State of Vermont
Department of Buildings & General Services

NORTH FERRISBURGH MAINTENANCE FACILITY

4 BAY MAINTENANCE GARAGE
SALT/SAND STORAGE AND COLD STORAGE SHED

North Ferrisburgh, Vermont

AGENCY OF ADMINISTRATION
DEPT. OF BUILDINGS & GENERAL SERVICES
2 GOVERNOR AIKEN AVENUE
MONTPELIER, VERMONT 05633-5801
R. TASHA WALLIS, COMMISSIONER

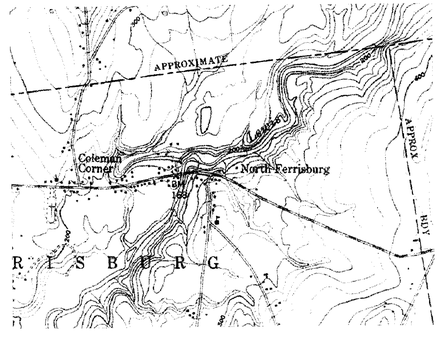
AGENCY OF TRANSPORTATION
1 NATIONAL LIFE DRIVE
DRAWER 33
MONTPELIER, VT 05633
DAWN TERRILL, SECRETARY

James H. Douglas
Governor

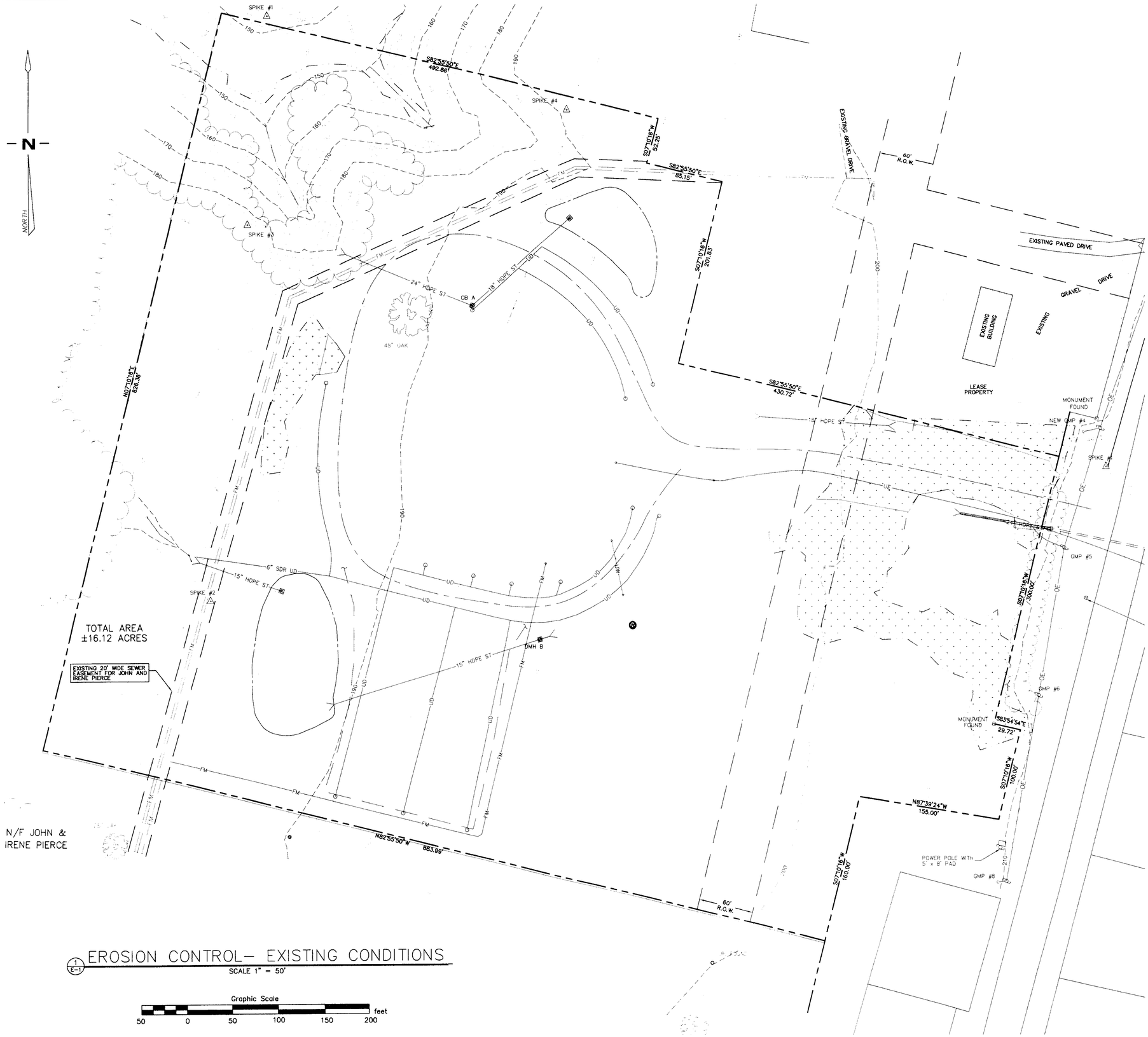
January 2006

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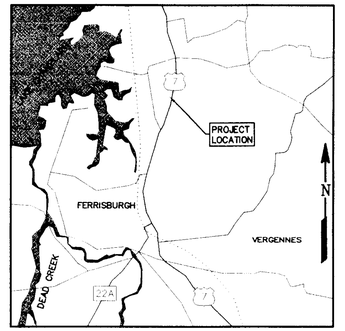
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LOCATION PLAN



1 E-1 EROSION CONTROL— EXISTING CONDITIONS
SCALE 1" = 50'



LOCATION MAP
N.T.S.

DESIGN SUMMARY:

1. **PROJECT DESCRIPTION:**
   NEW VERMONT AGENCY OF TRANSPORTATION DISTRICT #5 MAINTENANCE FACILITY.

2. **CONTACTS:**

OWNER: – **STATE OF VERMONT**
VT. DEPT. OF BUILDINGS & GENERAL SERVICES
2 GOVERNOR AIKEN AVENUE – DRAWER 33
MONTPELIER, VERMONT 05633–5861
CONTACT: MERLE MILLER – PROJECT MANAGER
(802) 828–5695

USER: – **AGENCY OF TRANSPORTATION, DISTRICT #5**
P.O. BOX 168
ESSEX JUNCTION, VT 05453
CONTACT: RICHARD HOSKING – DISTRICT TRANSPORTATION ADMINISTRATOR
(802) 655–1580

PROJECT ENGINEERS: – **CHAMPLAIN CONSULTING ENGINEERS**
85 PRIM ROAD, P.O. BOX 453
COLCHESTER, VERMONT 05446
CONTACT: PAUL DUCHESNEAU, P.E.
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ON–SITE PLAN COORDINATOR: – **CHAD ALLEN, P.E.**
DISTRICT #5 TRANSPORTATION PROJECT MANAGER
5 BARNES AVENUE
COLCHESTER, VERMONT 05446
(802) 654–1722

GENERAL NOTES:

(1) This plan set is for erosion prevention and sediment control purposes only and shall not be construed as construction drawings or as a property boundary survey. Property lines shown are for reference only.

Champlain Consulting ENGINEERS
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BGS
STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

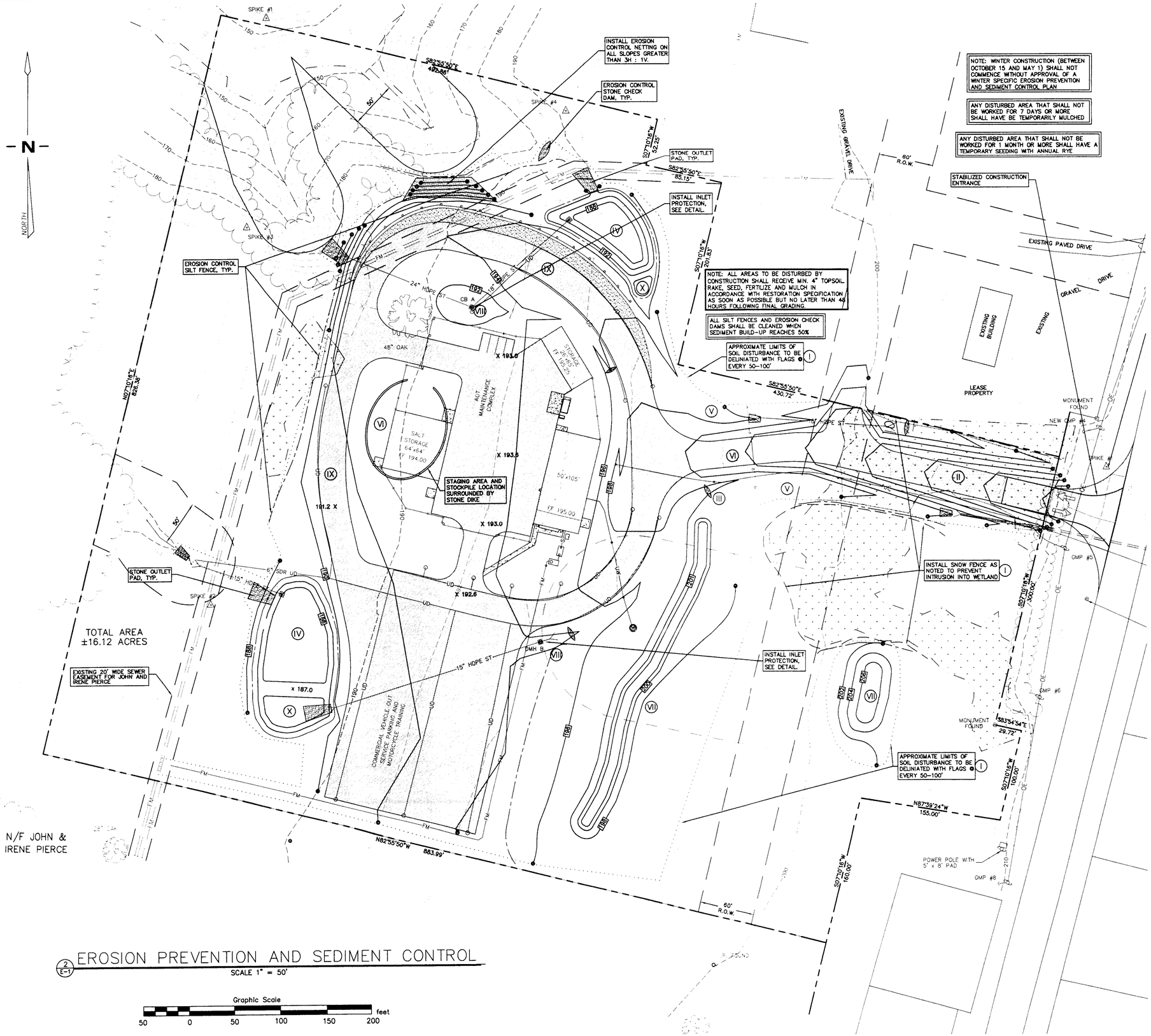
AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH, VERMONT

REVISIONS

SCALE: 1" = 50'
DATE: 01/04/06
DRAWN BY: CCE
APPR. BY: PD

FERRISBURGH
MAINTENANCE GARAGE
EROSION CONTROL EXISTING CONDITIONS

E–1



EROSION PREVENTION AND SEDIMENT CONTROL

(2 / E-1) SCALE 1" = 50'

Graphic Scale

50 0 50 100 150 200 feet

LEGEND

- EXISTING CONTOUR
- 200 PROPOSED CONTOUR
- PROPERTY LINE
- FM EXISTING FORCE MAIN
- OE OVERHEAD ELECTRIC
- P. POWER POLE
- DRAINAGE SWALE
- WETLAND DELINEATION
- WETLANDS
- FM NEW FORCE MAIN
- S NEW SANITARY SEWER
- W NEW WATER LINE
- STM NEW STORM LINE
- FD NEW FLOOR DRAIN
- W NEW DRILLED WELL
- NEW GUARD RAIL
- APPROXIMATE LIMITS OF SOIL DISTURBANCE
- CATCH BASIN
- TEMPORARY STONE CHECK DAM
- STONE OUTLET PAD
- SILT FENCE
- SNOW FENCE
- EROSION CONTROL MATTING

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DORE AND WHITTIER, INC. Architects • Project Managers
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BGS

STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH, VERMONT

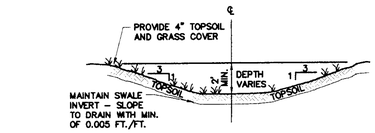
REVISIONS

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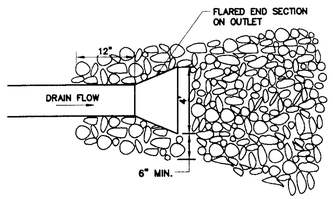
FERRISBURGH
MAINTENANCE GARAGE
EROSION PREVENTION & SEDIMENT CONTROL

E–2

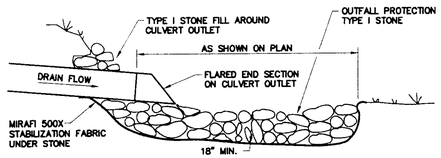
3 OF 43



1 E-3 TYPICAL DRAINAGE SWALE
N.T.S.

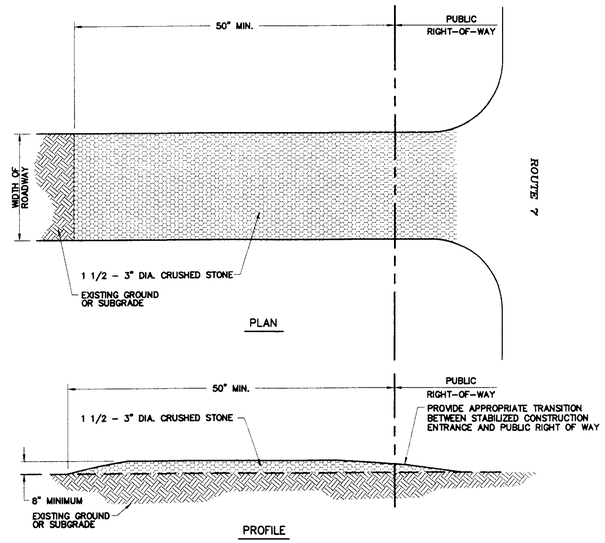


PLAN



PROFILE

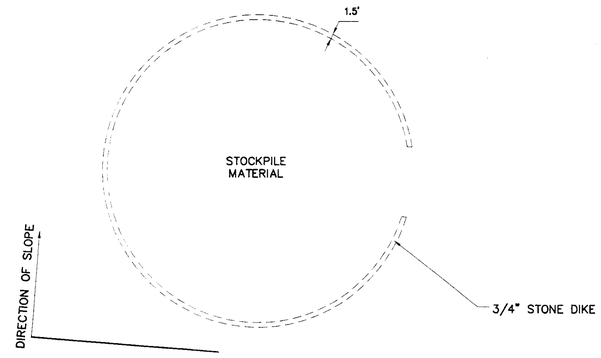
2 E-2 CULVERT OUTLET DETAIL
N.T.S.



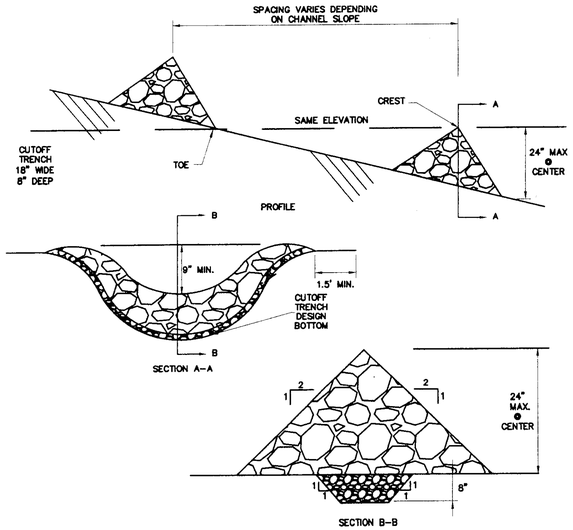
NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT ONTO THE PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT TRACKED, SPILLED, OR WASHED ONTO THE PUBLIC RIGHT-OF-WAY SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
2. THE USE OF CALCIUM CHLORIDE OR WATER MAY BE NECESSARY TO CONTROL DUST DURING THE SUMMER.

3 E-3 TEMPORARY STABILIZED CONSTRUCTION ENTRANCE DETAIL
N.T.S.



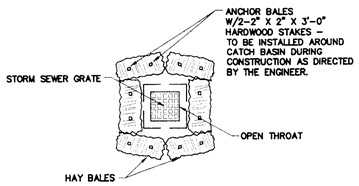
4 E-3 STOCKPILE EROSION CONTROL
N.T.S.



CONSTRUCTION SPECIFICATIONS

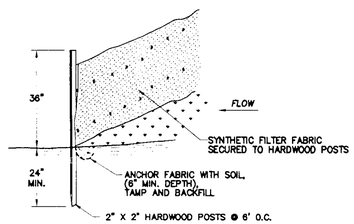
1. SET SPACING OF CHECK DAMS TO ASSURE THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
2. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
3. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
4. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

5 E-3 STONE CHECK DAM
N.T.S.

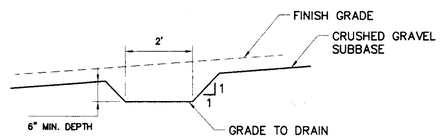


NOTE:
SET GRATE IN MIRAFI 140N FABRIC (OR APPROVED EQUIVALENT) UNTIL PERMANENT EROSION CONTROLS ARE IN PLACE. REMOVE ACCUMULATED DEBRIS & CLEAN OR REPLACE AS REQUIRED

6 E-3 INLET PROTECTION
N.T.S.



7 E-3 SILT FENCE DETAIL
N.T.S.



8 E-3 TYPICAL DIVERSION SWALE
N.T.S.

EROSION CONTROL

1. General Notes

a. The Contractor shall construct and maintain all erosion measures in accordance with the "Vermont Handbook for Erosion Prevention and Sediment Control", current edition.

2. Construction Sequence

a. The Contractor shall be responsible for establishing all erosion control measures delineated on the plans and any additional measures that are necessary to minimize erosion. The Contractor shall have erosion control materials and installation equipment on site at all times.

b. Silt fences shall be installed along the base of the fill slopes. This shall remain in place until the project site has been stabilized. Install stone check dams in grass–lined swales 50 feet on center to prevent silt from washing into the drainage system during construction. Check dams shall be removed when vegetation is established.

c. Dust shall be controlled through the application of calcium chloride or water.

d. Excavated material from earth excavation and ditch digging shall be disposed of offsite or used for project fill material if determined suitable by the Owner's Representative.

e. All temporary erosion control measures required for any proposed winter work shall be installed prior to October 1. These measures shall be in place prior to the commencement of any site work or earth–moving.

3. Temporary Measures

a. Stone Check Dam – Shall be placed according to detail shown.

Check dams shall be repaired as needed. Once vegetation is established and the check dams are no longer needed for erosion control, they shall be removed. Sediment deposits shall then be removed and placed in an upland area where there is no danger of further erosion.

b. Silt Fences – The silt fences shall be constructed in accordance with the construction detail. The fence shall generally be placed 10 feet from the toe of the slope or as shown on the plan. The ends of the fence shall be placed uphill to form a horseshoe shape to trap all runoff.

The silt fences shall be inspected periodically for damage or buildup of sediment. All damaged silt fence shall be repaired or replaced. Sediment deposits shall be removed from the fence as they accumulate and placed in an area where there is no danger of further erosion.

c. Erosion Matting – Erosion matting shall be placed on all grass–lined swales with profile grades exceeding 5.0% and shall be placed and maintained in accordance with the Vermont Agency of Transportation Standard Specifications Sections 654 and 755.07.

d. Dust Control – During construction, dust will be controlled with water distributed by a truck–mounted spray bar. At the direction of the Engineer, Calcium Chloride AASHTO M 144 or Sodium Chloride M 143 may be used.

e. All stockpile material (topsoil, borrow, etc.) will o have a stone dike or silt fence constructed around the perimeter. Seed and mulch stockpile material as soon as possible to prevent soil erosion and sedimentation off site. Locate stockpiles on the uphill side of disturbed areas, if possible. During windy conditions, stockpiled material shall be covered or watered appropriately to prevent wind erosion.

f. Slopes greater than 1:3 shall have erosion control netting installed to stabilize the slope and reduce the erosion potential. Install netting over mulched slopes so that all parts are in contact with the soil and mulch. Pin netting with wire staples 3 feet o.c. to ensure full bonding with soil surface.

4. Permanent Measures

a. Grass Lined Swales – All swales that are not stone–lined shall be topsoiled, seeded, fertilized and mulched. Any area which shows signs of erosion shall be reseeded immediately and maintained until permanent vegetation is established.

b. Restoration – As soon as construction is completed in a given area, it shall be topsoiled, seeded, fertilized and mulched.

The topsoil shall be submitted to the Extension Service for analysis. Fertilizer shall be applied at approximately a rate of 400 pounds per acre depending on soil analysis. If necessary, lime shall be applied to the topsoil to produce a soil PH of approximately 6.0.

After the finished grade has been established and the fertilizer spread, plant the specific seed mixture and work firmly into the soil. Apply seed on the prepared seed bed with approved mechanical seeders or hydroseeding equipment. Upon completion of the above planting operations, roll all areas, leaving the surface of all area true to grade, smooth, and free from hollows or other irregularities. Thoroughly water all newly planted areas immediately after planting using a fine spray. Protect banks and swales from erosion and repair erosion that occurs. Banks, swales or other graded areas that have been washed out or have become damaged shall be repaired immediately. Unless approval is granted by the Engineer to plant off season, seeding will be conducted only during the period from April 15th to October 10th. Seeding shall not proceed before other phases of the work have progressed sufficiently and shall not interfere with other phases of work.

After seeding, mulch shall be applied at a rate of 2 tons per acre.

5. Winter Construction

a. If due to the project schedule, construction during the winter months is necessary, the contractor shall follow the winter construction procedures outlined in the "Vermont Handbook for Soil Erosion and Sediment Control on Construction Sites"

I. Minimize disturbance between October and May.

II. All erosion control measures shall be in place prior to the ground freezing.

III. Mulch shall be applied to all disturbed area at a rate of 90 pounds per 1,000 square feet. The Contractor shall maintain all areas that are mulched until permanent vegetation can be established.

6. Maintenance, Guarantee and Acceptance

a. The Contractor shall be responsible for the care and maintenance including watering of seeded areas, until the seeding is inspected and accepted by the Owner.

b. Reseeding shall be done until all areas are completely covered with a mature stand of grass. An area shall be considered covered when the entire surface contains a verdurous stand of grass. Areas that, in the opinion of the Engineer, are predominantly weeds shall be plowed up, fine graded, fertilized and reseeded in the manner specified previously, exercising caution not to cause damage to new or existing plant material.

c. Maintain and guarantee all seeded area until acceptance.

SEEDING SPECIFICATION

CONSERVATION MIX GRASS SEED		
% BY WEIGHT	LBS. LIVE SEED PER ACRE	TYPE OF SEED
35	35	CREEPING RED FESCUE
23	23	KENTUCKY BLUEGRASS
15	15	ANNUAL RYE
11	11	WINTER HARDY, PERENNIAL RYE, (VARIETY PENNFINE, MANHATTAN OR SIMILAR VARIETY)
6	6	WHITE CLOVER
10	10	HIGHLAND BENTGRASS
100	100 # LIVE SEED/ACRE	

FERTILIZER – 10 LBS PER 1000 SQ FT
SPRING SEEDING
FALL SEEDING

LIME – 90 LBS PER 1000 SQ FT
DOLOMITIC GROUND LIMESTONE
NOT LESS THAN 85% OF THE TOTAL CARBONATE

TOPSOIL
4" MINIMUM APPROVED TOPSOIL

STRAW MULCH – 2 BALES PER 1000 SQ FT
APPLY BINDER OR NETTING AS NEEDED

MAINTENANCE GUARANTEE AND ACCEPTANCE OF SEEDING
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CARE AND MAINTENANCE, INCLUDING WATERING, OF SEEDED AREA UNTIL THE SEEDING IS INSPECTED AND ACCEPTED BY THE ENGINEER. INSPECTION SHALL BE MADE AFTER THE SECOND MOWING. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS IN ADVANCE WHEN THE SECOND MOWING IS SCHEDULED.
RESEEDING SHALL BE DONE UNTIL ALL AREAS ARE COMPLETELY COVERED WITH A MATURE STAND OF GRASS. AN AREA SHALL BE CONSIDERED COVERED WHEN THE ENTIRE SURFACE CONTAINS A VIGOROUS STAND OF GRASS. AREAS THAT, IN THE OPINION OF THE ENGINEER, ARE PREDOMINANTLY WEEDS SHALL BE TILLED, FINE GRADED, FERTILIZED AND RESEEDED IN THE MANNER SPECIFIED ABOVE.

9 E-3 SITE RESTORATION
N.T.S.

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PHONE (802) 863–8080
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Fax: (617) 472-2544

STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH, VERMONT

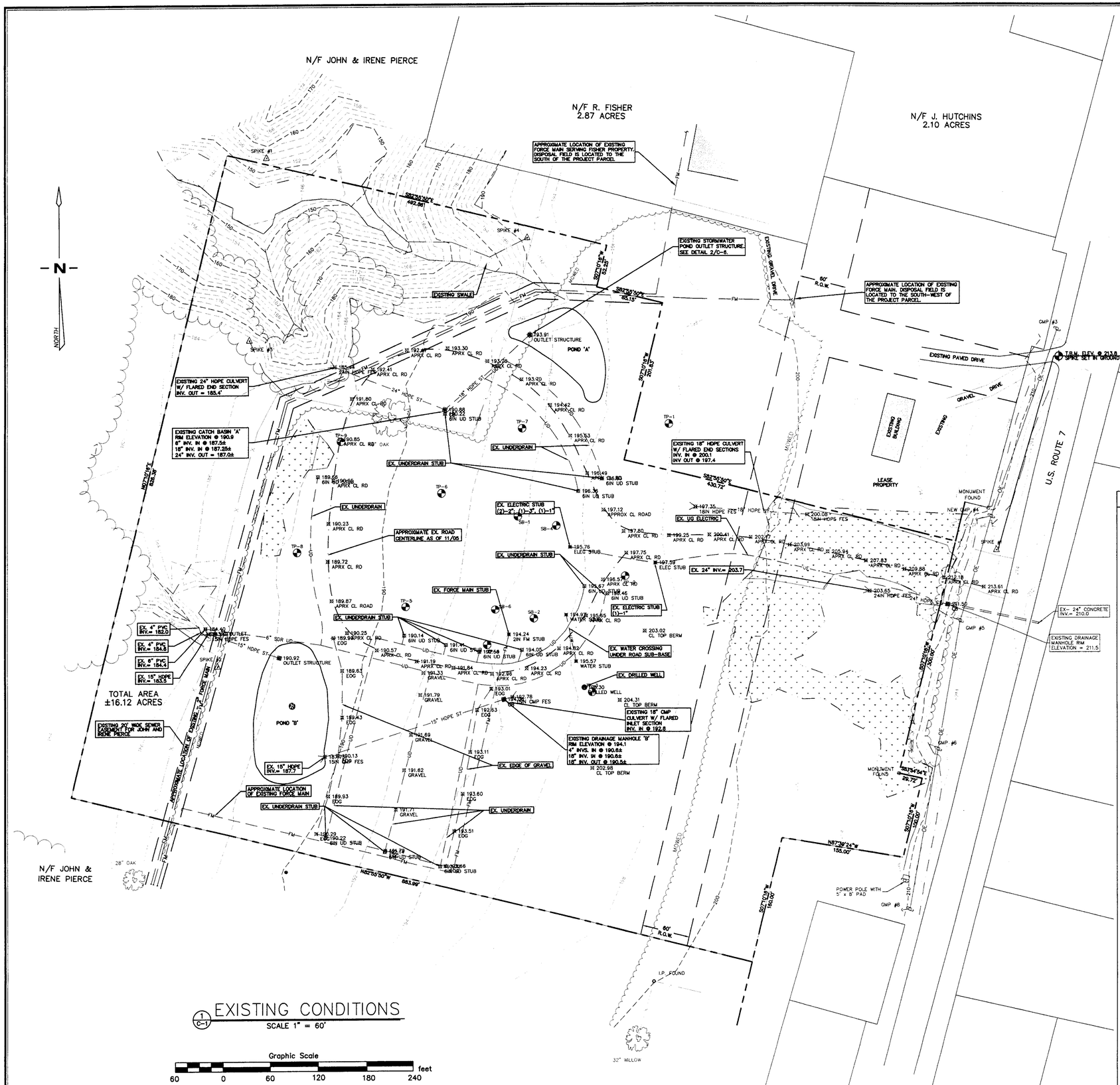
REVISIONS

SCALE: AS NOTED
DATE: 01/04/06
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APPR. BY: PD

FERRISBURGH
MAINTENANCE GARAGE
ERISION AND SEDIMENT DETAILS

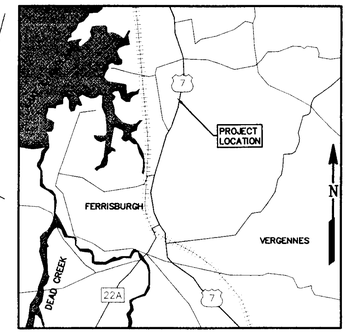
E–3

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1 C-1 EXISTING CONDITIONS
SCALE 1" = 60'

Graphic Scale
60 0 60 120 180 240 feet



LOCATION MAP
N.T.S.

DESIGN SUMMARY:

1. **PROJECT DESCRIPTION:**
NEW VERMONT AGENCY OF TRANSPORTATION DISTRICT #5 MAINTENANCE FACILITY.

2. **CONTACTS:**

OWNER: – **STATE OF VERMONT**
VT. DEPT. OF BUILDINGS & GENERAL SERVICES
2 GOVERNOR AIKEN AVENUE – DRAWER 33
MONTPELIER, VERMONT 05633–5861
CONTACT: MERLE MILLER – PROJECT MANAGER
(802) 828–5695

USER: – **AGENCY OF TRANSPORTATION, DISTRICT #5**
P.O. BOX 168
ESSEX JUNCTION, VT 05453
CONTACT: RICHARD HOSKING – DISTRICT TRANSPORTATION ADMINISTRATOR
(802) 655–1580

PROJECT ARCHITECT: – **DORE & WHITTIER**
1795 WILLISTON ROAD
SOUTH BURLINGTON, VERMONT 05403
CONTACT: ALAN BROWN
(802) 863–1428

PROJECT ENGINEERS: – **CHAMPLAIN CONSULTING ENGINEERS (CIVIL)**
85 PRIM ROAD, P.O. BOX 453
COLCHESTER, VERMONT 05446
CONTACT: PAUL DUCHESNEAU
(802) 863–8060

ENGINEERING VENTURES, INC. (STRUCTURAL)
7 KILBURN STREET
BURLINGTON, VT 05401
CONTACT: KEVIN WORDEN
(802) 863–6225

KIRICK ENGINEERING ASSOCIATES(ELECTRICAL)
75 HEGEMAN AVE.
COLCHESTER, VT 05446
CONTACT: MICHAEL KIRICK
(802) 655–5731

TEIGH SOUTHWORTH (MECHANICAL)
VT. DEPT. OF BUILDINGS & GENERAL SERVICES
2 GOVERNOR AIKEN AVENUE – DRAWER 33
MONTPELIER, VERMONT 05633–5861
(802) 828–5695

GENERAL NOTES:

(1) This plan is for topographic purposes only and is not to be construed as a property boundary survey. Property lines shown are for reference only.

(2) Prior to commencing site work, the General Contractor shall verify existing field conditions. The Project Engineer shall be notified immediately where discrepancies exist between the project drawings and actual field conditions.

(3) All existing utility information provided without the help of DIG SAFE.

(4) The General Contractor shall contact **DIG SAFE** at **(1–888–344–7233)** seventy–two hours prior to any excavation to accurately establish the location of all underground utilities located on the project site.

(5) Where dimensions on the project drawings are unclear, contact the Project Engineer immediately for clarification.

(6) It is the General Contractor's responsibility to ensure that the Project drawings reflect the latest revisions.

JOB SITE SAFETY NOTES:

(1) PROVIDE ADEQUATE SAFETY FOR ALL WORKERS AND THE GENERAL PUBLIC ON AND NEAR THE JOB SITE AT ALL TIMES.

(2) FOLLOW THE SAFETY PROCEDURES SET FORTH BY THE VERMONT OCCUPATIONAL; SAFETY AND HEALTH ADMINISTRATION, (VOSHA) AT A MINIMUM, AT ALL TIMES.

(3) ALL EXCAVATION AND HOLES SHALL BE FILLED, COVERED OR BARRICADED AT THE END OF EACH WORKING DAY.

(4) AT THE END OF EACH WORKDAY, ALL UNFINISHED WORK SHALL BE IDENTIFIED IN SUCH A MANNER SO AS TO WARN UNAUTHORIZED PERSONNEL FROM ENTERING OR USING THE UNFINISHED AREA.

TEST PIT SUMMARY

TP #1	0– 7"	LOOSE SILTY LOAM
	7– 19"	LOOSE TAN/GREY SILT FINE SAND
	19– 36"	MEDIUM STIFF GREY SILTY CLAY
	36–133"	STIFF GREY SILTY CLAY
		SEEPS @ 71"
		MOTTLING @ 12"
		NO LEDGE
TP #2	0– 8"	LOOSE SILTY LOAM
	8– 13"	LOOSE GREY FINE TO MEDIUM SAND
	13– 17"	LOOSE BROWN FINE SAND & SILT
	17– 39"	MEDIUM STIFF GREY SILT CLAY
	39–131"	STIFF SILT CLAY
		SEEPS @ 100"
		MOTTLING @ 14"
		NO LEDGE
TP #3	0– 8"	LOOSE SILTY LOAM
	8– 17"	LOOSE BROWN/GREY FINE SAND & SILT
	17– 38"	MEDIUM STIFF GREY SILTY CLAY
	38–123"	STIFF BROWN/GREY SILTY CLAY
		SEEPS @ 38"
		MOTTLING @ 8"
		NO LEDGE
TP #4	0– 6"	SILTY LOAM
	6– 12"	LOOSE GREY/BROWN SILTY CLAY
	12– 24"	MEDIUM STIFF GREY SILTY CLAY
	24– 30"	LOOSE GREY FINE SAND
	30– 47"	MEDIUM STIFF GREY SILTY CLAY
	47–135"	STIFF GREY/BROWN SILTY CLAY
		SEEPS @ 30"
		MOTTLING @ 8"
		NO LEDGE
TP #5	0– 8"	SILTY LOAM
	8– 16"	LOOSE GREY/BROWN SILTY CLAY
	16– 31"	MEDIUM STIFF GREY/BROWN SILTY CLAY
	31– 43"	STIFF GREY SILTY CLAY
	43–126"	STIFF GREY/BROWN SILTY CLAY
		SEEPS @ 36"
		MOTTLING @ 9"
		NO LEDGE
TP #6	0– 8"	SILTY LOAM
	8– 14"	LOOSE BROWN FINE SAND & SILT
	14– 44"	MEDIUM STIFF BROWN SILTY CLAY
	44–131"	STIFF BROWN SILTY CLAY
		SEEPS @ 44"
		RUNNING WATER @ 102"
		MOTTLING @ 8"
		NO LEDGE
TP #7	0– 6"	LOOSE DARK BROWN SILTY LOAM
	6– 13"	LOOSE BROWN SILT, TRACE CLAY
	13– 23"	LOOSE BROWN/GREY SILTY CLAY
	23– 36"	MEDIUM STIFF GREY/BROWN SILTY CLAY
	36– 38"	LOOSE GREY FINE SAND
	38–126"	STIFF GREY/BROWN SILTY CLAY
		SEEPS @ 33"
		RUNNING WATER @ 109"
		MOTTLING @ 7"
		NO LEDGE
TP #8	0– 9"	LOOSE DARK BROWN SILTY LOAM
	9– 12"	LOOSE BROWN FINE SAND AND SILT
	12– 16"	LOOSE BROWN SILTY CLAY
	16– 36"	MEDIUM STIFF GREY/BROWN SILTY CLAY
	36– 40"	LOOSE GREY FINE SAND
	40–123"	STIFF GREY–BROWN SILTY CLAY
		SEEPS @ 40"
		RUNNING WATER @ 108"
		MOTTLING @ 8"
		NO LEDGE
TP #9	0– 7"	LOOSE DARK BROWN SILTY LOAM
	7– 15"	LOOSE BROWN FINE SAND AND SILT
	15– 31"	MEDIUM STIFF GREY/BROWN SILTY CLAY
	31– 35"	MEDIUM COMPACT FINE GREY SAND
	35– 48"	MEDIUM STIFF GREY SILTY CLAY
	48–108"	STIFF GREY/BROWN SILTY CLAY
		SEEPS @ 30"
		RUNNING WATER @ 96"
		MOTTLING @ 8"
		NO LEDGE

LEGEND

- EXISTING CONTOUR
- PROPERTY LINE
- IRON PIN
- CONCRETE MONUMENT
- FM — FORCE MAIN
- OE — OVERHEAD ELECTRIC
- SHUT–OFF
- POWER POLE
- TEST PIT
- SOIL BORING
- EXISTING DECIDUOUS TREE
- EXISTING CONIFEROUS TREE
- EXISTING BRUSH
- TREE LINE
- FENCE
- DRAINAGE SWALE
- WETLAND DELINEATION
- WETLANDS
- 190.13 EDG — AS–BUILT POINT AS OF 11/05 (ELEVATION, DESCRIPTION)

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AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH, VERMONT

REVISIONS

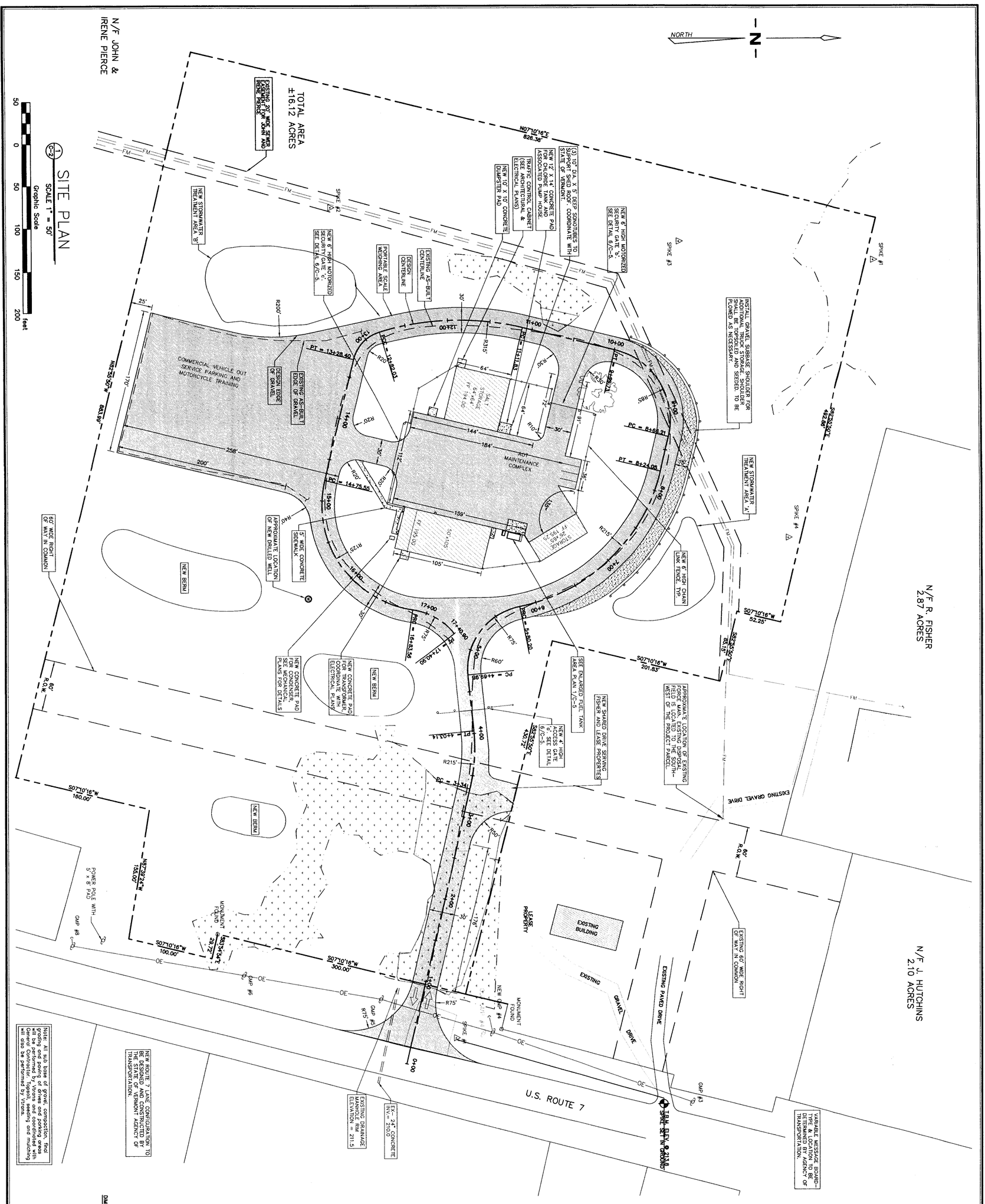
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FERRISBURGH
MAINTENANCE GARAGE
EXISTING CONDITIONS

C–1

5 OF 43

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NORTH
SITE PLAN
SCALE 1" = 50'
Graphic Scale
50 0 50 100 150 200 feet
N/F JOHN & IRENE PIERCE
TOTAL AREA ±16.12 ACRES
EXISTING 20' WIDE R.O.W. AND ACCESS TO JOHN & IRENE PIERCE
N/F R. FISHER 2.87 ACRES
N/F J. HUTCHINS 2.10 ACRES
MAINTENANCE COMPLEX
COMMERCIAL VEHICLE OUT SERVICE PARKING AND MOTORCYCLE TRAINING
NEW BERM
NEW STORMWATER TREATMENT AREA 'A'
NEW STORMWATER TREATMENT AREA 'B'
NEW 6' HIGH CHAIN LINK FENCE, TYP.
NEW 6' HIGH MOTORIZED SECURITY GATE 'a', SEE DETAIL 6/C-5.
NEW 6' HIGH MOTORIZED SECURITY GATE 'c', SEE DETAIL 6/C-5.
NEW 4' HIGH ACCESS GATE 'c', SEE DETAIL 6/C-5.
NEW 10'-0" X 10' CONCRETE DUMPSTER PAD
TRAFFIC CONTROL CABINET (SEE ARCHITECTURAL & ELECTRICAL PLANS)
NEW 7' X 7' CONCRETE PAD FOR CHLORINE TANK AND ASSOCIATED PUMP HOUSE
(3) 10' DIA. X 5' DEEP SONOTUBES TO SUPPORT SIGN ONLY. COORDINATE WITH SIZE OF SIGN.
PORTABLE SCALE WEIGHING AREA
DESIGN CENTERLINE
EXISTING AS-BUILT CENTERLINE
DESIGN EDGE OF GRAVEL
EXISTING AS-BUILT EDGE OF GRAVEL
INSTALL GRAVEL SUBBASE SHOULDER FOR PLOWING. GRAVEL SHALL BE TOPSOILED AND SEEDED TO BE PLOWED AS NECESSARY.
APPROXIMATE LOCATION OF NEW DRILLED WELL
5' WIDE CONCRETE SIDEWALK
60' WIDE RIGHT OF WAY IN COMMON
NEW CONCRETE PAD FOR GENERATOR, SEE MECHANICAL PLANS FOR DETAILS
NEW CONCRETE PAD FOR GENERATOR, COORDINATE WITH MECHANICAL/ELECTRICAL PLANS
SEE ENLARGED FUEL TANK AREA PLAN 1/C-5
NEW SHARED DRIVE SERVING FISHER AND LEASE PROPERTIES
APPROXIMATE LOCATION OF EXISTING LEACHFIELD. LEACHFIELD IS LOCATED TO THE SOUTH-WEST OF THE PROJECT PARCEL.
EXISTING GRAVEL DRIVE
EXISTING 60' WIDE RIGHT OF WAY IN COMMON
LEASE PROPERTY
EXISTING BUILDING
EXISTING GRAVEL DRIVE
EXISTING PAVED DRIVE
U.S. ROUTE 7
NEW ROUTE 7 LANE CONFIGURATION TO BE DESIGNED AND CONSTRUCTED BY THE AGENCY OF TRANSPORTATION.
VARIABLE MESSAGE BOARD-TYPE & LOCATION TO BE DESIGNED BY THE AGENCY OF TRANSPORTATION.
EXISTING DRAINAGE MANHOLE, RIM ELEVATION = 211.5
EX.- 24" CONCRETE INV.= 210.0
POWER POLE WITH 5' x 8' PAD
MONUMENT FOUND
SPIKE #1
SPIKE #2
SPIKE #3
SPIKE #4
SPIKE #5
SPIKE #6
SPIKE SET N 2438
GMP #1
GMP #2
GMP #3
GMP #4
GMP #5
GMP #6
GMP #8
PC = 14+75.55
PT = 13+28.40
PC = 12+82.03
PC = 8+68.21
PT = 8+24.05
PC = 17+40.90
PT = 16+83.56
PC = 4+68.68
PT = 4+03.14
PC = 3+34
PC = 5+80.00
S07°10'16"W 826.39'
S07°10'16"W 52.25'
S07°10'16"W 201.83'
S07°10'16"W 160.00'
S07°10'16"W 100.00'
S07°10'16"W 300.00'
N82°39'24"W 150.00'
N82°39'24"W 258.00'
S82°39'24"E 170.00'
S82°39'24"E 258.00'
S82°39'24"E 258.00'
S82°39'24"E 258

N/F JOHN & IRENE PIERCE

N/F R. FISHER
2.87 ACRES

N/F J. HUTCHINS
2.10 ACRES

N/F JOHN & IRENE PIERCE

TOTAL AREA
±16.12 ACRES

SPIKE #1

SPIKE #2

SPIKE #3

SPIKE #4

INSTALL EROSION CONTROL NETTING ON ALL SLOPES GREATER THAN 3H : 1V.

TEMPORARY EROSION CONTROL CHECK DAM, TYP.

OVERFLOW SPILLWAY, TYP.

EXISTING STORMWATER POND OUTLET STRUCTURE. SEE DETAIL 2/C-6.

APPROXIMATE WETLAND IMPACT, TYPICAL

BEGIN GUARDRAIL @ STA 6+76

SEE ENLARGED FUEL TANK AREA PLAN 1/C-5

DESIGN CENTERLINE

EXISTING AS-BUILT CENTERLINE

STONE OUTLET PAD, TYP.

EXISTING 24" HDPE CULVERT W/ FLARED END SECTION INV. OUT = 185.4'

END GUARDRAIL @ STA 9+88

EXISTING CATCH BASIN 'A'
RIM ELEVATION @ 190.9
6" INV. IN @ 187.5±
18" INV. IN @ 187.25±
24" INV. OUT = 187.0±

APPROXIMATE WETLAND IMPACT, TYPICAL

TEMPORARY EROSION CONTROL SILT FENCE

STORMWATER DETENTION POND 'B'
SEE DETAIL 1/C-6.

EXISTING STORMWATER POND OUTLET STRUCTURE SEE DETAIL 2/C-6.

EXISTING 20' WIDE SEWER EASEMENT FOR JOHN AND IRENE PIERCE

APPROXIMATE LOCATION OF CAPPED END OF EXISTING FORCE MAIN. FIELD VERIFY EXACT LOCATION PRIOR TO THE START OF CONSTRUCTION.

EXISTING FORCE MAIN TO EXISTING COMPLETED WASTEWATER DISPOSAL FIELD. REFER TO WW-9-0324-1 FOR DETAILS REGARDING EXISTING DISPOSAL FIELD.

NEW 2" DIA. CLASS 160 PVC FORCE MAIN TO EXISTING DISPOSAL FIELD. NEW FORCE MAIN SHALL BE PRESSURE TESTED PRIOR TO CONNECTION WITH EXISTING FORCE MAIN.

EX. UNDERDRAIN STUB

EX. UNDERDRAIN STUB

EX. FORCE MAIN STUB

EXISTING GRAVEL DRIVE

60' R.O.W.

APPROXIMATE LOCATION OF EXISTING FORCE MAIN. EXISTING DISPOSAL FIELD IS LOCATED TO THE SOUTH-WEST OF THE PROJECT PARCEL.

Note: All sub base of gravel, compaction, final grading and paving of drives and parking areas will be performed by Vtrans and coordinated with General Contractor. Topsoil, seeding and mulching will also be performed by Vtrans.

EXISTING PAVED DRIVE

GRAVEL DRIVE

EXISTING BUILDING

T.B.M. ELEV. @ 213.8
SPIKE SET IN GROUND

GMP #3

GMP #4

GMP #5

GMP #6

GMP #8

LEASE PROPERTY

PROVIDE STABILIZED CONSTRUCTION ENTRANCE

MONUMENT FOUND

NEW GMP #4

U.S. ROUTE 7

EX- 24" CONCRETE INV.= 210.0

EXISTING DRAINAGE MANHOLE RIM ELEVATION = 211.5

EX. 24" INV.= 203.7

NEW 4" DIA. CAST IRON SANITARY SEWER PIPING. SLOPE @ 1/4" PER FT. MIN.

