

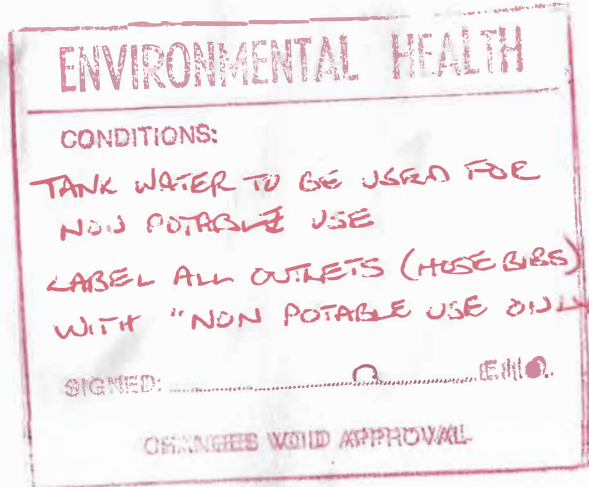
REPLACEMENT GREEN HOUSES & RELATED IMPROVEMENTS

**Tulo Valley Government Plant Nursery
Department of Parks
#12 Tulo Lane
Pembroke**

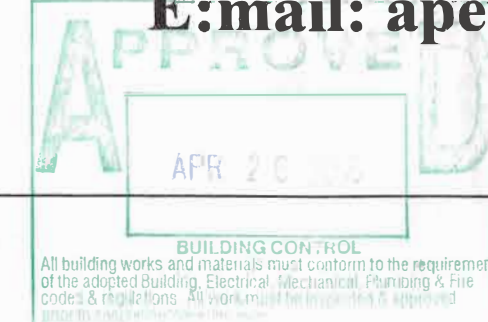
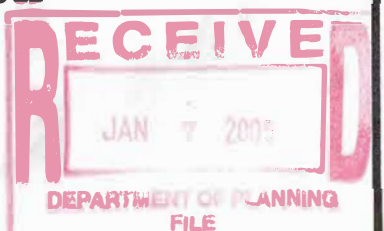
10/01/05

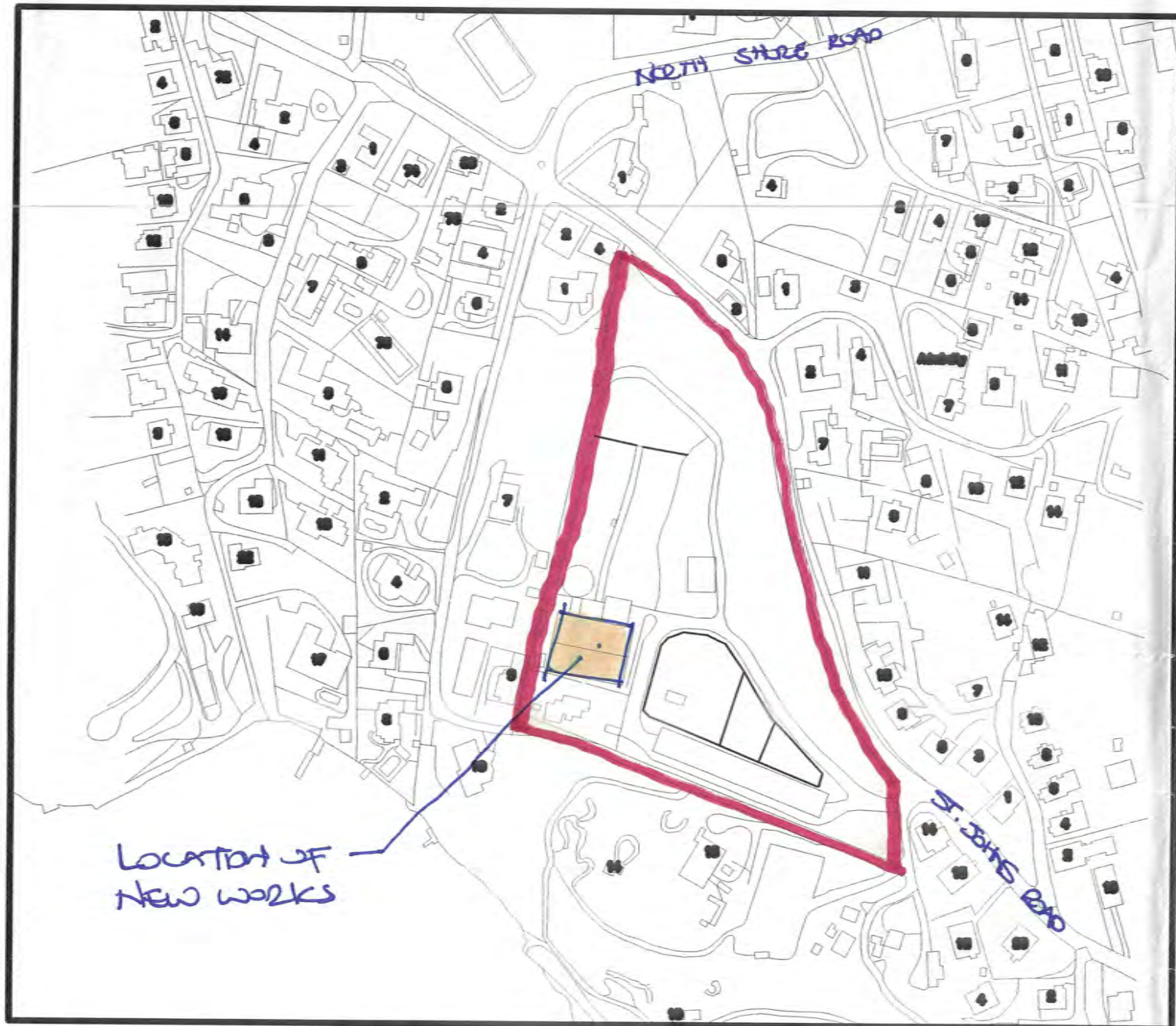
- L1: Existing conditions & site survey**
- L2: Existing topographical survey**
- L3: Proposed layout plan**
- S/01: Plan of greenhouse tank & floor slab**
- 1/D11552: Greenhouse layout**
- 2/D11552: Elevations**
- 3/D11552: Elevations**
- 4/D11552: Details**
- 5/D11552: Details**
- E-01: Electrical layout**
- E-02: Panel schedules and detail sheet**
- M-01: Mechanical layout**

