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IN - Construct
Plans
Bishop & Bishop
Lumber
S-21-2004
S-21-2004

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GTC Engineering Corporation

98 South Semoran Blvd, Orlando, FL 32807
407-380-0402

Certificate of Authorization Number: 6758

CTION PLANS

ND BUTTREY

CONSTRUCTION PLANS

BISHOP AND BUTTREY

LANDFILL

CITY OF APOPKA, FLORIDA

PREPARED FOR

Bishop and Buttrey, Inc.

DEVELOPER

Bishop & Buttrey, Inc.
6239 Edgewater Drive
Suite D-1
Orlando, FL 32810
(407) 296-0016

SURVEYOR

Accuright Surveys of Orlando, Inc.
2012 E. Robinson St.
Orlando, Florida 32803
(407) 894-6314

GEOTECH

Devo Engineering
5633 Partridge Drive
Orlando, FL 32810
(407) 290-2371

The Engineer certifies that these construction plans were prepared in accordance with the "Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways, State of Florida" (FDOT Green Book) and "Orange County Regulations and Specifications."

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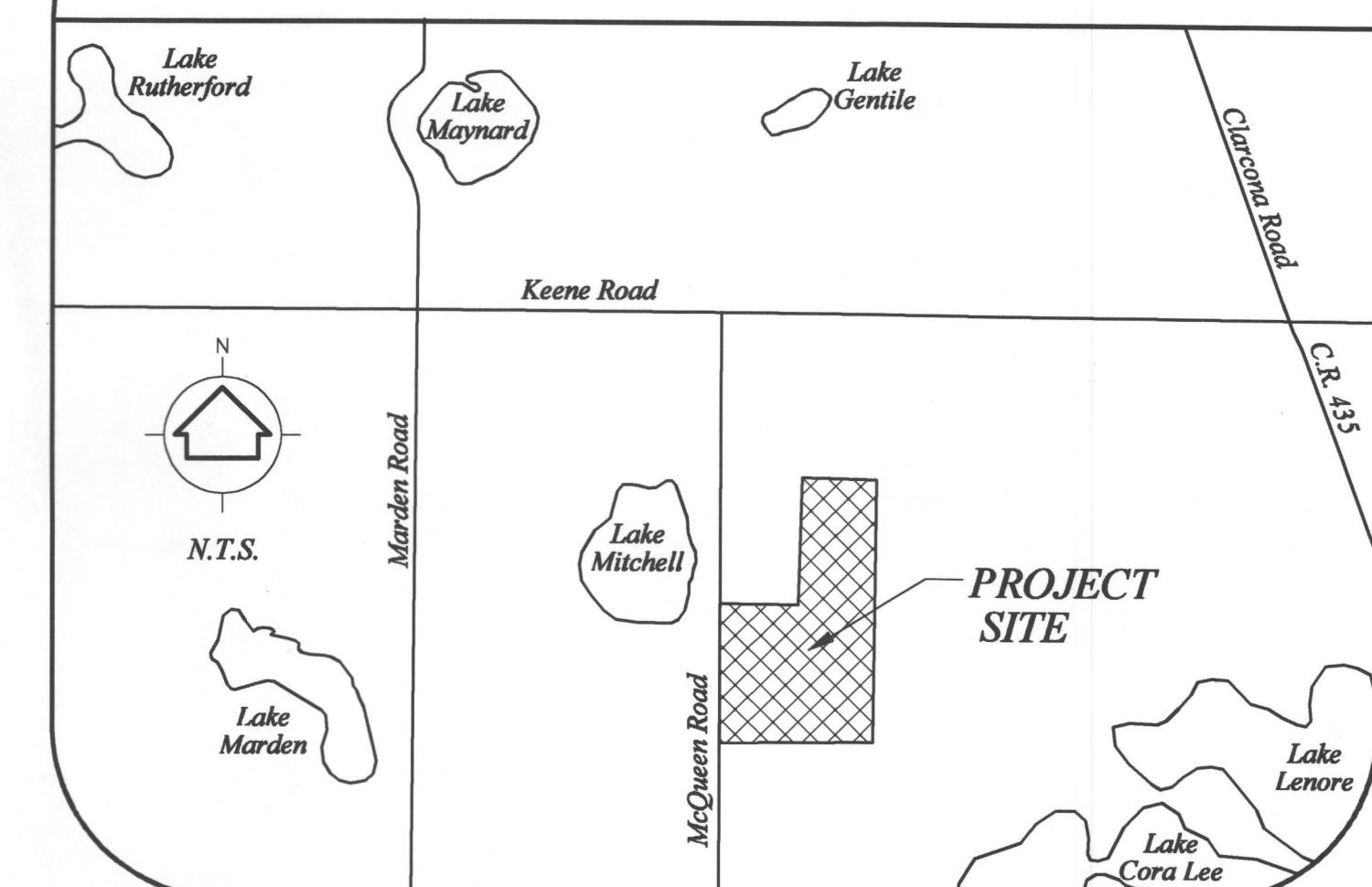
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AS-BUILT REQUIREMENTS

STORM DRAINAGE

- Top elevation of each manhole frame and cover/grate, and all other structures (headwalls, control structures, etc.).
- Invert elevation of each line entering and leaving each structure, including underdrain pipes.
- Inverts of all mitered end sections.
- Actual grade of the pipe between the structures.
- Pond top of bank shots.

