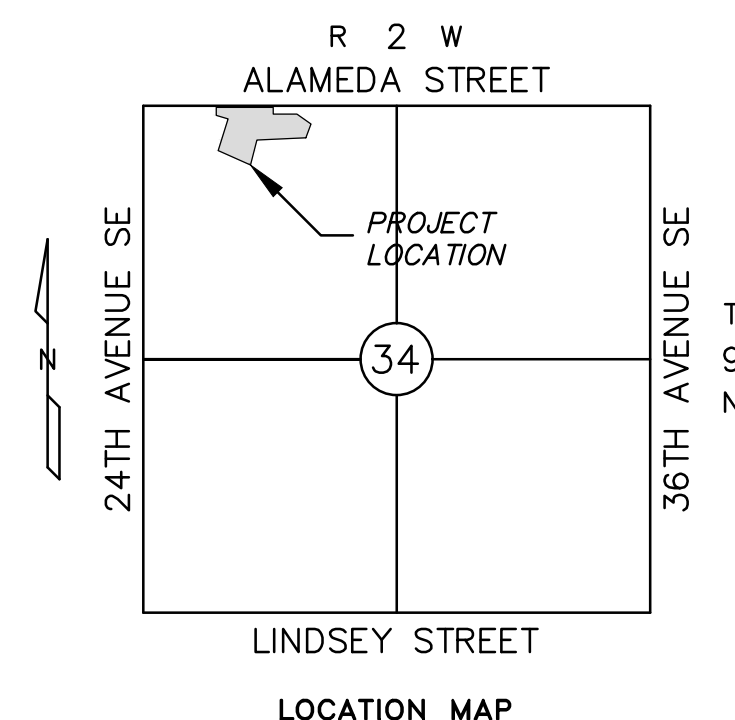
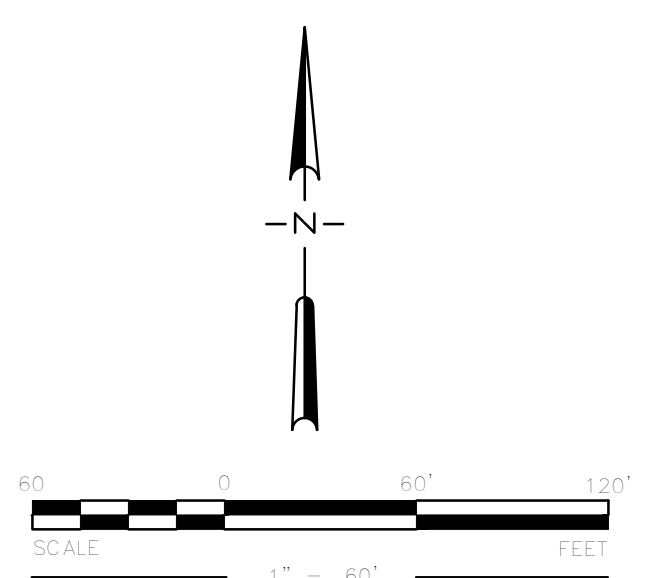
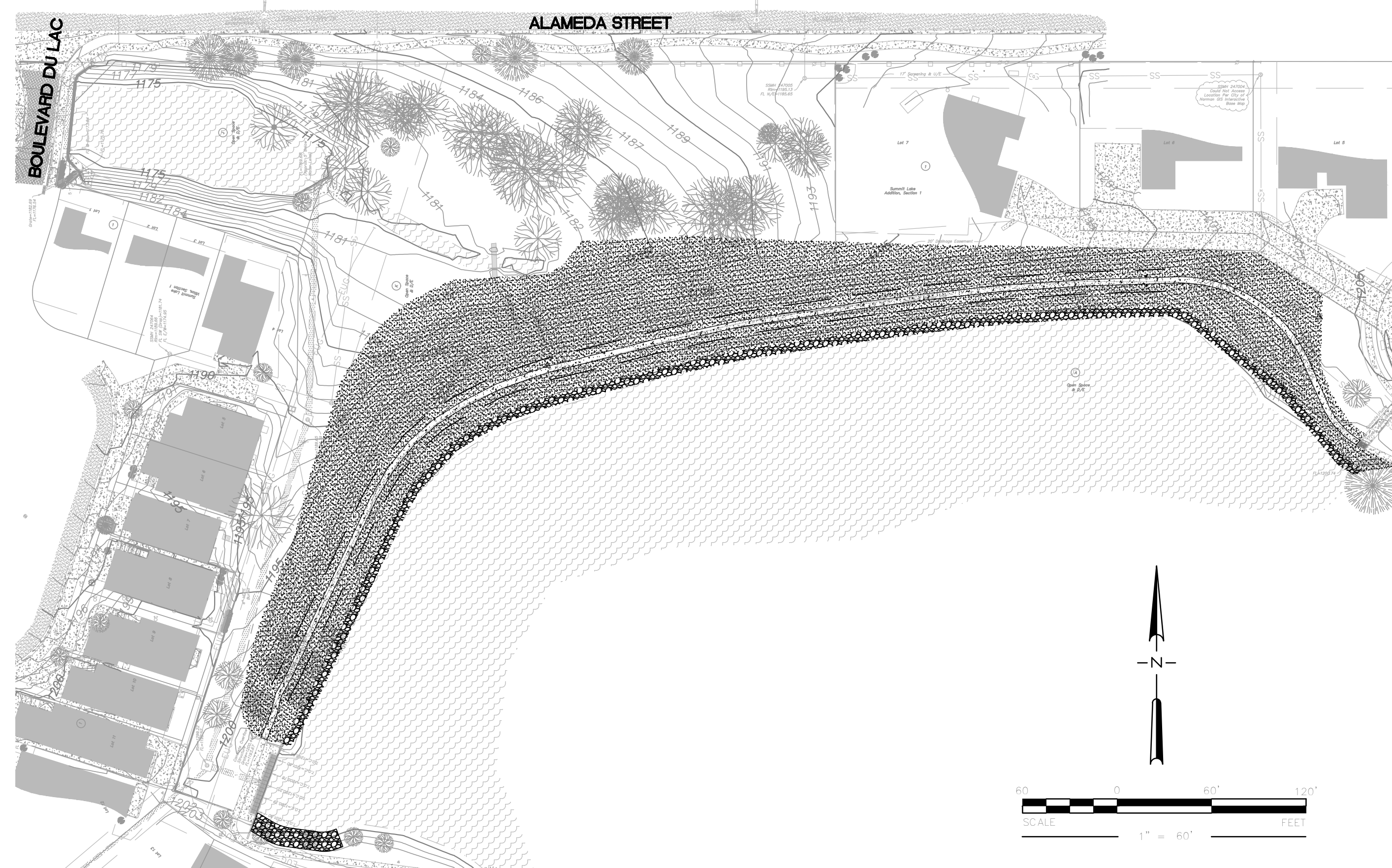


MISTY LAKE DAM REHABILITATION: DAM ID OK12578 NORMAN, OKLAHOMA



LOCATION MAP

CIVIL SHEET INDEX	
Sheet Number	Sheet Title
TS-01	TITLE SHEET
EX-01	EXISTING CONDITIONS
SP-01	SITE PLAN
DL-01	DRAIN LINE PLAN
DP-01	DEMOLITION PLAN
GP-01	GRADING PLAN
ECP-01	EROSION CONTROL PLAN
DT-01	DETAILS
DT-02	DETAILS
DT-03	DRAIN LINE PROFILES



SURVEY CONTROL

STA	NORTHING	EASTING	ELEV	DESC
LLS 101	686323.995	2147583.163	1204.33	#4 BAR W/ "LEMKE CONTROL" CAP
LLS 102	686293.189	2147093.139	1203.58	#4 BAR W/ "LEMKE CONTROL" CAP
LLS 103	686102.895	2146790.890	1198.12	#4 BAR W/ "LEMKE CONTROL" CAP
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315	682721.151	2143995.172	1172.40	BRASS CAP "NORMAN CONTROL"
375	691829.932	2146006.784	1189.92	BRASS CAP "NORMAN CONTROL"

The Horizontal and Vertical Datum are derive from the City of Norman GPS Control Network which is based on the Oklahoma State Plane Coordinate System, NAD83 (CORS96), South Zone. The Vertical Datum is NAVD88.

GENERAL CONSTRUCTION NOTES

1. GENERAL

- 1.1. ALL CONSTRUCTION METHODS AND MATERIALS USED ON THE PROJECT SHALL MEET OR EXCEED THE REQUIREMENTS AS SET FORTH IN THE PROJECT SPECIFICATIONS AND ANY RELATED DOCUMENTS LISTED THEREIN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ACQUIRE AND REVIEW ALL PERTINENT SECTIONS.
- 1.2. CONSTRUCTION TRAFFIC CONTROL SHALL BE PROVIDED AS NECESSARY AT ANY POINTS OF ENTRANCE OR EXIT ONTO PUBLIC STREETS. NO CLOSURE OF PUBLIC ROADWAYS SHALL BE ALLOWED WITHOUT PRIOR WRITTEN CONSENT OF THE CITY OF NORMAN.
- 1.3. CONTRACTOR SHALL COORDINATE ALL WORK ON PUBLIC RIGHTS OF WAY WITH CITY OF NORMAN TRAFFIC ENGINEERING STAFF AND SHALL SUBMIT TRAFFIC MANAGEMENT PLANS FOR REVIEW AND APPROVAL PRIOR TO BEGINNING WORK.
- 1.4. TREES SHOWN ON PLANS AS REMAINING SHALL BE PROTECTED PER REQUIREMENTS OF CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS SECTION 01 56 39. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING TREES AND REPLACEMENT OF ANY TREES DAMAGED OR KILLED DURING CONSTRUCTION ACTIVITIES.
- 1.5. CONTRACTOR SHALL CONTACT THE ENGINEER AS SOON AS POSSIBLE SHOULD ANY CIRCUMSTANCES FOUND DURING THE COURSE OF PROJECT COMPLETION NECESSITATE A VARIANCE FROM THE PLANS. VARIANCE FROM THE PLANS WILL BE REVIEWED BY THE ENGINEER AND THE OWNER.
- 1.6. ON-SITE INCINERATION OF CLEARED TREES AND BRUSH SHALL BE PROHIBITED UNLESS WRITTEN AUTHORIZATION IS RECEIVED FROM THE CITY OF NORMAN. THE ENGINEER MAKES NO WARRANTIES REGARDING WHETHER ACQUISITION OF A BURN PERMIT IS POSSIBLE.
- 1.7. STOCKPILE LOCATIONS TO BE DETERMINED AT TIME OF CONSTRUCTION. LOCATIONS MAY BE MODIFIED AS NECESSARY TO EXPEDITE COMPLETION OF THE SCOPE OF WORK. MODIFICATIONS SUBJECT TO REVIEW AND APPROVAL BY THE ENGINEER AND THE OWNER.
- 1.8. ALL WORK AND MATERIALS SHALL BE IN ACCORD WITH CITY OF NORMAN ENGINEERING CRITERIA AND STANDARD SPECIFICATIONS. CITY OF NORMAN STANDARDS SHALL GOVERN IN CASE OF CONFLICT.

2. STORMWATER/EROSION CONTROL

- 2.1. PRIOR TO INITIATION OF CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL FILE A NOTICE OF INTENT (NOI) WITH THE OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY (ODEQ) AND THE CITY OF NORMAN, STORMWATER DIVISION. THE CONTRACTOR SHALL SUBMIT AN EARTH CHANGE PERMIT APPLICATION ALONG WITH REQUIRED DOCUMENTATION FOR THE SAME. CONTRACTOR SHALL NOT COMMENCE THE WORK OF THE APPROVED PLANS PRIOR TO RECEIVING ALL REQUIRED PERMITS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT GUIDELINES SET FORTH IN PERMITS ARE IN PLACE PRIOR TO INITIATING CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PAYMENT OF ALL FEES ASSOCIATED WITH STORM WATER AND EARTH CHANGE PERMITS.
- 2.2. THE NOTICE OF INTENT (NOI) AND THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP), AS WELL AS ANY OTHER APPLICABLE DOCUMENTS SHALL BE KEPT ON SITE BY THE CONSTRUCTION SUPERINTENDENT AT ALL TIMES. SAID ITEMS SHALL BE MADE AVAILABLE TO STATE AND MUNICIPAL AUTHORITIES UPON REQUEST.
- 2.3. ANY DISCHARGES FROM THE SITE SHALL CONFORM TO THE SWPPP. THE CONTRACTOR SHALL INSTALL ADDITIONAL STORMWATER CONTROL DEVICES AS NECESSARY TO ENSURE COMPLIANCE WITH SAID DOCUMENT.
- 2.4. CONSTRUCTION OF ALL EROSION CONTROL MEASURES SHALL BE PERFORMED BY THE CONTRACTOR PRIOR TO THE INITIATION OF ANY LAND DISTURBING ACTIVITIES. MAINTENANCE OF EROSION CONTROL MEASURES SHALL BE PERFORMED BY THE CONTRACTOR AS INDICATED IN THE SWPPP OR AT A SUFFICIENT INTERVAL TO ENSURE RETENTION OF SEDIMENTS.
- 2.5. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED BY THE CONTRACTOR AT ANY POINTS OF ENTRANCE OR EXIT ONTO ADJACENT PUBLIC STREETS. WASHDOWN OF VEHICLES SHALL BE PERFORMED AS NECESSARY TO REDUCE/ELIMINATE SIGNIFICANT DEPOSITS OF SOIL ON ROADWAY.
- 2.6. DISTURBED PORTIONS OF THE SITE, INCLUDING STOCKPILES, WHERE CONSTRUCTION ACTIVITY TEMPORARILY CEASES FOR AT LEAST 21-DAYS, SHALL BE STABILIZED NO LATER THAN 14-DAYS FROM THE LAST CONSTRUCTION ACTIVITY IN THAT AREA.
- 2.7. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES PERMANENTLY CEASE SHALL BE STABILIZED NO LATER THAN 14-DAYS FROM THE LAST CONSTRUCTION ACTIVITY IN THAT AREA.
- 2.8. IN THE EVENT THAT CONSTRUCTION SEQUENCING OR WEATHER MAKE STABILIZATION OF DISTURBED AREAS WITHIN THE REQUIRED TIME IMPRACTICAL. THE CONTRACTOR SHALL STABILIZE THE SOILS WITH STRAW OR FIBER MULCH. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF MULCH AND ESTABLISHMENT OF PERMANENT VEGETATION ONCE WEATHER AND/OR SEQUENCING PERMITS.

3. EXISTING UTILITIES

- 3.1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES WHICH MAY BE IMPACTED BY THE SCOPE OF WORK. THE CONTRACTOR SHALL COMPLETE THE SCOPE OF WORK IN SUCH A MANNER AS TO PRECLUDE DAMAGE TO EXISTING UTILITIES AND/OR STRUCTURES. DAMAGE TO THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 3.2. EXISTING UTILITIES ARE SHOWN ON THE PLANS IN THE APPROXIMATE LOCATION WHERE EVIDENCE OF THEIR LOCATION WAS AVAILABLE EITHER BY FIELD OBSERVATION OR FROM INFORMATION PROVIDED BY THE OWNER, AND/OR UTILITY COMPANY. NEITHER THE OWNER, THE UTILITY OWNER, NOR THE ENGINEER ACCEPT RESPONSIBILITY FOR DAMAGE DONE BY THE CONTRACTOR TO EXISTING FACILITIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ALL UTILITIES DURING CONSTRUCTION.

