LIST OF ABBREVIATIONS

AB ANCHOR BOLT
A/C AIR CONDITIONING
ACT ACOUSTICAL CEILING TILE
ADJ ADJUSTABLE
AFF ABOVE FINISHED FLOOR
AP ACCESS PANEL
BD BOARD
BIT BITUMINOUS
BKG BLOCKING
BLDG BUILDING
BM BEAM
BOF BOTTOM OF FOOTING
BR BRICK
BRG BEARING
C COURSE
CAB CABINET
CFM CUBIC FEET PER MINUTE
CI CAST IRON
CLG CEILING
CMU CONCRETE MASONRY UNIT
COL COLUMN
CONC CONCRETE
CONT CONTINUOUS
CPT CARPET
CT CERAMIC TILE
CTR CENTER
DBL DOUBLE
DEM DEMOLISH/DEMOLITION
DET DETAIL
DH DOUBLE HUNG
DIA DIAMETER
DIM DIMENSION
DN DOWN
DR DOOR
DS DOWN SPOUT
DWG DRAWING
EA EACH
EL ELEVATION
ENCL ENCLOSURE
EQ EQUAL
EQPT EQUIPMENT
EX EXISTING
EXP EXPANSION
EXT EXTERIOR
FBRGL FIBERGLASS
FD FLOOR DRAIN
FDN FOUNDATION
FF FOIL FACE
FIN FINISH
FL FLOOR
FLG FLASHING
FOM FACE OF MASONRY
FS FULL SIZE
FT FOOT OR FEET
FTG FOOTING
FUR FURRING
GA GAUGE
GALV GALVANIZED
GC GENERAL CONTRACTOR
GL GLASS
GR GRADE
GTR GUTTER
GWB GYPSUM WALL BOARD
HB HOSE BIB
HC HANDICAP
HD HEAD
HDR HEADER
HDW HARDWARE
HGR HANGER
HOR HORIZONTAL
HT HEIGHT
HTG HEATING
HVAC HEATING VENTILATING AND AIR CONDITIONING
HW HOT WATER
HWD HARDWOOD
ID INSIDE DIAMETER
INS INSULATION
INT INTERIOR
JB JAMB
JST JOIST
KIT KITCHEN
LAM LAMINATED
LAV LAVATORY
LBS POUNDS
LH LEFT HAND
LT LIGHT
MAS MASONRY
MAX MAXIMUM
MECH MECHANICAL
MEMB MEMBRANE
MFR MANUFACTURER
MIN MINIMUM
MISC MISCELLANEOUS
MLDG MOLDING
MO MASONRY OPENING
MTD MOUNTED
MTL METAL
NO/# NUMBER
NTS NOT TO SCALE
OC ON CENTER
OD OUTSIDE DIAMETER
OPG OPENING
OPP OPPOSITE
PC PRECAST CONCRETE
PL PLATE
PLAM PLASTIC LAMINATE
PLAS PLASTER
PNL PANEL
PNT PAINT
PR PAIR
PSF POUNDS PER SQUARE FOOT
PSI POUNDS PER SQUARE INCH
PVC POLYVINYL CHLORIDE
PLY PLYWOOD
R RISER
RAD RADIUS
RD ROOF DRAIN
REBAR STEEL REINFORCING BAR
REC RECESSED
REFG REFRIGERATOR
REINF REINFORCED
REQ. REQUIRED
REV REVERSE
REF REFERENCE
RFG ROOFING
RH RIGHT HAND
RM ROOM
RO ROUGH OPENING
RTG RATING
SCHD SCHEDULE
SECT SECTION
SF SQUARE FOOT
SHT SHEET
SIM SIMILAR
SYP SYPOOT LUMBER COMPANY DESIGNATION
SPEC SPECIFICATION
SPKR SPEAKER
SQ SQUARE
S&R SHELF AND ROD
STD STANDARD
STL STEEL
STR STRUCTURE
SUSP SUSPENDED
SYS SYSTEM
T TREAD
T&G TONGUE AND GROOVE
TEL TELEPHONE
TEMP TEMPERED
THK THICK
TOF TOP OF FOOTING
TOW TOP OF WALL
TV TELEVISION
TYP TYPICAL
UON UNLESS OTHERWISE NOTED
VB VAPOR BARRIER
VCT VINYL COMPOSITION TILE
VERT VERTICAL
VT VINYL TILE
W/ WITH
WD WOOD
WIN WINDOW
W/O WITHOUT
WP WATERPROOFING
WR WATER RESISTANT
WSCT WAINSCOT
WT WEIGHT
WWF WELDED WIRE FABRIC

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BOARD OF ZONING ADJUSTMENT
District of Columbia
CASE NO. 18622
EXHIBIT NO. 10

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GENERAL NOTES:

CONTRACTOR SHALL VERIFY AND FAMILIARIZE HIMSELF WITH ALL FIELD CONDITIONS PRIOR TO SUBMITTING PROPOSALS AND COMMENCING CONSTRUCTION. FIELD CONDITIONS NOT AGREEING WITH CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER & ARCHITECT PRIOR TO BEGINNING WORK. ALL ADDITIONAL WORK NEEDED TO COMPLETE THE PROPOSED PROJECT WHICH IS NOT INDICATED ON DRAWINGS SHALL RECEIVE PRIOR AUTHORIZATION FROM THE HOMEOWNER.

CONTRACTOR SHALL BE RESPONSIBLE FOR THE INCLUSION OF ALL WORK NECESSARY FOR A COMPLETE INSTALLATION WHETHER SUCH WORK IS INDICATED ON DRAWINGS OR SPECIFICATIONS.

ALL MANUFACTURED / PREFABRICATED ITEMS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE WRITTEN MANUFACTURES SPECIFICATIONS.

JOB SITE SHALL BE KEPT IN A CLEAN AND ORDERLY FASHION AT THE END OF EACH DAYS WORK.

ALL WARRANTIES, GUARANTEES AND MANUFACTURERS INSTRUCTIONS SHALL BE PRESENTED TO THE HOMEOWNER IN A COMPLETE AND ORDERLY MANNER AT THE CONCLUSION OF CONSTRUCTION.

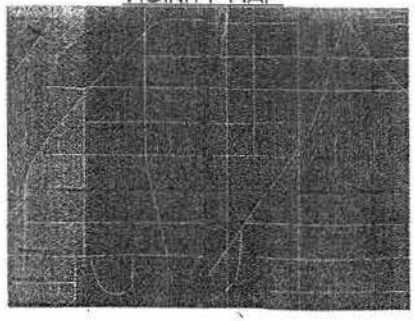
ALL WORK PERFORMED SHALL BE EXECUTED TO GREATER THAN STANDARD BUILDING QUALITY.

THE ARCHITECT SHALL NOT BE RESPONSIBLE FOR AND WILL NOT HAVE CONTROL OVER CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES, OR FOR THE SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTIONS WITH THE WORK, AND WILL NOT BE RESPONSIBLE FOR THE FAILURE OF THE CLIENT OR HIS CONTRACTORS, SUBCONTRACTORS OR ANYONE PERFORMING WORK, TO CARRY OUT THE WORK IN ACCORDANCE WITH THE APPROVED CONTRACT DOCUMENTS.

BY A LICENSED GENERAL CONTRACTOR ENTERING INTO AGREEMENT WITH THE HOMEOWNER/PROPERTY OWNER, HE AGREES TO KEEP CURRENT ALL INSURANCES, WORKER'S COMPENSATION AS REQUIRED, AND AGREES TO INDEMNIFY/HOLD HARMLESS THE HOMEOWNER/ PROPERTY OWNER FROM ANY ACCIDENTS OCCURRING FROM THE SCOPE OF WORK REQUIRED TO COMPLETE THE PROPOSED PROJECT.

CONTRACTORS SHALL BE RESPONSIBLE FOR REMOVING & DISPOSING OF DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM WORK AT THE JOB SITE.

VICINITY MAP



CODE ANALYSIS

2000 International Residential Building Code for One and Two Family Dwellings
with District of Columbia Code Supplements of 2003
USE GROUP: R
CONSTRUCTION TYPE: COMBUSTIBLE, WOOD FRAME

SPRINKLER SYSTEMS

ALL SINGLE FAMILY DWELLINGS TO BE SPRINKLERED PER LOCAL JURISDICTION RULES IN ASSOCIATION WITH NFPA 13D SYSTEM REQUIREMENTS.

ALL WATER PRESSURE REQUIREMENTS FOR SPRINKLER SYSTEMS DESIGNED, WILL BE TESTED AND CHECKED TO BE IN ACCORDANCE WITH DESIGNED SYSTEM NEEDS AND REQUIREMENTS AND ARE THE RESPONSIBILITY OF OTHERS.

BUILDER

Gibson Builders, LLC
5185 MacArthur Blvd, Suite 210
Washington, DC 20016
PHONE: 202-364-1555

SQUARE FOOTAGE CALCULATIONS

BASEMENT (FINISHED) = 425 SQ. FT.
FIRST FLOOR = 1080 SQ. FT.
SECOND FLOOR = 1030 SQ. FT.
MEZZANINE = 490 SQ. FT.

Permit Set

DATE:	SUBMISSION
5/2/06	Design Develop.
5/25/06	Permit Set
8/21/06	Permit Set
DATE:	REV

Studio Z Design Concepts, LLC
6120 Woodmont Ave.
Suite 950
Bethesda, Maryland 20814
301-986-1111 Fax 301-986-1103

STUDIO Z
DESIGN CONCEPTS

Gibbons Residence
4301 16th street, NW
Washington, DC

Zoning Review Branch
Project Number

COVER

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Board of Zoning Adjustment
District of Columbia
CASE NO.18622
EXHIBIT NO.10

A. GENERAL REQUIREMENTS

(1) Applicable Codes and Standards:

(1.1) 2006 International Residential Building Code for One and Two Family Dwellings with 2013 District of Columbia Code Supplements

(1.2) AF&PA National Design Specification 1991 Edition with 1997 Supplement or latest adopted edition

(2) Design Live Loads:

(2.1) Roof Live Load: 30 psf, Basic Wind Speed: 90 mph, Floor Live Load: 40 psf, Deck Live Load: 40 psf, Balcony Live Load: 60 psf, Uninhabited Attic Live Load: 20 psf, Deck Railing and Handrail: 200 psf at any point or direction applied against handrail. Verify with applicable jurisdiction and local amendments.

(2.2) This project has been designed for the weights of the materials indicated on the drawings and for the superimposed loads indicated on the drawings and for the superimposed loads indicated on the Structural Drawings. It is the sole responsibility of the general or sub-contractor to determine proper design and construction of all formwork, shoring, and bracing.

(3.) The contractor shall field verify all existing conditions, dimensions, and elevations related to the proposed work prior to estimating, fabrication, or construction. Verify all floor and roof openings with the architectural and MEP drawings. Verify all depressions, dimensions, and slopes from the architectural drawings. Any discrepancy shall be brought to the attention of the Architect prior to installation or fabrication. In case of conflicts, most stringent shall always govern. Notify architect immediately of any conflicts. Overall dimensions take precedence over dimension discrepancies arising out of the use of nominal and actual dimensions. Adjust unit dimensions accordingly to achieve established elevations. Shim as required.

(4.) All workmanship shall be performed and completed in a workmanlike manner exhibiting the high quality standards of each trade.

(5.) All dimensions shown on the drawings are for rough framing unless otherwise noted. Dimensions, notes, and finishes, etc. indicated on the plans, sections, and/or details, shall apply to similar, symmetrical and/or opposite plans, sections and/or details, U.O.N. or detailed.

(6.) The drawings and specs are complementary. Where the spec's and drawings disagree, the drawings will govern.

(7.) The contractor shall be responsible for providing all labor, material, equipment and miscellaneous items including but not limited to clips, inserts, ties, anchor straps, hangers, bolts, and other fasteners required to complete the work.

(8.) The contractor shall be solely responsible for construction procedures, job site safety, and the stability of all new, temporary, and existing structures, walls, slabs, etc. during the construction phase.

(9.) The use of these documents without the written permission of the architect is forbidden.

(10.) These drawings are for graphic representation only. DO NOT SCALE DRAWINGS.

(11.) Any and all drawings and specifications for site-work, plumbing supply or waste, electrical circuiting, and heating, ventilation and air conditioning systems not contained in the list of drawings on the cover sheet are not part of the professional services provided to the owner/client by the architect under their agreement. Owner/client shall be responsible for all subcontractor coordination as needed for this project/construction.

B. FOUNDATIONS

(1.) Footings are designed for an assumed bearing capacity of 2000 psf. (+/-). It remains the contractor's responsibility to field verify this info. Footings shall be placed per geo-tech engineer's recommendations and shall bear 12" into natural undisturbed soil. Bottom of all footings shall be min. 30" below finished grade or per local jurisdiction requirements and codes. Maximum lateral pressure at lower level basement walls, sub grade, will not exceed 30 psf.

(2.) Step footings with a ratio of 1 vertical to 2 horizontal, as necessary to change elevation and match existing footing elevations. Use maximum 18" vertical steps.

(3.) Termite-treat all soil prior to placement of footings. Provide certificate to owner/client. Do not place concrete footings on frozen soils. Back fill foundations with 12" lifts of clean soils. Consult w/ civil engineer if unstable/non-compacted soils are found.

(4.) Site retaining walls are designed by others and are not the responsibility of the Architect. Contractor is responsible for verifying all site conditions, elevations, etc.

(5.) Centerline of footings shall match centerline of column, wall, pedestal, and/or pier unless shown otherwise.

(6.) All footings supporting masonry walls are to be reinforced with three #5 longitudinal continuous bottom bars. Provide minimum 3" concrete cover between rebar and earth, typically.

(7.) All disturbed earth under footings shall be replaced with lean concrete.

(8.) All bearing strata shall be adequately drained before foundation concrete is placed.

(9.) No excavation shall be closer than at a slope of 2:1 (2 horizontal to one vertical) to an existing footing or structure U.O.N.

C. UNDERPINNING

(1.) Method of underpinning shall be determined and installed by a specialty contractor experienced in this type of work.

(2.) Underpinning shall be performed at existing foundations as required by the contractor to lower existing foundations. Specialty contractor shall determine extent and appropriate sequences based on field conditions and proposed construction.

(3.) Contractor will field verify elevations of existing footings, utilities, etc. prior to preparing underpinning plan, or adjust in field during construction as field conditions are exposed.

(4.) Underpinning piers shall extend a minimum of 7'-0" below bottom of new slab or foundation elevation or as indicated on drawings. Alternate methods of underpinning may have different criteria.

(5.) Underpinning piers shall be installed in 4'-0" (+/-) alternate sections or as indicated on underpinning drawings. No open underpinning pit shall be closer than 12'-0" to another open pit. Fully dry-pack between top of pier and bottom of existing foundation prior to excavation of next pier in sequence. Open excavation shall be inspected by geotechnical engineer of qualified soils technician prior to placing concrete.

(6.) Except as indicated otherwise, underpinning concrete shall have a minimum compressive strength F'c = 2500 psi.

(7.) Underpinning shop drawings bearing the seal and signature of the responsible designer shall be submitted for approval.

D. MASONRY

(1.) Solid masonry shall be Grade NI in accordance with ASTM C-90 and may be 75% solid, U.O.N. Hollow masonry units shall be Grade NI conforming to ASTM C-90. All mortar shall conform to ASTM C270, and shall be Portland cement/lime mortar. Masonry cement shall not be acceptable.

(2.) Mortar in bearing walls shall be type "S." Mortar in non-bearing walls may be type "N." Mortar below grade shall be type "M." All mortar joints in masonry walls (horizontal & vertical) shall be filled 100% with mortar. Provide care to eliminate excessive mortar in air space of cavity walls.

(3.) Provide damp-proofing on exterior face of masonry walls below grade.

(4.) Provide a minimum of 3 courses of solid brick, one course 100% solid block, or a continuous bond beam at bearing of joists, bearing walls or supported slabs.

(5.) Provide control joints in masonry walls at 30'-0" maximum or as shown on Architectural drawings.

(6.) All portions of bearing walls having a horizontal cross section of 4 square feet or less shall be of solid masonry down to footings.

(7.) Provide horizontal masonry reinforcing (DUR-O-WALL or equal) at 16" o.c. in all masonry walls U.O.N.

(8.) Use buckets to measure materials for mixing mortar. Grout shall be sand and cement, 3 bags of cement per cubic yard.

(9.) Provide 22 gauge galvanized masonry straps with 3/16" diameter ties @ 24" o.c. horizontally and 16" o.c. vertically between veneer walls and back-up. Masonry tie assemblies shall be screwed (not nailed) to wood and light-gauge stud backup. Provide dovetail anchor slots at 24" o.c. where masonry abuts concrete.

(10.) The owner shall retain the services of a qualified inspector to inspect all masonry construction in accordance with Level 2 Quality Assurance as defined by ACI 530-99 / ASCE 5-99 / TMS 402-99.

(11.) Contractor shall provide Tests and Submittals in accordance with Level 2 Quality Assurance as defined by ACI 530-99 / ASCE 5-99 / TMS 402-99.

(12.) Provide weep holes at all exterior masonry conditions at 48" o.c. above finished grade or as specified by the Masonry Institute of America or the Brick Institute of America.

(13.) Pre-cast concrete as shown on drawings are to be fabricated per details. Submit shop drawings to architect for approval prior to fabrication. Reinforce as required for loads and masonry shown.

E. REINFORCED MASONRY

(1.) Shall be constructed as follows:

- All grout lift lift
- Provide clean-out holes above the footing in block cells to be reinforced.
- Break all mortar protruding into block cells with reinforcing rod and remove loose mortar.
- Fill cells containing reinforcing with 3,000 psi pea-gravel grout.

F. LINTELS

(1.) Provide pre-cast lightweight concrete lintels for all openings and recesses in concrete masonry unit walls as follows:

- one 4x8 lintel for each 4" of wall thickness
- one 6x8 lintel for each 6" of wall thickness

Reinforce each lintel unit with one #4 rebar top and bottom with #3 stirrups @ 8" o.c. Concrete lintel units shall have 8" minimum bearing at ends and may be used for openings up to 8'-0".

(2.) For brick or face CMU, provide a steel angle for each 4" of wall thickness as follows: - L3 1/2 x 3 1/2 x 5/16" for openings up to 4'-0"

- L4 x 3 1/2 x 5/16" for openings 4'-1" to 6'-0"
- L5 x 3 1/2 x 5/16" for openings 6'-1" to 8'-0"

Provide 6" minimum bearing each end.

G. CONCRETE

(1.) Unless otherwise noted, slabs on grade shall be 4" thick, concrete reinforced with 6x6 - W4xW4-6x6F over 6 mil poly vapor barrier, over 4" layer of washed gravel U.O.N. Lap mesh 6" in each direction. Provide control joints @ max 15'x15' intervals. Locate as to not jeopardize strength of concrete. Follow ACI standards for concrete.

(2.) The contractor shall coordinate placement of S.O.G. with installation of under slab utilities, building foundations, drains, downspout sleeves, retaining walls, tunnel drains, radon mitigation piping, etc. Top of garage slab will be 4" below adjacent finished floor level. Floor and counter flash as required.

(3.) Back filling adjacent to the concrete foundation walls will not occur until concrete walls have sufficient strength or unless walls have been sufficiently braced to prevent damage and first floor deck has been installed with sufficiently.

(4.) 18" min. nominal wall thickness for unbalanced fill greater than or equal to 1 feet using back fill soil common to this area of types GM, GC, SM-SC, & ML. (IRC Table 404.1.1(1)).

(5.) 12" min. nominal wall thickness for unbalanced fill between 6 and 7 feet using back fill soil sometimes found in this area of types SC, MH, ML-CL, and inorganic CL. (IRC Table 404.1.1(1)).

(6.) 12" min. nominal wall thickness for unbalanced fill greater than or equal to 8 feet using back fill soil sometimes found in this area of types SC, MH, ML-CL, and inorganic CL. (IRC Table 404.1.1(1)).

(7.) Excess of 4 feet of unbalanced back fill shall not be placed against the wall until the wall has had sufficient strength and has been anchored to the floor deck above, or has been sufficiently braced per (IRC 404.1).

(8.) Unbalanced back fill is required on both sides of walls, back fill both sides simultaneously.

(9.) If floor system is a structural concrete slab, the slab must have achieved 75% of its designed strength prior to the placement of back fill.

(10.) All concrete construction including detailing, fabrication, placement of reinforcing, mixing, handling, placing, finishing, and curing shall conform to ACI "Structural Concrete for Buildings" (ACI 318), ACI "Manual of Standard Practice for Detailing Reinforced Concrete Structures" (ACI-315), and "ACI Building Code Requirements for Reinforced Concrete" (ACI-318).

(11.) All concrete shall conform to ASTM C194. Minimum compressive strength and maximum water/cement ratio shall be as follows:

(11.1) Foundations, interior walls, interior slabs on grade: 3,000 psi (0.58)

(11.2) Garage and exterior slabs on grade, basement walls, exterior footings: 3,500 psi (0.50)

(11.3) Deck supported slabs: 3,000 psi (0.58)

(12.) Maximum aggregate size for regular concrete shall be 3/4" and pea-gravel concrete shall be 3/8". Aggregate for regular weight concrete shall conform to ASTM C33 and lightweight concrete shall conform to ASTM C330.

(13.) All concrete exposed to the weather shall be air entrained with 6% (+/-) % air. All other concrete is interior-exposed and is to receive a hand-troweled finish. Slump shall be 4" (+/-) 1".

(14.) Owner shall retain the services of a qualified testing agency to provide testing of concrete to include compressive strength, temperature, slump, and air entrainment.

(15.) Contractor shall provide concrete mix design data for each type and strength of concrete shown in the structural drawings. The mix design data should include: concrete strength, slump, air entrainment, proposed aggregates, admixtures, and laboratory test data.

(16.) Provide expansion joints at 50' o.c. and control joints at 25' o.c. at all exposed CIP walls (except basement walls). Coordinate joint locations with architectural drawings.

H. REINFORCEMENT STEEL

(1.) All reinforcing steel, except beam stirrups and column ties, shall conform to ASTM-A615, Grade 60. Stirrups and ties shall conform to ASTM-A615, Grade 40, unless noted otherwise.

(2.) Welded wire mesh to conform to ASTM-A185, and have minimum side and end laps of 8".

(3.) Fabricate and provide standard supporting accessories in accordance with the ACI Manual of Standard Practice for Detailing Reinforced Concrete Structures ACI 315.

(4.) Submit shop drawings showing all reinforcing steel and placement for approval. Provide locations of cold joints for extent of the concrete pour.

(5.) All top reinforcing steel and beam stirrups in balconies, parking slabs and weather-exposed locations shall be epoxy coated per ASTM A 775/A 775M.

I. CONCRETE PROTECTION FOR REINFORCEMENT

(1) Reinforcing bars and mesh to have concrete cover as follows:

Footings and other concrete poured against earth ..... 3"

Formed concrete exposed to earth for bars larger than #5 ..... 2"

Formed concrete exposed to earth for bars for #5 or smaller bars ..... 1 1/2"

Interior faces of walls ..... 3/4"

Beams, columns, and top reinforcing in the garage slabs ..... 1 1/2"

Framed slabs ..... 3/4"

Slabs on ground are to have reinforcement in top third of thickness.

J. STRUCTURAL STEEL

(1) Structural steel shall be fabricated and erected in accordance with the latest AISC "Specifications for Design, Fabrication and Erection of Structural Steel for Buildings."

(2.) Structural steel shapes shall conform to the following:

W-shapes: ASTM A572 (Grade 50) or ASTM A992

Plates, Channels, Angles, Bars: ASTM A36 or ASTM A992

Pipes: ASTM A53 (Grade B)

Structural Tubes: ASTM A500 (Grade B)

Use schedule 40, non-adjustable pipe col's. No adjustable pipe col's are to be used without structural engineer's prior approval.

(3.) Shop and field connections shall be welded or made with 3/4" diameter high strength bolts conforming to ASTM A325 or ASTM A490.

(4.) All welding shall conform to AWS Specifications.

(5.) No holes shall be located in flanges of beams or columns unless approved by the engineer. No field cutting of the steel members shall be permitted without prior authorization of the structural engineer.

(6.) Steel beams bearing on masonry or concrete walls shall have standard angle wall anchors.

(7.) Provide standard AISC framed beam connections, typically. Connections shall be designed for the service load reactions values shown on the structural drawings. For steel members whose reactions are not shown, the design reaction should be half of the allowable beam load found in AISC Tables (minimum of 10k).

(8.) The owner shall retain the services of a qualified inspector to inspect erected steel and connections.

(9.) Structural steel exposed to weather shall be galvanized.

(10.) Structural steel members shall be shop painted / coated per project specifications. In the absence of project specifications, provide one coat of primer in compliance with manufacturer's instructions to surfaces except those to be galvanized, areas to be field welded, concealed by fireproofing, or embedded in concrete.

(11) Splicing of structural steel members is prohibited without approval of location and splice design by the structural engineer.

K. WELDING

(1) Shall be performed in accordance with the American Welding Society "Standard Code for ARC and Gas Welding in Building Construction" (AWS D1.1), latest edition, and shall be performed by certified welders only.

(2.) All welds shall be 3/16" fillet welds unless otherwise noted. All partial and full penetration welds shall be performed by welders certified to perform such welds. All partial and full penetration welds are subject to testing as directed by Engineer.

L. STEEL STAIRS

(1) Extent of steel stairs to be detailed by miscellaneous metals fabricator is delineated on plan. See Architect for miscellaneous details and additional information. Miscellaneous metals fabricator shall submit shop drawings for approval prior to fabrication.

M. POST INSTALLED MECHANICAL AND CHEMICAL ANCHORS

(1.) All mechanical and chemical anchors indicated within these documents shall be provided by Hilti, Inc. or a structural engineer approved equivalent. Alternate anchors shall be submitted to the structural engineer of record for approval (submittal must include all relevant technical information including allowable load values).

(2.) All anchors shall be installed in accordance with the anchor manufacturer's specifications.

(3.) U.O.N. all anchors shall have standard embedment depth as defined by the anchor manufacturer.

(4.) When anchors are to be installed into existing masonry, the Contractor shall be responsible for field-testing the anchors prior to the fabrication of any materials to verify that the allowable loads as published by the anchor manufacturer, or those indicated on the Structural Drawings, are obtainable. The GC shall submit results of these tests to the structural engineer of record for review and approval. The anchor sizes and spacings as shown in these documents are subject to change based on the results of the field tests.

N. LIVE LOADS

(1) Latest IRBC adopted by applicable jurisdiction. See applicable sections in Chapter 3.

Roof ..... 30 psf

Pg = 25 psf

I = 1.0

Ce = 0.7

Corridor and Stairs ..... 100 psf

Mechanical ..... 75 psf

Offices ..... 50 psf

Residential ..... 40 psf

Residential:

Attics with Storage ..... 20 psf

Attics without Storage ..... 10 psf

Decks ..... 40 psf

Exterior Balconies ..... 60 psf

Fire Escapes ..... 40 psf

Passenger Vehicle Garages ..... 50 psf

Rooms other than Sleeping Rooms ..... 40 psf

Sleeping Rooms ..... 30 psf

Stairs ..... 40 psf

Multifamily Dwellings Private Rooms ..... 40 psf

Multifamily Dwellings Public Rooms and Corridors ..... 100 psf

Balconies (Exterior) ..... 100 psf

(2.) Elevated garage floors shall be capable of supporting a 2,000-pound load applied over a 20-square-inch area.

(3.) Individual stair treads shall be designed for the uniformly distributed live load of a 300-pound concentrated load acting over an area of 4-square-inches, whichever produces the greatest stresses.

(4.) Handrail assemblies and guards shall be designed to resist a load of 50 psf, applied in any direction at the top and to transfer this load through the supports to the structure. Handrail assemblies and guards shall be able to resist a single concentrated load of 200 pounds, applied in any direction at any point along the top, and have attachment devices and supporting structure to transfer this loading to appropriate structural elements of the building (this load need not act concurrently with the loads specified above). Intermediate rails, balusters, and panel fillers shall be designed to withstand a horizontally applied normal load of 50 pounds.

O. WIND LOAD

(1) Latest IRBC adopted by applicable jurisdiction. See figure IRC R301.2(4), Chapter 3.

V = 90 mph

Pn = 16.4 psf

P. EARTHQUAKE

(1) Latest IRBC adopted by applicable jurisdiction. See figure IRC R301.2(4), Chapter 3.

Q. WOOD

(1) All wood construction, including fastening and details, shall be in accordance with appropriate National Design Specification by AF&PA, referenced in the building code noted herein. Maximum moisture content will not exceed 15%.

(2.) All structural framing lumber, including bearing wall studs, shall be spruce-pine-fir (SPF) #2, hem-fir #2 or better, Fb=850. All PSL Beams/posts shall have the following minimum properties: Fb=2500 psi, Fv=290 psi, Fc(\|\|)=650 psi, Fc(\|\|)=2500 psi, E=1,800,000 psi.

(3.) All wood in contact with masonry or concrete or within 8" of grade shall be pressure treated.

(4.) Wood Walls

(4.1) In general, 2x4 stud bearing walls with drywall or approved sheathing shall be correctly fastened on both sides and shall be used for heights of 8'-0" or less AFF.

