

GENERAL NOTES

1. THE CONTRACTOR SHALL LOCATE AND SUBMIT FOR THE COUNTY ENVIRONMENTAL INSPECTOR AND ENGINEER'S APPROVAL A STAGING AREA PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE STAGING AREA SHALL BE LOCATED WITHIN UPLAND AREAS AND SHALL NOT IMPACT WETLANDS AND/OR OTHER SURFACE WATERS. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL NECESSARY PERMITS. IF THE STAGING AREA IS OUTSIDE COUNTY'S RIGHT-OF-WAY OR PROPERTIES, THE CONTRACTOR MAY BE REQUIRED TO OBTAIN A TEMPORARY STAGING AREA PERMIT FROM THE LEON COUNTY DEVELOPMENT SUPPORT AND ENVIRONMENTAL MANAGEMENT DEPARTMENT.
2. THE EXACT LOCATION OF ALL UTILITIES IN THE VICINITY OF CONSTRUCTION ACTIVITIES SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES PRIOR TO BEGINNING OF CONSTRUCTION AND COORDINATE SCHEDULES WITH UTILITY OWNERS DURING CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE LOCATION OF EXISTING UTILITIES AND TO DETERMINE IF OTHER UTILITIES WILL BE ENCOUNTERED DURING THE COURSE OF THE WORK AND TAKE WHATEVER STEPS NECESSARY TO PROVIDE FOR THEIR PROTECTION.
3. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANIES FOR REMOVAL AND/OR RELOCATION OF EXISTING UTILITY POLES, AERIAL LINES, BURIED CABLE, AND OTHER UTILITIES THAT MAY BE IMPACTED BY THE CONSTRUCTION ACTIVITIES.
4. ADEQUATE PROVISIONS SHALL BE MADE FOR FLOW OF SEWERS, DRAINS, AND WATER COURSES IMPACTED BY CONSTRUCTION.
5. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS TO A CONDITION AS EXISTED PRIOR TO CONSTRUCTION. ALL DISTURBED AREAS SHALL BE SODDED. SOD SHALL BE INSTALLED PERPENDICULAR TO THE EXPECTED FLOW AND PINNED FOR SLOPES 3H:1V OR GREATER. SODDING ACTIVITIES SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION NO. 981 OR AS NOTED IN THESE PLANS. PIN SOD ON ALL SLOPES 3:1 OR STEEPER.
6. NO SOIL WHICH IS EXCAVATED OR BROUGHT IN AS PART OF THE WORK SHALL BE STOCKPILED WITHIN THE COUNTY EASEMENT.
7. THE CONTRACTOR IS CAUTIONED TO VISIT THE SITE AND FAMILIARIZE HIMSELF/HERSELF WITH THE PROJECT PRIOR TO BIDDING.
8. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY CONFLICTS BETWEEN CONTRACT DOCUMENTS AND EXISTING CONDITIONS.
9. THE CONTRACTOR SHALL EMPLOY THE USE OF SILT FENCES, HAY BALES, DITCHES OR OTHER MEANS NECESSARY TO CONTROL EROSION AND SEDIMENTATION AT ALL TIMES. THE LEON COUNTY ENVIRONMENTAL INSPECTOR MAY REQUIRE ADDITIONAL BEST MANAGEMENT PRACTICES, IF DEEMED NECESSARY.
10. THESE DRAWINGS REPRESENT KNOWN STRUCTURES AND UTILITIES LOCATED IN THE PROJECT AREA. THE CONTRACTOR IS CAUTIONED THAT OTHER STRUCTURES AND UTILITIES ABOVE OR BELOW GROUND MAY BE ENCOUNTERED DURING THE COURSE OF THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY UPON ENCOUNTERING ANY UNEXPECTED STRUCTURE, UTILITY LINE OR OTHER UNUSUAL CONDITION. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO COMMENCING WORK.
11. IF EXISTING UTILITY LINES ARE DISTURBED DUE TO CONSTRUCTION ACTIVITY, CONTRACTOR WILL BE RESPONSIBLE TO RELOCATE OR RECONSTRUCT AS PER UTILITY REQUIREMENTS.
12. IN CASES WHERE CONSTRUCTION IS REFERENCED BY FDOT STANDARD INDEXES, ALL CONSTRUCTION MATERIALS AND METHODS SHALL BE IN ACCORDANCE WITH FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS INDEX, 2010 EDITION. MISCELLANEOUS CONSTRUCTION NOT SPECIFICALLY DETAILED SHALL ALSO BE ACCOMPLISHED IN ACCORDANCE WITH THESE STANDARDS.
13. THE CONTRACTOR SHALL MAINTAIN A SUFFICIENT LABOR FORCE TO UNDERTAKE THE SCOPE OF WORK THAT IS TO BE PERFORMED. IF AT ANY TIME, DURING THE WORKING DAY, THE ON SITE INSPECTOR BELIEVES THAT ADEQUATE PERSONNEL ARE NOT BEING PROVIDED, THE ON SITE INSPECTOR MAY STOP WORK ACTIVITIES UNTIL THE CONTRACTOR CORRECTS THE SITUATION. THE CONTRACTOR'S SUPERINTENDENT SHALL SUPERVISE AND COORDINATE THE WORK IN PROGRESS WITH THE ON-SITE INSPECTOR.
14. LEON COUNTY SHALL RESERVE THE RIGHT TO SAMPLE ANY AND ALL MATERIALS TO DETERMINE THAT MATERIALS MEET SPECIFICATIONS. FAILURE TO MEET SPECIFICATIONS SHALL BE CAUSE FOR CANCELLATION OF DELIVERY, REJECTION OF MATERIALS PROVIDED FOR PARTIAL OR FULL PAYMENT, OR A DEDUCTION AS DETERMINED BY THE COUNTY REPRESENTATIVE. THIS DOES NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY OF PROVIDING MATERIALS THAT MEETS SPECIFICATIONS.
15. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING STREETS AND PRIVATE ENTRANCES THROUGHOUT PROJECT CONSTRUCTION.
16. THE CONTRACTOR SHALL FURNISH, ERECT, AND MAINTAIN ALL NECESSARY BARRICADES, WARNING, DANGER, DETOUR SIGNS, ADEQUATE LIGHTS, AND TAKE ALL OTHER PRECAUTIONS TO PROTECT THE WORK AND THE PUBLIC.
17. THE CONTRACTOR SHALL REMOVE ALL EQUIPMENT FROM THE ROADWAY AND THE SHOULDER DURING NON-WORKING HOURS TO ENSURE THE LEAST PRACTICABLE INTERFERENCE WITH TRAFFIC AND PEDESTRIANS.
18. WORKING HOURS WILL NORMALLY BE FROM 8:30 A.M. TO 4:30 P.M., MONDAY THROUGH FRIDAY. HOWEVER, UPON REQUEST OF THE CONTRACTOR, LEON COUNTY PUBLIC WORKS MAY CONSIDER AN ALTERNATIVE TO THESE WORKING HOURS BASED ON THE TIME OF THE YEAR, SITE, WEATHER, AND TRAFFIC CONDITIONS. CONTRACTOR IS RESPONSIBLE THAT ALL WORK SHALL COMPLY WITH THE LEON COUNTY NOISE ORDINANCE.
19. NO NIGHT WORK SHALL BE PERFORMED UNLESS ADEQUATE LIGHTING IS PROVIDED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER.
20. THE CONTRACTOR SHALL NOTIFY FELTON ARD (850-606-1500) WITH THE LEON COUNTY DEPARTMENT OF PUBLIC WORKS AT LEAST 24 HOURS PRIOR TO ANY LANE CLOSURE.
21. ANY MAINTENANCE OF TRAFFIC PLANS SHALL BE IN CONFORMANCE WITH FDOT STANDARD INDEX 603.
22. THE CONTRACTOR SHALL POST ALL APPLICABLE PERMITS ON SITE.
23. THE CONTRACTOR SHALL ENTER THE PROJECT SITE TO THE SOUTH OF THE EXISTING CHANNEL. SEE PROJECT LAYOUT SHEET.
24. **DE-WATERING:** THE CONTRACTOR SHALL PROVIDE AND OPERATE EQUIPMENT ADEQUATE TO KEEP ALL EXCAVATIONS AND TRENCHES FREE OF WATER. REMOVE ALL WATER DURING PERIODS WHEN FORMWORK IS BEING CONSTRUCTED, CONCRETE IS BEING PLACED, AND AT SUCH OTHER TIMES AS REQUIRED FOR EFFICIENT AND SAFE EXECUTION OF THE WORK. THE CONTRACTOR SHALL NOT CAUSE SETTLEMENT OR DAMAGE TO ADJACENT PROPERTY AND DISPOSE OF WATER IN A MANNER THAT WILL NOT DAMAGE ADJACENT PROPERTY. WHEN DE-WATERING OPEN EXCAVATIONS, DE-WATER OUTSIDE THE STRUCTURAL LIMITS AND FROM A POINT BELOW THE BOTTOM OF THE EXCAVATION WHEN POSSIBLE. THE DE-WATERING SYSTEM SHALL BE DESIGNED TO PREVENT REMOVAL OF FINES FROM EXISTING GROUND. DEWATERING COST SHALL BE INCLUDED AS PART OF THE MOBILIZATION COST.

THE CONTRACTOR SHALL HAVE THE DE-WATERING PLAN PRE-APPROVED BY THE LEON COUNTY ENVIRONMENTAL INSPECTOR PRIOR TO EXECUTION OF THE PLAN.
25. STORMWATER MANAGEMENT CONTROL OFFICER:
MS. BETSY THORPE, CHIEF OF CONSTRUCTION MANAGEMENT FOR LEON COUNTY PUBLIC WORKS
(850) 606-1522

COMPACTION

1. ALL BEARING SURFACES SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE SOILS STANDARD PROCTOR DRY DENSITY OR AS APPROVED BY THE ENGINEER.

DEMOLITION PLAN

1. REMOVE THE EXISTING CONCRETE DITCH TO STA. 101+26.8. THE DEMOLISHED MATERIAL SHALL BE REMOVED, TRANSPORTED, AND DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL PRACTICES AND SHALL NOT BE STORED ON SITE.
2. DURING DEMOLITION THE CONTRACTOR WILL BE REQUIRED TO PROVIDE A PROPER DEWATERING SYSTEM TO DRAIN THE EXCAVATIONS OF GROUNDWATER. THE CONTRACTOR SHOULD BE AWARE THAT GROUNDWATER WILL LIKELY BE ENCOUNTERED DURING THE EXCAVATION.
3. IF THE CONTRACTOR ENCOUNTERS A SEPTIC TANK, DRAINFIELD, OR DRAINAGE PIPE DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER.

CONCRETE DRAINAGE CHANNEL

1. THE CONCRETE DRAINAGE STRUCTURE SHALL BE CONSTRUCTED USING 3000 PSI FIBER REINFORCED CONCRETE.
2. ALL CEMENT SHALL BE CLASS I.

ENERGY DISSIPATERS

1. PRIOR TO SETUP OF THE CONCRETE DITCH PAVEMENT, A PREFORMED NO. 6 REBAR CAGE SHALL BE CONSTRUCTED AND PLACED AT THE LOCATIONS OF THE ENERGY DISSIPATERS.
2. AFTER A MINIMUM PERIOD OF 24-HOURS, THE CMU BLOCK ENERGY DISSIPATERS SHALL BE PLACED OVER THE REBAR CAGE SECTIONS. THE OPEN CMU BLOCK CELLS SHALL BE SEALED USING A NON-EXPANSIVE CEMENTIOUS GROUT.
3. THE INTERFACE BETWEEN THE BOTTOM OF THE CMU BLOCK ENERGY DISSIPATER AND THE CONCRETE DITCH SECTION SHALL BE SEALED USING A HIGH STRENGTH EXPANSIVE EPOXY GROUT.

UNDERDRAINS

1. ALL UNDERDRAINS SHALL BE LINED USING TYPE D-2 WOVEN GEOTEXTILE AS DEFINED IN FDOT STANDARD INDEX 199 AS SHOWN ON THE DETAILS SHEET.
2. THE FABRIC SHALL BE PLACED IN A DRY EXCAVATION BOTTOM FREE OF DEBRIS AND OTHER DELETERIOUS MATERIALS. ANY MATERIALS THAT COULD PUNCTURE THE FABRIC SHALL BE REMOVED PRIOR TO THE PLACEMENT. THE FABRIC SHALL BE ROLLED OUT PARALLEL WITH THE EXCAVATION. WHERE THE FABRIC IS TO BE CUT, THE FABRIC INTERSECTIONS SHALL HAVE A MINIMUM 12" OVERLAP.
3. AFTER THE FABRIC IS PLACED, A 12" LIFT OF BEDDING MATERIAL SHALL BE PLACED. THE BEDDING MATERIAL SHALL CONSIST OF #57 STONE OR APPROVED EQUIVALENT BY THE LEON COUNTY PROJECT ENGINEER. THE MATERIAL PROPERTIES SHALL BE IN CONFORMANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
4. A SLOTTED DUAL WALL DRAIN PIPE WITH THE FOLLOWING PROPERTIES SHALL BE USED:
 - MAXIMUM SLOT LENGTH = 0.875 INCH;
 - MINIMUM SLOT LENGTH = 0.187 INCH; AND,
 - 50-YEAR COMPRESSIVE STRENGTH = 900 PSI.

THE PIPE SHALL BE AN ADS DRAIN PIPE OR APPROVED EQUIVALENT BY THE ENGINEER.
5. THE PIPE FITTINGS SHALL BE IN CONFORMANCE WITH THE CONTRACT DOCUMENTS.
6. AFTER THE PIPE AND FITTINGS HAVE BEEN PLACED, THE REMAINING EXCAVATION SHALL BE FILLED USING #57 STONE.
7. TO PREVENT DAMAGE OR CLOGGING, NO COMPACTION SHOULD BE APPLIED TO THE TOP OF THE UNDERDRAIN.

UNDERDRAIN CLEANOUT

1. UNDER DRAIN CLEANOUT PLUGS SHALL BE INSTALLED AT STA 101+21 EVEN WITH THE BOTTOM OF THE DRAINAGE CHANNEL AS SHOWN IN THE DETAILS SHEET.

RETAINING WALL SYSTEM

1. THE RETAINING WALL SHALL BE A MIRAMESH WALL OR EQUIVALENT.
2. THE WALL SHALL BE CONSTRUCTED IN CONFORMANCE WITH WALL SUPPLIERS SPECIFICATIONS.

RIPRAP

1. PRIOR TO THE PLACEMENT OF RIPRAP, TYPE D-2 WOVEN GEOTEXTILE AS DEFINED IN FDOT STANDARD INDEX 199 SHALL BE PLACED AS SHOWN ON THE DETAILS SHEET.
2. RIPRAP SHALL BE FDOT RUBBLE (DITCH LINING) AS DESCRIBED IN SECTION 530-2.2.2 IN FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
3. RIPRAP WILL MATCH EXISTING GRADE TO THE FILL SOILS BEHIND MIRAMESH WALL SYSTEM.

FILL SOILS

1. ALL FILL SOILS SHALL BE A-3 OR A-2.4.

SOD

1. THE CONTRACTOR SHALL USE ST AUGUSTINE SOD.

REVISIONS						SEAL:	Environmental & Geotechnical Speciallsts, Inc.  104 NORTH MAGNOLIA DRIVE TALLAHASSEE, FLORIDA 32301 OFFICE: (850) 386-1253 FAX: (850) 385-8050 Cert. of Auth.: 6222	LEON COUNTY DEPARTMENT OF PUBLIC WORKS PROJECT TITLE LANIER STREET DRAINAGE MAINTENANCE	GENERAL NOTES AND QUANTITIES (1 OF 2)	SHEET NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION					2 OF 22
						M. HAYDEN, P.E.				
						P.E. NO.: 34067				

SPILL CONTROL PRACTICES

THE CONTRACTOR IS RESPONSIBLE TO FOLLOW THE FOLLOWING PRACTICES FOR SPILL PREVENTION AND CLEANUP AT CONTRACTOR'S EXPENSES.

