

ST. GREGORIOS MALANKARA ORTHODOX SYRIAN CHURCH

SP-10-11
225 BASHFORD ROAD
RALEIGH, NORTH CAROLINA

AUGUST 23, 2011

LAND DISTURBING AND TREE CONSERVATION PERMIT



**Development
SERVICES**
FIRE • INSPECTIONS • PLANNING
PUBLIC UTILITIES • PUBLIC WORKS

Customer Service Center
One Exchange Plaza, Suite 400
Raleigh, North Carolina 27601
Phone 919-516-2495
Fax 919-516-2885

Site and Commercial Building Data Sheet

GENERAL INFORMATION	
Development Name ST. GREGORIOS MALANKARA ORTHODOX SYRIAN CHURCH	Proposed Use CHURCH
Property Address(es) 225 BASHFORD ROAD	
Wake County Property Identification Number(s) for each parcel to which these guidelines will apply	
P.I.N. 0774701431	P.I.N. 0774703477
What is your project type?	
<input type="checkbox"/> Apartment	<input type="checkbox"/> Bank
<input type="checkbox"/> Mixed Residential	<input type="checkbox"/> Non-residential Condo
<input type="checkbox"/> School	<input type="checkbox"/> Shopping Center
<input type="checkbox"/> Elderly Facility	<input type="checkbox"/> Office
<input checked="" type="checkbox"/> Religious Institution	<input type="checkbox"/> Hospital
<input type="checkbox"/> Telecommunication Tower	<input type="checkbox"/> Hotel/Motel
<input type="checkbox"/> Residential Condo	<input type="checkbox"/> Industrial Building
<input type="checkbox"/> Retail	<input type="checkbox"/> Townhouse
<input type="checkbox"/> Other	

Scope of Work **SITE PLAN FOR PROPOSED CHURCH**

FOR MULTIFAMILY OR GROUP HOUSING PROJECTS ONLY	
1. Total # Of Townhouse Lots <input type="checkbox"/> Detached <input type="checkbox"/> Attached <input type="checkbox"/>	4. Overall Total # Of Dwelling Units (1-3 Above) _____
2. Total # Of Apartment Or Condominium Units _____	5. Bedroom Units 1br <input type="checkbox"/> 2br <input type="checkbox"/> 3br <input type="checkbox"/> 4br or more _____
3. Total # Of Congregate Care Or Life Care Dwelling Units _____	6. Overall Unit(s)/Acre Densities Per Zoning District(s) _____
DEVELOPMENT TYPE AND SITE DATA TABLE (Applicable to all developments)	
Zoning District(s) R-10 CUD	Proposed building use(s) CHURCH
If more than one district, provide the acreage of each _____	Existing Building(s) sq. ft. gross 1230 SF
Overlay District(s) _____	Proposed Building(s) sq. ft. gross 4000 SF
Total Site Acres 2.75 Inside City Limits <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Total sq. ft. gross (existing & proposed) 5230 SF
Off street parking Required 25 Provided 27	Proposed height of building(s) 25'
COA (Certificate of Appropriateness) case # _____	FAR (floor area ratio percentage) 5.0%
BOA (Board of Adjustment) case # A-	Building Lot Coverage percentage 5.2%
CUD (Conditional Use District) case # H9-06	
Existing Impervious Surface N/A acres/square feet	Flood Hazard Area <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Proposed Impervious Surface N/A acres/square feet	If Yes, Alluvial Soils _____ Flood Study _____ FEMA Map Panel # _____
Neuse River Buffer <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Wetlands <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Total Disturbed Area 2.1 acres/square feet

CIVIL ENGINEER:

JOHN A EDWARDS AND COMPANY
333 WADE AVENUE
RALEIGH, NC 27605
(919)828-4428
(919)828-4711 FAX

LANDSCAPE ARCHITECT:

COALY DESIGN
537 EAST MARTIN ST
RALEIGH, NC 27601
(919)833-7093
(919)899-6504 FAX

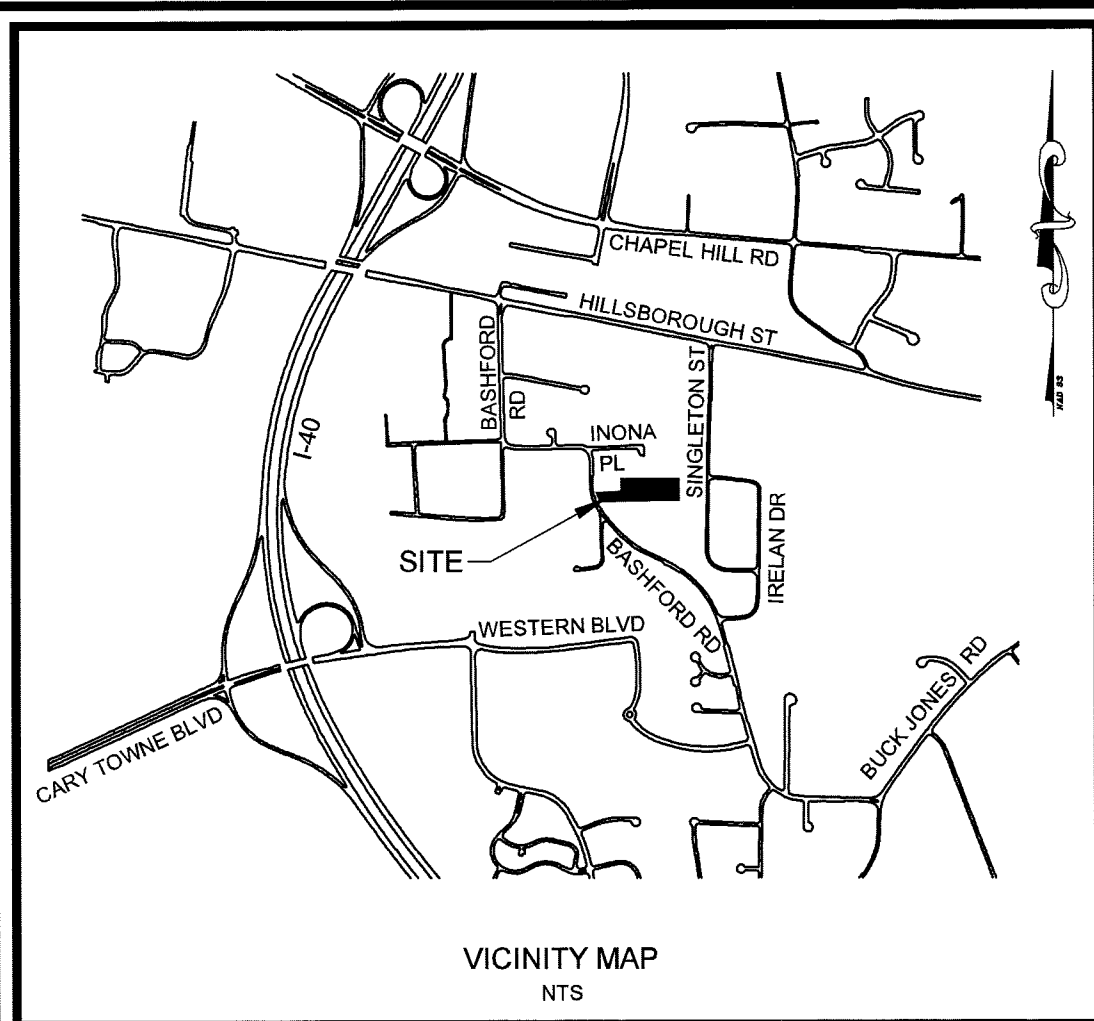
Z-49-06 - BASHFORD ROAD ZONING CONDITIONS 9/26/06

- RIGHT-OF-WAY REIMBURSEMENT SHALL BE DEDICATED AT AN R-4 VALUE.
- TREE PRESERVATION OF THE TWO (2) TREES THAT ARE WITHIN FIFTY (50) FEET OF THE EXISTING BASHFORD ROAD R/W AND A MINIMUM OF 10 INCH DBH. A MINIMUM OF FIFTEEN (15) FEET OF CRITICAL ROOT ZONE AREA UNIFORMLY SURROUNDING THE BASE OF THE TREE SHALL BE PROVIDED, AND IN THIS AREA NO TREE DISTURBING ACTIVITY SHALL TAKE PLACE.
- ALL OF THE OFF-STREET PARKING SHALL BE LOCATED WITHIN THE REAR YARD AREA OR SCREENED FROM VIEW OF THE PUBLIC R/W BY THE PRINCIPLE BUILDINGS.
- THE FRONT FACADE, EXCEPT FOR WINDOWS, DOORS, OR ROOF AREAS OF THE BUILDINGS FACING BASHFORD ROAD SHALL BE CONSTRUCTED OF BRICK, STONE, OR HARDIPLANK.
- AN OFFER OF CROSS ACCESS WILL BE PROVIDED TO THE ADJACENT PROPERTY TO THE EAST (PIN 0774703477) PRIOR TO ANY ISSUANCE OF BUILDING PERMITS OR SUBDIVISION OF THE PROPERTY, WHICHEVER SHALL OCCUR FIRST. DIRECT DRIVEWAY ACCESS TO BASHFORD ROAD WILL BE LIMITED TO ONE (1) ACCESS POINT.
- RESIDENTIAL DEVELOPMENT SHALL BE LIMITED TO SINGLE FAMILY DETACHED DWELLINGS AND TOWNHOMES.
- THIS ZONING WILL ALLOW NO MORE THAN SEVEN (7) DWELLINGS PER ACRE.

SHEET INDEX

COVER

- C-1 EXISTING CONDITIONS AND DEMOLITION PLAN
- C-2 SITE PLAN
- C-3 UTILITY AND FIRE PROTECTION PLAN
- C-4 GRADING AND STORMWATER MANAGEMENT PLAN
- C-5.1 EROSION CONTROL PLAN - PHASE 1
- C-5.2 EROSION CONTROL PLAN - PHASE 2
- C-6 EROSION CONTROL DETAILS
- C-7 SITE DETAILS
- LA-1 TREE CONSERVATION PLAN
- LA-2 TREE CONSERVATION PLAN
- LA-3 PLANTING PLAN
- A2.1 BUILDING ELEVATION



VICINITY MAP
NTS

EXISTING SUB-STANDARD
CENTERLINE RADIUS = 322'

PROPOSED CENTERLINE
RADIUS = 420' FOR R/W
DEDICATION

R/W DEDICATION - 1/2 OF 60'
PUBLIC R/W BASED ON PROPOSED
CENTERLINE RADIUS = 176 SF (0.004AC)

TREE CONSERVATION (SEE LA-1 & LA-2)
TOTAL RECOMBINED LOT AREA - 2.75 ACS
REQUIRED TCA 0.275 AC (11,975 SF)
SECONDARY TREE CONSERVATION - 12,099 SF
TOTAL PROVIDED - 12,099 SF - 10% REQUIREMENT MET

Section A. SITE DATA SHEET

ALL PLANS REQUIRE THE FOLLOWING INFORMATION ON THE FRONT COVER OF THE DRAWING SETS:
DEVELOPMENT NAME: ST GREGORIOS MALANKARA ORTHODOX SYRIAN CHURCH
PROPERTY ADDRESS: 225 BASHFORD ROAD, RALEIGH
WAKE CO. PROPERTY IDENTIFICATION # (PIN): 0774701431 & 0774703477
ZONING DISTRICT(S): R-10CUD **TOTAL SITE ACRES:** 2.75 **INSIDE CITY LIMITS:** YES (TO BE ANNEXED)
If in a conditional use zoning district, place the complete list of zoning conditions on the front cover of the drawing set.
Per section 10-2132, summarize the reason(s) this plan requires Planning Commission (PC) or City Council (CC) Preliminary Approval.

PROPOSED BUILDING USE: CHURCH **EXISTING BUILDING(s) (sq. ft. gross):** 0
PROPOSED BUILDING(s) (sq. ft. gross): 4,000 SF
TOTAL EXISTING AND PROPOSED BUILDING(s) EXPANSION (sq. ft. gross): _____
PROPOSED BUILDING HEIGHT OR HEIGHT OF EACH BUILDING 20'

OFF STREET PARKING: REQ'D: 25 PROVIDED: 27
1 SPACE PER EVERY 8 SEATS IN PRINCIPLE ASSEMBLY ROOM(200 SEATS IN SANCTUARY)
HOTELS: # ROOMS: _____ **NUMBER OF DWELLING UNITS IF DEFINED AS EXTENDED STAY** _____

APT./CONDO: # 1BR Units: _____ 2BR: _____ 3BR: _____ 4BR: _____
SHOPPING CENTER: # BUILDINGS _____ # LOTS _____

CLIENT (Owner or Developer):

Name(s) ST GREGORIOS MALANKARA ORTHODOX SYRIAN CHURCH C/O PHILIP ABRAHAM
Address: 310 HOMESTEAD DR
CARY, NC ZIP 27513
Telephone: _____ FAX: _____
E-Mail Address: _____

CONSULTANT / PROJECT MANAGER (Person to act as staff contact for correspondence)

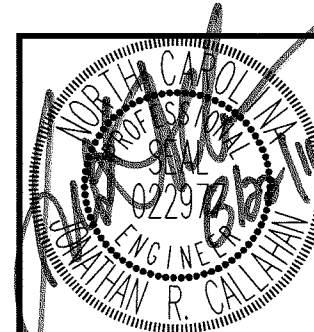
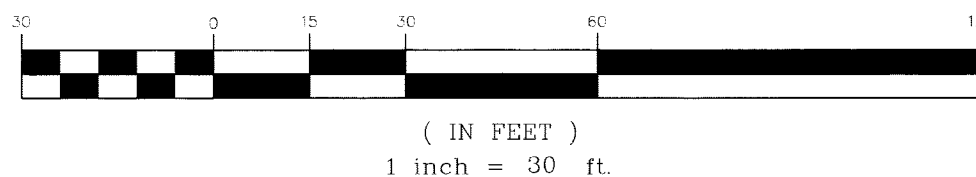
Name(s) JOHN A. EDWARDS AND ENGINEERS
Address: 333 WADE AVE
RALEIGH, NC 27605 ZIP
Telephone: 919-828-4428 FAX: 919-828-4711
E-Mail Address: INFO@JAE.CO.COM

Provide the following if applicable:
Board of Adjustment, rezoning, subdivision, or prior preliminary site plan or subdivision action:
YES x NO _____ If yes, list file number (SP-xx-00, Z-xx-00, A-xx-00, etc.) _____ and affix a list of conditions to the site plan itself. Z-49-06

Z-49-06 - BASHFORD ROAD ZONING CONDITIONS 9/26/06

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- TREE PRESERVATION OF THE TWO (2) TREES THAT ARE WITHIN FIFTY (50) FEET OF THE EXISTING BASHFORD ROAD R/W AND A MINIMUM OF 10 INCH DBH. A MINIMUM OF FIFTEEN (15) FEET OF CRITICAL ROOT ZONE AREA UNIFORMLY SURROUNDING THE BASE OF THE TREE SHALL BE PROVIDED, AND IN THIS AREA NO TREE DISTURBING ACTIVITY SHALL TAKE PLACE.
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GRAPHIC SCALE



DATE	REVISION	BY
8/22/11	addressed city comments	JRC
7/25/11	addressed city comments	JRC
5/27/11	revised siteplan	JRC



JOHN A. EDWARDS & COMPANY
Consulting Engineers
NC License F-0289
333 Wade Ave, Raleigh, NC 27605
Phone (919) 828-4428
FAX (919) 828-4711
E-mail info@jaeco.com

SCALE: 1" = 30'	DATE: 5/27/11
FILE NO. _____	CHECKED BY: JAE, JR.

PROPERTY OF:
ST. GREGORIOS MALANKARA
ORTHODOX SYRIAN CHURCH
RALEIGH WAKE COUNTY NORTH CAROLINA
SITE PLAN

SHEET
C-2

CURVE TABLE					
CURVE	RADIUS	LENGTH	TANGENT	CHORD	DIRECTION DELTA
C1	390.00	101.25	50.91	100.97	S18°43'54"E 14°52'32"

N/F
ETHEL G. POWERS
DB 2500, PG 191
PIN 0774.20-70-5678

N/F
SANDRA LUCILLE NISBET
DB 12742, PG 1985
PIN 0774.20-70-8623
BM 1960, PG 194

N/F
WILLIAM C & JUNE T MANN
DB 1728, PG 562
PIN 0774.20-70-8523
BM 1960, PG 194

N/F
JOHN & MICHELE L ELLIASSON
DB 10562, PG 1024
PIN 0774.20-70-4339
BM 1960, PG 194

PROPOSED TOTAL AREA = 2.75 AC

ALTERNATE COMPLIANCE
TREE CONSERVATION AREA
65' PERIMETER YARD
12,099 SF

N/F
BINOJ GERGE
DB 13928, PG 1335
PIN 0774.20-70-5331
BM 1967, PG 289

N/F
BINOJ GERGE
DB 13928, PG 1335
PIN 0774.20-70-4320
BM 1967, PG 289

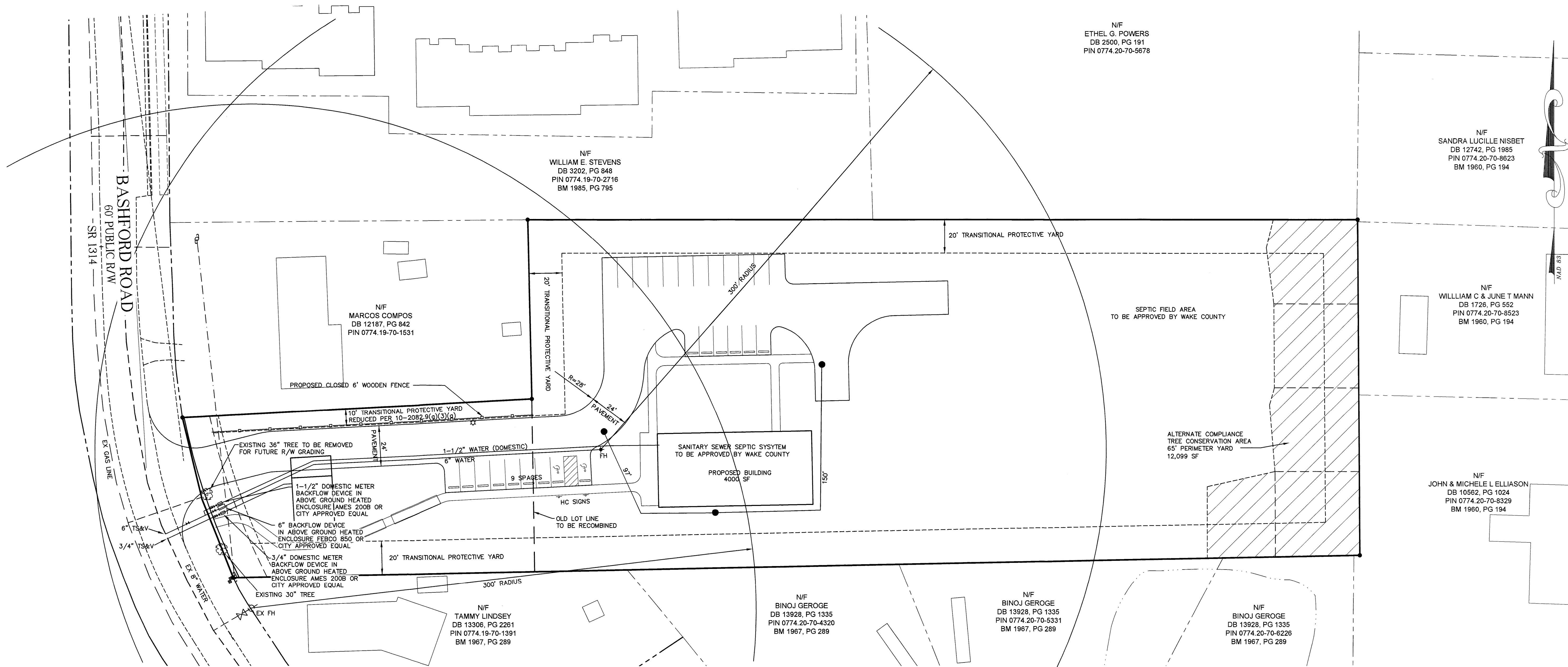
N/F
BINOJ GERGE
DB 13928, PG 1335
PIN 0774.20-70-6226
BM 1967, PG 289

ALL MATERIALS AND CONSTRUCTION STANDARDS
TO BE IN ACCORDANCE WITH CITY OF
RALEIGH STANDARDS AND SPECIFICATIONS.

