The engineer expressly reserves the exclusive common law copyright and property rights to these drawings which may not be reproduced, changed or copied in any form or manner, nor are they to be assigned to any party without the engineers written consent.

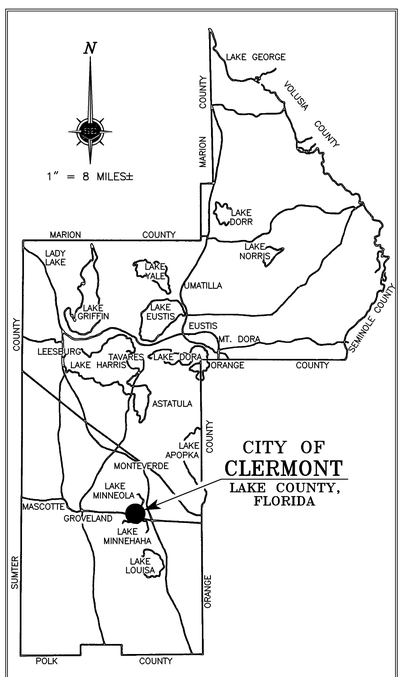
CONSTRUCTION PLANS

FOR THE

LAKE COUNTY BOARD OF COUNTY COMMISSIONERS

FIRE RESCUE STATION 109

PHASES 1&2



GENERAL COUNTY MAP

LAKE COUNTY
FLORIDA

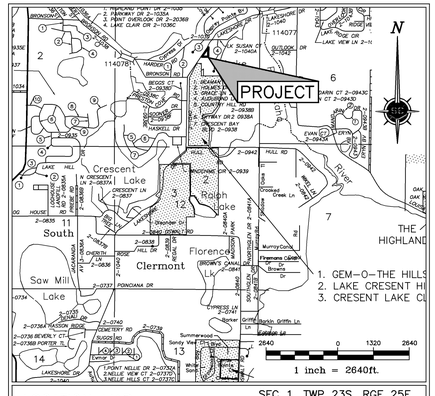
OWNER:
SOUTH LAKE FIRE DISTRICT 109
C/O BOARD OF COUNTY COMMISSIONERS
315 W MAIN ST
TAVARES, FL 32778

CLIENT:
FRD
FIRE RESCUE DIVISION
315 W MAIN ST SUITE 411
PO BOX 7800
TAVARES, FL 32778
CONTACT:
SUSAN DUGAN
SENIOR CONTRACTING OFFICER
PH: (352) 343-9768
FAX: (352) 343-9473

CIVIL ENGINEER:
SPRINGSTEAD ENGINEERING, INC.
DAVID W. SPRINGSTEAD, P.E.
727 S. 14th STREET
LEESBURG, FLORIDA 34748
PH: 352-787-1414
FAX: 352-787-7221

INDEX OF SHEETS

DESCRIPTION	SHEET
COVER	1
SITE PLAN	2
DETAILS	3
DETAILS AND NOTES	4



LOCATION MAP

SEC 1, TWP 23S, RGE 25E
CLERMONT, FLORIDA

REV. BY:	DESCRIPTION	DATE:	DRAWN

CLIENT: LAKE COUNTY BOARD OF COUNTY COMMISSIONERS

PROJECT: FIRE RESCUE STATION 109 PHASES 1 AND 2

DRAWING: COVER

1 of 4

Springstead Engineering, inc.
Consulting Engineers
Architects, Planners
Surveyors
EB-0001723
LB-0001723 AA-0002820
727 South 14th Street
Leesburg, Fl. 34748
(352) 787-1414

SCALE:	FILE:	DATE:
N/A	FIRE STA COV	4/10
DESIGN:	DRAWN:	CHECKED:
	JRH	

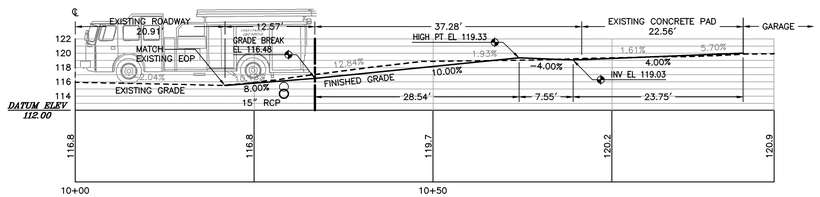
DRAWING: COVER PHASES 1 & 2

CLIENT: LCBCC FIRE RESCUE STATION 109

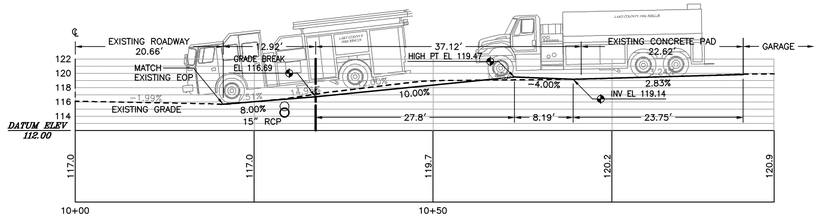
JOB NO.:	SHEET:
1010003.001	1 OF: 4

\\Sbdserv2\cad_and Projects 2020\1010003.001\dwg\FIRE COV.dwg, COVER, 5/26/2010 8:42:35 AM, ****NAN****

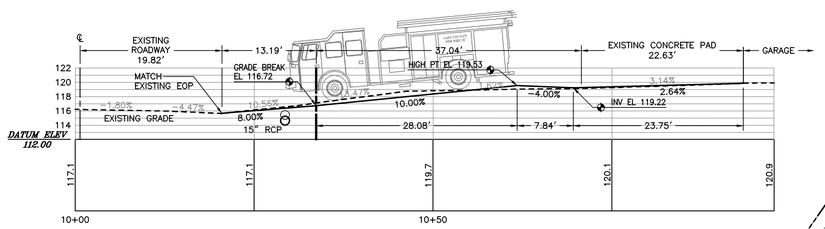
The engineer expressly reserves the exclusive common law copyright and property rights to these drawings which may not be reproduced, changed or copied in any form or manner, nor are they to be assigned to any party without the engineers written consent.



