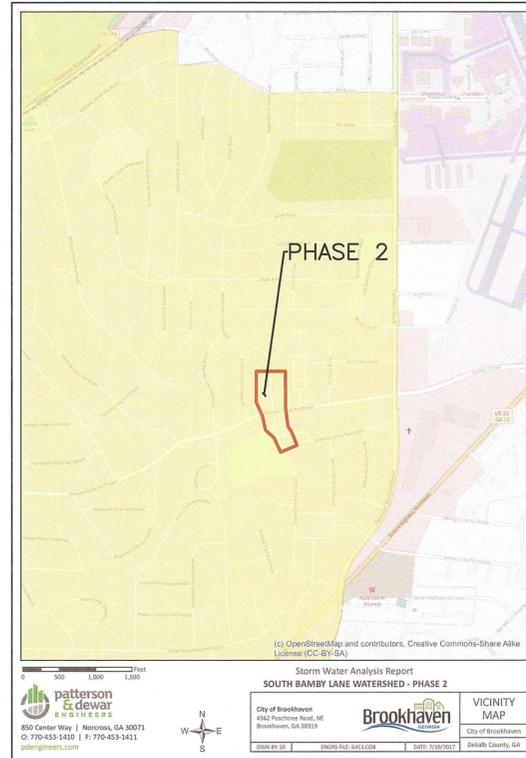


# CITY OF BROOKHAVEN

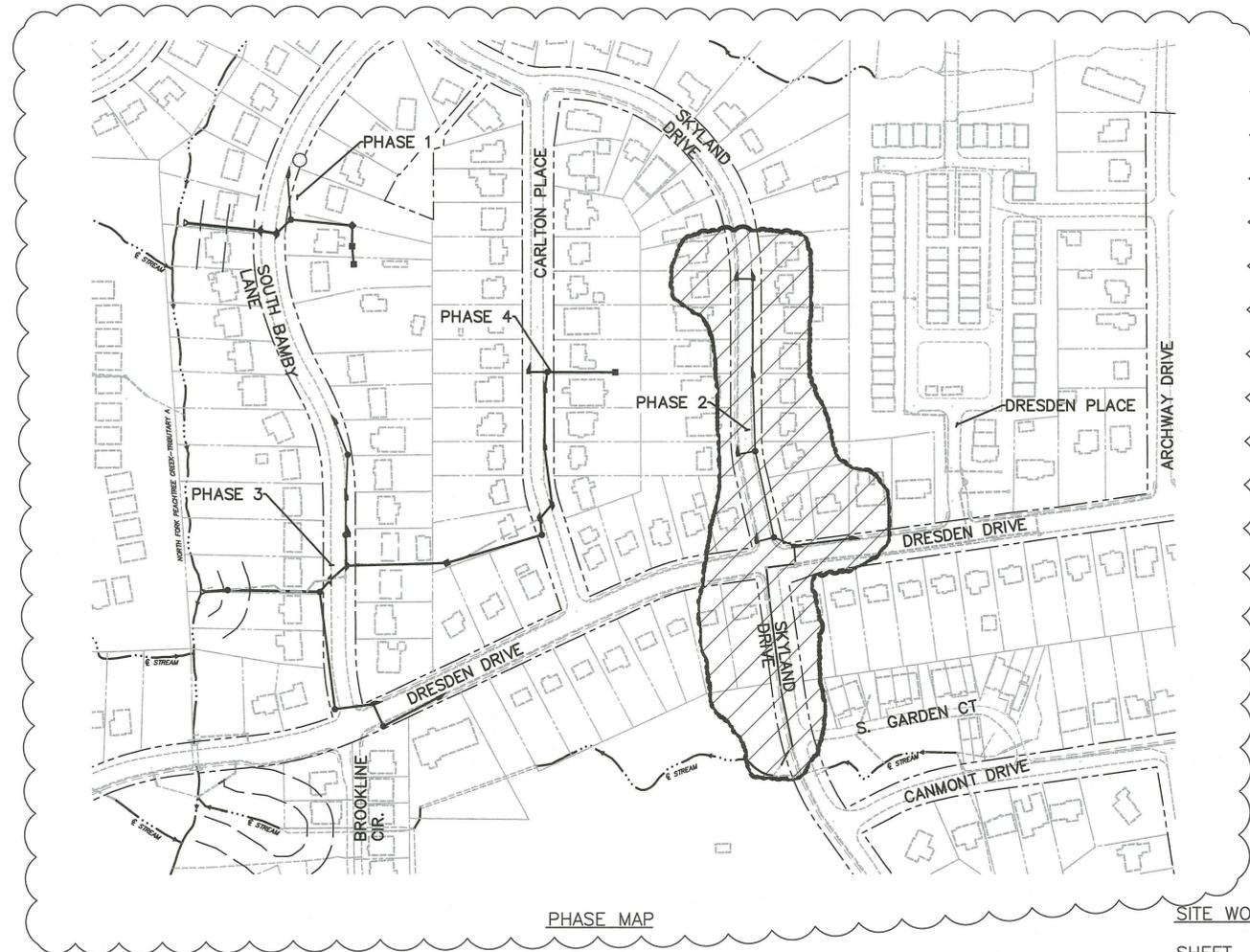
# SOUTH BAMBY LANE PHASE 2

# DRAINAGE IMPROVEMENTS

SITE LOCATION: BROOKHAVEN, GEORGIA



VICINITY MAP



PHASE MAP

SITE WORK PLAN INDEX

| SHEET       | DESCRIPTION                                  |
|-------------|--|
| GABRKS2-000 | TITLE SHEET                                  |
| GABRKS2-001 | EXISTING CONDITIONS                          |
| GABRKS2-002 | SITE/DEMOLITION PLAN                         |
| GABRKS2-003 | EROSION AND SEDIMENT CONTROL PLAN            |
| GABRKS2-004 | STORM DRAINAGE PROFILES                      |
| GABRKS2-005 | EROSION AND SEDIMENT CONTROL NOTES & DETAILS |
| GABRKS2-006 | EROSION AND SEDIMENT CONTROL DETAILS         |
| GABRKS2-007 | GEN. CONSTRUCTION NOTES & DETAILS            |
| GABRKS2-008 | TREE REMOVAL & REPLACEMENT PLAN              |
| GABRKS2-009 | TREE DETAILS, NOTES & PLANT LIST PLAN        |
| GABRKS2-010 | CONSTRUCTION DETAILS                         |
| GABRKS2-011 | CONSTRUCTION DETAILS                         |

PRELIMINARY    FOR BID    FOR CONSTRUCTION    FOR RECORD    "AS BUILT"    FOR REVIEW

**OWNER**  
 CITY OF BROOKHAVEN  
 4362 PEACHTREE ROAD  
 BROOKHAVEN, GEORGIA  
 (404) 637-0500



Know what's below.  
Call before you dig.

**24-HOUR CONTACT:**  
 GREGORY ANDERSON P.E.  
 STORMWATER UTILITY MANAGER  
 WORK: (404) 637-0528  
 MOBILE: (404) 983-3507  
 GREGORY.ANDERSON@BROOKHAVENGA.GOV

GEORGIA LAW REQUIRES CONTRACTORS TO CONTACT GEORGIA 811 AT LEAST 2 BUSINESS DAYS PRIOR TO BEGINNING EXCAVATION ACTIVITIES. CALL 811. WWW.GEORGIA811.COM

|   |             |          |         |               |
|---|-------------|----------|---------|---------------|
| BY  | ML          | REVISION | ADDRESS | CITY COMMENTS |
| DATE  | 08/25/17    |          |         |               |
| No.   | B           |          |         |               |
| CITY OF BROOKHAVEN<br>BROOKHAVEN, GEORGIA<br>SOUTH BAMBY PHASE TWO<br>TITLE SHEET   |             |          |         |               |
| REGISTERED PROFESSIONAL ENGINEER<br>DANIEL MARTINEZ<br>No. 9900<br>8-24-17  |             |          |         |               |
| patterson & dewar ENGINEERS<br>850 Center Way   Norcross, GA 30071<br>(770) 453-1410   pdengineers.com<br>Engineers - Surveyors - Construction Management |             |          |         |               |
| DATE  | 07/21/2017  |          |         |               |
| SCALE   | NTS         |          |         |               |
| DRAWING NO.   | GABRKS2-000 |          |         |               |
| REV.  | B           |          |         |               |

17LDP00015

Resub 3 - site

South Bamby Phase 2

Drawing File: G:\PROJECTS\13 COBROOKHAVEN\5 BAMBY PHASE 2\DRAWINGS\GABRKS2-000.DWG  
 Plotted by: ZWILLER  
 Date: Mon, 28 Aug 2017 10:03:26 am  
 Time: 03:03:26 pm  
 Image: G:\PROJECTS\13 COBROOKHAVEN\5 BAMBY PHASE 2\Drawings\GABRKS2-000.dwg

**LEGEND**

|  |                                    |
|--|------------------------------------|
|  | PROPERTY LINE                      |
|  | RIGHT-OF-WAY LINE                  |
|  | APPROX. CENTERLINE OF RIGHT-OF-WAY |
|  | EXISTING EDGE OF PAVEMENT          |
|  | EXISTING EDGE OF CONCRETE          |
|  | EXISTING BACK OF CURB              |
|  | EXISTING SIDEWALK                  |
|  | EXISTING HOME OR OTHER BUILDING    |
|  | EXISTING STORM DRAIN PIPE          |
|  | EXISTING MAJOR CONTOUR             |
|  | EXISTING MINOR CONTOUR             |
|  | EXISTING OVERHEAD ELECTRICAL LINES |
|  | EXISTING WATER LINE                |
|  | EXISTING SANITARY SEWER            |
|  | EXISTING NATURAL GAS LINE          |
|  | EXISTING FENCE                     |
|  | EXISTING COMMUNICATION LINE        |
|  | EXISTING FIBER OPTIC LINE          |
|  | EXISTING CATCH BASIN (SINGLE WING) |
|  | EXISTING JUNCTION BOX              |
|  | EXISTING WATER METER               |
|  | EXISTING SANITARY SEWER MANHOLE    |
|  | EXISTING WATER VALVE               |
|  | EXISTING FIRE HYDRANT              |
|  | EXISTING POWER POLE                |
|  | EXISTING GUY ANCHOR                |
|  | EXISTING LIGHT POLE                |
|  | SANITARY SEWER MANHOLE             |
|  | JUNCTION BOX                       |
|  | PROJECTING PIPE END                |
|  | CATCH BASIN                        |

**NOTES:**

1. THE LOCATION OF THE EXISTING WATER MAIN ON SKYLAND DRIVE (NORTH OF DRESDEN DRIVE) IS BASED ON DEKALB COUNTY GIS. THE SANITARY SEWER LATERALS HAVE NOT BEEN LOCATED. WATER METERS SHOWN ARE BASED ON SURVEYED LOCATIONS AND WERE USED TO SHOW WATER LATERALS. THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT SITE THAT ARE NOT SHOWN ON THESE PLANS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE UTILITIES PRIOR TO CONSTRUCTION.
2. MAPS FROM AGL RESOURCES SHOW A RETIRED 6-INCH STEEL GAS MAIN UNDER THE PAVEMENT OF DRESDEN DRIVE. CONTACT AGL RESOURCES FOR MORE INFORMATION.

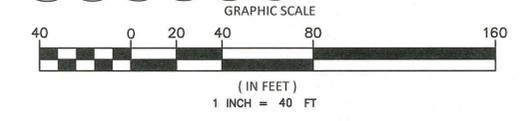
**OWNER**

CITY OF BROOKHAVEN  
4362 PEACHTREE ROAD  
BROOKHAVEN, GEORGIA  
(404) 637-0500



**24-HOUR CONTACT:**  
GREGORY ANDERSON P.E.  
STORMWATER UTILITY MANAGER  
WORK: (404) 637-0528  
MOBILE: (404) 983-3507  
GREGORY.ANDERSON@BROOKHAVENGA.GOV

GEORGIA LAW REQUIRES CONTRACTORS TO CONTACT GEORGIA 811 AT LEAST 2 BUSINESS DAYS PRIOR TO BEGINNING EXCAVATION ACTIVITIES. CALL 811. WWW.GEORGIA811.COM



"THIS SITE IS NOT LOCATED WITHIN A ZONE [A, AE, SHADED ZONE X] AS DEFINED BY F.I.R.M. COMMUNITY PANEL NUMBER 13089C0052J FOR THE CITY OF BROOKHAVEN/DEKALB COUNTY, GEORGIA."