4. GEOTECHNICAL

- 4.1. ALL EARTHWORK SHALL BE COMPLETED PER THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEERING AND SECTION 31 20 00 OF THE PROJECT SPECIFICATIONS. REQUIREMENTS WHICH SPECIFICALLY IMPACT THE SCOPE OF WORK INCLUDE, BUT ARE NOT LIMITED TO:
 - 4.1.1. PRIOR TO ANY MODIFICATIONS BEING MADE TO THE DAM, THE LAKE LEVEL SHALL BE LOWERED TO NOT LESS THAN 8 FEET BELOW EXISTING SPILLWAY ELEVATION, 1,200.25 (NAVD88) BASED ON SURVEY CONTROL DATA SHOWN ON THE PLANS. THE CONTRACTOR SHALL MAINTAIN WATER LEVEL IN THE LAKE AND SHALL MONITOR AND MAINTAIN STRUCTURAL STABILITY OF THE DAM DURING CONSTRUCTION ACTIVITIES.
 - 4.1.2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE PREPARATION, WHICH SHALL INCLUDE REMOVING TREES ALONG THE DAM AND THOSE WITHIN 25 FEET OF THE PROPOSED TOE OF THE DAM. TREE ROOT SYSTEMS SHALL BE THOROUGHLY GRUBBED TO REMOVE ALL ROOTS LARGER THAN 2 INCH; HOWEVER, THE EXCAVATION TO REMOVE TREE ROOTS SHALL BE LIMITED TO A MAXIMUM DEPTH OF 5 FEET. AREAS DISTURBED DURING GRUBBING OPERATIONS SHALL BE REPAIRED BEFORE NEW FILL IS PLACED. ANY SOFT MATERIALS ENCOUNTERED SHALL BE COMPLETELY REMOVED. A QUALIFIED GEOTECHNICAL ENGINEER, PROVIDED BY THE OWNER, SHALL OBSERVE GRUBBING AND TREE REMOVAL AND EXPOSED SURFACES BEFORE NEW FILL IS PLACED FOR THE DAM.
 - 4.1.3. ORGANIC MATERIAL, TOPSOIL AND ANY DELETERIOUS AND UNSUITABLE MATERIAL RECOVERED FROM SITE STRIPPING SHALL NOT BE INCORPORATED INTO NEW ENGINEERED FILL SECTIONS.
 - 4.1.4. ERODED AREAS ON THE DAM SHALL BE BACKFILLED TO CREATE EVEN SURFACES AND A SLOPE NO STEEPER THAN 3H:1V.
 - 4.1.5. FOLLOWING STRIPPING BUT BEFORE PLACEMENT OF NEW FILL, EXPOSED SUBGRADE SHALL BE SCARIFIED, MOISTURE CONDITIONED AND COMPACTED TO AT LEAST 98% OF THE MATERIAL'S STANDARD PROCTOR DENSITY. MOISTURE CONTENT DURING COMPACTION SHALL BE WITHIN 2 PERCENT OF THE MATERIAL'S OPTIMUM VALUE.
 - 4.1.6. FILL SHALL CONSIST OF APPROVED SELECT FILL MATERIALS FREE OF ORGANIC MATTER AND DEBRIS. ALL FILL SHALL HAVE GEOTECHNICAL PROPERTIES SIMILAR TO THAT OF EXISTING DAM MATERIALS. CONTRACTOR SHALL SUBMIT SAMPLES OF PROPOSED FILL MATERIALS TO THE GEOTECHNICAL ENGINEER FOR REVIEW AND APPROVAL. NO FILL SHALL BE PLACED UNTIL THE MATERIAL HAS BEEN APPROVED BY THE GEOTECHNICAL ENGINEER.
 - 4.1.7. ALL FILL MATERIALS BE PLACED IN CONTROLLED LIFTS THAT ARE 6 INCHES OR LESS IN LOOSE THICKNESS AND SHALL BE COMPACTED TO AT LEAST 98 PERCENT OF THE MATERIAL'S MAXIMUM STANDARD PROCTOR DRY DENSITY. THE MOISTURE CONTENT OF THE FILL SHALL BE WITHIN 2 PERCENTAGE POINTS OF ITS OPTIMUM VALUE AT THE TIME OF COMPACTION.
 - 4.1.8. THE EMBANKMENT FILL SHALL BE PLACED IN HORIZONTALLY BENCHED LIFTS. FILL SHALL NOT BE FROZEN WHEN PLACED, OR PLACED ON FROZEN SURFACES.
 - 4.1.9. DOWNSTREAM SLOPES SHALL BE VEGETATED IMMEDIATELY FOLLOWING COMPLETION OF REMEDIAL CONSTRUCTION.
 - 4.1.10. THE CREST SURFACE OF THE FINISHED DAM SHALL SLOPE TOWARD THE RESERVOIR AT A MINIMUM GRADE OF 2.0%. CONTRACTOR SHALL NOT ALLOW PRECIPITATION TO FLOW OVER THE DOWNSTREAM SLOPE.
 - 4.1.11. RIP-RAP SHALL BE PLACED ON THE UPSTREAM FACE.

5. SURVEYING

- 5.1. COST OF STAKING SHALL BE INCLUDED IN SUBMITTED BID PRICE. ALL CONSTRUCTION STAKING SHALL BE PROVIDED BY INDEPENDENT LICENSED LAND SURVEYING COMPANY. CONTRACTOR SHALL PROVIDE QUALIFICATION STATEMENT FROM SURVEYOR TO ENGINEER AND OWNER FOR REVIEW AND APPROVAL PRIOR TO ENGAGING SURVEYOR.
- 5.2. PRIMARY CONTROL FOR CONSTRUCTION OF THE PROJECT HAS BEEN PROVIDED TO THE CONTRACTOR AS INDICATED ON THE PLANS. IT SHALL BE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THE ACCURACY OF THE PROVIDED COORDINATE AND ELEVATION DATA PRIOR TO USING ANY OF THE LISTED POINTS FOR CONSTRUCTION STAKING OR PLACEMENT OF SECONDARY CONTROL.
- 5.3. PRIMARY CONTROL POINTS SHALL BE PROTECTED AND PRESERVED THROUGHOUT THE COURSE OF THE PROJECT. IN THE EVENT THAT THE LOCATION OF PRIMARY CONTROL INTERFERES WITH COMPLETION OF THE SCOPE OF WORK, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR REVIEW PRIOR TO DISTURBING THE CONTROL POINT.
- 5.4. COST ASSOCIATED WITH THE REPLACEMENT OF ANY PRIMARY CONTROL DAMAGED DURING THE COURSE OF WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. REPLACEMENT CONTROL SHALL BE ESTABLISHED BY A LICENSED LAND SURVEYOR.
- 5.5. SECONDARY CONTROL SHALL BE SET AS NECESSARY BY THE CONTRACTOR TO ACCURATELY COMPLETE THE SCOPE OF WORK. COST ASSOCIATED WITH PLACEMENT OF ALL SECONDARY CONTROL AS WELL AS ANY NECESSARY CONSTRUCTION STAKING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 5.6. FIELD SURVEYS SHALL BE PROVIDED BY THE CONTRACTOR AS NECESSARY TO CALCULATE AND VERIFY ANY QUANTITIES USED TO CALCULATE CHANGES IN THE CONTRACT AMOUNT. ALL SURVEYS SHALL BE COMPLETED BY A LICENSED LAND SURVEYOR AND SHALL BE SUBMITTED TO THE ENGINEER IN BOTH DIGITAL AND HARD COPY FORMAT. COST OF SURVEY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL HIRE A LICENSED SURVEYOR TO ESTABLISH AND STAKE THE PROPERTY LINES OF ALL LOTS ADJACENT TO THE CONSTRUCTION ZONE.

UTILITY WARNING:
THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM RECORD DOCUMENTS OR FIELD LOCATIONS BY THE OPERATOR. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THE SURVEYOR DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

UTILITY ELEVATIONS AND SIZES MAY HAVE BEEN MEASURED UNDER ADVERSE FIELD CONDITIONS. UPON EXPOSING THE UTILITY, ELEVATIONS AND LINE SIZES SHOULD BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHOULD VERIFY CRITICAL ELEVATIONS USING THE BENCHMARK PROVIDED BY THE SURVEYOR OR ENGINEER. ANY DISCREPANCIES SHOULD BE IMMEDIATELY BROUGHT TO THE ENGINEER'S AND SURVEYOR'S ATTENTION.



No.	Description	Date

KEY PLAN



PROJECT
MISTY LAKE DAM IMPROVEMENTS

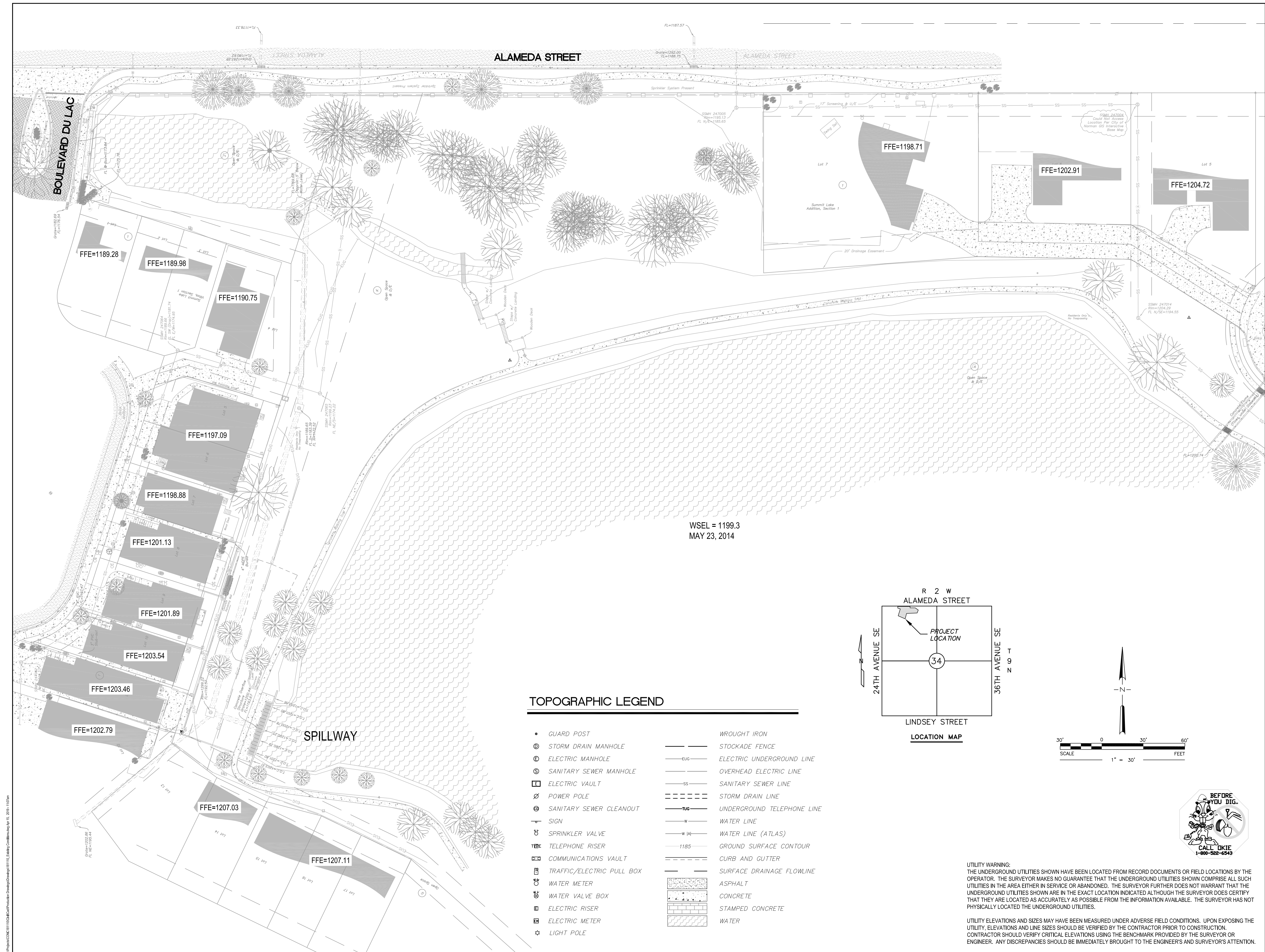
LOCATION:
SUMMIT LAKES ADDITION
NORMAN, OK
PREPARED FOR:
Summit Lakes Property Owners
Association/City of Norman

DRAWING TITLE
TITLE SHEET

Project No.	181110
Drawn By	AWH
Checked By	EOR
Date	3/01/2019
Scale	AS SHOWN
Issued For	SUBMITTAL
Drawing No.	

TS-01

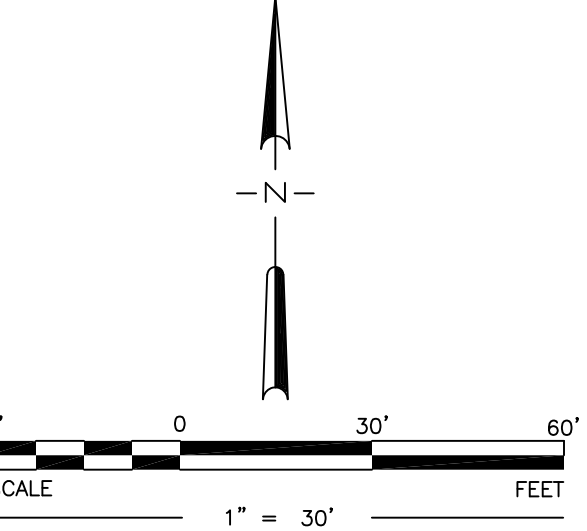
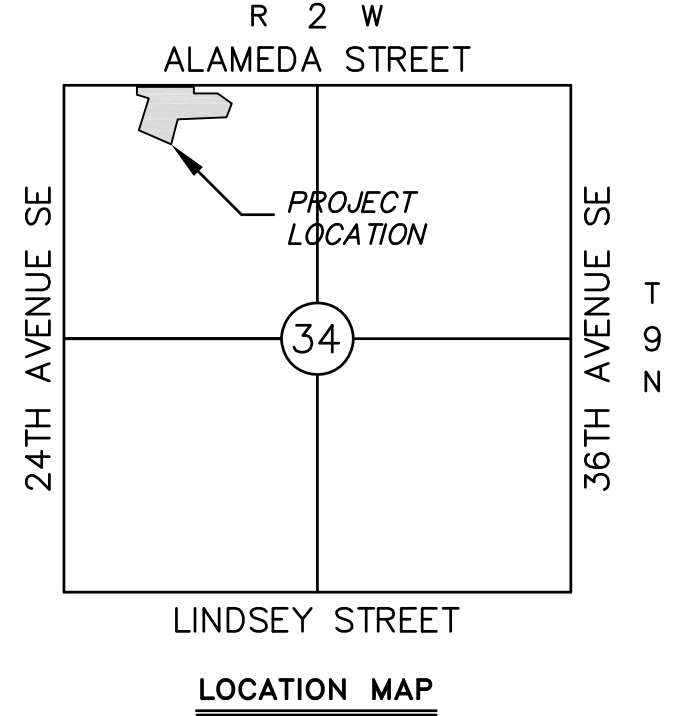
CARDINAL ENGINEERING
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http://www.cardinalengineers.com
CA# 7110, expiration date 06.30.2020



WSEL = 1199.3
MAY 23, 2014

TOPOGRAPHIC LEGEND

•	GUARD POST	—	WROUGHT IRON
⊙	STORM DRAIN MANHOLE	—	STOCKADE FENCE
⊕	ELECTRIC MANHOLE	—evg—	ELECTRIC UNDERGROUND LINE
⊙	SANITARY SEWER MANHOLE	—	OVERHEAD ELECTRIC LINE
⊖	ELECTRIC VAULT	—ss—	SANITARY SEWER LINE
⊘	POWER POLE	—	STORM DRAIN LINE
⊕	SANITARY SEWER CLEANOUT	—tug—	UNDERGROUND TELEPHONE LINE
—	SIGN	—	WATER LINE
⊕	SPRINKLER VALVE	—W A—	WATER LINE (ATLAS)
⊕	TELEPHONE RISER	—1185—	GROUND SURFACE CONTOUR
⊕	COMMUNICATIONS VAULT	—	CURB AND GUTTER
⊕	TRAFFIC/ELECTRIC PULL BOX	—	SURFACE DRAINAGE FLOWLINE
⊕	WATER METER	[Pattern]	ASPHALT
⊕	WATER VALVE BOX	[Pattern]	CONCRETE
⊕	ELECTRIC RISER	[Pattern]	STAMPED CONCRETE
⊕	ELECTRIC METER	[Pattern]	WATER
⊕	LIGHT POLE		