1. MANUFACTURERS' RECOMMENDED METHODS FOR SPILL CLEANUP WILL BE CLEARLY POSTED AND SITE PERSONNEL WILL BE MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION CLEANUP SUPPLIES.
2. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
3. PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
4. SPILLS OF TOXIC OR HAZARDOUS MATERIAL WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF THE SIZE.
5. THE SPILL PREVENTION PLAN WILL BE PREPARED BY THE CONTRACTOR AND KEPT IN THE POSSESSION OF THE SITE SUPERINTENDENT ONSITE AT ALL TIMES. THIS PLAN WILL INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE ARE OTHERS. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED. ALL SPILLS AND RESPONSES WILL BE REPORTED TO THE LEON COUNTY INSPECTOR IMMEDIATELY.
6. THE SITE SUPERINTENDENT WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. HE MAY DESIGNATE OTHER SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE STAGING AREA AND KEPT WITH THE SITE SUPERINTENDENT ONSITE AT ALL TIMES.
7. USE AND CHARACTERISTICS OF FUEL OR CHEMICAL STORAGE TANK ON SITE SHALL COMPLY WITH ALL RELATED FEDERAL, STATE, AND LOCAL REGULATIONS. STORAGE TANKS MUST BE LOCATED AS FAR AS POSSIBLE FROM ANY DRAINAGE STRUCTURES, DITCHES, AND/OR SURFACE WATERS. IN ADDITION, THE CONTRACTOR MUST PROVIDE A SECONDARY CONTAINMENT WITH A LINER CHEMICALLY RESISTANT TO THE FUEL OR CHEMICAL STORED ON SITE. THE SECONDARY CONTAINMENT MUST BE SIZED TO CONTAIN MINIMUM OF ONE AND A HALF TIMES THE TOTAL CAPACITY OF STORAGE TANK BEING USED. CONTRACTOR HAS TO PROVIDE A DAILY INSPECTION LOG FOR THE SECONDARY CONTAINMENT WITH INDICATION OF DATE, INSPECTORS NAME AND INSPECTION REPORT. FURTHERMORE, ANY CONTAMINATION HAS TO BE IMMEDIATELY CONTAINED AND THE COUNTY INSPECTOR MUST BE NOTIFIED OF THE NATURE AND EXTEND OF THE CONTAMINATION.

CONSTRUCTION SEQUENCE

1. CONSTRUCTION SHALL NOT COMMENCE PRIOR TO LEON COUNTY DEPARTMENT OF PUBLIC WORKS ISSUING A NOTICE TO PROCEED.
2. THE CONTRACTOR SHALL SUBMIT TO LEON COUNTY FOR APPROVAL ANY CHANGES TO THE CONSTRUCTION SEQUENCE AS PRESENTED HERE.
3. THE CONTRACTOR SHALL REQUEST AN ON-SITE PRE-CONSTRUCTION CONFERENCE WITH LEON COUNTY ENVIRONMENTAL COMPLIANCE DIVISION PRIOR TO ANY CONSTRUCTION ACTIVITY.
4. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL ABOVE GROUND AND UNDERGROUND UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION. CALL SUNSHINE LOCATE AT 1-800-432-4770 OR 811 TO CONFIRM UNDERGROUND UTILITY LINES 48 HOURS BEFORE DIGGING. THE CONTRACTOR SHALL SUBMIT TO LEON COUNTY NOTICE OF CONSTRUCTION COMMENCEMENT.
5. THE CONTRACTOR SHALL CONSTRUCT PERIMETER SEDIMENTATION/EROSION CONTROLS AND CLEARLY "FLAG" THE LIMITS OF CONSTRUCTION. CONSTRUCTION ACTIVITY SHALL NOT COMMENCE UNTIL THE SEDIMENT CONTROLS HAVE BEEN APPROVED BY THE LEON COUNTY ENVIRONMENTAL INSPECTOR.
6. THE CONTRACTOR SHALL PERFORM NECESSARY TREE REMOVAL AND CLEARING/GRUBBING.
7. THE CONTRACTOR SHALL CONSTRUCT THE ACCESS ROAD.
8. THE SPECIALTY GEOTECHNICAL CONTRACTOR SHALL PERFORM THE COMPACTION GROUTING AS SPECIFIED THE THE TECHNICAL SPECIAL PROVISION PROVIDED WITH THE CONTRACT DOCUMENTS.
9. THE CONTRACTOR SHALL PERFORM EXCAVATIONS SHOWN FOR REMOVAL OF LOOSE SOILS AND PLACE FILL.
10. THE CONTRACTOR SHALL PLACE FLOWABLE FILL WHERE SPECIFIED TO FILL IN EXISTING DRAINAGE CHANNEL.
11. THE CONTRACTOR SHALL MAKE 5 PASSES WITH EXCAVATOR ALONG THE PROPOSED BASE OF THE RETAINING WALL TO COMPACT LOOSE SOILS.
12. THE CONTRACTOR SHALL CONSTRUCT THE RETAINING WALL SYSTEM.
13. THE CONTRACTOR SHALL SAW CUT THE EXISTING CONCRETE DRAINAGE CHANNEL AS SHOWN ON THE PLANS.
14. THE CONTRACTOR SHALL PERFORM DEMOLITION.
15. THE CONTRACTOR SHALL CONSTRUCT THE UNDERDRAIN LOCATED BELOW THE BOTTOM OF THE DRAINAGE CHANNEL.
16. THE CONTRACTOR SHALL INSTALL THE ENERGY DISSIPATERS.
17. THE CONTRACTOR SHALL CONSTRUCT THE CONCRETE DRAINAGE CHANNEL.
18. THE CONTRACTOR SHALL PLACE FILL AND GRADE ACCORDING TO THE DRAINAGE MAINTENANCE PLAN SHEET.
19. THE CONTRACTOR SHALL PLACE THE BIODEGRADABLE EROSION MAT AS SHOWN ON SHEET 20.
20. THE CONTRACTOR SHALL PLANT VEGETATION AS SHOWN ON SHEET 20.
21. THE CONTRACTOR SHALL HYDROSEED THE BIODEGRADABLE EROSION MAT.
22. THE CONTRACTOR SHALL CLEAN UP THE JOB SITE AND DEMOBILIZE CONSTRUCTION EQUIPMENT.
23. THE LEON COUNTY DEPARTMENT OF PUBLIC WORKS SHALL BE RESPONSIBLE FOR CONSTRUCTION INSPECTION AND SHALL SUBMIT AN AS-BUILT SURVEY AND AN ENGINEERING COMPLIANCE LETTER TO LEON COUNTY DEVELOPMENT SUPPORT AND ENVIRONMENTAL MANAGEMENT FOR REVIEW AT LEAST 20 DAYS PRIOR TO A FINAL INSPECTION.

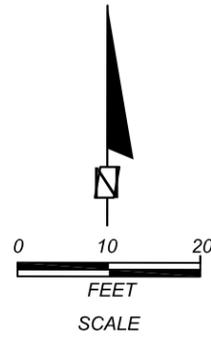
CORRECTIVE ACTIONS FOR OCCURENCE OF STRUCTURAL FAILURE (SINK FEATURE)

1. IF DURING CONSTRUCTION OR OPERATION OF THE STORMWATER MANAGEMENT SYSTEM, A STRUCTURAL FAILURE IS OBSERVED THAT HAS THE POTENTIAL TO CAUSE THE DIRECT DISCHARGE OF SURFACE WATER TO THE FLORIDAN AQUIFER SYSTEM, ALL CONSTRUCTION ACTIVITIES SHALL STOP IMMEDIATELY AND CORRECTIVE ACTIONS APPROVED BY THE ENGINEER SHALL BE TAKEN AS SOON AS PRACTICAL TO CORRECT THE FAILURE. A REPORT PREPARED BY A REGISTERED PROFESSIONAL MUST BE PROVIDED AS SOON AS PRACTICAL TO THE NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT (NWFWM) FOR REVIEW AND APPROVAL THAT PROVIDES REASONABLE ASSURANCE THAT THE BREACH WILL BE PERMANENTLY CORRECTED. CONSTRUCTION ACTIVITY SHALL NOT RESUME UNTIL NOTIFIED BY NWFWM TO DO SO.

ITEM NUMBER	ITEM DESCRIPTION	UNIT	ESTIMATED QUANTITY
	MOBILIZATION	LUMP SUM	1
102-1	MAINTENANCE OF TRAFFIC	DA	40
110-2-1	*CLEARING AND GRUBBING	LUMP SUM	1
	**SOIL REMOVAL FROM SITE	CY	110
514-71-1	TYPE D-2 FILTER FABRIC	SY	130
530-74	NO. 57 STONE	CY	20
524	FIBER REINFORCED CONCRETE PAV (CONSTRUCTED USING 3000 PSI)	CY	25
415-1-6	NO 6 STEEL REINFORCEMENT	LB	76
	CMU BLOCKS	EACH	15
	4" DUAL WALL SLOTTED PIPE	LF	120
	4" FLEXIBLE PIPE	LF	12
	4" FERNCO COUPLER	EACH	8
	4" ADS 90 DEGREE ELBOW	EACH	2
	4" ADS CLEANOUT PLUG	EACH	2
173-71-1	PRESSURE GROUT	CY	20
173-76	GROUT PIPE INSTALLATION	LF	224
121-70	FLOWABLE FILL	CY	3
	***RETAINING WALL SYSTEM	FACE FT	250
120-6	FILL SOILS	CY	200
530-3-4	RUBBLE (DITCH LINING)	TN	56
	SOD / HYDROSEEDING	LUMP SUM	1
	TREE PROTECTION BARRICADE	LF	225
	HOG WIRE / WIRE FENCING	LF	225
	FDOT TYPE IV FILTER FABRIC	SY	125
104-10-3	SYNTHETIC BALES	LF	225
	18" CORRUGATED METAL PIPE	LF	14
	****BIODEGRADABLE EROSION MAT	SY	200

*CLEARING AND GRUBING CONSIST OF SITE PREPARATION, CONCRETE DEMOLITION AND TREE REMOVAL
 **AS IDENTIFIED ON THE CONSTRUCTION PLANS
 ***RETAINING WALL SHALL BE CONSTRUCTED IN CONFORMANCE WITH WALL SUPPLIERS SPECIFICATIONS.
 ****MAT SHALL BE LANDLOK CS2 BY PROPEX OR EQUIVALENT.

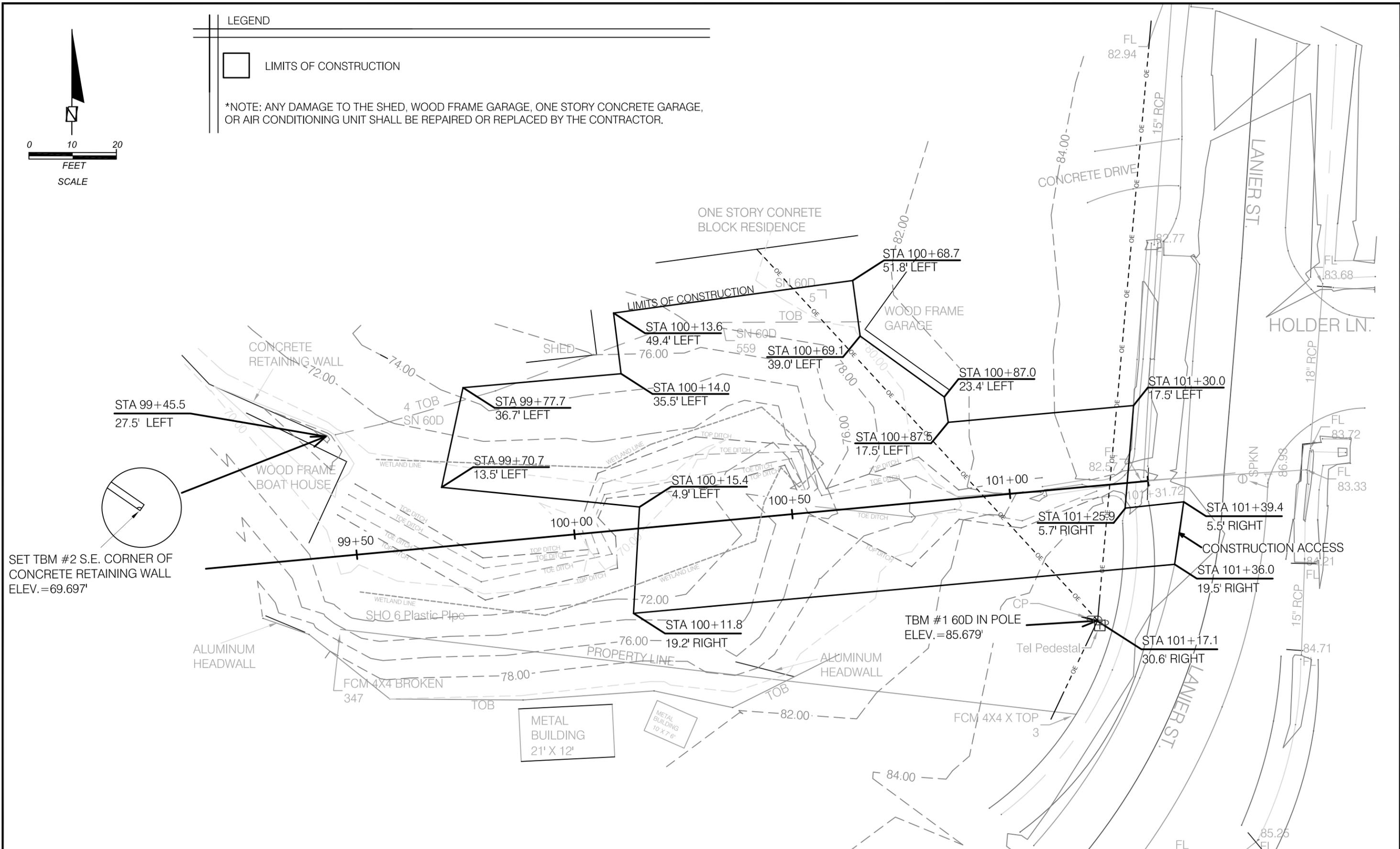
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LEGEND

□ LIMITS OF CONSTRUCTION

*NOTE: ANY DAMAGE TO THE SHED, WOOD FRAME GARAGE, ONE STORY CONCRETE GARAGE, OR AIR CONDITIONING UNIT SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR.



