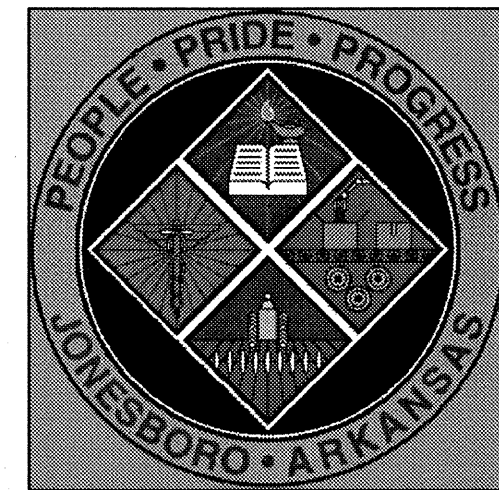


# OAK HILL TERRACE DETENTION BASIN

CITY OF JONESBORO  
CRAIGHEAD COUNTY  
ARKANSAS



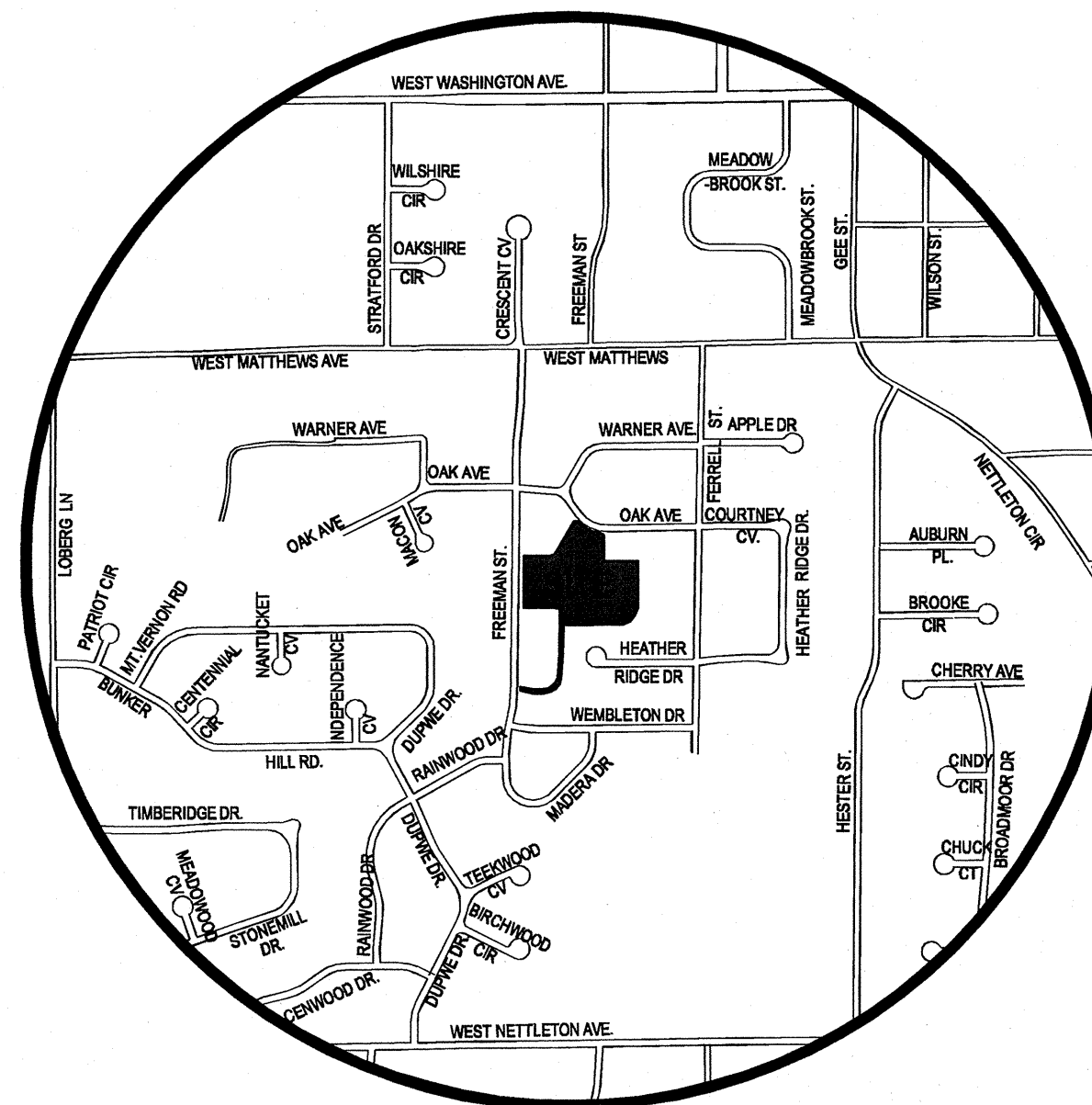
ENGINEER



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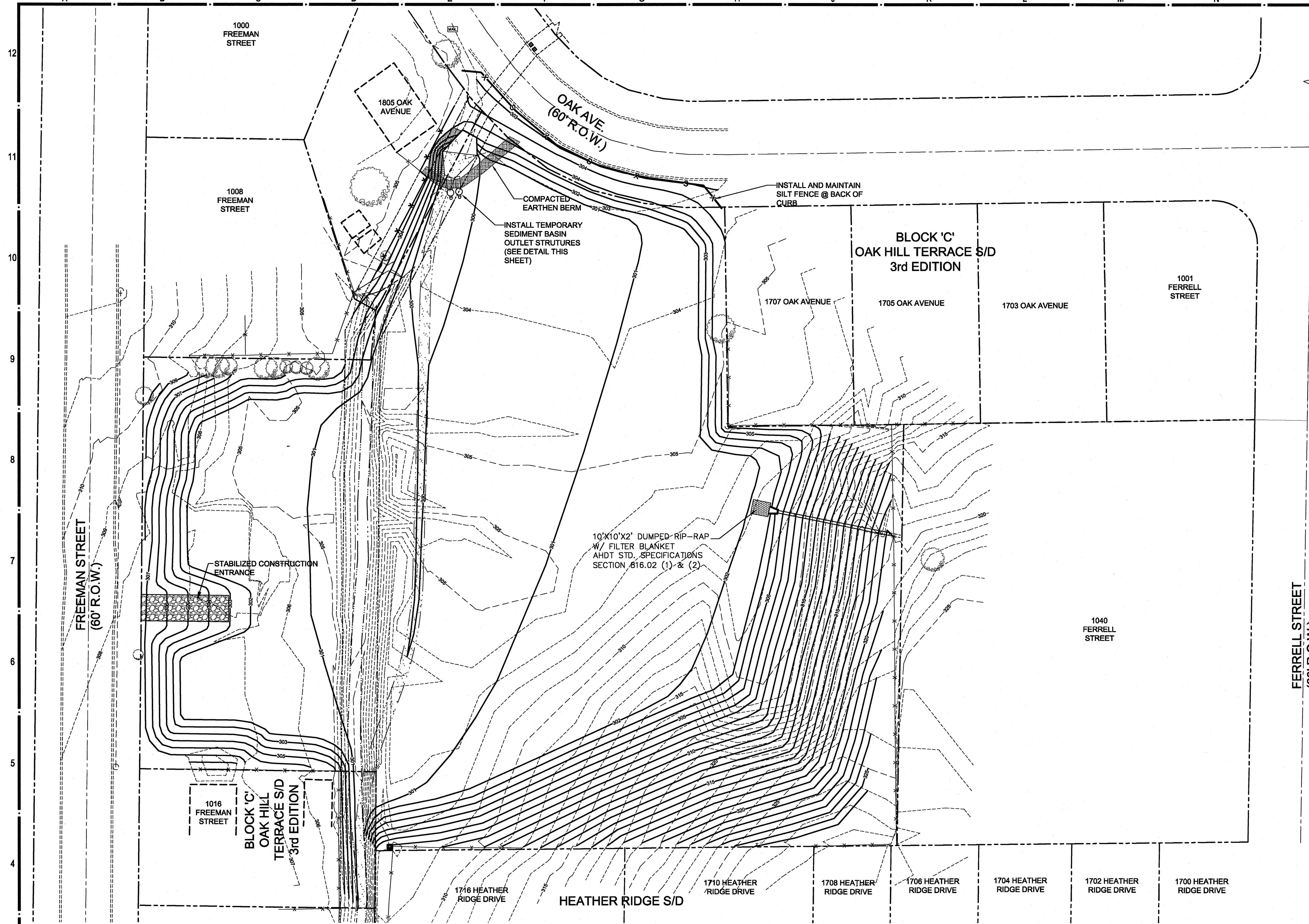
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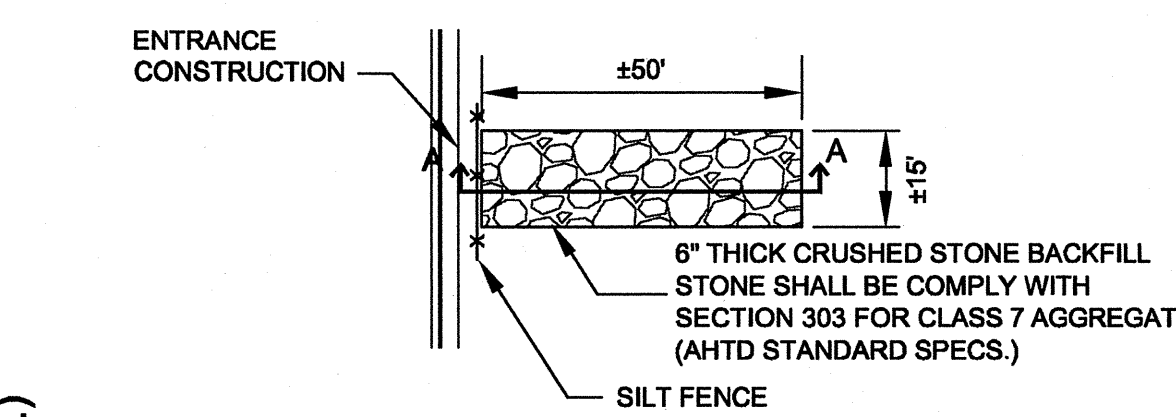
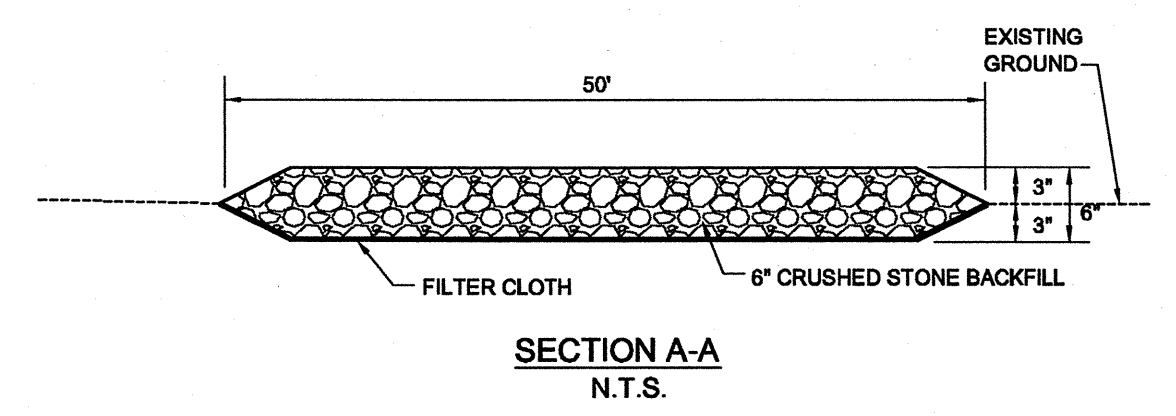
### INDEX

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- NOTES:**
1. THE CONTRACTOR SHALL EXCAVATE DETENTION POND TO LINES AND GRADES SHOWN. EXCAVATION SHALL BE DONE IN AN ORDERLY MANNER AS TO MINIMIZE THE AMOUNT OF EXPOSED SOIL AT ANY ONE TIME.
  2. THE CONTRACTOR SHALL ADHERE STRICTLY TO THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) THAT HAS BEEN PREPARED FOR THIS PROJECT.
  3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF THE BEST MANAGEMENT PRACTICES (BMP'S) DETAILED IN THE SWPPP, THROUGHOUT THE CONSTRUCTION PERIOD.
  4. THE CONTRACTOR IS CAUTIONED THAT ADDITIONS TO OR MODIFICATIONS OF THE SWPPP MAY BE REQUIRED DURING THE CONSTRUCTION PERIOD TO PREVENT CONTAMINANTS FROM LEAVING THE PROJECT SITE. THE CONTRACTOR SHALL PROVIDE, INSTALL, AND MAINTAIN THESE ADDITIONAL CONTROL MEASURES AS DIRECTED BY THE OWNER AT NO ADDITIONAL COST.
  5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL SOIL STABILIZATION OF THE PROJECT LIMITS INCLUDING THE ESTABLISHMENT OF VEGETATIVE COVER AND INSTALLATION OF PERMANENT EROSION CONTROL MEASURES AS SPECIFIED.
  6. CONTRACTOR SHALL INSTALL BERMUDA SOD ON ALL BANKS OF DETENTION PONDS FROM TOE TO TOP OF SLOPE.
  7. CONTRACTOR SHALL SECURE PROJECT LIMITS DURING THE CONSTRUCTION PERIOD WITH TEMPORARY BARRIER FENCING AND SIGNS LIMITING ACCESS.
  8. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKING.
  9. PRIOR TO REMOVAL OF TEMPORARY SEDIMENT BASIN OUTLET, ALL ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF OFF-SITE, AND ALL DISTURBED AREAS STABILIZED.