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No.	Description	Date



PROFESSIONAL ENGINEER
SUMMIT LAKES PROPERTY OWNERS ASSOCIATION/CITY OF NORMAN

[Signature]
4-15-2019

PROJECT
MISTY LAKE DAM IMPROVEMENTS

LOCATION
SUMMIT LAKES ADDITION
NORMAN, OK

PREPARED FOR
Summit Lakes Property Owners
Association/City of Norman

DRAWING TITLE
EXISTING CONDITIONS

Project No.	181110
Drawn By	AWH
Checked By	EOR
Date	3/01/2019
Scale	AS SHOWN
Issued For	REVIEW

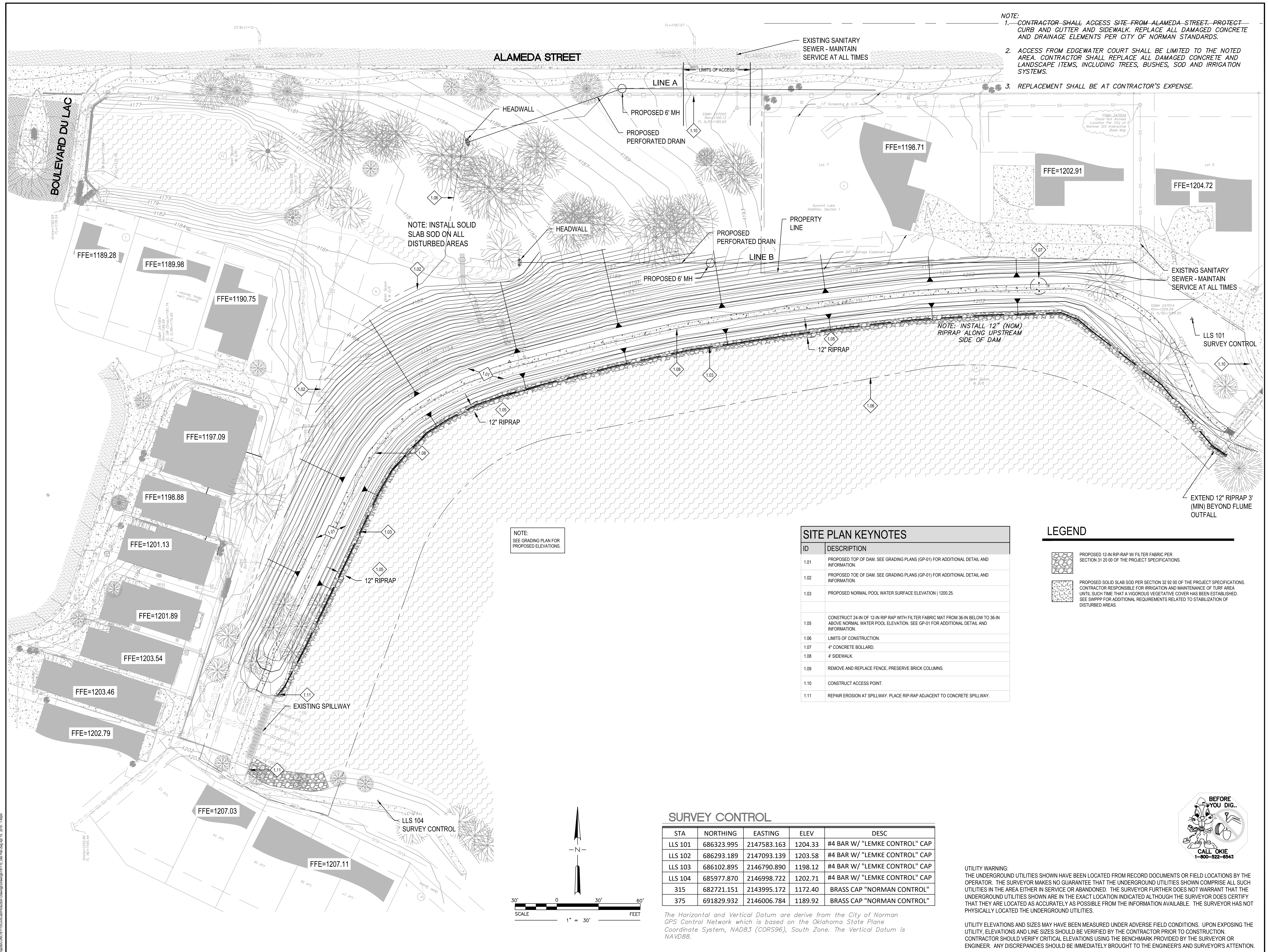
EX-01

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- NOTE:**
- CONTRACTOR SHALL ACCESS SITE FROM ALAMEDA STREET. PROTECT CURB AND GUTTER AND SIDEWALK. REPLACE ALL DAMAGED CONCRETE AND DRAINAGE ELEMENTS PER CITY OF NORMAN STANDARDS.
 - ACCESS FROM EDGEWATER COURT SHALL BE LIMITED TO THE NOTED AREA. CONTRACTOR SHALL REPLACE ALL DAMAGED CONCRETE AND LANDSCAPE ITEMS, INCLUDING TREES, BUSHES, SOD AND IRRIGATION SYSTEMS.
 - REPLACEMENT SHALL BE AT CONTRACTOR'S EXPENSE.

NOTE: INSTALL SOLID SLAB SOD ON ALL DISTURBED AREAS

NOTE: INSTALL 12" (NOM) RIPRAP ALONG UPSTREAM SIDE OF DAM

NOTE: SEE GRADING PLAN FOR PROPOSED ELEVATIONS.

ID	DESCRIPTION
1.01	PROPOSED TOP OF DAM. SEE GRADING PLANS (GP-01) FOR ADDITIONAL DETAIL AND INFORMATION.
1.02	PROPOSED TOE OF DAM. SEE GRADING PLANS (GP-01) FOR ADDITIONAL DETAIL AND INFORMATION.
1.03	PROPOSED NORMAL POOL WATER SURFACE ELEVATION 1200.25.
1.05	CONSTRUCT 24-IN OF 12-IN RIP-RAP WITH FILTER FABRIC MAT FROM 36-IN BELOW TO 36-IN ABOVE NORMAL WATER POOL ELEVATION. SEE GP-01 FOR ADDITIONAL DETAIL AND INFORMATION.
1.06	LIMITS OF CONSTRUCTION.
1.07	4' CONCRETE BOLLARD.
1.08	4' SIDEWALK.
1.09	REMOVE AND REPLACE FENCE, PRESERVE BRICK COLUMNS.
1.10	CONSTRUCT ACCESS POINT.
1.11	REPAIR EROSION AT SPILLWAY. PLACE RIP-RAP ADJACENT TO CONCRETE SPILLWAY.

- LEGEND**
- PROPOSED 12-IN RIP-RAP W/ FILTER FABRIC PER SECTION 31 20 00 OF THE PROJECT SPECIFICATIONS.
 - PROPOSED SOLID SLAB SOD PER SECTION 32 92 00 OF THE PROJECT SPECIFICATIONS. CONTRACTOR RESPONSIBLE FOR IRRIGATION AND MAINTENANCE OF TURF AREA UNTIL SUCH TIME THAT A VIGOROUS VEGETATIVE COVER HAS BEEN ESTABLISHED. SEE SWPPP FOR ADDITIONAL REQUIREMENTS RELATED TO STABILIZATION OF DISTURBED AREAS.

SURVEY CONTROL

STA	NORTHING	EASTING	ELEV	DESC
LLS 101	686323.995	2147583.163	1204.33	#4 BAR W/ "LEMKE CONTROL" CAP
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No.	Description	Date

KEY PLAN

SIGNATURE/SEAL

4-15-2019

PROJECT

MISTY LAKE DAM IMPROVEMENTS

LOCATION

SUMMIT LAKES ADDITION
NORMAN, OK

PREPARED FOR

Summit Lakes Property Owners
Association/City of Norman

DRAWING TITLE

SITE PLAN

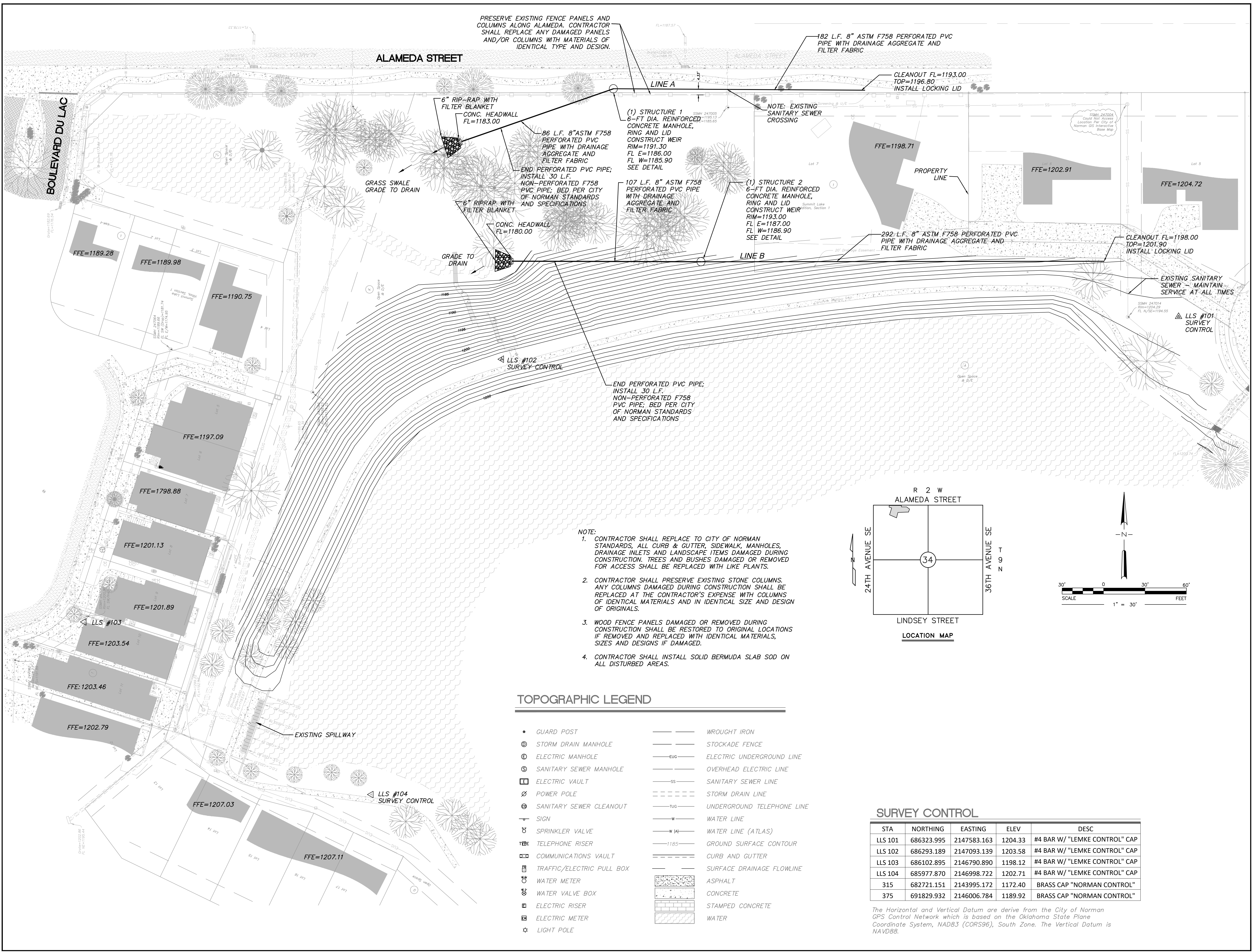
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 Scale AS SHOWN
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 Drawing No.

SP-01

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 CA# 7110, expiration date 06.30.2020



REVISIONS

No.	Description	Date

KEY PLAN

SIGNATURE/SEAL

5-3-2019

PROJECT

MISTY LAKE DAM IMPROVEMENTS

LOCATION

SUMMIT LAKES ADDITION
NORMAN, OK

PREPARED FOR

Summit Lakes Property Owners
Association/City of Norman

DRAWING TITLE

DRAIN LINE PLAN

Project No. 181110

Drawn By MTM

Checked By EOR

Date 3-01-2019

Scale AS SHOWN

Issued For SUBMITTAL

Drawing No.

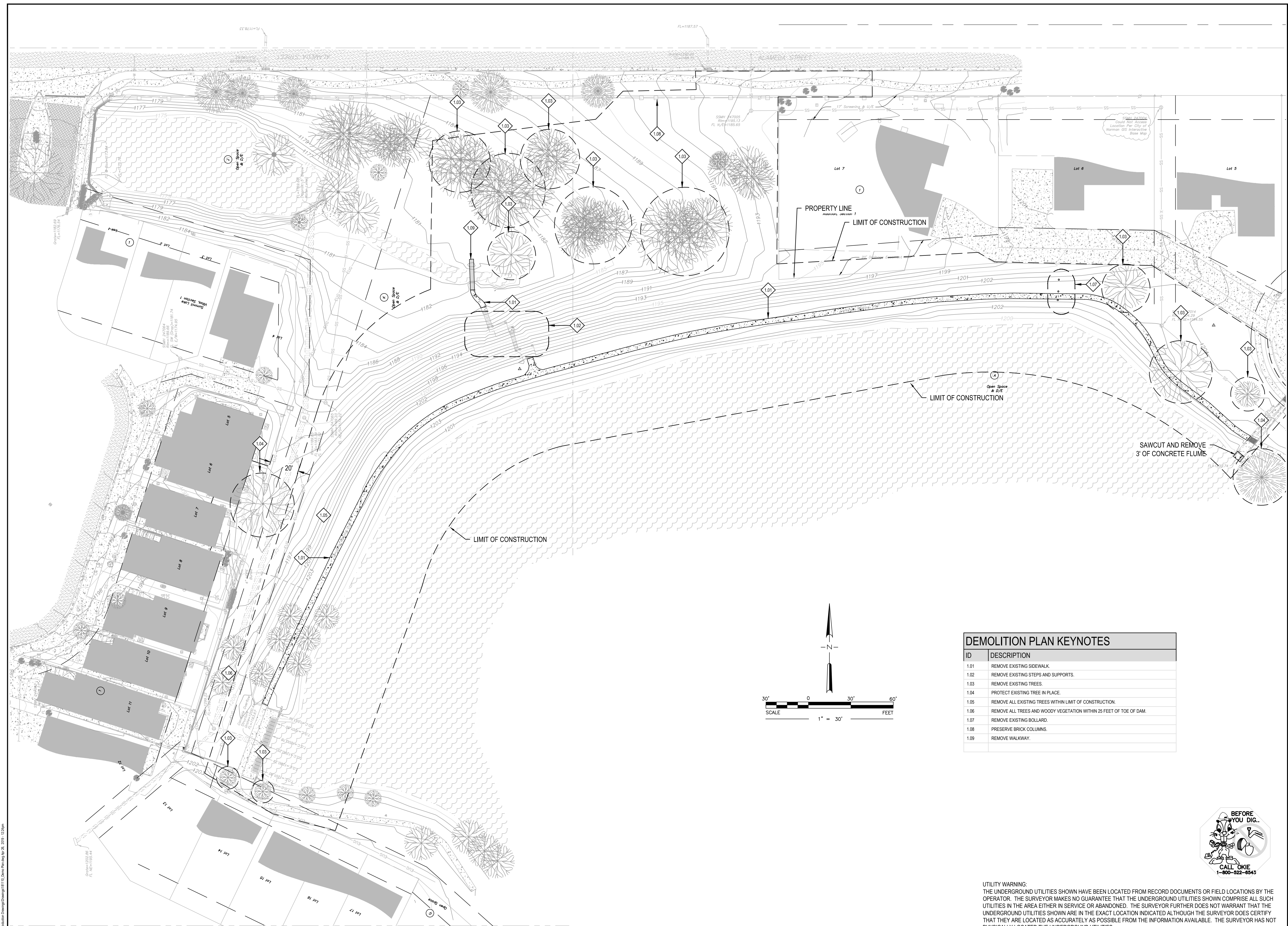
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ID	DESCRIPTION
1.01	REMOVE EXISTING SIDEWALK.
1.02	REMOVE EXISTING STEPS AND SUPPORTS.
1.03	REMOVE EXISTING TREES.
1.04	PROTECT EXISTING TREE IN PLACE.
1.05	REMOVE ALL EXISTING TREES WITHIN LIMIT OF CONSTRUCTION.
1.06	REMOVE ALL TREES AND WOODY VEGETATION WITHIN 25 FEET OF TOE OF DAM.
1.07	REMOVE EXISTING BOLLARD.
1.08	PRESERVE BRICK COLUMNS.
1.09	REMOVE WALKWAY.