SET TBM #2 S.E. CORNER OF CONCRETE RETAINING WALL ELEV.=69.697'

TBM #1 60D IN POLE ELEV.=85.679'

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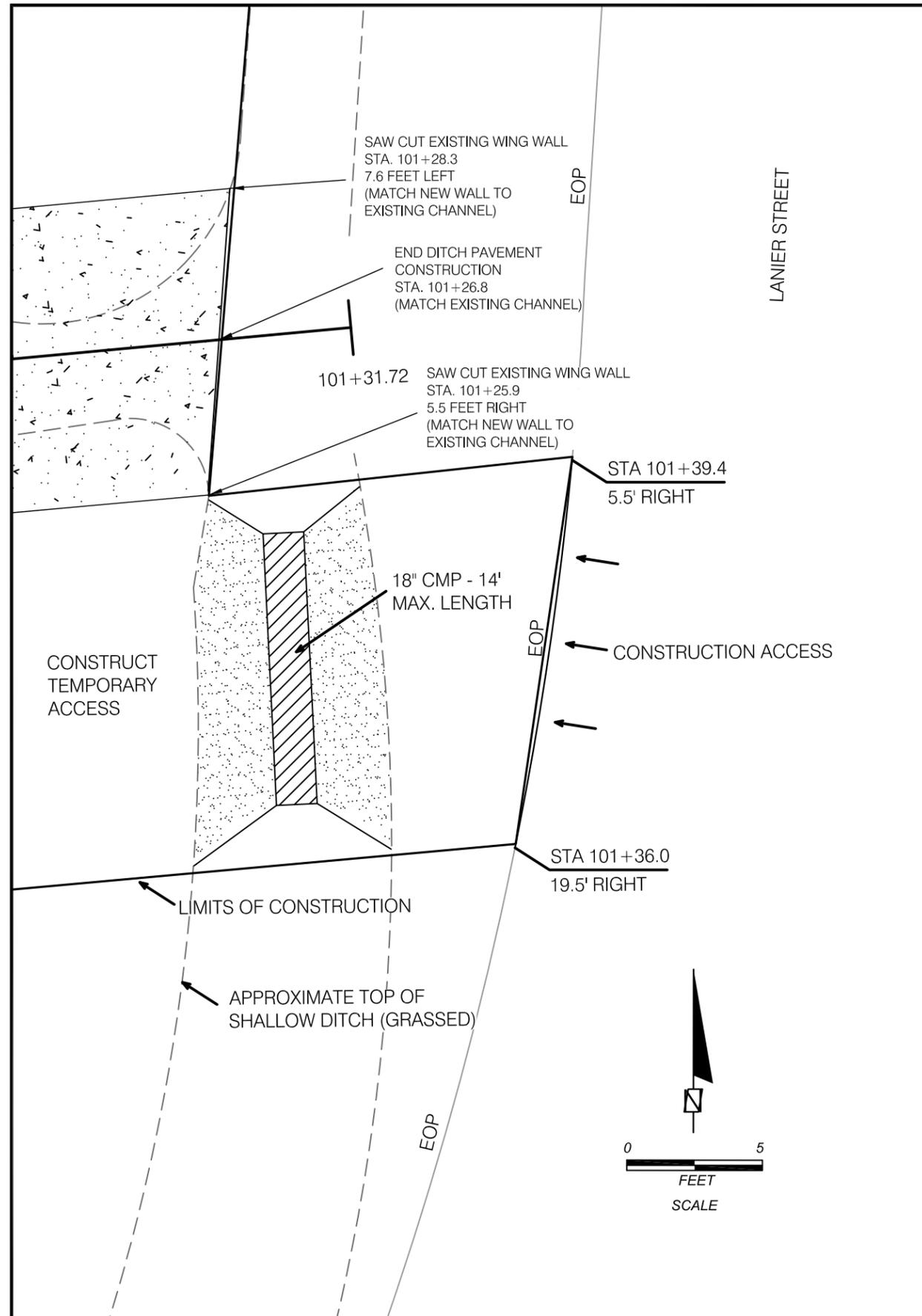
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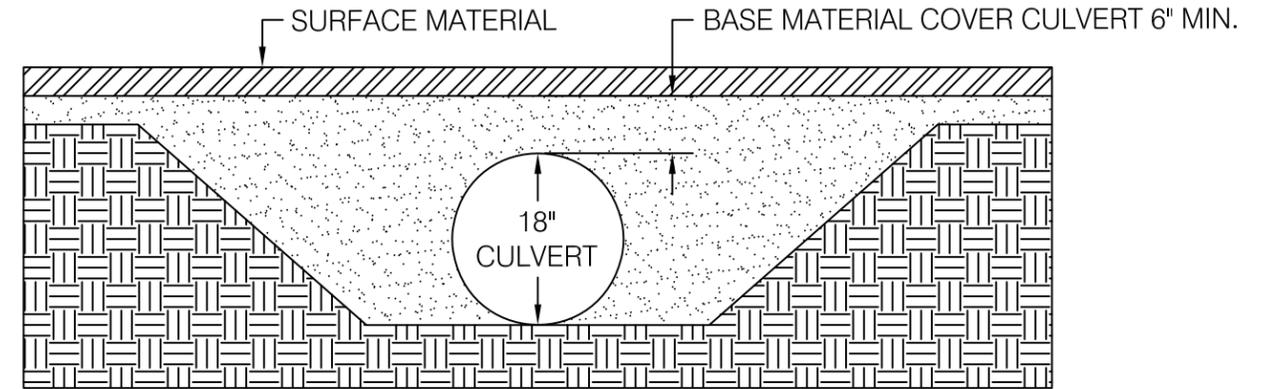
LEON COUNTY
DEPARTMENT OF PUBLIC WORKS
PROJECT TITLE
LANIER STREET
DRAINAGE MAINTENANCE

PROJECT LAYOUT

SHEET NO.
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TEMPORARY ACCESS TYPICAL SECTION (N.T.S.)



NOTES

1. IT IS THE CONTRACTORS RESPONSIBILITY TO CONSTRUCT TEMPORARY ACCESS PRIOR TO COMMENCEMENT OF ADDITIONAL CONSTRUCTION ACTIVITIES.
2. CULVERT SHALL BE 18" CORRUGATED METAL PIPE (CMP). BASE MATERIAL AND SURFACE MATERIAL ARE AT THE CONTRACTORS DISCRETION. SELECTED MATERIALS SHOULD BE SUFFICIENT TO HANDLE ANTICIPATED LOADS AND THE CONTRACTOR SHALL ASSUME RESPONSIBILITY OF DAMAGES AS A RESULT OF TEMPORARY ACCESS FAILURE.
3. CULVERT SHOULD BE MAINTAINED THROUGHOUT THE PROJECT TO ALLOW FLOW AT ALL TIMES.
4. WIDTH OF THE TEMPORARY ACCESS SHOULD BE WIDE ENOUGH TO ACCOMMODATE ALL ANTICIPATED EQUIPMENT AND MACHINERY NEEDED FOR CONSTRUCTION (14' MAX.)
5. TEMPORARY ACCESS TO BE REMOVED UPON COMPLETION OF CONSTRUCTION ACTIVITIES, GRADES RETURNED TO ORIGINAL CONTOURS, AND IMPACT AREAS SODDED.

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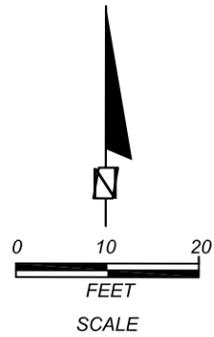
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LEON COUNTY
DEPARTMENT OF PUBLIC WORKS
PROJECT TITLE
LANIER STREET
DRAINAGE MAINTENANCE

**TEMPORARY ACCESS
PLAN & DETAIL**

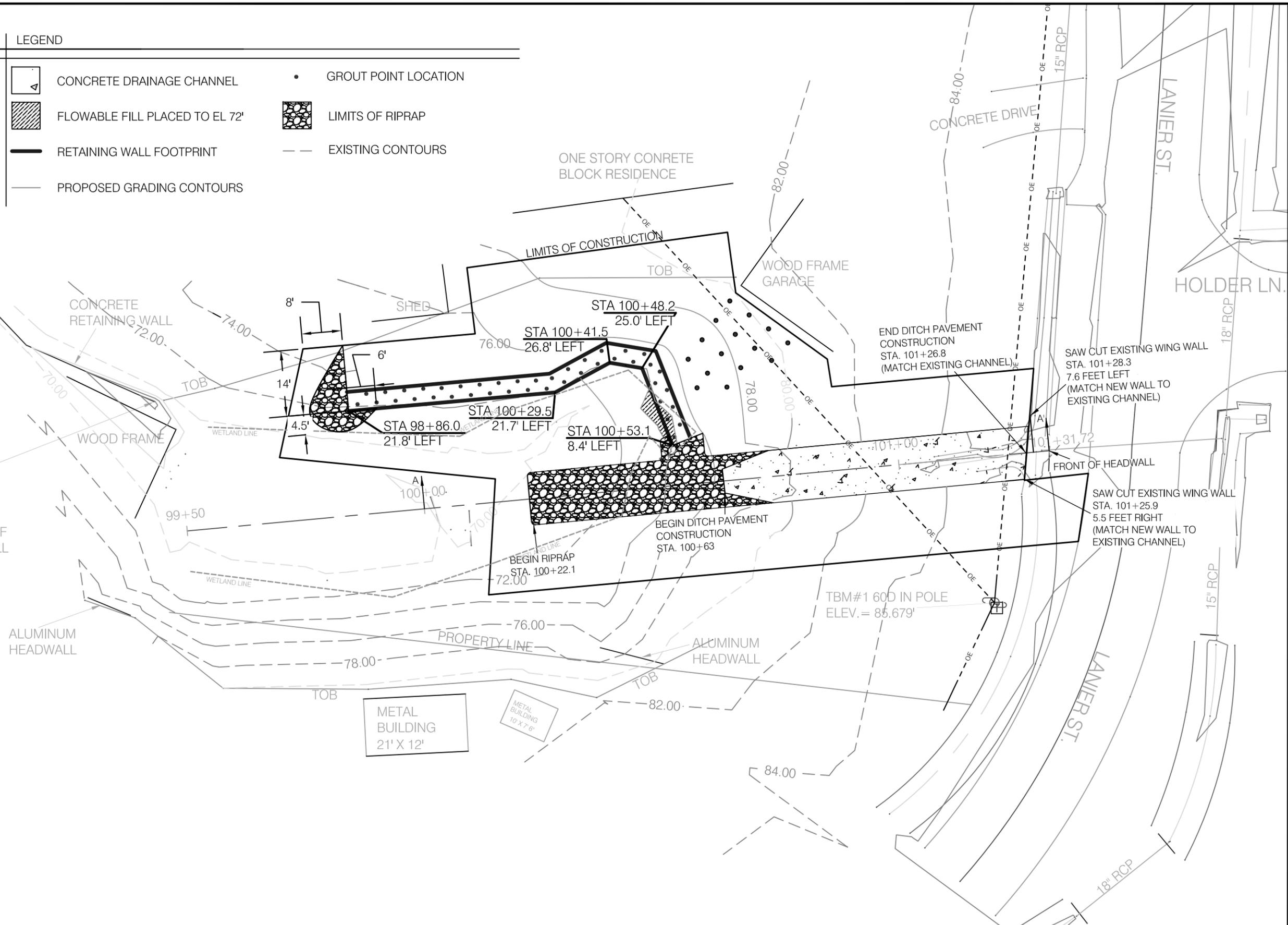
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LEGEND

- CONCRETE DRAINAGE CHANNEL
- FLOWABLE FILL PLACED TO EL 72'
- RETAINING WALL FOOTPRINT
- PROPOSED GRADING CONTOURS
- GROUT POINT LOCATION
- LIMITS OF RIPRAP
- EXISTING CONTOURS

SET TBM#2 S.E. CORNER OF CONCRETE RETAINING WALL ELEV. = 69.697'



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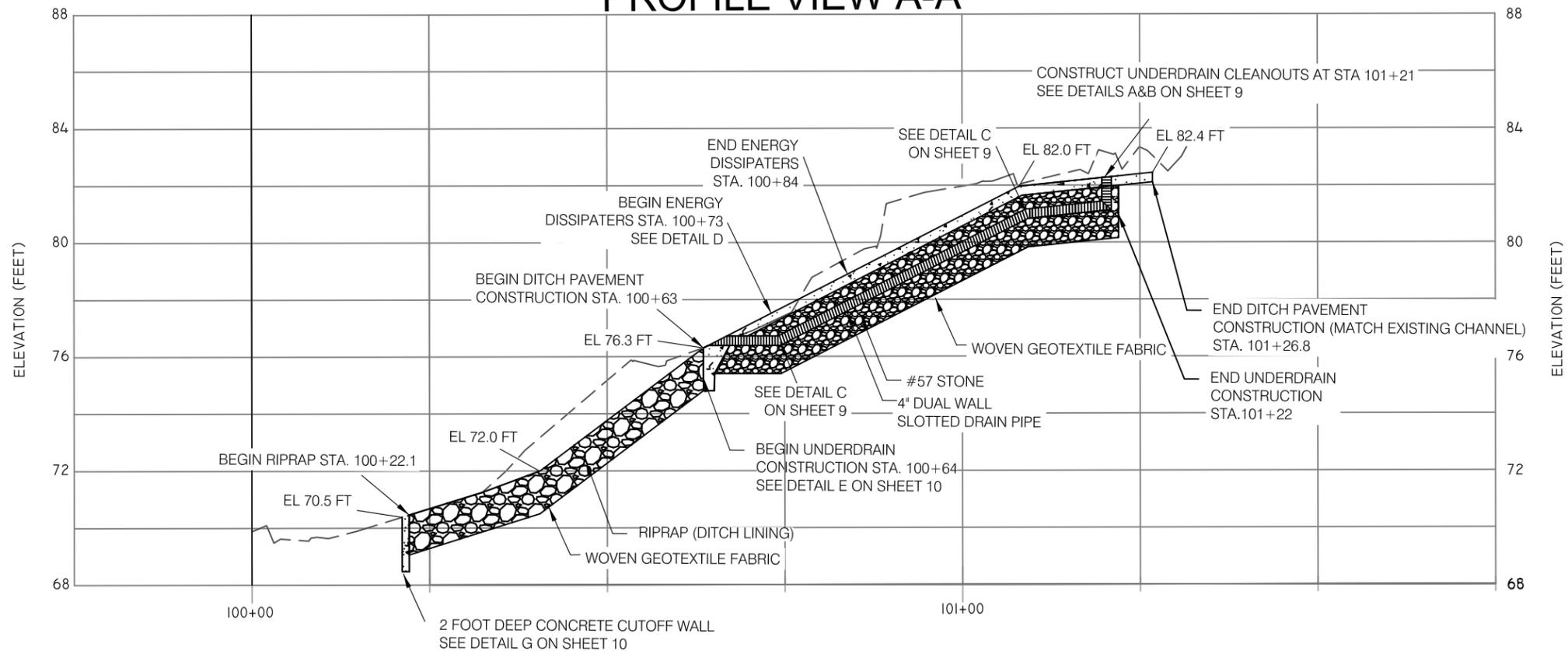
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DEPARTMENT OF PUBLIC WORKS
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LANIER STREET
DRAINAGE MAINTENANCE

DRAINAGE MAINTENANCE PLAN

SHEET NO.
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PROFILE VIEW A-A'



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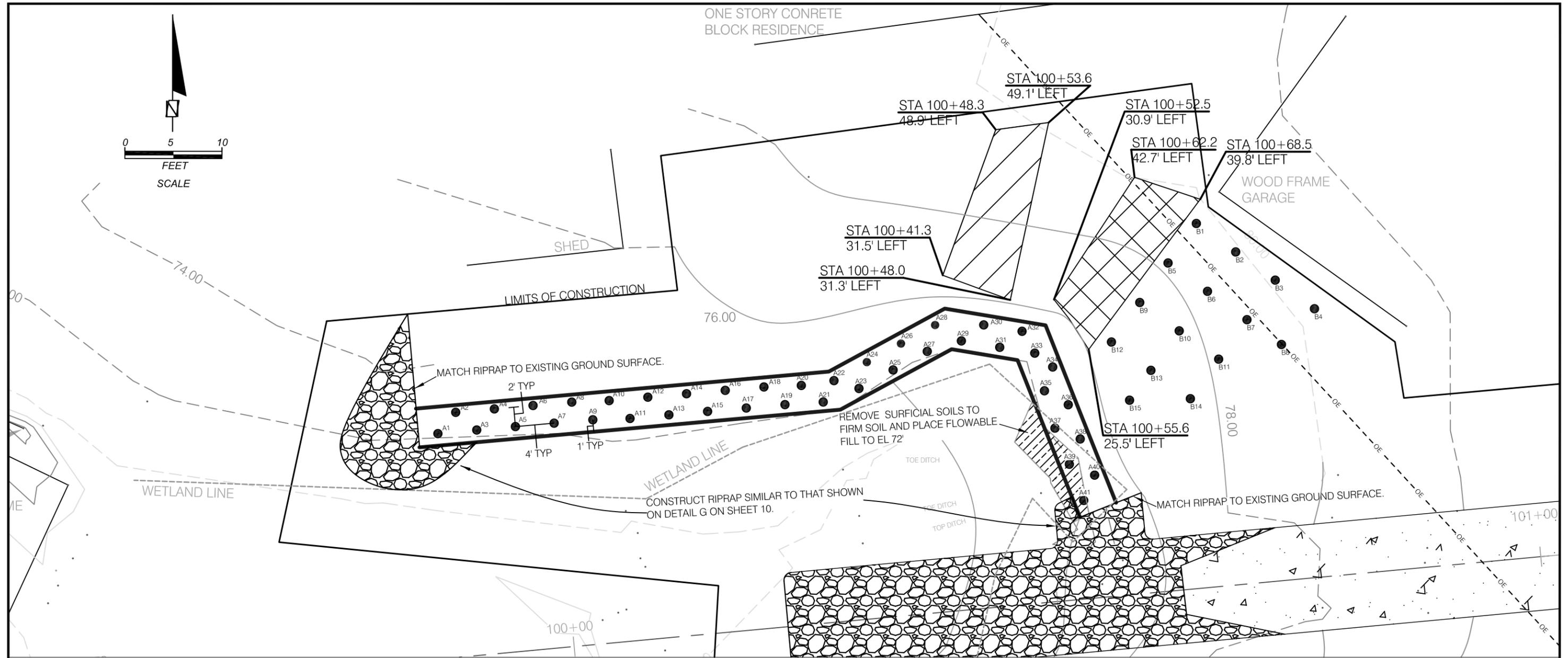
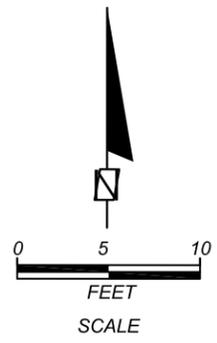
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LEON COUNTY
DEPARTMENT OF PUBLIC WORKS
PROJECT TITLE
LANIER STREET
DRAINAGE MAINTENANCE

DRAINAGE MAINTENANCE PROFILE

SHEET NO.
7 OF 22



CONSTRUCTION NOTES

1. INJECT HIGHLY MOBILE IMPERMEABLE COMPACTION GROUT UNDER PRESSURE THROUGH THE GROUT PIPES;
2. INJECTION OF GROUT SHALL BE CONDUCTED UNTIL THE VOIDS ARE FILLED OR THE FOLLOWING CUTOFF PARAMETERS ARE ACHIEVED:
 MAXIMUM PUMP PRESSURE OF 50 PSI IS OBSERVED ON THE PRESSURE GAUGE;
 MAXIMUM GROUND HEAVE OF 1/2-INCH IS MEASURED DURING INJECTION;
3. EXCAVATED SOILS WILL CONSIST OF LOOSE ORGANIC DEBRIS.

