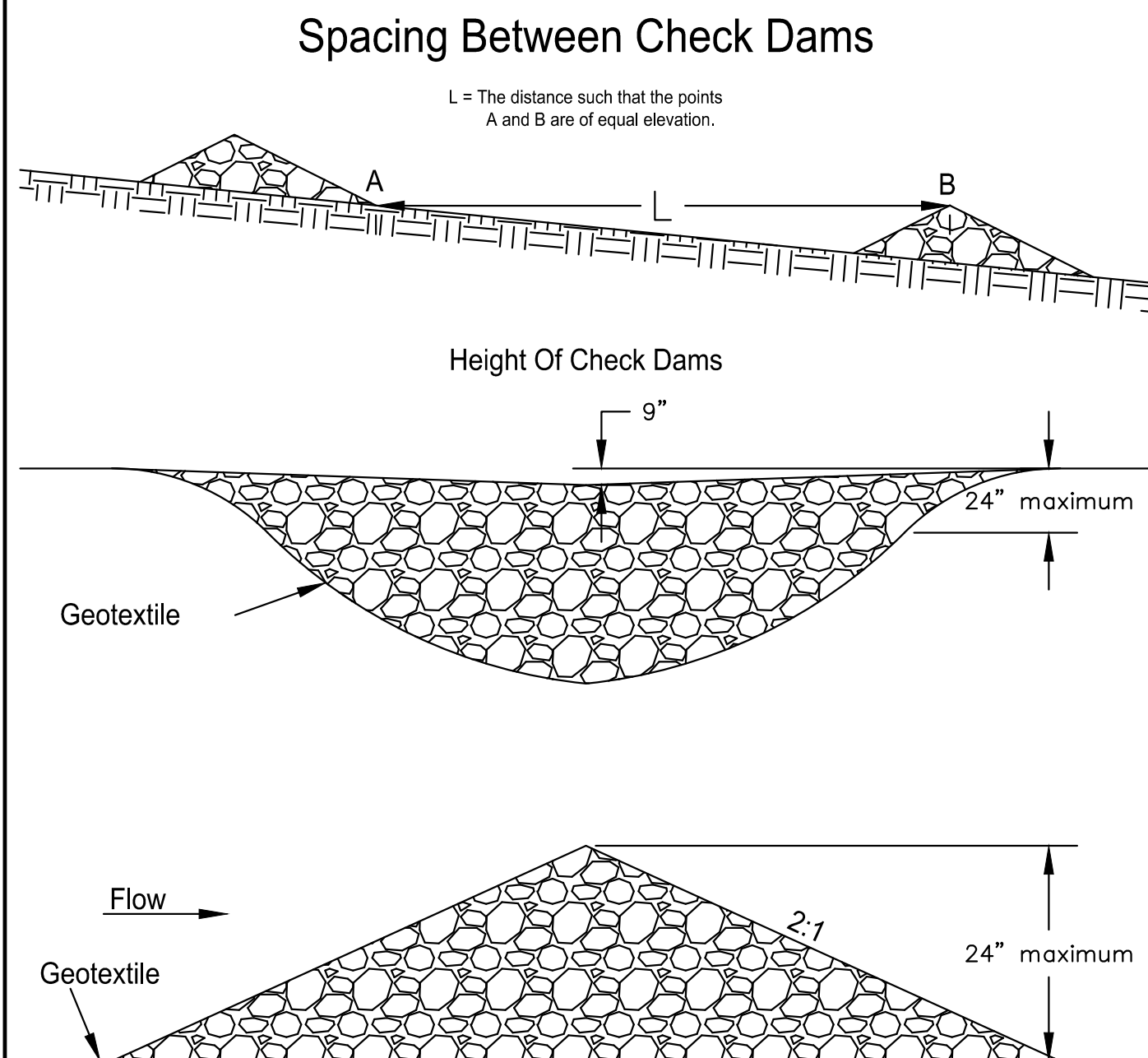
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NOT TO SCALE



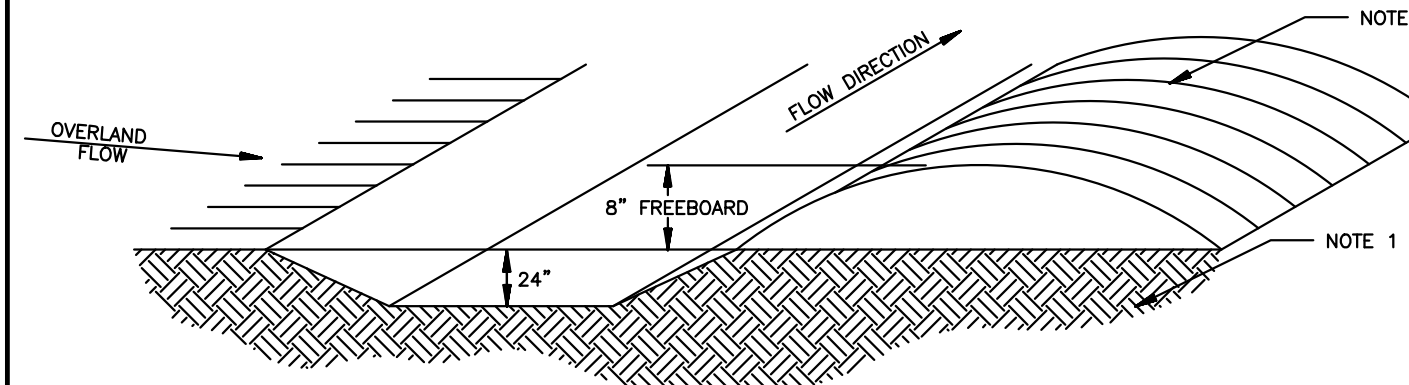
**SF SILT FENCE**  
NOT TO SCALE



**FR STONE FILTER RING**  
NOT TO SCALE



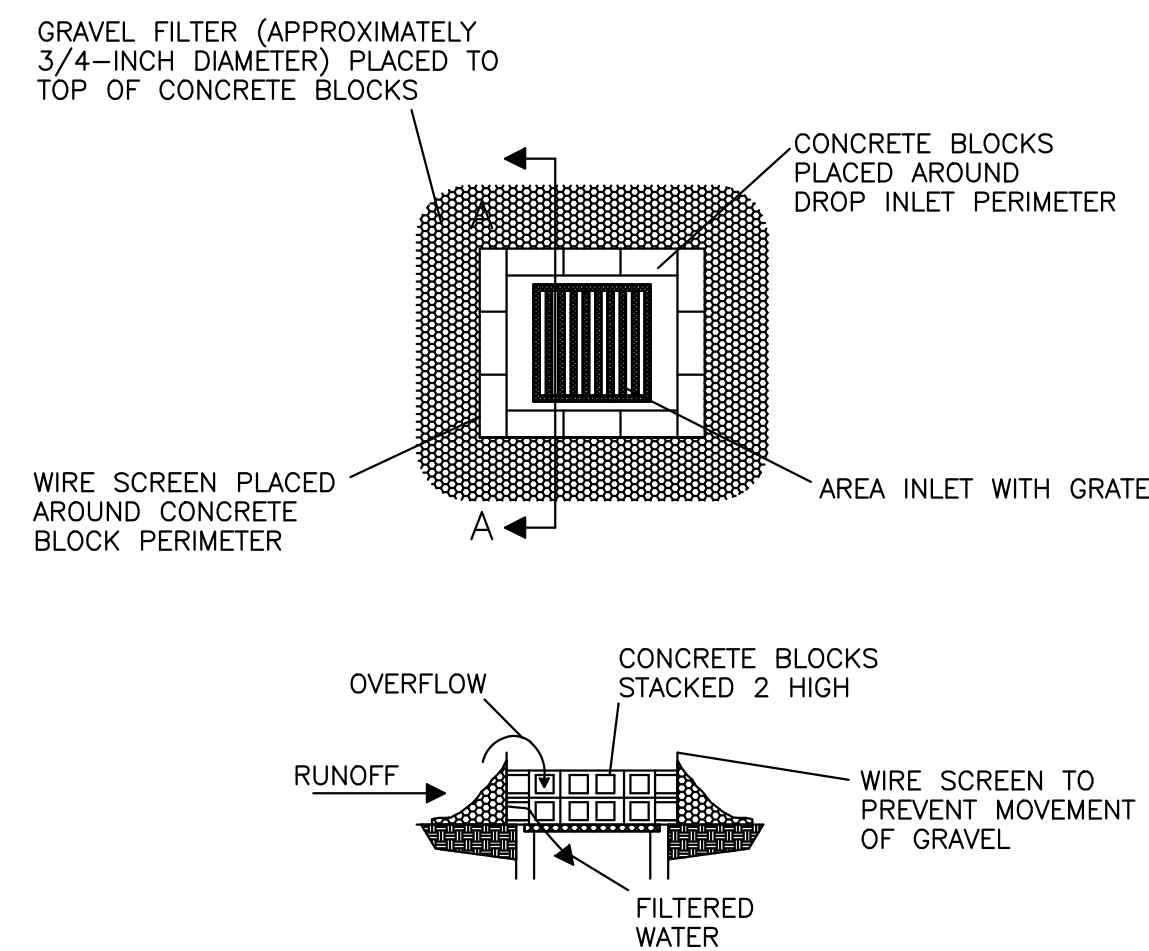
**CD CHECK DAM**  
NOT TO SCALE



**TYPICAL TRAPEZOIDAL DIVERSION**

- NOTES:
1. REMOVE ANY EXISTING VEGETATION AND SCRAPY OR BENCH ADJACENT SOILS PRIOR TO PLACING BERM.
  2. BERM MATERIALS MUST BE ADEQUATELY COMPACTED AND STABILIZED.
  3. REFER TO ERC INITIAL & INTERIM STAGES FOR TEMPORARY AND/OR FINAL STABILIZATION MEASURES.
  4. BERM SHALL NOT BE CONSTRUCTED OF TOPSOIL.