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REVISIONS

No.	Description	Date

KEY PLAN



PROJECT
MISTY LAKE DAM IMPROVEMENTS

LOCATION
 SUMMIT LAKES ADDITION
 NORMAN, OK
 PREPARED FOR
 Summit Lakes Property Owners Association/City of Norman

DRAWING TITLE
DEMOLITION PLAN

Project No.	181110
Drawn By	AWH
Checked By	EOR
Date	3/01/2019
Scale	AS SHOWN
Issued For	SUBMITTAL
Drawing No.	

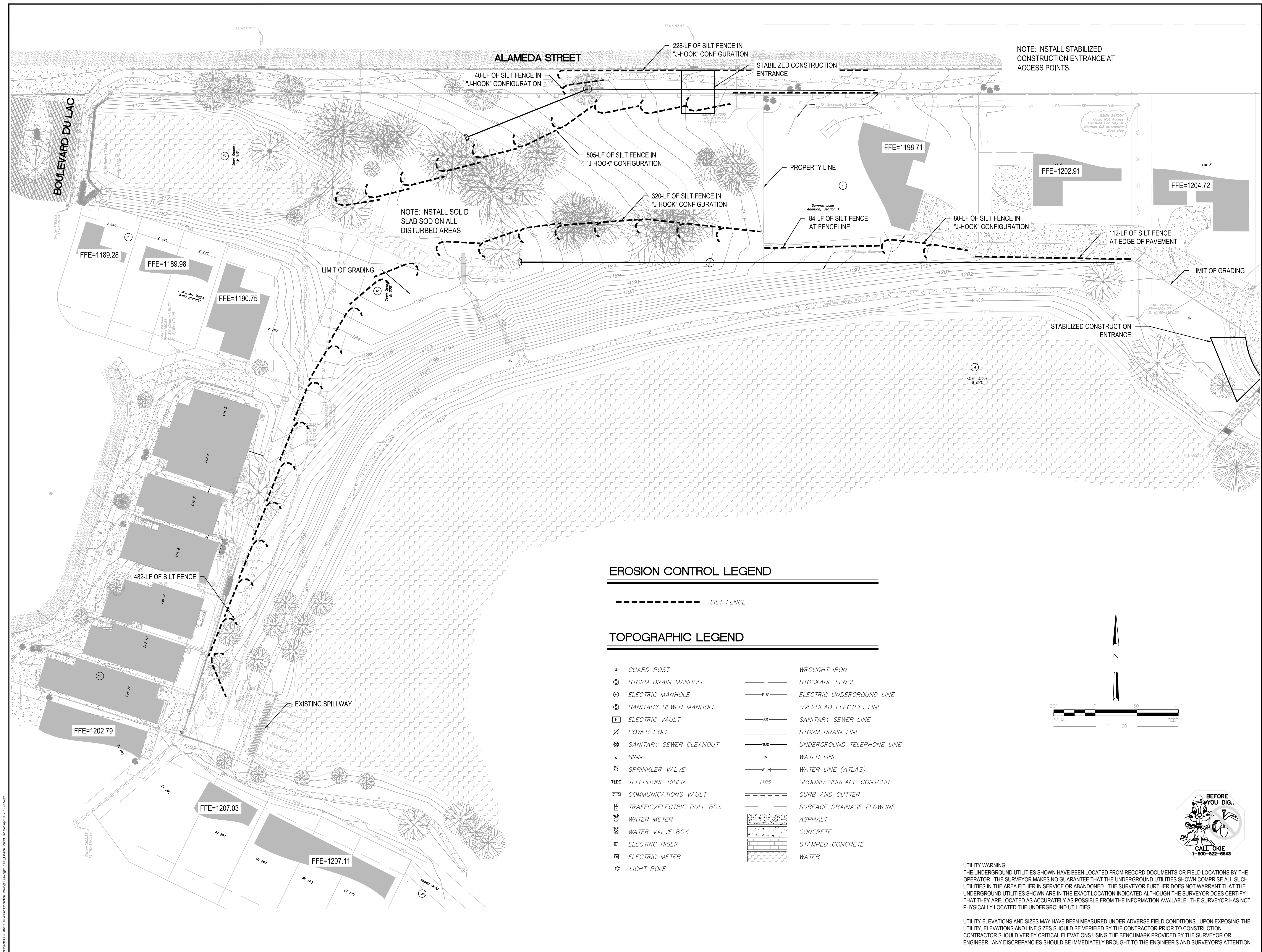
DP-01

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 Fax: 405.701.5208

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 CA# 7110, expiration date 06.30.2020

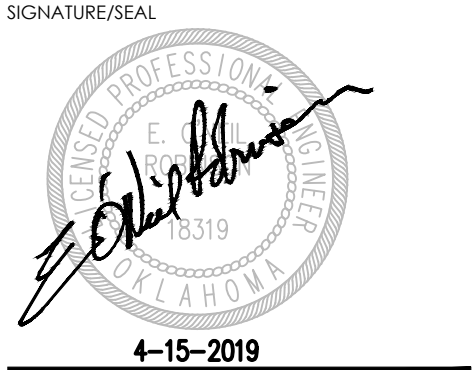


No.	Description	Date
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No.	Description	Date
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KEY PLAN

No.	Description	Date
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PROJECT
MISTY LAKE DAM IMPROVEMENTS PHASE 2

LOCATION
 SUMMIT LAKES ADDITION
 NORMAN, OK
 PREPARED FOR
 Summit Lakes Property Owners Association

DRAWING TITLE
EROSION CONTROL PLAN

Project No.	18110
Drawn By	AWH
Checked By	EOR
Date	3/01/2019
Scale	AS SHOWN
Issued For	SUBMITTAL
Drawing No.	