HANDICAP RAMP(S) TO BE CONSTRUCTED AT ALL
INTERSECTIONS IN ACCORDANCE WITH CITY OF
RALEIGH STANDARDS AND ADA SPECIFICATIONS.

FIRE HYDRANTS & WATER METERS SHALL BE
LOCATED WITHIN STREET R/W

TRANSPORTATION NOTES:
1. RIGHT-OF-WAY SHALL BE CLEARED AND GRUBBED WITHIN 50 FEET OF ALL RESIDENTIAL OR RESIDENTIAL COLLECTOR INTERSECTIONS. RIGHT-OF-WAY SHALL BE CLEARED AND GRUBBED WITHIN 100 FEET OF ALL OTHER STREET INTERSECTIONS.
2. HANDICAPPED RAMPS TO BE CONSTRUCTED AT ALL INTERSECTIONS IN ACCORDANCE WITH CITY OF RALEIGH ENGINEERING STANDARD DETAIL 20.11.
3. SIGHT TRIANGLES TO BE LOCATED AT ALL INTERSECTIONS IN ACCORDANCE WITH CITY OF RALEIGH STANDARDS. AREAS WHERE SIGHT TRIANGLE ARE LOCATED OUTSIDE THE RIGHT-OF-WAY SHALL BE RECORDED AS SIGHT EASEMENTS. FINAL LAYOUT OF SIGHT TRIANGLES TO BE APPROVED WITH CONSTRUCTION DRAWINGS.
4. NO SIGHT OBSTRUCTING OR PARTIALLY OBSTRUCTING WALL, FENCE, FOILAGE, BERM, PARKED VEHICLES, SIGN OR OTHER OBJECTS BETWEEN THE HEIGHTS OF 2 FEET AND 8 FEET ABOVE THE CURB LINE ELEVATION, OR NEAREST TRAVELED WAY IF NO CURBING EXISTS, SHALL BE PLACED WITHIN A SIGHT TRIANGLE.
5. ALL STREET SECTIONS SHALL MEET OR EXCEED SPECIFICATIONS DETAILED IN CITY OF RALEIGH ENGINEERING STANDARD 20.31.
6. ALL SIDEWALKS AND RIGHT-OF-WAYS WITHIN AND ADJACENT TO THE PROJECT ARE CONSISTANT WITH THE RALEIGH COMPREHENSIVE PLAN WITH REGARD TO PROPOSED ROADWAY LOCATIONS AND RIGHT-OF-WAY REQUIREMENTS.
7. TURNOUT RADII TO BE MINIMUM OF 35' AT ALL PUBLIC STREET INTERSECTIONS. DRIVEWAY TURNOUTS TO BE A MINIMUM OF 28'.



UTILITY NOTES:

- All materials & construction methods shall be in accordance with City of Raleigh design standards, details & specifications (reference: COR PUD Handbook, current edition)
- Utility separation requirements:
 - A distance of 100' shall be maintained between sanitary sewer & any private or public water supply source such as an impounded reservoir used as a source of drinking water. If adequate lateral separation cannot be achieved, ferrous sanitary sewer pipe shall be specified & installed to watertight specifications. However, the minimum separation shall not be less than 25' from a private well or 50' from a public well
 - When installing water &/or sewer mains, the horizontal separation between utilities shall be 10'. If this separation cannot be maintained due to existing conditions, the variation allowed is the water main in a separate trench with the elevation of the water main at least 18" above the top of the sewer & must be approved by the Public Utilities Director. All distances are measured from outside diameter to outside diameter
 - Where it is impossible to obtain proper separation, or anytime a sanitary sewer passes over a watermain, DIP materials or steel encasement extended 10' on each side of crossing must be specified & installed to watertight specifications
 - Maintain 18" min. vertical separation at all watermain & RCP storm drain crossings; maintain 24" min. vertical separation at all sanitary sewer & RCP storm drain crossings. Where adequate separations cannot be achieved, specify DIP materials & a concrete cradle having 6" min. clearance (per COR PUD details W-41 & S-49)
 - All other underground utilities shall cross water & sewer facilities with 18" min. vertical separation required
- Any necessary field revisions are subject to review & approval of an amended plan &/or profile by the City of Raleigh Public Utilities Department prior to construction
- Contractor shall maintain continuous water & sewer service to existing residences & businesses throughout construction of project. Any necessary service interruptions shall be preceded by a 24 hour advance notice to the City of Raleigh Public Utilities Department

HANDICAP RAMPS TO BE CONSTRUCTED AT ALL INTERSECTIONS IN ACCORDANCE WITH CITY OF RALEIGH STANDARDS AND ADA SPECIFICATIONS.

FIRE HYDRANTS & WATER METERS SHALL BE LOCATED WITHIN STREET R/W.

SANITARY SEWER NOTE:

Sewer is not available to site and owner has been unable to obtain easements. Pre-submittal conference and site plan was established prior to 2 acre rule change. Owner will pay assessment for sewer based on 101.25' of frontage on Bashford Road.

Sewer to be approved by Wake County, permit application has been submitted under D#46405. Final processing of application cannot occur until City of Raleigh Zoning approves Site Plan.

CABLE, GAS, AND WATER SHOWN BASED ON UTILITY LOCATION PAINT FOUND. CONTRACTOR TO VERIFY ALL UTILITY LOCATIONS PRIOR TO CONSTRUCTION

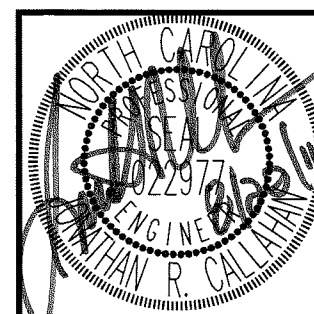
CONTRACTOR RESPONSIBLE FOR ALL TRAFFIC CONTROL IN ACCORDANCE WITH NCDOT AND MUTCD STANDARDS. TRAFFIC TO REMAIN OPEN DURING CONSTRUCTION.

ALL MATERIALS AND CONSTRUCTION STANDARDS TO BE IN ACCORDANCE WITH CITY OF RALEIGH STANDARDS AND SPECIFICATIONS.

GRAPHIC SCALE



(IN FEET)
1 inch = 30 ft.



DATE	REVISION	BY
8/22/11	addressed city comments	JRC
7/25/11	addressed city comments	JRC



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Consulting Engineers
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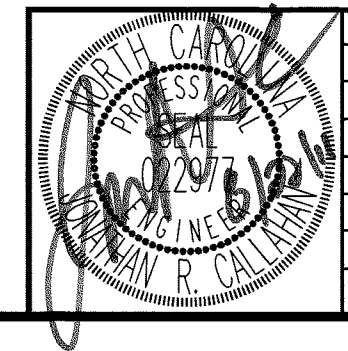
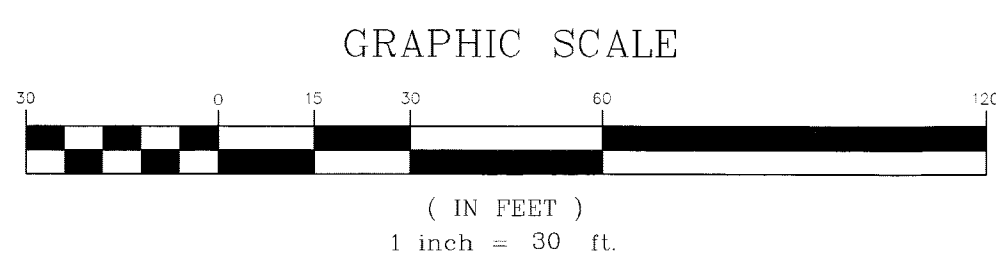
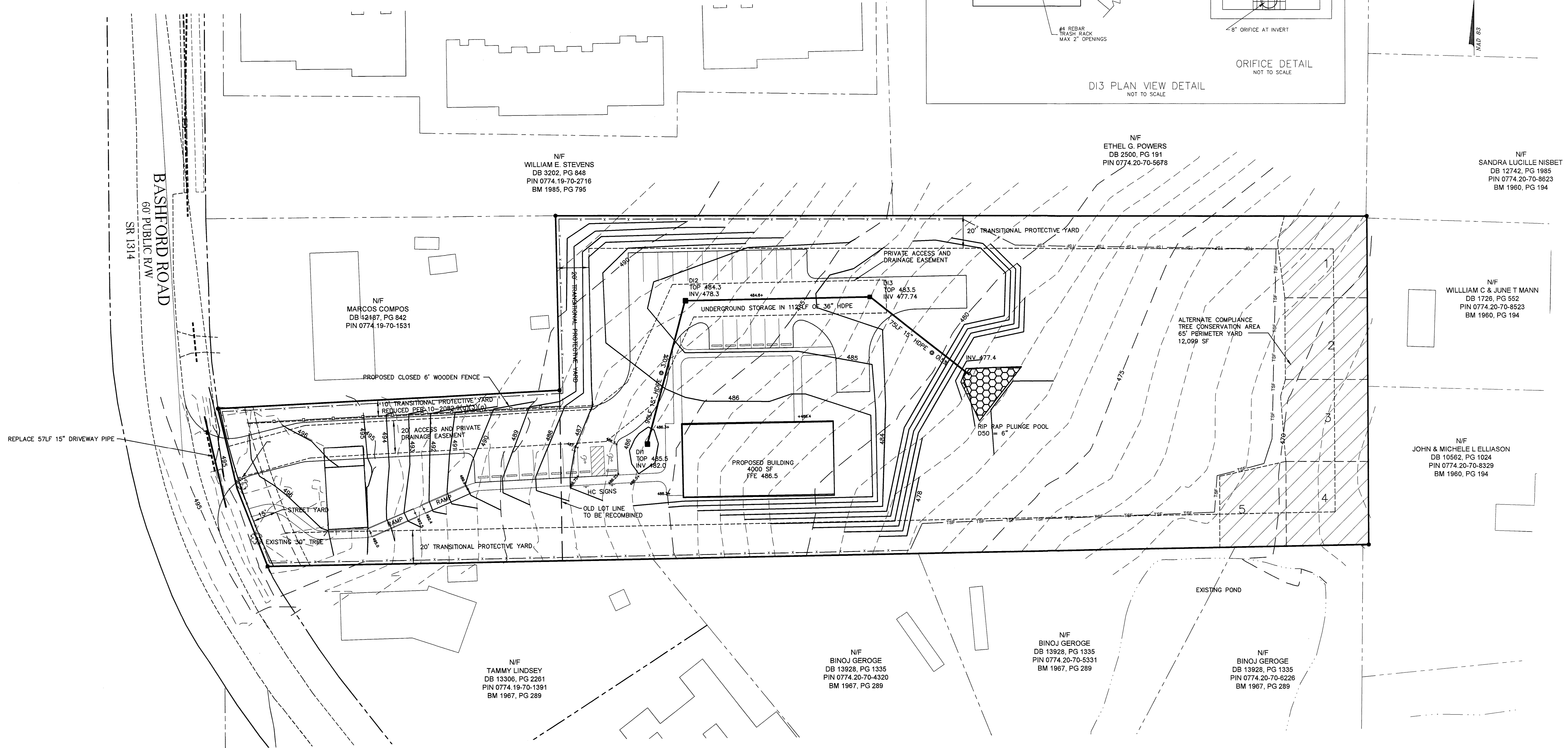
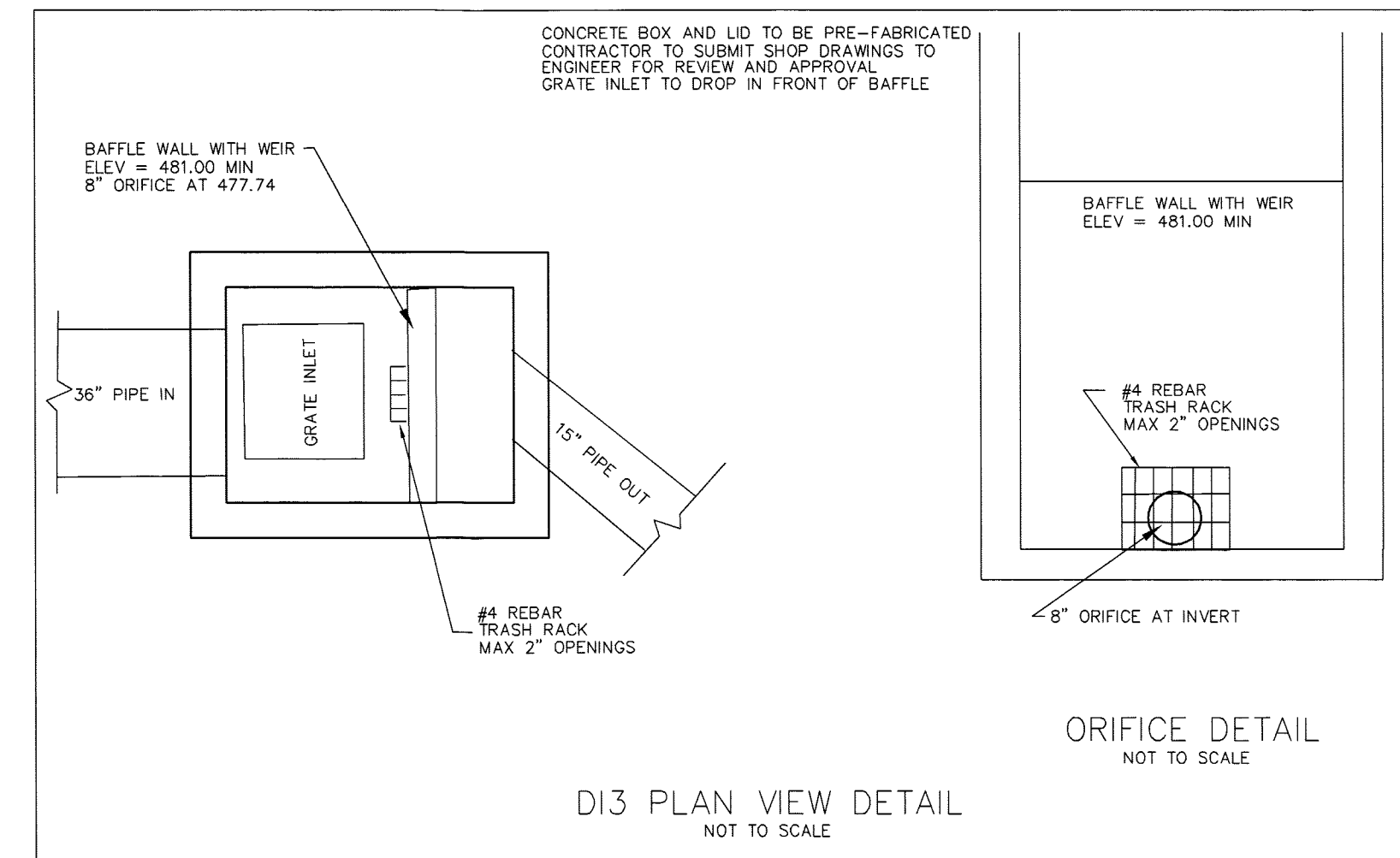
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FILE NO.:	CHECKED BY: JAE, JR.

PROPERTY OF:	ST. GREGORIOS MALANKARA ORTHODOX SYRIAN CHURCH
RALEIGH	WAKE COUNTY NORTH CAROLINA
UTILITY AND FIRE PROTECTION PLAN	

SHEET
C-3

STORMWATER MANAGEMENT PLAN

PRE-POST RETENTION TO BE PROVIDED IN UNDERGROUND PIPE SYSTEM WITH ORIFICE TO REDUCE OUTFLOW.
NITROGEN EXPORT TO BE SATISFIED WITH A BUYDOWN.



DATE	REVISION	BY
8/22/11	addressed city comments	JRC
7/25/11	addressed city comments	JRC
6/9/11	revised grading plan	JRC

JOHN A. EDWARDS & COMPANY
Consulting Engineers
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333 Wade Ave., Raleigh, NC 27605
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FILE NO. JRC	CHECKED BY: JAE, JR.

