

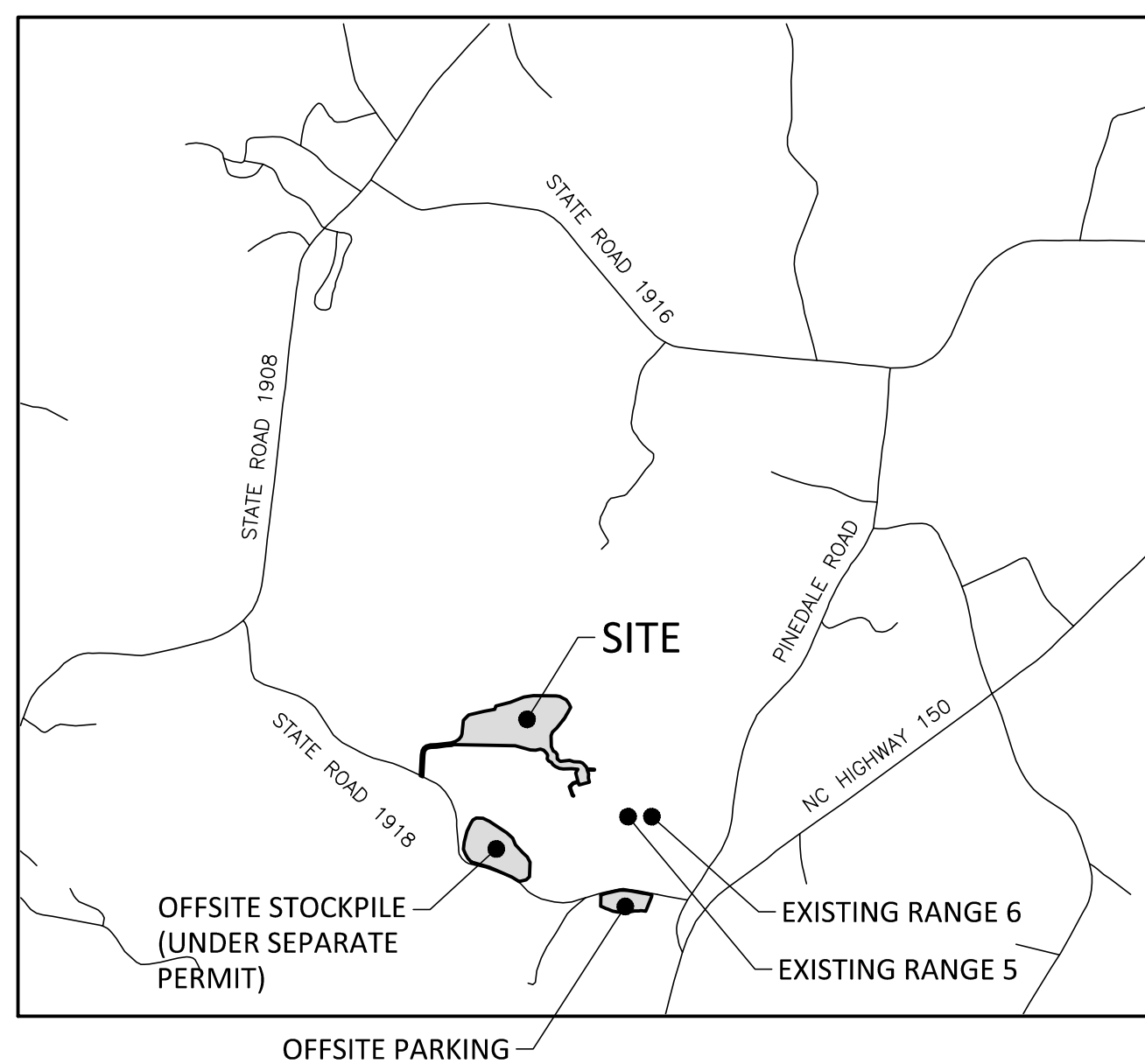
FOOTHILLS SHOOTING COMPLEX IMPROVEMENTS SKEET AND TRAP EXPANSION

283 FIELDING ROAD
CHERRYVILLE, NORTH CAROLINA 28021

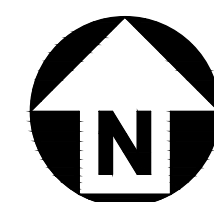
CONSTRUCTION DRAWINGS

PROJECT NUMBER: CCY-18010

DATE: MAY 4th, 2020



VICINITY MAP
N.T.S.



Know what's below.
Call before you dig.

CONTRACTOR SHALL NOTIFY "NC811" (811) OR (1-800-632-4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NC811". REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.

SITE DATA BLOCK	
OWNER/DEVELOPER	CLEVELAND COUNTY P.O. BOX 1210 SHELBY, NORTH CAROLINA 28151
PARCEL	PIN NO. 2568036106
DEED BOOK	1540-1996
ZONING DISTRICT	HEAVY INDUSTRIAL/RURAL AGRICULTURE
RIVER BASIN	YAD (YADKIN PEE DEE)
EXISTING USE	LANDFILL AND SHOOTING RANGE
PROPOSED USE	LANDFILL AND SHOOTING RANGE
REQUIRED PARKING SPACES	N/A
PARCEL ACREAGE	918.25 ACRES
DISTURBED AREA	19.73 ACRES (2.15%)

SHEET INDEX

S-1	EXISTING CONDITIONS
S-2	OFFSITE PARKING - EXISTING CONDITIONS
C-1	DEMOLITION PLAN
C-2	OVERALL SITE PLAN
C-3	SITE PLAN
C-4	OVERALL GRADING PLAN
C-5	GRADING PLAN
C-6	UTILITY PLAN
C-7	OFFSITE PARKING - DEMOLITION PLAN
C-8	OFFSITE PARKING - SITE PLAN
C-9	OFFSITE PARKING - GRADING PLAN
P-1	PROFILE - ACCESS ROAD
P-2	PLAN AND PROFILE - STORM OUTFALL "A"
EC-1	EROSION CONTROL PLAN - STAGE 1
EC-2	EROSION CONTROL PLAN - STAGE 2
EC-3	OFFSITE PARKING - EROSION CONTROL PLAN - STAGE 1
EC-4	OFFSITE PARKING - EROSION CONTROL PLAN - STAGE 2
EC-5	EROSION CONTROL DETAILS
EC-6	EROSION CONTROL DETAILS
EC-7	EROSION CONTROL DETAILS
SW-1	STORM WATER CONTROL MEASURE PLAN VIEW
SW-2	STORM WATER CONTROL MEASURE DETAILS
D-1	SITE DETAILS
D-2	NATIONAL RIFLE ASSOCIATION SITE DETAILS
D-3	STORM DRAINAGE DETAILS
E0.00	ELEC. SYMBOLS, LEGENDS AND ABBREVIATIONS
E1.00	ELECTRICAL SITE PLAN
E5.00	ELECT. DETAILS



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CONTACT

MARK HAMLETT, PE.
hamlett@mcadamsco.com
PHONE: 919.361.5000

CLIENT

CLEVELAND COUNTY
P.O. BOX 1210
SHELBY, NORTH CAROLINA 28151

PROJECT DIRECTORY



REVISIONS

NO. DATE

PERMITTING DRAWINGS FOR:

FOOTHILLS SHOOTING
COMPLEX IMPROVEMENTS
SKEET AND TRAP EXPANSION
CLEVELAND COUNTY, NC. 28021
PROJECT NUMBER: CCY-18010

FINAL DRAWING - FOR CONSTRUCTION



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283 FIELDING ROAD, CHERRYVILLE, CLEVELAND COUNTY, NC. 28021



REVISIONS

NO. DATE

PLAN INFORMATION

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FILENAME CCY18010-DM1
CHECKED BY MJM
DRAWN BY SMP
SCALE 1"=60'
DATE 07.11.2019

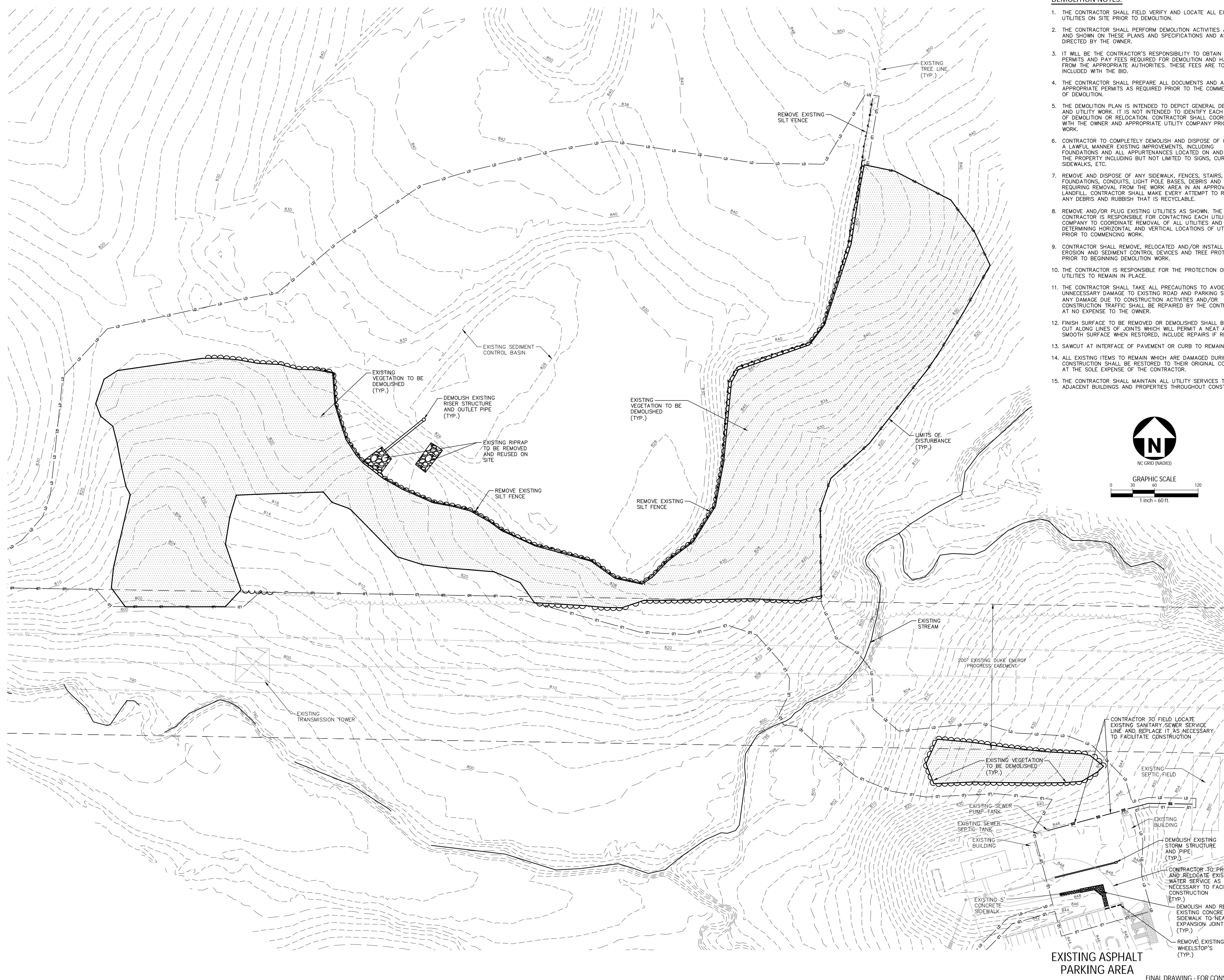
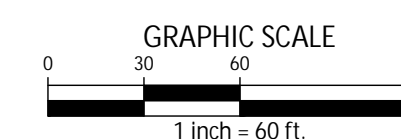
SHEET

**DEMOLITION
PLAN**

C-1

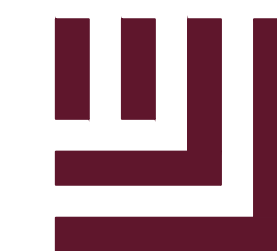
DEMOLITION NOTES:

1. THE CONTRACTOR SHALL FIELD VERIFY AND LOCATE ALL EXISTING UTILITIES ON SITE PRIOR TO DEMOLITION.
2. THE CONTRACTOR SHALL PERFORM DEMOLITION ACTIVITIES AS NOTED AND SHOWN ON THESE PLANS AND SPECIFICATIONS AND AS DIRECTED BY THE OWNER.
3. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY PERMITS AND PAY FEES REQUIRED FOR DEMOLITION AND HAUL-OFF FROM THE APPROPRIATE AUTHORITIES. THESE FEES ARE TO BE INCLUDED WITH THE BID.
4. THE CONTRACTOR SHALL PREPARE ALL DOCUMENTS AND ACQUIRE APPROPRIATE PERMITS AS REQUIRED PRIOR TO THE COMMENCEMENT OF DEMOLITION.
5. THE DEMOLITION PLAN IS INTENDED TO DEPICT GENERAL DEMOLITION AND UTILITY WORK. IT IS NOT INTENDED TO IDENTIFY EACH ELEMENT OF DEMOLITION OR RELOCATION. CONTRACTOR SHALL COORDINATE WITH THE OWNER AND APPROPRIATE UTILITY COMPANY PRIOR TO WORK.
6. CONTRACTOR TO COMPLETELY DEMOLISH AND DISPOSE OF OFFSITE IN A LAWFUL MANNER EXISTING IMPROVEMENTS, INCLUDING FOUNDATIONS AND ALL APPURTENANCES LOCATED ON AND AROUND THE PROPERTY INCLUDING BUT NOT LIMITED TO SIGNS, CURBS, SIDEWALKS, ETC.
7. REMOVE AND DISPOSE OF ANY SIDEWALK, FENCES, STAIRS, WALLS, FOUNDATIONS, CONDUITS, LIGHT POLE BASES, DEBRIS AND RUBBISH REQUIRING REMOVAL FROM THE WORK AREA IN AN APPROVED LANDFILL. CONTRACTOR SHALL MAKE EVERY ATTEMPT TO RECYCLE ANY DEBRIS AND RUBBISH THAT IS RECYCLABLE.
8. REMOVE AND/OR PLUG EXISTING UTILITIES AS SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING EACH UTILITY COMPANY TO COORDINATE REMOVAL OF ALL UTILITIES AND FOR DETERMINING HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES PRIOR TO COMMENCING WORK.
9. CONTRACTOR SHALL REMOVE, RELOCATED AND/OR INSTALL ALL EROSION AND SEDIMENT CONTROL DEVICES AND TREE PROTECTION PRIOR TO BEGINNING DEMOLITION WORK.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES TO REMAIN IN PLACE.
11. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO AVOID UNNECESSARY DAMAGE TO EXISTING ROAD AND PARKING SURFACES. ANY DAMAGE DUE TO CONSTRUCTION ACTIVITIES AND/OR CONSTRUCTION TRAFFIC SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
12. FINISH SURFACE TO BE REMOVED OR DEMOLISHED SHALL BE SAW CUT ALONG LINES OF JOINTS WHICH WILL PERMIT A NEAT AND SMOOTH SURFACE WHEN RESTORED, INCLUDE REPAIRS IF REQUIRED.
13. SAWCUT AT INTERFACE OF PAVEMENT OR CURB TO REMAIN.
14. ALL EXISTING ITEMS TO REMAIN WHICH ARE DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE SOLE EXPENSE OF THE CONTRACTOR.
15. THE CONTRACTOR SHALL MAINTAIN ALL UTILITY SERVICES TO THE ADJACENT BUILDINGS AND PROPERTIES THROUGHOUT CONSTRUCTION.



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FINAL DRAWING - FOR CONSTRUCTION



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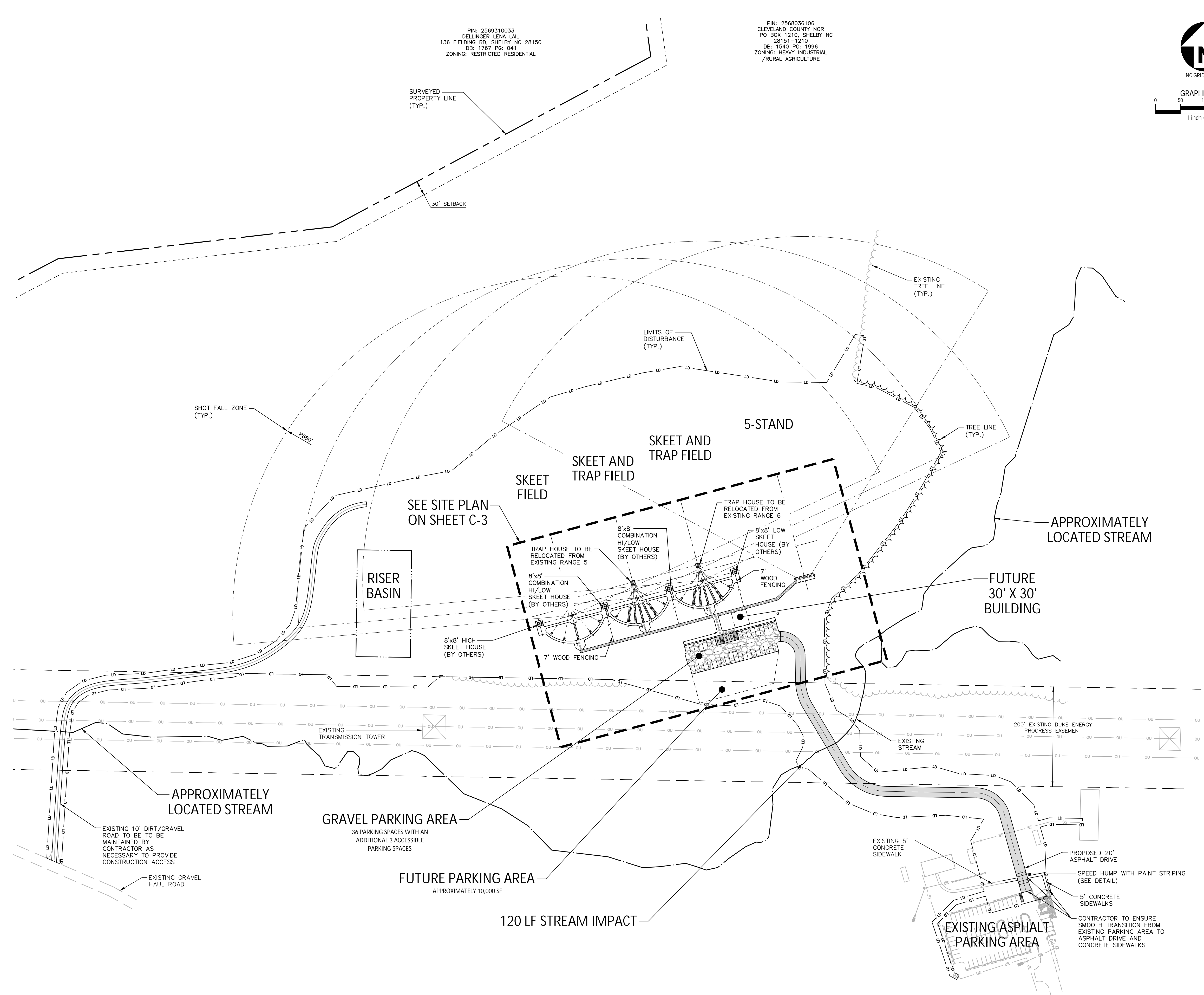
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SHELBY, NORTH CAROLINA 28151



GRAPHIC SCALE
0 50 100 200
1 inch = 100 ft.



PIN: 2569310033
DELLINGER LENA LAL
136 FIELDING RD, SHELBY NC 28150
DB: 1787 PG: 041
ZONING: RESTRICTED RESIDENTIAL

PIN: 2569036106
CLEVELAND COUNTY NOR
PO BOX 1210, SHELBY NC
28151-1210
DB: 1540 PG: 1996
ZONING: HEAVY INDUSTRIAL
/RURAL AGRICULTURE

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DATE 07.11.2019

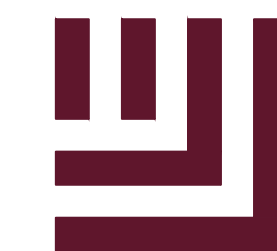
SHEET

**SITE
PLAN**

C-2

FINAL DRAWING - FOR CONSTRUCTION

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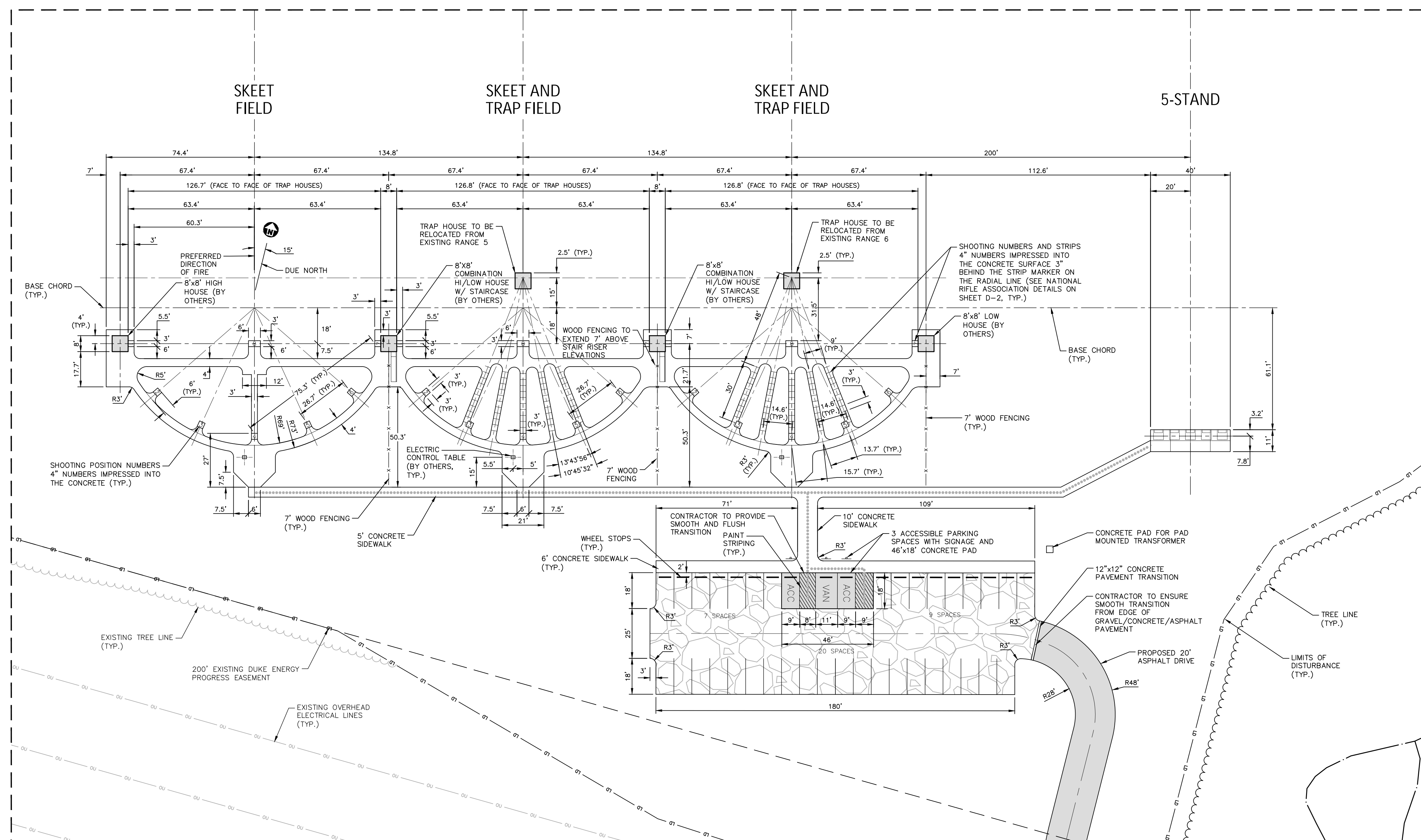
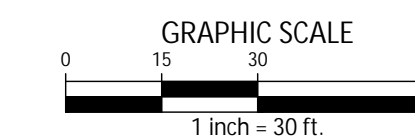
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SITE LEGEND

- SIGNAGE
- ACC ACCESSIBLE PARKING STALL
- VAN VAN ACCESSIBLE PARKING STALL
- ACCESSIBLE ROUTE
- LD — LD — LIMITS OF DISTURBANCE
- WOODED AREA
- EASEMENT LINE
- CENTERLINE
- GRAVEL PAVEMENT (SEE DETAIL SHEET D-1)
- ASPHALT PAVEMENT (SEE DETAIL SHEET D-1)



SITE PLAN
SCALE: 1" = 30'

**FOOTHILLS SHOOTING
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SHEET

SITE PLAN
C-3

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SHEET

**OVERALL
GRADING PLAN**

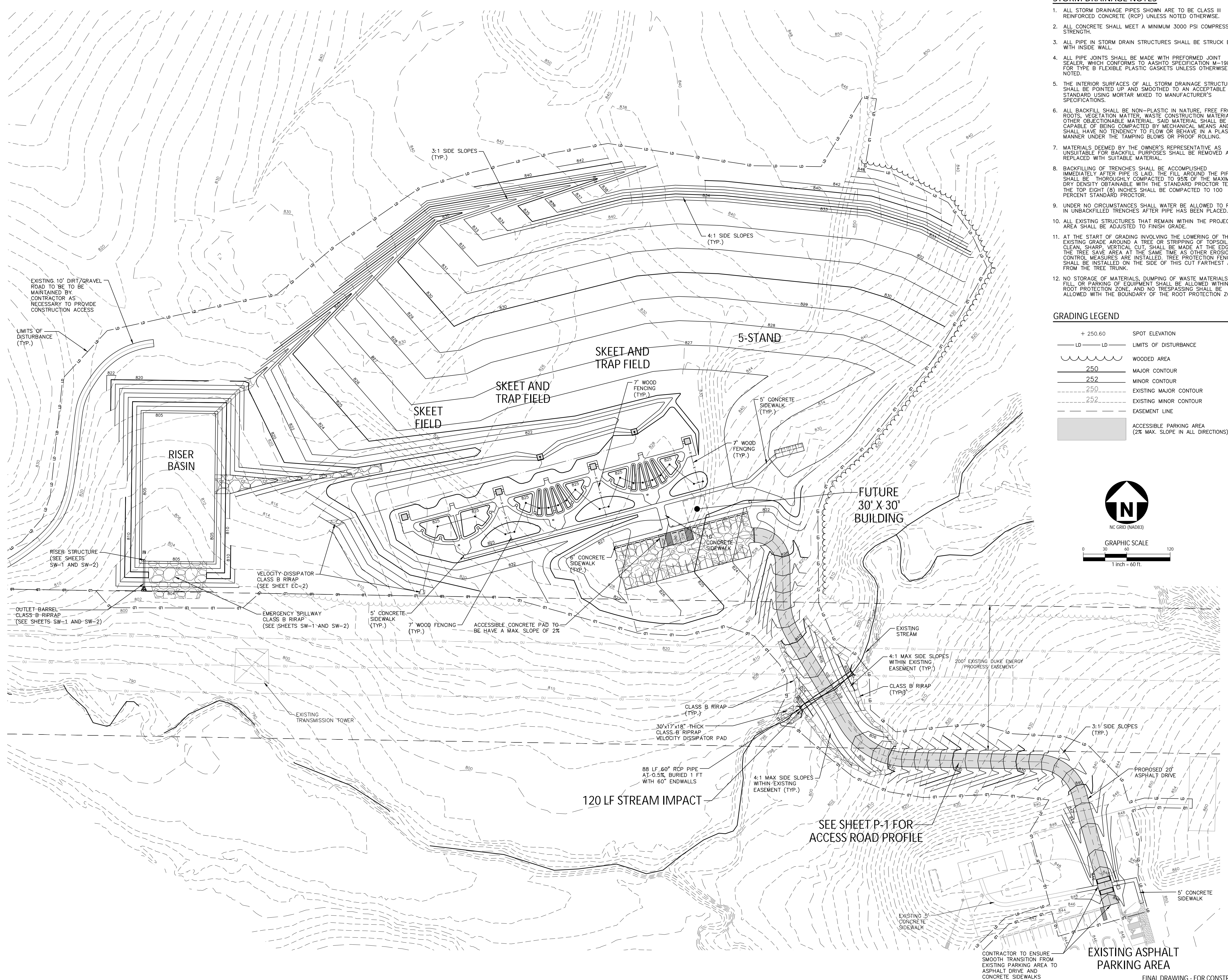
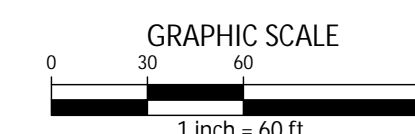
C-4

STORM DRAINAGE NOTES

1. ALL STORM DRAINAGE PIPES SHOWN ARE TO BE CLASS III REINFORCED CONCRETE (RCP) UNLESS NOTED OTHERWISE.
2. ALL CONCRETE SHALL MEET A MINIMUM 3000 PSI COMPRESSIVE STRENGTH.
3. ALL PIPE IN STORM DRAIN STRUCTURES SHALL BE STRUCK EVEN WITH INSIDE WALL.
4. ALL PIPE JOINTS SHALL BE MADE WITH PREFORMED JOINT SEALER, WHICH CONFORMS TO AASHTO SPECIFICATION M-198 FOR TYPE B FLEXIBLE PLASTIC GASKETS UNLESS OTHERWISE NOTED.
5. THE INTERIOR SURFACES OF ALL STORM DRAINAGE STRUCTURES SHALL BE POINTED UP AND SMOOTHED TO AN ACCEPTABLE STANDARD USING MORTAR MIXED TO MANUFACTURER'S SPECIFICATIONS.
6. ALL BACKFILL SHALL BE NON-PLASTIC IN NATURE, FREE FROM ROOTS, VEGETATION MATTER, WASTE CONSTRUCTION MATERIAL OR OTHER OBJECTIONABLE MATERIAL. SAID MATERIAL SHALL BE CAPABLE OF BEING COMPACTED BY MECHANICAL MEANS AND SHALL HAVE NO TENDENCY TO FLOW OR BEHAVE IN A PLASTIC MANNER UNDER THE TAMPING BLOWS OR PROOF ROLLING.
7. MATERIALS DEEMED BY THE OWNER'S REPRESENTATIVE AS UNSUITABLE FOR BACKFILL PURPOSES SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL.
8. BACKFILLING OF TRENCHES SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PIPE IS LAID. THE FILL AROUND THE PIPE SHALL BE THOROUGHLY COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY OBTAINABLE WITH THE STANDARD PROCTOR TEST. THE TOP EIGHT (8) INCHES SHALL BE COMPACTED TO 100 PERCENT STANDARD PROCTOR.
9. UNDER NO CIRCUMSTANCES SHALL WATER BE ALLOWED TO RISE IN UNBACKFILLED TRENCHES AFTER PIPE HAS BEEN PLACED.
10. ALL EXISTING STRUCTURES THAT REMAIN WITHIN THE PROJECT AREA SHALL BE ADJUSTED TO FINISH GRADE.
11. AT THE START OF GRADING INVOLVING THE LOWERING OF THE EXISTING GRADE AROUND A TREE OR STRIPPING OF TOPSOIL, A CLEAN, SHARP, VERTICAL CUT SHALL BE MADE AT THE EDGE OF THE TREE SAVE AREA AT THE SAME TIME AS OTHER EROSION CONTROL MEASURES ARE INSTALLED. TREE PROTECTION FENCING SHALL BE INSTALLED ON THE SIDE OF THIS CUT FARTHEST AWAY FROM THE TREE TRUNK.
12. NO STORAGE OF MATERIALS, DUMPING OF WASTE MATERIALS, FILL, OR PARKING OF EQUIPMENT SHALL BE ALLOWED WITHIN THE ROOT PROTECTION ZONE, AND NO TRESPASSING SHALL BE ALLOWED WITH THE BOUNDARY OF THE ROOT PROTECTION ZONE.

GRADING LEGEND

- + 250.60 SPOT ELEVATION
- LD LD LIMITS OF DISTURBANCE
- WOODED AREA
- 250 MAJOR CONTOUR
- 252 MINOR CONTOUR
- 250 EXISTING MAJOR CONTOUR
- 252 EXISTING MINOR CONTOUR
- EASEMENT LINE
- ACCESSIBLE PARKING AREA (2% MAX. SLOPE IN ALL DIRECTIONS)



EXISTING 10' DIRT GRAVEL ROAD TO BE TO BE MAINTAINED BY CONTRACTOR AS NECESSARY TO PROVIDE CONSTRUCTION ACCESS

LIMITS OF DISTURBANCE (TYP.)

RISER STRUCTURE (SEE SHEETS SW-1 AND SW-2)
OUTLET BARREL CLASS B RIRAP (SEE SHEETS SW-1 AND SW-2)

VELOCITY DISSIPATOR CLASS B RIRAP (SEE SHEET EC-2)
EMERGENCY SPILLWAY CLASS B RIRAP (SEE SHEETS SW-1 AND SW-2)

5' CONCRETE SIDEWALK (TYP.)
7' WOOD FENCING (TYP.)

ACCESSIBLE CONCRETE PAD TO BE HAVE A MAX. SLOPE OF 2%

120 LF STREAM IMPACT

88 LF 60" RCP PIPE AT 0.5% BURIED 1 FT WITH 60" ENDWALLS

4:1 MAX SIDE SLOPES WITHIN EXISTING EASEMENT (TYP.)

SEE SHEET P-1 FOR ACCESS ROAD PROFILE

4:1 MAX SIDE SLOPES WITHIN EXISTING EASEMENT (TYP.)
CLASS B RIRAP (TYP.)

30'x17'x18" THICK CLASS B RIRAP VELOCITY DISSIPATOR PAD

3:1 SIDE SLOPES (TYP.)