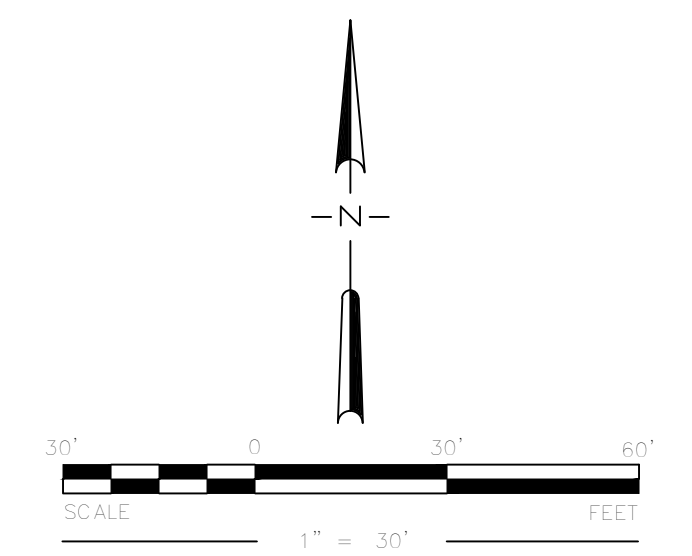
ECP-01

EROSION CONTROL LEGEND



TOPOGRAPHIC LEGEND

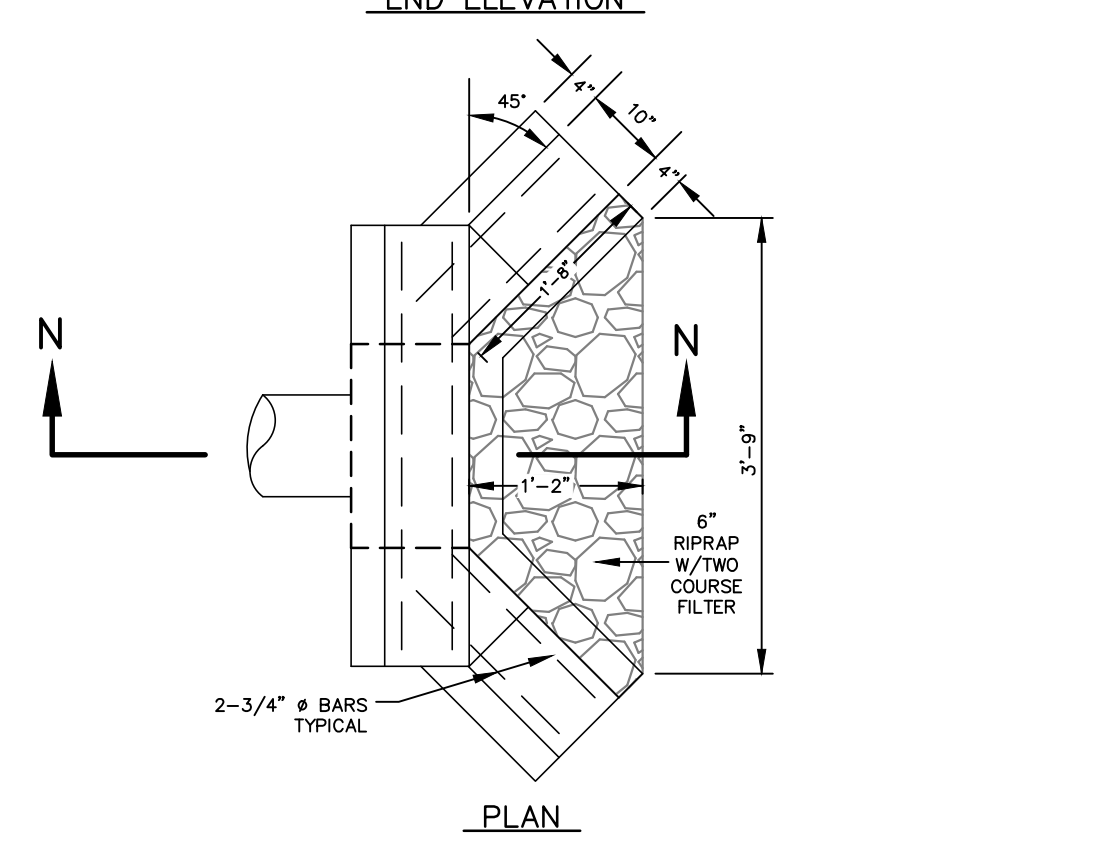
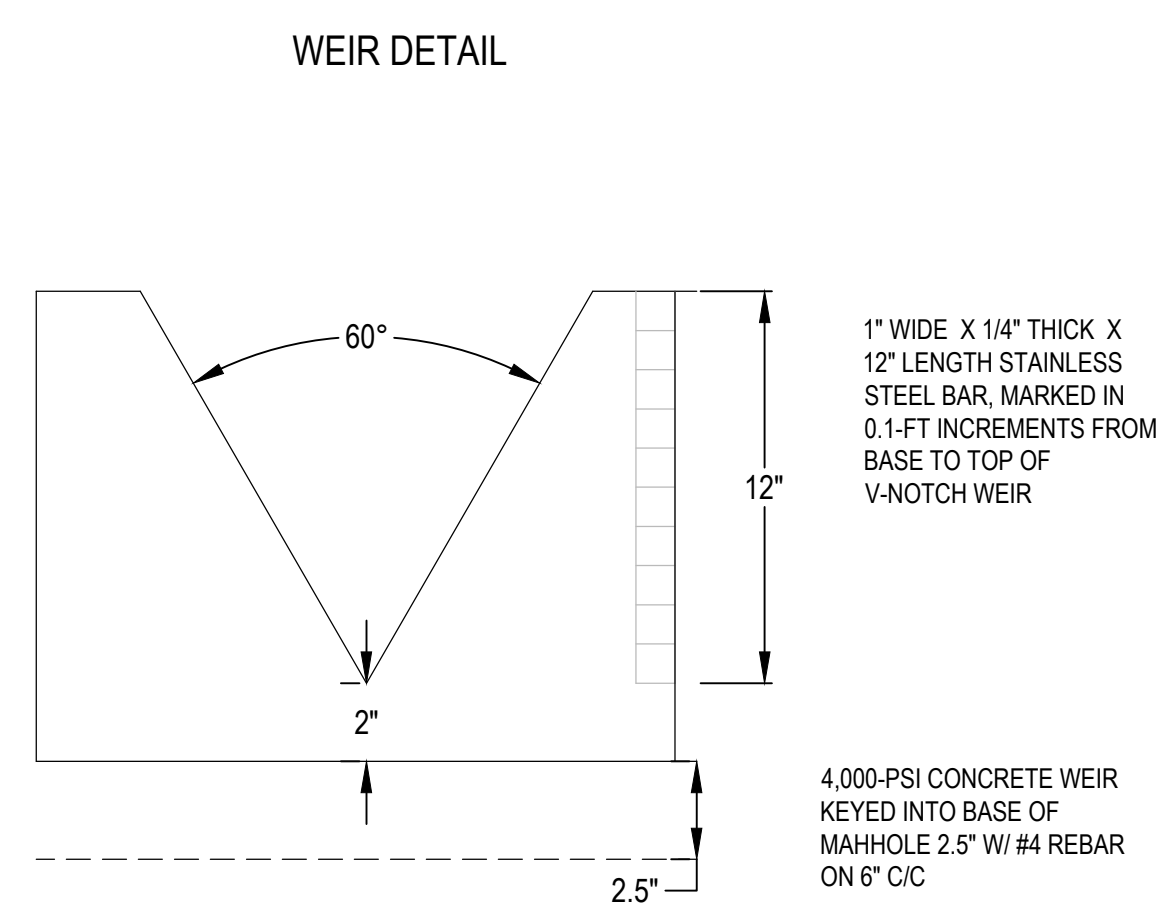
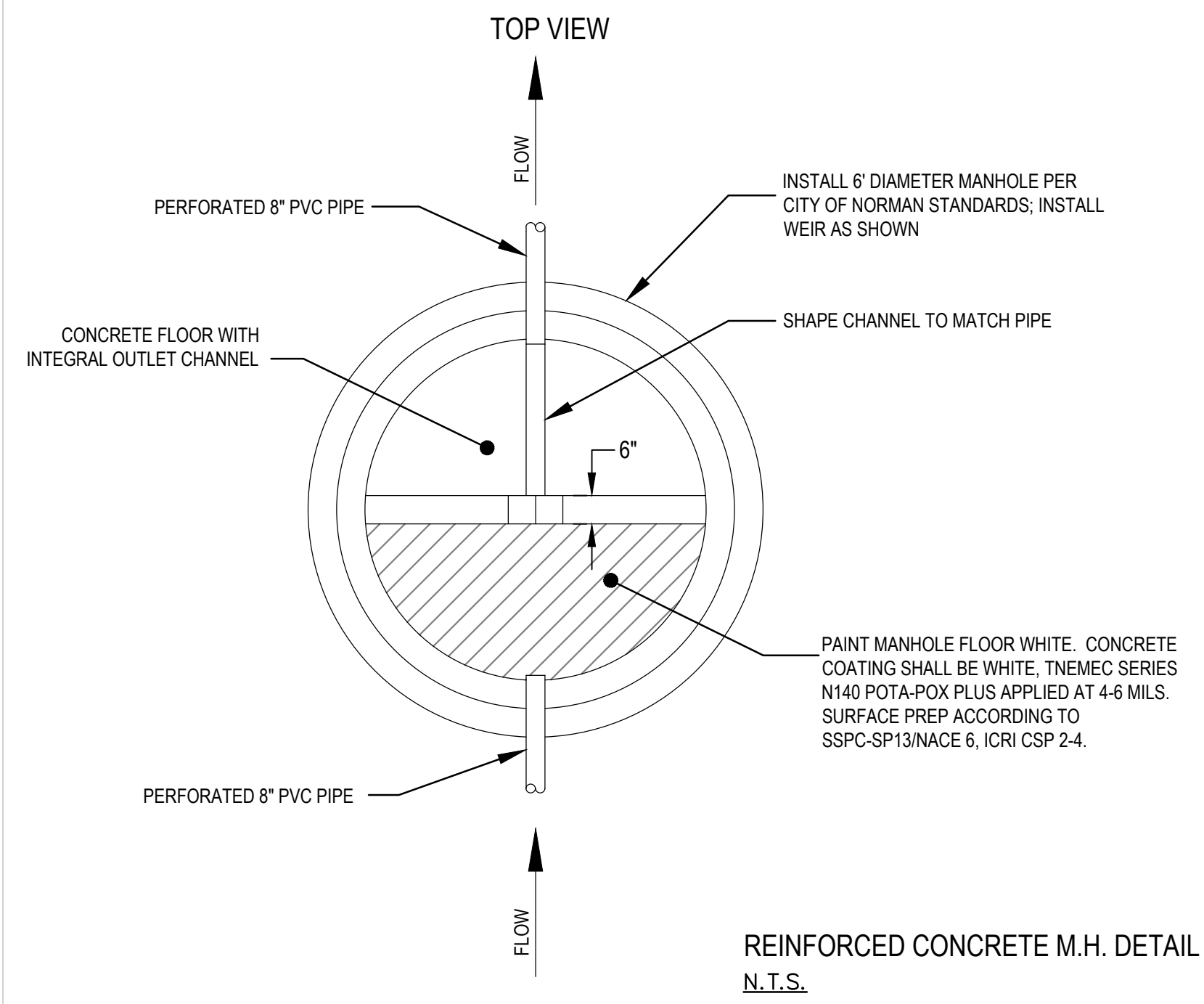
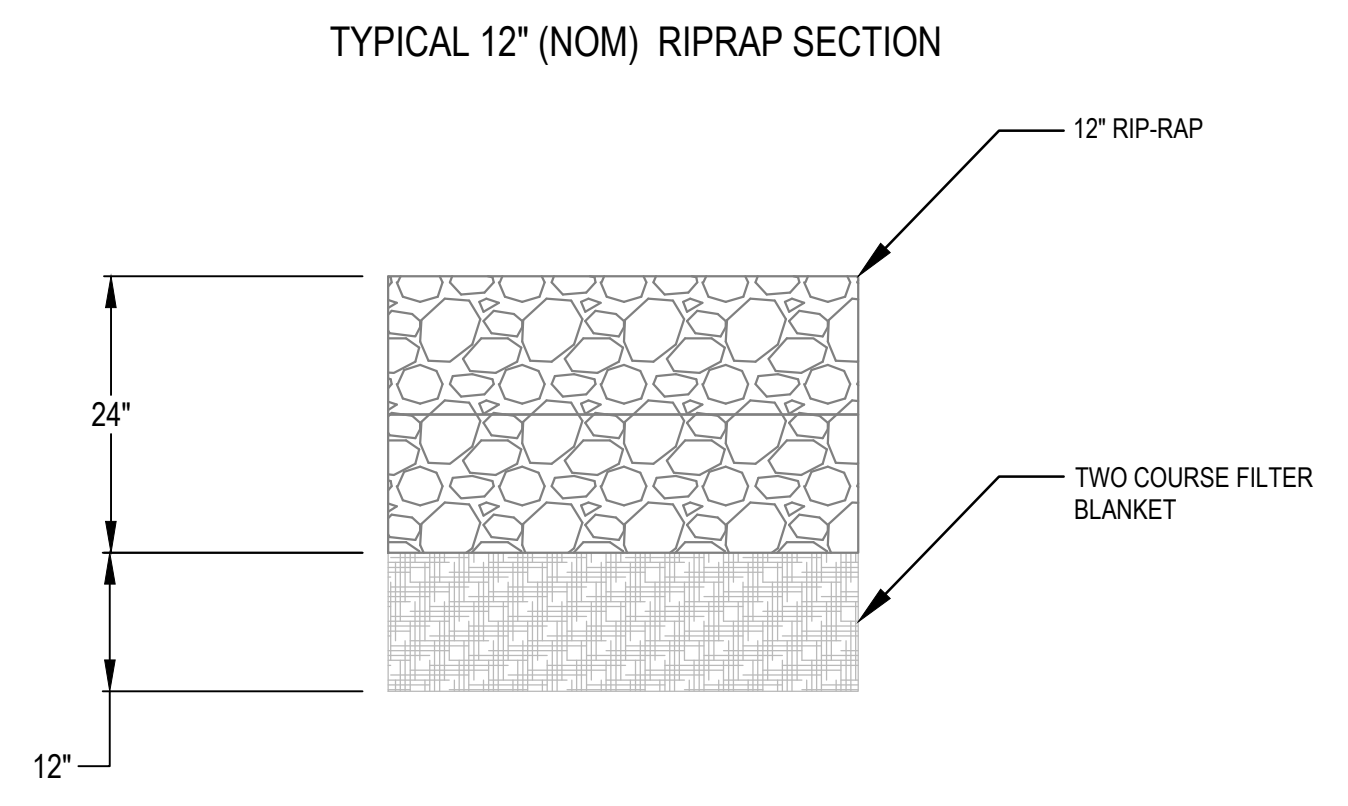
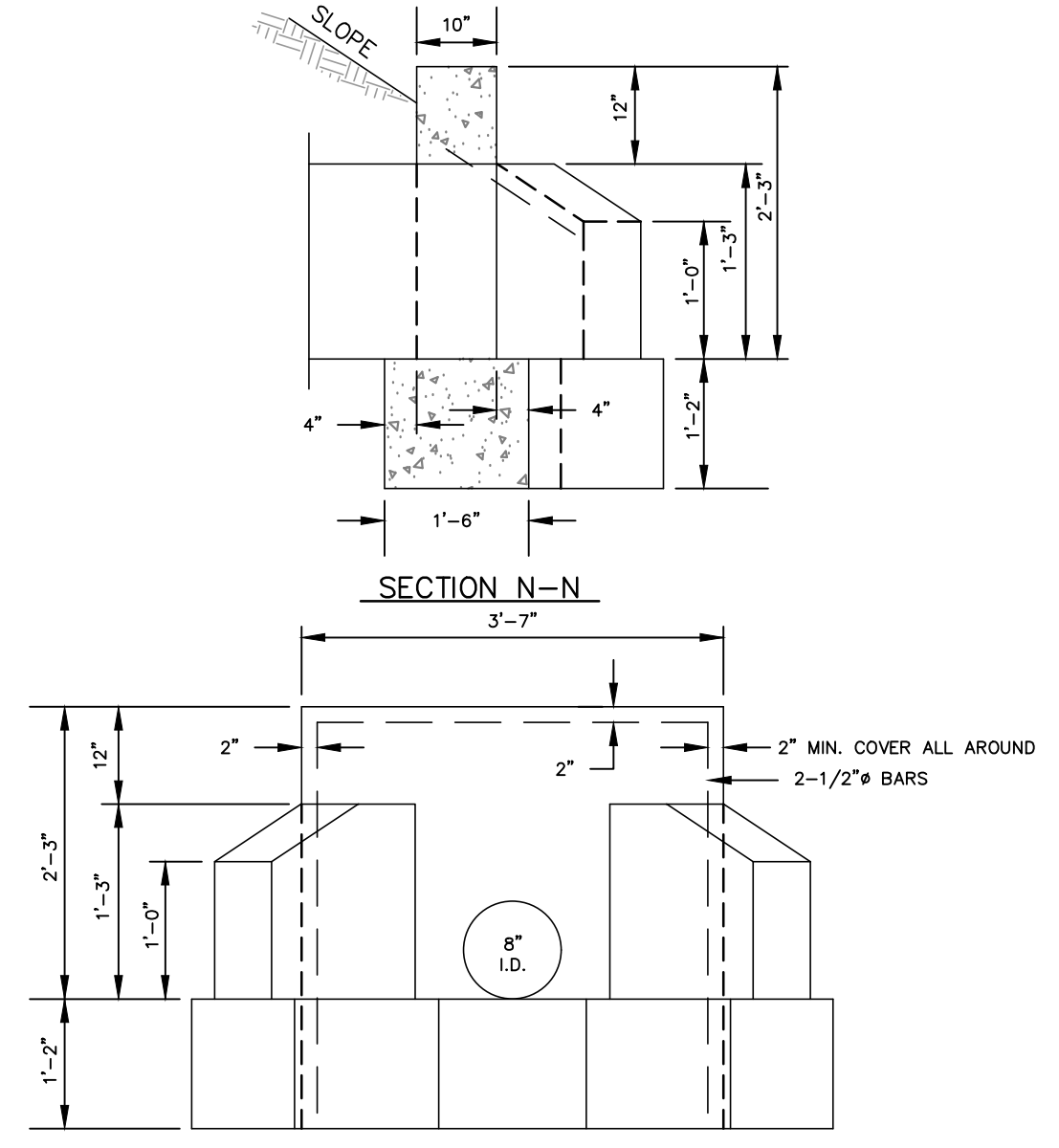
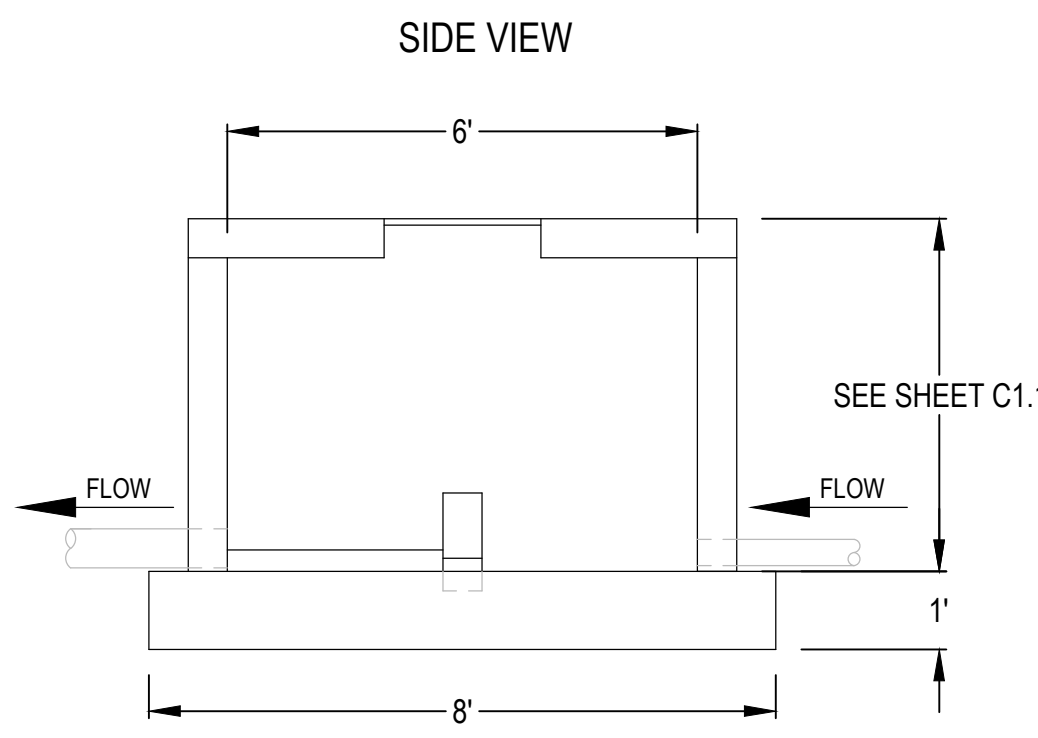
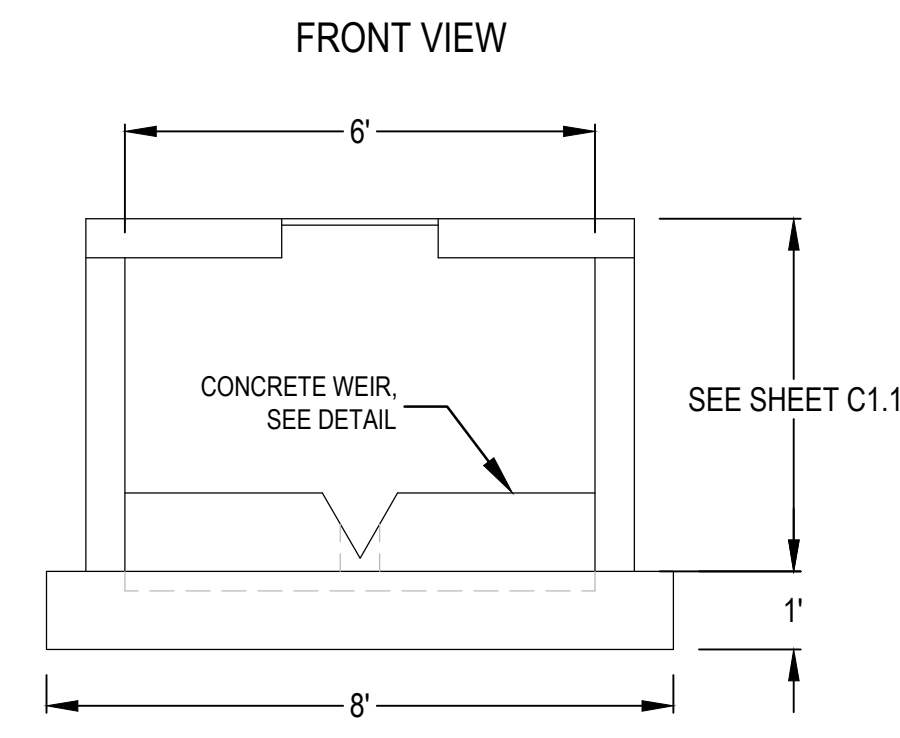
• GUARD POST	— WROUGHT IRON
⊖ STORM DRAIN MANHOLE	— STOCKADE FENCE
Ⓧ ELECTRIC MANHOLE	— EVS— ELECTRIC UNDERGROUND LINE
Ⓢ SANITARY SEWER MANHOLE	— OVERHEAD ELECTRIC LINE
Ⓛ ELECTRIC VAULT	— SS— SANITARY SEWER LINE
⊙ POWER POLE	— S— STORM DRAIN LINE
Ⓢ SANITARY SEWER CLEANOUT	— TUC— UNDERGROUND TELEPHONE LINE
Ⓢ SIGN	— W— WATER LINE
Ⓢ SPRINKLER VALVE	— W (A)— WATER LINE (ATLAS)
Ⓢ TELEPHONE RISER	— 1185— GROUND SURFACE CONTOUR
Ⓢ COMMUNICATIONS VAULT	— C— CURB AND GUTTER
Ⓢ TRAFFIC/ELECTRIC PULL BOX	— SDF— SURFACE DRAINAGE FLOWLINE
Ⓢ WATER METER	[Pattern] ASPHALT
Ⓢ WATER VALVE BOX	[Pattern] CONCRETE
Ⓢ ELECTRIC RISER	[Pattern] STAMPED CONCRETE
Ⓢ ELECTRIC METER	[Pattern] WATER
Ⓢ LIGHT POLE	