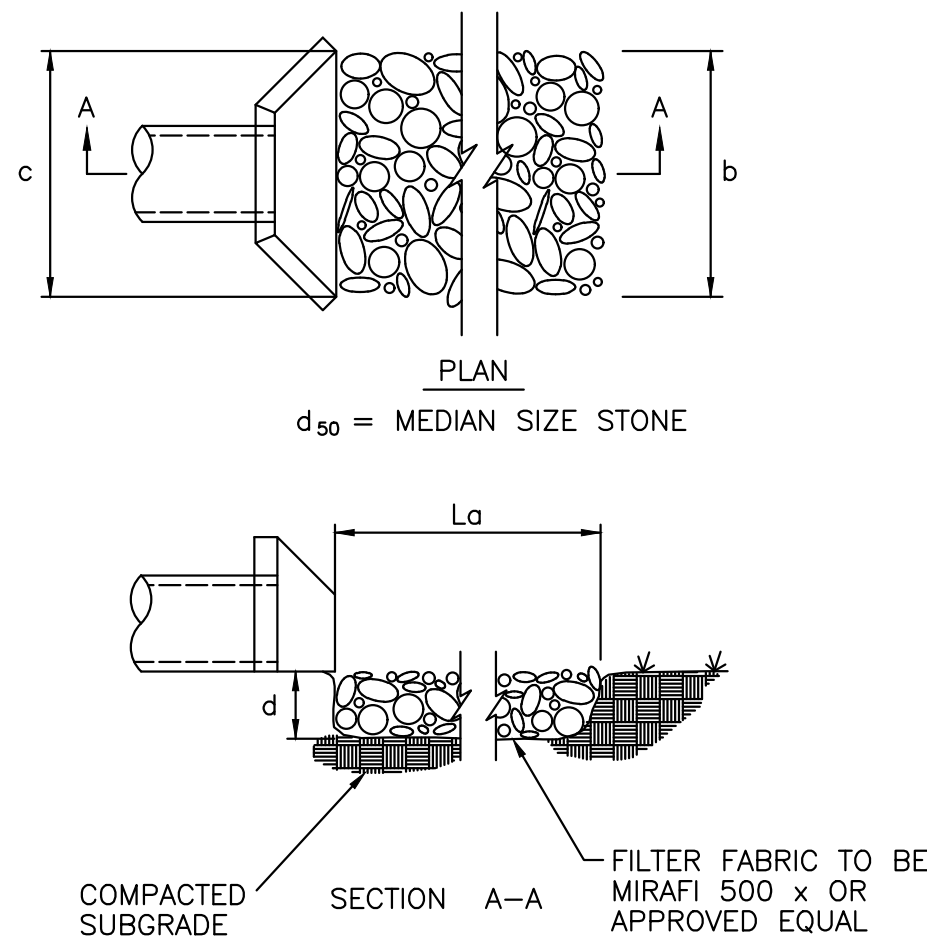
**DV TEMPORARY DIVERSION**  
NOT TO SCALE



**SECTION AA**

NOTE: GRAVEL FILTER MAY BE USED ON PAVEMENT OR BARE GROUND

**IP INLET PROTECTION**  
NOT TO SCALE



DIMENSIONS				
STRUCTURE	b	c	La	d
	6'	6'	10'	6"