NOTE: CLOUDED REVISIONS ONLY INCLUDE REVISIONS TO NOTES

LIMITS OF SURVEY. ALL TOPO OUTSIDE LIMITS IS BASED ON GIS DATA PROVIDED BY THE CITY OF BROOKHAVEN



PRELIMINARY    FOR BID    FOR CONSTRUCTION    FOR RECORD    "AS BUILT"    FOR REVIEW

| NO. | DATE     | REVISION | ADDRESS | CITY COMMENTS |
|-----|----------|----------|---------|---------------|
| B   | 08/25/17 |          |         |               |

CITY OF BROOKHAVEN  
BROOKHAVEN, GEORGIA

**SOUTH BAMBY PHASE TWO**

**EXISTING CONDITIONS**



**patterson & dewar ENGINEERS**

850 Center Way | Norcross, GA 30071  
(770) 453-1410 | pdengineers.com  
Engineers - Surveyors - Construction Management

|             |             |
|-------------|-------------|
| DATE        | 07/21/2017  |
| SCALE       | 1" = 40'    |
| DRAWING NO. | GABRKS2-001 |
| REV.        | B           |

Drawing File: C:\PROGRA~1\BENTLEY\DRAWING\PLANS\VP2\URBINES\GABRKS2-001.DWG  
 Plotted: 8/25/2017 10:42:05 AM  
 Plotter: HP DesignJet 2400  
 Plot Scale: 1" = 40'  
 User: gregory.anderson  
 Project: SOUTH BAMBY PHASE TWO EXISTING CONDITIONS  
 Drawing No: GABRKS2-001

**LEGEND**

- PROPERTY LINE
- - - RIGHT-OF-WAY LINE
- - - - APPROX. CENTERLINE OF RIGHT-OF-WAY
- - - - EXISTING EDGE OF PAVEMENT
- - - - EXISTING EDGE OF CONCRETE
- - - - EXISTING BACK OF CURB
- - - - EXISTING SIDEWALK
- - - - EXISTING HOME OR OTHER BUILDING
- - - - EXISTING STORM DRAIN PIPE
- - - - EXISTING MAJOR CONTOUR
- - - - EXISTING MINOR CONTOUR
- - - - EXISTING OVERHEAD ELECTRICAL LINES
- - - - EXISTING WATER LINE
- - - - EXISTING SANITARY SEWER
- - - - EXISTING NATURAL GAS LINE
- - - - EXISTING COMMUNICATION LINE
- - - - EXISTING FIBER OPTIC LINE
- - - - EXISTING FENCE
- - - - EXISTING CATCH BASIN (SINGLE WING)
- - - - EXISTING JUNCTION BOX
- - - - EXISTING WATER METER
- - - - EXISTING SANITARY SEWER MANHOLE
- - - - EXISTING WATER VALVE
- - - - EXISTING FIRE HYDRANT
- - - - EXISTING POWER POLE
- - - - EXISTING DOWN GUY
- - - - EXISTING LIGHT POLE
- - - - PROPOSED CATCH BASIN (SINGLE WING)
- - - - PROPOSED HEADWALL
- - - - PROPOSED JUNCTION BOX
- - - - PROPOSED STROM DRAINAGE PIPE
- - - - SANITARY SEWER MANHOLE
- - - - CATCH BASIN
- - - - JUNCTION BOX
- - - - HEADWALL
- - - - CAST IRON PIPE
- - - - DUCTILE IRON PIPE
- - - - EXISTING
- - - - PROPOSED
- - - - TEMPORARY CONSTRUCTION EASEMENT
- - - - CURB & GUTTER

- SSMH
- CB
- JB
- HW
- CIP
- DIP
- EXIST.
- PROP.
- TCE
- C&G

**NOTES:**

1. LIMIT WIDTH OF TRENCH WHEN IN CLOSE PROXIMITY TO UTILITIES OR TREES TO REMAIN, WHEN UNDER PAVEMENT, OR WHEN ON PRIVATE PROPERTY.
2. REMOVE PAVEMENT NECESSARY TO INSTALL STORMWATER STRUCTURES AND PIPES. REPLACE PAVEMENT IN KIND IN ACCORDANCE WITH THE CITY OF BROOKHAVEN. SEE TRAFFIC PLAN FOR TRAFFIC RE-ROUTING, SAFETY BARRIERS, SIGNAGE, AND OTHER TEMPORARY TRAFFIC CONTROL MEASURES.
3. CONTRACTOR SHALL COORDINATE WITH UTILITY OWNERS FOR RELOCATION OF EXISTING UTILITY POLES AND TEMPORARY GUYING OR SUPPORT OF IMPACTED UTILITY POLES DURING CONSTRUCTION.
4. SEE SHEET GABRKS2-010 FOR MODIFIED CATCH BASIN DETAIL.
5. INSTALL PROPOSED WATER MAIN PRIOR TO PROPOSED STORM DRAINAGE. MINIMIZE DISRUPTION TO WATER SERVICE WHILE CONNECTING PROPOSED WATER MAIN TO EXISTING WATER MAIN. REMOVE EXISTING WATER MAIN WITHIN AREA WHERE PROPOSED STORM DRAINAGE WILL BE INSTALLED.
6. JACK AND BORE 24-INCH RCP UNDERNEATH DRESDEN DRIVE. MINIMIZE RECEIVING AREA TO PREVENT REMOVAL OF EXISTING CATCH BASIN IF POSSIBLE.
7. REMOVE AND REPLACE GUARDRAIL ONLY IF NECESSARY FOR REMOVING AND REPLACING STORM DRAINAGE. REPLACE GUARDRAIL IN KIND.
8. MINIMIZE DISTURBANCE, GRADE TO DRAIN TOWARD STREAM.
9. REMOVE AND REPLACE PORTION OF SPEED HUMP NECESSARY FOR DRAINAGE INSTALLATION. REPLACE IN KIND.
10. INSTALL 24 INCH CURB AND GUTTER AND GRANITE CURB IN AREAS NOTED IN ACCORDANCE WITH DEKALB COUNTY STANDARD 501. GUTTER ACROSS DRIVEWAYS SHALL BE IN ACCORDANCE WITH DEKALB COUNTY STANDARD 709. SEE SHEET GABRKS2-011 FOR DETAILS.
11. REMOVE MAILBOXES NECESSARY WITHIN AREA OF DISTURBANCE AND REPLACE WITH MAILBOXES APPROVED BY THE CITY.
12. PORTIONS OF DRIVEWAYS REMOVED FOR DRAINAGE INSTALLATION AND ASSOCIATED IMPROVEMENTS SHALL BE REPLACED IN ACCORDANCE WITH DEKALB COUNTY STANDARDS 709 AND 710 ON SHEET GABRKS2-011.
13. UTILITIES WITHIN STORM DRAINAGE AND WATER MAIN TRENCHES SHALL BE SUPPORTED IN PLACE. DAMAGES TO UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR AND/OR REPLACE.

| PIPE  | DIA inches | TYPE | GUTTER STRUCTURE | ft   | Manning's n | DESIGN FREQ year | FREQ. FACTOR Cf | WEIGHTED RATIONAL "C" | INTENSITY in/hr | AREA acres | DESIGN FLOW cfs | DESIGN SLOPE % | FF FRIC SLOPE % | VELOCITY* ft/sec | Time of Concentration min | LENGTH ft |
|-------|------------|------|------------------|------|-------------|------------------|-----------------|-----------------------|-----------------|------------|-----------------|----------------|-----------------|------------------|---------------------------|-----------|
| P5-P4 | 18         | RCP  | CB P5            | 5.8  | 0.013       | 25               | 1.1             | 0.68                  | 8.39            | 0.5        | 2.9             | 1.14%          | 0.08%           | 5.3              | 5.0                       | 26.30     |
| P4-P3 | 18         | RCP  | CB P4            | 8.7  | 0.013       | 25               | 1.1             | 0.69                  | 8.35            | 1.1        | 7.0             | 1.03%          | 0.45%           | 6.4              | 5.1                       | 184.20    |
| P3-P2 | 18         | RCP  | CB P3            | 11.3 | 0.013       | 25               | 1.1             | 0.61                  | 8.21            | 2.0        | 10.9            | 1.18%          | 1.08%           | 6.1              | 5.6                       | 126.60    |
| N1-P2 | 18         | RCP  | CB N1            | 10.2 | 0.013       | 25               | 1.1             | 0.78                  | 8.39            | 0.7        | 5.3             | 1.32%          | 0.26%           | 3.0              | 5.0                       | 30.40     |
| P2-P1 | 18         | RCP  | NA               |      | 0.013       | 25               | 1.1             | 0.66                  | 8.11            | 2.7        | 15.9            | 2.31%          | 2.32%           | 9.0              | 5.9                       | 185.90    |
| M1-P1 | 18         | RCP  | CB M1            | 2.7  | 0.013       | 25               | 1.1             | 0.70                  | 8.39            | 0.5        | 3.4             | 1.06%          | 0.11%           | 1.9              | 5.0                       | 28.40     |
| P1-G1 | 18         | RCP  | NA               |      | 0.013       | 25               | 1.1             | 0.67                  | 8.01            | 3.2        | 19.0            | 2.64%          | 3.30%           | 10.7             | 6.2                       | 41.60     |
| G2-G1 | 18         | RCP  | CB G2            | 4.5  | 0.013       | 25               | 1.1             | 0.62                  | 8.39            | 0.8        | 4.6             | 1.83%          | 0.19%           | 7.2              | 5.0                       | 109.30    |
| G1-H7 | 24         | RCP  | CB G1            | 10.4 | 0.013       | 25               | 1.1             | 0.60                  | 7.99            | 5.3        | 28.1            | 1.06%          | 1.56%           | 8.9              | 6.3                       | 37.80     |
| H7-H6 | 30         | RCP  | CB H7            | 5.4  | 0.013       | 25               | 1.1             | 0.62                  | 7.97            | 9.7        | 53.2            | 1.06%          | 1.70%           | 10.8             | 6.4                       | 56.54     |
| H6-H5 | 30         | RCP  | NA               |      | 0.013       | 25               | 1.1             | 0.62                  | 7.97            | 9.7        | 53.2            | 1.06%          | 1.70%           | 10.8             | 6.5                       | 56.92     |
| H5-H4 | 30         | RCP  | CB H5            | 3.5  | 0.013       | 25               | 1.1             | 0.63                  | 7.92            | 9.8        | 53.3            | 2.59%          | 1.71%           | 15.0             | 6.6                       | 173.76    |
| H4-H3 | 30         | RCP  | NA               |      | 0.013       | 25               | 1.1             | 0.63                  | 7.92            | 9.8        | 53.3            | 2.49%          | 1.71%           | 10.8             | 6.8                       | 113.06    |
| H3-H2 | 36         | RCP  | NA               |      | 0.013       | 25               | 1.1             | 0.63                  | 7.92            | 9.8        | 53.3            | 1.34%          | 0.65%           | 11.8             | 6.9                       | 6.71      |
| H2-H1 | 36         | RCP  | CB H2            | 8.5  | 0.013       | 25               | 1.1             | 0.63                  | 7.81            | 10.1       | 55.2            | 0.85%          | 0.69%           | 9.8              | 6.9                       | 35.24     |

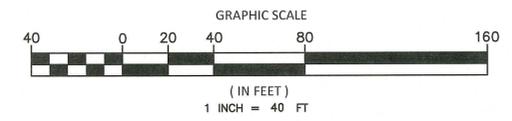
**OWNER**  
CITY OF BROOKHAVEN  
4362 PEACHTREE ROAD  
BROOKHAVEN, GEORGIA  
(404) 637-0500



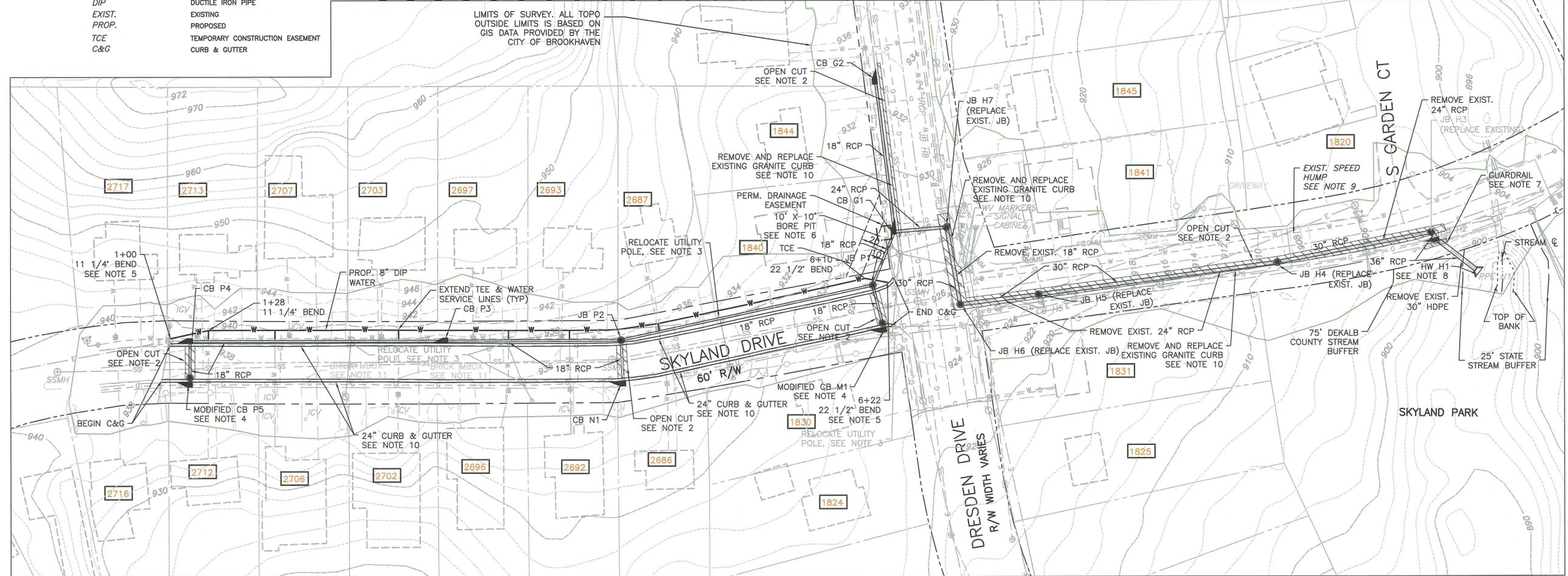
**24-HOUR CONTACT:**

GREGORY ANDERSON P.E.  
STORMWATER UTILITY MANAGER  
WORK: (404) 637-0528  
MOBILE: (404) 983-3507  
GREGORY.ANDERSON@BROOKHAVENGA.GOV