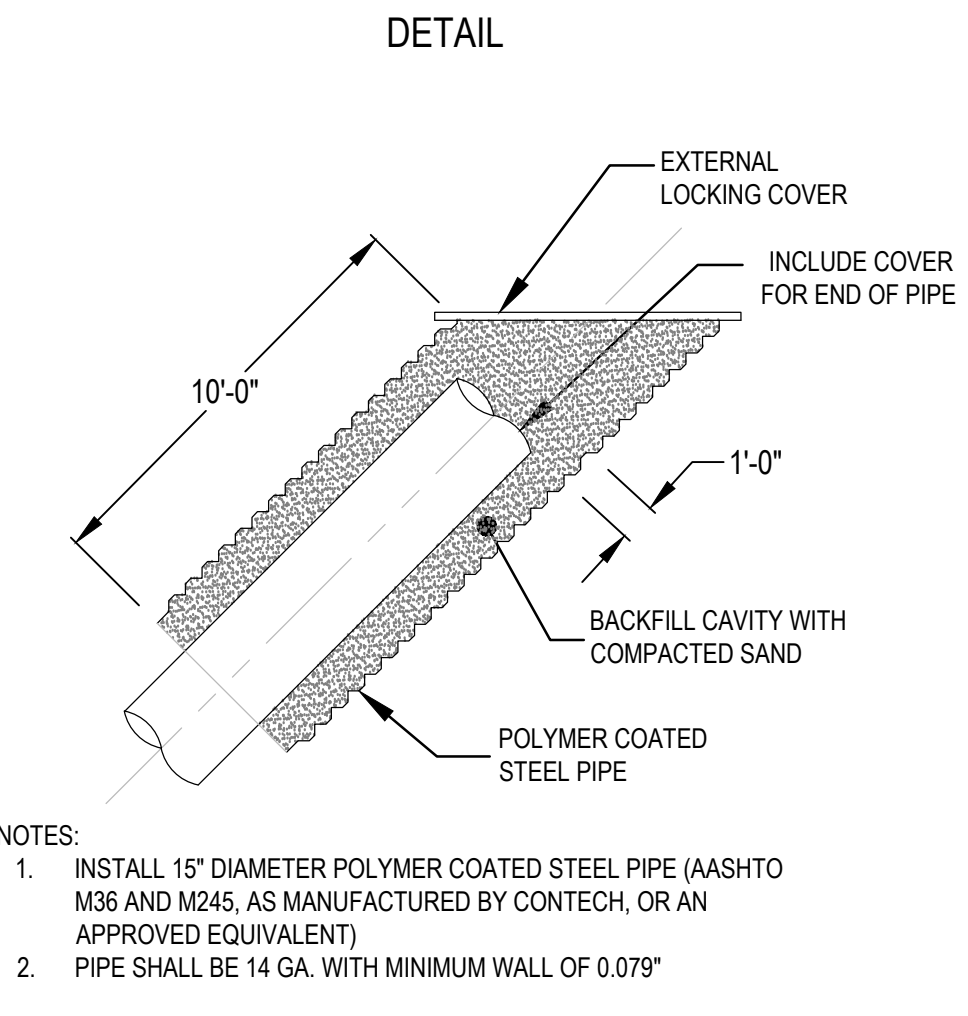
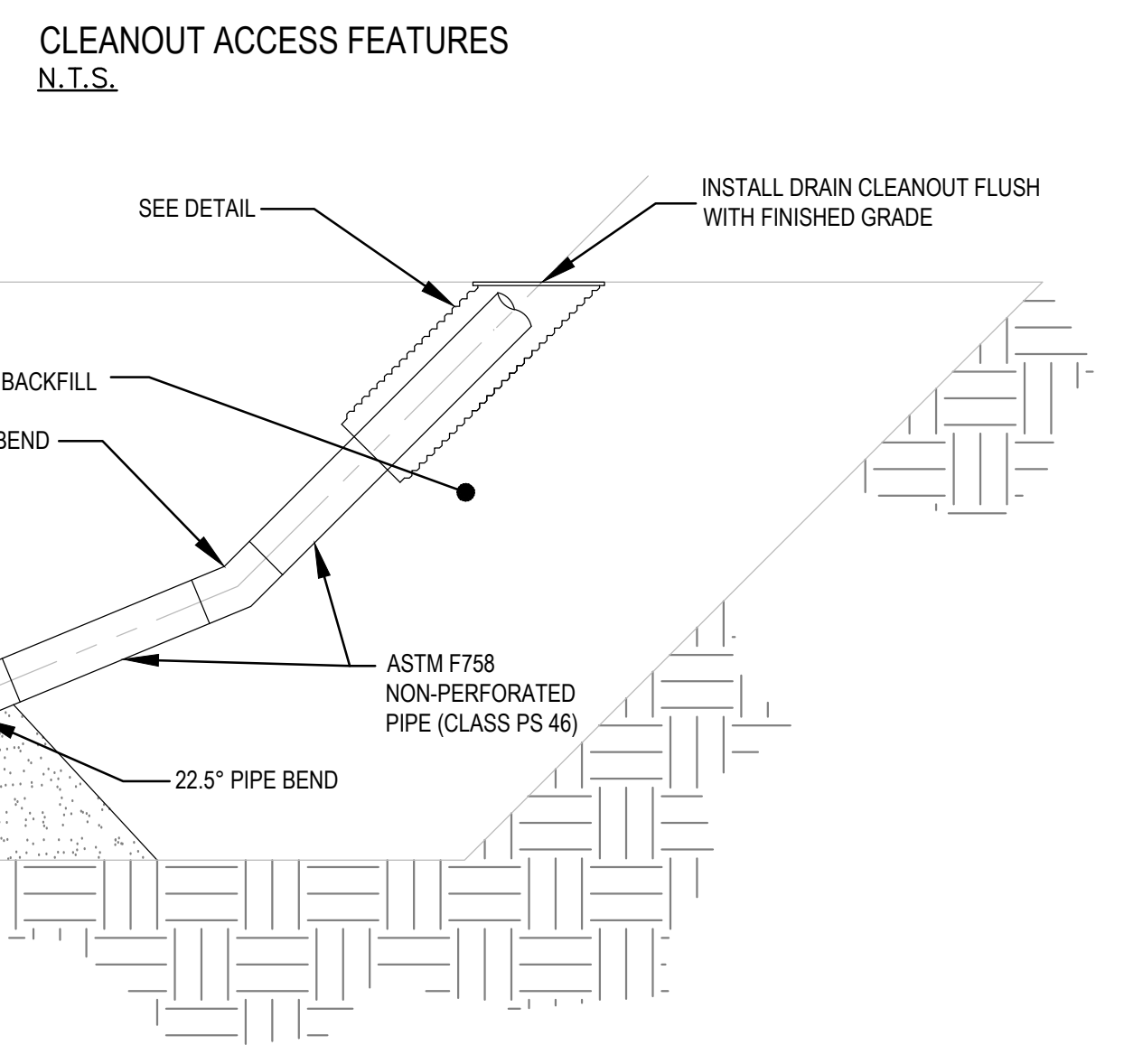
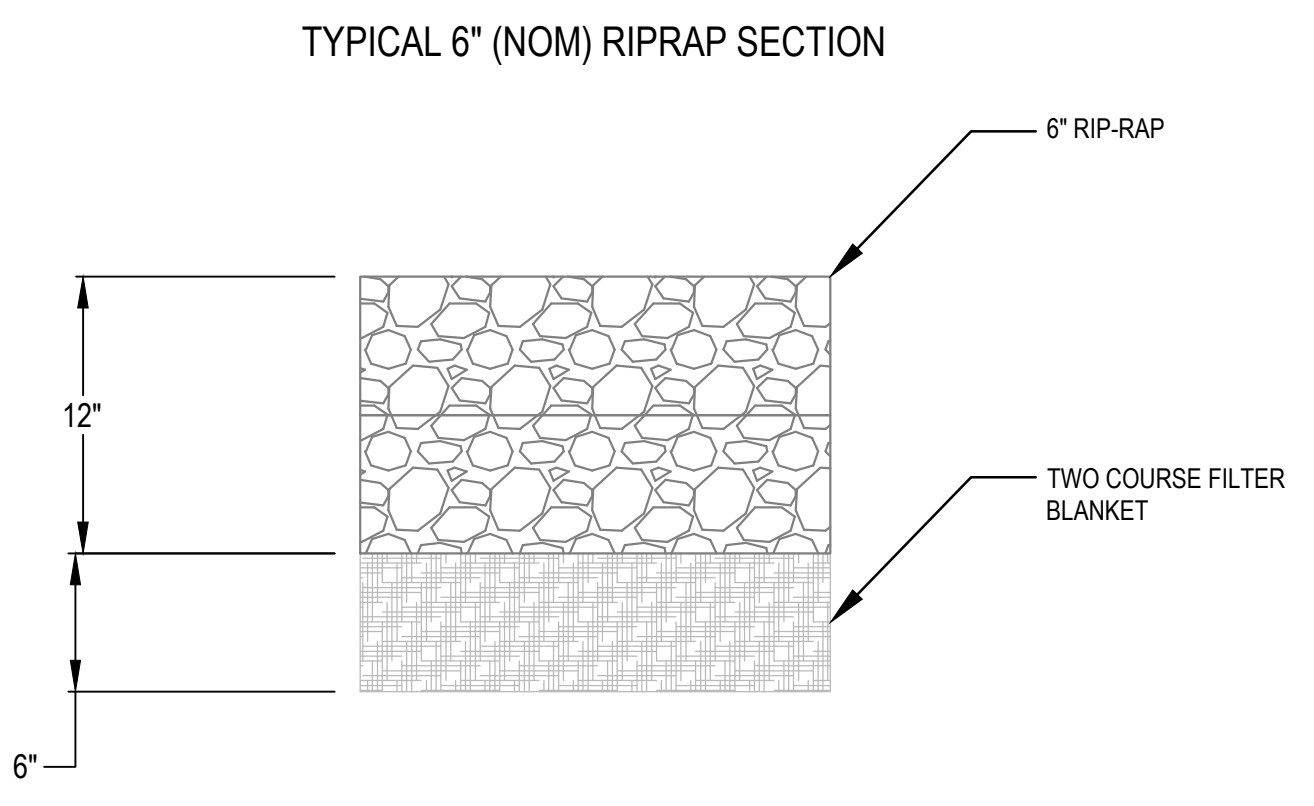
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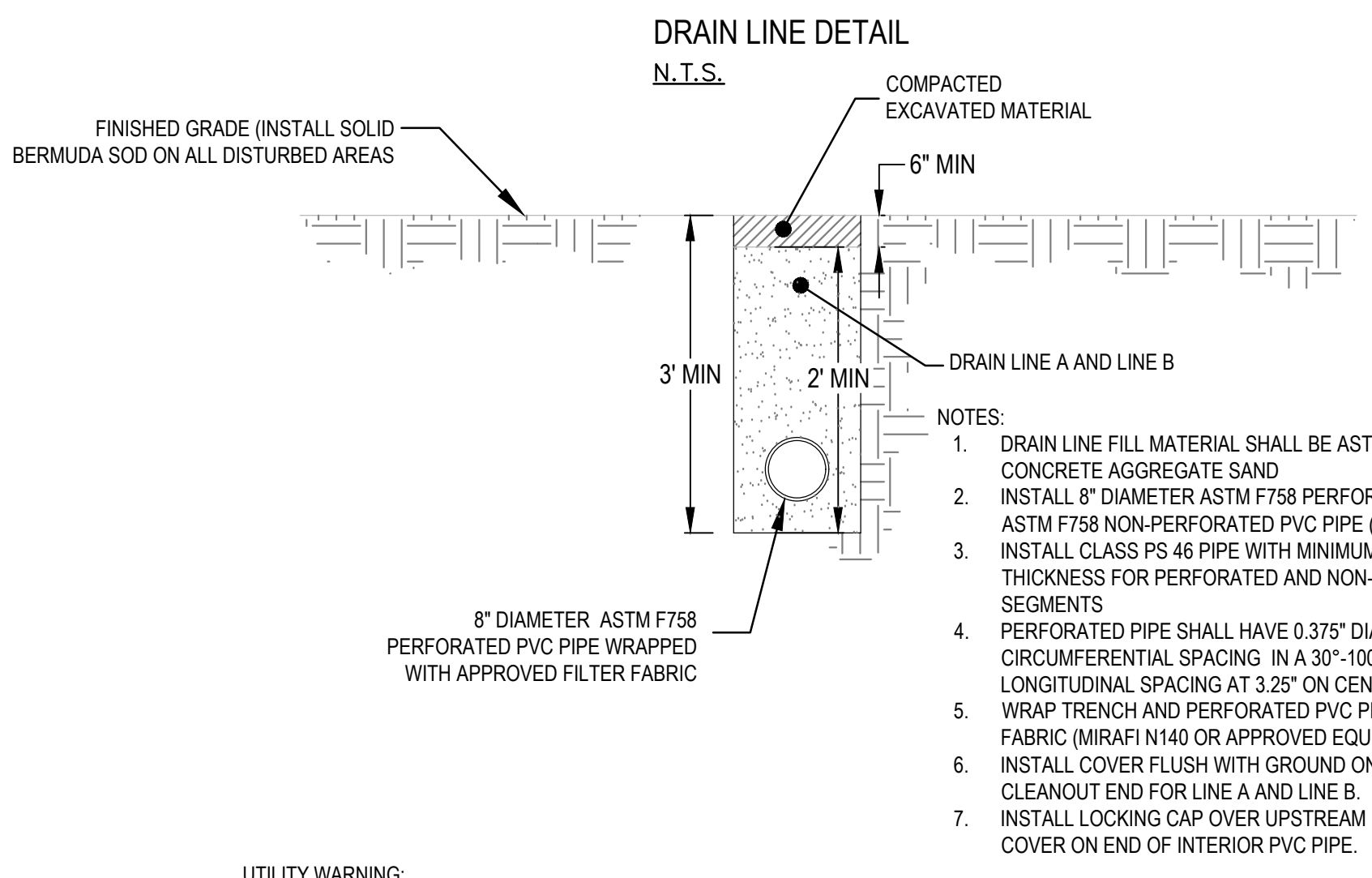
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- REINFORCED CONCRETE HEADWALL DETAIL N.T.S.**
- HEADWALL NOTES:
1. ALL REINFORCING STEEL SHALL BE GR60 DEFORMED BARS.
 2. NO WELDS SHALL BE ALLOWED.
 3. P.C. CONCRETE SHALL HAVE A MINIMUM 3,500 PSI COMPRESSIVE STRENGTH AT 28 DAYS.
 4. APPLY 1/2" CHAMFER TO ALL EXPOSED CORNERS.
 5. APPLY CARBORUNDUM FINISH TO ALL EXPOSED SURFACES.
 6. PLACE 6" (NOM) RIPRAP AS SHOWN WITH TWO COURSE FILTER BLANKET.