**RIP RAP PAD DETAIL**  
NOT TO SCALE

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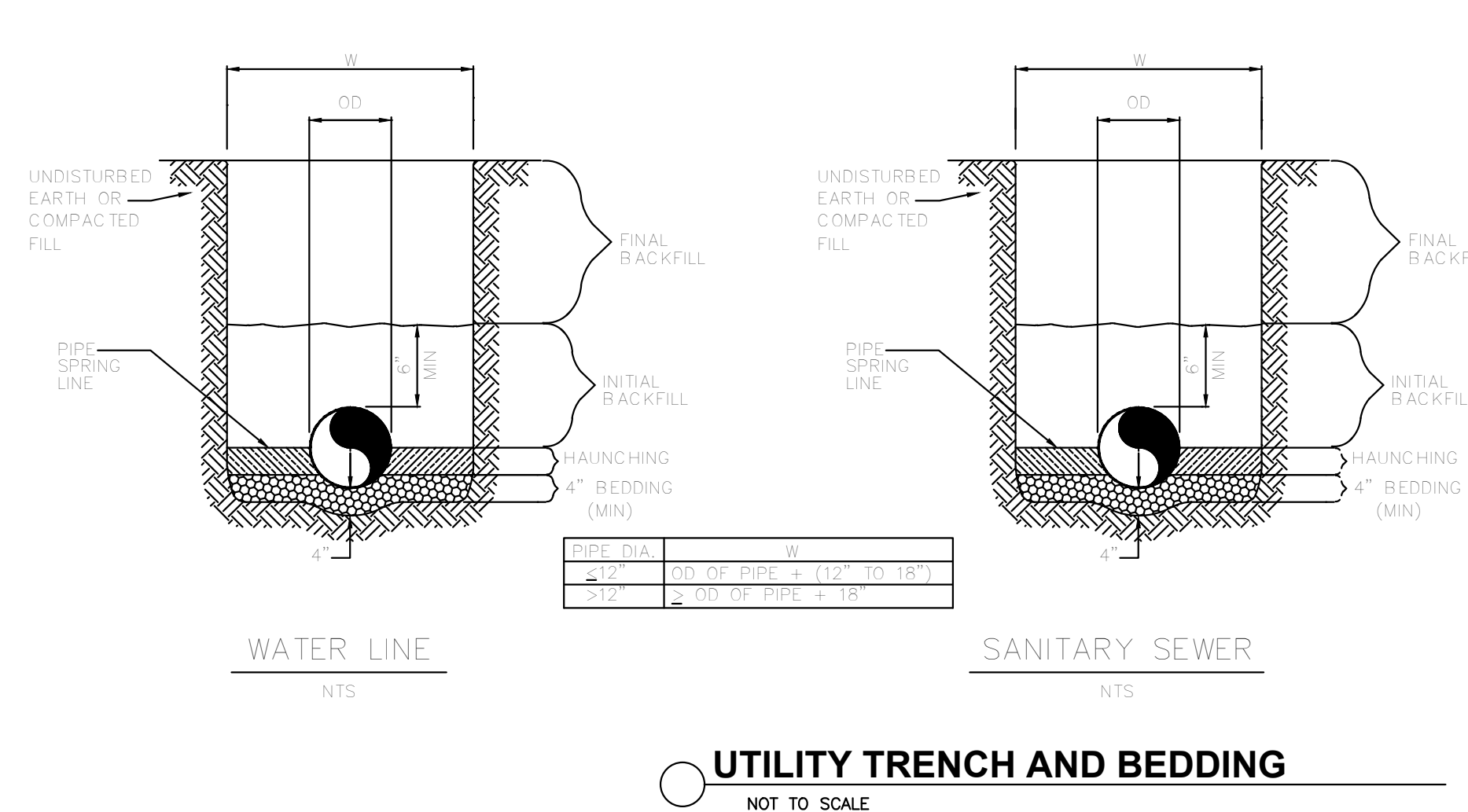
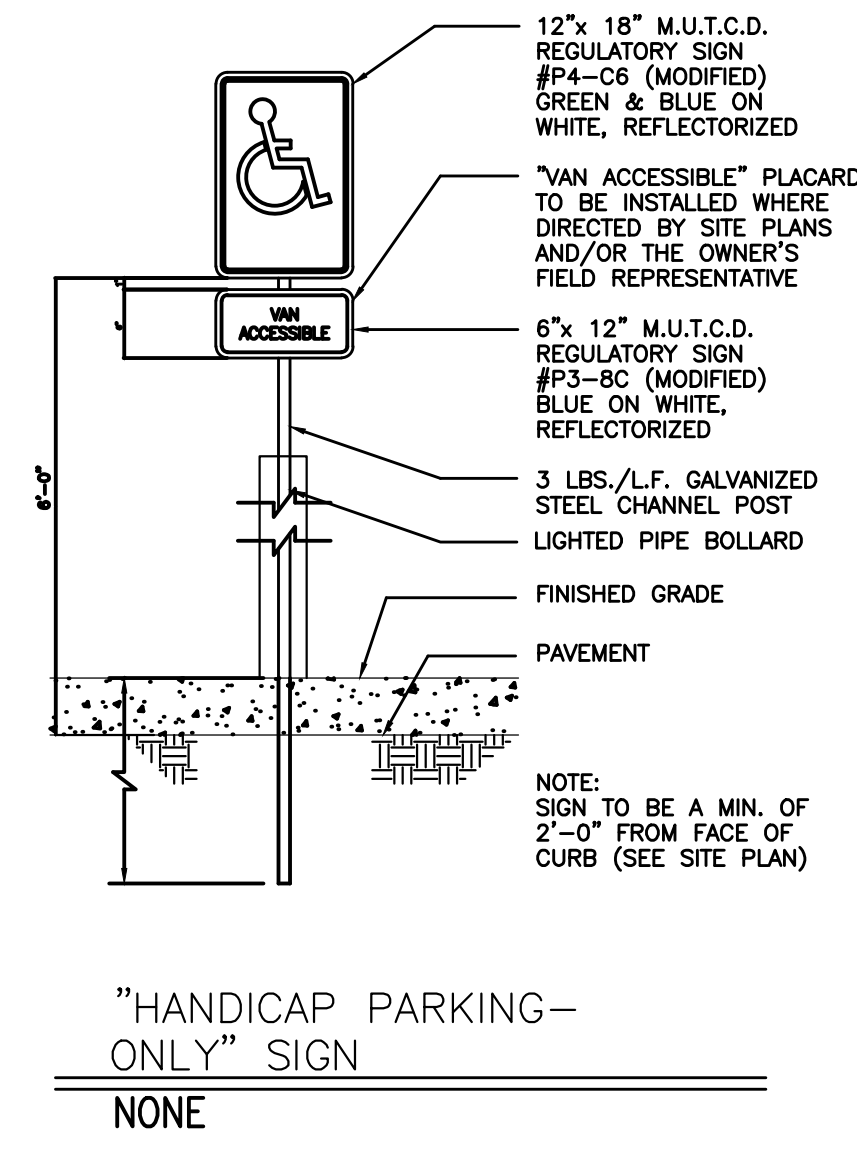
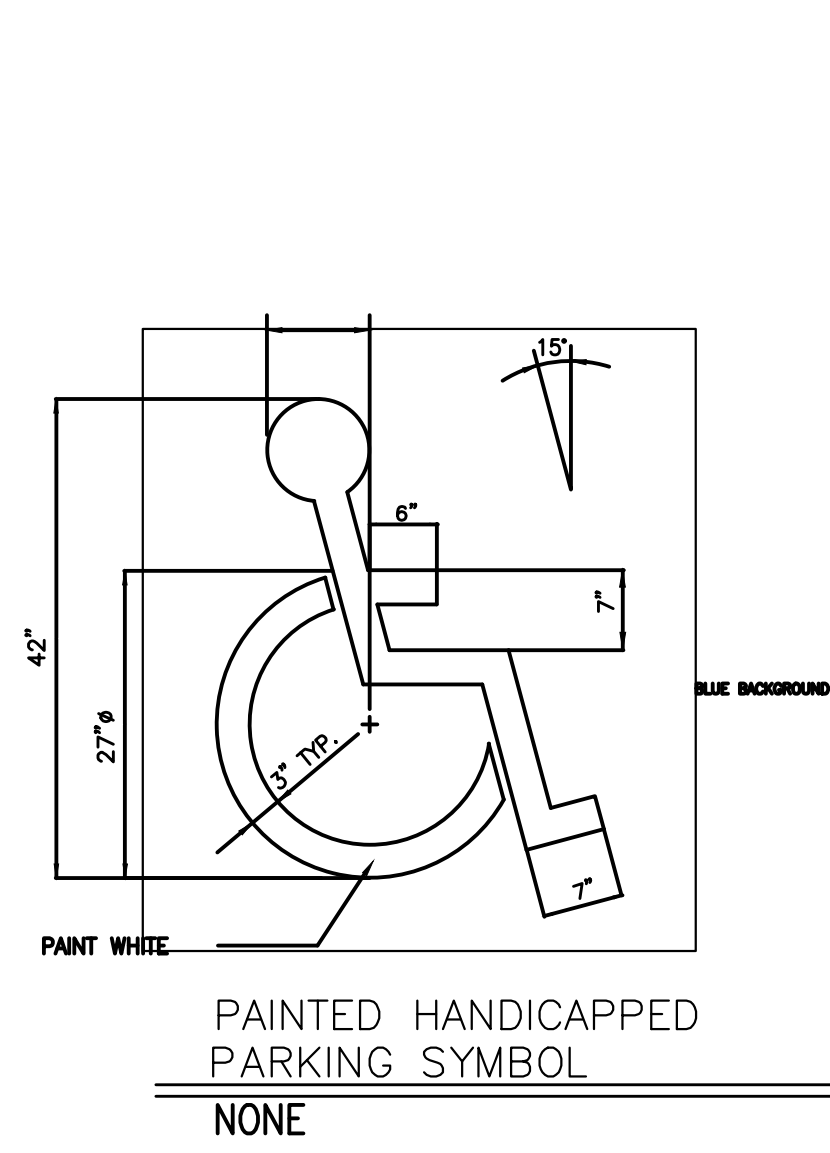
**EROSION CONTROL DETAILS**  
**1300 INDUSTRIAL PARK ROAD**  
**MAP 76 PARCEL 54.00**  
**COLUMBIA, TENNESSEE**  
MAURY COUNTY

**General Notes**

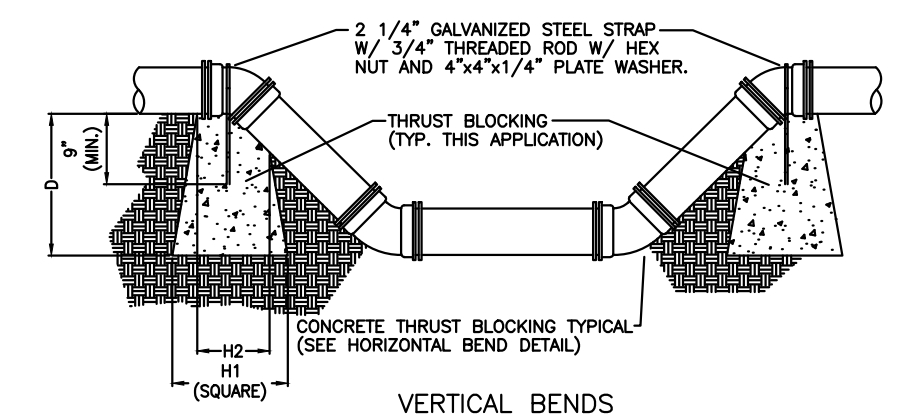
No.	Revision/Issue	Date
1	Revised per Planning received 12-7-17	12-7-17