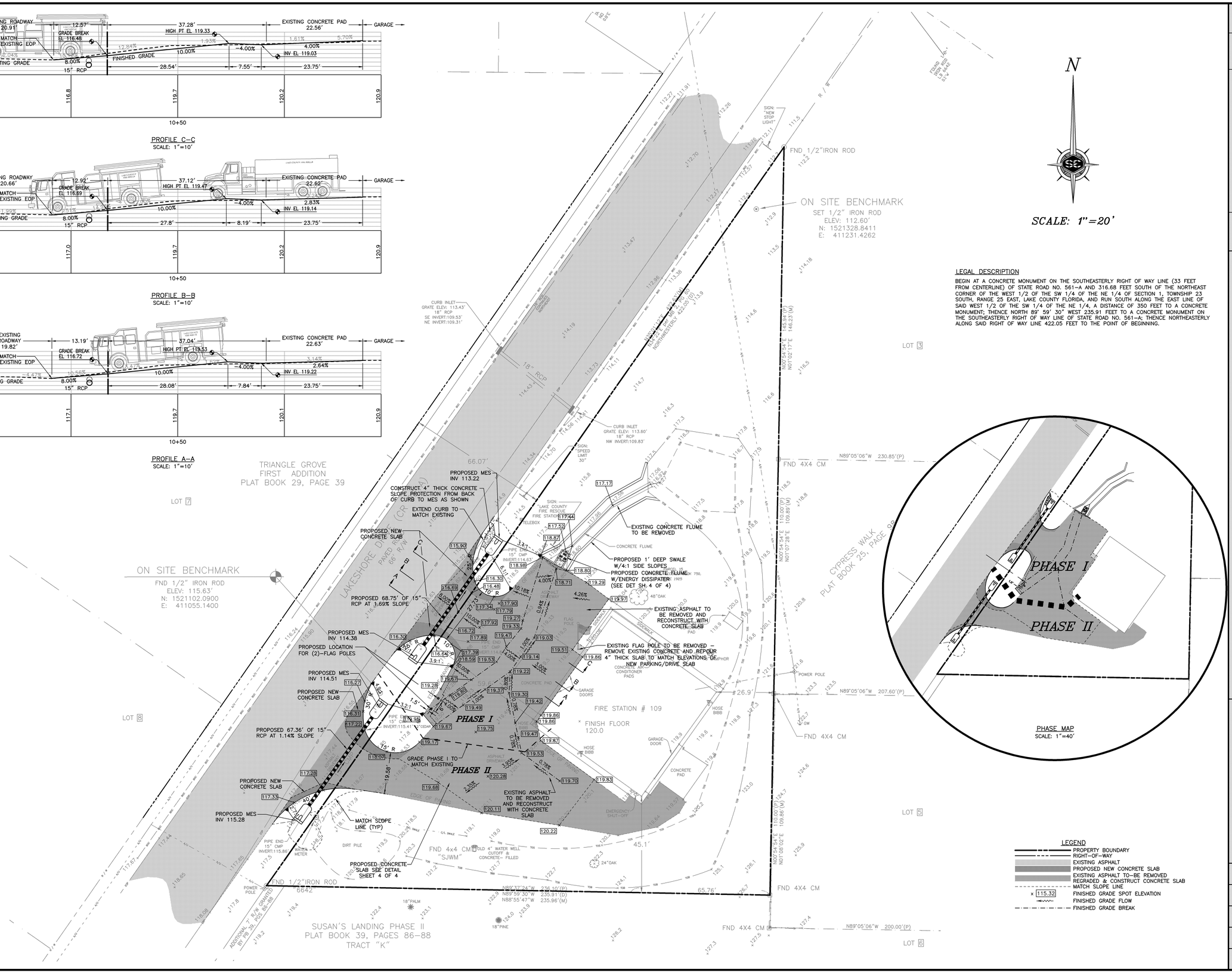
PROFILE C–C
SCALE: 1"=10'



PROFILE B–B
SCALE: 1"=10'



PROFILE A–A
SCALE: 1"=10'



REV. BY:	DESCRIPTION	DATE:	DRAWN

CLIENT: LAKE COUNTY BOARD OF COUNTY COMMISSIONERS

PROJECT: FIRE RESCUE STATION 109 PHASES 1 AND 2

DRAWING: SITE PLAN

2 of 4

Springstead Engineering, inc.
Consulting Engineers
Architects, Planners
Surveyors
EB–0001723
LB–0001723 AA–0002820
727 South 14th Street
Leesburg, Fl. 34748
(352) 787–1414

SCALE:	FILE:	DATE:
1"=20'	FIRE STA 109	4/10
DESIGN:	DRAWN:	CHECKED:
	VL/JRH	

DRAWING: SITE PLAN PHASES 1 & 2

CLIENT: LCBCC FIRE RESCUE STATION 109

JOB NO.:	SHEET: 2
1010003.001	OF: 4

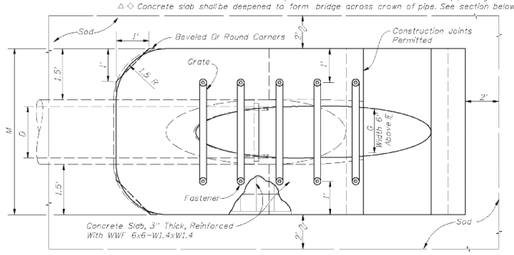
The engineer expressly reserves the exclusive common law copyright and property rights to these drawings which may not be reproduced, changed or copied in any form or manner, nor are they to be assigned to any party without the engineers written consent.