PROPOSED 20' ASPHALT DRIVE

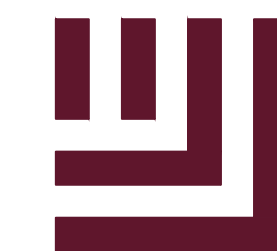
EXISTING 5' CONCRETE SIDEWALK

EXISTING ASPHALT PARKING AREA

CONTRACTOR TO ENSURE SMOOTH TRANSITION FROM EXISTING PARKING AREA TO ASPHALT DRIVE AND CONCRETE SIDEWALKS

FINAL DRAWING - FOR CONSTRUCTION

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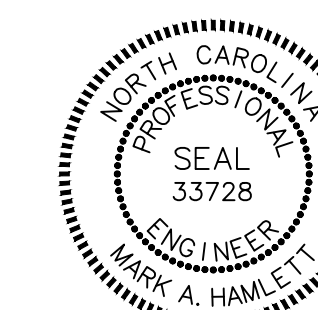
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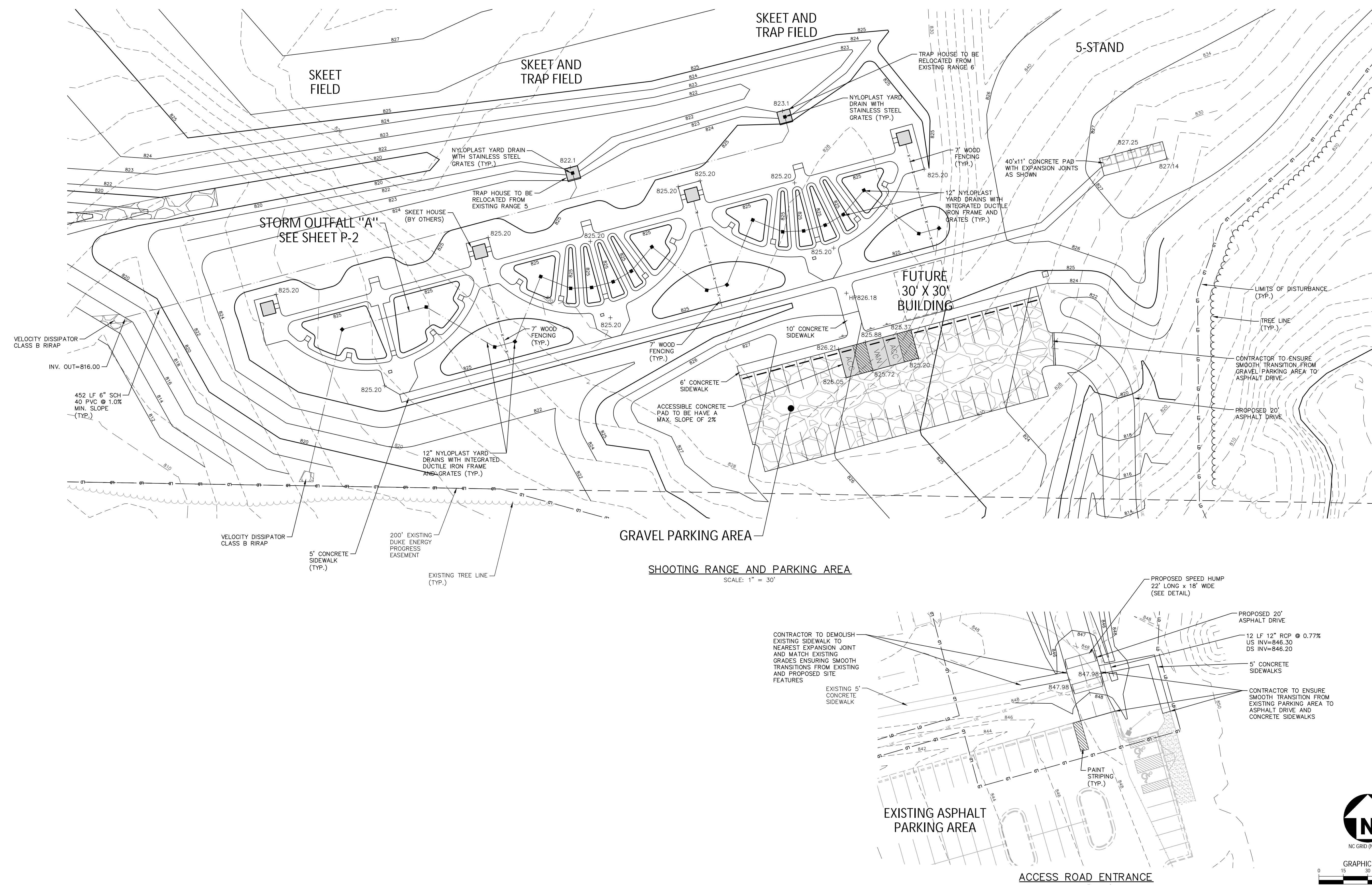
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**GRADING
PLAN**

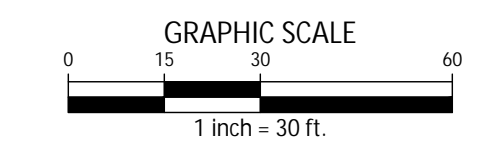
C-5

GRADING LEGEND

- STORM SERVICE INLET
- STORM SERVICE LINE
- + 250.60 SPOT ELEVATION
- LD — LD LIMITS OF DISTURBANCE
- WOODED AREA
- 250 MAJOR CONTOUR
- 252 MINOR CONTOUR
- 250 EXISTING MAJOR CONTOUR
- 252 EXISTING MINOR CONTOUR
- - - EASEMENT LINE
- ACCESSIBLE AREA (2% MAX. SLOPE IN ALL DIRECTIONS)

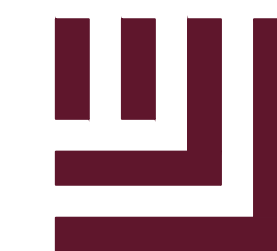


NC GRID (NAD83)



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SHEET

UTILITY
PLAN

C-6

UTILITY NOTES:

SANITARY SEWER:

1. MINIMUM COVER OF 5 FEET IN TRAFFIC AREAS TO BE PROVIDED FOR ALL COLLECTOR LINES 4 INCHES AND LARGER. IF LESS THAN 5 FEET, DUCTILE IRON PIPE SHALL BE REQUIRED.
2. ALL SANITARY SEWER TO BE SCH 40 PVC.
3. ALL WATER LINES SHALL HAVE 18" VERTICAL AND 10 FT. HORIZONTAL SEPARATION AROUND SEWER LINES UNLESS OTHERWISE SHOWN. IF UNABLE TO MAINTAIN CLEARANCES, OR SANITARY CROSSES ABOVE WATER, BOTH LINES SHALL BE DUCTILE IRON FOR A MINIMUM OF 10 FT. ON EITHER SIDE OF THE CROSSING.
4. ALL STORM LINES SHALL HAVE 24" OF VERTICAL SEPARATION FROM SEWER LINES UNLESS OTHERWISE SHOWN.

WATER:

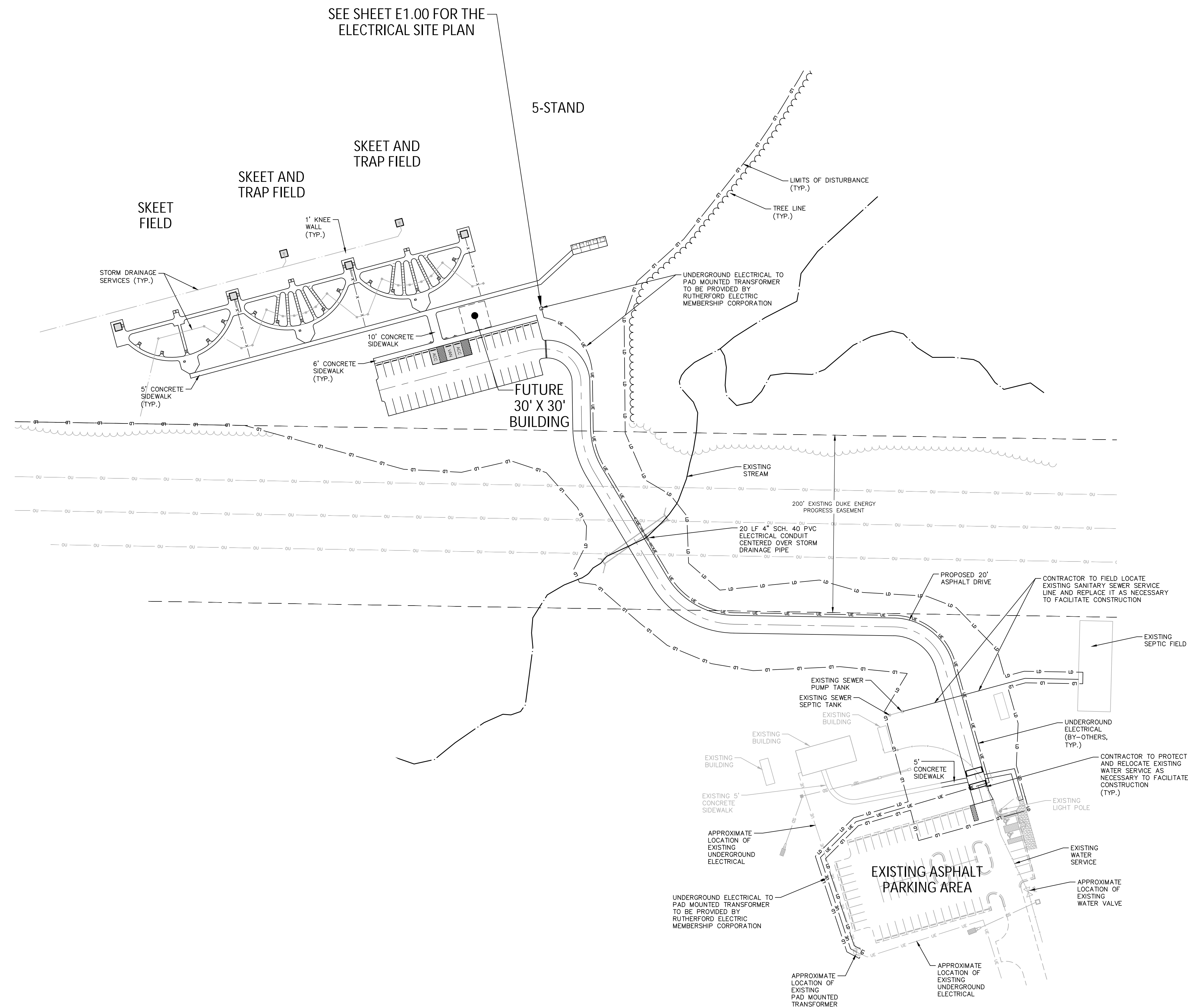
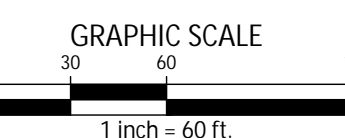
1. ALL WATER LINES SHOWN ARE TO BE C900/DR18 PVC OR TYPE K COPPER TUBING ASTM B-88 WITH A MINIMUM OF 36" COVER.
2. ALL WATERLINES TO BE INSTALLED WITH 18" OF VERTICAL SEPARATION AND 10' OF HORIZONTAL SEPARATION FROM OTHER UTILITIES UNLESS OTHERWISE SHOWN.
3. SHUT DOWN OF WATER MAIN SHALL BE COORDINATED WITH NORTH CAROLINA WILDLIFE RESOURCES COMMISSION MANAGEMENT, UTILITY OWNER AND ANY AFFECTED RESIDENCES.
4. ALL WATER SERVICES PROPOSED BY THIS PROJECT WILL BE PRIVATE SYSTEMS.
5. ALL ABANDONED WATER LINE TO BE FILLED WITH FLOWABLE FILL AND ABANDONED IN PLACE UNLESS OTHERWISE APPROVED BY THE OWNER AND ENGINEER.

UTILITY LEGEND

- LD LD LIMITS OF DISTURBANCE
- WOODED AREA
- UE UE UNDERGROUND ELECTRIC
- EASEMENT LINE
- SEWER SERVICE LINE



NC GRID (NAD83)



SEE SHEET E1.00 FOR THE ELECTRICAL SITE PLAN

5-STAND

SKEET AND TRAP FIELD

SKEET FIELD

STORM DRAINAGE SERVICES (TYP.)

1' KNEE WALL (TYP.)

5' CONCRETE SIDEWALK (TYP.)

6' CONCRETE SIDEWALK (TYP.)

FUTURE 30' X 30' BUILDING

LIMITS OF DISTURBANCE (TYP.)

TREE LINE (TYP.)

UNDERGROUND ELECTRICAL TO PAD MOUNTED TRANSFORMER TO BE PROVIDED BY RUTHERFORD ELECTRIC MEMBERSHIP CORPORATION

EXISTING STREAM

200' EXISTING DUKE ENERGY EASEMENT

20 LF 4" SCH. 40 PVC ELECTRICAL CONDUIT CENTERED OVER STORM DRAINAGE PIPE

PROPOSED 20' ASPHALT DRIVE

CONTRACTOR TO FIELD LOCATE EXISTING SANITARY SEWER SERVICE LINE AND REPLACE IT AS NECESSARY TO FACILITATE CONSTRUCTION

EXISTING SEPTIC FIELD

EXISTING SEWER PUMP TANK

EXISTING SEWER SEPTIC TANK

EXISTING BUILDING

UNDERGROUND ELECTRICAL (BY-OTHERS, TYP.)

CONTRACTOR TO PROTECT AND RELOCATE EXISTING WATER SERVICE AS NECESSARY TO FACILITATE CONSTRUCTION (TYP.)

EXISTING LIGHT POLE

EXISTING WATER SERVICE

APPROXIMATE LOCATION OF EXISTING WATER VALVE

EXISTING ASPHALT PARKING AREA

UNDERGROUND ELECTRICAL TO PAD MOUNTED TRANSFORMER TO BE PROVIDED BY RUTHERFORD ELECTRIC MEMBERSHIP CORPORATION

APPROXIMATE LOCATION OF EXISTING PAD MOUNTED TRANSFORMER

APPROXIMATE LOCATION OF EXISTING UNDERGROUND ELECTRICAL



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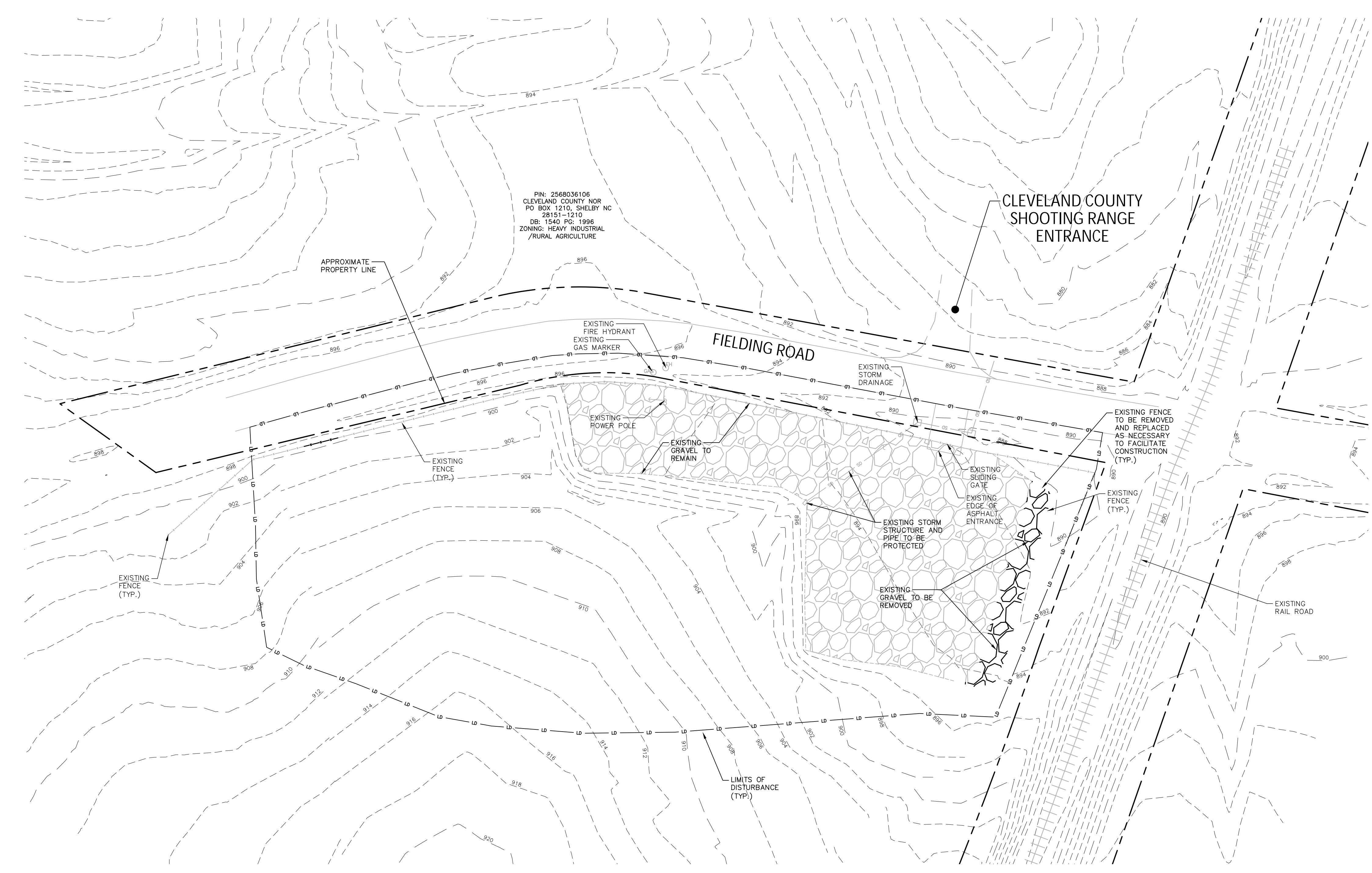
CLEVELAND COUNTY
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SHELBY, NORTH CAROLINA 28151

**FOOTHILLS SHOOTING
COMPLEX IMPROVEMENTS
SKEET AND TRAP EXPANSION**

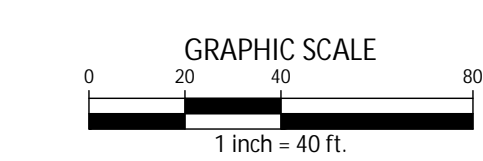
283 FIELDING ROAD, CHERRYVILLE, CLEVELAND COUNTY, NC. 28021

DEMOLITION NOTES:

1. THE CONTRACTOR SHALL FIELD VERIFY AND LOCATE ALL EXISTING UTILITIES ON SITE PRIOR TO DEMOLITION.
2. THE CONTRACTOR SHALL PERFORM DEMOLITION ACTIVITIES AS NOTED AND SHOWN ON THESE PLANS AND SPECIFICATIONS AND AS DIRECTED BY THE OWNER.
3. IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN ANY PERMITS AND PAY FEES REQUIRED FOR DEMOLITION AND HAUL-OFF FROM THE APPROPRIATE AUTHORITIES. THESE FEES ARE TO BE INCLUDED WITH THE BID.
4. THE CONTRACTOR SHALL PREPARE ALL DOCUMENTS AND ACQUIRE APPROPRIATE PERMITS AS REQUIRED PRIOR TO THE COMMENCEMENT OF DEMOLITION.
5. THE DEMOLITION PLAN IS INTENDED TO DEPICT GENERAL DEMOLITION AND UTILITY WORK. IT IS NOT INTENDED TO IDENTIFY EACH ELEMENT OF DEMOLITION OR RELOCATION. CONTRACTOR SHALL COORDINATE WITH THE OWNER AND APPROPRIATE UTILITY COMPANY PRIOR TO WORK.
6. CONTRACTOR TO COMPLETELY DEMOLISH AND DISPOSE OF OFFSITE IN A LAWFUL MANNER EXISTING IMPROVEMENTS, INCLUDING FOUNDATIONS AND ALL APPURTENANCES LOCATED ON AND AROUND THE PROPERTY INCLUDING BUT NOT LIMITED TO SIGNS, CURBS, SIDEWALKS, ETC.
7. REMOVE AND DISPOSE OF ANY SIDEWALK, FENCES, STAIRS, WALLS, FOUNDATIONS, CONDUITS, LIGHT POLE BASES, DEBRIS AND RUBBISH REQUIRING REMOVAL FROM THE WORK AREA IN AN APPROVED LANDFILL. CONTRACTOR SHALL MAKE EVERY ATTEMPT TO RECYCLE ANY DEBRIS AND RUBBISH THAT IS RECYCLABLE.
8. REMOVE AND/OR PLUG EXISTING UTILITIES AS SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING EACH UTILITY COMPANY TO COORDINATE REMOVAL OF ALL UTILITIES AND FOR DETERMINING HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES PRIOR TO COMMENCING WORK.
9. CONTRACTOR SHALL REMOVE, RELOCATED AND/OR INSTALL ALL EROSION AND SEDIMENT CONTROL DEVICES AND TREE PROTECTION PRIOR TO BEGINNING DEMOLITION WORK.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES TO REMAIN IN PLACE.
11. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO AVOID UNNECESSARY DAMAGE TO EXISTING ROAD AND PARKING SURFACES. ANY DAMAGE DUE TO CONSTRUCTION ACTIVITIES AND/OR CONSTRUCTION TRAFFIC SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
12. FINISH SURFACE TO BE REMOVED OR DEMOLISHED SHALL BE SAW CUT ALONG LINES OF JOINTS WHICH WILL PERMIT A NEAT AND SMOOTH SURFACE WHEN RESTORED, INCLUDE REPAIRS IF REQUIRED.
13. SAWCUT AT INTERFACE OF PAVEMENT OR CURB TO REMAIN.
14. ALL EXISTING ITEMS TO REMAIN WHICH ARE DAMAGED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE SOLE EXPENSE OF THE CONTRACTOR.
15. THE CONTRACTOR SHALL MAINTAIN ALL UTILITY SERVICES TO THE ADJACENT BUILDINGS AND PROPERTIES THROUGHOUT CONSTRUCTION.



PIN: 2568036106
CLEVELAND COUNTY NOR
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28151-1210
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/RURAL AGRICULTURE



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REVISIONS

NO. DATE

PLAN INFORMATION

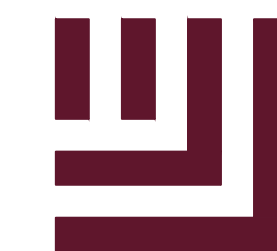
PROJECT NO.	CCY-18010
FILENAME	CCY18010-DM2
CHECKED BY	MJM
DRAWN BY	SMP
SCALE	1"=40'
DATE	07.11.2019

SHEET

**OFFSITE PARKING
DEMOLITION PLAN**

C-7

FINAL DRAWING - FOR CONSTRUCTION



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**FOOTHILLS SHOOTING
COMPLEX IMPROVEMENTS
SKEET AND TRAP EXPANSION**
283 FIELDING ROAD, CHERRYVILLE, CLEVELAND COUNTY, NC. 28021



REVISIONS

NO. DATE

PLAN INFORMATION

PROJECT NO. CCY-18010
FILENAME CCY18010-S3
CHECKED BY MJM
DRAWN BY SMP
SCALE 1"=40'
DATE 07.11.2019

SHEET

**OFFSITE PARKING
SITE PLAN**

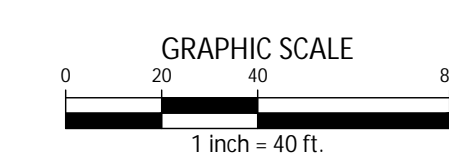
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GENERAL NOTES:

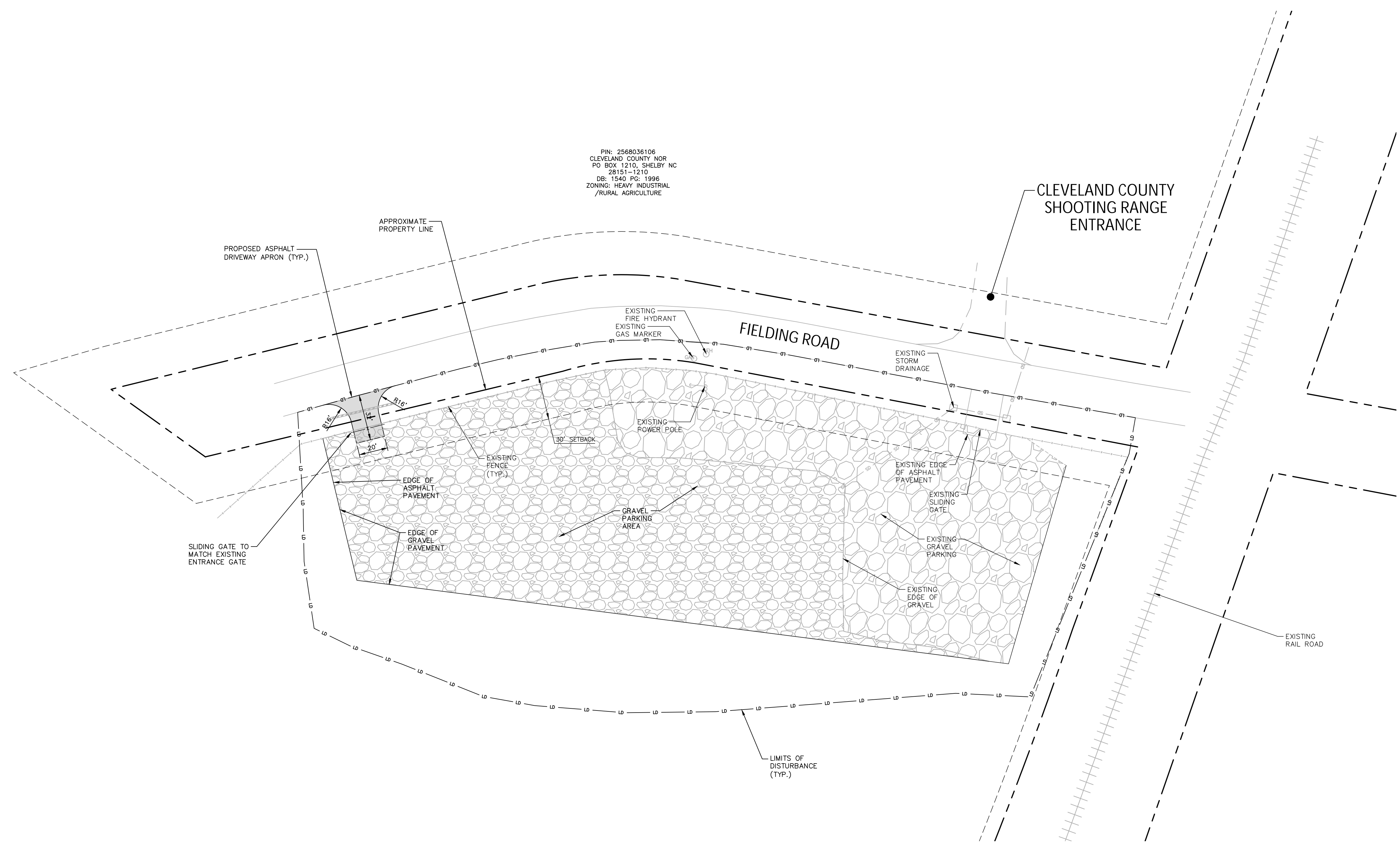
1. TOPOGRAPHIC & PLANIMETRIC INFORMATION TAKEN FROM SURVEY PERFORMED BY NORTH CAROLINA WILDLIFE RESOURCES COMMISSION DATED 3/19/2019 AND SUPPLEMENTED WITH GIS INFORMATION PROVIDED BY CLEVELAND COUNTY, NC.
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3. THE SITE IS NOT IN A WATERSHED OVERLAY DISTRICT.
4. THERE ARE NO STEEP SLOPES ON SITE.
5. THERE ARE NO WETLANDS ON SITE.
6. THERE ARE NO NATURAL OR HISTORIC INVENTORY SITES ON THIS OR ADJOINING PROPERTIES.
7. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO ENSURE PROPER REMOVAL, STORAGE, AND REUSE OF ANY EXISTING INFRASTRUCTURE MATERIALS ON SITE, INCLUDING BUT NOT LIMITED TO ELECTRICAL, TELECOM, AND FIBER OPTIC.
8. ALL COORDINATION FOR LOCATION AND FIELD VERIFICATION OF UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
9. CONTRACTOR TO RESTORE ALL EXISTING AREAS DISTURBED BY CONSTRUCTION TO EXISTING OR BETTER CONDITIONS.
10. ALL PERMITS ARE THE RESPONSIBILITY OF THE CONTRACTOR.

SITE LEGEND

	SIGNAGE
	YARD LIGHTS
	LIGHT POLE
	POWER POLE
	LIMITS OF DISTURBANCE
	GRAVEL PAVEMENT (SEE DETAIL SHEET D-1)
	ASPHALT PAVEMENT (SEE DETAIL SHEET D-1)



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FINAL DRAWING - FOR CONSTRUCTION



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**FOOTHILLS SHOOTING
COMPLEX IMPROVEMENTS
SKEET AND TRAP EXPANSION**

283 FIELDING ROAD, CHERRYVILLE, CLEVELAND COUNTY, NC. 28021



REVISIONS

NO. DATE

PLAN INFORMATION

PROJECT NO. CCY-18010
FILENAME CCY18010-G3
CHECKED BY MJM
DRAWN BY SMP
SCALE 1"=40'
DATE 07.11.2019

SHEET

**OFFSITE PARKING
GRADING PLAN**

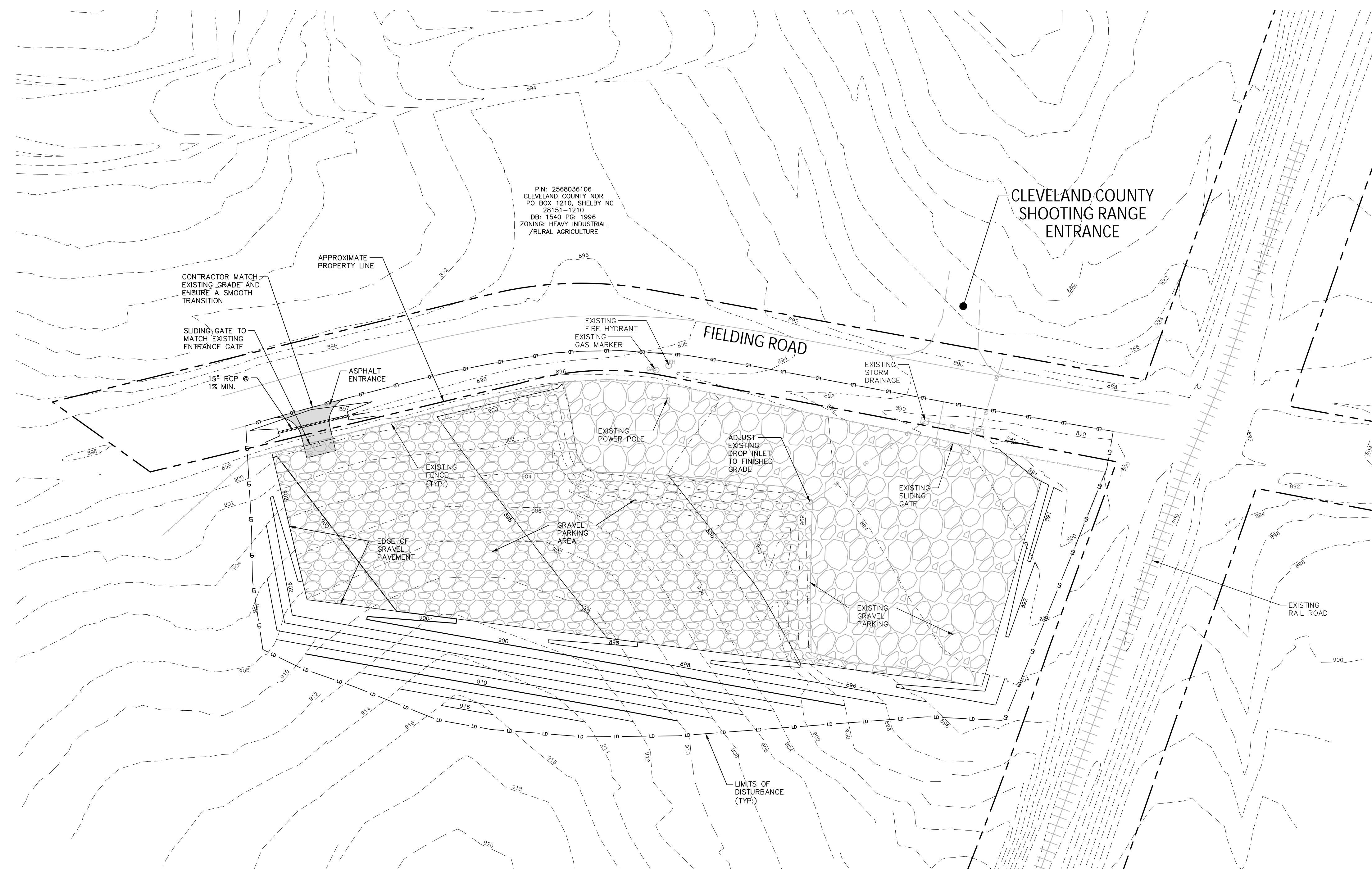
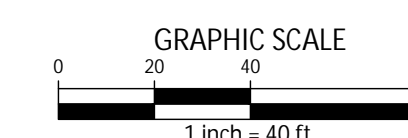
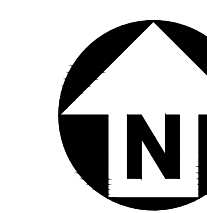
C-9

STORM DRAINAGE NOTES

1. ALL STORM DRAINAGE PIPES SHOWN ARE TO BE CLASS III REINFORCED CONCRETE (RCP) UNLESS NOTED OTHERWISE.
2. ALL CONCRETE SHALL MEET A MINIMUM 3000 PSI COMPRESSIVE STRENGTH.
3. ALL PIPE IN STORM DRAIN STRUCTURES SHALL BE STRUCK EVEN WITH INSIDE WALL.
4. ALL PIPE JOINTS SHALL BE MADE WITH PREFORMED JOINT SEALER, WHICH CONFORMS TO AASHTO SPECIFICATION M-198 FOR TYPE B FLEXIBLE PLASTIC GASKETS UNLESS OTHERWISE NOTED.
5. THE INTERIOR SURFACES OF ALL STORM DRAINAGE STRUCTURES SHALL BE POINTED UP AND SMOOTHED TO AN ACCEPTABLE STANDARD USING MORTAR MIXED TO MANUFACTURER'S SPECIFICATIONS.
6. ALL BACKFILL SHALL BE NON-PLASTIC IN NATURE, FREE FROM ROOTS, VEGETATION MATTER, WASTE CONSTRUCTION MATERIAL OR OTHER OBJECTIONABLE MATERIAL. SAID MATERIAL SHALL BE CAPABLE OF BEING COMPACTED BY MECHANICAL MEANS AND SHALL HAVE NO TENDENCY TO FLOW OR BEHAVE IN A PLASTIC MANNER UNDER THE TAMPING BLOWS OR PROOF ROLLING.
7. MATERIALS DEEMED BY THE OWNER'S REPRESENTATIVE AS UNSUITABLE FOR BACKFILL PURPOSES SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL.
8. BACKFILLING OF TRENCHES SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PIPE IS LAID. THE FILL AROUND THE PIPE SHALL BE THOROUGHLY COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY OBTAINABLE WITH THE STANDARD PROCTOR TEST. THE TOP EIGHT (8) INCHES SHALL BE COMPACTED TO 100 PERCENT STANDARD PROCTOR.
9. UNDER NO CIRCUMSTANCES SHALL WATER BE ALLOWED TO RISE IN UNBACKFILLED TRENCHES AFTER PIPE HAS BEEN PLACED.
10. ALL EXISTING STRUCTURES THAT REMAIN WITHIN THE PROJECT AREA SHALL BE ADJUSTED TO FINISH GRADE.
11. AT THE START OF GRADING INVOLVING THE LOWERING OF THE EXISTING GRADE AROUND A TREE OR STRIPPING OF TOPSOIL, A CLEAN, SHARP, VERTICAL CUT, SHALL BE MADE AT THE EDGE OF THE TREE SAVE AREA AT THE SAME TIME AS OTHER EROSION CONTROL MEASURES ARE INSTALLED. TREE PROTECTION FENCING SHALL BE INSTALLED ON THE SIDE OF THIS CUT FARTHEST AWAY FROM THE TREE TRUNK.
12. NO STORAGE OF MATERIALS, DUMPING OF WASTE MATERIALS, FILL, OR PARKING OF EQUIPMENT SHALL BE ALLOWED WITHIN THE ROOT PROTECTION ZONE, AND NO TRESPASSING SHALL BE ALLOWED WITH THE BOUNDARY OF THE ROOT PROTECTION ZONE.

GRADING LEGEND

- + 250.60 SPOT ELEVATION
- LD LD LIMITS OF DISTURBANCE
- WOODED AREA
- 250 MAJOR CONTOUR
- 252 MINOR CONTOUR
- 250 EXISTING MAJOR CONTOUR
- 252 EXISTING MINOR CONTOUR



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CLEVELAND COUNTY
SHOOTING RANGE
ENTRANCE

CONTRACTOR MATCH
EXISTING GRADE AND
ENSURE A SMOOTH
TRANSITION

SLIDING GATE TO
MATCH EXISTING
ENTRANCE GATE

APPROXIMATE
PROPERTY LINE

EXISTING
FIRE HYDRANT
EXISTING
GAS MARKER

FIELDING ROAD

EXISTING
STORM
DRAINAGE

EXISTING
POWER POLE

ADJUST
EXISTING
DROP INLET
TO FINISHED
GRADE

EXISTING
FENCE
(TYP.)