LEGEND

- GROUT INJECTION POINT
- ▣ LIMITS OF 1 FOOT EXCAVATION AND BACKFILL
- ▨ RIPRAP (DITCH LINING)
- ▧ LIMITS OF 3 FEET EXCAVATION AND BACKFILL
- LIMITS OF CONSTRUCTION
- ▩ APPROXIMATE LIMITS OF FLOWABLE FILL
- FOOTPRINT OF RETAINING WALL
- - - EXISTING CONTOURS
- PROPOSED GRADING CONTOURS

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

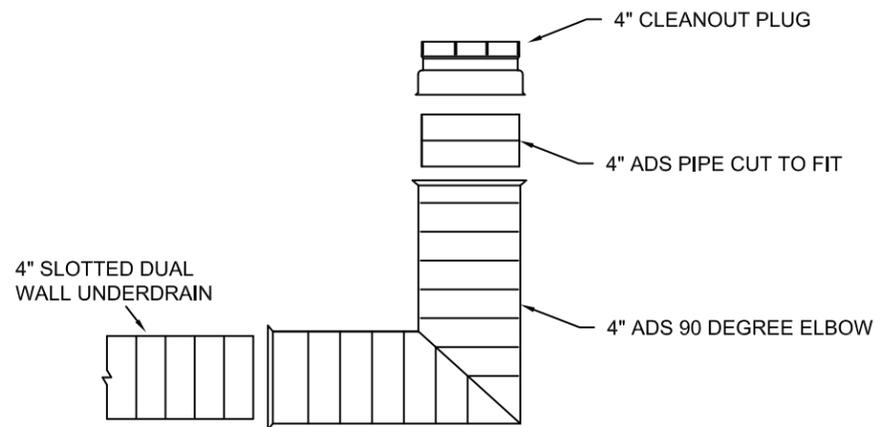
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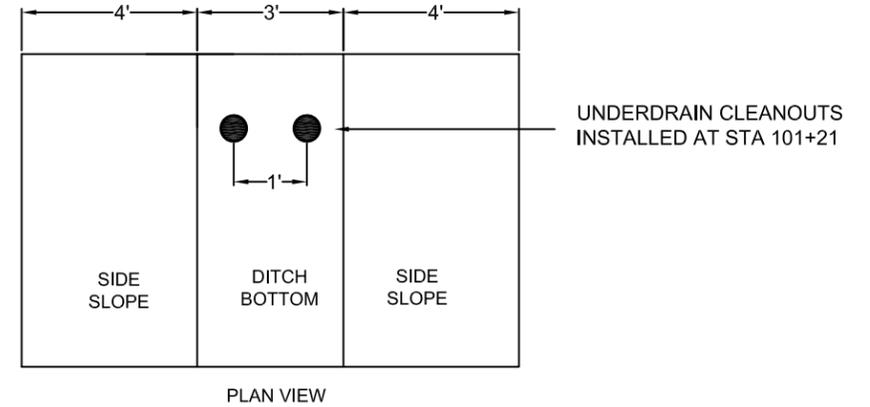
LEON COUNTY
 DEPARTMENT OF PUBLIC WORKS
 PROJECT TITLE
 LANIER STREET
 DRAINAGE MAINTENANCE

**SOFT SOIL REMOVAL AND
 GROUTING SEQUENCE**

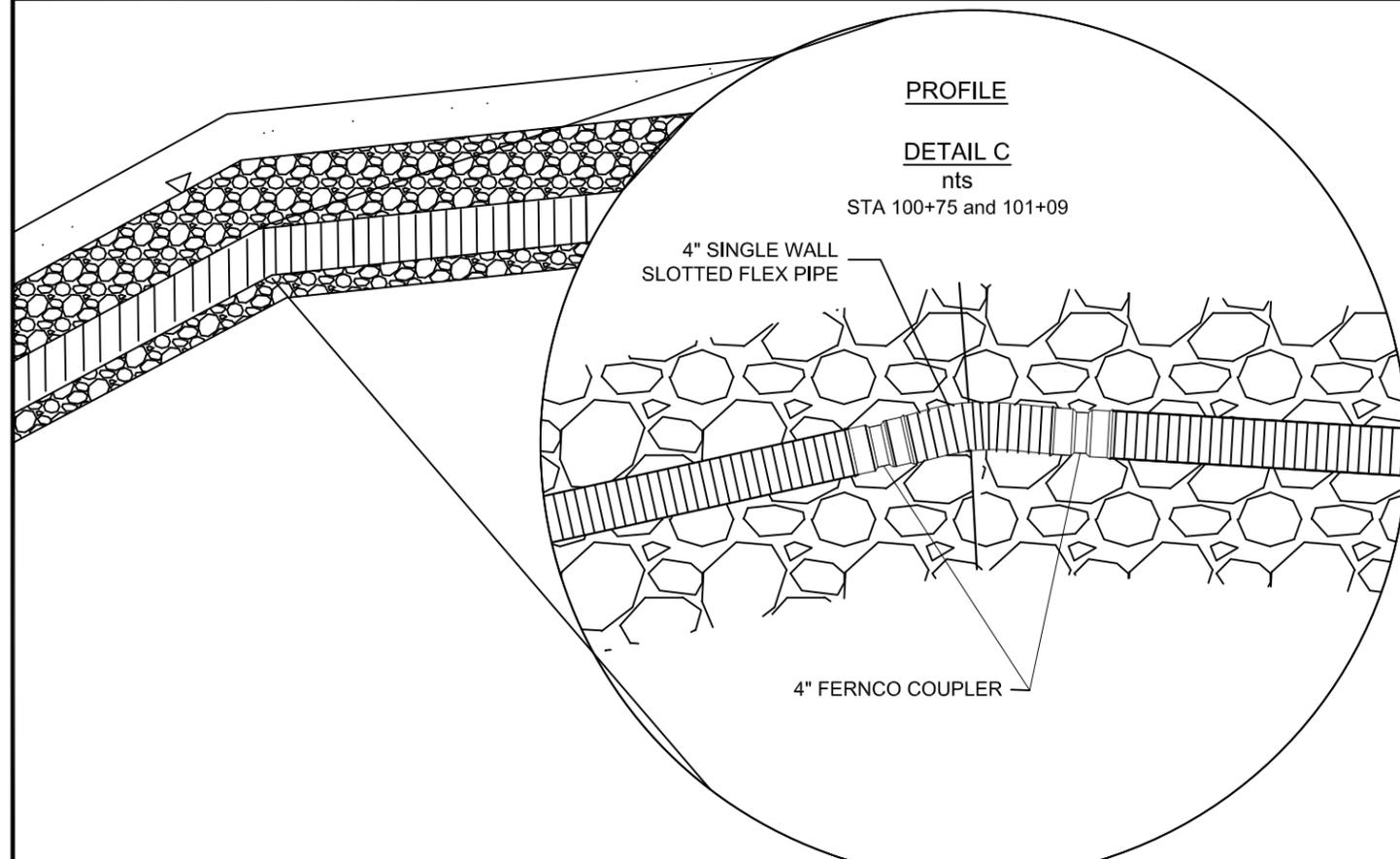
SHEET
 NO.
 8 OF 22



DETAIL A: UNDERDRAIN CLEANOUT DETAIL
NTS



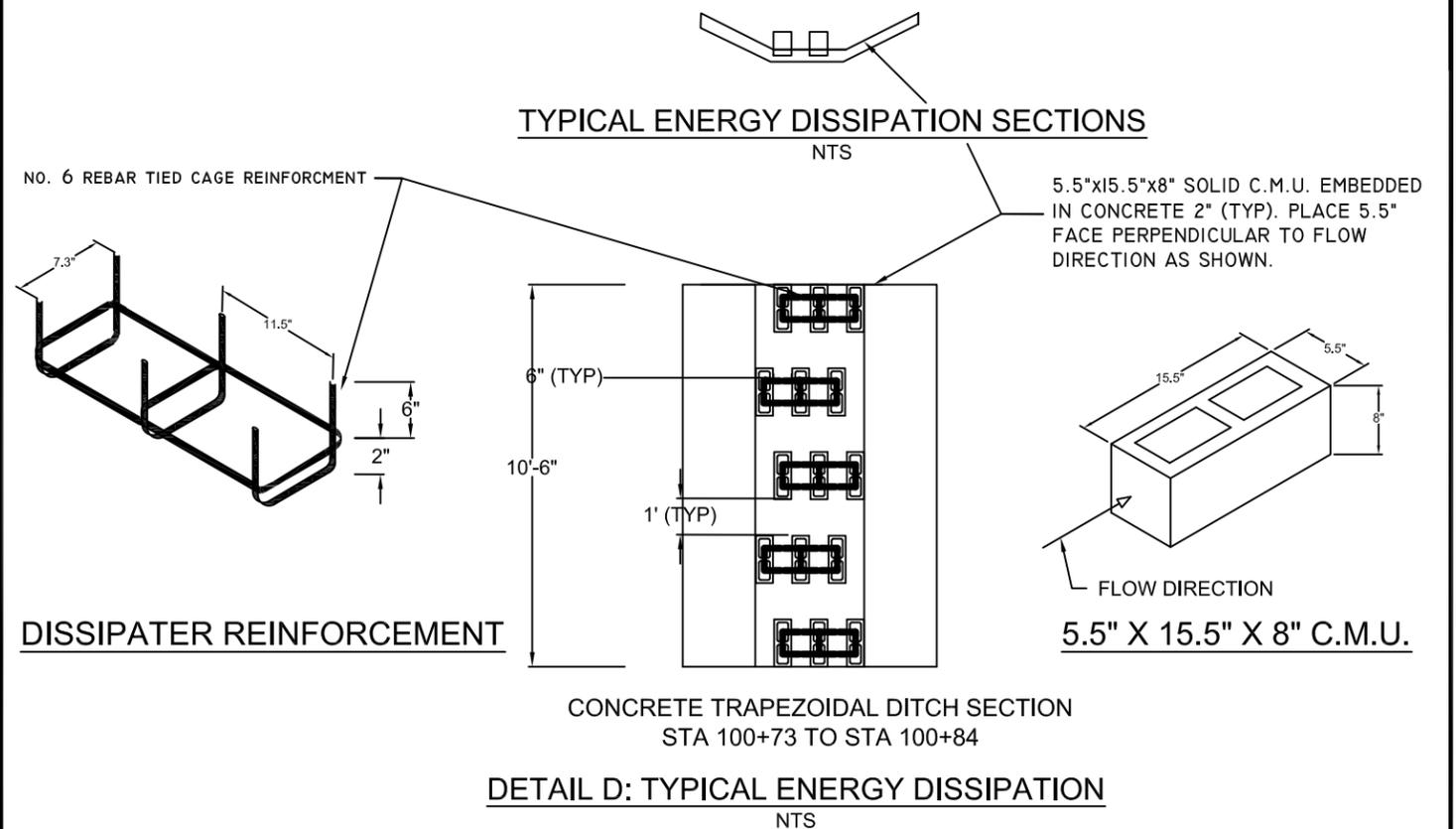
DETAIL B: UNDERDRAIN CLEANOUT PLANVIEW DETAIL
NTS



PROFILE
DETAIL C
nts
STA 100+75 and 101+09

4" SINGLE WALL SLOTTED FLEX PIPE

4" FERNCO COUPLER



TYPICAL ENERGY DISSIPATION SECTIONS
NTS

DISSIPATER REINFORCEMENT

CONCRETE TRAPEZOIDAL DITCH SECTION
STA 100+73 TO STA 100+84

DETAIL D: TYPICAL ENERGY DISSIPATION
NTS

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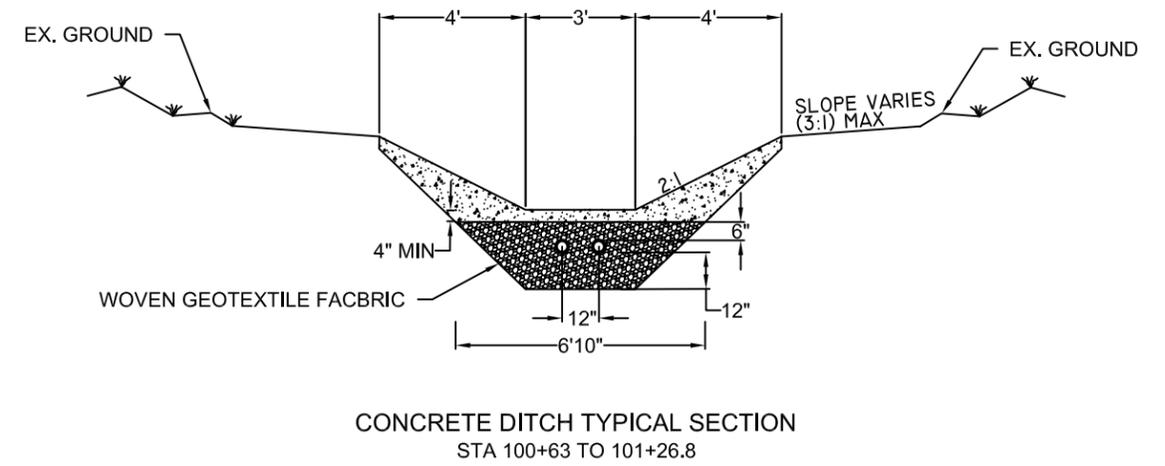
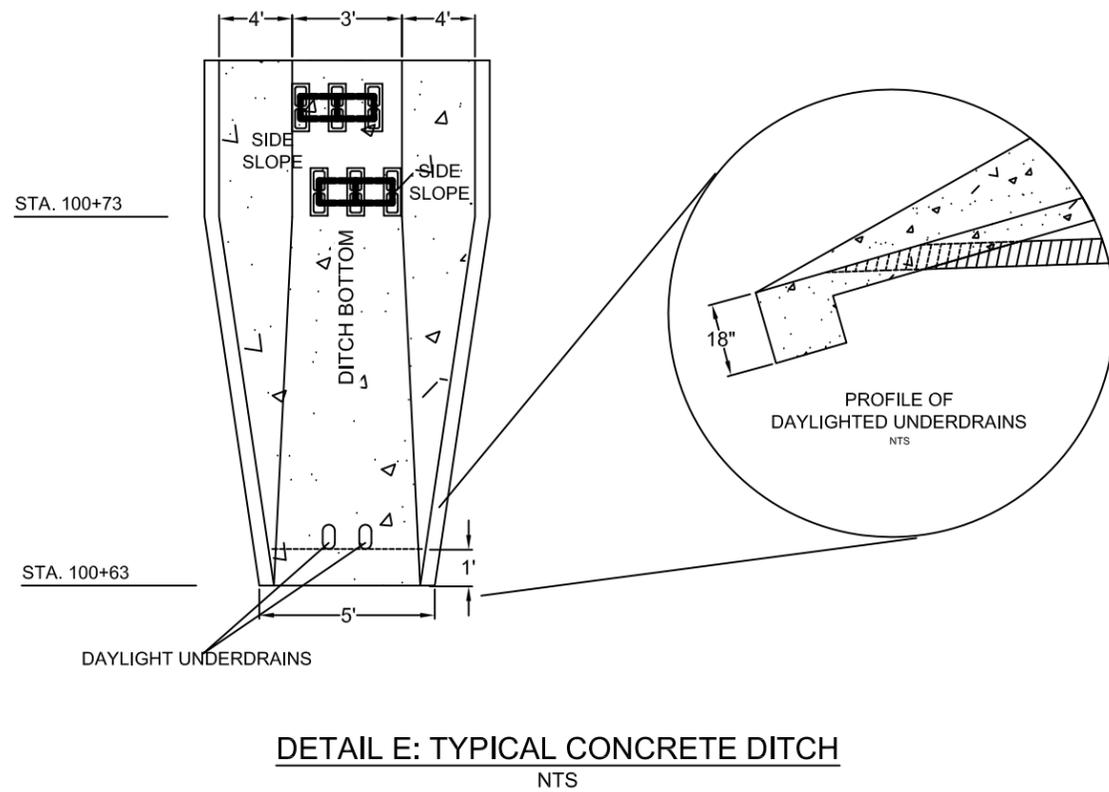
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DEPARTMENT OF PUBLIC WORKS
PROJECT TITLE
LANIER STREET
DRAINAGE MAINTENANCE