SITE LOCATION



GTC Engineering Corporation

98 South Semoran Blvd, Orlando, FL 32807
407-380-0402

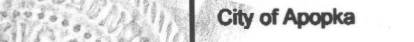
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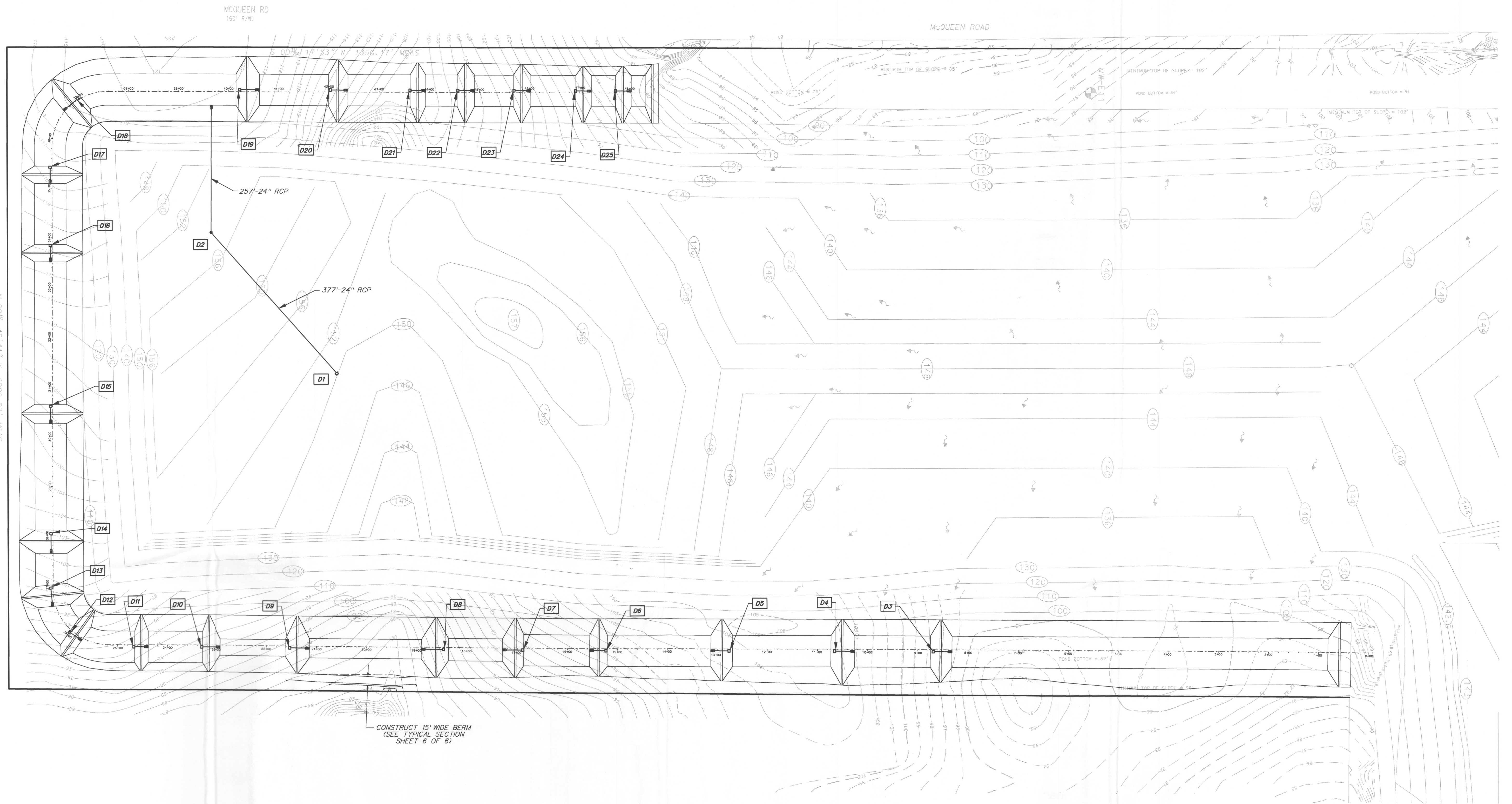
MAY 2 1 2004