EXISTING
SLIDING
GATE

EDGE OF
GRAVEL
PAVEMENT

GRAVEL
PARKING
AREA

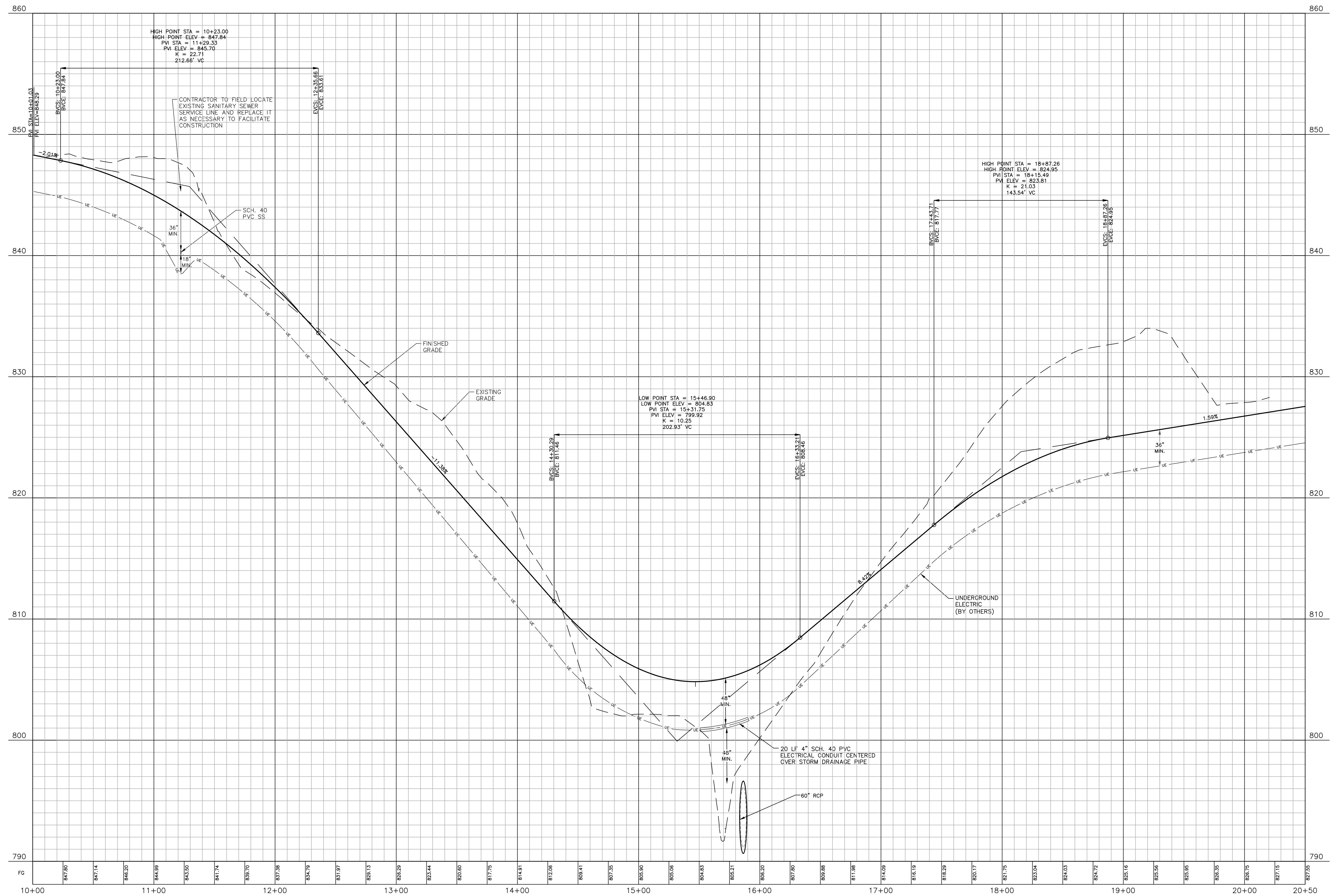
EXISTING
GRAVEL
PARKING

EXISTING
RAIL ROAD

LIMITS OF
DISTURBANCE
(TYP.)

A:\Projects\CCY\CCY-18010\Land\Construction Drawings\CCY18010-G3.dwg, 5/4/2020 11:51:55 AM, Piero, Shane

ACCESS ROAD



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FINAL DRAWING - FOR CONSTRUCTION



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REVISIONS
NO. DATE

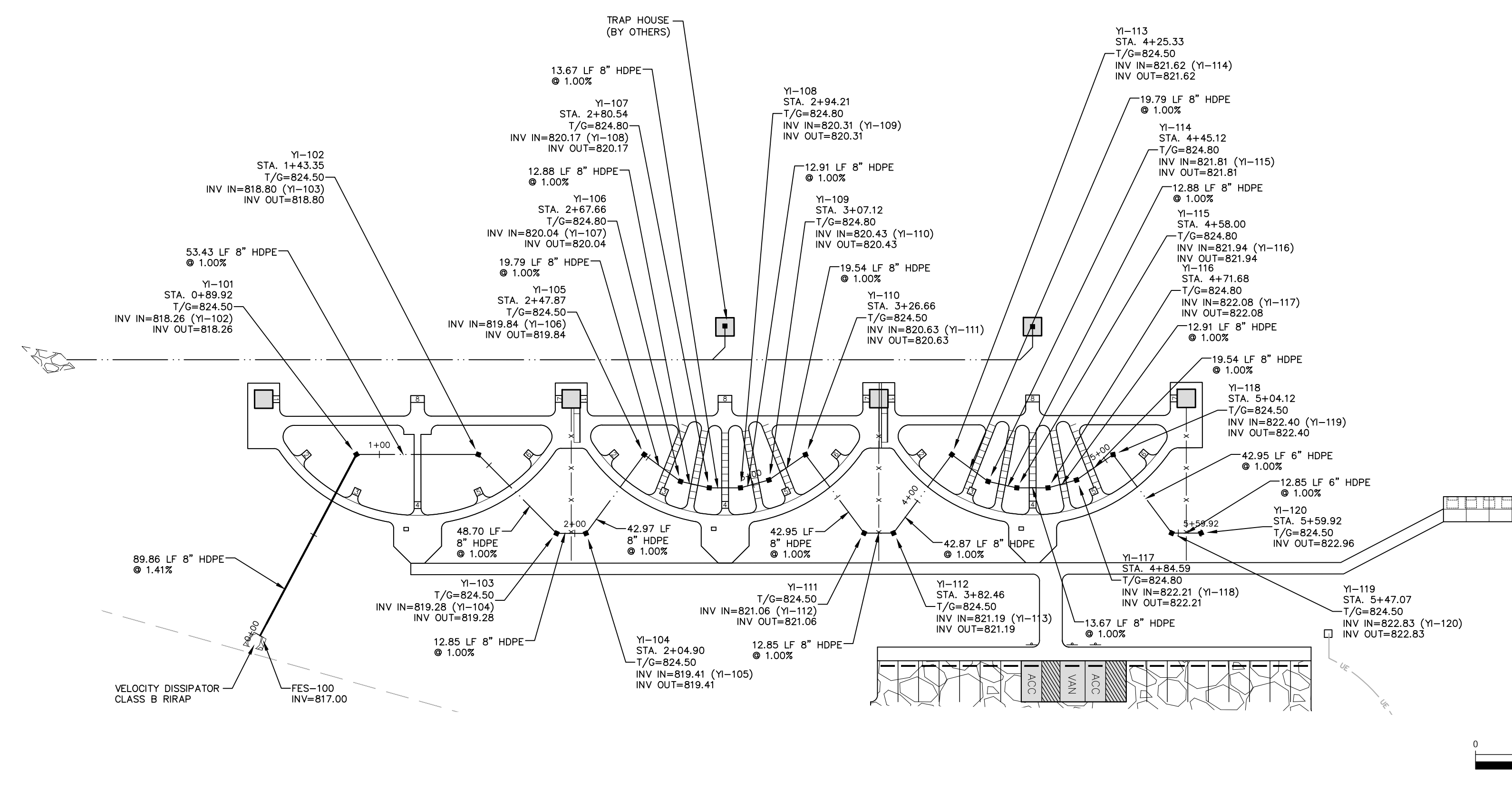


**FOOTHILLS SHOOTING
COMPLEX IMPROVEMENTS**
SKEET AND TRAP EXPANSION
283 FIELDING ROAD, CHERRYVILLE, CLEVELAND COUNTY, NC. 28021

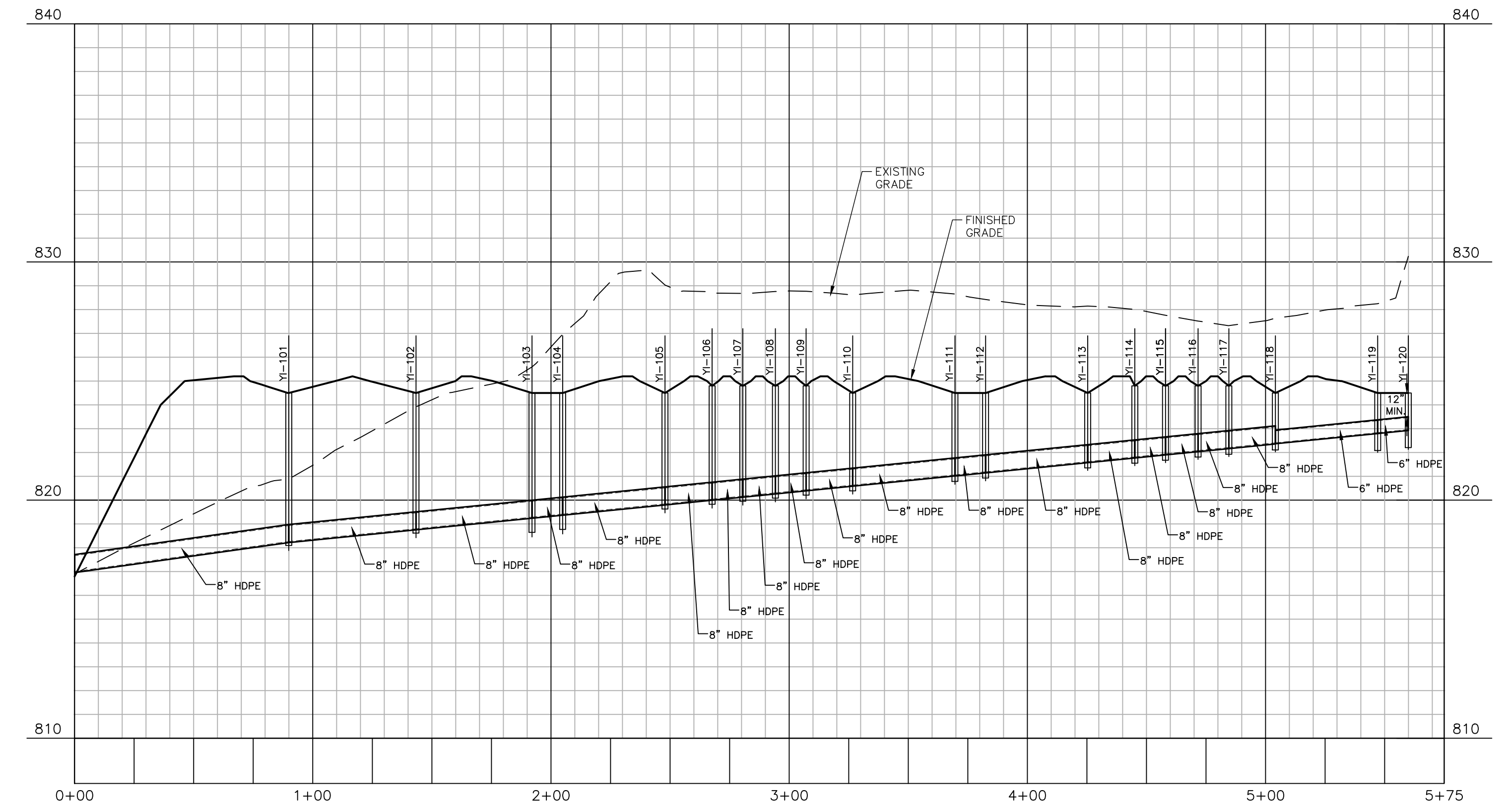
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FILENAME CCY18010-P1
CHECKED BY MJM
DRAWN BY SMP
SCALE 1"=40'/1"=4'
DATE 05.03.2019

PROFILE
ACCESS ROAD, STA. 10+00 THRU STA. 20+50

P-1



STORM OUTFALL "A"



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PLAN INFORMATION

PROJECT NO.	CCY-18010
FILENAME	CCY18010-P2
CHECKED BY	MAH
DRAWN BY	SMP
SCALE	1"=40'/1"=4'
DATE	05.03.2019

PLAN AND PROFILE
STORM OUTFALL "A"

P-2



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REVISIONS

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PLAN INFORMATION

PROJECT NO. CCY-18010
FILENAME CCY18010-EC1
CHECKED BY MJM
DRAWN BY SMP
SCALE 1"=100'
DATE 07.11.2019

SHEET

**EROSION CONTROL
PLAN - PHASE 1**

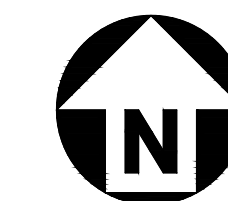
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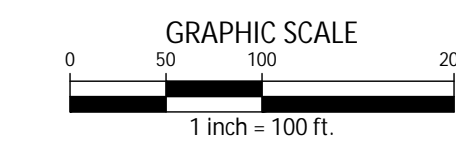
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EROSION CONTROL LEGEND

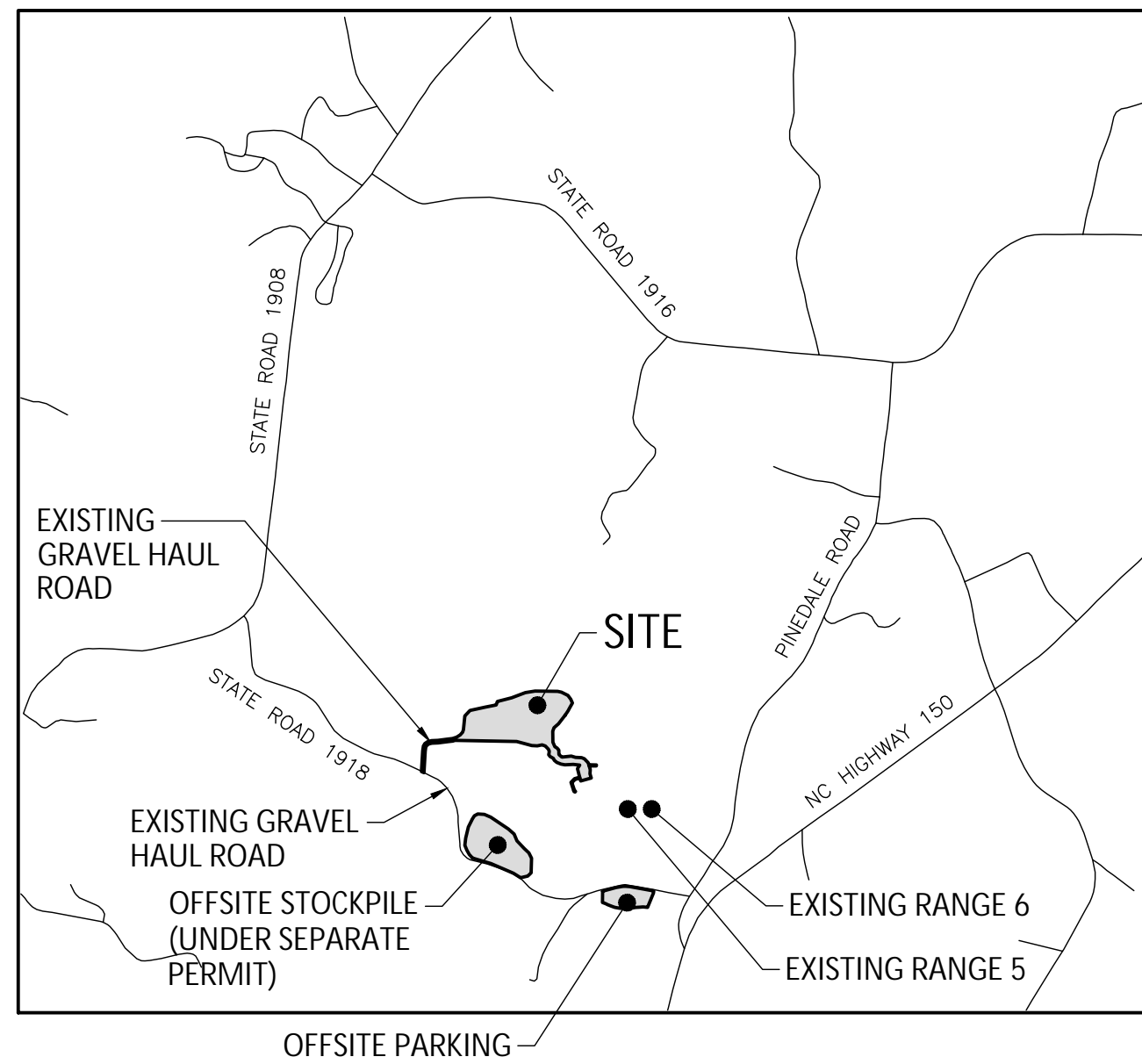
- SILT FENCE OUTLET
- INLET PROTECTION
- CHECK DAM
- SILT FENCE
- LIMITS OF DISTURBANCE
- WOODED AREA
- TEMPORARY CONSTRUCTION ENTRANCE



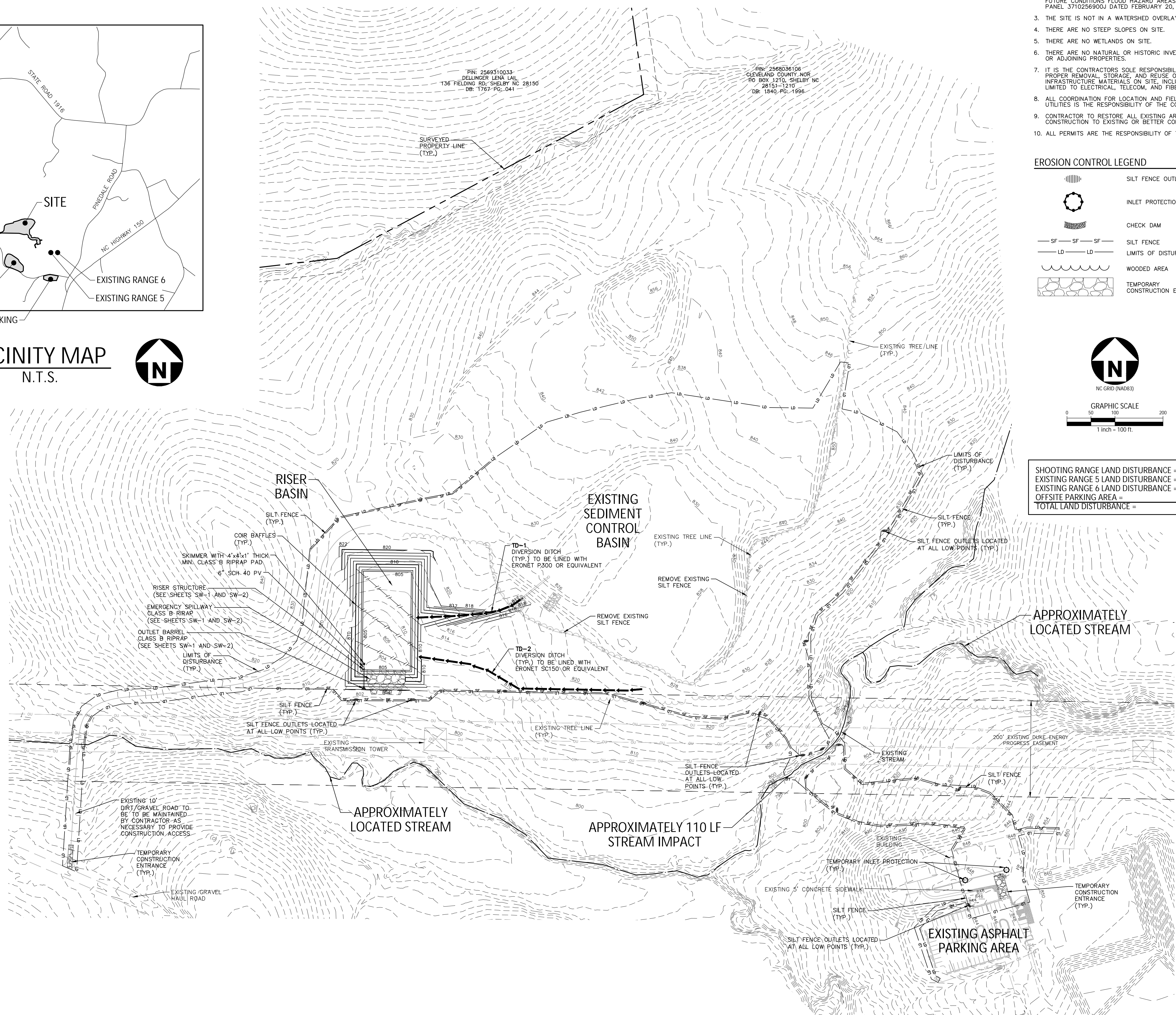
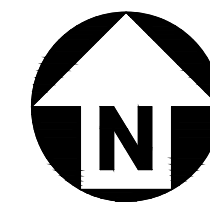
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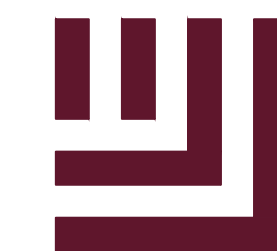
SHOOTING RANGE LAND DISTURBANCE = 16.93 ACRES
EXISTING RANGE 5 LAND DISTURBANCE = 0.01 ACRES
EXISTING RANGE 6 LAND DISTURBANCE = 0.01 ACRES
OFFSITE PARKING AREA = 2.81 ACRES
TOTAL LAND DISTURBANCE = 19.74 ACRES



VICINITY MAP
N.T.S.



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REVISIONS

NO. DATE

PLAN INFORMATION

PROJECT NO. CCY-18010
FILENAME CCY18010-EC2
CHECKED BY MJM
DRAWN BY SMP
SCALE 1"=60'
DATE 07.11.2019

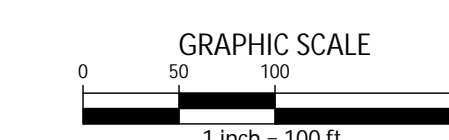
SHEET

**EROSION CONTROL
PLAN - PHASE 2**

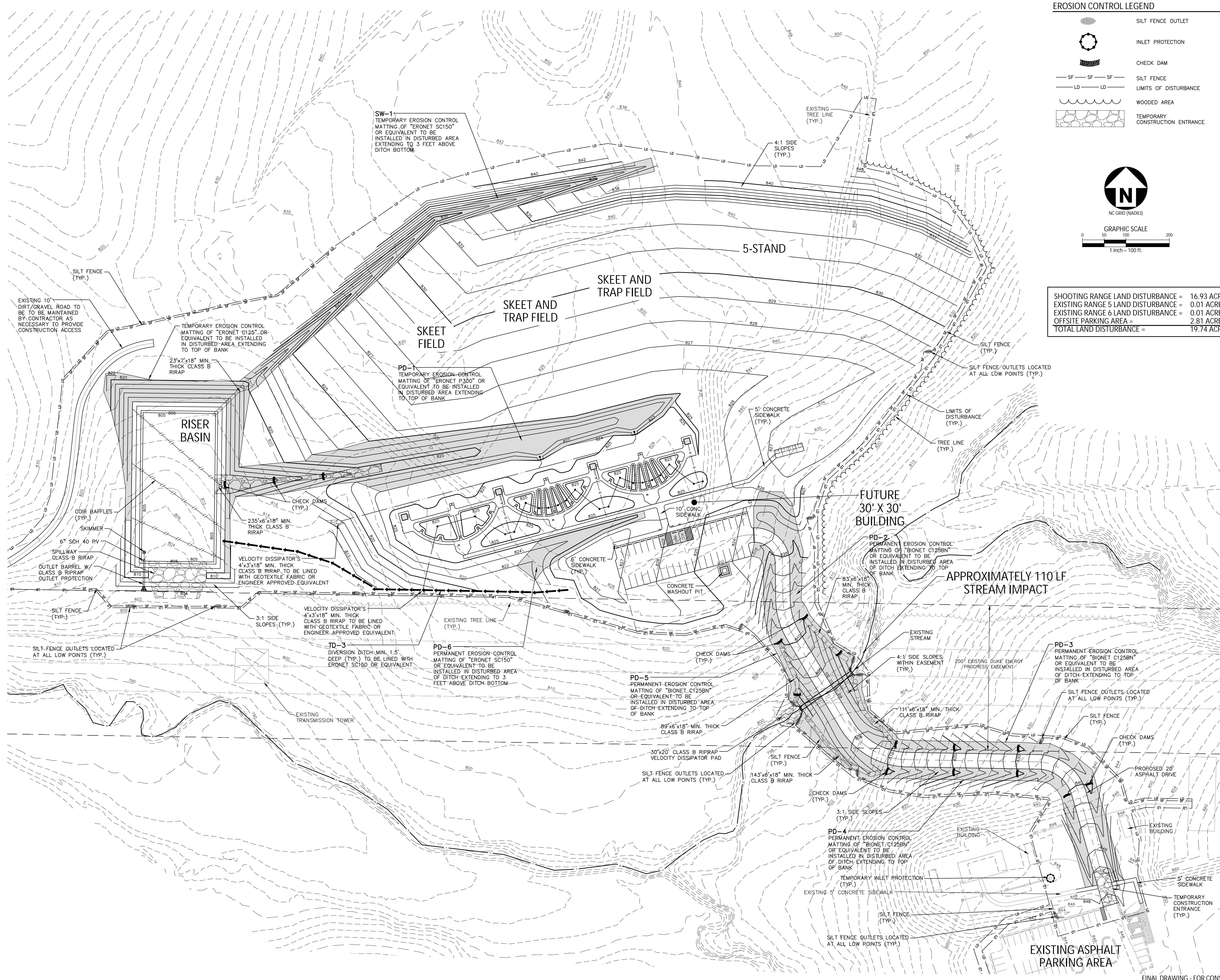
EC-2

EROSION CONTROL LEGEND

- SILT FENCE OUTLET
- INLET PROTECTION
- CHECK DAM
- SILT FENCE
- LIMITS OF DISTURBANCE
- WOODED AREA
- TEMPORARY CONSTRUCTION ENTRANCE

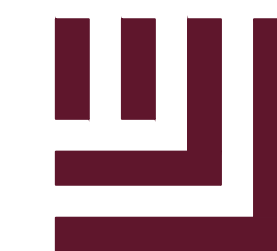


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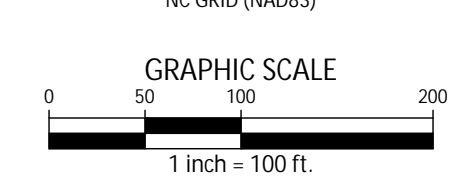
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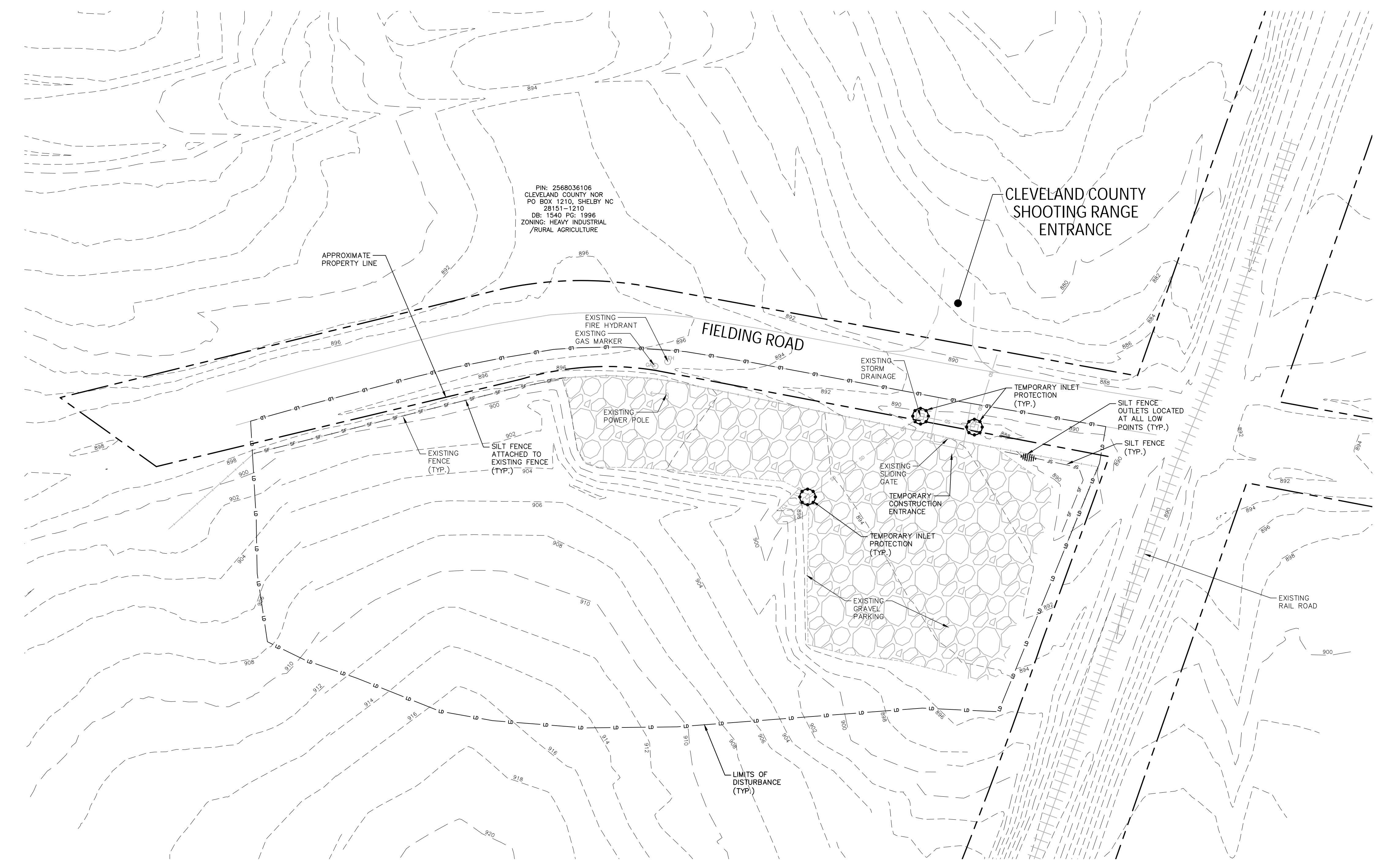
CLEVELAND COUNTY
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EROSION CONTROL LEGEND

	SILT FENCE OUTLET
	INLET PROTECTION
	SILT FENCE
	LIMITS OF DISTURBANCE
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SHOOTING RANGE LAND DISTURBANCE =	16.93 ACRES
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PLAN INFORMATION

PROJECT NO. CCY-18010
 FILENAME CCY18010-EC3
 CHECKED BY MJM
 DRAWN BY SMP
 SCALE 1"=40'
 DATE 07.11.2019







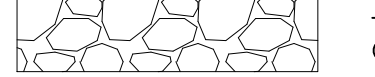
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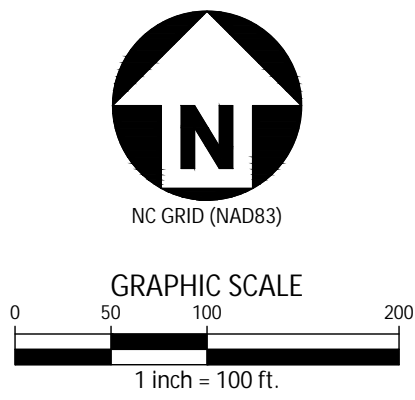
OFFSITE PARKING
EROSION CONTROL PLAN
STAGE 1

EC-3

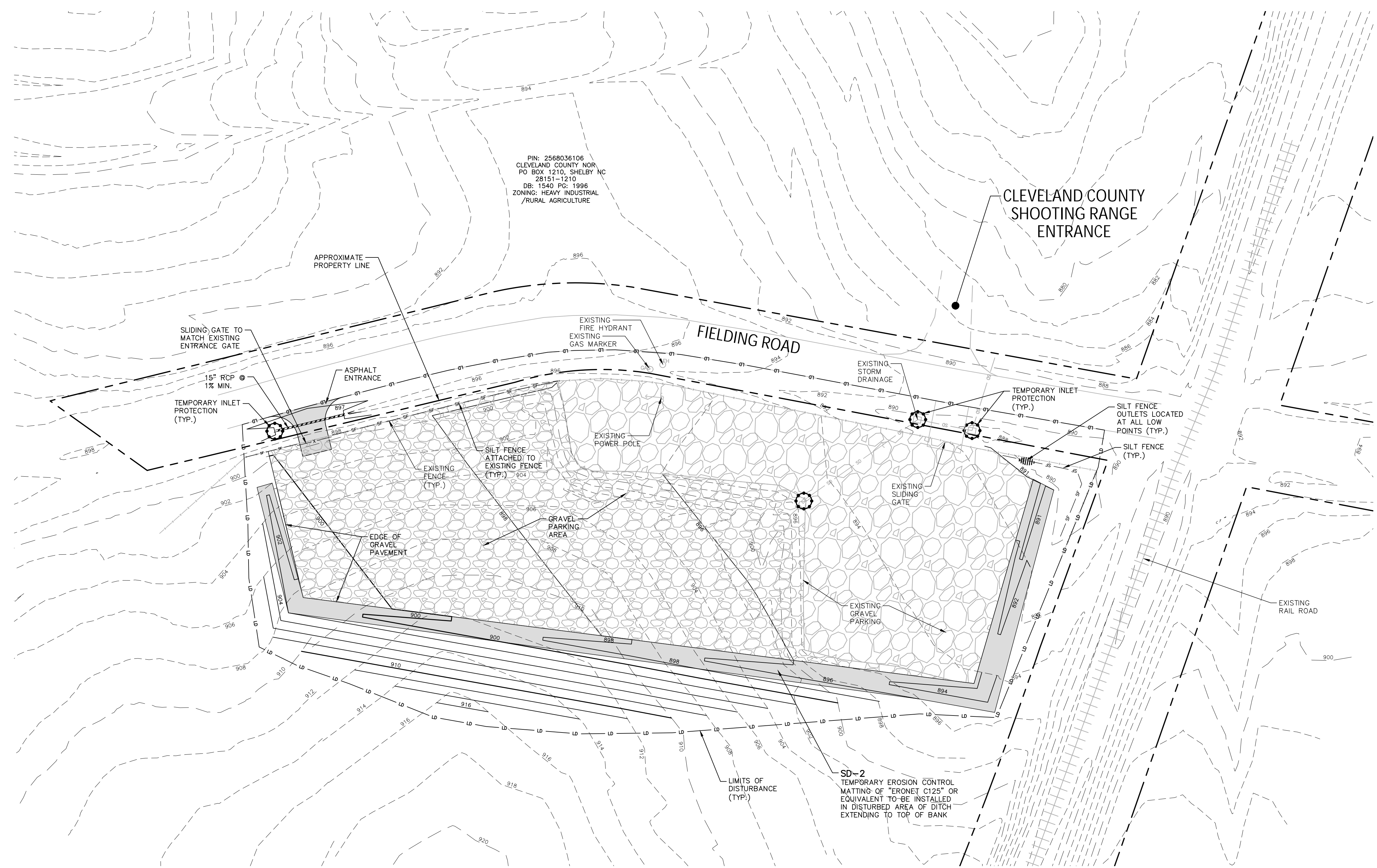
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EROSION CONTROL LEGEND