PROPERTY OF:	ST. GREGORIOS MALANKARA ORTHODOX SYRIAN CHURCH
RALEIGH	WAKE COUNTY NORTH CAROLINA
GRADING AND STORMWATER MANAGEMENT PLAN	

CONSTRUCTION SEQUENCE

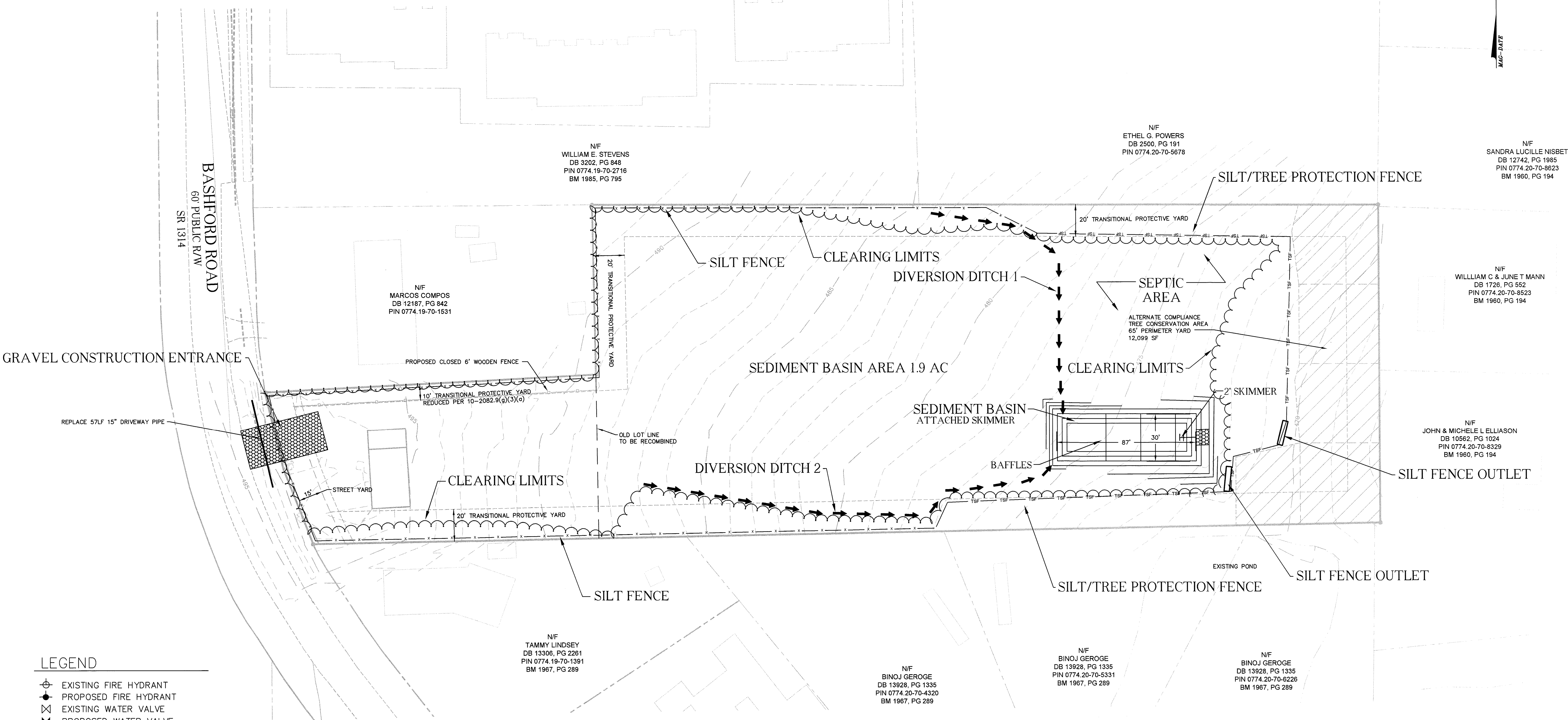
PHASE 1

1. OBTAIN GRADING PERMIT.
2. CONTACT INSPECTOR AT 279-1308 AS INDICATED ON PERMIT CARD FOR PRE CONSTRUCTION CONFERENCE.
3. INSTALL DRIVEWAY PIPE, GRAVEL ENTRANCE, SEDIMENT BASIN, SILT FENCING AND SILT FENCE OUTLET AS SHOWN ON THE PLAN.
4. INSTALL 2" SKIMMER TO DAYLIGHT UPSTREAM OF SILT FENCE OUTLET.
5. CONTACT INSPECTOR AS INDICATED ON PERMIT CARD FOR SITE INSPECTION. IF APPROVED BEGIN CLEARING AND ROUGH GRADING.
6. CLEAR AND GRUB SITE, INSURE THAT THE AREA UPSTREAM OF THE SEDIMENT BASIN DRAINS TO THE BASIN, INSTALL DIVERSION DITCHES 1 AND 2 AS SHOWN ON PLAN AND ANY ADDITIONAL DITCHES IF NECESSARY.
7. MAINTAIN SEDIMENT AND EROSION CONTROL DEVICES AFTER EVERY RAIN EVENT AND ONCE PER WEEK. MUCK OUT SEDIMENT BASIN AFTER EACH SIGNIFICANT RAINFALL (1"OR MORE). REMOVE ANY SILT BUILD UP ON ANY SILT FENCING OVER 50% FULL TO PREVENT BREECH. SEED OR MULCH (OR STABILIZE WITH STONE/PAVEMENT) ANY DENUDED AREAS WITHIN 14 DAYS OF INACTIVITY, AS WELL AS COMPLETION OF ANY PHASE OF GRADING.
8. SUBMIT DOCUMENTATION REQUIRED UNDER THE SITE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY TO STORMWATER CONTROL INSPECTIONS THROUGHOUT THE PROJECT.

PROJECT: St. Gregorios Malankara Orthodox Syrian Church
SEDIMENT BASIN

Denuded Area =	1.9	Ac.
Runoff Peak =	7.8	cfs (Q25)
Depth =	2	ft
Req'd Vol. (CF)	3420	
Req'd Area (sf)	2529	
Provided Area (SF)	2610	
Provided Vol (CF)	5220	

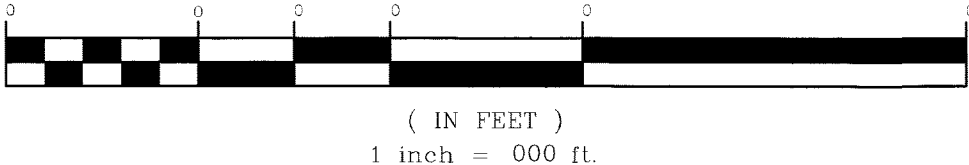
SKIMMER DESIGN
USE 2" SKIMMER ACCORDING TO FAIRCLOTH SKIMMER SIZING GUIDELINES



LEGEND

- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING WATER VALVE
- PROPOSED WATER VALVE
- EXISTING WATER REDUCER
- PROPOSED WATER REDUCER
- EXISTING MANHOLE
- PROPOSED MANHOLE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING DROP INLET
- PROPOSED DROP INLET
- EXISTING FLARED END SECTION
- PROPOSED FLARED END SECTION
- PROPOSED FDC
- PROPOSED CLEAN OUT

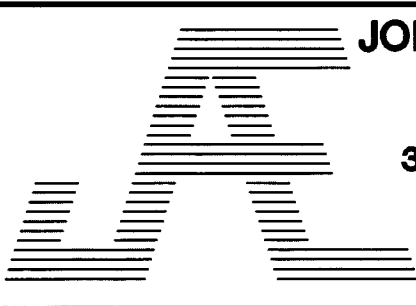
GRAPHIC SCALE



TOTAL DENUDED AREA = 2.1 ACRES



DATE	REVISION	BY
8/22/11	addressed city comments	JTC
7/25/11	addressed city comments	JTC
8/9/11	revised grading plan	JTC



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Phone (919) 828-4428
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SCALE: 1" = 30'	DATE: 6/20/11
FILE NO.:	CHECKED BY: JAE, JR.

PROPERTY OF:
ST. GREGORIOS MALANKARA
ORTHODOX SYRIAN CHURCH
RALEIGH WAKE COUNTY NORTH CAROLINA
EROSION CONTROL PLAN -PHASE 1

SHEET
C-5.1

CONSTRUCTION SEQUENCE

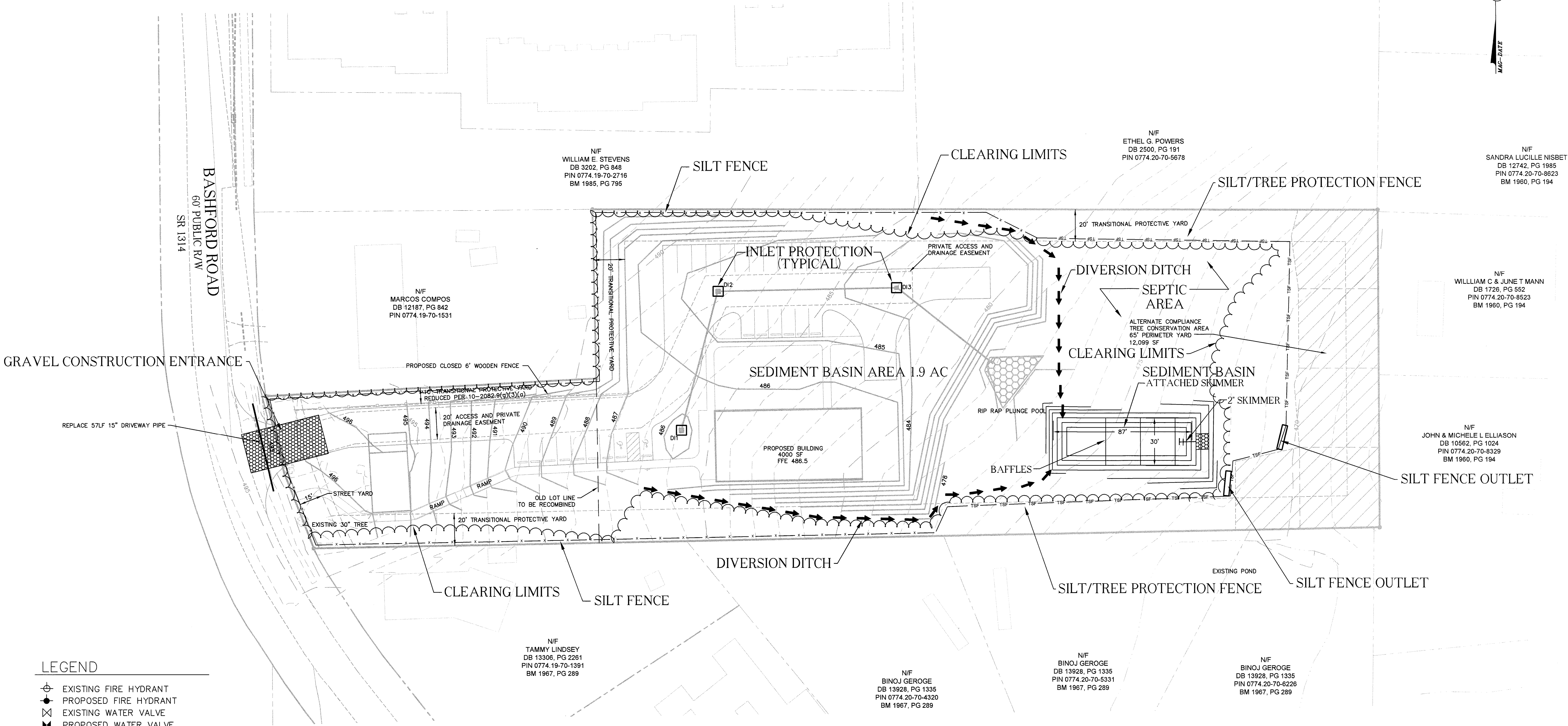
PHASE 2

1. INSTALL DI-1, DI-2, DI-3 AND INLET PROTECTION AT EACH INLET. INSTALL 15" HDPE AND 30" HDPE PIPES.
2. CONTINUE ROUGH GRADING ENTIRE SITE. EROSION CONTROL DEVICES TO BE MAINTAINED THROUGHOUT. EROSION CONTROL DEVICES TO BE INSPECTED AFTER RAIN EVENTS & ONCE A WEEK (PER NPDES REQUIREMENTS), AND ALL DISTURBED AREAS MUST BE SEEDED AND MULCHED WITHIN 14 CALENDAR DAYS.
3. INSTALL RIP RAP PLUNGE POOL AT THE OUTLET AS SOON AS PIPE IS INSTALLED.
4. WHEN CONSTRUCTION IS COMPLETE AND ENTIRE SITE IS STABILIZED COMPLETELY, CONTACT INSPECTOR TO DISCUSS REMOVAL OF EROSION CONTROL DEVICES.
5. IF SITE IS APPROVED, REMOVE SILT FENCING, SILT FENCE OUTLETS, GRAVEL CONSTRUCTION ENTRANCES AND SEED OUT OR PAVE ANY BARE AREAS. REMOVE SKIMMER BASIN #1. AN AS-BUILT PLAN AND CERTIFICATION WILL BE REQUIRED FOR THE PIPE RETENTION. THIS PLAN IS REQUIRED TO BE ACCEPTED AND APPROVED BY THE CITY OF RALEIGH PRIOR TO ISSUANCE OF BLDG CO.
6. WHEN VEGETATION HAS BECOME ESTABLISHED, CALL FOR FINAL SITE INSPECTION BY CONSERVATION INSPECTOR.
7. SUBMIT DOCUMENTATION REQUIRED UNDER THE SITE NPDES STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY TO STORMWATER CONTROL INSPECTIONS THROUGHOUT THE PROJECT.

PROJECT: St. Gregorios Malankara Orthodox Syrian Church
SEDIMENT BASIN

Denuded Area =	1.9	Ac.
Runoff Peak =	7.8	cfs (Q25)
Depth =	2	ft
Reg'd Vol. (CF)	3420	
Rest'd Area (sf)	2529	
Provided Area (SF)	2610	
Provided Vol (CF)	5220	

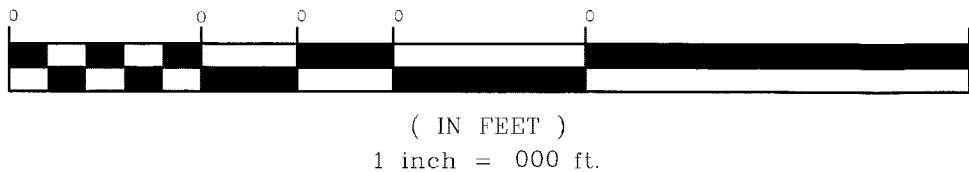
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USE 2" SKIMMER ACCORDING TO FAIRCLOTH SKIMMER SIZING GUIDELINES



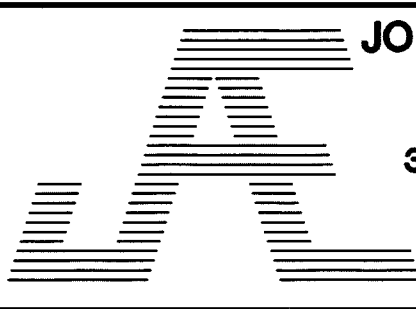
LEGEND

- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING WATER VALVE
- PROPOSED WATER VALVE
- EXISTING WATER REDUCER
- PROPOSED WATER REDUCER
- EXISTING MANHOLE
- PROPOSED MANHOLE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING DROP INLET
- PROPOSED DROP INLET
- EXISTING FLARED END SECTION
- PROPOSED FLARED END SECTION
- PROPOSED FDC
- PROPOSED CLEAN OUT