GEORGIA LAW REQUIRES CONTRACTORS TO CONTACT GEORGIA 811 AT LEAST 2 BUSINESS DAYS PRIOR TO BEGINNING EXCAVATION ACTIVITIES. CALL 811. WWW.GEORGIA811.COM



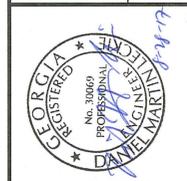
NOTE: CLOUDED REVISIONS ONLY INCLUDE REVISIONS TO NOTES



File: \\NA\NA\4413\_C06650\DWG\13\_08\_2017\13\_08\_2017\_13\_08\_2017\_13\_08\_2017\_13\_08\_2017.dwg  
 Plot: \\NA\NA\4413\_C06650\DWG\13\_08\_2017\13\_08\_2017\_13\_08\_2017\_13\_08\_2017\_13\_08\_2017.dwg  
 Date: 08/25/17  
 Time: 09:59:33 pm  
 User: jay  
 Title: GABRKS2-002

| NO. | DATE     | REVISION | ADDRESS | CITY COMMENTS |
|-----|----------|----------|---------|---------------|
| B   | 08/25/17 |          |         |               |

CITY OF BROOKHAVEN  
BROOKHAVEN, GEORGIA  
**SOUTH BAMBY PHASE TWO**  
**SITE/DEMOLITION PLAN**



|             |             |
|-------------|-------------|
| DATE        | 07/21/2017  |
| SCALE       | 1" = 40'    |
| DRAWING NO. | GABRKS2-002 |
| REV.        | B           |

PRELIMINARY  
  FOR BID  
  FOR CONSTRUCTION  
  FOR RECORD  
  "AS BUILT"  
 FOR REVIEW

Drawn By: G. STOWALL  
 Checked By: M. LECKIE

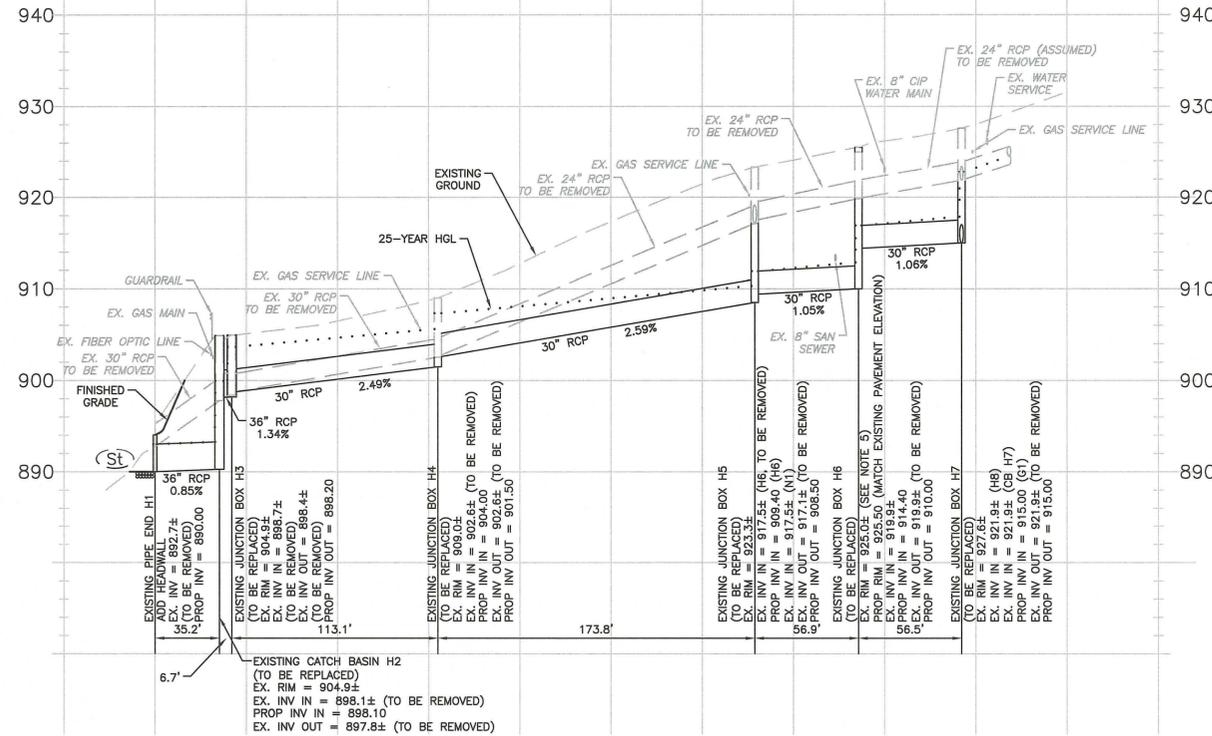


Drawing File: C:\PREL\1413 COBROOKHAVEN - 5 BAMBYS PLANIS V2\DRAWINGS\GABRKS2-004.DWG  
 Title: GABRKS2-004.dwg  
 Author: J. V. WATSON - R3.dwg  
 Date: 07/21/2017

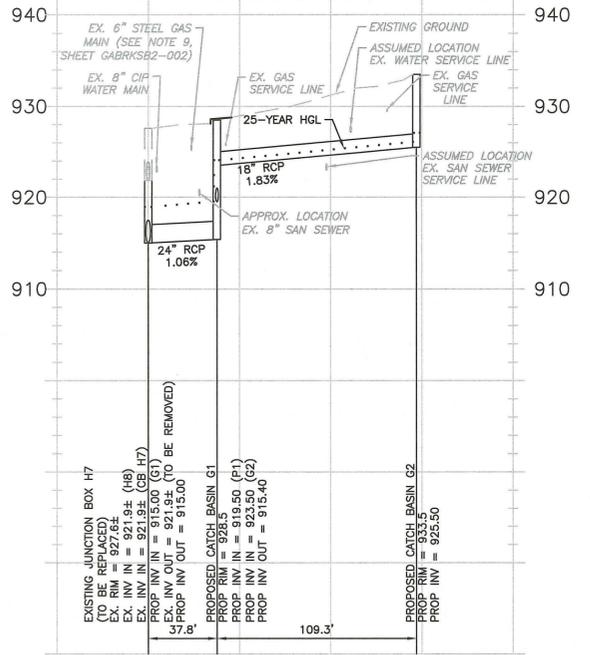
1 2 3 4 5 6

A B C D E

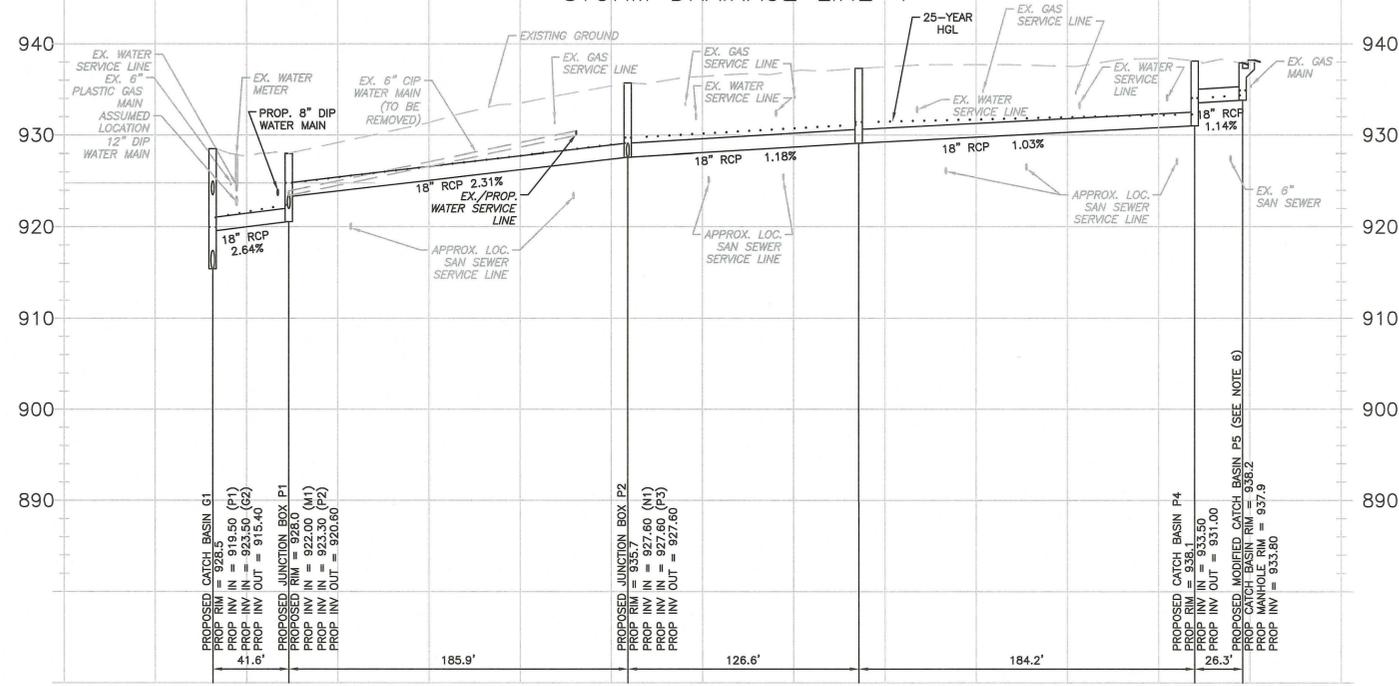
### STORM DRAINAGE LINE 'H'



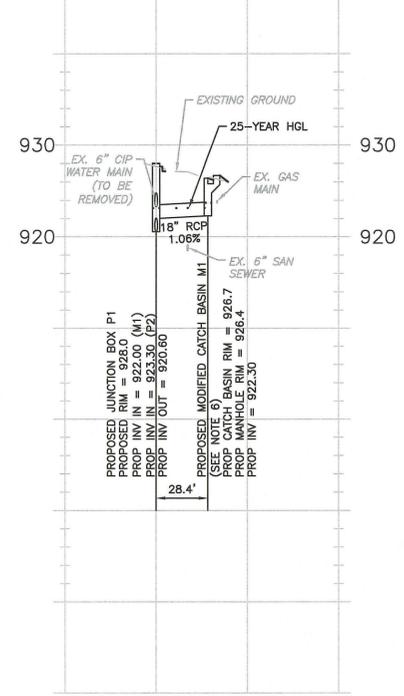
### STORM DRAINAGE LINE 'G'



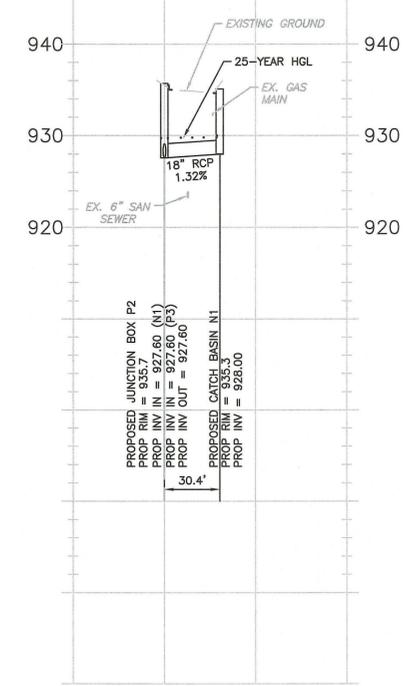
### STORM DRAINAGE LINE 'P'



### STORM DRAINAGE LINE 'M'



### STORM DRAINAGE LINE 'N'



#### NOTES

- PIPE LENGTHS SHOWN ARE HORIZONTAL DISTANCES FROM CENTER TO CENTER OF STRUCTURES AND ARE FOR LAYOUT PURPOSES ONLY. INVERT ELEVATIONS SHOWN ARE AT PIPE INVERTS AT INSIDE CENTER OF STRUCTURE.
- ALL REINFORCED CONCRETE PIPE (RCP) JOINTS SHALL BE BELL & SPIGOT TYPE WITH A RUBBER GASKET CONFORMING TO ASTM C443. THE PIPE SHALL BE MANUFACTURED IN ACCORDANCE WITH AASHTO M-170 AND/OR ASTM C76. CLASS OF PIPE AND WALL THICKNESS SHALL BE IN ACCORDANCE WITH 1030-D, GEORGIA DOT SPECIFICATION TABLE NO. 1. INSTALLATION SHALL BE IN ACCORDANCE WITH SECTION 550 OF THE GEORGIA DOT SPECIFICATIONS.
- DELETED.
- CONTRACTOR SHALL PROVIDE SHEETING AND SHORING FOR ALL TRENCH CONSTRUCTION IN ACCORDANCE WITH O.S.H.A. REGULATIONS.
- EXISTING JUNCTION BOX IS BURIED. ELEVATIONS ARE APPROXIMATE.
- SEE SHEET GABRKS2-010 FOR MODIFIED CATCH BASIN DETAIL.
- SEE SHEET GABRKS2-002 FOR PIPE CHART.

NOTE: CLOUDED REVISIONS ONLY INCLUDE REVISIONS TO NOTES.