1. All construction is to conform with City of Apopka standards and specifications, unless otherwise waived by the City of Apopka engineer.
2. It will be the responsibility of the Contractor to get the necessary Right-of-Way Permit(s) and provide for the safety and control of local traffic during construction.
3. The Contractor shall be extremely cautious when working near trees that are to be saved, whether shown in the plans or designated in the field.
4. The Contractor shall be responsible for locating and verifying (horizontally and vertically) all existing utilities before construction, and for notifying the various utility companies to arrange for any relocation, temporary disruption of service, or clarification of activity regarding said utility. The contractor shall exercise caution when crossing an underground utility, whether shown in these plans or field located. All utilities which interfere with the proposed construction shall be relocated by the respective utility companies and the Contractor shall cooperate with them during relocation operations. Any delay or inconvenience of the various utilities shall be incidental to the contract and no extra compensation will be allowed.
5. The locations of all existing utilities, facilities, and any other features shown on these plans have been determined from the best available information and are provided for the convenience of the Contractor. The Engineer does not guarantee the accuracy or the completeness of the location information provided. Any inaccuracy or omission in such information shall not relieve the Contractor of his responsibility to protect such existing features from damage or unscheduled interruption of service. Should a discrepancy arise between these plans and actual field conditions which would appreciably affect the execution of these plans, the Contractor will halt construction and notify the Engineer immediately.
6. The Contractor shall be responsible for meeting all inspection criteria and schedules, and for signing for said inspections.
7. Completely sod detention ponds.
8. The Contractor shall not excavate, remove, or otherwise disturb any material, structure, or part of a structure which is located outside the lines, grades or grading sections established for this project, except where such excavation or removal is provided for in the contract, plans or specifications.
9. All work and all materials furnished shall conform with the lines, grades, grading sections, cross sections, dimensions, material requirement, and testing requirements specified in the contract, plans or specifications.
10. In areas which require fill material, the Contractor will strip or otherwise remove all vegetation such as brush, heavy sods, heavy growth of grass, decayed vegetable matter, rubbish, and any other deleterious material before the embankment is started. Immediately prior to the placing of fill materials, the entire area being filled shall be scarified in a direction approximately parallel to the axis of fill. The Geotechnical Engineer shall approve the area prior to the placement of fill.
11. The Contractor shall be responsible for the maintenance of all landscape buffers, retention and detention facilities until the work has been accepted by the Owner. All disturbed areas shall be returned to their original condition.
12. The Contractor shall comply with all legal load restrictions in the hauling of materials in public roads beyond the limits of the work. A special permit will not relieve the Contractor of liability for the damage that may result from the moving of material and equipment.
13. The Contractor shall familiarize himself with the policies and guidelines established by the City of Apopka for the preservation of all public and private property. The Contractor shall be responsible for all damage or injury to property of any character during the execution of the work, resulting from any act, omission, neglect, or misconduct in his manner or method of executing the work, or at anytime due to defective work or materials.
14. The Contractor shall ensure that proper soil densities are achieved for placement of all headwall/endwall footings, retaining wall footings, and in general, any footing support described on these plans. It will also be the responsibility of the Contractor to ensure that sufficient geotechnical testing has been performed prior to construction.
15. The F.D.O.T. Roadway and Traffic Design Standards (booklet dated January 2002) is to be used for drainage structures.
16. Mitered end sections are included in all stormwater pipe lengths.
17. All Reinforced Concrete Pipe (RCP) shall be minimum Class III.