(4.2) Joints in multiple top plates shall be staggered 4'-0" minimum with splices centered over wood stud. Contractor may not substitute multiple 2x4 or 2x6 posts of equal or greater size, for the 4x4 or 6x6 posts called out on the documents.

(4.3) Wood bearing walls higher than 8'-0" with drywall or approved sheathing correctly fastened on both sides shall be of 2x6 material minimum with note 4.2 above. If bearing wall at lowest level of structure is supporting two floors above (maximum), interior bearing wall may consist of 2x6's @ 16" o/c or 2x4's @ 12" o/c. If bearing wall at lowest level of structure is supporting three floors or ten floors with roof load, interior bearing wall may only consist of 2x6's @ 12" o/c, maximum.

(4.4) All interior partitions will have 1/2 gypsum board finish U.O.N. Provide Durock tile backer board on studs where tile is to be the final finish. This includes all wall and floor surfaces as required. Install as per manufacturers specifications. Provide moisture resistant gypsum board at all bathroom walls and ceilings not receiving ceramic tile.

(4.5) Use exterior grade sheathing applied to exterior walls per manufacturer's specs. Use clips to align all butt joints at roof sheathing, typically @ maximum 12" o/c. Fasten sheathing per IRC Table 602.3.

(4.6) All sill plates shall be minimum P.T.2x4 or as per drawings. Anchor with approved galvanized anchors embedded min. 8" into poured concrete foundation walls. Minimum 2 anchors per section of sill plate. Maximum anchor spacing: 6'-0" o/c, and 1' from corners.

(4.7) Provide diagonal let-in bracing, 12 gauge diagonal straps or plywood sheathing at all corners of exterior wood-framed walls.

(4.8) Provide minimum 1 jack stud and 1 king stud at all opening headers. See framing plans for additional post information. All posts and jacks are to align with those at floor below even when jacks are not required by framing for the floor below. All jacks shall be continuous by truss manufacturer. Provide squash blocks as required. All lintels, headers, and posts shall be free of checks, splits and shakes.

(5.) Prefabricated roof trusses, open web type with metal plate connections shall be pre-engineered and designed by a licensed manufacturer in the state of jurisdiction for the project. All trusses must adhere to the design criteria within these specifications. See General info. section. Roof trusses: LL = 30 psf, DL = 7 psf, top chord = 10 psf.

(6.) Design, fabrication, and installation of metal plate connection roof and floor trusses shall be in accordance with the current National Design Specifications by the AF&PA and the Design specifications for Metal Plate Connected Wood Trusses by Truss Plate Institute. Manufacturers will design and provide all hangers as required for all flush beam/header girder truss conditions. Floor and Roof truss shop drawings shall be approved by the Architect prior to fabrication commencing. All truss shop drawings submitted for approval must bear the signature and stamp of a licensed structural engineer. Architect is not responsible for variations in field conditions.

(7.) Contractor is responsible for all temporary truss bracing required, until permanent roof sheathing, ceiling drywall, etc. is in place. Truss manufacturer shall note any bracing requirements in all shop drawings to benefit the contractor. Install bracing in accordance with TPI recommendations.

(8.) Joists designated "TJI" are to be Pro 250 or 350 series joists or as required to meet minimum design criteria as manufactured by Trus Joist MacMillan, or equal as designed by floor truss designer and fabricator. Provide double joists under all parallel partitions that extend over 1/3 of the span. Truss manufacturer shall specify all hangers required for flush conditions. Shop drawings sent for approval will bear the seal and signature of a licensed structural engineer. Joist or trusses running parallel to masonry walls shall be anchored to walls with 3/16" x 2" steel strap anchors at 4'-0" o/c. Deflection Criteria: Floor Truss Design Criteria: Deflection Criteria: L/480 for tile, terrazzo and hardwood floor finishes, L/720 for ceramic tile/marble finishes, and L/720 for all kitchen and master bathroom finishes.

(9.) Beams, headers, and lintel beams designated LVL are to be manufactured by Trus MacMillan shall have structural properties: Fb=2600 psi, Fv=285 psi, E=1,900,000 psi. Multiple Microlam (2 max) are to be fastened together with a minimum of 3 rows of 16d nails at 12" o.c. but not less than

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required by the manufacturer. Nails to be spaced 3" from the top and bottom of the beams. Builder to coordinate rough openings for windows and doors as required.
(10.) Use "Simpson" Strong Tie structural wood connectors for all structural connections at post to beam connections, post anchors, and flush floor framing conditions.
(11.) Contractor/erector shall provide required bracing including strut bracing, cross bracing for bottom chord bearing, bottom chord restrain, and sway bracing. Use IRC Table 602.3 for nailing schedule in Chapter 6.
(12.) In accordance with the code-required live loads, all floor sheathing shall be APA rated. Floor sheathing shall be tongue and groove plywood or approved sheathing, rated as required for the floor joist spacing, laid over 2 or more supports, continuously, with face grain perpendicular to support direction. Sheating shall be glued and screwed to underlying supports to performance specifications APG-01, exposure 1 sheathing is required.
Roof sheathing shall be standard APA rated sheathing, with long dimension perpendicular to supports, span rated for 32/16 Exposure 1, min. thickness 15/32". Contractor shall use panel clips @ 12" o/c maximum to help support edges of all sheathing panels. Nail sheathing to trusses with 8d nails at 6" o.c. at sheet edges and 12" o.c. at intermediate trusses. Recommended sub-flooring shall be as manufactured by Advantec or equal.
(13.) Pre Assembled wood stairs including stair rails and landings plus all connections shall be designed, fabricated, and installed in accordance with all requirements of all pertinent codes and local regulations. Stair stringers shall provide support for clear span load from top to bottom bearing points.
(14.) All exterior structural wood members, wood located within 8" of grade, shall be Southern Yellow Pine #1, pressure treated to resist decay and insect infestation.
(15.) Selection of decking for outside decks is the responsibility of others. Deflection on decks shall not exceed L/360 of the deck span permitted. Fasten decking to joists with minimum 12d common galvanized. See deck detail sheet for additional information.
(16.) Provide draft-stopping in accordance with IRC Section 502.12. Maximum areas shall not exceed 1,000 square feet.
(17.) Minimum joist bearing is 2".
(18.) All Microlam or other wood beams may not be notched in any way without prior authorization.
(19.) Provide all blocking in walls, floors, and ceiling for cabinetry, stair railings, handicapped items, plus any and all specified interior items. Contractor shall coordinate as required.
(20.) All exterior wall coverings shall comply with IRC Section R-703.

R. BRICK VENEER
(1.) All masonry veneer shall be installed in accordance with IRC code Section 703.7. Provide backer rod between masonry to wood connections.
(2.) Use non-corrosive masonry tie not less than #22 US gauge by 7/8" corrugation. Each tie shall be spaced not more than 24" on center and 16" vertically fastened directly to the wood studs with 8d nails and support not more than 3 1/4" square feet of wall area. When installed over wood stude, the studs shall be spaces a maximum of 16" o.c. Provide approved felt paper over sheathing prior to fastening masonry ties.
(3.) Provide minimum 1" air space between backing and the brick veneer.
(4.) Provide weep holes per Section D: MASONRY (number 2).
(5.) All masonry fireplaces/chimney construction will be in accordance with IRC Chapter 18 and fireplace spec. sheet within Architectural Drawings.

S. INSULATION
(1.) All construction will be in accordance with the latest IRC model energy code requirements. Minimum insulation values shall be as follows:
(1.) Exterior Walls: 2x4 = R-13 batt insulation
(2.) Exterior Walls: 2x6 = R-19 batt insulation
(3.) Floor Assemblies: R-30 batt insulation
(4.) Perimeter Slabs: R-7 rigid insulation
(5.) All exterior doors: Solid core or metal insulated
(6.) All glazing: double insulated with U values as required
(7.) Roof: R-38 batt insulation or blown in cellulose as allowed
(2.) Air Infiltration: Fill all cracks, construction holes, loose joints, and spaces in rough framing and masonry with approved foam sealer, backer rod, or similar sealant.
(3.) All pipes and vent stacks in exterior walls shall be insulated.
(4.) Install prefabricated fireplaces and chimney assemblies as required by manufacturer's recommendations and per IRC chapter 18.
(5.) Provide fire-stopping to cut off all concealed draft openings within all soffits at ceilings for duct work and plumbing shafts, ducts and flues penetrating through floor/ceiling assemblies. Adhere to the design criteria within these specifications.

T. SEALANTS, MOISTURE PROOFING, & GLAZING
(1.) Appropriate sealants shall be selected for each substrate depending upon location (interior and exterior), humidity and moisture conditions, and traffic conditions. Use primers as required. Building paper: use 15# felt paper under any veneer: brick, stone, clay tile, concrete, or artificial stone. Attach felt paper to sheathing whenever necessary to prevent moisture penetration behind the veneer. Approved water resistant sheathing or air infiltration barrier may be substituted for building paper if approved by Architect and local building officials.
(2.) At exterior siding connections to wood trim, provide sealed joint as required by manufacturer between J-channel and/or wood trim.
(3.) Seal at all exterior locations including the following:
(3.1) Exterior window and doorframes shall be taped and sealed.
(3.2) Between window and doorframes and adjacent wood wall framing.
(3.3) Penetrations or utility services through walls, floor, and roofs.
(3.4) Sealants shall be free of formaldehyde.
(4.) Acrylic latex caulking shall be used for wood to brick, siding to brick, siding to wood, and siding to siding, and at all exterior door thresholds as recommended by manufacturer. Color to be coordinated with adjacent materials. Verify with Architect.
(5.) Flashing: Install per current IRC code.
(5.1) Door and window frames as required
(5.2) Deck and wall connections
(5.3) Chimney, flue liner connection through and at wall and roof
(5.4) Dormers, valleys, and crickets as required
(5.5) Code approved corrosive resistant flashing shall be provided at the top of all exterior window and door openings in such a manner as to be sealed tight. Self-flashing windows shall have a continuous lap of not less than 1-1/8" over the sheathing material at the perimeter of the opening.
(6.) Provide approved sill sealer between foundation wall and all sill plates.
(7.) Protect all un-vented spaces with a vapor barrier on the conditioned side with a maximum perm rating of 1.0.

(8.) When grade is above conditioned interior spaces, footing drains shall be 4" diameter perforated pipe set in 6" minimum, 3/4" gravel fill and drain to sump pump or to positive outfall, cover with filter paper and 6" gravel fill. No footing drains are required when grade is below slab.
(9.) Roofing: Provide fiberglass, asphalt, or other approved composition shingles. Final roofing material used will be coordinated with client/owner/builder. Provide waterproofing roof underlayment felt minimum, 15# felt applied as required in IRC Section 502. Provide ice-damming membrane to 24" above gutter line on all roofs and up and down all valleys. Provide continuous ice-damming membrane on all roof surfaces with slopes less than 3.5 units in 12.
At all roof slopes less than 3 units in 12, provide 2 layers of 15# felt paper. At all roof slopes less than 2 units in 12 provide self sealing rubber roof membrane installed in a continuous sheet and as per manufacturer's written specifications and requirements. Asphalt and composition shingles will be fastened as per IRC Section R902. Asphalt shingles will be applied in accordance with manufacturer's written instructions. Cedar shake roofing shall be installed per manufacturer's specifications and written instruction. Cedar shakes shall be fastened as per IRC Chapter 9. Use mesh underlayment as recommended by roofing manufacturer or installer. All roofing will have continuous drip edging at all overhangs, typically.
(10.) Side wall flashing: Flashing against vertical surfaces will be by the step flashing method. Vertical flashing dimension will not be less than 16" above the adjacent roofing surface. If vertical surface is masonry let in flashing minimum 1/2" and sealed tight with roof tar/sealant.
(11.) All attics will be accessible through access panels as required by local jurisdiction. Provide removable panel as required and finish interior face consistent with adjacent spaces.
(12.) Provide insulated and tempered safety glazing as required in IRC Section 308, this includes all exterior door assemblies and adjacent sidelights, above bathing tubs, window sashes less than 18" above the finished floor and more than 9 square feet within each sash, and windows closer than 24" to adjacent exterior glass doors. See IRC Section 308.4 for hazardous glazing locations. All lower levels/cellars will have a means of egress per latest IRC & local amendments. All bedrooms in any level of structure will have at least one approved egress window. Coordinate with window manufacturer selected and local jurisdiction for any/all amendments.
(13.) Damp-proof all exterior foundation walls below grade as per local codes from above grade to bottom of footing.
(14.) It is recommended that all drywall at lower level/below grade areas be "mildew resistant" type. Contractor to be responsible for proper installation.

U. VENTILATION
(1.) Attics may be vented with continuous soffit venting (min 2" wide) and continuous ridge venting. See overhang details. All louvered vents will be fitted with insect screening on the interior.
(2.) Attic ventilation shall be 1/150th of the second floor area or 1/300 if 50% of the ventilators are located in the upper portion of the attic space and at least 3'-0" above eave or cornice vents. Adhere to IRC Section R 806.
(3.) All interior bathrooms will be equipped with mechanical exhaust fan.
(4.) Dryer vents and kitchen exhausts shall be vented to the exterior in an appropriate manner, in accordance with IRC Code, Chapter 18.
(5.) New basements will have PVC pipe installed from above sump pump to thru the roof for ventilation of radon if detected. Please note that the contractor will follow all local, state, and federal guidelines with regards to ventilating radon.
(6.) All interior prefabricated gas or wood-burning fireplaces will be installed in strict accordance of manufacturers written specification. Provide appropriate recommended clearances for firebox, flues, and termination caps above the required chimney height. Vent exhaust as required. See IRC Section M 1805.

V. PLUMBING NOTES
(1.) All plumbing will be in compliance with National Plumbing Code Guidelines, latest edition as approved by local jurisdictions. All plumbing systems will be completed in place, tested and approved, as shown on these dwg's. Gas piping shall conform to NFPA 54.
(2.) Plumbing contractor shall provide design for permits as required by local jurisdictions. Provide access panels as required for all tubs installed.
(3.) All thru vent stacks will terminate a minimum 6" above roofing surfaces. Flash VTR as required.
(4.) Sump Pumps are to be provided during construction as required to control surface water, and after construction as a permanent means of controlling underground water. Pump size and location to be determined by others. Provide battery back up for all sump crocks. Provide grinder attachment when used for dedicated purposes @ lower level garage french drains.

W. HVAC
(1.) Architect is not responsible for the design or specifications of any mechanical systems within the house. All systems will be installed in accordance with the latest applicable energy codes, state, local, and national fire protection association requirements. Any items or requirements noted herein or on the drawings in excess of code requirements and permitted under the code shall take preference.
(2.) The contractor shall examine the premises and observe site conditions where the work is to be done. The contractor will design and prepare drawings of the intended system to be installed. Contractor shall be responsible for all design analysis based on square footage and amounts of glazing to be installed.
(3.) All equipment will be tested as to airflow, temperature balancing, vibration, and proper function of all dampers, thermostats, and controls. Provide condensible lines to interior drain lines as required by system. Contractor to coordinate.
(4.) All ceiling heights shall comply with IRC Section R-305.

X. ELECTRICAL
(1.) All work will comply with the National Electrical Code, latest approved edition. Any items or requirements noted herein or on the drawings in excess of code requirements and permitted under the code shall take preference. Contractor is responsible for coordinating all power requirements to house appliances, HVAC, and plumbing/mechanical systems.
(2.) The contractor shall examine the premises and observe site conditions where the work is to be done. The contractor will design and prepare drawings of the intended system to be installed. Contractor shall be responsible for all design analysis based on anticipate system loads.
(3.) Provide smoke detector within each bedroom, one in the basement, one in the kitchen, and at the upper most floor hallway containing sleeping rooms. Provide a carbon monoxide detector at the top of new or existing basement stairwaye.
(4.) Electrical drawings produced by Architect are a diagrammatic representation of the intended work. Final fixture placement will be appropriate parties prior to rough in. All GFI outlets will be located and meet applicable code guidelines. All outlets above countertops will be located 3" above backsplashes mounted vertically. Confirm dryer and appliance receptacle types prior to rough in. All cables used shall be provided with full size ground. Provide category 5 phone lines, typically. Provide ground rod and #8 bare copper ground for TV and phone service. Confirm mounting heights of appliances prior to rough in.
(5.) Contractor will be responsible for obtaining all permits as required. If proposed work is a renovation, contractor will evaluate existing services and propose recommendations.
(6.) All recessed lights shall be Lightolier or equal and be approved for intended installation. Provide concealed rough-in kit designed for insulated areas per code requirements. All recessed lights installed at tub or shower locations will be vapor proof as allowed by codes.

Y. FINISHES & SPECIFICATIONS
(1.) All exterior painted surfaces shall be primed and caulked tight. Provide 2 finished coats on all trim, horizontal siding, windows, and foundation walls to grade. All interior surfaces shall receive 1 prime coat and 2 finish coats. Provide semi gloss alkyd finish on all interior and exterior trim. Provide mildew resistant paint within all bathrooms and laundry room. Paint all windows and other materials in strict accordance with written manufacturers specifications and instructions. All steel angles exposed to the exterior shall be completely primed prior to installation. Caulk all joints tight and apply a finish coat of rust and corrosion resistant paint. See interior specification sheet for additional information or as selected by client/owner. All cut edges at exterior wood trim shall be primed prior to installation. Back-prime all exterior trim, typically.
(2.) Interior Trim & Moldings: See interior specification sheet for additional information or as selected by client/owner.
(3.) All hardware at doors and windows will be as selected by client/owner.
(4.) All gutters will be 6" aluminum with 3x4 downspouts, minimum. U.O.N. All gutters and downspouts shall be sized according to volume of water volume of field verify for proper capacity. Provide splash blocks as required.
(5.) Floor Finishes: Flooring finishes shall be selected by client/owner and installed as per manufacturer's written specs and instructions. See interior specification sheet for additional information.
(6.) Final kitchen plan will be designed by others. Builder will install as required. Provide all power necessary for selected appliances and fixtures.
(7.) Built-in cabinets and shelving will be designed by others. Provide minimum 1 rod and shelf in all closets. Provide shelving as specified in linen closets.
(8.) Electrical Selections: See interior specification sheet or as selected by owner/client.
(9.) Appliance Selections: See interior specification sheet or as selected by owner/client.
(10.) Countertop Selections: See interior specification sheet or as selected by owner/client.
(11.) Ceramic Tile Selections: See interior specification sheet or as selected by owner/client.
(12.) Plumbing Selections: See interior specification sheet or as selected by owner/client.
(13.) HVAC Selections: See interior specification sheet or as selected by owner/client.
(14.) Landscaping Selections: See interior specification sheet or as selected by owner/client.

Z. SPRINKLER SYSTEM
(1.) Fire suppression system will be installed in all applicable structures in strict accordance with local jurisdiction requirements. Use NFPA 13D system. All pressure tests will be conducted to assure proper water supply pressures for designed system. Final design of fire suppression system will be the responsibility of a licensed engineer engaged in the appropriate jurisdiction.

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9/12/06	Permit Set

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Studio Z Design Concepts, LLC
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STUDIO Z
DESIGN CONCEPTS

The Gibbons Residence
4301 16th street, NW
Washington, DC

Joan Mac
Zoning Review Studio
Zoning Division

Project Number
GN-2
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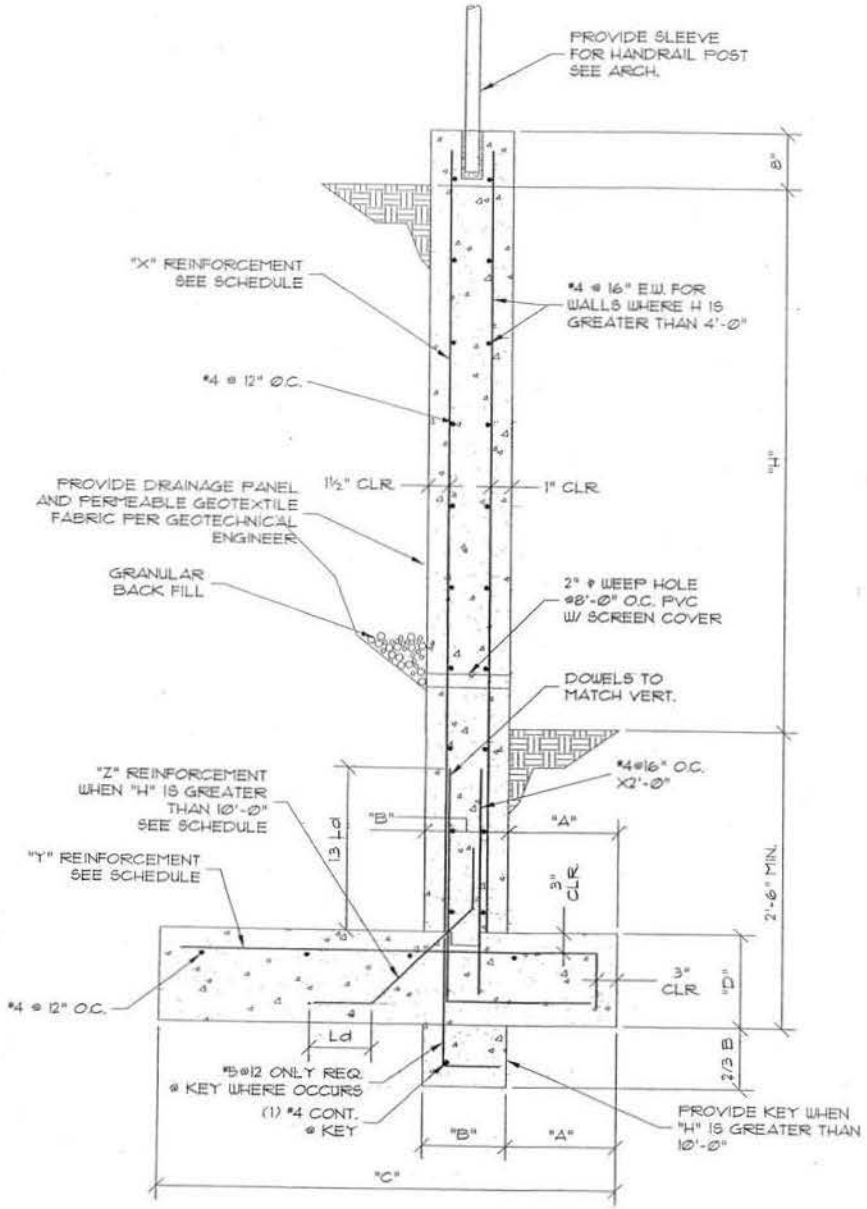

TYPICAL CONCRETE RETAINING WALL DETAIL

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CONCRETE RETAINING WALL SCHEDULE

MARK	H	A	B	C	D	X	Y	Z
I	1'-0"	6"	8"	1'-8"	1'-0"	#4@16"	#4@16"	–
II	2'-0"	6"	8"	2'-0"	1'-0"	#4@16"	#4@16"	–
III	3'-0'	6"	8"	2'-8"	1'-0"	#4@12"	#4@16"	–
IV	4'-0"	8"	8"	3'-2"	1'-0"	#4@12"	#4@12"	–
V	5'-0"	10"	10"	3'-10"	1'-0"	#4@12"	#4@12"	–
VI	6'-0"	1'-0"	1'-0"	4'-6"	1'-0"	#4@12"	#4@12"	–
VII	7'-0"	1'-2"	1'-0"	5'-0"	1'-0"	#4@8"	#5@12"	–
VIII	8'-0"	1'-4"	1'-0"	5'-6"	1'-2"	#5@12"	#5@8"	–
IX	9'-0"	1'-6"	1'-0"	6'-0"	1'-2"	#5@8"	#6@12"	–
X	10'-0"	1'-8"	1'-2"	6'-8"	1'-4"	#5@8"	#6@8"	–
XI	11'-0"	1'-10"	1'-2"	7'-4"	1'-4"	#5@8"	#6@8"	#4@8"
XII	12'-0"	2'-0"	1'-3"	7'-8"	1'-4"	#6@9"	#7@8"	#5@8"
XIII	13'-0"	2'-2"	1'-4"	8'-0"	1'-6"	#6@9"	#7@8"	#5@8"
XIV	14'-0"	2'-4"	1'-4"	8'-8"	1'-6"	#7@9"	#8@8"	#6@8"
XV	15'-0"	2'-6"	1'-5"	9'-4"	1'-8"	#8@8"	#8@8"	#6@8"

NOTES:

1. WALLS ARE DESIGNED FOR A 100PSF SURCHARGE.
2. REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60.
3. CONCRETE DESIGN STRENGTH IS 3000PSI.
4. FOR WALLS WHERE H IS 4'-0" OR LESS PROVIDE 8" THICK WALL FULL HEIGHT WITH REINFORCEMENT INSIDE FACE ONLY.
5. PROVIDE EXPANSION JOINTS @ 100'- AND CONTROL JOINTS @ 20'-0" TYPICAL

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STUDIO Z DESIGN CONCEPTS

The Gibbons Residence
4301 16th street, NW
Washington, DC

Zoning Review Branch
Zoning Division

Project Number

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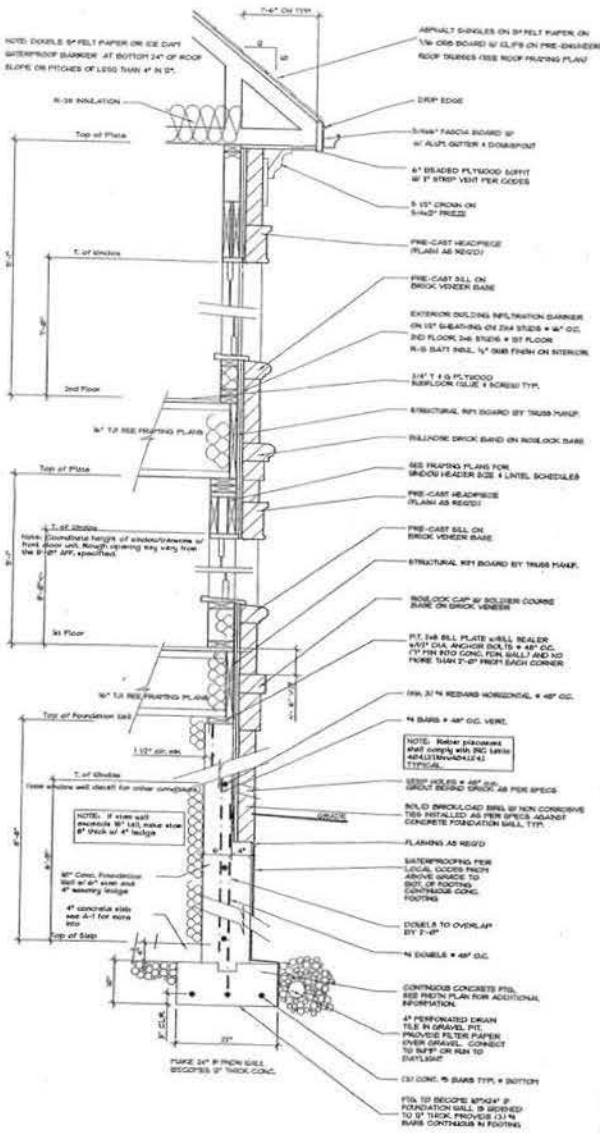
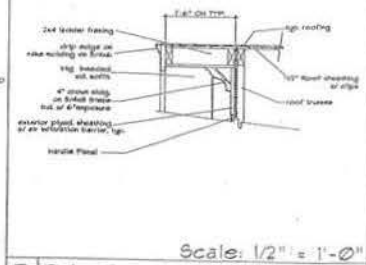


A Typical Wall Section Scale: 1" = 1'-0"



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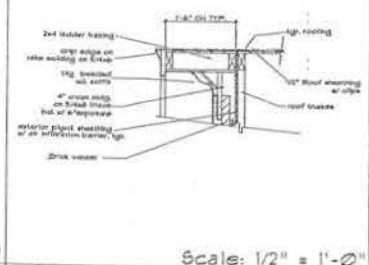
B Rake Detail Typ.