GRAPHIC SCALE



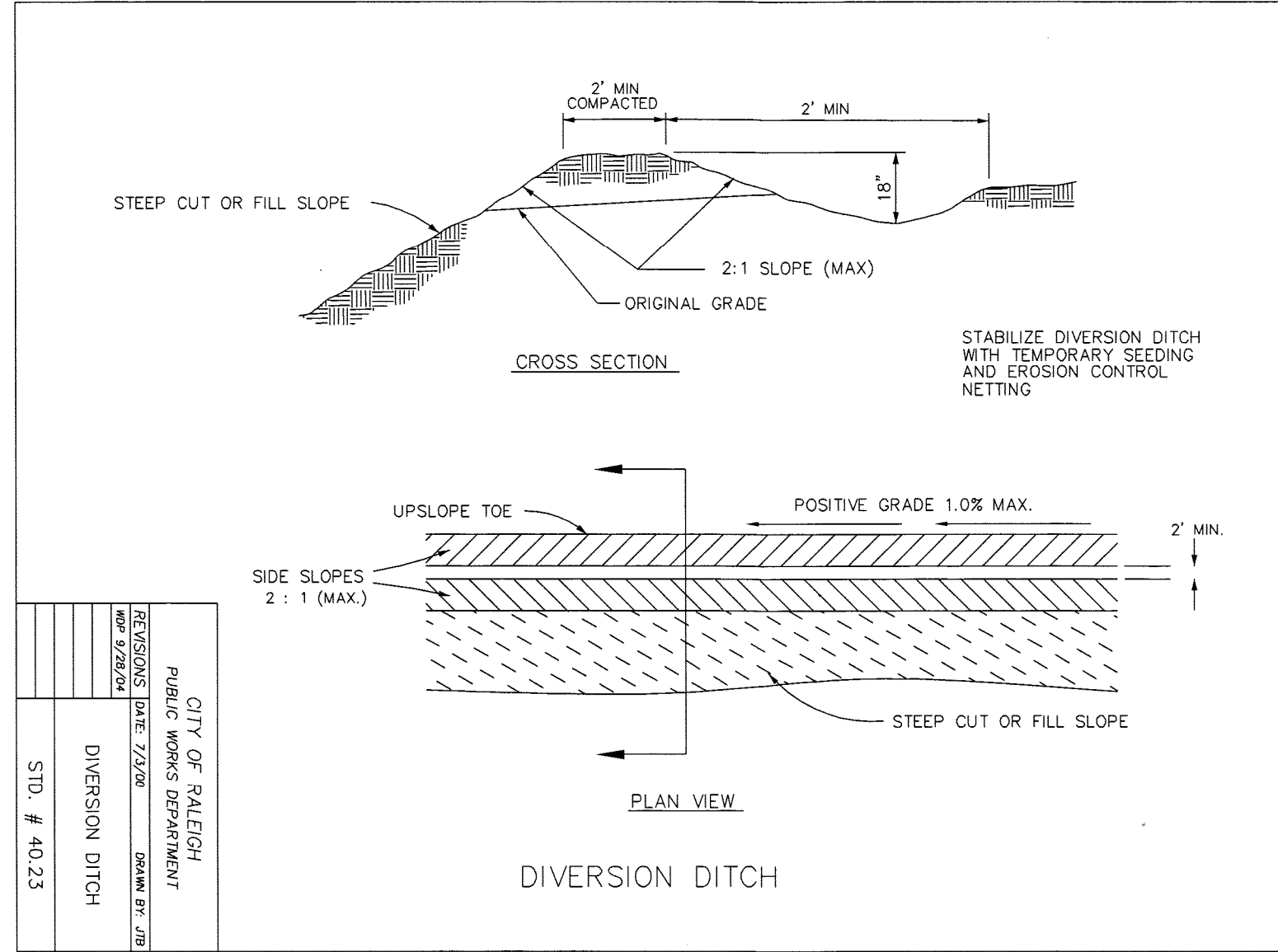
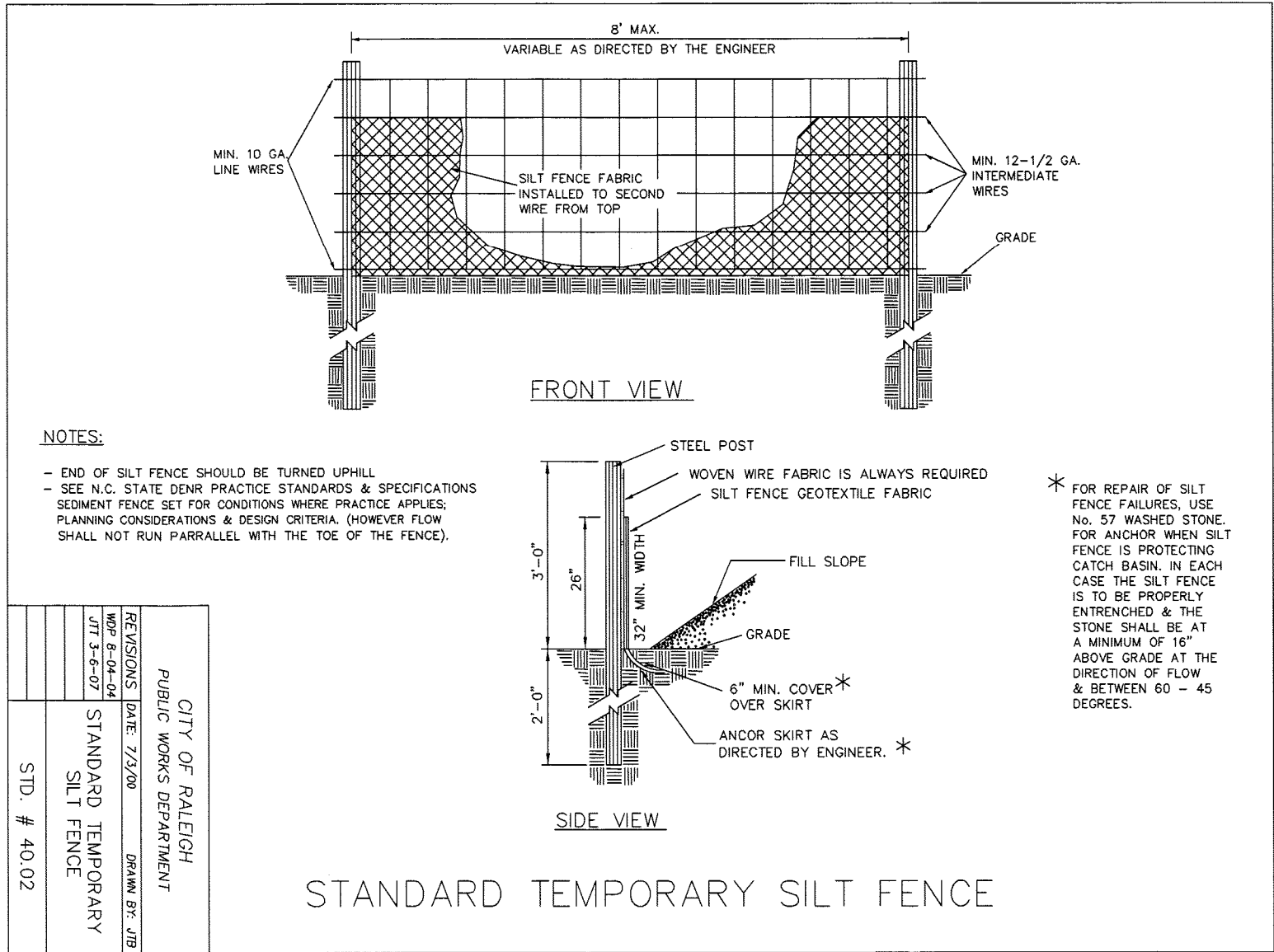
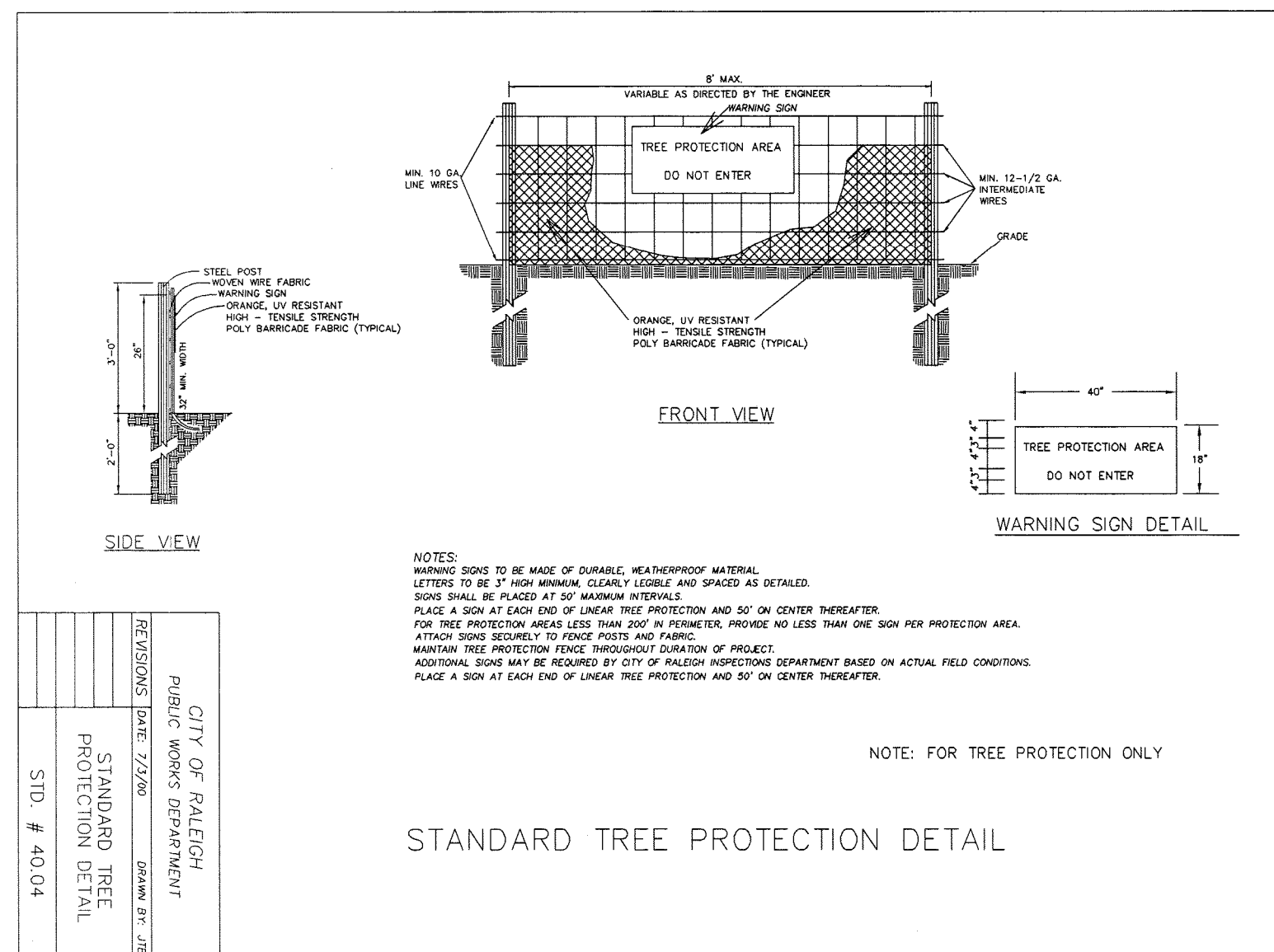
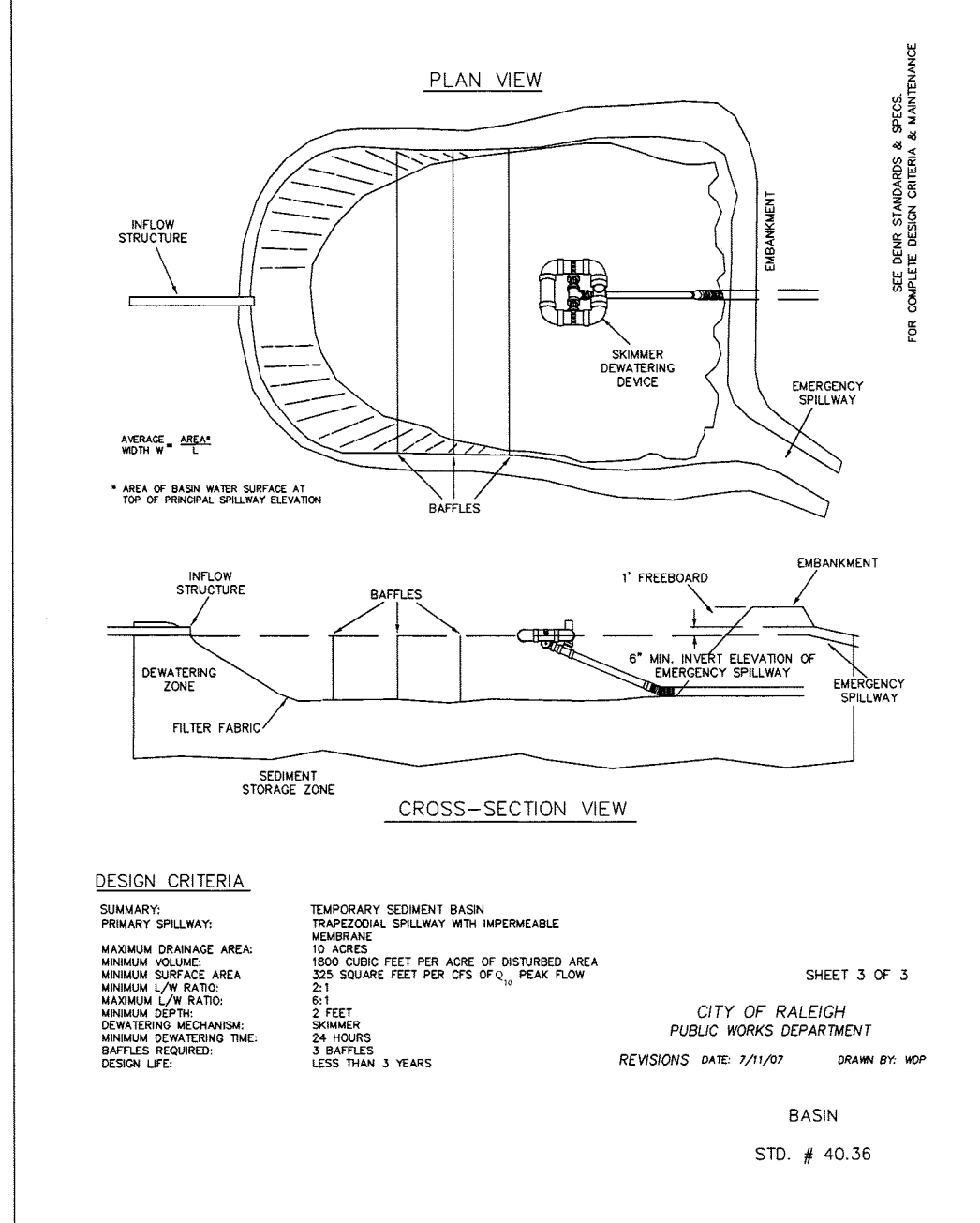
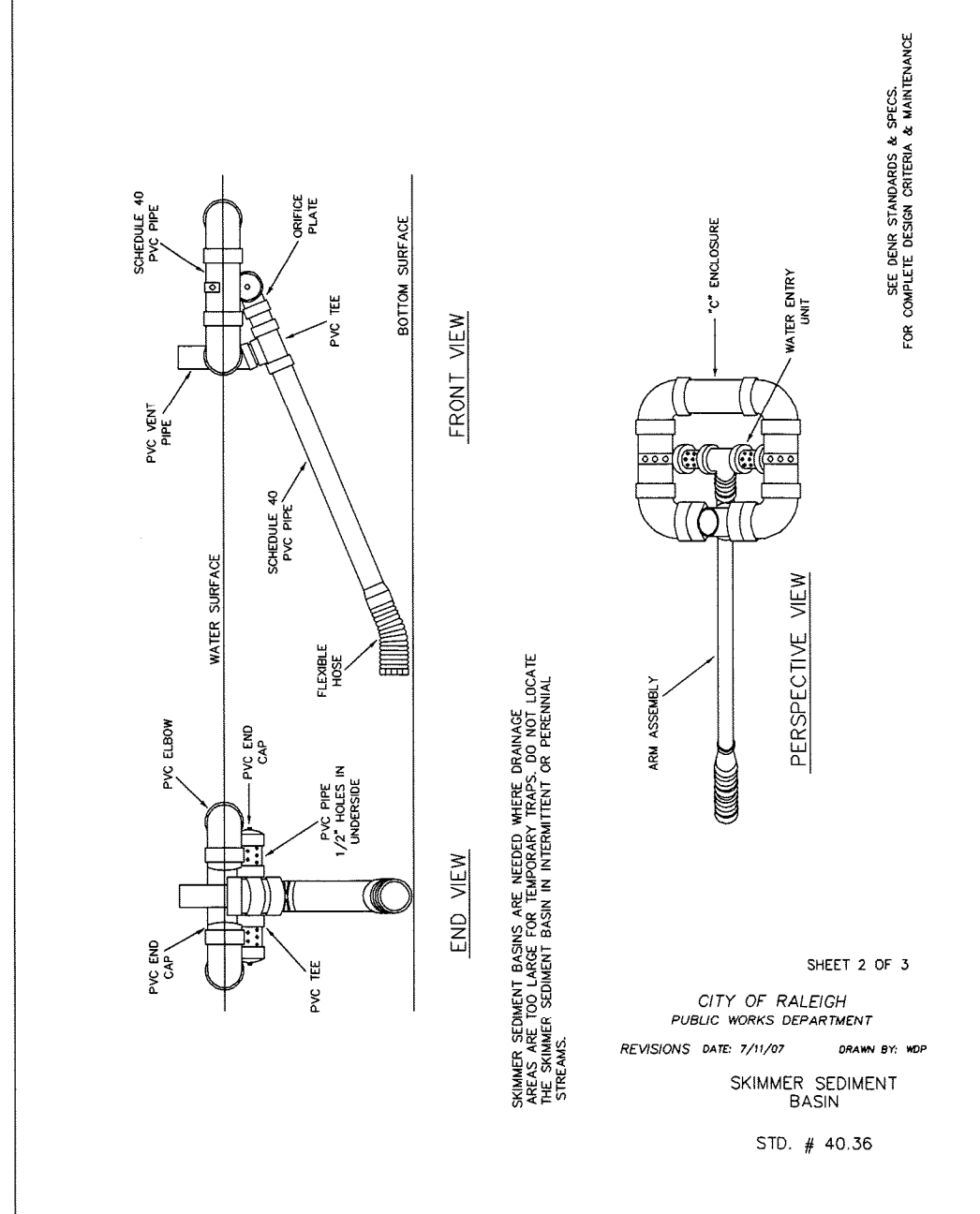
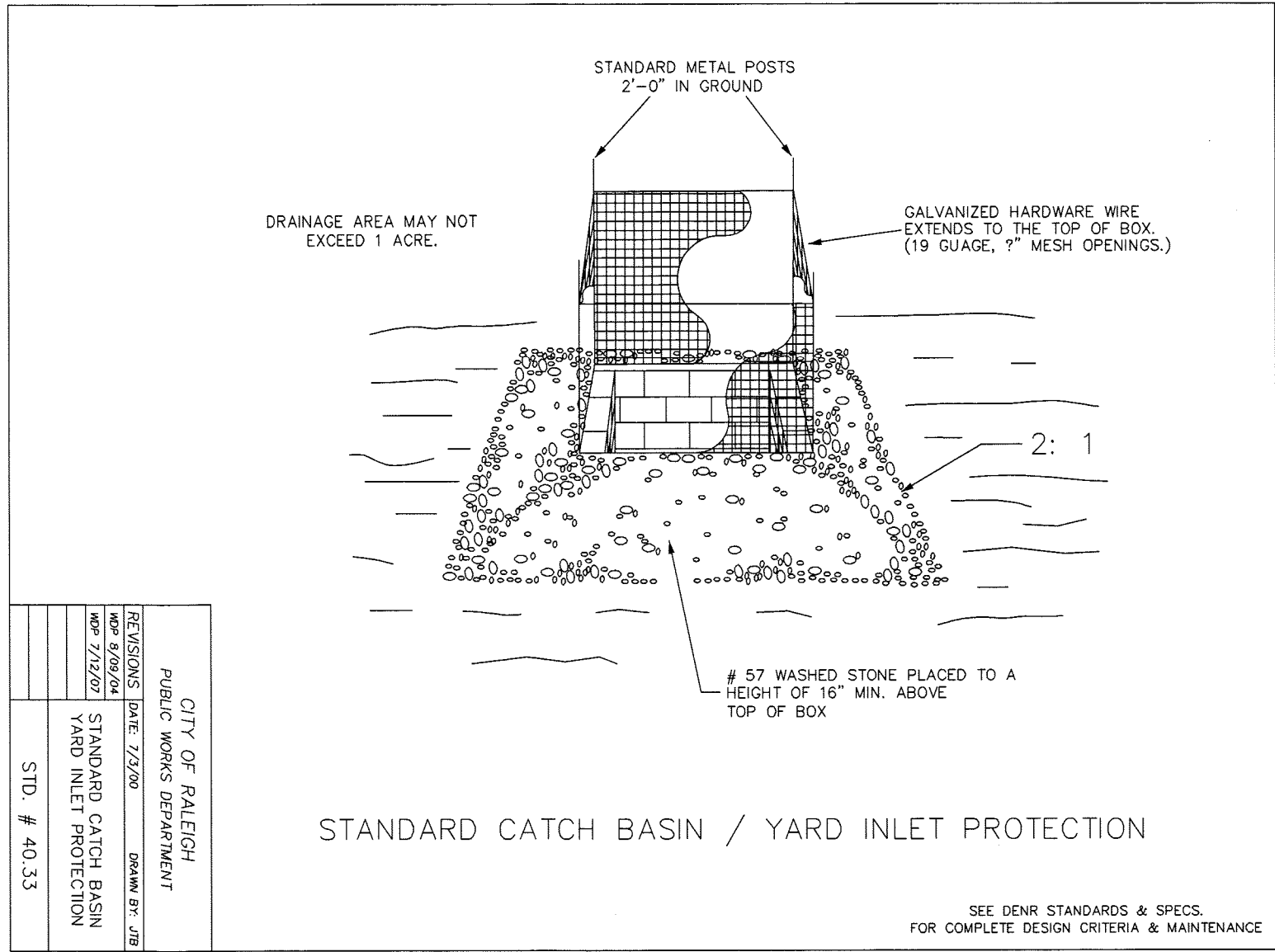
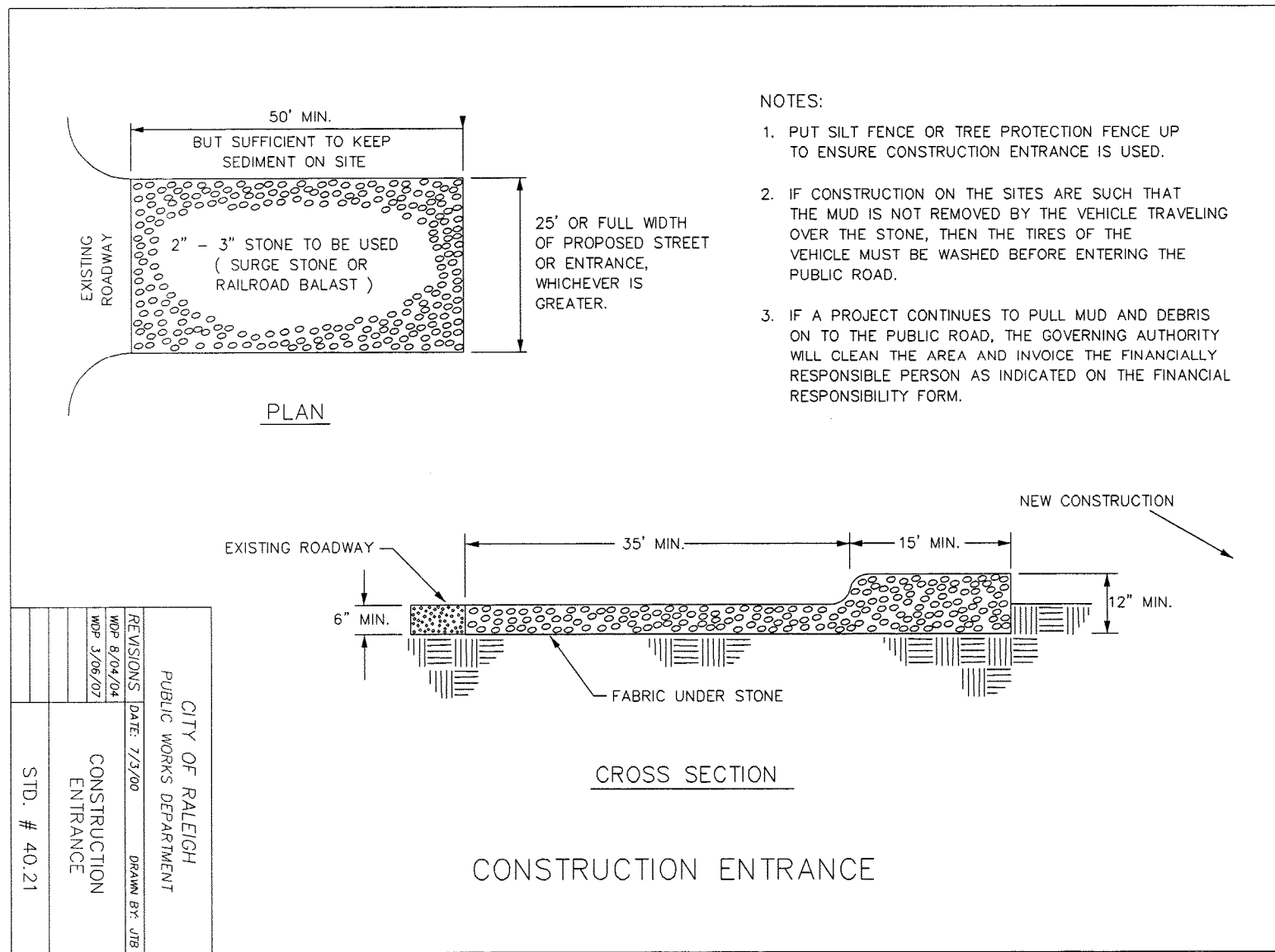
DATE	REVISION	BY
8/22/11	addressed city comments	jtc
7/25/11	addressed city comments	jtc
6/9/11	revised grading plan	jtc