	SILT FENCE OUTLET
	INLET PROTECTION
	CHECK DAM
	SILT FENCE
	LIMITS OF DISTURBANCE
	WOODED AREA
	TEMPORARY CONSTRUCTION ENTRANCE



SHOOTING RANGE LAND DISTURBANCE =	16.93 ACRES
EXISTING RANGE 5 LAND DISTURBANCE =	0.01 ACRES
EXISTING RANGE 6 LAND DISTURBANCE =	0.01 ACRES
OFFSITE PARKING AREA =	2.81 ACRES
TOTAL LAND DISTURBANCE =	19.74 ACRES



PK: 2568036106
 CLEVELAND COUNTY NOR
 PO BOX 1210, SHELBY NC
 28151-1210
 DB: 1540 PG: 1996
 ZONING: HEAVY INDUSTRIAL
 /RURAL AGRICULTURE

**FOOTHILLS SHOOTING
 COMPLEX IMPROVEMENTS
 SKEET AND TRAP EXPANSION**
 283 FIELDING ROAD, CHERRYVILLE, CLEVELAND COUNTY, NC. 28021



REVISIONS

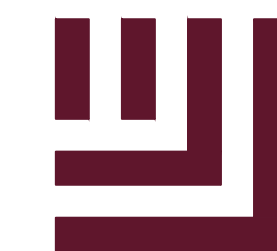
NO.	DATE

PLAN INFORMATION

PROJECT NO.	CCY-18010
FILENAME	CCY18010-EC4
CHECKED BY	MJM
DRAWN BY	SMP
SCALE	1"=40'
DATE	07.11.2019

SHEET
 OFFSITE PARKING
 EROSION CONTROL PLAN
 STAGE 2
EC-4

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283 FIELDING ROAD, CHERRYVILLE, CLEVELAND COUNTY, NC. 28021



REVISIONS

NO. DATE

PLAN INFORMATION

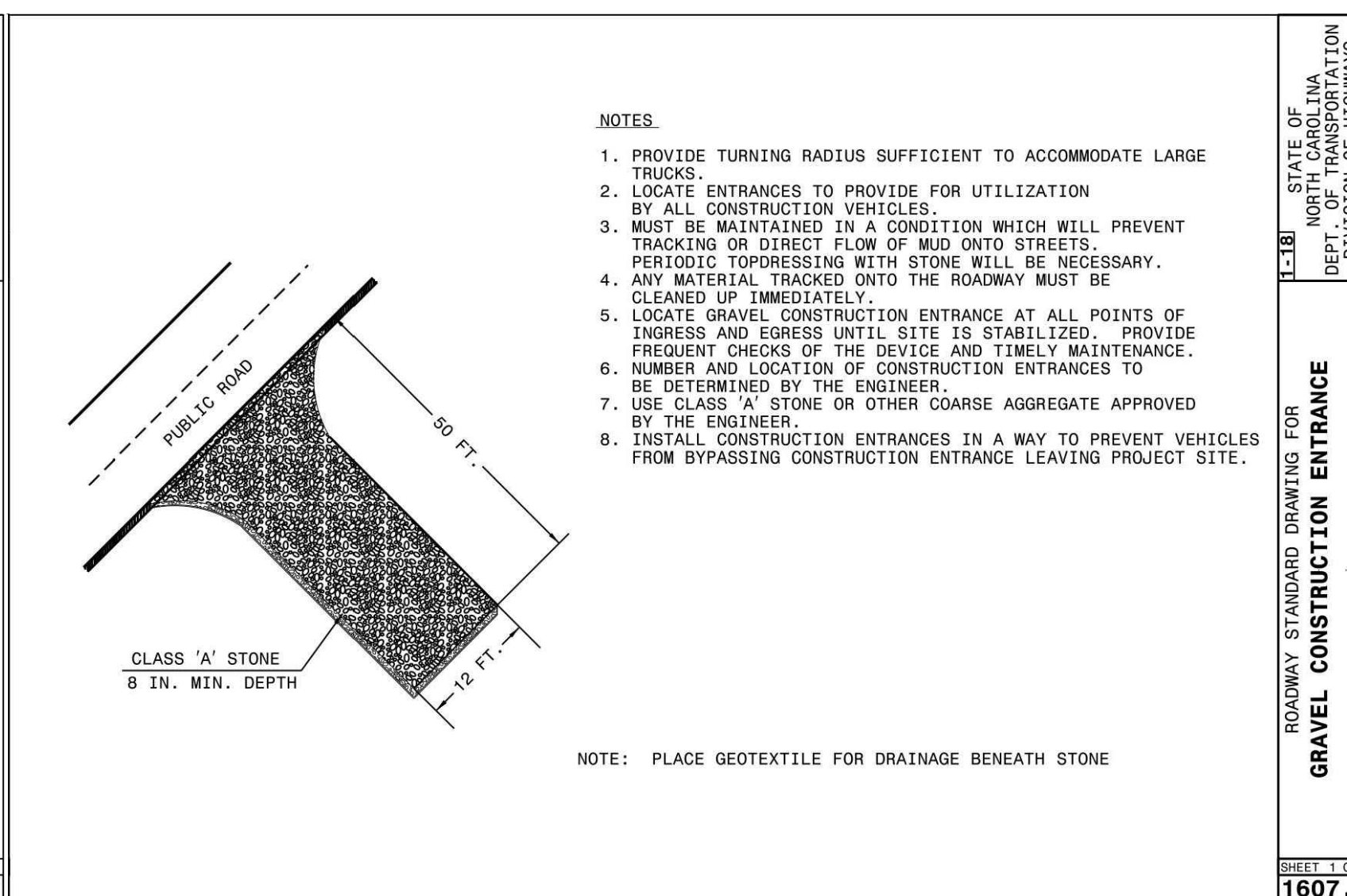
PROJECT NO. CCY-18010
FILENAME CCY18010-EC5
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DRAWN BY SMP
SCALE NONE
DATE 07.11.2019

SHEET

EROSION CONTROL
DETAILS

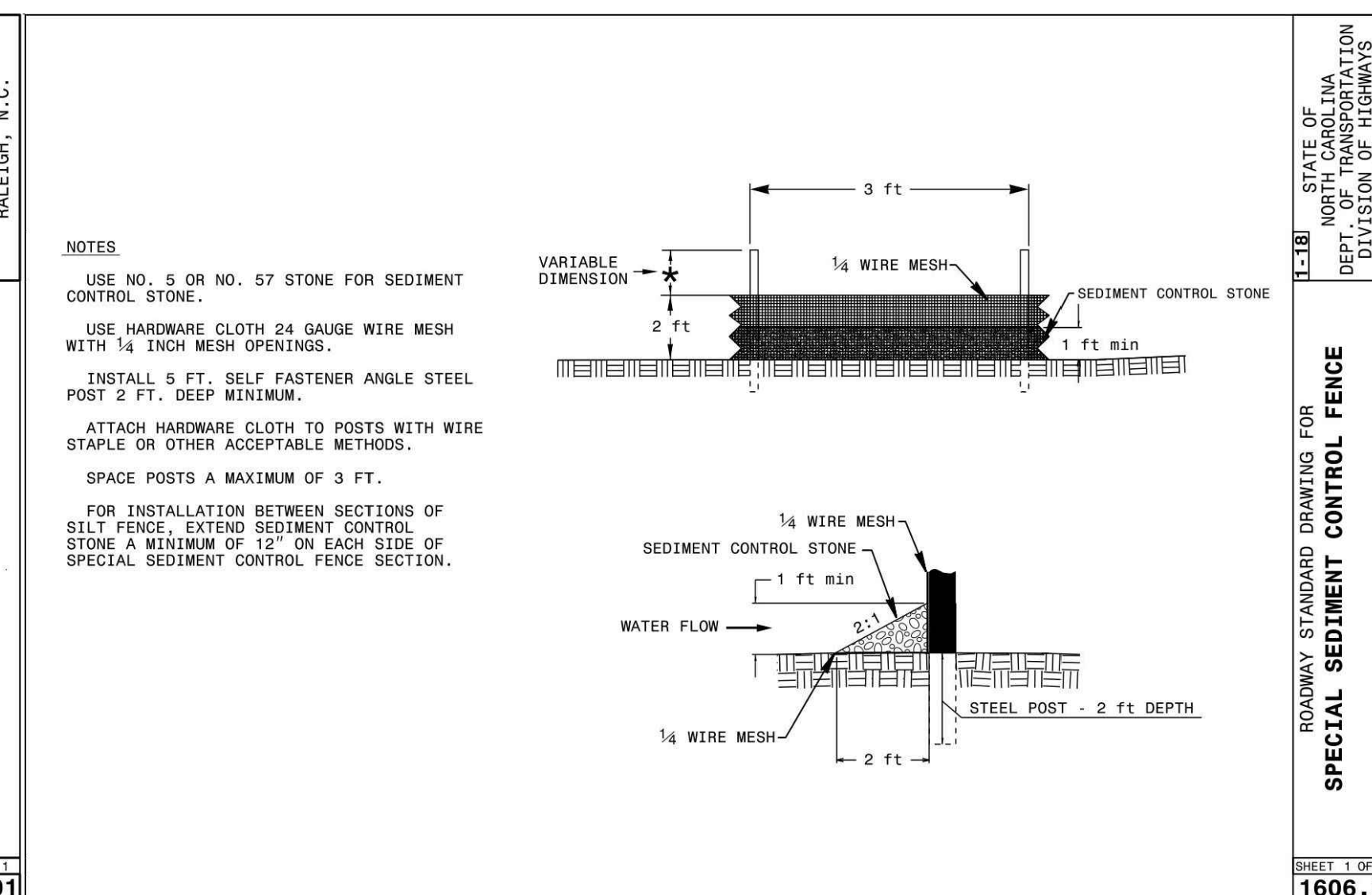
EC-5

FINAL DRAWING - FOR CONSTRUCTION



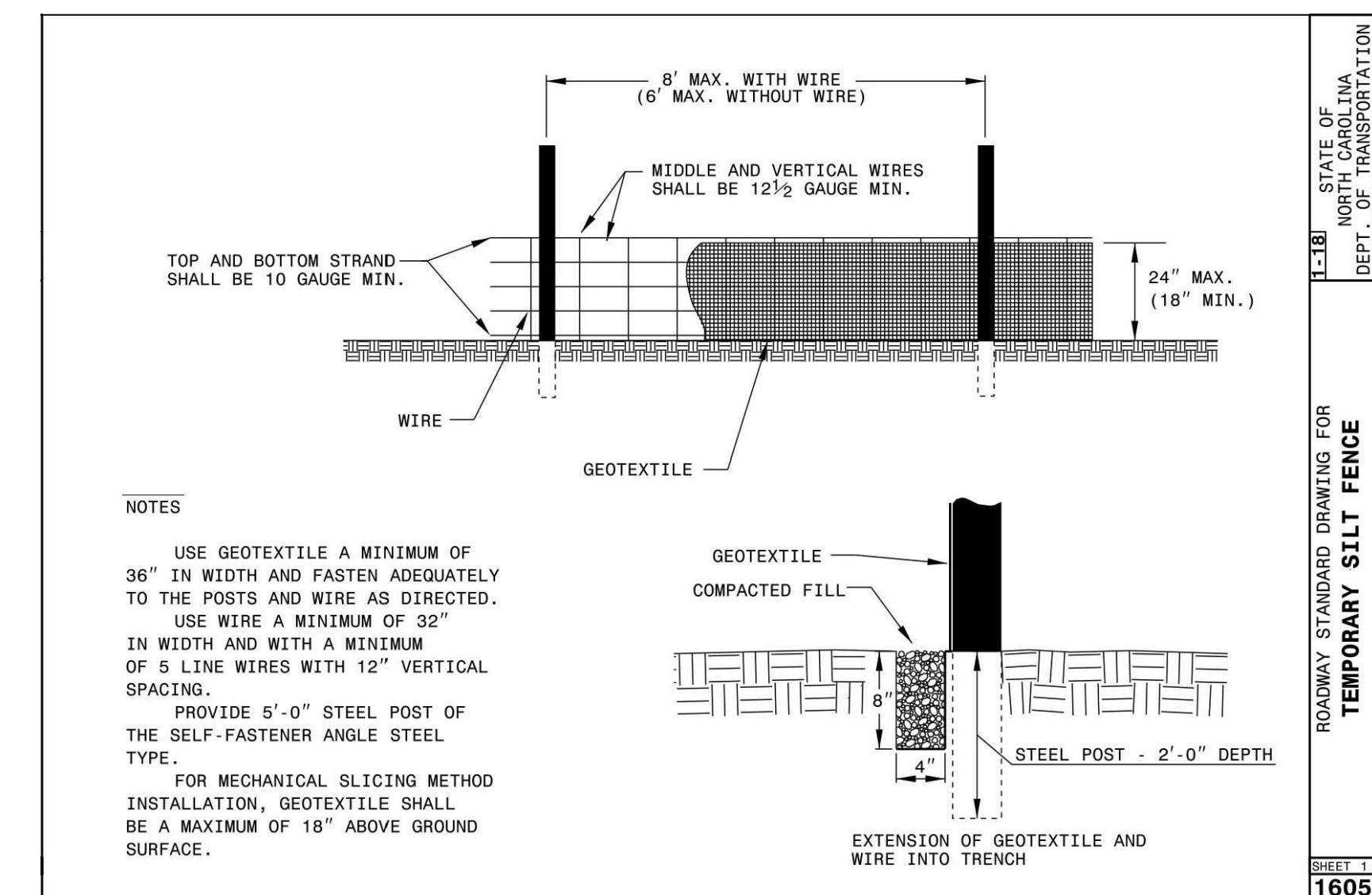
- NOTES:
1. PROVIDE TURNING RADIUS SUFFICIENT TO ACCOMMODATE LARGE TRUCKS.
2. LOCATE ENTRANCES TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL BE NECESSARY.
4. ANY MATERIAL TRACKED ONTO THE ROADWAY MUST BE CLEANED UP IMMEDIATELY.
5. LOCATE GRAVEL CONSTRUCTION ENTRANCE AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED. PROVIDE FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE.
6. NUMBER AND LOCATION OF CONSTRUCTION ENTRANCES TO BE DETERMINED BY THE ENGINEER.
7. USE CLASS 'A' STONE OR OTHER COARSE AGGREGATE APPROVED BY THE ENGINEER.
8. INSTALL CONSTRUCTION ENTRANCES IN A WAY TO PREVENT VEHICLES FROM BYPASSING CONSTRUCTION ENTRANCE LEAVING PROJECT SITE.

- TEMPORARY CONSTRUCTION ENTRANCE/EXIT MAINTENANCE
1. MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 2-INCH STONE.
2. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY.
3. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.



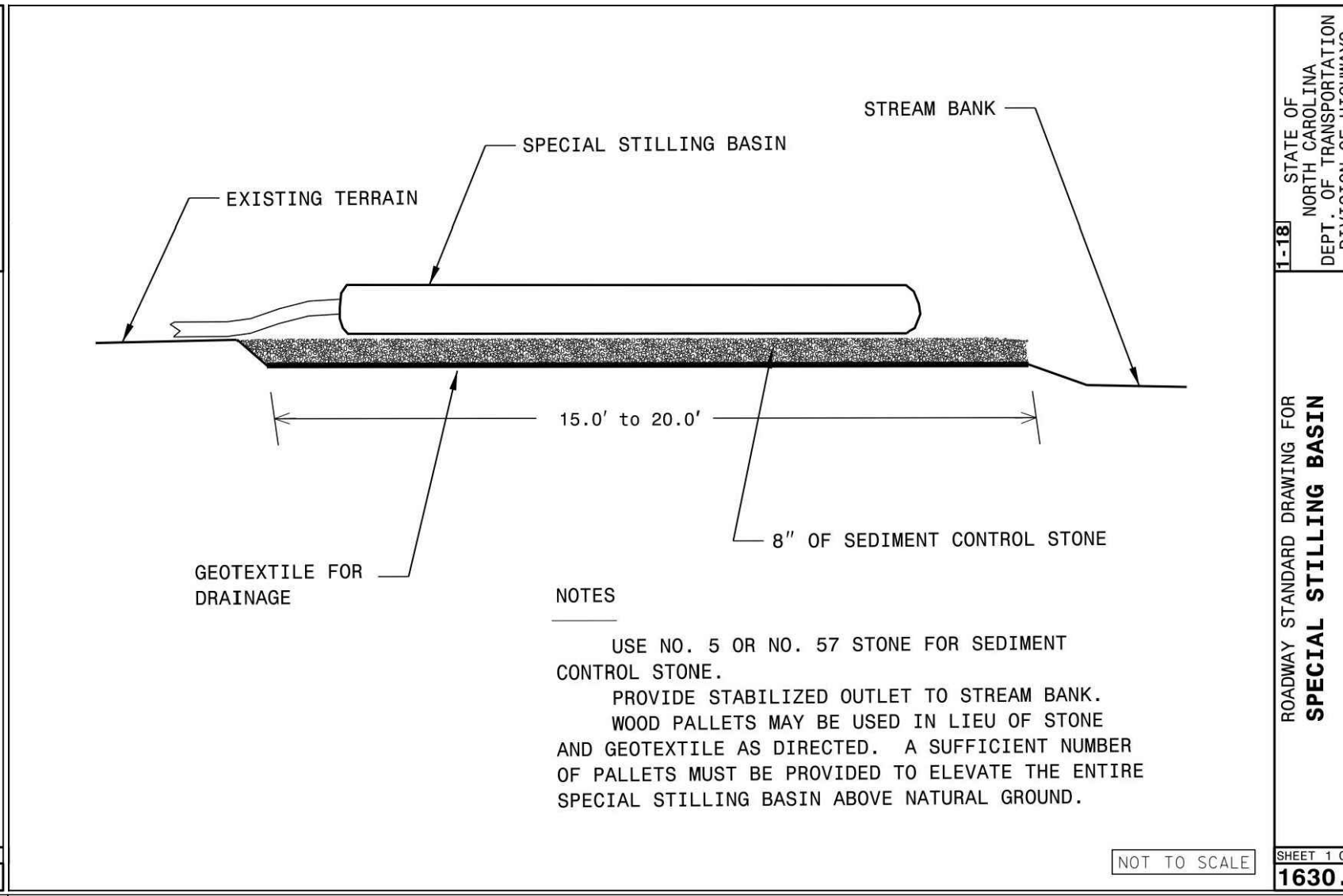
- NOTES:
USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.
USE HARDWARE CLOTH 24 GAUGE WIRE MESH WITH 1/4 INCH MESH OPENINGS.
INSTALL 5 FT. SELF FASTENER ANGLE STEEL POST 2 FT. DEEP MINIMUM.
ATTACH HARDWARE CLOTH TO POSTS WITH WIRE STAPLE OR OTHER ACCEPTABLE METHODS.
SPACE POSTS A MAXIMUM OF 3 FT.
FOR INSTALLATION BETWEEN SECTIONS OF SILT FENCE, EXTEND SEDIMENT CONTROL STONE A MINIMUM OF 12" ON EACH SIDE OF SPECIAL SEDIMENT CONTROL FENCE SECTION.

- SILT FENCE OUTLET MAINTENANCE
1. REMOVE SEDIMENT WHEN HALF OF STONE OUTLET IS COVERED.
2. REPLACE STONE AS NEEDED TO ENSURE DEWATERING.
3. INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
4. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
5. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.
6. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.



- NOTES:
USE GEOTEXTILE A MINIMUM OF 36" IN WIDTH AND FASTEN ADEQUATELY TO THE POSTS AND WIRE AS DIRECTED.
USE WIRE A MINIMUM OF 32" IN WIDTH AND WITH A MINIMUM OF 5 LINE WIRES WITH 12" VERTICAL SPACING.
PROVIDE 5'-0" STEEL POST OF THE SELF-FASTENER ANGLE STEEL TYPE.
FOR MECHANICAL SLICING METHOD INSTALLATION, GEOTEXTILE SHALL BE A MAXIMUM OF 18" ABOVE GROUND SURFACE.

- SILT FENCE MAINTENANCE
1. INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
2. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
3. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT.
4. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.



- NOTES:
USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.
PROVIDE STABILIZED OUTLET TO STREAM BANK. WOOD PALLETES MAY BE USED IN LIEU OF STONE AND GEOTEXTILE AS DIRECTED. A SUFFICIENT NUMBER OF PALLETES MUST BE PROVIDED TO ELEVATE THE ENTIRE SPECIAL STILLING BASIN ABOVE NATURAL GROUND.

- DIRT BAG MAINTENANCE
1. FOLLOW ALL MANUFACTURER RECOMMENDATIONS FOR INSPECTION AND MAINTENANCE GUIDELINES. REPLACE DEWATERING BAGS WHEN TRAPPED SEDIMENT HAS ACCUMULATED TO 50% OF THE BAG CAPACITY OR IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
2. DEWATERING BAGS ARE FULL WHEN THEY NO LONGER EFFICIENTLY FILTER SEDIMENT OR PASS WATER AT A REASONABLE RATE.

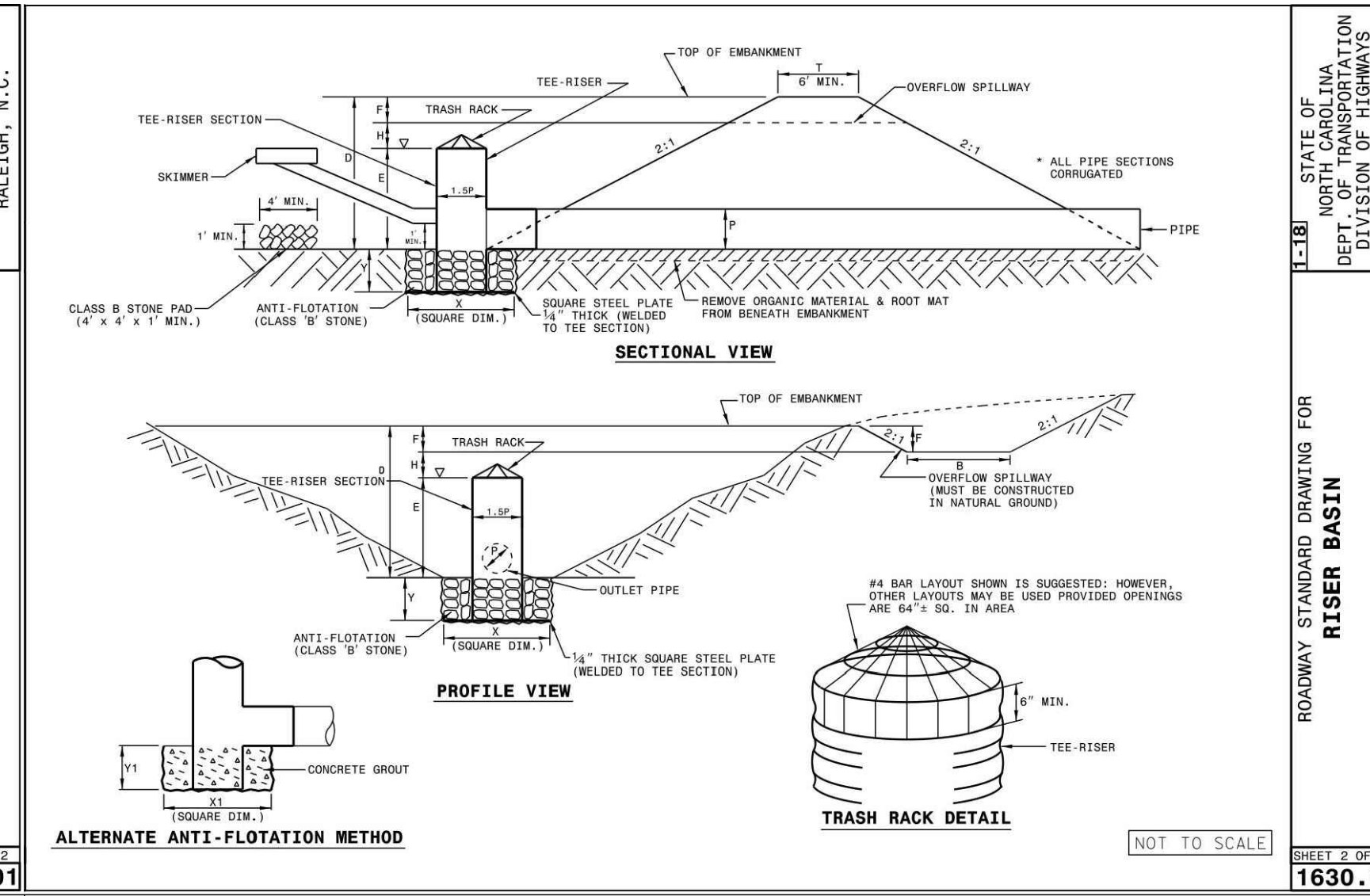
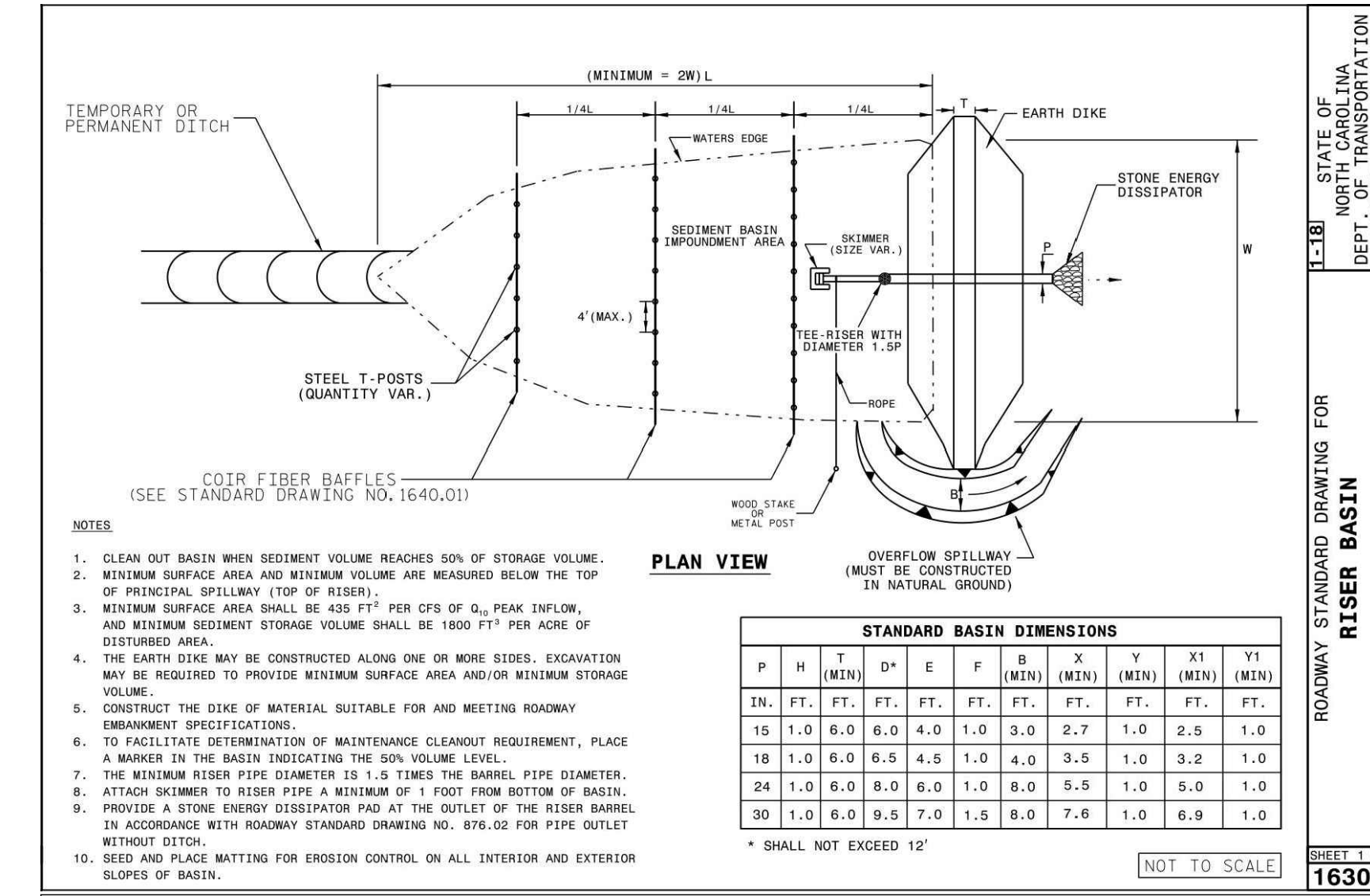


Table with 10 columns: P, H, T, D, E, F, B, X, Y, X1, Y1. Rows show dimensions in feet and inches for different riser basin configurations.

- SKIMMER MAINTENANCE
1. INSPECT SKIMMER SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (ONE-HALF INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE HEIGHT OF THE FIRST BAFFLE. PULL THE SKIMMER TO ONE SIDE SO THAT THE SEDIMENT UNDERNEATH IT CAN BE EXCAVATED. EXCAVATE THE SEDIMENT FROM THE ENTIRE BASIN, NOT JUST AROUND THE SKIMMER OR THE FIRST CELL. MAKE SURE VEGETATION GROWING IN THE BOTTOM OF THE BASIN DOES NOT HOLD DOWN THE SKIMMER.
2. REPAIR THE BAFFLES IF THEY ARE DAMAGED. RE-ANCHOR THE BAFFLES IF WATER IS FLOWING UNDERNEATH OR AROUND THEM. IF THE SKIMMER IS CLOGGED WITH TRASH AND THERE IS WATER IN THE BASIN, USUALLY JERKING ON THE ROPE WILL MAKE THE SKIMMER BOB UP AND DOWN AND DISLodge THE DEBRIS AND RESTORE FLOW. IF THIS DOES NOT WORK, PULL THE SKIMMER OVER TO THE SIDE OF THE BASIN AND REMOVE THE DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER TO SEE IF IT IS CLOGGED; IF SO REMOVE THE DEBRIS.
3. IF THE SKIMMER ARM OR BARREL PIPE IS CLOGGED, THE ORIFICE CAN BE REMOVED AND THE OBSTRUCTION CLEARED WITH A PLUMBER'S SNAKE OR BY FLUSHING WITH WATER. BE SURE AND REPLACE THE ORIFICE BEFORE REPOSITIONING THE SKIMMER.
4. CHECK THE FABRIC LINED SPILLWAY FOR DAMAGE AND MAKE ANY REQUIRED REPAIRS WITH FABRIC THAT SPANS THE FULL WIDTH OF THE SPILLWAY. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE SKIMMER AND POOL AREAS.
5. FREEZING WEATHER CAN RESULT IN ICE FORMING IN THE BASIN. SOME SPECIAL PRECAUTIONS SHOULD BE TAKEN IN THE WINTER TO PREVENT THE SKIMMER FROM PLUGGING WITH ICE.



- RISER BASIN MAINTENANCE
1. INSPECT TEMPORARY SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN IT ACCUMULATES TO ONE-HALF THE DESIGN DEPTH. PLACE REMOVED SEDIMENT IN AN AREA WITH SEDIMENT CONTROLS.
2. CHECK THE EMBANKMENT, SPILLWAYS, AND OUTLET FOR EROSION DAMAGE, AND INSPECT THE EMBANKMENT FOR PIPING AND SETTLEMENT. MAKE ALL NECESSARY REPAIRS IMMEDIATELY. REMOVE ALL TRASH AND OTHER DEBRIS FROM THE RISER AND POOL AREA.