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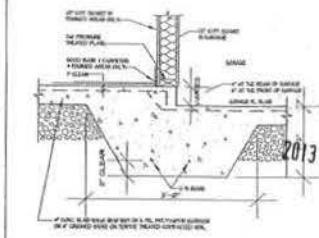
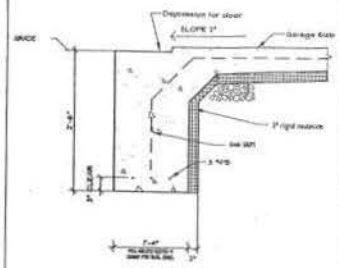
C Rake Detail w/ brick



D Garage Stepdown



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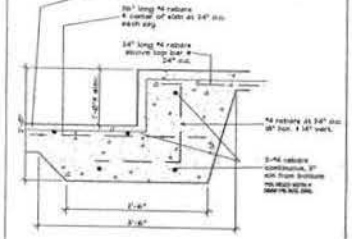
E Garage Slab Turn Down



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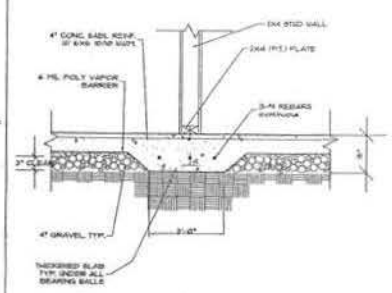
F Elevator Slab Detail



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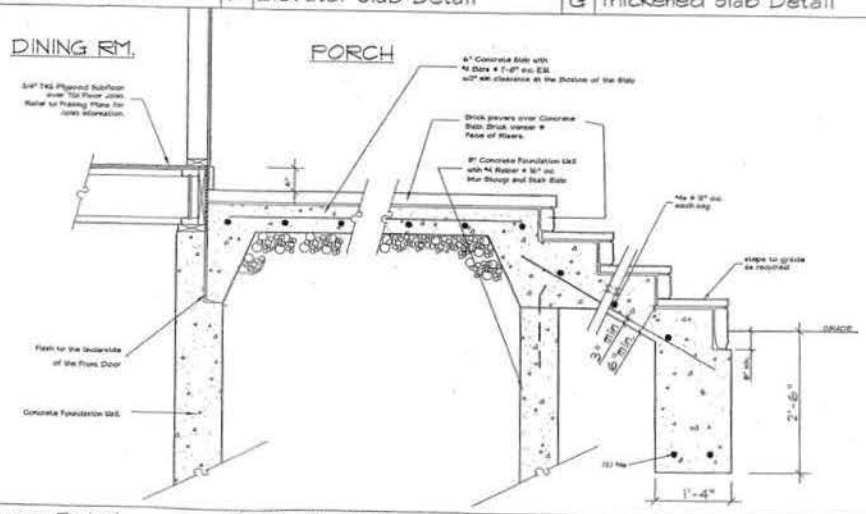
G Thickened Slab Detail



H Porch/Stoop Detail Scale: 1" = 1'-0"

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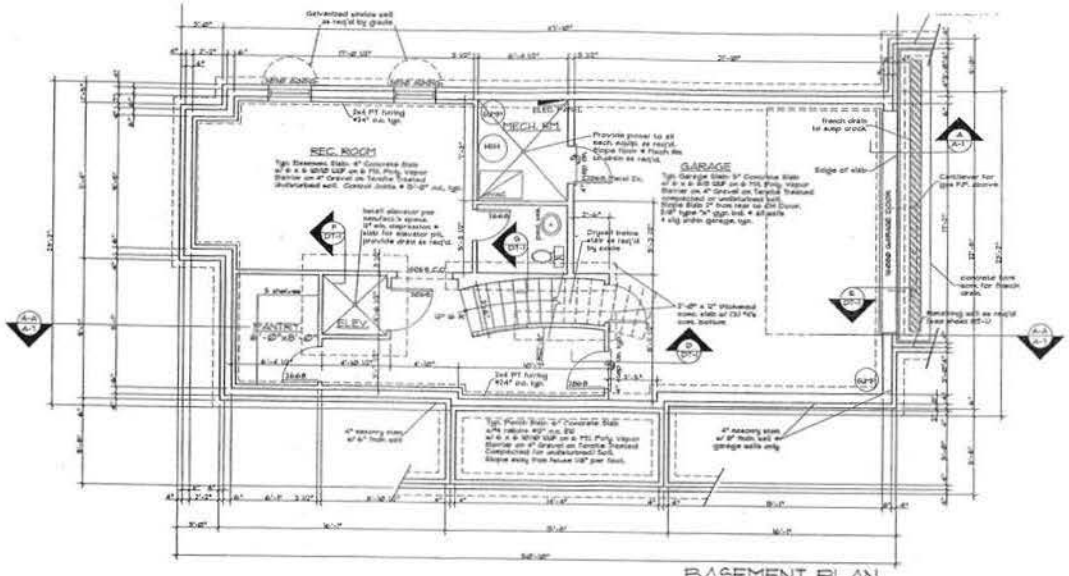
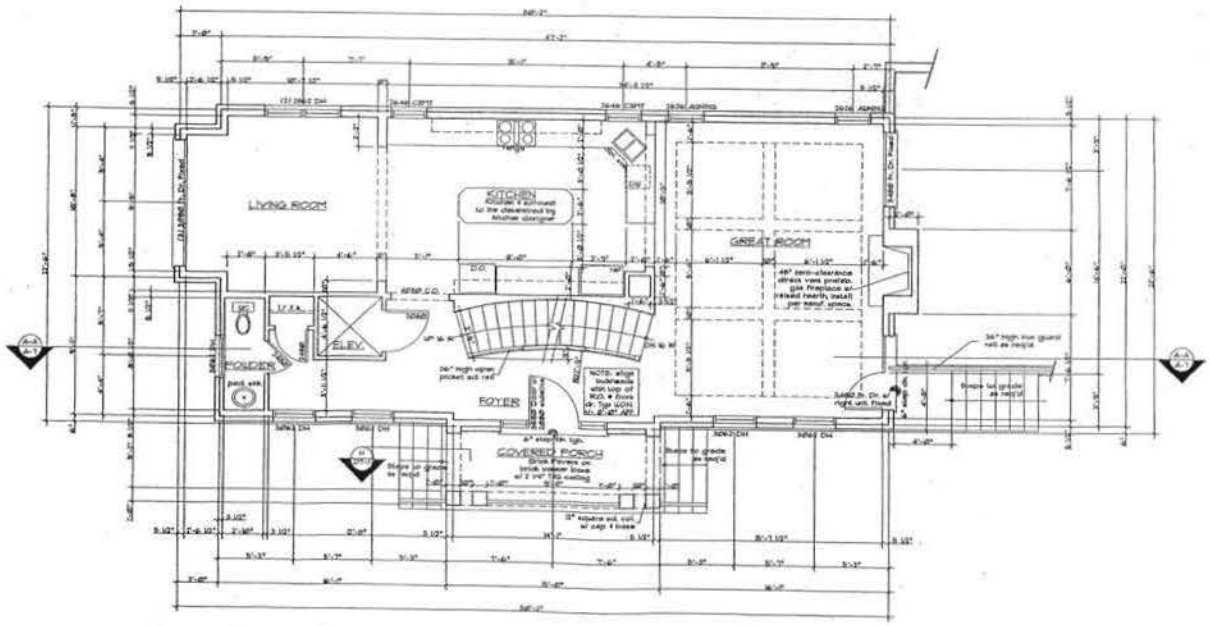


BASEMENT PLAN
SCALE: 1/4"-1'-Ø"
42Ø FT. SQ.



FIRST FLOOR PLAN
SCALE: 1/4"-1'-Ø"
1Ø95 FT. SQ.

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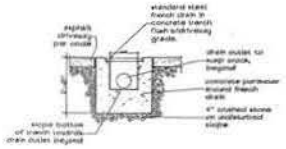

A- FRENCH DRAIN
SCALE: 1/2"-1'-Ø"

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STUDIO Z DESIGN CONCEPTS

The Gibbons Residence
4301 16th street, NW
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Zoning Review Branch
Zoning Division

DISTRICT OF COLUMBIA REGISTERED ARCHITECT

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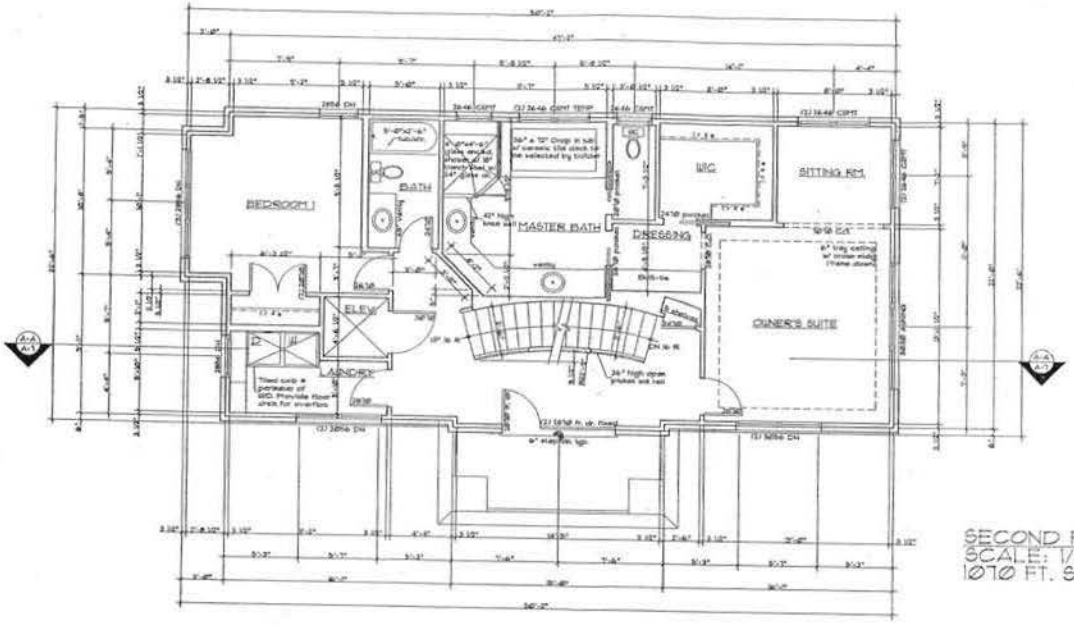
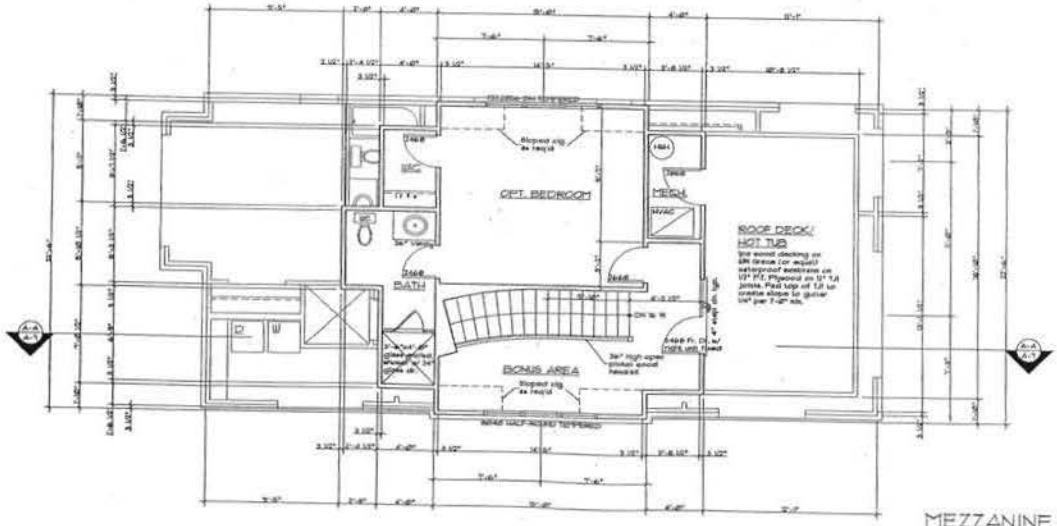


SECOND FLOOR PLAN
SCALE: 1/4"-1'-0"
1010 FT. SQ.



MEZZANINE PLAN
SCALE: 1/4"-1'-0"
510 FT. SQ.

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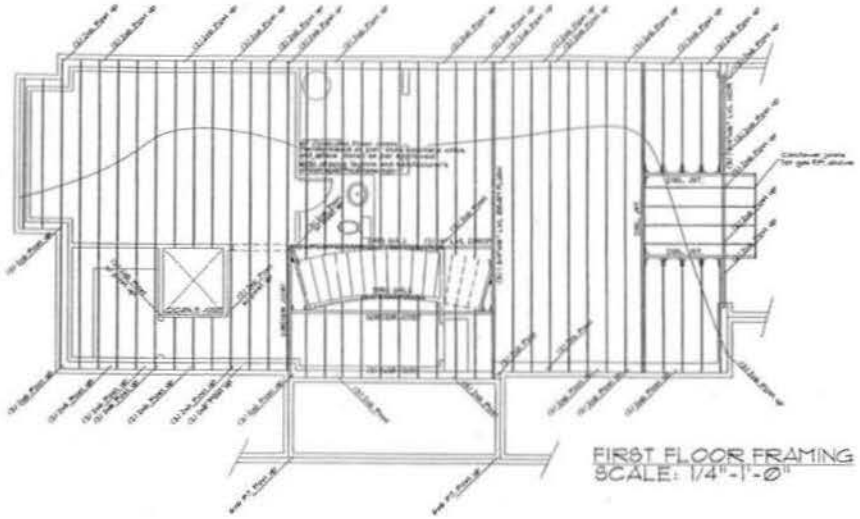
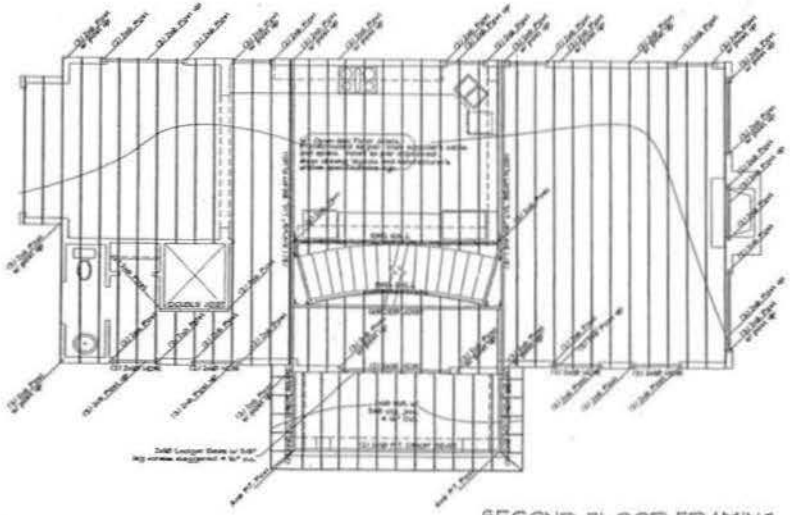


FIRST FLOOR FRAMING
SCALE: 1/4"-1'-0"



SECOND FLOOR FRAMING
SCALE: 1/4"-1'-0"

Framing Plans Shown are Schematic in Nature. Refer to Approved Truss Drawings from Truss Manufacturer for Actual Framing. Size, Installation Details and Bracing Refer to General Note Sheet for Truss Design Criteria and Loading Requirements.

Trusses shall be designed to carry all live and dead loads with the live load deflection not to exceed L/480 for ceiling, tandwood, and floored floors. For floors with ceiling, ceramic tile, or flooring the total load deflection shall not exceed L/720 for spans equal to or less than 14'-0" for spans greater than 14'-0" the total load deflection shall not exceed 1/32" as specified by the Home Insure of America.

Builder responsible for coordinating the location of all ceiling and mirror tile w/ truss manufacturer.

Headers: 2-2x8 UON

All posts for headers to be (2) flat 2x8 typ

All bearing walls to be 2x6 @ 16" o.c. typ

All Basement window headers to be flat.

Provide Conc. Blocking @ all pointloads

Builder substitutions for engineered wood joist products may only be made with architect/engineer's approval. GC must provide loading capacity for all substituted systems prior to

Notes:
All joists shall overlap joist by headroom typ
All joists shall be minimum (2) flat 2x10

BEARING WALL SHADED

L/720 LIVE LOAD DEFLECTION

NOTE: PRESSURE TREAT ALL DIMENSIONAL LUMBER EXPOSED TO WEATHER (TYP.)

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STUDIO Z
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Zoning Map
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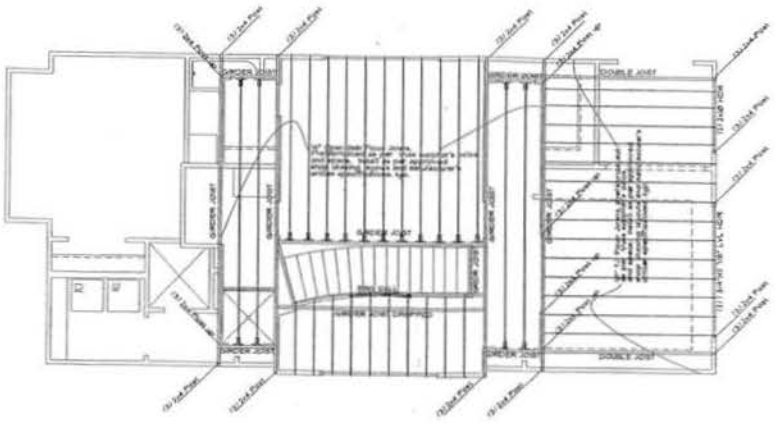
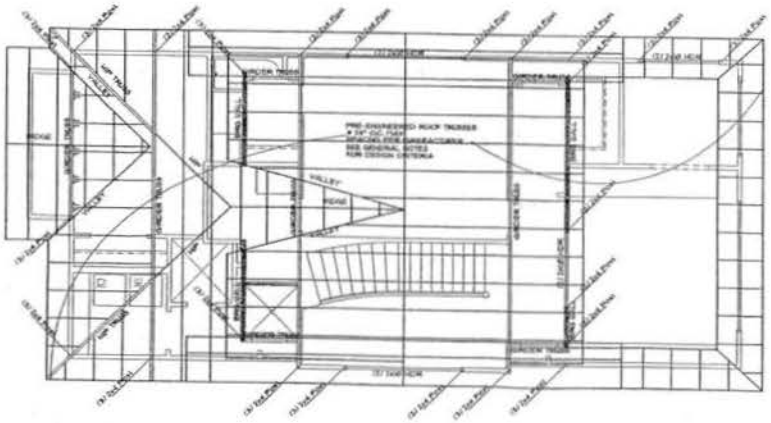


THIRD FLOOR FRAMING
SCALE: 1/4"-1'-0"



ROOF FRAMING
SCALE: 1/4"-1'-0"

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Notes:
Framing Plans Shown are Schematic in Nature. Refer to Approved Truss Drawings from Truss Manufacturer for Actual Placing, Size, Installation Details and Bracing. Refer to General Note Sheet for Truss Design Criteria and Loading Requirements.

Provide one truss hurricane clip, Simpson H2.5 or eq at each truss bearing pt. U.O.N. Additional or alternate uplift resistance to be determined during shop drawing review.

Exterior roof sheathing shall be 7/16" OSB or CDX. Attach roof sheathing as per APA recommendations.

Headers: 2-2x8 U.O.N.

Floor on 2nd Fl. 3-2x6 U.O.N.

Bearing Plates: N/A

All Basement shaftw headers to be flush in floor system.

Provide Cont. Blocking @ all partitions

All 2x6 walls w/37 plg headers or trusses provide 2x6 sill blocking to fill cavity typ.

Builder substitutions for standard sized pipe curbs may only be made with architect/ engineer's approval. GC must provide loading capacity for all substituted curbs prior to installation.

All overhanging shall be by the Truss Manufacturer Or Detail @ 24" O.C., typ.

NOTE: PRESSURE TREAT ALL DIMENSIONAL LUMBER EXPOSED TO WEATHER (TYP.)

Notes:
All plates shall continue down to foundation typ.
Plates shall be attached (2) 2x6 U.O.N.

BEARING WALL SHADED

L/720 LIVE LOAD DEFLECTION

FRAME UP CEILING 12" INTO TRUSS

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STUDIO Z DESIGN CONCEPTS

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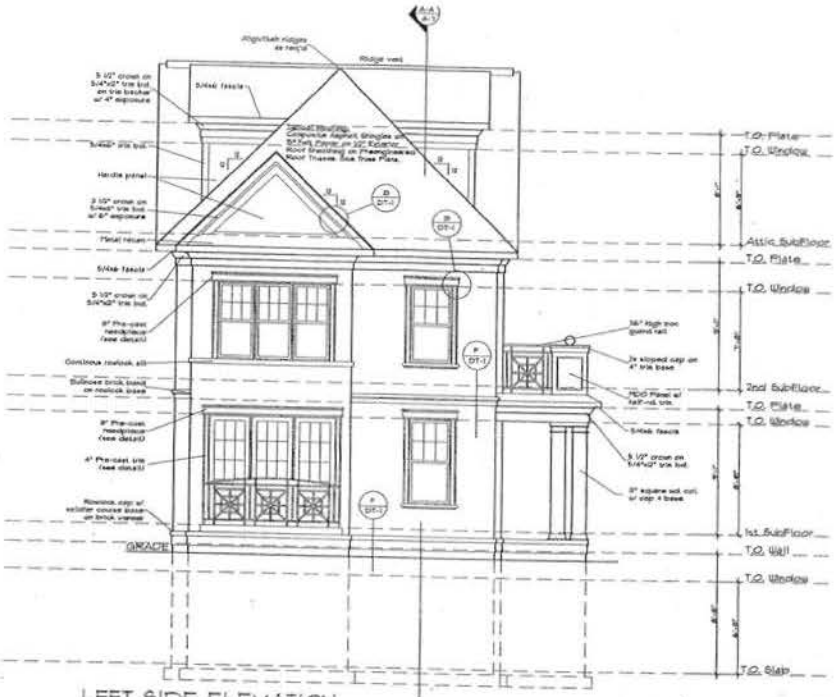
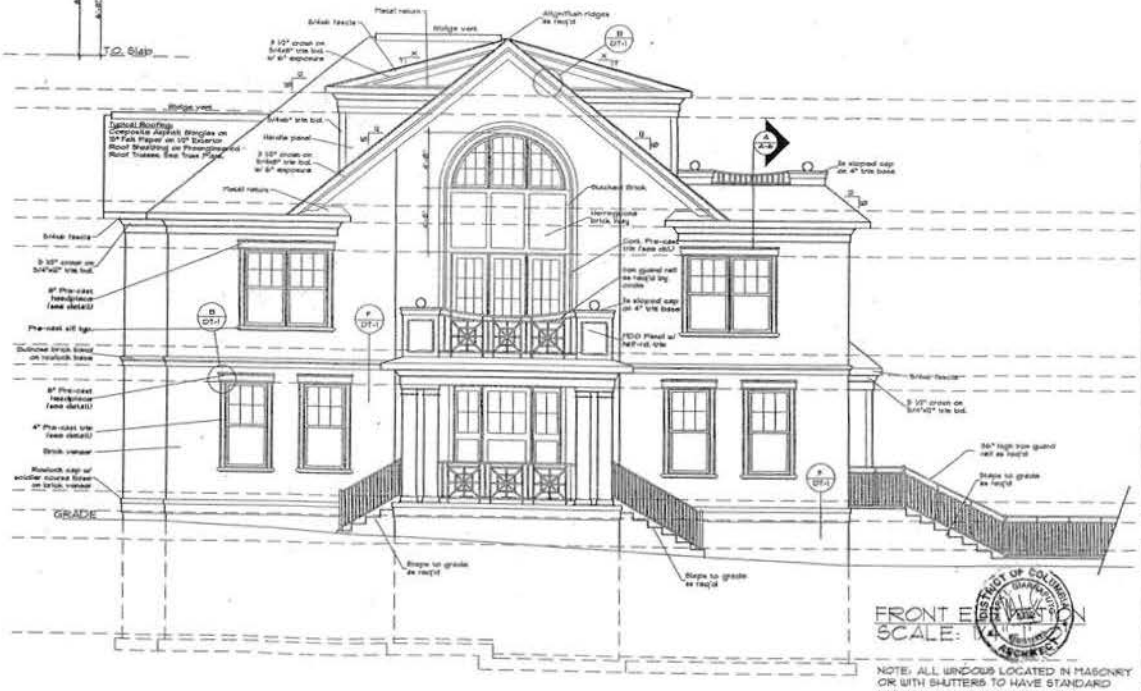


LEFT SIDE ELEVATION
SCALE: 1/4"-1'-0"

NOTE: ALL WINDOWS LOCATED IN MASONRY OR WITH SHUTTERS TO HAVE STANDARD BRICK MOLDING, NOT 5/4X6 TRIM



FRONT ELEVATION
SCALE: 1/4"-1'-0"

NOTE: ALL WINDOWS LOCATED IN MASONRY OR WITH SHUTTERS TO HAVE STANDARD BRICK MOLDING, NOT 5/4X6 TRIM

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STUDIO Z DESIGN CONCEPTS

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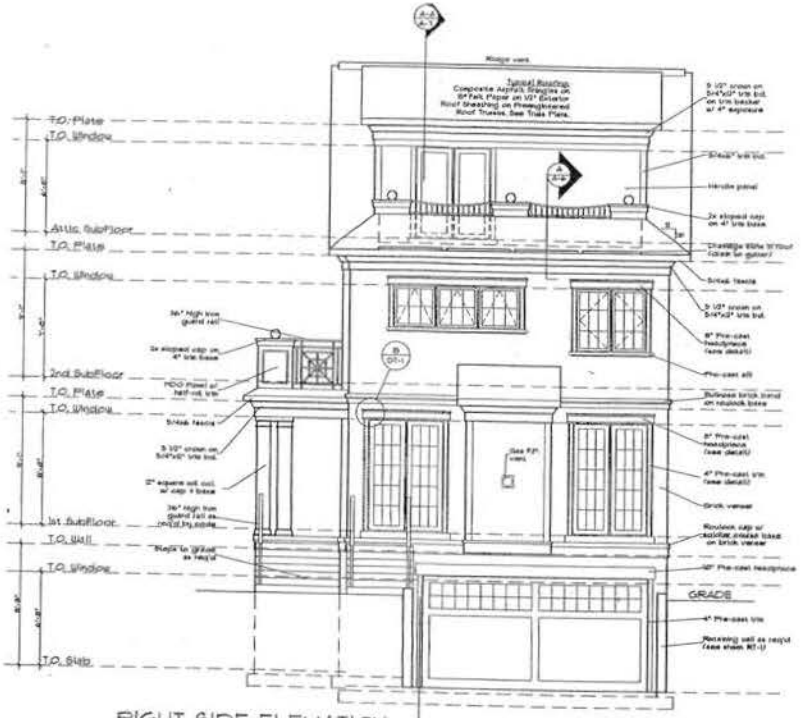

RIGHT SIDE ELEVATION
SCALE: 1/4"-1'-0"

NOTE: ALL WINDOWS LOCATED IN MASONRY OR WITH SHUTTERS TO HAVE STANDARD BRICK MOLDING, NOT 5/4X6 TRIM

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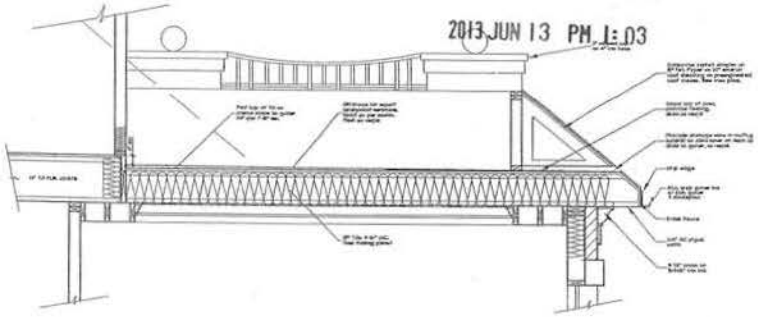
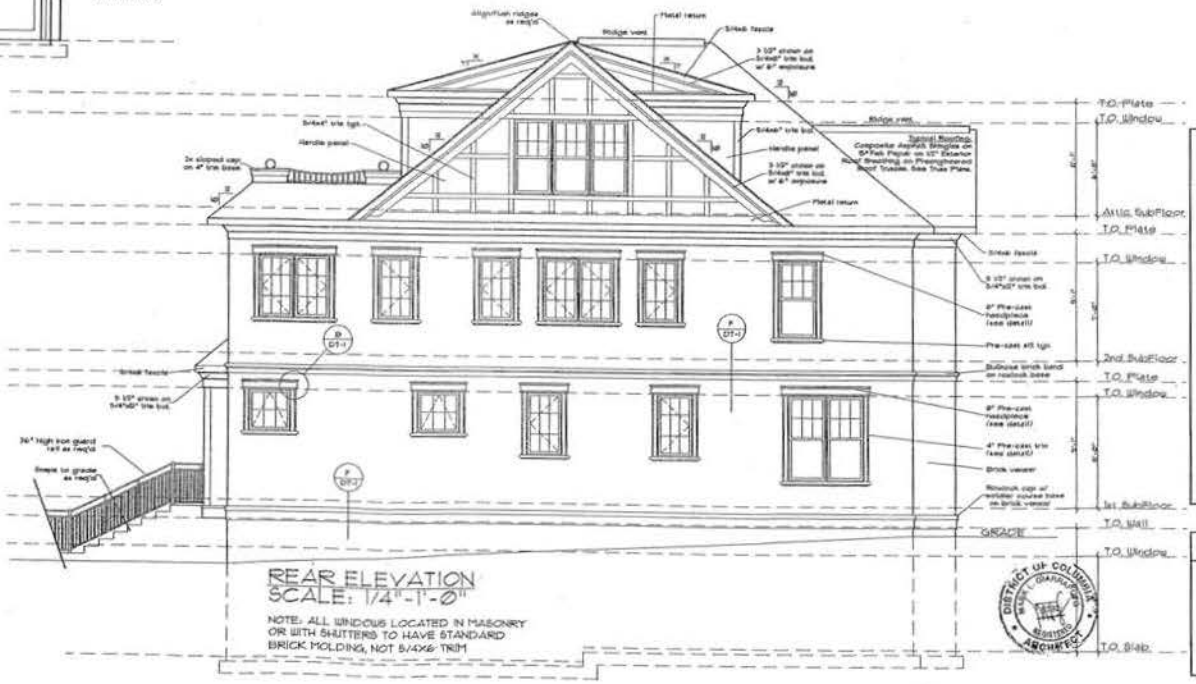


UPPER DECK DETAIL
SCALE: 3/4"-1'-0"



REAR ELEVATION
SCALE: 1/4"-1'-0"

NOTE: ALL WINDOWS LOCATED IN MASONRY OR WITH SHUTTERS TO HAVE STANDARD BRICK MOLDING, NOT 5/4X6 TRIM

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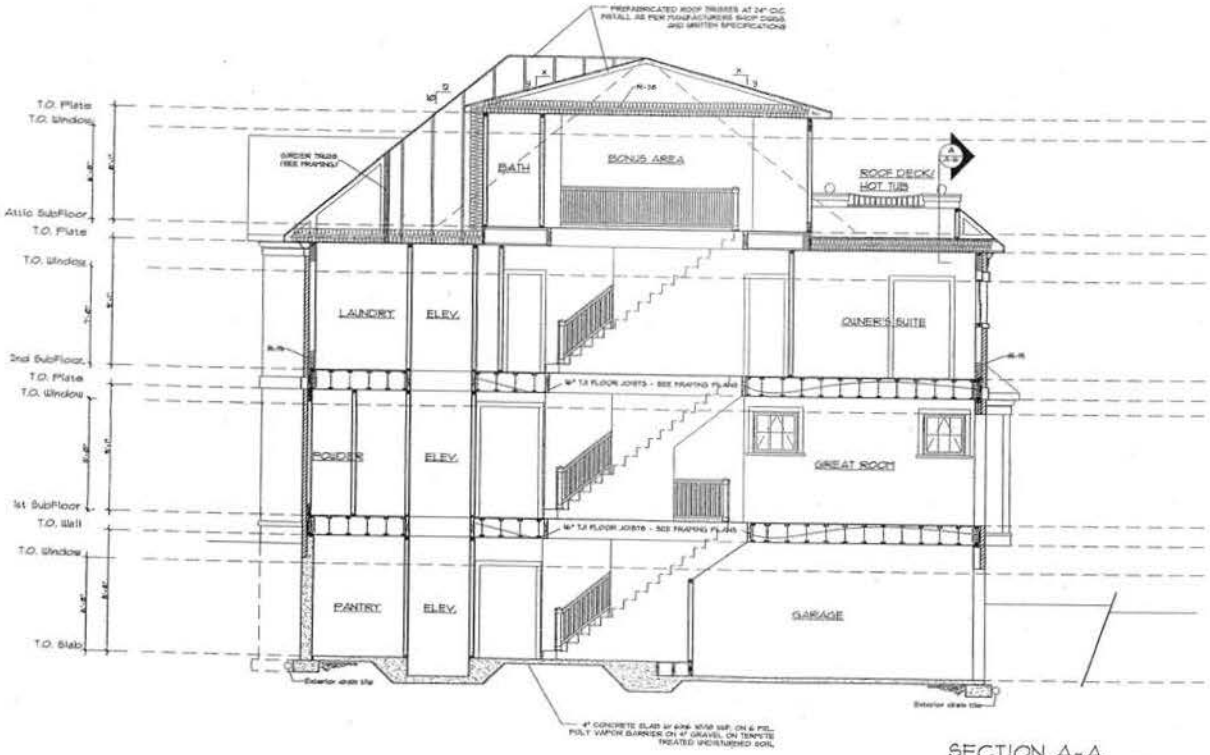

SECTION A-A
SCALE: 1/4"=1'-0"

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STUDIO Z
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The Gibbons Residence
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ELECTRICAL SPECIFICATIONS

1. THE SCOPE OF WORK CONSISTS OF THE FURNISHING AND INSTALLATION OF A COMPLETE ELECTRICAL SYSTEM AS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN. THIS CONTRACTOR SHALL PROVIDE ALL SUPERVISION, LABOR, MATERIALS, EQUIPMENT, MACHINERY, AND ALL OTHER ITEMS NECESSARY TO COMPLETE THE SYSTEM. THIS CONTRACTOR SHALL PROVIDE AND INSTALL ALL EQUIPMENT AS INDICATED ON THE DRAWINGS AND/OR AS REQUIRED FOR A FUNCTIONING ELECTRICAL SYSTEM. THIS CONTRACTOR SHALL ALSO PROVIDE THE COORDINATION WITH THE POWER COMPANY REQUIRED FOR THE TIMELY CONNECTION OF NEW POWER.