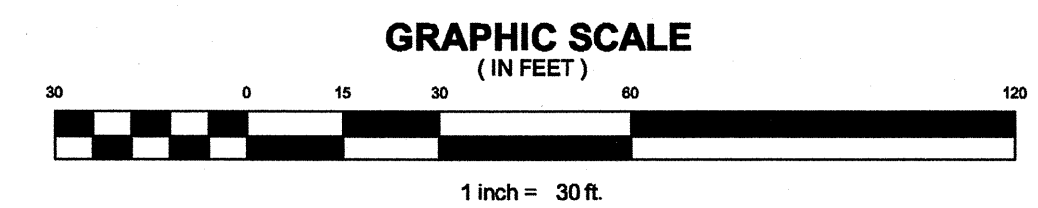
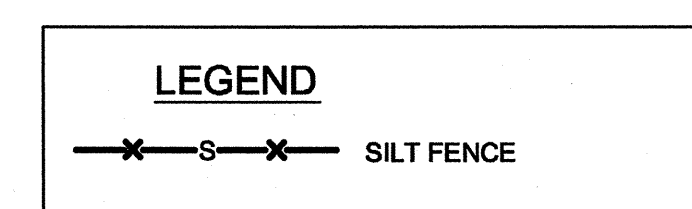
**NOTE:**  
ADDITIONAL STONE MAY HAVE TO BE ADDED PERIODICALLY TO MAINTAIN PROPER FUNCTIONING OF THE PAD.

IF THE CRUSHED STONE DOES NOT ADEQUATELY REMOVE THE MUD FROM THE VEHICLE WHEELS, THE WHEELS SHOULD BE HOSED OFF BEFORE THE VEHICLE ENTERS A PUBLIC STREET.

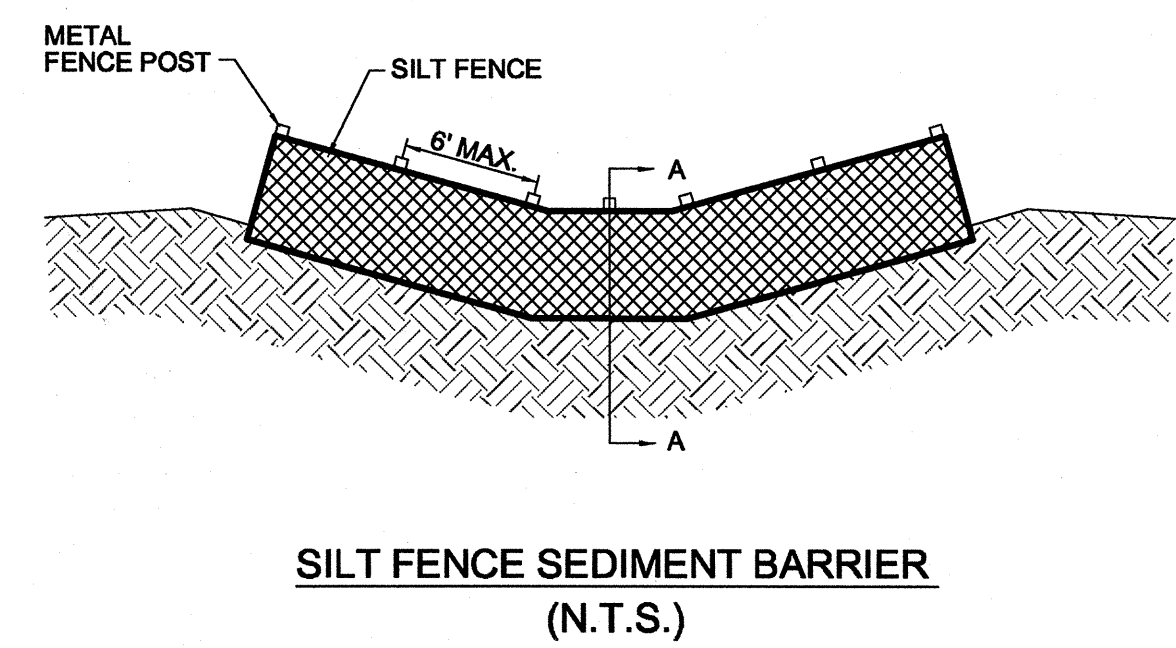
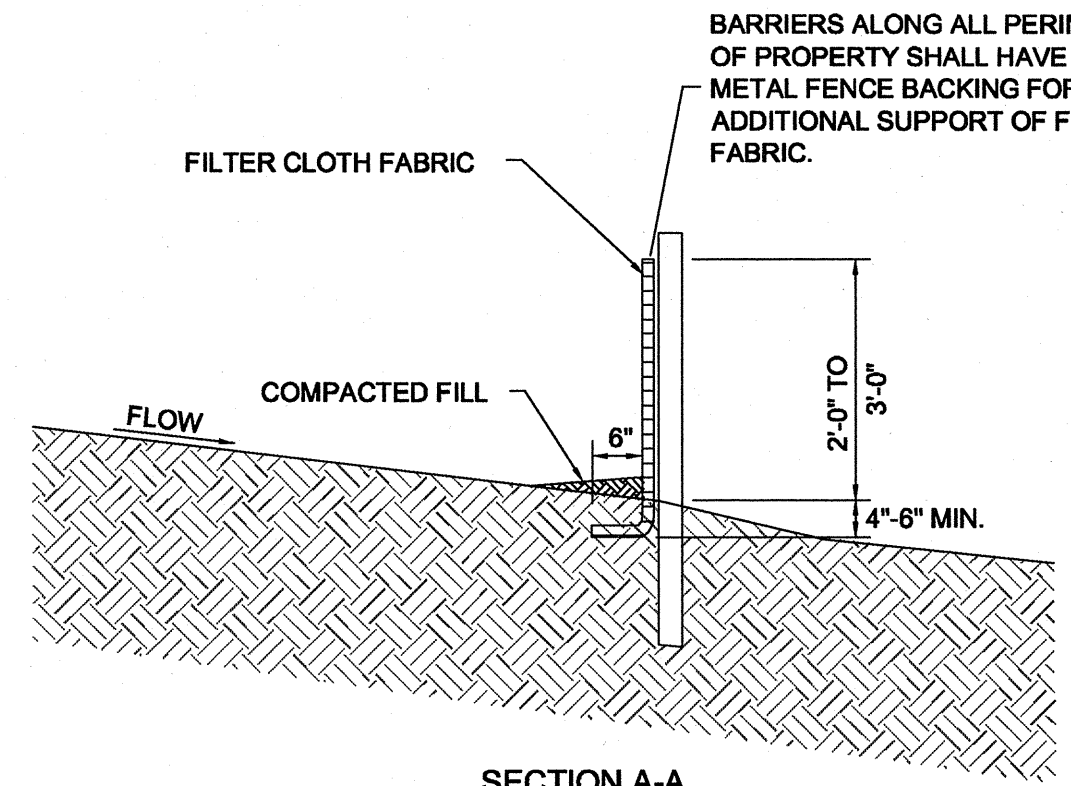
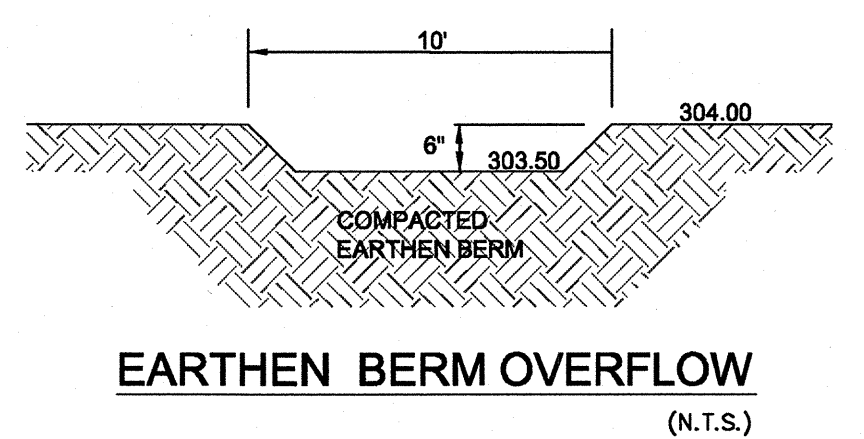
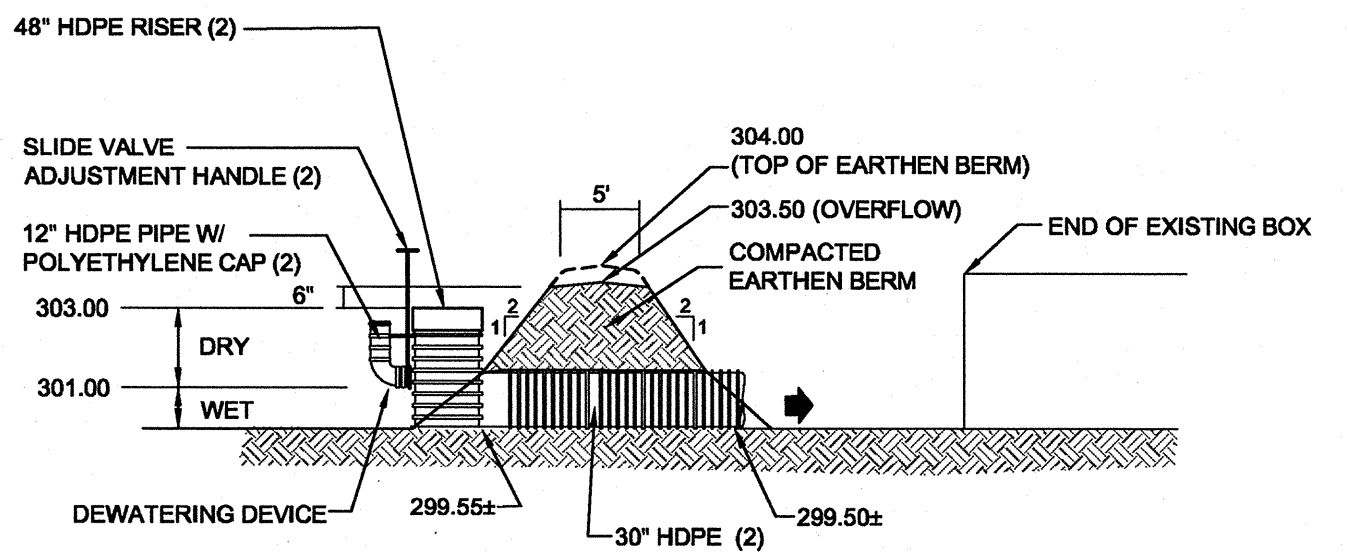
THE WASHING SHOULD BE DONE ON AN AREA COVERED WITH CRUSHED STONE, AND THE WASTE WATER SHOULD DRAIN TO SEDIMENT TRAP OR SEDIMENT BARRIER.

REPLACE SILT FENCE AT THE END OF EACH WORK DAY.