DIMENSIONS & QUANTITIES

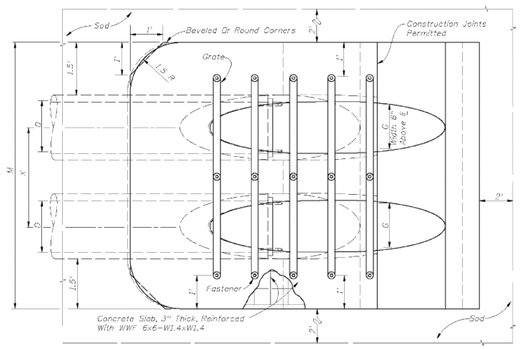
D	X	A	B	C	E	F	G	H ■	M Single Pipe	M Double Pipe	M Triple Pipe	M Quad Pipe	N	Grate Sizes Standard Weight Pipe	Grate Sizes Extra Strong Pipe	Concrete (Cu. Yds.) Single Pipe	Concrete (Cu. Yds.) Double Pipe	Concrete (Cu. Yds.) Triple Pipe	Concrete (Cu. Yds.) Quad Pipe	Sodding (Sq. Yds.) Single Pipe	Sodding (Sq. Yds.) Double Pipe	Sodding (Sq. Yds.) Triple Pipe	Sodding (Sq. Yds.) Quad Pipe
15"	2'-7"	2.27'	4.09'	6.36'	4.03'	8'	1.92'	4.0'	4.63'	7.21'	9.78'	12.37'	1.19'			0.76	1.16	1.54	1.94	8	10	11	12
18"	2'-10"	2.36'	5.12'	7.48'	5.03'	9'	1.41'	4.0'	4.52'	7.73'	10.58'	13.42'	1.21'			0.85	1.28	1.71	2.17	9	10	12	13
24"	3'-5"	2.53'	7.18'◇	9.71'	7.03'△	11'	1.73'	4.0'	5.50'	8.92'	12.33'	15.75'	1.25'			1.02	1.58	2.15	2.75	10	12	13	15
30"	4'-3"	2.70'	9.25'	11.95'	9.03'	13'	2.00'	4.0'	6.08'	10.33'	14.58'	18.83'	1.29'	2½"	3"	1.23	1.98	2.74	3.50	12	14	15	17
36"	5'-1"	2.87'	11.31'◇	14.18'	11.03'◇	15'	2.34'	4.0'	6.67'	11.75'	16.83'	21.92'	1.33'	2½"*	3"	1.40	2.38	3.33	4.24	13	15	17	20
42"	6'-0"	3.05'	13.37'	16.42'	13.03'	17'	2.45'	4.0'	7.25'	13.25'	19.25'	25.25'	1.38'	2½"*	3½"	1.60	2.83	4.04	5.26	14	17	19	22
48"	6'-9"	3.22'	15.43'	18.65'	15.03'	19'	2.65	4.0'	7.83'	14.58'	21.33'	28.08'	1.42'	2½"*	3½"	1.81	3.26	4.70	6.14	15	18	21	24
54"	7'-8"	3.39'	17.49'	20.88'	17.03'	21'	2.83'	4.0'	8.42'	16.08'	23.75'	31.42'	1.46'	3"	4"	2.03	3.78	5.54	7.28	17	20	23	27
60"	8'-6"	3.56'	19.55'	23.11'	19.03'	23'	3.00'	4.0'	9.00'	17.50'	26.00'	34.50'	1.50'	3"	4"	2.28	4.36	6.43	8.50	18	22	25	29

△ 6.42' ◇ 12.40' △ 6.25' ◇ 10.10' Dimensions permitted to allow use of 8' standard pipe lengths.
Dimensions permitted to allow use of 12' standard pipe lengths.
△ ◇ Concrete slab shall be deepened to form bridge across crown of pipe. See section below.

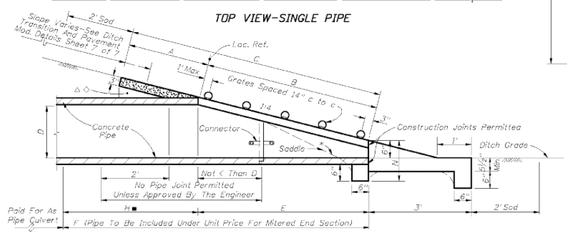
■ Values shown for estimating pipe quantities and are for information only.



TOP VIEW-SINGLE PIPE



TOP VIEW-MULTIPLE PIPE



SECTION

Note: See Sheets 6 and 7 for details and general notes.

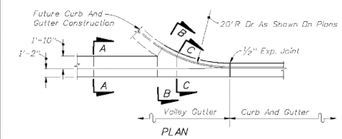
*Slope:
To ℄ Pipe For Pipes 18" And Smaller
1:2 For Pipes 24" And Larger.

SINGLE AND MULTIPLE ROUND CONCRETE PIPE

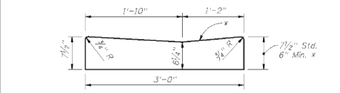
2010 FDOT Design Standards

SIDE DRAIN MITERED END SECTION

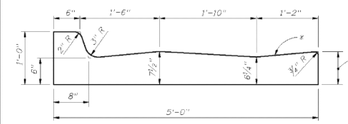
Last Revision 02 | Sheet No. 1 of 7 | Index No. 273



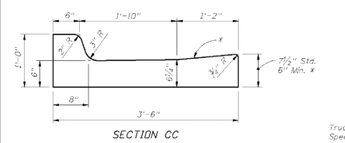
PLAN



SECTION AA

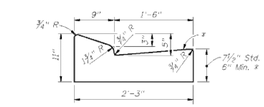


SECTION BB

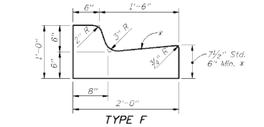


SECTION CC

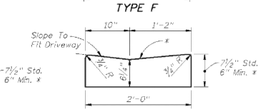
VALLEY GUTTER



TYPE E

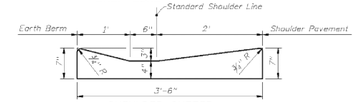


TYPE F

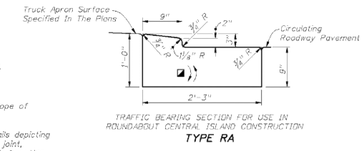


Note: To be paid for as parent curb.