ROOF MATERIAL - CLEAR POLYCARBONATE CORRUGATION



**Department of Parks
Botanical Gardens
#169 South Road
Paget DV04
Tel: 236-4201
Fax: 236-3711
E:mail: apettit@gov.bm**

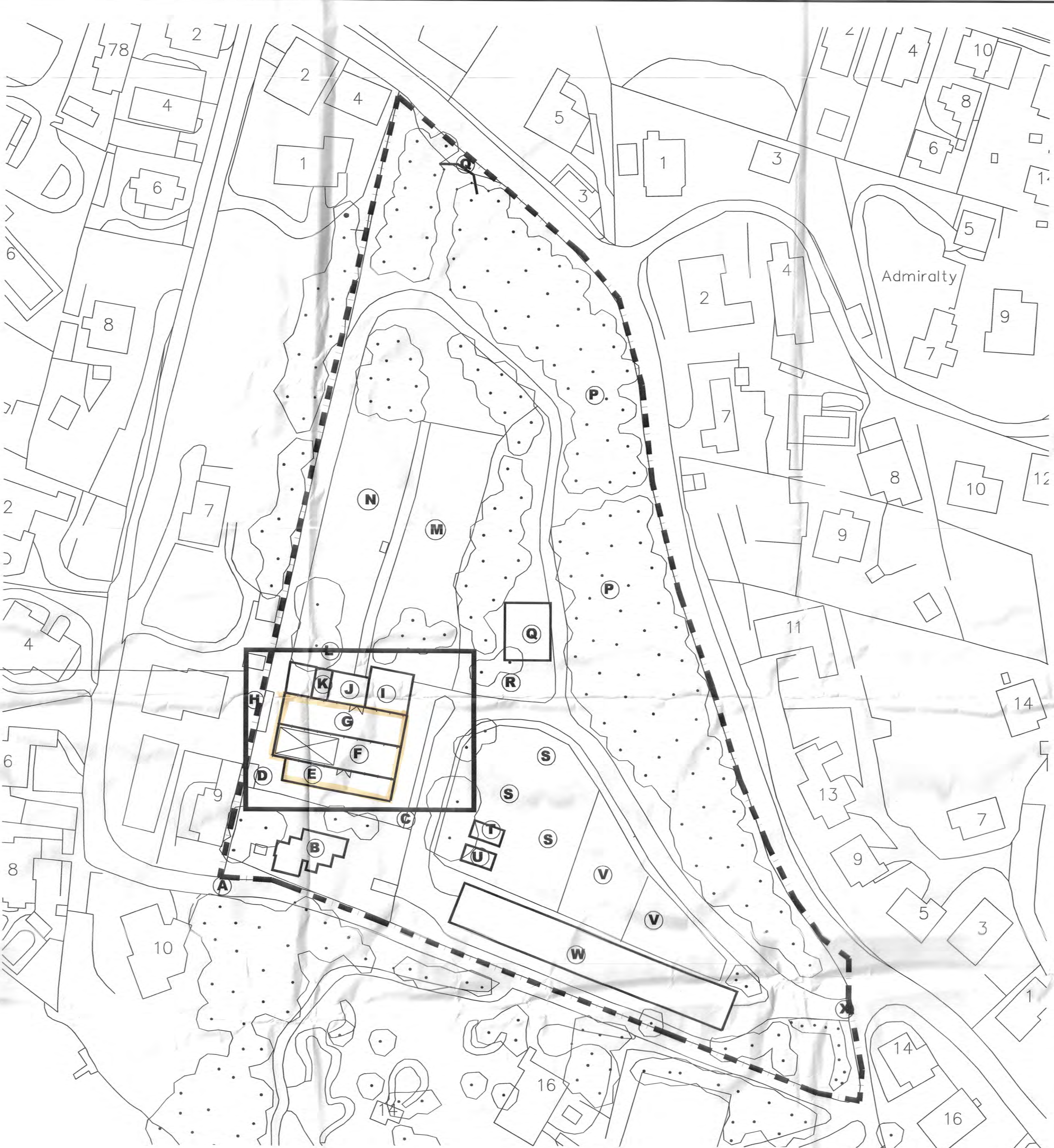




Location Plan: 3/10. (7512.3004) Zoning: O.S./National Park
Scale: N.T.S

- A. Tulo Lane
- B. Cottage
- C. R/O unit in converted fuel store
- D. Temporary pot store
- E. Replacement shade house
- F. Replacement greenhouse & water tank
- G. Propagation unit/greenhouse
- H. Temporary dry material store
- I. Office/staff/toilet/kitchen
- J. Tool shed & small pot store
- K. Potting up area
- L. Soil pile
- M. Plant beds- 1-15 gallon pots
- N. Plant beds- 15-50 gallon pots
- O. Historic Tunnel
- P. Model native & endemic woodland
- Q. Slat house
- R. Parking area
- S. Plant beds -Botanical Gardens & bedding plants
- T. Rose Tunnel (Rose Society)
- U. Quarantine House
- V. Proposed plant beds
- W. Slat house
- X. Main entrance gate

Location of
2 new greenhouse
& shade structure
Dwg# L2: Survey &
L3: Layout Plan



Layout Plan
Scale: 1/8" = 1'-0"

ISSUED FOR: Building permit 10/01/05

SCALE: As noted

SURVEY
PREPARED BY: Works & engineering DATE: 19/04/04

DESIGN
PREPARED BY: DP DATE: 08/06/04
CHECKED BY: C.FOGGO DATE: 10/09/04

DRAWING
PREPARED BY: DP DATE: 7/09/04
CHECKED BY: C.FOGGO DATE: 10/09/04
APPROVED BY: C.FOGGO

PROJECT NUMBER:
3/04

PROJECT NAME:
Proposed
Renovations

Tulo Valley Nursery
Pembroke

DRAWING FILE NO: ACAD 2000
C/Park improvements/Tulo Valley/Current

SHEET TITLE:
Location & site plan

SHEET NUMBER:
L1

REVISION
X



THE MINISTRY OF
WORKS AND
ENGINEERING
AND HOUSING

P.O. Box HM525 Hamilton HMCX Bermuda
Phone: (441)295-5151

Fax: (441)295-5658

GENERAL NOTES:

1. SURVEY GRID IS IMPERIAL CONVERSION OF BNG2000.
2. LEVELS ARE IN FEET ABOVE ORDINANCE DATUM.

SURVEY STATION CO-ORDINATES
STN EASTINGS NORTHINGS LEVEL

ISSUED FOR:

AMENDMENTS:

NO:	REVISION	APP	DATE:

Well Details Added CCT 19/04/04

SCALE: 1/16" to 1'

SURVEY
PREPARED BY: CCT/SM DATE: 07/04/04

DESIGN
PREPARED BY: DATE:

CHECKED BY: DATE:

DRAWING
PREPARED BY: CCT DATE: 13/04/04
CHECKED BY: PJH DATE: 13/04/04

APPROVED BY: PJH

PROJECT NUMBER:
30/244/10

PROJECT NAME:
**TULO VALLEY
NURSERY**

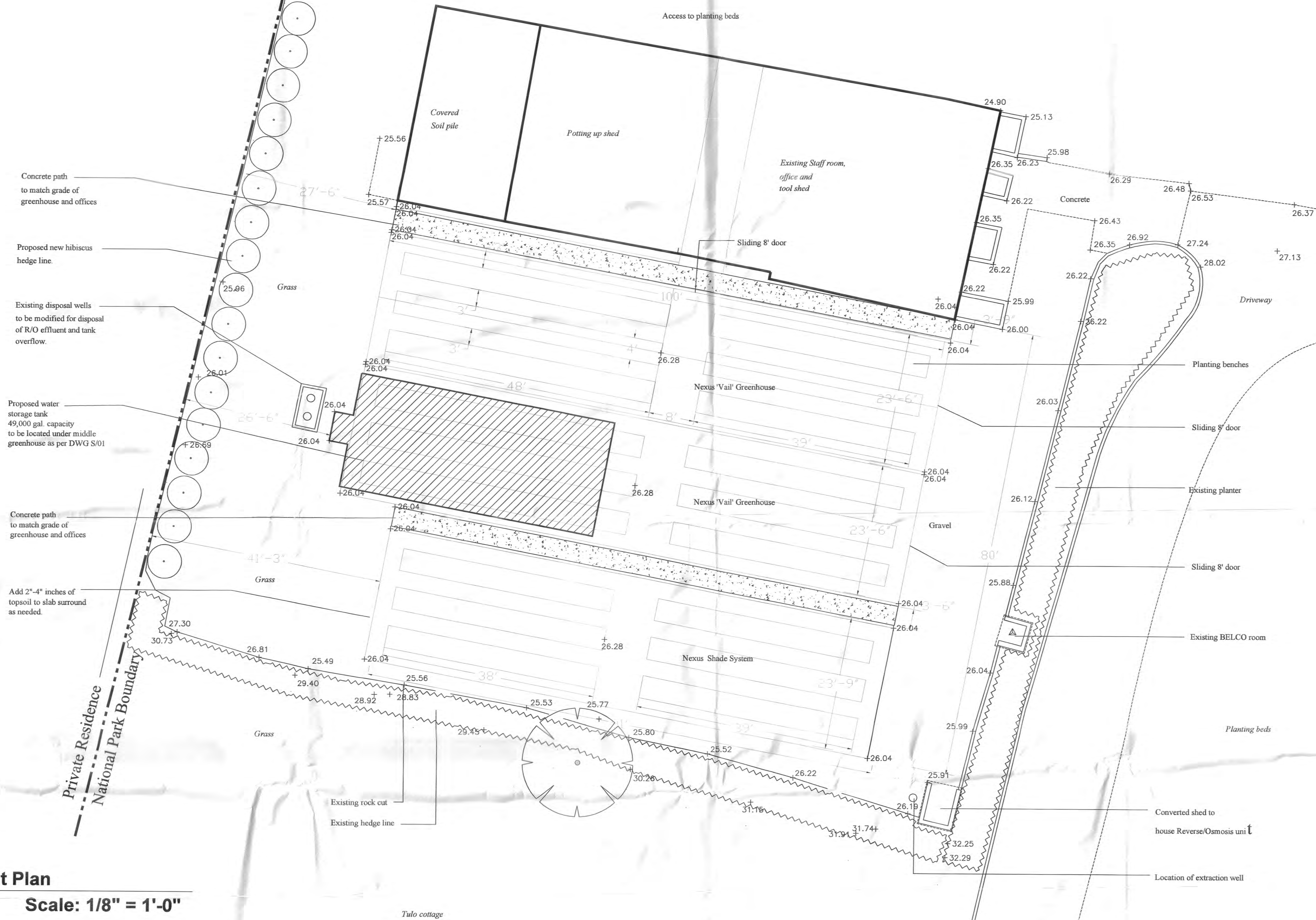
12 ST. JOHN'S ROAD
PEMBROKE

DRAWING FILE NO:
BLIS\ARCHIVE\3024410\443300201.dwg

SHEET TITLE:
**TOPOGRAPHIC
SURVEY**

SHEET NUMBER: (D2) 4433/002/01 (L2)
REVISION: A

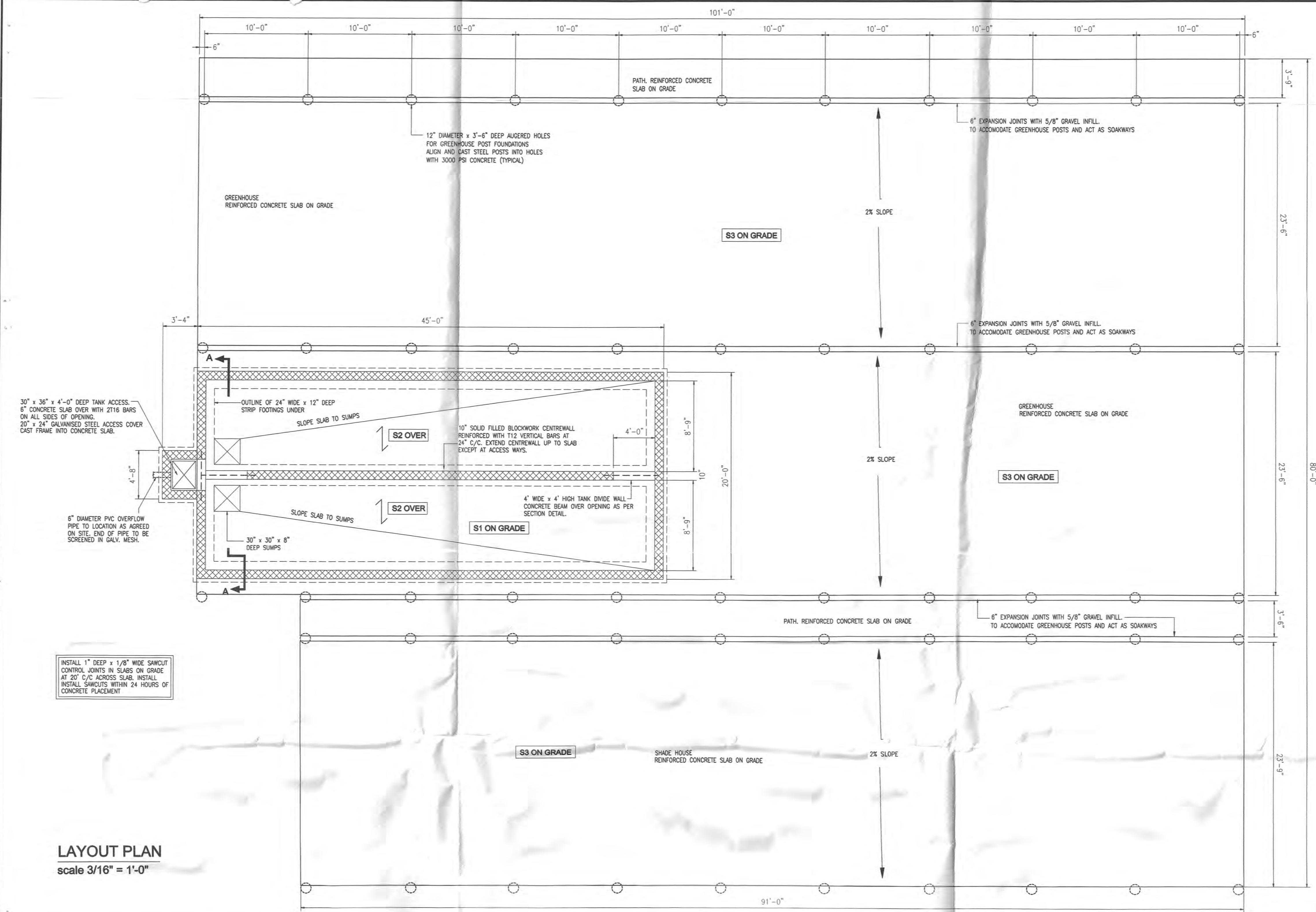




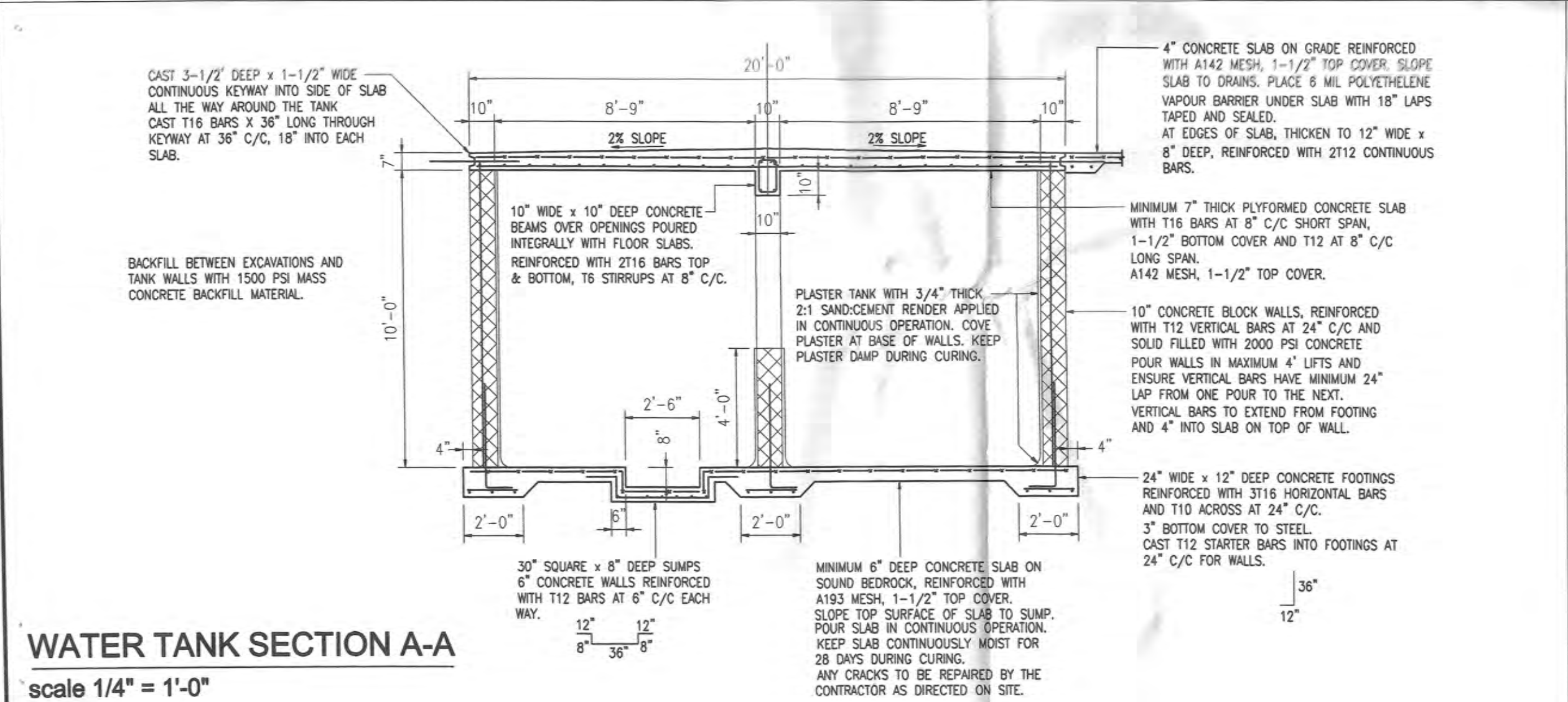
Layout Plan

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

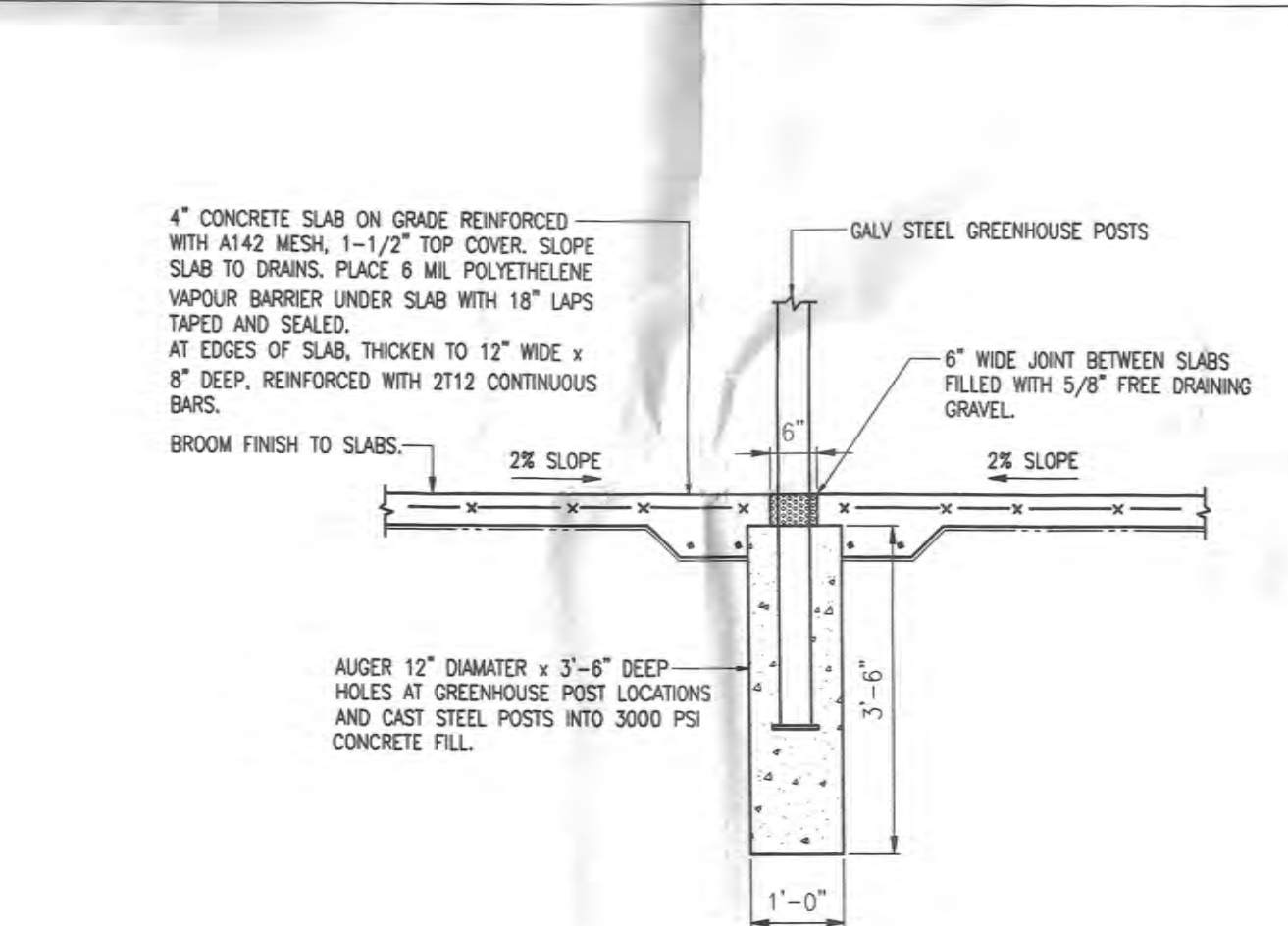
ISSUED FOR: Building permit		10/01/05
SCALE: As noted		
<u>SURVEY</u>		
PREPARED BY: Works & engineering	DATE: 19/04/04	
<u>DESIGN</u>		
PREPARED BY: DP	DATE: 08/06/04	
CHECKED BY: C.FOGGO	DATE: 10/09/04	
<u>DRAWING</u>		
PREPARED BY: DP	DATE: 7/09/04	
CHECKED BY: C.FOGGO	DATE: 10/09/04	
APPROVED BY: C.FOGGO		
PROJECT NUMBER: 3/04		
PROJECT NAME: Proposed Renovations		
Tulo Valley Nursery Pembroke		
DRAWING FILE NO:		ACAD 2000
C/Park improvements/Tulo Valley/Current		
SHEET TITLE: Layout Plan		
SHEET NUMBER: L3		REVISION X



LAYOUT PLAN
scale 3/16" = 1'-0"



WATER TANK SECTION A-A
scale 1/4" = 1'-0"



POST ANCHORAGE DETAIL
scale 1/2" = 1'-0"

STRUCTURAL NOTES

- These drawings are to be read in conjunction with the architectural plans. Do not scale drawings, use figured dimensions only.
- Minimum compressive strength of concrete at 28 days to be 3000 psi.
- Concrete cylinders for testing shall be taken for each concrete pour as follows:
i). Pours up to 10 cu. yards: 2 cylinders
ii). Pours over 10 cu. yards: 4 cylinders
One cylinder shall be tested at 7 days and the remainder at 28 days. Failure to meet the specified strength may require the removal and replacement of the concrete at the discretion of the engineer.
- Concrete fill for blockwork must be a minimum of 2000 psi strength at 28 days.
- Average strength of masonry units to be 1900 psi. Masonry is to be laid in running bond construction. Where walls butt up against existing walls a 4" key into the existing walls is to be achieved every 2nd course of block. Fill all cells. Cells to be cleaned out prior to filling, out prior to filling.
- Reinforcing steel is to be hot-dip galvanized and of minimum yield strength of 60 ksi. Tie wire is to be galvanized.
- Minimum cover to reinforcing steel is to be as follows:
Exterior 1-1/2"
Elsewhere unless noted otherwise 1"
- Reinforcing steel in concrete and masonry shall be lapped as per Table below. For beams and slabs use continuous bars over spans. Lap bars over supports only except for cantilever steel.
- T6 rebars Minimum 12" T20 rebars Minimum 40"
T8 rebars Minimum 16" T25 rebars Minimum 60"
T10 rebars Minimum 20" T32 rebars Minimum 72"
T12 rebars Minimum 24" Mesh: One Square
T16 rebars Minimum 32"
- All concrete lintel beams must bear a minimum of 12" onto block walls either side. Reinforcing is to be extended 8" over the support. Cells beneath bearing are to be filled. Lintels shall be placed over all openings in walls.
- Starter bars to be tied to foundation reinforcement & accurately set in slabs or footings prior to pouring. Vertical bars to be tied at all splices with a minimum of two galvanised ties.
- Do not backfill against retaining walls/tank walls until walls are complete and cured. For sub grade walls, place fill uniformly on both sides of the wall.
- All concrete is to be consolidated by use of a mechanical vibrator.
- Concrete slabs are to be cured by keeping surface continuously wet for a period of at least 7 days. Install control joints as directed within 24 hours of concrete placement.
- Contractor to install necessary temporary propping and shoring to new & existing structures to support them during demolition, excavation and renewal works. Contractor shall ensure that existing structures are not damaged during new works. All new concrete works to be adequately supported until in place and cured adequately to support the loads.
- All foundations to bear on sound bedrock. If organic material, soil, fill, sand or other unsuitable material is encountered on site, the engineer is to be consulted.
- Fill under slabs on grade is to be clean granular material, free of organic material and is to be well compacted with a mechanical roller in maximum 6" lifts by rolling and wetting in order to achieve 100% standard proctor dry density (ASTM D698) at optimum water content.
- Contractor to check for existing services prior to excavation works and ensure that services are appropriately disconnected, rerouted and/or protected during the course of the work then reinstated afterwards.
- All construction operations are to comply with the Bermuda Building Code 1998.