**STABILIZED CONSTRUCTION ENTRANCE**  
N.T.S.



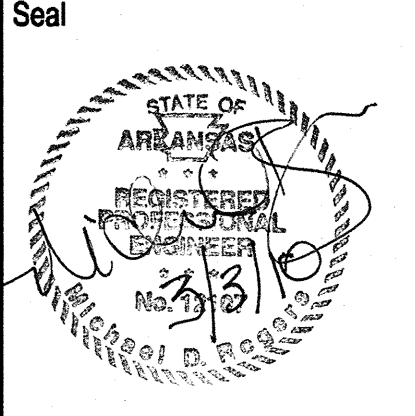
- NOTES:**
1. THE EARTHEN EMBANKMENT SHALL BE CHECKED REGULARLY & REPAIRED AS NECESSARY TO MAINTAIN FUNCTION.
  2. SEDIMENT SHALL BE REMOVED AND PROPERLY DISPOSED OF OFF-SITE ON A REGULAR BASIS. AT NO TIME SHALL SEDIMENT BE ALLOWED TO BUILD UP MORE THAN 1/3 OF THE RISER HEIGHT.



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**OAK HILL TERRACE  
 DETENTION BASIN  
 JONEBORO, ARKANSAS**

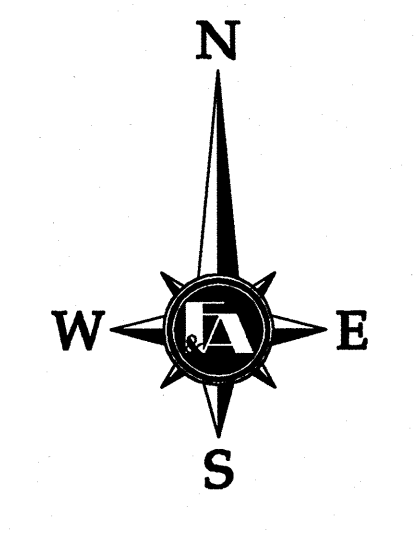
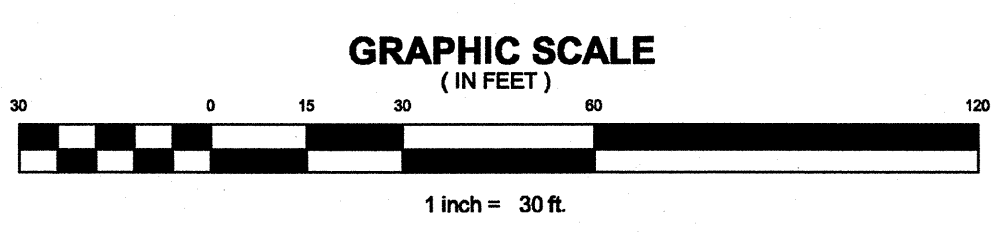
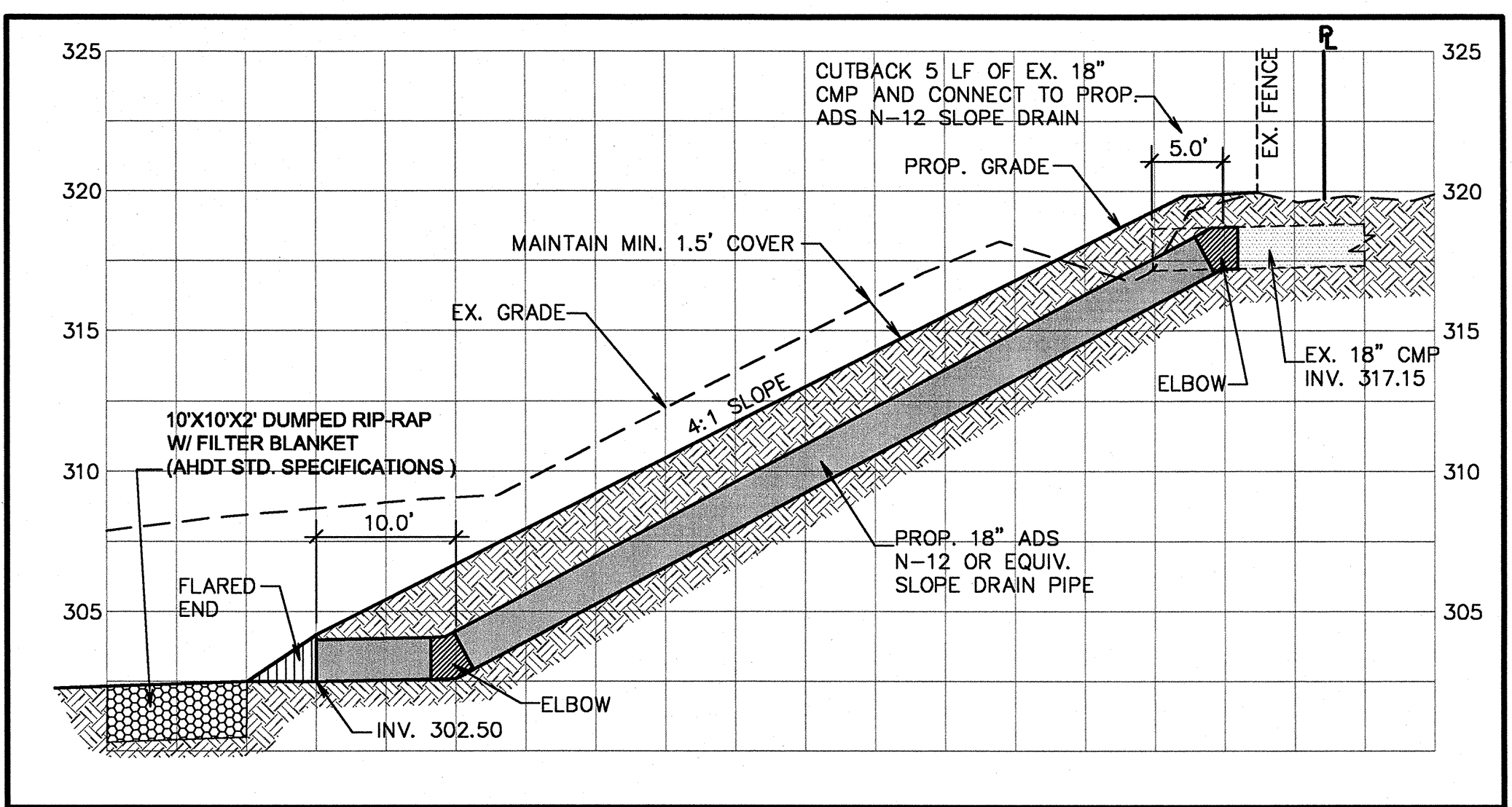
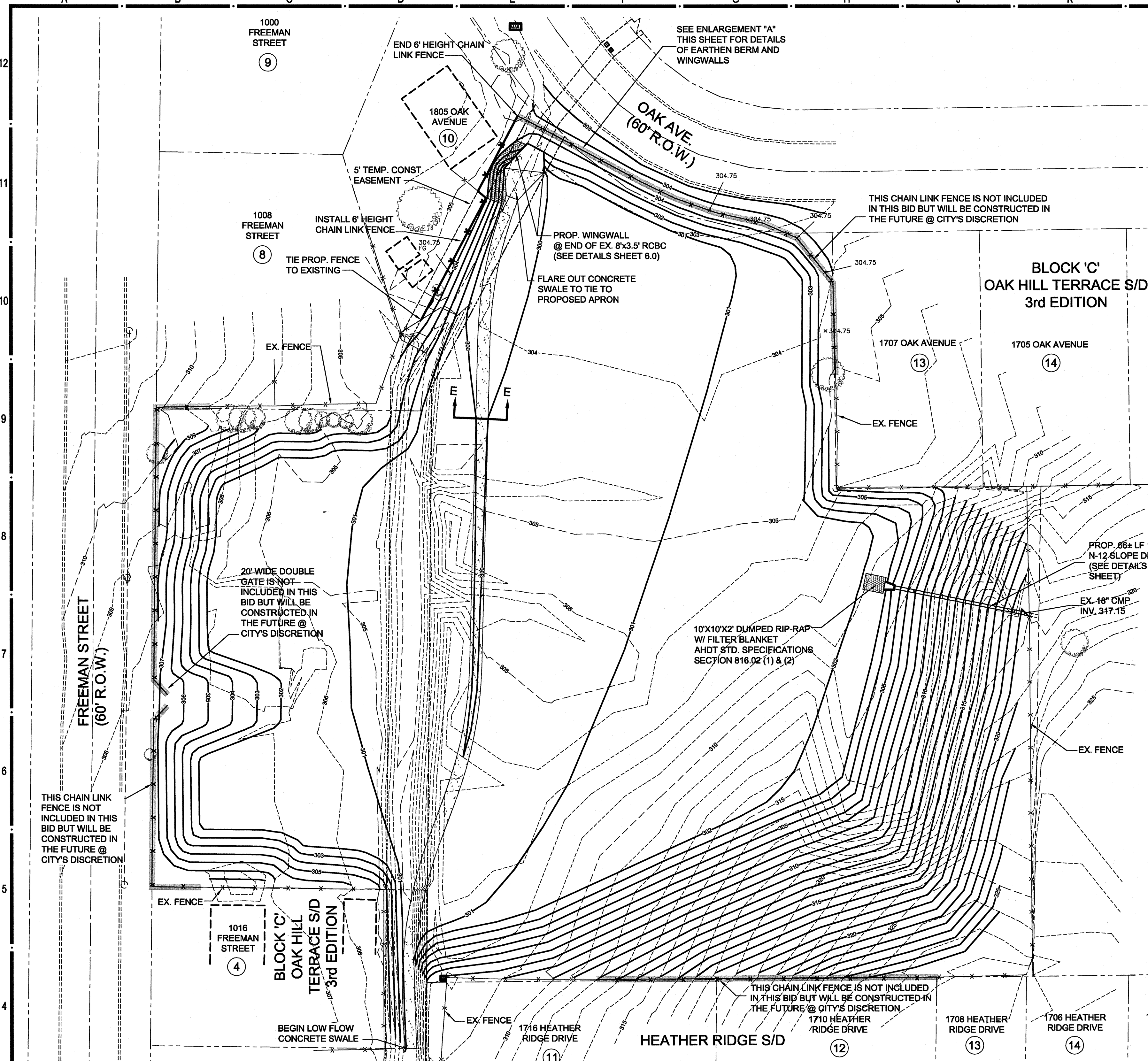
Rev.	Date	Revision Description



Issue Date: 02-12-2010  
 Project No: B6218  
 Drawn By: SN  
 Checked By: MDR  
 Sheet Title:

**EROSION CONTROL PLAN**



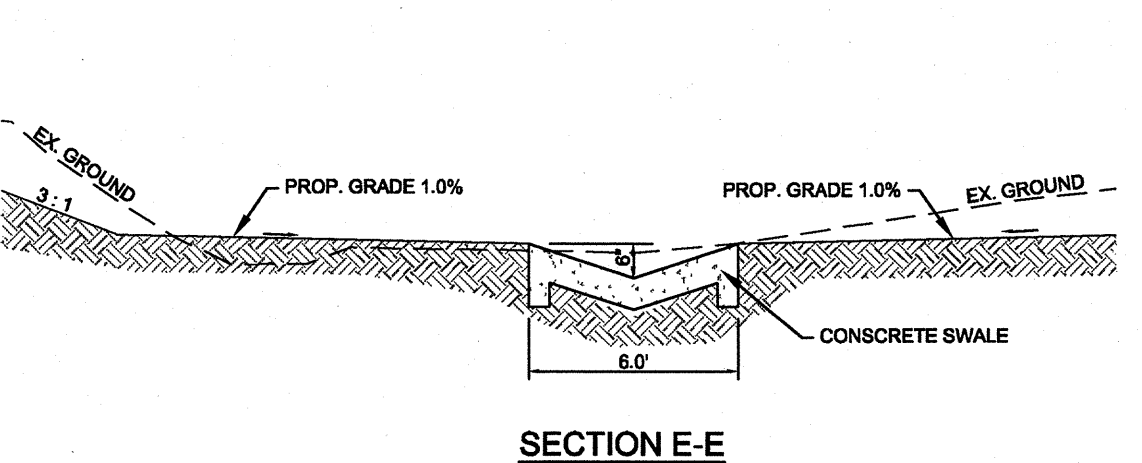
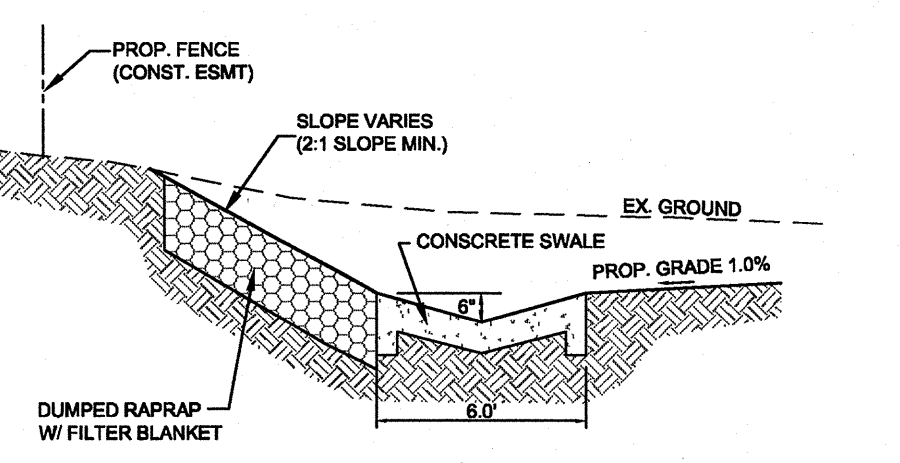
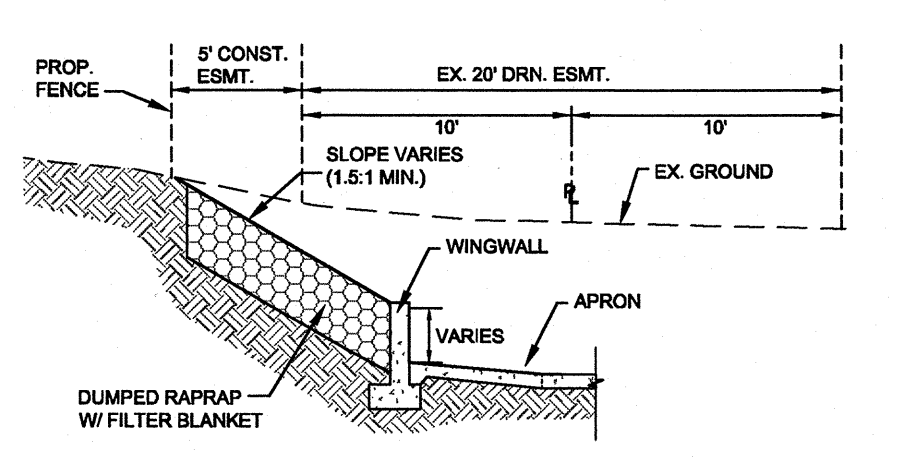
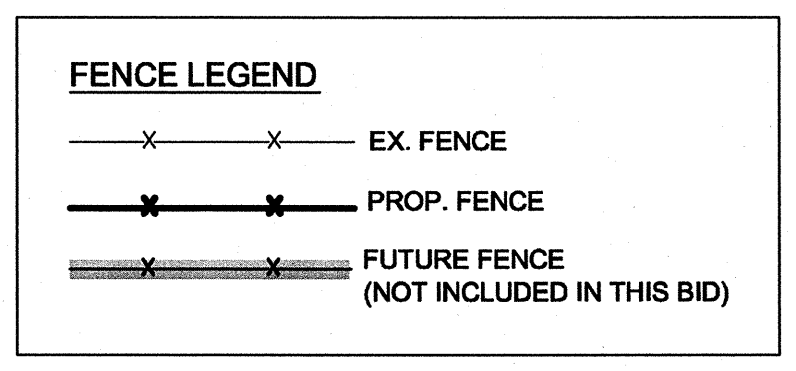
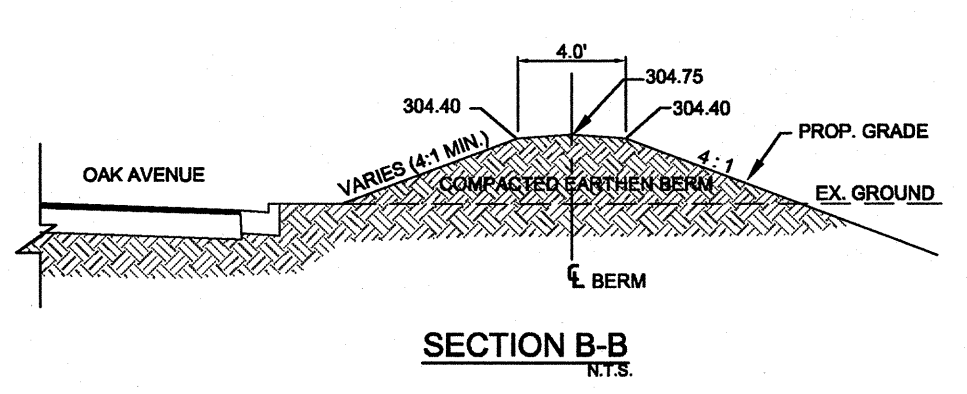
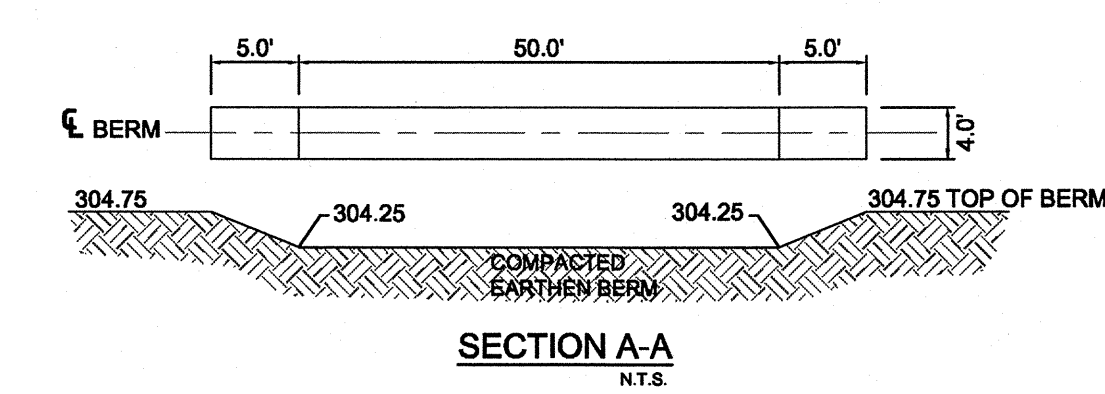
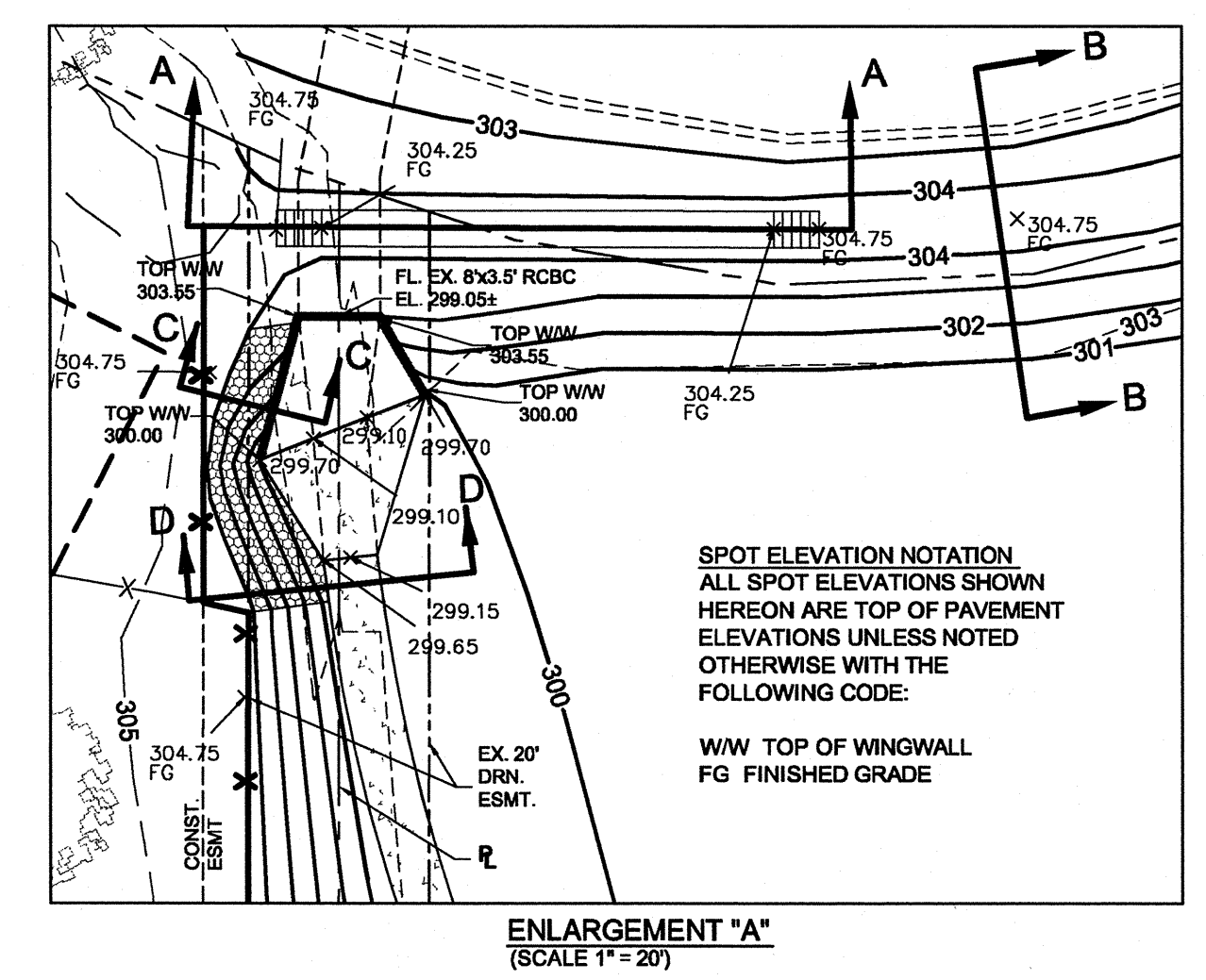
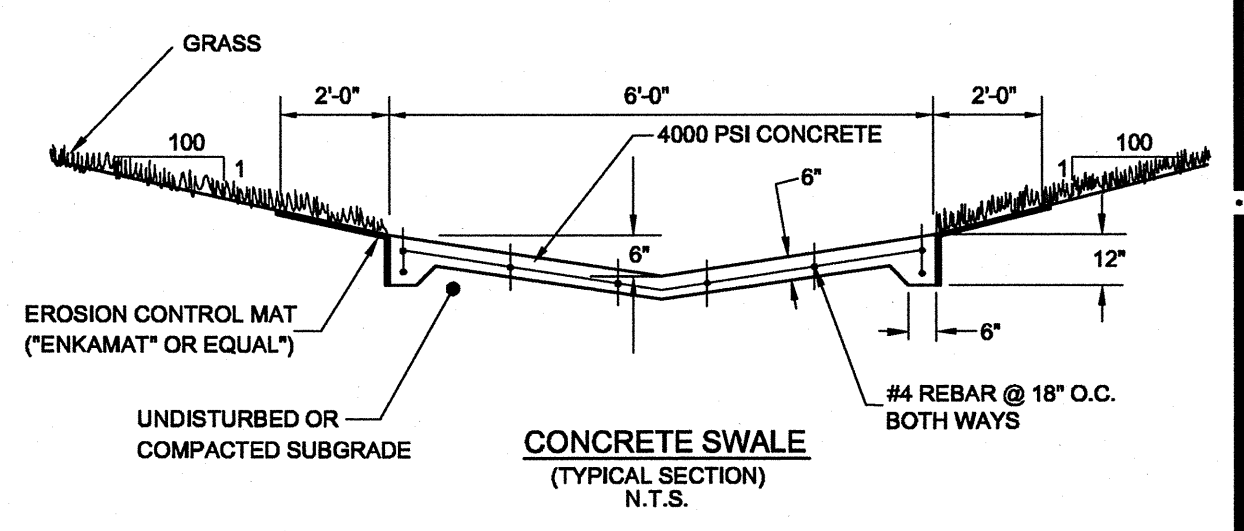


STORMWATER DETENTION DATA		
STAGE	STORAGE (AC-FT)	DISCHARGE (CFS)
299.05	0.00	0.0
300.00	0.02	18.1
301.00	0.47	53.4
302.00	1.89	99.4
303.00	3.87	153.9
304.00	6.02	215.9
304.25	6.58	232.4
304.75	7.71	321.7

MAX. INFLOW (cfs)		MAX. OUTFLOW (cfs)	
Q <sub>2</sub> = 106.3	Q <sub>2</sub> = 86.9	Q <sub>2</sub> = 86.9	Q <sub>2</sub> = 86.9
Q <sub>10</sub> = 230.9	Q <sub>10</sub> = 175.7	Q <sub>10</sub> = 175.7	Q <sub>10</sub> = 175.7
Q <sub>25</sub> = 281.0	Q <sub>25</sub> = 213.3	Q <sub>25</sub> = 213.3	Q <sub>25</sub> = 213.3
Q <sub>50</sub> = 325.8	Q <sub>50</sub> = 257.9	Q <sub>50</sub> = 257.9	Q <sub>50</sub> = 257.9
Q <sub>100</sub> = 370.3	Q <sub>100</sub> = 315.5	Q <sub>100</sub> = 315.5	Q <sub>100</sub> = 315.5