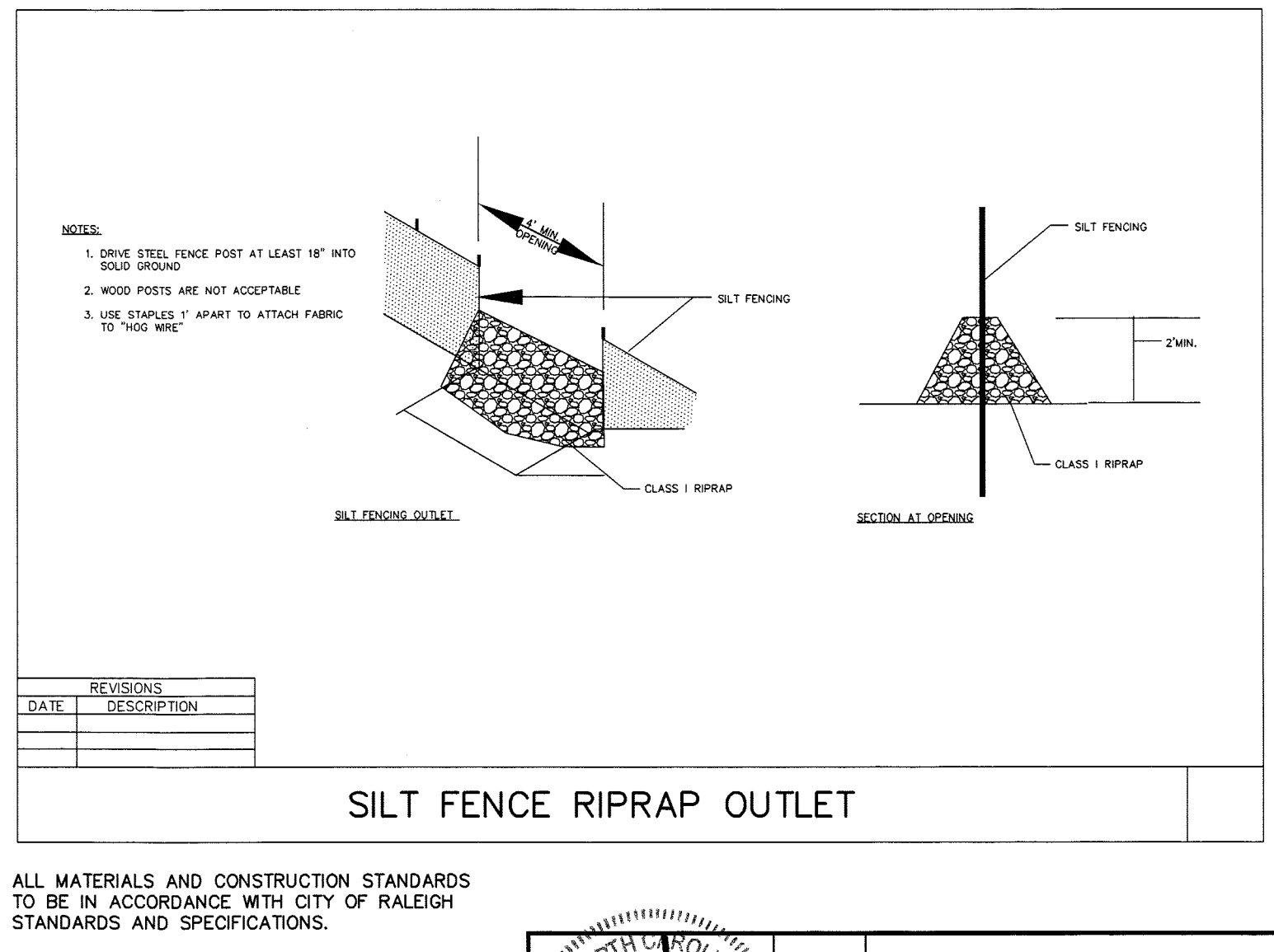
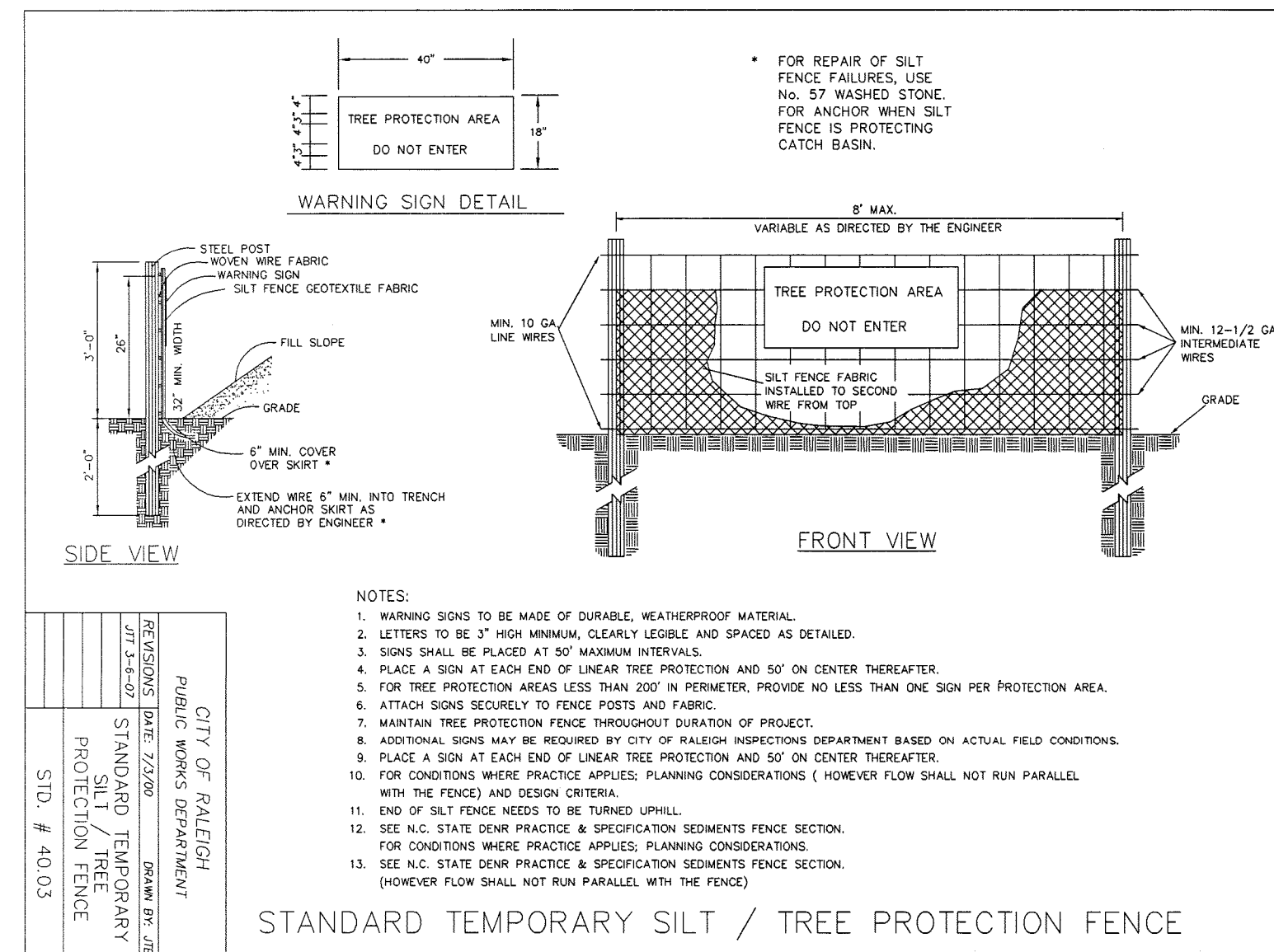
JOHN A. EDWARDS & COMPANY
Consulting Engineers
NC License F-0289
333 Wade Ave., Raleigh, NC 27605
Phone (919) 828-4428
FAX (919) 828-4711
E-mail info@jaeco.com

SCALE: 1" = 30'	DATE: 6/20/11
FLD. BK. & PAGE	DRAWN BY: TSG
FILE NO.	CHECKED BY: JAE, JR.

PROPERTY OF: ST. GREGORIOS MALANKARA ORTHODOX SYRIAN CHURCH	SHEET C-5.2
RALEIGH WAKE COUNTY NORTH CAROLINA	EROSION CONTROL PLAN -PHASE 2



- Seedbed Preparation**
- 1.) Chisel compacted areas and spread topsoil 3 inches deep over adverse soil conditions, if available.
 - 2.) Rip the entire area to 6 inches depth.
 - 3.) Remove all loose rock, roots, and other obstructions leaving surface reasonably smooth and uniform.
 - 4.) Apply agricultural lime, fertilizer, and superphosphate uniformly and mix with soil (see below*).
 - 5.) Continue tillage until a well-pulverized, firm, reasonable uniform seedbed is prepared 4 to 6 inches deep.
 - 6.) Seed on a freshly prepared seedbed and cover seed lightly with seeding equipment or cultipack after seeding.
 - 7.) Mulch immediately after seeding and anchor mulch.
 - 8.) Inspect all seeded areas and make necessary repairs or reseeding within the planting season, if possible. If stand should be over 60% damage, reestablish following lime, fertilizer and seeding rates.
 - 9.) Consult Conservation Inspector on maintenance treatment and fertilization after permanent cover is established
- * Apply: Agricultural limestone - 2 tons/acre (3 tons/acre in clay soils)
 Fertilizer - 1,000 lbs./acre -10-10-10
 Superphosphate - 500 lbs./acre - 20% analysis
 Mulch - 2 tons/acre - small grain straw
 Anchor - Asphalt Emulsion @ 300 gals./ acre



SEEDING SCHEDULE

TABLE 4.2
SHOULDERS, SIDE DITCHES, SLOPES
(3:1 TO 2:1)

DATE	TYPE	PLANTING RATE
MARCH 1 - JUNE 1	SERICEA LESPEDEZA (SCARIFIED)	50 LBS/ACRE
MARCH 1 - APRIL 15	ADD TALL FESCUE	120 LBS/ACRE
MARCH 1 - JUNE 30	ADD WHITE PINE	10 LBS/ACRE
MARCH 1 - JUNE 30	ADD HALLS COMMON BERMUDAGRASS	25 LBS/ACRE
JUNE 1 - SEPTEMBER 1	***TALL FESCUE AND ***BROWNSTOP WILLET	120 LBS/ACRE
SEPTEMBER 1 - MARCH 1	SERICEA LESPEDEZA (UNMULCHED-UNSCARIFIED)	70 LBS/ACRE
	ADD TALL FESCUE	120 LBS/ACRE
	ADD MULCH	25 LBS/ACRE

CONSULT EROSION CONTROL ENGINEER OR SOIL CONSERVATION SERVICE FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. THE ABOVE VEGETATION RATES ARE THOSE WHICH DO WELL UNDER LOCAL CONDITIONS; OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE.

***TEMPORARY - RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW OVER 12 INCHES IN HEIGHT BEFORE MOWING, OTHERWISE FESCUE MAY BE SHAKED OUT.

TABLE 4.1
SHOULDERS, SIDE DITCHES, SLOPES
(MAX. 3:1)

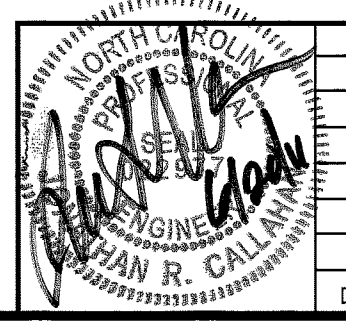
DATE	TYPE	PLANTING RATE
AUG 15 - NOV 1	TALL FESCUE	300 LBS/ACRE
NOV 1 - APR 1	TALL FESCUE AND ABRUZZO RYE	300 LBS/ACRE
MAY 1 - APR 15	TALL FESCUE	300 LBS/ACRE
APR 15 - JUNE 30	HALLS COMMON BERMUDAGRASS	25 LBS/ACRE
JULY 15 - AUG 15	TALL FESCUE AND ***BROWNSTOP WILLET	35 LBS/ACRE

CONSULT EROSION CONTROL ENGINEER OR SOIL CONSERVATION SERVICE FOR ADDITIONAL INFORMATION CONCERNING OTHER ALTERNATIVES FOR VEGETATION OF DENUDED AREAS. THE ABOVE VEGETATION RATES ARE THOSE WHICH DO WELL UNDER LOCAL CONDITIONS; OTHER SEEDING RATE COMBINATIONS ARE POSSIBLE.

***TEMPORARY - RESEED ACCORDING TO OPTIMUM SEASON FOR DESIRED PERMANENT VEGETATION. DO NOT ALLOW TEMPORARY COVER TO GROW OVER 12 INCHES IN HEIGHT BEFORE MOWING, OTHERWISE FESCUE MAY BE SHAKED OUT.

HANDICAP RAMPS TO BE CONSTRUCTED AT ALL INTERSECTIONS IN ACCORDANCE WITH CITY OF RALEIGH STANDARDS AND ADA SPECIFICATIONS.