Date: 9/19/17 Scale: NTS

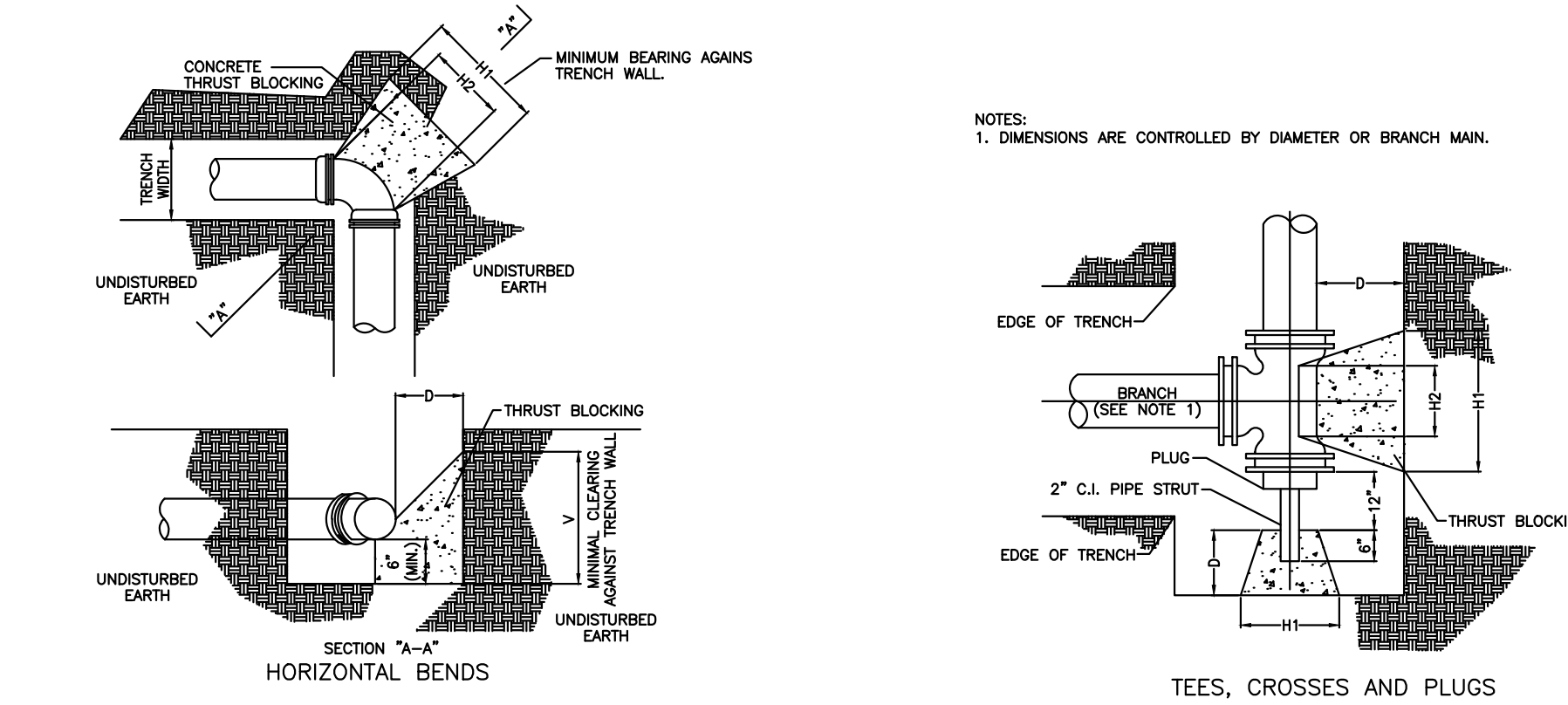
**C4.2**



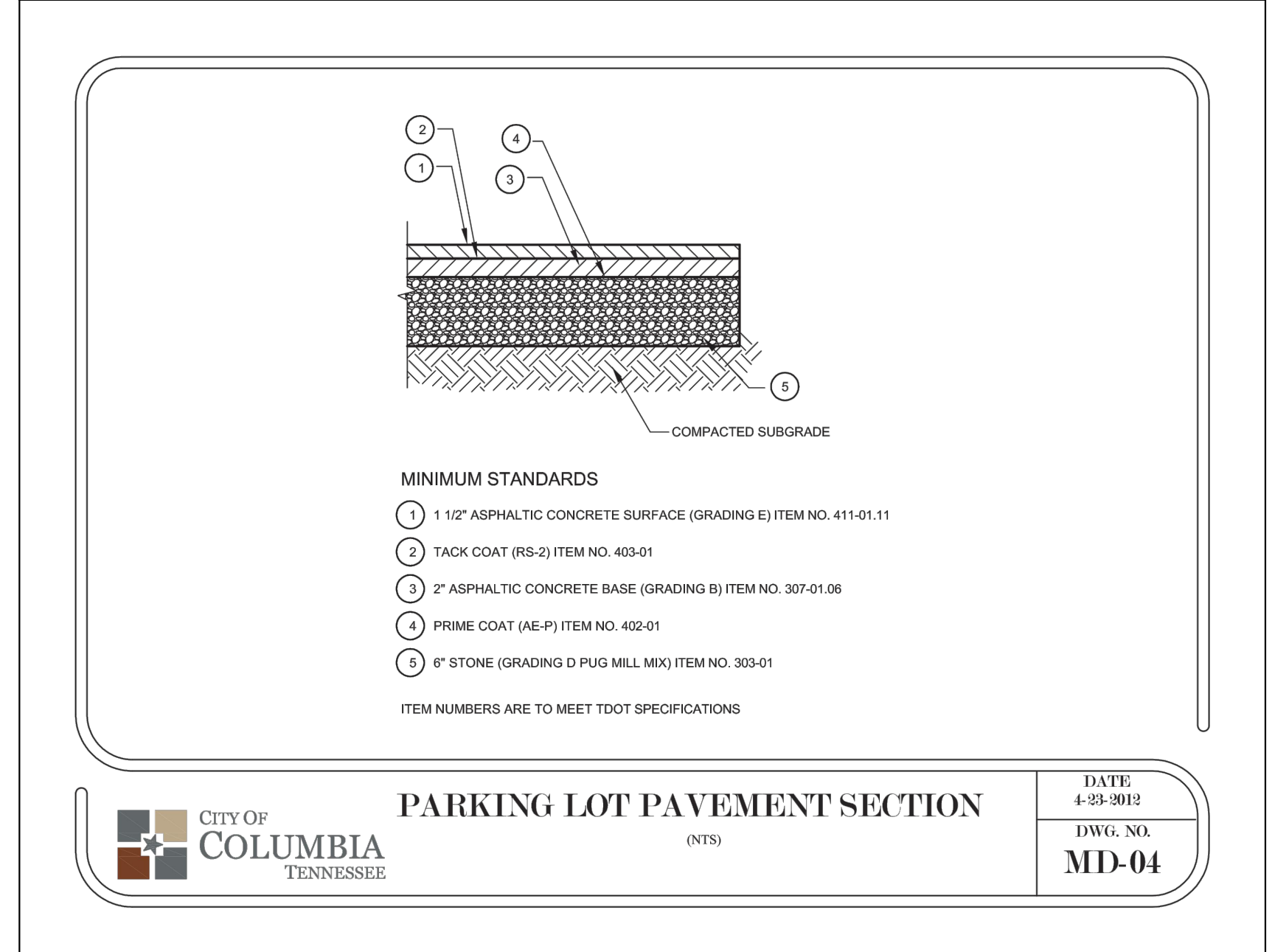
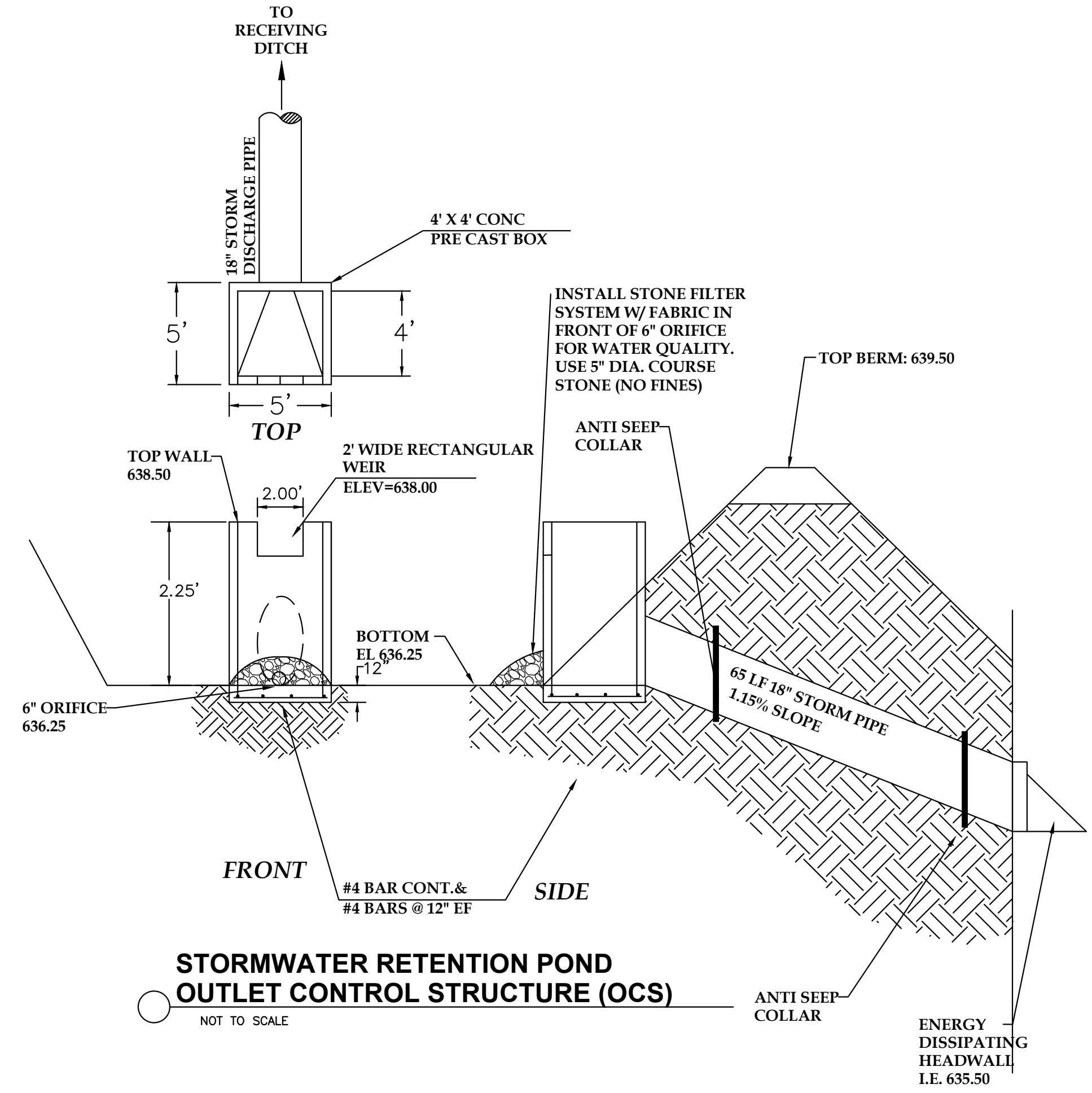
- GENERAL NOTES**
- BEDDING, HAUNCHING, AND INITIAL AND FINAL BACKFILL SHALL CONSIST OF AN APPROVED, NATURALLY OR ARTIFICIALLY WELL-GRADED MIXTURE OF NATURAL OR CRUSHED GRAVEL, CRUSHED STONE, AND NATURAL OR CRUSHED SAND MEETING THE REQUIREMENTS OF ASTM D2321-89 WITH THE EXCEPTION THAT ALL MATERIALS SHALL BE WELL-GRADED, AN OPEN-GRADED MATERIAL MEETING THE REQUIREMENTS OF ASTM D2321-89 MAY BE USED ONLY IF THE MATERIAL IS WRAPPED IN AN APPROVED FILTER OR DRAINAGE FABRIC AND WITH WRITTEN PERMISSION FROM THE ENGINEER.
  - BEDDING, HAUNCHING, AND INITIAL AND FINAL BACKFILL SHALL BE WORKED BY HAND TO ELIMINATE VOIDS.
  - BEDDING, HAUNCHING, AND INITIAL AND FINAL BACKFILL SHALL BE PLACED IN 4-INCH TO 6-INCH LIFTS AND COMPACTED TO AT LEAST 95% OF THE MATERIAL'S MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D698 (STANDARD PROCTOR). FILL SALVAGED FROM EXCAVATION SHALL BE FREE OF DEBRIS, ORGANICS AND ROCKS LARGER THAN 3".
  - ALL TRENCH EXCAVATIONS SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED IN COMPLIANCE WITH OSHA REGULATIONS AND LOCAL ORDINANCES.