SLAB SCHEDULE

LABEL	LOCATION	SIZE	REINFORCING/NOTES
S1	Tank Base Slab	6" slab Minimum	A193 mesh, 1-1/2" top cover. Slope slab to sumps-increase slab thickness as required.
S2	Slabs over Tank	7" slab	T16 bars at 8" c/c short span, 1-1/2" bottom cover, T12 at 8" c/c long span. A142 mesh, 1-1/2" top cover.
S3	Grade Slab	4" slab min.	A142 mesh, 1-1/2" top cover, 6 mil polyethylene under, 18" laps topped and sealed. Slope slab to drains.

SLAB NOTES

- Slab on grade or fill to be placed on 6 mil polyethylene with 18" laps, on 2" sand blinding.
- Construction joints in slabs shall be kept to a minimum and where necessary, be centred over beams and are to be square and vertical. Reinforcement shall be continued through joints minimum lap length.
- Control joints shall be placed in slabs as requested. Control joints are to be 1" deep x 1/8" wide, sawcut into slabs within 24 hours of concrete placement. Fill joints with 2-part polysulphide joint sealant.
- Cast starter bars into slabs to match reinforcing in walls and columns above.

KEY: — Indicates direction of span of main slab reinforcing (bottom)

GENERAL NOTES:

- These drawings are not to be used for construction purposes unless they are labelled 'issued for construction' and are stamped by the engineer.
- The contractor shall check and confirm all dimensions, levels and elevations on site prior to construction. Do not scale the drawings. Use figured dimensions only.
- These drawings are copyrighted and are the property of Civil Engineering Consultants Ltd. They may not be copied or reproduced, in part or in whole without the prior consent of the engineer.
- Drawings are to read in conjunction with the architectural drawings.

ISSUE

NO.	ISSUED FOR:	DATE:
1.	COORDINATION	15/03/04
2.	COORDINATION	27/04/04
3.	BUILDING PERMIT	04/01/05

REVISIONS

NO.	ITEM:	DATE:

STAMP



BUILDING PERMIT ISSUE

CIVIL ENGINEERING CONSULTANTS LTD.
Civil, Marine & Structural Engineering Services

Suite 209, International Centre Building
26 Bermudiana Road, Hamilton, HM 11
Bermuda

Mail to: Suite 245, # 48 Par-la-Ville
Road, Hamilton, HM 1, Bermuda

Phone: (441) 295-5216
Fax: (441) 295-5232
Email: brett@ibl.bm

PROJECT NUMBER:	DRAWING FILE NO:
1289	1289-S01

DRAWN BY:	DATE:
BF	24 FEB 04

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

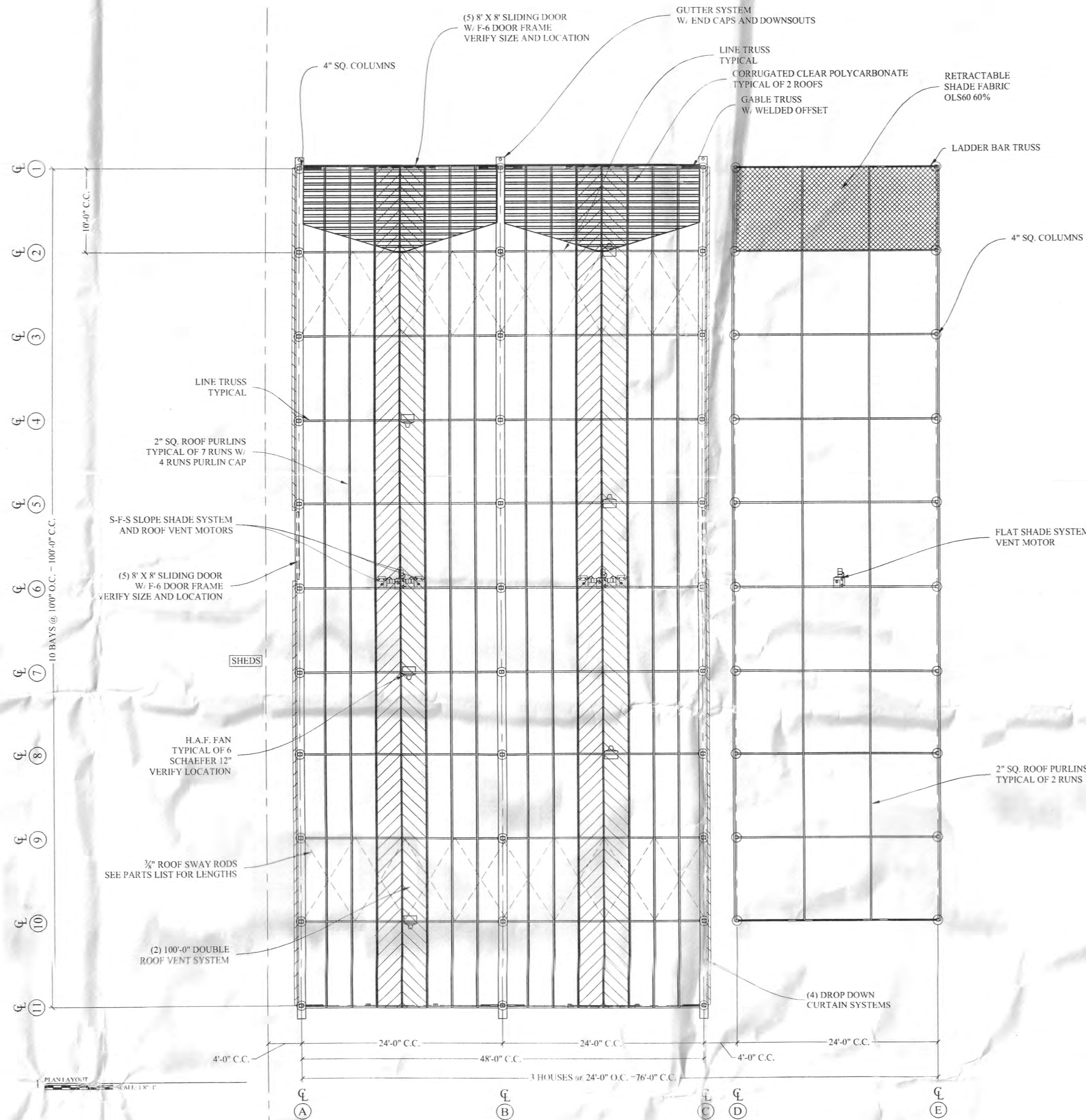
PROJECT NAME
**PROPOSED NEW GREENHOUSE
& WATER STORAGE TANK AT
TULO VALLEY NURSERY**