FIRE HYDRANTS & WATER METERS SHALL BE LOCATED WITHIN STREET R/W



DATE	REVISION	BY

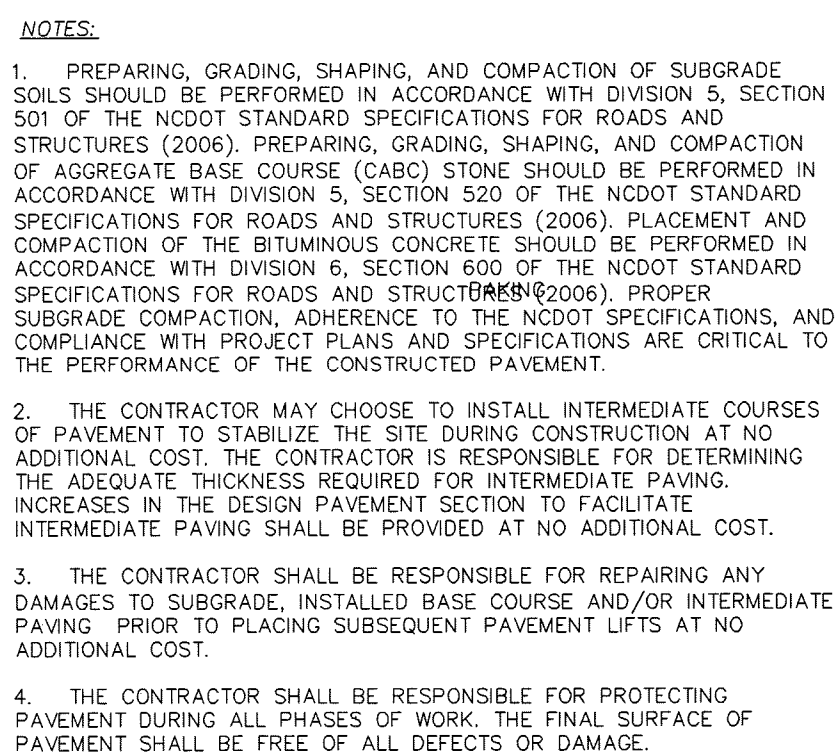
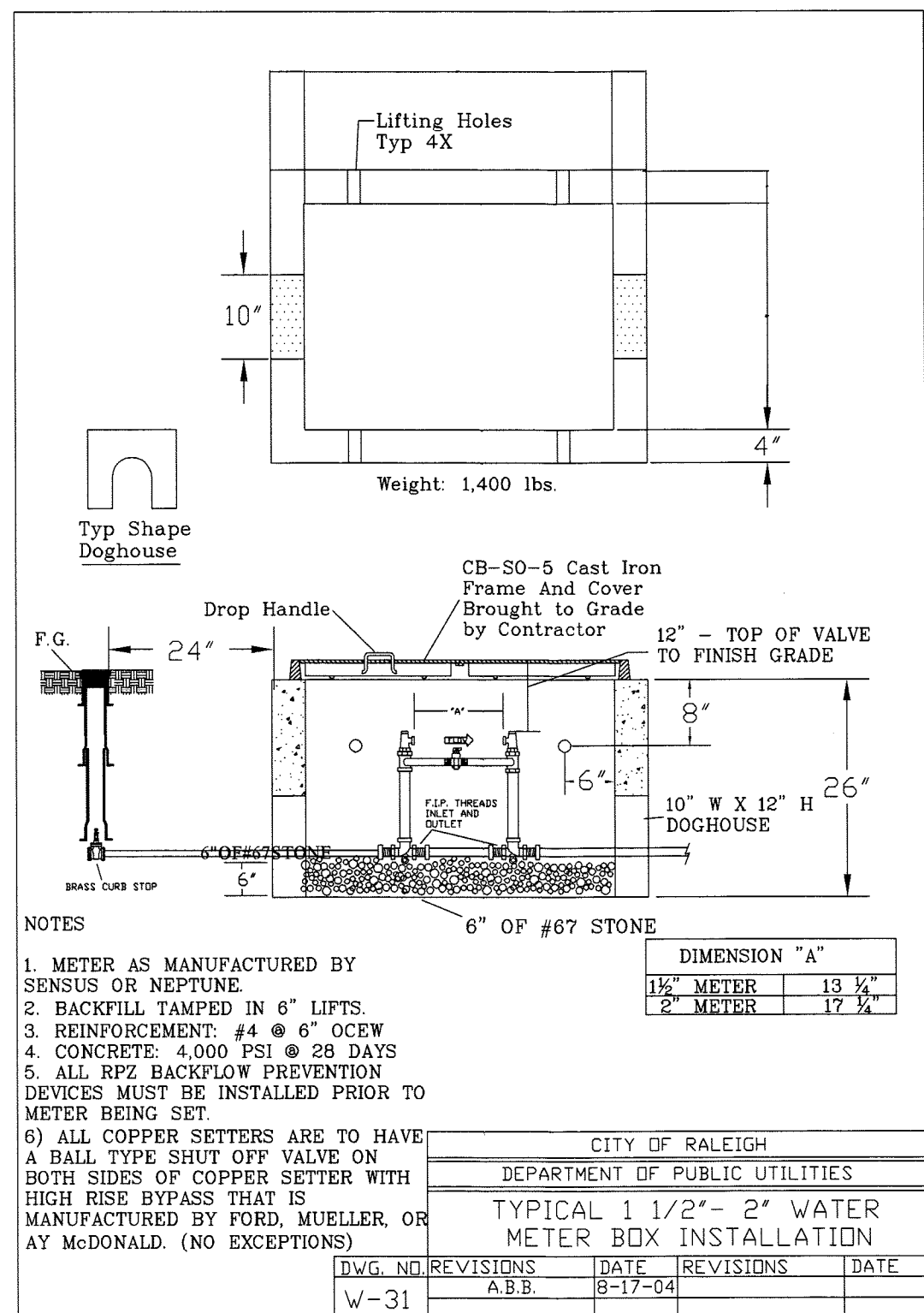
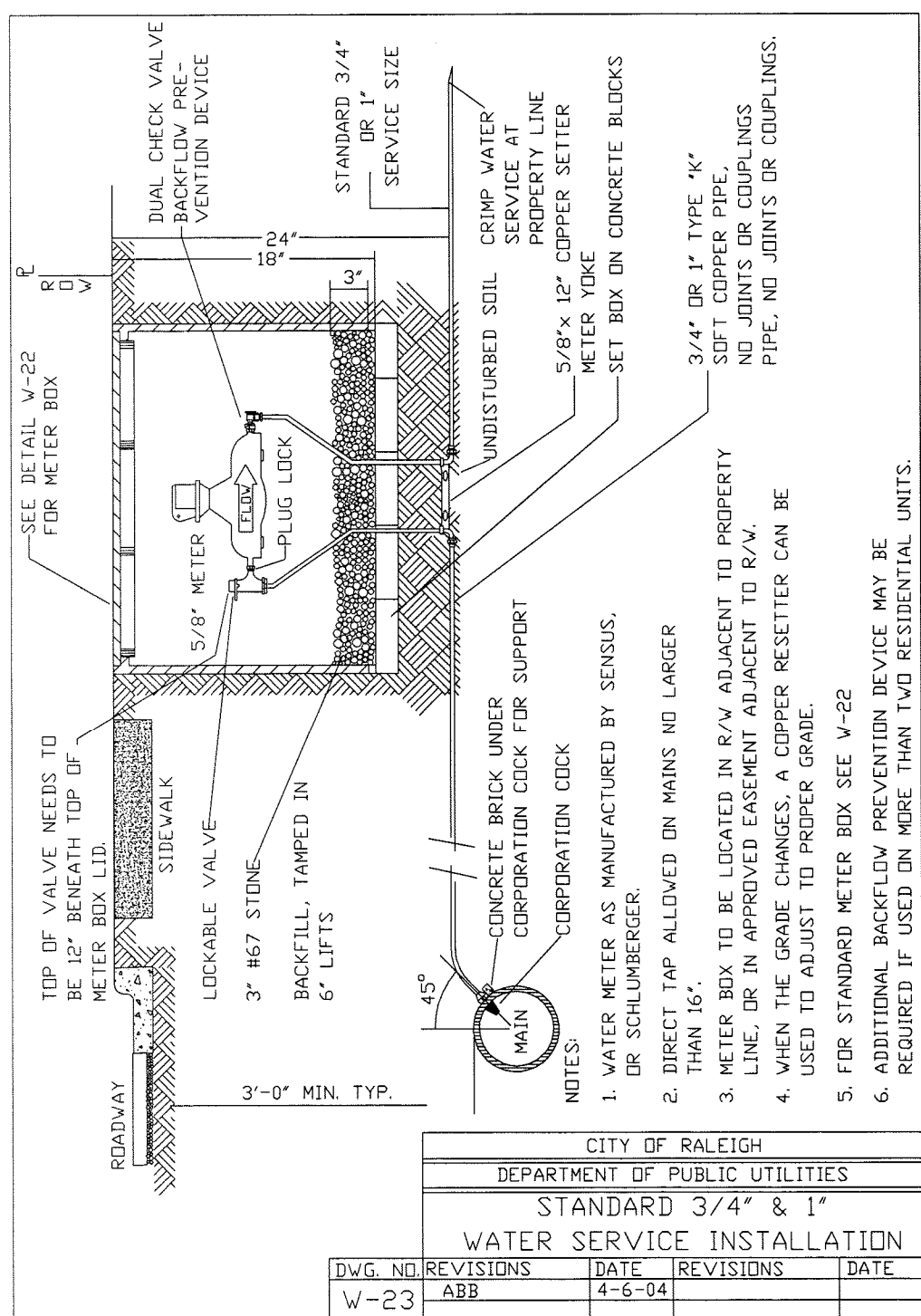
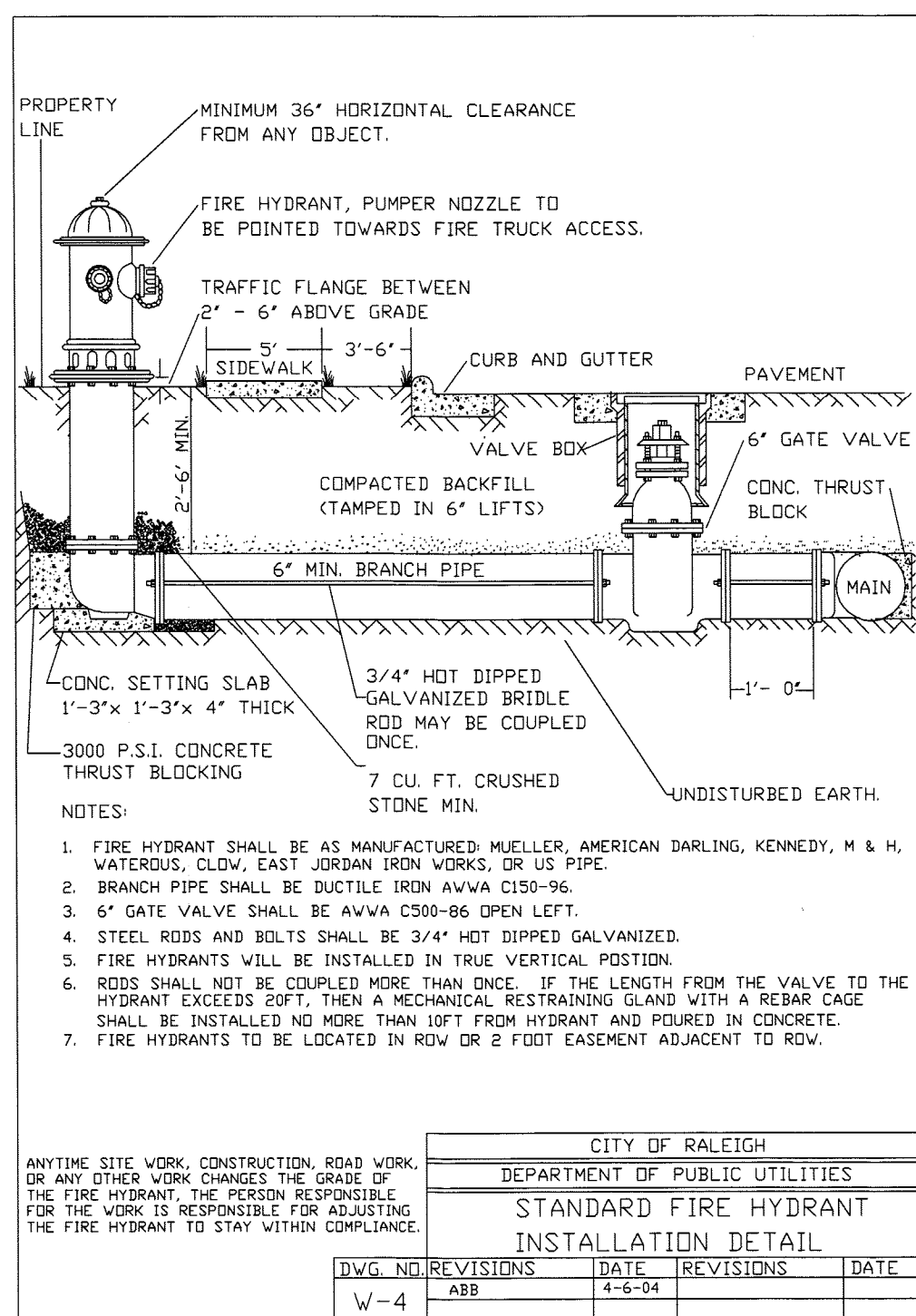
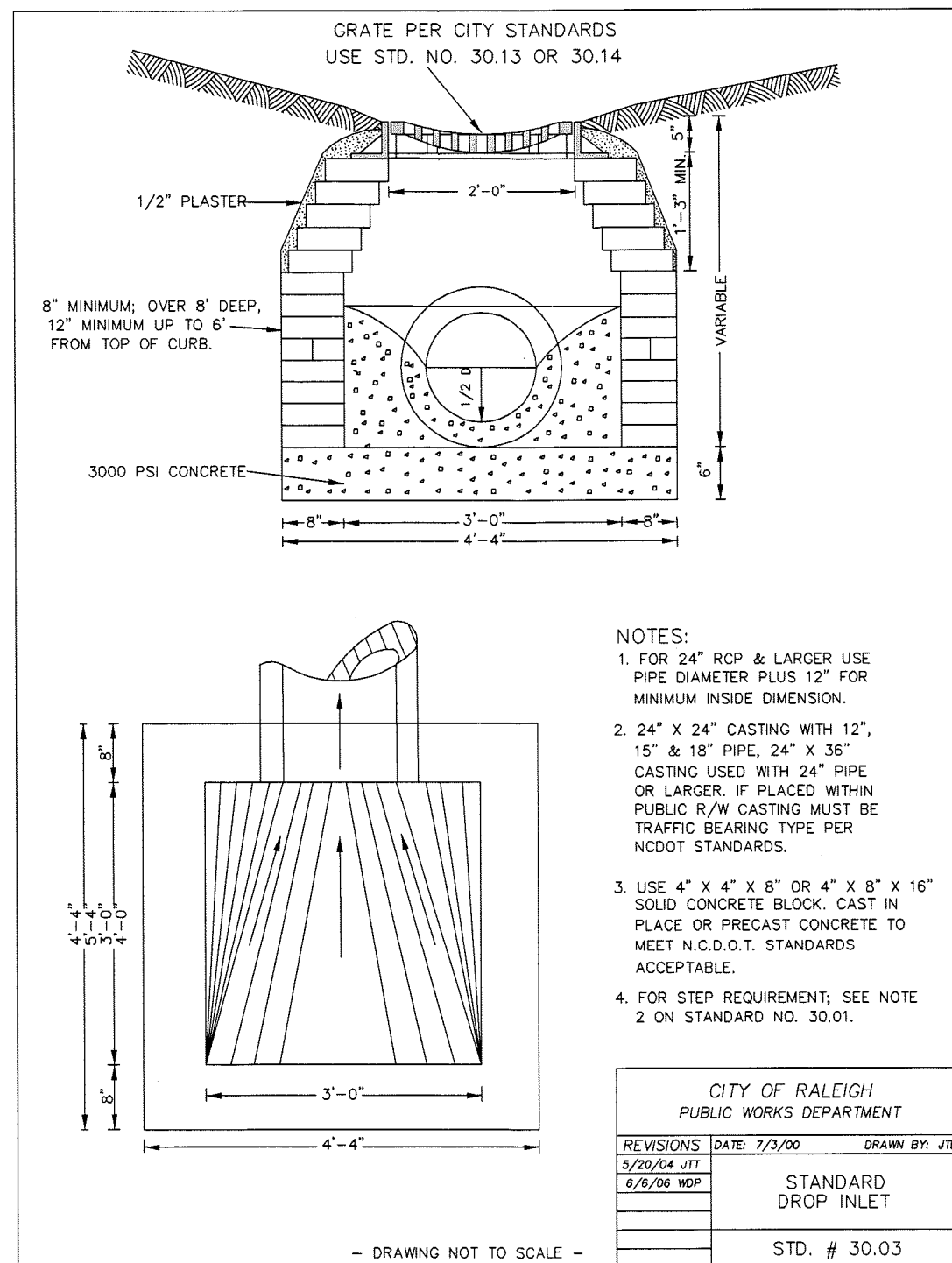
JOHN A. EDWARDS & COMPANY
 Consulting Engineers
 NC License F-0289
 333 Wade Ave, Raleigh, NC 27605
 Phone (919) 828-4428
 FAX (919) 828-4771
 E-mail info@jaeco.com

SCALE: 1" = 20'	DATE: 8/20/11
FILE NO.:	CHECKED BY: JAE, JR.

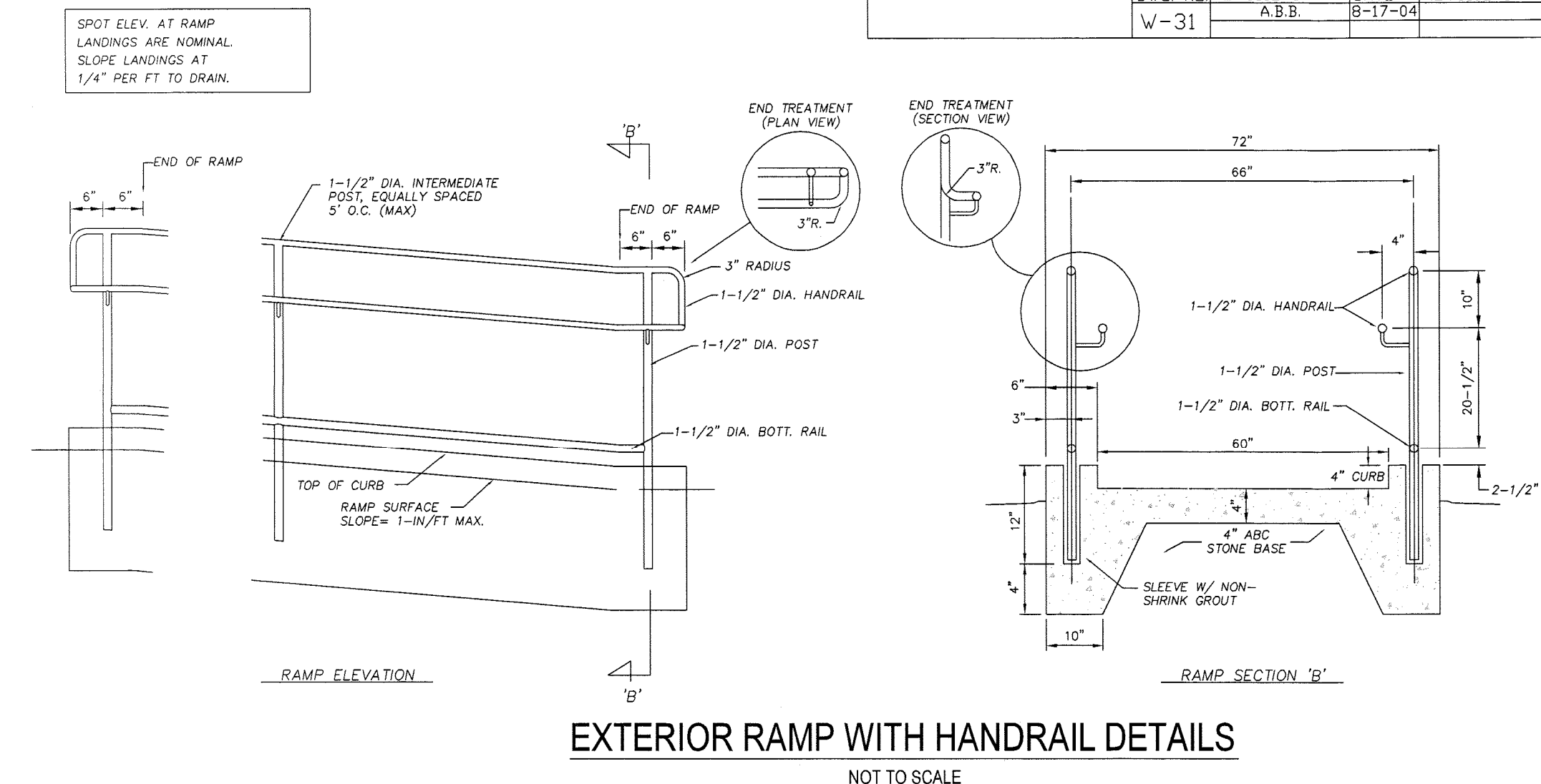
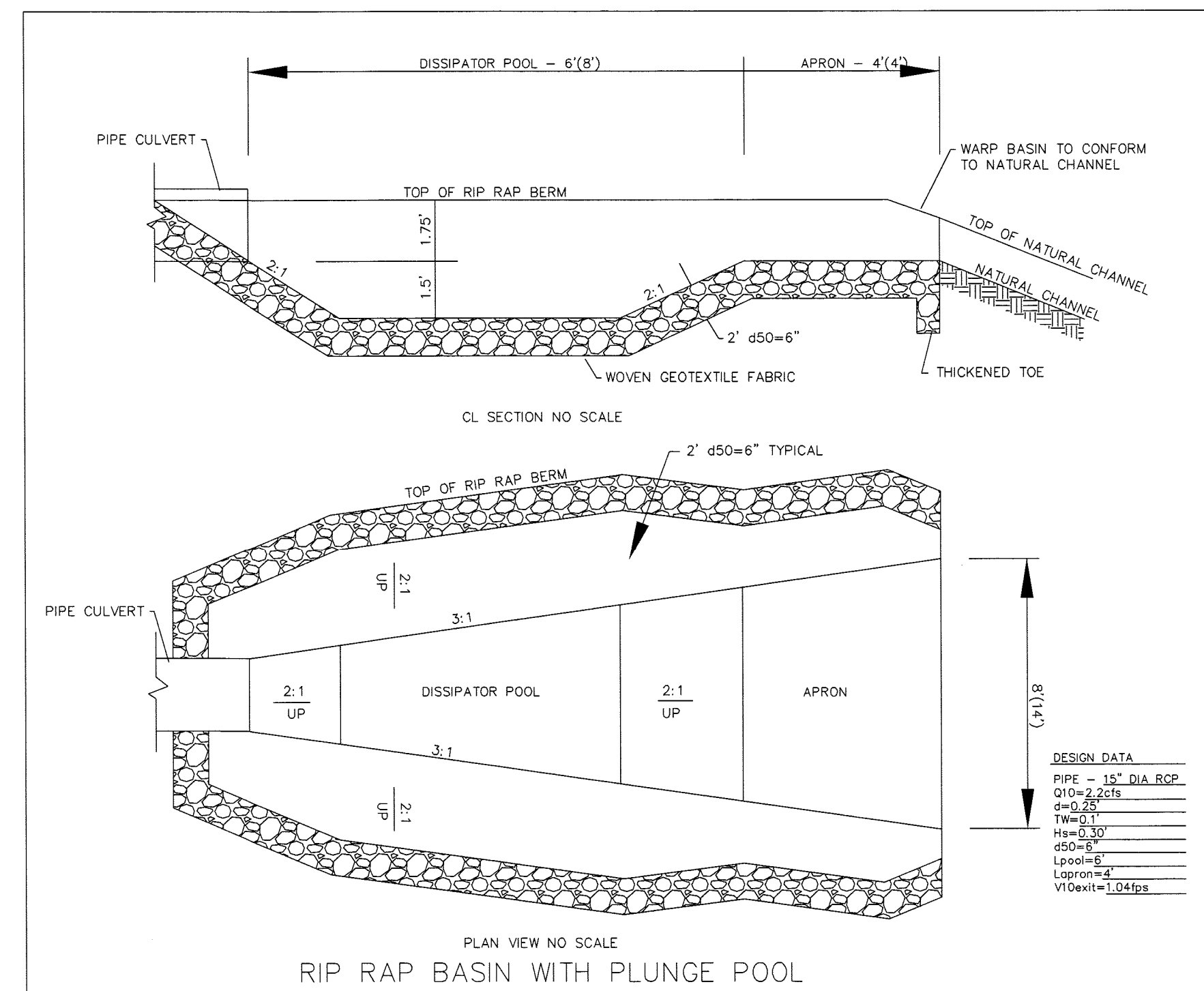
PROPERTY OF:
 ST. GREGORIOS MALANKARA
 ORTHODOX SYRIAN CHURCH