NEW 1,500 GALLON PRECAST CONCRETE SEPTIC TANK WITH OUTLET FILTER AND ACCESS RISER TO GRADE.

NEW 1,500 GALLON PRECAST CONCRETE PUMP STATION WITH ACCESS RISER TO GRADE

EXISTING 18" CMP CULVERT W/ FLARED INLET SECTION INV. IN @ 192.8

EXISTING DRAINAGE MANHOLE 'B'
RIM ELEVATION @ 194.1
4" INVS. IN @ 190.6±
18" INV. IN @ 190.6±
18" INV. OUT @ 190.5±

WELL ISOLATION ENVELOPE

PROPOSED EARTHEN BERMS

DESIGN EDGE OF GRAVEL

EXISTING AS-BUILT EDGE OF GRAVEL

EX. INV. OUT @ 187.8

*NOTE:
REFER TO ELECTRICAL PLANS FOR UNDERGROUND UTILITY AND SITE LIGHTING INFORMATION AND LOCATIONS

POWER POLE WITH 5' x 8' PAD

S82°55'50"E 492.86'

S07°01'16"W 52.25'

S82°55'50"E 85.15'

S07°01'16"W 201.83'

S82°55'50"E 430.72'

S83°54'54"E 29.72'

S07°01'16"W 100.00'

N87°39'24"W 155.00'

S07°01'16"W 180.00'

S07°01'16"W 100.00'

N07°01'16"E 826.38'

N82°55'50"W 883.89'

GRADING AND UTILITY PLAN

1/C-3

SCALE 1" = 50'

Graphic Scale
50 0 50 100 150 200 feet

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPERTY LINE
- IRON PIN
- CONCRETE MONUMENT
- EXISTING FORCE MAIN
- OVERHEAD ELECTRIC
- WATER SHUT-OFF
- POWER POLE
- DRAINAGE SWALE
- WETLAND DELINEATION
- WETLANDS
- NEW LANDSCAPING
- NEW FORCE MAIN
- NEW SANITARY SEWER
- NEW WATER LINE
- NEW STORM LINE
- NEW FLOOR DRAIN
- NEW DRILLED WELL
- NEW GUARD RAIL
- PROPOSED SPOT ELEVATION
- AS-BUILT POINT AS OF 11/05 (ELEVATION, DESCRIPTION)

DESIGN NOTES:

Refer to WW-9-0324-1 and plans prepared by John Stuart sheet 1 dated 11/2000, latest revision 12/2000, sheets 2&3 dated 11/2000 and sheet 1A dated 4/98 latest revision 12/2000, for information regarding the wastewater disposal system.

Potable Water Design Flows

AOT: 6 Employees @ 15 GPD	=	90 GPD
DMV: 5 Employees @ 15 GPD	=	75 GPD
DMV: Classroom- 15 Students @ 15 GPD	=	225 GPD
DMV: Enforcement- 125 Trucks @ 5 GPD	=	625 GPD
Less 10% Reduction for Low-Flow Fixtures	=	-101 GPD
Allowance for Truck Wash	=	120 GPD
Total Potable Water Design Flow	=	1034 GPD

Wastewater Design Flows

AOT: 6 Employees @ 15 GPD	=	90 GPD
DMV: 5 Employees @ 15 GPD	=	75 GPD
DMV: Classroom- 15 Students @ 15 GPD	=	225 GPD
DMV: Enforcement- 125 Trucks @ 5 GPD	=	625 GPD
Less 10% Reduction for Low-Flow Fixtures	=	-101 GPD
Total Wastewater Design Flow	=	914 GPD

Existing Wastewater Disposal System
(4) 4' x 65' Disposal Trenches

Flow = 30 gpm
Head loss = -20' (elevation) + 54' (friction & fittings) = 34'
Dose Volume = 150 Gallons
Provide: 30 gpm @ 34' T.D.H.
Recommend: Hydromatic SHEF 50 or approved equivalent

The wastewater pump specification is based on the assumed parameters of a partially completed wastewater disposal system designed by John Stuart, P.E. The condition of the existing partial system is unknown. Variables may be present that would require alternate pump selection. Therefore the pump specified shall be tested for a minimum flow rate of 20 GPM. Conditions may prove this does not meet the performance standard and an alternate pump selection may be required.

PERIODIC MAINTENANCE NOTES:

SEPTIC TANK

(1) The depth of sludge and scum in the septic tank shall be measured annually by the Owner. The septic tank shall be pumped if the sludge is closer than 3" to the septic tank outlet baffle.

(2) All interior surfaces shall be inspected for cracking after the septic tank has been pumped.

(3) The effluent filter should be rinsed clean regularly, usually at the time of septic tank inspection.

PUMP STATION

(1) During periods of infrequent use, the pump station shall be opened and filled with water via a hose to a level that will engage the pump. This action shall be performed at least once per week when occupancy and usage are too low to cycle the pump.

(2) At least once per year, open the pump station and remove all settled solids as necessary.

(3) All interior surfaces shall be inspected for cracking after the pump station has been pumped.

(4) Float and alarm elevations shall be checked and reset as necessary.

WASTEWATER DISPOSAL AREA

(1) Maintain turf conditions throughout the summer months by mowing the grass to 2 1/2" – 3" in length; reseed all bare spots.

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NORTH FERRISBURGH, VERMONT

REVISIONS

SCALE: 1" = 50'	DATE: 01/04/06	DRAWN BY: CCE	APPR. BY: PD

FERRISBURGH
MAINTENANCE GARAGE
GRADING AND UTILITY PLAN

C-3

7 OF 43

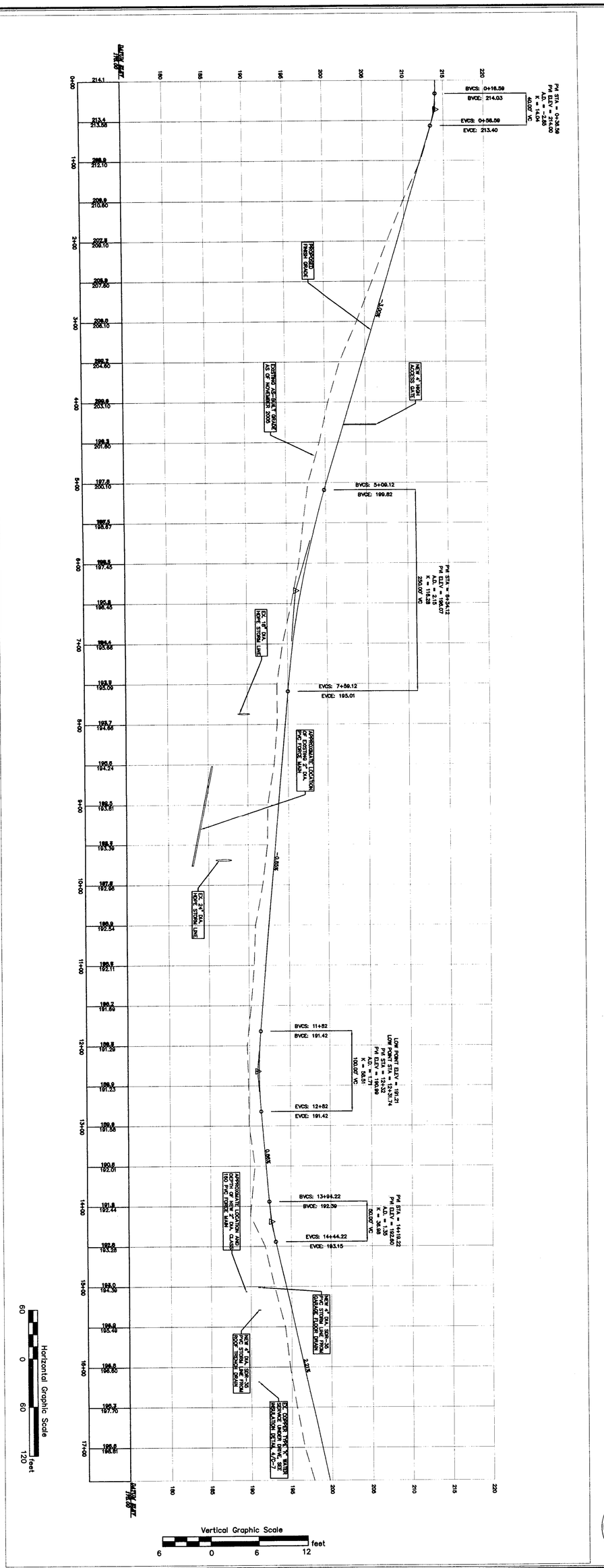
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C-4

CENTERLINE DRIVEWAY PROFILE

STA 0+00 TO 17+41



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FERRISBURGH	MAINTENANCE GARAGE	C-4	8 OF 43
	CENTERLINE DRIVE PROFILE		

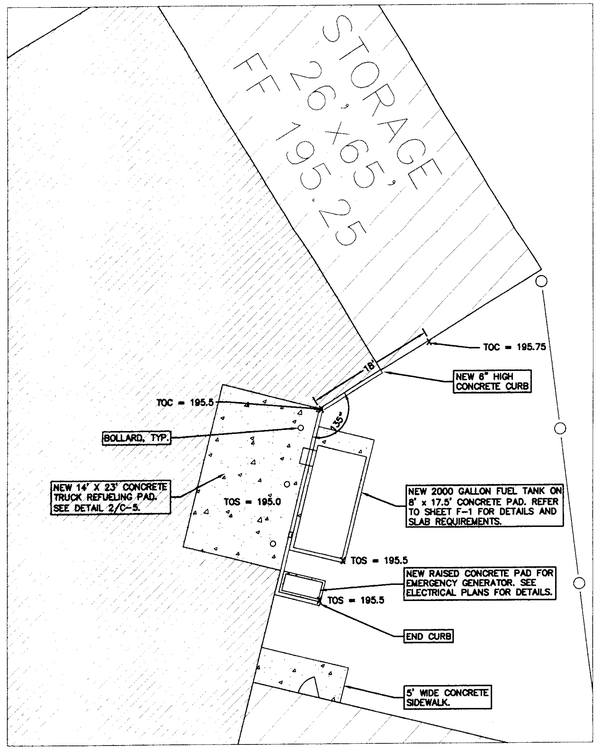
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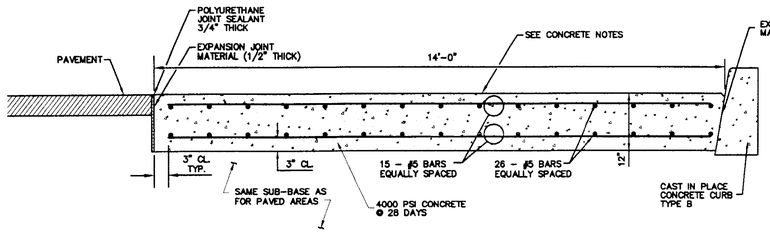
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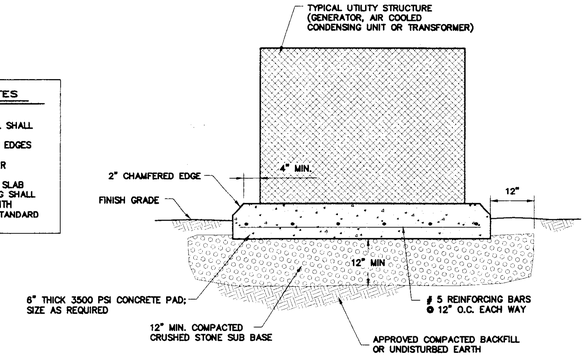
1 C-5 FUEL TANK AREA PLAN
SCALE: 1" = 10'



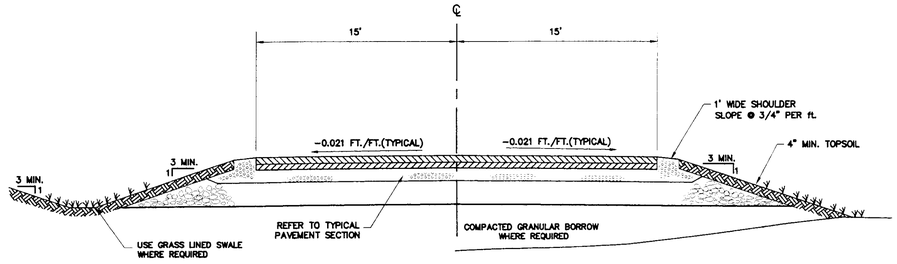
2 C-5 TRUCK REFUELING AREA SLAB SECTION
N.T.S.

CONCRETE NOTES

- MAXIMUM SLUMP OF 4"
- ALL REINFORCING STEEL SHALL BE GRADE 60
- CHAMFER ALL EXPOSED EDGES 3/4" X 3/4"
- CONCRETE SHALL BE AIR ENTRAINED 6-8%
- TROWEL FINISH TOP OF SLAB
- PLACEMENT AND CURING SHALL BE IN CONFORMANCE WITH DIVISION 500 OF THE STANDARD SPECIFICATIONS

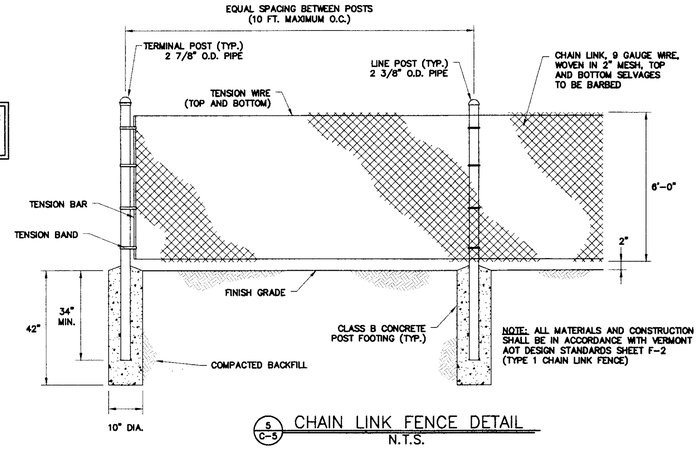


3 C-5 UTILITY PAD DETAIL
N.T.S.

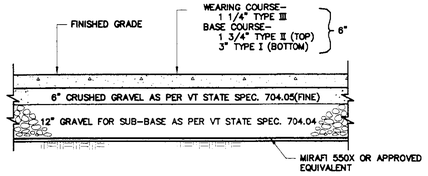


3 C-5 TYPICAL ACCESS DRIVE CROSS-SECTION
N.T.S.

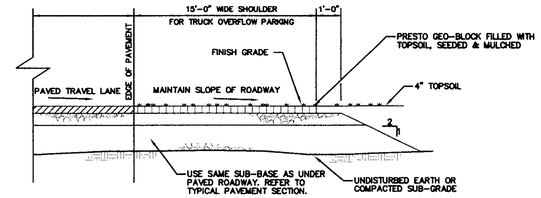
NOTE: REFER TO VAOT STANDARD SHEET B-12 AND FIGURE 3-12 OF THE VAOT ROAD DESIGN MANUAL (1998) FOR DETAILS REGARDING TRANSITION WITH EXISTING PAVEMENT.



5 C-5 CHAIN LINK FENCE DETAIL
N.T.S.

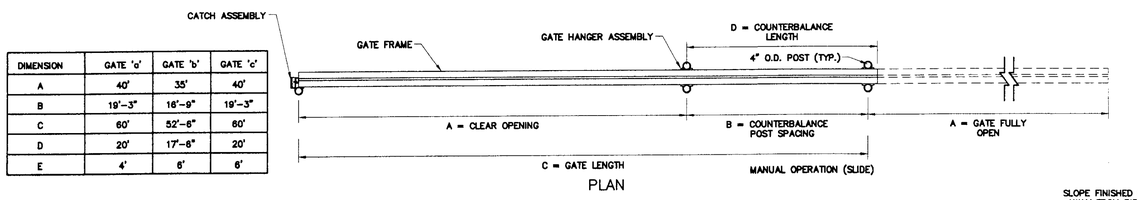


4 C-5 TYPICAL PAVEMENT SECTION
N.T.S.



3 C-7 TYPICAL GRASSED SHOULDER WITH SUB-BASE
N.T.S.

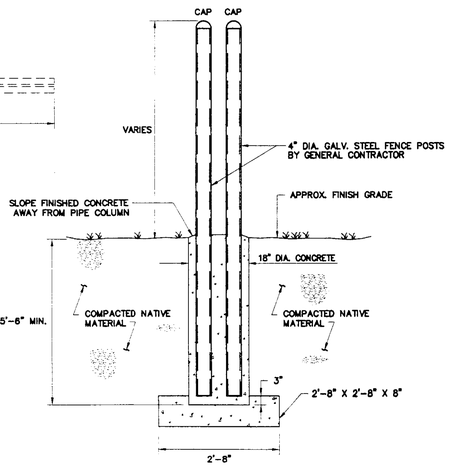
DIMENSION	GATE 'a'	GATE 'b'	GATE 'c'
A	40'	35'	40'
B	19'-3"	16'-9"	19'-3"
C	60'	52'-6"	60'
D	20'	17'-6"	20'
E	4'	6'	6'



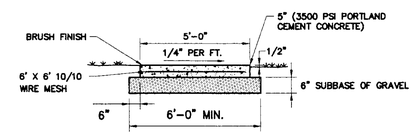
TYMETAL FORTRESS STRUCTURAL GATE SYSTEM

SUBMIT SHOP DRAWINGS FOR APPROVAL

8 C-5 ENTRANCE GATE DETAIL
N.T.S.



7 C-5 ENTRANCE GATE POSTS DETAIL
N.T.S.

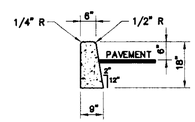


NOTE:
CONSTRUCT EXPANSION & CONTRACTION JOINTS EVERY 20' WITH DUMMY JOINTS EVERY 5'.

8 C-5 CONCRETE SIDEWALK CROSS-SECTION
N.T.S.

NOTES:

1. CURBING SHALL BE VAOT CLASS B CONCRETE.
2. CURBING SHALL BE CONSTRUCTED IN 10' SECTIONS WITH 1/8" JOINT BETWEEN SECTIONS
3. CURBING EXPANSION JOINTS SHALL BE CONSTRUCTED EVERY 20' AND SHALL BE CONSTRUCTED OF MATERIAL CONFORMING TO AASHTO DESIGNATION M-153 (1/2" SPONGE RUBBER OR CORK).
4. ALL EXPOSED SURFACES SHALL RECEIVE TWO COATS OF AN APPROVED ANTI-SPALLING COMPOUND.



9 C-5 CONCRETE CURB DETAIL
N.T.S.

Champlain Consulting ENGINEERS
65 FERN ROAD, P.O. BOX 454, CUTTINGSVILLE, VERMONT 05446
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STATE OF VERMONT
PAUL BUCHSENCU
No. 3567
REGISTERED PROFESSIONAL ENGINEER

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AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH, VERMONT

REVISIONS

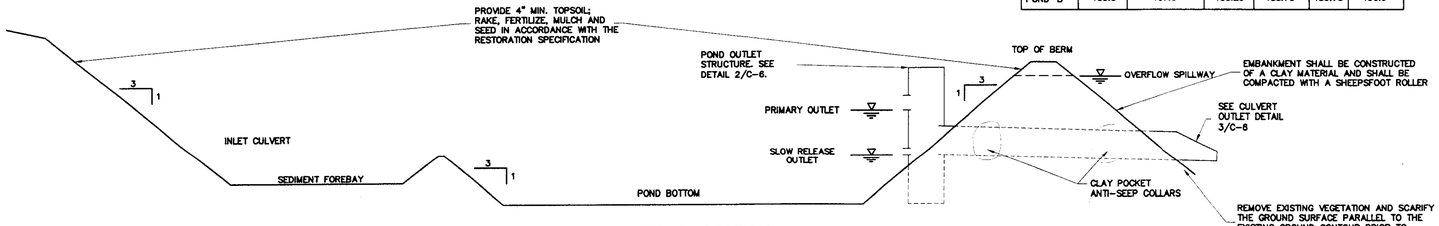
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DATE: 01/04/06
DRAWN BY: CCB
APPR. BY: PD

FERRISBURGH
MAINTENANCE GARAGE
DETAILS

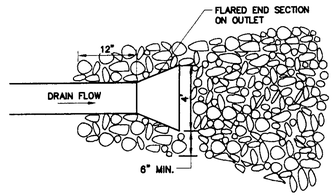
C-5

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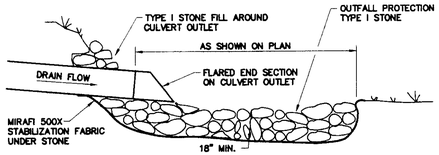
	POND BOTTOM	SLOW RELEASE OUTLET	PRIMARY OUTLET	OVERFLOW SPILLWAY	TOP BERM	STRUCTURE COVER
POND 'A'	188.0	190.0	191.5	191.95	193.0	193.9
POND 'B'	185.5	187.0	188.25	188.75	189.75	190.9



1 C-6 DETENTION POND SECTION
N.T.S.

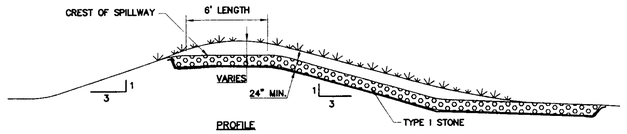


PLAN

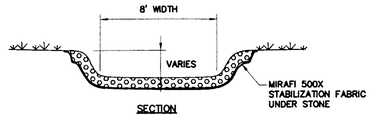


PROFILE

3 C-6 CULVERT OUTLET DETAIL
N.T.S.

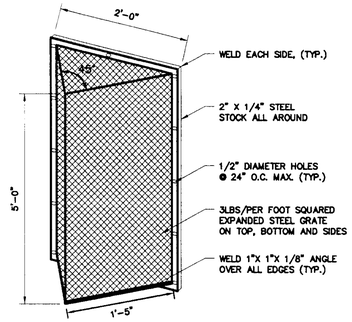


PROFILE



SECTION

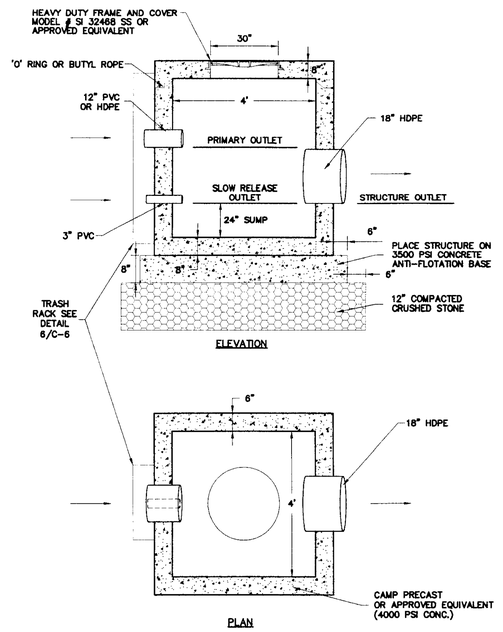
4 C-6 OVERFLOW SPILLWAY
N.T.S.



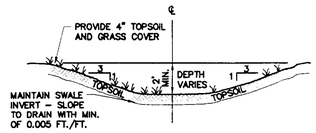
NOTES FOR TRASH RACK

1. TRASH RACK TO BE CENTERED OVER OPENING.
2. STEEL TO CONFORM TO ASTM A-36.
3. ALL SURFACES TO BE COATED WITH COLD GALVANIZING COMPOUND AFTER WELDING.
4. TRASH RACK TO BE FASTENED TO THE WALL WITH 1/2" MASONRY ANCHORS. TRASH RACK TO BE REMOVABLE.

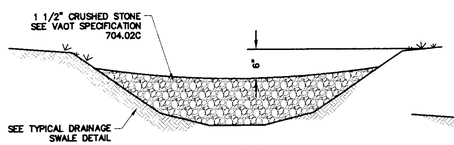
6 C-6 TRASH RACK PROTECTION
N.T.S.



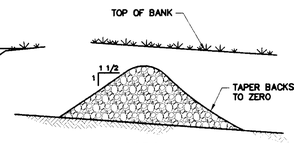
2 C-6 POND OUTLET STRUCTURE
N.T.S.



5 C-6 TYPICAL DRAINAGE SWALE
N.T.S.

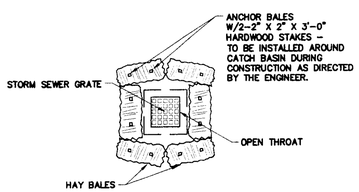


ELEVATION



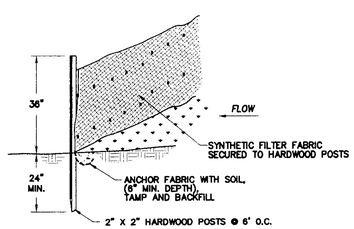
SECTION

7 C-8 CRUSHED STONE CHECK DAM
N.T.S.

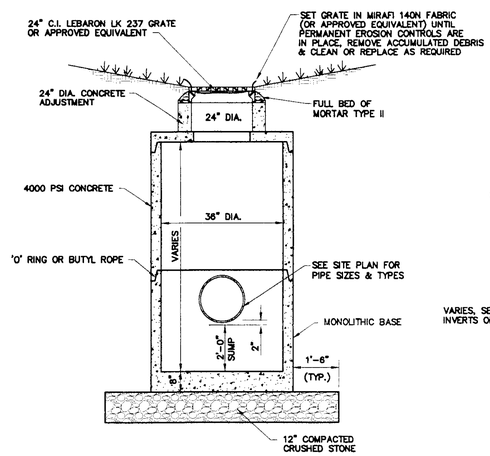


NOTE:
SET GRATE IN MIRAFI 140N FABRIC (OR APPROVED EQUIVALENT) UNTIL PERMANENT EROSION CONTROLS ARE IN PLACE, REMOVE ACCUMULATED DEBRIS & CLEAN OR REPLACE AS REQUIRED

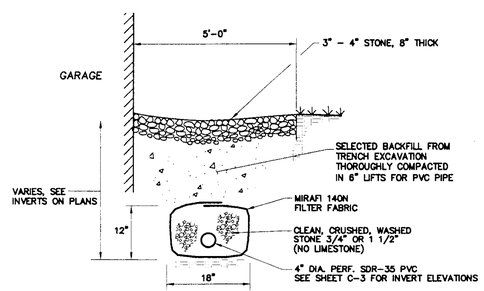
8 C-6 INLET PROTECTION
N.T.S.



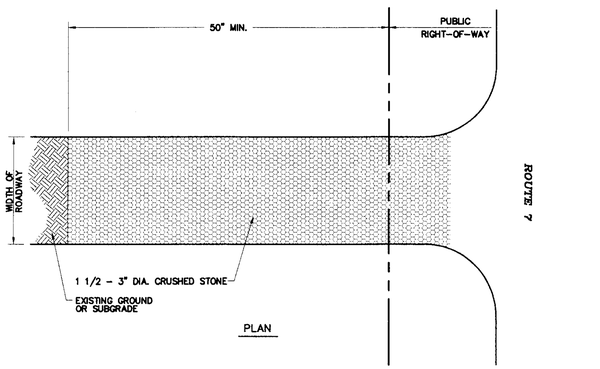
9 C-6 SILT FENCE DETAIL
N.T.S.



10 C-6 TYPICAL CATCH BASIN IN SWALE
N.T.S.



11 C-6 TYPICAL TRENCH DETAIL
N.T.S.



PROFILE

NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF SEDIMENT ONTO THE PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT TRACKED, SPILLED, OR WASHED ONTO THE PUBLIC RIGHT-OF-WAY SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
2. THE USE OF CALCUM CHLORIDE OR WATER MAY BE NECESSARY TO CONTROL DUST DURING THE SUMMER.

12 C-8 TEMPORARY STABILIZED CONSTRUCTION ENTRANCE DETAIL
N.T.S.

Champlain Consulting ENGINEERS
85 FROM ROAD, P.O. BOX 453, COLCHESTER, VERMONT 05446
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DORE AND WHITTIER, INC.
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STATE OF VERMONT
PAUL DUCHENEAU
No. 3567
REGISTERED PROFESSIONAL ENGINEER

B·G·S

STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH, VERMONT

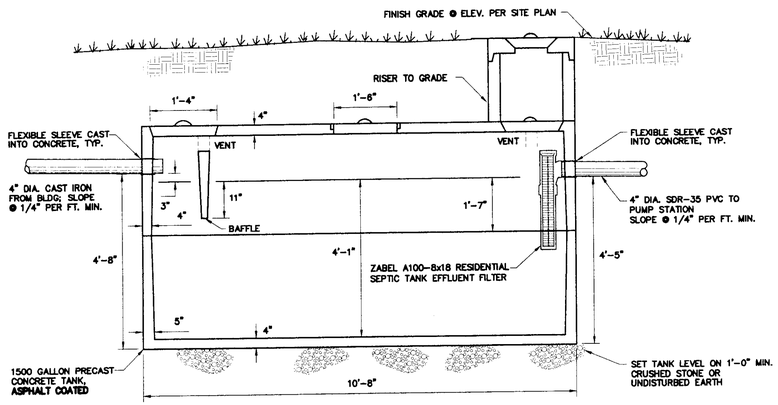
REVISIONS
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FERRISBURGH
MAINTENANCE GARAGE
STORMWATER DETAILS

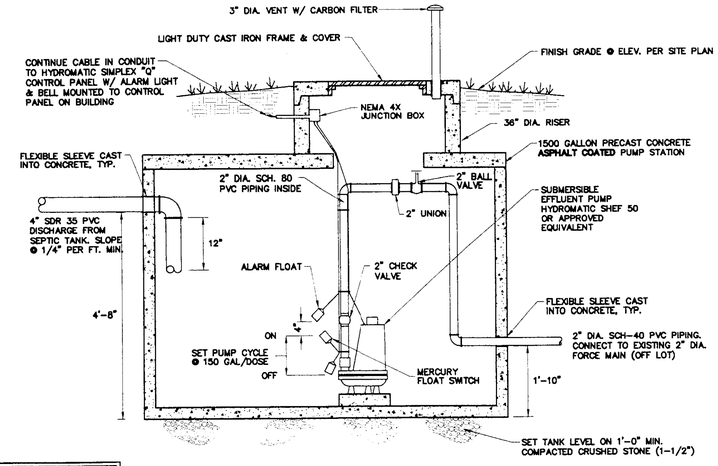
C-6

10 OF 43

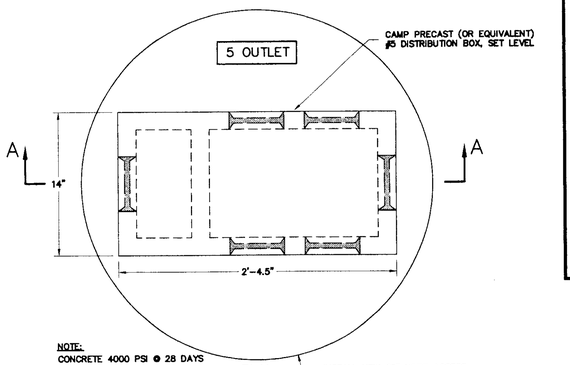
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1 C-7 TYPICAL 1500 GALLON SEPTIC TANK WITH OUTLET FILTER
N.T.S.

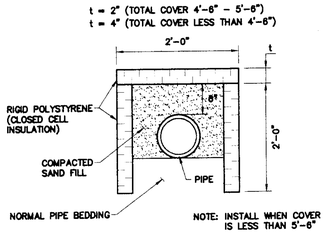


2 C-7 1500 GALLON PUMP STATION DETAIL
N.T.S.



SECTION A-A

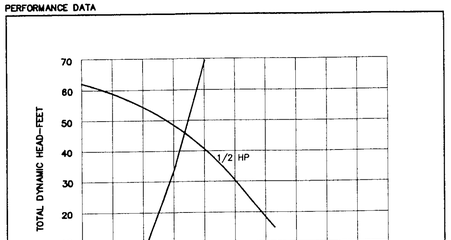
3 C-7 PRECAST CONCRETE DISTRIBUTION BOX DETAIL
N.T.S.



4 C-7 TYPICAL PIPING INSULATION DETAIL
N.T.S.

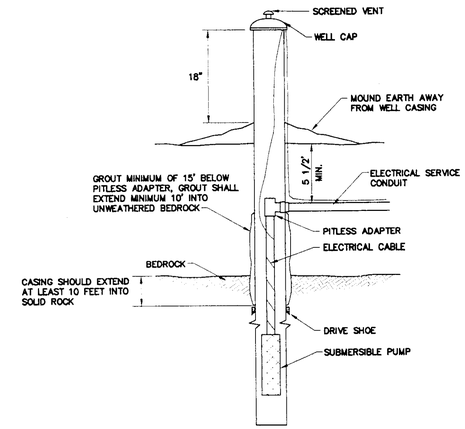
THE WASTEWATER PUMP SPECIFICATION IS BASED ON THE ASSUMED PARAMETERS OF A PARTIALLY COMPLETED WASTEWATER DISPOSAL SYSTEM DESIGNED BY JOHN STUART, P.E. THE CONDITION OF THE EXISTING PARTIAL SYSTEM IS UNKNOWN. VARIABLES MAY BE PRESENT THAT WOULD REQUIRE ALTERNATE PUMP SELECTION. THEREFORE THE PUMP SPECIFIED SHALL BE TESTED FOR A MINIMUM FLOW RATE OF 20 GPM. CONDITIONS MAY PROVE THIS DOES NOT MEET THE PERFORMANCE STANDARD AND AN ALTERNATE PUMP SELECTION MAY BE REQUIRED.

PERFORMANCE DATA



TOTAL HEAD (FEET)		13	22	40	50	55	63	70	80	90
GPM	1/2 HP	63	57	41	27	13	0	—	—	—

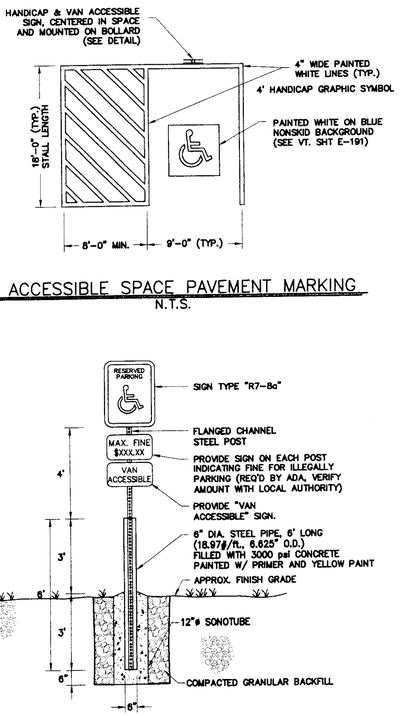
6 C-7 PUMP SPECIFICATIONS- HYDROMATIC SHEF50
N.T.S.



IF A WATER SAMPLE ANALYSIS INDICATES THE PRESENCE OF BACTERIA, THE WELL SHOULD BE THOROUGHLY CHECKED FOR PROPER CONSTRUCTION (SEE DIAGRAM). IN ADDITION, THE SURROUNDING AREA SHOULD BE CHECKED FOR LIKELY CONTAMINATION SOURCES. OCCASIONALLY, THE LABORATORY MICROBIOLOGIST IS UNABLE TO DETERMINE THE PRESENCE OF COLIFORM DUE TO THE CULTURE PLATE BEING OVERGROWN WITH OTHER BACTERIA. BECAUSE OF THE ABUNDANCE OF THESE OTHER BACTERIA, THE SAMPLE IS CONSIDERED CONTAMINATED.

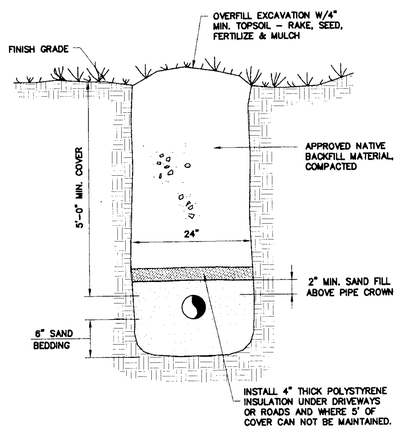
DO NOT DRINK WATER FOUND TO BE CONTAMINATED WITH BACTERIA UNTIL CORRECTIONS ARE MADE TO THE WELL. THE SYSTEM IS DISINFECTED AND A FOLLOW-UP SAMPLE SHOWS NO COLIFORM ORGANISMS PRESENT, OR UNLESS THE WATER IS BOILED FOR FIVE MINUTES.

7 C-7 TYPICAL DRILLED WELL
N.T.S.

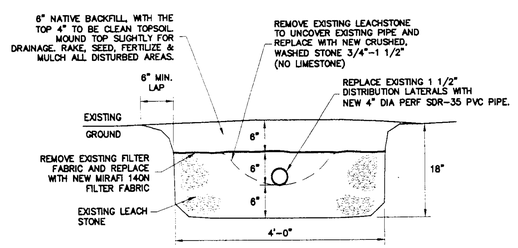


5 C-7 ACCESSIBLE SPACE PAVEMENT MARKING
N.T.S.

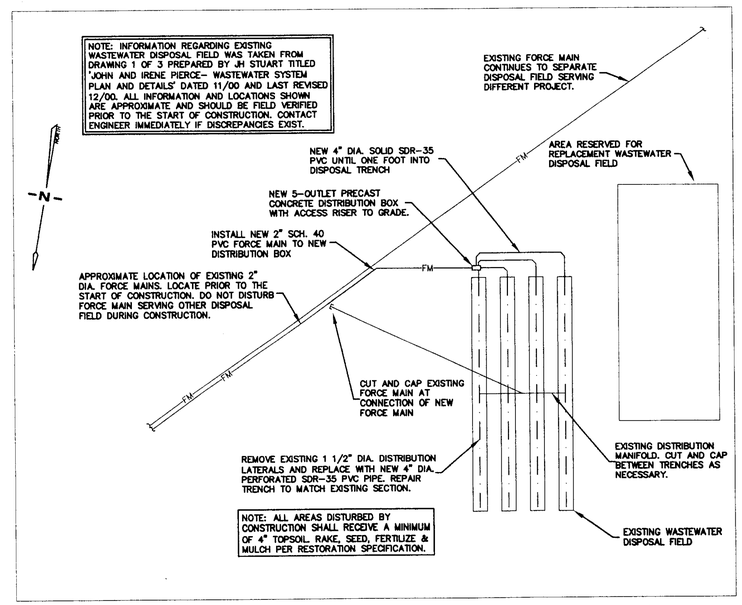
8 C-7 HANDICAP SIGN DETAIL
N.T.S.



9 C-7 FORCE MAIN TRENCH DETAIL
N.T.S.



10 C-7 TYPICAL DISPOSAL TRENCH REPAIR DETAIL
N.T.S.



11 C-7 EXISTING WASTEWATER DISPOSAL PLAN
SCALE: 1" = 20'

Champlain Consulting ENGINEERS
85 PRIM ROAD, P.O. BOX 453, COLCHESTER, VERMONT 05446
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Architects • Project Managers
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1400 HANCOCK STREET, QUINCY, MA 02169, Phone: (617) 471-2316, Fax: (617) 471-2316

STATE OF VERMONT, PAINE BUCHENAU, No. 3567, REGISTERED PROFESSIONAL ENGINEER

B S G

STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH, VERMONT

REVISIONS	SCALE: AS NOTED	DRAWN BY: CCE
	DATE: 01/04/06	APPR. BY: PD

FERRISBURGH
MAINTENANCE GARAGE
DETAILS

C-7

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SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

PART 1 – GENERAL

1.01 DESCRIPTION OF WORK

A. Submit Shop Drawings, Product Data, and Samples required by the Contract Documents.

1.02 RELATED DOCUMENTS

A. The Conditions of the Contract and General Requirements of the Contract Documents apply to the General Contractor, Subcontractors, materials suppliers and all other persons furnishing labor and materials under this Section.

1.03 SHOP DRAWINGS

A. Drawings shall be presented in a clear and thorough manner.

1. Details shall be identified by reference to sheet and detail, schedule, or room numbers shown on Contract Drawings.

1.04 PRODUCT DATA

A. Preparation:

1. Clearly mark each copy to identify pertinent products or models.
2. Show performance characteristics and capacities.
3. Show dimensions and clearances required.
4. Show wiring or piping diagrams and controls.

B. Manufacturer's standard schematic drawings and diagrams:

1. Modify drawings and diagrams to delete information which is not applicable to the Work.
2. Supplement standard information to provide information specifically applicable to the Work.

1.05 SAMPLES

A. Office samples shall be of sufficient size and quantity to clearly illustrate:
1. Functional characteristics of the product, with integrally related parts and attachment devices.
2. Full range of color, texture and pattern.

1.06 CONTRACTOR RESPONSIBILITIES

A. Review Shop Drawings, Product Data, and Samples prior to submission.

B. Determine and verify:

1. Field measurements.
2. Field construction criteria.
3. Catalog numbers and similar data.
4. Conformance with specifications.

C. Coordinate each submittal with requirements of the Work and of the Contract Documents.

D. Notify the Engineer in writing, at time of submission, of any deviations in the submittals from requirements of the Contract Documents.

E. Begin no fabrication or work which requires submittals until return of submittals with Engineer approval.

1.07 SUBMISSION REQUIREMENTS

A. Make submittals promptly in accordance with the approved schedule, and in such sequence as to cause no delay in the Work or in the work of any other contractor.

B. Number of submittals required:

1. Shop Drawings: Submit the number of opaque reproductions which the Contractor requires, plus three copies, which will be retained by the Engineer.
2. Product Data: Submit the number of copies which the Contractor requires, plus three copies, which will be retained by the Engineer.
3. Samples: Submit the number stated in each individual specification section, or as appropriate for review and approval.

C. Submittals shall contain:

1. The date of submission and the dates of any previous submissions.
2. The Project title and number.
3. Contract identification
4. The names of:
   a. Contractor.
   b. Supplier.
   c. Manufacturer.
5. Identification of the product, with the specification section number.
6. Field dimensions, clearly identified as such.
7. Relation to adjacent or critical features of the Work or materials.
8. Applicable standards, such as ASTM or Federal Specification numbers.
9. Identification of deviations from the Contract Documents.
10. Identification of all revisions on resubmittals.
11. A blank space for Contractor and Engineer review stamps.
12. Contractor's stamp, initialed or signed, certifying review of the submittal, verification of products, field measurements and field construction criteria, and coordination of the information within the submittal with requirements of the Work and Contract Documents.

1.08 RESUBMISSION REQUIREMENTS

A. Make any corrections or changes in the submittals required by the Engineer and resubmit until approved.

B. Shop Drawings and Product Data:

1. Revise initial drawings or data, and resubmit as specified for the initial submittal.
2. Indicate any changes which have been made other than those requested by the Engineer.

C. Samples: Submit new samples as required for initial submittal.

1.09 DISTRIBUTION

A. Distribute reproductions of Shop Drawings and copies of Product Data which carry the Engineer stamp of approval to:

1. Job site file.
2. Record documents file.
3. Other affected contractors.
4. Subcontractors.
5. Supplier or Fabricator.
6. Others as required.

B. Distribute samples which carry the Engineer stamp of approval as directed by the Engineer.

1.10 ENGINEER DUTIES

A. Review submittals with reasonable promptness and in accord with the established project schedule.

B. Affix review stamp and initials or signature, and indicate requirements for resubmittal, or approval of submittal.

C. Return submittals to the Contractor for distribution, or for resubmissions.

END OF SECTION

TESTING LABORATORY SERVICES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

A. The Conditions of the Contract and General Requirements of the Contract Documents apply to the General Contractor, Subcontractors, materials suppliers and all other persons furnishing labor and materials under this Section.

1.02 DESCRIPTION OF WORK

A. Work included:

1. Cooperate with the Owner's selected testing agency and all others responsible for testing and inspecting the Work.

2. Provide such other testing and inspecting as are specified to be furnished by the Contractor in this Section and/or elsewhere in the Contract Documents.

1.03 QUALITY ASSURANCE

A. The testing laboratory will be qualified to the Owner's approval.

B. Testing, when required, will be in accordance with all pertinent codes and regulations, and with selected standards of the American Society for Testing Materials.

PART 2 – PRODUCTS

2.01 PAYMENT FOR TESTING

A. Initial services: The Owner will pay for initial testing services requested by the Owner.

B. Retesting: When initial tests indicate noncompliance with the Contract Documents, subsequent retesting caused by the noncompliance shall be performed by the same testing agency, and those costs will be deducted by the Owner from the Contract Sum.

2.02 CODE COMPLIANCE TESTING

A. Inspections and tests required by codes or ordinances, or by a plan approval authority, shall be the responsibility of and shall be paid for by the Contractor, unless otherwise provided in the Contract Documents.

2.03 CONTRACTOR'S CONVENIENCE TESTING

A. Inspecting and testing performed exclusively for the Contractor's convenience shall be the sole responsibility of the Contractor.

PART 3 – EXECUTION

3.01 COOPERATION WITH TESTING LABORATORY

A. Representatives of the testing laboratory shall have access to the Work at all times and at all locations where the Work is in progress.

3.02 TAKING SPECIMENS

A. All specimens and samples for testing, unless otherwise provided in the Contract Documents, shall be taken by the testing personnel. All sampling equipment and personnel will be provided by the testing laboratory. All deliveries of specimens and samples to the testing laboratory will be performed by the testing laboratory.

3.03 SCHEDULES FOR TESTING

A. Establishing schedule:

1. By advance discussion with the testing laboratory selected by the Owner, determine the time required for the laboratory to perform its tests and to issue each of its findings.

2. Notify laboratory sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.

B. Revising schedule:

1. When changes of construction schedule are necessary during construction, coordinate all such changes with the testing laboratory as required.

C. Adherence to schedule:

1. When the testing laboratory is ready to test according to the established schedule, but is prevented from testing or taking specimens due to incompleteness of the Work, all extra charges for testing attributable to the delay may be back-charged to the Contractor and shall not be borne by the Owner.

END OF SECTION

GENERAL SPECIFICATIONS

The Standard Specifications shall refer to the Vermont Agency of Transportation Standard Specifications for Construction (Latest Edition). All site work shall also be completed in accordance with any Town of Ferrisburgh Public Works standards. Any discrepancies with the plans or specifications shall be reported to the Engineer prior to beginning that work.

A. Earthwork

1. The site shall be cleared of all debris and vegetation, and all topsoil shall be stripped prior to placing any fill material. Debris and vegetation shall be disposed of at an approved location.

2. The excavated material from on site shall not be used within five feet (5') of any structure or under parking lots, roads or sidewalks unless approved by the Engineer. General imported fill material shall not be larger than two inches (2") or have more than 20% passing the NO. 200 sieve. All excess excavated material shall be disposed of at an approved location.

3. Grading

a. Perform all rough grading, including excavation, formation of embankments, shaping, sloping, compaction, construction of ditches, disposal of surplus or unsuitable material, and any work necessary to prepare the subgrades of all roadways, walks and parking areas. Grading shall be brought to the bottom of the base course under paved or surfaced areas and to within a minimum of 24 inches of finished grade under side slopes and/or embankment areas to receive loam along roadways, walks or parking areas.

b. Accomplish all excavation and fill within the slope and grade lines as indicated on the Drawings unless otherwise authorized in writing by the Owner. Parking lots shall be graded to full cross section width at sub-grade before placing any type of sub-base or pavement except that partial width construction is permissible where necessary for the maintenance of traffic.

c. Do not use frozen material in the construction of embankments

d. Embankments shall be constructed in accordance with Section 203.11 of the Standard Specifications.
Place all material being used in embankments in horizontal layers of uniform thickness across the full width of embankment, except when it is impractical to construct full width of the embankment and partial width layers are authorized by the Owner. Do not allow or place stumps, trees, rubbish or other unsuitable material in embankments. Begin layers of embankment at the deepest part of the fill.

e. Areas of soft, yielding or otherwise unsuitable material that will not meet compaction requirements shall be removed, replaced with suitable material and properly compacted at no cost to the Owner.

f. Place embankments for paved or surface areas in horizontal layers of depths which will result in layers of compacted material not exceeding 8 inches. Compact each layer as specified before placing each new layer. Use effective spreading equipment on each layer to obtain uniform thickness prior to compacting. Each layer shall be kept crowned to shed water to the outside edges of embankment and continuous leveling and manipulating will be required to assure uniform density. Construction equipment shall be routed over the entire surface of each layer.

g. If, during the construction of the embankments, there is any indication that serious bulging, cracking, or unsafe movement may occur, the placing of fill shall be stopped or retarded to allow the material to stabilize.

h. All ditches and drains shall be constructed so they will effectively drain the roadway or parking lot before any sub-base or surface course material is placed. In handling materials, tools and equipment, the Contractor shall protect the subgrade from damage. In no case shall vehicles be allowed to travel in a single track and form ruts. If ruts are formed, the subgrade shall be reshaped and compacted and any pockets of clay, sand or soft material that may have been left in the subgrade shall be removed, replaced with approved material and properly compacted at the Contractor's expense. The subgrade shall be kept in such condition that it will drain. Sub-base, base or surface material shall not be deposited on the sub-grade until the sub-grade has been checked and approved by the Owner. After the sub-grade has been approved, hauling shall not be done nor equipment moved over the sub-grade which will distort the cross section. A tolerance of 1/2 inch above or below the finished sub-grade will be allowed provided that this 1/2 inch above or below sub-grade is not maintained for a distance longer than 50 feet, and that the required cross section is maintained.