- NOTES:
1. INSTALL 15" DIAMETER POLYMER COATED STEEL PIPE (AASHTO M36 AND M245, AS MANUFACTURED BY CONTECH, OR AN APPROVED EQUIVALENT)
 2. PIPE SHALL BE 14 GA. WITH MINIMUM WALL OF 0.079"



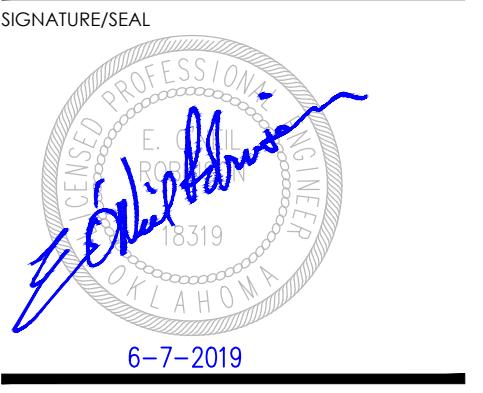
- NOTES:
1. DRAIN LINE FILL MATERIAL SHALL BE ASTM C-33 FINE CONCRETE AGGREGATE SAND
 2. INSTALL 8" DIAMETER ASTM F758 PERFORATED PVC PIPE AND ASTM F758 NON-PERFORATED PVC PIPE (SOLVENT WELDED)
 3. INSTALL CLASS PS 46 PIPE WITH MINIMUM 0.24" WALL THICKNESS FOR PERFORATED AND NON-PERFORATED SEGMENTS
 4. PERFORATED PIPE SHALL HAVE 0.375" DIAMETER HOLES WITH CIRCUMFERENTIAL SPACING IN A 30"-100"-30" PATTERN AND LONGITUDINAL SPACING AT 3.25' ON CENTER
 5. WRAP TRENCH AND PERFORATED PVC PIPE WITH FILTER FABRIC (MIRAFI N140 OR APPROVED EQUIVALENT)
 6. INSTALL COVER FLUSH WITH GROUND ON UPSTREAM CLEANOUT END FOR LINE A AND LINE B
 7. INSTALL LOCKING CAP OVER UPSTREAM END AND INSTALL COVER ON END OF INTERIOR PVC PIPE.

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No.	Description	Date



PROJECT
MISTY LAKE DAM IMPROVEMENTS

LOCATION:
SUMMIT LAKES ADDITION
NORMAN, OK

PREPARED FOR:
Summit Lakes Property Owners
Association/City of Norman

DRAWING TITLE
DETAIL SHEET

Project No.	181110
Drawn By	MTM
Checked By	EOR
Date	3/01/2019
Scale	NA
Issued For	SUBMITTAL
Drawing No.	

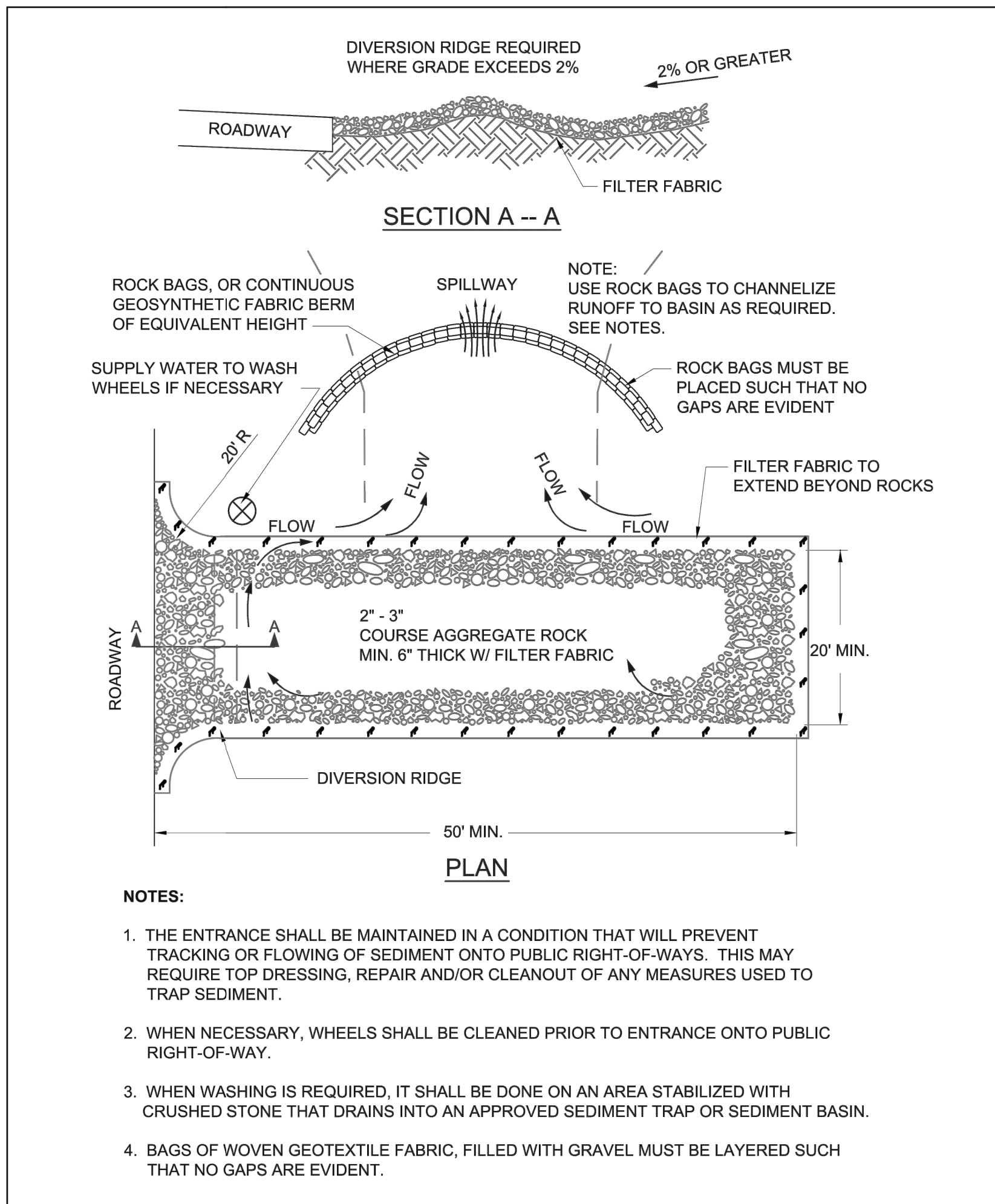
DT-01

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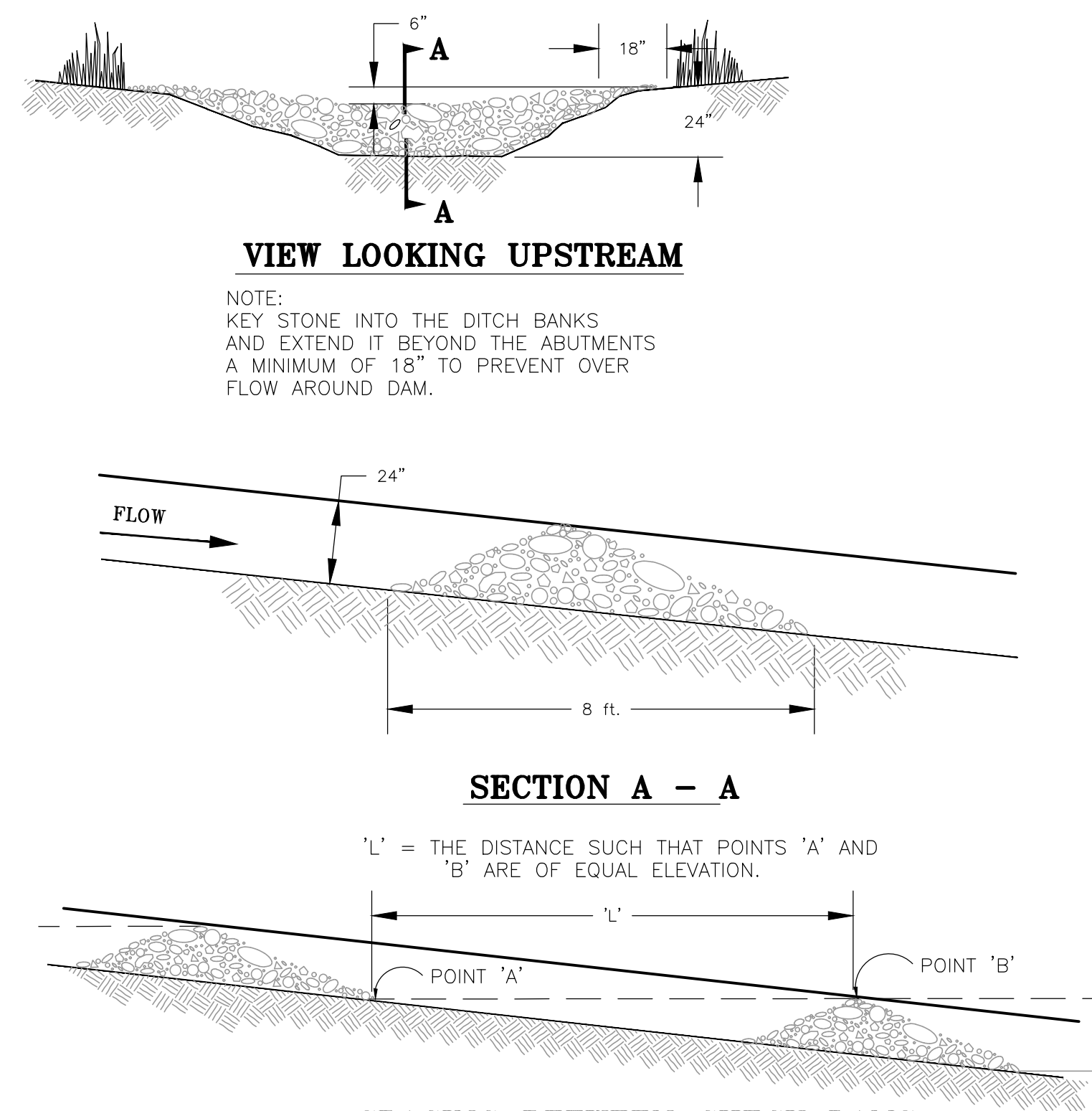
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CA# 7110, expiration date 06.30.2020

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TEMPORARY ROCK CONSTRUCTION ENTRANCE/EXIT

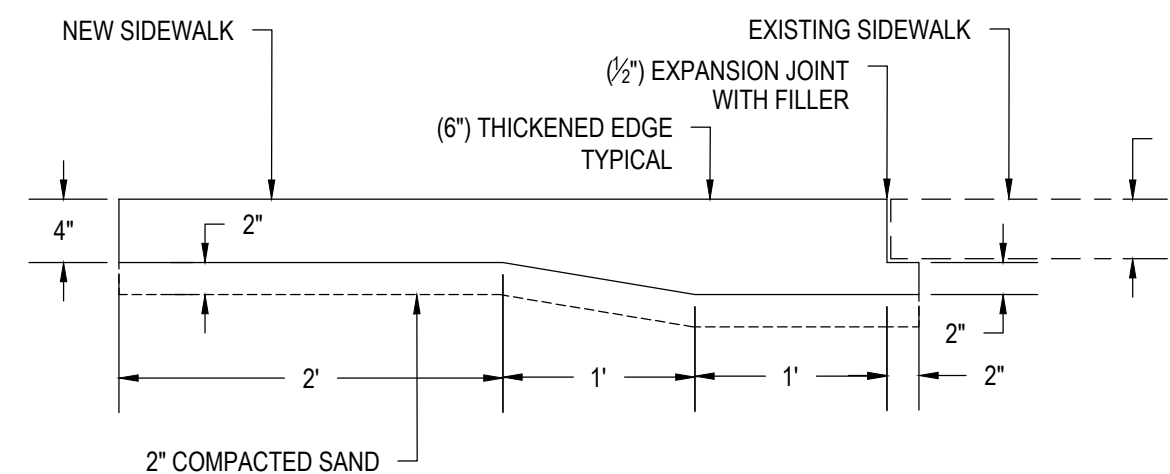
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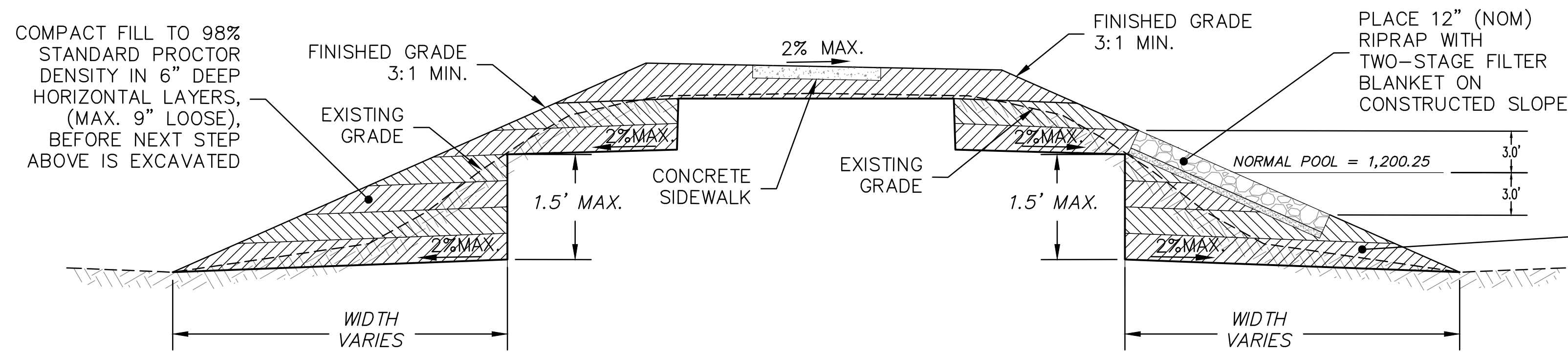
SPACING BETWEEN CHECK DAMS