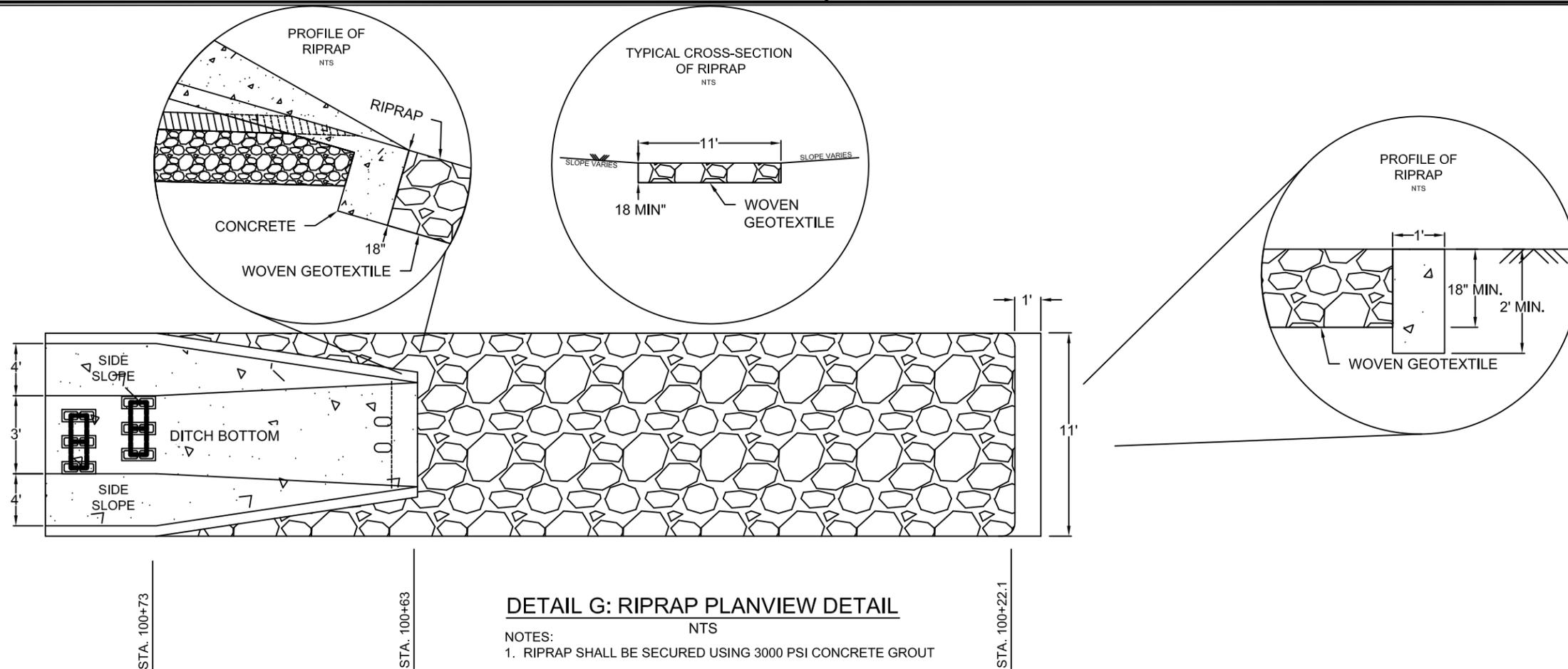
DRAINAGE MAINTENANCE DETAILS
(1 OF 3)

SHEET NO.
9 OF 22



- NOTES:
 1. CONCRETE DITCH EXPANSION JOINTS SHALL BE SPACED 8 FEET APART.
 2. 3,000 PSI FIBER REINFORCED CONCRETE TO BE USED FOR ALL DITCH SECTIONS.

DETAIL F: TYPICAL CONCRETE DITCH SECTIONS
NTS



- NOTES:
 1. RIPRAP SHALL BE SECURED USING 3000 PSI CONCRETE GROUT

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

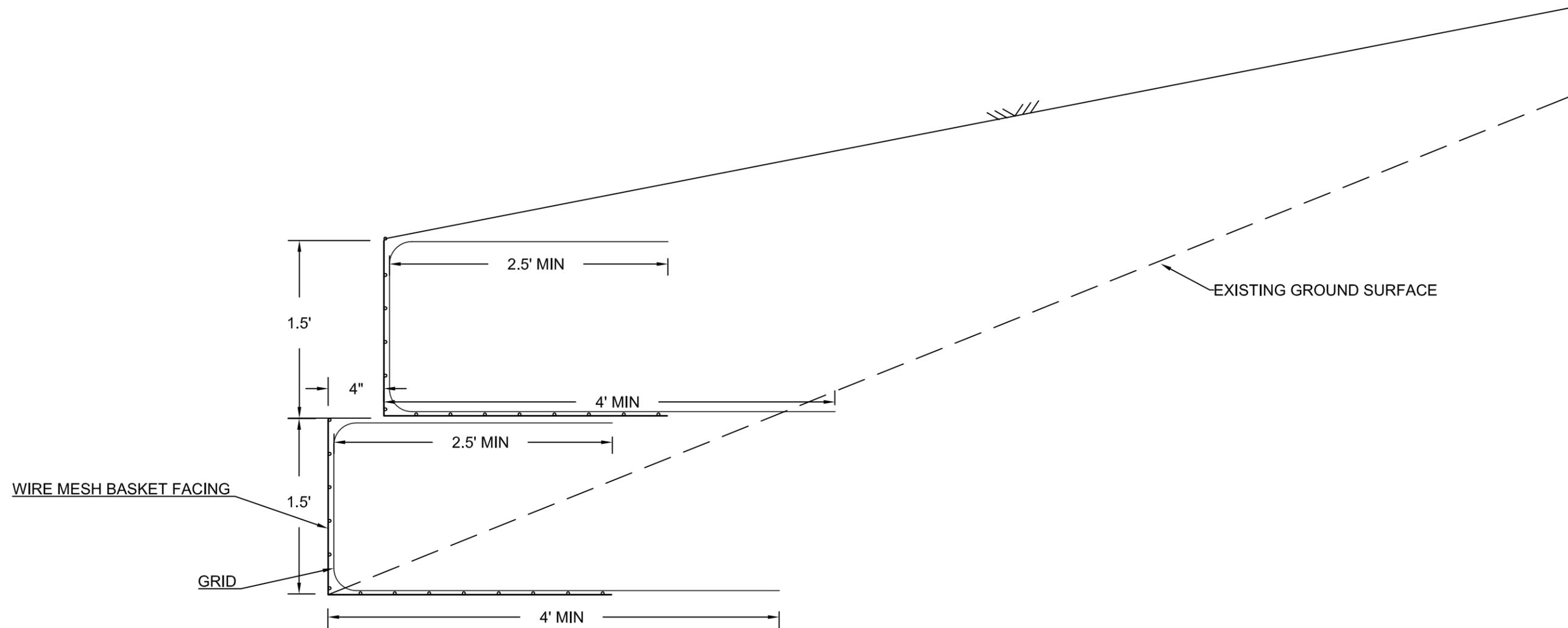
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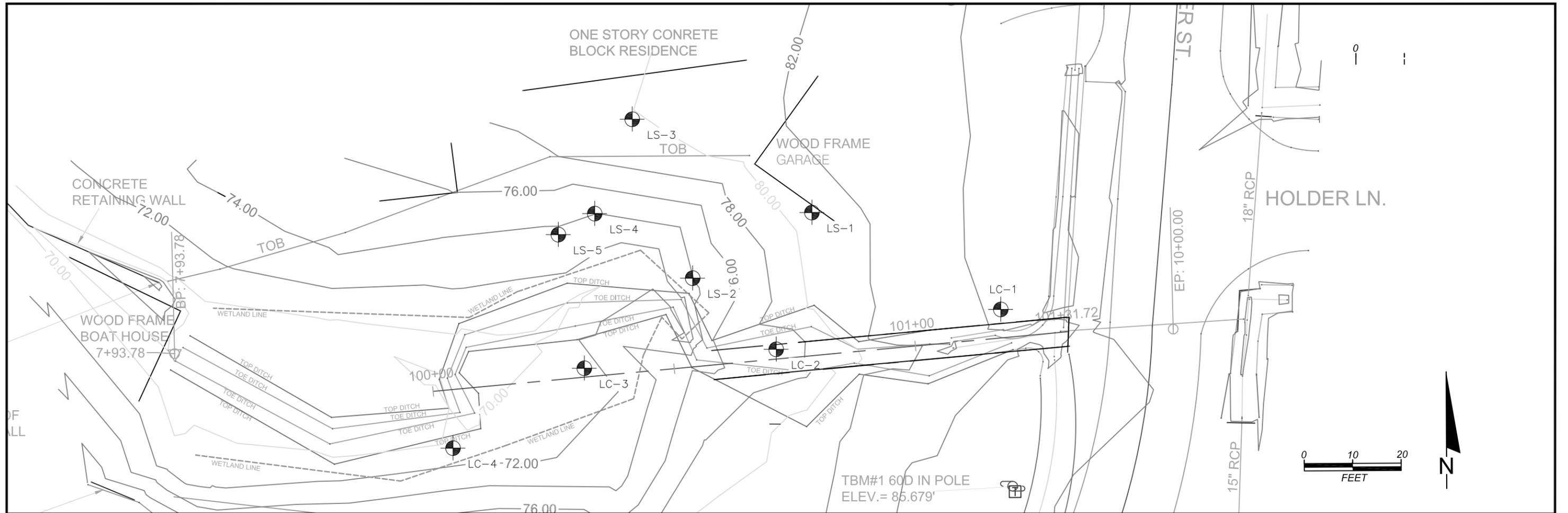
DRAINAGE MAINTENANCE DETAILS
 (2 OF 3)

SHEET NO.
 10 OF 22



DETAIL H: RETAINING WALL DETAIL
NTS

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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION					11 OF 22
						M. HAYDEN, P.E.				
						P.E. NO.: 34067				



NOTES

1. NUMBERS LEFT OF SOIL BORINGS INDICATE EITHER STANDARD PENETRATION TEST (SPT) N-VALUES OR EQUIVALENT VALUES FOR 12-INCH PENETRATION (UNLESS OTHERWISE NOTED).
2. SOIL DESCRIPTIONS, TEST DATA, AND STANDARD PENETRATION VALUES SHOWN ARE FOR THE SOIL BORINGS ONLY AND MAY NOT APPLY TO ANY OTHER LOCATION. EXTRAPOLATION OF THE SOIL BORING DATA TO OTHER LOCATIONS IS THE SOLE RESPONSIBILITY OF THE PERSON PERFORMING THE EXTRAPOLATION.
3. STRATA BOUNDARIES ARE APPROXIMATE.
4. FLUCTUATIONS IN THE DEPTH OF GROUNDWATER SHOULD BE EXPECTED.

STANDARD PENETRATION NOTES

Granular Materials Relative Density	SPT (blows/12 in.)	Silts and Clays Consistency	SPT (blows/12 in.)
Very Loose	Less than 4	Very Soft	Less than 2
Loose	4 - 10	Soft	2 - 4
Medium or Compact	10 - 30	Firm	4 - 8
Dense	30 - 50	Stiff	8 - 15
Very Dense	Greater than 50	Very Stiff	15 - 30
		Hard	Greater than 30

LEGEND

	SOIL BORING AND TEST LOCATION		FINE SAND (SP-SM)
	DEPTH TO MEASURED GROUNDWATER		SILTY FINE SAND (SM)
	LABORATORY TESTING RESULTS		CLAYEY TO CLAYEY FINE SAND (SC)

WATER CONTENT (%) Wc=
 -200 SIEVE (%) -200=
 LIQUID LIMIT LL=
 PLASTICITY INDEX PI=

(SM) UNIFIED SOIL CLASSIFICATION GROUP SYMBOL

ENVIRONMENTAL CLASSIFICATION

BORING	DEPTH	pH	CLASSIFICATION	
			STEEL	CONCRETE
LC-1	1.0-1.5	5.08	EXTREMELY AGGRESSIVE	MODERATELY AGGRESSIVE
LC-1	WATER	7.65	SLIGHTLY AGGRESSIVE	SLIGHTLY AGGRESSIVE
LC-3	2.0-2.5	4.58	EXTREMELY AGGRESSIVE	EXTREMELY AGGRESSIVE

REVISIONS					
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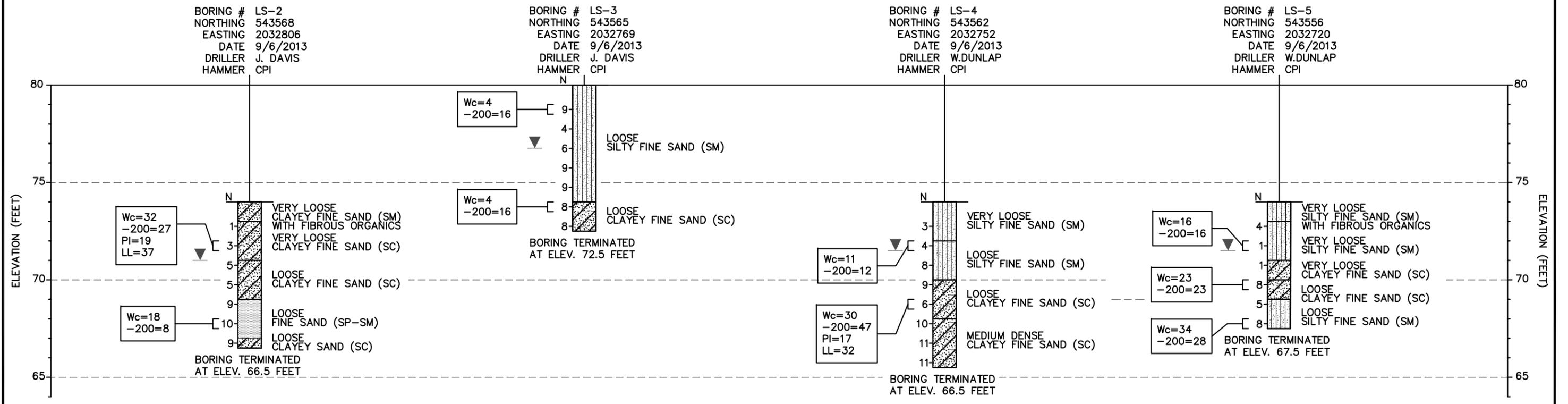
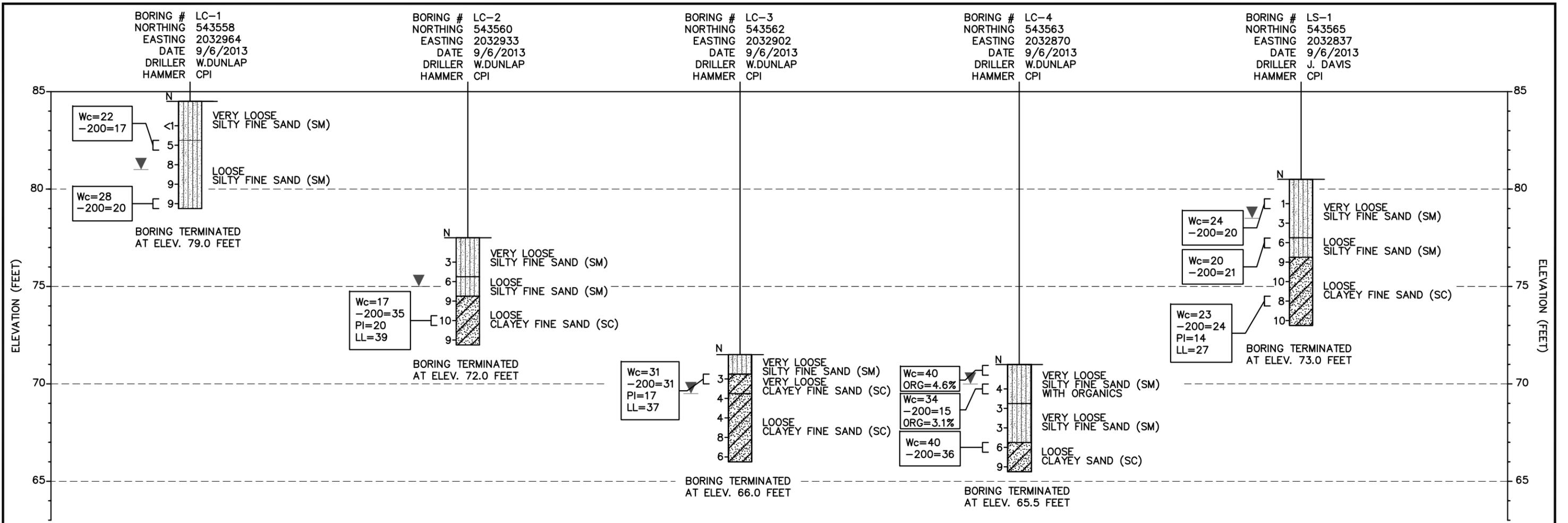
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LEON COUNTY
 DEPARTMENT OF PUBLIC WORKS
 PROJECT TITLE
 LANIER STREET
 DRAINAGE MAINTENANCE