4. Compaction:

a. General: Control soil compaction during construction providing minimum percentage of density specified for each area classification.

b. Percentage of Maximum Density Requirements: Compact soil to not less than the following percentages of maximum dry density for soils which exhibit a well defined moisture-density relationship determined in accordance with ASTM D 2049, for soils which will not exhibit a well-defined moisture-density relationship.

1. Lawn or unpaved areas: Compact top 6" of sub-grade and each layer of backfill or fill material to 90% maximum dry density.

2. Compaction under paved and surfaced areas:
The entire area of each layer shall be uniformly compacted to at least the required minimum density by use of compaction equipment consisting of rollers, compactors or a combination thereof. Earth-moving and other equipment not specifically manufactured for compaction purposes will not be considered as compaction equipment. Each layer for its full width shall be compacted to not less than 90 percent of the maximum dry density as determined by the Standard Method of Test for Moisture-Density Relations of Soils, ASTM-D698, Method C, except that the material in the top two feet of any embankment, immediately below the sub- grade shall be compacted to not less than 95 percent of the maximum dry density. The field density determination will be made by a qualified testing laboratory using a nuclear density gauge.

3. Concrete Slabs: Compact each layer of backfill or material to 95% maximum dry density.

c. Moisture Control: Where sub-grades or layer of soil material must be moisture conditioned before compaction, uniformly apply water to surface of sub-grade, or layer of soil material. Free water shall not be permitted to collect or sub-grade during or subsequent to compaction operations. Remove and replace, or scarify and air dry, soil material that is too wet to permit compaction to specified density.

B. Access Drive and Parking Lot

1. The sub-grade shall be prepared in accordance with Section 203.12 of the Standard Specifications.

2. Gravel for sub-base: Shall meet the following grading requirements (Section 704.04):

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
No. 4	20 – 60
No. 100	0 – 12
No. 200	0 – 6

The gravel shall be uniformly graded from coarse to fine and the maximum size stone particle shall not exceed 2/3 of the thickness of the layer being placed. The gravel sub-base shall be compacted to 95% of the maximum dry density as determined by AASHTO–T99.

3. Crushed Gravel for Sub-base: All materials shall be secured from approved sources. This gravel shall consist of angular and round fragments of hard durable rock of uniform quality throughout, reasonably free from thin elongated pieces, soft or disintegrated stone, dirt, organic or other objectionable matter. The grading requirements shall conform to the following table (Section 704.05 – Fine):

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
2"	100
1 1/2"	90 – 100
No. 4	30 – 60
No. 100	0 – 12
No. 200	0 – 6

The crushed gravel shall be compacted to 95% of the maximum dry density as determined by AASHTO–T99.

4. Dense Graded Crushed Stone for Sub-base: Dense graded crushed stone for sub-base shall consist of clean, hard, uniformly graded, crushed stone. It shall be reasonably free from dirt, deleterious material and pieces which are structurally weak and shall meet the following requirements:

a. Source: This material shall be obtained from approved sources and the area from which this material is obtained shall be stripped and cleaned before blasting.

b. Grading: This material shall meet the requirements of the following table:

Sieve Designation	Percentage by Weight Passing Square Mesh Sieves
3 1/2"	100
3"	90 – 100
2"	75 – 100
1"	50 – 80
1/2"	30 – 60
No. 4	15 – 40
No. 200	0 – 6

5. Bituminous Concrete Pavement: The materials, grading and composition, placement, and finishing for bituminous concrete pavement (Type I, II and III) shall meet the requirements of the Vermont Agency of Transportation Standard Specifications Sections 406, 702 and 704.10. Other requirements are as follows: Application of bituminous concrete pavement shall meet all the requirements of the Vermont Standard Specifications for Construction, Section 406, or as periodically amended, but not limited to, the following:

a. Weather Limitations: Bituminous material shall not be placed between November 1, and May 1. Material shall not be placed when the air temperature at the paving site in the shade and away from artificial heat is 40 degrees Fahrenheit or below.

b. Compaction: Immediately after the bituminous mixture has been spread, struck off, and surface irregularities adjusted, it shall be thoroughly and uniformly compacted by rolling. Along forms, curbs, headers, walls and other places not accessible to the rollers, the mixture shall be thoroughly compacted with hot or lightly oiled hand tampers, smoothing irons, or mechanical tampers. On depressed areas, a trench roller may be used, or slected compression strips may be used under the roller to transmit compression to the depressed area.

c. Surface Tolerances: The surface will be tested by the Engineer using a 16-foot straightedge at selected locations parallel with the centerline. Any variations exceeding 3/16 of an inch between any two contacts shall be satisfactorily eliminated. A 10-foot straight-edge may be used on a vertical curve. The straightedges shall be provided by the Contractor.

d. Matching Surfaces: When a new pavement is to match an existing bituminous pavement for a roadway or trench, the Contractor shall vertically smooth cut the existing pavement along a straight line a minimum of one foot (1') into the existing pavement, over the existing gravel base. The smooth cut shall be thoroughly cleaned and coated with Emulsified Asphalt, RS–1, just prior to paving.

6. Stabilization Fabric: Stabilization fabric where required by the Engineer shall be Mirafi 550X or equal. The fabric shall be installed in accordance with manufacturer's requirements.

7. All pavement markings shall be VT. 7.05 Fast Dry White Traffic Point.

C. Drainage Systems

1. All culverts and storm drains shall meet the requirements of Section 601 of the Standard Specifications.

2. At the Contractor's option, the following materials may be used for the storm drainage:

a. Polyvinyl Chloride pipe conforming to ASTM Specification D3034 or F679, (PVC) sewer pipe and fittings SDR 35.

b. Reinforced concrete pipe meeting the requirements of Section 710.01.

c. Corrugated Polyethylene pipe meeting the requirements of Section 710.03.

d. Corrugated aluminum alloy pipe meeting the requirements of Section 711.02.

D. Underground Utilities

For underground electrical and telephone (cable) services, the Contractor shall trench, place bedding, place conduit, and backfill in accordance with the utility company's requirements.

E. Sanitary Sewer

1. Description

This item shall consist of the excavation and backfilling required for the connection of the new force main to the existing unused force main. This work shall include all pipe, tanks, structures and other appurtenances necessary to complete the system indicated in the drawings. All sanitary sewer materials and construction of same shall be as shown on the contract drawings and shall meet the requirements of the Town of Ferrisburgh.

2. Materials

a. PVC Gravity Sewer Pipe: PVC sewer pipe shall conform in all respects to the latest revision of ASTM Specifications D–3034 or F679, Type PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings, SDR 35. Wall thickness of all PVC pipe shall meet ASTM Specifications for SDR 35 pipe. All pipe and fittings shall be clearly marked as follows:

– Manufacturer's Name and Trademark
– Nominal Pipe Size – 8"
– Material Designation 12454C PVC
– Legend "Type PSM SDR 35 PVC Sewer Pipe" or "PS 46 PVC Sewer Pipe"
– Designation ASTM D–3034 or F679

Joints shall be push-on type using elastomeric gaskets and shall conform to ASTM D–3212. The gaskets shall be factory installed. The pipe shall be furnished in nominal 13–foot lengths. Sufficient numbers of short lengths and full machine fittings shall be provided for use at manholes and connections. All connections will require the use of manufactured fittings. Field fabricated, saddle–type connections will not be considered acceptable.

3. Installation

a. Excavations shall be made at a point at least six inches (12" where trench is in ledge) below the pipe invert to accommodate the bedding material. All excavations are to be kept dry while pipe is being laid and until each joint and pipe have been inspected by the Engineer and approval given to commence backfilling operations.

b. The bell end of the pipe shall face upgrade at all times and be placed in such a position as to make the invert even when the succeeding section is inserted. Where required by adverse grading conditions, the Contractor shall fill any gully to make a suitable bedding for the sewer pipe. The fill shall be pneumatically or mechanically compacted to a 90 % dry density (95% in roads) as determined by the AASHTO–T–99, Method A (Standard Proctor) test, upon which the six inches (6") of bedding material shall be placed. Any pipe which is not laid to grade and alignment shall be re–laid to the satisfaction of the Engineer. The bedding material shall be placed and compacted on each side of the pipe to a height of one–half the pipe diameter for the full width of the excavated trench and as shown on the accepted plans.

c. Backfill shall consist of approved material placed in six–inch (6") layers with each layer being thoroughly compacted to not less than 95 percent of maximum dry density as determined by the ASSHTO–T–99 Standard Proctor by means approved by the Engineer.

No stones in excess of one and one–half inch (1 1/2") diameter shall be placed within two feet (2') of the outside of the pipe. Particular precautions shall be taken in placement and compaction of the backfill material in order not to damage and/or break the pipe. The backfill shall be brought up evenly on both sides of the pipe for its full length. Walking or working on the completed pipeline except as may be necessary in tamping or backfilling shall not be permitted until the trench has been backfilled to a height of at least two feet (2') on the top of the pipes. During construction, all openings to the pipe lines shall be protected from the entering of earth or other materials.

4. Force Main

Pressurization:

i. Each valved section of pipe shall be filled with water slowly and the specified test pressure, based on the elevation of the lowest point of the line or section under test and corrected to the elevation of the test gauge, shall be applied by means of a pump connected to the pipe.

ii. Air Removal: Before applying the specified test pressure, air shall be expelled completely from the pipe valves.

iii.Examination: All exposed pipe, fittings, valves and joints shall be examined carefully during the test. Any damaged or defective pipe, fittings or valves that are discovered following the pressure test shall be repaired or replaced with sound material and the test shall be repeated.

Leakage Test: A leakage test shall be conducted concurrently with the pressure test.

i. Leakage shall be defined as the quantity of water that must be supplied into the newly laid pipe, or any valved section thereof, to maintain pressure within 5 psi of the specified test pressure after the air in the pipeline has been expelled and the pipe has been filled with water.

ii. Allowable Leakage: No pipe installation will be accepted if the leakage is greater than that determined by the following formula:

$$L = \frac{ND\sqrt{P}}{7400}$$

S = Length of Pipe Testing
L = Allowable Leakage in Gals/HR
D = Nominal Diameter of Pipe (")
P = Average Test Pressure (psi)
N = Number of Joints in the Pipeline Tested

EROSION CONTROL

1. General Notes

a. The Contractor shall construct and maintain all erosion measures in accordance with the "Vermont Handbook for Soil Erosion and Sediment Control on Construction Sites, Special Publication no. 3".

2. Construction Sequence

a. The Contractor shall be responsible for establishing all erosion control measures delineated on the plans and any additional measures that are necessary to minimize erosion. The Contractor shall have erosion control materials and installation equipment on site at all times.

b. Silt fences shall be installed along the base of the fill slopes. This shall remain in place until the project site has been stabilized. Install stone check dams in grass–lined swales 50 feet on center to prevent silt from washing into the drainage system during construction. Check dams shall be removed when vegetation is established.

c. Dust shall be controlled through the application of calcium chloride or water.

d. Excavated material from earth excavation and ditch digging shall be disposed of offsite or used for project fill material if determined suitable by the Owner's Representative.

e. All temporary erosion control measures required for any proposed winter work shall be installed prior to October 1. These measures shall be in place prior to the commencement of any site work or earth–moving.

3. Temporary Measures

a. Stone Check Dam – Shall be placed according to detail 7, sheet C–6.

Check dams shall be repaired as needed. Once vegetation is established and the check dams are no longer needed for erosion control, they shall be removed. Sediment deposits shall then be removed and placed in an upland area where there is no danger of further erosion.

b. Silt Fences – The silt fences shall be constructed in accordance with the construction detail. The fence shall generally be placed 10 feet from the toe of the slope or as shown on the plan. The ends of the fence shall be placed uphill to form a horseshoe shape to trap all runoff.

The silt fences shall be inspected periodically for damage or buildup of sediment. All damaged silt fence shall be repaired or replaced. Sediment deposits shall be removed from the fence as they accumulate and placed in an area where there is no danger of further erosion.

c. Erosion Matting – Erosion matting shall be placed on all grass–lined swales with profile grades exceeding 5.0% and shall be placed and maintained in accordance with the Vermont Agency of Transportation Standard Specifications Sections 654 and 755.07.

d. Dust Control – During construction, dust will be controlled with water distributed by a truck–mounted spray bar. At the direction of the Engineer, Calcium Chloride AASHTO M 144 or Sodium Chloride M 143 may be used.

e. All stockpile material (topsoil, borrow, etc.) will a have a stone dike or silt fence constructed around the perimeter. Seed and mulch stockpile material as soon as possible to prevent soil erosion and sedimentation off site. Locate stockpiles on the uphill side of disturbed areas, if possible. During windy conditions, stockpiled material shall be covered or watered appropriately to prevent wind erosion.

f. Slopes greater than 1:3 shall have erosion control netting installed to stabilize the slope and reduce the erosion potential. Install netting over mulched slopes so that all parts are in contact with the soil and mulch. Pin netting with wire staples 3 feet o.c. to ensure full bonding with soil surface.

4. Permanent Measures

a. Grass Lined Swales – All swales that are not stone–lined shall be topsoiled, seeded, fertilized and mulched. Any area which shows signs of erosion shall be reseeded immediately and maintained until permanent vegetation is established.

b. Restoration – As soon as construction is completed in a given area, it shall be topsoiled, seeded, fertilized and mulched.

The topsoil shall be submitted to the Extension Service for analysis. Fertilizer shall be applied at approximately a rate of 400 pounds per acre depending on soil analysis. If necessary, lime shall be applied to the topsoil to produce a soil PH of approximately 6.0.

After the finished grade has been established and the fertilizer spread, plant the specific seed mixture and work firmly into the soil. Apply seed on the prepared seed bed with approved mechanical seeders or hydroseeding equipment. Upon completion of the above planting operations, roll all areas, leaving the surface of all area true to grade, smooth, and free from hollows or other irregularities. Thoroughly water all newly planted areas immediately after planting using a fine spray. Protect banks and swales from erosion and repair erosion that occurs. Banks, swales or other graded areas that have been washed out or have become damaged shall be repaired immediately. Unless approval is granted by the Engineer to plant off season, seeding will be conducted only during the period from April 15th to October 15th. Seeding shall not proceed before other phases of the work have progressed sufficiently and shall not interfere with other phases of work.

After seeding, mulch shall be applied at a rate of 2 tons per acre.

5. Winter Construction

a. If due to the project schedule, construction during the winter months is necessary, the contractor shall follow the winter construction procedures outlined in the "Vermont Handbook for Soil Erosion and Sediment Control on Construction Sites"

i. Minimize disturbance between October and May.

ii. All erosion control measures shall be in place prior to the ground freezing.

iii. Mulch shall be applied to all disturbed area at a rate of 90 pounds per 1,000 square feet. The Contractor shall maintain all areas that are mulched until permanent vegetation can be established.

6. Maintenance, Guarantee and Acceptance

a. The Contractor shall be responsible for the care and maintenance including watering of seeded areas, until the seeding is inspected and accepted by the Owner.

b. Reseeding shall be done until all areas are completely covered with a mature stand of grass. An area shall be considered covered when the entire surface contains a vedurous stand of grass. Areas that, in the opinion of the Engineer, are predominantly weeds shall be plowed up, fine graded, fertilized and reseeded in the manner specified previously, exercising caution not to cause damage to new or existing plant material.

c. Maintain and guarantee all seeded area until acceptance.

SEEDING SPECIFICATION

URBAN MIX GRASS SEED		
% BY WEIGHT	LBS. LIVE SEED PER ACRE	TYPE OF SEED
37.5	45	CREEPING RED FESCUE
31.25	37.5	KENTUCKY BLUEGRASS
31.25	37.5	WINTER HARDY, PERENNIAL RYE
100	120 # LIVE SEED/ACRE	

CONSERVATION MIX GRASS SEED		
% BY WEIGHT	LBS. LIVE SEED PER ACRE	TYPE OF SEED
35	35	CREEPING RED FESCUE
23	23	KENTUCKY BLUEGRASS
15	15	ANNUAL RYE
11	11	WINTER HARDY, PERENNIAL RYE (VARIETY PENNFINE, MANHATTAN OR SIMILAR VARIETY)
6	6	WHITE CLOVER
10	10	HIGHLAND BENTGRASS
100	100 # LIVE SEED/ACRE	

FERTILIZER – 10 LBS PER 1000 SQ FT
SPRING SEEDING
FALL SEEDING

LIME – 90 LBS PER 1000 SQ FT
DOLOMITIC GROUND LIMESTONE
NOT LESS THAN 85% OF THE TOTAL CARBONATE

TOPSOIL
4" MINIMUM APPROVED TOPSOIL

STRAW MULCH – 2 BALES PER 1000 SQ FT
APPLY BINDER OR NETTING AS NEEDED

MAINTENANCE, GUARANTEE AND ACCEPTANCE OF SEEDING
THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CARE AND MAINTENANCE, INCLUDING WATERING, OF SEEDED AREA UNTIL THE SEEDING IS INSPECTED AND ACCEPTED BY THE ENGINEER. INSPECTION SHALL BE MADE AFTER THE SECOND MOWING. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48 HOURS IN ADVANCE WHEN THE SECOND MOWING IS SCHEDULED.
RESEEDING SHALL BE DONE UNTIL ALL AREAS ARE COMPLETELY COVERED WITH A MATURE STAND OF GRASS. AN AREA SHALL BE CONSIDERED COVERED WHEN THE ENTIRE SURFACE CONTAINS A VIGOROUS STAND OF GRASS. AREAS THAT, IN THE OPINION OF THE ENGINEER, ARE PREDOMINANTLY WEEDS SHALL BE TILLED, FINE GRADED, FERTILIZED AND RESEEDED IN THE MANNER SPECIFIED ABOVE.

C–8 SITE RESTORATION
N.T.S.

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AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

REVISIONS

SCALE: AS NOTED
DATE: 01/04/06
DRAWN BY: CCE
APPR. BY: PD

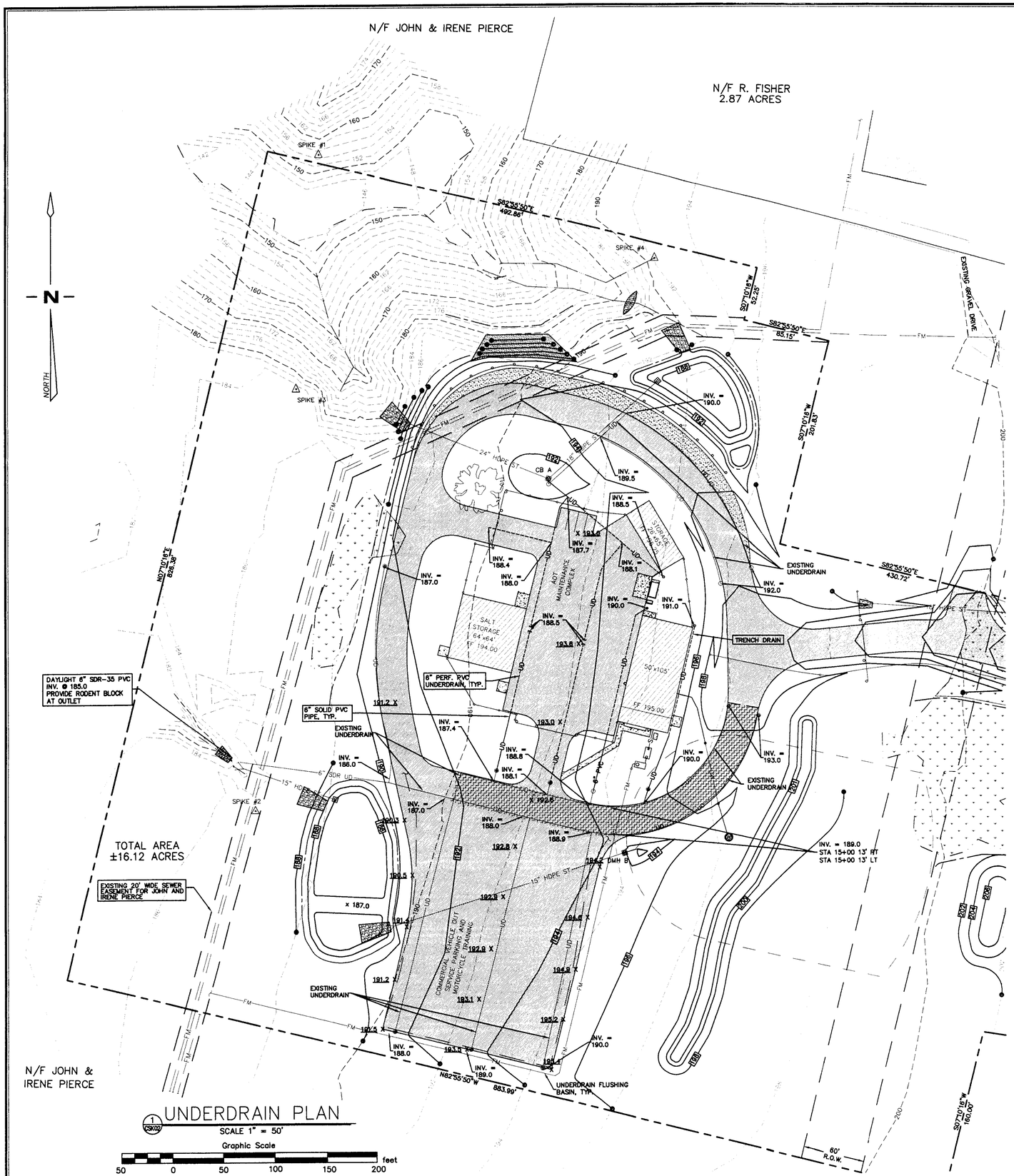
FERRISBURGH
MAINTENANCE GARAGE
DETAILS

C–8

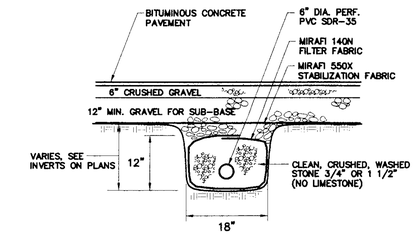
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AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
N. FERRISBURGH, VERMONT

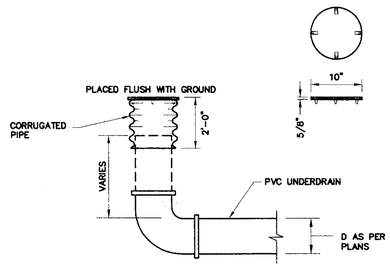
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1 CSK02 UNDERDRAIN PLAN
SCALE 1" = 50'



2 CSK02 TYPICAL UNDERDRAIN DETAIL
N.T.S.



3 CSK02 UNDERDRAIN FLUSHING BASIN
N.T.S.

NOTE:
COVER OPEN PIPE SECURELY WITH MIRAFI 140N FABRIC (OR APPROVED EQUIVALENT) UNTIL PERMANENT EROSION CONTROLS ARE IN PLACE, REMOVE ACCUMULATED DEBRIS & CLEAN OR REPLACE AS REQUIRED

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- X 193.1 PROPOSED SPOT ELEVATION
- PROPERTY LINE
- FM EXISTING FORCE MAIN
- OE OVERHEAD ELECTRIC
- WATER SHUT-OFF
- POWER POLE
- DRAINAGE SWALE
- WETLAND DELINEATION
- WETLANDS
- NEW LANDSCAPING
- FM NEW FORCE MAIN
- S NEW SANITARY SEWER
- W NEW WATER LINE
- STM NEW STORM LINE
- FD NEW FLOOR DRAIN
- W NEW DRILLED WELL
- NEW GUARD RAIL
- UD NEW UNDERDRAIN
- UNDERDRAIN FLUSING BASIN
- C.O. CLEANOUT
- ROADWAY SUBGRADE UNDERCUT BY 12"

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REVISIONS	
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APPR. BY: PD	

FERRISBURGH

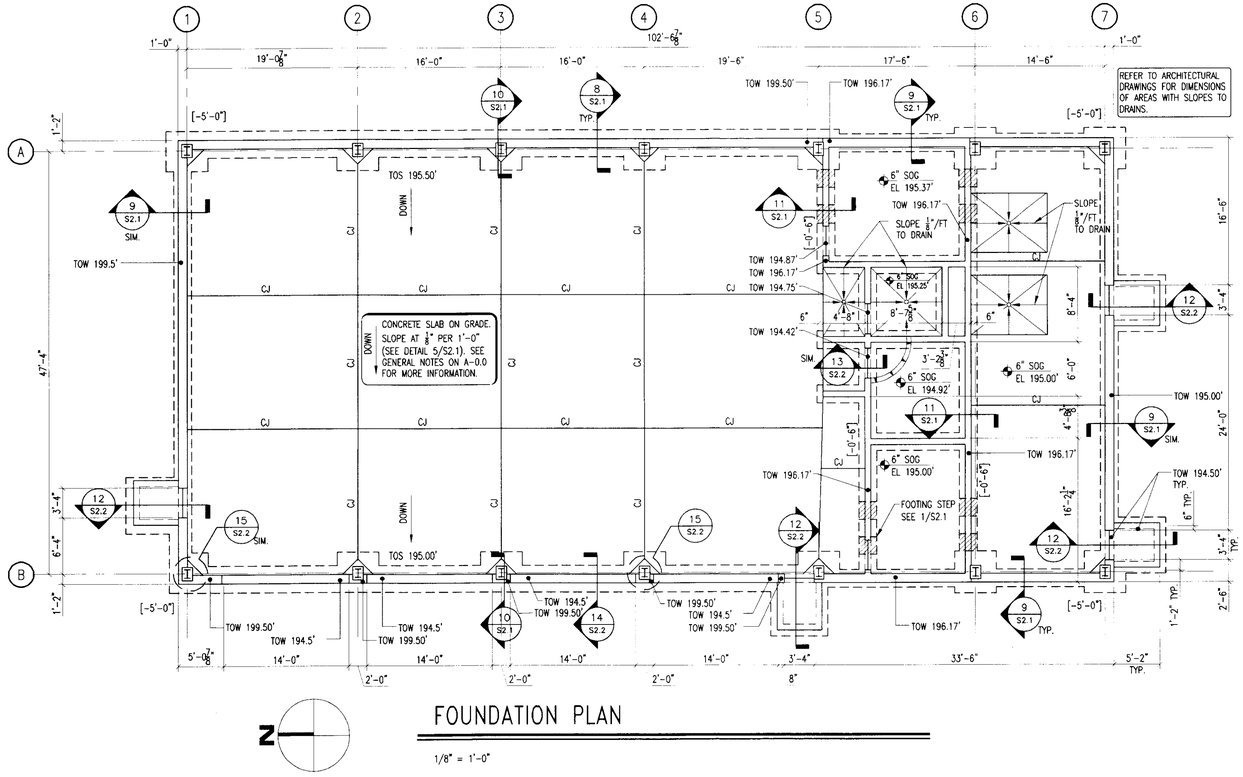
MAINTENANCE GARAGE

UNDERDRAIN PLAN

CSK-02

13 OF 43

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FOUNDATION PLAN

1/8" = 1'-0"

GENERAL NOTES

NOTES:

1. TOP OF FOOTING ELEVATIONS NOTED AS [-x'-xx"] RELATIVE TO 195.00'.
2. FOOTING STEP, SEE DETAIL 1/S2.1
3. TOP OF PIERS TO BE AT ELEVATION 194.33'.
4. ALL COLUMNS TO BE W12x40.
5. SLABS ON GRADE IN PARKING AND MECHANIC BAYS TO SLOPE DOWN AT 1/8" PER 1'-0" FROM REAR OF BUILDING, TO THE FRONT. SLABS ON GRADE IN CORE AND DMV AREAS TO BE FLAT.
6. INTERIOR SLABS ON GRADE HAVE IN SLAB RADIANT HEATING SYSTEM, SEE MECHANICAL DRAWINGS.
7. C.J. – CONTROL JOINT, OR CONSTRUCTION JOINT, SEE DETAIL 6/S2.1
8. FINISH SLAB IN PARKING, MECHANICAL BAYS AND CORE WITH LIGHT BROOM FINISH. FINISH OTHER AREAS WITH STEEL TROWEL.
9. SLOPE CONCRETE RAMP INTO OIL STORAGE ROOM 4" DOWN.
10. REFER TO ARCHITECTURAL DRAWINGS FOR RAISED CONCRETE MAINTENANCE PAD.
11. COORDINATE ALL WALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS.
12. CONTRACTOR OPTION TO LOCATE ALL FOOTINGS AT [-5'-0"] OR STEP UP AT INTERIOR AS SHOWN.
13. EXTERIOR WALK OFF PADS TO BE 5'x5'x6" THICK, BROOM FINISH.
14. SEE ARCHITECTURAL PLANS FOR MISCELLANEOUS HOUSEKEEPING PADS AND FLOOR DRAINS.
15. ALL BUILDING RELATED EXCAVATION, FILL, BACKFILL, AND COMPACTION WILL BE PERFORMED BY VTRANS AND COORDINATED WITH GENERAL CONTRACTOR.

STRUCTURAL DRAWING LIST

S-1.1 FOUNDATION PLAN, BASIS OF DESIGN, NOTES, LEGEND
S-1.2 WALL, LINTEL AND ROOF FRAMING PLANS
S-2.1 STRUCTURAL DETAILS
S-2.2 STRUCTURAL DETAILS
S-3.1 STRUCTURAL DETAILS
S-3.2 STRUCTURAL DETAILS

BASIS OF DESIGN

BUILDING CODE: 1996 BOCA CODE

DEAD LOADS:
ROOF LOAD ..... 20 psf

LIVE LOADS:
ROOF SNOW LOAD ..... 40 psf
MEZZANINE LIVE LOAD ..... 125 psf

SNOW LOADING:

GROUND SNOW LOAD ..... 40 psf
EXPOSURE FACTOR 0.8
IMPORTANCE FACTOR 1.2
FLAT ROOF SNOW LOAD ..... 40 psf

WIND LOAD:
BASIC WIND SPEED ..... 70 mph
EXPOSURE CATEGORY C
IMPORTANCE FACTOR 1.15

SEISMIC LOADING:
SEISMIC HAZARD EXPOURE GROUP III
SEISMIC PERFORMANCE CATEGORY C
Av 0.15
Cs 0.0833

SOIL BEARING CAPACITY 3000psf

ABBREVIATIONS

AB	ANCHOR BOLT	NS	NEAR SIDE
AFF	ABOVE FINISH FLOOR	oc	ON CENTER
AL	ALUMINUM	P#	PIER DESIGNATION
BOF	BOTTOM OF FOOTING	PL	PLATE
DWG	DRAWING	SS	STAINLESS STEEL
ELEV	ELEVATION	STD	STANDARD
EF	EACH FACE	TOC	TOP OF CONCRETE
ES	EACH SIDE	TOF	TOP OF FOOTING
EW	EACH WAY	TOS	TOP OF STEEL
EQ	EQUAL	TOSHELF	TOP OF SHELF
EX	EXISTING	TOW	TOP OF WALL
F#	FOOTING DESIGNATION	TYP	TYPICAL
FND	FOUNDATION	UNO	UNLESS NOTED OTHERWISE
FS	FAR SIDE	VIF	VERIFY IN FIELD
NIC	NOT IN CONTRACT		

DRAWING LEGEND

NOTE: NOT ALL SYMBOLS AND NOTATIONS USED

- NORTH ARROW
- ELEVATION
- [-5'-0"] TOP OF FOOTING ELEVATION
- 1 / S2.1 SECTION NUMBER / DRAWING WHERE SHOWN
- DECK SPAN DECK SPAN DIRECTION OR GRATING DIRECTION
- 1/8" / FT SLOPE DIRECTION, and MAGNITUDE
- BEAM/COLUMN SPLICE
- 12 / 6 ROOF PITCH
- MOMENT CONNECTION
- GUARDRAIL/RAILING
- BW1 BEARING/SHEAR WALL DESIGNATION
- B1 BEAM DESIGNATION
- J1 JOIST DESIGNATION
- H1 HEADER DESIGNATION
- SHEAR WALL DESIGNATION
- FOOTING STEP
- OPENING
- CONCRETE
- GROUT or FINE CRUSHED GRAVEL
- GRATING
- LEDGE/ROCK
- ¾" CRUSHED STONE
- COMPACTED GRANULAR FILL
- RIGID INSULATION
- WOOD
- UNDISTURBED SUBGRADE
- CMU BLOCK
- BRICK
- EXPANSION JOINT

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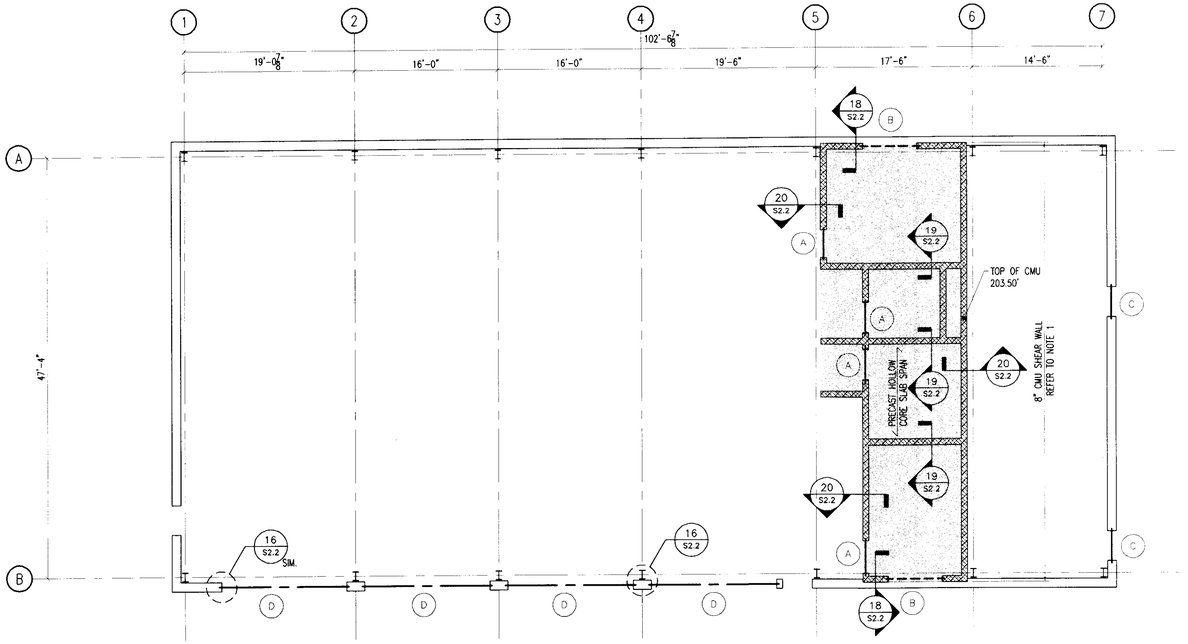
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MAINTENANCE GARAGE

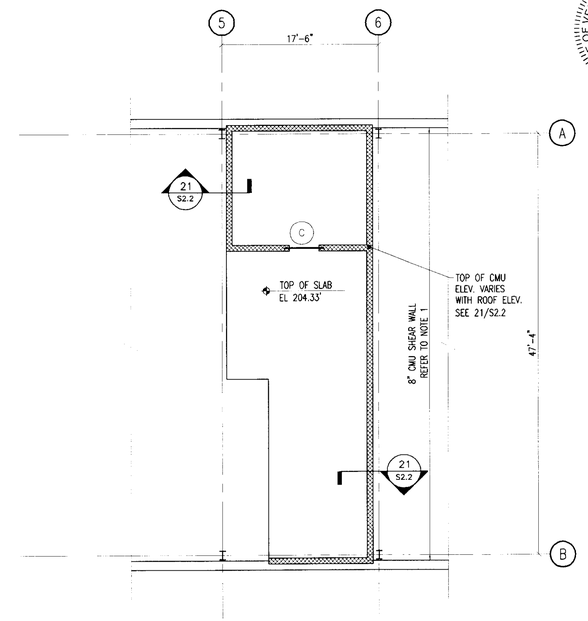
FOUNDATION PLAN

S-1.1



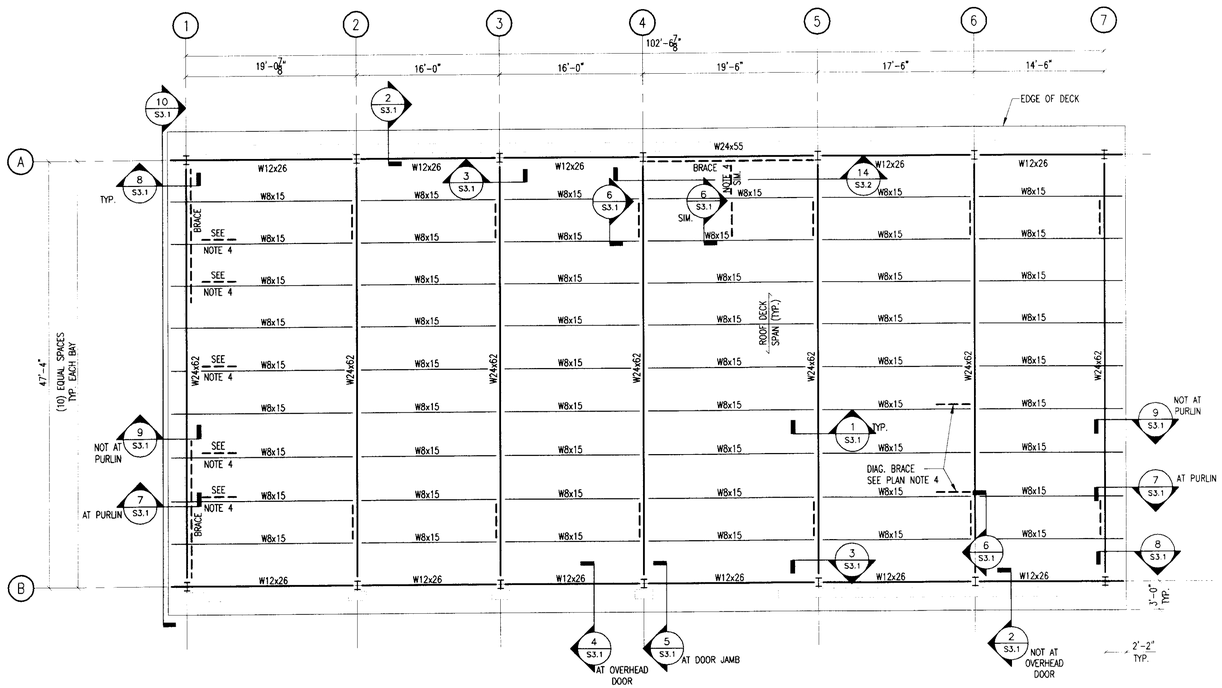
MAIN LEVEL WALL AND LINTEL PLAN

1/8" = 1'-0"



MEZZANINE LEVEL WALL AND LINTEL PLAN

1/8" = 1'-0"



ROOF FRAMING PLAN

1/8" = 1'-0"

MAIN LEVEL AND MEZZANINE WALL AND LINTEL PLAN NOTES

NOTES:

1. CMU WALLS: (FULLY GROUT ALL REINFORCED CORES.)
   INTERIOR SHEAR WALL: 8" CMU WITH #5's AT 24" oc.
   INTERIOR PARTITION WALLS: 8" CMU WITH #4's AT 24" oc.
2. INSTALL CONTINUOUS BOND BEAM AT MIDDLE OF WALL HEIGHT AND TOP OF ALL WALLS WITH (2) #4's CONTINUOUS, AND STANDARD No. 8 DUR-O-WALL TRUSS REINFORCEMENT EVERY OTHER COURSE (EVERY 16"), INSTALL AND SPLICE PER MANUFACTURER's DIRECTIONS. GROUT FULLY ALL CORES ADJACENT TO OPENINGS.
3. CMU WALL CONTROL JOINTS TO BE LOCATED AT 25'-0" oc. MAX.
4. LINTELS IN MASONRY WALL OPENINGS:
   - (A) LINTEL "A" – SEE DETAIL 22/S2.2
   - (B) LINTEL "B" – SEE DETAIL 22/S2.2
   - (C) LINTEL "C" – SEE DETAIL 22/S2.2
5. OTHER LINTELS:
   - (D) [illegible]
6. [illegible] MEZZANINE SLAB: 8" PRE-CAST HOLLOW CORE SLAB WITH 2" CONCRETE TOPPING. TOPPING TO HAVE FIBROUS CONCRETE REINFORCEMENT, AS MANUFACTURED BY FIBERMESH COMPANY OR APPROVED EQUIVALENT. ADD FIBROUS CONCRETE REINFORCEMENT AT A RATE OF 1.5 lbs. PER CUBIC YARD OF CONCRETE, PER MANUFACTURER'S INSTRUCTIONS. TOP OF TOPPING ELEVATION = TOP OF SLAB ELEV PROVIDED ON PLAN. HOLLOW CORE SLAB TO BE DESIGNED FOR A LIVE LOAD CAPACITY OF 125 psf.

ROOF FRAMING PLAN NOTES

NOTES:

1. ROOF PITCH IS APPROXIMATELY 1/4" PER 1'-0" FROM B LINE TO A LINE.
   TOP OF COLUMNS ON COLUMN LINE "A" AT ELEVATION 212.16' FT.
   TOP OF COLUMNS ON COLUMN LINE "B" AT ELEVATION 213.20' FT.
2. THE ROOF DECK (SHEAR DIAPHRAGM) SHALL BE 1½" TYPE B 20 Ga. STEEL DECKING WITH A 36/4 WELD PATTERN (5/8" WELDS) AND TWO SIDELAP FASTENERS PER SPAN. (REFER TO SPECIFICATIONS.)
3. ALL STEEL BEAM CONNECTIONS TO BE SIZED TO MEET OR EXCEED THE MINIMUM REACTION SHOWN.
   USE 6.0 kips MINIMUM WHERE REACTION NOT SPECIFIED.
   USE MINIMUM 2 BOLT CONNECTION FOR W8 PURLINS AND W12 BEAMS.
4. BRACE BOTTOM FLANGE OF W24 BEAM AT LOCATIONS SHOWN ON PLAN WITH (1) L3x3x¼", SLOPE BRACE 1/2.

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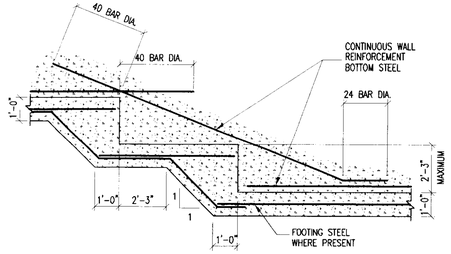
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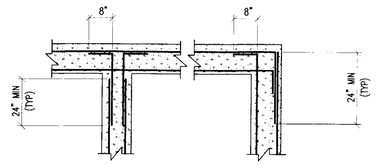
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WALL, LINTEL, and Roof FRAMING PLAN

S-1.2



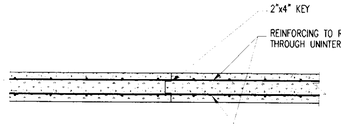
TYPICAL FOOTING STEP

1/2" = 1'-0" — 1



CORNER REINFORCING DETAIL

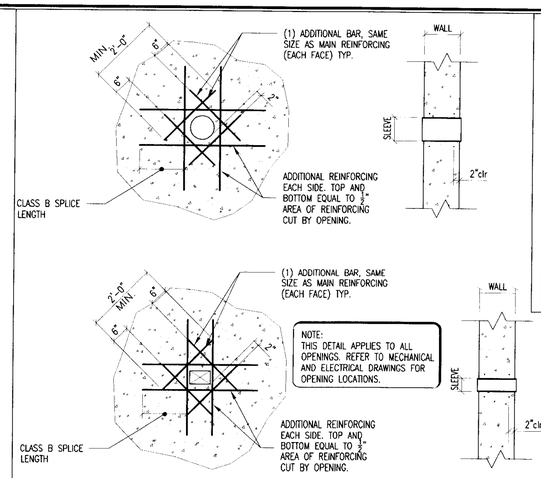
1/2" = 1'-0" — 2



MAXIMUM SPACING BETWEEN WALL JOINTS, OR FROM WALL JOINT TO CORNER, TO BE 40 FEET.

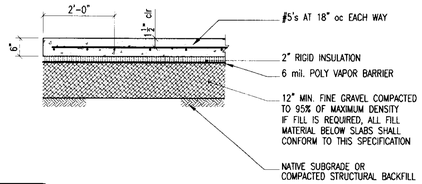
WALL CONSTRUCTION JOINT

1/2" = 1'-0" — 3



TYPICAL WALL OPENING DETAIL

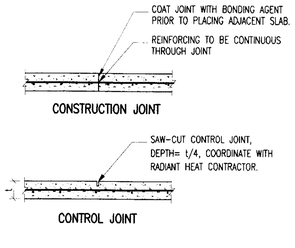
1/2" = 1'-0" — 4



NOTE:
RADIANT HEAT TUBING TO BE LOCATED BELOW SLAB REINFORCING, COORDINATE WITH RADIANT HEAT DESIGNER AND SUPPLIER/INSTALLER.

TYPICAL SLAB ON GRADE

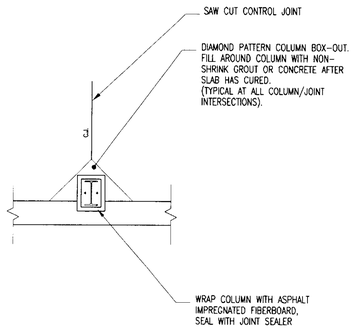
1/2" = 1'-0" — 5



NOTE:
RADIANT HEAT TUBING TO BE LOCATED BELOW SLAB REINFORCING, COORDINATE WITH RADIANT HEAT DESIGNER AND SUPPLIER/INSTALLER.