DROP CURB

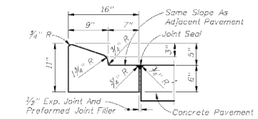


SHOULDER GUTTER



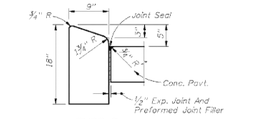
TRAFFIC BEARING SECTION FOR USE IN ROUNDABOUT CENTRAL ISLAND CONSTRUCTION

TYPE RA

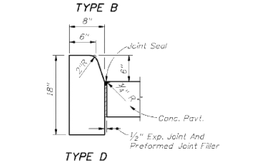


For details depicting usage adjacent to flexible pavement, see diagram right.

TYPE A



TYPE B



TYPE D

Note:
For use adjacent to concrete or flexible pavement, concrete shown. Expansion joint, preformed joint filler and joint sealare required between curbs and concrete pavement only, see Sheet 2.

CONCRETE CURB

* When used on high side of roadways, the cross slope of the gutter shall match the cross slope of the adjacent pavement. The thickness of the lip shall be 6", unless otherwise shown on plans.

◪ Rotate entire section so that gutter cross slope matches slope of adjacent circulating roadway pavement.

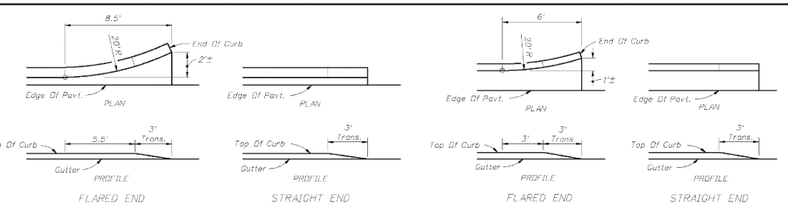
For use adjacent to concrete or flexible pavement. For details depicting usage adjacent to flexible pavement, see Sheet 2. Expansion joint, preformed joint filler and joint sealare required between curb & gutter and concrete pavement only, see Sheet 2.

CONCRETE CURB AND GUTTER

2010 FDOT Design Standards

CURB & CURB AND GUTTER

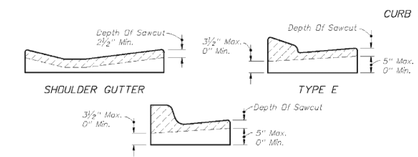
Last Revision 00 | Sheet No. 1 of 2 | Index No. 300



CURB TYPE A

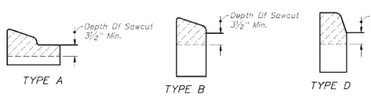
CURB AND GUTTER ENDINGS

CURB AND GUTTER TYPES E & F

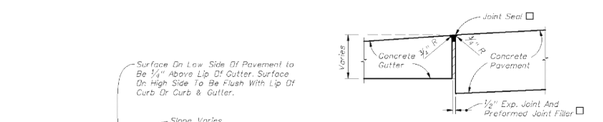


Sawcuts should be avoided within valley gutter and within curb and gutter endings.

CONTRACTION JOINT IN CURB AND GUTTER



CONTRACTION JOINT IN CURB

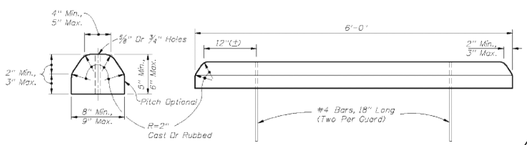


△ Applies to both high and low sides of pavement, low side shown. Applies to shoulder gutter only where adjoining traffic lanes.

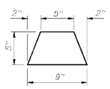
CURB AND GUTTER AND TYPE A CURB ADJACENT TO FLEXIBLE PAVEMENT

□ Applies to both high and low sides of pavement, low side shown.

EXPANSION JOINT BETWEEN GUTTER AND CONCRETE PAVEMENT



CONCRETE BUMPER GUARD



ASPHALTIC CONCRETE CURB

GENERAL NOTES

1. For curb, gutter and curb & gutter provide ⅛" - ¼" contraction joints at 10' centers (max.). Contraction joints adjacent to concrete pavement on tangents and flat curves are to match the pavement joints, with intermediate joints not to exceed 10' centers. Curb, gutter and curb & gutter expansion joints shall be located in accordance with Section 520 of the Standard Specifications.
2. Ends of Curbs Types B and D shall transition from full to zero heights in 3'.

2010 FDOT Design Standards

CURB & CURB AND GUTTER

Last Revision 00 | Sheet No. 2 of 2 | Index No. 300

REV. BY:	DESCRIPTION	DATE:	DRAWN

CLIENT: LAKE COUNTY BOARD OF COUNTY COMMISSIONERS

PROJECT: FIRE RESCUE STATION 109 PHASES 1 AND 2

DRAWING: DETAILS

3 of 4

Springstead Engineering, inc.
Consulting Engineers
Architects, Planners
Surveyors
EB-0001723
LB-0001723 AA-0002820
727 South 14th Street
Leesburg, Fl. 34748
(352) 787-1414

SCALE:	FILE:	DATE:
N/A	FIRE NOTES	4/10
DESIGN:	DRAWN:	CHECKED:
	JRH	

DRAWING: DETAILS PHASES 1 & 2

CLIENT: LCBCC FIRE RESCUE STATION 109

JOB NO.:	SHEET:
1010003.001	3 OF 4

The engineer expressly reserves the exclusive common law copyright and property rights to these drawings which may not be reproduced, changed or copied in any form or manner, nor are they to be assigned to any party without the engineers written consent.