#### OWNER

CITY OF BROOKHAVEN  
 4362 PEACHTREE ROAD  
 BROOKHAVEN, GEORGIA  
 (404) 637-0500



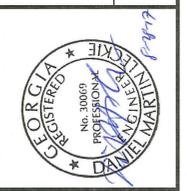
#### 24-HOUR CONTACT:

GREGORY ANDERSON P.E.  
 STORMWATER UTILITY MANAGER  
 WORK: (404) 637-0528  
 MOBILE: (404) 983-3507  
 GREGORY.ANDERSON@BROOKHAVENGA.GOV

GEORGIA LAW REQUIRES CONTRACTORS TO CONTACT GEORGIA 811 AT LEAST 2 BUSINESS DAYS PRIOR TO BEGINNING EXCAVATION ACTIVITIES. CALL 811. WWW.GEORGIA811.COM

| NO. | DATE     | REVISION              |
|-----|----------|-----------------------|
| B   | 08/25/17 | ADDRESS CITY COMMENTS |

CITY OF BROOKHAVEN  
 BROOKHAVEN, GEORGIA  
**SOUTH BAMBY PHASE TWO**  
**STORM DRAIN PROFILES**



**patterson & dewar**  
 ENGINEERS

850 Center Way | Norcross, GA 30071  
 (770) 453-1410 | pdengineers.com  
 Engineers - Surveyors - Construction Management

|             |             |
|-------------|-------------|
| DATE        | 07/21/2017  |
| SCALE       | AS SHOWN    |
| DRAWING NO. | GABRKS2-004 |
| REV.        | B           |

PRELIMINARY  
  FOR BID  
  FOR CONSTRUCTION  
  FOR RECORD  
  AS BUILT  
  FOR REVIEW

Checked By: M. LECKIE  
 Drawn By: G. STOWALL  
 Designed By: G. STOWALL

**INITIAL PERIMETER CONTROL PHASE EROSION AND SEDIMENT CONTROL NOTES:**

THE FOLLOWING INITIAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY:

1. SILT FENCE SHALL BE INSTALLED AT THE PERIMETER OF THE DISTURBANCE AREA AS SHOWN ON DRAWING NO. GABRKS2-003. THE SILT FENCE SHALL BE KEPT ERECT AT ALL TIMES AND REPAIRED WHEN REQUESTED BY THE SITE INSPECTOR OR THE PROJECT DESIGN PROFESSIONAL OF RECORD. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES HALF THE HEIGHT OF THE FABRIC. THE PERIMETER SILT FENCE SHALL BE INSPECTED DAILY FOR ANY FAILURES. ANY FAILURES OF SAID FENCING SHALL BE REPAIRED IMMEDIATELY.
2. STORM DRAINAGE WITH ASSOCIATED OUTLET AND INLET SEDIMENT PROTECTION MEASURES SHALL BE INSTALLED AS SHOWN ON THE PLANS.
3. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO THE START OF ANY LAND DISTURBANCE ACTIVITY AND SHALL BE MAINTAINED UNTIL FINAL STABILIZATION. THE TREE PROTECTION FENCING SHALL BE INSPECTED DAILY. ANY FAILURES OF SAID FENCING SHALL BE REPAIRED IMMEDIATELY.
4. TEMPORARY GRASSING AND/OR MULCHING SHALL BE APPLIED AS NECESSARY TO PROVIDE ADDITIONAL STABILIZATION TO PREVENT SEDIMENT FROM ESCAPING THE SITE.

**FINAL STABILIZATION PHASE EROSION AND SEDIMENT CONTROL NOTES:**

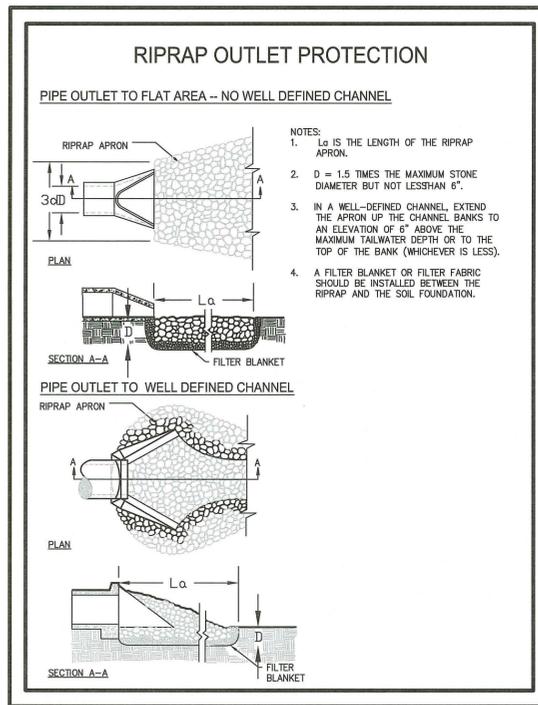
THE FOLLOWING EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED DURING THE FINAL STABILIZATION PHASE OF CONSTRUCTION:

1. SEDIMENT SHALL NOT BE WASHED INTO STORM DRAINAGE INLETS. IT SHALL BE REMOVED FROM THE SEDIMENT TRAPS AND BE DISPOSED.
2. THE CONTRACTOR SHALL MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
3. ALL AREAS THAT WILL NOT BE PAVED SHALL BE APPLIED WITH PERMANENT VEGETATIVE COVER AS SOON AS FINAL GRADE IS ACHIEVED.
4. WHEN FINAL STABILIZATION OCCURS, THE CONTRACTOR SHALL REMOVE ALL SILT FENCES, TREE PROTECTION FENCING, AND INLET PROTECTION BARRIERS. ALL STONE (OUTLET PROTECTION) SHALL REMAIN IN PLACE.

"THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND DISTURBING ACTIVITIES."

"EROSION CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE."

"ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING."



**OUTLET PROTECTION CALCULATIONS SOUTH BAMBY PHASE 2**

| STRUCTURE | PIPE SIZE (IN.) | FLOW, $Q_{25}$ (CFS) | VELOCITY V (FPS) | TAIL WATER CONDITION | $L_1$ (FT) | $W_1$ (FT) | $W_2$ (FT) | $d_{50}$ (FT) | $D_{max}$ (FT) | D (FT) |
|-----------|-----------------|----------------------|------------------|----------------------|------------|------------|------------|---------------|----------------|--------|
| PPE H1    | 36              | 55.2                 | 9.4              | MAXIMUM              | 18         | 9          | 10.2       | 0.3           | 0.45           | 0.7    |

**STORM OUTLET PROTECTION**  
NOT TO SCALE

**24-HOUR CONTACT:**  
 GREGORY ANDERSON P.E.  
 STORMWATER UTILITY MANAGER  
 WORK: (404) 637-0528  
 MOBILE: (404) 983-3507  
 GREGORY.ANDERSON@BROOKHAVENGA.GOV

**OWNER:**  
 CITY OF BROOKHAVEN  
 4362 PEACHTREE ROAD  
 BROOKHAVEN, GEORGIA  
 (404) 637-0500

**GEORGIA UNIFORM CODING SYSTEM**  
 FOR SOIL EROSION AND SEDIMENT CONTROL PRACTICES  
 GEORGIA SOIL AND WATER CONSERVATION COMMISSION

**STRUCTURAL PRACTICES**

| CODE | PRACTICE                        | DETAIL | MAP SYMBOL | DESCRIPTION  |
|------|---------------------------------|--------|------------|--|
| Cd   | CHORDAM                         |        |            | A small temporary barrier or dam constructed across a swale, drainage ditch or area of concentrated flow.  |
| Ch   | CHANNEL STABILIZATION           |        |            | Improving, constructing or stabilizing an open channel, existing stream, or ditch.   |
| Cc   | CONSTRUCTION EXIT               |        |            | A crushed stone pad located at the construction site exit to provide a place for removing mud from tires thereby protecting public streets.  |
| Cr   | CONSTRUCTION ROAD STABILIZATION |        |            | A travelway constructed as part of a construction plan including access roads, subdivision roads, parking areas and other on-site vehicle transportation routes.   |
| Dc   | STREAM DIVERSION CHANNEL        |        |            | A temporary channel constructed to convey flow around a construction site while a permanent structure is being constructed.  |
| Di   | DIVERSION                       |        |            | An earth channel or dike located above, below or across a slope to divert runoff. This may be a temporary or permanent structure.  |
| Dn1  | TEMPORARY DOWNDRAIN STRUCTURE   |        |            | A flexible conduit of heavy-duty fabric or other material designed to safely conduct surface runoff down a slope. This is temporary and inexpensive.   |
| Dn2  | PERMANENT DOWNDRAIN STRUCTURE   |        |            | A paved chute, pipe, sectional conduit or similar material designed to safely conduct surface runoff down a slope.   |
| Fr   | FILTER RING                     |        |            | A temporary stone barrier constructed at storm drain inlets and pond outlets.  |
| Ga   | GABION                          |        |            | Rock filter baskets which are hand-placed into position forming soil stabilizing structures.   |
| Gr   | GRADE STABILIZATION STRUCTURE   |        |            | Permanent structures installed to protect channels or waterways where otherwise the slope would be sufficient for the running water to form gullies.   |
| Lv   | LEVEL SPREADER                  |        |            | A structure to convert concentrated flow of water into less erosive sheet flow. This should be constructed only on undisturbed soils.  |
| Rd   | ROCK FILTER DAM                 |        |            | A permanent or temporary stone filter dam installed across small streams or drainageways.  |
| Re   | RETAINING WALL                  |        |            | A wall installed to stabilize cut and fill slopes where maximum permissible slopes are not obtainable. Each situation will require special design.   |
| Rt   | RETRO FITTING                   |        |            | A device or structure placed in front of a permanent stormwater detention pond outlet structure to serve as a temporary sediment filter.   |
| Sd1  | SEDIMENT BARRIER                |        |            | A barrier to prevent sediment from leaving the construction site. It may be sandbags, bales of straw or hay brush, logs and poles, gravel, or a silt fence.  |
| Sd2  | INLET SEDIMENT TRAP             |        |            | An impounding area created by excavating around a storm drain drop inlet. The excavated area will be filled and stabilized on completion of construction activities.   |
| Sd3  | TEMPORARY SEDIMENT BASIN        |        |            | A basin created by excavation or a dam across a waterway. The surface water runoff is temporarily stored allowing the bulk of the sediment to drop out.  |
| Sd4  | TEMPORARY SEDIMENT TRAP         |        |            | A small temporary pond that drains a disturbed area so that sediment can settle out. The principle feature distinguishing a temporary sediment trap from a temporary sediment basin is the lack of a pipe or riser.          |
| Sk   | FLUATING SURFACE SKIMMER        |        |            | A buoyant device that releases/drains water from the surface of sediment ponds, traps, or basins at a controlled rate of flow.   |
| Spb  | SEEP BERM                       |        |            | Linear control device constructed as a diversion perpendicular to the direction of runoff to enhance dissipation and infiltration, while creating multiple sedimentation chambers with the employment of intermediate dikes. |

**STRUCTURAL PRACTICES**

| CODE | PRACTICE  | DETAIL | MAP SYMBOL | DESCRIPTION   |
|------|---|--------|------------|---|
| Sr   | TEMPORARY STREAM CROSSING                           |        |            | A temporary bridge or culvert-type structure protecting a stream or watercourse from damage by crossing construction equipment.                         |
| St   | STORMWATER OUTLET PROTECTION                        |        |            | A paved or short section of riprap channel at the outlet of a storm drain system preventing erosion from the concentrated runoff.                       |
| Su   | SURFACE ROUGHENING                                  |        |            | A rough soil surface with horizontal depressions on a contour or slopes left in a roughened condition after grading.                                    |
| Tc   | TURBIDITY CURTAIN                                   |        |            | A floating or staked barrier installed within the water (it may also be referred to as a floating boom, silt barrier, or silt curtain).                 |
| Tp   | TOPSOILING  |        |            | The practice of stripping off the more fertile soil, storing it, then spreading it over the disturbed area after completion of construction activities. |
| Tr   | TREE PROTECTION                                     |        |            | To protect desirable trees from injury during construction activity.  |
| Wl   | VEGETATED WATERWAY OR STORMWATER CONVEYANCE CHANNEL |        |            | Paved or vegetative water outlets for diversions, terraces, berms, dikes or similar structures.   |

**VEGETATIVE PRACTICES**

| CODE  | PRACTICE  | DETAIL | MAP SYMBOL | DESCRIPTION  |
|-------|---|--------|------------|--|
| Bf    | BUFFER ZONE                                       |        |            | Strip of undisturbed original vegetation, enhanced or restored existing vegetation or the reestablishment of vegetation surrounding an area of disturbance or bordering streams. |
| Cs    | COASTAL DUNE STABILIZATION (WITH VEGETATION)      |        |            | Planting vegetation on dunes that are denuded artificially constructed, or re-nourished.   |
| Ds1   | DISTURBED AREA STABILIZATION (WITH MULCHING ONLY) |        |            | Establishing temporary protection for disturbed areas where seedlings may not have a suitable growing season to produce an erosion retarding cover.                              |
| Ds2   | DISTURBED AREA STABILIZATION (WITH TEMP SEEDING)  |        |            | Establishing a temporary vegetative cover with fast growing seedlings on disturbed areas.  |
| Ds3   | DISTURBED AREA STABILIZATION (WITH PERM SEEDING)  |        |            | Establishing a permanent vegetative cover with trees, shrubs, vines, grasses, or legumes on disturbed areas.   |
| Ds4   | DISTURBED AREA STABILIZATION (SOODING)            |        |            | A permanent vegetative cover using sods on highly erodible or critically eroded lands.   |
| Du    | DUST CONTROL ON DISTURBED AREAS                   |        |            | Controlling surface and air movement of dust on construction site, roadways and similar sites.   |
| Fl-Cd | FLOCCULANTS AND COAGULANTS                        |        |            | Substance formulated to assist in the solids/liquid separation of suspended particles in solution.   |
| Sb    | STREAMBANK STABILIZATION (USING FIRM VEGETATION)  |        |            | The use of readily available native plant materials to maintain and enhance streambanks, or to prevent, or restore and repair small streambank erosion problems.                 |
| Ss    | SLOPE STABILIZATION                               |        |            | A protective covering used to prevent erosion and establish temporary or permanent vegetation on steep slopes, shore lines, or channels.   |
| Tac   | TACKLERS AND BINDERS                              |        |            | Substance used to anchor straw or hay mulch by causing the organic material to bind together.  |

**DEFINITION**  
 The establishment of temporary vegetative cover with fast growing seedlings for seasonal protection on disturbed or denuded areas.