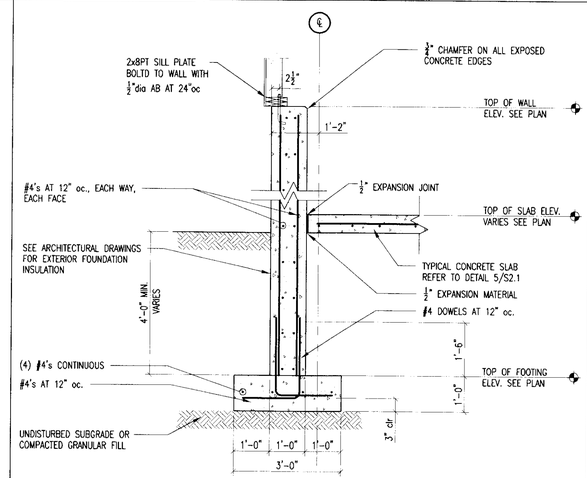
TYPICAL SLAB JOINTS

1/2" = 1'-0" — 6



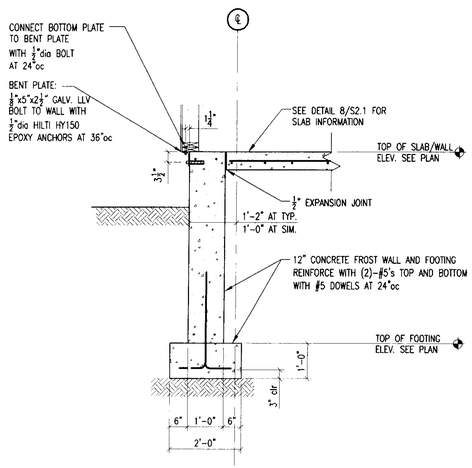
TYPICAL CONTROL JOINT AT COLUMN

1/2" = 1'-0" — 7



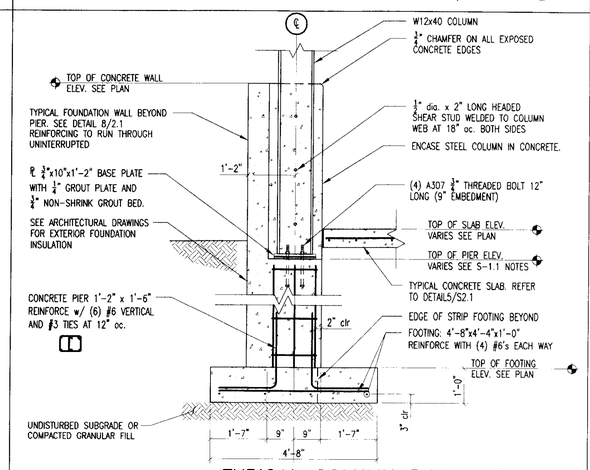
TYPICAL FOUNDATION WALL DETAIL

1/2" = 1'-0" — 8



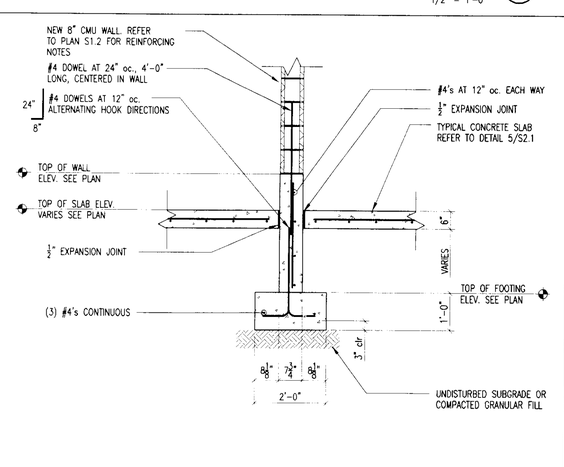
DETAIL AT DMV AND END WALLS

1/2" = 1'-0" — 9



TYPICAL COLUMN PIER AND FOOTING DETAIL AT MAINTENANCE AREA

1/2" = 1'-0" — 10



TYPICAL INTERIOR STRIP FOOTING DETAIL

1/2" = 1'-0" — 11

DETAIL NOT USED

1/2" = 1'-0" — -

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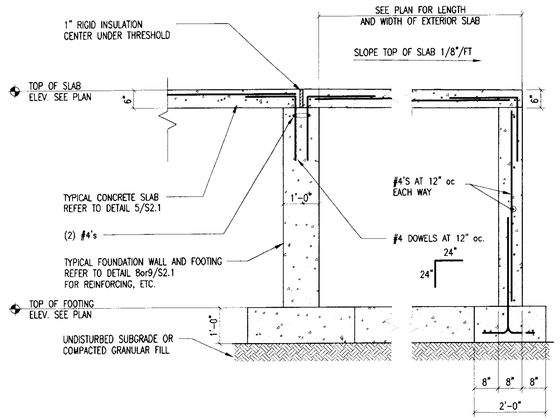
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MAINTENANCE GARAGE
STRUCTURAL DETAILS

S-2.1

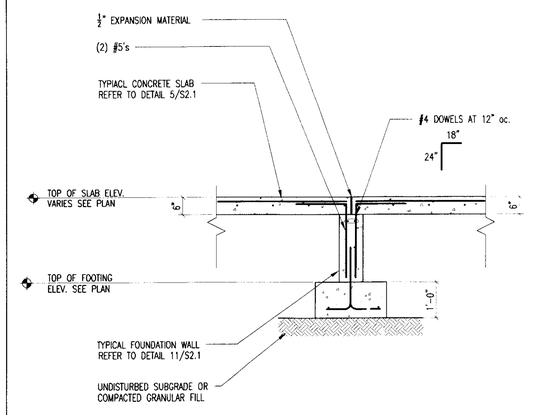
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TYPICAL ENTRY SLAB AT EXTERIOR DOOR

12

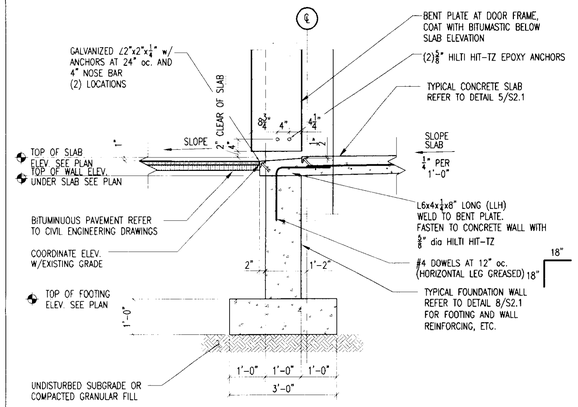
1/2" = 1'-0"



TYPICAL SLAB AT INTERIOR DOOR

13

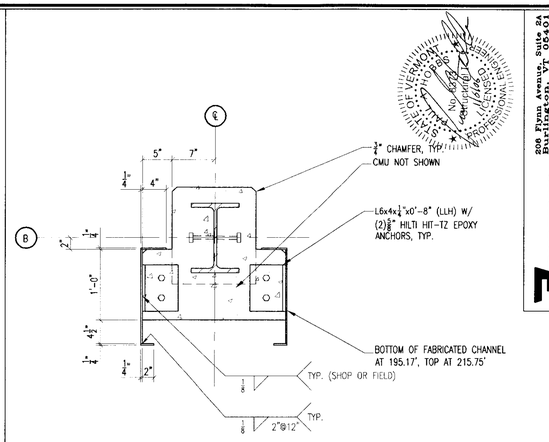
1/2" = 1'-0"



FOUNDATION WALL AND SLAB DETAIL AT OVERHEAD DOORS

14

1/2" = 1'-0"



TOP OF CONCRETE DETAIL

15

1" = 1'-0"

GARAGE DOOR LINTEL AND JAMB SECTION

16

1" = 1'-0"

GARAGE DOOR LINTEL AND JAMB DETAIL

17

1/2" = 1'-0"

SEE NOTES ON S1.2 FOR CMU WALL REINFORCING AND GROUTING REQUIREMENTS.

EXTERIOR WALL BEARING SECTION

18

1/2" = 1'-0"

SEE NOTES ON S1.2 FOR CMU WALL REINFORCING AND GROUTING REQUIREMENTS.

INTERMEDIATE WALL BEARING SECTION

19

1/2" = 1'-0"

SEE NOTES ON S1.2 FOR CMU WALL REINFORCING AND GROUTING REQUIREMENTS.

SIDE WALL - LAP SECTION

20

1/2" = 1'-0"

REFER TO ARCHITECTUAL DRAWINGS FOR INSULATION/CLOSURE BETWEEN TOP OF CMU AND BOTTOM OF DECK AND AT BEAM POCKETS

SEE NOTES ON S1.2 FOR CMU WALL REINFORCING AND GROUTING REQUIREMENTS.

ROOF DECK AT TOP OF CMU WALL

21

1/2" = 1'-0"

TYPICAL LINTELS

22

1/2" = 1'-0"

DETAIL NOT USED

-

1/2" = 1'-0"

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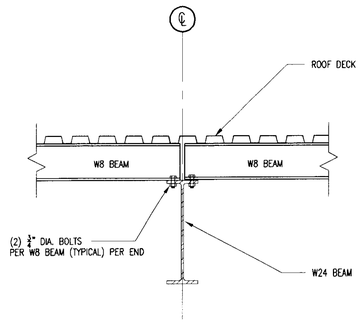
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MAINTENANCE GARAGE

STRUCTURAL DETAILS

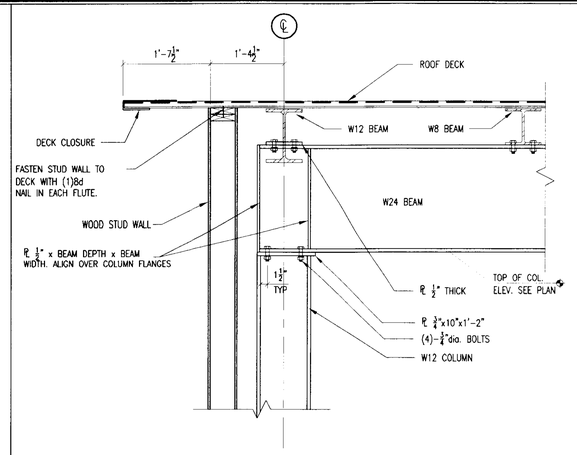
S-2.2

17 OF 43



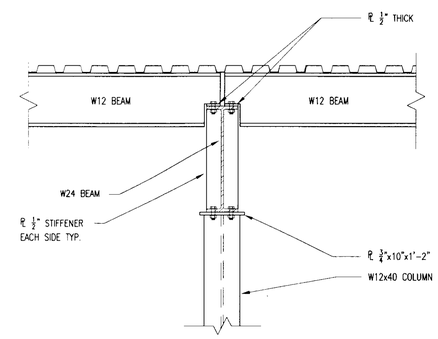
FRAMING DETAIL 1

3/4" = 1'-0"



EAVE DETAIL AT EAST AND WEST WALLS 2

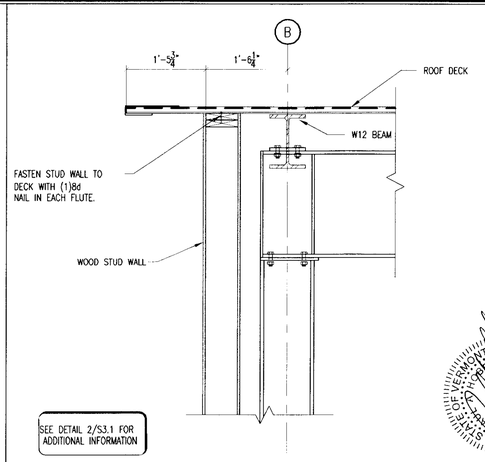
3/4" = 1'-0"



SEE DETAIL 2/S3.1 FOR
ADDITIONAL INFORMATION

FRAMING DETAIL 3

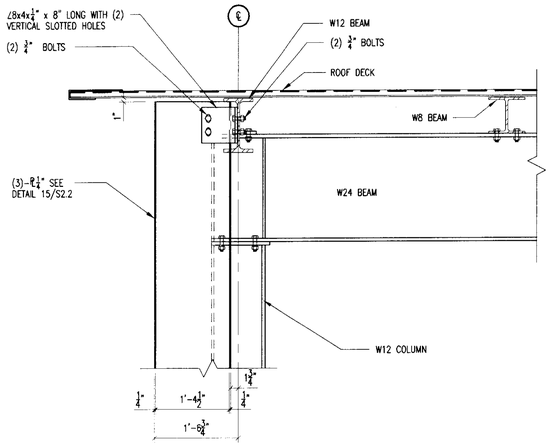
3/4" = 1'-0"



SEE DETAIL 2/S3.1 FOR
ADDITIONAL INFORMATION

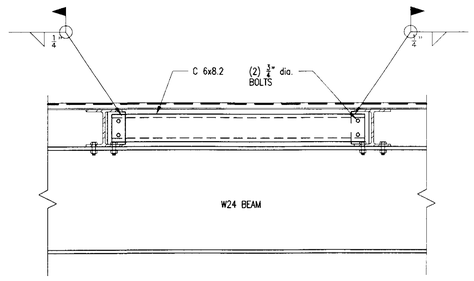
EAVE FRAMING DETAIL AT OVERHEAD DOORS 4

3/4" = 1'-0"



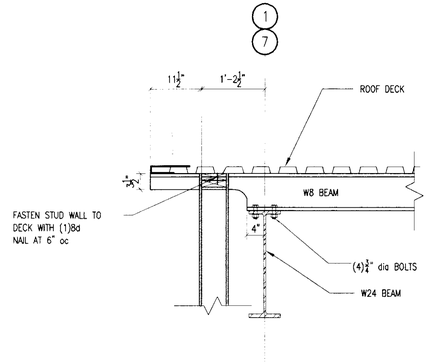
OVERHEAD DOOR JAMB DETAIL 5

3/4" = 1'-0"



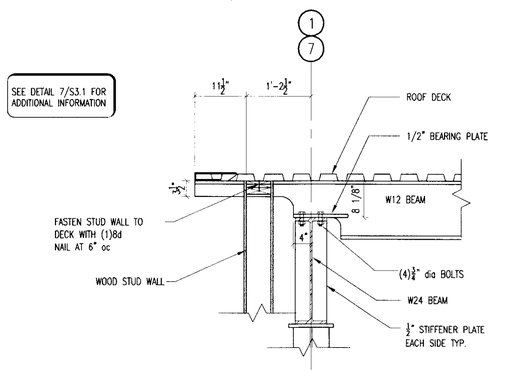
FRAMING DETAIL 6

3/4" = 1'-0"



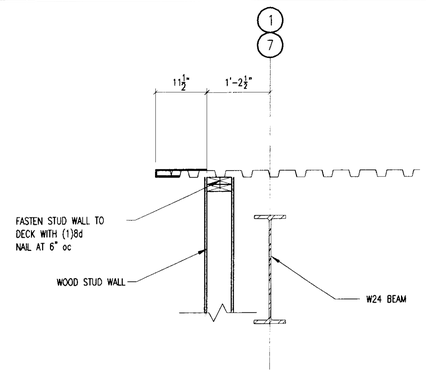
EAVE DETAIL AT NORTH AND SOUTH WALLS 7

3/4" = 1'-0"



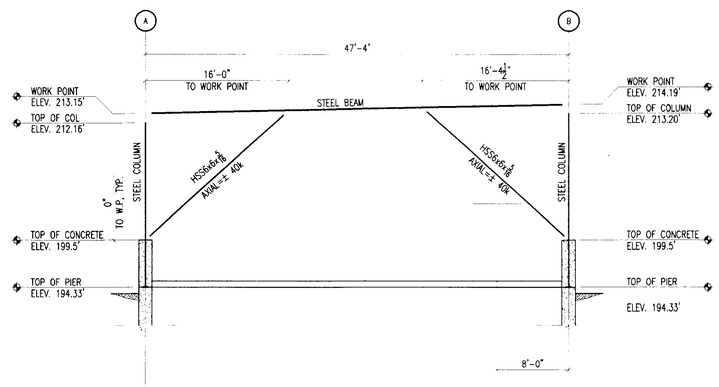
DECK SUPPORT-CORNER COLUMNS 8

3/4" = 1'-0"



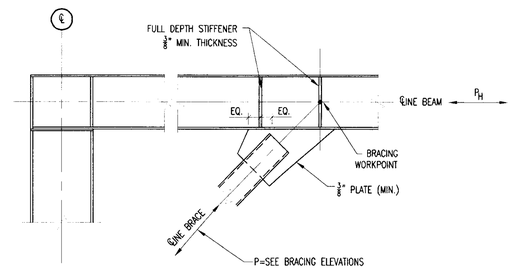
EAVE DETAIL AT NORTH AND SOUTH WALLS 9

3/4" = 1'-0"



BRACE FRAME ELEVATION-GRID 1 10

1/8" = 1'-0"



TYPICAL BRACING CONNECTION
AT ECCENTRIC BRACE 11

3/4" = 1'-0"

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D&W
DORE AND WHITTIER, INC.
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STATE OF VERMONT
DEPARTMENT OF BUILDINGS
AND GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
N. FERRISBURGH VERMONT

REVISIONS			

SCALE: AS NOTED	DATE: 01/04/06	DRAWN BY: JML	APPR. BY:

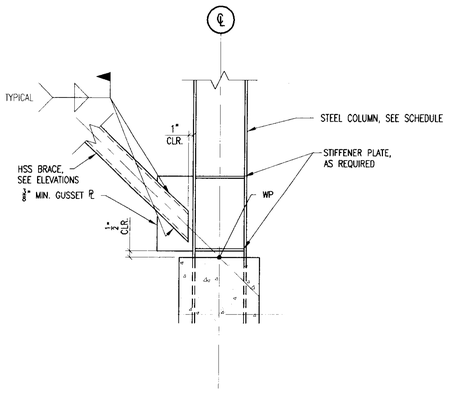
N. FERRISBURGH

MAINTENANCE GARAGE

STRUCTURAL DETAILS

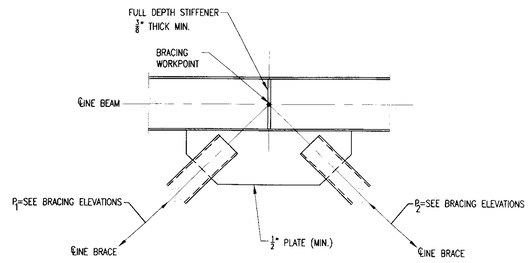
S-3.1

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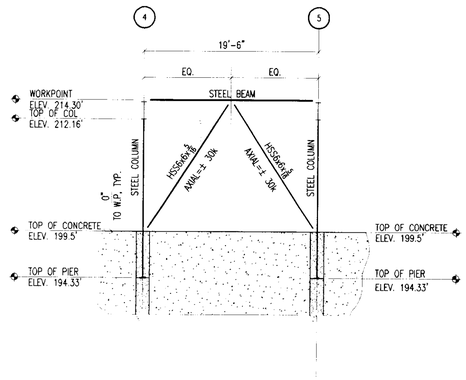
FRAMING DETAIL

3/4" = 1'-0" (12)



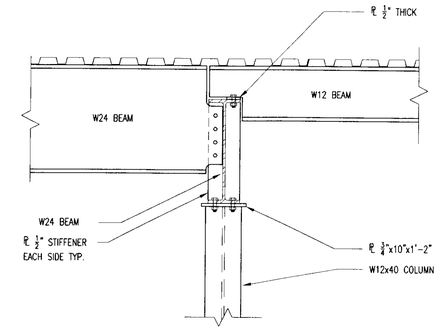
TYP. BRACING CONNECTION CHEVRON BRACE

3/4" = 1'-0" (13)



BRACE FRAME ELEVATION-GRID A

1/8" = 1'-0" (14)



FRAMING DETAIL

3/4" = 1'-0" (15)

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STATE OF VERMONT
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N. FERRISBURGH MAINTENANCE FACILITY
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REVISIONS

SCALE: AS NOTED
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APPR. BY:

N. FERRISBURGH
MAINTENANCE GARAGE
STRUCTURAL DETAILS

S-3.2

19 OF 43

SYMBOLS LEGEND

DATUM POINT: T/CONC. T/STL. T/SUBSTRATE

GRIDLINES

FINISHED SURFACE LINES - CUT

ELEMENTS BELOW CUT LINE - HIDDEN

ELEMENTS ABOVE CUT LINE - DASHED
SOFFIT ABOVE COORDINATE W/ CEILING PLANS, SECTIONS, DETAILS.

A — WINDOW
SEE SCHEDULE FOR DESCRIPTION.

16 / 2 — DOOR NUMBER / HARDWARE NUMBER

BL* — BORROWED LITE DESIGNATION

NAME — ROOM NAME DESIGNATION:
100 — ROOM NUMBER DESIGNATION:

SECTION OR DETAIL REFERENCE:
23 / A-1 — DETAIL NUMBER / SHEET NUMBER WHERE DETAIL IS LOCATED.
VIEW DIRECTION

SIM. OPPH. 24 / A-1 — SPECIAL NOTES

II / A-5 — WALL SECTIONS & THRU-BUILDING SECTIONS

A / D 12 / A-9 B / C — ROOM / WALL ELEVATIONS

1 — REVISION NOTE

ABBREVIATIONS

A

ABV	ABOVE
AFF	ABOVE FINISHED FLOOR
ASC	ABOVE SUSPENDED CEILING
ACC	ACCESS (ORY)
ACFL	ACCESS FLOOR
AP	ACCESS PANEL
ACP	ACOUSTICAL CEILING PANEL
ACPL	ACOUSTICAL PLASTER
ACT	ACOUSTICAL TILE
ACR	ACRYLIC PLASTIC
ADD	ADDENDUM
ADDN	ADDITION
ADH	ADHESIVE
ADJ	ADJACENT
ADJT	ADJUSTABLE
AGG	AGGREGATE
AIB	AIR INFILTRATION BARRIER
A/C	AIR CONDITIONING
ALT	ALTERNATE
AL	ALUMINUM
APA	AMERICAN PLYWOOD ASSOCIATION
AB	ANCHOR BOLT
ANC	ANCHOR, ANCHORAGE
ANOD	ANODIZED
APX	APPROXIMATE
ARCH	ARCHITECT (URAL)
AD	AREA DRAIN
ASB	ASBESTOS
ASP	ASPHALT
ACCMP	ASPHALT COATED CORRUGATED METAL PIPE
AT	ASPHALT TILE
AV	AUDIOVISUAL
AUTO	AUTOMATIC

B

BR	BACKER ROD
BAR	BARRIER
BB	BASEBOARD
BSMT	BASEMENT
BRG	BEARING
BPL	BEARING PLATE
BJT	BED JOINT
BM	BENCH MARK
BET	BETWEEN
BVL	BEVELED
BIT	BITUMINOUS
BLN	BLANKET
BLK	BLOCK
BLKG	BLOCKING
BLU	BLUE STONE
BD	BOARD
BS	BOTH SIDES
BW	BOTH WAYS
BOT	BOTTOM
B/O	BOTTOM OF
BRK	BRICK
BRZ	BRONZE
BLDG	BUILDING
BUR	BUILT UP ROOF
BN	BULLNOSE

C

CAB	CABINET
CUH	CABINET UNIT HEATER
CPT	CARPET (ED)
CSMT	CASEMENT
CIPC	CAST IN PLACE CONCRETE
CI	CAST IRON
CST	CAST STONE
CB	CATCH BASIN
CK	CAULK(ING)
CLG	CEILING
CHT	CEILING HEIGHT
CEM	CEMENT
C/C	CENTER TO CENTER
CM	CENTIMETER (S)
CER	CERAMIC MOSAIC TILE
CT	CERAMIC TILE
CBD	CHALKBOARD
CHAM	CHAMFER
CH	CHEMICAL HARDENER
CIR	CIRCLE
CIRC	CIRCUMFERENCE
CR	CLASSROOM
CLR	CLEAR (ANCE)
CL	CLOSET
CLS	CLOSURE
COL	COLUMN
COMB	COMBINATION
COMBST	COMBUSTIBLE (COMBUSTION)
CMPT	COMPARTMENT
COMPO	COMPOSITION (COMPOSITE)
COMP	COMPRESS (ED), (ION), (IBLE), COMPUTER
CONC	CONCRETE
CMU	CONCRETE MASONRY UNIT
COND	CONDUCTOR
CONF	CONFERENCE
CX	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS OR CONTINUE
CONTR	CONTRACT (OR)
CLL	CONTRACT LIMIT LINE
CJ	CONTROL JOINT
CVTR	CONVECTOR
CPR	COPPER
CG	CORNER GUARD
CORR	CORRIDOR
CRG	CORRUGATED
CMP	CORRUGATED METAL PIPE
CTR	COUNTER
CFL	COUNTER FLASHING
CTSK	COUNTER SUNK SCREW
CS	COUNTERSINK
CRS	COURSE (S)
CVR	COVER
CRG	CROSS GRAIN
CFT	CUBIC FOOT
CW	CURTAIN WALL

D

DPR	DAMPER
DP	DAMPROOFING
DL	DEAD LOAD
DFL	DEFLECTION
DEMO	DEMOLISH, DEMOLITION
DMT	DEMOUNTABLE
DEP	DEPRESSED
D	DEPTH
DET	DETAIL
DIAG	DIAGONAL
DIA	DIAMETER
DIM	DIMENSION
DISP	DISPENSER
DIV	DIVISION
DR	DOOR
DO	DOOR OPENING, DITTO
DH	DOUBLE HUNG
DA	DOUBLE ACTING
DTS	DOVETAIL ANCHOR SLOT
DN	DOWN
DS	DOWNSPOUT
DT	DRAIN TILE
DRB	DRAIN BOARD
DRW	DRAWER
DWG	DRAWING (S)
DF	DRINKING FOUNTAIN
DW	DUMBWAITER

E

EA	EACH
EF	EACH FACE
E	EAST
ED	EDUCATION
ELEC	ELECTRIC (AL)
EWC	ELECTRIC WATER COOLER
EP	ELECTRICAL PANEL
EL	ELEVATION
ELEV	ELEVATOR
EMER	EMERGENCY
ESB	ENCLOSED STEEL BEAM
ENC	ENCLOSURE, EXISTING NO CHANGE
ENTR	ENTRANCE
EP	EPOXY PAINT
EQ	EQUAL
EQP	EQUIPMENT
ESC	ESCALATOR
EST	ESTIMATE
EXC	EXCAVATE
EXH	EXHAUST
EXG	EXISTING
EXMP	EXPANDED METAL PLATE
EXPN	EXPANSION
EB	EXPANSION BOLT
EJT	EXPANSION JOINT
EXP	EXPOSED
EXT	EXTERIOR
EFS	EXTERIOR FINISH SYSTEM
EIFS	EXTERIOR INSULATION FINISH SYSTEM
EXS	EXTRA STRONG

F

FWC	FABRIC WALL COVERING
FAB	FABRICATE (ION)
FB	FACE BRICK
F/O	FACE OF
FOW	FACE OF WALL
FF	FACTORY FINISH
FM	FACTORY MUTUAL
FCU	FAN COIL UNIT
FAS	FASTEN, FASTENER
FLF	FINISH LOWER FLOOR
FMF	FINISH MAIN FLOOR
FN	FENCE
FBD	FIBERBOARD
FGL	FIBERGLASS
FIN	FINISH (ED)
FFE	FINISH FLOOR ELEVATION
FFL	FINISH FLOOR LINE
FTR	FINNED TUBE RADIATION
FA	FIRE ALARM
FAP	FIRE ANNUNCIATOR PANEL
FBRK	FIRE BRICK
FE	FIRE EXTINGUISHER
FEAC	FIRE EXTINGUISHER AND CABINET
FEARC	FIRE EXTINGUISHER AND RATED CABINET
FHS	FIRE HOSE STATION
FPL	FIRE PLACE
FP	FIRE PROOF (ING)
FRC	FIRE RESISTANT COATING
FRT	FIRE RETARDANT TREATED
FRTW	FIRE RETARDANT TREATED WOOD
FXT	FIXTURE
FLAM	FLAMMABLE
FLSH	FLASHING
FHMS	FLATHEAD MACHINE SCREW
FHWS	FLATHEAD WOOD SCREW
FLEX	FLEXIBLE
FL	FLOOR (ING)
FLCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FPL	FLOOR PLATE
FLUR	FLORESCENT
FT	FOOT, FEET
FTG	FOOTING
FRG	FORGED
FDN	FOUNDATION
FR	FRAME (D), (ING)
FA	FRESH AIR
FS	FULL SIZE
FBO	FURNISHED BY OTHERS, BY OWNER
FURN	FURNISHED, FURNITURE
FUR	FURRED (ING)
FUT	FUTURE

G

GA	GAGE, GAUGE
GV	GALVANIZED
GI	GALVANIZED IRON
GP	GALVANIZED PIPE
GKT	GASKET (ED)
GC	GENERAL CONTRACT (OR)
GLB	GLASS BLOCK
GLF	GLASS FIBER
GL	GLASS GLAZING
GCT	GLAZED CERAMIC TILE
GCMU	GLAZED CONCRETE MASONRY UNITS
GST	GLAZED STRUCTURAL TILE
GB	GRAB BAR
GD	GRADE, GRADING
GRN	GRANITE
GFCB	GROUND FACE CONCRETE BLOCK
GT	GROUT
GYP	GYPSUM
GPL	GYPSUM LATH
GPPL	GYPSUM PLASTER
GPT	GYPSUM TILE
GWB	GYPSUM WALL BOARD

H

HC	HANDICAPPED
HD	HAND DRYER (HAIR DRYER)
HDB	HARDBOARD
H45	HARDENER AND SEALER
HDW	HARDWARE
HWD	HARDWOOD
HJT	HEAD JOINT
HDR	HEADER
HGLR	HEAT, GLARE, LIGHT REDUCING GLASS
HTG	HEATING
HVAC	HEATING/VENTILATION/AIR CONDITIONING
HT	HEIGHT
HX	HEXAGONAL
HES	HIGH EARLY-STRENGTH CEMENT
HDC	HOLD DOWN CLIPS
HLD	HOLDERS
HC	HOLLOW CORE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HS	HORIZONTAL METAL SIDING
HB	HOSE BIB
HWH	HOT WATER HEATER
HR	HOUR

I

IMPG	IMPREGNATED
INCIN	INCINERATOR
INCL	INCLUDE (D), (ING)
ID	INSIDE DIAMETER / INSIDE DIMENSION
ICS	INSULATED COMPOSITE SIDING
INSF	INSULATED FILL
INS	INSULATION (D), (ION)
INT	INTERIOR
INTM	INTERMEDIATE
INV	INVERT
IE	INVERT ELEVATION
IPS	IRON PIPE SIZE

J

JAN	JANITOR
JC	JANITOR'S CLOSET
JT	JOINT
JF	JOINT FILLER
J	JOIST

K

KCPL	KEENE'S CEMENT PLASTER
KPL	KICK PLATE
KIT	KITCHEN
KO	KNOCK (ED), OUT

L

LBL	LABEL
LAB	LABORATORY
LAD	LADDER
LB	LAG BOLT
LAM	LAMINATE (D)
LAV	LAVATORY
LH	LEFT HAND
L	LENGTH
LT	LIGHT (ING)
LC	LIGHT CONTROL
LP	LIGHT PROOF
LW	LIGHT WEIGHT
LWC	LIGHTWEIGHT CONCRETE
LMS	LIMESTONE
LF	LINEAL FEET
LTL	LINTEL
LL	LIVE LOAD
LVR	LOUVER
LPT	LOW POINT

M

MACH	MACHINE
MAG	MAGNETIC
MDH	MAGNETIC DOOR HOLDER
MH	MANHOLE
MFR	MANUFACTURE (R)
MRB	MARBLE
MBD	MARKER BOARD
MAS	MASONRY
MO	MASONRY OPENING
MAT	MATERIAL (S)
MAX	MAXIMUM
MECH	MECHANICAL
MC	MEDICINE CABINET
MED	MEDIUM
MDO	MEDIUM DENSITY OVERLAY
MBR	MEMBER
MMB	MEMBRANE
MTL	METAL
MFD	METAL FLOOR DECK
MTFR	METAL FURRING
MRD	METAL ROOF DECK
MTHR	METAL THRESHOLD
MWS	METAL WINDOW SYSTEM
M	METER (S)
MEZZ	MEZZANINE
MM	MILLIMETER (S)
MLK	MILLWORK
MIN	MINIMUM
MIR	MIRROR
MISC	MISCELLANEOUS
MOD	MODULE
MR	MOISTURE RETARDANT
MLD	MOLDING, MOULDING
MH	MOP HOLDER
MT	MOUNT (ED), (ING)
MOV	MOVABLE
MULL	MULLION
MCLF	MULTI COLOR WALL FINISH

N

NL	NAILABLE
NAT	NATURAL
NR	NOISE REDUCTION
NRC	NOISE REDUCTION COEFFICIENT
NOM	NOMINAL
NS	NON SLIP
NMT	NONMETALLIC
N	NORTH
NE	NORTHEAST
NW	NORTHWEST
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NO	NUMBER

O

OBS	OBSCURE
OFF	OFFICE
OC	ON CENTER (S)
OP	OPAQUE
OW	OPEN WEB JOIST
OPNG	OPENING
OPP	OPPOSITE
OPPH	OPPOSITE HAND
OSB	ORIENTED STRAND BOARD
OZ	OUNCE
OD	OUTSIDE DIAMETER / OUTSIDE DIMENSION
OA	OVERALL
OH	OVERHEAD
OHDR	OVERHEAD DOOR

P

PT	PAINT (ED)
PS	PAINTED STEEL
PR	PAIR
PNL	PANEL
PB	PANIC BAR
PTD	PAPER TOWEL DISPENSER
PAR	PARALLEL
PKG	PARKING
PBD	PARTICLE BOARD
PTN	PARTITION
PVM	PATCH AND MATCH
PV	PAVE (D), (ING)
PVMT	PAVEMENT
PERF	PERFORATE (D)
PERI	PERIMETER
PERM	PERMANENT
PC	PIPE CHASE
PLAM	PLASTIC LAMINATE
PG	PLATE GLASS
PL	PLATE PLASTIC, PROPERTY LINE, PLASTER
PLMB	PLUMBING
PLWD	PLYWOOD
PT	POINT, PAINT (ED)
POLY	POLYETHYLENE
PISO	POLYISOCIANURATE
PVC	POLYVINYL CHLORIDE
PE	PORCELAIN ENAMEL
PTC	POST TENSIONED CONCRETE
PCF	POUNDS PER CUBIC FOOT
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PAF	POWER ACTIVATED FASTENER
PCC	PRECAST CONCRETE
PFB	PREFABRICATED
PFN	PREFINISHED
PMF	PREFINISHED METAL FASCIA
PRF	PREFORMED
PMS	PREFORMED METAL SIDING
PPT	PRESSURE PRESERVATIVE TREATED
PSC	PRESTRESSED CONCRETE
PROJ	PROJECT, PROJECTION

Q

QTY	QUANTITY
QT	QUARRY TILE

R

RBT	RABBET, REBATE
RAD	RADIATOR
R	RADIUS
RL	RAIL (ING)
RWC	RAINWATER CONDUCTOR
RRT	RAISED RUBBER TILE
RCV	RECEIVE (D)
RECT	RECTANGULAR
REF	REFERENCE
RCP	REFLECTED CEILING PLAN, REINFORCED CONCRETE PIPE
RFL	REFLECT (ED), (IVE), (OR)
REFG	REFRIGERATOR
REG	REGISTER
RGWB	REINFORCED GYPSUM WALL BOARD
REM	REMOVE
RENOV	RENOVATION
REQ	REQUIRED
RESL	RESILIENT
RET	RETURN
RA	RETURN AIR
RVS	REVERSE (SIDE)
REV	REVISION (S), REVISED
RH	RIGHT HAND
ROW	RIGHT OF WAY
R	RISER, RADIUS, RUBBER
RVT	RIVET
RD	ROOF DRAIN
RFH	ROOF HATCH
RFG	ROOFING
RH	ROOM
RO	ROUGH OPENING
RB	RUBBER BASE
RFL	RUBBER FLOORING
RT	RUBBER TILE, RAISED RUBBER TILE
RBL	RUBBLE STONE

S

SFGL	SAFETY GLASS
SND	SANITARY NAPKIN DISPENSER
SNV	SANITARY NAPKIN VENDOR
SCH	SCHEDULE
SCN	SCREEN
SMBR	SEALANT AND BACKER ROD
SLNT	SEALANT
SLR	SEALER
SJC	SEISMIC JOINT COVER
SG	SHEET GLASS
SHL	SHELF, SHELVING
SHO	SHORE, (D), (ING)
SIM	SIMILAR
SOH	SIMILAR / OPPOSITE HAND
SPMR	SINGLE PLY MEMBRANE ROOF
SKL	SKYLIGHT
SL	SLEEVE
SC	SOLID CORE
STC	SOUND TRANSMISSION COEFFICIENT
SP	SOUNDPROOF
S	SOUTH
SE	SOUTHEAST
SW	SOUTHWEST
SPC	SPACER
SPK	SPEAKER
SPL	SPECIAL
SPEC	SPECIFICATION (S)
SPCB	SPLITFACE CONCRETE BLOCK
SPR	SPRINKLER
SQ	SQUARE
SQ	SQUARE FEET
SS	STAINLESS STEEL
STD	STANDARD
SMTR	STANDING SEAM METAL ROOFING
STA	STATION
STL	STEEL
STO	STORAGE
SD	STORM DRAIN
SCT	STRUCTURAL CLAY TILE
STR	STRUCTURE (AL)
SUSP	SUSPENDED
SYM	SYMETRY (ICAL)
SYN	SYNTHETIC
SYS	SYSTEM

T

TBD	TACKBOARD
TKS	TACKSTRIP
TEL	TELEPHONE
TV	TELEVISION
TEMP	TEMPERATURE, TEMPERED
THBD	TEMPERED HARD BOARD
TERM	TERMINAL
TC	TERRA COTA
TRZ	TERRAZZO
THK	THICK(NESS)
THR	THRESHOLD
TRS	TILE REDUCER STRIP
TM	TOILET MEN
TPD	TOILET PAPER DISPENSER
TPTN	TOILET PARTITION
TW	TOILET WOMEN
T	TOILET, TREAD
TOL	TOLERANCE
TAG	TONGUE AND GROOVE
TOD	TOP OF DECK
TOS	TOP OF STEEL
TOW	TOP OF WALL
TL	TOWEL
TR	TRANSFORM
XFMR	TRANSFORMER
TGS	TRANSLUCENT GLAZING SYSTEM
TRNSP	TRANSPARENT
TYP	TYPICAL

U

UC	UNDERCUT
UNDLMT	UNDERLAYMENT
UL	UNDERWRITERS LABORATORY
UNF	UNFINISHED
UV	UNIT VENTILATOR
UNO	UNLESS NOTED OTHERWISE

V

VJ	V-JOINT
VR	VAPOR RETARDER
VAR	VARNISH
VNR	VENEER
VIF	VERIFY IN FIELD
VRM	VERMICULITE
VRT	VERTICAL
VS	VERTICAL METAL SIDING
VEST	VESTIBULE
V	VINYL
VAT	VINYL ASBESTOS TILE
VB	VINYL BASE
VCT	VINYL COMPOSITION TILE
VF	VINYL FABRIC
VT	VINYL TILE
VWC	VINYL WALL COVERING
VP	VISION PANEL

W

WSCT	WAINSCOT
WH	WALL HUNG
WHYD	WALL HYDRANT
WTW	WALL TO WALL
WR	WASTE RECEPTACLE
WC	WATER CLOSET
WP	WATER PROOFING
WR	WATER REPELLENT
WRSGUB	WATER RESISTANT GYPSUM WALL BOARD
WS	WATERSTOP
WHS	WEATHER STRIP, (ING)
WWF	WELDED WIRE FABRIC
W	WEST
WHB	WHEEL BUMPER
W	WIDE, WIDTH
WND	WINDOW
WW	WINDOW WALL
WGL	WIRE GLASS
WM	WIRE MESH
W/	WITH
W/O	WITHOUT
WD	WOOD
WDB	WOOD BASE
WP	WORKING POINT
WI	WROUGHT IRON

GENERAL NOTES

1. ALL DIMENSIONS ARE TO THE FACE OF CMU OR ROUGH STUD. UNLESS NOTED OTHERWISE

2. PROVIDE ALL CUT-OUTS, SLEEVES, BOX-OUTS, CHASES ETC. REQUIRED BY THE WORK. COORDINATE REQUIREMENTS WITH EACH TRADE PRIOR TO THE START OF WORK.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE THERMAL AND ACOUSTICAL REQUIREMENTS OF THE FLOOR AND ROOF CONSTRUCTION, WALLS AND PARTITIONS BY INSTALLING PROPER SEALS AND CLOSURES AT THE PERIMETER OF ALL OPENINGS

4. LOCATION AND THE SIZE OF THE FOLLOWING EQUIPMENT MUST BE COORDINATED BETWEEN RELATED TRADES. - PLUMBING, MECHANICAL ELECTRICAL, AND OTHER EQUIPMENT; CONCRETE PADS FOR ALL SUCH EQUIPMENT, ACCESS PANELS IN WALLS, CEILINGS AND SOFFITS, CEILING DIFFUSERS, LIGHT FIXTURES, HEATING AND VENTILATING UNITS, LOUVERS AND ELECTRICAL PANELS.

5. THE CONTRACTOR SHALL VERIFY SIZE AND LOCATION OF ALL BUILT-IN ITEMS.

6. ALL PARTITIONS TO EXTEND TO THE UNDERSIDE OF THE METAL ROOF DECK OR CONCRETE FLOOR DECK ABOVE UNLESS NOTED OTHERWISE.

7. CORES OF CMU PARTITION SHALL BE FILLED WITH MORTAR UNDER ALL LINTEL BEARING, AND WHERE ANCHORAGE EITHER WITHIN THE PARTITION, TO THE FACE OR THE END OF THE PARTITION IS REQUIRED. SEE STRUCTURAL FOR ADDITIONAL INFORMATION.

8. THE REQUIRED FIRE RESISTANCE RATING OF THE CMU PARTITION SHALL BE ACHIEVED BY USE OF U.L. LISTED CMU'S OR THE EQUIVALENT THICKNESS AND TYPE OF AGGREGATE.

9. THE INTEGRITY OF THE FIRE RATED WALLS AND PARTITIONS SHALL BE MAINTAINED WHEREVER A PENETRATION OR RECESS OF MORE THAN 20 SQUARE INCHES OCCURS.

   A. FOR PENETRATIONS PROVIDE A SLEEVE AND PACK WITH DOW SILICONE RTV FOAM AFTER PIPE CONDUIT OR DUCT IS IN PLACE.

   B. FOR RECESSED ITEMS THE REQUIRED WALL OR PARTITION RATING SHALL BE INSTALLED AROUND THE RECESS BEFORE. FIXTURE, BOX, ACCESSORY, ETC., IS PLACED. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION AND COMPLETION OF THIS WORK.

10. ALL STAIRWAYS, PLATFORMS, LANDING AND EXITS SHALL BE ADEQUATE TO SUPPORT A LIVE LOAD OF 100 POUNDS PER SQ. FT., AND A CONCENTRATED LOAD OF 300 POUNDS PER SQ., FT,

11. ALL HANDRAILS SHALL BE DESIGNED AND CONSTRUCTED FOR A CONCENTRATED LOAD OF 200 POUNDS APPLIED AT ANY POINT IN ANY DIRECTION.

12. ALL STAIRS SHALL HAVE HANDRAILS EACH SIDE

13. ALL GUARDRAILS SHALL BE DESIGNED AND CONSTRUCTED FOR A CONCENTRATED LOAD OF 300 POUNDS APPLIED AT ANY POINT AND IN ANY DIRECTIONS ALONG THE TOP RAILING MEMBER. IT SHALL ALSO BE DESIGNED AND CONSTRUCTED FOR A UNIFORM LOAD OF 100 POUNDS PER FOOT APPLIED IN ANY DIRECTION AT THE REQUIRED GUARDRAIL HEIGHT.

14. THE INFILL AREA OF A GUARDRAIL SYSTEM SHALL BE DESIGNED AND CONSTRUCTED FOR A HORIZONTAL CONCENTRATED LOAD OF 200 POUNDS APPLIED ON A (1) ONE SQUARE FOOT AREA, AT ANY POINT IN THE SYSTEM, INCLUDING INTERMEDIATE RAILS OR OTHER ELEMENTS SERVING THIS PURPOSE.

15. INSTALL FIRE RATED FIRE SAFING & SEALANT AT ALL OPENINGS AND TOP OF FIRE RATED WALLS. MUST BE A UL TESTED ASSEMBLY FOR THE FIRE RESISTANCE REQUIRED.

16. DURING COLD WEATHER CONDITIONS THE POURED-IN-PLACE CONCRETE SLAB WILL ONLY BE POURED WHEN BUILDING IS COMPLETELY ENCLOSED AND TEMPORARY HEAT IS RUNNING (INDIRECT FIRED HEATERS ONLY).

MATERIAL LEGEND

- EARTH
- STONE, GRAVEL
- BITUMINOUS PAVING
- CONCRETE
- PRE-CAST CONCRETE
- CONCRETE MASONRY UNITS
- BRICK
- STONE
- SAND, MORTAR
- ALUMINUM
- STEEL
- SHEET METAL
- REINFORCING - W.W.F.
- REINFORCING BAR (RODS)
- PLASTER/ LATH
- GYPSUM WALLBOARD
- GLASS
- PLYWOOD
- WOOD BLOCKING (CONT.) (NOM. DIMEN.) 2 x 6
- WOOD SHIMS (NON-CONT.)
- BATT INSULATION
- RIGID INSULATION
- ACOUSTIC TILE
- PARTICLE BOARD
- PLASTIC LAMINATE (ON PLYWD)
- CARPET
- QUARRY TILE
- FINISH WOOD

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REVISIONS

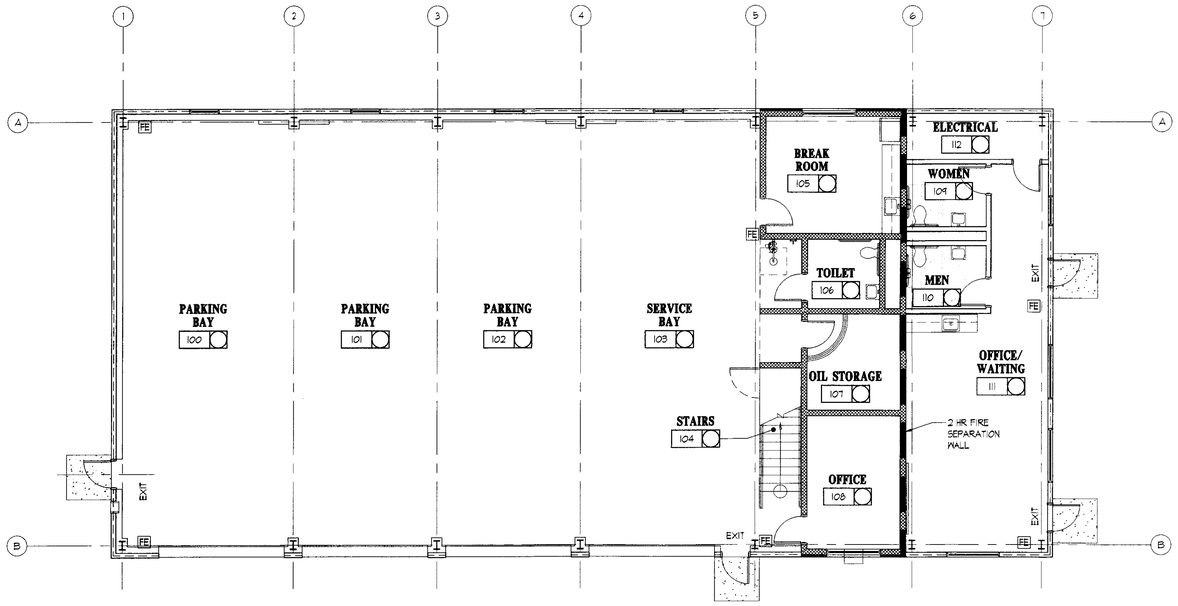
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APPR. BY:	MVD

N. FERRISBURGH
MAINTENANCE GARAGE
ABBREVIATIONS /SYMBOLS/ MAT. LEGEND

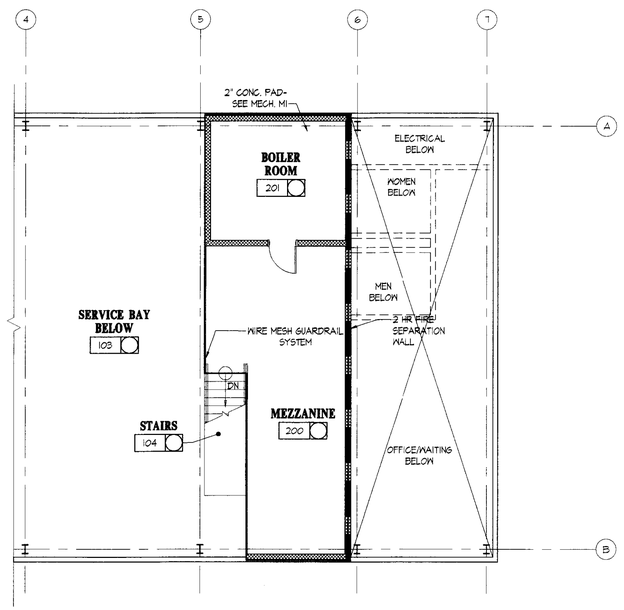
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1 MAIN LEVEL PLAN
1/8" = 1'-0"



2 UPPER LEVEL PLAN
1/8" = 1'-0"

BOCA BUILDING REQUIREMENTS - 1996 EDITION

OCCUPANCY TYPE: S1 - STORAGE, ORDINARY HAZARD

CONSTRUCTION TYPE 5B, UNPROTECTED

ALLOWED HEIGHT AND AREA LIMITATIONS
S1 = 1 STORIES AT 20'
BASIC S1 = 4200 SF
ADDITIONAL AREA FOR FRONTAGE = 6,300 SF
TOTAL ALLOWABLE S1 = 10,500 SF

DESIGNED GROSS AREA
MAIN LEVEL: 5,193 SF
UPPER (MEZZANINE) LEVEL:
S1 = 691 SF

CONSTRUCTION REQUIREMENTS
FIRE SEPARATION WALLS 3 HOUR (PER NFPA 88B) BETWEEN OCCUPANCIES
FIRE ENCLOSURES EXITS AND STAIRWAYS 1 HOUR
EXIT ACCESS CORRIDORS 0 HOURS (OCCUPANT LOAD LESS THAN 30)
INTERIOR BEARING WALLS, COLUMNS, FLOOR TRUSSES 0 HOURS
STRUCTURAL MEMBERS SUPPORTING WALL 0 HOURS
FLOOR CONSTRUCTION 0 HOURS
ROOF CONSTRUCTION INCLUDING BEAMS, TRUSSES, ROOF DECKS 0 HOURS
INTERIOR DOORS AND WALLS BETWEEN PARKING BAYS AND OTHER ROOMS MUST RESIST THE PASSAGE OF SMOKE (NOT RATED) PER NFPA 88B

NFPA 101 BUILDING REQUIREMENTS - 1997 EDITION

CLASSIFICATION - STORAGE, ORDINARY HAZARD

EXITS REQUIRED - MIN 2 REQUIRED

MAX. TRAVEL DISTANCE TO EXITS 200 FEET

DEAD END CORRIDORS NOT EXCEED 50 FEET

COMMON PATH FOR ORDINARY HAZARD 50 FEET

CLASS "A" FINISH REQUIRED

LEGEND

TWO HOUR FIRE SEPARATION WALL

FE AOT SUPPLIED FIRE EXTINGUISHERS

GRAPHIC SCALE
0 4' 8' 16'
SCALE: 1/8" = 1'-0"

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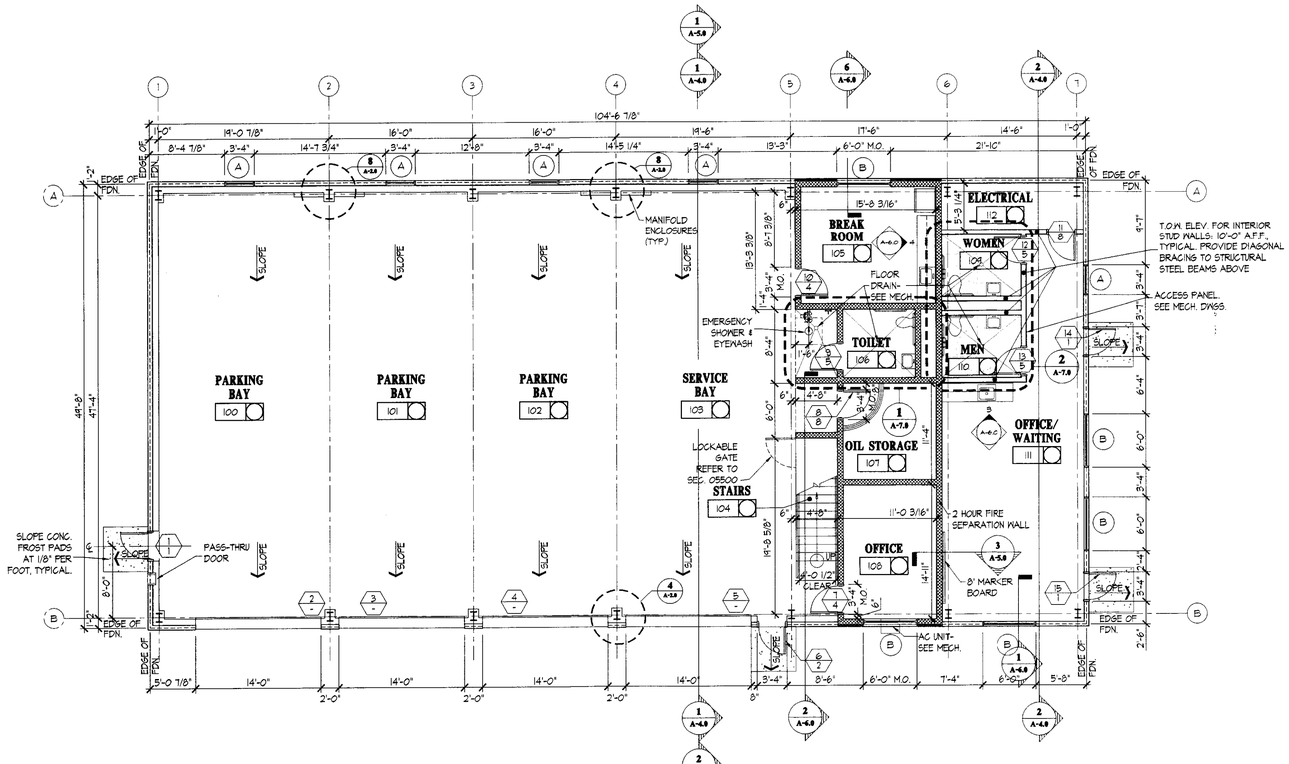
MAINTENANCE GARAGE

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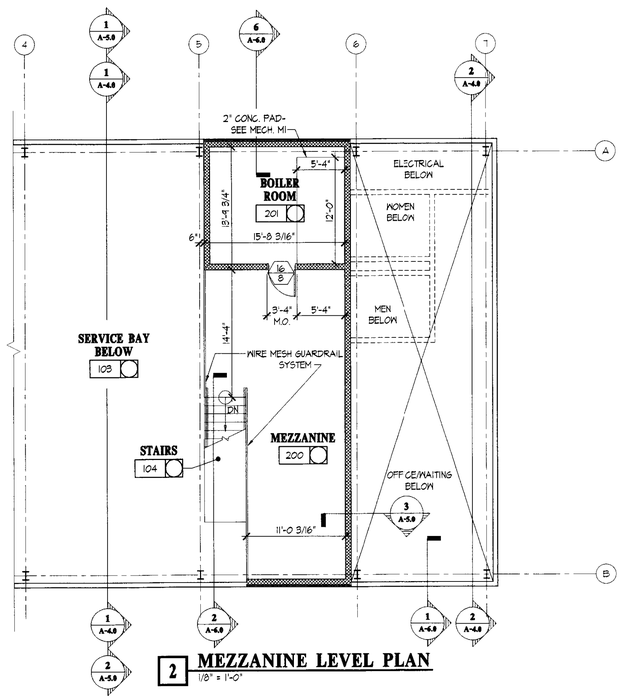
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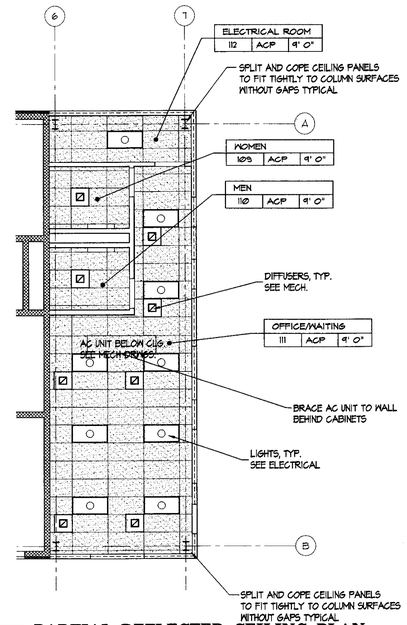
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1 MAIN LEVEL PLAN
1/8" = 1'-0"



2 MEZZANINE LEVEL PLAN
1/8" = 1'-0"



3 PARTIAL REFLECTED CEILING PLAN
1/8" = 1'-0"

INTERIOR PARTITION LEGEND

- 8" CMU
- 2X6 WOOD STUDS @ 16" O.C. WITH 1 LAYER OF 5/8" GWB EACH SIDE AND 6" OF BATT. INSULATION (2X8 WOOD STUDS ABOVE PARKING BAY OVERHEAD DOORS SEE DETAIL 2/A-5.0)

LEGEND

- ACP W/ BATT INSULATION
- LIGHT FIXTURE - SEE ELEC.
- HVAC DIFFUSER - SEE MECH.