ADDRESS
**ST. JOHNS ROAD
PEMBROKE**

ISSUED FOR:	DATE:
BUILDING PERMIT	04 JAN 05

SHEET TITLE:
**PLAN OF NEW WATER TANK
& GREENHOUSE FLOOR SLABS**

SHEET NUMBER	REVISION
S-01	



- NOTE
1. NEXUS IS RESPONSIBLE FOR THE DESIGN OF THE STRUCTURE ONLY. MASONRY WALLS, FOUNDATION, SLAB DESIGNS ARE BY OTHERS. VERIFICATION OF THE CONCRETE IS THE RESPONSIBILITY OF THE OWNER.
 2. DESIGN LOADS
ROOF LIVE LOAD ~ 30PSF
FLAT SHADE ROOF LIVE LOAD ~ 10PSF
DESIGN WIND SPEED ~ 110MPH
EXPOSURE 'C'
ALL LOADS APPLIED IN ACCORDANCE WITH BOCA, 1996 E.D.
 3. FABRIC SHADE SYSTEM ONLY MEETS LOAD REQUIREMENTS WHEN THE SHADE SYSTEM IS IN THE RETRACTED POSITION.
 4. TYPICAL COLUMN AND POST DIMENSIONS ARE CENTER TO CENTER (C.C.) OF MEMBERS UNLESS OTHERWISE NOTED. TYPICAL WALL MEMBER DIMENSIONS ARE FROM GRADE TO TOP OF MEMBER.
 5. R.O. - ROUGH OPENING DIMENSION
C.C. - CENTER TO CENTER DIMENSION
O.O. - OUT TO OUT DIMENSION
I.I. - IN TO IN DIMENSION
V.I.F. - VERIFY IN FIELD



NEXUS GREENHOUSE CORPORATION
NORTHGLENN, COLORADO 80233
(303)457-9199

NEXUS
10983 LEROY DR.

TULO VALLEY NURSERY
BERMUDA PARKS DEPT.
#169 SOUTH RAOD
PAGET, DV04, BERMUDA

CIVIL ENGINEERING CONSULTANTS LTD.

REGISTERED PROFESSIONAL ENGINEER

NO 71

BRETT FORGESON

BERMUDA

STRUCTURAL ENGINEERING REVIEW

This review is for the limited purpose of checking the structural content of the plan to ensure general compliance with the minimum standards acceptable in accordance with the latest Bermuda Building Code. This review does not infer concurrence that the design methods and practices that have been adopted are the optimum for the project. The overall responsibility for the design and the engineer of record for the project remains with the design engineer identified on these plans. Coordination of the plans with those of other consultants has not been carried out.

DATE: 3/4/4
DRAWN: MMS/SAL
CHECKED:

SALESPERSON: DD
REVISED: 10/29/4

SHEET # 1
JOB # D11552



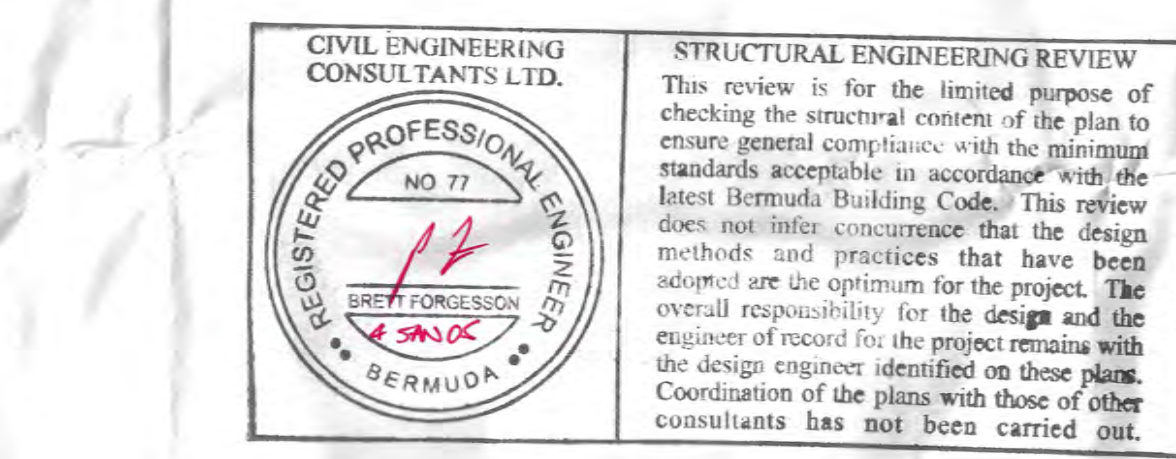
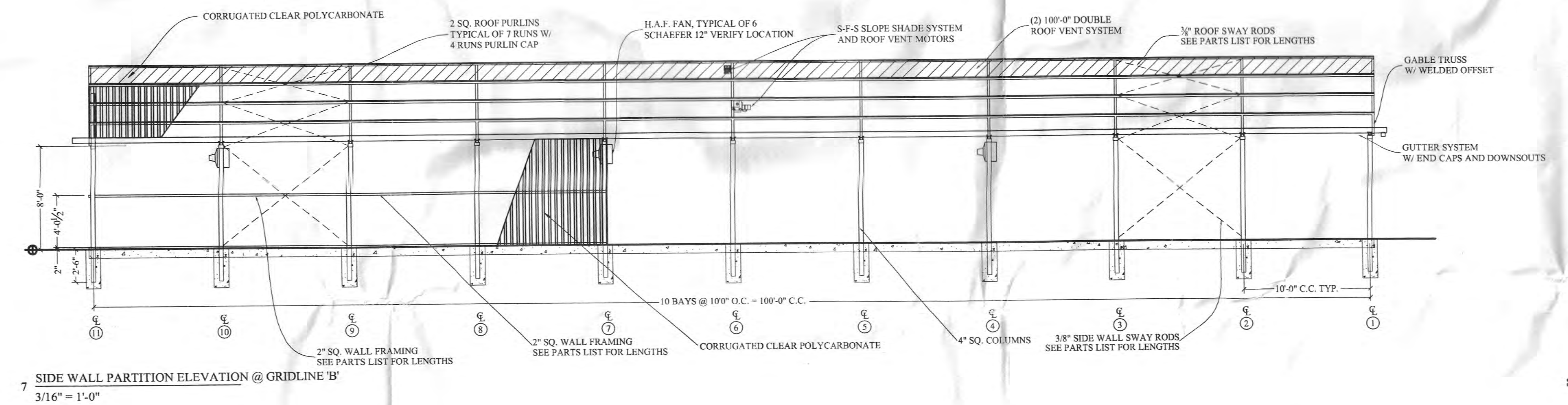
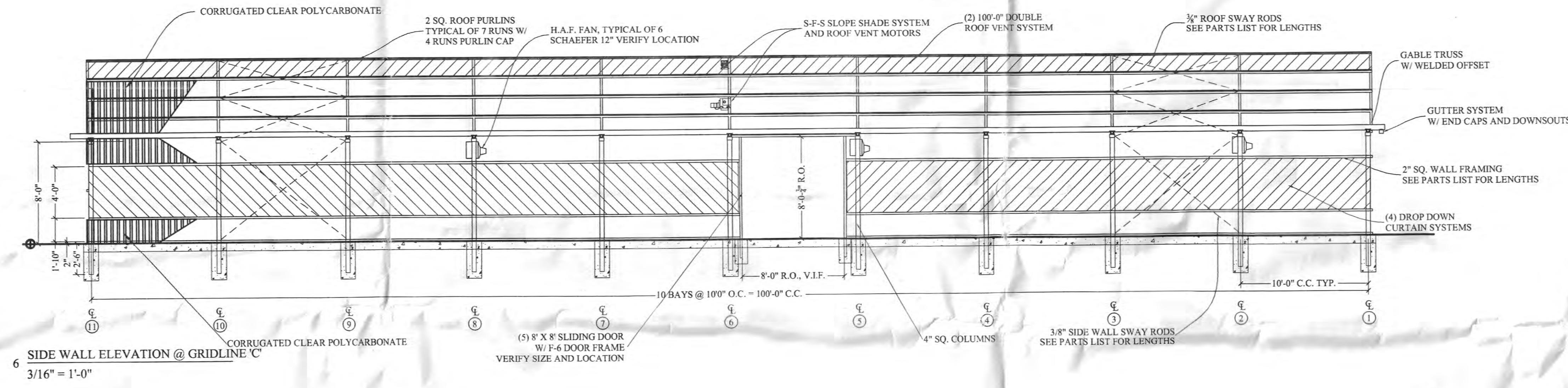
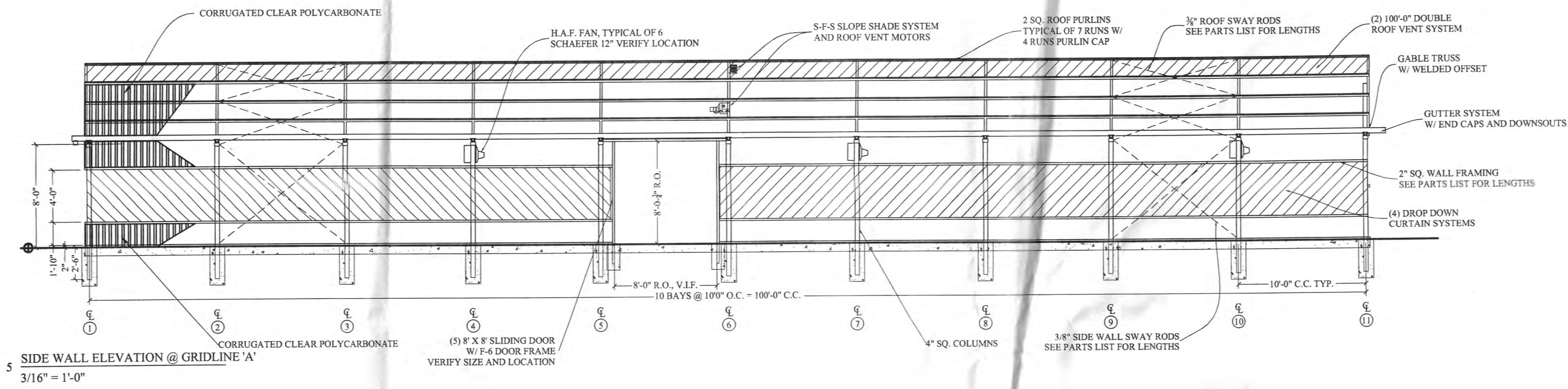