**CONDITIONS**  
 Temporary grassing, instead of mulch, can be applied to rough graded areas that will be exposed for less than six months. Temporary vegetative measures should be coordinated with permanent measures to assure economical and effective stabilization. Most types of temporary vegetation are ideal to use as companion crops until the permanent vegetation is established.

**SEEDING RATES FOR TEMPORARY SEEDING**

| SPECIES           | RATE Per 1,000 sq. ft. | RATE Per Acre * | PLANTING DATES ** |
|-------------------|------------------------|-----------------|-------------------|
| Rye               | 3.9 pounds             | 3 bu.           | 9/1-3/1           |
| Ryegrass          | 0.9 pound              | 40 lbs.         | 8/15-4/1          |
| Annual Lespedeza  | 0.9 pound              | 40 lbs.         | 1/15-3/15         |
| Weeping Lovegrass | 0.1 pound              | 4 lbs.          | 2/15-6/15         |
| Sudangrass        | 1.4 pounds             | 60 lbs.         | 3/1-8/1           |
| Browntop Millet   | 0.9 pound              | 40 lbs.         | 4/1-7/15          |
| Wheat             | 4.1 pounds             | 3 bu.           | 9/15-2/1          |

\* Unusual site conditions may require heavier seeding rates  
 \*\* Seeding dates may need to be altered to fit temperature variations and conditions.

**SEEDING**  
 Select a grass or grass-legume mixture suitable to the area and season of the year. Seed shall be applied uniformly by hand, cyclone seeder, drill, cultipacker seeder, or hydraulic seeder (slurry including seed and fertilizer). Drill or cultipacker seeders should normally place seed one-quarter to one-half inch deep. Appropriate depth of planting is ten times the seed diameter. Soil should be "raked" lightly to cover seed with soil if seeded by hand.

**MULCHING**  
 Temporary vegetation can, in most cases, be established without the use of mulch. Mulch without seeding should be considered for short term protection. Refer to Ds1 - Disturbed Area Stabilization (With Mulching Only).

**IRRIGATION**  
 During times of drought, water shall be applied at a rate not causing runoff and erosion. The soil shall be thoroughly wetted to a depth that will insure germination of the seed. Subsequent applications should be made when needed.

**Ds2 DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING)**

PRELIMINARY  FOR BID  FOR CONSTRUCTION  FOR RECORD  "AS BUILT"  FOR REVIEW

Project File: C:\Area\4413 CONSTRUCTION & STABILIZATION\GIS\2017\GABRKS2-003.dwg  
 Plotted by: BLECKE  
 Date: Mon, 28 Aug 2017 11:02:53 AM  
 Title: GABRKS2-003.dwg

CITY OF BROOKHAVEN  
 BROOKHAVEN, GEORGIA

**SOUTH BAMBY PHASE TWO**

**EROSION & SEDIMENT CONTROL NOTES & DETAILS**

DESIGNED BY: G. STOWALL  
 DRAWN BY: G. STOWALL  
 CHECKED BY: M. LECKIE

DATE: 07/21/17  
 SCALE: NTS  
 DRAWING NO: GABRKS2-005  
 REV: B

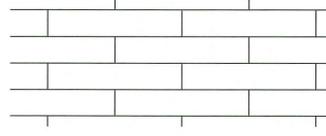
REGISTERED PROFESSIONAL ENGINEER  
 NO. 31009  
 DANIEL M. LECKIE

**patterson & dewar ENGINEERS**  
 850 Center Way | Norcross, GA 30071  
 (770) 453-1410 | pdengineers.com  
 Engineers - Surveyors - Construction Management

# SOD MAINTENANCE AND INSTALLATION

Ds4

## SOD LAYOUT AND PREPARATION



LAY SOD IN A STAGGERED PATTERN. BUTT THE STRIPS TIGHTLY AGAINST EACH OTHER. DO NOT LEAVE SPACES AND DO NOT OVERLAP. A SHARPENED MASON'S TROWEL IS A HANDY TOOL FOR TUCKING DOWN THE ENDS AND TRIMMING PIECES.

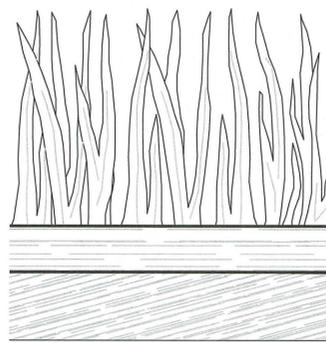


**BUTTING:** ANGLED ENDS CAUSED BY THE AUTOMATIC SOD CUTTER MUST BE MATCHED CORRECTLY.

## DIRECTIONS FOR INITIAL MAINTENANCE

- Step 1. ROLL SOD IMMEDIATELY TO ACHIEVE FIRM CONTACT WITH THE SOIL
- Step 2. WATER TO A DEPTH OF 4" AS NEEDED. WATER WELL AS SOON AS THE SOD IS LAID.
- Step 3. MOW WHEN THE SOD IS ESTABLISHED -- IN 2-3 WEEKS. SET THE MOWER HIGH (2"-3").

## APPEARANCE OF GOOD SOD



**SHOOTS OR GRASS BLADES:** GRASS SHOULD BE GREEN AND HEALTHY, MOWED AT A 2"-3" CUTTING HEIGHT.

**THATCH:** GRASS CLIPPINGS AND DEAD LEAVES (UP TO 1/2" THICK).

**ROOT ZONE:** SOIL AND ROOTS. SHOULD BE 1/2"-3/4" THICK WITH DENSE ROOT MAT FOR STRENGTH.

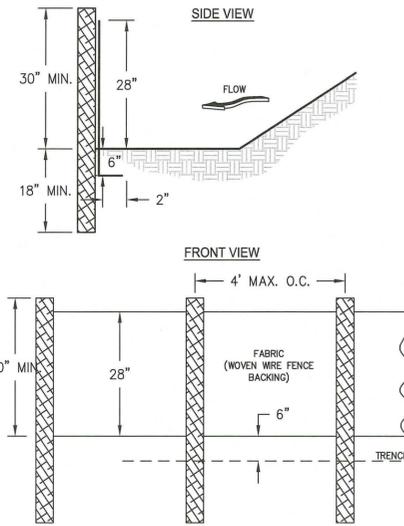
## OWNER

CITY OF BROOKHAVEN  
4362 PEACHTREE ROAD  
BROOKHAVEN, GEORGIA  
(404) 637-0500

## 24-HOUR CONTACT:

GREGORY ANDERSON P.E.  
STORMWATER UTILITY MANAGER  
WORK: (404) 637-0528  
MOBILE: (404) 983-3507  
GREGORY.ANDERSON@BROOKHAVENGA.GOV

## SILT FENCE - TYPE SENSITIVE



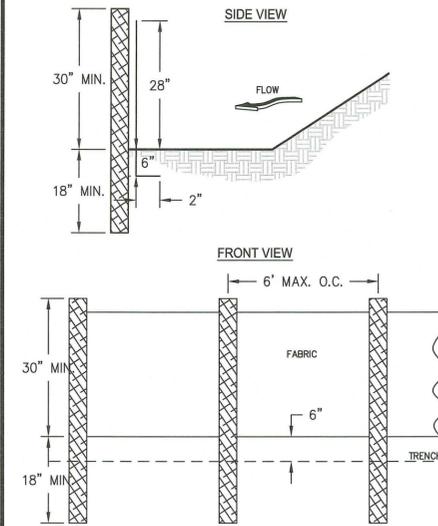
NOTES:  
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

## SILT FENCE--SENSITIVE

NOT TO SCALE

Sd1  
S

## SILT FENCE - TYPE NON-SENSITIVE



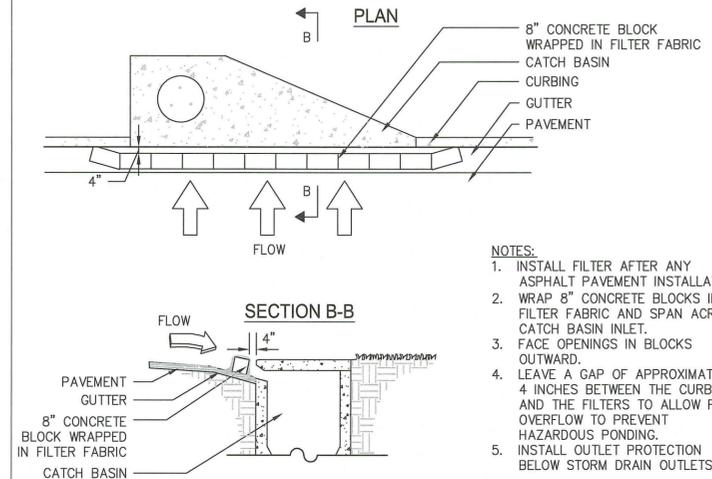
NOTES:  
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

## SILT FENCE--NON-SENSITIVE

NOT TO SCALE

Sd1  
NS

## CURB INLET FILTER "PIGS IN BLANKET"



- NOTES:
- INSTALL FILTER AFTER ANY ASPHALT PAVEMENT INSTALLATION.
  - WRAP 8" CONCRETE BLOCKS IN FILTER FABRIC AND SPAN ACROSS CATCH BASIN INLET.
  - FACE OPENINGS IN BLOCKS OUTWARD.
  - LEAVE A GAP OF APPROXIMATELY 4 INCHES BETWEEN THE CURB AND THE FILTERS TO ALLOW FOR OVERFLOW TO PREVENT HAZARDOUS PONDING.
  - INSTALL OUTLET PROTECTION BELOW STORM DRAIN OUTLETS.

## DEFINITION

The planting of perennial vegetation such as trees, shrubs, vines, grasses, or legumes on exposed areas for final permanent stabilization. Permanent perennial vegetation shall be used to achieve final stabilization.

## CONDITIONS

Permanent perennial vegetation is used to provide a protective cover for exposed areas including cuts, fills, dams, and other denuded areas.

## SPECIFICATIONS

### Grading and Shaping

Grading and shaping may not be required where hydraulic seeding and fertilizing equipment is to be used. Vertical banks shall be sloped to enable plant establishment.

When conventional seeding and fertilizing are to be done, grade and shape where feasible and practical, so that equipment can be used safely and efficiently during seedbed preparation, seeding, mulching and maintenance of the vegetation.

concentrations of water that will cause excessive soil erosion shall be diverted to a safe outlet. Diversions and other treatment practices shall conform with the appropriate standards and specifications.

### Seedbed Preparation

Seedbed preparation may not be required where hydraulic seeding and fertilizing equipment is to be used. When conventional seeding is to be used, seedbed preparation will be done as follows:

### Broadcast plantings

- Tillage at a minimum, shall adequately loosen the soil to a depth of 4 to 6 inches, alleviate compaction, incorporate lime and fertilizer, smooth and firm the soil, allow for the proper placement of seed, sprigs, or plants; and allow for the anchoring of straw or hay mulch if a disk is to be used.
- Tillage may be done with any suitable equipment.
- Tillage should be done on the contour where feasible.

## Ds3 DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION)

- On slopes too steep for the safe operation of tillage equipment, the soil surface shall be pitted or trenched across the slope with appropriate hand tools to provide two places 6 to 8 inches apart in which seed may lodge and germinate. Hydraulic seeding may also be used.

### Individual Plants

- Where individual plants are to be set, the soil shall be prepared by excavating holes, opening furrows, or dibble planting.
- For nursery stock plants, holes shall be large enough to accommodate roots without crowding.
- Where pine seedlings are to be planted, subsoil under the row 36 inches deep on the contour four to six months prior to planting. Subsoiling should be done when the soil is dry, preferably in August or September.

### Planting

#### Hydraulic Seeding

Mix the seed (inoculated if needed), fertilizer, and wood cellulose or wood pulp fiber mulch with water and apply in a slurry uniformly over the area to be treated. Apply within one hour after the mixture is made.

#### Conventional Seeding

Seeding will be done on a freshly prepared and firmed seedbed. For broadcast planting, use a cultipacker seeder, drill, rotary seeder, other mechanical seeder, or hand seeding to distribute the seed uniformly over the area to be treated. Cover the seed lightly with 1/8 to 1/4 inch of soil for small seed and 1/2 to 1 inch for large seed when using a cultipacker or other suitable equipment.