2. ANY DISCREPANCIES ON THE PLANS SHALL BE BROUGHT TO THE ENGINEER'S ATTENDION, IN WRITING, BEFORE SUBMITTING THE BID.

3. ELECTRICAL PLANS ARE DIAGRAMMATIC.

4. THE FOLLOWING TERMINOLOGY AND MEANINGS WILL BE USED IN THESE SPECIFICATIONS:

A. PANELBOARDS "EQUIPPED SPACE" OR "SPACE": INCLUDE ALL NECESSARY BUS, DEVICE SUPPORTS AND CONNECTIONS FOR INSERTION OF A FUTURE DEVICE.
B. "PROVIDE": FURNISH AND INSTALL.
C. "THIS CONTRACTOR": THE ELECTRICAL CONTRACTOR.

5. THIS CONTRACTOR SHALL EXAMINE THE DRAWINGS, SPECIFICATIONS AND JOB SITE AND FULLY INFORM HIMSELF OF ALL EXISTING CONDITIONS AND WORK REQUIRED BY THE DRAWINGS AND SPECIFICATIONS BEFORE SUBMITTING HIS BID. WAIVER OF RESPONSIBILITY OR REQUEST FOR ADDITIONAL PAYMENT BASED ON LACK OF KNOWLEDGE OF CONDITIONS AT THE SITE WILL NOT BE ACCEPTED OR CONSIDERED. ANY DIFFICULTIES IN COMPLYING WITH THE DRAWINGS AND SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER, IN WRITING, BEFORE SUBMITTING THE BID.

6. THE ENTIRE ELECTRICAL INSTALLATION SHALL CONFORM TO THE APPLICABLE EDITIONS OF THE NATIONAL ELECTRICAL CODE, NFPA 70, LOCAL JURISDICTION REQUIREMENTS AND LOCAL STATE CODE REQUIREMENTS.

7. THIS CONTRACTOR SHALL ORDER AND OBTAIN ALL NECESSARY ELECTRICAL TESTS, PERMITS AND CERTIFICATES OF APPROVAL AND PAY ANY REQUIRED FEES FOR SAME.

8. SHOP DRAWINGS FOR ALL ELECTRICAL EQUIPMENT, FIXTURES, DEVICES AND MATERIALS SHALL BE SUBMITTED TO THE PROJECT MANAGER FOR APPROVAL BEFORE DELIVERY TO THE JOB SITE. EQUIPMENT, FIXTURES, AND MATERIAL DELIVERED TO THE JOB SITE ON INSTALLED PRIOR TO APPROVAL OF THE SHOP DRAWINGS AND FOR WHICH THE SHOP DRAWINGS ARE SUBSEQUENTLY REJECTED, SHALL BE REPLACED WITH AN APPROVED ITEM AT NO ADDITIONAL COST TO THE OWNER. PROVIDE 6 COPIES FOR THE FOLLOWING ITEMS:

A. LIGHTING FIXTURES AND SWITCHES
B. RECEPTACLES
C. PANELBOARDS
D. STARTERS AND DISCONNECT SWITCHES.

9. ALL EQUIPMENT, CIRCUITRY, DEVICES, MATERIALS ETC. SHALL BE NEW AND SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

10. ALL ELECTRICAL EQUIPMENT SHALL BEAR THE UNDERWRITER'S LABORATORIES LABEL.

11. ALL EQUIPMENT SUCH AS PANELBOARDS, TRANSFORMERS, STARTERS AND DISCONNECTS SHALL BE AS MANUFACTURED BY GENERAL ELECTRIC SQUARE-D, CHALLENGER OR SIEMENS.

12. WORK SHALL BE PROTECTED AT ALL TIMES FROM DAMAGE BY PERSONS OR WEATHER AND ALL DAMAGED WORK RESTORED TO A NEW CONDITION BEFORE FINAL ACCEPTANCE.

13. ALL PENETRATIONS OF FLOOR AND WALLS SHALL BE FIRE STOPPED IN ACCORDANCE WITH BOCA, NEC AND NFPA.

14. ALL WORK SHALL BE PERFORMED DURING NORMAL WORKING HOURS, MONDAY THROUGH FRIDAY (7 AM TO 5 PM). IF WORK CANNOT BE PERFORMED DURING NORMAL WORKING HOURS THE OWNER SHALL BE NOTIFIED PRIOR TO THE SIGNING OF THE CONTRACT.

15. ADVANCE NOTICE SHALL BE GIVEN TO THE OWNER BEFORE COMMENCEMENT OF WORK, WHETHER OR NOT AN OUTAGE IS REQUIRED.

16. PROVIDE TEMPORARY SERVICE AS NECESSARY FOR LIGHTING AND POWER EQUIPMENT (DRILLS, SAWS, ETC.). COORDINATE TEMPORARY REQUIREMENTS WITH GENERAL CONTRACTOR. TEMPORARY LIGHTING AND POWER SHALL MEET OSHA REQUIREMENTS AND LOCAL CODES. TEMPORARY POWER SHALL BE 120V.

17. THIS CONTRACTOR SHALL COORDINATE ALL HIS WORK WITH THE GENERAL CONTRACTOR FOR THE EXACT LOCATION OF CHASES, FURRING SPACES, DROPPED CEILINGS, STRUCTURE PENETRATIONS, PARKING, ETC.

A. CONSULT ARCHITECTURAL-PLANS AND DETAILS FOR CONSTRUCTION TYPE, HEADROOM, ROOM FINISHES, TYPE OF CEILING, FLOORS ETC.

18. ALL HVAC/PLUMBING EQUIPMENT INDICATED ON THE DRAWINGS SHALL BE CONNECTED UNDER THIS CONTRACT. ELECTRICAL EQUIPMENT REQUIREMENTS INDICATED ON DRAWINGS MAY DIFFER FROM ACTUAL EQUIPMENT FURNISHED. THIS CONTRACTOR SHALL COORDINATE ALL SUCH EQUIPMENT POWER REQUIREMENTS WITH THE HVAC/PLUMBING CONTRACTORS PRIOR TO ROUGHING IN ANY DISCONNECT SWITCHES, WIRING, FEEDERS, BREAKERS ETC. NECESSARY FOR EQUIPMENT INSTALLATION.

19. THIS CONTRACTOR SHALL COORDINATE ALL MOUNTING HEIGHTS FOR SWITCHES, RECEPTACLES, CEILING MOUNTED LIGHTING FIXTURES AND TELEPHONE OUTLETS BY THE USE OF THE ARCHITECTURAL REFLECTED CEILING PLANS AND ELEVATIONS. SHOULD ANY CONFLICTS BECOME APPARENT, THIS CONTRACTOR SHALL REQUEST CLARIFICATION PRIOR TO INSTALLATION. IF THE WORK IS NOT COORDINATED ANY REMEDIAL WORK SHALL BE REDONE AT NO ADDITIONAL COST TO THE OWNER.

20. FINAL TESTING: AT THE TIME OF FINAL INSPECTION AND TEST, ALL CONNECTIONS AT PANELBOARDS, DEVICES AND EQUIPMENT, AND ALL SPLICES MUST BE COMPLETED. EACH BRANCH CIRCUIT AND ITS RESPECTIVE CONNECTED EQUIPMENT MUST TEST FREE OF SHORT CIRCUITS. UPON COMPLETION OF THE WORK, CLEAN AND POLISH ALL EXPOSED SURFACES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

21. THIS CONTRACTOR SHALL GUARANTEE THE ENTIRE INSTALLATION TO BE FREE FROM DEFECTS FOR TWO YEARS FROM THE DATE OF ACCEPTANCE BY THE OWNER. ANY DEFECTS OCCURRING DURING THE GUARANTEE PERIOD SHALL BE CORRECTED AT NO ADDITIONAL COST TO THE OWNER.

22. THIS CONTRACTOR SHALL MAINTAIN ACCURATE RECORD DRAWINGS OF ALL WORK AS ACTUALLY INSTALLED. ON COMPLETION OF THE PROJECT THE FOLLOWING MATERIAL SHALL BE DELIVERED TO THE OWNER:

A. TWO (2) COMPLETE SETS OF REPRODUCIBLE DRAWINGS SHALL BE DELIVERED TO THE OWNER AND ONE (1) SET OF DRAWING TO THE A/E FIRM.

B. ALL NEW INSTALLED EQUIPMENT MANUFACTURER'S DATA AND WARRANTY LITERATURE.

LABELING

1. PROVIDE LABELING FOR ALL FEEDER RACEWAYS, ELECTRICAL PANELS, AND ALL MAJOR PIECES OF EQUIPMENT AS FOLLOWS:

A. ALL FEEDER RACEWAYS SHALL BE LABELED AS TO ITEM SERVED WITH MINIMUM 1/4" HIGH LETTERS.

B. ALL JUNCTION BOXES FOR BRANCH CIRCUITRY SHALL BE LABELED WITH PANEL DESIGNATION AND CIRCUIT NUMBERS WITH MINIMUM 1/4" HIGH LETTERS.

C. ALL STARTERS AND DISCONNECTS SHALL BE LABELED WITH 1/4" ENGRAVED WHITE LETTERS BLACK LAMACOID BACKGROUND NAME PLATES. NAME PLATE SHALL BE LABELED "F -NO." OR "AHU - NO." ETC.

PANELBOARDS

1. CIRCUIT NUMBERS ARE FOR IDENTIFICATION PURPOSES ONLY. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTLY SPACING THE CIRCUITS IN THE PANEL AND BALANCE THE LOAD ON THE PHASES UNDER NORMAL OPERATING CONDITIONS.

2. BEFORE ORDERING PANELBOARDS, COORDINATE ALL MOTOR CIRCUIT BREAKER TRIPS WITH MECHANICAL EQUIPMENT MANUFACTURER'S REQUIREMENTS. COORDINATE CONDUCTOR SIZE WITH ACTUAL MOTORS AND OTHER MECHANICAL AND ARCHITECTURAL EQUIPMENT FURNISHED BEFORE INSTALLING CIRCUITRY.

3. ALL PANELBOARDS SHALL HAVE COMMON KEYED LOCKS. PROVIDE A MINIMUM OF TWO KEYS PER PANEL. PANELBOARDS SHALL BE COMPLETE WITH COVER AND TRIM AND SHALL CONTAIN A GROUND BUS.

5. SURFACE MOUNTED PANELBOARD CABINETS SHALL BE INSTALLED ON AN APPROVED STEEL FRAMEWORK TO DISTRIBUTE THE WEIGHT EVENLY TO THE WALL OR FLOOR AND TO PROVIDE A 1-INCH AIR SPACE BETWEEN WALL AND CABINET.

SWITCHES, RECEPTACLES & OUTLETS

1. PRIOR TO INSTALLATION OF ANY TELEPHONE, DATA AND RECEPTACLE OUTLETS, THIS CONTRACTOR SHALL VERIFY ITS FINAL LOCATION WITH THE ARCHITECTURAL PLANS.

2. WHERE TWO OR MORE DEVICES OF THE SAME VOLTAGE ARE SHOWN TOGETHER ON THE PLANS, A GANGED PLATE SHALL BE USED. DEVICES OF DIFFERENT VOLTAGES SHALL BE SEPARATED HORIZONTALLY BY 6" AND SHALL BE HORIZONTALLY OR VERTICALLY ALIGNED.

3. ALL RECEPTACLES, AND TELEPHONE OUTLETS SHOWN ON A WALL BACK TO BACK SHALL BE OFFSET A MINIMUM OF 6" HORIZONTALLY.

4. WALL PLATES SHALL BE STAINLESS STEEL. FINISH AS SELECTED BY THE ARCHITECT.

5. COORDINATE LIGHT SWITCHES SHOWN ON DRAWINGS WITH DOOR SWINGS. LOCATE LIGHT SWITCH ON LOCK SIDE OF DOOR.

LIGHTING FIXTURES

1. THIS CONTRACTOR SHALL VERIFY THAT ALL DOOR SWINGS, FURNITURE AND EQUIPMENT ARE CORRECT BEFORE INSTALLING LIGHT SWITCHES AND OUTLETS.

6. COORDINATE RECESSED LIGHTING FIXTURES WITH SPRINKLERS, MECHANICAL EQUIPMENT AND ARCHITECTURAL CEILING PLAN. GRID LAYOUT ON PLANS IS APPROXIMATE. ADJUST AND COORDINATE LIGHTING FIXTURES IN FIELD PER ARCHITECTS REFLECTED CEILING PLAN.

7. THIS CONTRACTOR SHALL VERIFY THE TYPE OF CEILING TO INSURE THAT ALL LIGHTING FIXTURES ARE SUITABLE WITH CEILING FINISH.

8. BALLAST FOR LIGHTING FIXTURES SHALL OPERATE THE SPECIFIED LAMPS. ELECTRONIC BALLAST SHALL HAVE A POWER FACTOR GREATER THAT 0.95.

9. PROVIDE FINISHED FRAMES FOR ALL RECESSED LIGHTING FIXTURES, TYPE TO BE COMPATIBLE WITH CEILING. COORDINATE ALL FIXTURE TYPES WITH CEILING SYSTEM BEFORE ORDERING FIXTURES. PROVIDE ALL MOUNTING ATTACHMENTS FOR A COMPLETE INSTALLATION. LIGHTING FIXTURES SHALL BE SUPPORTED FROM BUILDING STRUCTURE. LIGHTING FIXTURES SUPPORTED FROM CEILING SYSTEM OR MECHANICAL EQUIPMENT WILL NOT BE ACCEPTED.

10. ALL LIGHTING FIXTURES SHALL BE INSTALLED COMPLETE WITH LAMPS. SEE PLANS FOR SPECIFIC REQUIREMENTS.

11. COLOR OF LIGHTING FIXTURES SHALL BE AS SELECTED BY THE ARCHITECT.

12. DIMMING BALLAST FURNISHED WITH LIGHTING FIXTURES SHALL FULLY COMPATIBLE WITH THE DIMMING SYSTEM. IT'S THIS CONTRACTORS RESPONSIBILITY TO OBTAIN WIRING DIAGRAMS FOR THE DIMMING SYSTEM PRIOR TO LIGHTING FIXTURE INSTALLATION.

STARTERS AND DISCONNECT SWITCHES

1. STARTERS SHALL HAVE OVERLOAD PROTECTION IN EACH PHASE FOR MOTORS 1/3 HP OR LARGER. MAXIMUM CONTROL VOLTAGE SHALL BE 120V. PROVIDE CONTROL TRANSFORMER IF REQUIRED. STARTERS SHALL BE H-O-A TYPE WITH RED PILOT LIGHT. PROVIDE AUXILIARY CONTACTS AS REQUIRED BY MECHANICAL CONTROL REQUIREMENTS.

2. THIS CONTRACTOR SHALL NOTE U.L. LABELS ON PACKAGED TYPE MECHANICAL EQUIPMENT. IF U.L. LABEL ON MECHANICAL EQUIPMENT TO ACTUALLY BE INSTALLED CALLS FOR THE OVERCURRENT PROTECTIVE DEVICE TO BE FUSES, THIS CONTRACTOR SHALL PROVIDE A FUSED DISCONNECT SWITCH WITH PROPER SIZE FUSES AT THE SWITCH LOCATION INDICATED ON DRAWINGS AT NO ADDITIONAL CHARGE TO THE OWNER.

3. LOCATE DISCONNECT SWITCH FOR MECHANICAL EQUIPMENT TO PERMIT SERVICING OF EQUIPMENT. PROVIDE FUSES IF REQUIRED BY MANUFACTURER OF EQUIPMENT FOR UL APPROVAL. CHECK MOTORS FOR PROPER ROTATION. CONNECT CONDUCTORS AS REQUIRED BY MANUFACTURER.

4. DISCONNECT SWITCHES INDICATED SHALL BE HEAVY- DUTY TYPE, HORSEPOWER RATED, QUICK-MAKE, QUICK-BREAK TYPE SWITCHES WITH SPRING REINFORCED WIRE ONIPS AND SELF-ALIGNING SWITCH CONTACTS AND SHALL BE ENCLOSED IN NEMA-1 UNLESS OTHERWISE NOTED. ENCLOSURE SHALL BE HEAVY METAL WITH HINGED INTERLOCKING COVER WHICH PREVENT BEING OPEN IN "ON" POSITION.

5. WEATHERPROOF SWITCHES SHALL BE PROVIDED FOR ALL LOCATIONS EXPOSED TO THE ELEMENTS WHETHER CALLED FOR OR NOT ON THE DRAWINGS. WEATHER PROOF SWITCHES SHALL BE NEMA-3R.

A. ALL DISCONNECT SWITCHES LOCATED OUTDOORS SHALL BE PROVIDED WITH A WEATHERPROOF PADLOCK. TWO SETS OF KEYS SHALL BE PROVIDED TO THE OWNER AT THE COMPLETION OF THE JOB.

6. PROVIDE CARTRIDGE TYPE FUSES IN SWITCHES.

7. MOTOR THERMAL OVERLOAD SWITCHES SHALL BE AHSH OR APPROVED EQUAL, TYPE ML MANUAL STARTER WITH THERMAL OVERLOAD PROTECTION.

BRANCH CIRCUITRY

1. ALUMINUM CONDUIT IS NOT BE PERMITTED.

2. ALL CIRCUITRY RUNS ARE DIAGRAMMATIC. THIS CONTRACTOR SHALL DETERMINE IN FIELD THE MOST SUITABLE ROUTES.

3. MINIMUM SIZE EMT OR CONDUIT SHALL BE 3/4".

4. NO NONMETALLIC CONDUIT SHALL BE USED FOR BRANCH CIRCUIT WORK ABOVE GRADE.

5. CIRCUITRY SHALL BE RUN CONCEALED IN FINISHED AREAS, EXPOSED IN UNFINISHED AREA.

6. CIRCUITRY SHALL BE RUN TIGHT TO THE UNDERSIDE OF THE FLOOR SLAB ABOVE IN A NEAT WORKMANLIKE MANNER. ALL RUNS SHALL BE PARALLEL OR PERPENDICULAR TO BUILDING WALLS.

7. ALL EMPTY RACEWAYS SHALL CONTAIN A DRAG WIRE. EMPTY RACEWAYS 2" OR LARGER IN SIZE SHALL HAVE A MAXIMUM OF 3-90 DEGREE BENDS.

8. MAKE FINAL CONNECTION TO ALL MOTORS AND VIBRATING EQUIPMENT WITH FLEXIBLE CONDUIT.

9. ALL CONDUIT/CABLE PENETRATIONS OF EXTERIOR WALLS, FIRE RATED WALLS AND FIRE RATED FLOORS, SHALL BE CAULKED AND SEALED WATERTIGHT. SEALS FOR FIRE RATED PENETRATIONS SHALL BE SEALED WITH UL LISTED PUTTY TYPE SEALING COMPOUND.

INDOOR BRANCH CIRCUITRY

1. ARMORED CABLE (BX) IS PERMITTED TO SERVE LIGHTING LOAD. "BX" IS PERMITTED TO RUN IN CONCEALED AREAS SUCH A AS CEILING SPACE ONLY. "BX" IS NOT PERMITTED TO RUN EXPOSED ALL HOME RUN SHALL BE INSTALLED IN GALVANIZED EMT.

2. METAL CLAD CABLE (MC CABLE)IS PERMITTED TO SERVE RECEPTACLES AND OTHER EQUIPMENT LOAD. METAL CLAD CABLE (MC) IS PERMITTED TO RUN IN CONCEALED AREAS SUCH AS CEILING SPACE AND FINISHED WALL AREA ONLY. ALL HOMERUN SHALL BE INSTALLED IN GALVANIZED EMT.

3. INDOOR FEEDER CONDUITS INSTALLED INDOORS SHALL BE GALVANIZED EMT OR HEAVY WALL GALVANIZED RIGID STEEL.

OUTDOOR BRANCH CIRCUITRY

1. ALL CONDUIT SERVING LIGHTING RECEPTACLES AND EQUIPMENT LOCATED ON THE EXTERIOR OF THE BUILDING SHALL BE HEAVY WALL GALVANIZED RIGID STEEL CONDUIT.

2. OUTDOOR USE FEEDER CONDUIT SHALL BE HEAVYWALL GALVANIZED RIGID STEEL.

3. FEEDER FOR THE UNDERGROUND INCOMING ELECTRICAL AND TELEPHONE SERVICE SHALL BE PVC SCHEDULE 40.

WIRE AND CABLE

1. THE CORRECT NUMBER OF WIRES MAY NOT BE INDICATED FOR ALL CIRCUITS, ONLY THOSE WHERE CLARIFICATION IS NECESSARY. THIS CONTRACTOR SHALL PROVIDE ALL WIRES NECESSARY FOR THE PROPER FUNCTION OF THE SYSTEM WHETHER INDICATED ON DRAWINGS OR NOT.

2. ALL CONDUCTORS, RACEWAYS AND CABLES SHALL BE CONCEALED IN WALL OR RUN ALONG THE BEAM UNLESS INDICATED OTHERWISE.

3. CONDUCTORS SHALL BE INSTALLED CONTINUOS BETWEEN DEVICES, WITH SPLICE LOCATED ONLY IN JUNCTION BOXES OR IN CABINETS. CONDUCTORS SHALL BE OF SUFFICIENT LENGTH TO REACH THE FARTHEST TERMINAL IN PANELS. A MINIMUM OF 6" LOOPS SHALL REMAIN WHERE CONNECTIONS OR TAPS ARE TO BE MADE IN BRANCH CIRCUIT WIRING.

4. FEEDER SHALL BE COPPER. INSULATION SHALL BE THW OR THHN-THWN.

5. ALL WIRING SHALL BE COLOR CODE THROUGHOUT.

6. ALL CONDUCTOR SHALL BE COPPER, MINIMUM NO. 12-EXCEPT CONTROL CONDUCTOR AND LIGHTING TAPS AS PERMITTED BY N.E.C. CONDUCTORS FOR SWITCHING LOADS SHALL NOT BE CONSIDERED CONTROL CONDUCTORS. ALL SIZES #8 OR LARGER SHALL BE THW OR EQUIVALENT. THW OR EQUIVALENT SHALL BE REQUIRED FOR HEATERS OR OTHER UL LISTED DEVICES RATED AT 75 DEG. F. SUPPLY FEED.

7. ALL RECEPTACLES, LIGHTING FIXTURES, MOTORS, ETC.,SHALL BE GROUNDED. ALL RECEPTACLE CIRCUITS SHALL CONTAIN A #12 INSULATED GROUND CONDUCTOR.

8. RUN MULTIPLE HOMERUNS TO ALTERNATELY NUMBERED PANELBOARD CIRCUITS (i.e. 1, 3, 5) SERVING LIGHTING, GENERAL RECEPTACLES, AND MOTORS.

9. ALL 120 VOLT, CIRCUIT HOMERUNS WHICH ARE OVER 100 LINEAR FEET SHALL BE A MINIMUM OF #10 CONDUCTORS UNLESS OTHERWISE INDICATED ON THE PLANS.

10. PROVIDE A COMPLETE FIRE ALARM SYSTEM AS INDICATED ON THESE DRAWINGS AND IN ACCORDANCE WITH THE FIRE MARSHALL'S REQUIREMENTS.

11. THIS CONTRACTOR SHALL PROVIDE THREE (3) SETS OF SHOP DRAWINGS TO THE FIRE MARSHALL FOR APPROVAL AND SHALL SECURE A SEPARATE PERMIT FOR THE FIRE ALARM SYSTEM PRIOR TO INSTALLATION. ALL INSTALLATION AND DESIGN SHALL BE PER SECTION 1-7.1 NFPA 72.

12. THIS CONTRACTOR SHALL PROVIDE A MEANS OF MANUALLY DISCONNECTING THE HVAC SYSTEM AS REQUIRED BY THE FIRE MARSHALL AND IN ACCORDANCE TO SECTION 4-2, NFPA 90A.

UTILITY COORDINATION

1. IMMEDIATELY AFTER OBTAINING THE NOTICE TO PROCEED, THIS CONTRACTOR SHALL CONTACT THE POWER COMPANY AND COMMENCE COORDINATION FOR THE NEW (OR UPGRADED) SERVICE.

2. THIS CONTRACTOR SHALL ENSURE THAT THE POWER COMPANY HAS ALL INFORMATION NECESSARY TO DESIGN AND PROVIDE NEW POWER FOR THE PROJECT ON A TIMELY BASIS.

3. THIS CONTRACTOR SHALL SUBMIT TO THE POWER COMPANY, ALL INFORMATION NECESSARY INCLUDING LOAD LETTERS, RISER DIAGRAMS, EQUIPMENT CUT-SHEETS ETC. AS REQUIRED BY THE POWER COMPANY TO ENSURE THAT POWER IS PROVIDED ON A TIMELY BASIS.

4. THIS CONTRACTOR SHALL ORDER AND OBTAIN ALL NECESSARY TESTS, PERMITS AND CERTIFICATES OF APPROVAL AND PAY ANY REQUIRED FEES FOR SAME.

5. THIS CONTRACTOR SHALL PROVIDE ALL COORDINATION NECESSARY FOR ALL POWER REMOVAL AND UPGRADING OR NEW SERVICE WITH THE LOCAL POWER COMPANY.

6. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION REQUIRED WITH THE POWER COMPANY FOR BRINGING IN NEW SERVICE AND SHALL MAKE PERIODIC PHONE CALLS TO THE POWER COMPANY TO ENSURE TIMELY CONNECTION OF NEW POWER. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR PREPARING AND REMOVAL OF EXISTING POWER SERVICE AND INSTALLATION OF NEW SERVICE WITH THE LOCAL POWER COMPANY.

7. THIS CONTRACTOR SHALL COORDINATE REMOVAL/RELOCATION/REINSTALLATION OF NEW TELEPHONE SERVICE WITH THE LOCAL TELEPHONE COMPANY.

ABBREVIATIONS:

A	AMPERES OR AMP
AC	ALTERNATING CURRENT
ADA	AMERICANS WITH DISABILITIES ACT
AIC	AMPERE INTERRUPTING CURRENT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AWG	AMERICAN WIRE GAUGE
BLDG	BUILDING
C	CONDUIT
CAT	CATALOG
CKT	CIRCUIT
CU	COPPER
C/B	CIRCUIT BREAKER
C/T	CURRENT TRANSFORMERS
CW	COOL WHITE
D	DEPTH
DWG	DRAWING
EC	EMPTY CONDUIT WITH PULL WIRE
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FIXT	FIXTURE
FLA	FULL LOAD AMP
FLUO	FLUORESCENT
FLR	FLOOR
FT	FEET
G/GRND	GROUND OR GROUNDING
GFI	GROUND FAULT INTERRUPTER
H	HEIGHT
HP	HORSEPOWER
INC	INCANDESCENT
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLTAMPS
KW	KILOWATTS
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MOP	MAXIMUM OVERCURRENT PROTECTION
MIN	MINIMUM
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MTG	MOUNTING
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NIC	NOT IN CONTRACT
NO/#	NUMBER
PVC	POLYVINYL CHLORIDE
RM	ROOM
TYP	TYPICAL
U/G	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
V	VOLTAGE OR VOLT
VA	VOLT AMP
W	WATTS
W/	WITH
WP	WEATHERPROOF

ELECTRICAL SYMBOLS

	LIGHTING FIXTURES, ② INDICATES TYPE
	20A, 125V, 3W DUPLEX RECEPTACLE WITH GROUND FAULT CURRENT INTERRUPTER, MOUNTED +18" ABOVE COUNTER TOP BACKSPLASH OR AS INDICATED ON DRAWING, U.O.N.
	15 A, 125V, 3W DUPLEX RECEPTACLE (NEMA 5-15R) MOUNT +18"
	30A, 240V, 3 POLE, RECEPTACLE FOR DRYER. NEMA CONFIGURATION AND MOUNTING HEIGHT SHALL BE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
J	JUNCTION BOX
TV	FIRE-WIRED CABLE TV OUTLET MOUNTED +18" AFF. TERMINATE PER SERVICE PROVIDER'S REQUIREMENTS.
▼	TELEPHONE OUTLET MOUNTED + 18" A.F.F. U.O.N.
S	20A, 120V SINGLE POLE LIGHTING SWITCH MOUNTED +48" AFF UON.
S_3	20A, 120V THREE-WAY LIGHTING SWITCH MOUNTED +48" AFF UON.
S_4	20A, 120V, FOUR - WAY LIGHTING SWITCH MOUNTED + 48" AFF UON.
S_M	MOTOR RATED TOGGLE SWITCH WITH THERMAL OVERLOAD PROTECTION.
P	PHOTOCELL
	PANELBOARD
	CONDUIT TURNED UP.
	CONDUIT TURNED DOWN.
	WIRING AND CONDUIT CONCEALED IN CEILING OR WALL
	WIRING AND CONDUIT CONCEALED IN FLOOR.
	SWITCH WIRING BRUNCH CIRCUIT. HOMERUN. NUMBER OF SLASH MARKS INDICATE NUMBER OF WIRES WHEN MORE THAN TWO. GROUND WIRE NOT SHOWN, BUT REQUIRED. ALL CIRCUITS SHALL HAVE A SEPARATE INSULATED GROUND WIRE.
60/2/40	FUSED DISCONNECT SWISCH SUBSCRIPT INDICATES SIZE/ POLES/FUSES
FS	SPRINKLER FLOW SWITCH
TS	SPRINKLER TAMPER SWITCH
S	SINGLE STATION SMOKE DETECTOR W/BATTERY BACK-UP, 120V.
WH	WATER HEATER
	EXHAUST FAN CONNECTION

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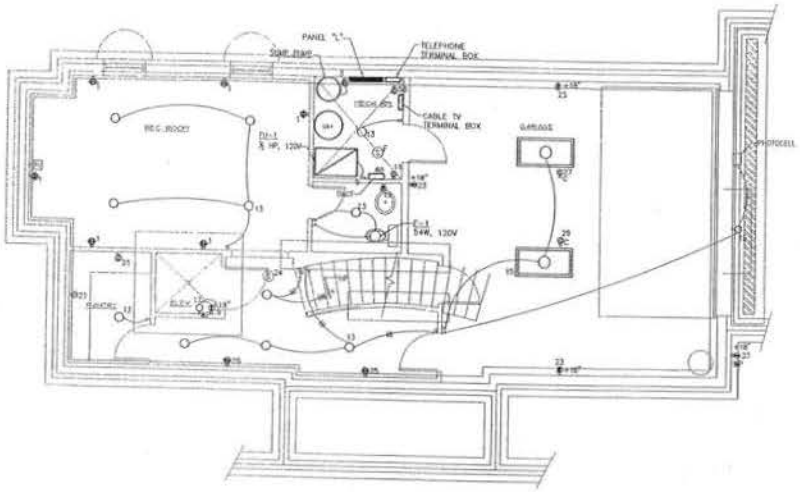
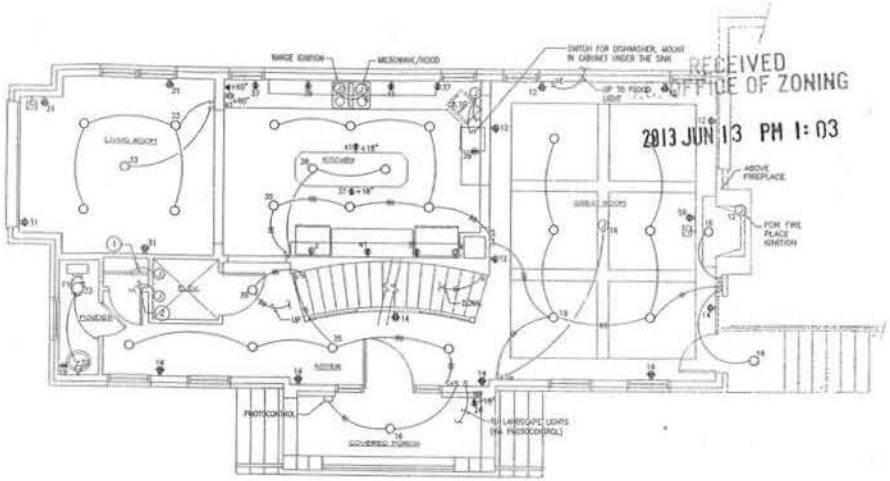


BASEMENT FLOOR PLAN - ELECTRICAL

SCALE: 1/4" = 1'-0"



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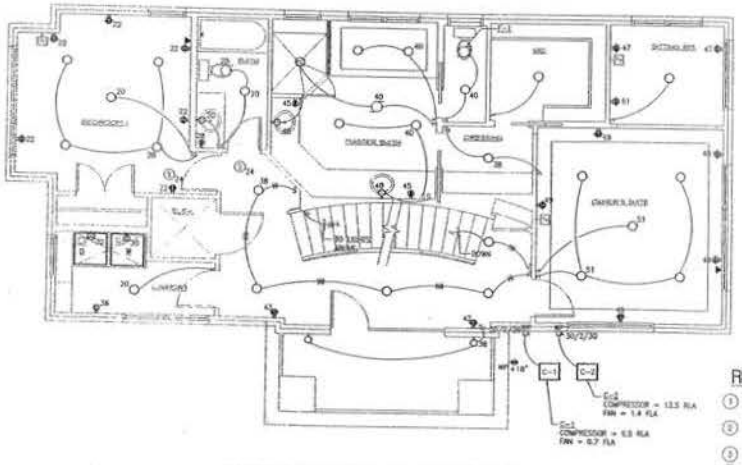
FIRST FLOOR PLAN - ELECTRICAL

SCALE: 1/4" = 1'-0"

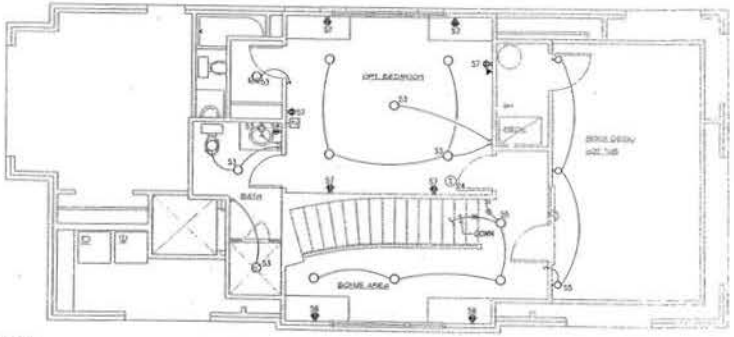


SECOND FLOOR PLAN - ELECTRICAL

SCALE: 1/4" = 1'-0"

REFERENCE NOTES

1. LOCATE AT MIDPOINT OF CAR TRAVEL FOR CAB LIGHTING AND FAN. EXTEND TO MACHINE ROOM.
2. LOCATE AT MIDPOINT OF CAR TRAVEL. EXTEND TO TELEPHONE BOARD FOR CONNECTION TO CAB SPEAKER.
3. PROVIDE POWER TO ALL KITCHEN APPLIANCES AS REQUIRED.
4. LIGHTING FIXTURES SELECTED BY CLIENT/CONTRACTOR.



MEZZANINE FLOOR PLAN - ELECTRICAL

SCALE: 1/4" = 1'-0"

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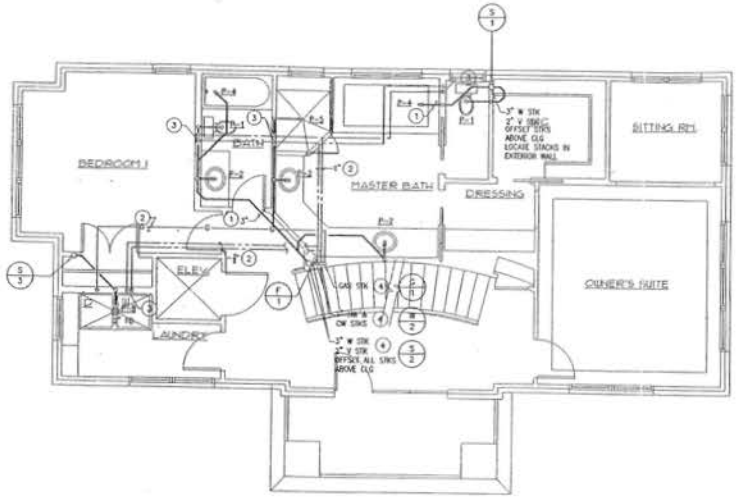
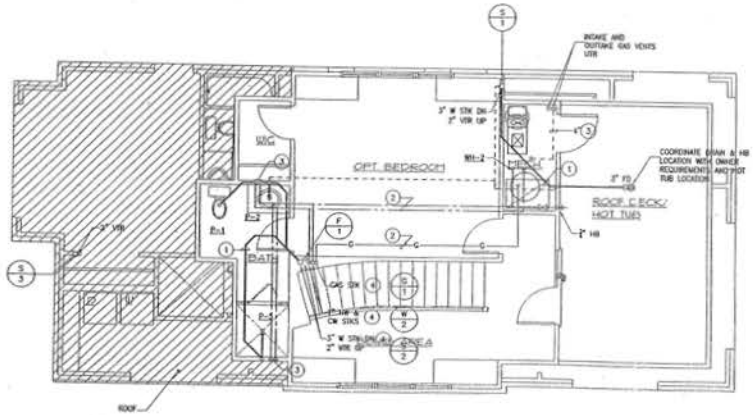


SECOND FLOOR PLAN
SCALE: 1/4" = 1'- 0"



MEZZANINE FLOOR PLAN
SCALE: 1/4" = 1'- 0"

REFERENCE NOTES

1. PIPE(S) BELOW FLOOR.
2. PIPE(S) ABOVE CEILING, BETWEEN/THIRD JOISTS.
3. PIPE(S) IN CHASE/WALL DOWN TO FIXTURES.

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THE GENERAL LAYOUT OF THE GAS PIPING AND/OR PLUMBING SYSTEMS (Water, Sanitary and Storm) SHOWN ON THESE DRAWINGS HAS BEEN REVIEWED FOR COMPLIANCE WITH THE APPLICABLE PROVISIONS OF THE D.C. CONSTRUCTION CODES AND IS APPROVED.
Date: 10/25
DCRA Plumbing Inspector

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PLUMBING SPECIFICATIONS

1. THE WORK SHALL INCLUDE THE FURNISHING AND INSTALLING ALL PLUMBING SYSTEMS, FIRE PROTECTION SYSTEMS AND EQUIPMENT AS SHOWN ON THE PLANS AND AS SPECIFIED HEREIN.

2. THE GENERAL AND SPECIAL CONDITIONS AIA DOCUMENT A-201 AND DIVISION 1 OF THE SPECIFICATIONS, SHALL GOVERN THIS WORK TO THE EXTENT THAT THEY APPLY. THE DRAWINGS AND THE SPECIFICATIONS ARE COMPLEMENTARY TO EACH OTHER AND WHAT IS CALLED FOR BY ONE SHALL BE BINDING AS IF CALLED FOR BY BOTH.

3. THIS CONTRACTOR SHALL EXAMINE THE DRAWINGS, SPECIFICATIONS AND JOB SITE AND FULLY INFORM HIMSELF OF ALL EXISTING CONDITIONS AND WORK REQUIRED BY THE DRAWINGS AND SPECIFICATIONS BEFORE SUBMITTING HIS BID. WAIVER OF RESPONSIBILITY OR REQUEST FOR ADDITIONAL PAYMENT BASED ON LACK OF KNOWLEDGE OF CONDITIONS AT THE SITE WILL NOT BE ACCEPTED OR CONSIDERED.

4. EXAMINE ALL SERVICES, EQUIPMENT, SURFACES, ETC., WHICH THIS WORK IS IN ANY WAY DEPENDENT UPON. SHOULD THIS CONTRACTOR DISCOVER ANY CONDITIONS WHICH WILL PREVENT FOLLOWING GOOD PRACTICE OR RESULT IN LESS THAN A FIRST-CLASS INSTALLATION, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY AND SHALL NOT PROCEED WITH HIS WORK UNTIL HE HAS RECEIVED INSTRUCTIONS FROM THE ARCHITECT.

5. WORK SHALL BE PROTECTED AT ALL TIMES FROM DAMAGE BY PERSONS OR WEATHER AND ALL DAMAGED WORK RESTORED TO A NEW CONDITION BEFORE FINAL ACCEPTANCE.

6. ALL THE WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE DC NASA, INTERNATIONAL PLUMBING CODE AND ALL LOCAL CODES AND REGULATIONS. WHERE ANY PORTIONS OF THE SYSTEMS SHOWN ON THE DRAWINGS IS NOT IN ACCORDANCE WITH ALL APPLICABLE LAWS, ORDINANCES, REGULATIONS OR CODES, THIS CONTRACTOR SHALL MAKE ALL CHANGES REQUIRED BY THE ENFORCING AUTHORITIES IN A MANNER APPROVED BY THE ENGINEER AND AT NO ADDITIONAL COST TO THE OWNER.

7. THIS CONTRACTOR SHALL ORDER AND OBTAIN ALL NECESSARY TESTS, PERMITS AND CERTIFICATES OF APPROVAL AND PAY ANY REQUIRED FEES FOR SAME.

8. ALL EQUIPMENT, FIXTURES AND MATERIALS SHALL BE NEW AND SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

9. ALL EQUIPMENT REQUIRING ELECTRIC POWER SHALL BE SUITED FOR USE WITH THE POWER TO BE SUPPLIED. SEE ELECTRICAL DRAWINGS. ALL ELECTRICAL REQUIREMENTS SHALL BE COORDINATED WITH THE ELECTRICAL CONTRACTOR.

10. THIS CONTRACTOR SHALL COORDINATE ALL HIS WORK WITH THE GENERAL CONTRACTOR FOR THE EXACT LOCATION OF CHASES, FURRING SPACES, DROPPED CEILINGS, STRUCTURE PENETRATIONS, PAINTING, ETC.

11. THIS CONTRACTOR SHALL GUARANTEE THE ENTIRE INSTALLATION TO BE FREE FROM DEFECTS FOR ONE YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER. ANY DEFECTS OCCURRING DURING THE GUARANTEE PERIOD SHALL BE CORRECTED AT NO ADDITIONAL COST TO THE OWNER.

12. EQUIPMENT CAPACITIES AND MANUFACTURER MODEL NUMBERS ARE INDICATED ON THE DRAWINGS.

13. PRIOR TO THE PURCHASE OF MATERIALS, SUBMIT FOR APPROVAL, SHOP DRAWINGS (SIX COPIES) OF THE FOLLOWING:

    A. ALL EQUIPMENT
    B. PLUMBING FIXTURES
    C. FLOOR DRAINS

BASIC MATERIALS AND METHODS

1. EXCAVATION AND BACKFILL ARE PART OF THIS CONTRACT AND SHALL CONFORM TO THE SECTION OF EXCAVATION AND BACKFILL AND APPLICABLE CODES. MINIMUM REQUIREMENTS AS ESTABLISHED BY THE ARCHITECT.

2. ALL PIPING CONNECTIONS TO EQUIPMENT SHALL BE MADE WITH GROUND JOINT UNIONS.

3. PIPE HANGER AND SUPPORTS: CLEVIS OR SPLIT RING TYPE SPACING AND ROD SIZE AS RECOMMENDED IN MSSSP-69, MECHANICAL CODE AND IN ACCORDANCE WITH INDUSTRY PRACTICE. SELECT TO FIT AROUND BARE PIPE OR AROUND INSULATION WITH INSULATION SADDLE/SHIELD FOR INSULATED PIPING. HANGERS FOR COPPER PIPE SHALL BE COPPER OR COPPER PLATED. BAND IRON HANGERS SHALL NOT BE USED. HANGERS AND ACCESSORIES SHALL BE F&M CORPORATION OR APPROVED EQUAL.

4. PIPE SUPPORTS: SUPPORTS TO BE PROVIDED IN ACCORDANCE WITH APPLICABLE CODES AND IN ACCORDANCE WITH INDUSTRY PRACTICE. STEEL RISER CLAMPS WITH PLASTIC COATING OR COPPER PLATED ON COPPER PIPES. F & M CORPORATION OR EQUAL.

PIPE AND EQUIPMENT IDENTIFICATION MARKERS:

1. PROVIDE PIPING IDENTIFICATION FOR PLUMBING PIPING MAINS (MECHANICAL ROOM AND 1ST FLOOR BUILDHEAD), AS MANUFACTURED BY BRADY B-500 FIBERMARK CODE TAPE OR SETON SNAP AROUND. PROVIDE IDENTIFICATION AS FOLLOWS:

    A. WHITE LETTERS (UNLESS NOTED OTHERWISE) AND NUMBERS ON GREEN BACKGROUND COLOR BAND.
    B. LENGTH OF COLOR FIELD: 12"
    C. SIZE OF LETTERS: 1-1/4"
    D. STENCILED LETTERS ON INSULATION CLEARLY READABLE FROM FLOOR LEVEL.
    E. FLOW DIRECTION ARROWS, 1-1/8" X 4-2/3" BLACK ON COLOR BACKGROUND.
        (1) EQUIPMENT IDENTIFICATION, 1" LETTERS ON CONTRASTING COLOR BACKGROUND.

PIPING SPECIALTIES

1. PROVIDE FACTORY FABRICATED PIPING SPECIALTIES OF TYPES RECOMMENDED BY MANUFACTURERS FOR SERVICES INDICATED.

2. ALL PIPE PENETRATIONS OF EXTERIOR WALLS, FOUNDATION WALLS, FIRE RATED WALLS AND FIRE RATED FLOORS, SHALL BE SLEEVED WITH SCHEDULE 40 PIPE. ALL OPENINGS SHALL BE CALKED AND SEALED WATERTIGHT. SEALS FOR FIRE RATED PENETRATIONS SHALL BE SEALED WITH UL LISTED MECHANICAL SEALS OR UL LISTED PUTTY TYPE SEALING COMPOUND.

3. PROVIDE UL LISTED PLASTIC PIPE FIRE BARRIER DEVICE AS MANUFACTURED BY 3M WHEREVER PVC PIPE PENETRATES FIRE RATED WALLS.

4. PROVIDE ESCUTCHEON PLATES WHERE/HER PIPES PASS THROUGH WALLS, FLOORS OR CEILINGS, OUTSIDE DIAMETER TO COVER COMPLETELY PIPE PENETRATION HOLE OR PIPING SLEEVE, NICKEL OR CHROME FINISH FOR EXPOSED AREAS, PRIME PAINT FINISH FOR CONCEALED AREAS.

5. UNIONS: PROVIDE DIELECTRIC UNIONS AT CONNECTIONS BETWEEN FERROUS AND NON-FERROUS PIPING. DIELECTRIC UNIONS: ANSI B16.39, CLASS 250; MALLEABLE IRON AND CAST BRONZE; WITH THREADED OR SOLDERED END CONNECTIONS SUITABLE FOR PIPE TO BE JOINED; DESIGNED TO ISOLATE GALVANIC AND STRAY CURRENT CORROSION. EPOXI, STOCKHAM OR EQUAL.

6. ALL ROOF PENETRATING SHALL BE FLASHED.

INSULATION

1. PROVIDE INSULATION FOR PIPING AND EQUIPMENT OF TYPES AND THICKNESS SPECIFIED HEREIN. INSULATION SHALL HAVE A FLAME SPREAD RATING NOT EXCEEDING 25 AND A SMOKE DEVELOPED RATING NOT EXCEEDING 50. INSTALL INSULATION IN STRICT CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. A CONTINUOUS VAPOR BARRIER SHALL BE PROVIDED ON ALL COLD WATER PIPING. INSULATION SHALL BE ARMSTRONG, CERTAINTEED, OWENS-CORNING OR JOHNS-MANVILLE.

2. TYPE I - RIGID MOLDED GLASS FIBER PIPE INSULATION WITH ALL SERVICE JACKET AND PRESSURE SENSITIVE SELF SEALING LAP. 25A52/25L-8, 500 SNAP-ON OR EQUAL. INSULATION LOCATED OUTDOORS SHALL BE PROTECTED WITH A WEATHER PROTECTION JACKET AS RECOMMENDED BY THE MANUFACTURER.

3. TYPE II - FLEXIBLE ELASTOMERIC THERMAL INSULATION WITH A MAXIMUM WATER VAPOR TRANSMISSION OF 0.17 PERM-IN WITH A "K" FACTOR OF 0.27 OR LESS AT 75 F MEAN TEMPERATURE. ARMSTRONG ARMAFLEX II.

4. FOR THE SERVICES INDICATED USE INSULATION THICKNESSES AND TYPES AS FOLLOWS:

    A. DOMESTIC COLD WATER PIPE - 3/4", TYPE I (3/8" TYPE II)
    B. DOMESTIC HOT WATER PIPE - 3/4", TYPE I (3/8" TYPE II)

PIPING

1. INSTALL PIPE TUBE AND FITTINGS IN ACCORDANCE WITH INDUSTRY PRACTICE WHICH WILL ACHIEVE PERMANENTLY LEAKPROOF PIPING SYSTEMS, CAPABLE OF PERFORMING EACH INDICATED SERVICE WITHOUT PIPING FAILURE. TEST PIPING FOR LEAKAGE. REPAIR PIPING SYSTEMS SECTIONS WHICH FAIL TEST BY DISASSEMBLY AND RE-INSTALLATION, USING NEW MATERIALS TO THE EXTENT REQUIRED TO OVERCOME LEAKAGE. UNDER NO CIRCUMSTANCES USE CHEMICALS, STOP-LEAK COMPOUNDS, MASTICS, TAPES OR OTHER TEMPORARY REPAIR METHODS.

2. ALL SANITARY PIPING SHALL BE SLOPED AT A 2% SLOPE UNLESS OTHERWISE NOTED ON THE FLOOR PLAN

3. ALL PIPING SHOWN ON THE FLOOR PLANS SHALL BE CONCEALED BELOW FLOOR, ABOVE CEILINGS OR INSIDE CHASES UNLESS OTHERWISE NOTED.

4. WASTE AND VENT PIPING SHALL BE SERVICE WEIGHT NO-HUB CAST IRON PIPE AND FITTINGS CISPI 301, HUB & SPIGOT SOIL PIPE AND FITTINGS ASTM A-74, GALVANIZED STEEL PIPE WITH DRAINAGE PATTERN SCREWED GALVANIZED CAST IRON FITTINGS ANSI/ASTM A-74 OR DWV COPPER WITH WROUGHT COPPER FITTINGS, ASTM B306.

5. DOMESTIC WATER PIPING SHALL BE TYPE "L" HARD-DRAWN TEMPER, WROUGHT COPPER FITTINGS, NON-LEAD SOLDERED JOINTS WITH NON-CORROSIVE FLUX, ANSI B-88. CPVC PIPE NOT RECOMMENDED

    A. AT CONTRACTOR'S OPTION: CPVC PIPE AND FITTINGS EXTRUDED/MOLDED
        FROM CPVC COMPOUNDS MANUFACTURED BY HOVEON (OR EQUIVALENT). THE PIPE AND FITTING COMPOUNDS SHALL MEET CELL CLASS 23547 AND 23447, RESPECTIVELY, AS DEFINED BY ASTM D1784, AND SHALL BE CERTIFIED BY NSF INTERNATIONAL FOR USE WITH POTABLE WATER.
        BOTH PIPE AND FITTING COMPOUNDS SHALL BE PRESSURE RATED BY PLASTICS PIPE INSTITUTE (PPI). PIPE SHALL MEET OR EXCEED THE REQUIREMENTS OF ASTM F442 IN STANDARD DIMENSION RATIO (SDR) 13.5. FITTINGS SHALL MEET OR EXCEED THE REQUIREMENTS OF ASTM F437 (SCHEDULE 80 THREADED), ASTM F438 (SCHEDULE 40 SOCKET) AND ASTM F439 (SCHEDULE 80 SOCKET). ALL SOCKET TYPE JOINTS SHALL BE MADE UP EMPLOYING SOLVENT CEMENTS THAT MEET OR EXCEED THE REQUIREMENTS OF ASTM F493. THE STANDARD PRACTICE FOR SAFE HANDLING OF SOLVENT CEMENTS SHALL BE IN ACCORDANCE WITH ASTM F402. SOLVENT CEMENT SHALL BE LISTED BY NSF INTERNATIONAL
        FOR USE WITH POTABLE WATER, AND APPROVED BY THE CPVC MANUFACTURERS. THE SOLVENT CEMENTS SHALL BE COMPATIBLE WITH THEIR CPVC PIPE AND FITTINGS. FOLLOW CPVC MANUFACTURER'S INSTRUCTIONS FOR SET AND CURE TIMES FOR SOLVENT CEMENT JOINTS.

6. WALL CLEANOUTS: CAST-IRON BODY ADAPTABLE TO PIPE WITH CAST-BRONZE OR BRASS CLEANOUT PLUG; STAINLESS STEEL COVER INCLUDING SCREWS. JOSAM SERIES 56510 WITH 58600 ACCESS COVER/FLOOR DRAINS: CAST-IRON BODY, FLASHING COLLAR, CLOSURE PLUG, SATIN FINISH BRONZE TOP, DOUBLE DRAINAGE FLANGE, PRIMER TAP AND PERIMETER DRAINAGE SLOTS, ROUND TOP, BOTTOM OUTLET, INSIDE CAULK AND P-TRAP. JOSAM 30200-AO.

7. FLOOR DRAINS: CAST-IRON BODY, FLASHING COLLAR, CLOSURE PLUG, HEAVY DUTY SATIN FINISH BRONZE TOP, DOUBLE DRAINAGE FLANGE, PRIMER TAP AND PERIMETER DRAINAGE SLOTS, ROUND TOP, BOTTOM OUTLET, INSIDE CAULK AND P-TRAP. JOSAM 30000-A.

8. TRAP PRIMERS: BRONZE BODY VALVE WITH AUTOMATIC VACUUM BREAKER, WITH 4 INCH CONNECTIONS MATCHING PIPING SYSTEM COMPLYING WITH ASSE 1018. TRAP PRIMER FOR ABOVE SHALL BE ADJUSTABLE FOR PRESSURE AND DELIVERY OUTPUT, PPP INC. MODEL P-2-500 WITH DISTRIBUTION UNIT WHERE REQUIRED TO FEED MORE THAN ONE DRAIN.