NOTES:

1) SEE SHEET A-7.0 FOR WINDOW TYPES.

2) SEE SHEET A-7.0 FOR DOOR SCHEDULE AND DETAILS.

3) CONC. PAD FOR BOILER AND HWH BY G.C.- REFER TO SHEET M1.

4) SLOPE FLOORS TO DRAIN AT ROOMS WHERE FLOOR DRAINS ARE INDICATED. SEE STRUCTURAL DRAWINGS FOR FIN FLOOR ELEVATIONS.

5) CONTROL JOINTS TYPICAL (9 / A-2.0) - SEE STRUCTURAL FOR LOCATIONS.

ROOM FINISH SCHEDULE

No.	ROOM TYPE	FLOOR MATERIAL	FINISH	BASE MATERIAL	WALL MATERIAL	FINISH	CEILING MATERIAL	FINISH	REMARKS
100	PARKING BAY	CONC	SEAL. & HARD.	CONC	CMU	PT	STL. BMS & ROOF DECK	PT	PT BEAMS ONLY
101	PARKING BAY	CONC	SEAL. & HARD.	CONC	CMU	PT	STL. BMS & ROOF DECK	PT	PT BEAMS ONLY
102	PARKING BAY	CONC	SEAL. & HARD.	CONC	CMU	PT	STL. BMS & ROOF DECK	PT	PT BEAMS ONLY
103	SERVICE BAY	CONC	SEAL. & HARD.	CONC	CMU	PT	STL. BMS & ROOF DECK	PT	PT BEAMS ONLY
104	STAIRS	CONC	SEAL. & HARD.	CONC	CMU	PT	STL. BMS & ROOF DECK	PT	PT BEAMS ONLY
105	BREAKROOM	CONC	SEAL. & HARD.	CONC	CMU	PT	PRECAST CONC. PLANK	PT	
106	TOILET	CONC	SEAL. & HARD.	CONC	CMU	PT	PRECAST CONC. PLANK	PT	
107	OIL STORAGE	CONC	SEAL. & HARD.	CONC	CMU	PT	PRECAST CONC. PLANK	PT	
108	OFFICE	CONC	SEAL. & HARD.	CONC	CMU	PT	PRECAST CONC. PLANK	PT	
109	WOMEN	RT		RB	GWB/CMU	PT	ACP W/BATT. INSULATION		
110	MEN	RT		RB	GWB/CMU	PT	ACP W/BATT. INSULATION		
111	OFFICE/WAITING	RT		RB	GWB/CMU	PT	ACP W/BATT. INSULATION		
112	ELECTRICAL	CONC	SEAL. & HARD.	CONC	GWB/CMU	PT	ACP W/BATT. INSULATION		
200	MEZZANINE	CONC	SEAL. & HARD.	CONC	CMU	PT	STL. BMS & ROOF DECK	PT	PT BEAMS ONLY
201	BOILER ROOM	CONC	SEAL. & HARD.	CONC	CMU	PT	STL. BMS & ROOF DECK	PT	PT BEAMS ONLY

TYPICAL NOTES:
1. PAINT ALL HOLLOW METAL FRAMES AND TRIM.
2. PAINT ALL EXPOSED STRUCTURE AND MISCELLANEOUS METAL, STAIRS AND RAILINGS.
3. REFER TO FLOOR PLANS FOR LOCATIONS OF WALL TYPES AND WALL MATERIAL.
4. DO NOT PAINT ELEC. CONDUIT , PIPES & OTHER MECH. EQUIP. PAINT WALL PRIOR TO INSTALLATION OF CONDUIT AND PIPES.
5. DO NOT PAINT UNDERSIDE OF GALVANIZED ROOF DECK.

GRAPHIC SCALE
0 4' 8' 16'
SCALE: 1/8" = 1'-0"

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SCALE: 1/8" = 1'-0" | DATE: 1/4/06 | DRAWN BY: AJC | APPR. BY: RJD

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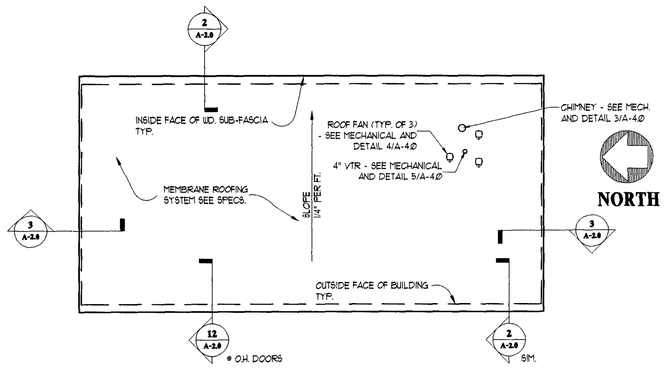
MAINTENANCE GARAGE

FLOOR PLANS AND REFLECT. CEILING PLAN

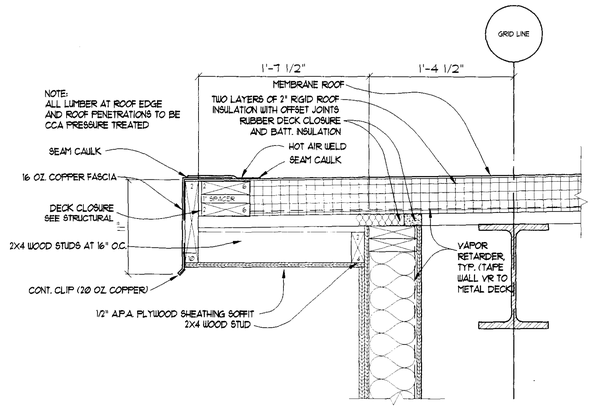
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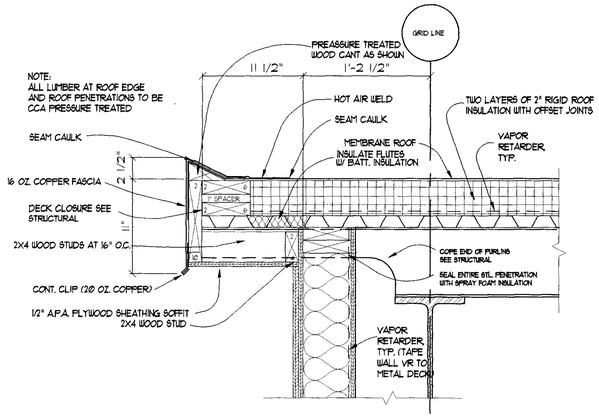
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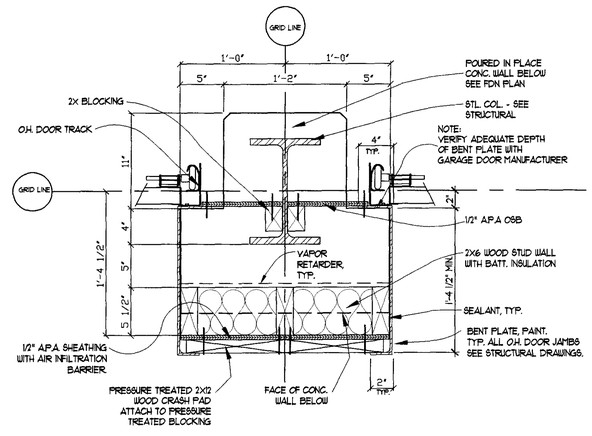
1 ROOF PLAN
1/16" = 1'-0"



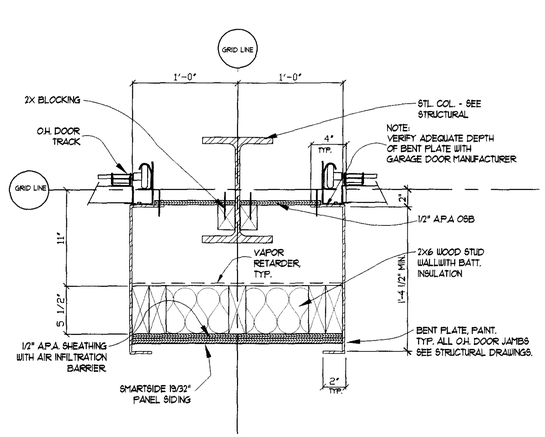
2 TYPICAL ROOF EAVE SECTION
1 1/2" = 1'-0"



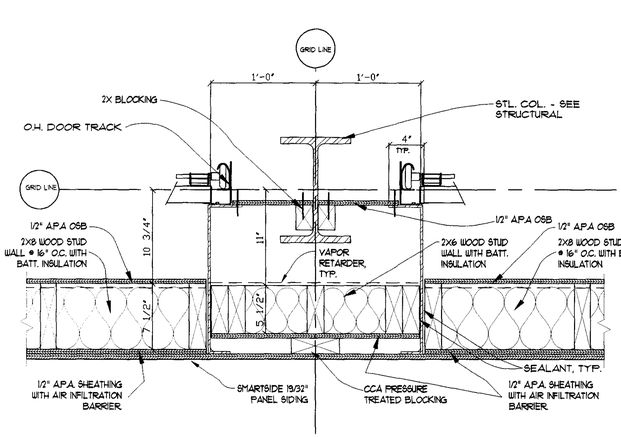
3 TYPICAL ROOF SECTION
1 1/2" = 1'-0"



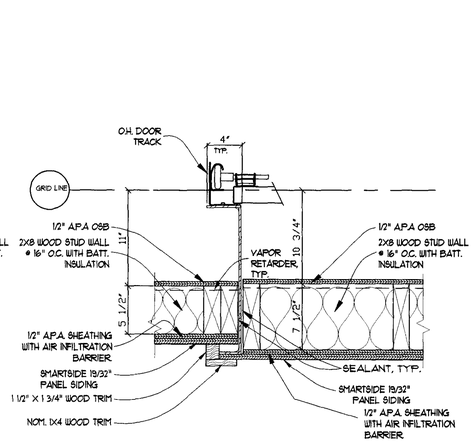
4 O.H. DOOR JAMB DETAIL
1 1/2" = 1'-0"



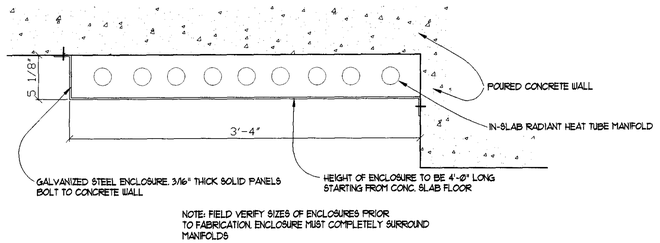
5 O.H. DOOR JAMB DETAIL
1 1/2" = 1'-0"



6 O.H. DOOR JAMB DETAIL ABOVE OPENING
1 1/2" = 1'-0"

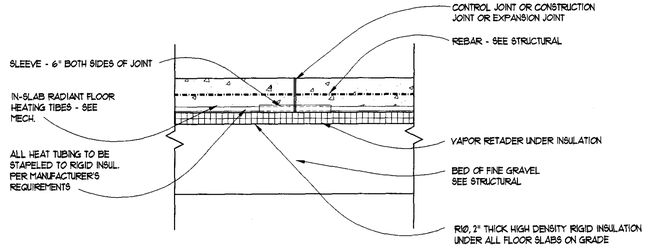


7 O.H. DOOR JAMB DETAIL ABOVE OPENING
1 1/2" = 1'-0"

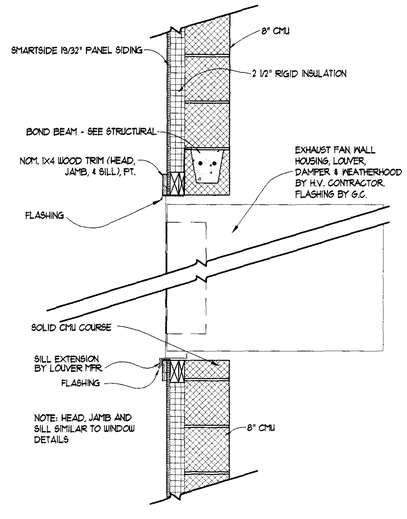


NOTE: FIELD VERIFY SIZES OF ENCLOSURES PRIOR TO FABRICATION. ENCLOSURE MUST COMPLETELY SURROUND MANIFOLDS

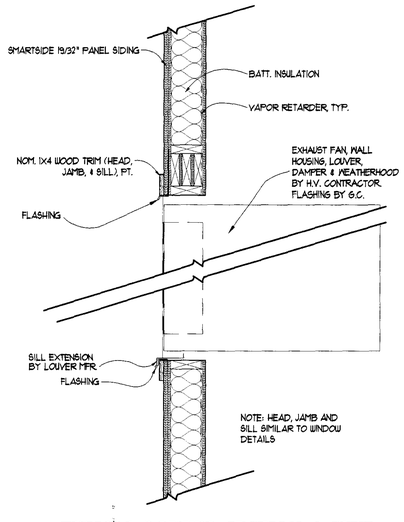
8 TYPICAL MANIFOLD ENCLOSURE
1 1/2" = 1'-0"



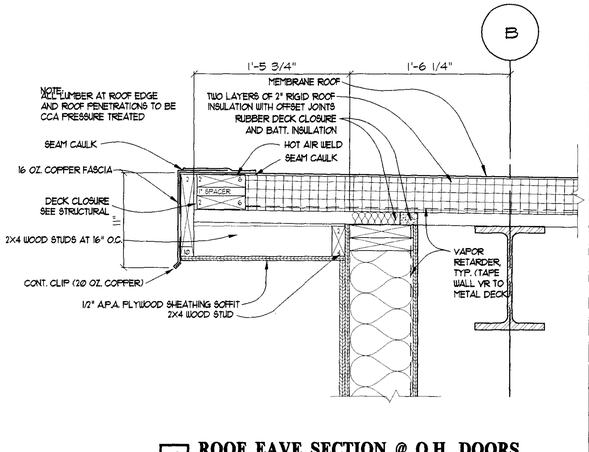
9 TYPICAL SLAB ON GRADE JOINT DETAIL
1" = 1'-0"



10 TYPICAL LOUVER SECTION @ CMU
1" = 1'-0"



11 TYPICAL LOUVER SECTION @ STUD
1" = 1'-0"



12 ROOF EAVE SECTION @ O.H. DOORS
1 1/2" = 1'-0"

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APPR. BY: MD

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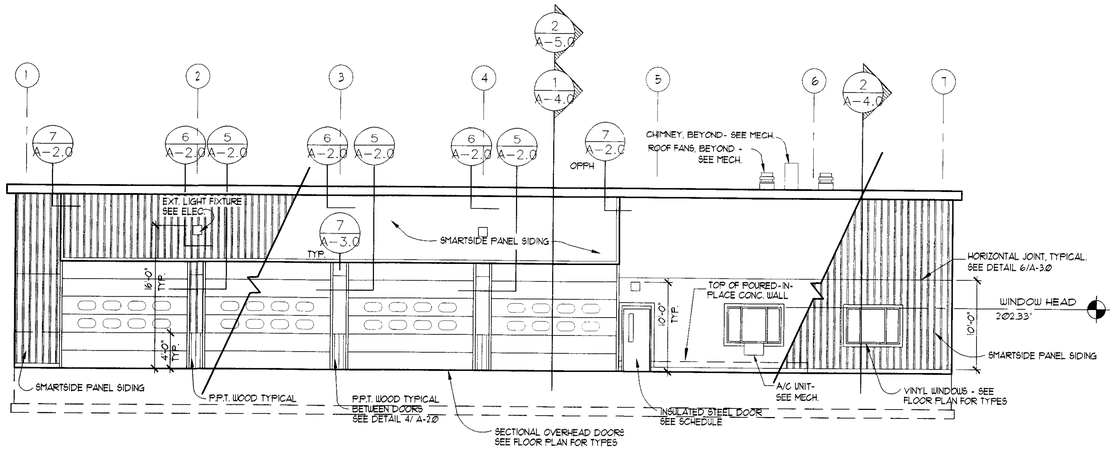
MAINTENANCE GARAGE

ROOF PLAN
ROOF DETAILS
MISC. DETAILS

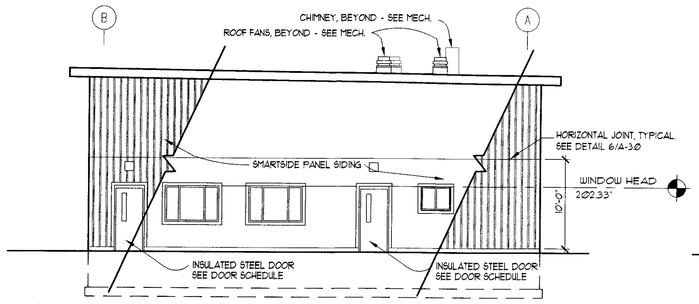
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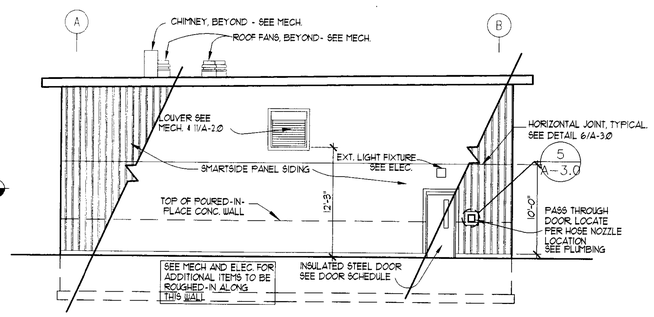
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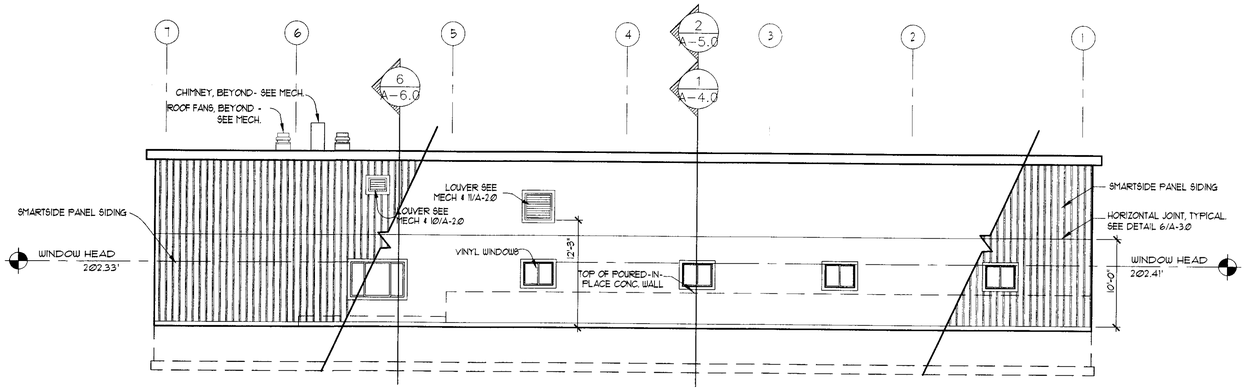
1 FRONT ELEVATION
1/8" = 1'-0"



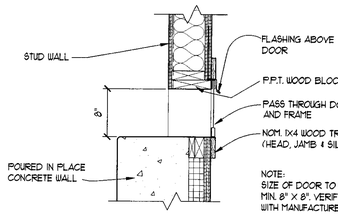
2 SIDE ELEVATION
1/8" = 1'-0"



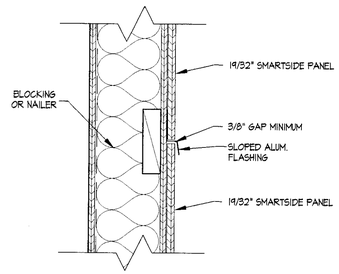
3 SIDE ELEVATION
1/8" = 1'-0"



4 REAR ELEVATION
1/8" = 1'-0"



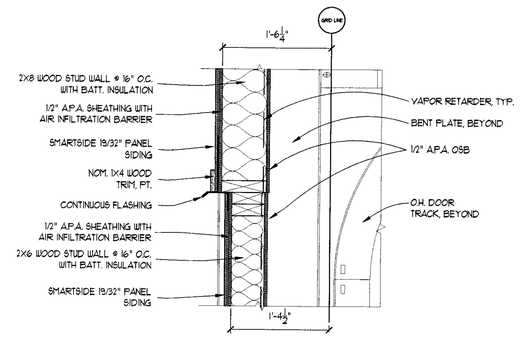
5 PASS THRU DOOR SECT.
1" = 1'-0"



6 HORIZONTAL JOINT DETAIL
NTS

NOTES:

LOUVERS AND VENTS BY HV CONTRACTOR INSTALLATION AND FLASHING BY G.C.



7 WALL TRANSITION BETWEEN O.H. DOORS
1"=1'-0"

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D&W
DORR AND WHITTIER, INC.
Architects • Project Managers

REGISTERED ARCHITECT
R. JOHN DORR
No. 1190
STATE OF VERMONT

BAGS

STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH VERMONT

REVISIONS

SCALE: AS NOTED	DRAWN BY: VPW
DATE: 1/4/06	APPR. BY: MJD

N. FERRISBURGH

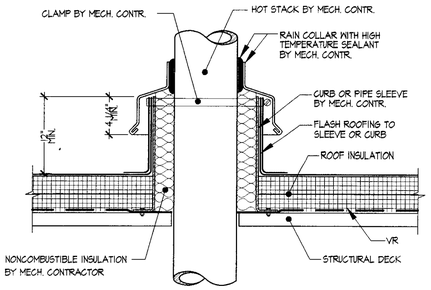
MAINTENANCE GARAGE

BUILDING ELEVATIONS

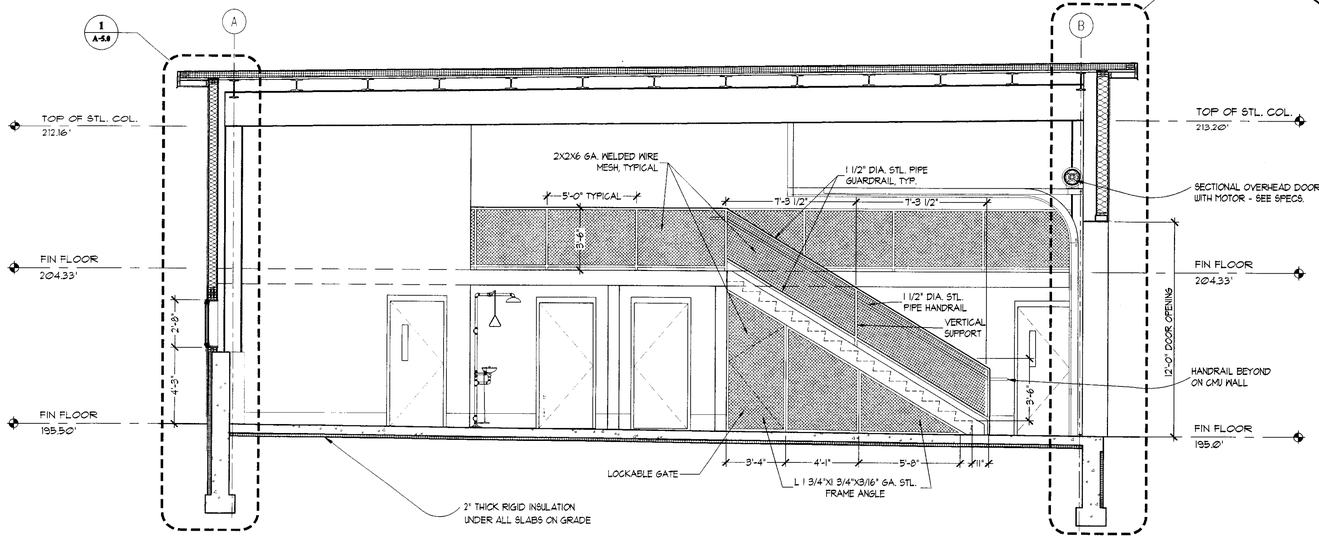
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24 OF 43

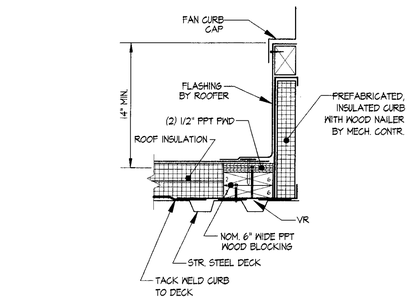
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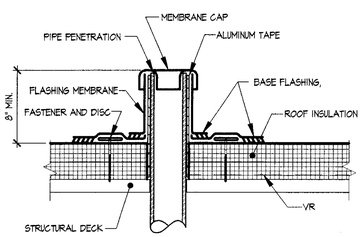
3 DETAIL @ CHIMNEY ROOF PENETRATION
1 1/2" = 1'-0"



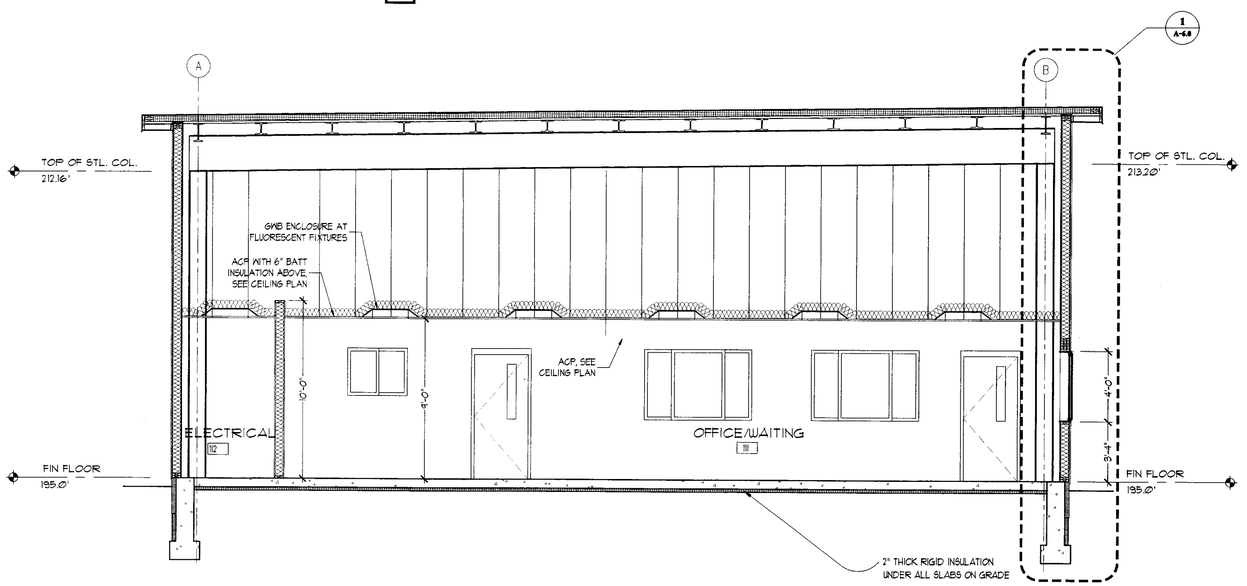
1 BUILDING SECTION
1/4" = 1'-0"



4 DETAIL @ FAN CURB
1 1/2" = 1'-0"



5 DETAIL @ VENT FLASHING
1 1/2" = 1'-0"



2 BUILDING SECTION
1/4" = 1'-0"

GRAPHIC SCALE
0 2' 4' 8'
SCALE: 1/4" = 1'-0"

REGISTERED ARCHITECT
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NORTH FERRISBURGH VERMONT

REVISIONS			

SCALE: AS NOTED	DATE: 1/4/06	DRAWN BY: VPW	APPR. BY: MJD

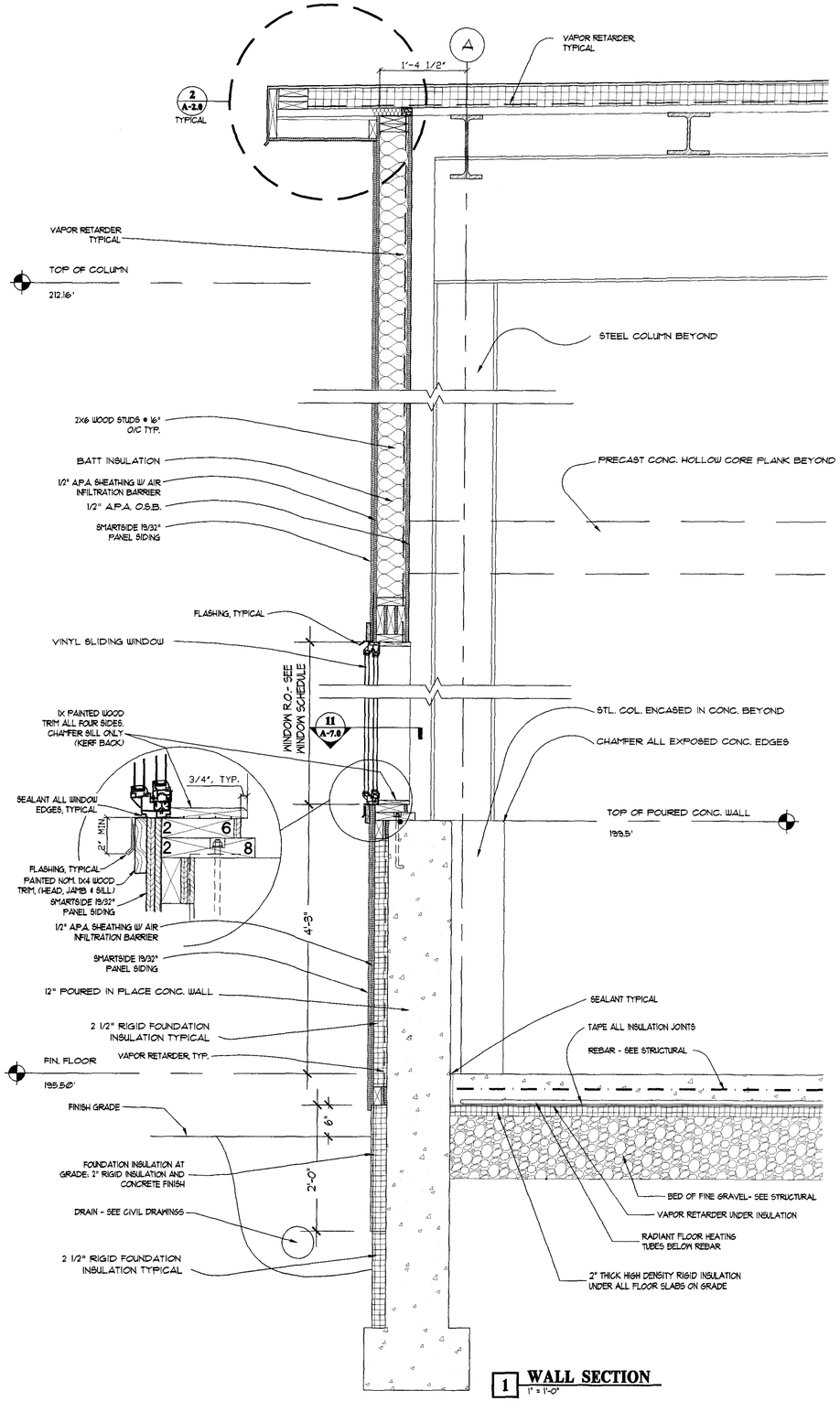
N. FERRISBURGH

MAINTENANCE GARAGE
BUILDING SECTIONS AND MISC. DETAILS

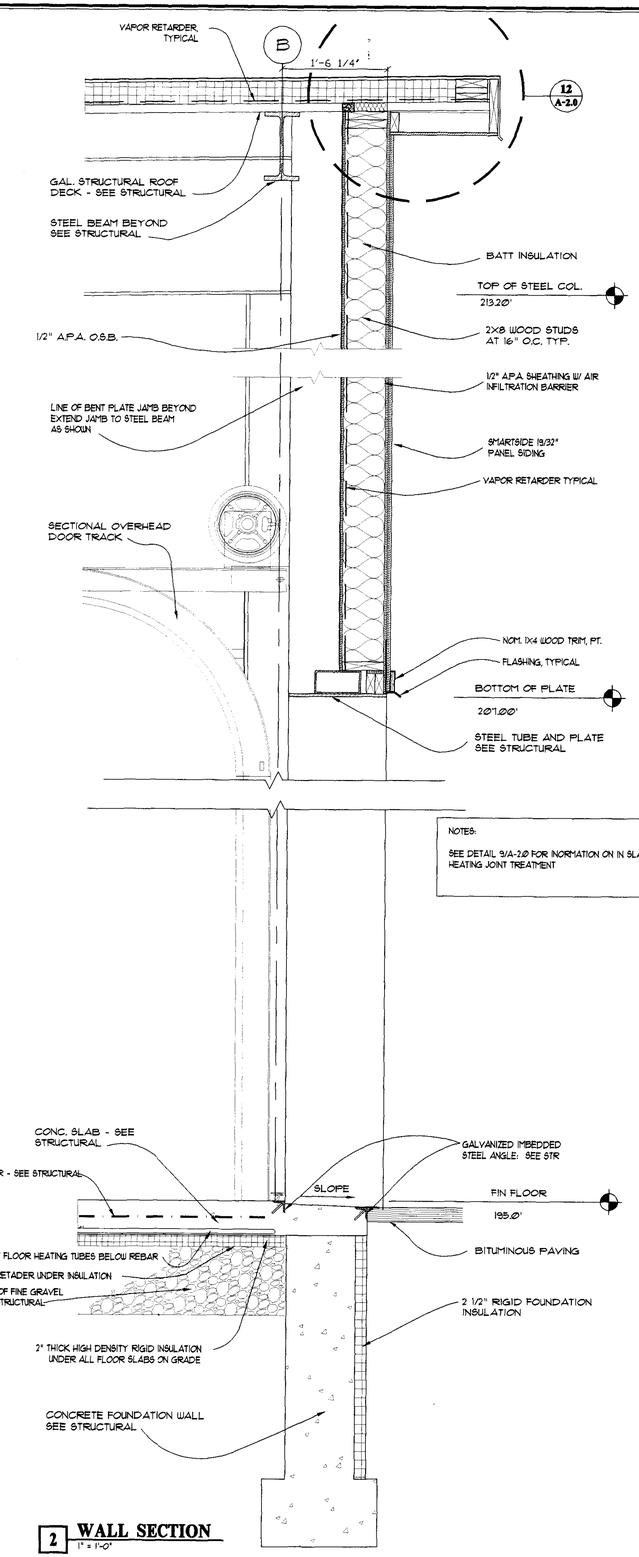
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25 OF 43

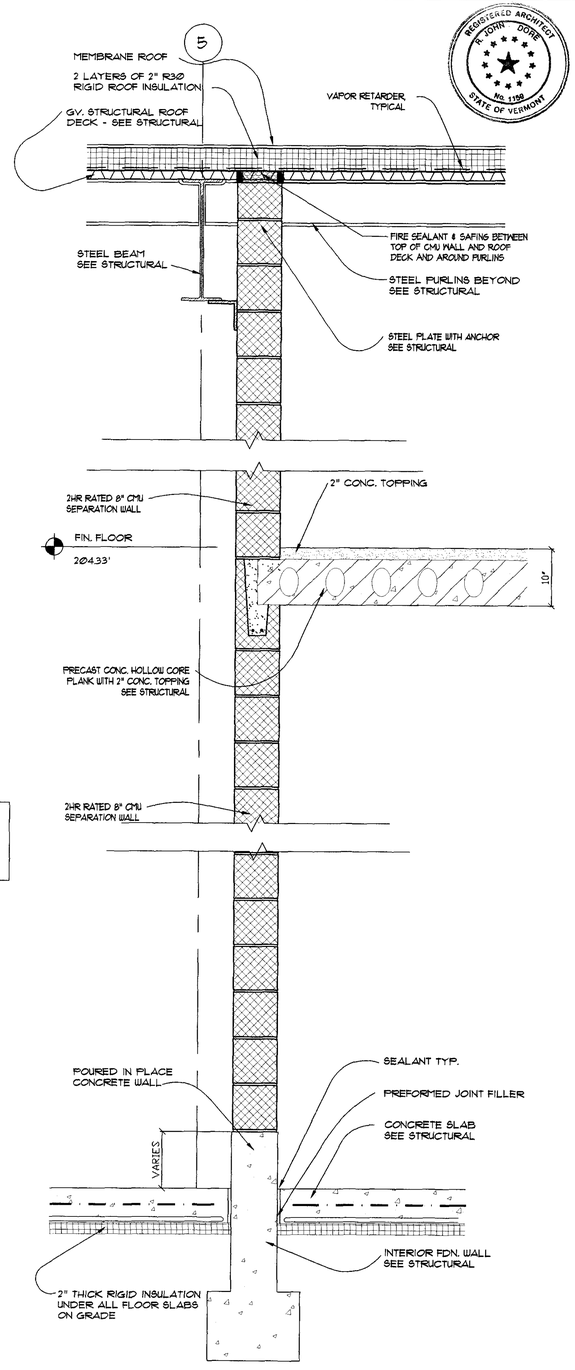
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1 **WALL SECTION**
1" = 1'-0"



2 **WALL SECTION**
1" = 1'-0"



3 **WALL SECTION**
1" = 1'-0"

GENERAL NOTES:

PROVIDE VAPOR RETARDER BETWEEN RIGID INSULATION AND GV. STRUCTURAL ROOF DECK TYPICAL.

GRAPHIC SCALE
0 6" 1' 2'
SCALE: 1" = 1'-0"

REGISTERED ARCHITECT R. CONN DORE No. 1150 STATE OF VERMONT

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140 HANCOCK STREET
MIDDLEBURY, VT 05753
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AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH VERMONT

REVISIONS

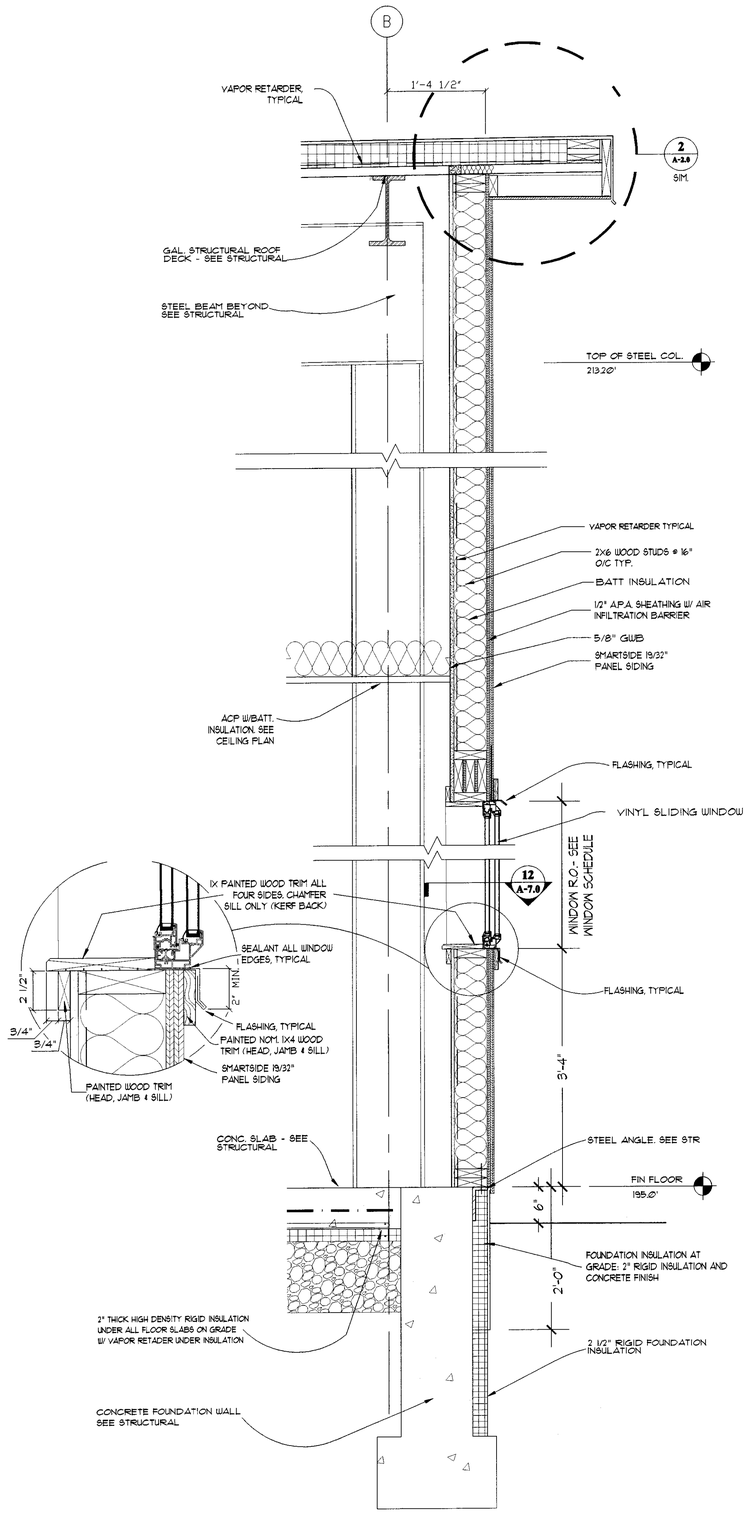
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DATE: 1/4/06
DRAWN BY: VTW
APPR. BY: MJD

N. FERRISBURGH
MAINTENANCE GARAGE
WALL SECTIONS

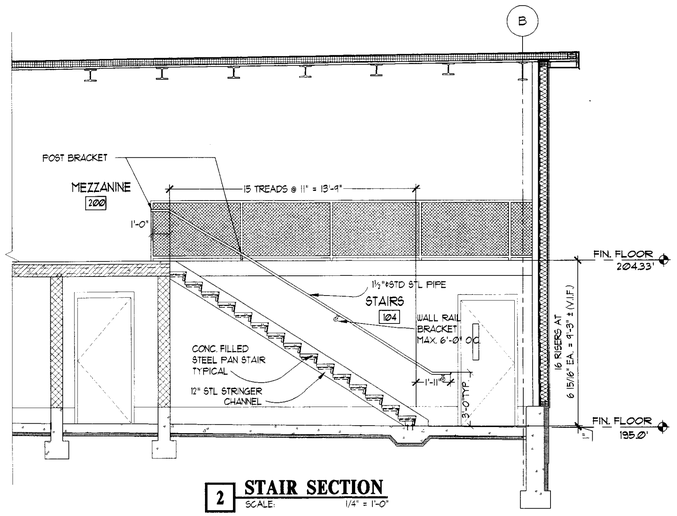
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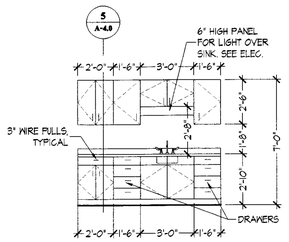
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1 WALL SECTION
SCALE: 1" = 1'-0"

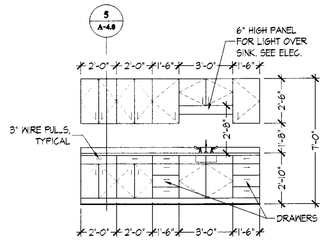


2 STAIR SECTION
SCALE: 1/4" = 1'-0"



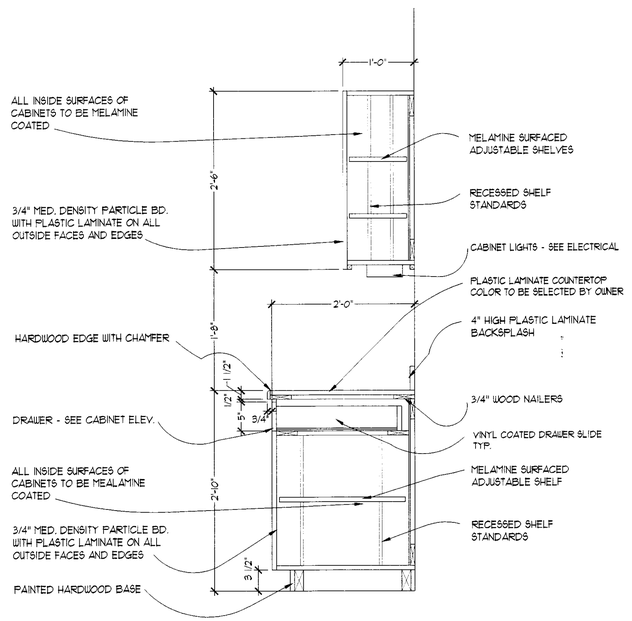
FIELD VERIFY ALL CABINET DIMENSIONS

3 CABINET ELEV. @ ROOM 111
1/4" = 1'-0"

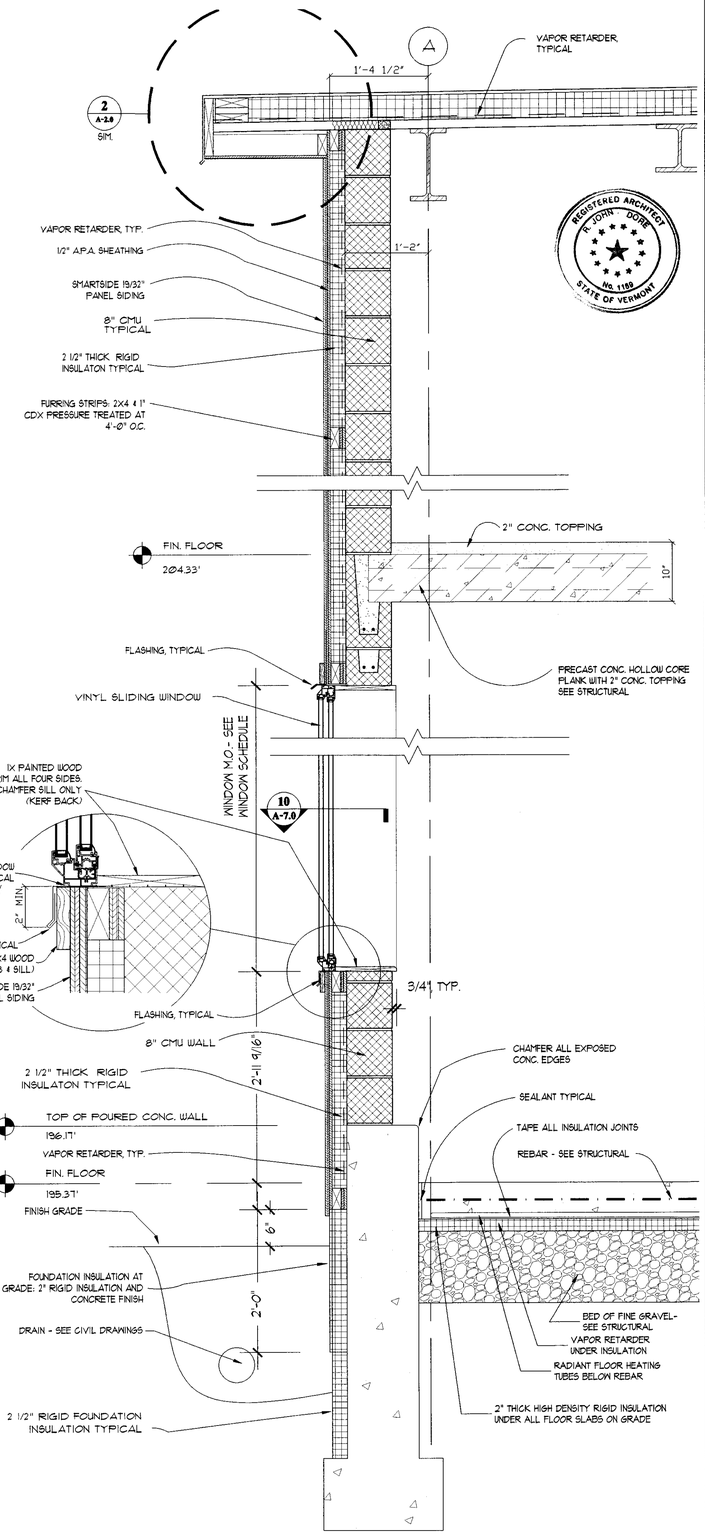


FIELD VERIFY ALL CABINET DIMENSIONS

4 CABINET ELEV. @ BREAK ROOM 105
1/4" = 1'-0"



5 TYPICAL CABINET SECTION
1" = 1'-0"



6 WALL SECTION
SCALE: 1" = 1'-0"

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N. FERRISBURGH VERMONT

REVISIONS

SCALE: AS NOTED
DATE: 1/4/06
DRAWN BY: VMW
APPR. BY: MJD

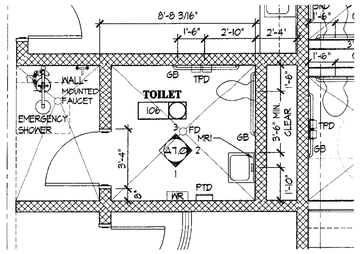
N. FERRISBURGH

MAINTENANCE GARAGE
WALL, STAIR & CABINET SECTIONS

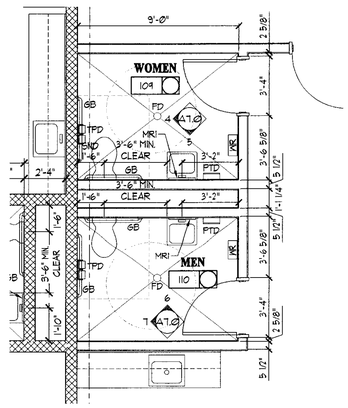
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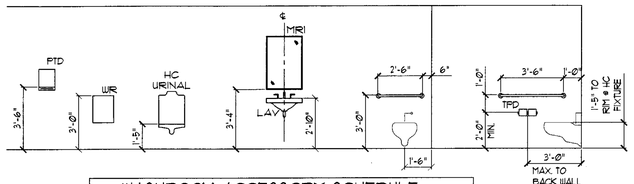


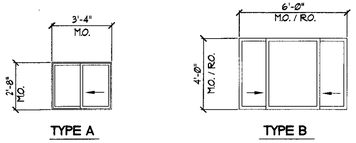
1 ENLARGED PLAN @ TOILET 106
1/4" = 1'-0"



2 ENLARGED PLANS @ MEN 110, WOMEN 111
1/4" = 1'-0"

NOTE: PROVIDE ACCESS PANELS IN PLUMBING CHASE WALL AS REQUIRED - SEE PLUMBING DRWGS. AND SPECS.