GENERAL PROJECT DATA

FOR IDENTIFICATION OF CONTRACTUAL AGREEMENTS, THIS SET OF DRAWINGS IS DATED AUGUST, 2010. ANY REVISIONS THEREAFTER WILL BE NOTED AND DATED ON THE AFFECTED DRAWINGS(S).

ALL CONSTRUCTION PROJECTS 1 OR MORE ACRES IN SIZE THAT DISCHARGE TO OFFSITE AREAS ARE REQUIRED TO ABIDE BY THE PROVISIONS OF THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL PERMIT. UNLESS OTHERWISE NOTED ON THE PLANS, THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AND SUBMITTING NPDES "NOTICE OF INTENT" (N.O.I.) AND "NOTICE OF TERMINATION" (N.O.T.) NOTICES TO THE EPA OR LOCAL STATE AGENCY HAVING JURISDICTION OVER THE NPDES PROGRAM. THE CONTRACTOR SHALL KEEP ONSITE A COPY OF THE SWPPP, NOI, AND WATER MANAGEMENT DISTRICT PERMITS ISSUED TOGETHER WITH THE INSPECTION REPORTS AND CURRENT PLANS, INCLUDING ANY MODIFICATIONS REQUIRED.

THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THE PLANS HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITY, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE VARIOUS UTILITIES AND TO MAKE THE NECESSARY ARRANGEMENTS FOR ANY RELOCATIONS TO THESE UTILITIES WITH THE OWNER OF THE UTILITY. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN CROSSING AN UNDERGROUND UTILITY, WHETHER SHOWN ON THE PLANS OR LOCATED BY THE UTILITY COMPANY. ALL UTILITIES THAT INTERFERE WITH THE PROPOSED CONSTRUCTION SHALL BE RELOCATED BY THE RESPECTIVE UTILITY COMPANY AND THE CONTRACTOR SHALL COOPERATE WITH THEM DURING RELOCATION OPERATIONS. ANY DELAY OR INCONVENIENCE CAUSED TO THE CONTRACTOR BY THE RELOCATION OF VARIOUS UTILITIES SHALL BE INCIDENTAL TO THE CONTRACT, AND NO EXTRA COMPENSATION WILL BE ALLOWED.

DRAINAGE SYSTEMS

THE DRAINAGE FACILITIES SHALL BE MAINTAINED BY THE CONTRACTOR DURING THE COURSE OF THIS CONTRACT. THE CONTRACTOR SHALL INCLUDE FUNDS TO OPERATE AND MAINTAIN THE DRAINAGE SYSTEMS DURING THE WORK PROCESS.

THE UTILITIES ARE THE PROPERTY OF THE FOLLOWING:

POWER	WATER
SUMTER ELECTRIC COOP, INC. 330 S US HWY 301 SUMTERVILLE, FL 33585 352-793-3801	LAKE UTILITIES, INC. 200 WEATHERSFIELD DR ALTAMONTE SPRINGS, FL 32714 800-272-1919

TELEPHONE	CABLE	GAS
CENTURY LINK 260 CITRUS TOWER BLVD SUITE A CLERMONT, FL 34711 352-536-6160	BRIGHT HOUSE NETWORKS 1670 E HWY 50 SUITE A CLERMONT, FL 34711 352-394-5541	LAKE APOPKA NATURAL GAS 676 WEST MONTROSE ST CLERMONT, FL 34711 352-394-3480

SURVEY INFORMATION PREPARED BY; LAKE COUNTY PUBLIC WORKS ENGINEERING DEPT.

AS-BUILTS

AS-BUILTS SHALL BE PROVIDED BY THE CONTRACTOR TO THE ENGINEER TWO WEEKS PRIOR TO FINAL INSPECTION. ALL AS-BUILT DATA SHALL BE PROVIDED BY A FLORIDA LICENSED SURVEYOR, SIGNED, SEALED, AND DATED BY THE RESPONSIBLE PARTY. SEE INDIVIDUAL SECTIONS (STORM, WATER SYSTEM, ETC.) FOR ADDITIONAL AS-BUILT REQUIREMENTS.

PERMITS AND PERMIT REQUIREMENTS

THE CONTRACTOR SHALL OBTAIN ALL REGULATORY AND LOCAL AGENCY PERMITS. THE CONTRACTOR SHALL BE EXPECTED TO REVIEW AND ABIDE BY ALL THE REQUIREMENTS AND LIMITATIONS SET FORTH IN THE PERMITS. A COPY OF THE PERMIT SHALL BE KEPT ON THE JOB AT ALL TIMES.

LAYOUT AND CONTROL

UNLESS OTHERWISE NOTED ON THE PLANS, THE CONTRACTOR SHALL PROVIDE FOR THE LAYOUT OF ALL OF THE WORK TO BE CONSTRUCTED. BENCHMARK INFORMATION SHALL BE PROVIDED TO THE CONTRACTOR BY THE OWNER OR OWNER'S SURVEYOR. ANY DISCREPANCIES BETWEEN FIELD MEASUREMENTS AND CONSTRUCTION PLAN INFORMATION SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.

QUALITY CONTROL TESTING REQUIREMENTS

ALL TESTING RESULTS SHALL BE PROVIDED TO THE OWNER/OPERATOR, CITY, COUNTY, AND THE ENGINEER. TESTING REQUIREMENTS ARE TO BE IN ACCORDANCE WITH THE OWNER/OPERATOR'S SPECIFICATIONS AND REQUIREMENTS. ALL TEST RESULTS SHALL BE PROVIDED (PASSING AND FAILING) ON A REGULAR AND IMMEDIATE BASIS. CONTRACTOR SHALL PROVIDE TESTING SERVICES THROUGH A FLORIDA LICENSED GEOTECHNICAL ENGINEERING FIRM ACCEPTABLE TO THE OWNER AND ENGINEER. CONTRACTOR TO SUBMIT TESTING FIRM TO OWNER FOR APPROVAL PRIOR TO COMMENCING TESTING.