#### No-Till Seeding

No-till seeding is permissible into annual cover crops when planting is done following maturity of the cover crop or if the temporary cover stand is sparse enough to allow adequate growth of the permanent (perennial) species. No-till seeding shall be done with appropriate no-till seeding equipment. The seed must be uniformly distributed and planted at the proper depth.

#### Individual Plants

Shrubs, vines and sprigs may be planted with appropriate planters or hand tools. Pine trees shall be planted manually in the subsoil furrow. Each plant shall be set in a manner that will avoid crowding the roots. Nursery stock plants shall be planted at the same depth or slightly deeper than they grew at the nursery. The tips of vines and sprigs must be at or slightly above the ground surface. Where individual holes are dug, fertilizer shall be placed in the bottom of the hole, two inches of soil shall be added and the plant shall be set in the hole.

## Mulching

Mulch is required for all permanent vegetation applications. Mulch applied to seeded areas shall achieve 75% soil cover. Select the mulching material from the following and apply as indicated:

- Dry straw or dry hay of good quality and free of weed seeds can be used. Dry straw shall be applied at the rate of 2 tons per acre. Dry hay shall be applied at a rate of 2 1/2 tons per acre.
- Wood cellulose mulch or wood pulp fiber shall be used with hydraulic seeding. It shall be applied at the rate of 500 pounds per acre. Drystraw or dry hay shall be applied (at the rate indicated above) after hydraulic seeding.
- One thousand pounds of wood cellulose or wood pulp fiber, which includes a tackifier, shall be used with hydraulic seeding on slopes 3/4:1 or steeper.
- Sericea lespedeza* hay containing mature seed shall be applied at a rate of three tons per acre.
- Pine straw or pine bark shall be applied at a thickness of 3 inches for bedding purposes. Other suitable materials in sufficient quantity may be used where ornamentals or other ground covers are planted. This is not appropriate for seeded areas.
- When using temporary erosion control blankets or block sod, mulch is not required.
- Bituminous treated roving may be applied on planted areas on slopes, in ditches or dry waterways to prevent erosion. Bituminous treated roving shall be applied within 24 hours after an area has been planted. Application rates and materials must meet Georgia Department of Transportation specifications.

Wood cellulose and wood pulp fibers shall not contain germination or growth inhibiting factors. They shall be evenly dispersed when agitated in water. The fibers shall contain a dye to allow visual metering and aid in uniform application during seeding.

### Applying Mulch

Straw or hay mulch will be spread uniformly within 24 hours after seeding and/or planting. The mulch may be spread by blower-type spreading equipment, other spreading equipment or by hand. Mulch shall be applied to cover 75% of the soil surface.

Wood cellulose or wood fiber mulch shall be applied uniformly with hydraulic seeding equipment.

### Anchoring Mulch

Anchor straw or hay mulch immediately after application by one of the following methods:  
1. Emulsified asphalt can be (a) sprayed uniformly onto the mulch as it is ejected from the blower machine or (b) sprayed on the mulch immediately following mulch application when straw or hay is spread by methods other than special blower equipment.

The combination of asphalt emulsion and water shall consist of a homogeneous mixture satisfactory for spraying. The mixture shall consist of 100 gallons of grade SS-1h or CSS-1h emulsified asphalt and 100 gallons of water per ton of mulch.

Care shall be taken at all times to protect state waters, the public, adjacent property, pavements, curbs, sidewalks, and all other structures from asphalt discoloration.

- Hay and straw mulch shall be pressed into the soil immediately after the mulch is spread. A special "packer disk" or disk harrow with the disks set straight may be used. The disks may be smooth or serrated and should be 20 inches or more in diameter and 8 to 12 inches apart. The edges of the disks shall be dull enough to press the mulch into the ground without cutting it, leaving much of it in an erect position. Mulch shall not be plowed into the soil.
- Synthetic tackifiers or binders approved by GDOT shall be applied in conjunction with or immediately after the mulch is spread. Synthetic tackifiers shall be mixed and applied according to manufacturer's specifications. Refer to T<sub>b</sub> - Tackifiers and Binders.
- Rye or wheat can be included with Fall and Winter plantings to stabilize the mulch. They shall be applied at a rate of one-quarter to one half bushel per acre.
- Plastic mesh or netting with mesh no larger than one inch by one inch may be needed to anchor straw or hay mulch on unstable soils and concentrated flow areas. These materials shall be installed and anchored according to manufacturer's specifications.

### Irrigation

Irrigation shall be applied at a rate that will not cause runoff.

## SEEDING RATES FOR PERMANENT SEEDING

| SPECIES            | RATE Per 1,000 sq.ft. | RATE Per Acre * | PLANTING DATES ** |
|--------------------|-----------------------|-----------------|-------------------|
| BAHIA              | 1.4 POUNDS            | 60 LBS.         | 1/1-12/31         |
| BERMUDA            | 0.2 POUND             | 10 LBS.         | 2/15-7/1          |
| CENTPEDE           | BLOCK SOD ONLY        | BLOCK SOD ONLY  | 4/1-7/1           |
| LESPEDEZA          | 1.7 POUNDS            | 75 LBS.         | 1/1-12/31         |
| WEEPING LOVE GRASS | 0.1 POUND             | 4 LBS.          | 2/1-6/15          |
| SWITCH GRASS       | 0.9 POUND             | 40 LBS.         | 3/15-6/1          |

\* Unusual site conditions may require heavier seeding rates

\*\* Seeding dates may need to be altered to fit temperature variations and conditions.

PRELIMINARY  FOR BID  FOR CONSTRUCTION  FOR RECORD  "AS BUILT"  FOR REVIEW

## CURB INLET PROTECTION

NOT TO SCALE

Sd2  
P

CITY OF BROOKHAVEN  
BROOKHAVEN, GEORGIA

SOUTH BAMBY PHASE TWO

EROSION & SEDIMENT CONTROL DETAILS



DATE 07/21/2017

SCALE NTS

DRAWING NO. REV.

GABRKS2-006 B

Checked By: M. LECKIE

Drawn By: G. STOWALL

Designed By: G. STOWALL

REVISION  
No. DATE  
B 08/25/17

ADDRESS CITY COMMENTS

BY

ML

**GENERAL NOTES**

- BOUNDARY AND TOPOGRAPHIC INFORMATION AND ELEVATIONS OF CONTROL POINTS SHOWN WITHIN THE NOTED AREA ON THESE PLANS ARE BASED ON TOPOGRAPHIC SURVEYS PERFORMED BY PATTERSON & DEWAR ENGINEERS, INC. IN JUNE AND JULY 2017. TOPOGRAPHY OUTSIDE THE NOTED AREA ON THE PLANS IS FROM GIS DATA PROVIDED BY THE CITY OF BROOKHAVEN.
- PER GEORGIA LAW, THE CONTRACTOR SHALL CONTACT THE GEORGIA ONE-CALL SYSTEM (811) AT LEAST TWO DAYS PRIOR TO BEGINNING OF CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL FIELD VERIFY ALL GRADES AND DIMENSIONS PRIOR TO STARTING ANY WORK. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES.
- THIS PROPERTY CONTAINS NO SPECIAL FLOOD HAZARD AREA, ACCORDING TO THE FLOOD INSURANCE RATE MAP- DEKALB COUNTY, GEORGIA- PANEL NO. 13089 C0052J, DATED MAY 16, 2013.
- ALL BUFFERS AND TREE SAVE AREAS SHALL BE CLEARLY IDENTIFIED BY FENCING PRIOR TO COMMENCEMENT OF ANY LAND DISTURBANCE.
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST VERSIONS, INCLUDING AMENDMENTS, OF THE FOLLOWING REGULATIONS, SPECIFICATIONS AND STANDARDS AS APPROPRIATE, IN ORDER OF PRIORITY AS SHOWN BELOW, EXCEPT AS OTHERWISE INDICATED ON THE CONSTRUCTION DRAWINGS.
  - BROOKHAVEN CODE OF ORDINANCES.
  - GEORGIA STORMWATER MANAGEMENT MANUAL.
  - DEKALB COUNTY CODE OF ORDINANCES.
  - GEORGIA DEPARTMENT OF TRANSPORTATION CONSTRUCTION STANDARDS AND DETAILS.
  - GEORGIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
  - CONSTRUCTION SPECIFICATION INSTITUTE'S MASTER GUIDE SPECIFICATIONS.
- THE DESIGN PROFESSIONAL WHOSE SEAL APPEARS HEREON CERTIFIES THE FOLLOWING: (1) THE NATIONAL WETLANDS INVENTORY MAP HAS BEEN CONSULTED; (2) THE APPROPRIATE PLAN SHEET DOES X DOES NOT INDICATE WETLANDS AS SHOWN ON THE MAP; AND (3) IF WETLANDS ARE INDICATED THE LAND-OWNER OR DEVELOPER HAS BEEN ADVISED THAT LAND DISTURBANCE OF PROTECTED WETLANDS SHALL NOT OCCUR UNLESS THE APPROPRIATE SECTION 404 PERMIT OF LETTER OF PERMISSION HAS BEEN OBTAINED.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN ACCORDANCE WITH THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA", SIXTH EDITION. (THE GREEN BOOK).
- NO SLOPES SHALL BE STEEPER THAN 2 FEET HORIZONTAL TO 1 FOOT VERTICAL, UNLESS OTHERWISE INDICATED.
- CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING, LOADING AND TRANSPORTATION OF FILL MATERIAL.
- CONTRACTOR SHALL ESTABLISH AN AREA TO BE USED FOR HOUSEKEEPING - SANITATION FACILITIES, CONCRETE WASHOUT, EQUIPMENT AND MATERIAL STORAGE, ETC. CONTRACTOR SHALL COORDINATE LOCATION OF THESE FACILITIES WITH THE OWNER.
- NO FUEL OR OIL SHALL BE STORED ON SITE WITHOUT PROPER CONTAINMENT. ALL PETROLEUM USE, STORAGE, AND HANDLING AREAS SHALL BE INSPECTED AT THE END OF EACH WORKING DAY FOR SPILLS OR LEAKS.
- ANY SPILLED OIL, GAS, ETC., RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE CONTAINED AND CLEANED IMMEDIATELY. CONTAMINATED SOILS SHALL BE DISPOSED OF IN AN APPROVED MANNER AT A LICENSED LANDFILL.
- NO OILS OR GAS SHALL BE DUMPED ON-SITE.
- IF DE-WATERING OPERATIONS ARE REQUIRED, PUMPED GROUND WATER SHALL BE ROUTED THROUGH SILT CONTROL FACILITY TO FILTER WATER PRIOR TO DISCHARGE.
- PROJECT SITE SHALL BE KEPT CLEAR OF ALL TRASH AND DEBRIS. COLLECTED TRASH AND DEBRIS SHALL BE HAULED OFF THE SITE.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING SANITARY FACILITIES ON THE SITE. SANITARY WASTE MAY BE DISPOSED ONLY IN LOCATIONS HAVING A STATE PERMIT.
- A MATERIALS LIST SHOULD BE COMPILED FOR ITEMS THAT WILL BE STORED OUTSIDE ON THE SITE DURING CONSTRUCTION.
- THE GENERAL CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF ALL SOLID WASTE FROM THE SITE IN ACCORDANCE WITH STATE LAW. DUMPSTERS OR OTHER COLLECTION FACILITIES MUST BE PROVIDED AS NEEDED. SOLID WASTE MAY NOT BE BURIED ON THE SITE, AND NO ON-SITE BURY PIT IS ALLOWED.
- NOTIFY THE OWNER IMMEDIATELY IF ANY SINK HOLES ARE DISCOVERED ON-SITE.
- NOTIFY THE OWNER IMMEDIATELY IF WEAK SOILS ARE ENCOUNTERED IN EXCAVATION.

**GENERAL PROVISIONS**

- ALL WORK SHALL COMPLY WITH APPLICABLE STATE, FEDERAL AND LOCAL CODES (SEE GENERAL NOTES NO. 9) AND ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR AT HIS EXPENSE UNLESS PREVIOUSLY OBTAINED BY OWNER.
- ALL WORK SHALL BE PERFORMED IN A FINISHED AND WORKMANLIKE MANNER TO THE ENTIRE SATISFACTION OF THE OWNER, AND IN ACCORDANCE WITH THE BEST RECOGNIZED TRADE PRACTICES. THE CONTRACTOR SHALL WARRANT ALL WORK TO THE OWNER FOR A MINIMUM PERIOD OF 18 MONTHS FOLLOWING COMPLETION OF CONSTRUCTION.
- DEVIATIONS FROM THESE PLANS WITHOUT THE PRIOR CONSENT OF THE OWNER OF HIS REPRESENTATIVES MAY BE CAUSE FOR THE WORK TO BE UNACCEPTABLE.