RALEIGH
 WAKE COUNTY
 NORTH CAROLINA

EROSION CONTROL DETAILS



NOT TO SCALE



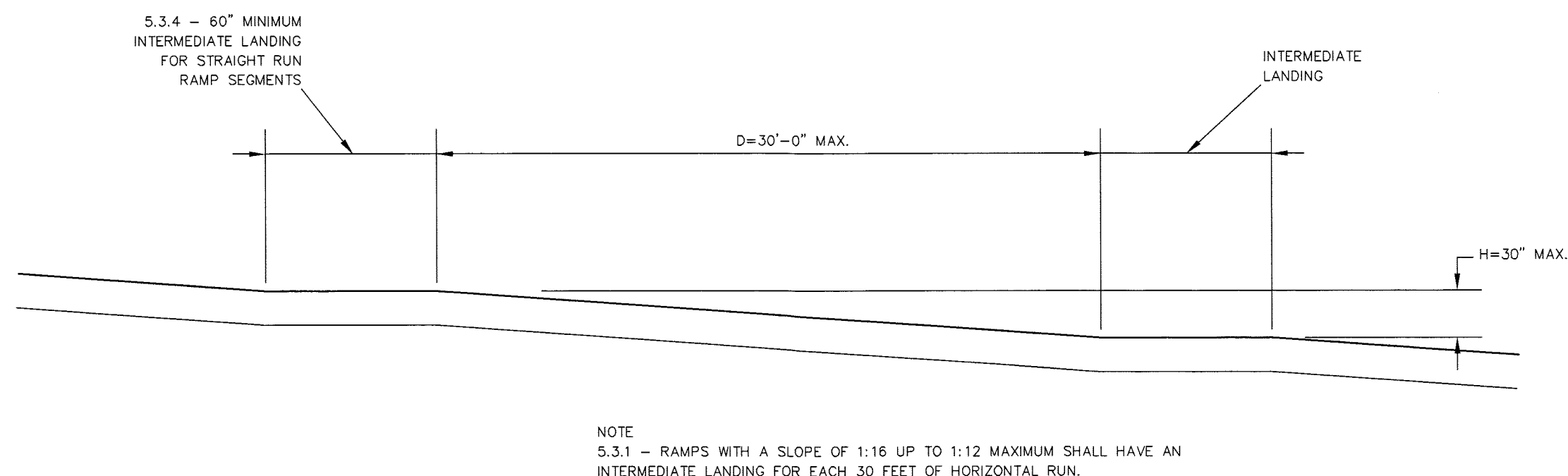
NOTES

CONCRETE SHALL BE 3,000-PSI @ 28 DAYS.

PROVIDE NO-SLIP BROOM FINISH PERPENDICULAR TO
DIRECTION OF TRAVEL.

HANDRAILS SHALL BE CONSTRUCTED IN ACCORDANCE WITH NC BUILDING CODE VOLUME 1, SECTION 1007.5.

12 IN. SLEEVES SHALL BE HOT-DIP GALVANIZED STEEL PIPE (ASTM A53) NOT LESS THAN 1/2 IN. MORE THAN OUTSIDE DIMENSION OF POST AND FLAT STEEL PLATE FORMING BOTTOM CLOSURE. FILL VOIDS BETWEEN POST AND SLEEVE WITH NONSHRINK ANCHORING CEMENT MIXED AND PLACED TO COMPLY WITH ANCHORING MATERIAL MANUFACTURER'S RECOMMENDATIONS. FINISHED SLOPE TO DRAIN AWAY FROM POST.



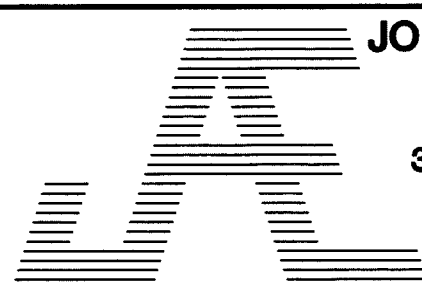
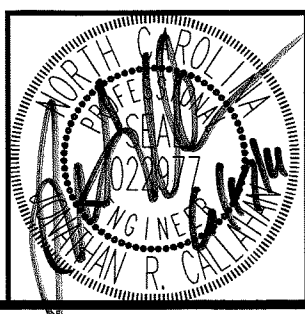
NOTE

5.3.1 - RAMPS WITH A SLOPE OF 1:16 UP TO 1:12 MAXIMUM SHALL HAVE AN INTERMEDIATE LANDING FOR EACH 30 FEET OF HORIZONTAL RUN.

ALL MATERIALS AND CONSTRUCTION STANDARDS
TO BE IN ACCORDANCE WITH CITY OF RALEIGH
STANDARDS AND SPECIFICATIONS.

HANDICAP RAMPS TO BE CONSTRUCTED AT ALL INTERSECTIONS IN ACCORDANCE WITH CITY OF RALEIGH STANDARDS AND ADA SPECIFICATIONS.

FIRE HYDRANTS & WATER METERS SHALL BE
LOCATED WITHIN STREET R/W



JOHN A. EDWARDS & COMPANY
Consulting Engineers
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SCALE: <u>1" = 20'</u>	DATE: <u>6/20/11</u>
FLO. SK. & PAGE <u> </u>	DRAWN BY: <u>TSG</u>
FILE NO: <u> </u>	CHECKED BY: <u>JAE, JR.</u>

PROPERTY OF:

ORTHODOX SYRIAN CHURCH

RALEIGH

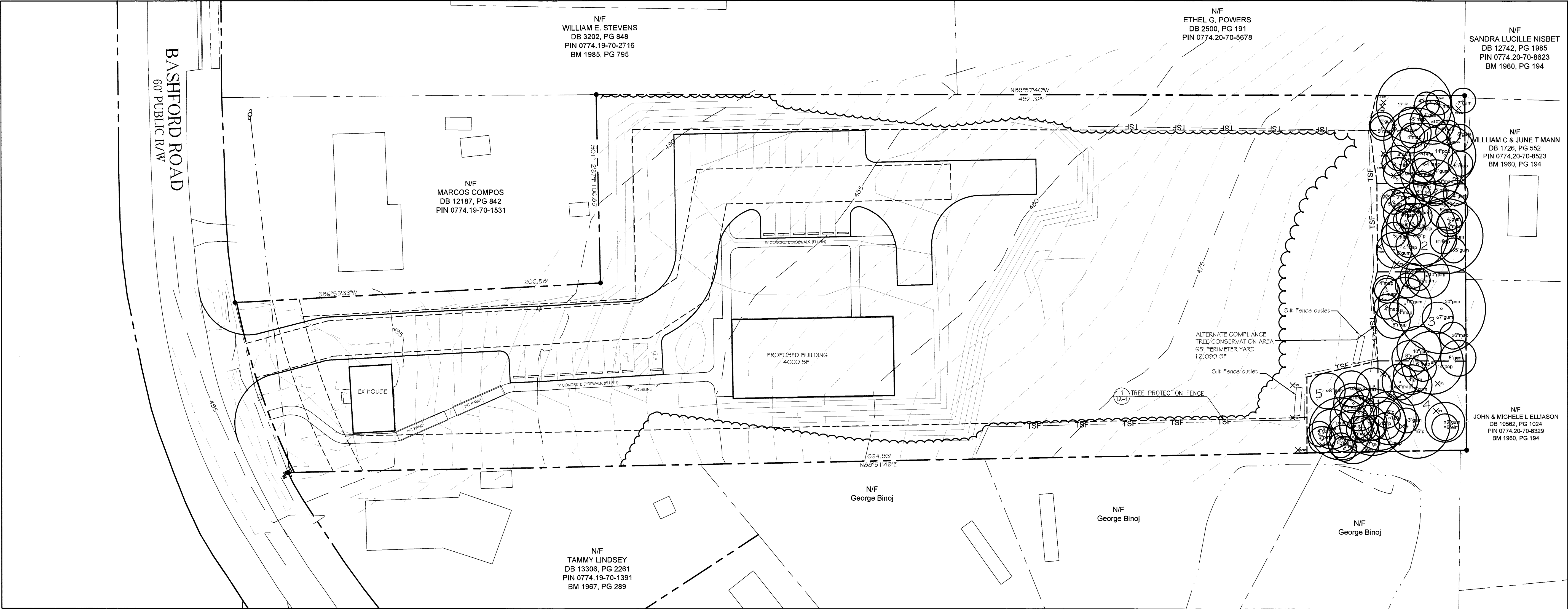
WAKE COUNTY

NORTH CAROLINA

SITE DETAILS

2.45

C-7



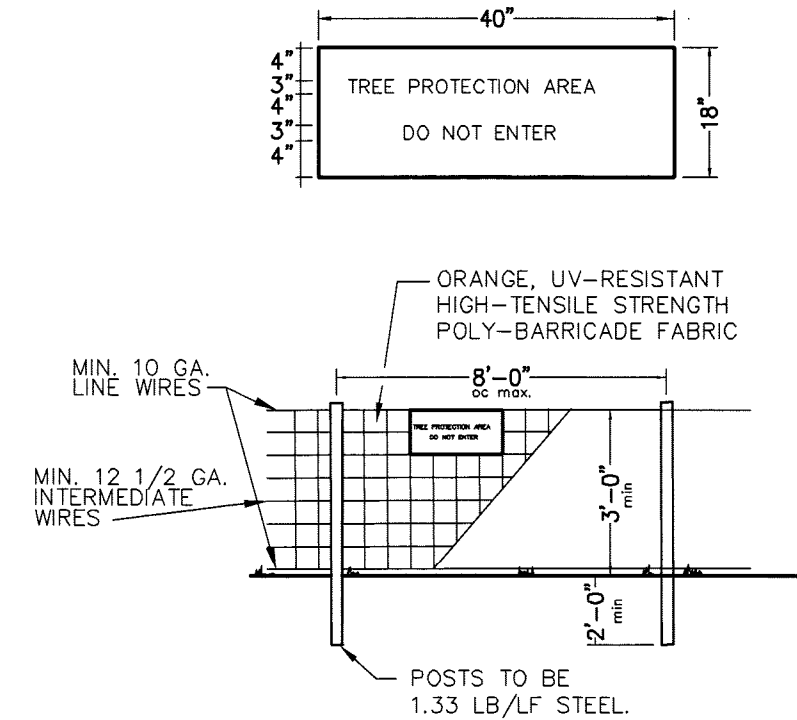
SECTION 1
COMPOSITION: MIXED STAND OF 24+ TREES: GUM, MAPLE, PINE, AND ELM
CHARACTERISTICS OF TREE STAND: PINE AND HARDWOOD, GENTLY SLOPING
SMALLEST CALIPER TREE: 3"
LARGEST DBH: 15"
TYPICAL DBH: 4-5"
TYPICAL SPACING: 10'
BASAL AREA CALCULATION / ACRE: 100.06
GENERAL HEALTH: GOOD

SECTION 2
COMPOSITION: MIXED STAND OF 22+ TREES: MAPLE, GUM AND PINE
CHARACTERISTICS OF TREE STAND: PINE AND HARDWOOD, GENTLY SLOPING
SMALLEST CALIPER TREE: 3"
LARGEST DBH: 16"
TYPICAL DBH: 4-6"
TYPICAL SPACING: 10'
BASAL AREA CALCULATION / ACRE: 126.77
GENERAL HEALTH: GOOD

SECTION 3
COMPOSITION: MIXED STAND OF 14+ TREES: GUM AND MAPLE
CHARACTERISTICS OF TREE STAND: HARDWOOD ON A GENTLE SLOPE
SMALLEST CALIPER TREE: 3"
LARGEST DBH: 20"
TYPICAL DBH: 4-5"
TYPICAL SPACING: 20'
BASAL AREA CALCULATION / ACRE: 102.63
GENERAL HEALTH: GOOD

SECTION 4
COMPOSITION: MIXED STAND OF 13+ TREES: GUM, MAPLE, PINE, ELM
CHARACTERISTICS OF TREE STAND: PINE AND HARDWOOD, GENTLY SLOPING
SMALLEST CALIPER TREE: 3"
LARGEST DBH: 14"
TYPICAL DBH: 6"
TYPICAL SPACING: 10'
BASAL AREA CALCULATION / ACRE: 109.47
GENERAL HEALTH: GOOD

SECTION 5
COMPOSITION: MIXED STAND OF 20+ TREES: GUM, PINE, MAPLE, SYCAMORE
CHARACTERISTICS OF TREE STAND: PINE AND HARDWOOD, GENTLY SLOPING
SMALLEST CALIPER TREE: 3"
LARGEST DBH: 10"
TYPICAL DBH: 6"
TYPICAL SPACING: 10'
BASAL AREA CALCULATION / ACRE: 145.10
GENERAL HEALTH: GOOD

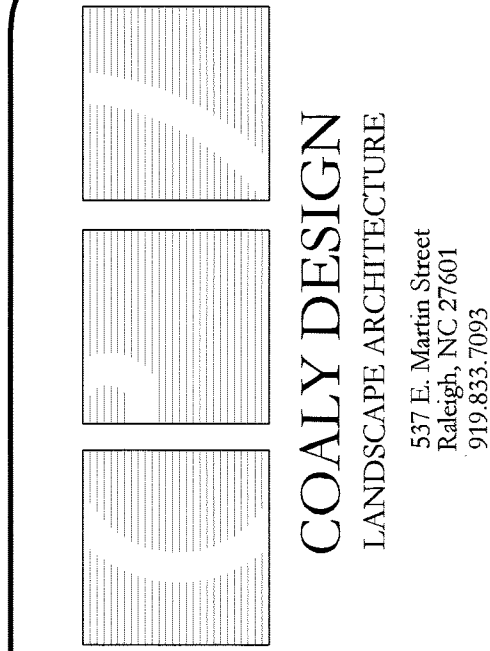


1 TREE PROTECTION FENCE
NTS

- NOTES:
- Warning signs to be made of durable weatherproof material.
 - Letters are to be 3" high min. clearly legible and spaced as detailed.
 - Signs are to be placed at 50' max. intervals.
 - Place sign at each end of linear tree protection areas and 50' oc thereafter.
 - For tree protection areas less than 200' in perimeter, provide no less than one sign per protection area.
 - Attach signs securely to fence posts and fabric.
 - Maintain tree protection fence throughout duration of project.
 - Additional signs may be required by the City of Raleigh Inspections Department based on actual field conditions.
 - Install fencing and signage prior to calling for the initial on-site inspection by the City of Raleigh Zoning Inspector.
 - Place a sign at each end of linear tree protection and 50' O.C. thereafter

Total Site Acres: 2.75 Acres or 119,790 SF
x 10% = 11,979 SF of required Tree Conservation Area
Alternate Compliance Tree Conservation Area = 12,099 SF

TREE CONSERVATION PLAN



St. Gregorios
Malankara Orthodox
Syrian Church
225 Bashford Road
RALEIGH, NC

Tree Conservation Plan

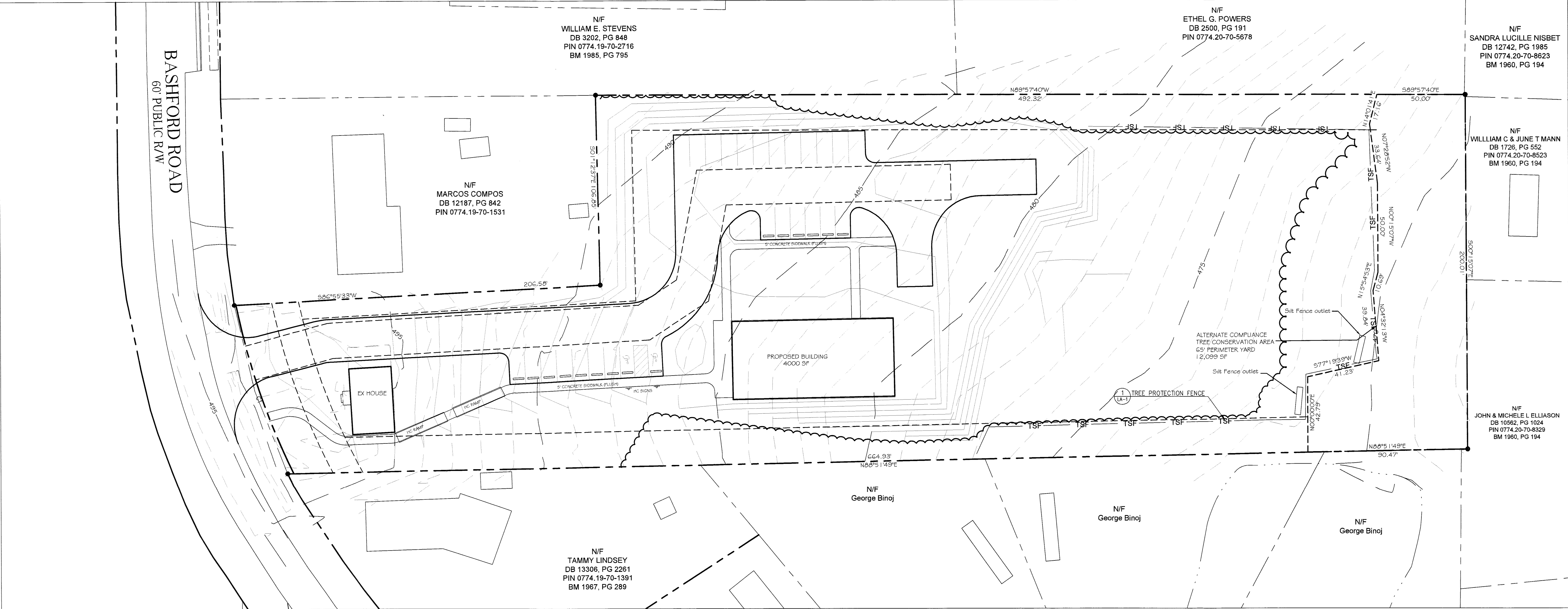
Consultants

Professional Seals

Date issued:	6.28.11	Scale	1"=30'
By	RBS	Drawn by:	KJS
Date	6.23.11	Checked by:	
No.	1	Per City Comments	