SHOP DRAWINGS

SHOP DRAWINGS AND CERTIFICATIONS FOR ALL STORM DRAINAGE, AND PAVING SYSTEM MATERIALS AND STRUCTURES ARE REQUIRED. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO ORDERING THE MATERIALS REQUIRED FOR CONSTRUCTION.

SITE REVIEW PRIOR TO POURING CONCRETE

UPON COMPLETION OF FORMING FOR EACH UPCOMING POUR, THE CONTRACTOR WILL CONTACT THE ENGINEER (352) 787-1414 TO PERFORM SITE VISIT TO REVIEW THE SITE FOR UPCOMING POUR. CONTRACTOR WILL PROVIDE ENGINEER WITH AT LEAST 24 HOUR NOTICE.

EARTHWORK

EARTHWORK QUANTITIES

THE CONTRACTOR SHALL PERFORM HIS OWN INVESTIGATIONS AND CALCULATIONS AS NECESSARY TO ASSURE HIMSELF OF EARTHWORK QUANTITIES. THERE IS NO IMPLICATION THAT EARTHWORK BALANCES, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY IMPORT FILL NEEDED, OR FOR REMOVAL AND DISPOSAL OF EXCESS MATERIALS.

EROSION CONTROL

EROSION AND SILTATION CONTROL MEASURES ARE TO BE PROVIDED AND INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION. THESE MEASURES ARE TO BE INSPECTED BY THE CONTRACTOR ON A REGULAR BASIS AND ARE TO BE MAINTAINED OR REPAIRED ON AN IMMEDIATE BASIS, AS REQUIRED.

LIMITS OF DISTURBANCE

AT NO TIME SHALL THE CONTRACTOR DISTURB SURROUNDING PROPERTIES OR TRAVEL ON SURROUNDING PROPERTIES WITHOUT WRITTEN CONSENT FROM THE PROPERTY OWNER. REPAIR OR RECONSTRUCTION OF DAMAGED AREAS ON SURROUNDING PROPERTIES SHALL BE PERFORMED BY THE CONTRACTOR ON AN IMMEDIATE BASIS. ALL COSTS FOR REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NO EXTRA COMPENSATION SHALL BE PROVIDED.

CLEARING AND GRUBBING

THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEARING AND GRUBBING FOR SITE CONSTRUCTION INCLUDING CLEARING FOR PAVING, UTILITIES, DRAINAGE FACILITIES AND BUILDING CONSTRUCTION. ALL AREAS TO BE CLEARED SHALL BE FIELD STAKED AND REVIEWED BY THE OWNER AND ENGINEER PRIOR TO ANY CONSTRUCTION.

FILL MATERIAL

ALL FILL MATERIALS SHALL CONTAIN NO MUCK, STUMPS, ROOTS, BRUSH, VEGETATIVE MATTER, RUBBISH OR OTHER MATERIAL THAT WILL NOT COMPACT INTO A SUITABLE AND ENDURING BACKFILL. FILL SHALL BE CLEAN, NON-ORGANIC, GRANULAR MATERIAL WITH NOT MORE THAN 10% PASSING THE NO. 200 SIEVE.

COMPACTION

FILL MATERIALS PLACED UNDER PARKING SHALL BE COMPACTED TO AT LEAST 98% OF THE MAXIMUM DENSITY AS SPECIFIED IN AASHTO T-180. ALL OTHER FILL AREAS ARE TO BE COMPACTED TO AT LEAST 95% MAXIMUM DENSITY AS SPECIFIED IN AASHTO T-180. FILL MATERIALS SHALL BE PLACED AND COMPACTED IN A MAXIMUM OF 12" LIFTS. THE CONTRACTOR SHALL PROVIDE THE ENGINEER AND OWNER WITH ALL (PASSING AND FAILING) TESTING RESULTS. RESULTS SHALL BE PROVIDED ON A TIMELY AND REGULAR BASIS PRIOR TO CONTRACTOR'S PAY REQUEST SUBMITTAL FOR THE AFFECTED WORK.

STORM SEWER NOTES:

OWNER/OPERATOR:

THE ENTITY THAT WILL OWN, OPERATE AND MAINTAIN THE SYSTEM SHOWN ON THESE PLANS IS LAKE COUNTY BOARD OF COUNTY COMMISSIONERS. THE CONTRACTOR SHALL BE EXPECTED TO MEET ALL THE REQUIREMENTS OF THAT ENTITY.

MAINS AND MANHOLES:

1. ALL STORM SEWER MAINS SHALL BE CONSTRUCTED OF REINFORCED CONCRETE PIPE (RCP) MADE IN ACCORDANCE WITH ASTM C 507 STANDARDS AND MEETING FDOT REQUIREMENTS.
2. JOINTS SHALL BE TONGUE AND GROOVE WITH PREFORMED PLASTIC GASKET (RAM-NEK OR APPROVED EQUAL) MEETING FEDERAL SPECIFICATIONS SS-S-210 A, TYPE I, ROPE FORM AND AASHTO DESIGNATION M-198 75 I, TYPE B.
3. ALL MANHOLES AND INLET BOTTOMS SHALL BE PRECAST CONCRETE AND MEET FDOT SPECIFICATIONS FOR FOR THE DESIGNATED TYPE AND SIZE.
4. MANHOLE RING AND COVERS AND INLET GRATES AND TOPS SHALL BE TRAFFIC BEARING H-20.

AS BUILT DRAWINGS:

THE CONTRACTOR SHALL PROVIDE VERTICAL AND HORIZONTAL "AS-BUILT" INFORMATION RELATIVE TO ALL CONSTRUCTED UTILITIES AND STRUCTURES. THREE SETS SHALL BE PROVIDED FOR REVIEW. ONCE APPROVED BY THE UTILITY, ONE REPRODUCIBLE SET SHALL BE PROVIDED.