9. ROOF DRAINS SHALL BE ALL CAST-IRON BODY AND DOME AND COMBINED FLASHING COLLAR AND GRAVEL STOP, LARGE SUMP, HIGH DOME, JOSAM SERIES 21500 AND WITH THE FOLLOWING FEATURES:

    A. UNDERDECK CLAMP
    B. 1-1/2 INCH EXTENSION; STAINLESS STEEL MESH FILTER SCREEN
    C. SUMP RECEIVER
    D. CLAMP RINGS

10. POTABLE WATER PIPING (FIRE AND DOMESTIC SERVICE):

    A. BELOW GRADE AND UP TO BACKFLOW PREVENTER
        (1) DUCTILE-IRON PIPE: AWWA C151 OR AWWA C115 DUCTILE-IRON PIPE, WITH AWWA C104 CEMENT-MORTAR LINING.
        (2) STEEL PIPE: ASTM A 53, SCHEDULE 40, SEAMLESS, GALVANIZED, PLAIN ENDS.
        (3) ASTM B 88, TYPE "K" SOFT ANNEALED TEMPER, CAST COPPER ALLOY, FLARED JOINTS FITTINGS AND FLARED JOINTS ANSI B.
    B. ABOVE GRADE - TYPE "L" HARD-DRAWN TEMPER, WROUGHT COPPER FITTINGS, NON-LEAD SOLDERED JOINTS WITH NON-CORROSIVE FLUX, ANSI B-88.

11. BACKFLOW PREVENTER FOR FIRE PROTECTION SERVICE
    PIPE SHALL BE FOR LOW HAZARD APPLICATION, DETECTOR CHECK, DOUBLE CHECK VALVE ASSEMBLIES SHALL CONSIST OF TWO INDEPENDENTLY ACTING CHECK VALVES, QUARTER TURN VALVES WITH BUILT-IN TAMPER SWITCH
    WIRING. NO SPECIAL TOOLS SHALL BE REQUIRED FOR MAINTENANCE. ASSEMBLIES SHALL BE CERTIFIED IN COMPLIANCE WITH: ASSE 1015, AWWA, CSA B64.5, UL LISTED AND AS REQUIRED BY NASA.

12. BACKFLOW PREVENTER FOR DOMESTIC SERVICE PIPE SHALL BE FOR HIGH HAZARD APPLICATION, REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY CONSISTING OF TWO INDEPENDENTLY ACTING CHECK VALVES, DIFFERENTIAL PRESSURE RELIEF VALVE, GROOVED PIPE CONNECTIONS, QUARTER TURN BALL VALVES WITH
    BUILT-IN TAMPER SWITCH WIRING. NO SPECIAL TOOLS SHALL BE REQUIRED FOR MAINTENANCE. ASSEMBLY SHALL BE CERTIFIED IN COMPLIANCE WITH: ASSE 1015, AWWA, CSA B64.5, UL LISTED AND FM APPROVED. AMES COLT 400 OR PRIOR APPROVED EQUAL.

13. WALL HYDRANT: CAST BRONZE BODY, BRONZE OPERATING PARTS, KEY OPERATED, 3/4" H.P.T. OUTLET, NON-FREEZE TYPE, SATIN FINISH FACE WITH INTERNAL VACUUM BREAKER AND BACKFLOW PREVENTER, PRESSURE RELIEF VALVE, BRONZE OPERATING PARTS. JOSAM 71050 SERIES OR EQUIVALENT.

14. PROVIDE FACTORY-FABRICATED VALVES OF TYPE, BODY MATERIAL, AND PRESSURE CLASS SELECTED FROM AND STANDARDS BASED ON MAXIMUM PRESSURE AND TEMPERATURE IN PIPING SYSTEM. EXCEPT AS OTHERWISE INDICATED, PROVIDE VALVE SIZE SAME AS CONNECTING PIPE SIZE AND ENDS SUITABLE FOR PIPING MATERIAL. PROVIDE ACCESS PANELS FOR ALL VALVES ABOVE CEILINGS, BEHIND WALLS ETC. COORDINATE WITH GENERAL CONTRACTOR. ALL HOSE BIBBS WITH THREADED HOSE ENDS SHALL BE PROVIDED WITH INTEGRAL VACUUM BREAKER.

    A. GATE VALVES, 2-INCH AND SMALLER: MSS SP-80; CLASS 125, BODY AND BONNET OF ASTM B 62 CAST BRONZE; WITH THREADED OR SOLDER ENDS, SOLID DISC, COPPER-SILICON ALLOY STEM, BRASS PACKING GLAND, "REFLON" IMPREGNATED PACKING, AND MALLEABLE IRON HANDWHEEL. PROVIDE CLASS 150 VALVES MEETING THE ABOVE WHERE SYSTEM PRESSURE REQUIRES. DO NOT USE SOLDER END VALVES FOR HOT WATER HEATING OR STEAM PIPING APPLICATIONS.
    B. BALL VALVES: 2-PIECE, BRONZE BODY, BLOW-OUT PROOF STEM, METAL BALL, TEFLON SEAL RING, SCREWED OR SOLDERED ENDS, 400 LB. WOG. HIBCO OR STOCKHAM.

15. PROVIDE VALVES FOR THE FOLLOWING SERVICES:

    A. DOMESTIC WATER 1-1/2" AND LARGER - GATE VALVE
    B. DOMESTIC WATER 1-1/4" AND SMALLER - BALL VALVE

16. PROVIDE VALVES FOR THE FOLLOWING SERVICES:

    A. DOMESTIC WATER 1-1/2" AND LARGER - GATE VALVE
    B. DOMESTIC WATER 1-1/4" AND - BALL VALVE
    C. GAS PIPING - GAS COCK

17. GAS PIPING: CONFORM TO THE REQUIREMENTS OF NFPA 54 - NATIONAL FUEL GAS CODE.

    A. STEEL PIPE 2 INCH AND SMALLER: ASTM A 120, SCHEDULE 40, SEAMLESS, BLACK STEEL PIPE, BEVELED ENDS, THREADED JOINTS, MALLEABLE-IRON THREADED FITTINGS. ANSI B16.3, CLASS 150, STANDARD PATTERN. THREADS SHALL CONFORM TO ANSI B1.20.1.
    B. STEEL PIPE 2-1/2 INCH AND LARGER: ASTM A 120, SCHEDULE 40, SEAMLESS, BLACK STEEL PIPE, BEVELED ENDS, WELDED JOINTS. STEEL FITTINGS: ASTM A 234, SEAMLESS OR WELDED.
    C. COPPER TUBING - DRAWN TEMPER: ASTM B 88, TYPE K OR L, WITH WROUGHT-COPPER FITTINGS: ANSI B16.22, STREAMLINED PATTERN. INSTALL TYPE L, HARD-DRAWN COPPER TUBING WITH WROUGHT COPPER FITTINGS AND BRAZED JOINTS FOR 2 INCH AND SMALLER, ABOVE GROUND, WITHIN BUILDING.
    D. VALVES SHALL NOT BE LOCATED IN AIR PLENUMS.
    E. CONCEALED PIPING:
        (1) CONCEALED LOCATIONS: PIPING IN CONCEALED LOCATIONS SHALL ONLY HAVE APPROVED FITTINGS. NO PROHIBITED FITTINGS SUCH AS UNIONS, GASKETED JOINTS, COUPLINGS, BUSHINGS, SWING JOINTS, COMPRESSION COUPLINGS, TUBING FITTINGS, RUNNING THREADS ETC. ARE ALLOWED.
        (2) WHERE ELBOWS, TEES OR COUPLINGS ARE TO BE USED, BRAZING OR WELDING WILL BE PERMITTED.
        (3) PIPING IN PARTITIONS: CONCEALED PIPING SHALL NOT BE LOCATED IN SOLID PARTITIONS, CONCRETE OR MASONRY WALLS. TUBING SHALL NOT BE RUN INSIDE HOLLOW WALLS OR PARTITIONS UNLESS PROTECTED AGAINST PHYSICAL DAMAGE. THIS DOES NOT APPLY TO TUBING PASSING THROUGH WALLS OR PARTITIONS.
    F. BRAZING FILLER METALS: ANSI A5.8, CLASSIFICATION BAG-1 (SILVER).
    G. JOINT COMPOUND: SUITABLE FOR THE GAS BEING HANDLED.
    H. UNIONS: ANSI B16.39, CLASS 150, BLACK MALLEABLE IRON; FEMALE PATTERN; BRASS TO IRON SEAT; GROUND JOINT.
    I. DIELECTRIC UNIONS: ANSI B16.39, CLASS 250; MALLEABLE IRON AND CAST BRONZE; WITH THREADED OR SOLDERED END CONNECTIONS SUITABLE FOR PIPE TO BE JOINED; DESIGNED TO ISOLATE GALVANIC AND STRAY CURRENT CORROSION.

10. POTABLE WATER PIPING (FIRE AND DOMESTIC SERVICE):

    I. DIELECTRIC UNIONS: ANSI B16.39, CLASS 250; MALLEABLE IRON AND CAST BRONZE; WITH THREADED OR SOLDERED END CONNECTIONS SUITABLE FOR PIPE TO BE JOINED; DESIGNED TO ISOLATE GALVANIC AND STRAY CURRENT CORROSION.
    J. PROTECTIVE COATING: WHEN PIPING WILL BE IN CONTACT WITH MATERIAL OR ATMOSPHERE EXERTING A CORROSIVE ACTION, PIPE AND FITTINGS SHALL BE FACTORY-COATED WITH POLYETHYLENE TAPE, MAKING THE FOLLOWING PROPERTIES:
        (1) OVERALL THICKNESS: 20 MILS. WATER VAPOR TRANSMISSION: 0.1 PERMS. SQUARE INCH: 0.10 OR LESS. WATER ABSORPTION, PERCENT: 0.02 OR LESS.
    K. PRIME PIPE AND FITTINGS WITH A COMPATIBLE PRIMER PRIOR TO APPLICATION OF TAPE.
    L. GAS COCKS 2 INCH AND SMALLER: 150 PSI WOG, BRONZE BODY, STRAIGHTWAY PATTERN, SQUARE HEAD, THREADED ENDS.
    M. GAS LINE PRESSURE REGULATORS: SINGLE STAGE, STEEL JACKETED, CORROSION-RESISTANT GAS PRESSURE REGULATORS; WITH ATMOSPHERIC VENT, ELEVATION COMPENSATOR; WITH THREADED ENDS FOR 2 INCH AND SMALLER, FLANGED ENDS FOR 2-1/2 INCH AND LARGER; FOR INLET AND OUTLET GAS PRESSURES, SPECIFIC GRAVITY, AND VOLUME FLOW INDICATED.
        (1) PRESSURE REGULATORS SHALL BE INSTALLED IN A WELL VENTILATED LOCATION.
        (2) PRESSURE REGULATORS SHALL BE VENTED TO THE OUTSIDE AS REQUIRED BY THE GAS CO. AND BY THE REGULATOR MANUFACTURER.

PLUMBING FIXTURES

1. ALL EXPOSED METAL TRIM AND FITTINGS SHALL BE POLISHED CHROME. PROVIDE ACCESSIBLE STOP VALVES WITH STEEL HANDLE, CHICAGO FAUCET NO. 993 OR EQUIVALENT.

2. EQUIPMENT SHALL BE FURNISHED BY GC AND INSTALLED BY THIS CONTRACTOR.

FIRE PROTECTION

1. PROVIDE A COMPLETE, RESIDENTIAL FIRE PROTECTION SYSTEM INCLUDING, BUT NOT BE LIMITED TO, THE FOLLOWING: ALL PIPING, VALVES, FLOW SWITCHES, SPRINKLER HEADS ETC. THE SYSTEM SHALL AS SPECIFIED HEREIN, IN ACCORDANCE WITHIN DC NASA REQUIREMENTS AND THE OWNER'S REQUIREMENTS. ALL EQUIPMENT SHALL BE UL LISTED AND FM APPROVED.

2. THE SYSTEM SHALL BE DESIGNED IN ACCORDANCE WITH NFPA 13 AND THE FIRE MARSHAL'S REQUIREMENTS.

3. SUBMIT SPRINKLER PLAN LAYOUT PREPARED IN ACCORDANCE WITH NFPA 13 IDENTIFIED AS "WORKING PLANS," INCLUDING HYDRAULIC CALCULATIONS WHERE APPLICABLE, TO THE ARCHITECT AND TO THE AUTHORITY HAVING JURISDICTION FOR APPROVAL.

4. PIPING

    A. CPVC PIPE: ASTM F 442/F 442M AND UL 1821, SDR 13.5, FOR 175-PSIG (1200-KPA) RATED PRESSURE AT 150 DEG F (82 DEG C), WITH PLAIN ENDS. INCLUDE "LISTED" AND "CPVC SPRINKLER PIPE" MARKINGS.
    B. CPVC FITTINGS: UL-LISTED, FOR 175-PSIG (1200-KPA) RATED PRESSURE AT 150 DEG F (82 DEG C), SOCKET TYPE. INCLUDE "LISTED" AND "CPVC SPRINKLER FITTING" MARKINGS.
        (1) NPS 3/4 TO NPS 1-1/2 (DN 20 TO DN 40): ASTM F 438 AND UL 1821, SCHEDULE 40.
        (2) NPS 2 TO NPS 3 (DN 50 TO DN 80): ASTM F 439 AND UL 1821, SCHEDULE 80.
    C. ADHESIVE: ASTM F 493, SOLVENT CEMENT RECOMMENDED BY PIPE AND FITTING MANUFACTURER AND MADE FOR JOINING CPVC SPRINKLER PIPE AND FITTINGS. INCLUDE CLEANER OR PRIMER RECOMMENDED BY MANUFACTURER OF PIPE AND FITTINGS.

5. SPRINKLER HEADS SHALL BE OF GLASS BULB, TYPE AND STYLE AS REQUIRED BY THE APPLICATION. PROVIDE HEADS WITH THE FOLLOWING FINISHES:

    A. RESIDENTIAL STYLE: SELECTED BY ARCHITECT

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DATE:	SUBMISSION
9/12/06	PERMIT SET
DATE:	REVISION

Studio Z Design Concepts, LLC
8120 Woodmont Ave.
Suite 1050
Bethesda, Maryland 20814
301-951-4391 Fax 301-951-1913

STUDIO Z
DESIGN CONCEPTS

The Gibbons Residence
4301 16th street, NW
Washington, DC

ALL MECHANICAL EQUIPMENT AND/OR APPLIANCES SHALL BEAR THE LABEL OF AN APPROVED AGENCY SHALL BE APPROVED FOR THE PROPOSED USE AND LOCATION AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

Zoan Mac
Zoning Review Branch
Zoning Division

CTA CONSULTING ENGINEERS
MECHANICAL - ELECTRICAL - PLUMBING
230 N. Washington Street, Suite 204, Rockville, Md. 20850
T: (301) 762-7172 F: (301) 762-7174
http://www.ctaengineers.com ctaectaengineers.com

DISTRICT OF COLUMBIA
MARIANNE A. ARTUZ
No. 7548
REGISTERED PROFESSIONAL ENGINEER

Project Number
P-5
OF

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GENERAL CONSTRUCTION NOTES

1. ⊗ INDICATES EXISTING SPOT ELEVATIONS. (DATUM IS ASSUMED)
   EXISTING CONTOUR ----------.ASF.
2. TOPOGRAPHIC SURVEY BY CAS ENGINEERING DATED DECEMBER 2005.
3. ZONING- R-1-B
   FRONT B.R.L.= N/A
   REAR B.R.L. = 25 FEET
   SIDE B.R.L. = 8 FEET EACH
4. BOUNDARY INFORMATION BASED ON A SURVEY PERFORMED BY CAS ENGINEERING, DATED DECEMBER, 2005.
5. THIS PLAN HAS BEEN PREPARED WITH OUT BENEFIT OF A TITLE REPORT WHICH WOULD HAVE IDENTIFIED ANY EASEMENTS OR ENCROACHMENTS.

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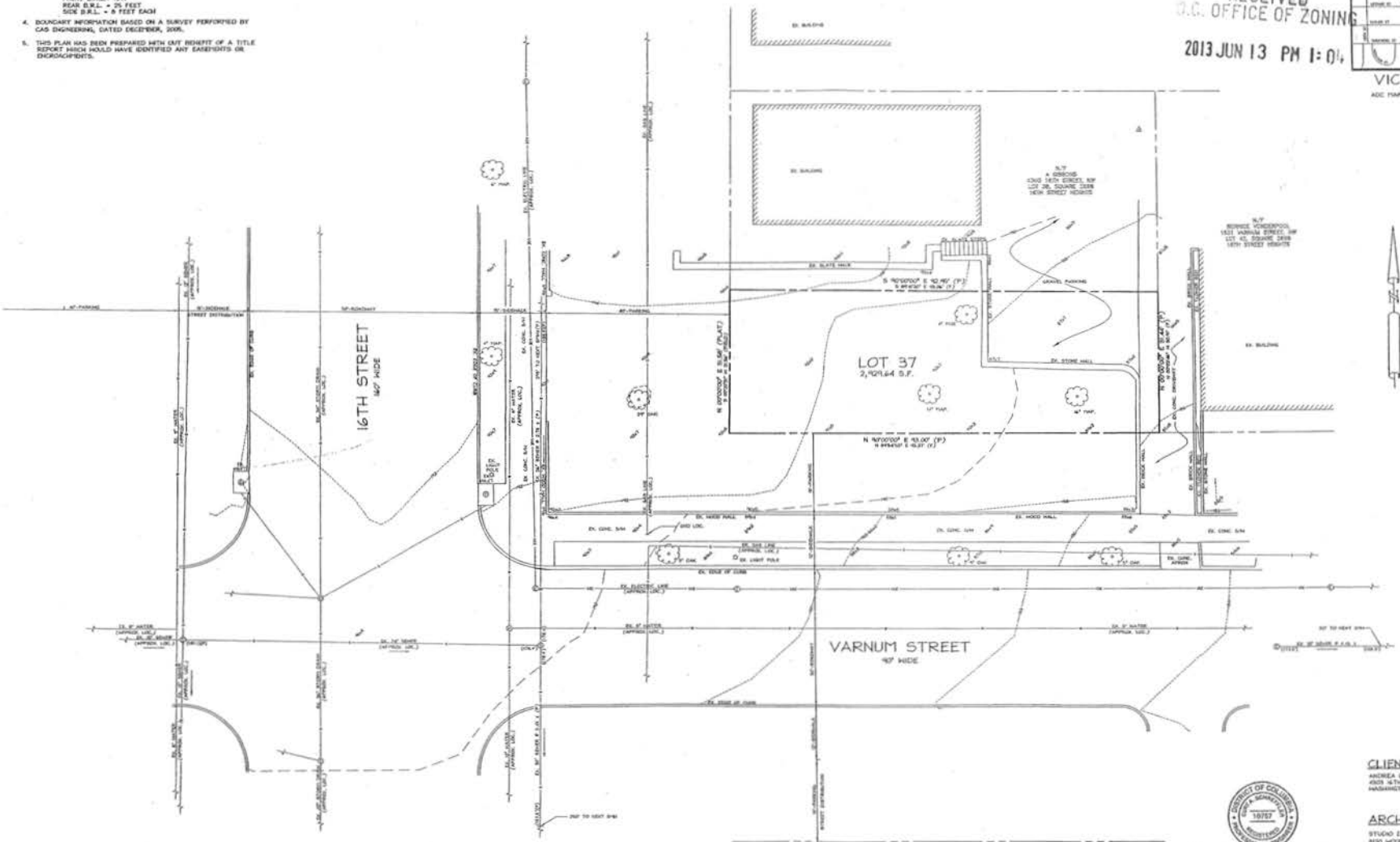
VICINITY MAP
SCALE: 1" = 2000'
ADC MAP BOOK PAGE 5, GRID K-4



MISS UTILITY

FOR LOCATION OF UTILITIES, CALL "MISS UTILITY" AT 1-800-257-7777, OR LOG ON TO WWW.MISSUTILITY.NET/ITICS 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDER GROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION.

DISTRICT OF COLUMBIA
CURT A. SCHREFFLER
10767
REGISTERED
PROFESSIONAL ENGINEER

Curt A. Schreffler
07/31/06

CLIENT
ANDREA GIBSONS
4301 16TH STREET, NW
WASHINGTON, DC 20011

ARCHITECT
STUDIO 2 DESIGN CONCEPTS
8120 WOODMONT AVE, SUITE 150
BETHESDA, MARYLAND 20814
(301) 951-4915 PHONE
(301) 951-1193 FAX
ATTN: MARK GIARRAPUTO

4301 16TH STREET, NW
EXISTING CONDITIONS PLAN

DATE	BY	REVISION
07/31/06	KAM	SUBMITTED TO DDOA FOR PERMIT REVIEW.

PROJECT	05-232
DATE	12/2005
DRAFTING	BDA
ENGINEERING	KAM
SCALE	1" = 10'
APPROVAL	CAS

LOT 37, SQUARE 2918
4301 16TH STREET, NW
N.W. WASHINGTON
DISTRICT OF COLUMBIA

EXISTING CONDITIONS PLAN

CAS ENGINEERING
CIVIL - SURVEYING - LAND PLANNING
A DIVISION OF CAS ENTERPRISES, INC.
108 West Ridgeville Blvd., Suite 101, Mount Airy, MD. 21771
DC Metro (301) 607-8031 FAX (301) 607-8045

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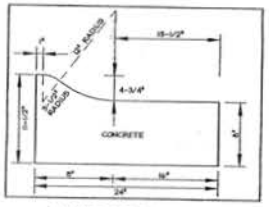
GENERAL CONSTRUCTION NOTES

1. INDICATES EXISTING SPOT ELEVATIONS. (DATUM IS ASSUMED)
   INDICATES PROPOSED SPOT ELEVATIONS.
   EXISTING CONTOUR
   PROPOSED CONTOUR
   PIPE INVERT
   DOWN SPOUT TO SPLASH BLOCK
   DRAINAGE FLOW DIRECTION
2. TOPOGRAPHIC SURVEY BY CAS ENGINEERING, DECEMBER, 2005
3. ZONING: R-4-B
   FRONT YARD = N/A
   REAR YARD = 25'
   SIDE YARD = 8'
4. BOUNDARY INFORMATION BASED ON CAS ENGINEERING BOUNDARY SURVEY DATED DECEMBER, 2005.
5. TOTAL LOT AREA = 2,921.44 S.F.±.
6. FINAL GAS AND ELECTRIC ALIGNMENT SUBJECT TO UTILITY COMPANY APPROVAL.
7. EX. WATER AND SEWER LINES TO BE "TEST -PITTED" PRIOR TO CONSTRUCTION. PROPOSED WATER AND SEWER TO BE ADJUSTED IN LINE AND GRADE ACCORDINGLY.
8. TREE SAVE MEASURES TO BE ADDRESSED BY OTHERS.
9. THE CONTRACTOR SHALL HAND DIG TEST PITS AT ALL UTILITY CROSSINGS AND CONNECTING POINTS TO DETERMINE THE EXACT LOCATION AND DEPTH WELL IN ADVANCE OF CONSTRUCTION.
10. D.C. STANDARD DETAILS WHERE SHOWN ARE FOR GENERAL INFORMATION ONLY. THE CONTRACTOR SHALL OBTAIN THE MOST CURRENT APPLICABLE D.C. DETAILS AND STANDARDS AND PERFORM CONSTRUCTION ACCORDINGLY.
11. FOR FIELD LOCATION OF GAS MAINS AND SERVICE CONNECTIONS, CONTRACTOR SHALL NOTIFY WASHINGTON GAS LIGHT COMPANY, (703) 750-4000, 72 HOURS PRIOR TO THE START OF ANY EXCAVATION OR CONSTRUCTION.
12. CONTRACTOR SHALL CONTACT MISS UTILITY, 1-800-257-7777, 48 HOURS PRIOR TO START OF CONSTRUCTION.
13. CONTRACTOR SHALL CONTACT DEPARTMENT OF PUBLIC WORKS - PUBLIC SPACE MAINTENANCE ADMINISTRATION, 48 HOURS PRIOR TO START OF CONSTRUCTION, AT (202) 645-7050.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING, REPLACING AND/OR RESTORING ANY AND ALL UTILITY SERVICE CONNECTIONS DISTURBED DURING CONSTRUCTION.
15. CONTRACTOR IS TO VERIFY FIELD CONDITIONS PRIOR TO AND DURING CONSTRUCTION AND NOTIFY CAS ENGINEERING AT (301) 607-8051 IMMEDIATELY OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE APPROVED PLANS.
16. THE CONTRACTOR SHALL PERFORM ALL CONSTRUCTION IN PUBLIC SPACE IN ACCORDANCE WITH D.C. DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND STRUCTURES, LATEST EDITION. THE CONTRACTOR SHALL OBTAIN SAID SPECIFICATIONS.
17. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO PROCEEDING WITH DEMOLITION OF EXISTING IMPROVEMENTS.
18. THE CONTRACTOR SHALL VERIFY THE ACTIVE/INACTIVE STATUS OF ANY EXISTING UTILITIES ENCOUNTERED ON SITE AND ABANDON OR RELOCATE AS APPROPRIATE.
19. THIS PLAN HAS BEEN PREPARED WITH OUT BENEFIT OF A TITLE REPORT WHICH WOULD HAVE IDENTIFIED ANY EASEMENTS OR ENCROACHMENTS.



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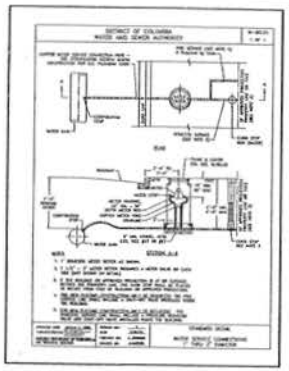
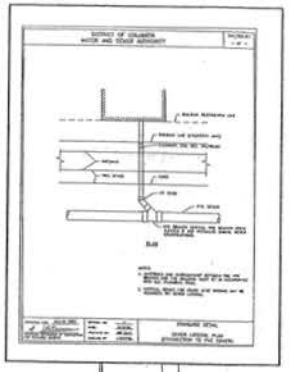




DC WASA GENERAL NOTES

UNDER DC WASA CUSTOMER FEES AND CHARGES, CONTRACTORS, PLUMBERS, OWNERS ARE RESPONSIBLE FOR EXCAVATION, BACK-FILLING, REPAVING AND RESTORATION OF PUBLIC SPACE FOR STREET AND SIDEWALKS CUTS, FOR NEW UTILITIES, CONNECTIONS TAPS AND ABANDONMENT OF SERVICES WITHIN PUBLIC SPACE UNDER DC WASA INSPECTION. DC WASA IS NOT RESPONSIBLE FOR FINAL RESTORATION OF STREET AND SIDEWALK CUTS PERFORMED BY THESE DEVELOPERS.

DC WASA GENERAL INSPECTION & AS-BUILT NOTES

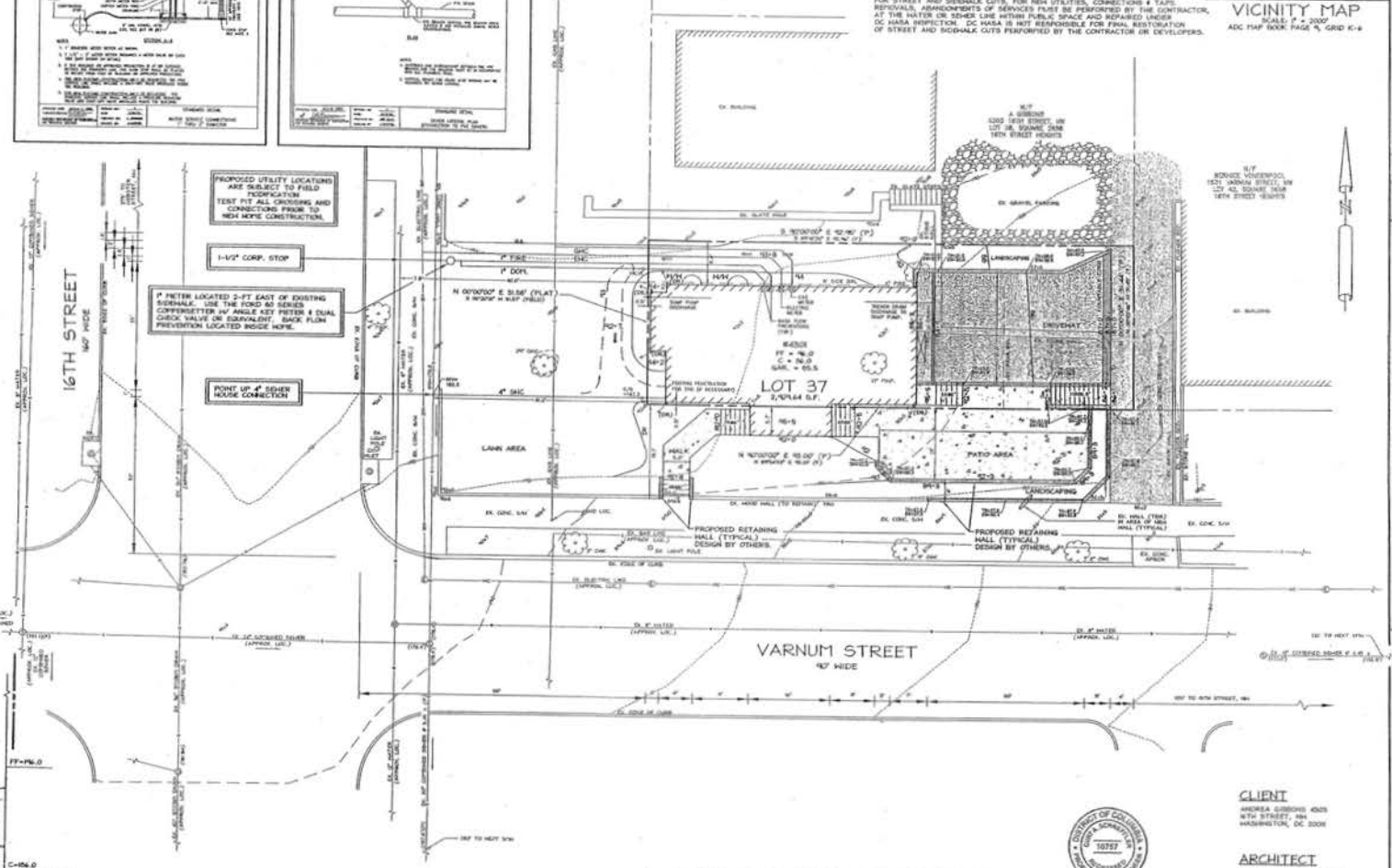
A. NOTIFY DC WASA ONE-WEEK PRIOR TO START OF CONSTRUCTION, UTILITY INSPECTION SECTION AT 202-787-2537, WATER SERVICES 202-42-5400 OR 5460 AND SEWER SERVICES 202-364-3804 OR 3825.