NEXUS GREENHOUSE CORPORATION
NORTHGLENN, COLORADO 80233
(303)457-9199
10983 LEROY DR.
NEXUS

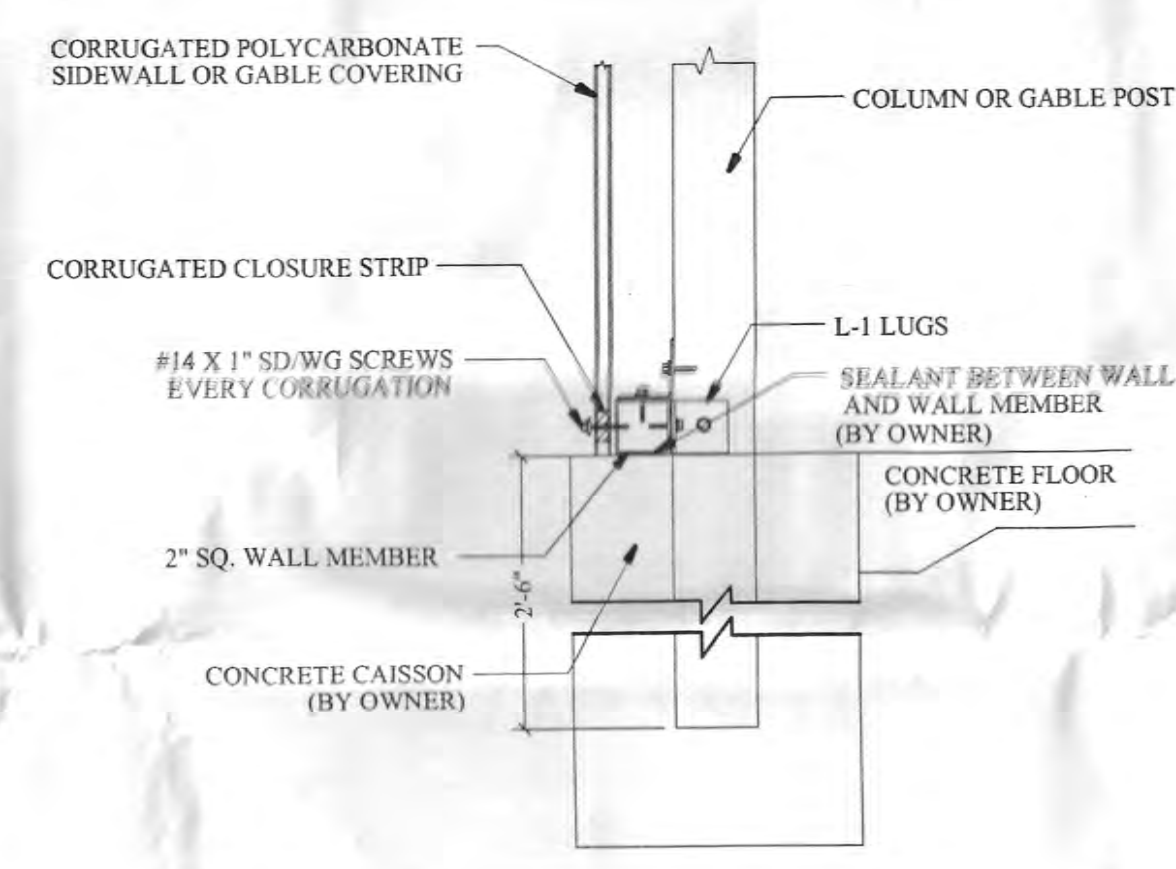
TULO VALLEY NURSERY
BERMUDA PARKS DEPT.
#169 SOUTH RAOD
PAGET, DV04, BERMUDA

DATE: 3/4/4
DRAWN: MDM/SAL
CHECKED:
SALESPERSON: DD
REVISED: 10/29/4
SHEET # 3
JOB # D11552

NOTE
1. NEXUS IS RESPONSIBLE FOR THE DESIGN OF THE STRUCTURE ONLY. MASONRY WALLS, FOUNDATION, SLAB DESIGNS ARE BY OTHERS. VERIFICATION OF THE CONCRETE IS THE RESPONSIBILITY OF THE OWNER.
2. DESIGN LOADS
ROOF LIVE LOAD = 30PSF
FLAT SHADE ROOF LIVE LOAD = 10PSF
DESIGN WIND SPEED = 110MPH
EXPOSURE 'C'
ALL LOADS APPLIED IN ACCORDANCE WITH BOCA, 1996 ED.
3. FABRIC SHADE SYSTEM ONLY MEETS LOAD REQUIREMENTS WHEN THE SHADE SYSTEM IS IN THE RETRACTED POSITION.
4. TYPICAL COLUMN AND POST DIMENSIONS ARE CENTER TO CENTER (C.C.) OF MEMBERS UNLESS OTHERWISE NOTED. TYPICAL WALL MEMBER DIMENSIONS ARE FROM GRADE TO TOP OF MEMBER.
5. R.O. = ROUGH OPENING DIMENSION
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V.I.F. = VERIFY IN FIELD