AS-BUILT INFORMATION FOR THE SYSTEM SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:

1. LOCATION OF ALL INLETS, MANHOLES, PIPES, STRUCTURES, DITCHES, BERMS, AND WATER RETENTION AREAS. HORIZONTAL AND VERTICAL WITH INVERTS.
2. LOCATION OF THE MAIN TIED WITH COORDINATES.
3. CERTIFICATION AS TO THE SYSTEM MEETING THE MINIMUM COVER REQUIREMENTS.
4. HORIZONTAL AND VERTICAL DATA FOR ANY CONSTRUCTION WHICH DEVIATES FROM THE APPROVED ENGINEERING PLANS.
5. UTILITY LOCATES ON SYSTEMS INSTALLED UNDER THIS CONTRACT SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR UNTIL AS-BUILT DRAWINGS ARE REVIEWED AND APPROVED BY THE UTILITY.

PAVEMENT AND/OR ROAD AND R/W WORK

OWNER/OPERATOR

THE ENTITY THAT WILL OWN, OPERATE AND MAINTAIN THE ROADWAYS SHOWN ON THESE PLANS IS LAKE COUNTY BOARD OF COUNTY COMMISSIONERS. THE CONTRACTOR SHALL BE EXPECTED TO MEET ALL OF THE REQUIREMENTS OF THAT RESPECTIVE ENTITY.

MATERIALS/CONSTRUCTION SPECIFICATIONS

MATERIALS AND CONSTRUCTION METHODS FOR THE ROADWAY CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

PAVEMENT MARKINGS/SIGNAGE

SIGNAGE SHALL BE IN CONFORMANCE WITH MUTCD (LATEST EDITION).

TRAFFIC CONTROL

A MINIMUM OF 2-WAY ONE LANE TRAFFIC SHALL BE MAINTAINED IN THE WORK SITE AREA. ALL CONSTRUCTION WARNING SIGNAGE SHALL BE IN PLACE PRIOR TO COMMENCEMENT OF CONSTRUCTION AND BE MAINTAINED THROUGHOUT CONSTRUCTION. ACCESS SHALL BE CONTINUOUSLY MAINTAINED FOR ALL PROPERTY OWNERS SURROUNDING THE WORK SITE AREA. LIGHTED WARNING DEVICES ARE TO BE OPERATIONAL PRIOR TO DUSK EACH NIGHT DURING CONSTRUCTION.

R/W RESTORATION

ALL DISTURBED AREAS SHALL BE RAKED CLEAN OF ALL LIMEROCK AND ROCKS AND SODDED AFTER FINAL GRADING IN ACCORDANCE WITH THE CONSTRUCTION PLANS PRIOR TO FINAL INSPECTION. ALL GRASSING (SEED OR SOD) SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL FINAL ACCEPTANCE BY THE OWNER/OPERATOR.

SITE ACCESS

ALL ACCESS TO THE JOB-SITE FOR CONSTRUCTION AND RELATED ACTIVITIES SHALL BE BY EXISTING STREETS AND ROADS.

SOD NOTES:

1. PLACE A 3' WIDE STRIP OF BAHIA SOD ALONG ALL EDGES OF NEW CONRETE SLAB.
2. SOD ALL SWALE, BERM, DITCH AND DETENTION AREA SIDE SLOPES WITH BAHIA SOD.
3. SOD ALL EXISTING LAWNS AND/OR LANDSCAPED AREAS DISTURBED BY CONSTRUCTION TO MATCH EXISTING.

EROSION CONTROL PLAN:

AN EROSION CONTROL PLAN SHALL BE CONDUCTED BY THE CONTRACTOR AND THE CONTRACTOR SHALL EXECUTE ALL MEASURES NECESSARY TO LIMIT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT TO THE VOLUME AND AMOUNT AS THAT ARE EXISTING PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. THIS CONDITION WILL BE SATISFIED FOR THE TOTAL ANTICIPATED CONSTRUCTION PERIOD. PROVISION MUST BE MADE TO PRESERVE THE INTEGRITY AND CAPACITY OF STORMWATER INLETS, SEDIMENT BASINS, SLOPE DRAINS, GRADING PATTERNS, ETC. REQUIRED TO MEET THIS PROVISION THROUGHOUT THE LIFE OF THE CONSTRUCTION. CONTRACTOR SHALL PROVIDE HAY BAILS, SILT BARRIERS, TEMPORARY GRASSING, ETC. AS REQUIRED TO FULLY COMPLY WITH THE INTENT OF THIS SPECIFICATION. UPON COMPLETION OF CONSTRUCTION AND COMPLETED STABILIZATION OF POTENTIAL EROSION AREAS, THE CONTRACTOR SHALL REMOVE SEDIMENTATION CONTROL MEASURES AND CLEAN AND REPAIR ANY AREAS AFFECTED BY THE CONSTRUCTION ACTIVITIES.

STOCKPILING MATERIAL:

NO EXCAVATED MATERIAL SHALL BE STOCKPILED IN SUCH A MANNER AS TO DIRECT STORMWATER OFF THE PROJECT SITE OR INTO ANY ADJACENT WATER BODY OR STORMWATER COLLECTION SYSTEM.

MAINTENANCE:

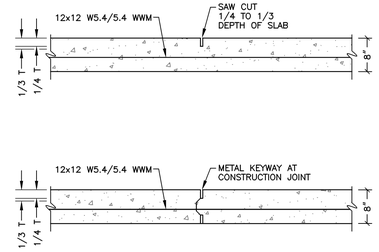
ALL FEATURES OF THE PROJECT SHALL BE CONSTRUCTED TO PREVENT EROSION AND SEDIMENT AND SHALL BE MAINTAINED DURING THE LIFE OF THE CONSTRUCTION SO AS TO FUNCTION PROPERLY WITHOUT THE TRANSPORT OF SEDIMENTS OUTSIDE THE LIMITS OF THE PROJECT. ANY SEDIMENT ACCUMULATIONS IN THE DRAINAGE SYSTEM SHALL BE REMOVED AND THE SYSTEM RESTORED TO ORIGINAL SPECIFICATIONS PRIOR TO THE COMPLETION AND FINAL APPROVAL OF THE PROJECT.