REPORT OF CORE BORINGS
 (1 OF 2)

SHEET NO.
 12 OF 22



REVISIONS					
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SEAL:
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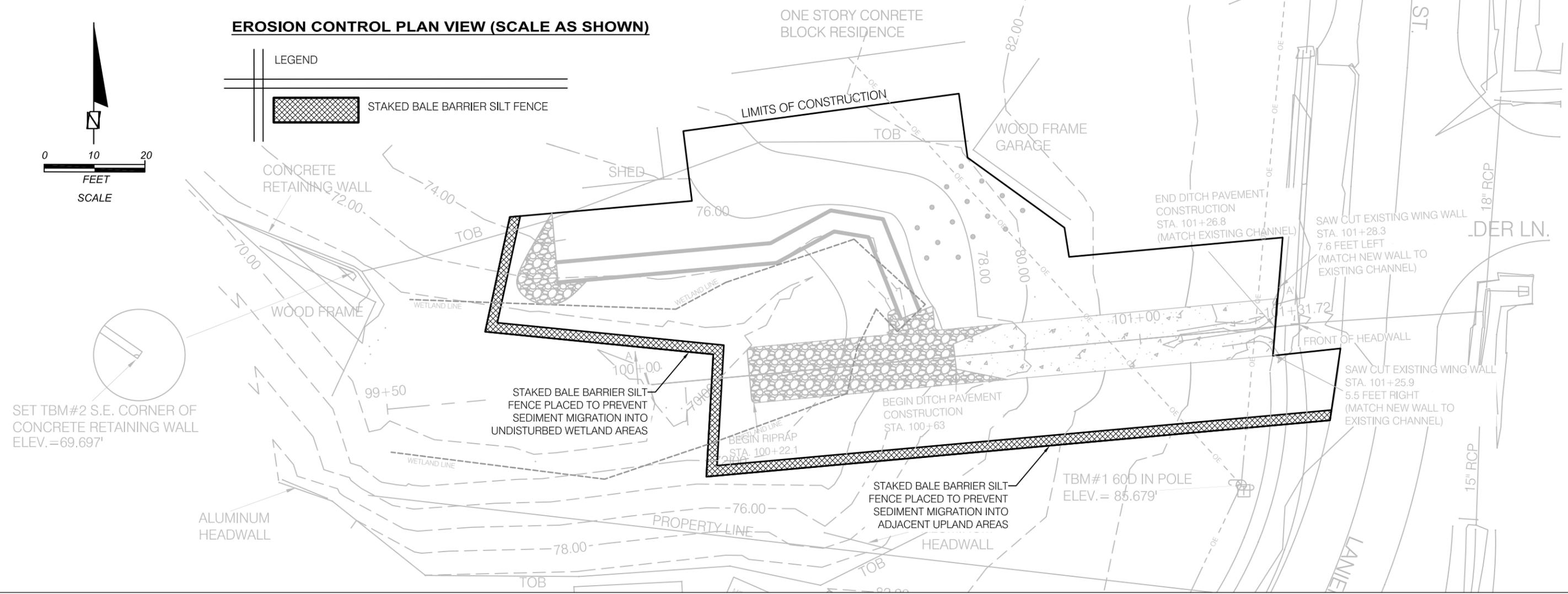
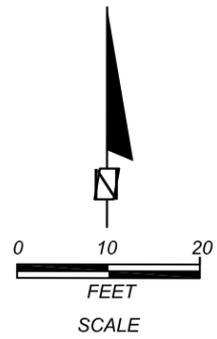
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 LANIER STREET
 DRAINAGE MAINTENANCE

REPORT OF CORE BORINGS
 (2 OF 2)

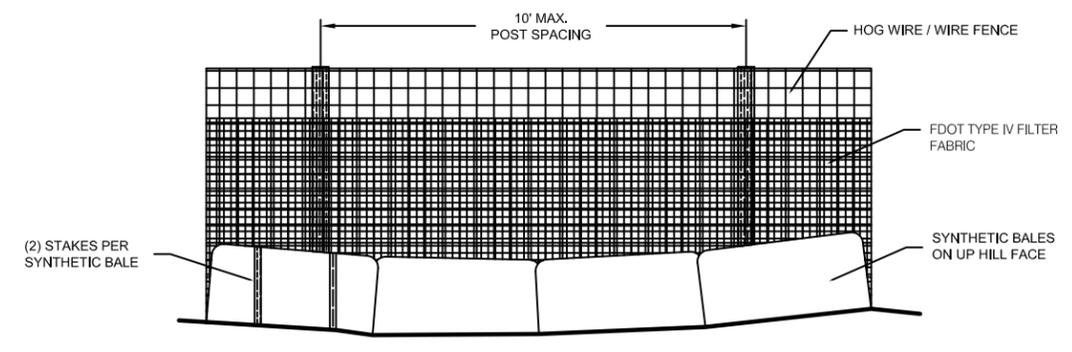
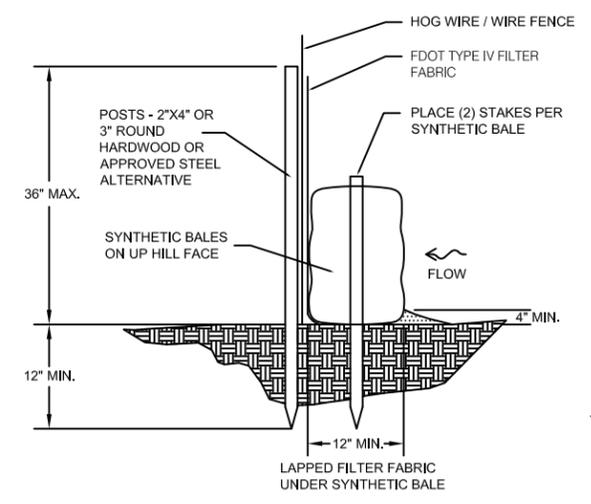
SHEET NO.
 13 OF 22

EROSION CONTROL PLAN VIEW (SCALE AS SHOWN)



SET TBM#2 S.E. CORNER OF CONCRETE RETAINING WALL ELEV.=69.697'

STAKED BALE BARRIER SILT FENCE DETAIL (N.T.S.)



NOTES:
 - STAKED BALE BARRIER SILT FENCE IS TO BE CONSTRUCTED ON TOP OF EXISTING GRADE (NOT TRENCHED).
 - THE 2 X 4 IN. WOOD TREE PROTECTION BARRICADE MAY BE USED AS THE POSTS AND BACKING FOR THE STAKED BALE BARRIER SILT FENCE.

REVISIONS					
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LEON COUNTY
 DEPARTMENT OF PUBLIC WORKS
 PROJECT TITLE
 LANIER STREET
 DRAINAGE MAINTENANCE

EROSION CONTROL PLAN
 PLAN & DETAILS

SHEET NO.
 16 OF 22

TREE DEBIT INDEX TABLE

TREE ABBREVIATION	COMMON NAME	BOTANICAL NAME	DBH (INCHES)	CRITICAL PROTECTION ZONE AREA (SQ. FT.)	TREE REMOVED	TREE DEBIT
UPLAND TREE REMOVALS						
HIC	HICKORY	CARYA SPP.	20	1256	X	14
HIC	HICKORY	CARYA SPP.	30	2826	X	30
SWT	SWEETGUM	LIQUIDAMBAR STYRACIFLUA	16	804	X	0
HIC	HICKORY	CARYA SPP.	11	380	X	0
ASH	ASH	FRAXINUS SPP.	8	201	X	0
PIN	PINE	PINUS SPP.	24	1809	X	8
MAG	MAGNOLIA	MAGNOLIA SPP.	9	254	X	0
SWT	SWEETGUM	LIQUIDAMBAR STYRACIFLUA	14	615	X	0
BAY	BAY	PERSEA SPP.	35	3847	X	26
SWT	SWEETGUM	LIQUIDAMBAR STYRACIFLUA	9	254	X	0
SWT	SWEETGUM	LIQUIDAMBAR STYRACIFLUA	30	2826	X	10
SWT	SWEETGUM	LIQUIDAMBAR STYRACIFLUA	23	1661	X	8
POP	POPLAR (DEAD)	POPULUS SPP.	28	2462	X	0
UPLAND TREE REMOVAL TOTAL =						96

WETLAND TREE REMOVALS

OAK	OAK	QUERCUS SPP.	9	254	X	10
ASH	ASH	FRAXINUS SPP.	6	113	X	8
ASH	ASH	FRAXINUS SPP.	9	254	X	10
MAG	MAGNOLIA	MAGNOLIA SPP.	10	314	X	10
MAG	MAGNOLIA	MAGNOLIA SPP.	16	804	X	12
WETLAND TREE REMOVAL TOTAL =						50

***NOTES:**

- TREE DEBITS DUE TO UPLAND TREE REMOVALS TO BE MITIGATED BY PAYMENT TO TREE BANK.
- TREE DEBITS DUE TO WETLAND TREE REMOVALS TO BE MITIGATED BY PLANTING PLAN SEEN ON SHEET 20.
- THE CRITICAL PROTECTION ZONE (CPZ) IS THE AREA THAT SURROUNDS A TREE WITHIN A CIRCLE DESCRIBED BY A RADIUS OF ONE FOOT FOR EACH INCH OF THE TREE'S DIAMETER AT BREST HEIGHT (DBH).

PROJECT TOTALS

TREES REMOVED	TREE DEBITS
18	146

TREES TO BE REMOVED

- TREE REMOVAL SHALL BE THE CONTRACTORS RESPONSIBILITY. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COORDINATE THE TREE REMOVAL WITH LEON COUNTY DEVELOPMENT SUPPORT AND ENVIRONMENTAL MANAGEMENT, AND PUBLIC WORKS DEPARTMENT, OR THEIR DESIGNATED REPRESENTATIVE.
- ALL TREES AND SHRUBS WITHIN THE LIMITS OF CONSTRUCTION ARE SCHEDULED FOR REMOVAL. TREES ENCOUNTERED IN THE FIELD NOT LISTED ON THE TREE REMOVAL TABLE ARE UNPROTECTED TREES AND MAY BE REMOVED BY THE CONTRACTOR. TREES TO BE REMOVED SHALL CONSIST STRICTLY OF THE TREES INDICATED FOR REMOVAL IN THE PLANS. TREES NOT IDENTIFIED FOR REMOVAL IN THE PLANS AND OUTSIDE THE LIMITS OF CONSTRUCTION ARE CONSIDERED PROTECTED TREES. REMOVAL OF ANY PROTECTED TREE WITHOUT A PERMIT SHALL BE BASES FOR A VIOLATION OF REQUIREMENTS AND SUBJECT TO PENALTY.
- DISPOSAL OF THE REMOVED TREES FROM THE PROJECT LIMITS SHALL BE CONDUCTED IN A SAFE AND RESPONSIBLE MANNER. ON-SITE BURNING OF REMOVED TREES OR LOOSE TREE DEBRIS WILL NOT BE ALLOWED.

STUMP TREATMENT

- SPECIFIC STUMP TREATMENT FOR EACH TREE TO BE REMOVED HAS BEEN IDENTIFIED ON SHEET 19.
- STUMPS DESIGNATED FOR CUTTING SHALL BE CUT WITHIN 3" OF THE EXISTING GROUND SURFACE AND MINIMIZE GROUND DISTURBANCE TO THE GREATEST EXTENT POSSIBLE.
- STUMPS DESIGNATED FOR REMOVAL SHALL BE REMOVED SUCH THAT THE ENTIRE EXISTING ROOT SYSTEM IS REMOVED.
- IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COORDINATE THE HANDLING OF STUMPS WITH LEON COUNTY DEVELOPMENT SUPPORT AND ENVIRONMENTAL MANAGEMENT DEPARTMENT AND PUBLIC WORKS DEPARTMENT.

PROTECTION OF EXISTING TREES TO REMAIN

- TREES TO REMAIN AND TO BE PROTECTED BY TREE PROTECTION BARRICADES ARE INDICATED ON THE PLAN SET. THE PLAN SET REPRESENTS THE MINIMUM PROTECTION STANDARDS. ADDITIONAL TREE PROTECTION MEASURES MAY BE REQUIRED IF DEEMED NECESSARY BY LEON COUNTY DEVELOPMENT SUPPORT AND ENVIRONMENTAL MANAGEMENT AND PUBLIC WORKS DEPARTMENT.
- TREE PROTECTION OF THE EXISTING TREES TO REMAIN SHALL BE INSTALLED PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY WHICH MIGHT ADVERSELY IMPACT TREES WHICH ARE TO BE PRESERVED AND PROTECTED AND SHALL REMAIN IN PLACE FOR THE DURATION OF CONSTRUCTION ACTIVITIES.
- IT IS IMPORTANT FOR THE EQUIPMENT OPERATORS, CONTRACTOR'S PERSONNEL, AND SUBCONTRACTORS TO UNDERSTAND THAT DAMAGE TO TREES WILL NOT BE TOLERATED. EXTREME CARE MUST BE TAKEN TO PROTECT THE EXPOSED ROOT COLLARS FROM VEHICULAR DAMAGE AND FALLING DEBRIS. CONTRACTOR SHALL CONTACT LEON COUNTY DEVELOPMENT SUPPORT AND ENVIRONMENTAL MANAGEMENT AND PUBLIC WORKS DEPARTMENT PRIOR TO THE START OF CONSTRUCTION.