MAX. STAGE		MAX. STORAGE (AC-FT)	
2 yr. = 301.75	2 yr. = 1.45	2 yr. = 1.45	2 yr. = 1.45
10 yr. = 303.36	10 yr. = 4.64	10 yr. = 4.64	10 yr. = 4.64
25 yr. = 303.96	25 yr. = 5.93	25 yr. = 5.93	25 yr. = 5.93
50 yr. = 304.43	50 yr. = 6.98	50 yr. = 6.98	50 yr. = 6.98
100 yr. = 304.72	100 yr. = 7.65	100 yr. = 7.65	100 yr. = 7.65



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OAK HILL TERRACE  
 DETENTION BASIN  
 JONEBORO, ARKANSAS

Rev.	Date	Revision Description

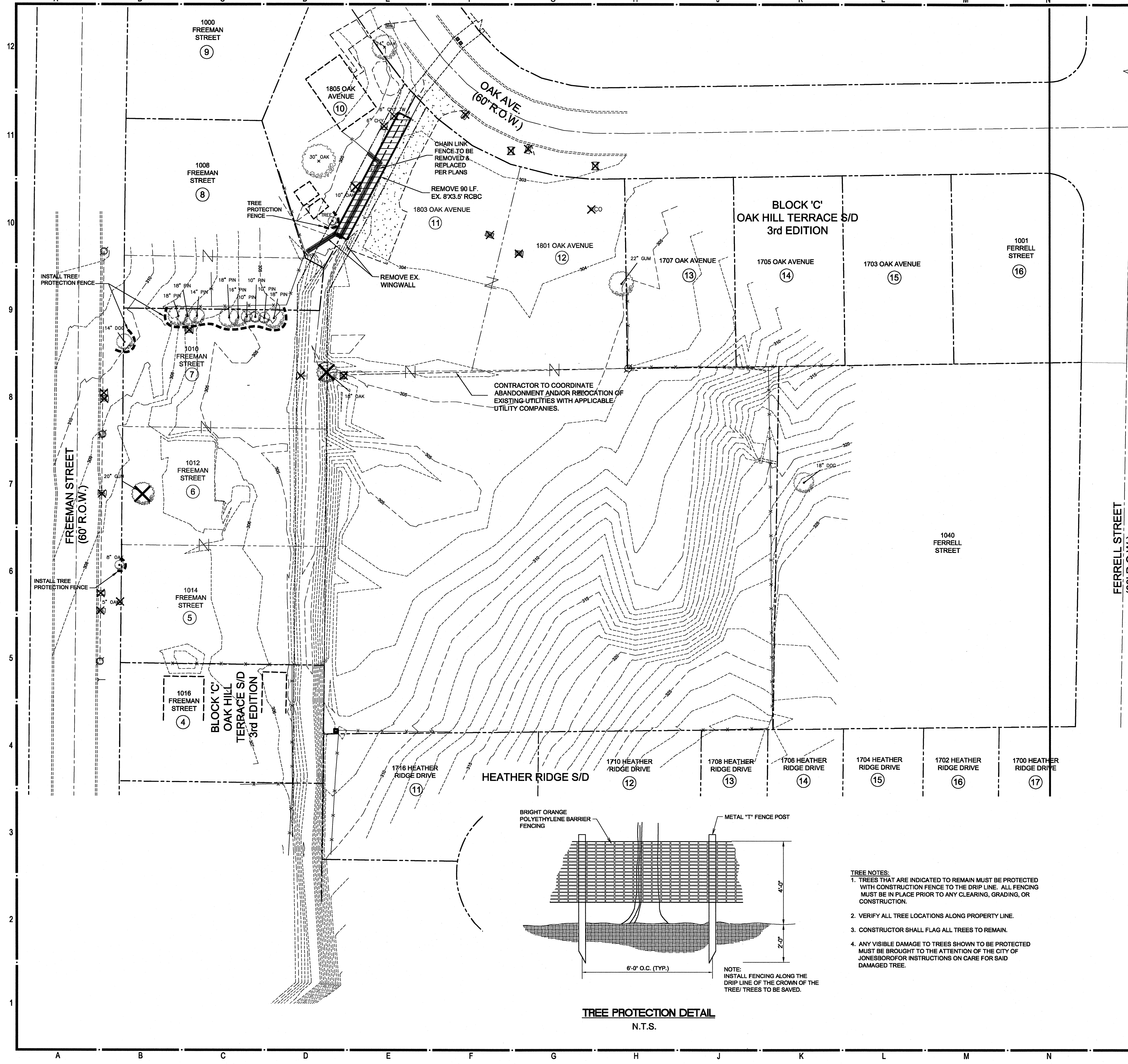


Issue Date: 02-12-2010  
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 Checked By: MDR  
 Sheet Title:

**GRADING & DRAINAGE PLAN**

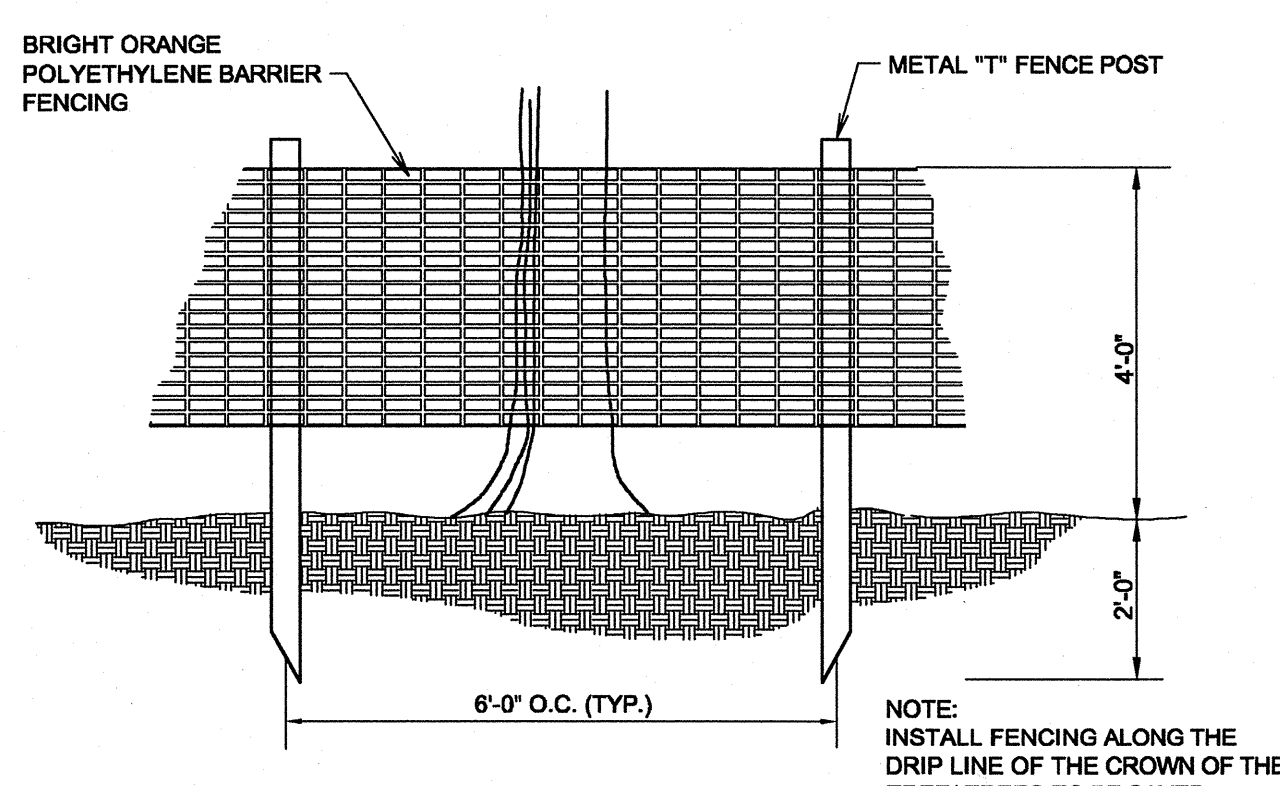
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 SHEET 1 OF 1



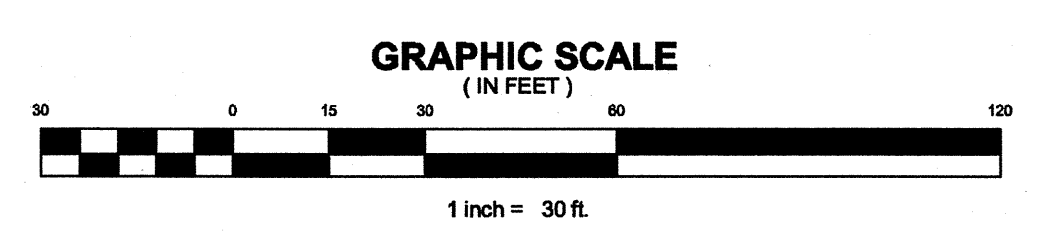
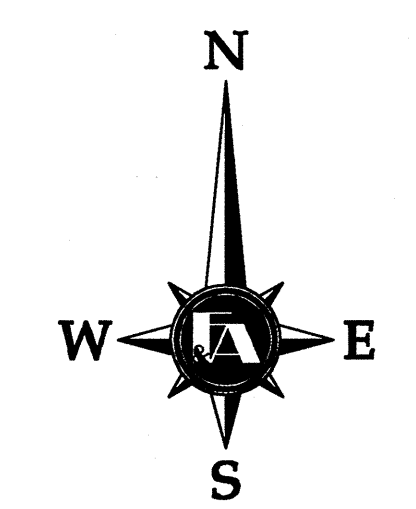


- NOTES:
- EXISTING CURB, AND SIDEWALK SHOWN TO BE REMOVED SHALL BE SAW-CUT OR REMOVED TO NEAREST CONSTRUCTION JOINT AND HAULED OFF SITE TO AN APPROPRIATE DUMPING FACILITY.
  - THE LOCATION OF ALL UNDERGROUND UTILITIES IS APPROXIMATE AND NOT NECESSARILY ALL OF THE SAME. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT SAID FACILITIES.
  - ALL REQUIRED PERMITS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
  - THE CONTRACTOR SHALL REPORT ANY SIGNIFICANT DISCREPANCIES TO THE ENGINEER.
  - ALL CONSTRUCTION AND MATERIALS SHALL BE AS PER CITY OF JONESBORO STANDARD CONSTRUCTION SPECIFICATIONS.
  - CONTRACTOR TO COORDINATE WITH JONESBORO LIGHT GAS AND WATER DIVISION FOR RELOCATION AND/OR ABANDONMENT OF EXISTING POWER, GAS AND WATER UTILITIES.
  - CONTRACTOR TO COORDINATE WITH BELLSOUTH FOR RELOCATION AND/OR ABANDONMENT OF EXISTING TELEPHONE LINES.
  - THIS PLAN IS INTENDED AS A GUIDE ONLY. THE CONTRACTOR SHOULD FAMILIARIZE HIMSELF WITH THE SITE AND BE PREPARED TO REMOVE ANY EXISTING IMPROVEMENTS THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS.

- LEGEND
- 22" DIA. OAK (TREE TO BE PRESERVED)
  - 30" DIA. OAK (TREE TO BE REMOVED)
  - TREE PROTECTION FENCING
  - DRIVEWAY / DRIVEWAY CONC. PAVEMENT TO BE SCARIFIED & REMOVED.
  - EX. FENCE TO BE REMOVED



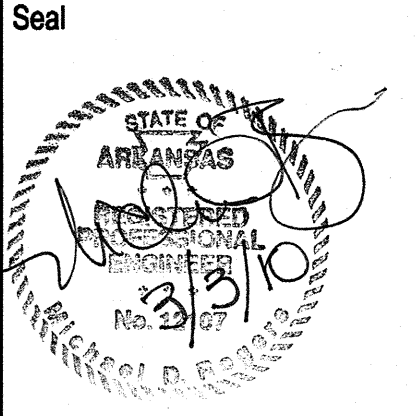
- TREE NOTES:
- TREES THAT ARE INDICATED TO REMAIN MUST BE PROTECTED WITH CONSTRUCTION FENCE TO THE DRIP LINE. ALL FENCING MUST BE IN PLACE PRIOR TO ANY CLEARING, GRADING, OR CONSTRUCTION.
  - VERIFY ALL TREE LOCATIONS ALONG PROPERTY LINE.
  - CONSTRUCTOR SHALL FLAG ALL TREES TO REMAIN.
  - ANY VISIBLE DAMAGE TO TREES SHOWN TO BE PROTECTED MUST BE BROUGHT TO THE ATTENTION OF THE CITY OF JONESBORO FOR INSTRUCTIONS ON CARE FOR SAID DAMAGED TREE.