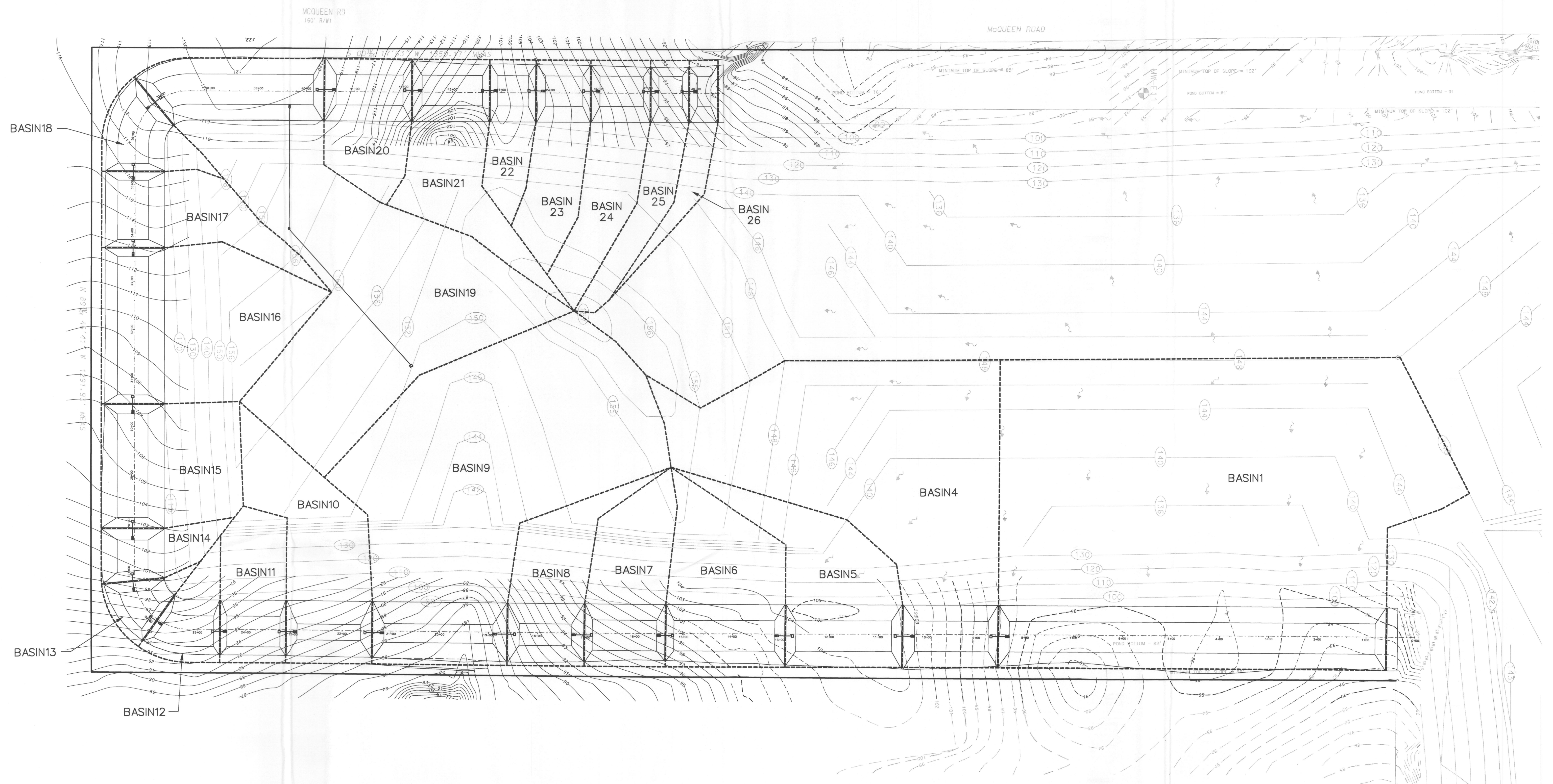
18. It is the Contractor's responsibility to obtain a copy of the Geotechnical Engineer's report for this project from GTC Engineering Corporation and meet the Geotechnical Engineer's requirements for soil preparation on the site. The Contractor's Geotechnical Engineer shall certify all site, utility, and roadway compaction as well as underdrain and pavement construction to GTC Engineering Corporation. Geotechnical recommendations are not the responsibility of GTC Engineering Corporation. GTC Engineering Corporation has relied on the geotechnical report in the preparation of the plans. Any conflict between information within the report and these plans shall be reported to the Engineer and/or Owner. GTC Engineering Corporation assumes no responsibility for the correctness, completeness, or accuracy of the geotechnical information.
19. During construction, no direct discharge of water will be allowed to downstream receiving waters. The Contractor is responsible for water quality and shall route discharges in such manner to adequately remove silt before runoff from the site.
20. Erosion Control Notes
- a. Provide effective temporary and permanent erosion control following the requirements in Section 104 of the State of Florida Department of Transportation Standard Specifications for Road and Bridge Construction, 2000 Edition (FDOT Section 104).
- b. Control features, methods and conditions included in this contract include the following as indicated by X in blank:
- (1) X Coordinate construction of temporary erosion control features with permanent erosion control features.
- (2) X Control operation which result in water pollution (FDOT Section 104-3).
- (3) X Provide schedule for clearing and grubbing, earthwork operations and construction of permanent erosion control features and proposed use of temporary erosion control features (FDOT Section 104-5).
- (4) Limitation of exposure of erodible earth without temporary or permanent erosion control features is square feet (FDOT Section 104-6.1).
- (5) X Temporary grassing (FDOT Section 104-6.4.2).
- (6) X Temporary sod (FDOT Section 104-6.4.3).
- (7) X Temporary mulching (FDOT Section 104-6.4.4).
- (8) Sandbagging (FDOT Section 104-6.4.5).
- (9) Slope drains (FDOT Section 104-6.4.6).
- (10) Sediment basins (FDOT Section 104-6.4.7).
- (11) Artificial coverings (FDOT Section 104-6.4.8).
- (12) X Berms (FDOT Section 104-6.4.9).
- (13) Baled hay or straw (FDOT Section 104-6.4.10).
- (14) X Temporary silt fences and staked silt barriers (FDOT Section 104-6.4.11).
- (15) Floating silt barriers (FDOT Section 104-6.4.11).
- (16) X Remove temporary erosion control features (FDOT Section 104-6.5).
- (17) X Maintain permanent and temporary erosion control features (FDOT Section 104.7).
- (18) X This contract design has been approved by the OWNER and regulatory agencies having an interest in erosion control abatement. The design in its final form meets or exceeds minimum standards. All temporary erosion control features required during construction shall be constructed by the Contractor, and the cost thereof included in the Contract Sum as a regular obligation incidental to the work.
- c. The Contractor is to submit an erosion control plan to the City of Apopka Engineer for approval prior to the reconstruction meeting for this project.