B. DEVELOPERS, CONTRACTORS AND PLUMBERS MUST SUBMIT FINAL CONSTRUCTION AS-BUILT INFORMATION TO THE APPROPRIATE DC WASA INSPECTORS FOR REVIEW AND APPROVAL. UPON COMPLETION OF NEW AND EXISTING UTILITIES TO BE ABANDONED IN PUBLIC SPACE, DEVELOPERS MUST SUBMIT DRAWINGS, AS BUILT DRAWING MUST BEAR DIMENSION, ELEVATION, RELOCATION OF ANY DC WASA UTILITIES AND OTHER RELEVANT INFORMATION.

C. ONCE THE DC WASA INSPECTOR APPROVES THE AS-BUILT, A COPY MUST BE SUBMITTED TO THE DOCUMENTS MANAGEMENT OFFICE AT ROOM 205 AND THE WATER AND SEWER DESIGN SECTION, 5TH FLOOR.

D. UNDER DC WASA CUSTOMER FEES AND CHARGES - CONTRACTORS, PLUMBERS AND OWNERS ARE RESPONSIBLE FOR EXCAVATION, BACK FILLING, REPAVING AND RESTORATION OF PUBLIC SPACE FOR STREET AND SIDEWALK CUTS, FOR NEW UTILITIES, CONNECTIONS & TAPS REMOVALS, ABANDONMENTS OF SERVICES MUST BE PERFORMED BY THE CONTRACTOR, AT THE WATER OR SEWER LINE WITHIN PUBLIC SPACE AND REPAIRED UNDER DC WASA INSPECTION. DC WASA IS NOT RESPONSIBLE FOR FINAL RESTORATION OF STREET AND SIDEWALK CUTS PERFORMED BY THE CONTRACTOR OR DEVELOPERS.

VICINITY MAP
SCALE: 1" = 2000'
ADC MAP BOOK PAGE 4, GRID K-4


16TH STREET
VARNUM STREET
LOT 37
LANDSCAPING
DRIVEWAY
PATIO AREA
LAWN AREA
PROPOSED UTILITY LOCATIONS ARE SUBJECT TO FIELD MODIFICATION TEST PIT ALL CROSSING AND CONNECTIONS PRIOR TO NEW HOME CONSTRUCTION.
1-1/2" CORP. STOP
1" METER LOCATED 2-FT EAST OF EXISTING SIDEWALK. USE THE FORD 60 SERIES COPPERSETTER W/ ANGLE KEY METER & DUAL CHECK VALVE OR EQUIVALENT. BACK FLOW PREVENTION LOCATED INSIDE HOME.
POINT UP 4" SEWER HOUSE CONNECTION
PROPOSED RETAINING WALL (TYPICAL) DESIGN BY OTHERS.
PROPOSED RETAINING WALL (TYPICAL) DESIGN BY OTHERS.
EX. BUILDING
EX. GRAVEL PARKING
EX. CONC. S/W
EX. CONC. APRON
EX. HOUSE WALL (TO REMAIN)
EX. WALL (TOBE) IN AREA OF NEW WALL (TYPICAL)
EX. LIGHT POLE
EX. TREE
EX. CURB
EX. ELECTRIC LINE (APPROX. LOC.)
EX. 8" WATER (APPROX. LOC.)
EX. 12" CORRUGATED SEWER (APPROX. LOC.)
EX. 8" CORRUGATED SEWER (APPROX. LOC.)
EX. 8" WATER (APPROX. LOC.)
EX. 8" CORRUGATED SEWER (APPROX. LOC.)
EX. 8" CORRUGATED SEWER & 6" GAS
EX. STORM SEWER (APPROX. LOC.)
EX. 8" WATER (APPROX. LOC.)
EX. 12" CORRUGATED SEWER (APPROX. LOC.)
EX. 8" WATER (APPROX. LOC.)
EX. 8" CORRUGATED SEWER (APPROX. LOC.)
EX. 8" WATER (APPROX. LOC.)
EX. 8" CORRUGATED SEWER (APPROX. LOC.)
EX. 8" CORRUGATED SEWER (APPROX. LOC.)
EX. 8" WAT

CONSTRUCTION SEQUENCE

CONTRACTOR TO SECURE ALL NECESSARY PERMITS, AND CONDUCT A PRE-CONSTRUCTION MEETING WITH THE SEDIMENT CONTROL INSPECTOR PRIOR TO THE START OF CONSTRUCTION OR ANY LAND DISTURBANCE.

1. INSTALL SEDIMENT CONTROL MEASURES AS SHOWN ON THIS PLAN.
2. BEGIN ROUGH GRADING OPERATIONS TO BRING LOT TO GRADE.
3. PROCEED WITH FOUNDATION CONSTRUCTION FOR PRIMARY BUILDING.
4. BEGIN CONSTRUCTION INSTALLATION OF UNDERGROUND UTILITIES.
5. CONTINUE CONSTRUCTION OF BUILDING, INCLUDING ALL INTERIOR PLUMBING AND APPURTENANCES.
6. WHEN INDOOR PLUMBING IS IN PLACE, BEGIN AND COMPLETE CONSTRUCTION AND INSTALLATION OF WATER AND SEWER SERVICE CONNECTION TO THE HOUSE, INSTALLING NEW WATER METER AND NEW CONNECTIONS TO BOTH WATER AND SEWER MAINLINES IN THE PUBLIC STREET, AS SHOWN ON PLAN. IN ADDITION, ALL GAS AND ELECTRIC CONNECTIONS ARE TO BE MADE AT THIS TIME.
7. COMPLETE CONSTRUCTION OF BUILDING AND ALL SITE APPURTENANCES. STABILIZE ALL DISTURBED AREAS PER DC SEDIMENT CONTROL REQUIREMENTS.
8. REMOVE SEDIMENT CONTROL DEVICES AFTER ENTIRE SITE IS STABILIZED AND PERMISSION IS RECEIVED FROM THE SEDIMENT CONTROL INSPECTOR.

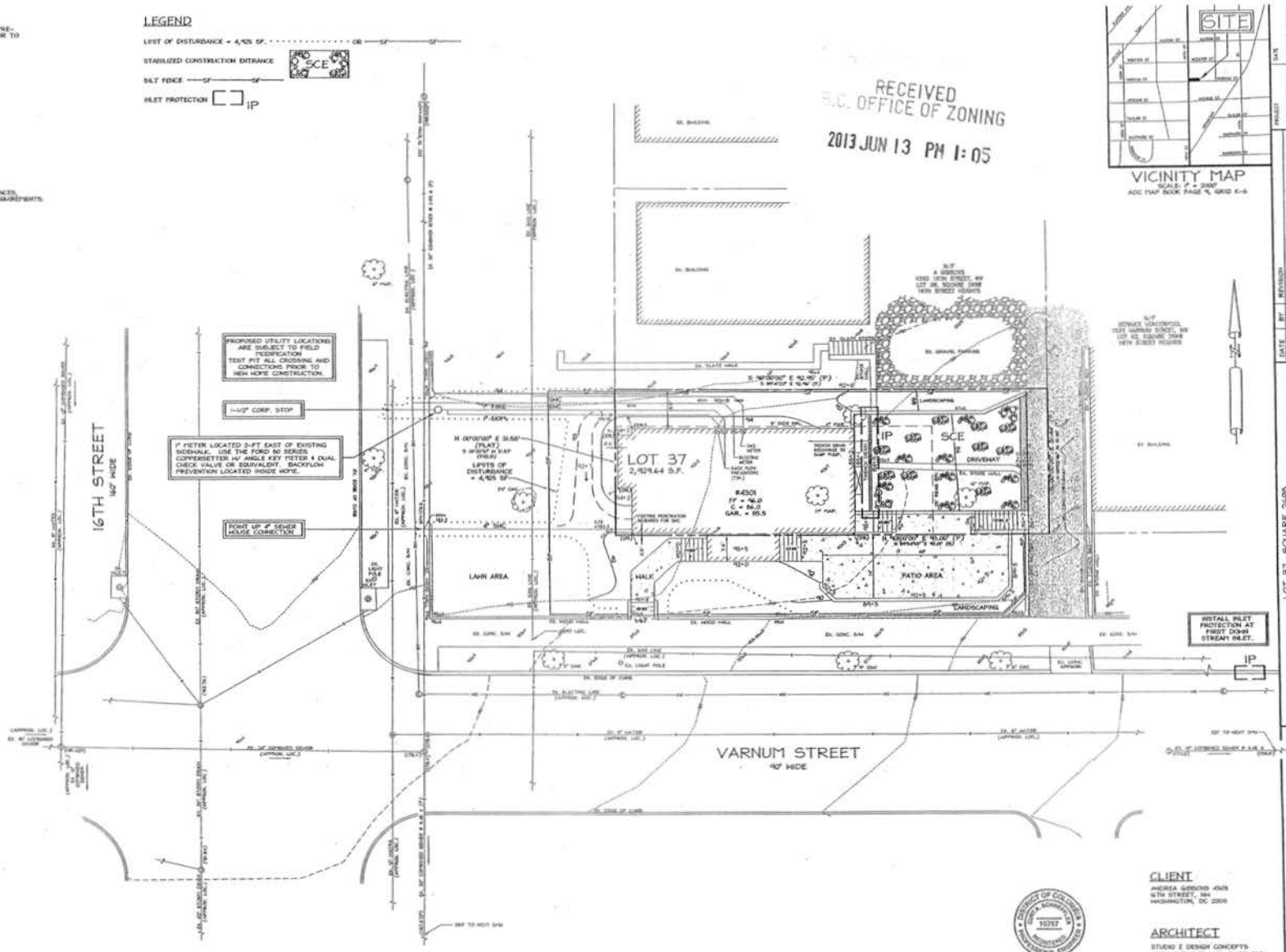
LEGEND

LIMIT OF DISTURBANCE = 4,925 SF. ····· OR ——SF——SF——

STABILIZED CONSTRUCTION ENTRANCE — SCE

SILT FENCE ——SF——SF——

INLET PROTECTION [ ] IP



MISS UTILITY

FOR LOCATION OF UTILITIES, CALL "MISS UTILITY" AT 1-800-257-7777, OR LOG ON TO WWW.MISSUTILITY.NET/TICS 48 HOURS IN ADVANCE OF ANY WORK IN THIS VICINITY. THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDER GROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION AND HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION.

FOR SEDIMENT CONTROL PURPOSES ONLY

CLIENT

ANDREA GORDON 4305
16TH STREET, NW
WASHINGTON, DC 2009

ARCHITECT

STUDIO Z DESIGN CONCEPTS
820 HOLDEPONT AVE, SUITE 460
BETHESDA, MARYLAND 20814
(301) 951-4345 PHONE
(301) 951-9115 FAX
ATTN: JOHN CLARK

DISTRICT OF COLUMBIA
JOHN A. SCHREFFLER
10232
PROFESSIONAL ENGINEER

Curt A. Schreffler
07/31/06

4301 16TH STREET, NW
SEDIMENT CONTROL PLAN

DATE	BY	REVISION
07/31/06	KAM	SUBMITTED TO DCRA FOR PERMIT REVIEW

PROJECT	05-232
DATE	12/2005
DRAWING	BDA
ENGINEERING	KAM
SCALE	1"=10'
APPROVAL	CAS

LOT 37, SQUARE 2696
4301 16TH STREET, NW
N.W. WASHINGTON
DISTRICT OF COLUMBIA
SEDIMENT CONTROL PLAN

CAS ENGINEERING
CIVIL · SURVEYING · LAND PLANNING
A DIVISION OF CAS ENTERPRISES, INC.
108 West Ridgeville Blvd., Suite 101, Mount Airy, MD. 21771
DC Metro (301) 607-8031 FAX (301) 607-8045

N:\year 2005\05232_SP3.dwg 8/10/2006 10:18:02 AM EDT

STANDARD AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION

TEMPORARY SEEDING

DEFINITION

PLANTING SHORT-TERM VEGETATION ON CRITICAL AREAS.

PURPOSE

TO TEMPORARILY STABILIZE THE SOIL; TO REDUCE DAMAGES FROM SEDIMENT AND RUNOFF TO DOWNSTREAM AREAS; IMPROVE WILDLIFE HABITAT; ENHANCE NATURAL BEAUTY.

CONDITIONS WHERE PRACTICE APPLIES

GRADED OR CLEARED AREAS WHICH ARE SUBJECT TO EROSION FOR A PERIOD OF 14 DAYS OR MORE

SPECIFICATIONS

I. SITE PREPARATION

A. PRIOR TO SEEDING, INSTALL NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, BERMS, DIKES, GRASSED WATERWAYS, AND SEDIMENT BASINS.

B. FINAL GRADING AND SHAPING HAS USUALLY NOT BEEN COMPLETED FOR TEMPORARY SEEDINGS.

II. SOIL AMENDMENTS

FOR TEMPORARY SEEDINGS, FERTILIZER SHALL BE APPLIED AT THE RATE OF 600 LBS/AC OR 15 LBS/ 1,000 SF, USING 10-10-10 OR EQUIVALENT. SOILS WHICH ARE HIGHLY ACID SHOULD BE LIMED.

III. SEEDBED PREPARATION

WHEN THE AREA TO BE SEEDED HAS BEEN RECENTLY LOOSENED TO THE EXTENT THAT AN ADEQUATE SEEDBED EXISTS, NO ADDITIONAL TREATMENT IS REQUIRED.

HOWEVER, WHEN THE AREA TO BE SEEDED IS PACKED, CRUSTED, AND HARD, THE TOP LAYER OF SOIL SHALL BE LOOSENED BY DISKING, RAKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

IV. SEEDING

A. SELECT A MIXTURE FROM TABLE 50-1.

B. APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER OR HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER).

V. MULCHING

WHEN SEEDINGS ARE MADE ON CRITICAL SITES OR ADVERSE SOIL CONDITIONS, MULCH MATERIAL MILL BE APPLIED IMMEDIATELY AFTER SEEDING. SEEDINGS MADE DURING OPTIMUM SEEDING DATES AND WITH FAVORABLE SOILS ON VERY FLAT AREAS MAY NOT NEED TO BE MULCHED. MULCH MATERIALS ARE LISTED IN ORDER OF THEIR EFFECTIVENESS.

A. MATERIALS AND AMOUNTS

1. MULCH MATTINGS - SUCH AS JUTE OR EXCELSIOR BLANKET SHALL BE STAPLED TO THE SURFACE IN WATERWAYS AND ON STEEP SLOPES. LIGHTER MATERIALS OF PAPER, PLASTIC AND COTTON MULCH MATTINGS MAY BE USED WHERE EROSION HAZARD IS NOT SEVERE. IF THE AREA IS TO BE MOWED, DO NOT USE METAL STAPLES.

2. STRAW - MATERIAL SHALL BE UNROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE, OR 70 TO 90 POUNDS (TWO BALES) PER 1,000 SF. MULCH MATERIALS SHALL BE RELATIVELY FREE OF ALL KINDS OF WEEDS AND SHALL BE FREE OF PROHIBITED NOXIOUS WEEDS SUCH AS: THISTLES, JOHNSONGRASS AND QUACKGRASS.

SPREAD UNIFORMLY BY HAND OR MECHANICALLY. FOR UNIFORM DISTRIBUTION OF HAND SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SF SECTION AND PLACE 70-90 LBS OF MULCH IN EACH SECTION.

3. WOOD CHIPS - AT THE RATE OF APPROXIMATELY 6 TONS PER ACRE OR 275 LBS PER 1,000 SF THAT BE USED WHEN AVAILABLE AND WHEN FEASIBLE TO USE.

4. WOOD CELLULOSE FIBER - MULCH AT THE RATE OF 1,500 POUNDS PER ACRE OR 35 POUNDS PER 1,000 SF THAT BE APPLIED BY HYDROSEEDING.

B. MULCH ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER MULCH PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE) DEPENDING UPON SIZE OF AREA, EROSION HAZARD, AND COST: ON SLOPING LAND, PRACTICE NO. 1 BELOW, SHOULD BE DONE ON THE CONTOUR WHENEVER POSSIBLE, EXCEPT "TRACKING" SHOULD BE DONE UP AND DOWN THE SLOPE WITH 1-1/2 INCH CLEAT MARKS RUNNING ACROSS THE SLOPE.

1. MULCH ANCHORING TOOL AND TRACKING. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SURFACE 2 INCHES OF SOIL. THIS PRACTICE AFFORDS MAXIMUM EROSION CONTROL BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. TRACKING IS PREFERABLY USED ON STEEPER THAN 3:1 CUT AND FILL SLOPES TO CUT THE MULCH INTO THE SOIL WITH CLEATED BULLDOZER TRACKS.

2. MULCH NETTINGS - STAPLE LIGHTWEIGHT BIODEGRADABLE PAPER, PLASTIC OR COTTON NETTINGS OVER THE MULCH ACCORDING TO MANUFACTURERS RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4-FEET WIDE AND UP TO 300-FEET LONG.

3. LIQUID MULCH BINDERS - APPLICATIONS OF LIQUID BINDERS SHOULD BE HEAVIER AT EDGES WHERE WIND CATCHES MULCH, IN VALLEYS, AND AT CREESTS OF BANKS. REPAINDER OF AREA SHOULD BE UNIFORM IN APPEARANCE. CAUTION SHOULD BE USED WITH ASPHALT IN RESIDENTIAL AND SIMILAR AREAS.

a. OUTBACK ASPHALT - RAPID CURING (RC-70, RC-250, AND RC-800) OR MEDIUM CURING (MC-250 OR MC-800). APPLY 5 GALLONS PER 1,000 SQUARE FEET OR 200 GALLONS PER ACRE ON FLAT AREAS, AND ON SLOPES LESS THAN 8-FEET HIGH. ON SLOPES 8-FEET OR MORE HIGH, USE 9 GALLONS PER 1,000 SQUARE FEET OR 345 GALLONS PER ACRE.

b. EMULSIFIED ASPHALT - (SS-1, CSS-1, CMS-2, MS-2, RS-1, RS-2, CRS-1 AND CRS-2). APPLY 5 GALLONS PER 1,000 SQUARE FEET OR 216 GALLONS PER ACRE ON FLAT AREAS AND ON SLOPES LESS THAN 8-FEET HIGH. ON SLOPES 8-FEET OR MORE HIGH, USE 8 GALLONS PER 1,000 SQUARE FEET OR 345 GALLONS PER ACRE.

ALL ASPHALT DESIGNATIONS ARE FROM THE ASPHALT INSTITUTE SPECIFICATIONS.

c. SYNTHETIC BINDERS - SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET OR TERRA TACK MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIAL.

4. WOOD CELLULOSE FIBER - WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. THE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 POUNDS/ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 POUNDS OF WOOD FIBER PER 100 GALLONS.

5. PEG AND TWINE - DRIVE 6 TO 10-INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS WITHIN A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.

NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A RECOMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.

TABLE 50-1

TEMPORARY SEEDINGS BY RATES, DEPTHS AND DATES

SPECIES 5/ CULTIVAR (VAR.)	SEEDING RATE PER AC.	SEEDING RATE LBS/1,000	PLANTING DEPTH IN INCHES	SEEDING DATES 6/ COASTAL PLAIN 2/1-4/30	COASTAL PLAIN 5/1-8/15	COASTAL PLAIN 8/16-8/30	COASTAL PLAIN 9/1-9/30	PIEDMONT 2/1-4/30	PIEDMONT 5/1-8/14	PIEDMONT 8/15-8/25	MOUNTAINS 2/15-5/31	MOUNTAINS 8/1-8/15
BARLEY	2-1/2 BU	2.8	1 TO 2	3/ X	-	BT 10/15	3/ X	-	BT 10/15	X	-	BT 10/1
OATS	3 BU	2.2	2 TO 3	X	-	-	X	-	-	X	-	-
RYE	2-1/2 BU	3.2	1 TO 2	X	-	X	X	-	X	X	-	X
ITALIAN OR PERENNIAL RYEGRASS 4/	40 LBS	0.92	1/4 TO 1/2	3/ X	-	BT 10/1	3/ X	-	BT 10/1	X	-	BT 10/15
MILLET	40 LBS	0.92	ONE HALF	-	X	-	-	X	-	-	X	-
FOXTAIL, BROWN TOP, OR LEMPARKS LOVEGRASS	5 LBS	0.01	1/4 TO 1/2	-	X	-	-	X	-	-	X	-
SUDANGRASS 5/	40 LBS	0.92	1 TO 2	-	X	-	-	X	-	-	X	-

3/ USE ONLY ON AREAS WHERE SEED STALKS AND VOLUNTEER GROWTH ARE ACCEPTABLE
4/ APPLICABLE ON SLOPES 3:1 OR LESS.
5/ USE VARIETIES CURRENTLY RECOMMENDED FOR MARYLAND. USE CERTIFIED SEED WHEN AVAILABLE.
6/ USE COOLER SUDANGRASS VARIETIES ONLY. DO NOT USE HYBRIDS.
7/ TWENTY POUNDS PER ACRE OF ANNUAL LESPEDEZA MAY BE ADDED TO 1/2 THE SEEDING RATE OF ANY SPECIES USED FOR SEEDINGS.
8/ BETWEEN FALL AND SPRING SEEDING DATES, USE MULCHING ONLY IN SEEDING PRACTICES.
BT APPLICABLE DURING ENTIRE PERIOD
- NOT APPLICABLE IN THIS PERIOD

CONTRACTOR SHALL CONTACT MISS UTILITY, 1-800-257-7777, 48 HOURS PRIOR TO START OF CONSTRUCTION.

PERMANENT SEEDING

DEFINITION

PLANTING VEGETATION SUCH AS GRASSES AND LEGUMES ON CRITICAL AREAS.

PURPOSE

TO STABILIZE THE SOIL; TO REDUCE DAMAGES FROM SEDIMENT AND RUNOFF TO DOWNSTREAM AREAS; IMPROVE WILDLIFE HABITAT; ENHANCE NATURAL BEAUTY.

CONDITIONS WHERE PRACTICED APPLY

GRADED OR CLEARED AREAS SUBJECT TO EROSION AND WHERE A PERMANENT, LONG-LIVED VEGETATIVE COVER IS NEEDED.

SPECIFICATIONS

VEGETATION CANNOT BE EXPECTED TO PROVIDE AN EROSION CONTROL COVER AND PREVENT SOIL SLIPPAGE ON A SOIL THAT IS NOT STABLE DUE TO ITS TEXTURE, STRUCTURE, WATER MOVEMENT OR EXCESSIVELY STEEP SLOPE.

MINIMUM SOIL CONDITIONS NEEDED FOR THE ESTABLISHMENT AND MAINTENANCE OF A LONG-LIVED VEGETATIVE COVER:

A. ENOUGH FINE-GRAINED MATERIALS (OVER 30 PERCENT SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD AT LEAST A MODERATE AMOUNT OF AVAILABLE MOISTURE. NOTICEABLE EXCELLENT COULD BE PLANTING LOVEGRASS AND SERICIA LESPEDEZA WHICH CAN BE PLANTED ON A SANDY SOIL.

B. SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION.

C. THE SOIL SHALL BE FREE FROM ANY MATERIAL HARMFUL TO PLANT GROWTH.

D. IF THESE CONDITIONS CANNOT BE MET, SEE SPECIFICATION, TOPSOILING (57.01).

I. SITE PREPARATION

A. INSTALL NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIKES, CONTOUR RIPPING, EROSION STOPS, CHANNEL LINERS, SEDIMENT BASINS, OR OTHER PRACTICES.

B. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION ANCHORING AND MAINTENANCE.

II. SOIL PREPARATION

FLAT AREAS AND SLOPES UP TO 3 TO 1 GRADE SHALL BE LOOSE AND FRIABLE TO A DEPTH OF AT LEAST 8 INCHES. THE TOP LAYER OF SOIL SHALL BE LOOSENED BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING.

SLOPES STEEPER THAN 3 TO 1 SHALL HAVE THE TOP 1-5 INCHES OF SOIL LOOSE AND FRIABLE BEFORE SEEDING.

III. SOIL AMENDMENTS

LIME AND FERTILIZE ACCORDING TO SOIL TESTS. LIME AND FERTILIZER NEEDS CAN BE DETERMINED BY A SOIL TESTING LABORATORY, SUCH AS THE UNIVERSITY OF MARYLAND SOIL TESTING LABORATORY.

IN LIEU OF SOIL TEST RESULTS, APPLY TWO TONS DOLOMITIC LIMESTONE PER ACRE AND ONE OF THE FOLLOWING RATES OF FERTILIZER: 1,000 POUNDS 10-10-10 OR EQUIVALENT PER ACRE. FOR A LONGER LASTING FERTILIZER TREATMENT APPLY 600 POUNDS 10-10-10 OR EQUIVALENT PER ACRE AND 1000 IN AND AT TIME OF SEEDING APPLY AN ADDITIONAL 400 POUNDS OF A UREAFORM FERTILIZER OF A GRADE OF AT LEAST 30-0-0 PER ACRE. APPLY THE LIME AND FERTILIZER BEFORE SEEDING AND HARROW OR DISK UNIFORMLY INTO THE SOIL TO A MINIMUM DEPTH OF 3 INCHES ON SLOPES FLATTER THAN 3:1. ON SLOPES STEEPER THAN 3:1 GRADE, THE LIME AND FERTILIZER SHALL BE HORNED THE BEST HAT POSSIBLE. ON SLOPING LAND, THE FINAL HARROWING OR DISKING OPERATION SHALL BE ON THE CONTOUR WHENEVER FEASIBLE. NO ATTEMPT SHOULD BE MADE TO DRAG ANY DISKED AREA TO MAKE THE SOIL SURFACE SMOOTH AFTER DISKING.

NOTE: THE SLOW RELEASE UREAFORM FERTILIZER WILL SUPPLY NITROGEN OVER A LONGER PERIOD OF TIME.

IV. SEEDING

A. SELECT A MIXTURE FROM TABLE 51-1.

B. APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER OR HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER) ON A FIRM, MOIST SEEDBED. MAXIMUM SEEDING DEPTH SHOULD BE 1 INCH ON HEAVY SOILS AND 1 INCH ON SANDIER SOILS, WHEN USING OTHER THAN HYDROSEEDER METHOD OF APPLICATION. NOTE: IF HYDROSEEDING IS USED THE SEED AND FERTILIZER MIXTURE, THEY WILL BE MIXED ON SITE AND THE SEEDING SHALL BE IMMEDIATE WITHOUT INTERRUPTION.

V. MULCHING

MULCH MATERIALS ARE LISTED IN ORDER OF THEIR EFFECTIVENESS. MULCH MATTINGS ARE NORMALLY ONLY USED ON CRITICAL AREAS SUCH AS WATERWAYS OR STEEP SLOPES.

A. MATERIALS AND AMOUNTS

1. MULCH MATTINGS - SUCH AS JUTE OR EXCELSIOR BLANKET SHALL BE STAPLED TO THE SURFACE IN WATERWAYS AND ON STEEP SLOPES. LIGHTER MATERIALS OF PAPER, PLASTIC AND COTTON MULCH MATTINGS MAY BE USED WHERE EROSION HAZARD IS NOT SEVERE. IF THE AREA IS TO MOWED, DO NOT USE METAL STAPLES.

2. STRAW - STRAW SHALL BE UNROTTED SMALL GRAIN APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE, OR 70 TO 90 POUNDS (TWO BALES) PER 1,000 SQUARE FOOT. MULCH MATERIALS SHALL BE RELATIVELY FREE OF ALL KINDS OF WEEDS AND SHALL BE FREE OF PROHIBITED NOXIOUS WEEDS SUCH AS: THISTLES, JOHNSONGRASS AND QUACKGRASS.

SPREAD UNIFORMLY BY HAND OR MECHANICALLY. FOR UNIFORM DISTRIBUTION OF HAND SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SF SECTION AND PLACE 70 TO 90 POUNDS OF MULCH IN EACH SECTION.