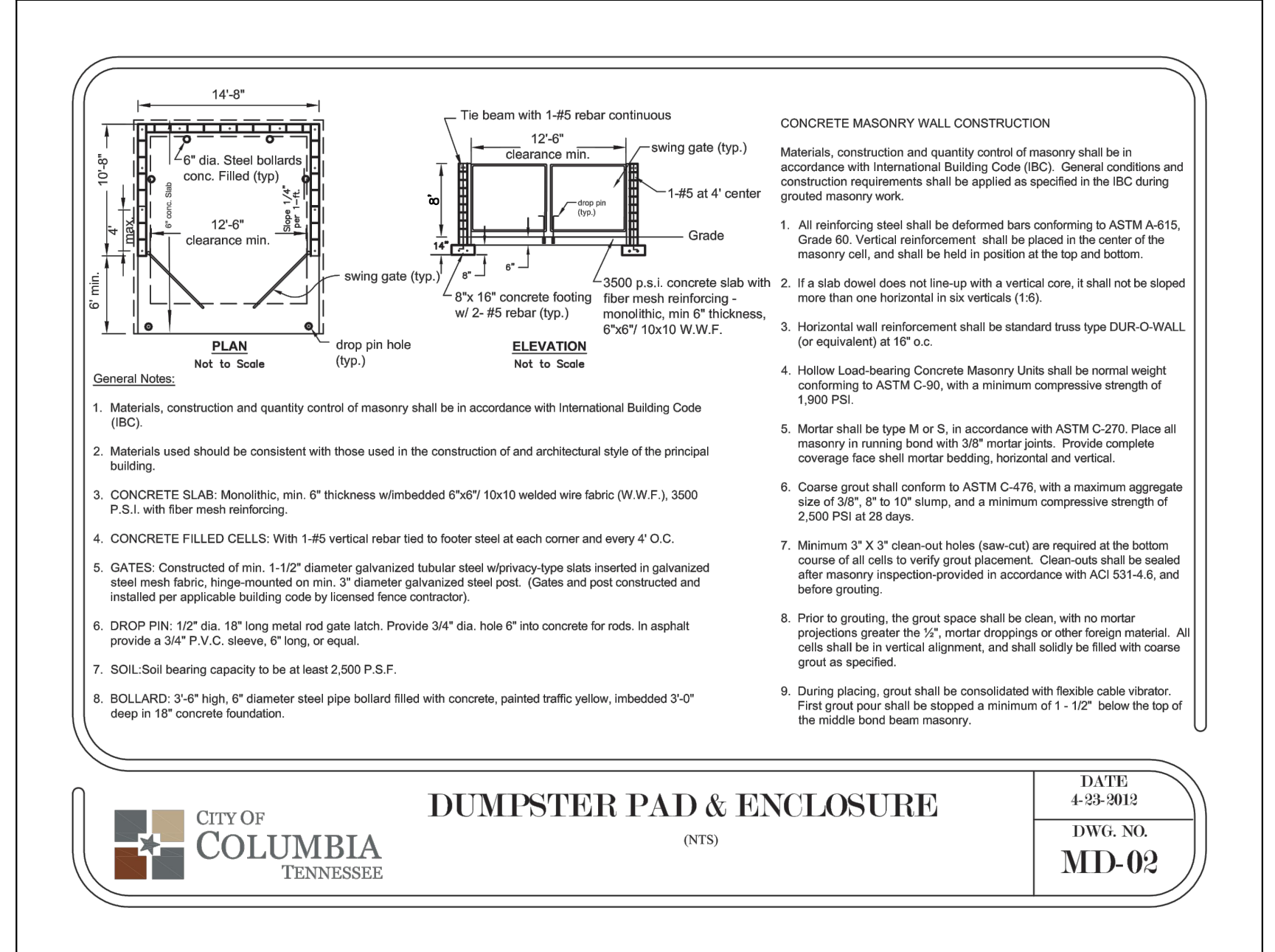
TEES, CROSSES, AND PLUGS	90° BENDS	45° BENDS	22-1/2° BENDS	11-1/4° BENDS	PIPE SIZE
18"	18"	18"	18"	18"	2"
24"	24"	24"	24"	24"	2"
30"	30"	30"	30"	30"	2"
36"	36"	36"	36"	36"	2"
42"	42"	42"	42"	42"	2"
48"	48"	48"	48"	48"	2"
54"	54"	54"	54"	54"	2"
60"	60"	60"	60"	60"	2"
66"	66"	66"	66"	66"	2"
72"	72"	72"	72"	72"	2"
78"	78"	78"	78"	78"	2"
84"	84"	84"	84"	84"	2"
90"	90"	90"	90"	90"	2"
96"	96"	96"	96"	96"	2"
102"	102"	102"	102"	102"	2"
108"	108"	108"	108"	108"	2"
114"	114"	114"	114"	114"	2"
120"	120"	120"	120"	120"	2"
126"	126"	126"	126"	126"	2"
132"	132"	132"	132"	132"	2"
138"	138"	138"	138"	138"	2"
144"	144"	144"	144"	144"	2"
150"	150"	150"	150"	150"	2"
156"	156"	156"	156"	156"	2"
162"	162"	162"	162"	162"	2"
168"	168"	168"	168"	168"	2"
174"	174"	174"	174"	174"	2"
180"	180"	180"	180"	180"	2"
186"	186"	186"	186"	186"	2"
192"	192"	192"	192"	192"	2"
198"	198"	198"	198"	198"	2"
204"	204"	204"	204"	204"	2"
210"	210"	210"	210"	210"	2"
216"	216"	216"	216"	216"	2"
222"	222"	222"	222"	222"	2"
228"	228"	228"	228"	228"	2"
234"	234"	234"	234"	234"	2"
240"	240"	240"	240"	240"	2"
246"	246"	246"	246"	246"	2"
252"	252"	252"	252"	252"	2"
258"	258"	258"	258"	258"	2"
264"	264"	264"	264"	264"	2"
270"	270"	270"	270"	270"	2"
276"	276"	276"	276"	276"	2"
282"	282"	282"	282"	282"	2"
288"	288"	288"	288"	288"	2"
294"	294"	294"	294"	294"	2"
300"	300"	300"	300"	300"	2"