- THE DRAWINGS AND SPECIFICATIONS ARE INTENDED TO COVER A COMPLETE PROJECT READY FOR USE, AND ALL ITEMS NECESSARY FOR A COMPLETE AND WORKABLE JOB SHALL BE FURNISHED AND INSTALLED.
- ALL MATERIALS SHALL BE NEW, UNLESS USED OR SALVAGED MATERIALS ARE AUTHORIZED BY THE OWNER AND APPROPRIATE AUTHORITIES.
- THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY BARRICADES AROUND THE WORK AND SHALL PROVIDE PROTECTION AGAINST WATER DAMAGE AND SOIL EROSION.
- EXISTING UTILITIES FOR WHICH THE LOCATIONS ARE KNOWN ARE SHOWN FOR THE CONTRACTOR'S CONVENIENCE. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN OR FOR UTILITIES NOT SHOWN. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE LOCATIONS OF ALL UTILITIES WITHIN THE LIMITS OF WORK. ALL DAMAGE MADE TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS ADVISED TO NOTIFY THE UTILITIES PROTECTION CENTER AT 811 PRIOR TO BEGINNING WORK.
- CONTRACTOR SHALL COORDINATE LOCATION AND INSTALLATION OF ALL UNDERGROUND UTILITIES AND APPURTENANCES TO MINIMIZE DISTURBING CURBING, PAVING AND COMPACTED SUBGRADE.
- IF THE CONTRACTOR, IN THE COURSE OF WORK, FINDS ANY DISCREPANCY BETWEEN THE PLANS AND THE PHYSICAL CONDITIONS OF THE LOCALITY, OR ANY ERRORS OR OMISSIONS IN THE PLANS OR THE LAYOUT AS GIVEN BY THE ENGINEER, IT SHALL BE HIS DUTY TO IMMEDIATELY INFORM THE ENGINEER, IN WRITING, AND ENGINEER WILL PROMPTLY VERIFY THE SAME. ANY WORK DONE AFTER SUCH DISCOVERY, UNTIL AUTHORIZED, WILL BE AT THE CONTRACTOR'S RISK.
- THE CONTRACTOR SHALL PROVIDE SHEETING AND SHORING FOR ALL TRENCH CONSTRUCTION IN ACCORDANCE WITH O.S.H.A. GUIDELINES.
- CONTRACTOR SHALL MAINTAIN ACCESS FOR EMERGENCY VEHICLES AROUND AND TO ALL HOMES THROUGHOUT CONSTRUCTION. IN TIMES OF RAIN OR MUD, ROADS SHALL BE ABLE TO CARRY A FIRE TRUCK BY BEING PAVED OR HAVING A CRUSHED STONE BASE WITH A MINIMUM THICKNESS OF 6 INCHES.

**GEOTECHNICAL**

- ANY SOILS TESTING AND ON-SITE INSPECTIONS APPROVED BY THE OWNER SHALL BE PERFORMED BY AN INDEPENDENT GEOTECHNICAL ENGINEER SELECTED AND PAID BY THE OWNER. IN THE EVENT OF CONFLICT BETWEEN SPECIFICATIONS PROVIDED BY THE ENGINEER AND RECOMMENDATIONS PROVIDED BY THE OWNER'S GEOTECHNICAL ENGINEER, THE CONTRACTOR SHALL ADHERE TO THE MOST STRINGENT.
- CONTRACTOR SHALL PROVIDE ANY EXCAVATION AND MATERIAL SAMPLES NECESSARY TO CONDUCT REQUIRED SOILS TESTS. ALL ARRANGEMENT AND SCHEDULING FOR TESTING SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- GEOTECHNICAL ENGINEER SHALL PROVIDE COPIES OF TEST REPORTS TO THE CONTRACTOR, THE OWNER AND THE OWNER'S REPRESENTATIVE AND SHALL NOTIFY THE OWNER. THE REPRESENTATIVE AND THE CONTRACTOR PROMPTLY SHOULD WORK PERFORMED BY THE CONTRACTOR FAIL TO MEET THESE SPECIFICATIONS.

**EARTHWORK/GRADING**

- EARTHWORK AND GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER'S SPECIFICATIONS AND RECOMMENDATIONS, OR WITH GDOT'S SPECIFICATIONS, SECTIONS 201-221, AS APPLICABLE, IF NOT COVERED BY THE GEOTECHNICAL ENGINEER'S SPECIFICATIONS, EXCEPT AS OTHERWISE NOTED.

**EROSION AND SEDIMENT CONTROL**

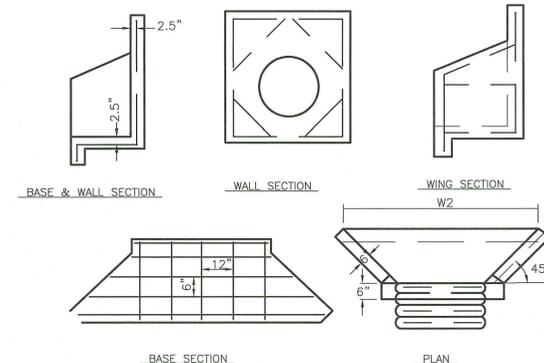
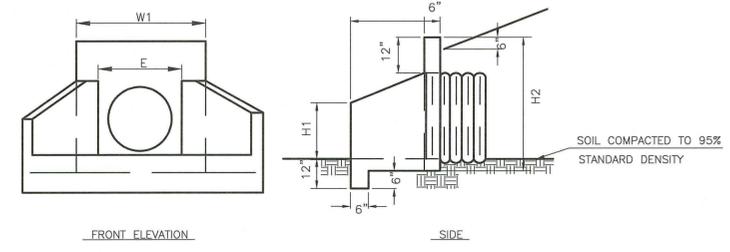
- PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, THE LIMITS OF LAND DISTURBANCE SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS. THE LOCATION AND EXTENT OF ALL AUTHORIZED LAND DISTURBANCE SHALL OCCUR WITHIN THE APPROVED LIMITS INDICATED ON THE APPROVED PLANS.
- IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION ENTRANCES/EXITS, ALL PERIMETER EROSION AND SEDIMENT CONTROL DEVICES AND STORM WATER MANAGEMENT DEVICES SHALL BE INSTALLED PRIOR TO ANY OTHER CONSTRUCTION.
- OWNER AGREES TO PROVIDE AND MAINTAIN OFF-STREET PARKING ON THE SUBJECT PROPERTY AND ACCESS TO DRIVEWAYS FOR EACH PROPERTY DURING THE ENTIRE CONSTRUCTION PERIOD.
- THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY BARRICADES WHILE STORM DRAINAGE IMPROVEMENTS AND ASSOCIATED IMPROVEMENTS ARE BEING MADE.
- THE CONSTRUCTION OF THE SITE WILL INITIATE WITH THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES SUFFICIENT TO CONTROL SEDIMENT DEPOSITS AND EROSION. ALL EROSION AND SEDIMENT CONTROL WILL BE MAINTAINED UNTIL ALL UPSTREAM GROUND WITHIN THE CONSTRUCTION AREA HAS BEEN COMPLETELY STABILIZED WITH PERMANENT VEGETATION AND ALL ROADS/DRIVEWAYS HAVE BEEN PAVED.
- FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB SITE UNTIL SUCH MEASURES ARE CORRECTED CONSISTENT WITH THE CITY OF BROOKHAVEN EROSION CONTROL ORDINANCE.
- A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT SHALL BE PRESENT ON THE SITE WHENEVER LAND DISTURBANCE ACTIVITY IS IN PROGRESS.
- ALL SEWER EASEMENTS DISTURBED MUST BE DRESSED AND GRASSED TO CONTROL EROSION.
- EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AT ALL TIMES. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IF DEEMED NECESSARY BY ON-SITE INSPECTION.
- THE TOTAL DISTURBANCE IS ANTICIPATED TO BE LESS THAN ONE ACRE. THEREFORE, EROSION, SEDIMENTATION AND POLLUTION CONTROL PLANS (ESPCP) ARE NOT REQUIRED. IF ADDITIONAL DISTURBANCE IS NECESSARY, CONTRACTOR SHALL NOTIFY THE ENGINEER AND OWNER.

**STORM DRAINAGE**

- ALL STORM DRAINAGE PIPE SHALL BE LAID ON SMOOTH, CONTINUOUS GRADES WITH NO VISIBLE BENDS AT THE JOINTS. ALL TRENCHING, PIPE LAYING AND BACKFILLING SHALL BE IN ACCORDANCE WITH FEDERAL O.S.H.A. REGULATIONS AND CITY OF BROOKHAVEN CODE OF ORDINANCES.
- CONSTRUCTION OF STORM DRAINAGE STRUCTURES SHALL BE IN ACCORDANCE WITH THE DETAILS INCLUDED IN THE CONSTRUCTION DRAWINGS AND RELATED G.D.O.T. AND/OR CITY OF BROOKHAVEN SPECIFICATIONS.
- ANY OTHER WORK ASSOCIATED WITH STORM DRAINAGE CONSTRUCTION WHICH IS NOT ADDRESSED IN THE PRECEDING NOTES AND IN THE CONSTRUCTION DRAWINGS SHALL BE GOVERNED BY CSI'S MASTER GUIDE SPECIFICATIONS AS APPROPRIATE.

**CONSTRUCTION SCHEDULE**  
 PROPOSED START DATE: SEPTEMBER 2017  
 PROPOSED END DATE: NOVEMBER 2017

| ACTIVITY  | WEEK | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|------|---|---|---|---|---|---|---|---|
| INSTALLATION OF EROSION & SEDIMENT CONTROL MEASURES   |      |   |   |   |   |   |   |   |   |
| MAINTENANCE OF EROSION & SEDIMENT CONTROL MEASURES  |      |   |   |   |   |   |   |   |   |
| CLEARING & GRUBBING; TREE REMOVAL   |      |   |   |   |   |   |   |   |   |
| SITE GRADING, INCLUDING STRUCTURAL BACKFILL, INSTALL DRAINAGE, WATER MAIN AND CURB & GUTTER |      |   |   |   |   |   |   |   |   |
| REMOVING AND REPLACING EXISTING FEATURES; TREE PLANTING                                     |      |   |   |   |   |   |   |   |   |
| FINAL SITE STABILIZATION  |      |   |   |   |   |   |   |   |   |

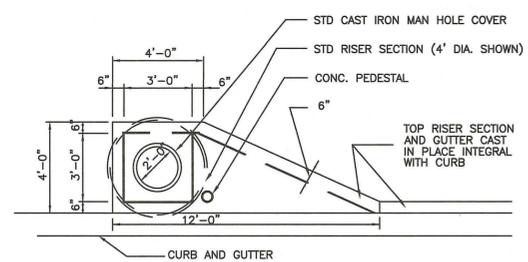


**TABLE I**  
HEADWALL DIMENSIONS FOR HDPE OR METAL PIPE\*

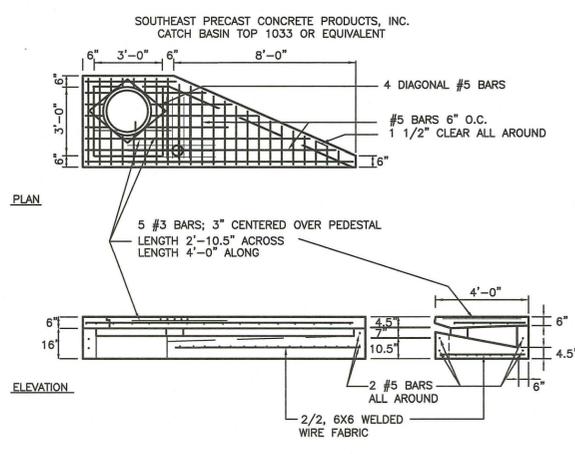
| W1    | W2      | H1    | H2    | D      | E     | WT.   | SO. FT. IN BASE AREA |
|-------|---------|-------|-------|--------|-------|-------|----------------------|
| 3'-2" | 4'-10"  | 1'-3" | 3'-2" | 1'-3"  | 1'-9" | 1,550 | 7.34                 |
| 3'-8" | 6'-1"   | 1'-9" | 3'-8" | 1'-6"  | 2'-3" | 2,100 | 9.90                 |
| 4'-2" | 7'-2"   | 2'-0" | 4'-2" | 1'-10" | 2'-9" | 2,850 | 13.50                |
| 4'-8" | 8'-4"   | 2'-4" | 4'-8" | 2'-2"  | 3'-3" | 3,700 | 17.65                |
| 5'-8" | 10'-10" | 3'-3" | 5'-8" | 2'-11" | 4'-3" | 5,600 | 28.60                |

\*USE NEXT LARGER SIZE FOR CONCRETE PIPE

- NOTES:
- ALL CONCRETE SHALL BE 4000 PSI.
  - REINFORCEMENT STEEL SHALL BE 1/2" DIAM. (#4) ASTM 615 GRADE 60.
  - CHAMFER ALL EXPOSED EDGES 3/4".