3. WOOD CHIPS - AT A RATE OF APPROXIMATELY 6 TONS PER ACRE OR 275 POUNDS PER 1,000 SQUARE. ALL THAT BE USED WHEN ALL THAT BE AVAILABLE AND WHEN FEASIBLE. THESE ARE PARTICULARLY WELL-SUITED FOR UTILITY AND ROAD RIGHTS-OF-WAY. IF WOOD CHIPS ARE USED, INCREASE THE APPLICATION RATE OF NITROGEN FERTILIZER BY 20 POUNDS (200 POUNDS 10-10-10 OR 66 POUNDS 30-0-0).

4. WOOD CELLULOSE FIBER - MULCH AT THE RATE OF 1,500 POUNDS PER ACRE OR 35 POUNDS PER 1,000 SQUARE FOOT THAT BE APPLIED BY HYDROSEEDING.

B. MULCH ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER MULCH PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE) DEPENDING UPON SIZE OF AREA, EROSION HAZARD, AND COST: ON SLOPING LAND, PRACTICE NO. 1 BELOW, SHOULD BE DONE ON THE CONTOUR WHENEVER POSSIBLE. CONTOURING OF ALL OPERATIONS APPLIES TO ALL STRAW AND WOOD CHIP MULCHES ON MORE CRITICAL SITES, EXCEPT "TRACKING" SHOULD BE DONE UP AND DOWN THE SLOPE WITH 1-1/2 INCH CLEAT MARKS RUNNING ACROSS THE SLOPE.

1. MULCH ANCHORING TOOL AND TRACKING. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SURFACE 2 INCHES OF SOIL. THIS PRACTICE AFFORDS MAXIMUM EROSION CONTROL BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. "TRACKING" IS PREFERABLY USED ON 3:1 OR STEEPER CUT AND FILL SLOPES TO CUT THE MULCH INTO THE SOIL BY 1-1/2 INCH TRACK CLEATS OF A BULLDOZER MAKING THE TRACKS ACROSS THE SLOPE.

2. MULCH NETTINGS - STAPLE LIGHTWEIGHT BIODEGRADABLE PAPER, PLASTIC OR COTTON NETTINGS OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 FEET WIDE AND UP TO 300 FEET LONG.

3. LIQUID MULCH BINDERS - APPLICATIONS OF LIQUID BINDERS SHOULD BE HEAVIER AT EDGES WHERE WIND CATCHES MULCH, IN VALLEYS AND AT CREESTS OF BANKS. REMAINDER OF AREA SHOULD BE UNIFORM IN APPEARANCE. CAUTION SHOULD BE USED WITH ASPHALT IN RESIDENTIAL AND SIMILAR AREAS.

a. OUTBACK ASPHALT - RAPID CURING (RC-70, RC-250, AND RC-800) OR MEDIUM CURING (MC-250 OR MC-800). APPLY 5 GALLONS PER 1,000 SQUARE FEET OR 200 GALLONS PER ACRE ON FLAT AREAS, AND ON SLOPES LESS THAN 8-FEET HIGH. ON SLOPES 8-FEET OR MORE HIGH, USE 6 GALLONS PER 1,000 SQUARE FEET OR 345 GALLONS PER ACRE.

b. EMULSIFIED ASPHALT - (SS-1, CSS-1, CMS-2, MS-2, RS-1, RS-2, CRS-1 AND CRS-2). APPLY 5 GALLONS PER 1,000 SQUARE FEET OR 200 GALLONS PER ACRE ON FLAT AREAS AND ON SLOPES LESS THAN 8-FEET HIGH. ON SLOPES 8-FEET OR MORE HIGH, USE 6 GALLONS PER 1,000 SQUARE FEET OR 345 GALLONS PER ACRE

ALL ASPHALT DESIGNATIONS ARE FROM THE ASPHALT INSTITUTE SPECIFICATIONS.

c. SYNTHETIC BINDERS - SYNTHETIC BINDERS SUCH AS ACRYLIC DLR (AGRI-TAC), DCA-70, PETROSET OR TERRA TACK MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIAL

4. WOOD CELLULOSE FIBER - WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. THE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 POUNDS/ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 POUNDS OF WOOD CELLULOSE FIBER PER 100 GALLONS.

5. PEG AND TWINE - DRIVE 6 TO 10-INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS WITHIN A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.

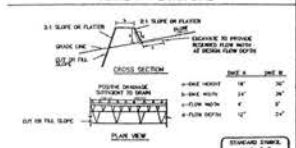
NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A RECOMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.

TABLE 51-1

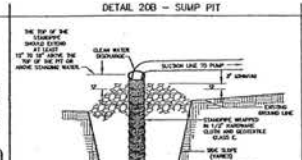
PERMANENT SEEDING AND SEEDING DATES

SEEDING MIXTURES	SEEDING RATE LBS/1,000 SQ. FT.	SEEDING RATE LBS/ACRE	SEEDING DATES 2/ COASTAL PLAIN 2/1-4/30	COASTAL PLAIN 5/1-8/15	COASTAL PLAIN 8/16-8/30	COASTAL PLAIN 9/1-9/30	PIEDMONT 2/1-4/30	PIEDMONT 5/1-8/14	PIEDMONT 8/15-8/25	MOUNTAINS 2/15-5/31	MOUNTAINS 8/1-8/15
SEE INDIVIDUAL SPECIES FOR AVAILABLE VARIETIES											
TEMPORARY SEEDING											
1 BARLEY 5/ (SEE FOOTNOTE)	2.0	90	X	-	BT 10/15	X	-	BT 10/15	X	-	BT 10/1
2 OATS 5/ (SEE FOOTNOTE)	2.0	90	X	-	-	X	-	-	X	-	-
3 RYE (GRAIN)	2.0	90	X	-	X	X	-	X	X	-	X
4 RYE (GRAIN) (IF FALL SEEDING)	1.0	45									
5 RYEGRASS, ANNUAL (ALL INDICATED (A))	0.5	22									
6 RYEGRASS (IF FALL SEEDING)	0.5	22									
7 WINTER WHEAT (WHICH SEEDED (A) (B))	2.0	90									
8 WINTER WHEAT (IF FALL SEEDING)	2.0	90									
9 TRITICALE (IF FALL SEEDING)	2.0	90									
10 SUDANGRASS (ALL INDICATED (A))	0.5	22									
11 SUDAN GRASS HYBRID (ALL INDICATED (A))	0.5	22									
12 MILLET	0.5	22									
13 SUDAN GRASS HYBRID (ALL INDICATED (A))	0.5	22									
14 MILLET (IF FALL SEEDING)	0.5	22									
15 SUDANGRASS (ALL INDICATED (A))	0.5	22									
16 SUDAN GRASS HYBRID (ALL INDICATED (A))	0.5	22									
17 SUDANGRASS (IF FALL SEEDING)	0.5	22									
18 SUDAN GRASS HYBRID (IF FALL SEEDING)	0.5	22									
PERMANENT SEEDING											
19 BROMEGRASS (ALL INDICATED (A))	0.5	22									
20 BROMEGRASS (IF FALL SEEDING)	0.5	22									
21 TALL FESCUE (ALL INDICATED (A))	0.5	22									
22 TALL FESCUE (IF FALL SEEDING)	0.5	22									
23 FINE FESCUE (ALL INDICATED (A))	0.5	22									
24 FINE FESCUE (IF FALL SEEDING)	0.5	22									
25 ORCHARDGRASS (ALL INDICATED (A))	0.5	22									
26 ORCHARDGRASS (IF FALL SEEDING)	0.5	22									
27 KENTUCKY BLUEGRASS (ALL INDICATED (A))	0.5	22									
28 KENTUCKY BLUEGRASS (IF FALL SEEDING)	0.5	22									
29 REDTOP (ALL INDICATED (A))	0.5	22									
30 REDTOP (IF FALL SEEDING)	0.5	22									
31 CREEPING RED FESCUE (ALL INDICATED (A))	0.5	22									
32 CREEPING RED FESCUE (IF FALL SEEDING)	0.5	22									
33 CHEWINGS FESCUE (ALL INDICATED (A))	0.5	22									
34 CHEWINGS FESCUE (IF FALL SEEDING)	0.5	22									
35 HARD FESCUE (ALL INDICATED (A))	0.5	22									
36 HARD FESCUE (IF FALL SEEDING)	0.5	22									
37 TALL OATGRASS (ALL INDICATED (A))	0.5	22									
38 TALL OATGRASS (IF FALL SEEDING)	0.5	22									
39 PERENNIAL RYEGRASS (ALL INDICATED (A))	0.5	22									
40 PERENNIAL RYEGRASS (IF FALL SEEDING)	0.5	22									
41 WHITE CLOVER (ALL INDICATED (A))	0.5	22									
42 WHITE CLOVER (IF FALL SEEDING)	0.5	22									
43 LOVEGRASS (ALL INDICATED (A))	0.5	22									
44 LOVEGRASS (IF FALL SEEDING)	0.5	22									
45 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
46 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
47 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
48 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
49 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
50 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
51 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
52 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
53 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
54 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
55 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
56 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
57 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
58 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
59 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
60 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
61 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
62 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
63 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
64 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
65 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
66 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
67 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
68 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
69 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
70 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
71 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
72 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
73 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
74 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
75 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
76 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
77 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
78 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
79 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
80 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
81 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
82 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
83 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
84 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
85 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
86 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
87 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
88 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1.0	0.75 OR 45									
89 SERICEA LESPEDEZA (A)	0.02 OR 1.0	0.75 OR 45			X			X			X
90 SERICEA LESPEDEZA (IF FALL SEEDING) (A)	0.02 OR 1

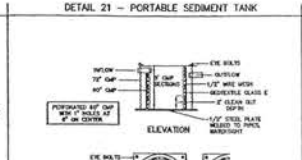
DETAIL 1 – EARTH DIKE



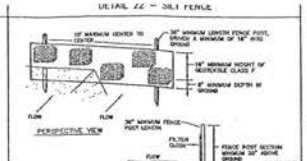
DETAIL 20B – SUMP PIT



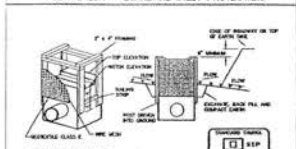
DETAIL 21 – PORTABLE SEDIMENT TANK



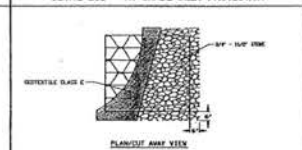
DETAIL 22 – SILT FENCE



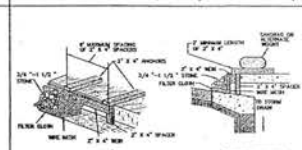
DETAIL 23A – STANDARD INLET PROTECTION



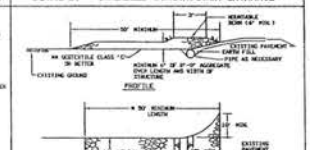
DETAIL 23B – AT GRADE INLET PROTECTION



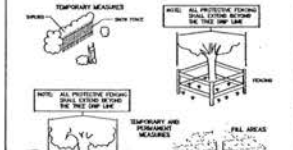
DETAIL 23C – CURB INLET PROTECTION (COG OR COS INLETS)



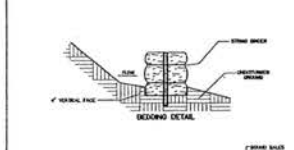
DETAIL 24 – STABILIZED CONSTRUCTION ENTRANCE



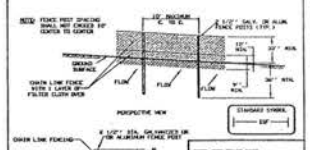
DETAIL 31 – TREE PROTECTION



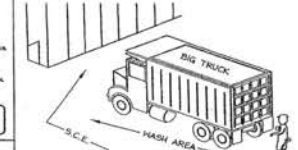
DETAIL 32 – STRAW BALE DIKE



DETAIL 33 – SUPER SILT FENCE



VEHICLE WASH AREA



EROSION AND SEDIMENT CONTROL NOTES

1. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSTALLED BEFORE THE START OF ANY EXCAVATION AND/OR CONSTRUCTION AS PER STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. FOR THE DISTRICT OF COLUMBIA. IF AN ON-SITE INSPECTION REVEALS FURTHER EROSION CONTROL MEASURES ARE NECESSARY, THE SAME SHALL BE PROVIDED.
2. ALL SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE D.C. EROSION AND SEDIMENT CONTROL HANDBOOK.
3. PERIODIC INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL STRUCTURES MUST BE PROVIDED TO INSURE INTENDED PURPOSE IS ACCOMPLISHED. THE SEDIMENT CONTROL INSPECTOR REPRESENTING THE DISTRICT OF COLUMBIA SHALL MAINTAIN THE AUTHORITY TO REQUIRE ADDITIONAL SEDIMENT CONTROL MEASURES AS NECESSARY TO PREVENT THE TRANSPORTATION OF SEDIMENT INTO STORM DRAIN SYSTEMS OR PUBLIC SPACE.
4. ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS WILL BE PROTECTED TO PREVENT TRACKING OF MUD ONTO PUBLIC WAYS. A VEHICLE WASH AREA SHALL BE PROVIDED ON-SITE. THE AREA MAY BE CONSTRUCTED OF RUBBLE OR OTHER HARD POROUS MATERIAL. A WORKING WATER HOSE MUST BE LOCATED IN THE AREA DURING ALL CONSTRUCTION ACTIVITY.
5. SILT REMOVED FROM TRAPS SHALL BE PLACED AND STABILIZED ON DESIGNATED AREAS ON-SITE IN SUCH A MANNER THAT IT DOES NOT FOUL EXISTING OR PROPOSED STORM DRAINAGE SYSTEMS OR AREAS ALREADY STABILIZED.
6. ALL WATER PUMPED FROM EXCAVATION DURING CONSTRUCTION SHALL BE PUMPED EITHER TO A SEDIMENT TANK AND/OR A SEDIMENT TRAP. WHEN A SEDIMENT TRAP/SEDIMENT TANK HAS REACHED 67% CAPACITY, THE CLEAN OUT OF SAME IS REQUIRED. NO WATER WILL BE PUMPED TO THE STORM DRAIN SYSTEM WITHOUT THE CONSENT OF THE SEDIMENT CONTROL INSPECTOR.
7. ALL WATER DISCHARGED FROM THE SEDIMENT TANKS OR PUMPED FROM THE SITE MUST BE CLEAN AND FREE OF SEDIMENT.
8. ALL DEBRIS IS TO BE REMOVED FROM SITE.
9. ALLEY AND/OR STREETS/SIDEWALKS SHALL BE SWEPT CLEAN AT ALL TIMES DURING EXCAVATION AND CONSTRUCTION.
10. ALL CATCH BASINS AND DRAIN AREAS SHALL BE PROTECTED DURING EXCAVATIONS AND CONSTRUCTION.
11. IF ANY CATCH BASIN OR DRAIN BECOMES CLOGGED AS A RESULT OF EXCAVATION OR CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS CLEANING.
12. ANY STOCKPILING, REGARDLESS OF LOCATION, SHALL BE STABILIZED AND COVERED WITH PLASTIC OR CANVAS AFTER ITS ESTABLISHMENT AND FOR THE DURATION OF THE PROJECT.
13. AFTER A RAZE OR DEMOLITION, THERE IS THE NEED FOR GROUND COVER SUCH AS SEED, SOD, PAVEMENT, BRICKBAT, OR MULCH TO PREVENT EROSION AND SEDIMENT RUNOFF FROM OCCURRING.

SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION

THIS PROJECT PROPOSES TO CONSTRUCT A NEW SINGLE FAMILY HOME ON A LOT THE SIZE OF APPROXIMATELY 2,925±4 SF. THE TOTAL AREA TO BE DISTURBED IS ABOUT 4,925 SF. PROJECTED EARTHWORK QUANTITIES ARE: CUT = 315 CUBIC YARDS, FILL = 100 CUBIC YARDS.

EXISTING SITE CONDITIONS

THE LOT GENERALLY SLOPES FROM THE NORTHEAST TO THE SOUTHWEST, FROM 16TH STREET TOWARDS VARNUM STREET. THE LOT IS CURRENTLY USED AS A LAWN AREA.

ADJACENT AREAS

THIS NEIGHBORHOOD IS A RESIDENTIAL AREA. THIS PARTICULAR LOT BORDERED ON THE NORTH AND EAST BY OTHER HOMES, WITH 16TH STREET TO THE WEST AND VARNUM STREET ON THE SOUTH.

OFF-SITE AREAS

THERE IS AN ANTICIPATED NEED FOR A SPOIL SITE. THIS SITE WILL BE LOCATED DURING CONSTRUCTION, BASED ON THE STATUS OF OTHER CONSTRUCTION SITES IN THE VICINITY.

SOILS

THIS LOT IS SHOWN ON MAP 3 OF THE SOIL SURVEY OF THE DISTRICT OF COLUMBIA. ON-SITE SOILS ARE CLASSIFIED AS SGB, SASSAFRAS URBAN LAND COMPLEX 0 TO 6 PERCENT. THIS SOIL GROUP IS FOUND ON NEARLY LEVEL TO GENTLY SLOPING UPLANDS OF THE COASTAL PLAIN. PERMEABILITY IS MODERATE IN AREAS OF THIS COMPLEX WHERE THE SOILS ARE RELATIVELY UNDISTURBED. RUNOFF IS MEDIUM TO RAPID. THIS COMPLEX HAS GOOD POTENTIAL FOR POST BUILDING PURPOSES. THIS COMPLEX IS GENERALLY VERY SANDY AND DROUGHTY AND THEREFORE, MAY HAVE POOR POTENTIAL FOR VEGETATION.

CRITICAL AREAS

NONE EXIST ON THIS SITE.

SEDIMENT CONTROL MEASURES

SEE SHEET 5 FOR SEQUENCE OF CONSTRUCTION & SEDIMENT CONTROL MEASURE LOCATIONS AND SHEETS 4 & 5 FOR SEDIMENT CONTROL NOTES & DETAILS, SPECIFICATIONS, ETC. SILT FENCE, INLET PROTECTION AND STABILIZED CONSTRUCTION ENTRANCE PRACTICES WILL SERVE TO PROVIDE MOST OF THE NECESSARY SEDIMENT CONTROL FOR THIS SITE.

PERMANENT STABILIZATION

THE SITE SHALL BE PERMANENTLY STABILIZED PER THE SEQUENCE OF CONSTRUCTION AND IN ACCORDANCE WITH D.C. STANDARDS AS PROVIDED FOR ON SHEET 4.

STORMWATER MANAGEMENT CONSIDERATIONS

THIS SITE IS EXEMPT FROM PROVIDING STORMWATER WATER MANAGEMENT. THE SITE AND LIMITS OF DISTURBANCE ARE LESS THAN 5,000 SF.

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OFFICE OF ZONING
2013 JUN 13 PM 12:00

DUST CONTROL

DEFINITION

CONTROLLING DUST BLOWING AND MOVEMENT ON CONSTRUCTION SITES AND ROADS.

PURPOSE

TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, ROADS ON- AND OFF-SITE DAMAGE, HEALTH HAZARDS, AND OVERALL TRAFFIC SAFETY.

CONDITIONS WHERE PRACTICE APPLIES

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON- AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT.

SPECIFICATIONS

TEMPORARY METHODS

1. MULCHES – SEE STANDARDS FOR VEGETATIVE STABILIZATION WITH MULCHES ONLY. MULCH SHOULD BE CRIMPED OR TACKED TO PREVENT BLOWING.
2. VEGETATIVE COVER – SEE STANDARDS FOR TEMPORARY VEGETATIVE COVER.
3. TILLAGE – ROUGHEN SURFACE AND BREAK CLODS TO THE SURFACE. THIS IS AN EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. MOISTEN PLOWED ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACED ABOUT 30" APART, AND DISKS OR SPIKE-TOOTH HARROWS PLOWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.
4. IRRIGATION – THIS IS GENERALLY DONE AS AN EMERGENCY TREATMENT. SITE IS SPRINKLED WITH WATER UNTIL THE SURFACE IS MOIST. REPEAT AS NEEDED. AT NO TIME SHOULD THE SITE BE IRRIGATED TO THE POINT THAT RUNOFF BEGINS TO FLOW.
5. BARRIERS – SOLID BOARD FENCES, SILT FENCES, SNOW FENCES, BURLAP FENCES, STRAW BALES, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. BARRIERS PLACED AT RIGHT ANGLES TO PREVAILING CURRENTS AT INTERVALS OF ABOUT 10 TIMES THEIR HEIGHT ARE EFFECTIVE IN CONTROLLING SOIL BLOWING.
6. CALCIUM CHLORIDE – APPLY AT RATES THAT WILL KEEP SURFACE MOIST. MAY NEED RETREATMENT.

PERMANENT METHODS

1. PERMANENT VEGETATION – SEE STANDARDS FOR PERMANENT VEGETATIVE COVER, AND PERMANENT STABILIZATION WITH SOD. EXISTING TREES OR LARGE SHRUBS MAY AFFORD VALUABLE PROTECTION OF LOT IN PLACE.
2. TOP SOILING – COVERING WITH LESS ERODIBLE SOIL MATERIALS. SEE STANDARDS FOR TOPSOILING.
3. STONE – COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

REFERENCES

1. AGRICULTURE HANDBOOK 346. WIND EROSION FORCES IN THE UNITED STATES AND THEIR USE IN PREDICTING SOIL LOSS.
2. AGRICULTURE INFORMATION BULLETIN 354. HOW TO CONTROL WIND EROSION. USDA-ARS

District of Columbia Sonia Schreffler 10757 Registered Professional Engineer

Cort A. Schreffler
07/31/06

INFORMATION SHOWN HEREON IS PROVIDED FOR REFERENCE ONLY. CONTRACTOR SHALL OBTAIN MOST CURRENT APPLICABLE STANDARDS AND CONSTRUCT ACCORDINGLY THERETO.

CONTRACTOR SHALL CONTACT MISS UTILITY, 1-800-257-7777, 48 HOURS PRIOR TO START OF CONSTRUCTION.

4301 16TH STREET, NW
SEDIMENT CONTROL DETAILS

DATE	BY	REVISION
07/31/06	KAM	SUBMITTED FOR DCRA FOR PERMIT REVIEW.

PROJECT 05-232 | DATE 12/2005
DRAFTING BDA | ENGINEERING KAM
SCALE N/A | APPROVAL CAS

LOT 37, SQUARE 2698
4301 16TH STREET, NW
N.W. WASHINGTON
DISTRICT OF COLUMBIA

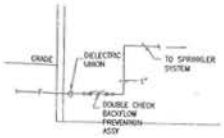
SEDIMENT CONTROL DETAILS

CAS ENGINEERING
CIVIL · SURVEYING · LAND PLANNING
A DIVISION OF CAS ENTERPRISES, INC.
108 West Ridgeville Blvd. Suite 101, Mount Airy, MD. 21771
DC Metro (301) 607-8031 FAX (301) 607-8045

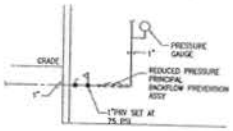
CLIENT
ANDREA GIBBONS
4301 16TH STREET, NW
WASHINGTON, DC 20011

ARCHITECT
STUDIO Z DESIGN CONCEPTS
8120 WOODMONT AVE, SUITE 150
BETHESDA, MARYLAND 20814
(301) 951-4016 PHONE
(301) 951-1915 FAX

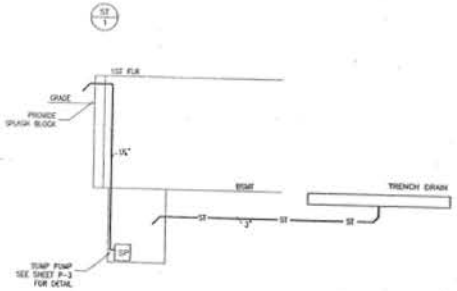
N:\cyber 2005\05232_SFS.dwg 8/10/2006 10:21:45 AM EDT



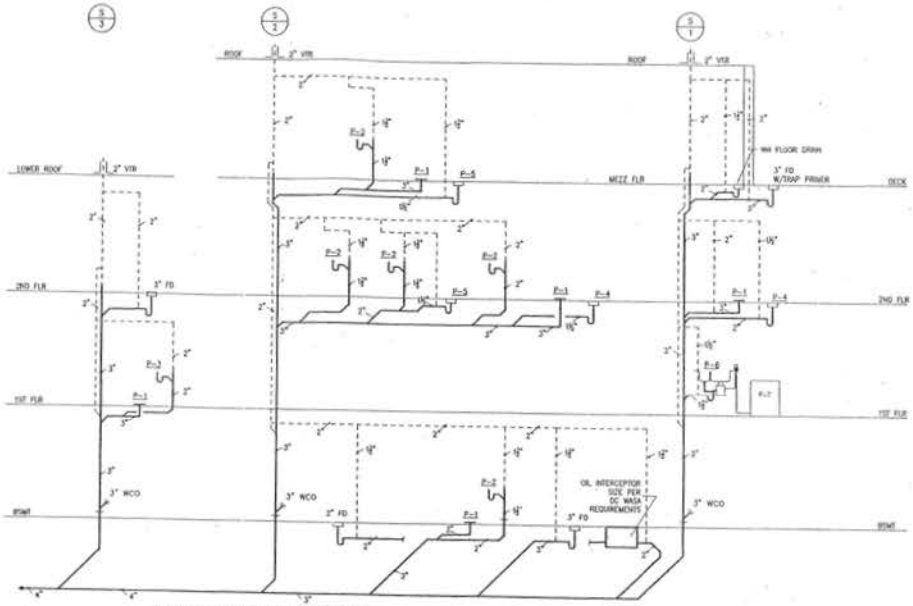
FIRE SERVICE
NO SCALE



DOM. WATER SERVICE
NO SCALE

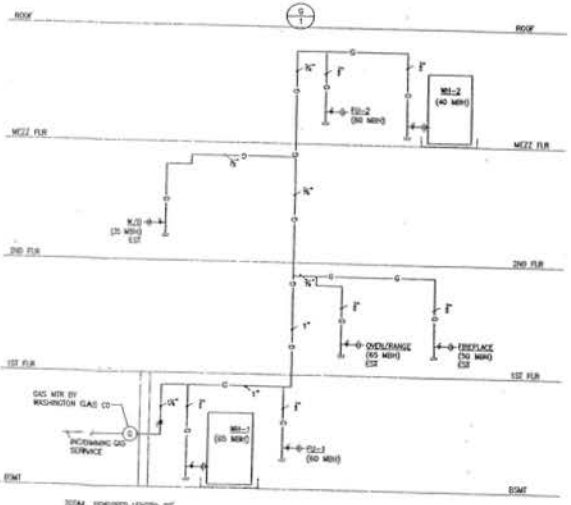


STORM RISER DIAGRAMS
NO SCALE



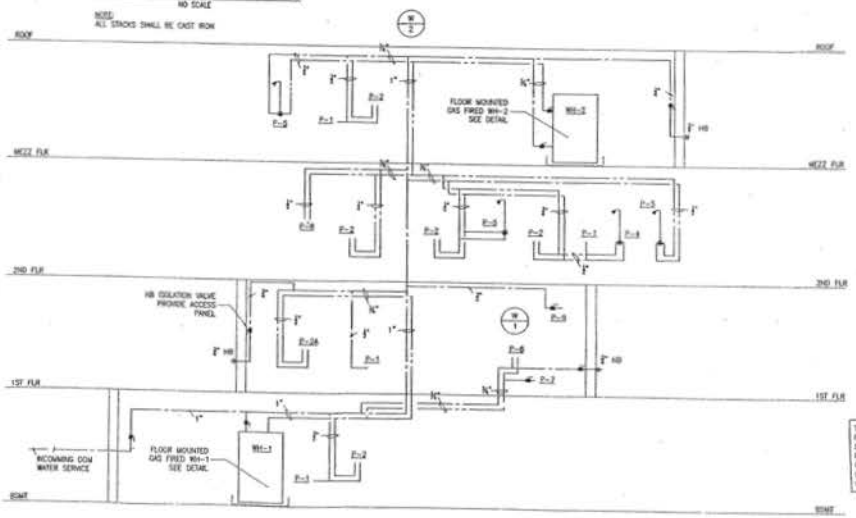
SANITARY RISER DIAGRAMS
NO SCALE

NOTE:
ALL STACKS SHALL BE CAST IRON



TOTAL, DEVELOPED LENGTH: 90'
GAS PRESSURE: 0.5 PSI
PRESSURE DROP: 0.5 INCH WC
TOTAL GAS: 350 MBH (EST)

GAS RISER DIAGRAM
NO SCALE



WATER RISER DIAGRAMS
NO SCALE

THE GENERAL LAYOUT OF THE GAS PIPING AND/OR PLUMBING SYSTEMS (DOM. Sanitary and Storm) SHOWN ON THESE DRAWINGS HAS BEEN REVIEWED FOR COMPLIANCE WITH THE APPLICABLE PROVISIONS OF THE D.C. CONSTRUCTION CODES AND IS APPROVED.
Sign
Mechanical Engineering Section

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D.C. OFFICE OF ZONING
2013 JUN 13 PM 1:01

DATE:	SUBMISSION
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DATE:	REVISION

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Zoning Division

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Project Number
P-4
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