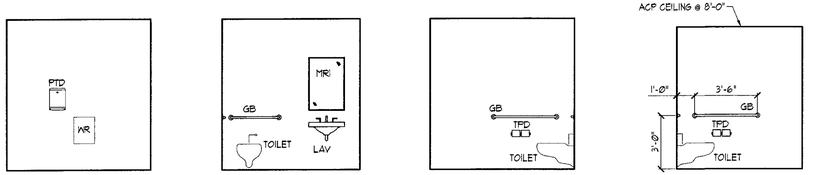




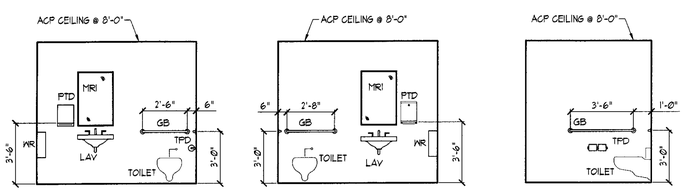
WASHROOM ACCESSORY SCHEDULE	
ABBREVIATION	DESCRIPTION
MRI	MIRROR, 24" X 36"
GB	GRAB BAR
TPD	SURF. MOUNT TOILET TISSUE HOLDER
PTP	PHENOLIC TOILET PARTITION
PTD	PAPER TOWEL DISPENSER
WR	WASTE RECEPTACLE

NOTES:

1. GC TO FULLY GROUT CMU BLOCK CELLS FOR MOUNTING ALL ACCESSORIES.
2. GC TO PROVIDE WOOD BLOCKING AS REQUIRED FOR MOUNTING ACCESSORIES IN STUD WALLS.



1 TOILET 106 · 2 TOILET 106 · 3 TOILET 106 · 4 WOMEN 109



5 WOMEN 109 · 6 MEN 110 · 7 MEN 110

3 TOILET ELEV.
1/4" = 1'-0"

4 WINDOW TYPES
1/4" = 1'-0"

DOOR & FRAME SCHEDULE (INCLUDING BORROWED LITES)

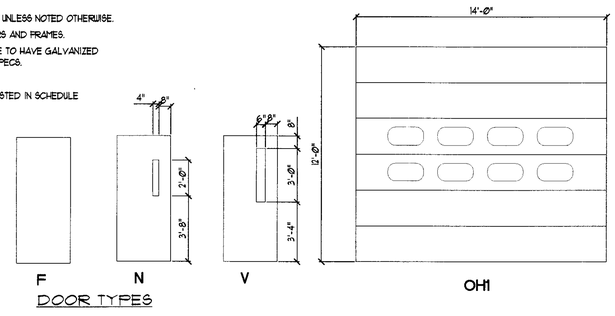
	DOOR				FRAME							
NUMBER	TYPE	MATERIAL	FINISH	SIZE	FR. TYPE	FR. MATERIAL	FR. FINISH	HEAD	JAMB	SILL	LABEL	REMARKS
1	V	HM	PT	3'-0" X 7'-0"	A	HM	PT	6/A-7.0	6 4 9/A-7.0	-	-	INSULATED EXTERIOR DOOR
2	OH1	STL	PT	12'-0" X 14'-0"	-	-	PT	-	4 4 5/A-2.0	-	-	-
3	OH1	STL	PT	12'-0" X 14'-0"	-	-	PT	-	4 4 5/A-2.0	-	-	-
4	OH1	STL	PT	12'-0" X 14'-0"	-	-	PT	-	4 4 5/A-2.0	-	-	-
5	OH1	STL	PT	12'-0" X 14'-0"	-	-	PT	-	4 4 5/A-2.0	-	-	-
6	V	HM	PT	3'-0" X 7'-0"	A	HM	PT	6/A-7.0	6 4 9/A-7.0	-	-	INSULATED EXTERIOR DOOR
7	N	HM	PT	3'-0" X 7'-0"	A	HM	PT	7/A-7.0	7/A-7.0	-	-	-
8	F	HM	PT	3'-0" X 7'-0"	A	HM	PT	7/A-7.0	7/A-7.0	-	-	-
9	F	HM	PT	3'-0" X 7'-0"	A	HM	PT	7/A-7.0	7/A-7.0	-	-	-
10	N	HM	PT	3'-0" X 7'-0"	A	HM	PT	7/A-7.0	7/A-7.0	-	-	-
11	F	HM	PT	3'-0" X 7'-0"	A	HM	PT	8/A-7.0	8/A-7.0	-	-	-
12	F	HM	PT	3'-0" X 7'-0"	A	HM	PT	8/A-7.0	8/A-7.0	-	-	-
13	F	HM	PT	3'-0" X 7'-0"	A	HM	PT	8/A-7.0	8/A-7.0	-	-	-
14	V	HM	PT	3'-0" X 7'-0"	A	HM	PT	6/A-7.0	6/A-7.0	-	-	INSULATED EXTERIOR DOOR
15	V	HM	PT	3'-0" X 7'-0"	A	HM	PT	6/A-7.0	6/A-7.0	-	-	INSULATED EXTERIOR DOOR
16	F	HM	PT	3'-0" X 7'-0"	A	HM	PT	7/A-7.0	7/A-7.0	-	-	-

NOTES:

1. ALL DOORS ARE 1 3/4" THICK, UNLESS NOTED OTHERWISE.
2. INSULATE ALL EXT. HM. DOORS AND FRAMES.
3. ALL DOORS AND FRAMES ARE TO HAVE GALVANIZED PRIMER THEN PAINTED. SEE SPECS.

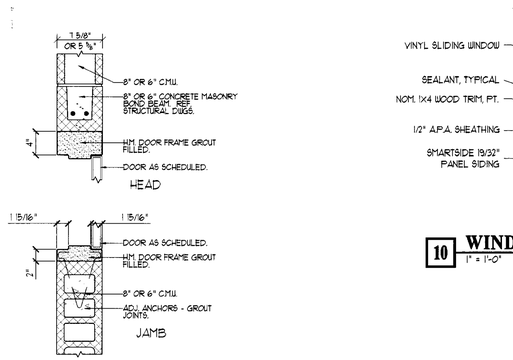
DOOR SYMBOL

18 / 7 — DOOR NUMBER LISTED IN SCHEDULE; HARDWARE SET



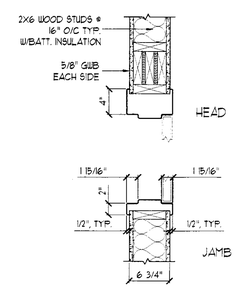
5 DOOR AND FRAME TYPES
1/4" = 1'-0"

REGISTERED ARCHITECT R. JOHN DORE NO. 1159 STATE OF VERMONT

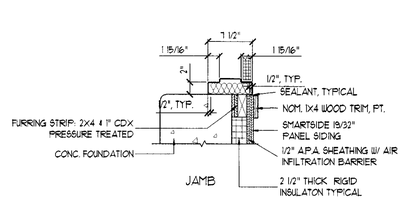


6 TYPICAL EXTERIOR DOOR JAMB/HEAD
1" = 1'-0"

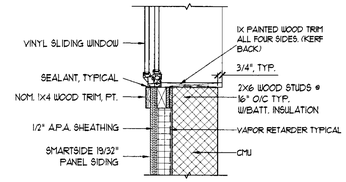
7 TYPICAL INTERIOR CMU DOOR JAMB/HEAD
1" = 1'-0"



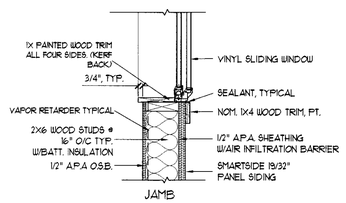
8 TYPICAL INTERIOR STUD DOOR JAMB/HEAD
1" = 1'-0"



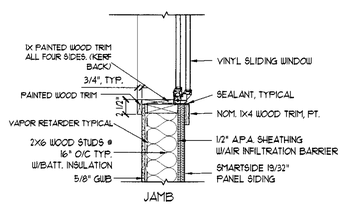
9 EXTERIOR DOOR JAMB @ FOUNDATION
1" = 1'-0"



10 WINDOW JAMB @ CMU
1" = 1'-0"



11 WINDOW JAMB @ PARKING BAYS
1" = 1'-0"



12 WINDOW JAMB @ OFFICE/WAITING 111
1" = 1'-0"

D&W
DORE AND WHITTIER, INC.
Architects • Project Managers
1776 WILLISTON RD. STE. 200
S. BURLINGTON, VT. 05403
Phone: (802) 863-6488
Fax: (802) 863-6565
79 WATER STREET, STE. 304
MONTPELIER, VT. 05602
Phone: (802) 498-3999
Fax: (802) 498-3944
1400 DUNN'S MILL ROAD
GUILFORD, MA. 01619
Phone: (978) 470-3870
Fax: (978) 470-2816

B A S / G

STATE OF VERMONT
DEPARTMENT OF BUILDINGS AND GENERAL SERVICES
AGENCY OF ADMINISTRATION
MONTPELIER, VERMONT

AGENCY OF TRANSPORTATION
N. FERRISBURGH MAINTENANCE FACILITY
NORTH FERRISBURGH VERMONT

REVISIONS

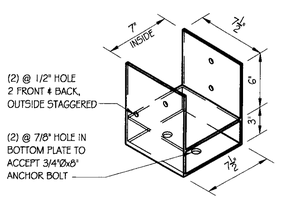
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DATE: 1/4/06
DRAWN BY: VPW
APPR. BY: MD

N. FERRISBURGH
MAINTENANCE GARAGE
TOILET DETAILS
DOOR SCHEDULE
WINDOW TYPES

A-7.0

28 OF 43

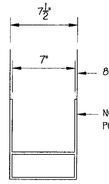
\\Dwserver3\projects\AOT North Ferrisburgh\REVISED AOT 12-2-05\Drawings\Working Drawings\Sheet Drawings\A42-3r1.0.dwg, 01/18/2006 07:58:03 AM, abrown



COLUMN BASE DETAIL

SCALE: 1 1/2" = 1'-0"

NOTE:
POST BASE TO BE FABRICATED FROM 1/4" PLATE STEEL PRIMED & PAINTED (2 COATS) BLACK BEFORE INSTALLATION

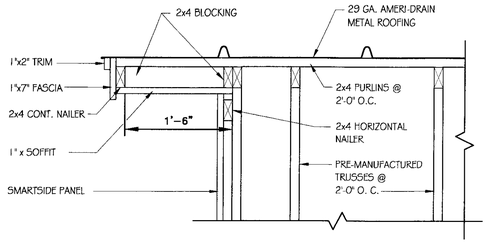


SECTION D-D

SCALE: 1 1/2" = 1'-0"

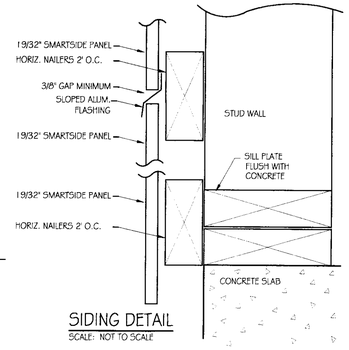
NOTE

INSIDE LAG BOLTS TO BE IN ℄ OF POST SO THEY WILL NOT INTERFERE WITH THE OVERHEAD DOOR TRACK.



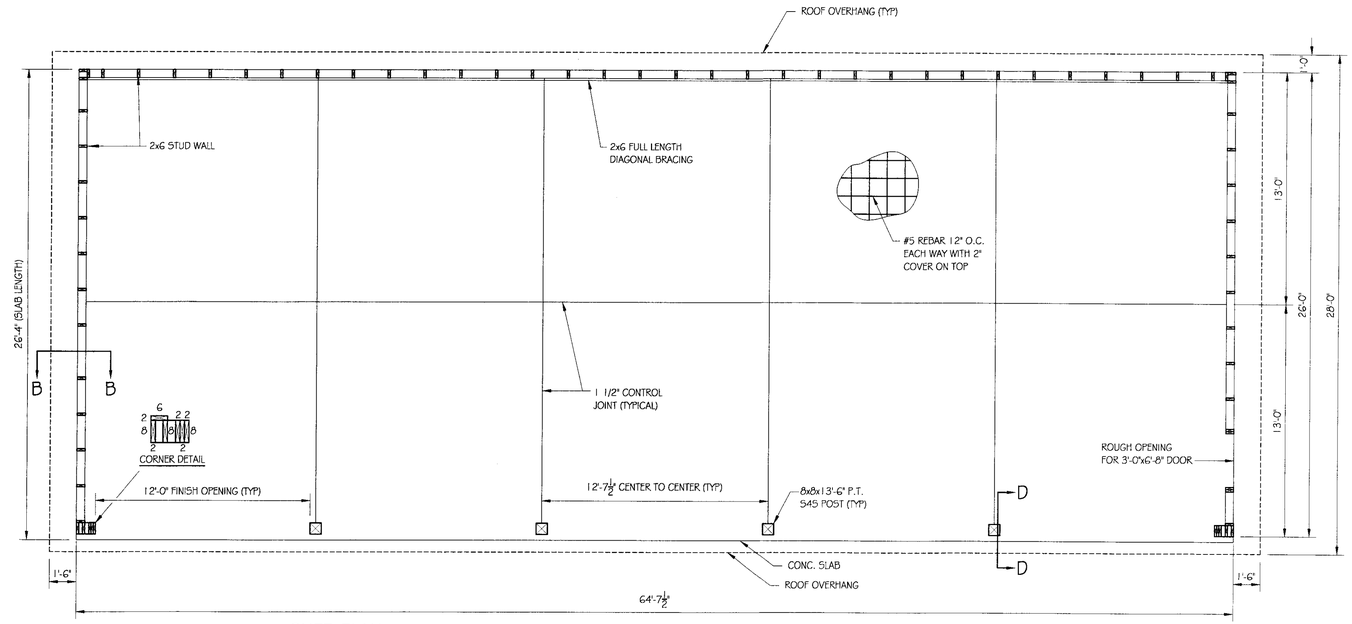
SECTION B-B SOFFIT DETAIL

SCALE: 1"=1'-0"



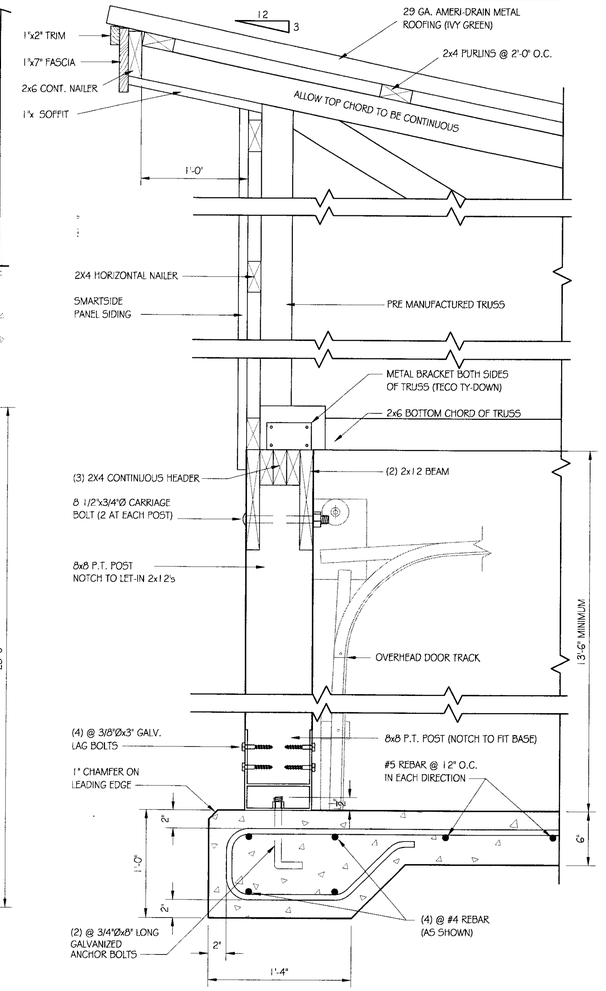
SIDING DETAIL

SCALE: NOT TO SCALE



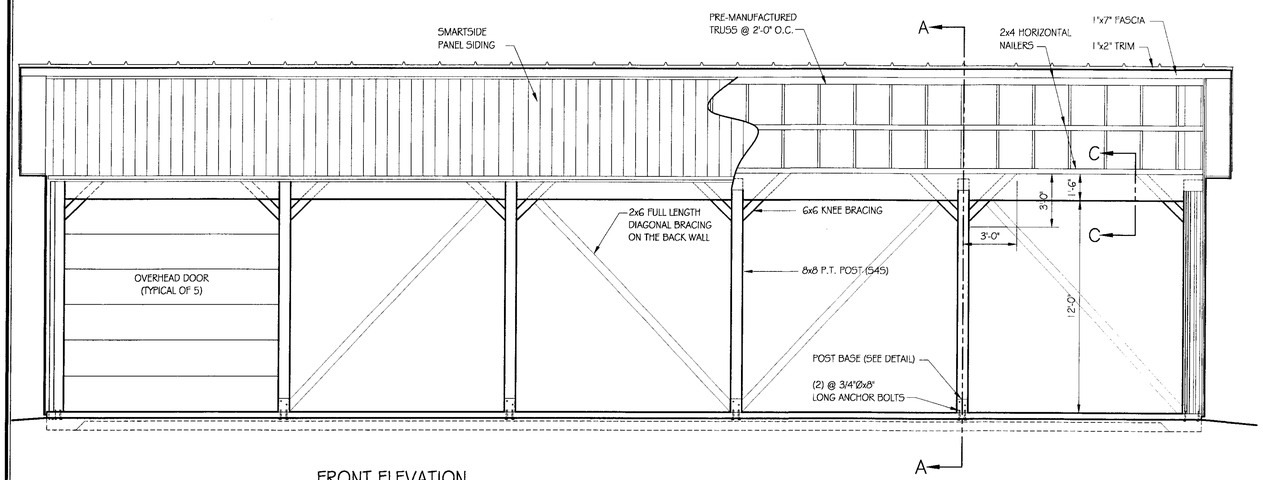
SHED PLAN

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



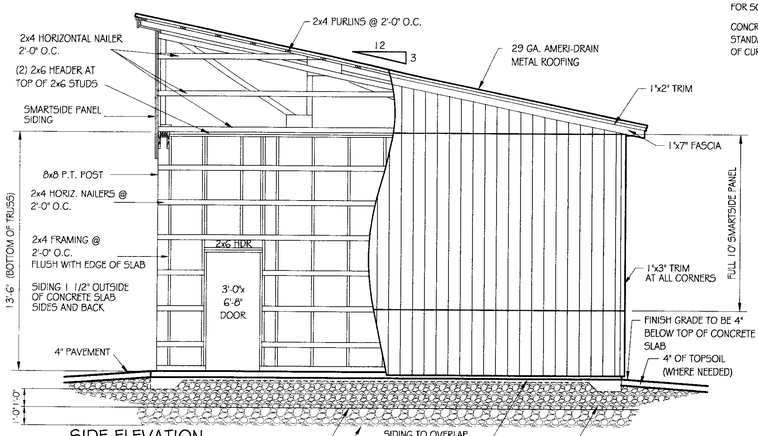
SECTION A-A

SCALE: 1 1/2"= 1'-0"



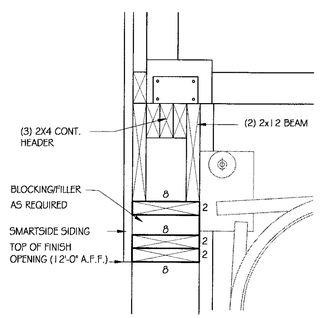
FRONT ELEVATION

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



SIDE ELEVATION

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



SECTION C-C

SCALE: 1 1/2"= 1'-0"

GENERAL NOTES

ALL BUILDINGS RELATED EXCAVATION, FILL, BACKFILL, COMPACTION WILL BE PERFORMED BY VTRANS AND COORDINATED WITH GENERAL CONTRACTOR.

ALL SUB BASE OF GRAVEL, COMPACTION, FINAL GRADING AND PAVING OF DRIVES AND PARKING AREAS WILL BE PERFORMED BY VTRANS AND COORDINATED WITH GENERAL CONTRACTOR.

STEEL DOOR AND FRAME NOTES:

DOOR: DOOR SHALL BE UNINSULATED 16 GAUGE METAL, 1 3/4" THICK, ZINC COATED PER ASTM 525.
FRAME: 14 GAUGE METAL, ZINC COATED
MANUFACTURER: STEEL KRAFT OR APPROVED EQUAL.
HARDWARE: SEE SPECIFICATIONS

ELECTRICAL NOTES:

SEE DRAWING E-3 FOR ELECTRICAL DETAILS & SPECIFICATIONS.

OVERHEAD DOOR NOTES:
SEE SPECIFICATIONS

TRUSS NOTES:

TRUSS MANUFACTURER TO PROVIDE DEPT. OF STATE BUILDINGS ENGINEER A SET OF ENGINEERED & STAMPED DRAWINGS FOR APPROVAL PRIOR TO TRUSS MANUFACTURE (ENGINEER MUST BE LICENSED IN VERMONT).

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TRUSS DESIGN LOADS IN ACCORDANCE WITH THE 1987 B.O.C.A. FOR VERMONT.

MINIMUM LOADS:
LIVE - PER 1987 B.O.C.A. FOR VERMONT (40 PSF MIN.)
DEAD - AS CALCULATED FROM TRUSS & ROOF MATERIAL
5 PSF ON BOTTOM CORD
WIND - 25 PSF
DIAGONAL WIND BRACING PER TRUSS MANUFACTURER.

LUMBER NOTES:

FRAMING MEMBERS TO BE KILN DRIED CONSTRUCTION GRADE SPRUCE S4S 19% MOISTURE CONTENT.

PLATES & NAILERS IN CONTACT WITH CONCRETE TO BE CCA 0.40 TREATED

TRIM, AND SOFFIT MATERIAL TO BE NATIVE ROUGH SAWN WHITE PINE, SPRUCE, EASTERN FIR OR RED PINE.

ALL FASTENERS TO BE GALVANIZED AND SHALL BE APPROPRIATELY SIZED.

SMARTSIDE PANEL NOTES:

8d GALVANIZED NAILS FOR 19/32" PANELS PENETRATING STUDS 1 1/2"
NAIL SPACING: 6" MAX. PERIMETER, 12" MAX FIELD, 3/8" MIN. FROM EDGES.
NAILS TO BE SET FLUSH. DO NOT COUNTERSINK NAILS INTO PANEL.
MINIMUM 3/8" GAP REQUIRED AT HORIZONTAL JOINTS OF PANEL SIDING.
SMARTSIDE PANEL SIDING MUST NOT CONTACT CONCRETE. 1/2" CLEARANCE MIN.
SMARTSIDE PANEL SIDING MUST NOT CONTACT GROUND. 6" CLEARANCE MIN.
PAINT ALL PANEL SURFACES INCLUDING BOTTOM EDGES
ADDITIONAL SMARTSIDE PANEL INSTALLATION INFO CAN BE FOUND AT WWW.SMARTSIDEONLINE.COM OR CALL 800-648-6893

FINISH NOTES:

ROOFING COLOR: IVY GREEN (BY AMERI-DRAIN) OR AS DIRECTED BY ENGINEER
PAINT TO BE OLYMPIC ACRYLIC LATEX SATIN FINISH .
COLOR TO BE DETERMINED BY ENGINEER.
APPLY PAINT AS SOON AS POSSIBLE AFTER SIDING IS INSTALLED.
PRE-PRIME ALL ROUGH SAWN FINISH MATERIAL PRIOR TO INSTALLATION. APPLY TWO COATS OF FINISH.

CONCRETE NOTES: PER A.O.T. STANDARD.

CONCRETE STRENGTH TO BE 3500 PSI
CONCRETE FINISH TO BE FLOATED.
CONCRETE TO BE CLASS "B" PER AOT STANDARD SPECIFICATIONS TABLE 501.03A WITH 5% ± 1% AIR ENTRAINMENT, AND 2"-4" SLUMP.
RE-BAR TO BE CONTINUOUS THROUGH CONSTRUCTION JOINTS.
CONTRACTOR TO LEAVE NO METAL WITHIN 1" OF SURFACE. USE 1" DEEP PLASTIC CONES AT ALL TIES AND PLUG ALL TIE HOLES WITH AN APPROVED NON-SHRINK GROUT.
ALL RE-BAR TO BE GRADE 60 WITH 3" CLEARANCE ON ALL SIDES UNLESS NOTED OTHERWISE.
RE-BAR TO BE STORED ON BLOCKING 4" MINIMUM ABOVE GROUND.
CONCRETE SUPPLIER TO PROVIDE TEST CYLINDERS FOR CONCRETE TESTING.
ALL CONCRETE TESTING TO BE DONE BY OWNER. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING.
CONCRETE CURING SHALL FOLLOW IMMEDIATELY AFTER FORM REMOVAL PER A.O.T. STANDARD 501.17A. WATER CURING WILL BE REQUIRED , UNLESS ALTERNATE MEANS OF CURING IS APPROVED, IN WRITING, BY THE PROJECT ENGINEER.

BGS BUILDINGS AND GENERAL SERVICES

STATE OF VERMONT
Department of Buildings
and General Services
Agency of Administration
Montpelier, Vermont

AGENCY OF TRANSPORTATION
NORTH FERRISBURGH MAINTENANCE FACILITY
NEW 26' x 64' STORAGE SHED
PLAN, DETAILS AND ELEVATIONS
TOWN VERMONT

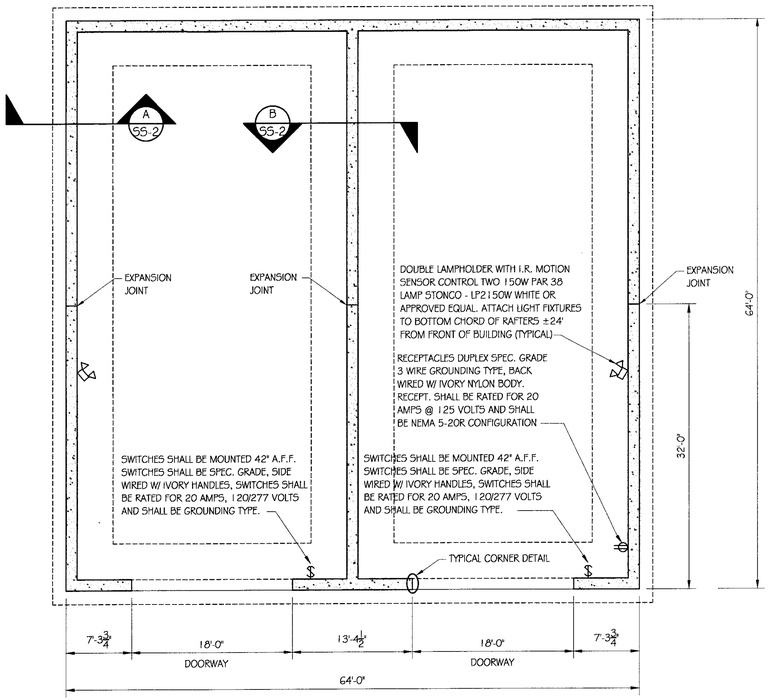
REVISIONS			
SCALE:	AS NOTED		
DATE:	JANUARY 4, 2006		
DRAWN BY:	S.K. Jarawicz		
APPR. BY:	M. MILLER		

AGENCY OF TRANSPORTATION
NEW 26' x 64' STORAGE SHED
PLAN, DETAILS AND ELEVATIONS

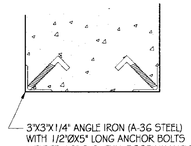
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29 OF 43

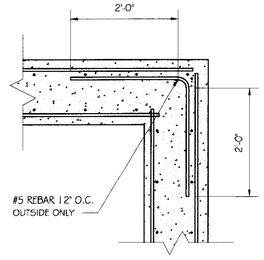
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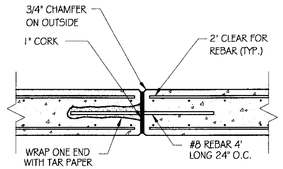
FOUNDATION PLAN
SCALE: 1/8" = 1'-0"



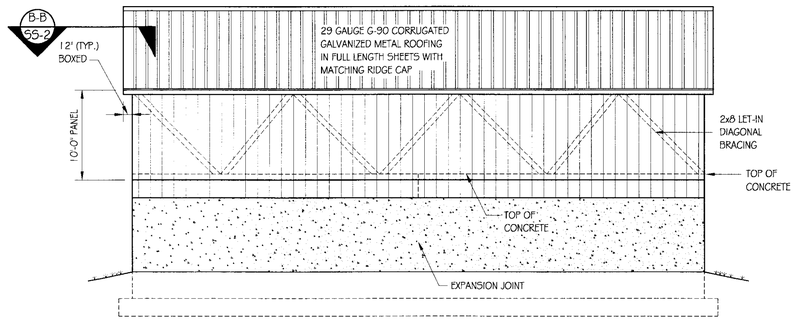
CORNER DETAIL AT OPENINGS
SCALE: 1 1/2" = 1'-0"



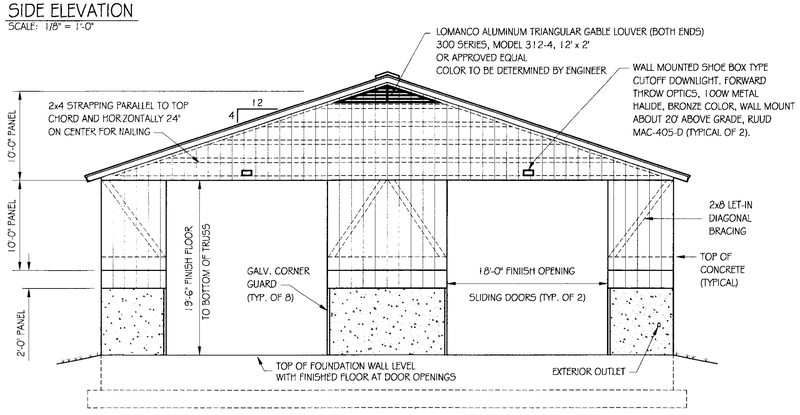
CORNER DETAIL
SCALE: 3/4" = 1'-0"



EXPANSION JOINT DETAIL
SCALE: 1/2" = 1'-0"

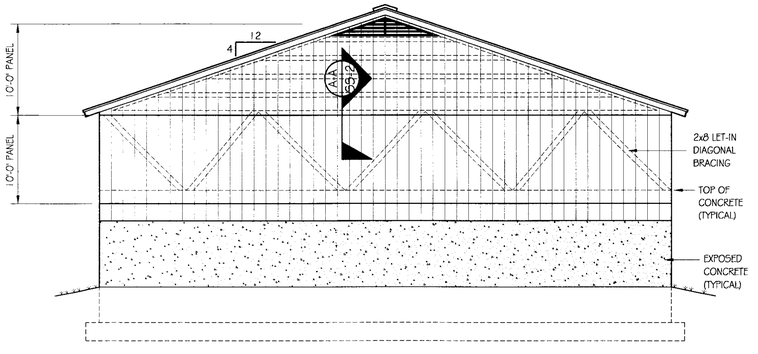


SIDE ELEVATION
SCALE: 1/8" = 1'-0"

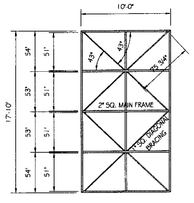


FRONT ELEVATION
SCALE: 1/8" = 1'-0"

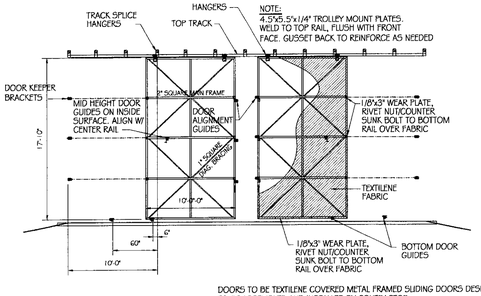
NOTE:
ALL ELECTRICAL CONDUIT BELOW GRADE AND ON THE EXTERIOR OF THE BUILDING SHALL BE 1" RIGID CONDUIT. CONDUIT INSIDE THE BUILDING SHALL BE 3/4" SCH. 80 PVC.



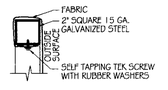
BACK ELEVATION
SCALE: 1/8" = 1'-0"



DOOR FRAMING DETAIL
SCALE: 1/8" = 1'-0"



DOOR DETAIL
SCALE: 1/8" = 1'-0"



WRAP & TEK DETAIL
NOT TO SCALE

GENERAL INFORMATION:
FRAME: 2" SQUARE GALV. STEEL "GATORSHIELD" FULLY WELDED
FABRIC: TEXTILENE VINYL
FABRIC/FRAME ATTACHMENT: WRAP AND TEK
HANGING HARDWARE: OVERHEAD TRACK AND HANGERS
DOOR TRACK AND GUIDE DETAILS BY DOOR MANUFACTURER.

DOORS TO BE TEXTILENE COVERED METAL FRAMED SLIDING DOORS DESIGNED BY OTTER CREEK AWNINGS. TO BE ASSEMBLED AND INSTALLED BY CONTRACTOR. SUBMITTAL OF SHOP DRAWING REQUIRED.

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PAINT ALL PANEL SURFACES INCLUDING BOTTOM EDGES

ADDITIONAL SMARTSIDE PANEL INSTALLATION INFO CAN BE FOUND AT WWW.SMARTSIDEONLINE.COM OR CALL 800-648-6893

FINISH NOTES:

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ELECTRICAL NOTES:

SEE DRAWING E-3 FOR ELECTRICAL DETAILS & SPECIFICATIONS.

STATE OF VERMONT
Department of Buildings and General Services
Agency of Administration
Montpelier, Vermont

VERMONT

AGENCY OF TRANSPORTATION
NEW 64' x 64' SALT / SAND SHED
PLAN, DETAILS & ELEVATIONS

NORTH FERRISBURGH

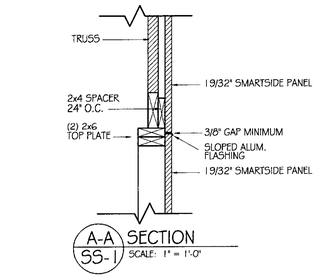
REVISIONS			
SCALE:	AS NOTED	DRAWN BY:	S.K. Janiewicz
DATE:	JANUARY 4, 2006	APPR. BY:	M. MILLER

AGENCY OF TRANSPORTATION
NEW 64' x 64' SALT / SAND SHED
PLAN, DETAILS & ELEVATIONS

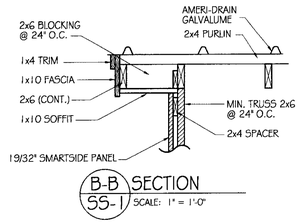
SS-1

30 OF 43

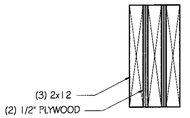
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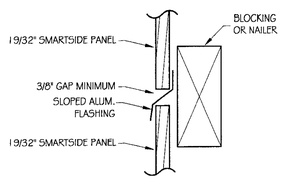
A-A SECTION
SS-1 SCALE: 1" = 1'-0"



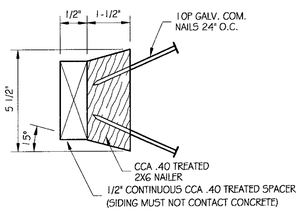
B-B SECTION
SS-1 SCALE: 1" = 1'-0"



HEADER DETAIL
SCALE: N.T.S.

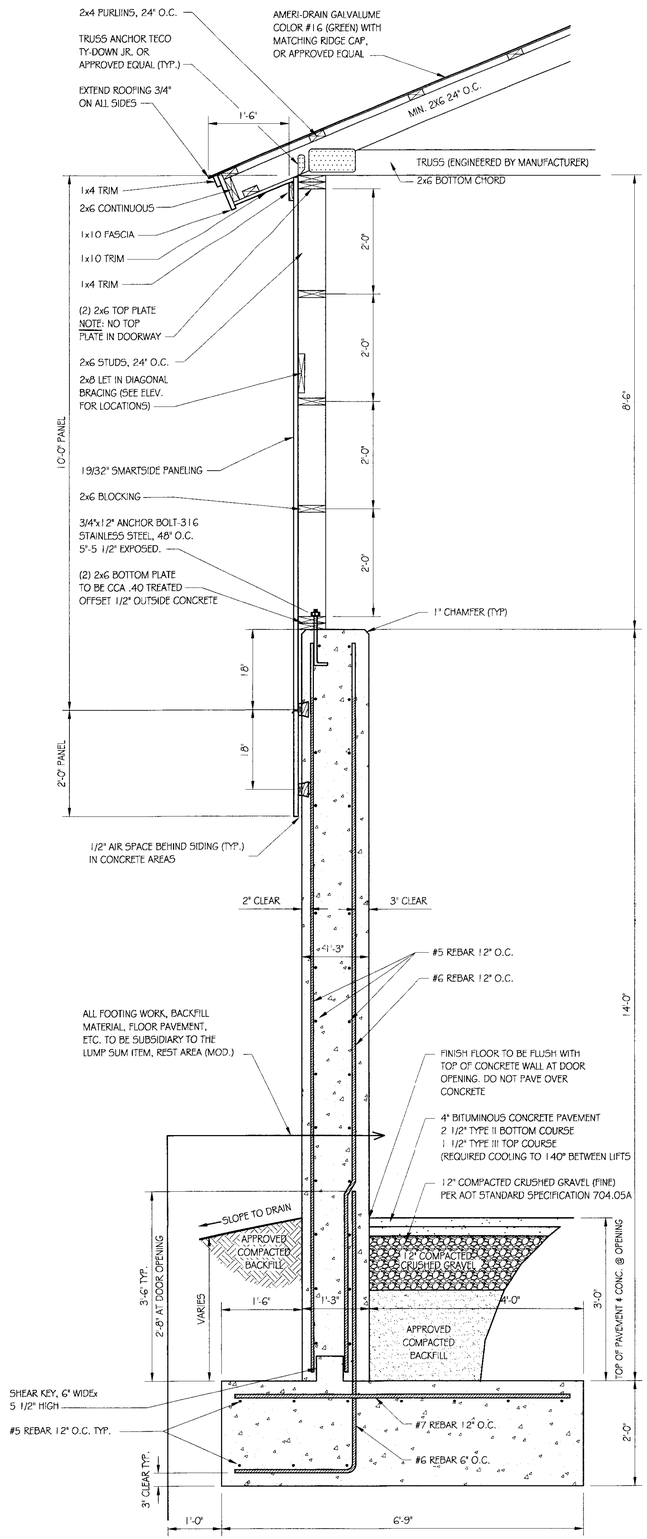


HORIZ. JOINT DETAIL
SCALE: N.T.S.

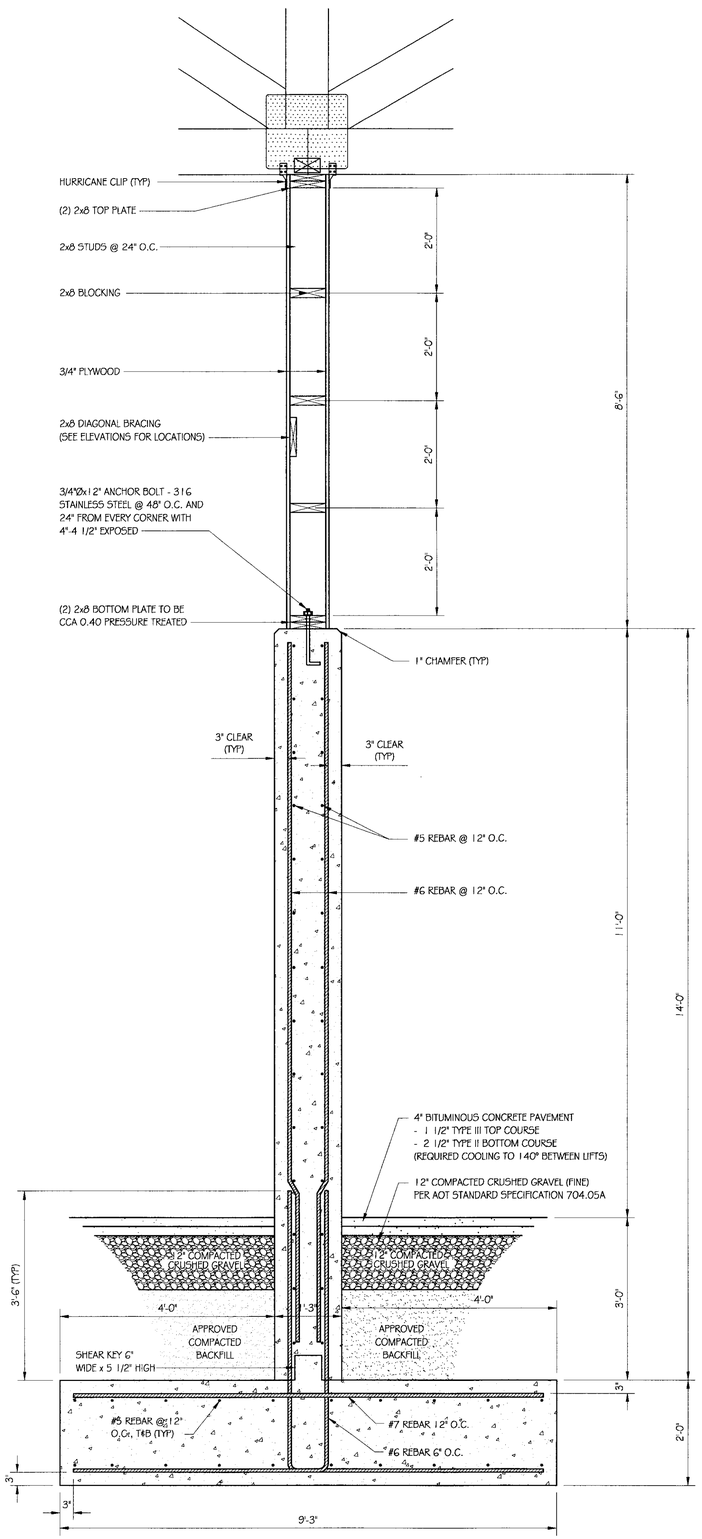


NOTE: SOME HORIZONTAL SIDING JOINTS FALL ALONG THIS NAILER. LOCATION OF NAILER IN CONCRETE IS CRITICAL.

NAILER DETAIL
SCALE: N.T.S.



A SS-1 WALL SECTION
SCALE: 3/4" = 1'-0"



B SS-1 WALL SECTION
SCALE: 3/4" = 1'-0"

STATE OF VERMONT
Department of Buildings and General Services
Agency of Administration
Montpelier, Vermont

AGENCY OF TRANSPORTATION
NEW 64' x 64' SALT / SAND SHED
SECTIONS
NORTH FERRISBURGH VERMONT

REVISIONS			
SCALE:	AS NOTED		
DATE:	JANUARY 4, 2006		
DRAWN BY:	S.K. Janawicz		
APPR. BY:	M. MILLER		

AGENCY OF TRANSPORTATION
NEW 64' x 64' SALT / SAND SHED
SECTIONS

SS-2

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\\Dwserver3\projects\AOT North Ferrisburgh\REVISED AOT 12-2-05\Drawings Rec'd From Consultants\State\Rec'd 1-18-06\64x64SandSaltShed2000.dwg, 01/18/2006 01:28:17 PM, akrown

SPECIFICATIONS

1.) "ARMOR CAST" 2000 GALLON, DOUBLE WALL, ABOVE GROUND FUEL STORAGE TANK, OR APPROVED EQUAL.