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283 FIELDING ROAD, CHERRYVILLE, CLEVELAND COUNTY, NC. 28021



REVISIONS

NO. DATE

PLAN INFORMATION

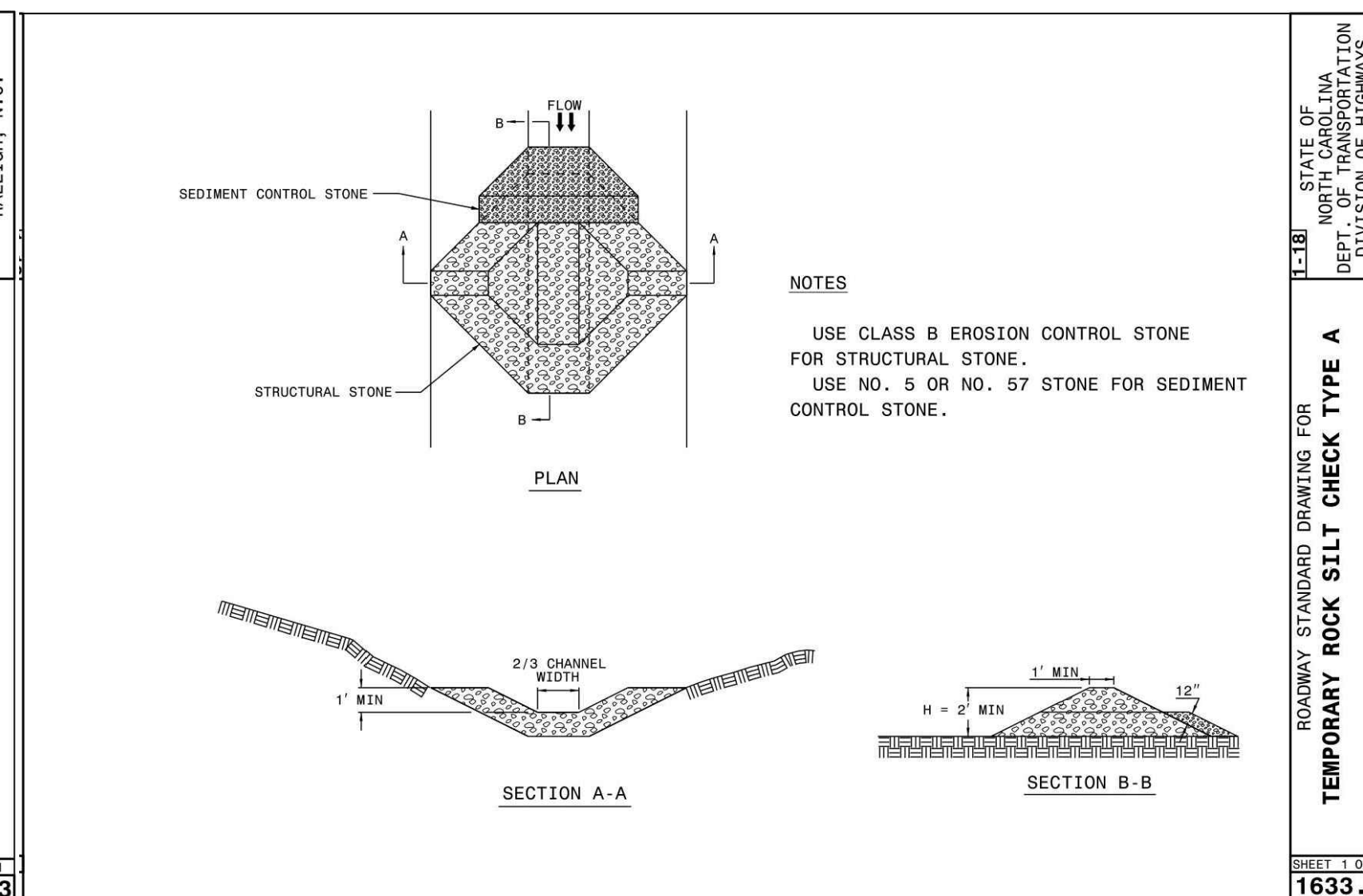
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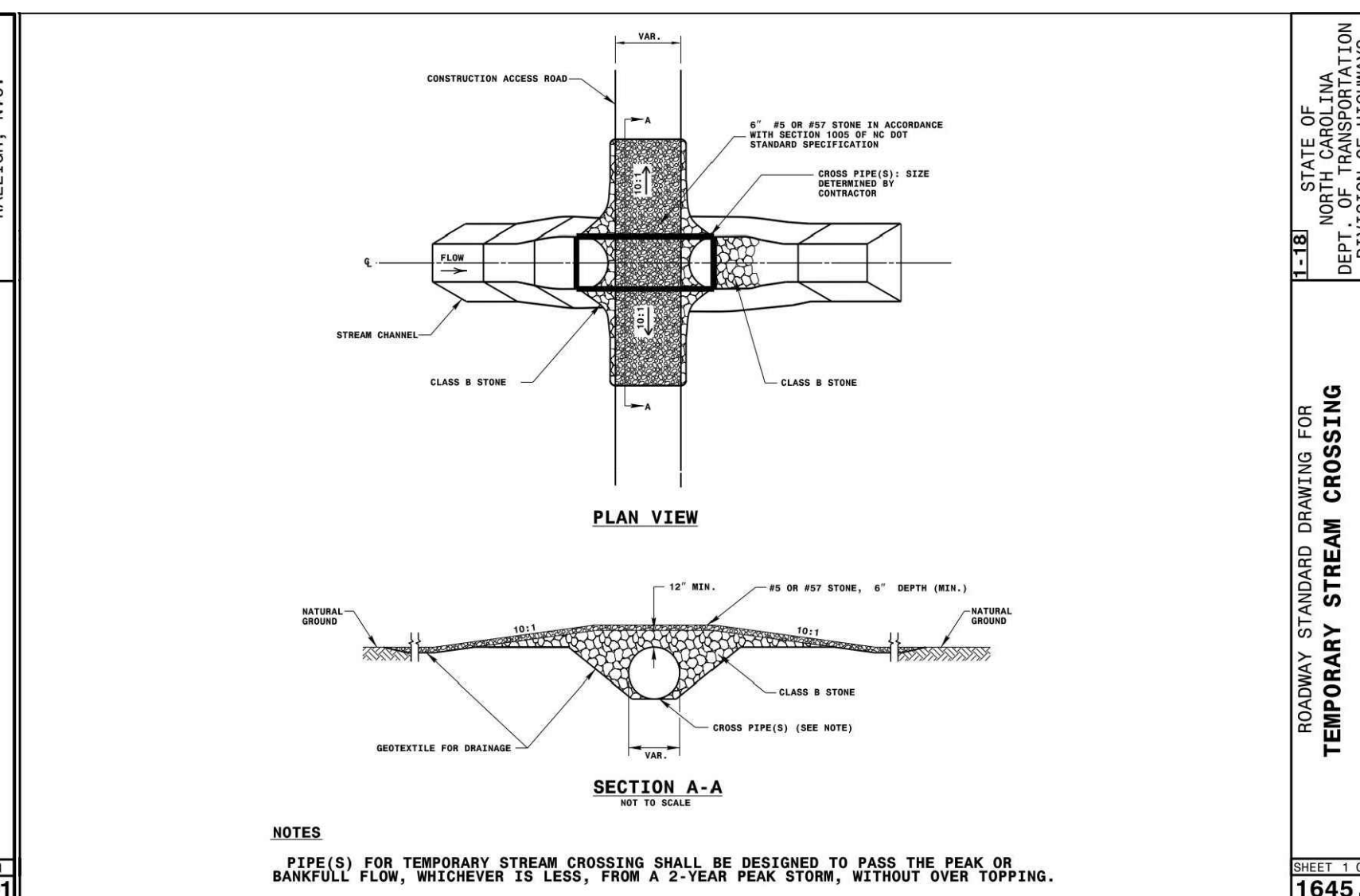
EROSION CONTROL
DETAILS

EC-6

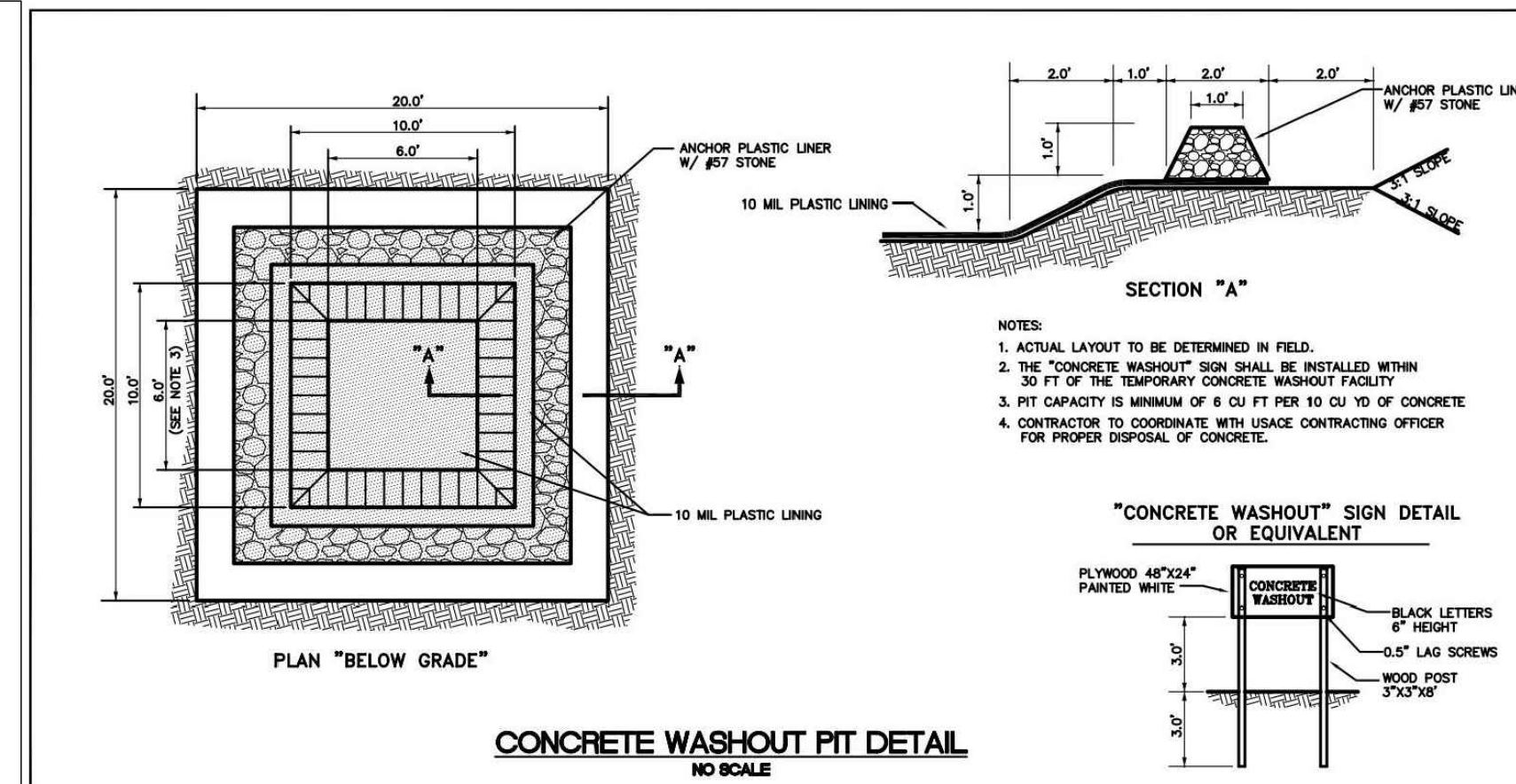
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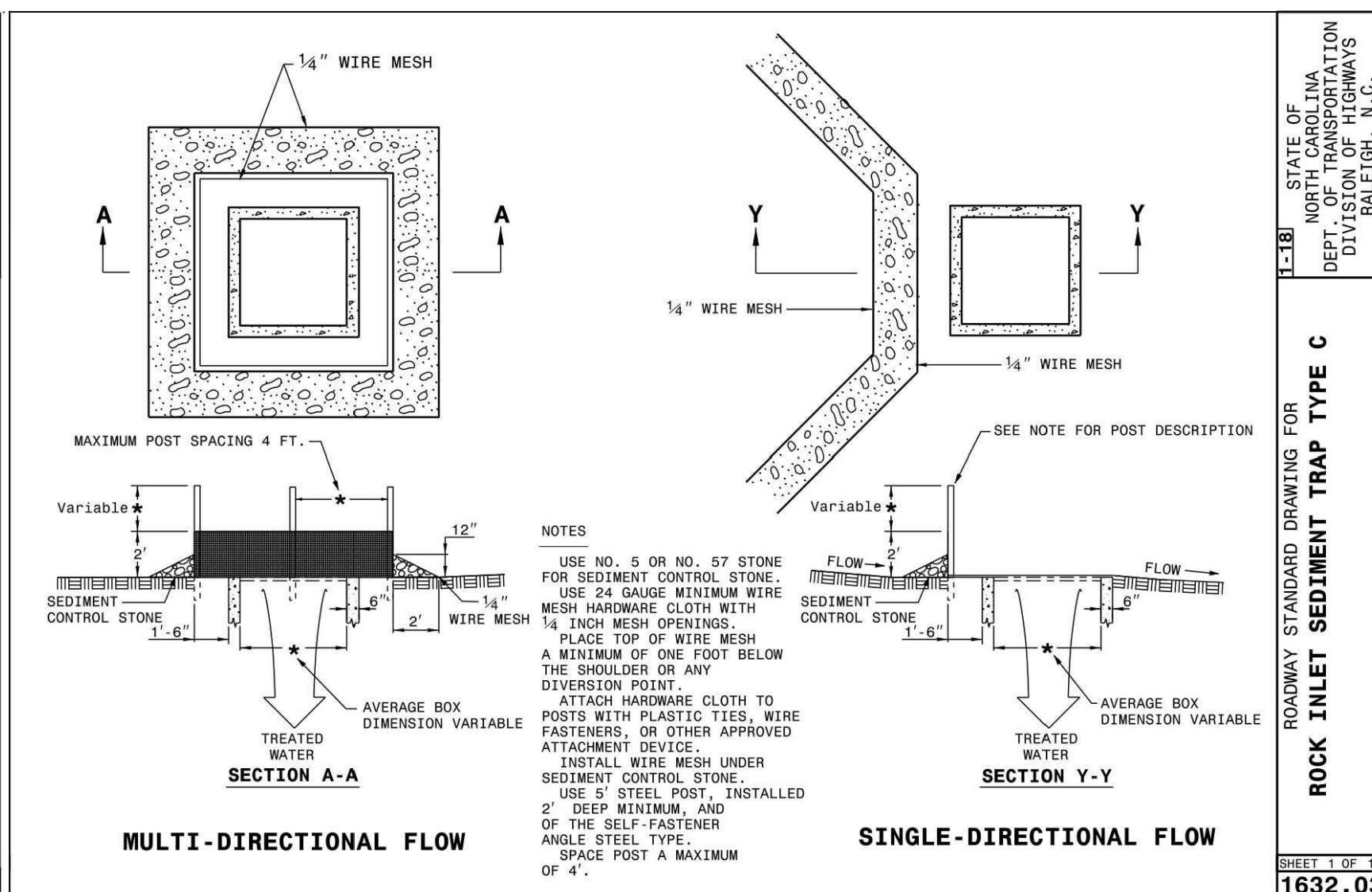
- TEMPORARY STREAM CROSSING MAINTENANCE**
- INSPECT TEMPORARY STREAM CROSSINGS AFTER RUNOFF-PRODUCING RAINS TO CHECK FOR BLOCKAGE IN CHANNEL, EROSION OF ABUTMENTS, CHANNEL SCOUR, RIPRAP DISPLACEMENT, OR PIPING. MAKE ALL REPAIRS IMMEDIATELY TO PREVENT FURTHER DAMAGE TO THE INSTALLATION.



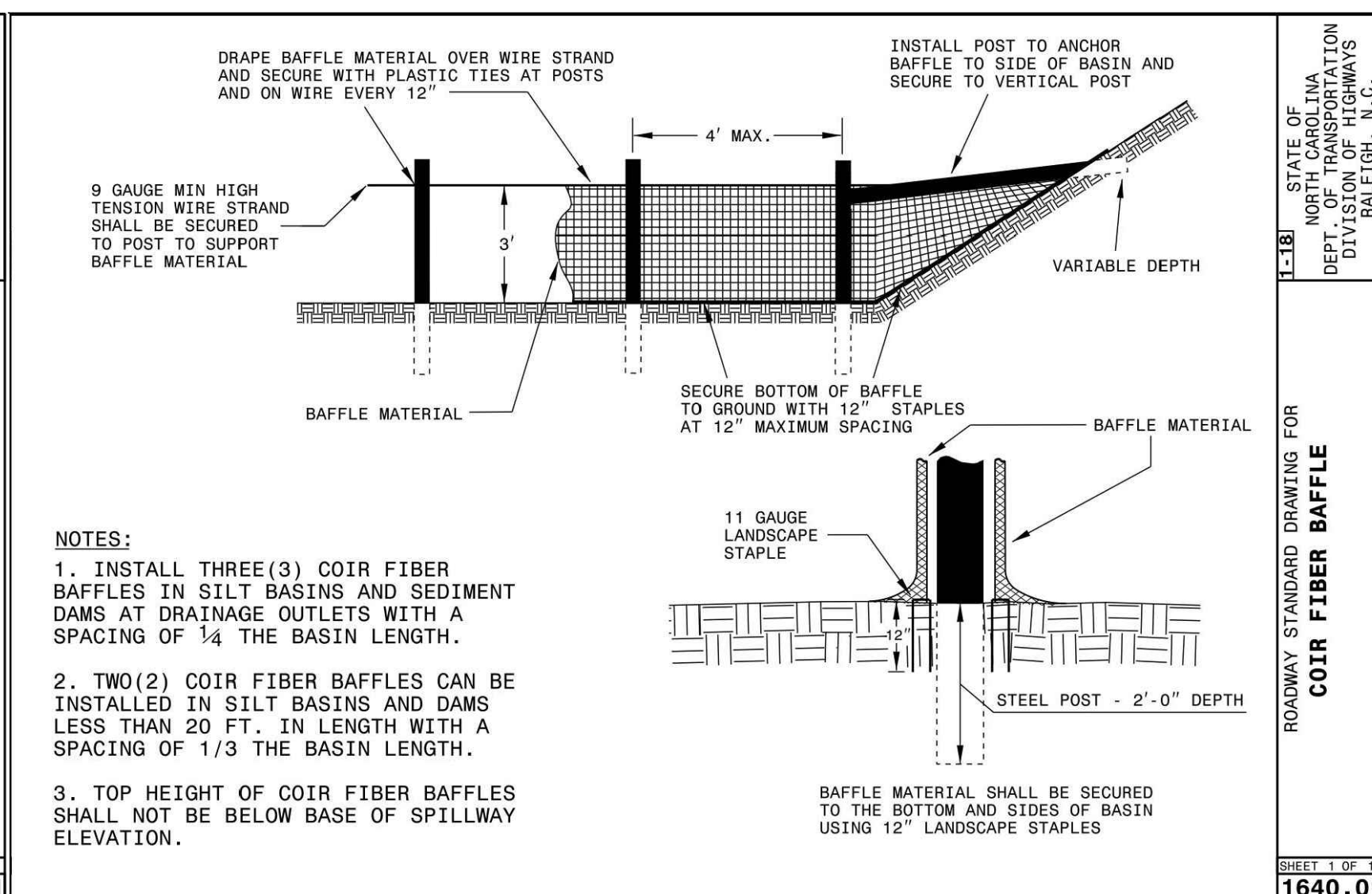
- COIR BAFFLE MAINTENANCE**
- INSPECT BAFFLES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
 - BE SURE TO MAINTAIN ACCESS TO THE BAFFLES. SHOULD THE FABRIC OF A BAFFLE COLLAPSE, TEAR, DECOMPOSE, OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY.
 - REMOVE SEDIMENT DEPOSITS WHEN IT REACHES HALF FULL. TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE BAFFLES. TAKE CARE TO AVOID DAMAGING THE BAFFLES DURING CLEANOUT, AND REPLACE IF DAMAGED DURING CLEANOUT OPERATIONS. SEDIMENT DEPTH SHOULD NEVER EXCEED HALF THE DESIGNED STORAGE DEPTH.
 - AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED, REMOVE ALL BAFFLE MATERIALS AND UNSTABLE SEDIMENT DEPOSITS. BRING THE AREA TO GRADE, AND STABILIZE IT.



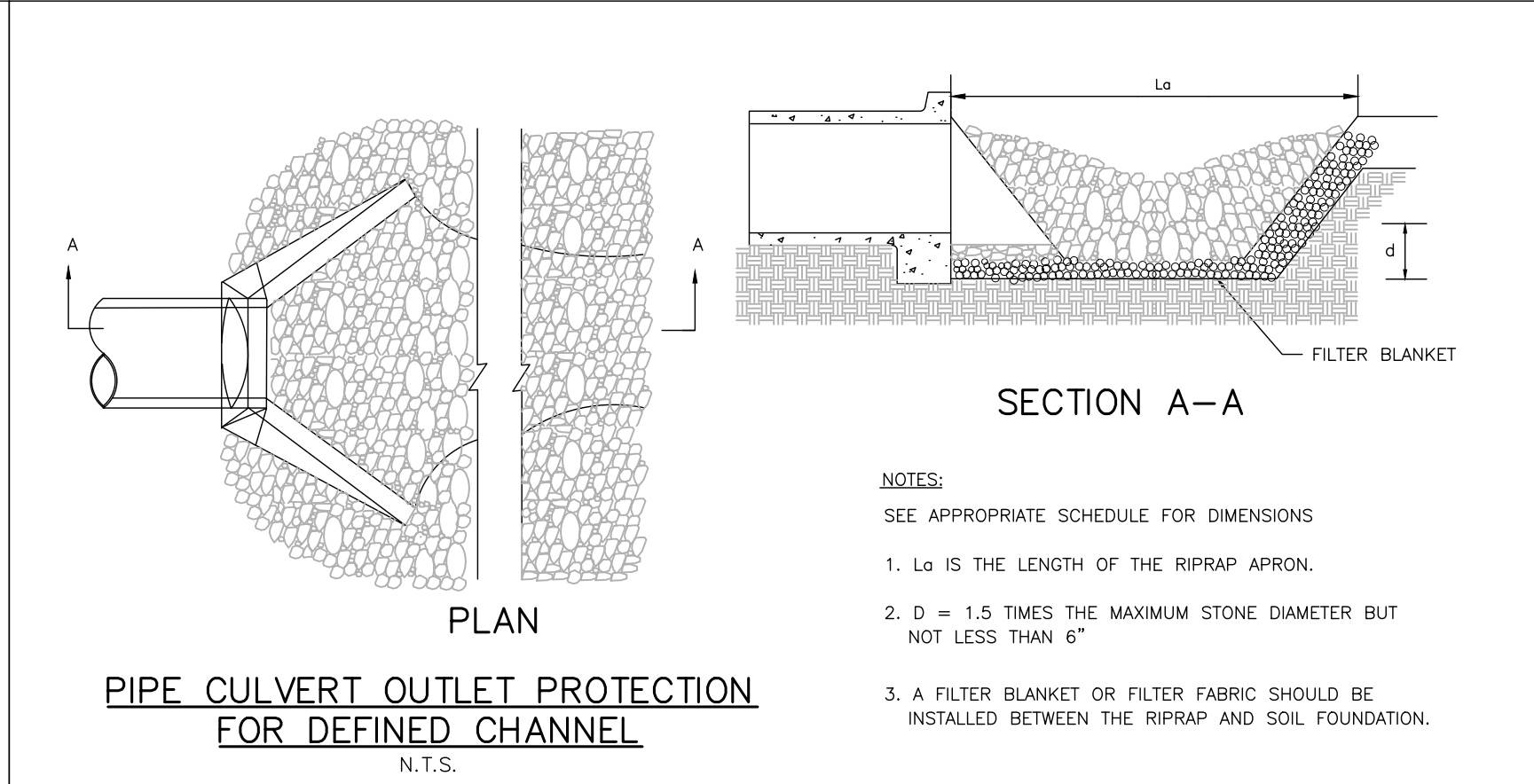
- CONCRETE WASHOUT MAINTENANCE**
- CONCRETE WASHOUT FACILITIES SHOULD BE INSPECTED DAILY AND AFTER HEAVY RAINS TO CHECK FOR LEAKS, IDENTIFY ANY PLASTIC LININGS AND SIDEWALLS HAVE BEEN DAMAGED BY CONSTRUCTION ACTIVITIES, AND DETERMINE WHETHER THEY HAVE BEEN FILLED TO OVER 75 PERCENT CAPACITY.
 - WHEN THE WASHOUT CONTAINER IS FILLED TO OVER 75 PERCENT OF ITS CAPACITY, THE WASH WATER SHOULD BE VACUUMED OFF OR ALLOWED TO EVAPORATE TO AVOID OVERFLOWS. THEN WHEN THE REMAINING CEMENTITIOUS SOLIDS HAVE HARDENED, THEY SHOULD BE REMOVED AND RECYCLED.
 - DAMAGES TO THE CONTAINER SHOULD BE REPAIRED PROMPTLY.
 - BEFORE HEAVY RAINS, THE WASHOUT CONTAINER'S LIQUID LEVEL SHOULD BE LOWERED OR THE CONTAINER SHOULD BE COVERED TO AVOID AN OVERFLOW DURING THE RAIN STORM.



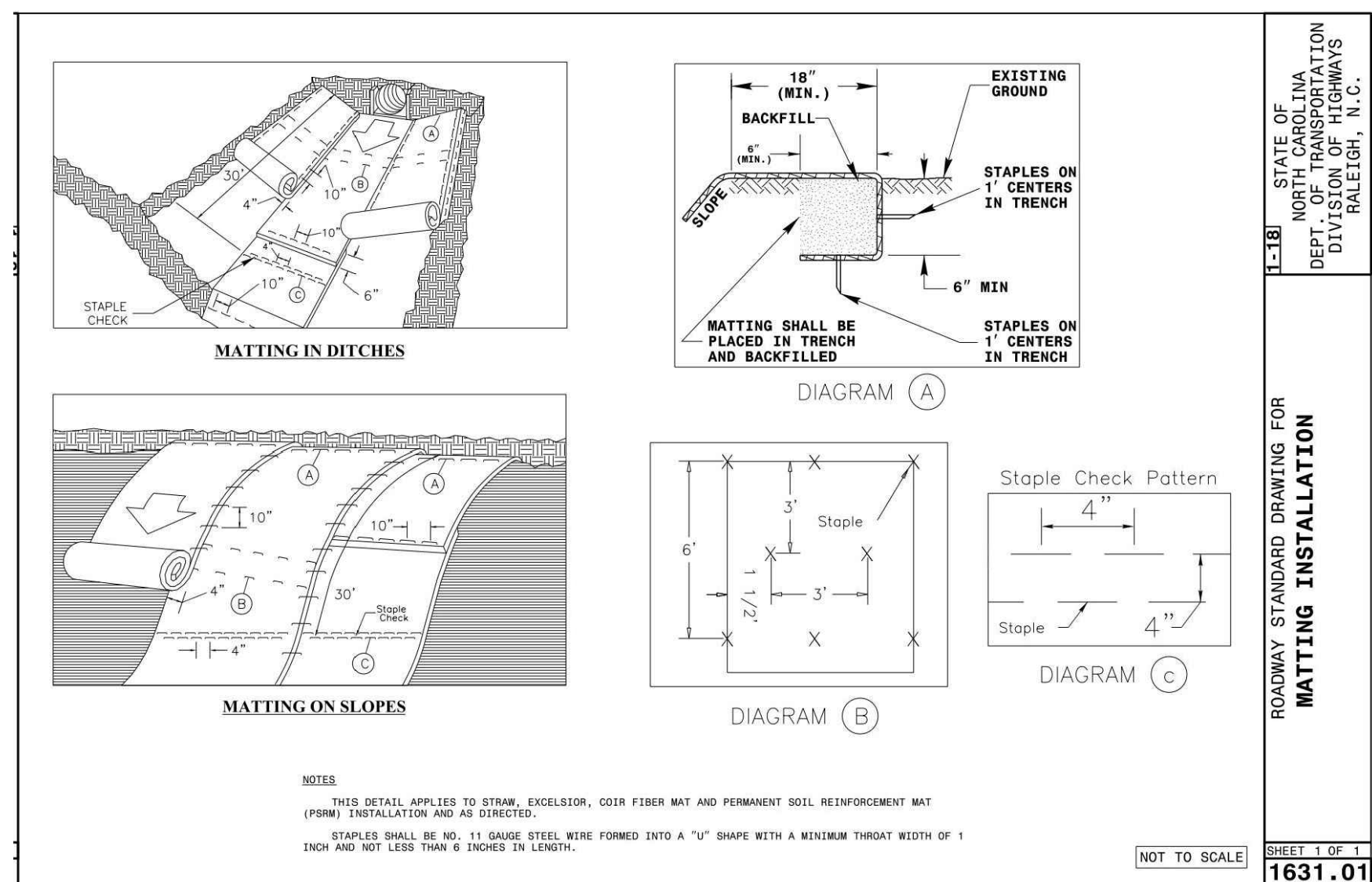
- DROP INLET PROTECTION MAINTENANCE**
- INSPECT THE BARRIER AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL AND MAKE REPAIRS AS NEEDED.
 - REMOVE SEDIMENT AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR SUBSEQUENT RAINS.
 - WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN ADEQUATELY STABILIZED, REMOVE ALL MATERIALS AND ANY UNSTABLE SOIL, AND EITHER SALVAGE OR DISPOSE OF IT PROPERLY. BRING THE DISTURBED AREA TO PROPER GRADE, THEN SMOOTH AND COMPACT IT. APPROPRIATELY STABILIZE ALL BARE AREAS AROUND THE INLET.



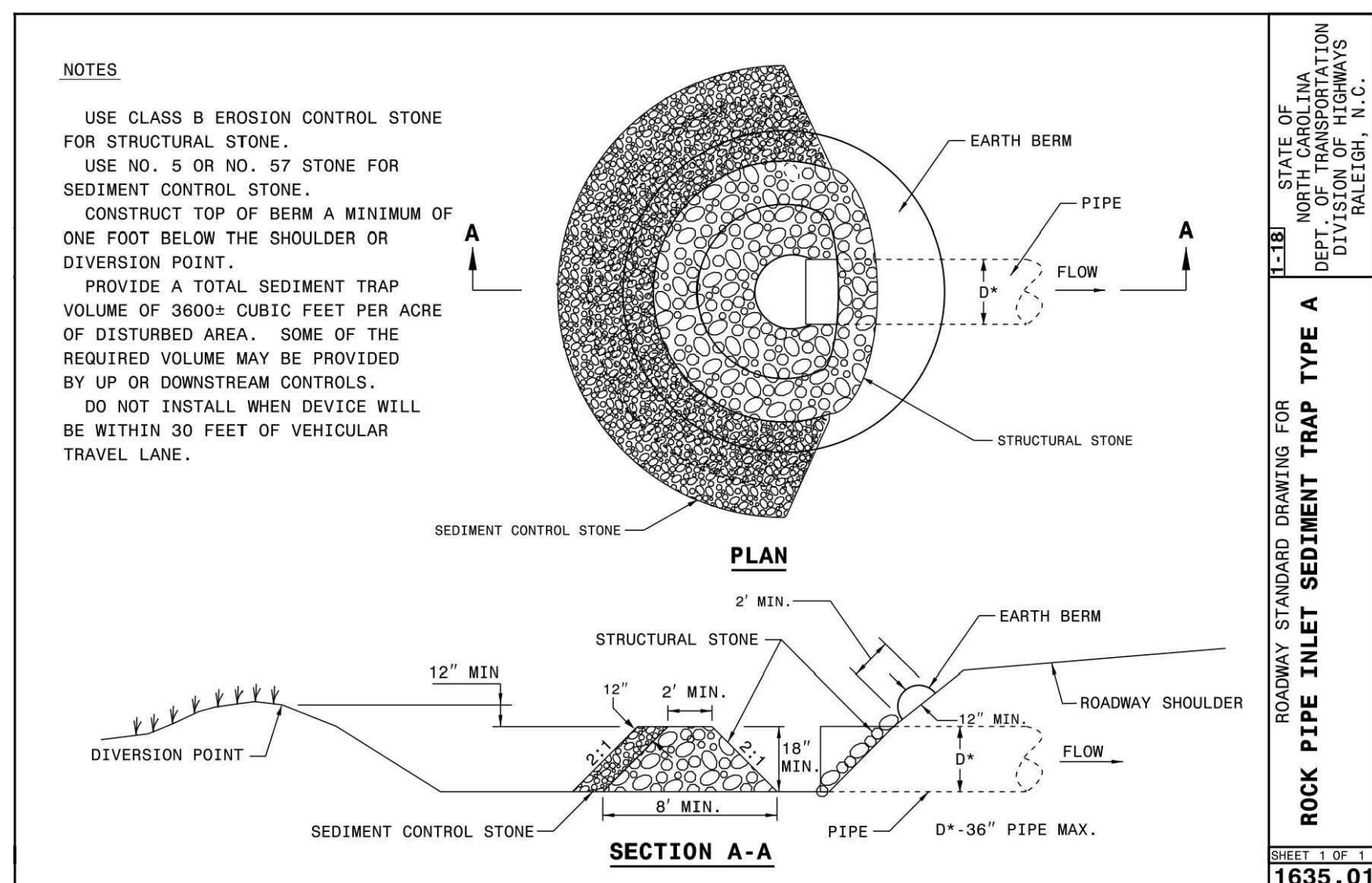
- PIPE INLET SEDIMENT TRAP MAINTENANCE**
- INSPECT ROCK PIPE INLET PROTECTION AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE SEDIMENT STORAGE AREA TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP. PLACE THE SEDIMENT THAT IS REMOVED IN THE DESIGNATED DISPOSAL AREA AND REPLACE THE CONTAMINATED PART OF THE GRAVEL FACING.
 - CHECK THE STRUCTURE FOR DAMAGE. ANY RIPRAP DISPLACED FROM THE STONE HORSESHOE MUST BE REPLACED IMMEDIATELY.
 - AFTER ALL THE SEDIMENT-PRODUCING AREAS HAVE BEEN PERMANENTLY STABILIZED, REMOVE THE STRUCTURE AND ALL THE UNSTABLE SEDIMENT. SMOOTH THE AREA TO BLEND WITH THE ADJOINING AREAS AND PROVIDE PERMANENT GROUND COVER (SURFACE STABILIZATION).



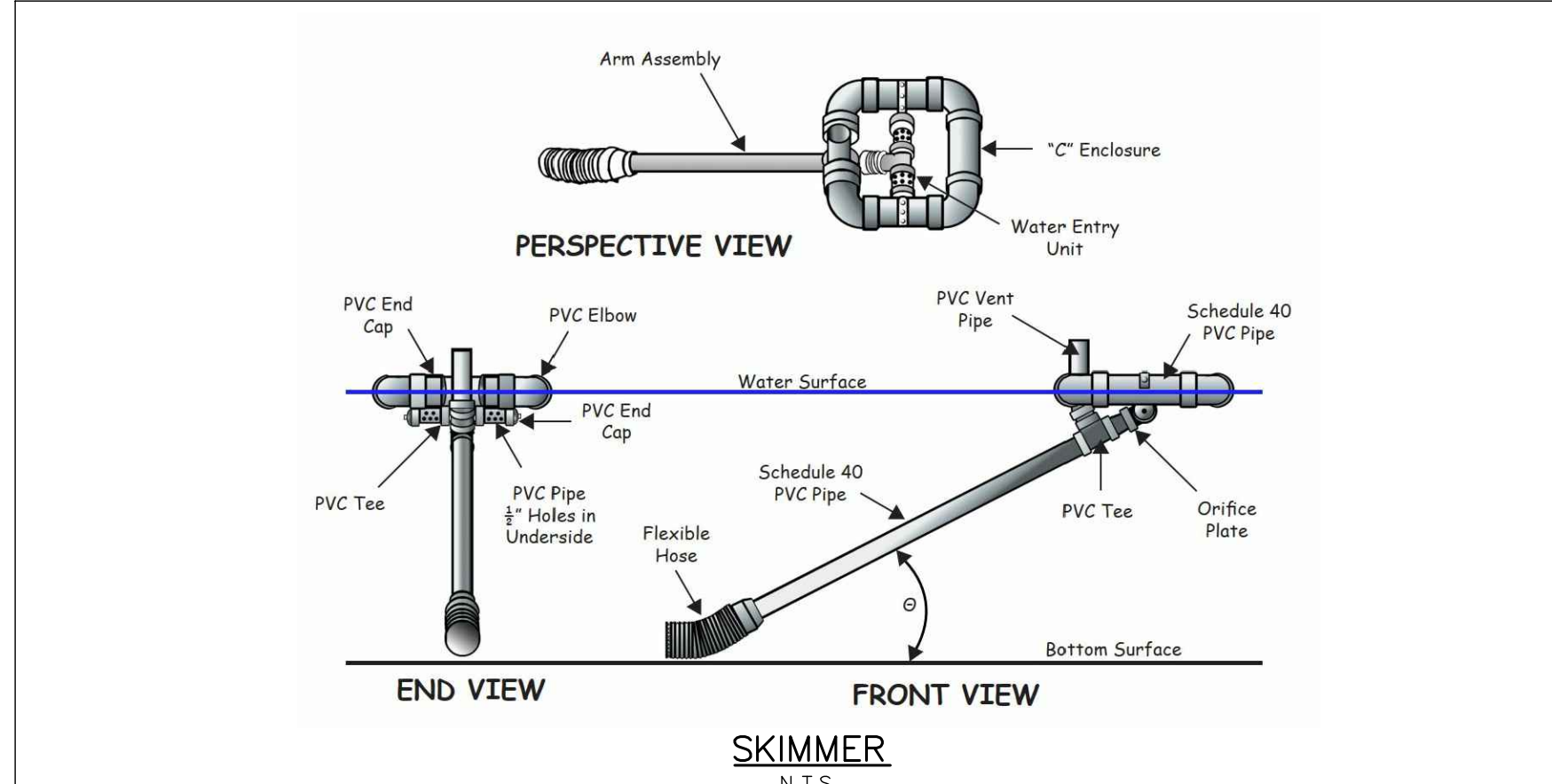
- PIPE CULVERT OUTLET PROTECTION MAINTENANCE**
- INSPECT RIPRAP OUTLET STRUCTURES WEEKLY AND AFTER SIGNIFICANT (1/2 INCH OR GREATER) RAINFALL EVENTS TO SEE IF ANY EROSION AROUND OR BELOW THE RIPRAP HAS TAKEN PLACE, OR IF STONES HAVE BEEN DISLOGGED. IMMEDIATELY MAKE ALL NEEDED REPAIRS TO PREVENT FURTHER DAMAGE.



- MATTING MAINTENANCE**
- INSPECT ALL MULCHES PERIODICALLY, AND AFTER RAINSTORMS TO CHECK FOR RILL EROSION, DISLOCATION OR FAILURE. WHERE EROSION IS OBSERVED, APPLY ADDITIONAL MULCH. IF WASHOUT OCCURS, REPAIR THE SLOPE GRADE, RESEED AND REINSTALL MULCH. CONTINUE INSPECTIONS UNTIL VEGETATION IS FIRMLY ESTABLISHED.