TEMPORARY SEEDING:

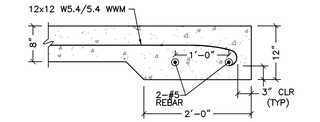
AREAS OPENED BY CONSTRUCTION OPERATIONS THAT ARE NOT ANTICIPATED TO BE DRESSED AND RECEIVE FINAL GRASSING TREATMENT WITHIN THIRTY DAYS SHALL BE SEEDED WITH A QUICK GROWING GRASS SPECIES WHICH WILL PROVIDE AN EARLY COVER DURING THE SEASON IN WHICH IT IS PLANTED, AND WILL NOT LATER COMPETE WITH THE PERMANENT GRASSING. THE MINIMUM RATE OF SEEDING SHALL BE 30 LB. PER ACRE.

CONCRETE NOTES:

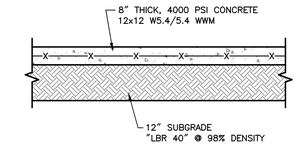
1. CONCRETE SHALL HAVE A MINIMUM COMPRESSION STRENGTH OF 4000 PSI AT 28 DAYS.
2. BILLET STEEL BARS FOR REINFORCING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-615, GRADE 60.
3. ALL REINFORCING SHOWN CONTINUOUS SHALL BE LAPPED 36 BAR DIAMETERS (GRADE 60).
4. COVER OVER REINFORCEMENT SHALL BE:
   - 3" - CONCRETE CAST AGAINST EARTH
   - 1-1/2" - CONCRETE EXPOSED TO WEATHER
   - 1-1/2" - BOND BEAM
   - 2" - CMU W/FACE EXPOSED TO EARTH OR WEATHER
   - 1-1/2" - CMU NOT EXPOSED TO EARTH OR WEATHER
5. CONCRETE MIX DESIGNS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL, AT LEAST 7 DAYS PRIOR TO PLACING CONCRETE.
6. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318, LATEST EDITION.
7. CONSTRUCTION JOINTS SHALL BE PLACED SUCH THAT THE DESIGN GRADES FOR THE TOP OF SLAB ARE ACCOMPLISHED. PROVIDE ENGINEER WITH CONSTRUCTION PLAN INDICATING THE PROPOSED CONSTRUCTION JOINTS PRIOR TO PLACING CONCRETE.



TYPICAL SLAB JOINT DETAILS
N.T.S.

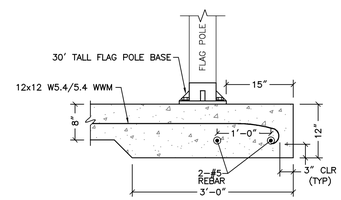


TYPICAL THICKENED EDGE DETAILS FOR ENTIRE PERIMETER
N.T.S.

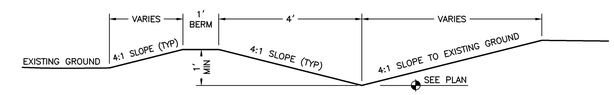


NOTE: CONSTRUCTION JOINTS SHALL BE PLACED SUCH THAT THE DESIGN GRADES FOR THE TOP OF SLAB ARE ACCOMPLISHED. PROVIDE ENGINEER WITH CONSTRUCTION PLAN INDICATING THE PROPOSED CONSTRUCTION JOINTS PRIOR TO PLACING CONCRETE.

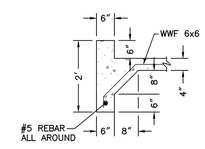
TYPICAL SECTION
NTS



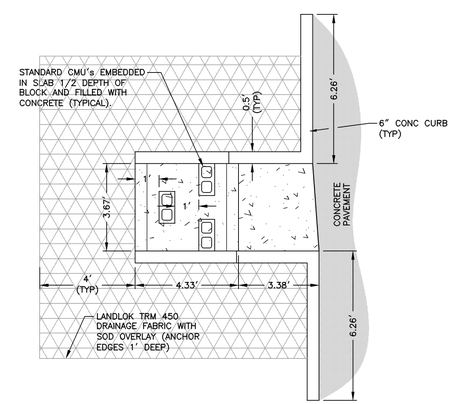
TYPICAL FLAG POLE BASE DETAIL
N.T.S.



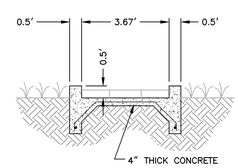
TYPICAL SWALE DETAIL
SCALE: 1"=2'



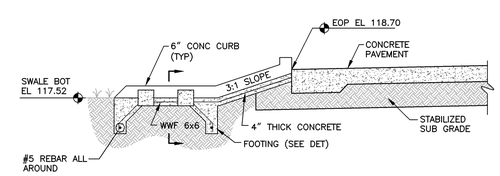
TYPICAL FLUME FOOTING
SCALE: 1"=2'



PLAN



SECTION



PROFILE

CONCRETE FLUME DETAILS
SCALE: 1"=3'

REV. BY:	DESCRIPTION	DATE:	DRAWN

CLIENT: LAKE COUNTY BOARD OF COUNTY COMMISSIONERS

PROJECT: FIRE RESCUE STATION 109 PHASES 1 AND 2

DRAWING: DETAILS AND NOTES

4 of 4

Springstead Engineering, inc.
Consulting Engineers
Architects, Planners
Surveyors
EB-0001723
LB-0001723 AA-0002820
727 South 14th Street
Leesburg, Fl. 34748
(352) 787-1414

SCALE:	FILE:	DATE:
AS SHOWN	FIRE DET	4/10
DESIGN:	DRAWN:	CHECKED:
	JRH	

DRAWING: DETAILS AND NOTES PHASES 1 & 2

CLIENT: LCBCC FIRE RESCUE STATION 109

JOB NO.:	SHEET:
1010003.001	4 OF: 4