21. Miscellaneous Engineer Notifications
- a. The Contractor shall keep DAILY "As-built" drawings employing the criteria shown on the Paving and Drainage, Sanitary and Water Detail sheets. Record all As-builts in waterproof RED ink.
 - b. Before the start of construction, the Contractor shall prepare and submit to the Engineer a project construction schedule (Bar Graph) and update the schedule monthly.
 - c. The Contractor shall coordinate all backfill operations with the Resident Geotechnical Engineer and submit test reports to the Engineer prior to beginning work on the next item of work.
 - d. The Engineer reserves the right to require the Contractor to perform any action necessary to ensure that the improvements have been constructed in accordance with the plans and specifications.
22. Any discrepancy between the dimensions and measurements shown on the plans and the actual field conditions shall immediately be brought to the Engineer's attention. Failure to do so shall make the Contractor completely liable for whatever errors and/or problems that may subsequently arise.
23. It will be the responsibility of the Contractor(s) to ensure that all required permits are obtained and are in hand at the job site prior to the commencement of construction. Contractor shall abide by all conditions contained therein. Permits included (but not necessarily limited to) are:
- a. St. Johns River Water Management District, Management and Storage of Surface Waters.
 - b. Local underground utilities.
24. The Contractor shall be responsible for protecting all existing survey monumentation. Disturbed monumentation shall be restored by a Florida-licensed land surveyor selected by the Owner at the Contractor's expense.
25. The quantities and lengths of materials shown on plans should be verified by the Contractor. Any discrepancy between callouts and actual shown in plan view is to be brought to the Engineer's attention by the Contractor prior to bidding. It is the Engineer's intention to build what is shown on the construction plans.
26. The Contractor is to maintain weekly monitoring reports per general conditions of N.P.D.E.S. General Permit.
27. Record Drawing: At the end of construction, the Contractor shall provide one (1) set of drawings showing ALL CHANGES marked in waterproof red with the following Contractor Certification executed on EACH SHEET:
- The Contractor _____ hereby certifies to the OWNER that improvements covered by this drawing and the related details have been constructed as indicated or as modified by the notes and graphics shown. Absent a note or graphic to the contrary, the improvements have been constructed meeting industry standard tolerances
- Signed: _____ Date: _____
- Authorized Contractor's Representative

REVISIONS	--			FIELD: NONE		City of Apopka				Florida
	--			CADD BY: CMY		<div><div>GENERAL NOTES</div><div>Bishop and Buttrely Landfill</div><div>MAY 2 1 2004</div></div>				
	--			CHECKED BY: CLC						
	--			DESIGNED BY: CMY						
	--			SCALE: NONE		DATE 5-20-04	JOB NUMBER	BDT-2	SHEET 2 of 6	
	DATE	BY	DESCRIPTION							

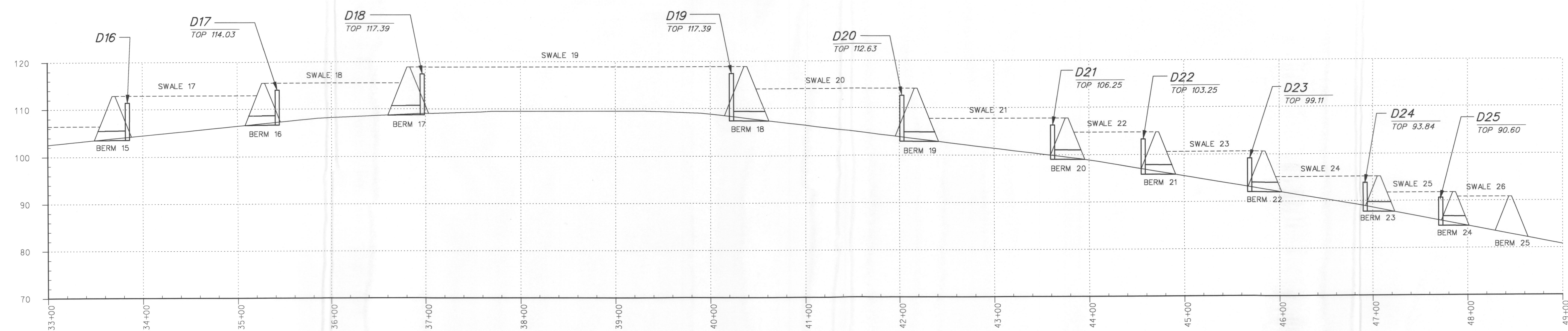


	REVISIONS	--			FIELD: ACCURITE		City of Apopka	Florida								
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		--			CHECKED BY: CLC											
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		DATE							BY				DESCRIPTION			



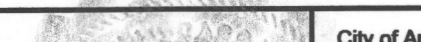

Basin	Area (ac)	CN	Basin	Area (ac)	CN
1	12.51	89	15	1.66	72
4	5.95	94	16	2.80	79
5	1.84	76	17	1.22	77
6	1.83	76	18	0.61	53
7	1.36	78	19	6.46	90
8	1.27	78	20	1.07	70
9	6.56	92	21	1.56	82
10	1.92	83	22	0.65	74
11	0.96	74	23	1.06	81
12	0.55	56	24	1.26	82
13	0.33	46	25	0.87	84
14	0.55	64	26	0.51	79

	REVISIONS	<table border="1"> <tr> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	DATE	BY	DESCRIPTION										FIELD: ACCURITE CADD BY: CMY CHECKED BY: CLC DESIGNED BY: CMY SCALE: 1"=100'	GTC Engineering Corporation <small> Certificate of Authorization Number 6758 Claude J. Cassagrol, P.E. P.E. Number 35490 </small>	City of Apopka DRAINAGE MAP Bishop and Buttrey Landfill MAY 21 2004	DATE: 05-17-07 JOB NUMBER: BDT-2 SHEET: 4 of 6
	DATE	BY	DESCRIPTION															