**CONCRETE THRUST BLOCKING**  
NOT TO SCALE

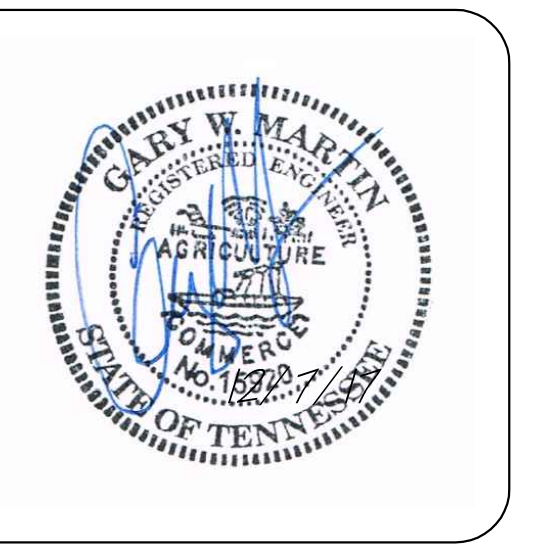


**PARKING LOT PAVEMENT SECTION**  
NTS  
DATE: 4-23-2012  
DWG. NO: MD-04



**DUMPSTER PAD & ENCLOSURE**  
NTS  
DATE: 4-23-2012  
DWG. NO: MD-02

**MARTIN ENGINEERING & SURVEYING, LLC**  
5226 Main Street, Suite C-3  
Spring Hill, TN 37174  
615.812.2147  
gary@martinengr.com



**CONSTRUCTION DETAILS**  
**1300 INDUSTRIAL PARK ROAD**  
**MAP 76 PARCEL 54.00**  
**COLUMBIA, TENNESSEE**  
MAURY COUNTY