ROCK CHECK DAM

SCALE: NTS

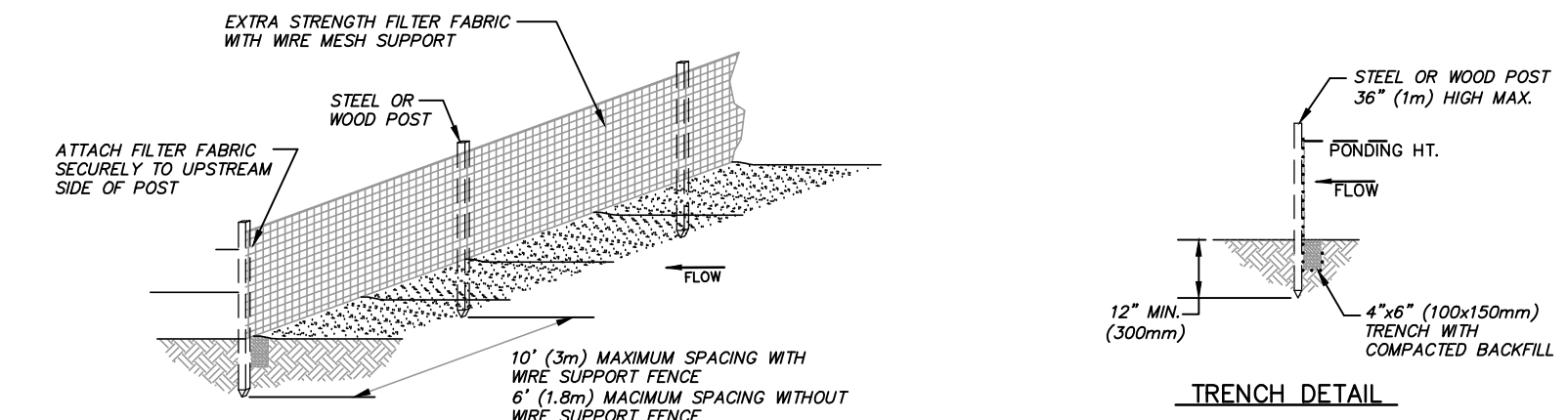


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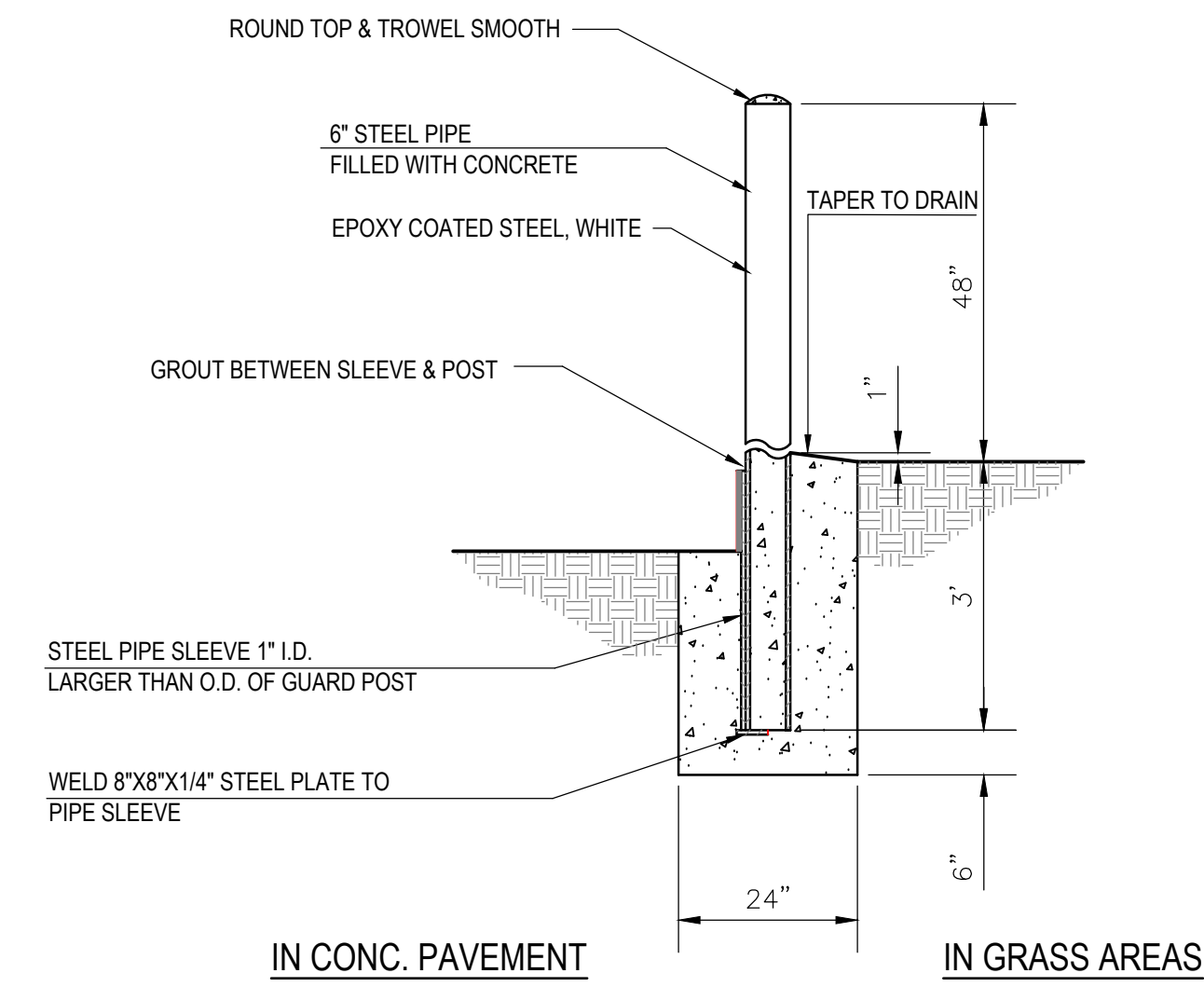
TYPICAL SECTION BENCHING DETAIL

NOT TO SCALE



TEMPORARY SILT FENCE

SCALE: NTS



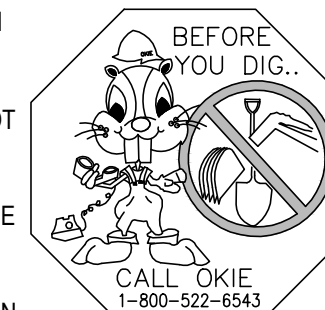
BOLLARD DETAIL

SCALE: NTS

COMPACT FILL TO 98% STANDARD PROCTOR DENSITY IN 6" DEEP HORIZONTAL LAYERS, (MAX. 9" LOOSE), BEFORE NEXT STEP ABOVE IS EXCAVATED

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REVISIONS

No.	Description	Date
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MISTY LAKE DAM IMPROVEMENTS

LOCATION: SUMMIT LAKES ADDITION, NORMAN, OK

PREPARED FOR: Summit Lakes Property Owners Association/City of Norman

DRAWING TITLE: DETAIL SHEET

Project No.	181110
Drawn By	MTM
Checked By	EOR
Date	3/01/2019
Scale	NA
Issued For	SUBMITTAL
Drawing No.	

DT-02

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REVISIONS

No.	Description	Date

KEY PLAN

SIGNATURE/SEAL



5-3-2019

PROJECT
MISTY LAKE DAM IMPROVEMENTS

LOCATION
 SUMMIT LAKES ADDITION
 NORMAN, OK

PREPARED FOR
 Summit Lakes Property Owners
 Association/City of Norman

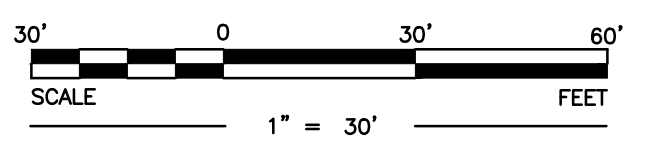
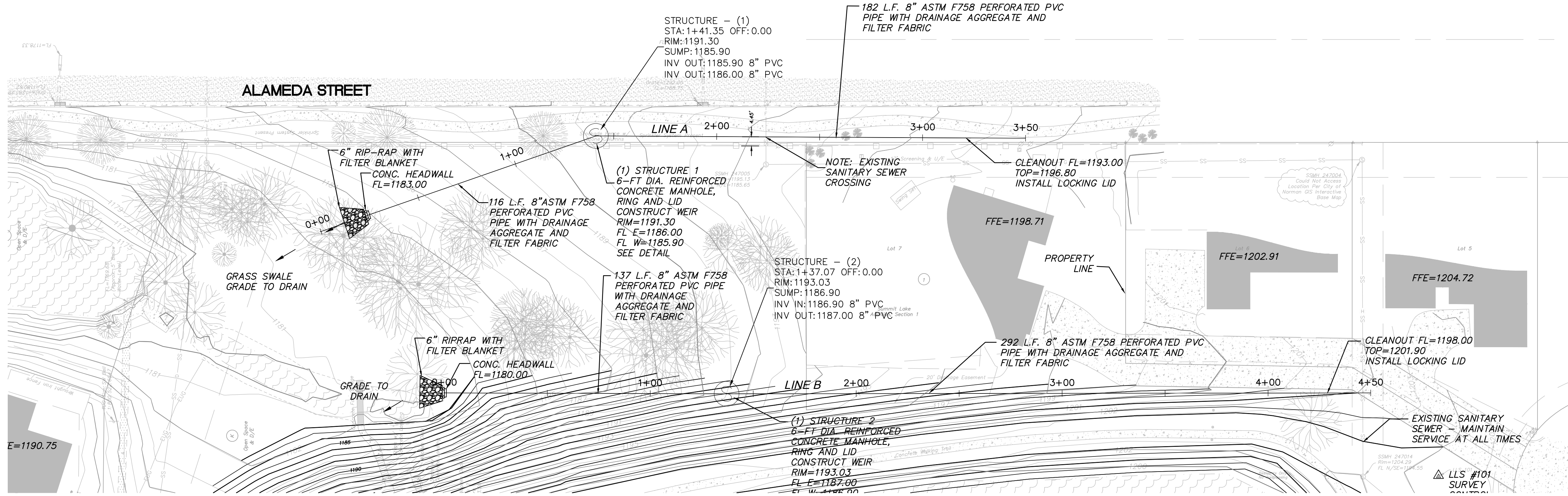
DRAIN LINE PROFILES

Project No. 181110
 Drawn By MM
 Checked By EOR
 Date 04/17/19
 Scale NTS
 Issued For APPROVAL
 Drawing No.

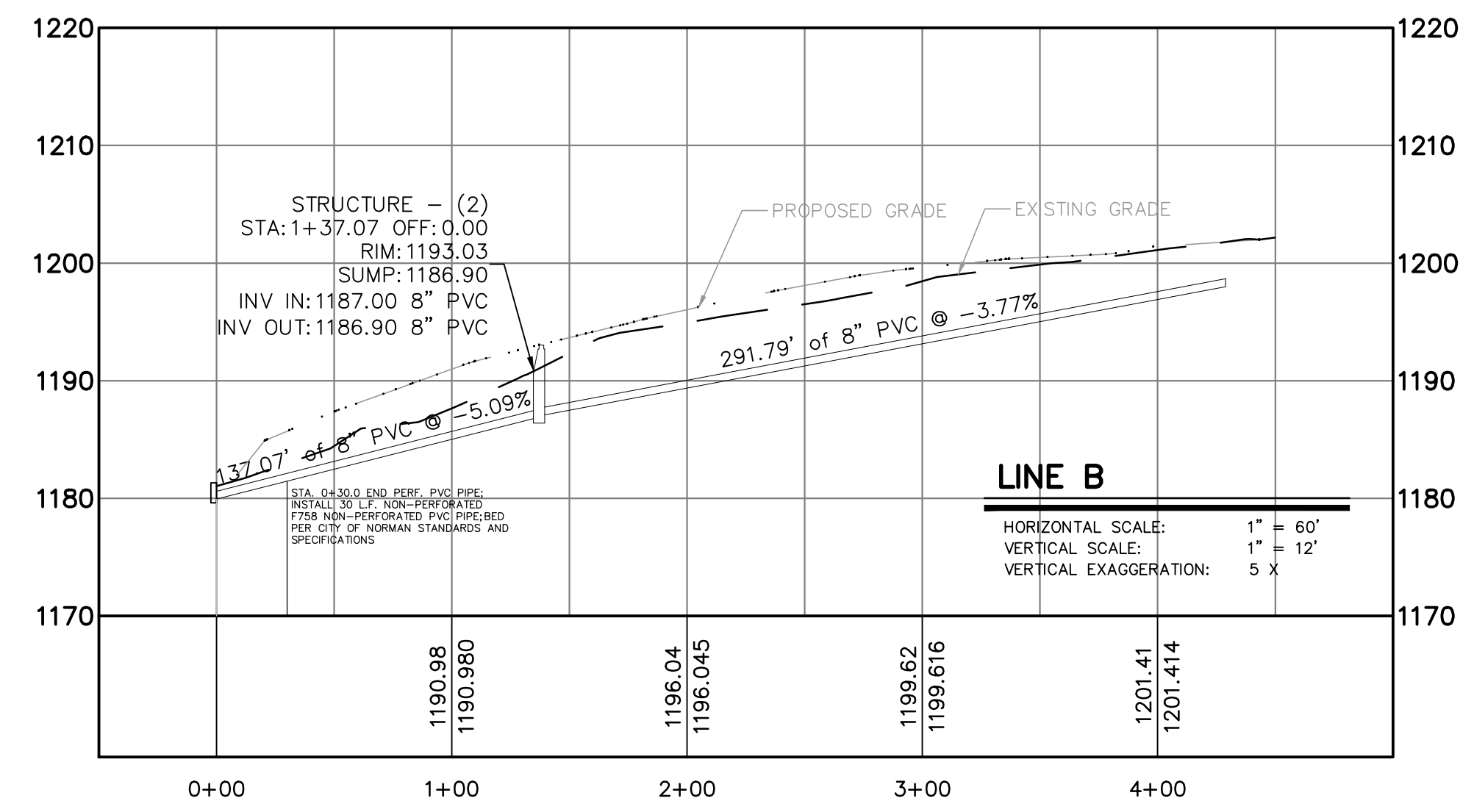
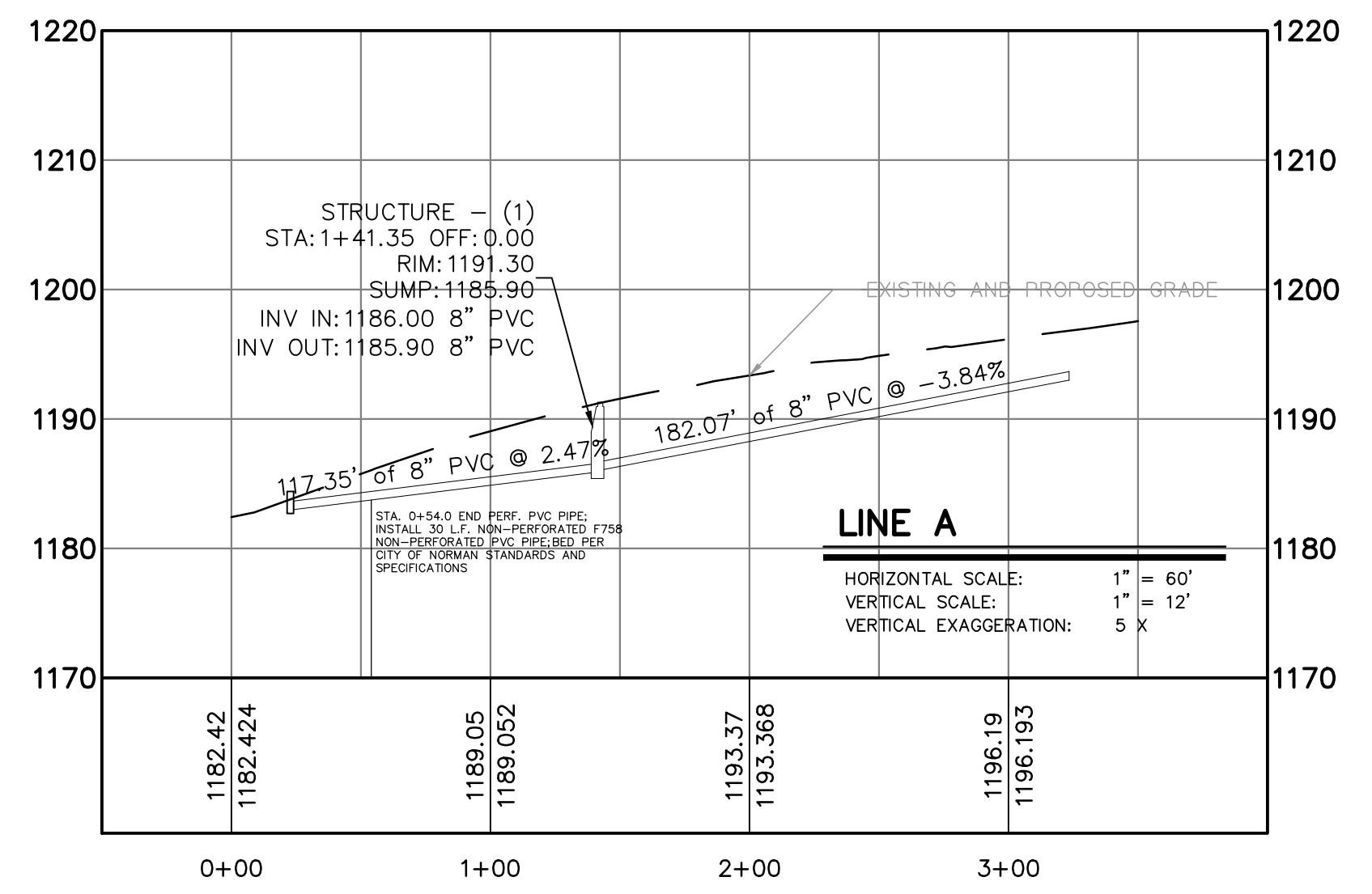
DT-03

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NOTE:
 MAINTAIN MINIMUM
 1' COVER AT HEADWALLS.



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