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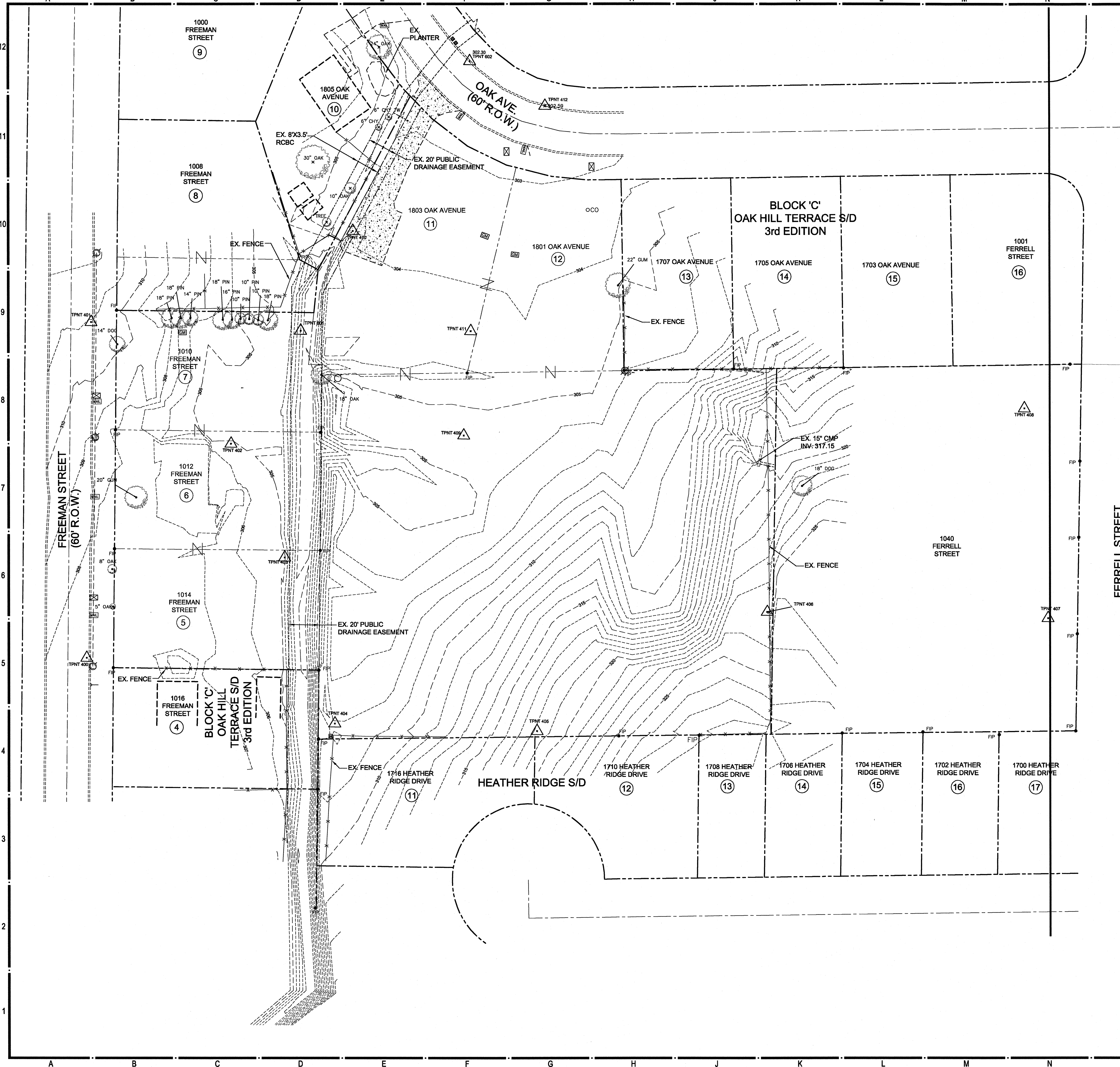
Rev.	Date	Revision Description



Issue Date: 02-12-2010  
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 Checked By: MDR  
 Sheet Title:

**DEMOLITION  
 PLAN**



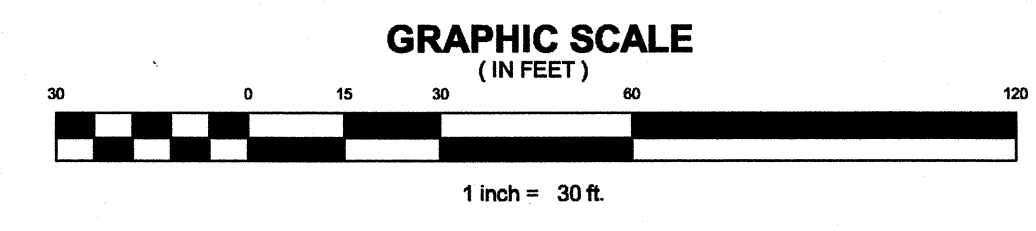
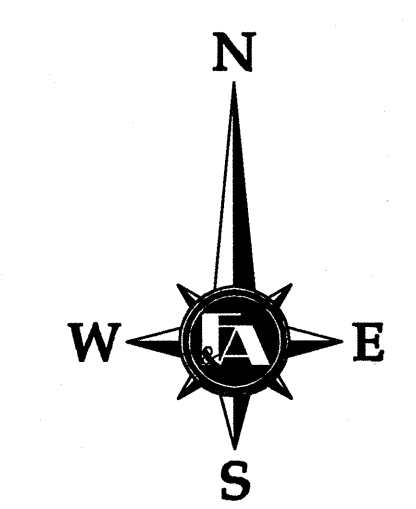


### SYMBOL LEGEND

	GUY POLE
	SEWER MANHOLE
	DRAINAGE MANHOLE
	LIGHT POLE
	FIRE HYDRANT
	WATER VALVE
	GAS VALVE
	6-72 INLET
	ELECTRIC MANHOLE
	TWIN 6-72 INLET
	TELEPHONE SPLICE BOX
	UNIDENTIFIABLE MANHOLE
	TELEPHONE MANHOLE
	GUY WIRE
	SIDEWALK GRATE
	POLE SIGN
	TREE
	WATER METER
	INLET W/MANHOLE
	SEWER CLEANOUT
	ELECTRIC SPLICE BOX
	SPRINKLER VALVE
	GAS METER
	R.O.W. MONUMENT (LABELED)
	POWER POLE
	ELECTRIC METER
	CATV BOX
	BOLLARD
	2x 4" INLET
	2x 2" INLET
	ELECTRIC TRANSFORMER
	MONITORING WELL
	GROUND ROD
	IRON PIN (LABELED)
	PK NAIL (LABELED)
	SHRUB
	WATER SPIGOT
	ELECTRIC OUTLET
	SPRINKLER HEAD
	CHISEL MARK
	MAIL BOX

**PROJECT BENCH MARKS:**

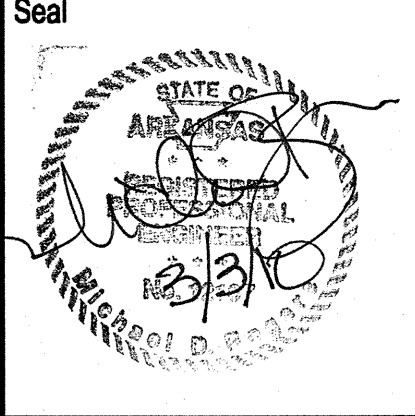
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402	548447.1684	1688629.4637	305.2760	TPNT 402
403	548372.5781	1688654.6409	305.1980	TPNT 403
404	548263.8038	1688897.3518	308.5190	TPNT 404
405	548258.8553	1689029.9461	318.2330	TPNT 405
406	548336.7343	1689181.2228	326.7300	TPNT 406
407	548332.5851	1689365.6131	324.6770	TPNT 407
408	548470.1876	1689350.2429	322.5650	TPNT 408
409	548452.6215	1688982.1495	305.9390	TPNT 409
410	548586.3005	1688909.5895	304.1370	TPNT 410
411	548520.8958	1688986.7740	304.7060	TPNT 411
412	548668.0070	1689035.7580	302.5890	TPNT 412
601	548521.1067	1688875.2814	302.4710	TPNT 601
602	548697.2134	1688986.4181	302.3020	TPNT 602



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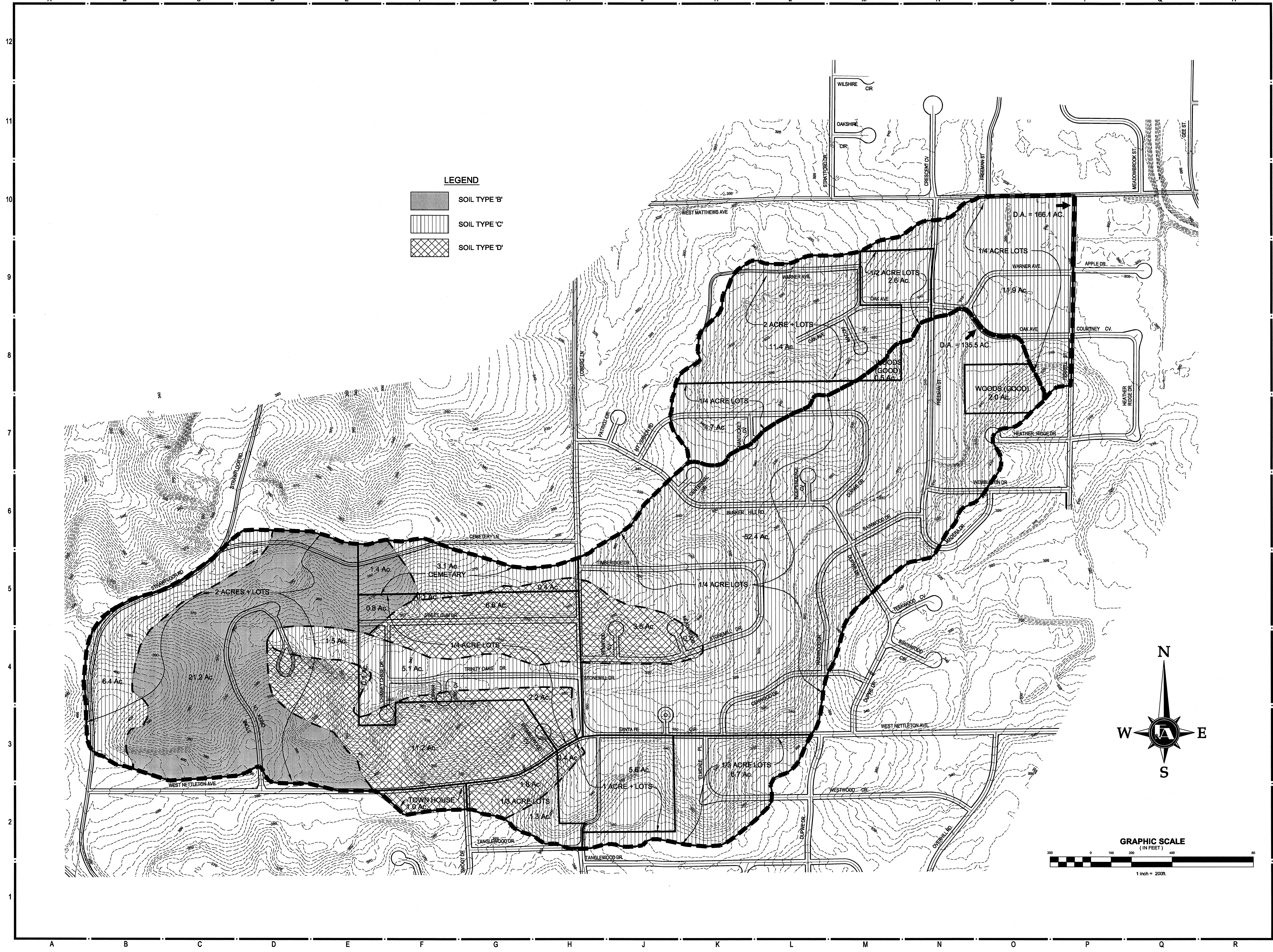
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**EXISTING  
 PLAN**