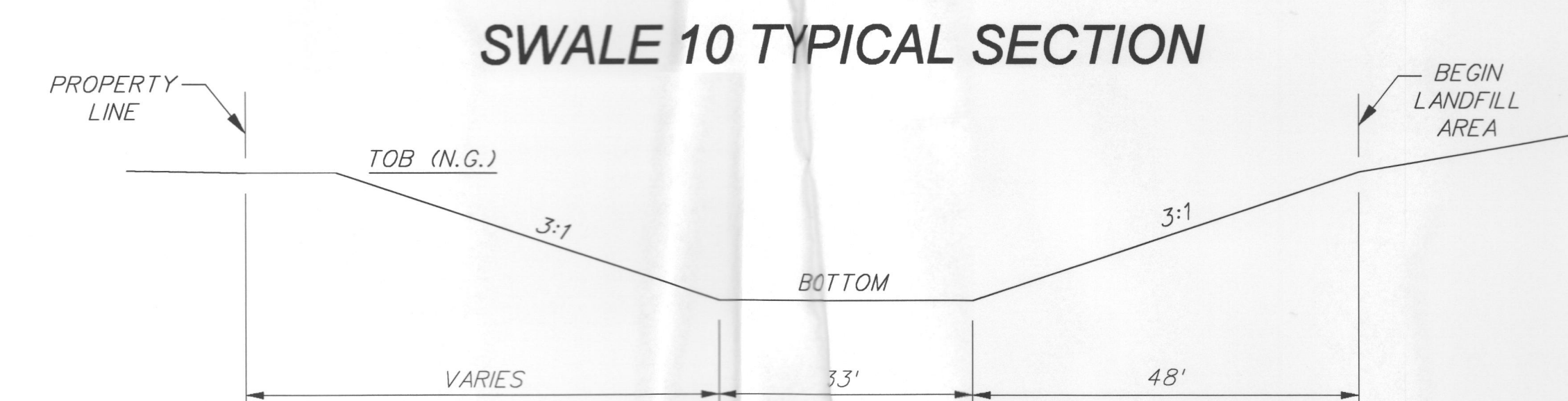
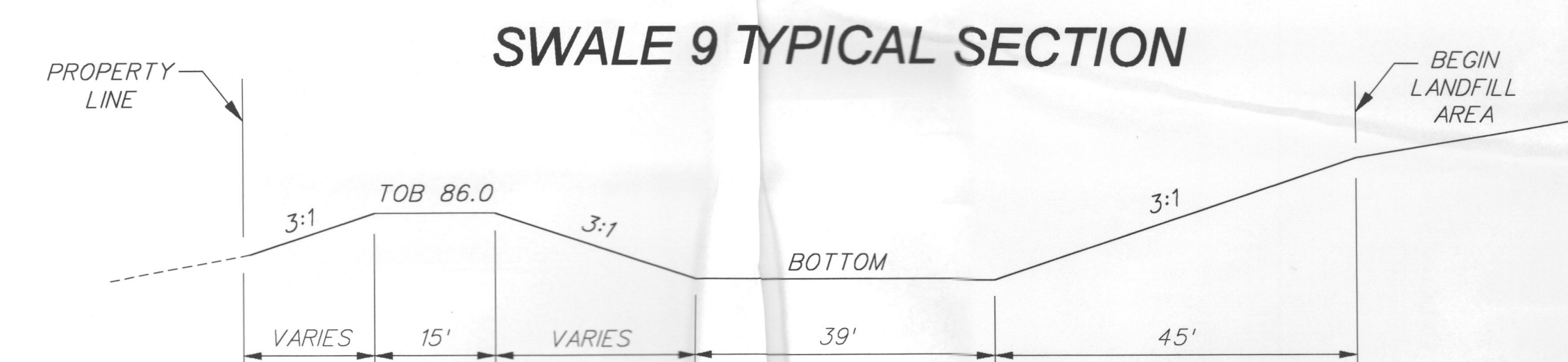
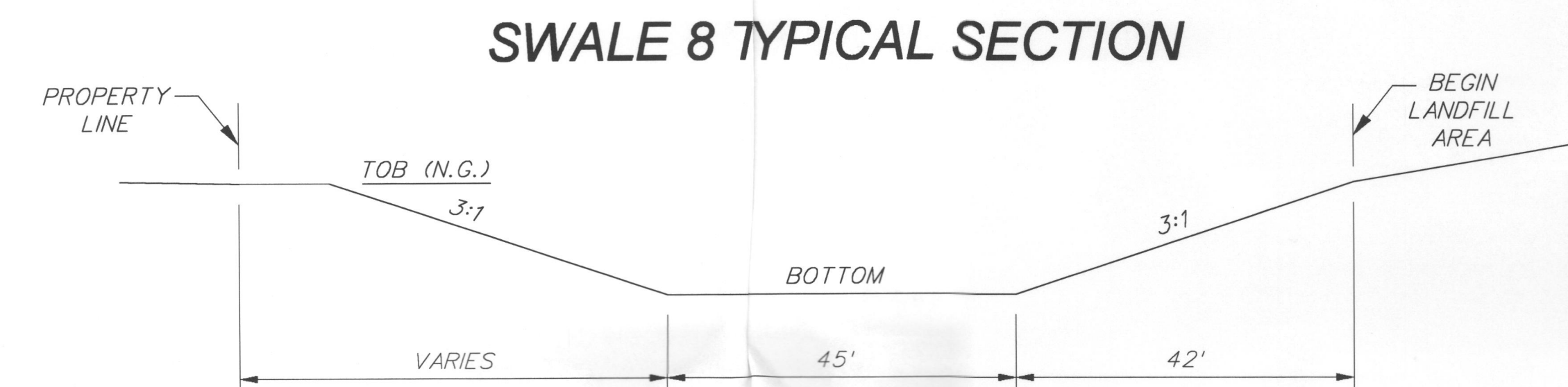
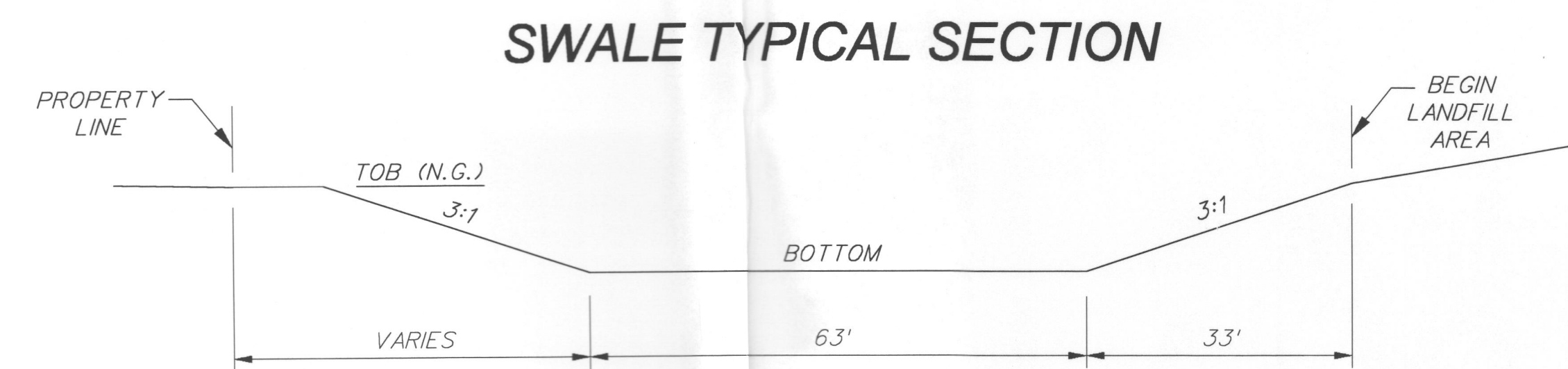