- SKIMMER MAINTENANCE**
- INSPECT SKIMMER SEDIMENT BASINS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (ONE-HALF INCH OR GREATER) RAINFALL EVENT AND REPAIR IMMEDIATELY. REMOVE SEDIMENT AND RESTORE THE BASIN TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT ACCUMULATES TO ONE-HALF THE HEIGHT OF THE FIRST BAFFLE. PULL THE SKIMMER TO ONE SIDE SO THAT THE SEDIMENT UNDERNEATH IT CAN BE EXCAVATED. EXCAVATE THE SEDIMENT FROM THE ENTIRE BASIN, NOT JUST AROUND THE SKIMMER OR THE FIRST CELL. MAKE SURE VEGETATION GROWING IN THE BOTTOM OF THE BASIN DOES NOT HOLD DOWN THE SKIMMER. IF THE SKIMMER IS CLOGGED WITH TRASH AND THERE IS WATER IN THE BASIN, USUALLY JERKING ON THE ROPE WILL MAKE THE SKIMMER BOB UP AND DOWN AND DISLOGGE THE DEBRIS AND RESTORE FLOW. IF THIS DOES NOT WORK, PULL THE SKIMMER OVER TO THE SIDE OF THE BASIN AND REMOVE THE DEBRIS. ALSO CHECK THE ORIFICE INSIDE THE SKIMMER TO SEE IF IT IS CLOGGED; IF SO REMOVE THE DEBRIS. IF THE SKIMMER ARM OR BARREL PIPE IS CLOGGED, THE ORIFICE CAN BE REMOVED AND THE OBSTRUCTION CLEARED WITH A PLUMBER'S SNAKE OR BY FLUSHING WITH WATER. BE SURE AND REPLACE THE ORIFICE BEFORE REPOSITIONING THE SKIMMER.



- CONCRETE WASHOUT MAINTENANCE**
- CONCRETE WASHOUT FACILITIES SHOULD BE INSPECTED DAILY AND AFTER HEAVY RAINS TO CHECK FOR LEAKS, IDENTIFY ANY PLASTIC LININGS AND SIDEWALLS HAVE BEEN DAMAGED BY CONSTRUCTION ACTIVITIES, AND DETERMINE WHETHER THEY HAVE BEEN FILLED TO OVER 75 PERCENT CAPACITY.
 - WHEN THE WASHOUT CONTAINER IS FILLED TO OVER 75 PERCENT OF ITS CAPACITY, THE WASH WATER SHOULD BE VACUUMED OFF OR ALLOWED TO EVAPORATE TO AVOID OVERFLOWS. THEN WHEN THE REMAINING CEMENTITIOUS SOLIDS HAVE HARDENED, THEY SHOULD BE REMOVED AND RECYCLED.
 - DAMAGES TO THE CONTAINER SHOULD BE REPAIRED PROMPTLY.
 - BEFORE HEAVY RAINS, THE WASHOUT CONTAINER'S LIQUID LEVEL SHOULD BE LOWERED OR THE CONTAINER SHOULD BE COVERED TO AVOID AN OVERFLOW DURING THE RAIN STORM.

STORMWATER CONTROL MEASURE CONSTRUCTION SPECIFICATIONS

GENERAL NOTES

- PRIOR TO CONSTRUCTION, ANY DISCREPANCIES IN THE PLANS AND NOTES SHALL BE BROUGHT TO THE DESIGN ENGINEER'S ATTENTION IMMEDIATELY.
- EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE GROUND, ARE BASED ON A FIELD SURVEY AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO BEGINNING RELATED CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
- THE FINAL APPROVAL FOR THIS FACILITY WILL INCLUDE AN APPROVAL BY THE ON-SITE GEOTECHNICAL ENGINEER THAT THE PROJECT WAS CONSTRUCTED PER THE APPROVED PLANS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE ON-SITE GEOTECHNICAL ENGINEER FOR OBSERVATION AND TESTING SUCH THAT THE ON-SITE GEOTECHNICAL ENGINEER CAN APPROVE THE CONSTRUCTION.
- ALL CONSTRUCTION ACTIVITY RELATED TO THE PROPOSED STORMWATER MANAGEMENT FACILITY SHALL BE PER THE DETAILS AND SPECIFICATIONS SHOWN IN THESE DRAWINGS. SOILS, COMPACTION, AND OTHER MISCELLANEOUS DETAILS AND SPECIFICATIONS MAY BE MODIFIED PER THE RECOMMENDATIONS OF THE ON-SITE GEOTECHNICAL ENGINEER. HOWEVER, PRIOR TO IMPLEMENTATION, THE DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DEVIATION FROM THESE DESIGN DRAWINGS, INCLUDING SHOP DRAWINGS FOR ANY PROPOSED MODIFICATION.
- DURING THE INITIAL STAGES OF CONSTRUCTION, THE STORMWATER MANAGEMENT FACILITY MAY BE USED AS A SEDIMENT BASIN FOR EROSION CONTROL PURPOSES. IF SO, THE CONTRACTOR SHALL FOLLOW THE GENERAL CONSTRUCTION SEQUENCE BELOW:
 - THE CONTRACTOR SHALL CONSTRUCT THE ENTIRE FACILITY (PERMANENT OUTLET STRUCTURE, DAM, ETC.) WITH THE EXCEPTION OF THE INTERIOR FINE GRADING FOR THE FACILITY. THE INTERIOR FINE GRADING WILL BE CONSTRUCTED ONCE THE EROSION CONTROL PHASE IS COMPLETE.
 - THE SKIMMER SHALL BE CONNECTED TO THE PERMANENT OUTLET STRUCTURE.
 - ONCE THE UPSTREAM DRAINAGE AREA IS STABILIZED AND APPROVED BY ENGINEER, THE CONTRACTOR SHALL CLEAN OUT THE BASIN. ALL SEDIMENT, TRASH, ETC. SHALL BE DISPOSED OF PROPERLY (I.E. - PLACED IN A LANDFILL) AND NOT STOCKPILED IN AN AREA WHERE WATER QUALITY COULD BE ADVERSELY AFFECTED. SKIMMER TO REMAIN IN PLACE.
 - ONCE THE BASIN IS CLEANED OUT, AND ALL EROSION CONTROL DEVICES REMOVED, THE CONTRACTOR SHALL CONSTRUCT THE INTERIOR GRADING SHOWN ON THIS SHEET.
 - ONCE THE GRADING IS COMPLETE, THE CONTRACTOR SHALL REQUEST AN ON-SITE INSPECTION PRIOR TO INSTALLATION OF THE STORMWATER MANAGEMENT VEGETATION. IF THE CONTRACTOR INSTALLS THE PROPOSED VEGETATION PRIOR TO AN INSPECTION, ANY CHANGES TO THE GRADING / RE-PLANTING OF PLANTS WILL BE AT THE CONTRACTOR'S EXPENSE.
 - ANY REMOVED TOPSOIL SHALL BE STOCKPILED FOR USE IN SEEDING ON THE DAM EMBANKMENT ONCE FINAL GRADES (AS SHOWN ON THE GRADING PLAN) HAVE BEEN ESTABLISHED WITH COMPACTED FILL. PRIOR TO TOPSOIL INSTALLATION, THE CONTRACTOR SHALL SCARIFY THE TOP 2"-3" OF THE BERM SECTION TO PROMOTE BONDING OF THE TOPSOIL WITH THE COMPACTED FILL. THE TOPSOIL DEPTH SHALL RANGE FROM 3"-4" ON THE DAM EMBANKMENT. PLEASE NOTE THE STOCKPILED TOPSOIL SHALL BE AMENDED, AS DIRECTED BY A LANDSCAPE PROFESSIONAL, PRIOR TO INSTALLATION ON THE EMBANKMENT.
 - IT IS ANTICIPATED THAT DEWATERING WILL BE NECESSARY IN THE EXCAVATION AREAS (E.G. - EMBANKMENT SUB GRADE, INTERIOR PORTIONS OF THE STORMWATER FACILITY, KEY TRENCH, ETC.). THEREFORE, THE CONTRACTOR SHALL FURNISH, INSTALL, OPERATE, AND MAINTAIN ANY PUMPING EQUIPMENT, ETC. NEEDED FOR REMOVAL OF WATER FROM VARIOUS PARTS OF THE STORMWATER FACILITY SITE. DURING PLACEMENT OF FILL WITHIN THESE AREAS, THE CONTRACTOR SHALL KEEP THE WATER LEVEL BELOW THE BOTTOM OF THE EXCAVATION / CONSTRUCTION AREAS. THE MANNER IN WHICH THE WATER IS REMOVED SHALL BE SUCH THAT THE EXCAVATION BOTTOM AND SIDE SLOPES ARE STABLE, WITH NO SEDIMENT DISCHARGED FROM THE SITE (I.E. PUMPED WATER MAY NEED TO BE DIRECTED TO AN APPROVED EROSION CONTROL DEVICE SUCH AS A DIRT BAG (ACF ENVIRONMENTAL), OR ENGINEER APPROVED EQUIVALENT, PRIOR TO DISCHARGE.
 - THE RETAINING WALL ALIGNMENT SHOWN ON THESE PLANS DEPICTS THE LOCATION OF THE FRONT FACE OF THE RETAINING WALL AT THE BOTTOM.
 - THE RETAINING WALL IS TO BE A DESIGN-BUILD PROJECT(S) BY THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN FINAL CONSTRUCTION DRAWINGS FROM A REGISTERED PROFESSIONAL ENGINEER AND GAIN ALL REQUIRED PERMITS NECESSARY FOR THE CONSTRUCTION OF THE RETAINING WALL.
 - THE RETAINING WALL SHALL BE ASSUMED TO BE BACKFILLED WITH OFF-SITE BORROW MATERIAL OR PROCESSED FILL UNLESS CONTRACTOR CAN PROVIDE OWNER WITH CONFIRMATION FROM THE GEOTECHNICAL ENGINEER AND THE RETAINING WALL DESIGNER THAT READILY AVAILABLE ON-SITE SOILS CAN BE USED.
 - THE TOP AND BOTTOM OF WALL ELEVATIONS SHOWN ON THESE PLANS IDENTIFY FINISHED GRADE ELEVATIONS ONLY. THE EXTENT THAT THE RETAINING WALL WILL BE EXTENDED BELOW GRADE TO THE FOOTING SHALL BE IDENTIFIED ON THE RETAINING WALL CONSTRUCTION DRAWINGS.

BERM AND SOIL COMPACTION SPECIFICATIONS

- PRIOR TO CONSTRUCTION, THE ON-SITE GEOTECHNICAL ENGINEER SHALL IDENTIFY BORROW / FILL AREAS AND VERIFY THEIR SUITABILITY FOR USE WITHIN THE DAM EMBANKMENT. ALSO, THE ON-SITE GEOTECHNICAL ENGINEER SHALL PERFORM STANDARD PROCTORS ON THE PROPOSED BORROW MATERIAL TO ENSURE THAT OPTIMUM MOISTURE CONTENT AND COMPACTION CAN BE ACHIEVED / CONTROLLED DURING CONSTRUCTION.
- ALL FILL MATERIALS TO BE USED FOR THE DAM EMBANKMENT SHALL BE TAKEN FROM BORROW AREAS APPROVED BY THE ON-SITE GEOTECHNICAL ENGINEER. THE FILL MATERIAL SHALL BE FREE FROM ROOTS, STUMPS, WOOD, STONES GREATER THAN 6", AND FROZEN OR OTHER OBJECTIONABLE MATERIAL. THE FOLLOWING SOIL TYPES ARE SUITABLE FOR USE AS FILL WITHIN THE DAM EMBANKMENT AND KEY TRENCH: ML AND CL. ALL FILL MATERIALS SHALL BE APPROVED BY THE ON-SITE GEOTECHNICAL ENGINEER FOR THE INTENDED USE.
- FILL PLACEMENT FOR THE EMBANKMENT SHALL NOT EXCEED A MAXIMUM 8" LIFT (UNCOMPACTED). EACH LIFT SHALL BE CONTINUOUS FOR THE ENTIRE LENGTH OF EMBANKMENT. BEFORE PLACEMENT OF FILL FOR THE BERM SECTION, ALL UNSUITABLE MATERIAL SHALL BE REMOVED AND THE SURFACE PROPERLY PREPARED FOR FILL PLACEMENT. FILL MATERIAL ADJACENT TO ALL SPILLWAY AND DRAINAGE STRUCTURES SHALL BE PLACED IN 4-INCH (UNCOMPACTED) LIFTS AND HAND-COMPACTED TO THE SAME COMPACTION AND MOISTURE REQUIREMENTS AS THE ENTIRE EMBANKMENT.
- ALL FILL SOILS USED IN THE EMBANKMENT CONSTRUCTION SHALL BE COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM-698). THE FILL SOILS SHALL BE COMPACTED AT A MOISTURE CONTENT WITHIN -1 TO +3 PERCENT OF ITS OPTIMUM MOISTURE CONTENT. COMPACTION TESTS SHALL BE PERFORMED BY THE ON-SITE GEOTECHNICAL ENGINEER DURING CONSTRUCTION TO VERIFY THAT THE PROPER COMPACTION LEVEL HAS BEEN REACHED. THE FILL SHOULD BE COMPACTED USING A SHEEPSFOOT TYPE COMPACTOR. IN ORDER TO PREVENT DAMAGE TO THE PIPE, NO COMPACTION EQUIPMENT SHALL CROSS ANY PIPE UNTIL MINIMUM COVER IS ESTABLISHED ALONG THE PIPE.
- THE DESIGN ENGINEER SHALL BE PROVIDED WITH REPORTS AND APPROVAL BY THE ON-SITE GEOTECHNICAL ENGINEER, THAT THE GEOTECHNICAL ASPECTS OF THE FACILITY HAVE BEEN CONSTRUCTED PER PLAN. THEREFORE, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE TESTING AND OBSERVATION WITH THE ON-SITE GEOTECHNICAL ENGINEER.
- TESTING OF THE NEW FILL MATERIALS SHALL BE PERFORMED TO VERIFY THAT THE RECOMMENDED LEVEL OF COMPACTION IS ACHIEVED DURING CONSTRUCTION. THEREFORE, ONE DENSITY TEST SHALL BE PERFORMED FOR EVERY 2,500 SQUARE FEET OF AREA FOR EVERY LIFT OF FILL OR AS RECOMMENDED BY THE ON-SITE GEOTECHNICAL ENGINEER.
- TESTING WILL BE REQUIRED ALONG THE 24" Ø CMP OUTLET BARREL AT A FREQUENCY OF ONE TEST PER 25 LF OF PIPE PER VERTICAL FOOT OF FILL OR AS DIRECTED BY THE ON-SITE GEOTECHNICAL ENGINEER.

STATEMENT OF RESPONSIBILITY

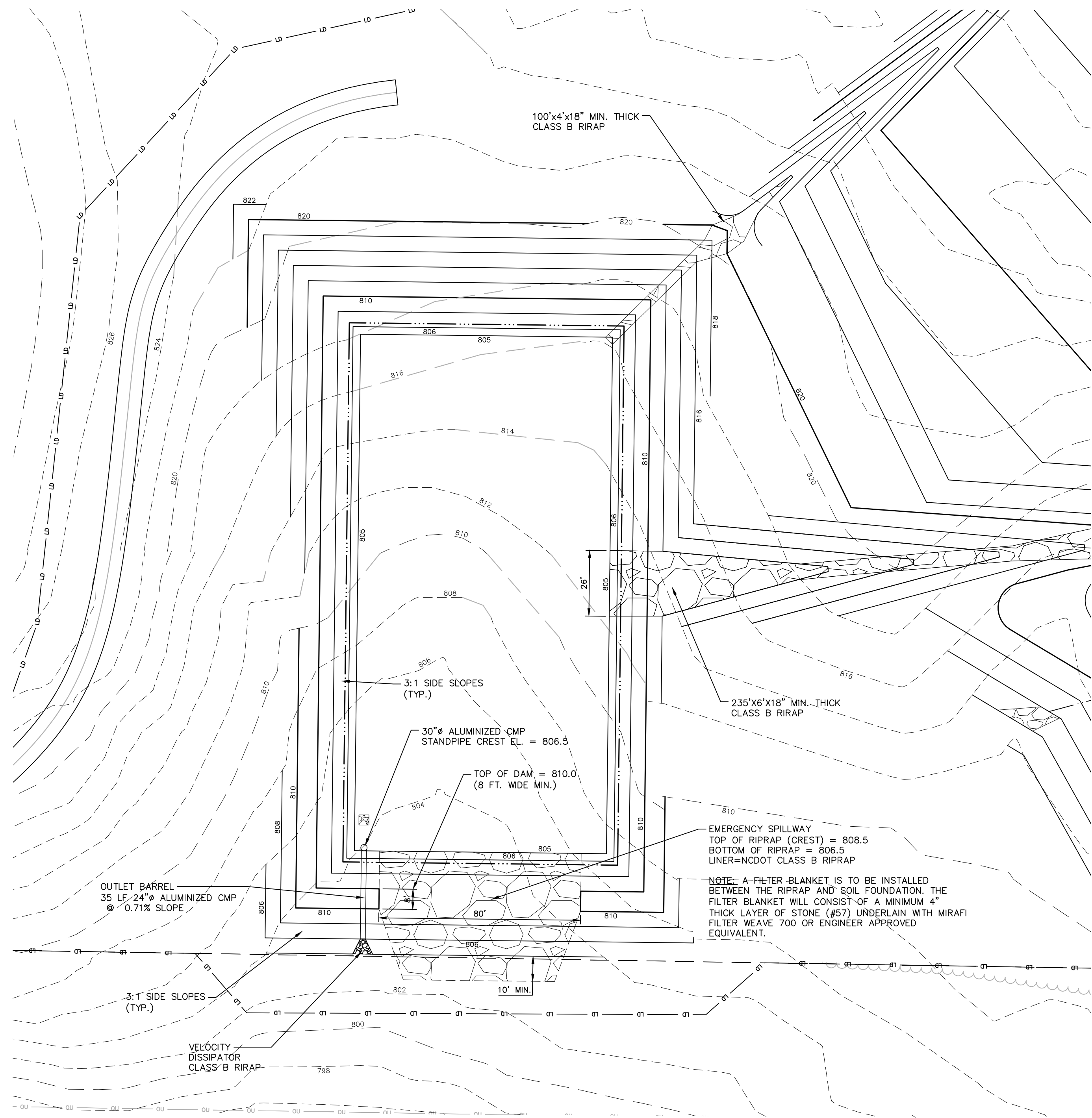
ALL REQUIRED MAINTENANCE AND INSPECTIONS OF THIS FACILITY SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER, PER THE EXECUTED OPERATION AND MAINTENANCE AGREEMENT FOR THIS FACILITY.

CONSTRUCTION SEQUENCE

- PRIOR TO CONSTRUCTION, THE OWNER SHALL OBTAIN A LAND DISTURBING (GRADING), AND ALL OTHER NECESSARY PERMITS FROM APPLICABLE AGENCIES.
- INSTALL ALL SEDIMENT AND EROSION MANAGEMENT FACILITIES PER THE APPROVED SEDIMENT AND EROSION CONTROL PLAN. THE CONTRACTOR SHALL MAINTAIN ALL APPROVED SEDIMENT AND EROSION MANAGEMENT FACILITIES THROUGHOUT THE ENTIRE PROJECT, AS REQUIRED. THE CONTRACTOR SHALL RECEIVE APPROVAL FROM THE EROSION CONTROL INSPECTOR, AS REQUIRED BY GOVERNING AGENCIES, PRIOR TO ANY CLEARING.
- CLEAR AND GRUB AREA WITHIN THE LIMITS OF THE PROPOSED DAM CONSTRUCTION. ALL TREES AND THEIR ENTIRE ROOT SYSTEMS MUST BE REMOVED FROM THE DAM FOOTPRINT AREA AND BACKFILLED WITH SUITABLE SOIL MATERIAL. THE BACKFILLED AREAS SHALL BE COMPACTED TO THE SAME STANDARDS AS THE DAM EMBANKMENT. THE REMAINING AREA OF THE EMBANKMENT SHALL BE STRIPPED TO A SUITABLE DEPTH AS DIRECTED BY THE ON-SITE GEOTECHNICAL ENGINEER. ANY RESIDUAL SOILS TO BE LEFT IN PLACE MUST BE WELL SCARIFIED TO PROMOTE BONDING OF THE NEW EMBANKMENT FILL. NO EMBANKMENT MATERIAL SHALL BE PLACED FOR THE DAM OR KEY TRENCH UNTIL APPROVAL OF THE DAM SUBGRADE / TRENCH IS OBTAINED FROM THE ON-SITE GEOTECHNICAL ENGINEER.
- EXCAVATE FOR THE NEW KEY TRENCH ALONG THE CENTERLINE OF THE PROPOSED DAM EMBANKMENT. THE TRENCH SHALL EXTEND A MINIMUM OF 5 FT BELOW EXISTING GRADE OR 2 FT BELOW THE 24" Ø CMP OUTLET BARREL AND SHALL HAVE A MINIMUM BOTTOM WIDTH OF 5 FEET. THE KEY TRENCH SIDESLOPES SHALL BE A MINIMUM OF 1:1 (H:V). THE KEY TRENCH SHALL BE COMPACTED TO THE SAME SPECIFICATION LISTED IN ITEM 4 OF THE SECTION TITLED "BERM AND SOIL COMPACTION SPECIFICATIONS." DEPENDING UPON ON-SITE SOIL CONDITIONS ENCOUNTERED DURING EXCAVATION, THE ON-SITE GEOTECHNICAL ENGINEER MAY VARY THE DEPTH AND DIMENSIONS OF THE KEY TRENCH AS DEEMED NECESSARY. THE ON-SITE GEOTECHNICAL ENGINEER SHALL RETAIN DOCUMENTATION OF ANY VARIATION FOR FUTURE AS-BUILT SUBMITTALS TO CLEVELAND COUNTY.
- BEGIN PLACEMENT OF BACKFILL WITHIN THE KEY TRENCH. THE KEY TRENCH SHALL BE COMPACTED TO THE SPECIFICATIONS LISTED ITEM 4 OF THE SECTION TITLED "BERM AND SOIL COMPACTION SPECIFICATIONS." THE KEY TRENCH SHALL BE TESTED PER THE SPECIFICATIONS LISTED IN THAT SECTION.
- PRIOR TO INSTALLATION, SUBGRADE CONDITIONS ALONG THE SPILLWAY PIPES SHOULD BE EVALUATED BY THE ON-SITE GEOTECHNICAL ENGINEER TO ASSESS WHETHER SUITABLE BEARING CONDITIONS EXIST AT THE SUBGRADE LEVEL. SHOULD SOFT OR OTHERWISE UNSUITABLE CONDITIONS BE ENCOUNTERED ALONG THE PIPE ALIGNMENTS, THESE MATERIALS SHOULD BE UNDERCUT AS DIRECTED BY THE GEOTECHNICAL ENGINEER. THE UNDERCUT MATERIALS SHALL BE REPLACED WITH ADEQUATELY COMPACTED STRUCTURAL FILL, OR FLOWABLE FILL AS DIRECTED BY THE ON-SITE GEOTECHNICAL ENGINEER.
- BEGIN CONSTRUCTION OF THE NEW EMBANKMENT. FILL MATERIALS SHALL BE PLACED IN MAXIMUM 8" THICK LIFTS PRIOR TO COMPACTION, UNLESS DIRECTED OTHERWISE BY THE ON-SITE GEOTECHNICAL ENGINEER. FILL LIFTS SHALL BE CONTINUOUS OVER THE ENTIRE LENGTH OF FILL. IF IT IS NECESSARY, THE EMBANKMENT FILL MATERIAL WILL BE OVERBUILT IN HORIZONTAL LIFTS AND CUT BACK TO FINAL GRADE IN ORDER TO ACHIEVE PROPER COMPACTION.
- INSTALL RISER / BARREL ASSEMBLY, ALONG WITH THE EMERGENCY DRAIN SYSTEM. THE DRAIN VALVE LOCATED WITHIN THE RISER BOX SHALL BE KEPT OPEN UNTIL AN AS-BUILT CERTIFICATION HAS BEEN COMPLETED BY THE ENGINEER AND AN APPROVAL TO IMPOUND HAS BEEN ISSUED BY ALL APPLICABLE AGENCIES.
- INSTALL 24" Ø CMP OUTLET BARREL SPILLWAY FILTER FROM THE DETAILS SHOWN ON SHEET SW-3.
- CONSTRUCT EMBANKMENT PER SPECIFICATIONS LISTED IN THE SECTION TITLED "BERM AND SOIL COMPACTION SPECIFICATIONS" AND REQUIREMENTS OF THE ON-SITE GEOTECHNICAL ENGINEER. ALL CHARACTERISTICS OF THE EMBANKMENT FILL MATERIAL SHALL MEET THE STANDARDS SET FORTH IN "BERM AND SOIL COMPACTION SPECIFICATIONS", INCLUDING COMPACTION AND MOISTURE REQUIREMENTS. IF NECESSARY, TO ACHIEVE PROPER COMPACTION, THE EMBANKMENT FILL MATERIAL WILL BE OVERBUILT IN HORIZONTAL LIFTS AND CUT BACK TO PROPER FINAL GRADE. ANY HAND COMPACTION ACTIVITIES AROUND SPILLWAY OR DRAIN STRUCTURES SHALL BE CONDUCTED IN 4-INCH LOOSE LIFTS AND BE TO THE SAME COMPACTION AND MOISTURE REQUIREMENTS AS THE ENTIRE EMBANKMENT. ALL COMPACTION AND MOISTURE TESTING SHALL BE CARRIED OUT AS DIRECTED BY THE ON-SITE GEOTECHNICAL ENGINEER AND AS LISTED IN THE SECTION TITLED "BERM AND SOIL COMPACTION SPECIFICATIONS".
- UPON COMPLETION OF DAM EMBANKMENT, PROMPTLY STABILIZE AND SEED DAM EMBANKMENT PER SEEDING SCHEDULE.
- SCHEDULE A FINAL AS-BUILT INSPECTION AND AS-BUILT SURVEY WITH THE ENGINEER ANY COMMENTS OR DEFICIENCIES IN THE DAM CONSTRUCTION MUST BE CORRECTED TO THE SATISFACTION OF THE ENGINEER AND OWNER BEFORE APPROVAL SHALL BE GRANTED.

OUTLET STRUCTURE MATERIAL SPECIFICATIONS

- THE 24" Ø CMP OUTLET BARREL SHALL BE CLASS 350 MEETING THE REQUIREMENTS OF AWWA A21-LATEST. THE PIPES SHALL HAVE PUSH-ON JOINTS.
- THE STRUCTURAL DESIGN FOR THE CMP RISER WITH EXTENDED BASE SHALL BE BY OTHERS. PRIOR TO ORDERING THE STRUCTURE, THE CONTRACTOR SHALL PROVIDE TO THE DESIGN ENGINEER FOR REVIEW, SHOP DRAWINGS.
- PRIOR TO ORDERING, THE CONTRACTOR SHALL SUBMIT TRASH RACK SHOP DRAWINGS TO THE ENGINEER FOR REVIEW. CONTRACTOR SHALL ENSURE THAT AN ACCESS HATCH IS PROVIDED WITHIN THE TRASH RACK (SEE DETAIL FOR LOCATION) THAT WILL ALLOW FOR FUTURE MAINTENANCE ACCESS. CONTRACTOR SHALL ALSO PROVIDE A CHAIN AND LOCK FOR SECURING THE ACCESS HATCH. NOTE THE ACCESS HATCH SHALL LINE UP WITH THE ACCESS STEPS AFTER INSTALLATION.



STORMWATER CONTROL MEASURE PLAN VIEW

SCALE: 1" = 30'

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**FOOTHILLS SHOOTING
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 283 FIELDING ROAD, CHERRYVILLE, CLEVELAND COUNTY, NC. 28021



REVISIONS

NO. DATE

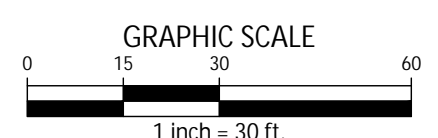
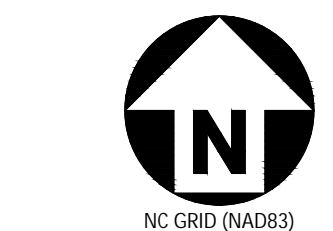
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DRAWN BY SMP
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DATE 07.11.2019

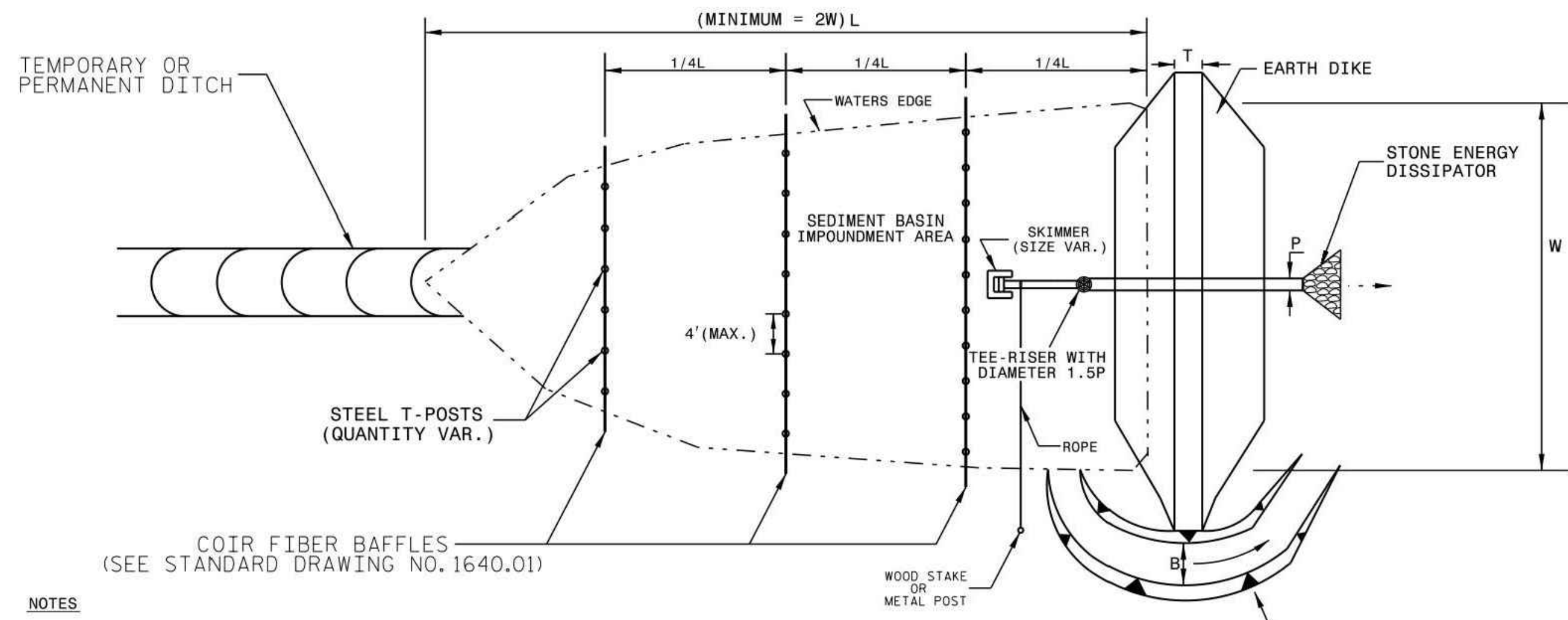
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**STORMWATER CONTROL
MEASURE PLAN VIEW**

SW-1



FINAL DRAWING - FOR CONSTRUCTION



- NOTES**
- CLEAN OUT BASIN WHEN SEDIMENT VOLUME REACHES 50% OF STORAGE VOLUME.
 - MINIMUM SURFACE AREA AND MINIMUM VOLUME ARE MEASURED BELOW THE TOP OF PRINCIPAL SPILLWAY (TOP OF RISER).
 - MINIMUM SURFACE AREA SHALL BE 435 FT² PER CFS OF Q₁₀ PEAK INFLOW, AND MINIMUM SEDIMENT STORAGE VOLUME SHALL BE 1800 FT³ PER ACRE OF DISTURBED AREA.
 - THE EARTH DIKE MAY BE CONSTRUCTED ALONG ONE OR MORE SIDES. EXCAVATION MAY BE REQUIRED TO PROVIDE MINIMUM SURFACE AREA AND/OR MINIMUM STORAGE VOLUME.
 - CONSTRUCT THE DIKE OF MATERIAL SUITABLE FOR AND MEETING ROADWAY EMBANKMENT SPECIFICATIONS.
 - TO FACILITATE DETERMINATION OF MAINTENANCE CLEANOUT REQUIREMENT, PLACE A MARKER IN THE BASIN INDICATING THE 50% VOLUME LEVEL.
 - THE MINIMUM RISER PIPE DIAMETER IS 1.5 TIMES THE BARREL PIPE DIAMETER.
 - ATTACH SKIMMER TO RISER PIPE A MINIMUM OF 1 FOOT FROM BOTTOM OF BASIN.
 - PROVIDE A STONE ENERGY DISSIPATOR PAD AT THE OUTLET OF THE RISER BARREL IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 876.02 FOR PIPE OUTLET WITHOUT DITCH.
 - SEED AND PLACE MATTING FOR EROSION CONTROL ON ALL INTERIOR AND EXTERIOR SLOPES OF BASIN.