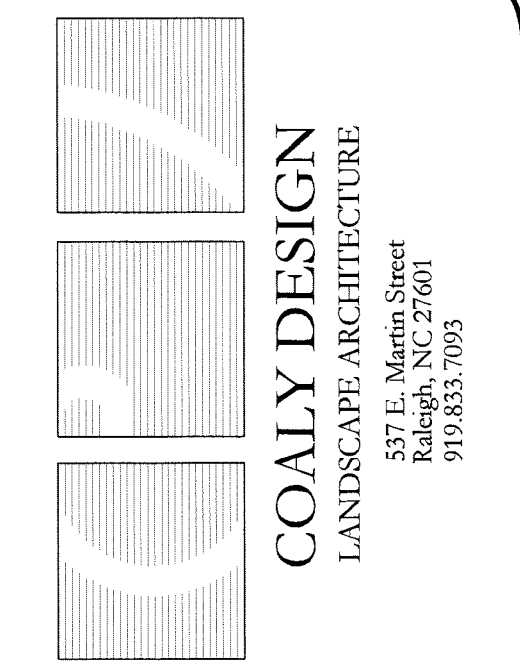
Revisions

LA-1



Total Site Acres: 2.75 Acres or 119,790 SF
x 10% = 11,979 SF of required Tree Conservation Area
Alternate Compliance Tree Conservation Area = 12,099 SF

TREE CONSERVATION PLAN
Metes and Bounds



**St. Gregorios
Malankara Orthodox
Syrian Church**
225 Bashford Road
RALEIGH, NC

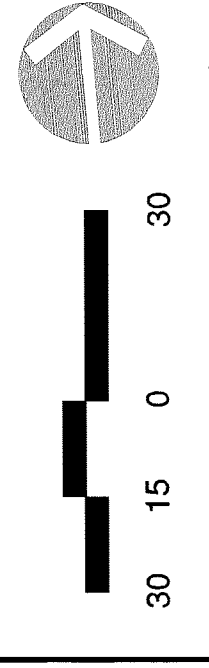
Tree Conservation Plan

Consultants

Professional Seals



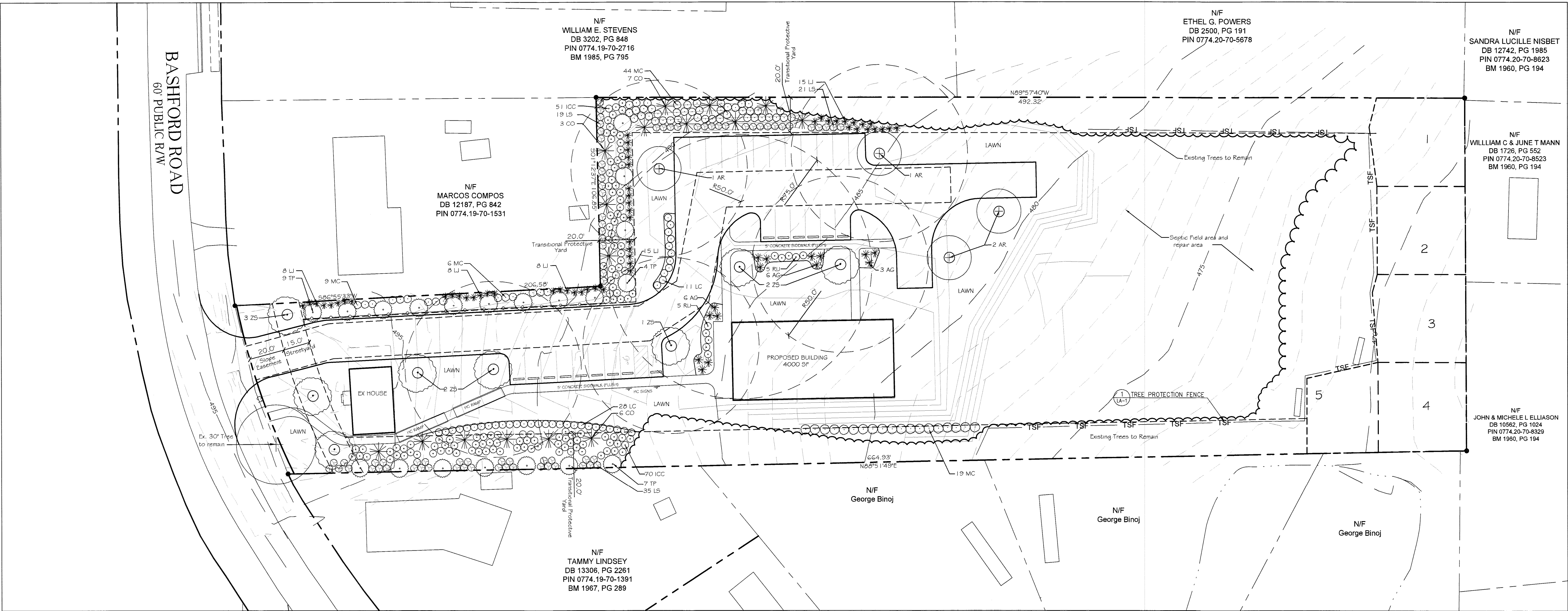
Date Issued:		6.28.11
Scale:		1"=30'
Drawn by:		RBS
Checked by:		KJS



Revisions

No.	Description	Date
1	Per City Comments	8.23.11

LA-2



PLANT SCHEDULE

KEY	BOTANICAL / COMMON NAME	SIZE	ROOT	SPACING
ICC	Ilex crenata 'Compacta' / Japanese Holly	24" HT.	CONT.	4' O.C.
ZS	Zelkova serrata 'Village Green' / Japanese Zelkova	2" Cal. / 6' HT.	CONT. / B & B	as indicated
LJ	Ligustrum japonicum 'Eastbay' / Privet	24" HT.	CONT.	5' O.C.
CO	Chamaecyparis obtusa 'Crripps' / Hinoki Falsecypress	1.5" CAL./4HT.	B & B	as indicated
TP	Thuja plicata 'Green Giant' / Western Arborvitae	6' HT.	B & B	as indicated
LS	Ligustrum sinense 'Swift Creek' / Variegated Privet	24" HT.	CONT.	5' O.C.
MC	Mynca cerifera / Southern Wax Myrtle	24" HT.	CONT.	5' O.C.
AG	Abelia X grandiflora 'Little Richard' / Glossy Abelia	24" HT.	CONT.	5' O.C.
AR	Acer rubrum 'October Glory' / Red Maple	2" Cal. / 6' HT.	CONT. / B & B	as indicated
RU	Rhampholepis umbellata 'Minor' / Indian Hawthorn	18" HT.	CONT.	4' O.C.

PLANTING NOTES:

- All plant materials to comply with American Standard for Nursery Stock ANSI Z60.
- Plant locations to be approved in field prior to installation.
- Substitutions of plant materials specified can only occur with prior approval by Landscape Architect.
- Establish plant bed configurations. Landscape Architect to approve bed layout in field.
- Install plants and mulch beds with 4" of shredded hardwood mulch.
- Establish mulch beds around existing trees to remain.
- Lawn areas to be seeded and strawed.
- Landscape Contractor to maintain plant materials for a one year period following substantial completion.
- Areas damaged from plant relocation or other activities of Landscape Contractor to be reseeded and established at no additional cost to the owner.

TREE SHALL HAVE SAME RELATION TO GRADE AS IT HAD IN NURSERY

- NEVER CUT LEADER
- RUBBER HOSES 2/3 UP TREE
- GUY WIRES W/ TURNBUCKLES 2 PER TREE
- STAKES- 2 PER TREE
- 3" MULCH
- ROTTOTILLED NATIVE SOIL AMENDED AS PER SPECS
- SAUCER AROUND PIT
- CUT AND REMOVE BURLAP FROM TOP 1/3 OF ROOTBALL
- SCARIFY SUBSOIL

1
LA-3

EVERGREEN TREE PLANTING

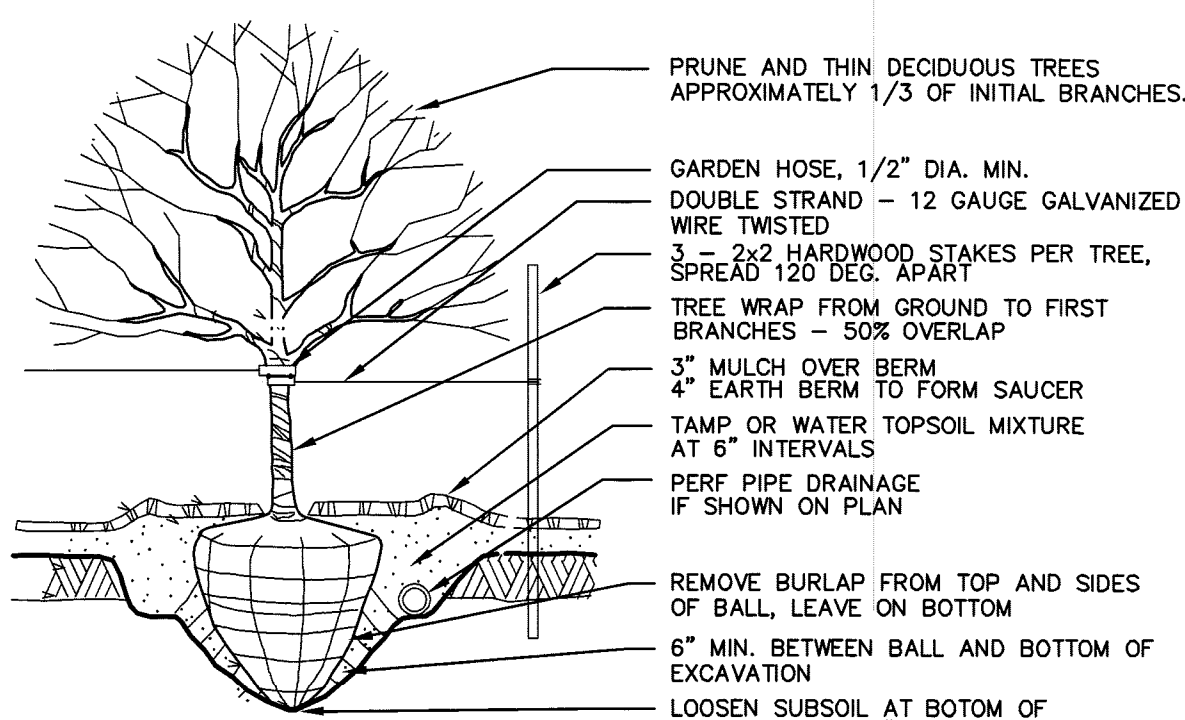
NTS

- SOIL MIX-1/3 ORGANIC MATTER, 2/3 EXIST SOIL.
- WIDTH OF PLANT PIT - SANDY SOIL: 24" WIDER THAN PLANT BALL -CLAY SOIL: 12" WIDER THAN PLANT BALL
- FOR PLANTING AREAS WHERE SOIL HAS BEEN COMPACTED BY EQUIP. CONTACT LA PRIOR TO PLANTING.
- FOR CAMELLIAS, RHODOS, AZALEAS, AND LAURELS: SOIL MIX, 2/3 ORGANIC AND 1/3 EXISTING SOIL.
- SHRUB SHALL BEAR SAME RELATIONSHIP TO GRADE AS IT DID PRIOR TO DIGGING.

3
LA-3

SHRUB PLANTING

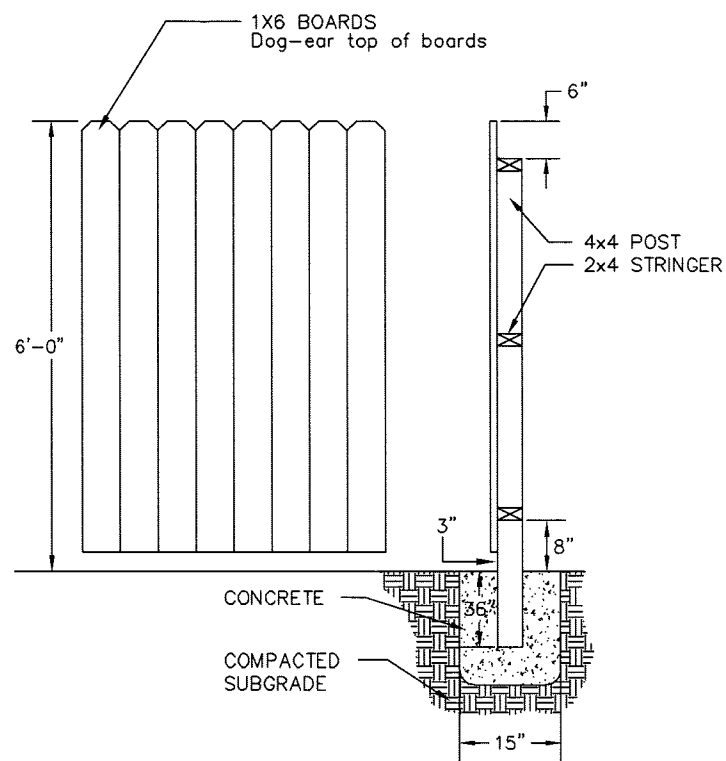
NTS



2
LA-3

TREE PLANTING

NTS



4
LA-3

6' CLOSED BOARD FENCE

NTS

City of Raleigh Planting Requirements:

1) VEHICLE SURFACE AREA:
PROPOSED VSA = 17,859 SF
Required: 1 TREE / 2000 SF; 17,859/2000 = 9
Provided: 9 TREES (AR and ZS)
Required: 1 SHRUB / 500 SF; 17,859/500 = 36
Provided: 36 shrubs

2) STREET YARD:
BASHFORD ROAD: 101.25 LF - 24 LF for driveway = 77.25 LF
Required: 6" Cal. / 50 LF. = 9" Cal. required.
Provided: 3, 3" Zelkovas planted outside of the slope easement.

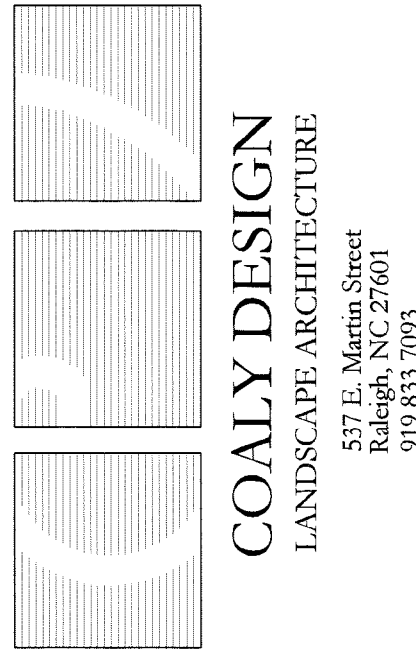
3) TRANSITIONAL PROTECTIVE YARDS
Proposed Use: Church
Adjacent Use: Residential and vacant

NORTH PROPERTY LINES: 20' Type C Buffer, 7 trees and 80 shrubs / 100LF
Section of North Property line close to Bashford Road:
Reduction of TPY per 10-2082.9 (g)(3)(a). Installation of a 6' closed board fence. TPY reduced to 10'.
170 lf of buffer = 1 evergreen tree / 20 LF and a continuous row of evergreen shrubs provided.
Section of North Property line with existing trees to remain:
492 LF of property line - TCA area (50') - existing trees to remain (341') = 101 LF of TPY. 7 trees and 80 shrubs required.
Provided: 7 trees and 80 shrubs. The stand of trees in this area of the property is similar to the tree density, size, and type in the TCA at the rear of the property.

WEST PROPERTY LINE: 20' Type C Buffer, 7 trees and 80 shrubs / 100LF
106.85 LF of property line. 7 trees and 85 shrubs required.
Provided: 7 trees and 85 shrubs

SOUTH PROPERTY LINE: 20' Type C Buffer, 7 trees and 80 shrubs / 100LF
664 LF of property line - TCA area (100) - existing trees to remain (374') = 190 LF of TPY. 13 trees and 152 shrubs required.
Provided: 13 trees and 152 shrubs. The stand of trees in this area of the property is similar to the tree density, size, and type in the TCA at the rear of the property.

Existing trees to remain in undisturbed areas of TPYs. Supplemental shrubs added where needed.



COALY DESIGN
LANDSCAPE ARCHITECTURE

537 E. Martin Street
Raleigh, NC 27601
919.833.1095

St. Gregorios
Malankara Orthodox
Syrian Church
225 Bashford Road
RALEIGH, NC

Planting Plan

Consultants

Professional Seals

6.28.11

1"=30'

RBS

KJS

Date Issued:

Scale

By

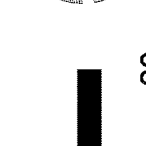
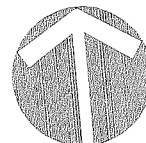
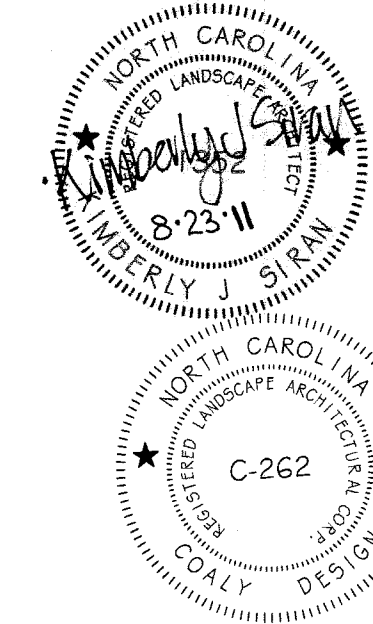
Date

Description

No.

Per City Comments

1



LA-3

NEW BUILDING FOR:
ST. GREGORIOUS
 Indian Orthodox Church
 RALEIGH, NORTH CAROLINA

Design Development Set
 NOT FOR CONSTRUCTION

MAURER ARCHITECTURE

119 EAST HARGETT STREET, SUITE 300
 RALEIGH, NC 27601
 TEL. 919-829-4969 FAX. 919-829-0860

DATE	06/29/11
DR.	MM/rs
CH.	DSM
PROJ. #	10110
REVISIONS	DATE

EXTERIOR
 ELEVATIONS

A2.1