TREE PROTECTION BARRICADES

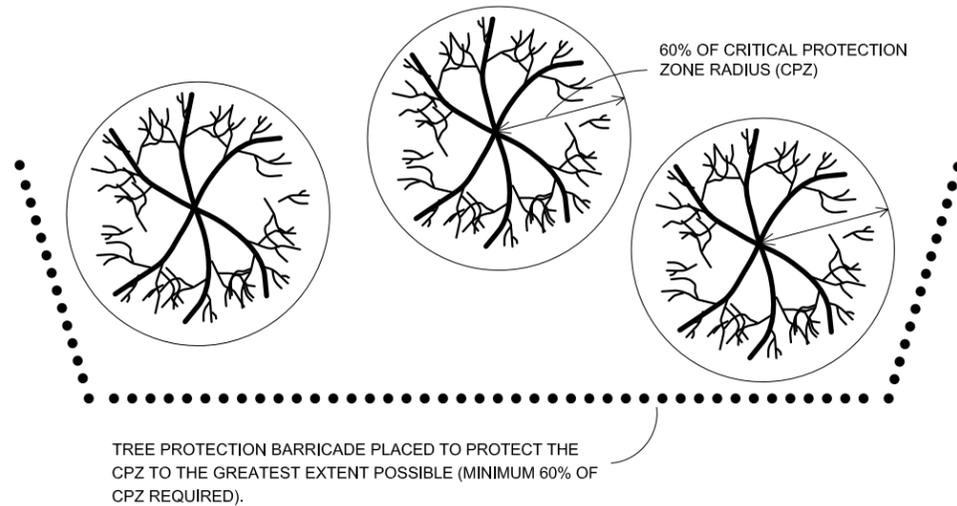
- ALL TREES ADJACENT TO THE LIMITS OF CONSTRUCTION NOT INDICATED FOR REMOVAL IN THE PLANS SHALL BE PROTECTED BY A TREE PROTECTION BARRICADE CONSTRUCTED OF 2" X 4" OR LARGER POSTS PLACED VERTICALLY 8-FEET ON CENTER WITH TWO (2) ROWS OF 2" X 4" HORIZONTAL BATTERBOARDS RUNNING CONTINUOUS THROUGHOUT THE LENGTH OF THE BARRICADE. YELLOW OR ORANGE CAUTION TAPE SHALL BE SECURELY ATTACHED TO THE BATTERBOARDS THROUGHOUT THE LENGTH OF THE BARRICADE. THE TREE PROTECTION BARRICADE SHALL PROTRUDE A MINIMUM OF 4-FEET ABOVE THE GROUND SURFACE (SEE DETAIL SHEET 8).
- WHERE DESIGNATED IN THE PLAN SET, THE BARRICADE SHALL BE CONSTRUCTED ALONG THE LIMITS OF CONSTRUCTION TO PROTECT THE "CRITICAL PROTECTION ZONE" TO THE GREATEST EXTENT POSSIBLE OF THE TREES TO REMAIN (SEE DETAIL SHEET 8). THE BARRICADE SHALL BE CONSTRUCTED TO PREVENT THE ENCROACHMENT OF EQUIPMENT OR VEHICLES, THE REMOVAL OF EXISTING GROUND COVER, THE DISTURBANCE OR COMPACTION OF SOIL, OR THE SCARRING OF ROOTS WITHIN THE "CRITICAL PROTECTION ZONE."
- THE TREE PROTECTION BARRICADE MAY ALSO SERVE AS THE 2" X 4" FRAMING REQUIRED AS THE BACKING FOR THE STAKED BALE BARRIER SILT FENCE.
- STOCKPILING OF SOIL, MATERIALS, OR PARKING OF EQUIPMENT OR VEHICLES BEYOND THE LIMITS OF THE TREE PROTECTION BARRICADE WITHIN THE RADIUS OF THE "CRITICAL PROTECTION ZONE" WILL NOT BE ALLOWED. STOCKPILING AREAS, PARKING AREAS AND EQUIPMENT STORAGE AREAS SHALL BE APPROVED BY THE ENGINEER PRIOR TO BEING UTILIZED.

TREE TRUNK PROTECTION

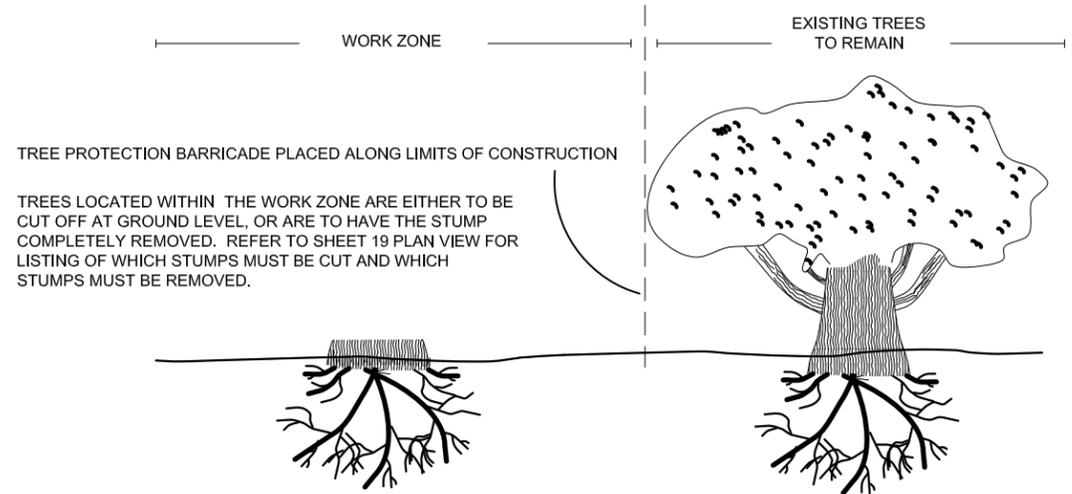
- EXISTING TREES REQUIRING ADDITIONAL TRUNK PROTECTION SHALL BE DESIGNATED IN THE FIELD BY LEON COUNTY DEVELOPMENT SUPPORT AND ENVIRONMENTAL MANAGEMENT, AND PUBLIC WORKS DEPARTMENT, OR THEIR DESIGNATED REPRESENTATIVE.
- IF REQUIRED, ADDITIONAL TRUNK PROTECTION SHALL CONSIST OF A CONTINUOUS BAND OF 2" X 4" OR 2" X 6" WOODEN BOARDS ATTACHED VERTICALLY TO THE TRUNKS TO GUARD AGAINST ACCIDENTAL DAMAGE BY ANY CONSTRUCTION EQUIPMENT. THE CONTINUOUS WOODEN BAND SHALL EXTEND A MINIMUM OF 4-FEET ABOVE THE GROUND SURFACE (SEE DETAIL SHEET 8).

REVISIONS						SEAL:	Environmental & Geotechnical Specialists, Inc.	LEON COUNTY DEPARTMENT OF PUBLIC WORKS	PROJECT TITLE LANIER STREET DRAINAGE MAINTENANCE	TREE REMOVAL AND PROTECTION PLAN TREE DEBIT INDEX TABLES AND NOTES	SHEET NO. 17 OF 22
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION						
						M. HAYDEN, P.E.	 EGS 104 NORTH MAGNOLIA DRIVE TALLAHASSEE, FLORIDA 32301 OFFICE: (850) 386-1253 FAX: (850) 385-8050 Cert. of Auth.: 6222				
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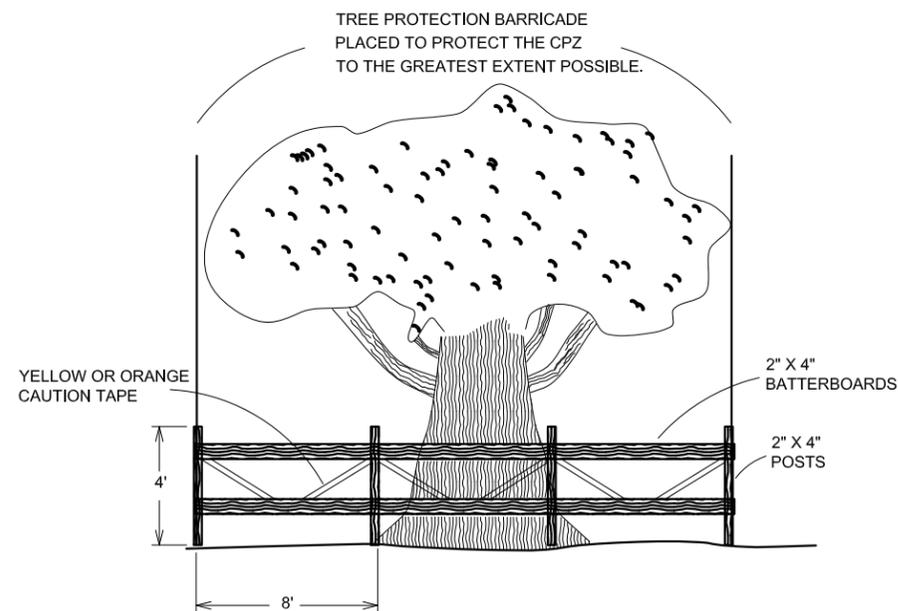
TREE PROTECTION BARRICADE PLAN VIEW (N.T.S.)



TREE REMOVAL PROFILE VIEW (N.T.S.)



TREE PROTECTION BARRICADE PROFILE VIEW (N.T.S.)

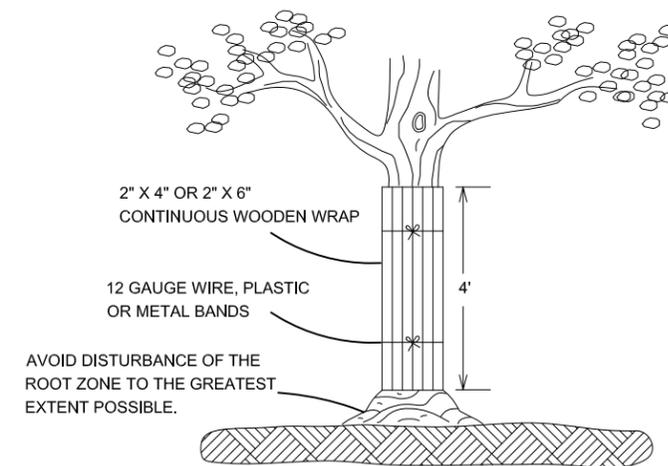


CRITICAL PROTECTION ZONE (CPZ):

THE AREA SURROUNDING A TREE WITHIN A CIRCLE DESCRIBED BY A RADIUS OF ONE FOOT FOR EACH INCH OF THE TREE'S DIAMETER AT BREAST HEIGHT (DBH).

FOR THIS PROJECT, A MINIMUM OF 60% OF THE CPZ MUST BE PROTECTED ON EXISTING TREES NOT BEING REMOVED FOR THE PROJECT.

TRUNK PROTECTION WHERE APPLICABLE (N.T.S.)



*NOTE: TRUNK PROTECTION MAY BE SUBSTITUTED FOR TREE PROTECTION BARRICADE WITH PRIOR APPROVAL OF LEON COUNTY DEVELOPMENT SUPPORT AND ENVIRONMENTAL MANAGEMENT.

*NOTE: THE TREE PROTECTION BARRICADE MAY ALSO SERVE AS THE 2" X 4" FRAME REQUIRED AS BACKING FOR THE STAKED BALE BARRIER SILT FENCE.

REVISIONS					
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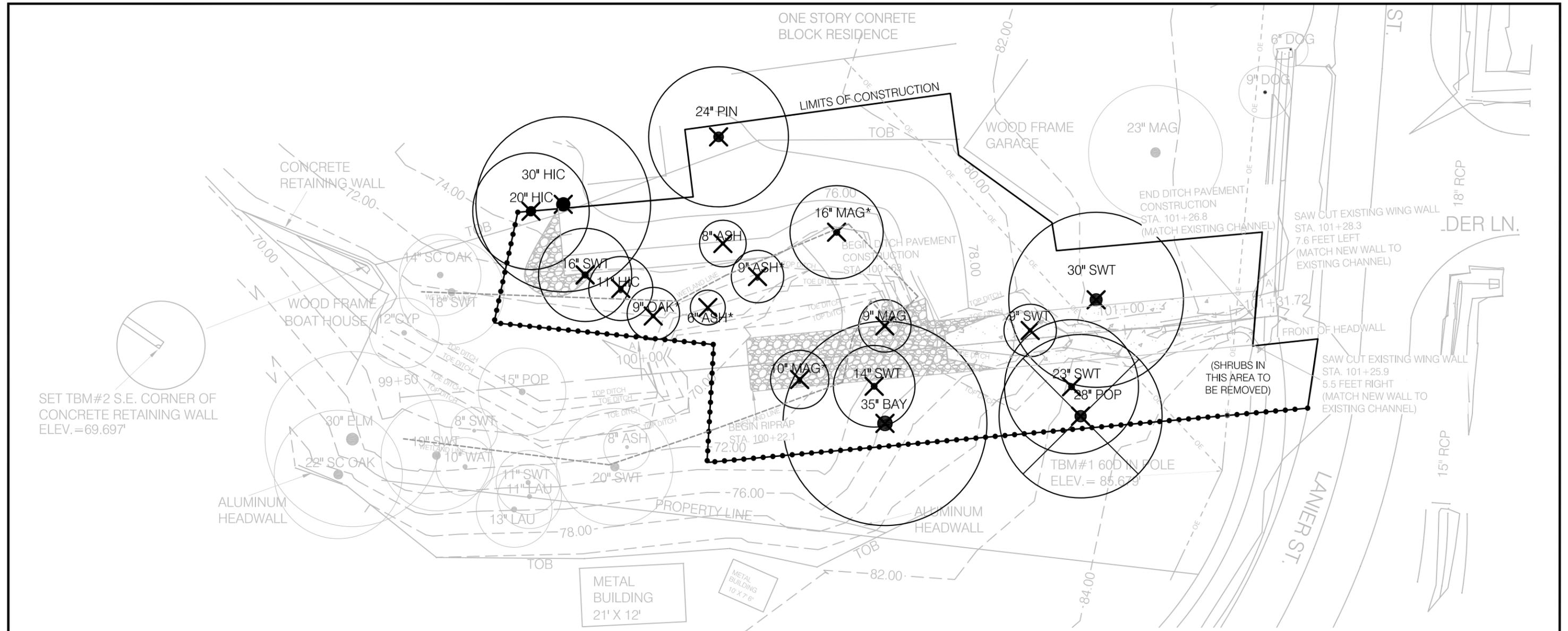
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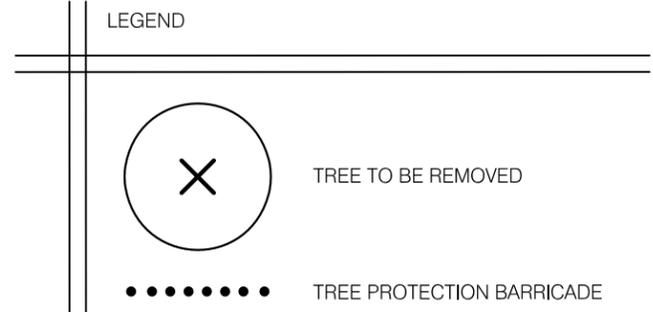
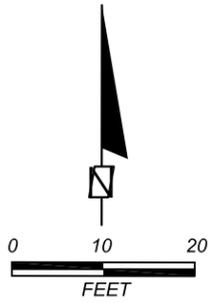
TREE REMOVAL AND PROTECTION PLAN
DETAILS

SHEET NO.
18 OF 22



SET TBM#2 S.E. CORNER OF CONCRETE RETAINING WALL ELEV.=69.697'

TREE REMOVAL AND PROTECTION PLAN (SCALE AS SHOWN)



NOTES:
 1. CIRCLES SHOWN REPRESENT THE REQUIRED 60% OF THE CPZ TO BE PROTECTED ON REMAINING TREES.
 2. THE TREE PROTECTION BARRICADE MAY ALSO SERVE AS THE 2" X 4" FRAMING REQUIRED AS THE BACKING FOR THE STAKED BALE BARRIER SILT FENCE.

TREES TO BE REMOVED

ABBREVIATION	TREE TYPE	SIZE	STUMP TREATMENT
HIC	HICKORY	20"	CUT
HIC	HICKORY	30"	CUT
SWT	SWEETGUM	16"	REMOVE
HIC	HICKORY	11"	CUT
OAK*	OAK	9"	CUT
ASH*	ASH	6"	CUT
ASH	ASH	8"	REMOVE
ASH*	ASH	9"	CUT
PIN	PINE	24"	CUT

ABBREVIATION	TREE TYPE	SIZE	STUMP TREATMENT
MAG*	MAGNOLIA	10"	REMOVE
MAG*	MAGNOLIA	16"	REMOVE
MAG	MAGNOLIA	9"	REMOVE
SWT	SWEETGUM	14"	REMOVE
BAY	BAY	35"	REMOVE
SWT	SWEETGUM	9"	REMOVE
SWT	SWEETGUM	30"	REMOVE
SWT	SWEETGUM	23"	REMOVE
POP	POPLAR (DEAD)	28"	REMOVE

NOTES:
 1. * INDICATES TREE IDENTIFIED WITHIN WETLAND LIMITS.
 2. ALL TREES AND SHRUBS WITHIN THE LIMITS OF CONSTRUCTION ARE SCHEDULED FOR REMOVAL. TREES ENCOUNTERED IN THE FIELD NOT LISTED ON THIS TABLE ARE UNPROTECTED TREES AND MAY BE REMOVED BY THE CONTRACTOR. THE CONTRACTOR SHALL NOT REMOVE ANY TREES OR SHRUBS OUTSIDE THE LIMITS OF CONSTRUCTION. SEE SHEETS 17 AND 18 FOR REMOVAL AND PROTECTION NOTES AND DETAILS.