STANDARD BASIN DIMENSIONS

P	H	T	D*	E	F	B	X	Y	X1	Y1
IN.	FT.	FT.	FT.	FT.	FT.	(MIN)	(MIN)	(MIN)	(MIN)	(MIN)
15	1.0	6.0	6.0	4.0	1.0	3.0	2.7	1.0	2.5	1.0
18	1.0	6.0	6.5	4.5	1.0	4.0	3.5	1.0	3.2	1.0
24	1.0	6.0	8.0	6.0	1.0	8.0	5.5	1.0	5.0	1.0
30	1.0	6.0	9.5	7.0	1.5	8.0	7.6	1.0	6.9	1.0

* SHALL NOT EXCEED 12'

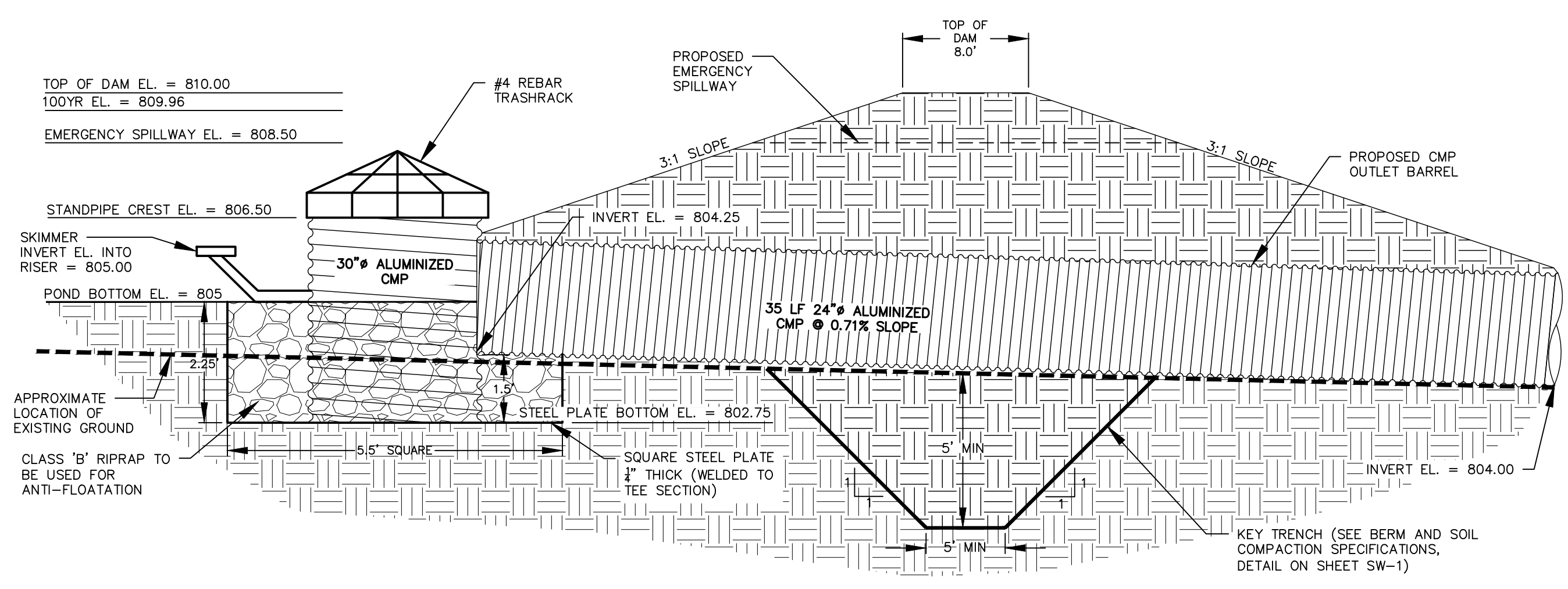
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STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-18

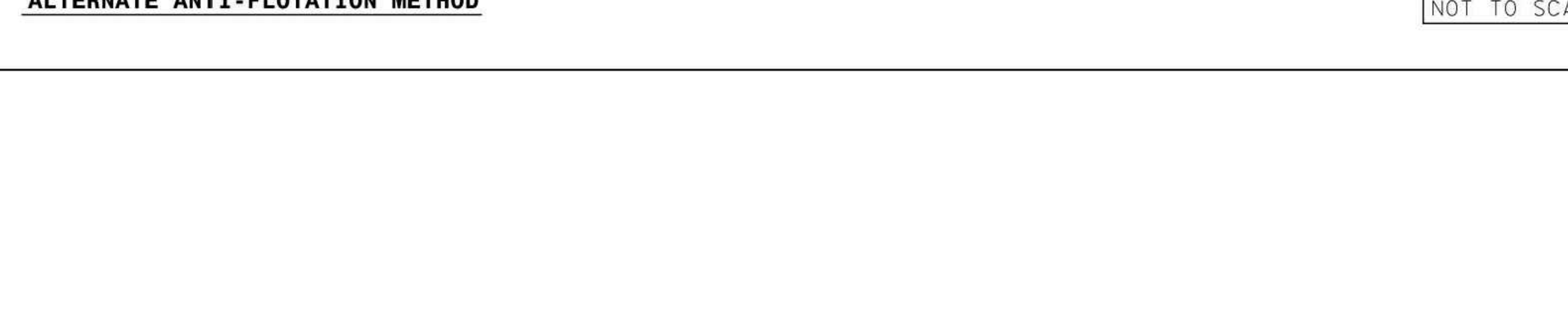
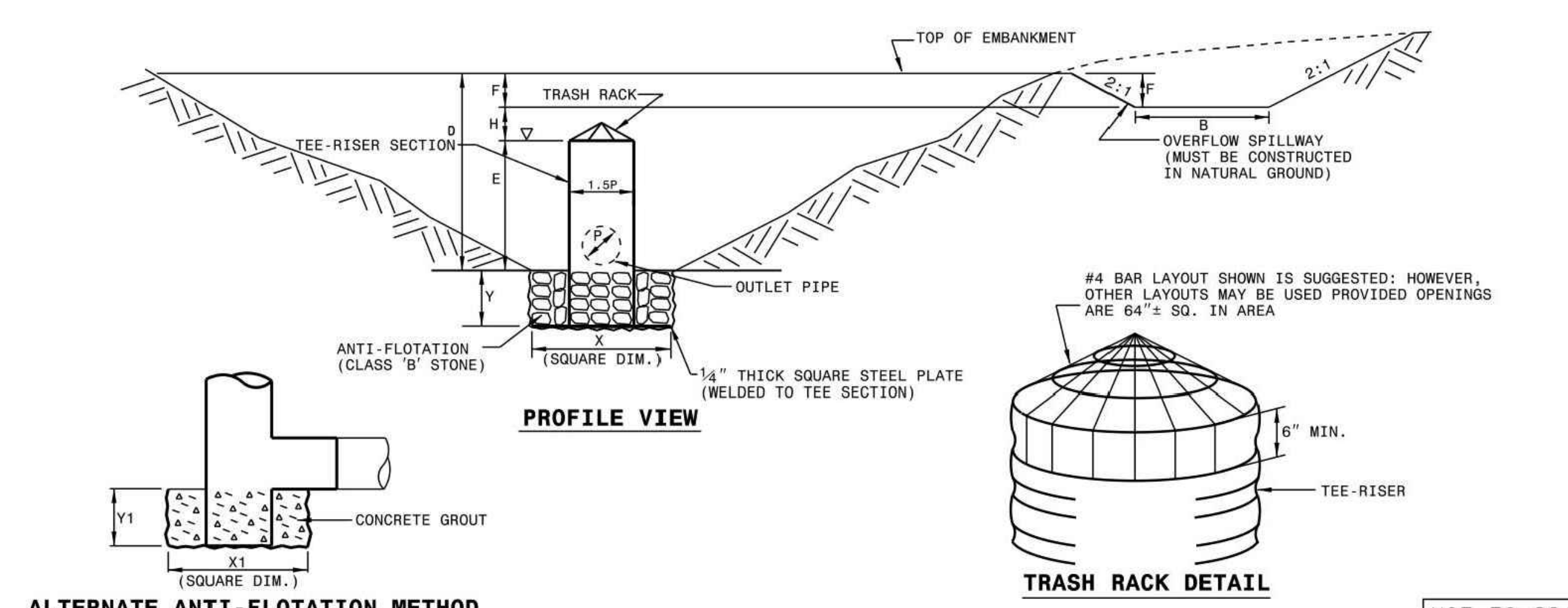
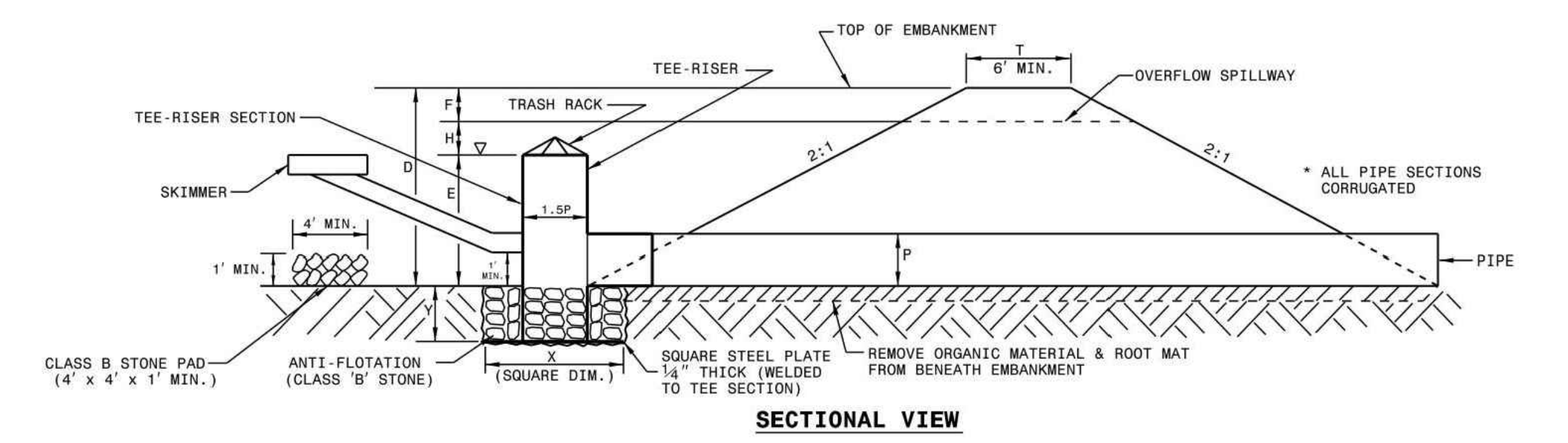
ROADWAY STANDARD DRAWING FOR
RISER BASIN

SHEET 1 OF 2
1630.01



CMP OUTLET STRUCTURE CROSS SECTION
SCALE: NTS

NOTE:
CONTRACTOR TO SUBMIT SHOP DRAWINGS OF RISER TEE-STRUCTURE AND ANTI-FLOATATION STEEL PLATE DESIGN FOR ENGINEERING APPROVAL.



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1-18

ROADWAY STANDARD DRAWING FOR
RISER BASIN

SHEET 2 OF 2
1630.01

SEDIMENT BASIN DESIGN TABLE

SEDIMENT BASIN ID	SB-A
Q ₁₀ (CFS)	62.0 cfs
Bottom Length	205 ft
Bottom Width	100 ft
Sediment Depth	1.5 ft
Freeboard (from Sediment Depth)	1.5 ft
Depth to Crest of Spillway	2.0 ft
Side Slopes ¹	3.0H:1V
Spillway Length	51 ft
Height of Berm	5.0 ft
Width of Berm	32 ft
Top of Trap Length	226 ft
Top of Trap Width	121 ft
Storage Volume Required	21,294 cf
Storage Volume Prov'd.	44,750 cf
Sediment Surface Area Req'd	24,030 sf
Sediment Surface Area Prov'd	24,300 sf
Drainage Area (AC.)	17.89 ac
Disturbed Area (AC.)	11.76 ac

Basin ID	Drawdown	Skimmer Type(s)
SB-1	3 DAYS	1 - 3 inch Skimmers with a(n) 2.75 inch Orifice

Notes:
1. See details regarding skimmer design specifications.
2. See details on coir fiber baffle spacing.
3. All basins embankments shall be provided with adequate ground cover immediately upon construction.

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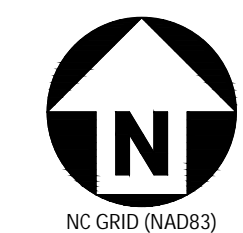
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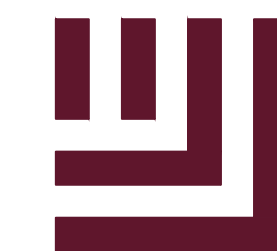
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PLAN INFORMATION
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FILENAME CCY18010-SW2
CHECKED BY MJM
DRAWN BY SMP
SCALE NTS
DATE 07.11.2019
SHEET
**STORMWATER CONTROL
MEASURE DETAILS
SW-2**



FINAL DRAWING - FOR CONSTRUCTION

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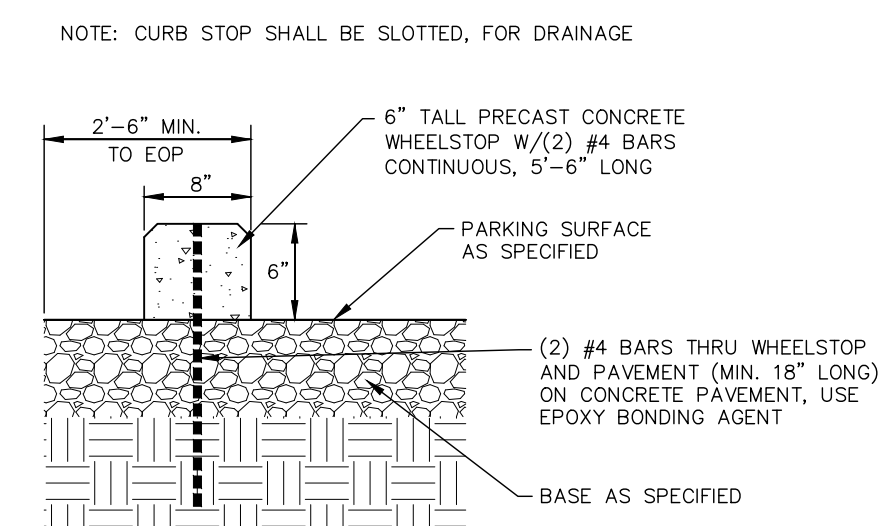
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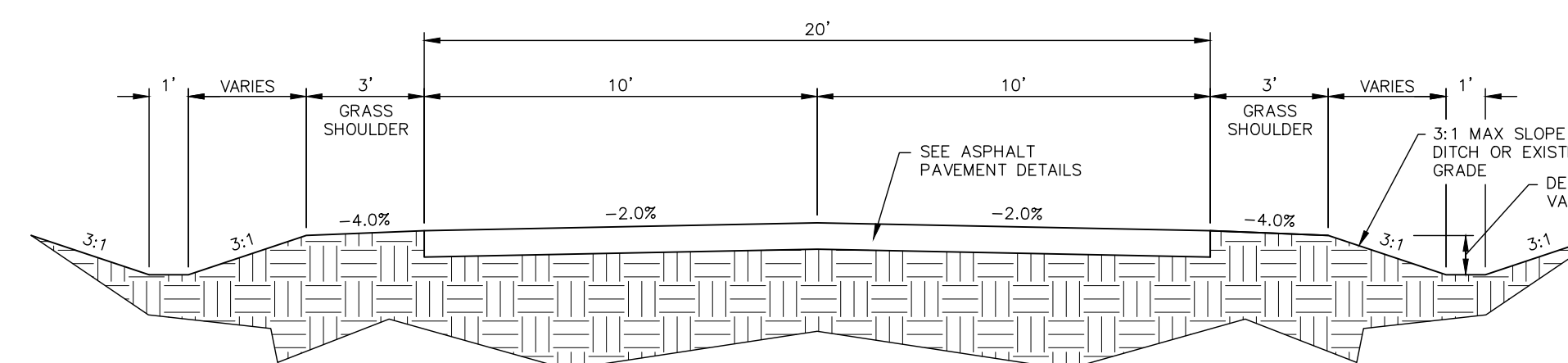
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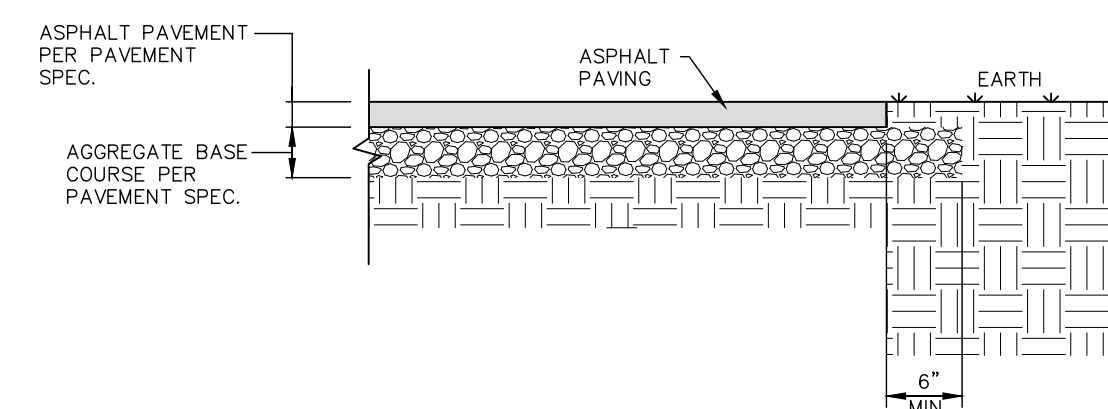
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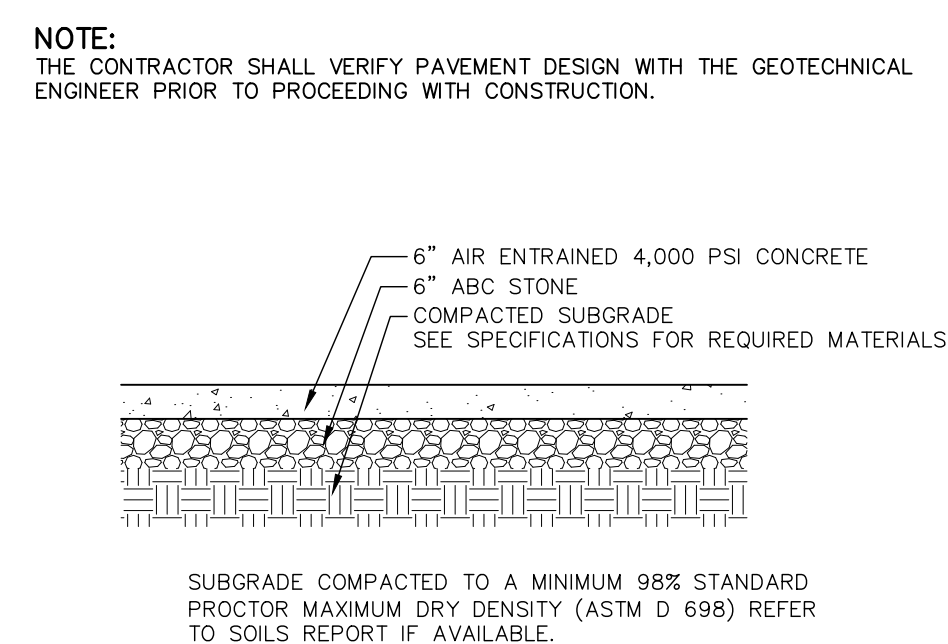
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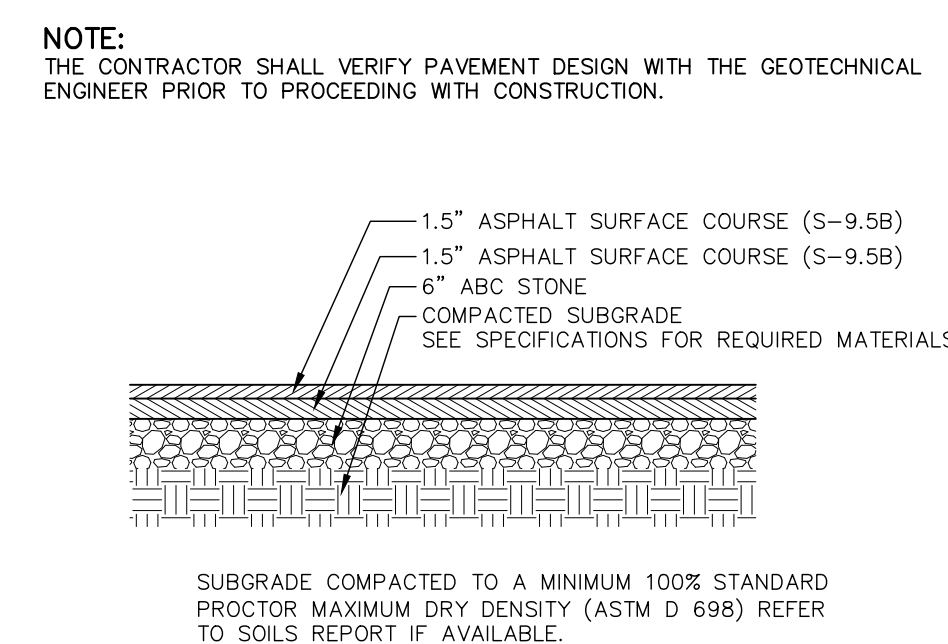
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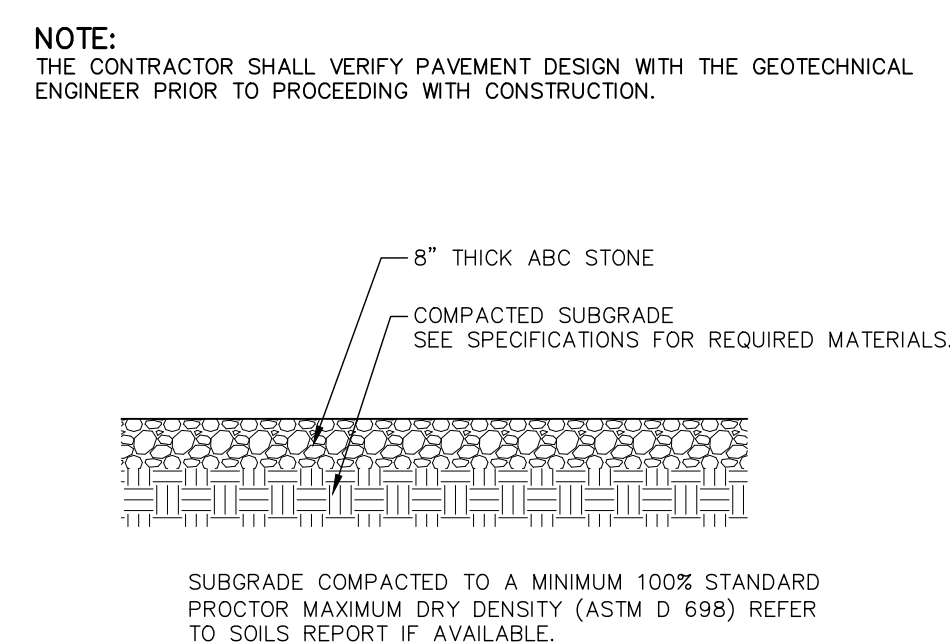
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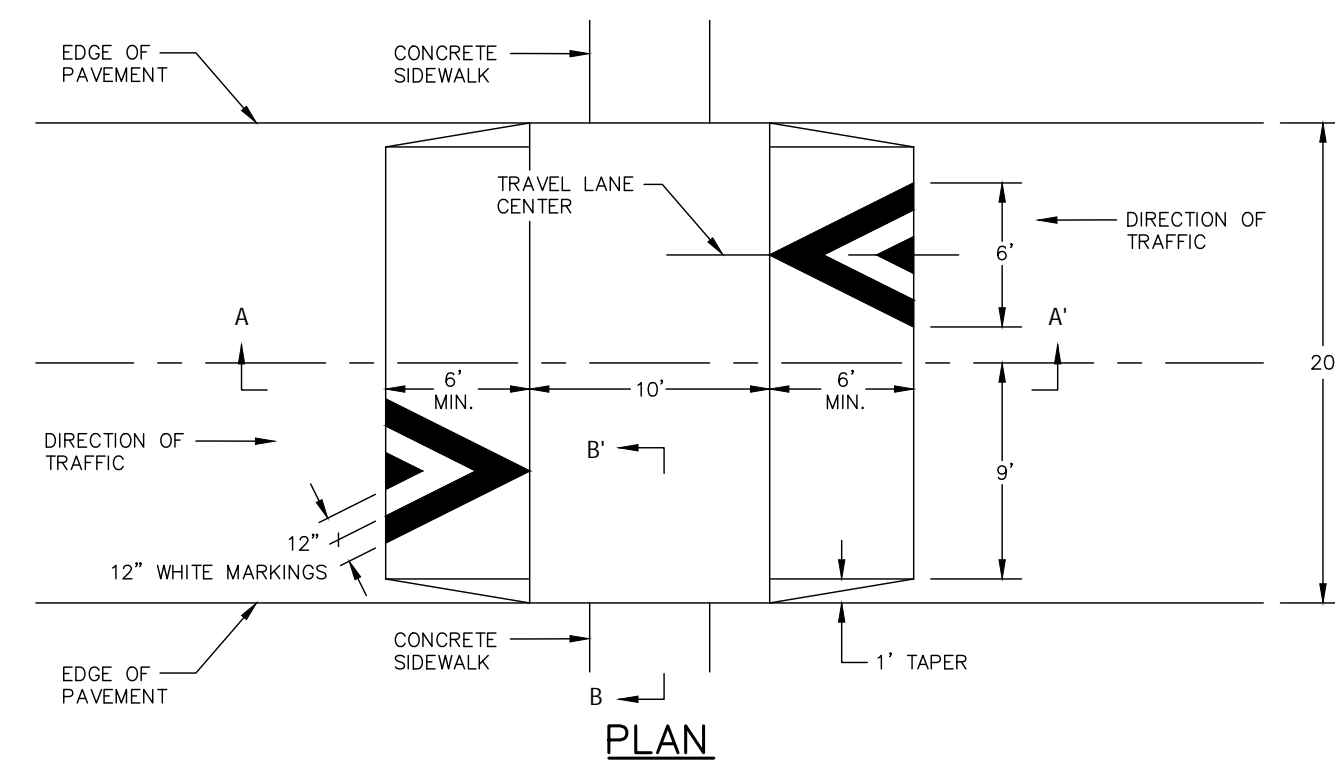
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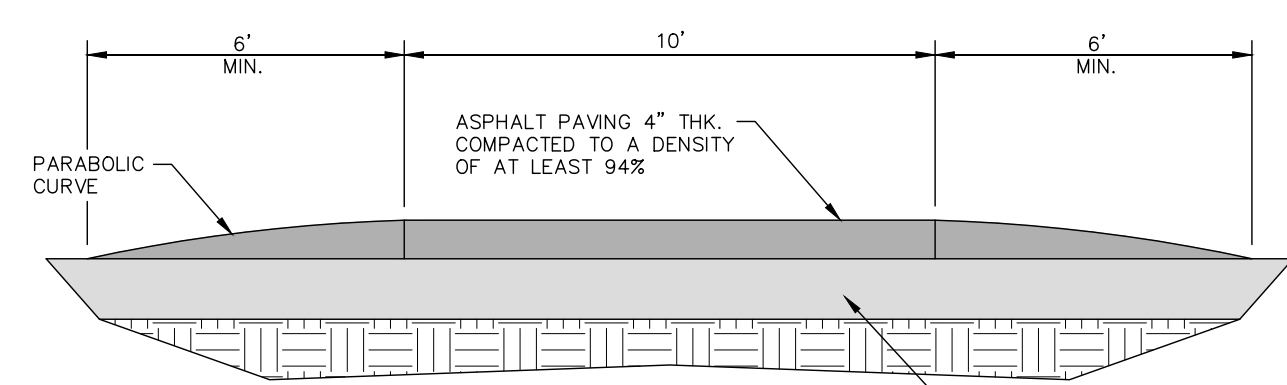
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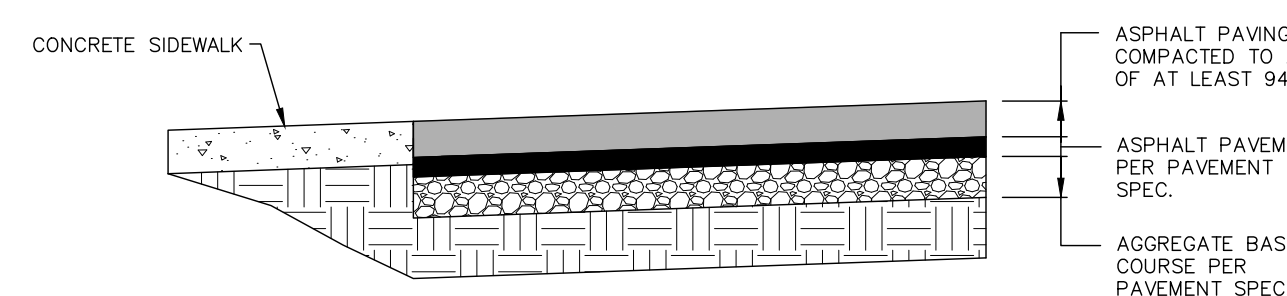
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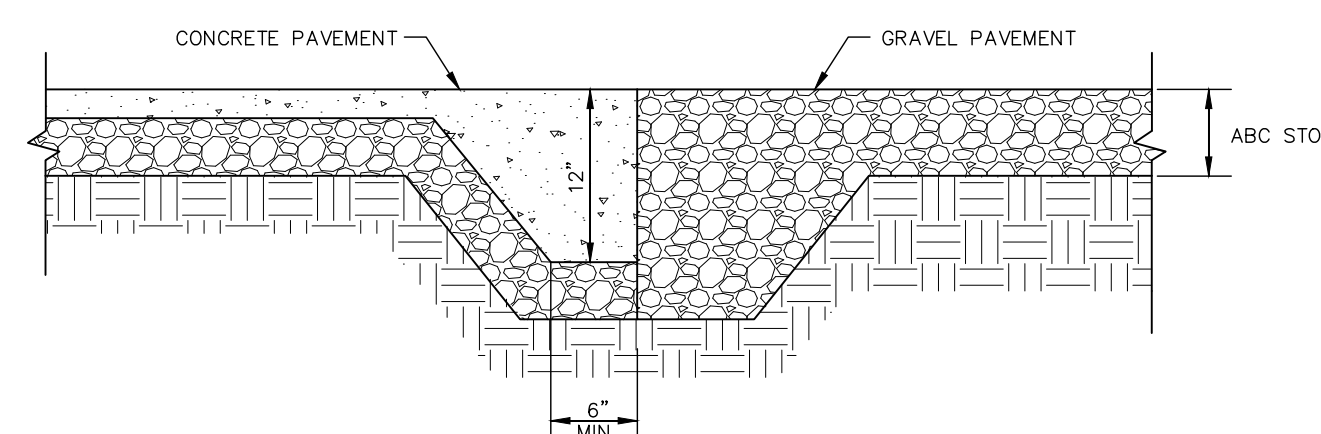


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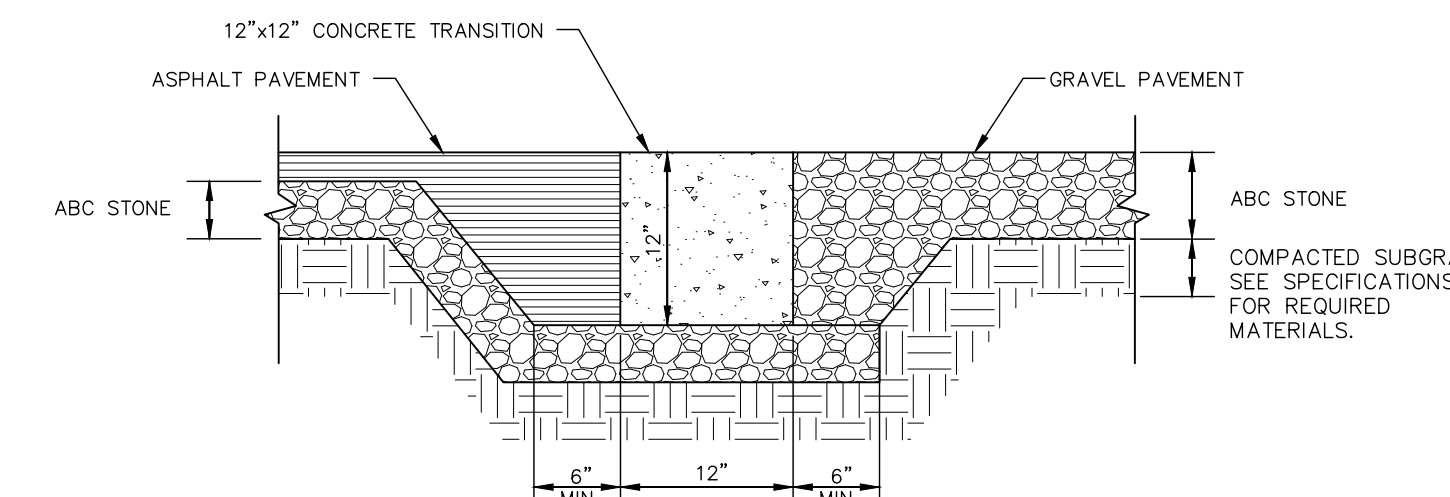


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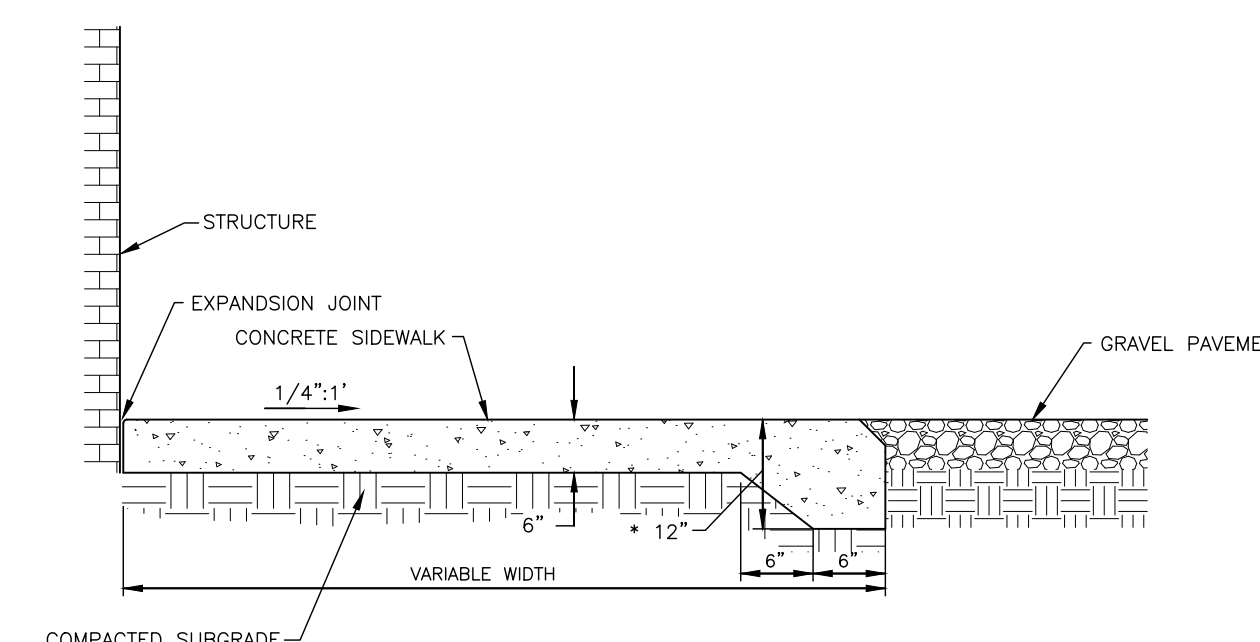
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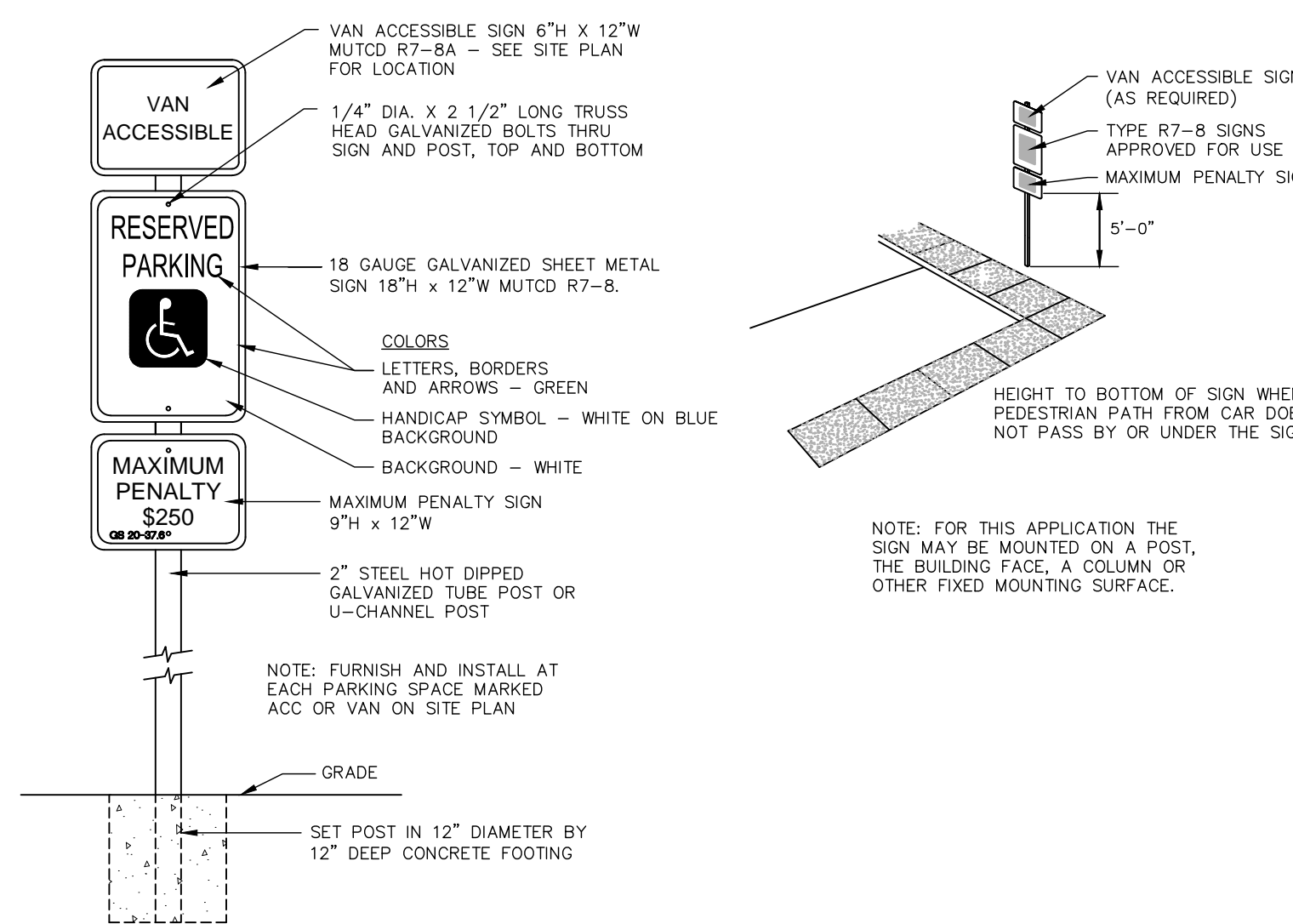
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PAVEMENT TRANSITION
N.T.S.