2.) 2" DIA. UPDRAFT VENT

3.) 6" DIA. EMERGENCY VENT

4.) REMOTE FILL WITH OVERFLOW PREVENTION VALVE, DROP TUBE, ADAPTER AND DUST CAP

5.) CLOCK STYLE LIQUID LEVEL INDICATOR 818 (GALLONS)

6.) LOCKABLE FLIP CAP TO STICK TANK

7.) TANK GAUGE STICK

8.) KRUEGER MECHANICAL LEAK DETECTION GAUGE

9.) 4" COUPLING WITH DOUBLE TAP BUSHING WITH TWO ½" PORTS

10.) ½" SUCTION AND RETURN TUBES

11.) DOUBLE POPPET FOOT VALVE

12.) "GASBOY" #9823, ¾ HP COMMERCIAL PUMP WITH REMOTE LCD REGISTER

13.) "GASBOY" REMOTE REGISTER TANK MOUNT KIT

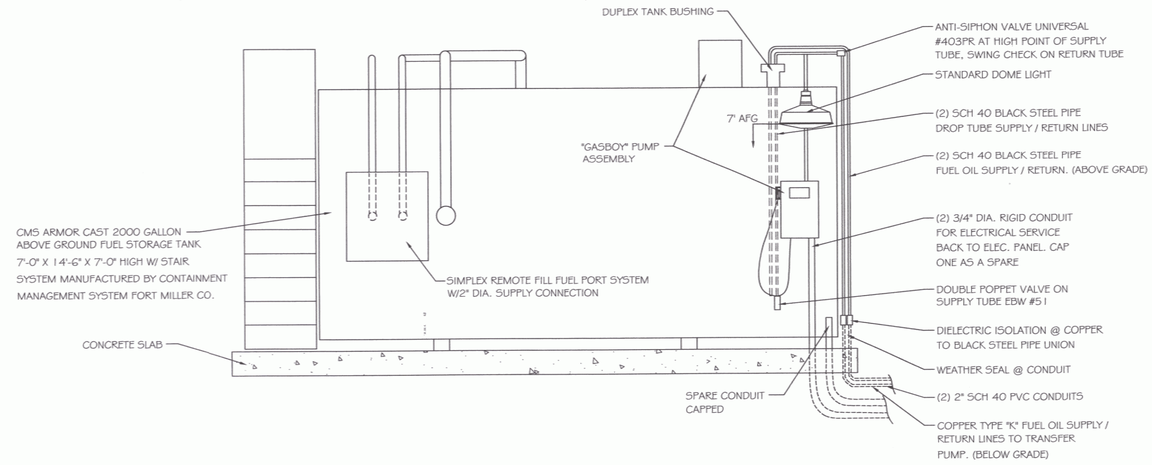
14.) INTERNAL FILTER; ADAPTER & ELEMENT, DIESEL

15.) 1" DIA CURB HOSE WITH WHIP, LONG ENOUGH TO FILL EMERGENCY GENERATOR LOCATED NEXT TO FUEL TANK, SWIVEL & SAFE BREAK COUPLING

16.) HIGH SPEED DIESEL AUTO NOZZLE

17.) 1 ½" Ø ANGLE CHECK VALVE, SINGLE POPPET & EXTERNAL EMERGENCY VALVE

18.) MODEL SP200L STEEL STAIRS WITH 1 HANDRAIL, GALVANIZED



2000 GAL. ABOVE GROUND FUEL STORAGE TANK

SCALE: 1/2" = 1'-0"

NOTES:

1. FASTEN OIL LINES & ELECTRICAL CONDUIT SECURELY ACCORDING TO TANK MANUFACTURERS INSTRUCTIONS.

2. CONTRACTOR TO MAKE ALL CONDUIT AND ELECTRICAL CONNECTIONS BETWEEN PANEL / PUMP AND REGISTER PER MANUFACTURERS INSTRUCTIONS.

3. FOR SIZES ON FUEL SUPPLY / RETURN PIPING SEE SHEET M-1.

NOTES:

1.) SEE SHEET C-5 FOR DETAILS

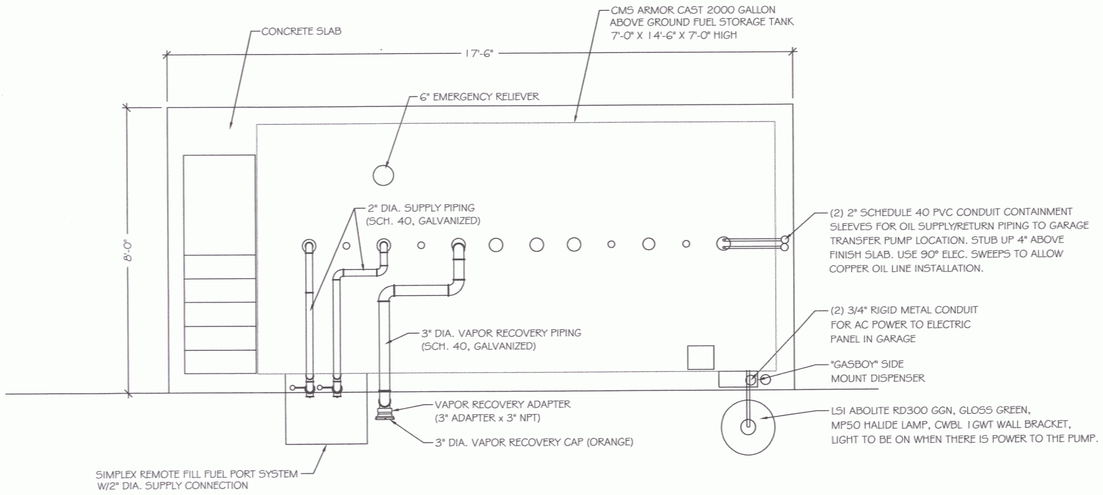
2.) PLACE OIL SUPPLY AND RETURN CONDUITS ON SOUTH END, 6" FROM EDGE OF SLAB TO INSIDE EDGE OF CONDUIT (CENTERED IN WIDTH OF SLAB).

3.) PLACE (2) 3/4" RIGID ELEC. CONDUIT FROM ELEC. PANEL BACK TO CORNER OF CONCRETE SLAB AS SHOWN ON DRAWINGS.

4.) SEAL ALL CONDUITS EXPOSED TO WEATHER TO PREVENT MOISTURE FROM ACCUMULATING IN CONDUIT. USED MECHANICAL SEALS OF APPROVED CAULKING ON EXPOSED CONDUITS OR AROUND FUEL LINES.

5.) FUEL TANK SLAB TO COMPLY WITH TANK MANUFACTURERS REQUIREMENT.

6.) IF ALTERNATE TANK IS SELECTED, ADJUST SLAB SIZE.



PLAN VIEW OF FUEL STORAGE TANK

SCALE: 1/2" = 1'-0"

STATE OF VERMONT
Department of Buildings and General Services
Agency of Administration
Montpelier, Vermont

AGENCY OF TRANSPORTATION
NORTH FERRISBURG GARAGE
FUEL STORAGE TANK
NORTH FERRISBURG, VERMONT

REVISIONS

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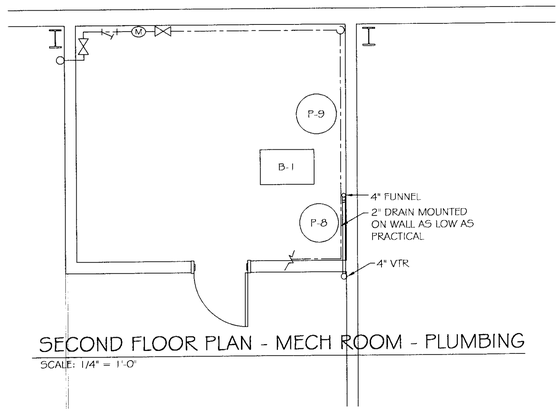
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NORTH FERRISBURG GARAGE

FUEL STORAGE TANK

F-1

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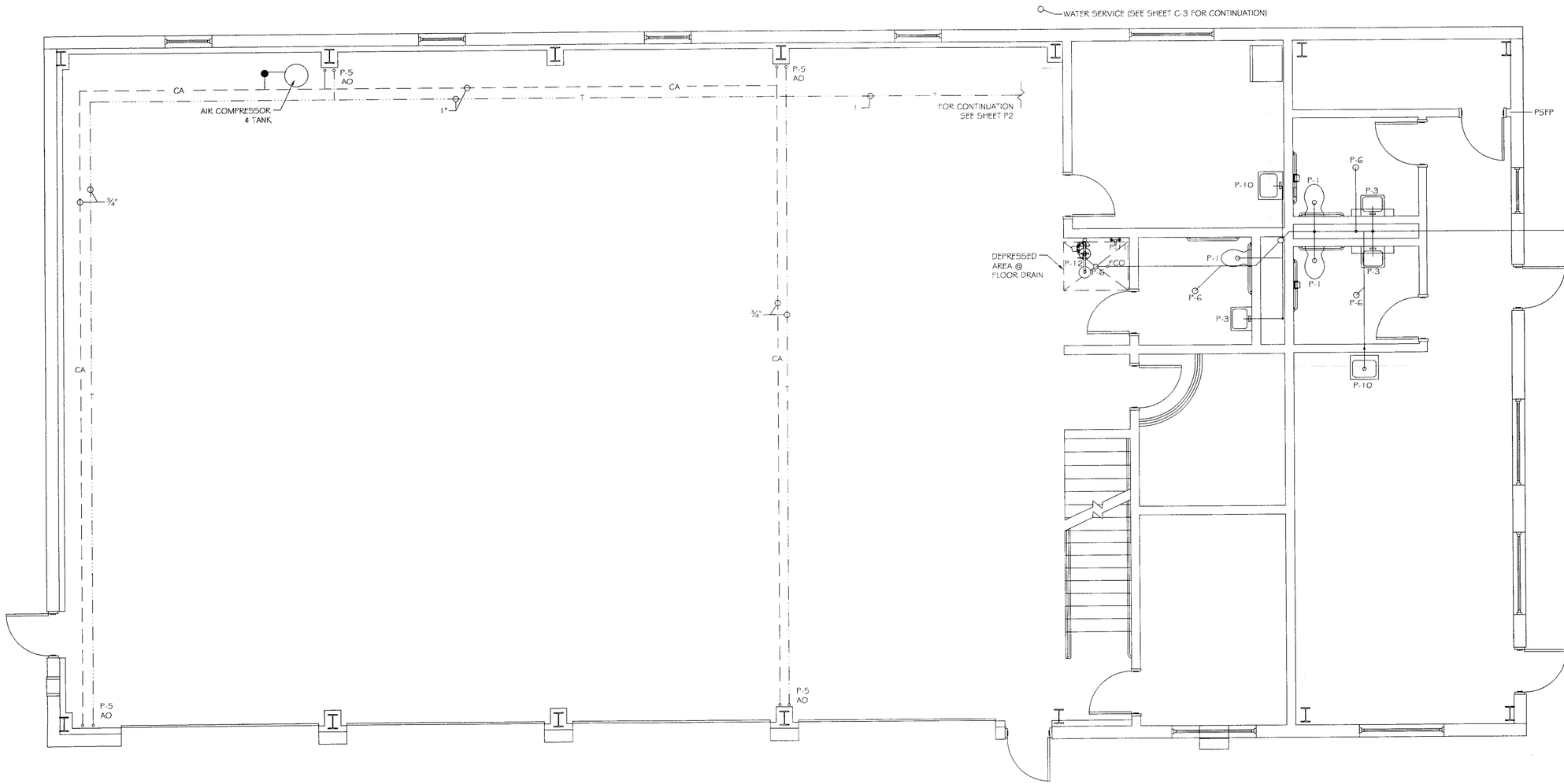


SECOND FLOOR PLAN - MECH ROOM - PLUMBING

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

PLUMBING SYMBOLS			
	COLD WATER		UNION
	HOT WATER		HOSE BIBB
	TEMPERED WATER		"P" TRAP
	COMPRESSED AIR	M	WATER METER
	WASTE PIPING		WYE STRAINER
	VENT PIPING		3 WAY BALL VALVE
	FLOW DIRECTION		LINKSEAL BETWEEN PIPE & SLEEVE
	GATE OR BALL VALVE		THERMOSTATIC MIXING VALVE
	CHECK VALVE	EXT	EXPANSION TANK, AMTROL THERM-X-TROL ST-5
	BACK FLOW PREVENTER DRAIN DOWN TO P-12. CUT END OF PIPE @ 45°.		
	PRESSURE & TEMP. RELIEF VALVE W/ DRAIN TO P-12. CUT END OF PIPE @ 45°.		
	WATER HAMMER ARRESTER		

NOTE:
IF ANY DEVICES SUCH AS VALVES OR TRAP PRIMERS ARE INSTALLED WITHIN WALLS, PROVIDE ACCESS PANEL TO SERVICE.



FLOOR PLAN

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

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PLUMBING PLAN
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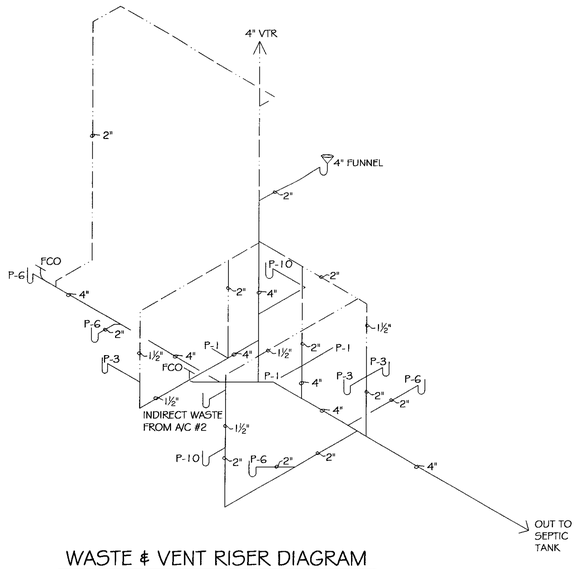
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NORTH FERRISBURG GARAGE

PLUMBING PLAN

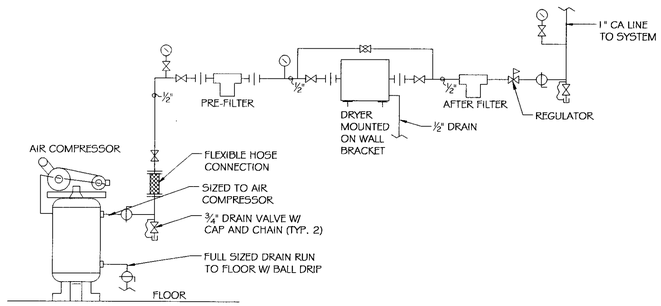
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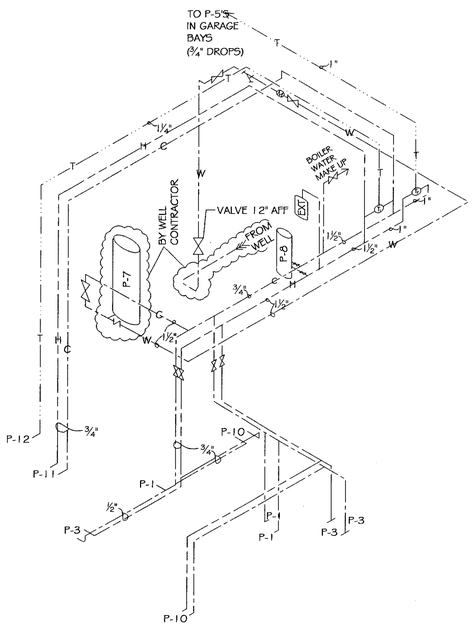
WASTE & VENT RISER DIAGRAM

N.T.S



COMPRESSED AIR PIPING DIAGRAM

N.T.S



SUPPLY RISER DIAGRAM

N.T.S

FIXTURE SCHEDULE

ABR.	FIXTURE	DESCRIPTION	NOTES	ROUGH IN DRAIN	ROUGH IN VENT	ROUGH IN COLD	ROUGH IN HOT
P-1	TOILET	WATER CLOSET, WALL MOUNT, CLOSE-COUPLED, TANK TYPE, 1.6GPF: ELJER "WALFORD" #0911-7925, WHITE VITREOUS CHINA, ELONGATED, PRESSURE ASSISTED SIPHON JET ACTION, WALL MOUNTED, CLOSE COUPLED FLUSHOMETER TANK, MOUNTED WITH RIM AT 17". SEAT TO BE ELONGATED, OPEN FRONT WITH BOLT CAPS. PROVIDE SUPPLY STOP AND CARRIER.		4"	2"	1/2"	–
P-2	URINAL	NOT USED		-	-	-	–
P-3	LAVATORY	LAVATORY, WALL HUNG, WHITE VITREOUS CHINA, 20" X 18", REAR OVERFLOW, 4" CENTER FAUCET HOLES, ELJER "BLAIR" #0511-1308, WITH WALL HANGER. FITTINGS SHALL BE CHROME SINGLE LEVER CONTROL WITH CERAMIC ELEMENTS, OFFSET GRID STRAINER, SYMMONS "SYMMETRIX" MODEL S-20-2-OFG-LST.	MOUNT WITH RIM @ 34" A.F.F.	1 1/2"	1 1/2"	1/2"	1/2"
P-4	SERVICE SINK	NOT USED		-	-	-	-
P-5 P-5FP	HOSE BIBB	INTERIOR HOSE BIBS: BRONZE OR BRASS, REPLACEABLE HEXAGONAL DISC, HOSE THREAS SPOUT, CHROME PLATED WITH VACUUM BREAKER. WATTS SCB-2 WITH VACUUM BREAKER. WALL HYDRANT: NON-FREEZE, SELF-DRAINING TYPE WITH CHROME PLATED HOSE THREAD SPOUT, REMOVABLE KEY AND VACUUM BREAKER.	MOUNT @ 54" AFF	–	–	–	1/2"
P-6	FLOOR DRAIN	CAST IRON BODY WITH FLASHING CLAMP, 5" ROUND, ADJUSTABLE NICKEL-BRONZE SQUARE HOLE STRAINER, AS MANUFACTURED BY ZURN INDUSTRIES, ZN-415-P-4XX-5B. PROVIDE WITH TRAP PRIMER.	PROVIDE W/ TRAP PRIMER FROM COLD WATER AT NEAREST FAUCET SET	2"	–	–	–
P-7	FLOOR DRAIN	NOT USED		-	–	–	–
P-8	WATER HEATER	INDIRECT FIRED WATER HEATER: BUDERUS ST-150, 40 GALLON INSULATED TANK WITH COIL INSIDE, 159 GALLON PER HOUR RATING FROM 50°F TO 140°F.	PROVIDE P&T RELIEF VALVE.	–	–	1 1/2"	1 1/2"
P-9	PRESSURE TANK	BY WELL CONTRACTOR		–	–	1 1/2"	–
P-10	SINK	KITCHEN: ELKAY, SINGLE COMPARTMENT, 18 GAUGE, STAINLESS STEEL WITH 4 HOLE FAUCET DECK MODEL DLR-2222-10. FITTINGS SHALL BE CHROME SINGLE LEVER CONTROL WITH SEPARATE SPRAY, STAINLESS DOU STRAINER, CUP STRAINERS, AND P-TRAP, SYMMONS "SYMMETRIX" MODEL 2-23-2-W-10-LST.		2"	4"	1/2"	1/2"
P-11	MOP FILL	WALL MOUNT FAUCET SHALL BE ROUGH FINISHED CHROME WITH VACUUM BREAKER AND HOSE THREADS: AMERICAN STANDARD FAUCET #8344.112.	MOUNT WITH SPOUT @24" A.F.F.	–	–	3/4'	3/4"
P-12	EYEWASH	10" ABS PLASTIC SHOWER HEAD AND A STAINLESS STEEL EYEWASH RECEPTOR WITH TWIN SOFT-FLO ABS PLASTIC ANTI-SURGE EYEWASH HEADS. A PULL ROD ACTIVATED SHOWER. PUSH FLAG OR FOOT TREADLE ACTIVATES EYEWASH. PIPE AND FITTINGS 1 ¼" SCHEDULE 40 HOT DIPPED GALVANIZED STEEL. HAWS MODEL #8300. PROVIDE WITH HAWS MODEL 9201 TEMPERED WATER BLENDING VALVE IN A HAWS MODEL 9205.SUR SURFACE MOUNTED STAINLESS STEEL CABINET.		–	–	–	–
⊗	CLEANOUTS	AS INDICATED OR REQUIRED BY CODE. CLEANOUTS SAME SIZE AS PIPE. FLOOR CLEANOUTS TO BE SET FLUSH WITH FLOOR, ZURN MODEL Z-1400-1 OR APPROVED EQUAL.		–	–	–	–

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NORTH FERRISBURG GARAGE
PLUMBING PLAN
NORTH FERRISBURG, VERMONT

REVISIONS

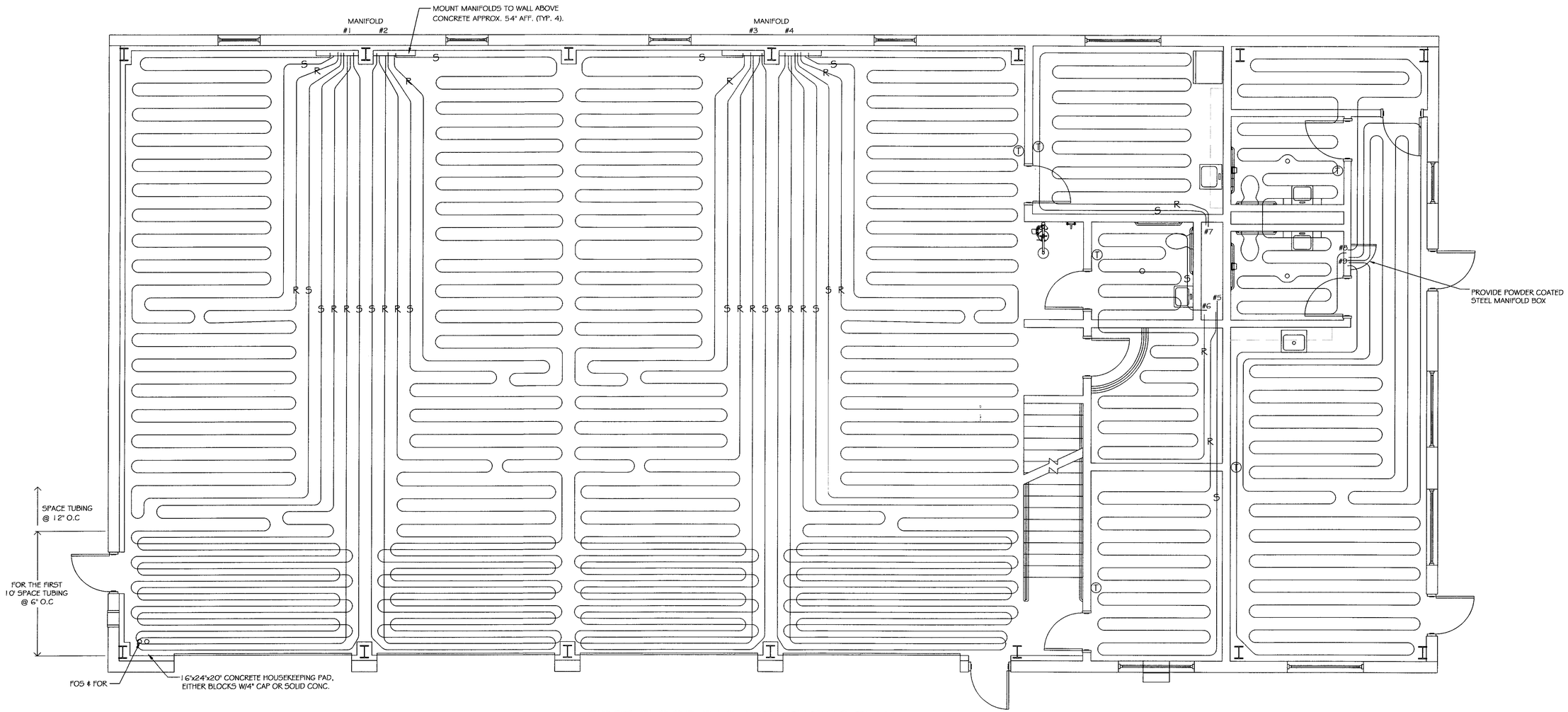
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NORTH FERRISBURG GARAGE

PLUMBING PLAN

P-2

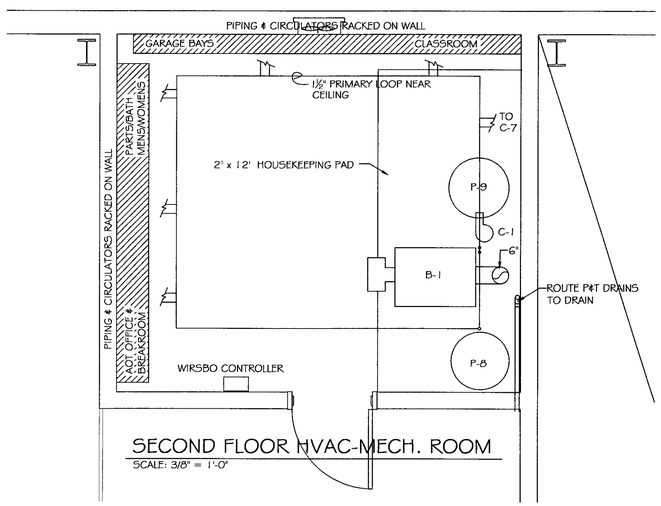


FIRST FLOOR RADIANT HEATING PLAN

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

RADIANT TUBING SCHEDULE

MANIFOLD #	LOCATION	RADIANT LOOP #	AREA SERVED	TUBE SIZE	TUBE LENGTH (IN FLOOR)	GPM	ΔP	WATER TEMP.	FLOOR TEMP. (SURFACE)	BTU/SF	VALVE 1/2 TURNS
1	COLUMN A2-LEFT	1	GARAGE	5/8"	268	1.66	9.62	97	81.9	33.8	3.69
1	COLUMN A2-LEFT	2	GARAGE	5/8"	266	1.65	9.42	97	81.9	33.8	3.67
1	COLUMN A2-LEFT	3	GARAGE	5/8"	269	1.67	9.73	97	81.9	33.8	3.71
1	COLUMN A2-LEFT	4	GARAGE	5/8"	266	1.65	9.42	97	81.9	33.8	3.67
2	COLUMN A2-RIGHT	5	GARAGE	5/8"	291	1.80	12.02	97	81.9	33.8	3.99
2	COLUMN A2-RIGHT	6	GARAGE	5/8"	291	1.80	12.02	97	81.9	33.8	3.99
2	COLUMN A2-RIGHT	7	GARAGE	5/8"	292	1.81	12.14	97	81.9	33.8	4.00
3	COLUMN A4-LEFT	8	GARAGE	5/8"	292	1.81	12.14	97	81.9	33.8	4.00
3	COLUMN A4-LEFT	9	GARAGE	5/8"	291	1.80	12.02	97	81.9	33.8	3.99
3	COLUMN A4-LEFT	10	GARAGE	5/8"	291	1.80	12.02	97	81.9	33.8	3.99
4	COLUMN A4-RIGHT	11	GARAGE	5/8"	281	1.74	10.94	97	81.9	33.8	3.86
4	COLUMN A4-RIGHT	12	GARAGE	5/8"	280	1.74	10.83	97	81.9	33.8	3.85
4	COLUMN A4-RIGHT	13	GARAGE	5/8"	285	1.75	11.09	97	81.9	33.8	3.88
4	COLUMN A4-RIGHT	14	GARAGE	5/8"	284	1.76	11.20	97	81.9	33.8	3.90
5	MEZZANINE	15	AOT OFFICE	5/8"	150	.53	.74	83	73.9	17.7	4.00
6	MEZZANINE	16	BATH/PARTS	5/8"	145	.2	.09	72	68.4	6.8	4.00
7	MEZZANINE	17	BREAKROOM	5/8"	179	.66	1.26	83	74.2	18.4	4.00
8	DMV	18	MEN/WOMEN /ELEC	5/8"	182	.2	.14	83.6	69.5	9.7	4.00
9	DMV	19	OFFICE/ WAITING	5/8"	252	1.2	5.1	134	86	48.7	4.00
9	DMV	20	OFFICE/ WAITING	5/8"	252	1.2	5.1	134	86	48.7	4.00



SECOND FLOOR HVAC-MECH. ROOM

SCALE: 3/8" = 1'-0"

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NORTH FERRISBURG GARAGE
HVAC PLAN
NORTH FERRISBURG, VERMONT

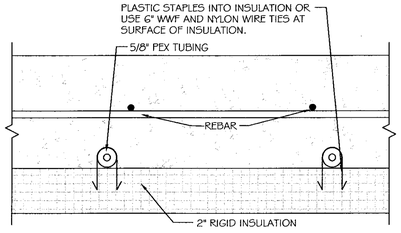
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HVAC PLAN

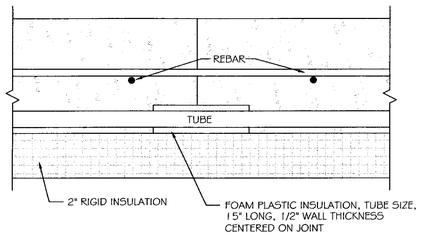
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TYPICAL CROSS SECTION

NOT TO SCALE



TYPICAL JOINT DETAIL

NOT TO SCALE

NOTE:
CONTRACTOR TO TAKE SPECIAL CARE WHEN CUTTING JOINT NOT TO DAMAGE TUBING.

LEGEND

- BALL VALVE, FULL PORTED, S.S. BALL
- BALL VALVE WHOSE THREADS ¢ BRASS CAP
- STRAINER ¢ BALL VALVE BLOW DOWN
- MIXING VALVE SET @ 95°F TACO 5003-C1
- PRESSURE RELIEF VALVE, PIPE TO 6" A.F.F.
- (T) THERMOSTAT, MOUNT @ 54" A.F.F.
- (S) SENSOR, MOUNT @ 54" A.F.F.
- THERMOMETER
- TACO FLO CHECK
- CIRCULATOR
- SPIROVENT 1-1/2" AIR SEPARATOR
- PRESSURE GAUGE
- (V) VACUUM GUAGE
- TOUR-ANDERSON STAD BALANCING VALVE
- (M) KENT OIL METER
- FUEL OIL TRANSFER PUMP, SUNTEC BB-1020M
- FUEL OIL RATED, FULL PORT, S.S. BALL BALL VALVE
- SUNTEC PRV-38
- FIREMATIC VALVE
- CHECK VALVE

SEQUENCE OF CONTROL

A. OUTSIDE AIR SENSOR SHALL BE LOCATED ON THE NORTH WALL WHERE IT WONT BE INFLUENCED BY ANYTHING OTHER THAN THE OUTSIDE AIR TEMP.

B. HEATING SYSTEM:
1. THE BOILER, DOMESTIC HOT WATER MAKER, AND CIRCULATORS SHALL BE CONTROLLED BY A WIRSBO PROMIX 212 CONTROL PANEL, EITHER DIRECTLY OR INDIRECTLY.

2. WHEN OUTDOOR AIR FALLS BELOW 60° (ADJ):
   a. BOILER IS ENABLED.
   b. FUEL OIL TRANSFER PUMP IS ENABLED.
   c. CIRCULATORS C-1, C-2 AND C-8 ARE STARTED.
   d. CIRCULATORS C-3 THROUGH C-6, AND C-9 THROUGH C-10 ARE ENABLED.

3. OPERATING AQUASTAT ON BOILER TO MAINTAIN BOILER BETWEEN 150°F AND 170°F.

4. INJECTION CIRCULATOR C-3 AND C-9 TO BE MODULATED BY A CONTROLLER BASED ON: OUTSIDE AIR TEMPERATURE, INSIDE AIR TEMPERATURE OF GARAGE AND LOOP TEMPERATURE TO MAINTAIN CALCULATED LOOP SUPPLY SETPOINT. SETPOINT, OFFSET AND RATIO TO BE ADJUSTABLE AT CONTROLLER. INITIAL VALVES FOR CONTROLLER:

MODES 1	RST	(GARAGE)
WWSD 1	65°F	
MIX 10K 1	INDR	
MIX RM 1	65°F	(ROOM TEMP)
MIX IND 1	65°F	
MIX DSN 1	97°F	
MIX MAX 1	140°F	
OUT DSGN	-20°F	
MODES 2	RST	(OFFICE / WAITING)
WWSD 2	65°F	
MIX 10K 2	INDR	
MIX RM 2	66°F	(ROOM TEMP)
MIX IND 2	65°F	
MIX DSN 2	118°F	
MIX MAX 2	140°F	
BOIL RET	120°F	

5. CIRCULATOR C-4 TO CYCLED ON AND OFF BY THE THERMOSTAT IN THE BATHROOM TO MAINTAIN SETPOINT.

6. CIRCULATOR C-5 TO CYCLED ON AND OFF BY THE THERMOSTAT IN THE AOT OFFICE TO MAINTAIN SETPOINT.

7. CIRCULATOR C-6 TO CYCLED ON AND OFF BY THE THERMOSTAT IN THE BREAKROOM TO MAINTAIN SETPOINT.

8. AQUASTAT IN DOMESTIC HOT WATER TANK TO ENABLE BOILER AND CYCLE CIRCULATOR C-7 TO MINTAIN SETPOINT.

9. CIRCULATOR C-10 TO CYCLE ON AND OFF BY THE THERMOSTAT IN THE WOMENS ROOM TO MAINTAIN SETPOINT.

C. FUEL OIL TRANSFER PUMP TO OPERATE WHENEVER BOILER OPERATES. EMERGENCY BOILER SHUT-OFF SWITCH TO SHUT OFF TRANSFER PUMP ALSO.

D. FAN F-1 TO COME ON WITH LIGHT SWITCH, AND OPERATE FOR 5 MINUTES AFTER LIGHT IS TURNED OFF.

E. FAN F-2 TO BE CONTROLLED BY A SPRING WOUND TIMER SWITCH. SEE ELECTRICAL DRAWING FOR DETAILS.

F. MOD-1 TO OPEN WHENEVER FAN F-2 OPERATES AND CLOSE WHEN F-2 STOPS.

G. FAN F-3 TO OPERATE WHEN BURNER OPERATES.

EQUIPMENT SCHEDULE

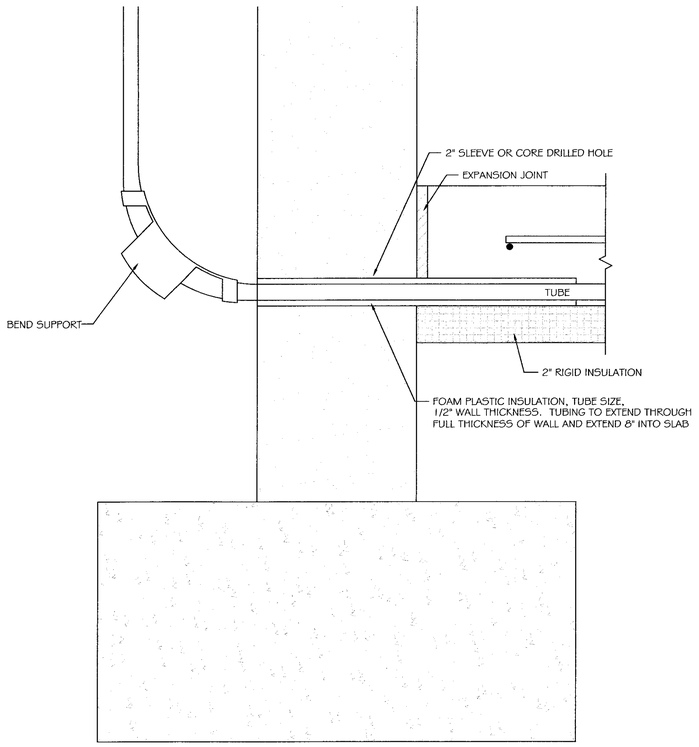
PLAN SYMBOL	DESCRIPTION	MANUF. ¢ MODEL	CHARACTERISTICS	ELECTRIC VOLTS / Ø / HZ	NOTES
B-1	BOILER	BUDERUS G215-6	294,000 BTU INPUT, 223,000 BTU NET IBR, RIELLO 40 SERIES-F10 BURNER	120 / 1 / 60 2.2 A	
XT-1	EXP. TANK	AMTROL ST-30V	14 GALLON TANK 11.3 GALLON ACCEPTANCE		
L-1	RELIEF LOUVER	VENT PRODUCTS 2750	36" x 36"		BRONZE ANODIZED, ARCH TO SELECT COLOR
L-2	LOUVER	VENT PRODUCTS 2750	16" x 20"		BRONZE ANODIZED ARCH TO SELECT COLOR
MOD-1	RELIEF DAMPER	VENT PRODUCTS 5703	36" x 36"	120 / 1 / 60	BELIMO DIRECT COUPLED ACTUATOR SPRING WOUND N.C.
AC-1	AIR CONDITIONER AOT	FRIEDRICH U50BA10A	8000 BTU THROUGH WALL SEER 10.0	7.5A 120/1/60	
AC-2	AIR CONDITIONER DMV	CARRIER 40QAB060	58,500 BTU, 1600 CFM, SEER 10.8	208 / 230-1-60, MCA 3.3, MOCP 15.0, FLA 2.6	SUSPEND UNIT FROM ROOFING STEEL (179#) PROVIDE VIBRATION ISOLATION
ACC2	CONDENSER DMV	CARRIER 38MDC060	MATCHED CONDENSER	208 / 230-1-60, MOCP 60.0, FLA 30.4	

CIRCULATOR SCHEDULE

PLAN SYMBOL	SYSTEM	MANUF. ¢ MODEL	G.P.M.	FEET HEAD	H.P.	ELECTRICAL	R.P.M.	NOTES
C-1	MAIN	TACO 0010	20.0	4.0	1/15	120/1/60 1.3 A	3250	
C-2	GARAGE ZONE	TACO 1615	25.0	24.0	1/3	120/1/60	1750	
C-3	GARAGE INJECTION	TACO 006 (CI)	4.0	4.0	1/35	120/1/60 .52 A	3250	
C-4	OFFICE ZONE	TACO 006 (CI)	0.5	1.0	1/35	120/1/60 .52 A	3250	
C-5	PARTS / BATHROOM ZONE	TACO 006 (CI)	0.2	1.0	1/35	120/1/60 .52 A	3250	
C-6	BREAK ROOM	TACO 006 (CI)	0.7	1.0	1/35	120/1/60 .52 A	3250	
C-7	WATER HEATER	TACO 007	15.9	5.0	1/25	120/1/60 .70 A	3250	
C-8	OFFICE / WAITING	TACO 007	2.4	10	1/25	120/1/60 .70 A	3250	
C-9	OFFICE / WAITING INJECTION	TACO 006 (CI)	1.0	1.0	1/35	120/1/60 .52 A	3250	
C-10	MENS/WOMENS	TACO 006 (CI)	0.2	1.0	1/35	120/1/60 .52 A	3250	

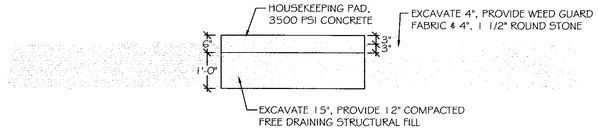
FAN SCHEDULE

PLAN SYMBOL	SYSTEM	MANUF. MODEL ¢ TYPE	C.F.M.	S.P. IN.	SONES	FAN RPM	HP.	ELECTRICAL	NOTES
F-1	BATHROOM	GREENHECK G-065-D	100	.25	2.8	1325	1/30	120/1/60	BIRD SCREEN, BDD. CURB ¢ SPEED CONTROL, 3 IDENTICAL UNITS
F-2	GARAGE VENT	GREENHECK SBS-1124-4	4250	.125	12.2	649	1/4	120/1/60	W/WEATHER HOOD, SCREEN ¢ MOD W/ BELIMO ACTIVATOR
F-3	COMBUSTION	GREENHECK SE1-8-440-E	100	.125	2.2	1050	1/100	120/1/60	W/WEATHER HOOD, SCREEN ¢ MOD W/ BELIMO ACTIVATOR



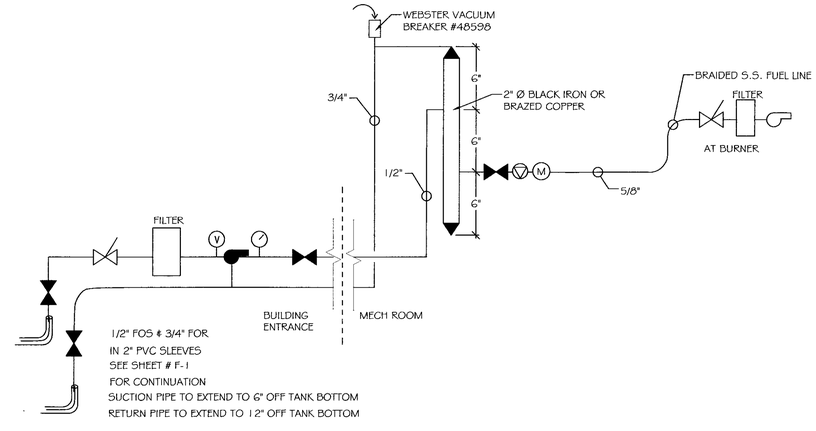
TUBING PASSING THROUGH INTERIOR WALL DETAIL

NOT TO SCALE



SECTION THROUGH HOUSEKEEPING PAD

SCALE: 1/2" = 1'-0"



FUEL SUPPLY SCHEMATIC

NOT TO SCALE

STATE OF VERMONT
Department of Buildings and General Services
Agency of Administration
Montpelier, Vermont

AGENCY OF TRANSPORTATION
NORTH FERRISBURG GARAGE
HVAC DETAILS ¢ SCHEDULES
NORTH FERRISBURG, VERMONT

REVISIONS

SCALE: AS NOTED
DATE: JANUARY 4, 2006
DRAWN BY: N. HERSEY
APPR. BY: TEIGH

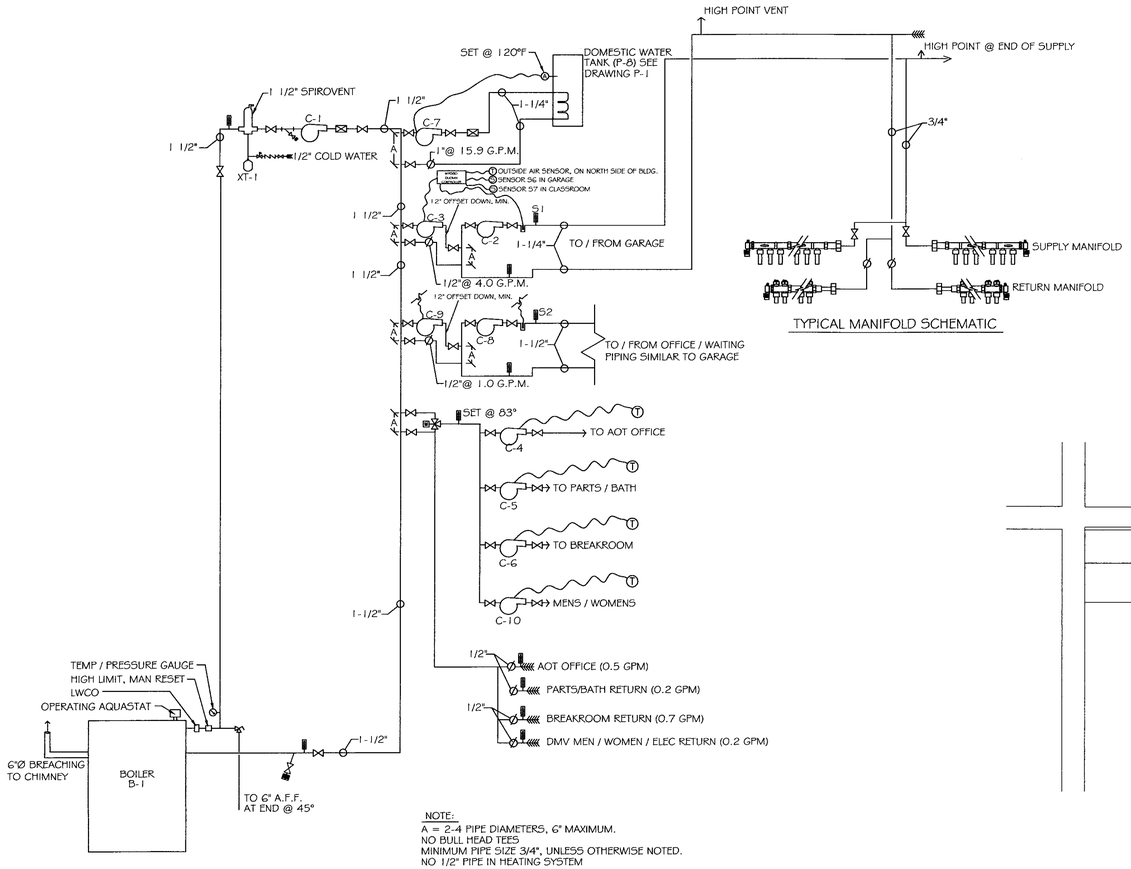
A.O.T.

NORTH FERRISBURG GARAGE

DETAILS

M-2

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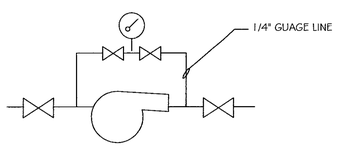


TYPICAL MANIFOLD SCHEMATIC

NOTE:
A = 2-4 PIPE DIAMETERS, 6" MAXIMUM.
NO BULL HEAD TEES
MINIMUM PIPE SIZE 3/4", UNLESS OTHERWISE NOTED.
NO 1/2" PIPE IN HEATING SYSTEM

HYDRONIC PIPING SCHEMATIC

NOT TO SCALE

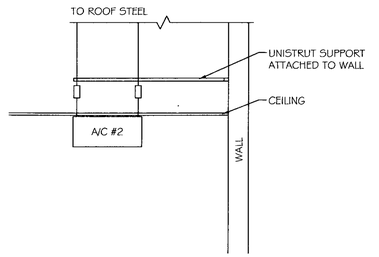


PRESSURE GUAGE & PIPING AT EACH CIRCULATOR

N.T.S.