**General Notes**

No.	Revision/Issue	Date
1	Revised per Planning received 12-7-17	12-7-17

Date: 9/19/17  
Scale: NTS  
**C6.0**





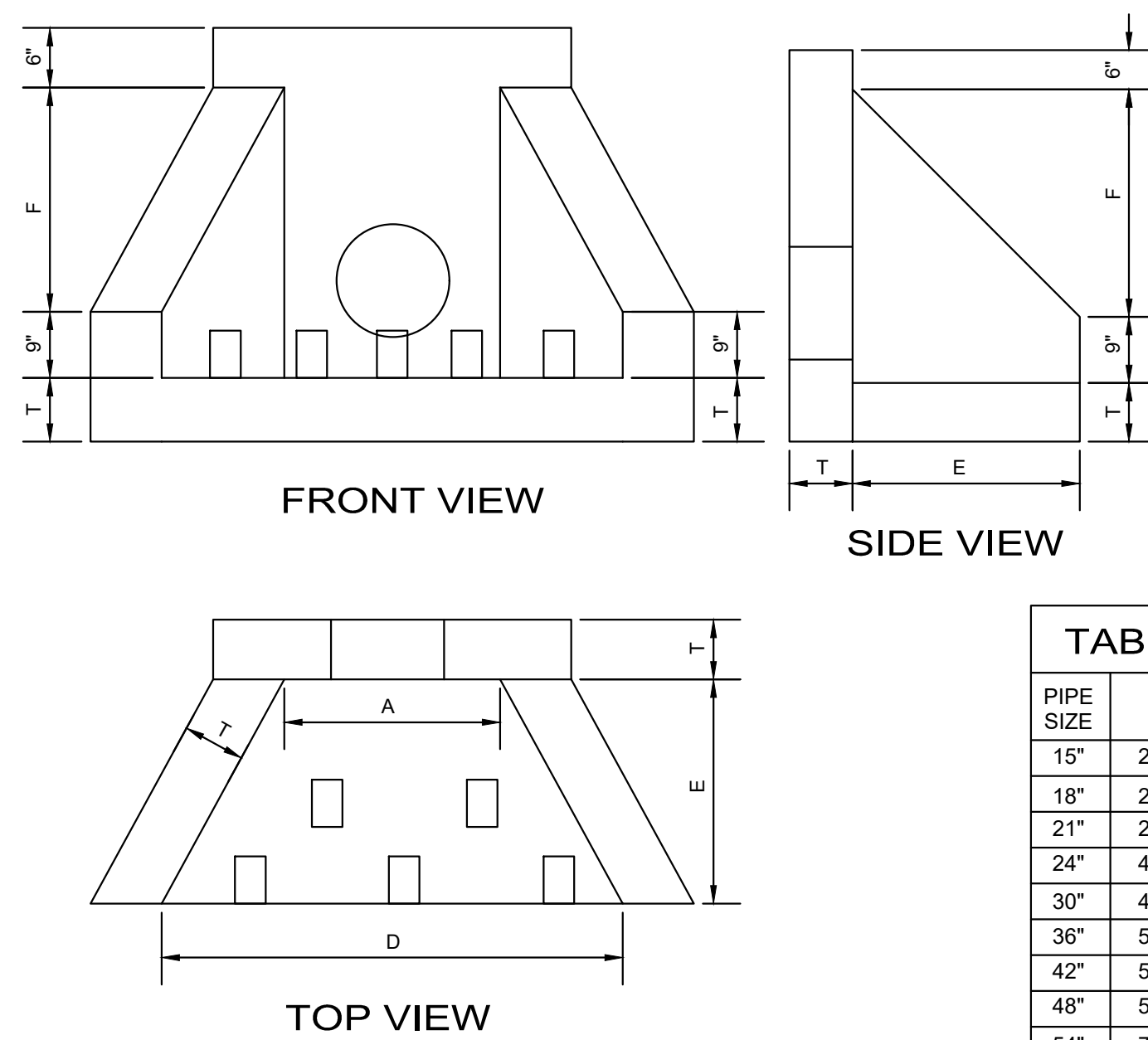
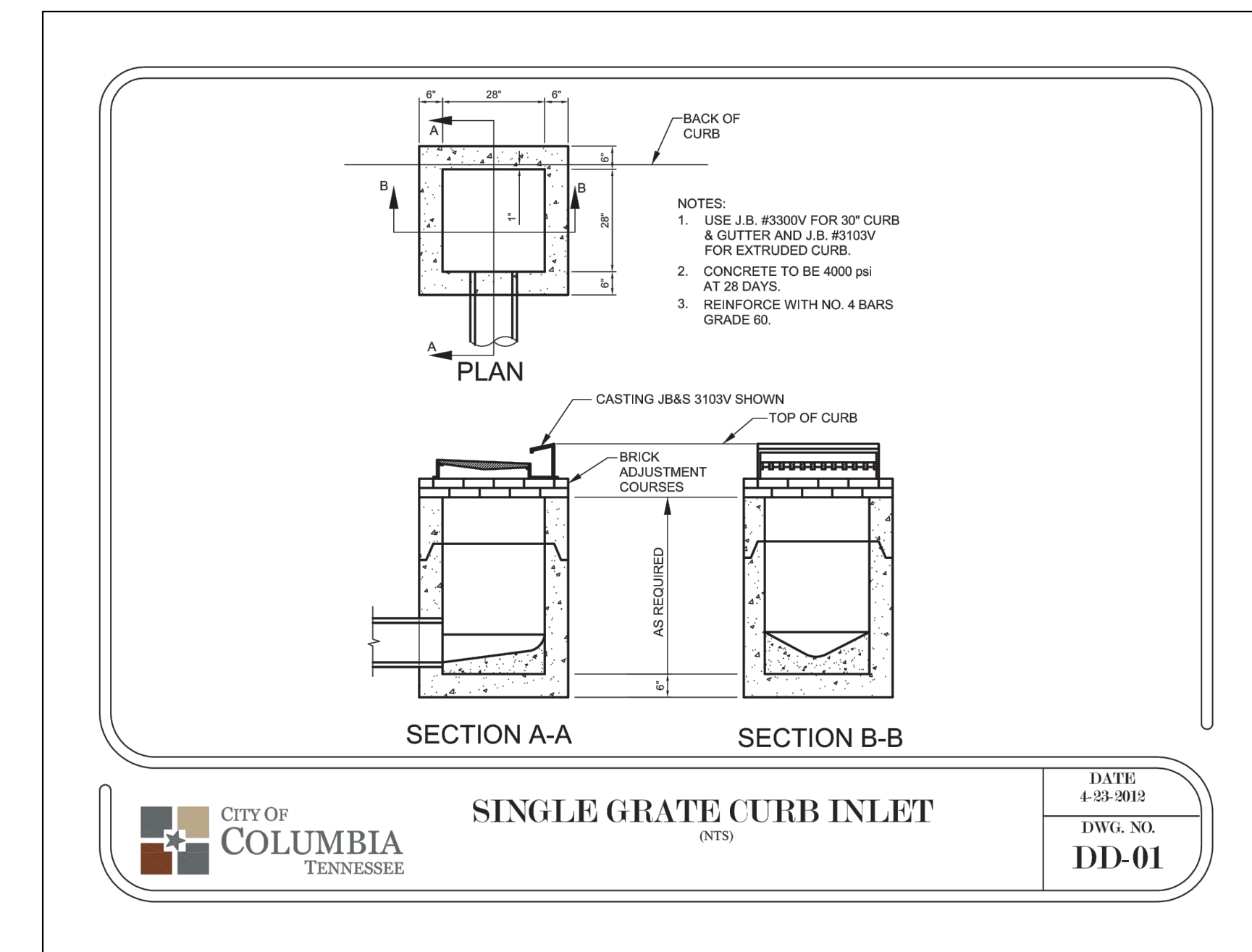
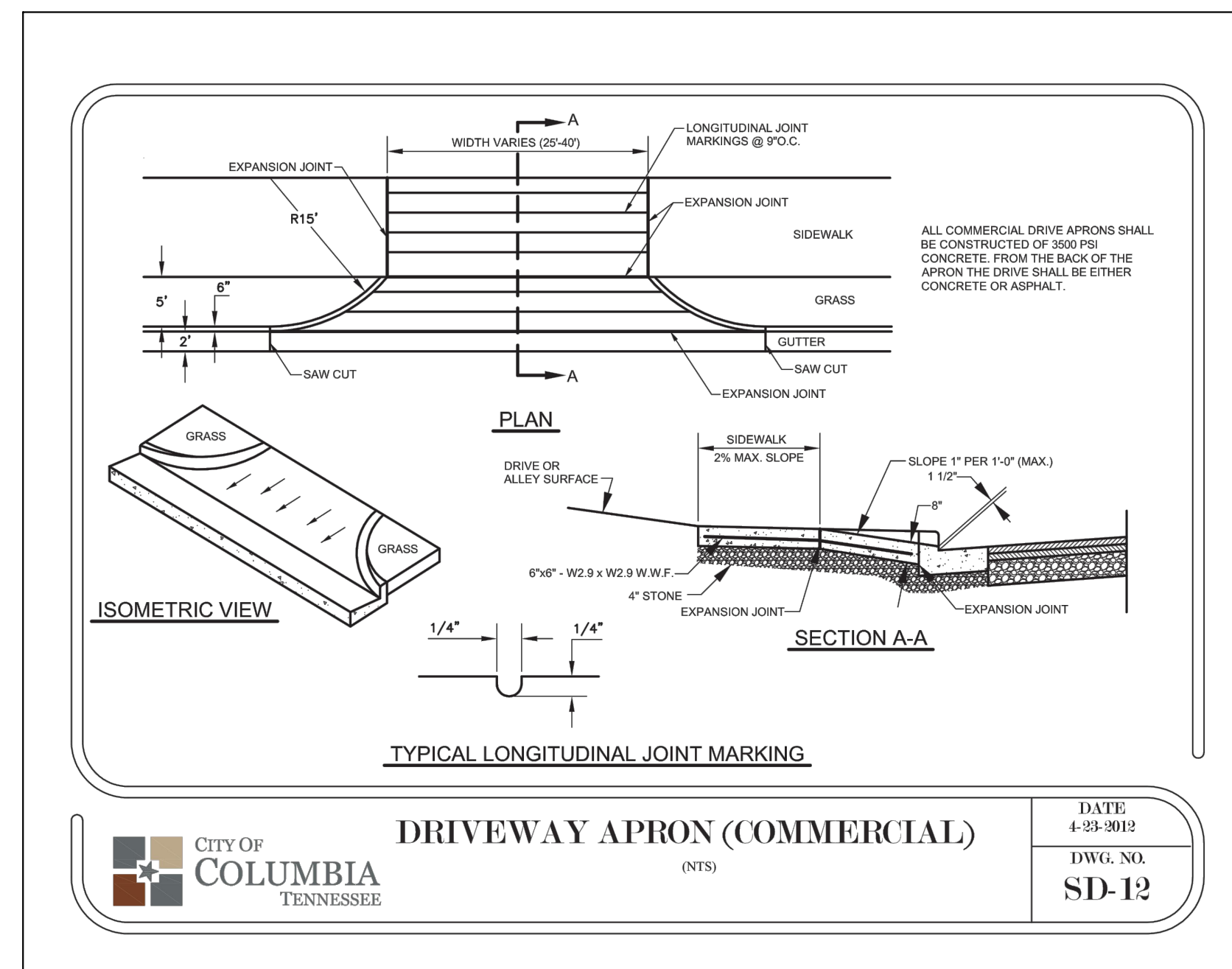
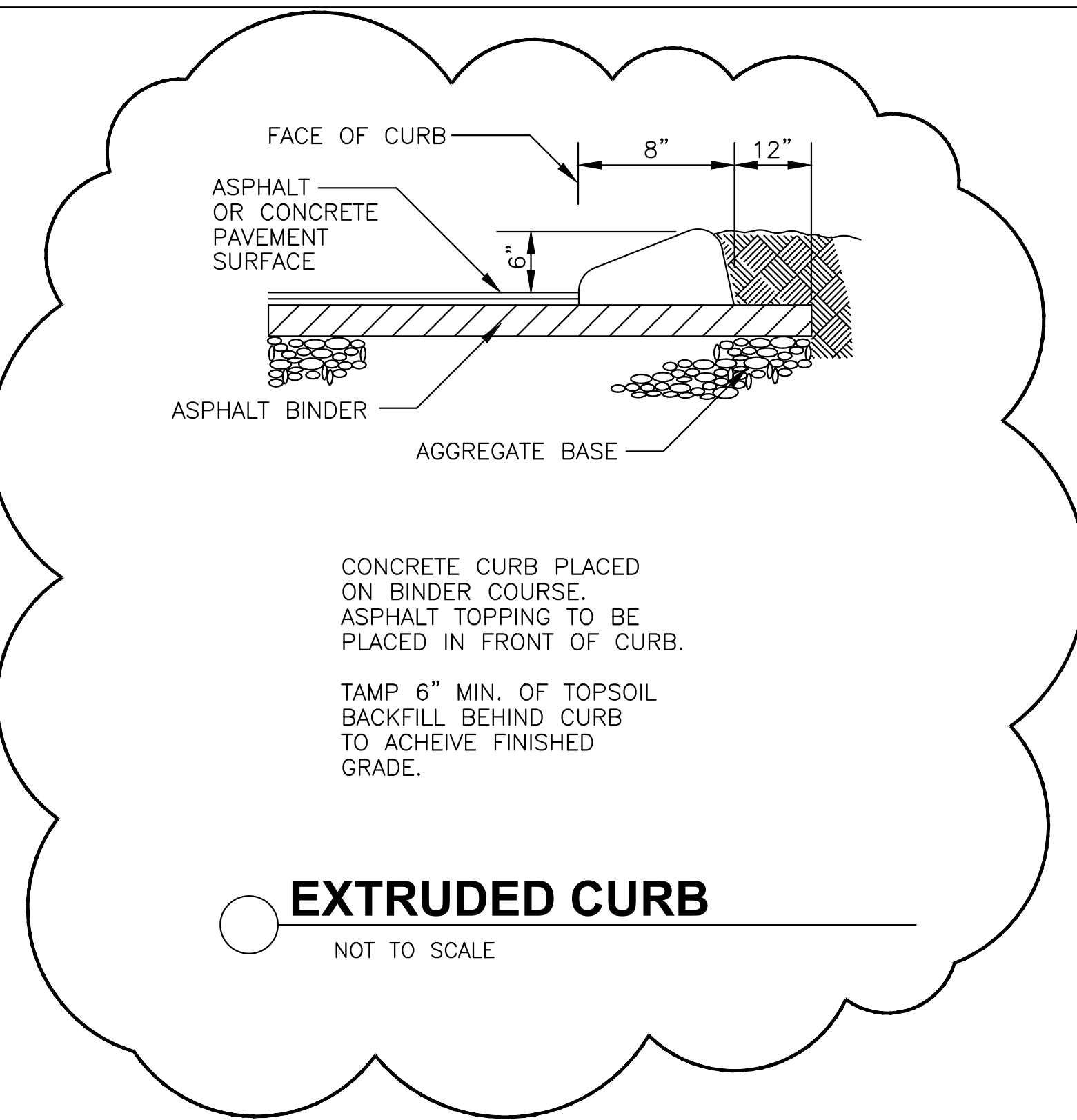
**CONSTRUCTION DETAILS**  
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**General Notes**