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

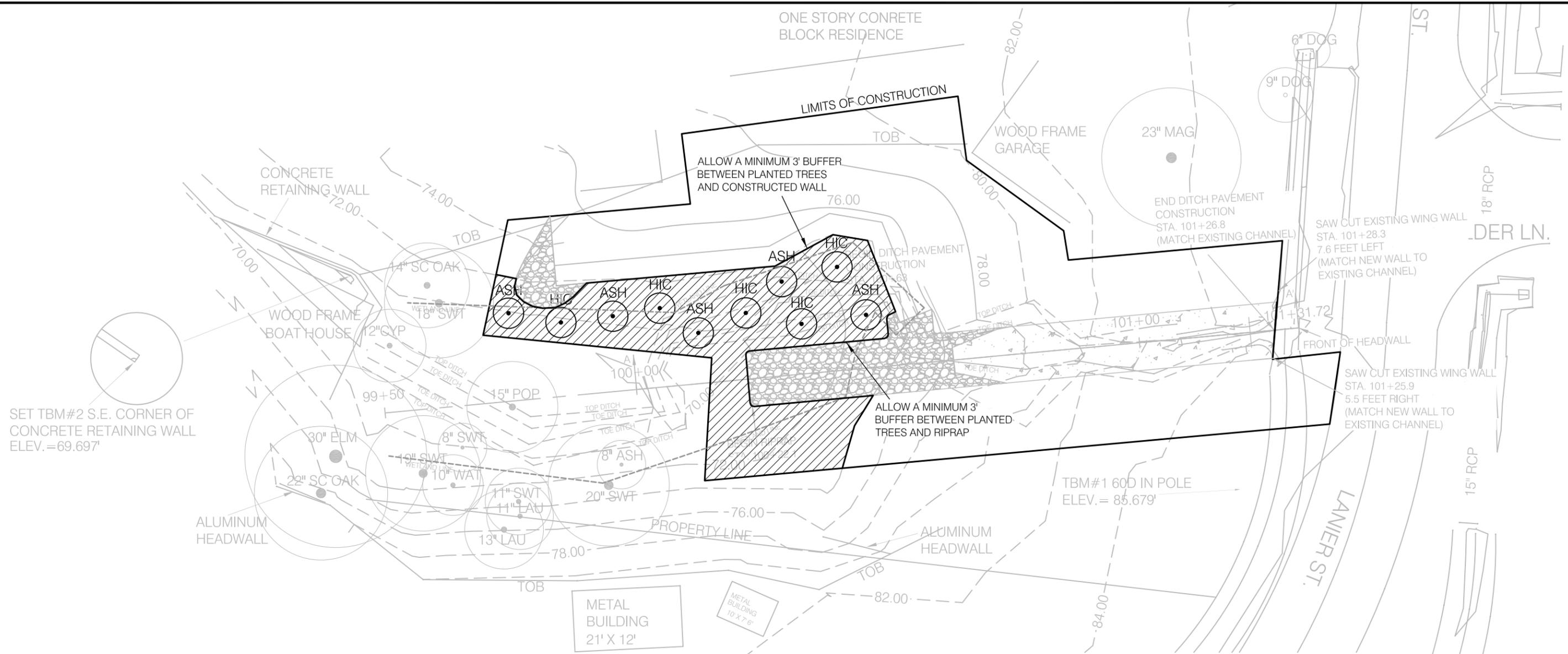
SEAL:
 M. HAYDEN, P.E.
 P.E. NO.: 34067

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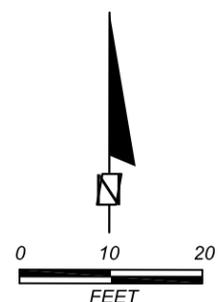
LEON COUNTY
 DEPARTMENT OF PUBLIC WORKS
 PROJECT TITLE
**LANIER STREET
 DRAINAGE MAINTENANCE**

**TREE REMOVAL AND
 PROTECTION PLAN**
 PLAN VIEW

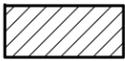
SHEET NO.
 19 OF 22



TREE PLANTING, BIODEGRADABLE EROSION MAT, AND HYDROSEEDING PLAN (SCALE AS SHOWN)



LEGEND

 TREE TO BE PLANTED
 LIMITS OF BIODEGRADABLE EROSION MAT PLACEMENT AND HYDROSEEDING

***NOTES**

- BIODEGRADABLE EROSION MAT TO BE INSTALLED PRIOR TO TREE PLANTING.
- BIODEGRADABLE EROSION MAT TO BE CUT AND REMOVED AT TREE REPLANTING LOCATIONS ENOUGH TO INSTALL THE TREE.
- CUTTING AND REMOVING OF THE BIODEGRADABLE EROSION MAT BEYOND THAT NEEDED TO INSTALL THE TREE PLANTING SHALL NOT BE TOLERATED.

TREES TO BE PLANTED					
ABBREVIATION	TREE TYPE	SIZE	ABBREVIATION	TREE TYPE	SIZE
HIC	HICKORY	2"-3"	ASH	ASH	2"-3"
HIC	HICKORY	2"-3"	ASH	ASH	2"-3"
HIC	HICKORY	2"-3"	ASH	ASH	2"-3"
HIC	HICKORY	2"-3"	ASH	ASH	2"-3"
HIC	HICKORY	2"-3"	ASH	ASH	2"-3"
HIC	HICKORY	2"-3"	ASH	ASH	2"-3"

*NOTE: EXACT TREE PLANTING LOCATIONS MAY VARY DEPENDING ON EXISTING FIELD CONDITIONS. TREES SHOULD BE PLANTED RANDOMLY IN THE AREA SHOWN ON THE PLANS AND SHOULD REFLECT THE ARRANGEMENT SEEN ON THE PLANS TO THE GREATEST EXTENT POSSIBLE. MAINTAIN A MINIMUM 3' BUFFER BETWEEN TREE PLANTINGS AND THE CONSTRUCTED WALL AND RIPRAP.

TREE PLANTINGS

1. CONTAINER GROWN TREES SHALL BE MINIMUM 2" DIAMETER TREES, SPECIES AS SHOWN IN THE PLANS.
2. CONTAINER GROWN TREES SHALL MEET THE SPECIFICATION IN FDOT STANDARD STANDARD SPECIFICATION 580 AND BE PLANTED IN ACCORDANCE WITH DESIGN STANDARD INDEX 544.
3. CONTAINER GROWN TREES SHALL BE PLANTED IN THE AREA SHOWN ON THE PLANS AND BE RANDOMLY ARRANGED AS SHOWN ON THE PLANS TO THE GREATEST EXTENT POSSIBLE.
4. A MINIMUM 3' BUFFER SHALL BE MAINTAINED BETWEEN THE TREE PLANTINGS AND THE CONSTRUCTED WALL AND RIPRAP.

BIODEGRADABLE EROSION MAT

1. BIODEGRADABLE EROSION MAT SHALL BE A PROPEX LANDLOK CS2 OR EQUIVALENT.
2. THE EROSION MAT SHALL BE INSTALLED IN CONFORMANCE WITH THE MAT SUPPLIERS SPECIFICATIONS.
3. ROLL THE EROSION MAT OUT FROM UPPER ELEVATIONS TOWARDS LOWER ELEVATIONS. USE A 6" MINIMUM LAP FOR ALL EROSION MAT SEAMS. THE EROSION MAT SHALL BE INSTALLED SUCH THAT LAPPED SEAMS WILL NOT BE UNDERMINED BY WATER FLOW.
4. ALL EXTERIOR EROSION MAT EDGES SHALL BE HELD IN PLACE BY A 6" X 6" ANCHOR TRENCH AS SHOWN IN THE DETAIL.
5. THE EROSION MAT SHALL PROVIDE COMPLETE COVERAGE OF THE DESIGNATED AREA SHOWN IN THE PLANS WITH THE EXCEPTION OF TREE PLANTING LOCATIONS.
6. AT THE TREE PLANTING LOCATIONS, THE EROSION MAT IS TO BE CUT AND REMOVED TO THE MINIMAL EXTENT NECESSARY TO INSTALL THE TREE PLANTING.

HYDROSEEDING

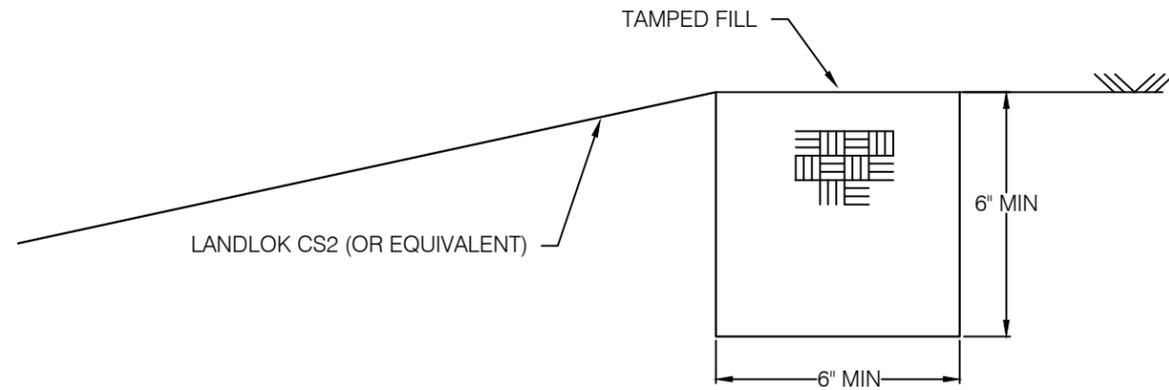
1. THE SEED SHALL CONSIST OF 50% ST. AUGUSTINE GRASS AND 50% RYE.
2. THE CONTRACTOR SHALL USE 19-19-19 FERTILIZER IN ORDER TO ADEQUATELY FERTILIZE THE REQUIRED AREA.
3. HYDRSEEDING SHALL BE IN CONFORMANCE WITH FDOT STANDARD SPECIFICATION 570.

TREE CREDIT INDEX TABLE

TREE ABBREVIATION	COMMON NAME	BOTANICAL NAME	DBH (INCHES)	TREE PLANTED	TREE CREDIT
HIC	HICKORY	CARYA SPP.	2 - 3	X	5
HIC	HICKORY	CARYA SPP.	2 - 3	X	5
HIC	HICKORY	CARYA SPP.	2 - 3	X	5
HIC	HICKORY	CARYA SPP.	2 - 3	X	5
HIC	HICKORY	CARYA SPP.	2 - 3	X	5
ASH	ASH	FRAXINUS SPP.	2 - 3	X	5
ASH	ASH	FRAXINUS SPP.	2 - 3	X	5
ASH	ASH	FRAXINUS SPP.	2 - 3	X	5
ASH	ASH	FRAXINUS SPP.	2 - 3	X	5
ASH	ASH	FRAXINUS SPP.	2 - 3	X	5

PROJECT TOTALS

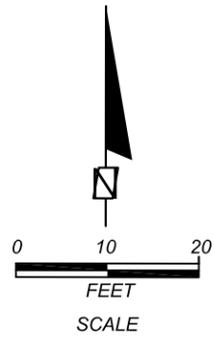
TREES PLANTED	TREE CREDITS
10	50



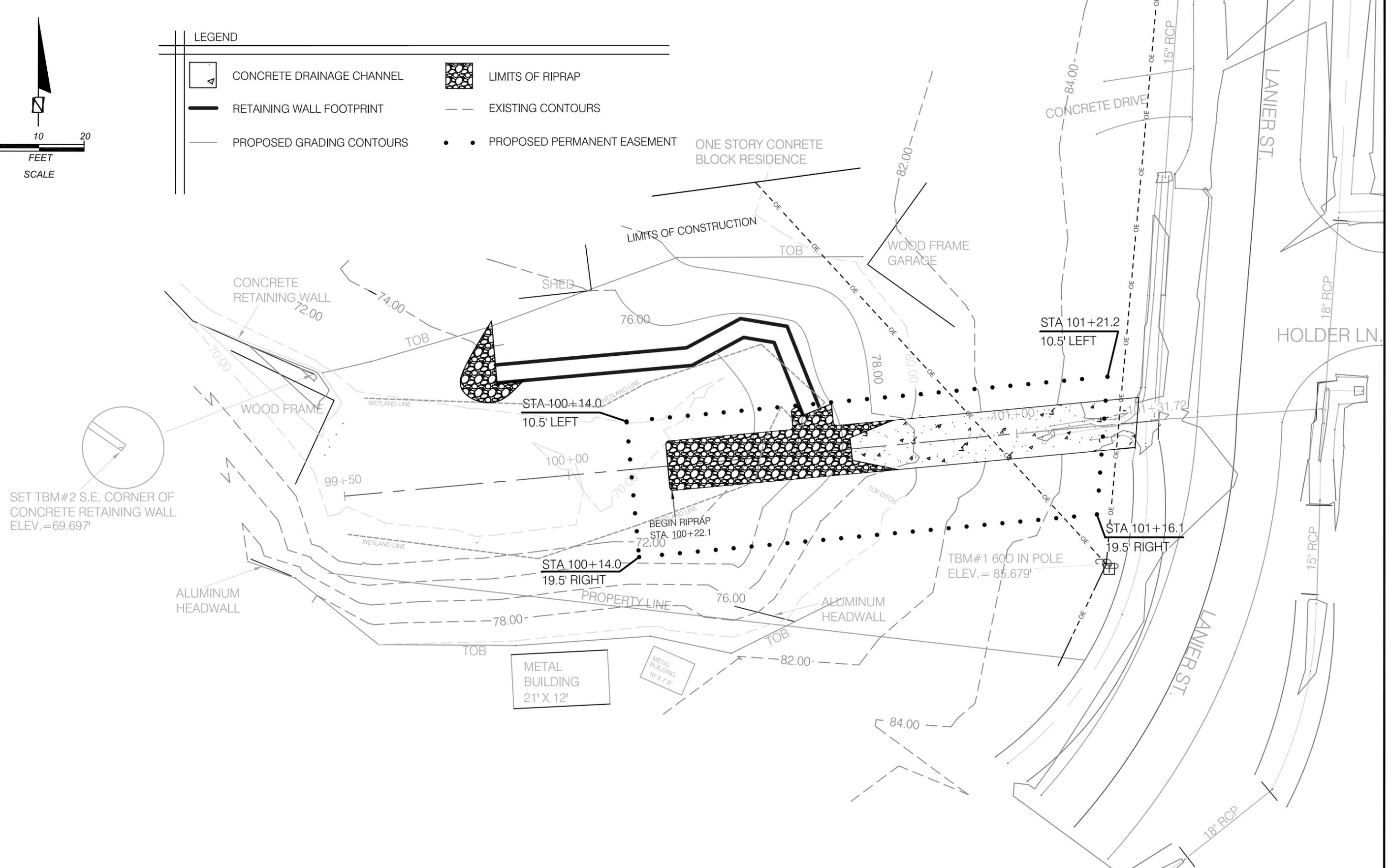
DETAIL I: EROSION MAT ANCHOR TRENCH
NTS

- NOTES:
1. EROSION MAT SHALL BE LANDLOK CS2 OR EQUIVALENT.
 2. CONTRACTOR SHALL TAMP SOILS PLACED IN THE ANCHOR TRENCH

REVISIONS						SEAL:	Environmental & Geotechnical Specialists, Inc.	LEON COUNTY DEPARTMENT OF PUBLIC WORKS	PROJECT TITLE LANIER STREET DRAINAGE MAINTENANCE	TREE PLANTING, EROSION MAT, AND HYDROSEEDING PLAN TREE CREDIT INDEX TABLES, NOTES, & DETAILS	SHEET NO. 21 OF 22
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION						
						M. HAYDEN, P.E.	EGS 104 NORTH MAGNOLIA DRIVE TALLAHASSEE, FLORIDA 32301 OFFICE: (850) 386-1253 FAX: (850) 385-8050				
						P.E. NO.: 34067					



LEGEND	
	CONCRETE DRAINAGE CHANNEL
	RETAINING WALL FOOTPRINT
	PROPOSED GRADING CONTOURS
	LIMITS OF RIPRAP
	EXISTING CONTOURS
	PROPOSED PERMANENT EASEMENT



SET TBM#2 S.E. CORNER OF CONCRETE RETAINING WALL ELEV. = 69.697'

TBM#1 60D IN POLE ELEV. = 85.679'

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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PROJECT TITLE
LANIER STREET
DRAINAGE MAINTENANCE

PROPOSED PERMANENT EASEMENT

SHEET NO.
22 OF 22