Berm No.	Station	Berm Top Elevation
1	0+58.5	91.00
2	8+54.7	97.66
3	10+50.8	102.73
4	12+91.0	102.73
5	15+37.7	96.85
6	17+03.7	93.45
7	18+61.6	88.47
8	21+38.3	86.50
9	23+16.8	89.54
10	24+52.8	92.16
11	25+84.9	94.38
12	26+80.0	99.64
13	27+89.3	102.76
14	30+46.4	106.46
15	33+69.3	112.91
16	35+27.4	115.53
17	36+82.1	118.89
18	40+36.9	118.89
19	42+17.4	114.13
20	43+76.5	107.75
21	44+71.7	104.75
22	45+83.6	100.61
23	47+06.4	95.19
24	47+85.7	91.78
25	48+44.9	90.81

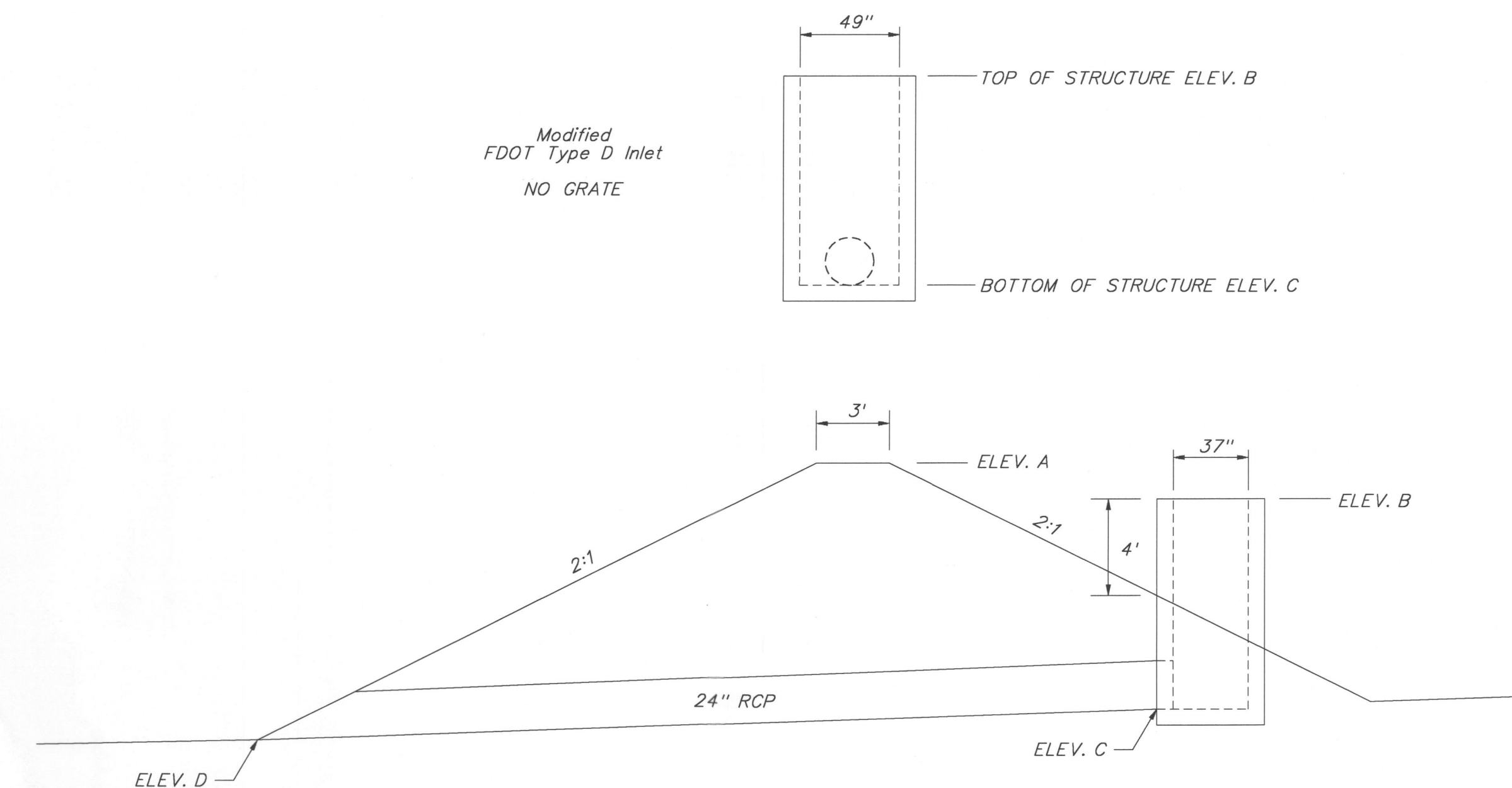
SEE SHEET 6 OF 6 FOR DROP STRUCTURE INVERTS

<div style="writing-mode: vertical-rl; transform: rotate(180deg);"> REVISIONS </div>	--				FIELD: NONE	<div style="text-align: center;">  <p> GTC Engineering Corporation <i>Certificate of Authorization</i> 98 South Semoran Blvd, Orlando, FL 32807 Number 0738 407-380-0402 <i>Claude L. Cassagnol, P.E.</i> P.E. Number 35490 </p> </div>	<div style="text-align: center;">  </div>	<div style="text-align: right;"> City of Apopka </div> <div style="text-align: right;"> Florida </div>						
	--				CADD BY: CMY			<div style="text-align: center;"> <h2>PROFILE SHEET</h2> <h3>Bishop and Buttrely Landfill</h3> <p>MAY 2 1 2004</p> </div>						
	--				CHECKED BY: CLC									
	--				DESIGNED BY: CMY									
	--				SCALE: 1"=60' HORIZ 1"=12' VERT									
	DATE	BY		DESCRIPTION					DATE	05-17-04	JOB NUMBER	BDT-2	SHEET	5 of 6

DT2PROF.DGN