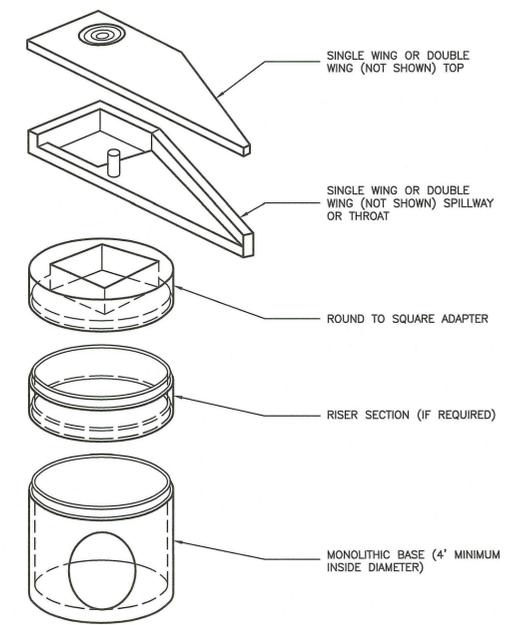


**SINGLE WING FLUSH MOUNTED CATCH BASIN**  
NOT TO SCALE



**SINGLE WING CATCH BASIN TOP SLAB**  
NOT TO SCALE

**STANDARD PRECAST HEADWALL**  
NTS



**STANDARD PRECAST CATCH BASIN SYSTEM**  
NOT TO SCALE

**OWNER**

CITY OF BROOKHAVEN  
4362 PEACHTREE ROAD  
BROOKHAVEN, GEORGIA  
(404) 637-0500

**24-HOUR CONTACT:**

GREGORY ANDERSON P.E.  
STORMWATER UTILITY MANAGER  
WORK: (404) 637-0528  
MOBILE: (404) 983-3507  
GREGORY.ANDERSON@BROOKHAVENGA.GOV

PRELIMINARY  FOR BID  FOR CONSTRUCTION  FOR RECORD  AS BUILT  FOR REVIEW

BY: [Signature] ML

REVISION: ADDRESS CITY COMMENTS

DATE: 08/25/17

DESIGNED BY: G. STOWALL

DRAWN BY: G. STOWALL

CHECKED BY: M. LECKIE

CITY OF BROOKHAVEN  
BROOKHAVEN, GEORGIA

**SOUTH BAMBY PHASE TWO**

**GEN NOTES & CONSTRUCTION DETAILS**

**patterson & dewar ENGINEERS**  
850 Center Way | Norcross, GA 30071  
(770) 453-1410 | pdengineers.com  
Engineers - Surveyors - Construction Management

DATE: 07/21/2017

SCALE: NTS

DRAWING NO.: GABRKS2-007

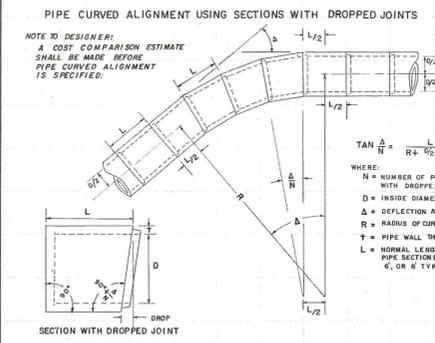
REV.: B

Drawing File: G:\Projects\1313\_C0820000\1313\_BAMBY\_PHASE\_TWO\GENNOTES-007.DWG  
 Date: 8/25/17 11:23:03 AM  
 User: G. Stowall  
 Project: 1313\_C0820000 - 1313\_BAMBY\_PHASE\_TWO



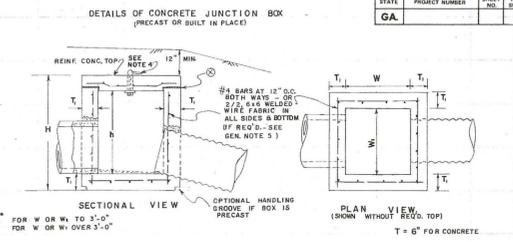
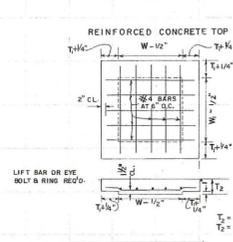


Drawing File: G:\PROJ\6413 COBROOKHAVEN - S. BAMBY PLANS\PLANS\DRAWINGS\GABRKS2-010.DWG  
 Plotted by: j...  
 Date: 07/21/17  
 Project: 6413 COBROOKHAVEN - S. BAMBY PLANS\PLANS\DRAWINGS\GABRKS2-010.DWG  
 Drawing: GABRKS2-010



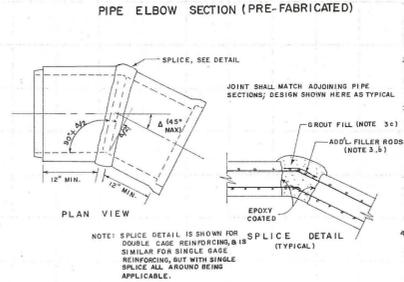
**NOTES FOR PIPE CURVED ALIGNMENT:**

- PLANS ARE TO SPECIFY ONLY THE PIPE DIAMETER "D", THE ANGLE "A", AND THE TANGENT ALIGNMENT.
- PIPE WALL THICKNESS "T", PIPE SECTION LENGTH "L", AND DROP IN PIPE JOINT "S" VARIES ACCORDING TO PIPE PRODUCER AND IS BASED ON FEASIBILITY.
- THE RADIUS "R" AND THE NUMBER OF DROPPED JOINT "N" PIPE SECTIONS "M" IS DETERMINED BY (1) IS ABOVE. MINOR MODIFICATIONS IN THE RADIUS "R" ARE NORMALLY MADE SO THAT "M" WILL BE A WHOLE NUMBER.
- PIPE SECTIONS SHALL BE ORIENTED SUCH THAT THE PLANE OF THE DROPPED JOINT IS AT RIGHT ANGLES TO THE THEORETICAL CIRCULAR CURVE. THE TOP OF SECTIONS ARE TO BE MARKED SO THAT THE DEFLECTION ANGLE IS PROPERLY ORIENTED.
- DETAILS ARE SHOWN FOR CONCRETE PIPE. CURVED ALIGNMENT FOR C.M. PIPE SHALL BE AS RECOMMENDED BY THE MANUFACTURER AND APPROVED BY THE ENGINEER.
- PAYMENT PER LIN. FT. PIPE INCLUDES PIPE SECTIONS WITH DROPPED JOINTS.



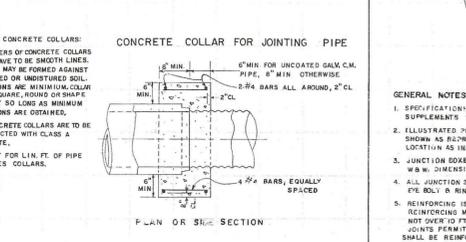
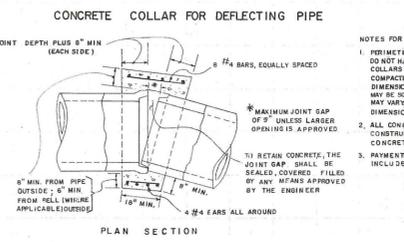
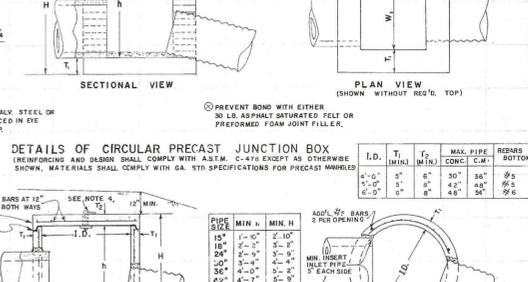
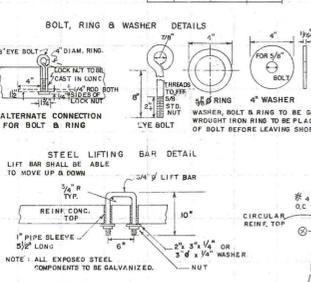
**DIMENSIONS FOR BRICK OR REINFORCED CONCRETE BOX**

| PIPE SIZE | MIN. W | MIN. H | MIN. T | MIN. T1 |
|-----------|--------|--------|--------|---------|
| 18"       | 2'-0"  | 1'-5"  | 2'-0"  | 2'-0"   |
| 18"       | 2'-3"  | 2'-1"  | 3'-1"  | 3'-1"   |
| 24"       | 2'-10" | 2'-4"  | 3'-8"  | 3'-8"   |
| 30"       | 3'-5"  | 3'-3"  | 4'-3"  | 4'-3"   |
| 36"       | 4'-0"  | 3'-10" | 4'-9"  | 4'-9"   |
| 42"       | 4'-7"  | 4'-5"  | 5'-5"  | 5'-5"   |
| 48"       | 5'-2"  | 5'-0"  | 6'-0"  | 6'-0"   |



**NOTES FOR PIPE ELBOW:**

- PAYMENT FOR LIN. FT. OF PIPE INCLUDES ELBOWS.
- ELBOW ANGLE "A" SHALL VARY ACCORDING TO NEED, BUT SHALL NOT BE GREATER THAN 45°. THE CONTRACTOR SHALL INFORM PRODUCER AS TO ANGLE REQUIRED.
- CONCRETE PIPE SHALL BE CUT BEFORE BEING CURED AND THEN REINFORCED. FILLER RODS AT LEAST EQUAL TO RODS IN PIPE SHALL BE ADDED AS NEEDED FOR HANDLING STRENGTH TO HOLD SPOUT. ALL JOINTS IN SPlice SHALL BE PACKED WITH GROUT MORTAR RICH ENOUGH TO GIVE STRENGTH AT LEAST EQUAL TO REMOVED CONCRETE WITH INSIDE SMOOTHED OUT.
- C.M. PIPE ELBOW NOT SHOWN BUT MAY BE SPECIFIED. SOLID WELD SHALL BE REQUIRED FOR C.M. CONJUNCTION WITH GALVANIZING AND/OR COATING REPAIRED AS REQ'D.



**GENERAL NOTES:**

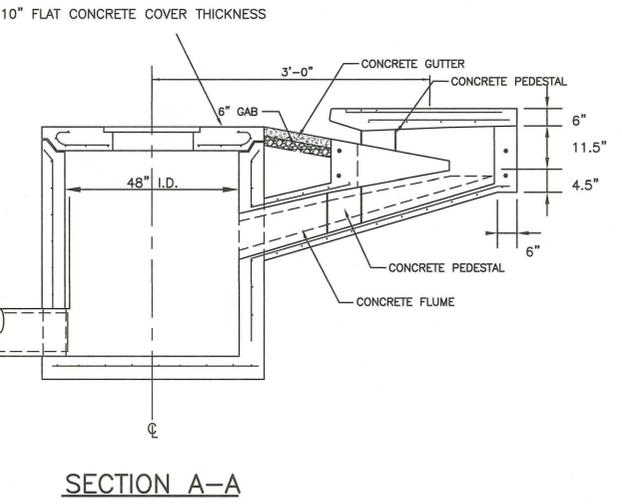
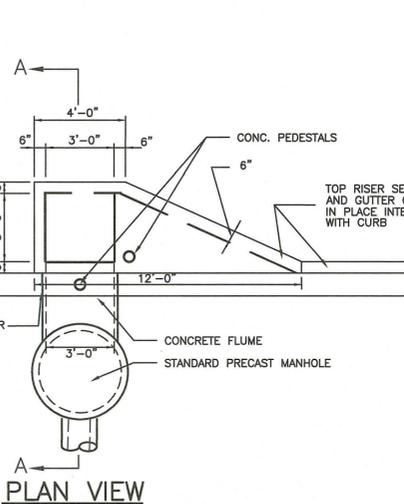
- SPECIFICATION: GEORGIA STANDARD, CURRENT EDITION & SUPPLEMENT'S THEREOF.
- ILLUSTRATED PIPES, PIPE JOINTS, ALIGNMENT, SIZES, ETC. ARE SHOWN AS REPRESENTATIVE. ACTUAL REQUIREMENTS VARY PER LOCATION AS INDICATED IN THE PLANS.
- JUNCTION BOXES DO NOT HAVE TO BE CONSTRUCTED SQUARE. MIN. W. DIMENSIONS MAY VARY ACCORDING TO PIPE SIZE.
- ALL JUNCTION BOX TOPS SHALL BE EQUIPPED WITH EITHER AN EYE BOLT & RING(SHOWN) OR A LIFTING BAR(SHOWN).
- REINFORCING IS REQUIRED FOR ALL PRECAST JUNCTION BOXES NOT OVER 10 FT. DEEP AND NOT LARGER THAN 3'-0". CONSTRUCTION JOINTS PERMITTED IF SMOOLED OR KEVED. ALL JUNCTION BOX TOPS SHALL BE REINFORCED.

DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA

**STANDARD**  
PRECAST OR BUILT IN PLACE  
**JUNCTION BOXES**  
PIPE COLLARS, PIPE ELBOW  
& PIPE CURVED ALIGNMENT

NO SCALE  
REV. & REVISION JULY 1985  
DES. SMALL: [Signature]  
APP. SMALL: [Signature]  
CHK. SMALL: [Signature]  
STATE HIGHWAY ENGINEER

NUMBER  
9031U



**MODIFIED CATCH BASIN**

PRELIMINARY  
  FOR BID  
  FOR CONSTRUCTION  
  FOR RECORD  
  "AS BUILT"  
 FOR REVIEW

**OWNER**  
CITY OF BROOKHAVEN  
4362 PEACHTREE ROAD  
BROOKHAVEN, GEORGIA  
(404) 637-0500

**24-HOUR CONTACT:**  
GREGORY ANDERSON P.E.  
STORMWATER UTILITY MANAGER  
WORK: (404) 637-0528  
MOBILE: (404) 983-3507  
GREGORY.ANDERSON@BROOKHAVENGA.GOV

**NOTE: THIS SHEET ADDED FOR REVISION B**

| NO. | DATE     | REVISION | ADDRESS | CITY COMMENTS |
|-----|----------|----------|---------|---------------|
| B   | 08/25/17 |          |         |               |

CITY OF BROOKHAVEN  
BROOKHAVEN, GEORGIA

**SOUTH BAMBY PHASE TWO**

**CONSTRUCTION DETAILS**

Drawn By: G. STOWALL  
Checked By: M. LECKIE



**patterson & dewar ENGINEERS**

850 Center Way | Norcross, GA 30071  
(770) 453-1410 | pdengineers.com  
Engineers - Surveyors - Construction Management

DATE: 07/21/2017  
SCALE: NTS  
DRAWING NO.: GABRKS2-010  
REV.: B