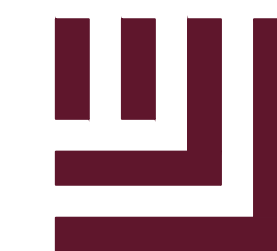


CONCRETE SIDEWALK TURNDOWN
N.T.S.



ACCESSIBLE PARKING SPACE SIGN
N.T.S.

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McADAMS

The John R. McAdams Company, Inc.
2905 Meridian Parkway
Durham, NC 27713

phone 919. 361. 5000
fax 919. 361. 2269
license number: C-0293, C-187

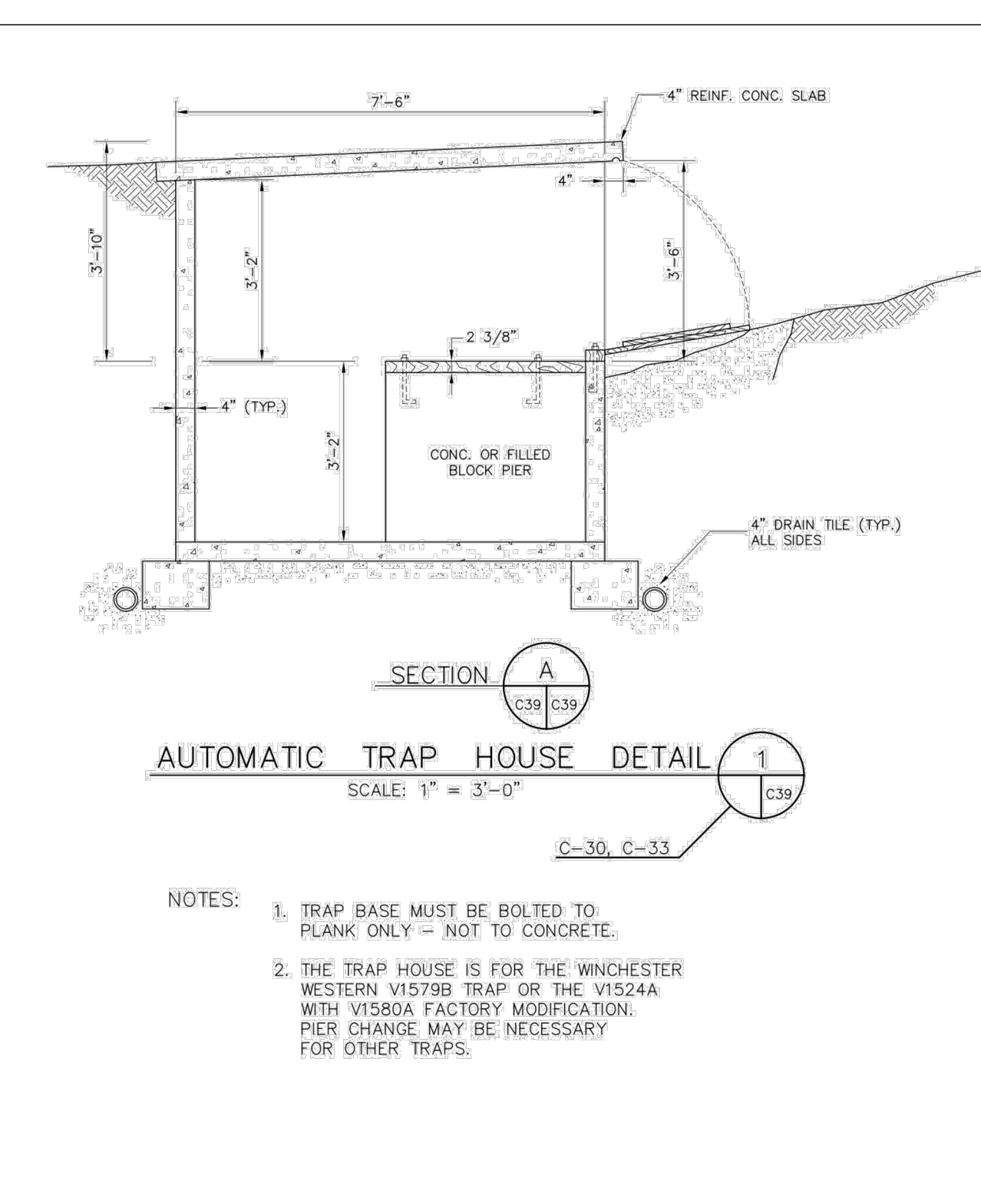
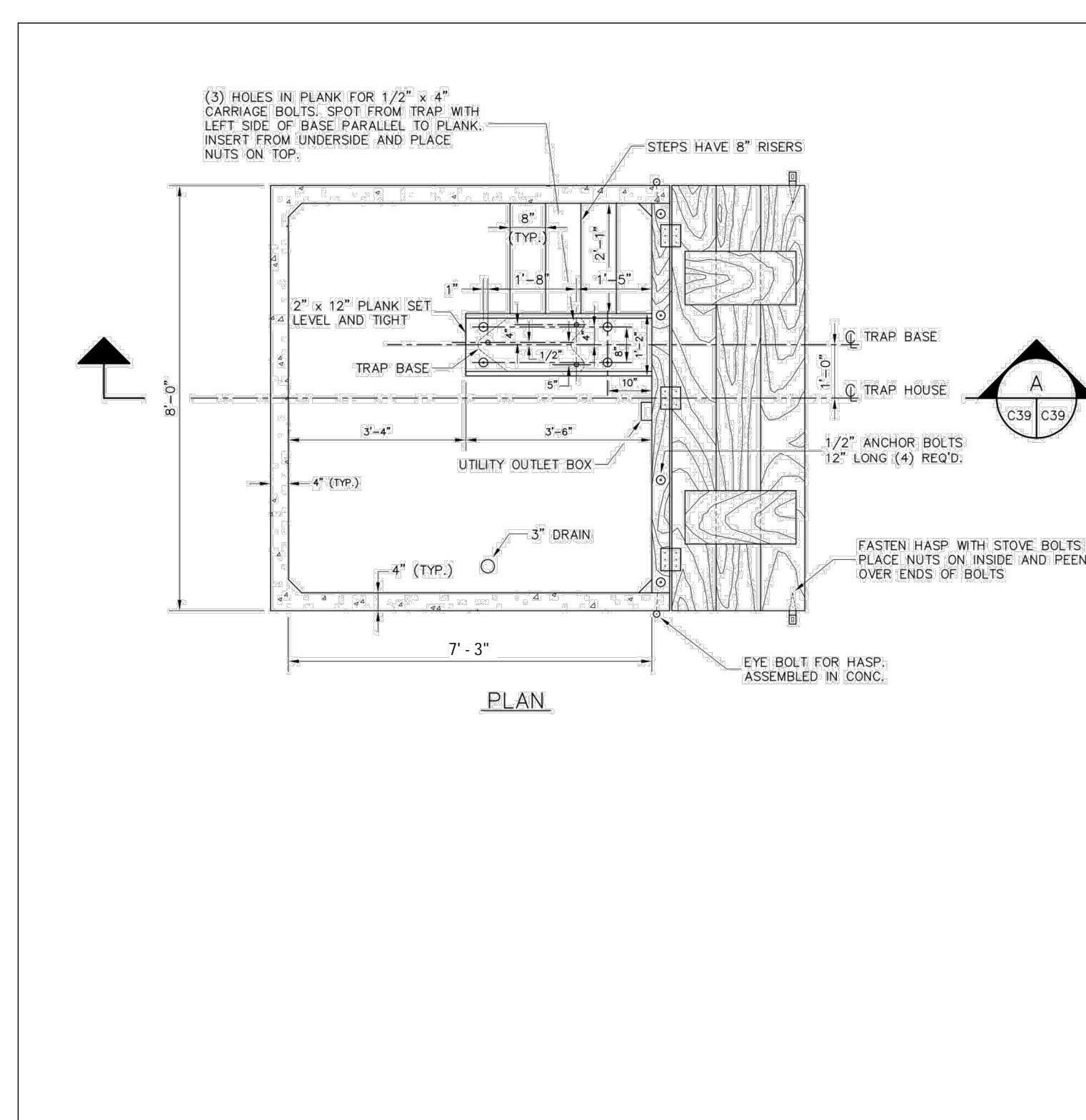
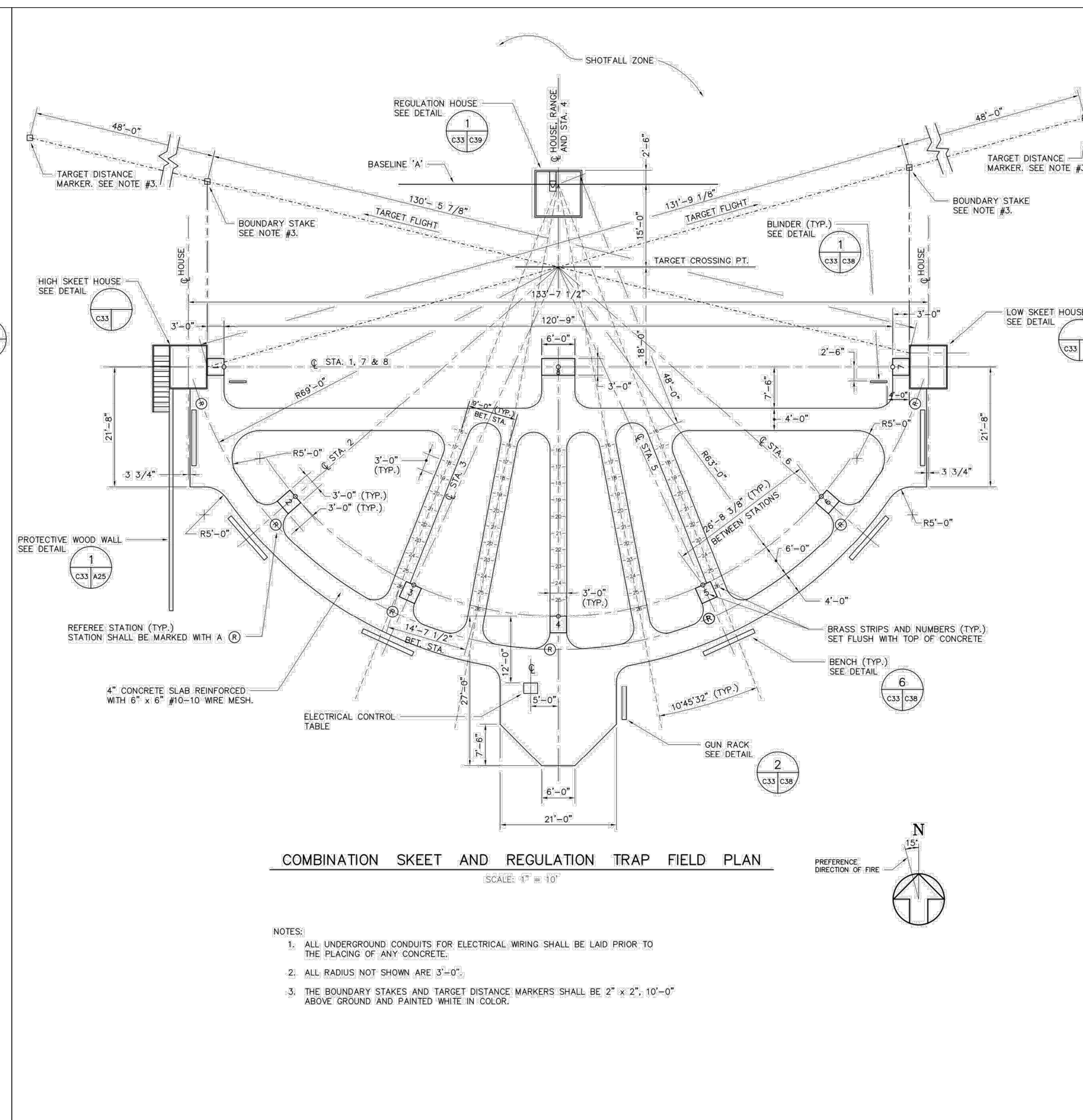
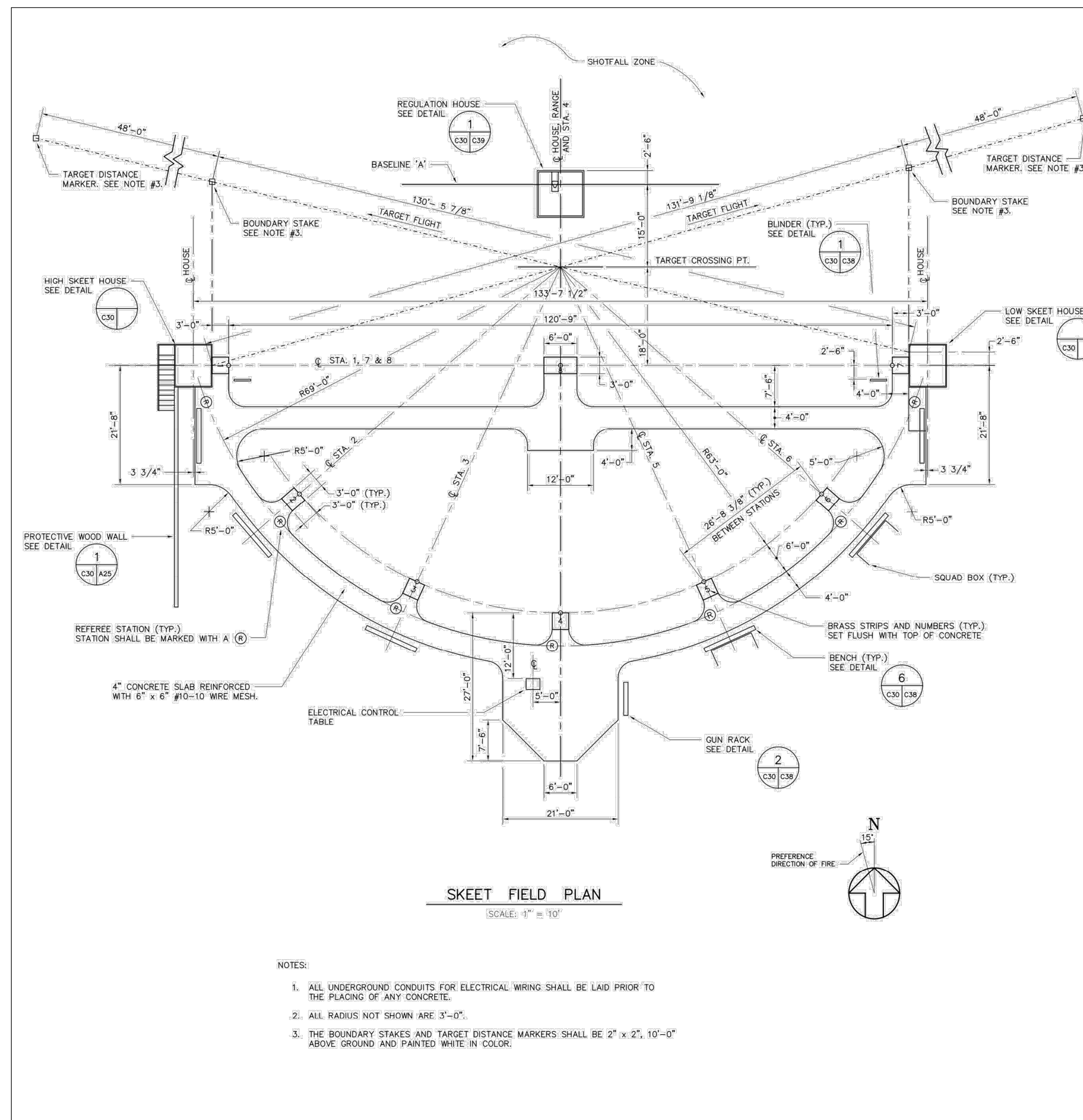
www.mcadamsco.com

CLIENT

CLEVELAND COUNTY
P.O. BOX 1210
SHELBY, NORTH CAROLINA 28151

FOOTHILLS SHOOTING
COMPLEX IMPROVEMENTS
SKEET AND TRAP EXPANSION

283 FIELDING ROAD, CHERRYVILLE, CLEVELAND COUNTY, NC. 28021



- NOTES:
1. THE DETAILS SHOWN WHERE PROVIDED BY THE NATIONAL RIFLE ASSOCIATION FROM "THE RANGE SOURCE BOOK" AND SOME ADJUSTMENTS HAVE BEEN MADE. THE DETAILS ARE FOR REFERENCE ONLY AND ANY CHANGES MUST BE APPROVED BY THE OWNER PRIOR TO CONSTRUCTION.
2. A COMBINATION TRAP HOUSE DESIGNED FOR MULTIPLE USE REQUIRES SPECIAL MODIFICATIONS TO CONDUCT ATA AND INTERNATIONAL EVENTS. BUILD THE TRAP HOUSE SO THAT THE CONCRETE PIER OR MACHINE MOUNTING PLATFORM, ABOVE GROUND WALLS, AND ATTACHMENT HARDWARE CAN BE CONVERTED FOR EACH ACTIVITY.

REVISIONS

NO. DATE

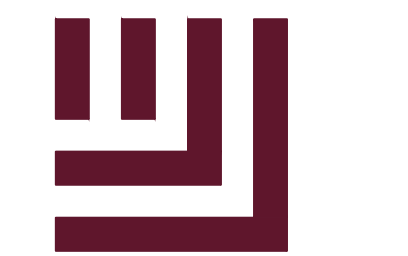
PLAN INFORMATION

PROJECT NO. CCY-18010
FILENAME CCY18010-D1
CHECKED BY MJM
DRAWN BY SMP
SCALE NONE
DATE 07.11.2019

SHEET

NATIONAL RIFLE ASSOCIATION
SITE DETAILS
D-2

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283 FIELDING ROAD, CHERRYVILLE, CLEVELAND COUNTY, NC. 28021



REVISIONS

NO. DATE

PLAN INFORMATION

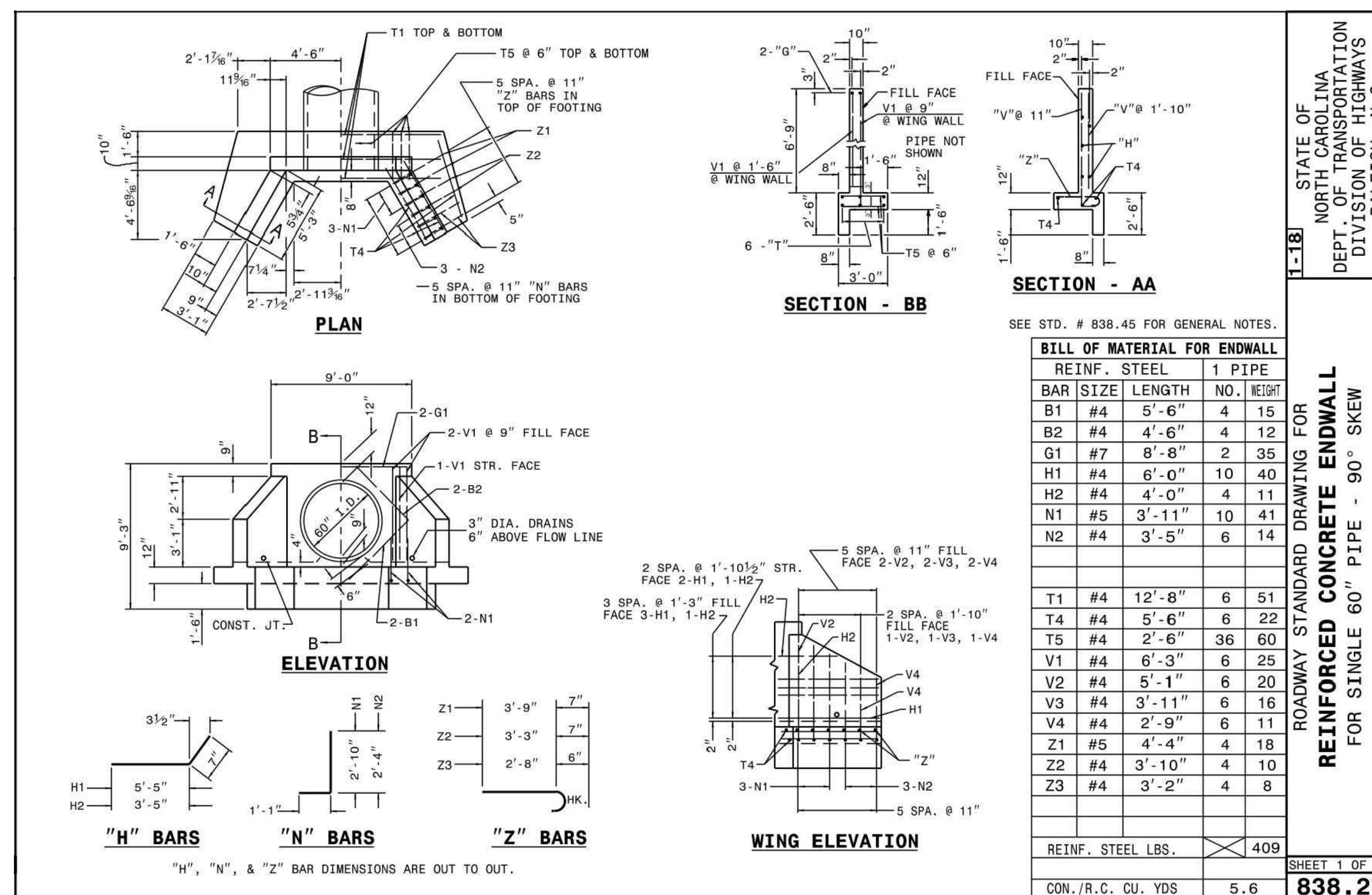
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SHEET

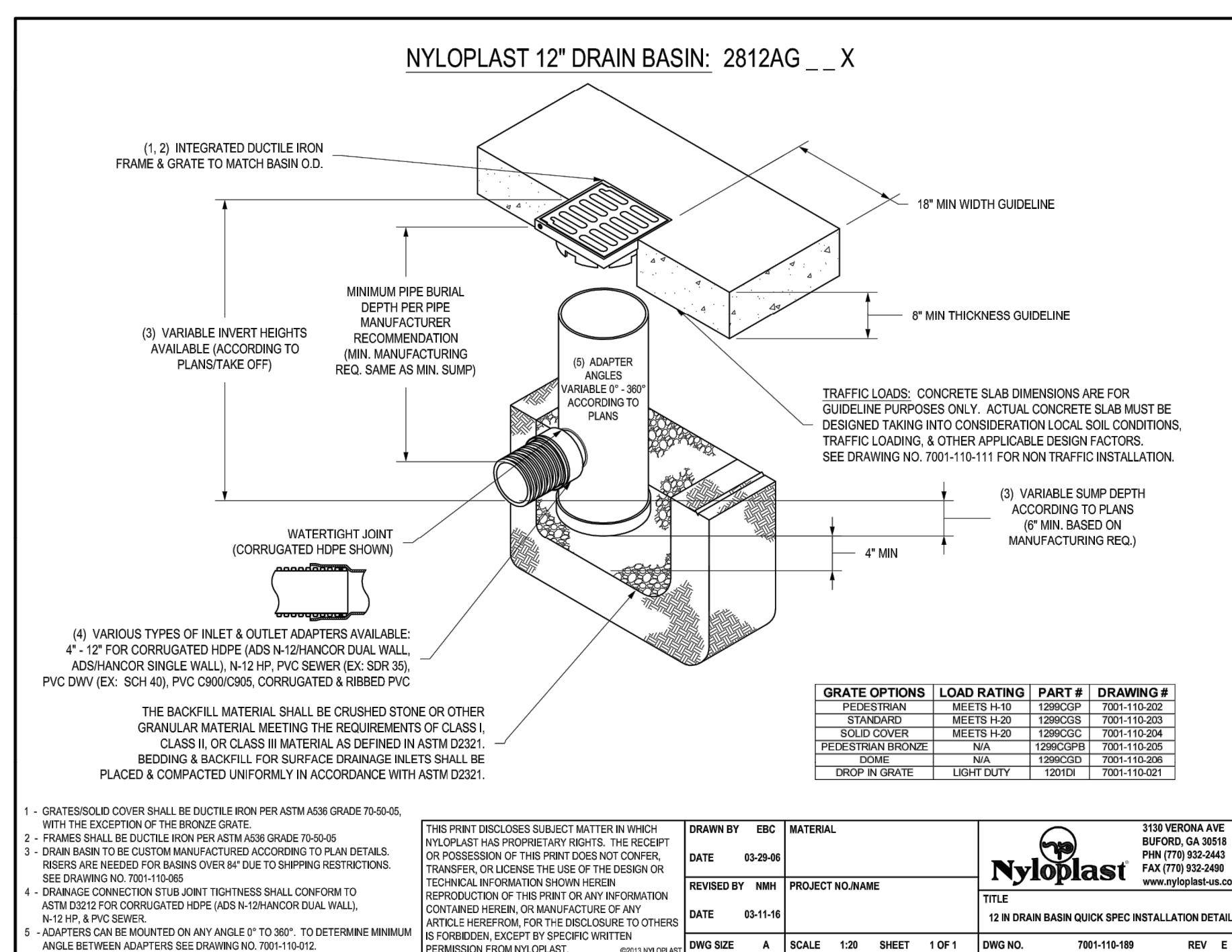
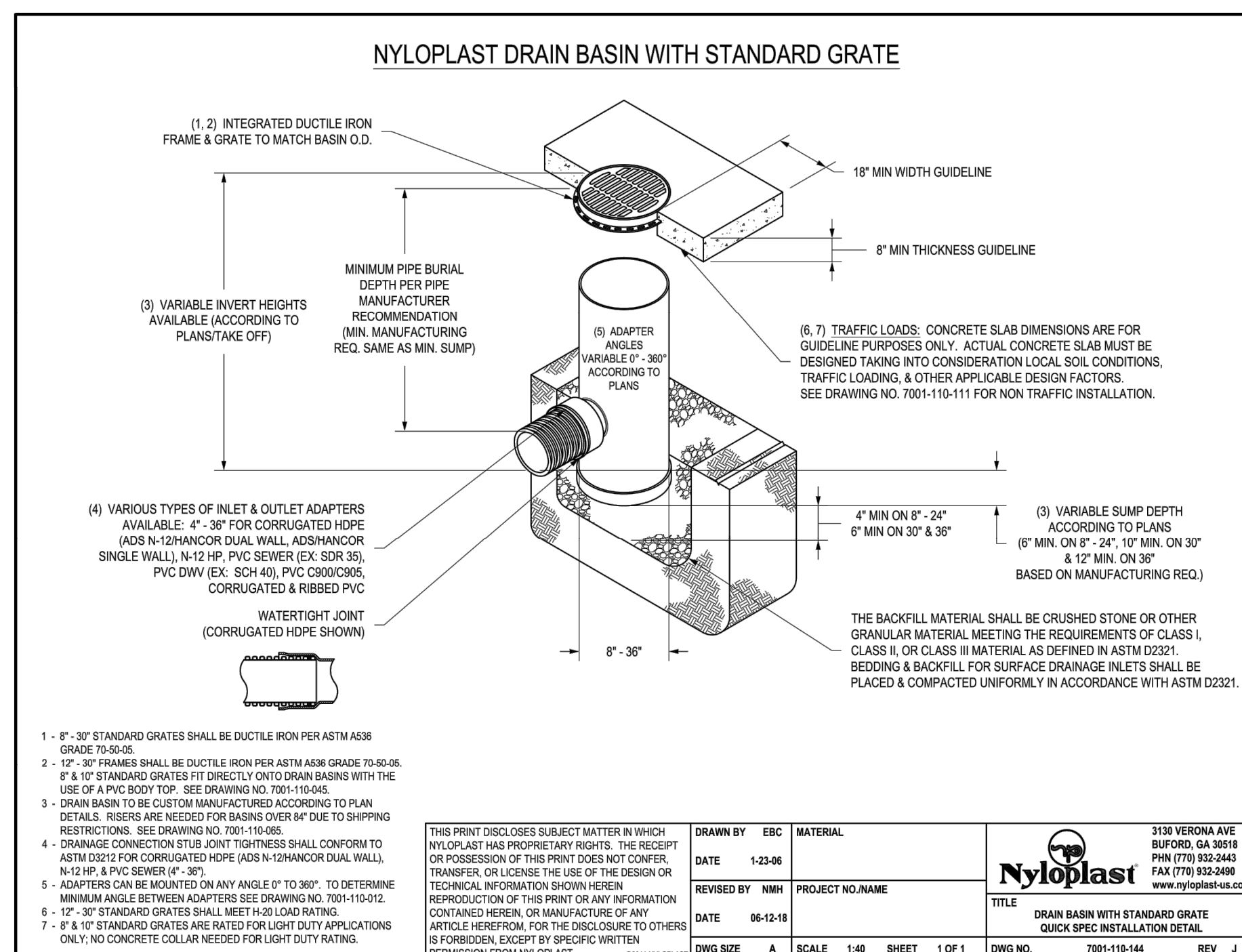
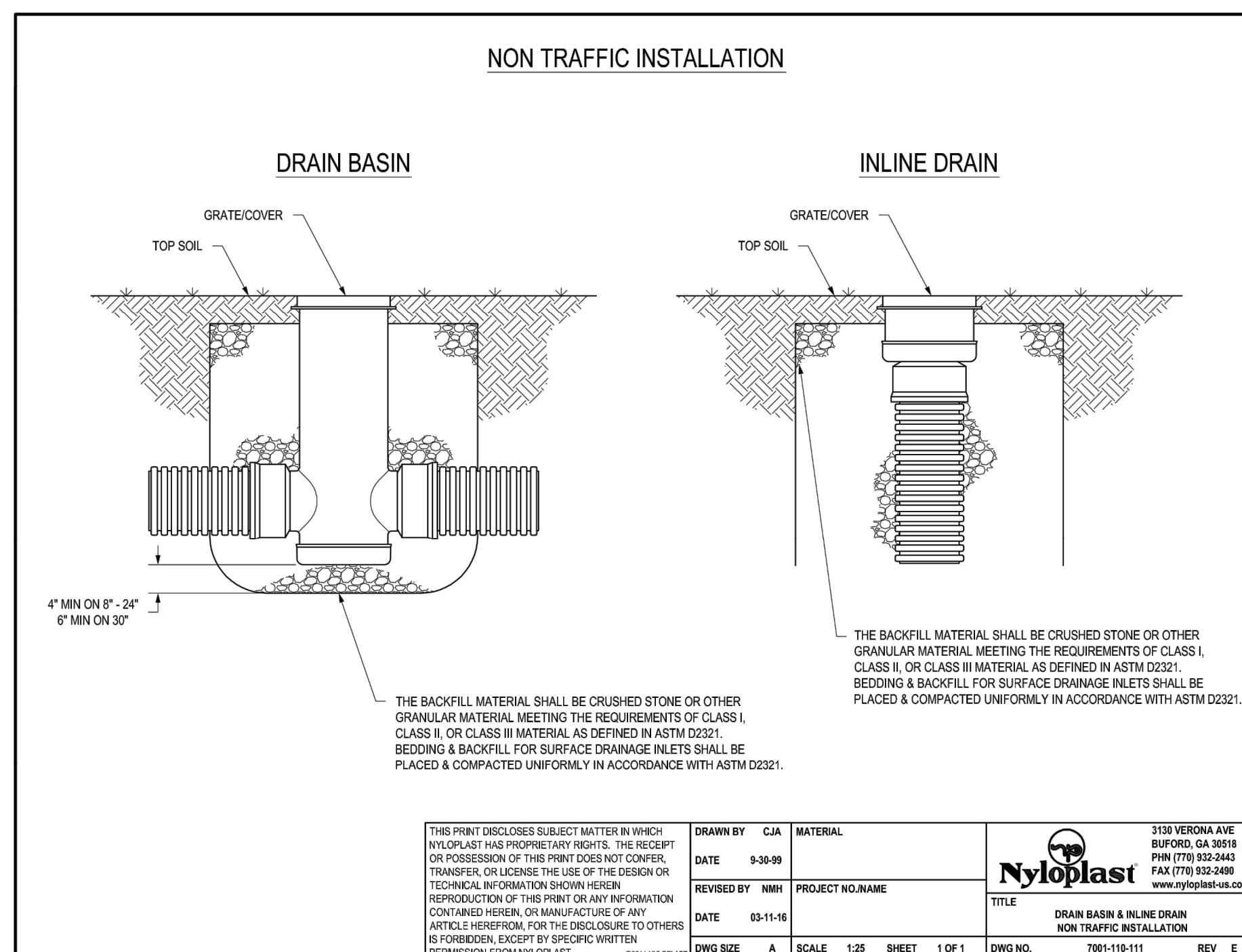
STORM DRAINAGE
DETAILS

D-3

FINAL DRAWING - FOR CONSTRUCTION



GENERAL NOTES:
USE CLASS "A" CONCRETE.
CHAMFER ALL EXPOSED CORNERS 1".
ALL DIMENSIONS RELATIVE TO PLACEMENT OF REINFORCING STEEL ARE TO CENTERS OF BARS.
PLACE A STONE DRAIN CONSISTING OF ONE (1) CUBIC FOOT OF NUMBER 78M STONE CONTAINED IN A POROUS FABRIC AT EACH WEEP HOLE. PLACE SUBDRAIN FINE AGGREGATE BENEATH, AROUND AND OVER THE STONE DRAIN SO THE STONE DRAIN IS COMPLETELY COVERED BY A LAYER OF SUBDRAIN FINE AGGREGATE AT LEAST ONE (1) FOOT THICK. WHERE THERE IS MORE THAN ONE WEEP HOLE IN A WING WALL, PLACE A HORIZONTAL DRAIN OF SUBDRAIN FINE AGGREGATE AT LEAST ONE (1) FOOT SQUARE IN CROSS SECTION TO CONNECT ALL STONE DRAINS. PLACE A VERTICAL DRAIN OF SUBDRAIN FINE AGGREGATE AT LEAST ONE (1) FOOT SQUARE IN CROSS SECTION AT EACH WEEP HOLE TO AN ELEVATION OF TWO (2) FEET BELOW THE SURFACE OF THE EMBANKMENT.



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