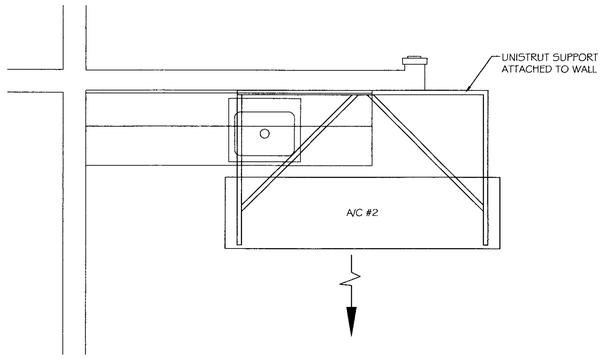
DIFFUSER SCHEDULE

SYMBOL	MAKE	MANUF. MODEL & TYPE	NECK SIZE	CFM	REMARKS
(A)	METALAIRE	SERIES 7000 R	6 X 6	100	6 X 6 DUCT UP TO F-1 ON ROOF



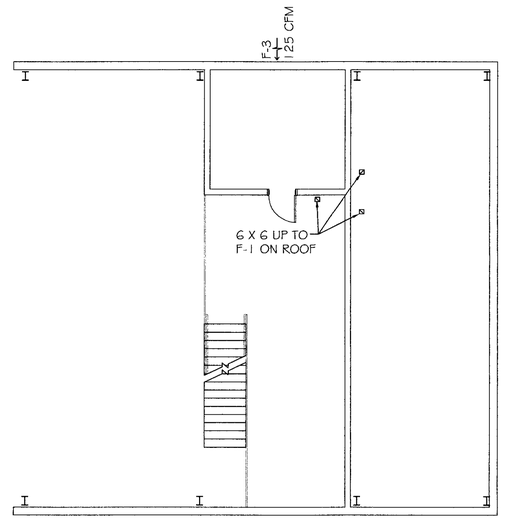
SECTION OF A/C #2 UNIT

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



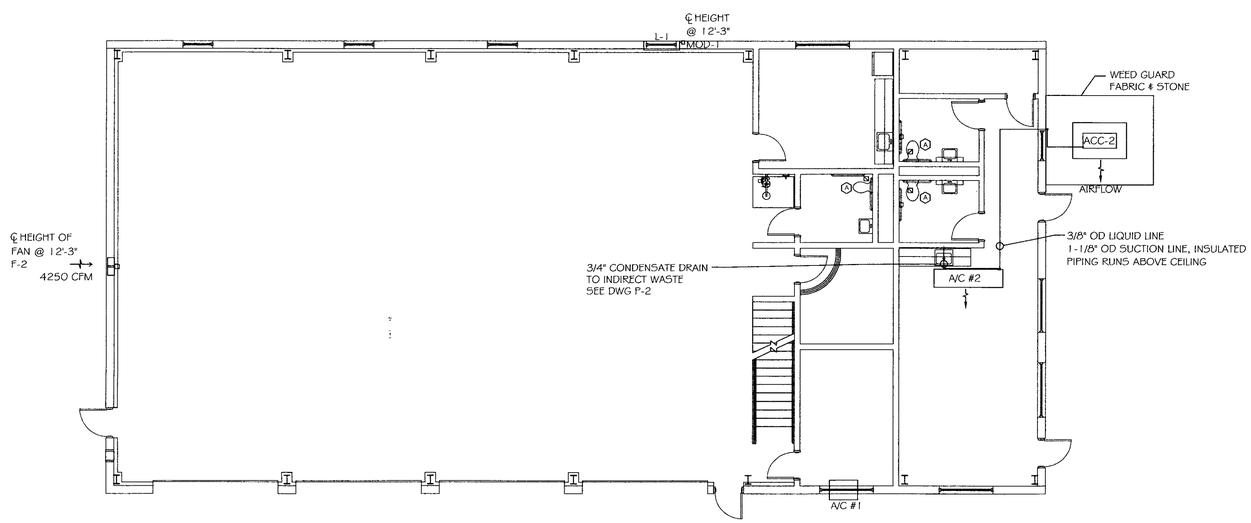
PLAN VIEW OF A/C #2 UNIT

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



SECOND FLOOR HVAC - MECH ROOM

SCALE: 1/8" = 1'-0"



FIRST FLOOR HVAC - MECH PLAN

SCALE: 1/8" = 1'-0"

STATE OF VERMONT
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Montpelier, Vermont

AGENCY OF TRANSPORTATION
NORTH FERRISBURG GARAGE
PIPING SCHEMATIC
NORTH FERRISBURG, VERMONT

REVISIONS

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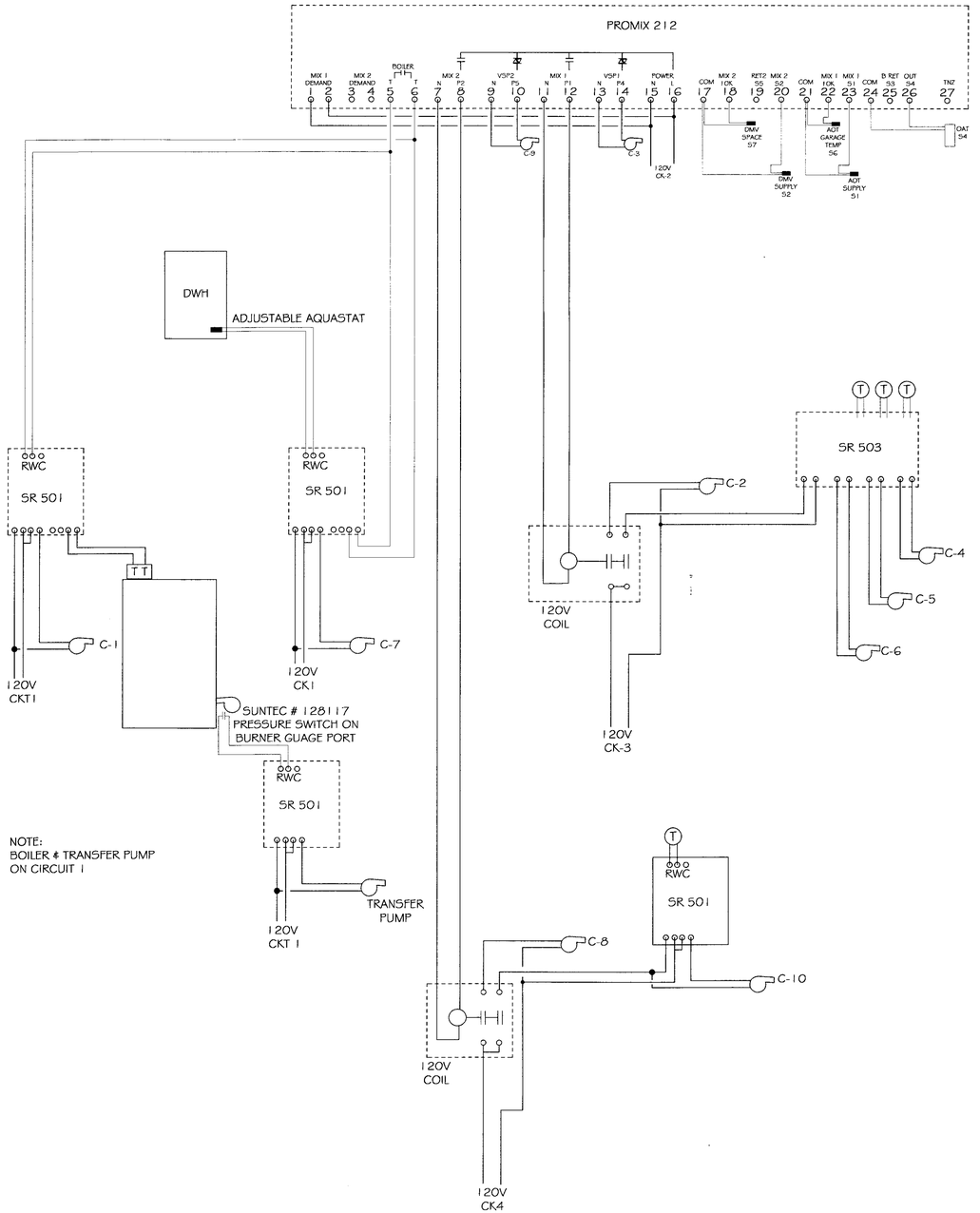
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NORTH FERRISBURG GARAGE

SCHEMATIC

M-3

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AGENCY OF TRANSPORTATION
NORTH FERRISBURG GARAGE
WIRING SCHEMATIC
NORTH FERRISBURG, VERMONT

REVISIONS

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APPR. BY: TEIGH

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NORTH FERRISBURG GARAGE

SCHEMATIC

M-4

AGENCY OF TRANSPORTATION
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FERRISBURGH VERMONT

LEGEND

NOTE: NOT ALL SYMBOLS MAY BE USED IN THIS DRAWING SET.

POWER

- DUPLEX RECEPTACLE, 20A, 125V, 3W, GND. MOUNT BOTTOM 16" A.F.F. (U.O.N.)
  - $\ominus_{AB}$ DENOTES MOUNTING ABOVE COUNTER BACKSPLASH
  - $\ominus_{AC}$ DENOTES MOUNTING ABOVE CEILING
- $\ominus_{2}$ DOUBLE DUPLEX (QUAD) RECEPTACLE, 125V, 3W, GND. MOUNT BOTTOM 16" A.F.F. (U.O.N.)
- SPECIAL RECEPTACLE, 250V MATCH EQUIPMENT PLUG NEMA CONFIG. MOUNT BOTTOM 16" A.F.F. (U.O.N.)
- $\ominus_{GFCI}$ DUPLEX RECEPT. W/GFCI,20A, 125V, 3W, GND. MOUNT BOTTOM 16" A.F.F.
  - $\ominus_{AB}^{GFCI}$ DENOTES MOUNTING ABOVE COUNTER BACKSPLASH
  - $\ominus_{WP}$ DENOTES GFI RECEPTACLE IN WEATHERPROOF HOUSING
- DISCONNECT SWITCH, FUSED, CODE SIZED
- DISCONNECT SWITCH, NON FUSED, CODE SIZED
- (1) MOTOR, HORSEPOWER AS SHOWN
- (J) JUNCTION BOX, FURNISH WITH BLANK COVER, U.O.N.
- [T] TRANSFORMER
- PANELBOARD, SURFACE
- —UE— UNDERGROUND ELECTRIC
- PANELBOARD, FLUSH
- PUSH BUTTON CONTROL STATION
- CORD REEL, 20A RATED, APPLETON #_____ OR EQUAL
- (T) LOW TEMPERATURE SENSOR FOR LOW BUILDING TEMP ALARM, 120V, _____ OR EQUAL
- TWO CHANNEL SURFACE WIREWAY SYSTEM FOR COMBINATION POWER & TEL/DATA OUTLETS, WIREMOLD 3000 OR APPROVED EQUAL

LIGHTING

- FLUORESCENT LUMINAIRE (SIZE/SHAPE VARIES)
- B LUMINAIRE WITH SELF CONTAINED EMERGENCY BATTERY PACK. REFER TO LUMINAIRE SCHEDULE
- B LUMINAIRE W/O SWITCHING, I.E. 24 HOURS OPERATION REFER TO LUMINAIRE SCHEDULE
- SURFACE, CEILING MOUNTED LUMINAIRE
- (R) RECESSED CEILING LUMINAIRE
- FLUORESCENT STRIP LUMINAIRE
- LED EXIT SIGN WITH SELF CONTAINED EMERGENCY BATTERY AND LIGHTS
- A WALL MOUNTED LUMINAIRE REFER TO LUMINAIRE SCHEDULE

LIGHTING IDENTIFICATION CONVENTIONS:

B = FIXTURE TYPE IDENTIFICATION. REFER TO LIGHTING SCHEDULE.

a = SWITCH LEG

(OS) OCCUPANCY SENSOR

SWITCHING CONTROLS

- S_a SWITCH, SPST, 125V, GND, MOUNT TOP AT 44" A.F.F. (SUPERSCRIPT DENOTES SIMILARLY MARKED LUMINAIRES CONTROLLED TOGETHER)
- S_3 THREE-WAY SWITCH, 125V, GND, MOUNT TOP AT 44" AFF
- S_D INCANDESCENT DIMMER SWITCH, SLIDER TYPE, SCREWLESS WALL PLATE, MOUNT TOP AT 44" A.F.F.
- S_M MANUAL MOTOR SENTINEL SWITCH, TOGGLE TYPE W/HEATER, MOUNT AT UNIT, (120V EQUIPMENT ONLY)
- S_F FAN SPEED CONTROL SWITCH
- S_{OB} OIL BURNER EMERGENCY SHUT OFF SWITCH WITH RED COVERPLATE, SPST, 125V, GND, MOUNT TOP AT 44" AFF.

TELECOMMUNICATIONS

- W WALL MOUNTED TELEPHONE OUTLET. MOUNT CENTER OF BOX AT 48" A.F.F.
- TELECOMMUNICATIONS OUTLET, FLUSH, COORDINATE EXACT MOUNTING HEIGHT WITH POWER RECEPTACLE. PROVIDED WITH 2 DATA JACKS AND 1 VOICE JACK UNLESS NOTED OTHERWISE.
  - $_{AB}$ DENOTES MOUNTING ABOVE DESKTOP SURFACE AREA. COORDINATE WITH FURNITURE PLANS OR OWNER.

MISCELLANEOUS

- (0) TITLE / SCALE DETAIL NUMBER, TITLE AND SCALE
- ⟨1⟩ KEYED NOTE
- TC TIME CLOCK
- X / XX MECHANICAL EQUIPMENT TAG, REFER TO MECHANICAL DRAWINGS FOR DEVICE IDENTIFICATION

DRAWING INDEX

E0 - GENERAL NOTES, DRAWING INDEX, LEGEND

SE1 - ELECTRICAL SITE PLAN

E1 - MAIN & UPPER LEVELS ELECTRICAL POWER PLAN

E2 - MAIN & UPPER LEVELS ELECTRICAL LIGHTING PLAN

E3 - STORAGE SHEDS A & B & SALT STORAGE SHED ELECTRICAL POWER & LIGHTING PLAN

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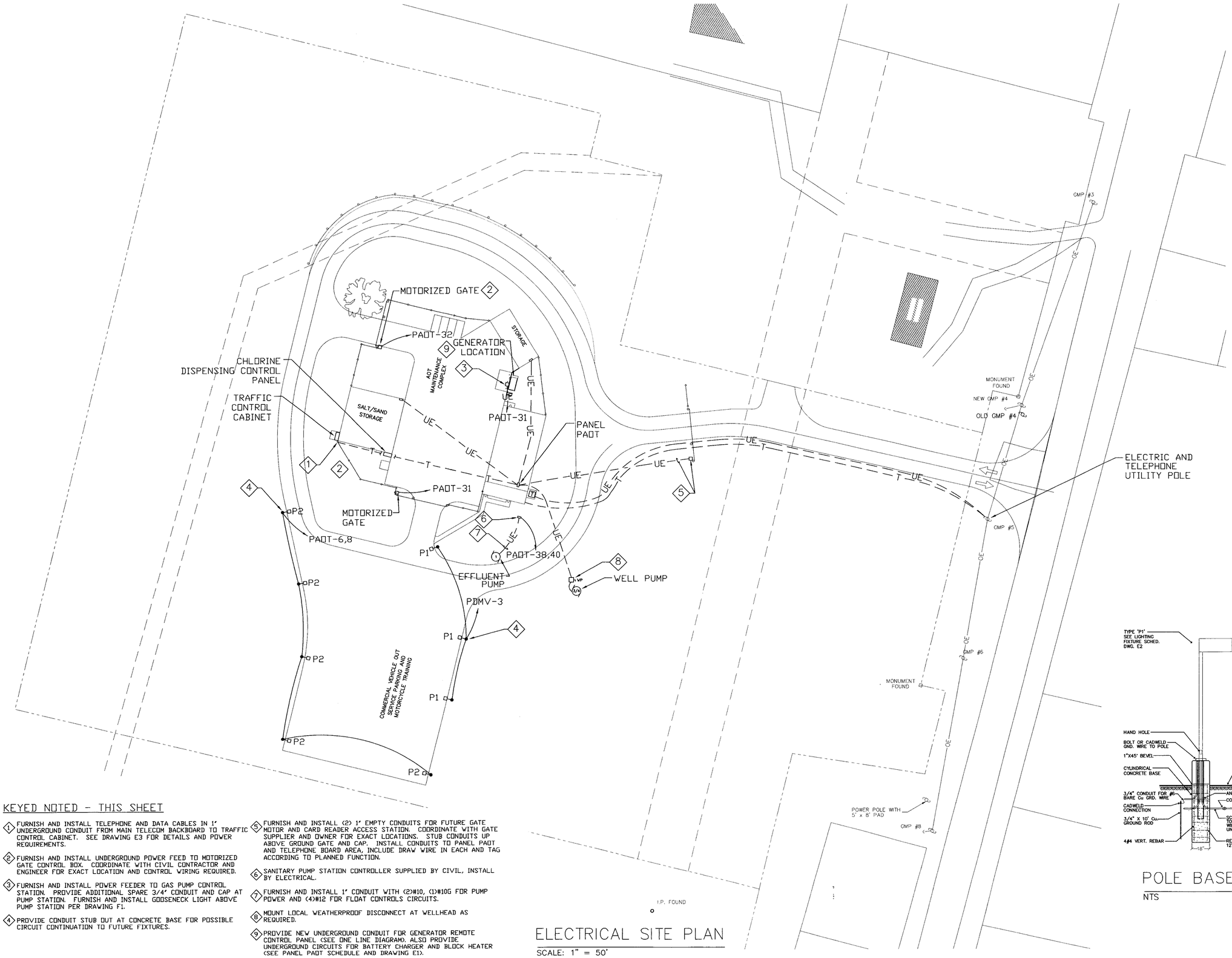
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APPR. BY: MFK

DRAWING LEGEND, GENERAL NOTES & DRAWING INDEX

E0

SHEET 39 OF 43

NORTH

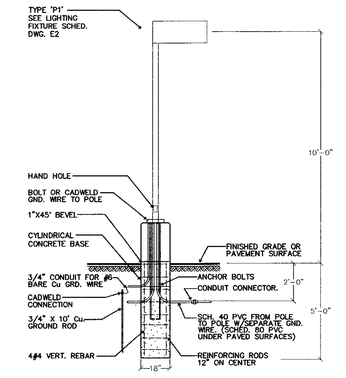


KEYED NOTED - THIS SHEET

1. FURNISH AND INSTALL TELEPHONE AND DATA CABLES IN 1" UNDERGROUND CONDUIT FROM MAIN TELECOM BACKBOARD TO TRAFFIC CONTROL CABINET. SEE DRAWING E3 FOR DETAILS AND POWER REQUIREMENTS.
2. FURNISH AND INSTALL UNDERGROUND POWER FEED TO MOTORIZED GATE CONTROL BOX. COORDINATE WITH CIVIL CONTRACTOR AND ENGINEER FOR EXACT LOCATION AND CONTROL WIRING REQUIRED.
3. FURNISH AND INSTALL POWER FEEDER TO GAS PUMP CONTROL STATION. PROVIDE ADDITIONAL SPARE 3/4" CONDUIT AND CAP AT PUMP STATION. FURNISH AND INSTALL GOOSENECK LIGHT ABOVE PUMP STATION PER DRAWING F1.
4. PROVIDE CONDUIT STUB OUT AT CONCRETE BASE FOR POSSIBLE CIRCUIT CONTINUATION TO FUTURE FIXTURES.
5. FURNISH AND INSTALL (2) 1" EMPTY CONDUITS FOR FUTURE GATE MOTOR AND CARD READER ACCESS STATION. COORDINATE WITH GATE SUPPLIER AND OWNER FOR EXACT LOCATIONS. STUB CONDUITS UP ABOVE GROUND GATE AND CAP. INSTALL CONDUITS TO PANEL PADT AND TELEPHONE BOARD AREA, INCLUDE DRAW WIRE IN EACH AND TAG ACCORDING TO PLANNED FUNCTION.
6. SANITARY PUMP STATION CONTROLLER SUPPLIED BY CIVIL, INSTALL BY ELECTRICAL.
7. FURNISH AND INSTALL 1" CONDUIT WITH (2)#10, (1)#10G FOR PUMP POWER AND (4)#12 FOR FLOAT CONTROLS CIRCUITS.
8. MOUNT LOCAL WEATHERPROOF DISCONNECT AT WELLHEAD AS REQUIRED.
9. PROVIDE NEW UNDERGROUND CONDUIT FOR GENERATOR REMOTE CONTROL PANEL (SEE ONE LINE DIAGRAM). ALSO PROVIDE UNDERGROUND CIRCUITS FOR BATTERY CHARGER AND BLOCK HEATER (SEE PANEL PADT SCHEDULE AND DRAWING E1).

ELECTRICAL SITE PLAN

SCALE: 1" = 50'



POLE BASE DETAIL

NTS

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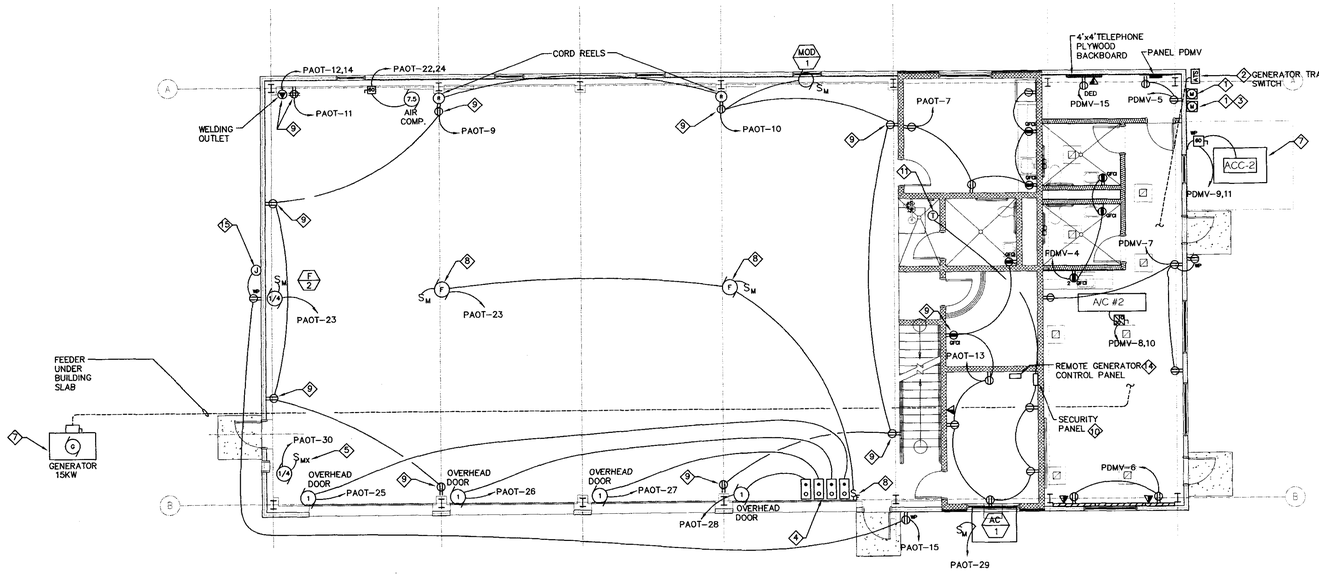
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ELECTRICAL SITE PLAN

SE1

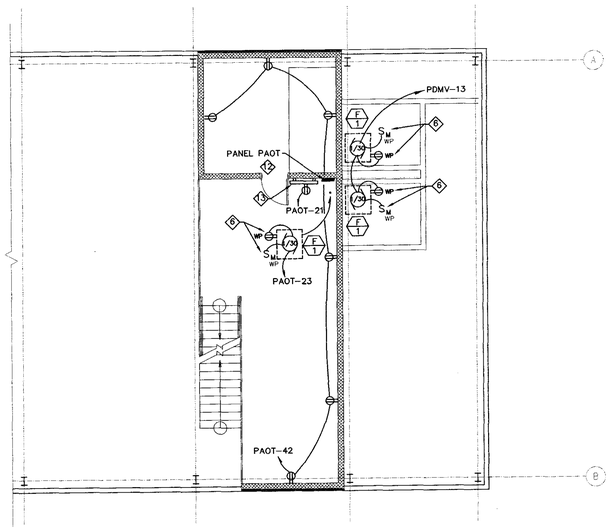
SHEET 40 OF 43



MAIN LEVEL PLAN – ELECTRICAL POWER

SCALE: 1/8" = 1'-0"

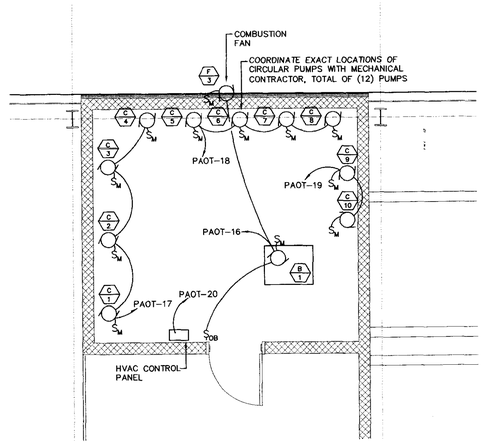
1



UPPER LEVEL PLAN – ELECTRICAL POWER

SCALE: 1/8" = 1'-0"

2



BOILER ROOM EQUIPMENT DETAIL

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

3

KEYNED NOTES - POWER PLANS:

1. FURNISH AND INSTALL METER AT LOCATION SHOWN AT THE EXTERIOR OF THE BUILDING. METER APPLICATION TYPE SHALL BE SPECIFIC FOR SWAPPING OUT WITHOUT LOSING EXISTING BUILDING POWER, SEE SPECS FOR DETAILS. A SINGLE MOTOR SHALL BE INSTALLED; HOWEVER, TWO MOTOR SOCKETS SHALL BE PROVIDED FOR FUTURE SEPARATION OF SERVICES, SEE POWER RISER.
2. FURNISH AND INSTALL ATS FOR EMERGENCY POWER TO ADT SIDE OF THE BUILDING ONLY. NOTE THAT DMV SIDE OF THE BUILDING SHALL NOT HAVE POWER TO LIGHTS AND VENTILATION IN CASE OF EMERGENCY. DMV WILL CONTINUE TO HAVE HEATING IN AN EMERGENCY. PROVIDE SPACE FOR POSSIBLE FUTURE A.T.S.
3. FURNISH AND INSTALL LOCKABLE DISCONNECT AT LOCATION SHOWN WITH SPECIFIED METER, ON THE EXTERIOR OF THE BUILDING.
4. PUSHBUTTON CONTROL STATIONS SUPPLIED WITH OVERHEAD DOOR, INSTALLED BY ELECTRICAL. VERIFY EXACT MOUNTING LOCATION (NEXT TO LIGHT SWITCHES) WITH OWNER PRIOR ROUGH-IN.
5. PROVIDE EXPLOSION PROOF MOTOR SENTINEL SWITCH AS REQUIRED FOR FUEL PUMP FOR BOILER.
6. FAN UNITS ARE LOCATED ON ROOF, PROVIDE WEATHERPROOF MOTOR SENTINEL SWITCH AND MAINTENANCE RECEPTACLE AS REQUIRED.
7. SEE SITE AND MECHANICAL PLANS FOR EXACT LOCATIONS OF GENERATOR AND CONDENSER UNIT ACC-2.
8. FURNISH AND INSTALL PADDLE FAN AND LOCAL CONTROL SWITCH LOCATED NEXT TO LIGHT SWITCHES.
9. MOUNT RECEPTACLE AT 36"AFF. AND FEED FROM ABOVE. CONDUIT SHALL NOT BE INSTALLED BELOW 18" UNLESS FITTED WITH EXPLOSION PROOF COMPONENTS AND METHODS.
10. SECURITY PANEL FOR AUTO DIAL TO HELP WHEN BUILDING TEMPERATURE DROPS BELOW 45°F. VERIFY EXACT INSTALLATION LOCATION WITH OWNER, SEE CONTROL SCHEMATIC DIAGRAM.
11. LOCATE LOW TEMP SENSOR AWAY FROM OUTSIDE DRAFTS AS DIRECTED BY OWNER.
12. SERVICE FEEDER FOR PANEL PAOT SHALL BE RUN WITHIN THE MASONRY BLOCK WALL.
13. FURNISH AND INSTALL 4'x8'x3/4" MARINE GRADE PLYWOOD BACKBOARD FOR TEL/DATA DEMARC AND NETWORK EQUIPMENT.
14. FURNISH AND INSTALL 1" CONDUIT TO GENERATOR AND PROVIDE CONTROL WIRES TO REMOTE GENERATOR CONTROL PANEL AS REQUIRED.
15. PROVIDE 120V CIRCUIT FIT UP FOR GENERATOR BATTERY CHARGER AS REQUIRED. VERIFY EXACT LOCATION IN FIELD.

PAOT

120/240 VOLT, 1 PHASE, 3 WIRE, AMP — 175A MAIN CB, SURFACE MOUNT, 10k AIC

Description	Wire	Cond	KW	Brkr	Ckt	Ø	Ckt	Brkr	KW	Cond	Wire	Description
LIGHTS - SERVICE BAY	2#12,1#12G	3/4"	1.0	20	1	A	2	20	1.4	3/4"	2#12,1#12G	LIGHTS - SERVICE BAY
LIGHTS - BREAK, OFFICE, BATHROOM	2#12,1#12G	3/4"	0.5	20	3	B	4	20	0.5	3/4"	2#12,1#12G	LIGHTS - EXTERIOR
LIGHTS - UPPER LEVEL	2#12,1#12G	3/4"	0.5	20	5	A	6	20	1.0	1"	2#8,1#12G	LIGHTS - PARKING LOT
RECEPTACLES - BREAK ROOM	2#12,1#12G	3/4"	1.5	20	7	B	8					
RECEPTACLES - BAYS	2#12,1#12G	3/4"	0.7	20	9	A	10	20	0.7	3/4"	2#12,1#12G	RECEPTACLES - BAYS
RECEPTACLES - WELDING AREA	2#12,1#12G	3/4"	0.4	20	11	B	12	50	5.0	3/4"	2#6,1#10G	WELDING OUTLET
RECPTS - OFFICE, BATHRM & FAN F-1	2#12,1#12G	3/4"	1.3	20	13	A	14					
RECEPTACLES - OUTSIDE	2#12,1#12G	3/4"	0.4	20	15	B	16	20		3/4"	2#12,1#12G	BOILER & COMB. FAN
CIRC PUMPS	2#12,1#12G	3/4"	0.5	20	17	A	18	20	0.5	3/4"	2#12,1#12G	CIRC PUMPS
CIRC PUMPS	2#12,1#12G	3/4"	0.5	20	19	B	20	15	0.2	3/4"	2#12,1#12G	HVAC CONTROL PANEL
RECEPTACLES - TELE BOARD	2#12,1#12G	3/4"	0.2	20	21	A	22	60	7.5	3/4"	3#6,1#10G	AIR COMPRESSOR
FANS: F1, F2 & CEILING	2#12,1#12G	3/4"	0.8	20	23	B	24					
OVERHEAD DOOR	2#12,1#12G	3/4"	1.0	20	25	A	26	20	1.0	3/4"	2#12,1#12G	OVERHEAD DOOR
OVERHEAD DOOR	2#12,1#12G	3/4"	1.0	20	27	B	28	20	1.0	3/4"	2#12,1#12G	OVERHEAD DOOR
AC-1	2#12,1#12G	3/4"		20	29	A	30	20	1.0	3/4"	2#12,1#12G	BOILER FUEL PUMP
MOTORIZED GATE	2#12,1#12G	3/4"	1.0	20	31	B	32	20	1.0	3/4"	2#12,1#12G	MOTORIZED GATE
PANEL PA	3#10,1#10G	1"	2.5	30	33	A	34	60	3.6	1"	3#6,1#8G	PANEL PS
					35	B	36					
GENERATOR BLOCK HEATER	3#10,1#10G	1"		20	37	A	38	20	1.0	3/4"	2#10,1#10G	EFFLUENT PUMP
SPARE				20	39	B	40					
SPARE				20	41	A	42	20	1.3	3/4"	2#12,1#12G	RECEPTACLES UPPER LEVEL

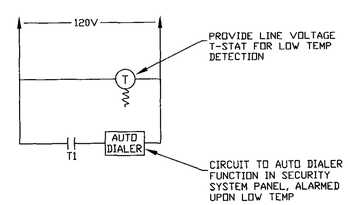
LOAD DATA	kW	Amps	NOTES
Phase A			
Phase B			
Total Connected	47.2	196	

PDMV

120/240 VOLT, 1 PHASE, 3 WIRE, AMP — 125A MAIN CB, SURFACE MOUNT, 10k AIC

Description	Wire	Cond	KW	Brkr	Ckt	Ø	Ckt	Brkr	KW	Cond	Wire	Description
LIGHTING - OFFICE, BATHS	2#12,1#12G	3/4"		20	1	A	2	20		3/4"	2#12,1#12G	LIGHTING - MEETING ROOM
LIGHTING - PARKING LOT	2#12,1#12G	3/4"	0.6	20	3	B	4	20		3/4"	2#12,1#12G	RECEPTACLES - BATHS, KITCHEN
RECEPTACLES - ELECTRICAL RM	2#12,1#12G	3/4"		20	5	A	6	20		3/4"	2#12,1#12G	RECEPTACLES - WIREWAY
RECEPTACLES - MEETING	2#12,1#12G	3/4"		20	7	B	8	15-2P		3/4"	2#12,1#12G	AC-2
ACC-2	2#8,1#10G	3/4"		60	9	A	10					
					11	B	12	30-3P		1"	3#10,1#10G	PANEL PB
RECEPTS. (WP) & FANS (F-1)	2#12,1#12G	3/4"		20	13	A	14					
EXEL RECEPT - TELEPHONE BKBRD	2#12,1#12G	3/4"		20	15	B	16					
					17	A	18					
					19	B	20					

LOAD DATA	kW	Amps	NOTES
Phase A			
Phase B			
Total Connected			



SECURITY SYSTEM SCHEMATIC

NTS

4

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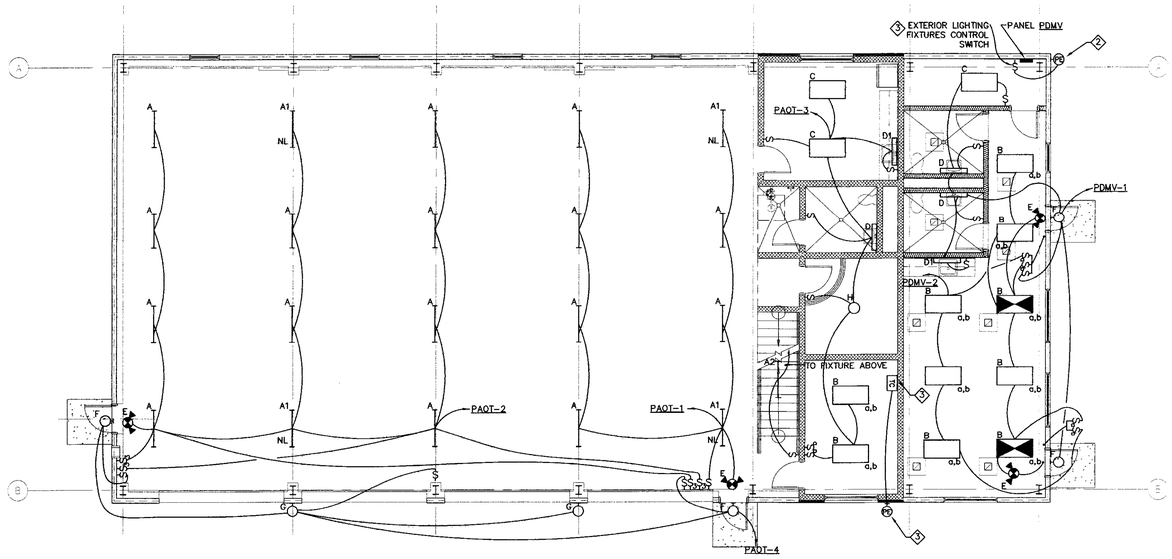
REVISIONS

SCALE: AS NOTED
DATE: 01/04/06
DRAWN BY: DJB
APPR. BY: MFK

ELECTRICAL POWER PLAN

E1

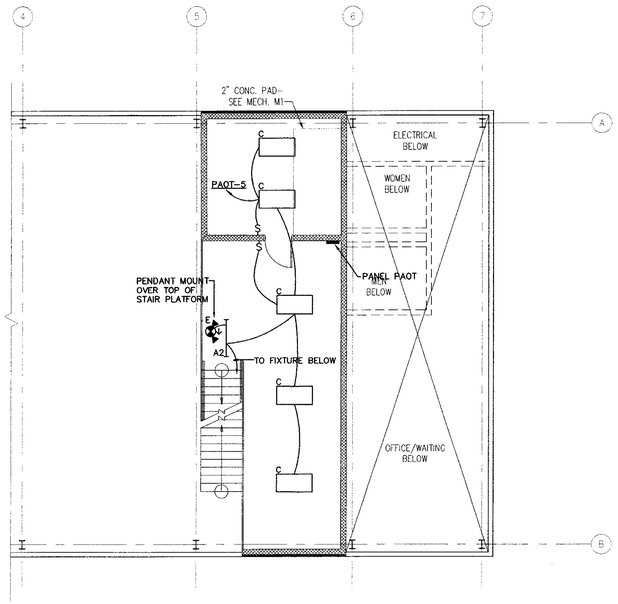
SHEET 41 OF 43



MAIN LEVEL PLAN – ELECTRICAL LIGHTING

SCALE: 1/8" = 1'–0"

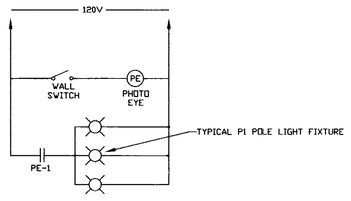
(1)



UPPER LEVEL PLAN – ELECTRICAL LIGHTING

SCALE: 1/8" = 1'–0"

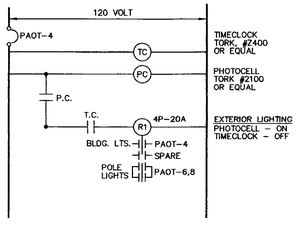
(2)



DMV PARKING LOT LIGHTING CONTROL DIAGRAM

NTS

(4)



AOT PARKING LOT LIGHTING CONTROL DIAGRAM

NTS

(3)

ELECTRICAL NOTES:

1. THE LIGHT SWITCH FOR THE POLE MOUNTED LIGHTING FIXTURES AT THE COMMERCIAL PARKING AREA SHALL BE LOCATED WITHIN THE DMV SPACE AS SHOWN.
2. MOUNT PHOTO EYE FOR DMV WALKWAY AND PARKING AREA FIXTURES HIGH UP ON WALL, SEE CONTROL DIAGRAM FOR CIRCUITING.
3. PHOTO EYE AND TIME CLOCK FOR AOT PARKING AREA, SEE LIGHTING CONTROL DIAGRAM BELOW FOR CIRCUITING DETAILS.
4. NIGHT LIGHT DESIGNATED FIXTURES SHALL UTILIZE ONE LAMP FOR 'B' TYPE FIXTURES AND TWO LAMPS FOR 'A' TYPE FIXTURES

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	CAT. NO.	SUGGESTED LAMPS	DIFFUSER	MOUNTING	SUGGESTED STYLE
A	METALUX	E1M–432–120–EB81	(4) 32 WATT–SUPER T8	20% UPLIGHT	CHAIN HUNG	INDUSTRIAL STYLE WITH UPLIGHT CONSTRUCTION, WHITE ENAMEL FINISH
A1	METALUX	E1M–432–120–EB81	(4) 32 WATT–SUPER T8	20% UPLIGHT	CHAIN HUNG	SAME AS TYPE "A" EXCEPT WITH TWO BALLASTS
A2	METALUX	E1M–432–120–EB81	(2) 32 WATT–SUPER T8	20% UPLIGHT	CHAIN HUNG	SAME AS TYPE "A" EXCEPT WITH TWO LAMPS
B	METALUX	2EP3G332S36–120–EB82	(3) 32 WATT–SUPER T8	PARABOLIC	TROFFER	
C	METALUX	2GC8232A–120–EB81	(2) 32 WATT–SUPER T8	ACRYLIC PRISMATIC	TROFFER	
D	METALUX	BAU230–120–EB	(2) 30 WATT	ACRYLIC PRISMATIC	WALL	WALL BRACKET WITH UP/DOWN LIGHT, 36" LONG
D1	METALUX	BAU130–120–EB	(1) 30 WATT			SAME AS TYPE "D", EXCEPT WITH SINGLE LAMP FOR DOWNLIGHTING ON COUNTERTOP
E	PRESCOLITE	PEXHL3REC–CBW	LED	N/A	WALL OR CEILING	LED EXIT SIGN WITH SELF CONTAINED EMERGENCY BATTERY & EMERGENCY LIGHTHEADS
F	HUBBELL	W7H8	(1) 70 WATT METAL HALIDE	CLEAR POLYCARBONATE	WALL	WALL PACK WITH SHARP CUT–OFF SHIELD, DARK BRONZE TRIM
G	HUBBELL	TWSM100MHDLDB–120	(1) 100 WATT METAL HALIDE	CLEAR GLASS	WALL	WALL PACK, SHARP CUT–OFF DESIGN, DARK BRONZE TRAPEZOID SHAPE
H	STONCO	MDK270WHT	(2) 150W PAR 38	NONE	DIRECT TO RAFTER	BASIC PAR STYLE LAMP IN TWIN BASE HOLDER W/ MOTION SENSOR ACTIVATION, MOUNT FIXTURE TO BOTTOM CHORD OF RAFTER, HOWEVER, SEPARATE MOTION SENSOR FROM BACKPLATE AND MOUNT AT 12' HEIGHT ALONG WALL FOR BETTER MOTION SENSING
J	NOT USED					
K	HUBBELL	MSS–G–100H–T–8–1–PCR	(1) 100W METAL HALIDE	FORWARD THROW	GARAGE	MAGNUSPEC SHARP CUT–OFF WALL MOUNT FIXTURE TO MATCH TYPE "P", BRONZE FINISH
P1	HUBBELL	RCS–A–175H–3P–8–1–MAL–4–X W/ SAP 42 POLE	(1) 175W METAL HALIDE	TYPE III DISTRIBUTION	POLE	MAGNUMFORM POLE FIXTURE, SHARP CUT–OFF, 20' SQUARE ALUMINUM POLE MOUNTED ON CONCRETE BASE, DARK BRONZE FINISH
P2	HUBBELL	RCS–A–175H–3P–8–1–MAL–4–X W/ SAP 42 POLE	(1) 175W METAL HALIDE	TYPE III DISTRIBUTION	POLE	SAME AS TYPE "P1", EXCEPT WIRED FOR 240 VOLT CIRCUIT

GENERAL NOTES:

1. ALL FLUORESCENT BALLASTS SHALL BE ELECTRONIC TYPE.
2. ALL COMPACT FLUORESCENT LUMINAIRES SHALL HAVE HIGH POWER FACTOR "HPF" ELECTRONIC BALLASTS.
3. LAMPS SHALL BE SUPPLIED AND INSTALLED BY CONTRACTOR.
4. ALL FLUORESCENT BALLASTS SHALL HAVE A THIRD HARMONIC DISTORTION (THD) OF <10%

** LENGHT OF FIXTURE WILL VARY PENDING LOCATION, ALSO VERIFY CONNECTION REQUIREMENTS AND EMERGENCY BATTERY OPTIONS

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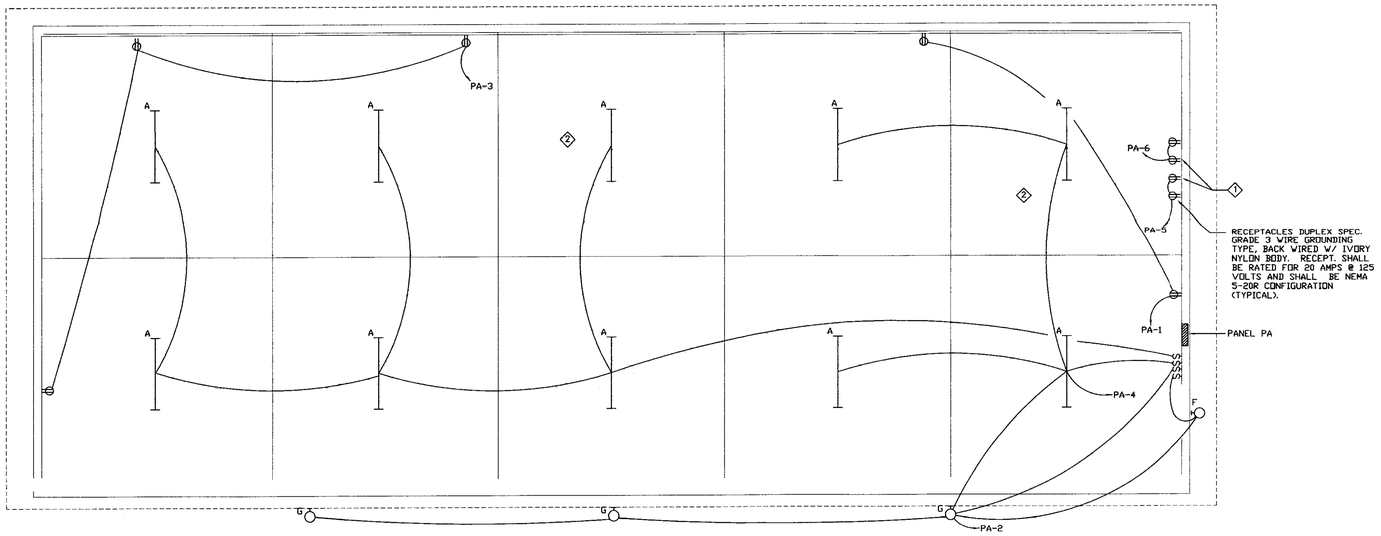
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ELECTRICAL LIGHTING PLAN

E2

SHEET 42 OF 43

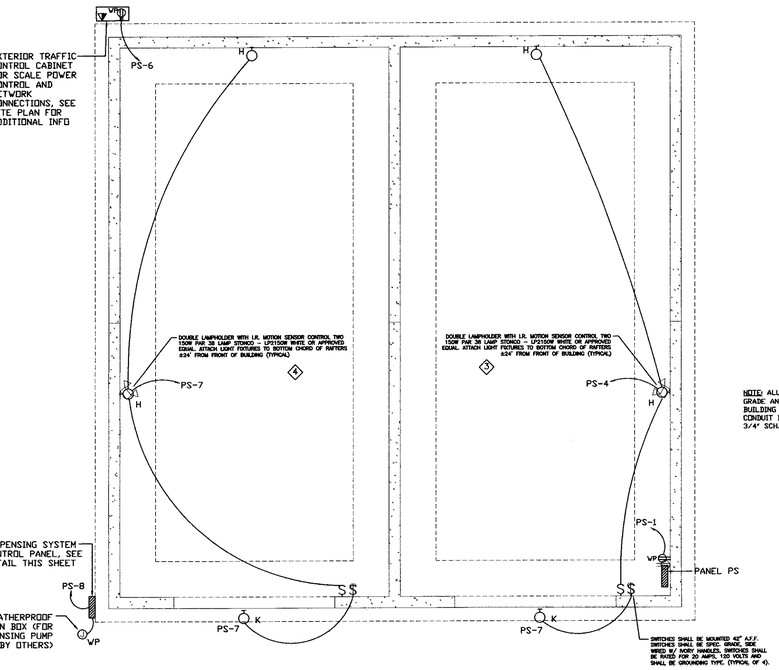


STORAGE SHED – ELECTRICAL POWER AND LIGHTING PLAN

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

1

NOTE: ALL ELECTRICAL CONDUIT BELOW GRADE AND ON THE EXTERIOR OF THE BUILDING SHALL BE 1" RIGID CONDUIT. CONDUIT INSIDE THE BUILDING SHALL BE 3/4" SCH. 80 PVC.



NOTE: ALL ELECTRICAL CONDUIT BELOW GRADE AND ON THE EXTERIOR OF THE BUILDING SHALL BE 1" RIGID CONDUIT. CONDUIT INSIDE THE BUILDING SHALL BE 3/4" SCH. 80 PVC.

SALT-SAND STORAGE BUILDING – ELECTRICAL POWER AND LIGHTING PLAN

SCALE: 1/8" = 1'-0"

3

PA — STORAGE SHED

120/240 VOLT, 1 PHASE, 3 WIRE, AMP — 60A MAIN LUG, SURFACE MOUNT, 10k AIC

Description	Wire	Cond	kW	Brkr	Ckt	∅	Ckt	Brkr	kW	Cond	Wire	Description
RECEPTACLES – STORAGE SHED	2#12,1#12G	3/4"	0.4	20	1	A	2	20	0.4	3/4"	2#12,1#12G	EXTERIOR LIGHTS – STORAGE SHED
RECEPTACLES – STORAGE SHED	2#12,1#12G	3/4"	0.8	20	3	B	4	20		3/4"	2#12,1#12G	LIGHTING – STORAGE SHED
RECEPTS.- STORAGE SHED BATTERY CHARGER	2#12,1#12G	3/4"		20	5	A	6	20		3/4"	2#12,1#12G	RECEPTS.- STORAGE SHED BATTERY CHARGER
SPARE				20	7	B	8					
					9	A	10					

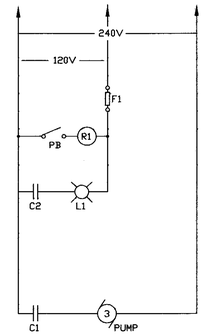
LOAD DATA	kW	Amps	NOTES
Phase A			
Phase B			
Total Connected			

PS — SALT-SAND STORAGE BUILDING

120/240 VOLT, 1 PHASE, 3 WIRE, AMP — 60A MAIN LUG, SURFACE MOUNT, 10k AIC

Description	Wire	Cond	kW	Brkr	Ckt	∅	Ckt	Brkr	kW	Cond	Wire	Description
EXTERIOR RECEPT.	2#12,1#12G	3/4"		20-1P	1	A	2					BLANK
BLANK					3	B	4	20-1P		3/4"	3#12,1#12G	LIGHTS-INTERIOR SAND STORAGE
SPARE				20-1P	5	A	6	20-1P		3/4"	3#12,1#12G	RECEPT & ROOM - EXT. TRAFFIC CONTROL CABINET
EXTERIOR LIGHTS	2#12,1#12G	3/4"		20-1P	7	B	8	20-1P		3/4"	3#10,1#10G	CHLORINE DISPENSING SYSTEM CONTROL PNL
					9	A	10					
					11	B	12					
					13	A	14					
					15	B	16					

LOAD DATA	kW	Amps	NOTES
Phase A			
Phase B			
Total Connected			



CHLORINE TANK DISPENSING SYSTEM CONTROL DIAGRAM

N.T.S.

NOTE: CONTRACTOR SHALL PROVIDE LOCAL PUSHBUTTON, RELAY AND FUSE BLOCK IN GASKETED, WATERPROOF, SALT RESISTANT ENCLOSURE, MOUNTED NEXT TO PUMP. CONTRACTOR SHALL ALSO PROVIDE LOCAL INDICATION LIGHT, WATERPROOF, AND MOUNTED ON THE TOP OF THE PUMPS HOSE TOWER. PROVIDE ALL PVC CONDUIT REQUIRED FOR COMPLETE INSTALLATION.

PB = SQUARE D #BW255, START-STOP WITH MAINTAINED CONTACTS IN NEMA 4 BOX

R1 = SQUARE D #CD7120, DPST RELAY, 30 AMP CONTACT RATING

L1 = EDWARDS #48SINA-H5-25WH, 120V INDICATING LIGHT, AMBER, NEMA 4X ENCLOSURE

F1 = FUSE BLOCK WITH 5A, 120V FUSE



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ELECTRICAL NOTES:

1. FURNISH AND INSTALL RECEPTACLES FOR BATTERY CHARGERS, LOCATED AS DIRECTED BY OWNER. MOUNT RECEPTACLES AT 36" HEIGHT.
2. MOUNT LIGHT FIXTURES WITH JACK CHAIN AT 13'-0" HEIGHT TO AVOID OVERHEAD DOORS AND TRACK SYSTEM.
3. NOT USED.
4. ALL CONDUIT SYSTEMS WITHIN SALT SHED SHALL BE PVC-40 WITH ALL REQUIRED COUPLINGS, J-BOXES AND HARDWARE.

POWER ONE-LINE DIAGRAM

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DRAWN BY: DJS
APPR. BY: MFK

ELECTRICAL POWER & LIGHTING PLAN

E3

SHEET 43 OF 43