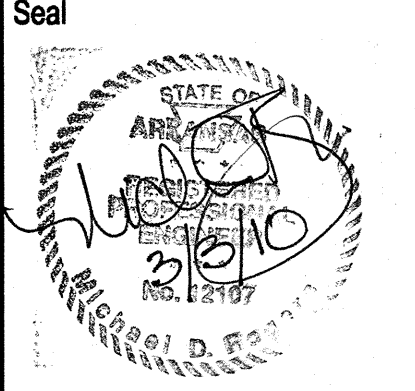
**LEGEND**

- SOIL TYPE 'B'
- SOIL TYPE 'C'
- SOIL TYPE 'D'

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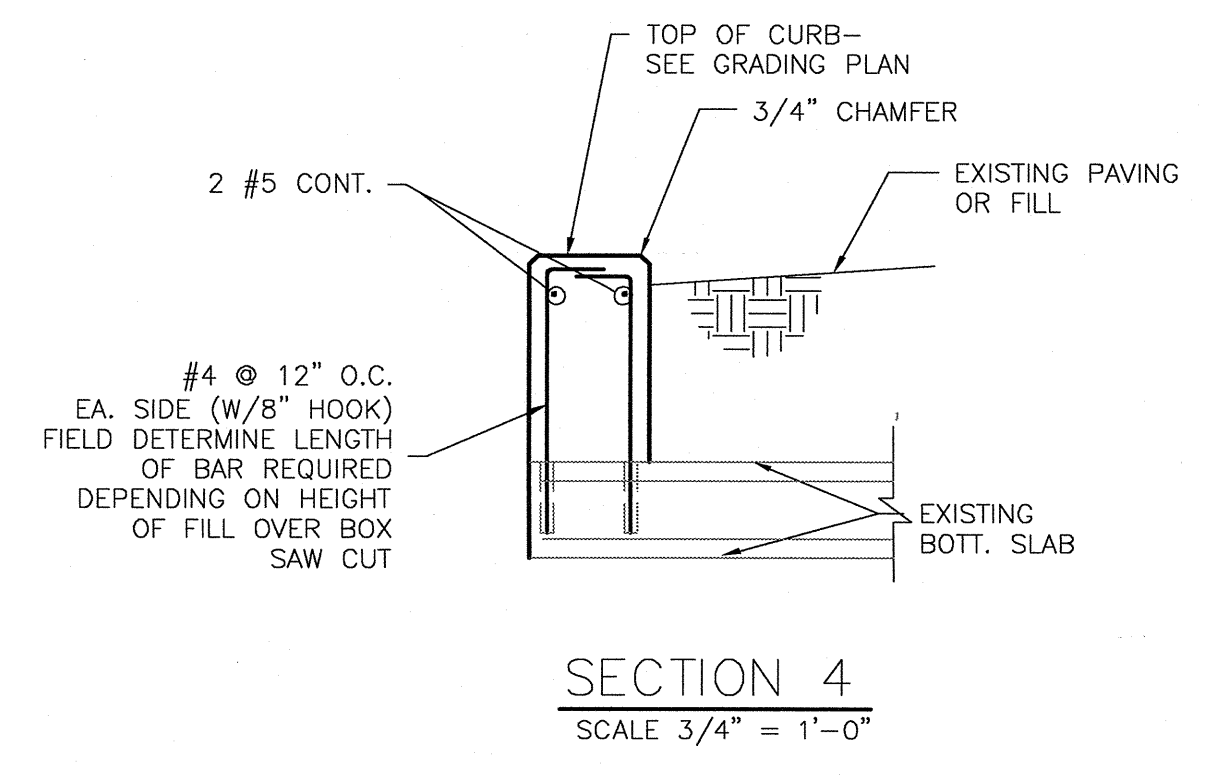
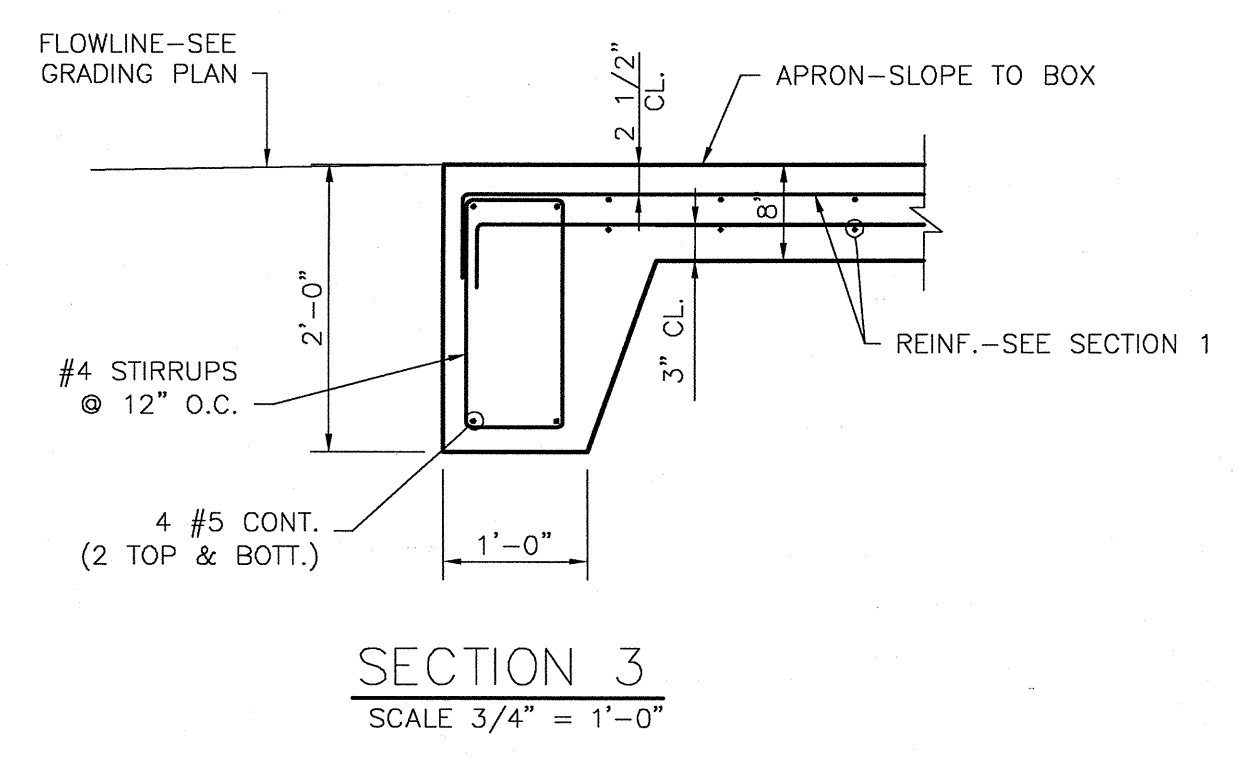
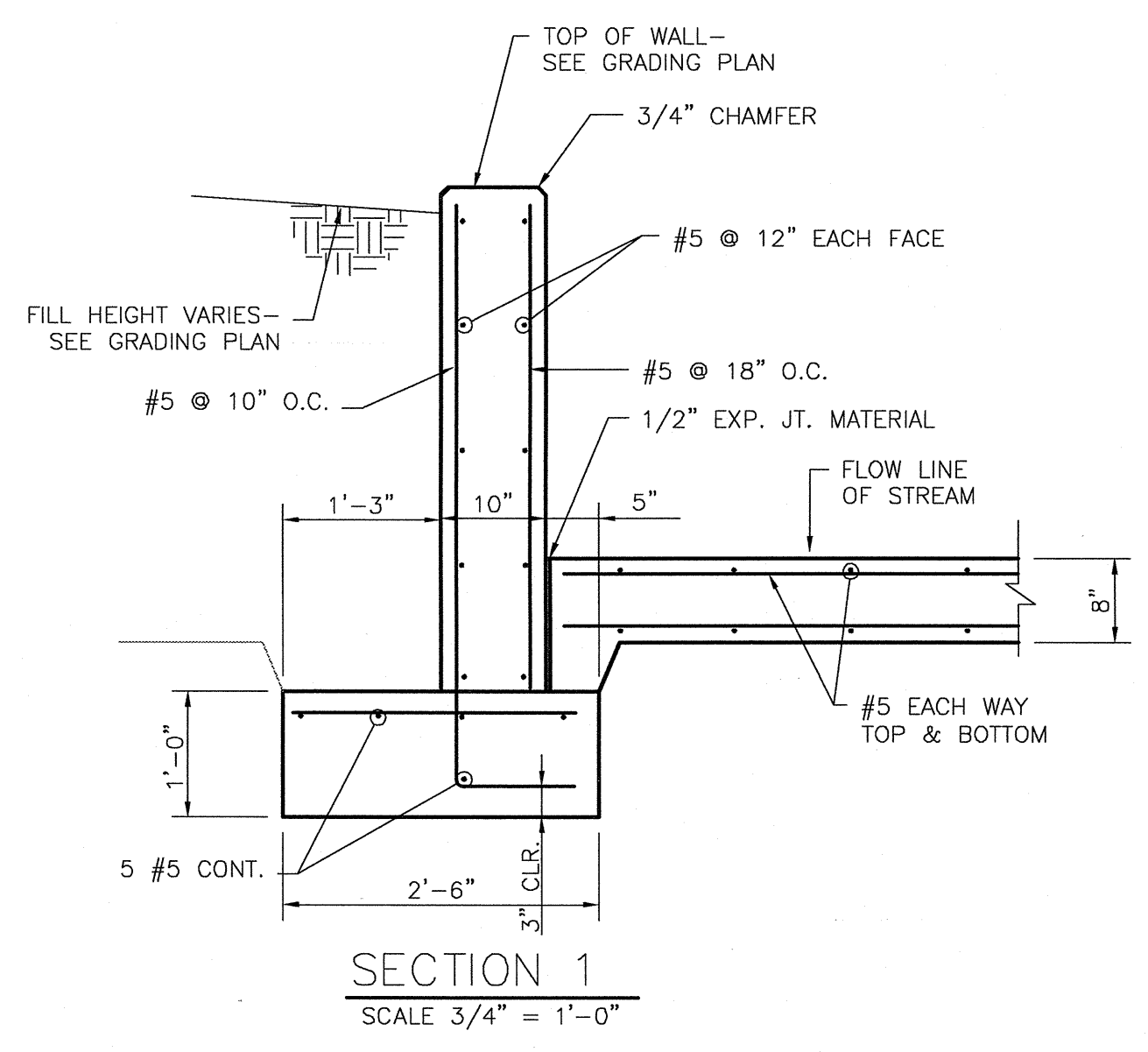
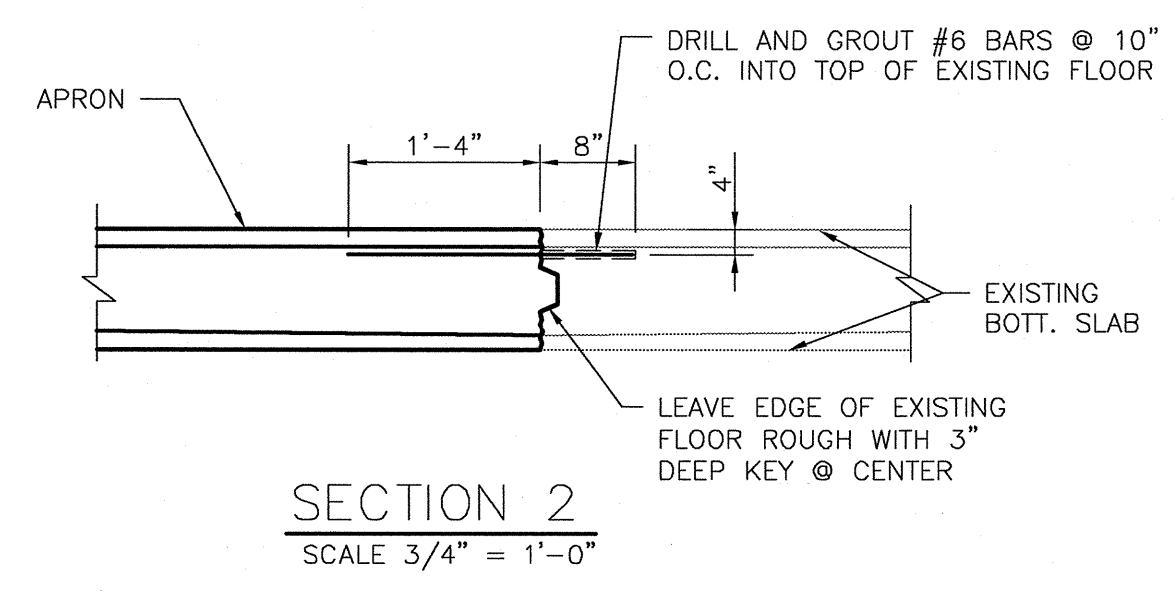
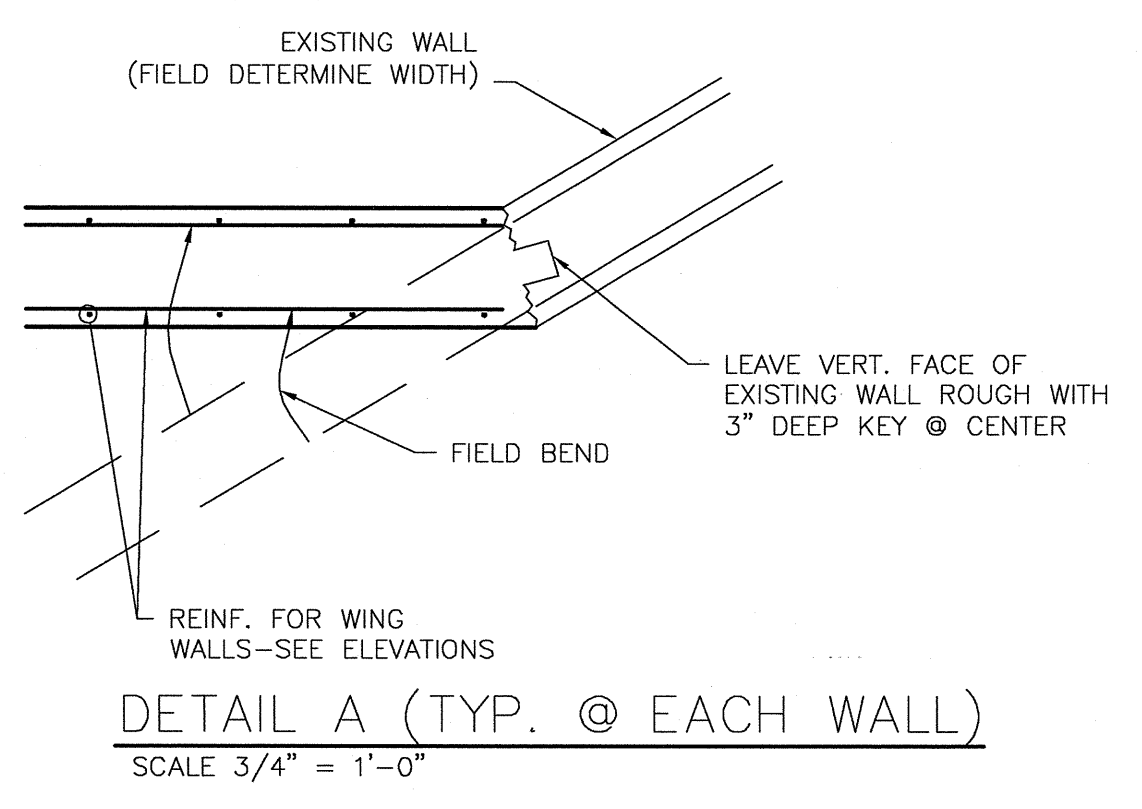
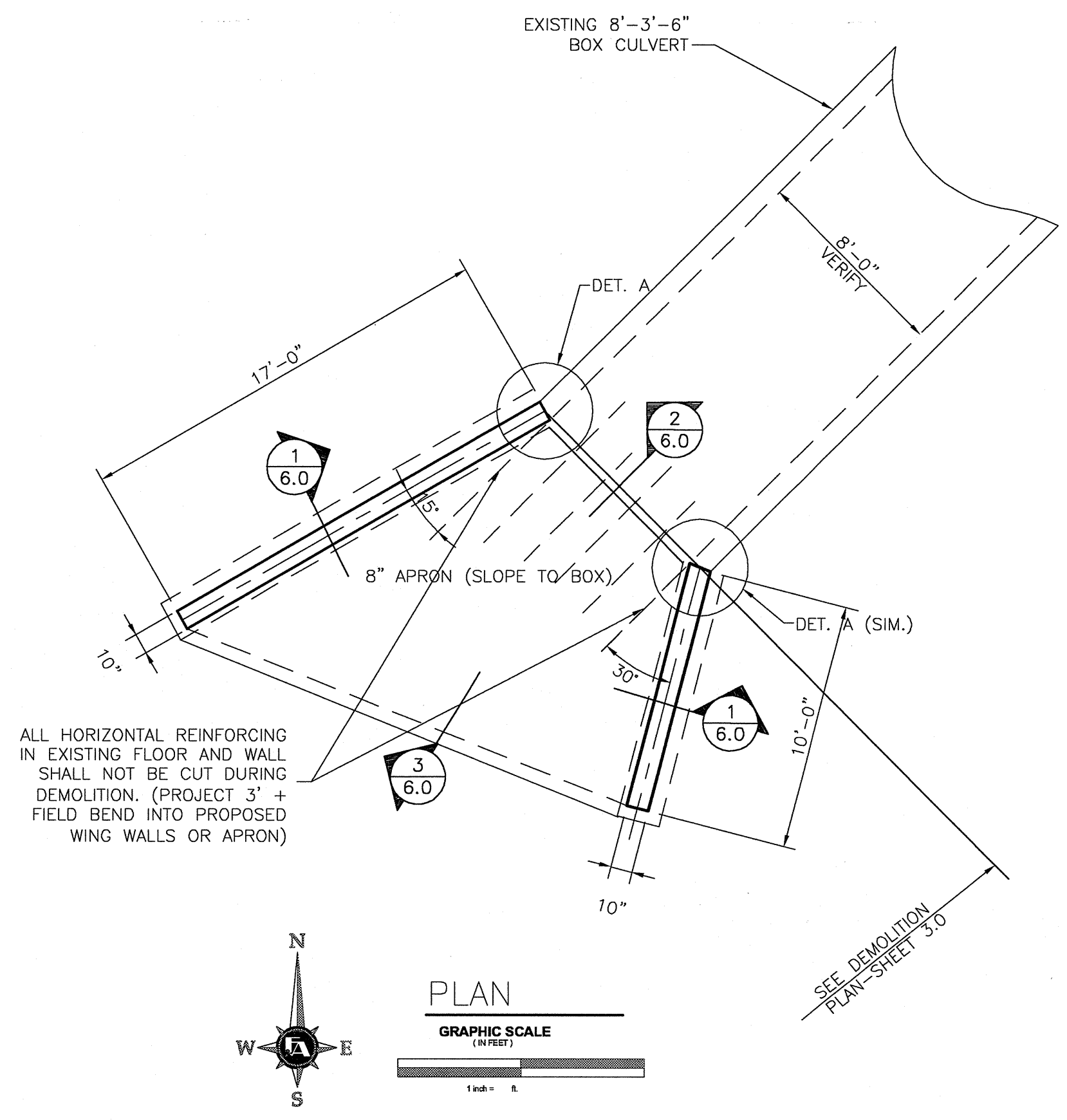
Rev.	Date	Revision Description