No.	Revision/Issue	Date
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Date: **9/19/17** Scale: **NTS**

**C6.1**

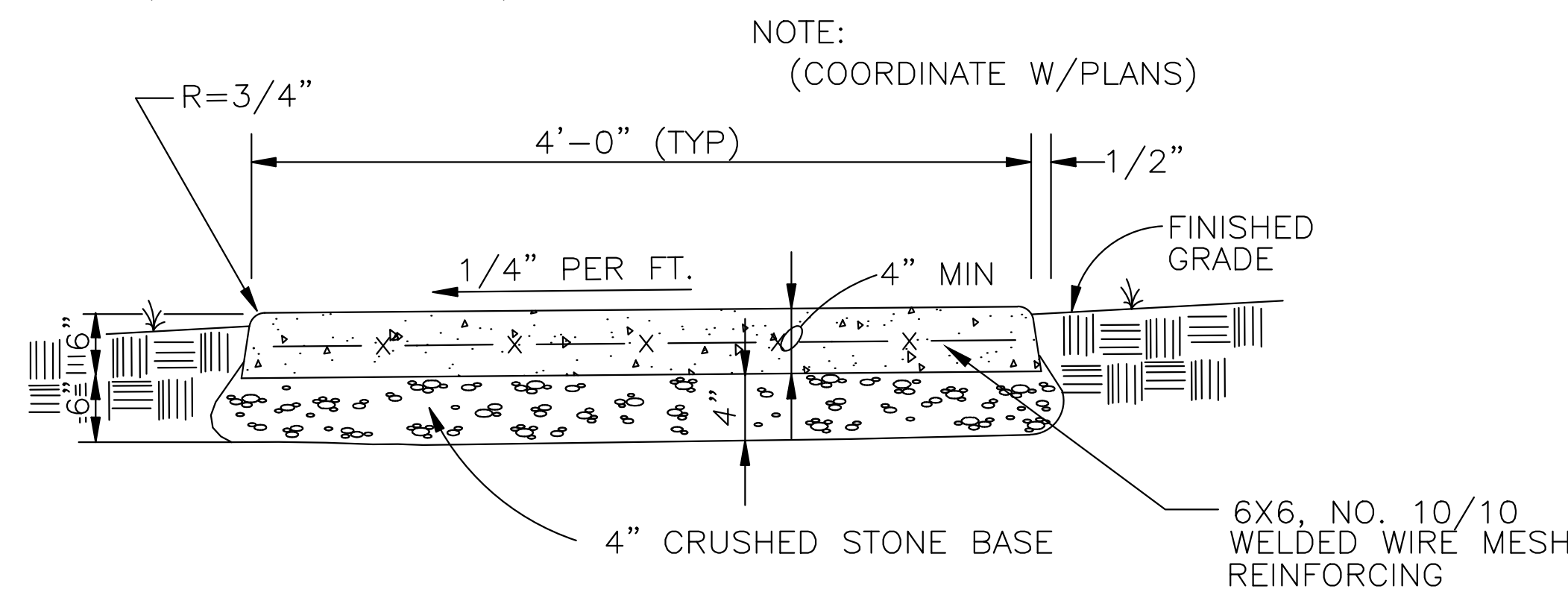


**TABLE OF DIMENSIONS**

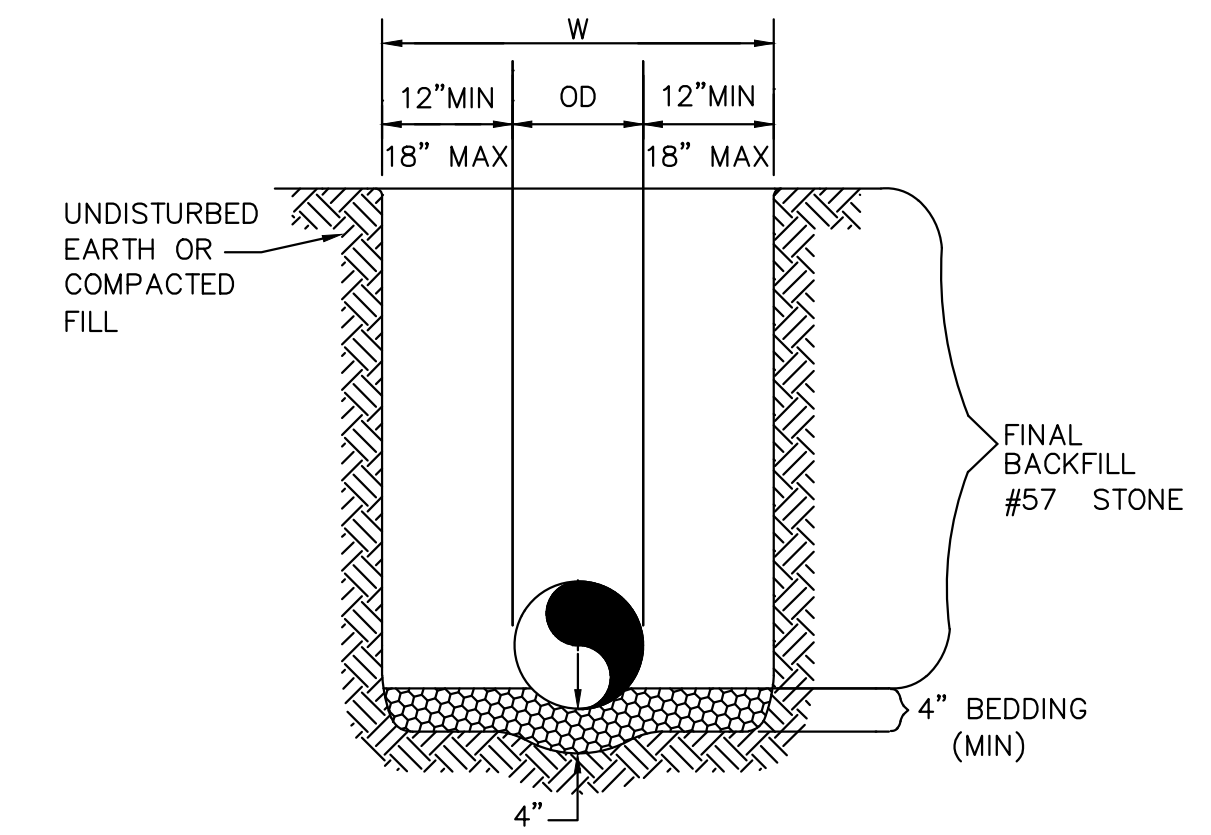
PIPE SIZE	A	D	E	F	T (MIN.)
15"	2'-6"	5'-0"	2'-6"	1'-9"	6"
18"	2'-6"	5'-0"	2'-6"	1'-9"	6"
21"	2'-6"	5'-0"	2'-6"	1'-9"	6"
24"	4'-0"	6'-6"	4'-0"	3'-3"	6"
30"	4'-0"	6'-6"	4'-0"	3'-3"	6"
36"	5'-6"	8'-0"	3'-6"	4'-5"	6"
42"	5'-6"	8'-0"	3'-6"	4'-5"	6"
48"	5'-6"	8'-0"	3'-6"	4'-5"	6"
54"	7'-0"	9'-5"	4'-6"	5'-9"	6"
60"	7'-0"	9'-5"	4'-6"	5'-9"	6"
66"	8'-6"	11'-0"	5'-6"	6'-11"	6"
72"	8'-6"	11'-0"	5'-6"	6'-11"	6"

**ENERGY DISSIPATING CONCRETE HEADWALL DETAIL**  
 NOT TO SCALE

SCORE WALKS EVERY 5'.  
 CONSTRUCT 1/2" EXPANSION JOINTS @ MAX. 20' INTERVALS.  
 (SEE DETAILS BELOW)



**CONCRETE SIDEWALK**  
 NOT TO SCALE



**REINFORCED CONCRETE PIPE (RCP) SMALLER THAN 60" Ø**  
 NTS

**GENERAL NOTES**

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**STORM SEWER TRENCH AND BEDDING**  
 NOT TO SCALE