DROP STRUCTURE DETAIL (Typical)



Drop Structure Number	Berm Elevation (Elev. A)	Top of Structure (Elev. B)	Upstream Invert (Elev. C)	Pipe length (ft)	Downstream Invert (Elev. D)
3	97.66	96.16	86.40	37	86.36
4	102.73	101.23	91.49	37	91.45
5	102.73	101.23	92.89	34	92.85
6	96.85	95.35	89.70	28	89.67
7	93.45	91.95	81.22	39	81.17
8	88.47	86.97	74.40	42	74.35
9	86.50	85.00	75.36	36	75.32
10	89.54	88.04	78.01	37	77.97
11	92.16	90.66	86.01	26	85.98
12	94.38	92.88	88.12	27	88.09
13	99.64	98.14	88.93	35	88.89
14	102.76	101.26	90.97	38	90.92
15	106.46	104.96	96.98	33	96.94
16	112.91	111.41	103.56	33	103.52
17	115.53	114.03	106.64	32	106.60
18	118.89	117.39	108.75	34	108.71
19	118.89	117.39	107.39	37	107.35
20	114.13	112.63	102.92	37	102.88
21	107.75	106.25	99.05	31	99.01
22	104.75	103.25	95.82	32	95.78
23	100.61	99.11	92.03	31	91.99
24	95.19	93.84	87.72	29	87.69
25	91.78	90.60	84.66	28	84.63

REVISIONS DATE BY DESCRIPTION				FIELD: NONE	GTC Engineering Corporation <small>Certificate of Authorization Number 6758</small> <small>98 South Semoran Blvd, Orlando, FL 32807</small> <small>407-380-0402</small> <small>Claudio L. Casagrande, P.E.</small> <small>P.E. Number 35490</small>	City of Apopka DRAINAGE DETAILS Bishop and Buttrey Landfill MAY 2 1 2004	DATE 05-18-04 JOB NUMBER BDT-02 SHEET 6 of 6
				CADD BY: CMY			
				CHECKED BY: CLC			
				DESIGNED BY: CMY			
				SCALE: NONE			