Issue Date: 02-12-2010  
 Project No: B6218  
 Drawn By: GGSN  
 Checked By: MDR  
 Sheet Title:

**DRAINAGE  
 BASIN  
 MAP**





**GENERAL NOTES:**

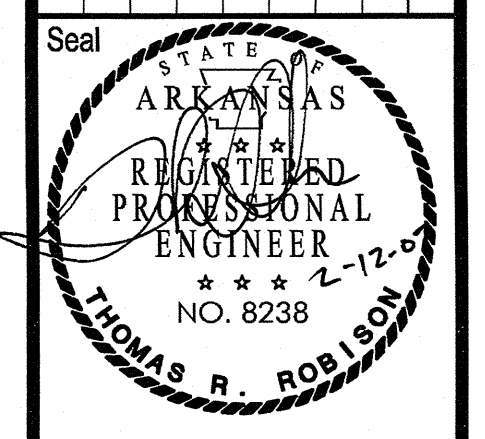
- I. GENERAL
  - A. Abbreviations
 

T Top (Bar)	L.W. Lightweight
B Bottom (Bar)	N.W. Normal Weight
E.L. Elevation	E.F. Each Face
TF Top of Footing (El.)	O.C. On Center
Int. Interior	E.W. Each Way
Ext. Exterior	U.N. Unless Otherwise Noted
  - B. Submit Shop Drawings
    1. Identify prominently on drawings each and all resubmittals by number.
- II. DESIGN CRITERIA
  - A. Building Code. IBC 2003.
  - B. Foundations.
    1. Footings: Assume allowable bearing pressure 2000 psf continuous wall footings on firm, undisturbed, virgin soil or engineered, compacted fill. Minimum density 95% ASTM D 698 (Standard Proctor). (Allowable Bearing to be verified at time of construction)
- III. TESTING AND INSPECTION
  - A. Foundations and Earthwork. Geotechnical engineer/testing laboratory to provide testing and inspection services.
  - B. Materials and Procedures. Testing Laboratory to provide testing and inspection services.
- IV. EARTHWORK
  - A. Site Preparation.
    1. Within Construction area, compact top 6" of cut area subgrade to minimum density 95% ASTM D 698.
    2. After stripping (and excavating to the proposed subgrade level, as required), the subgrade should be proof-rolled with a moderately heavy loaded pneumatic-tired vehicle such as a 20 to 25 ton dump truck or scraper. Soils which are observed to rut or deflect excessively under the moving load should be undercut and replaced with properly compacted fill. All proof-rolling and undercutting activities should be witnessed by the Geotechnical engineer and should be performed during a period of dry weather.
  - B. Structural Fills. Select fill material compacted in 6" lifts (in compacted state).
    1. Subgrade under foundations: minimum density 95% ASTM D 698.
    2. Subgrade under slabs-on-grade: minimum density 95% ASTM D 698.
    3. Granular subbase under slab-on-grade: 8" thick clean gravel, crushed stone or combination compacted to a minimum 70% relative density ASTM D4253 and D4254.
- V. CAST-IN-PLACE REINFORCED CONCRETE:
  - A. Design Code. ACI 318 - Strength Design. Reference Standard: ACI 301.
  - B. Mix Design shall be documented in accord with ACI 301 - Chapter 3 "Proportioning". Mix designs which are submitted without the required documentation will be rejected. Field slump records at job site shall not exceed the slump established for the mix design.
  - C. Type Concrete. (28 day compressive strengths)
    1. Foundations and slabs-on-grade: 4,000 psi N.W.
    2. Site walls, and foundation walls: 4,000 psi N.W.
    3. All other structural concrete shown on these plans: 4,000 psi N.W. u.n.
    4. All concrete shall be limestone aggregate, air-entrained 5% (+ 1%).
  - D. Formwork.
    1. Keys Indicated are to be 2 x 4 nominal continuous, u.n.
    2. Camber: Provide camber to compensate for displacement of forms and to provide as-cast member camber as noted on plans.
    3. Rustication strips, chamfers, drips, misc. embeds, etc. See plans and/or architectural drawings.
  - E. Reinforcement.
    1. Reinforcing Bars. Deformed, Grade 60, ASTM A615, A616, A617 or A706.
      - a. Fabrication: ACI 315-80 "Details and Detailing of Concrete Reinforcement or CRSI "Reinforcing Bar Detailing" (Manual of Standard Practice 1980).
    2. Corner Bars. Provide corner bars same size and spacing as horizontal reinforcement at intersections of all walls.
    3. Splices. Continuous reinforcement bars shall be lapped 30 bar diameters (18" min.) at all splices, u.n., including corner bars.
    4. Minimum cover for protection typical, u.n.
      - a. Unformed surface in contact with ground - 3"
      - b. Formed surface in contact with ground or exposed to the elements - 2-1/2"
    5. Hooks indicated are ACI/CRSI standard 90 deg. or 180 deg. hooks. Bar lengths shown are out-to-out and do not include hook length.
  - F. Concrete Finishes.
    1. Formed surfaces:
      - a. Painted or exposed to view: rubbed, u.n. on plans.
      - b. Covered or as noted on plans: as-cast.
    2. Flatwork surfaces:
      - a. Exposed to view: troweled
  - G. Curing and Protection. Per ACI 301.

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OAK HILL TERRACE  
 DETENTION BASIN  
 JONEBORO, ARKANSAS

Rev.	Date	Revision Description



Issue Date: 02-12-07  
 Project No: B6218  
 Drawn By: SN  
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PLAN,  
 DETAILS  
 & NOTES