STRUCTURAL ENGINEERING REVIEW
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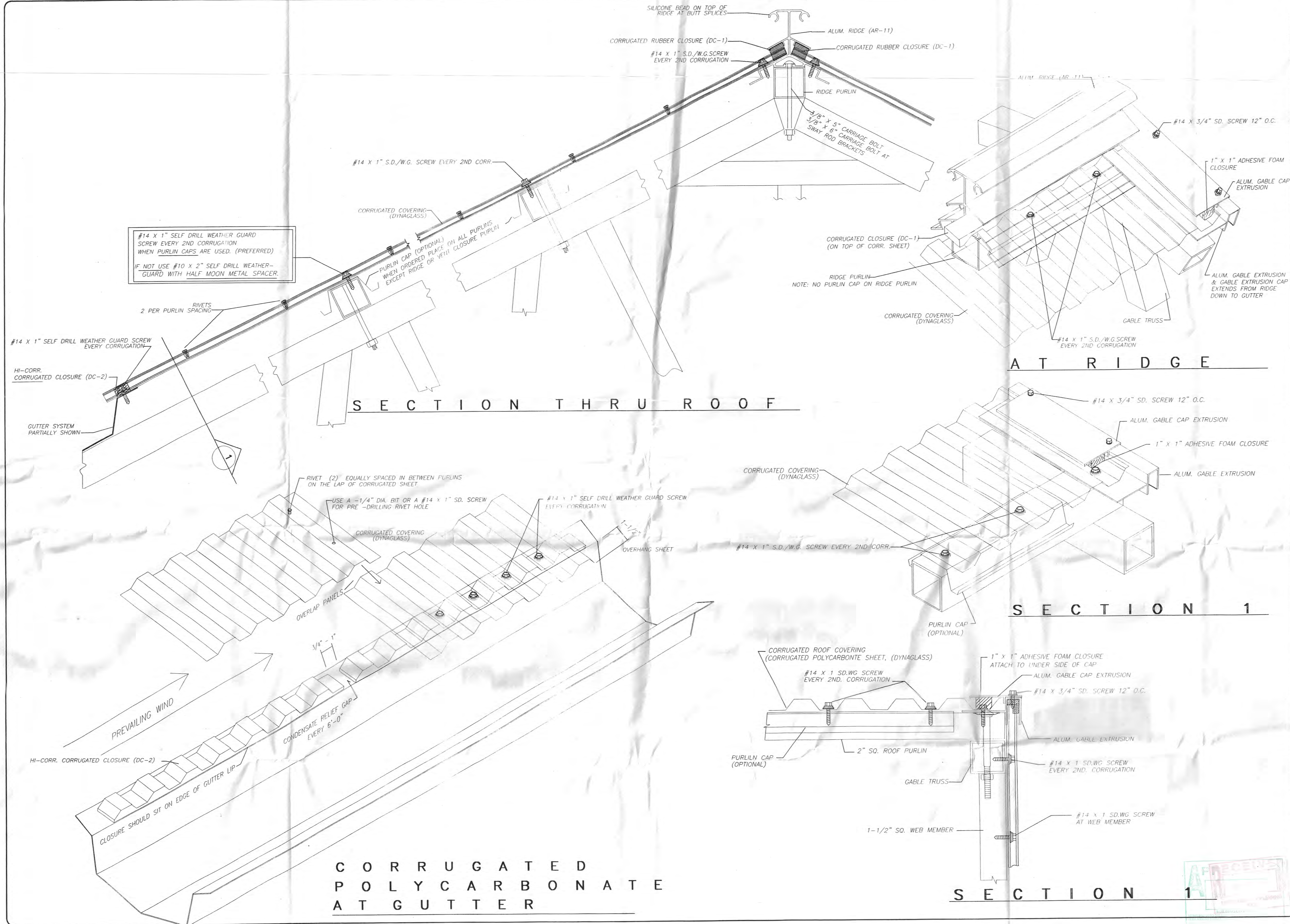
8 DETAIL OF GLAZING CONNECTION @ SLAB/CAISSON NTS

11/1/04
NEXUS GREENHOUSE CORPORATION

NEXUS GREENHOUSE CORPORATION
NORTHGLENN, COLORADO 80233 (303) 457-9199
10983 LEROY DR.

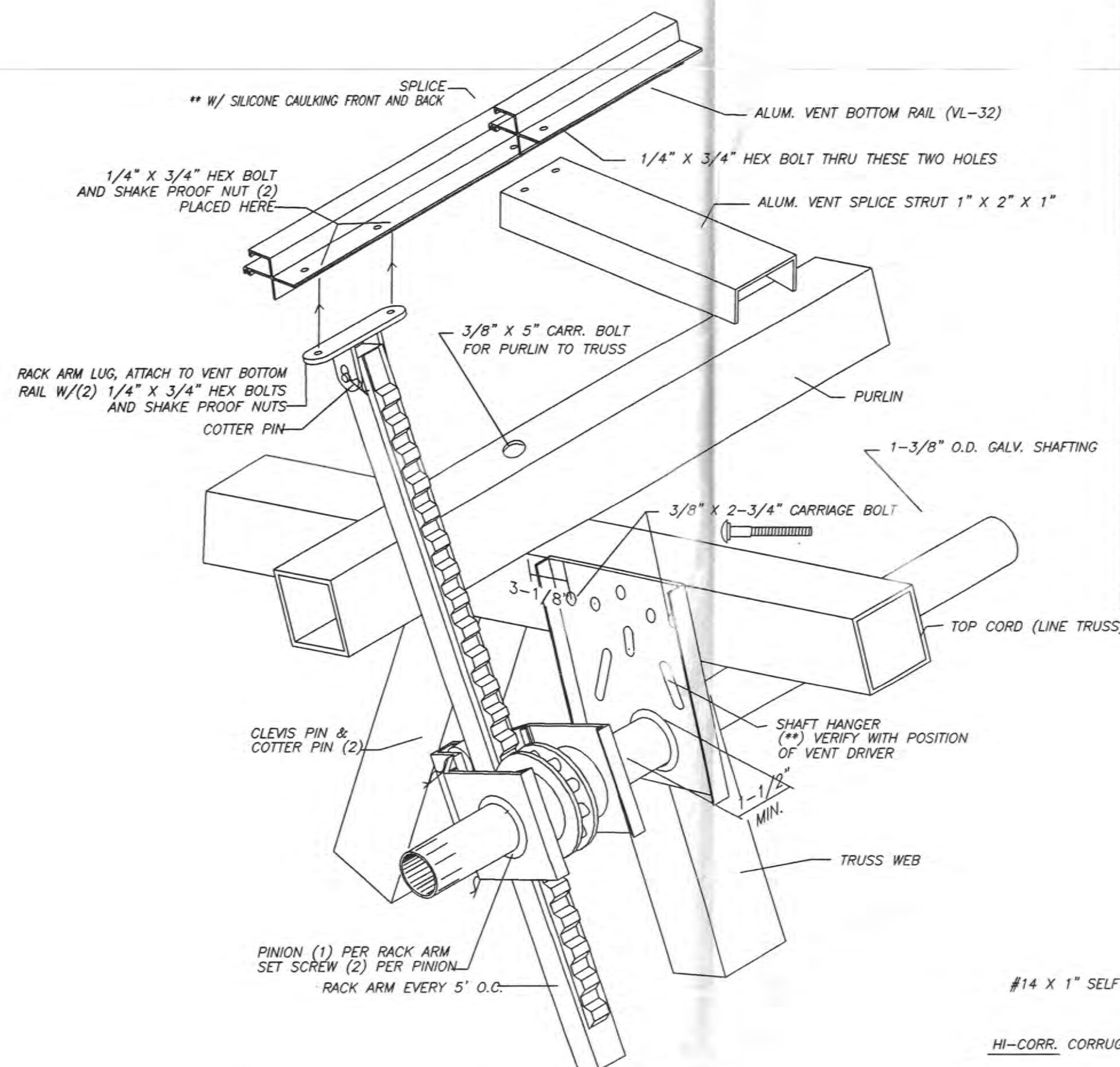
DATE: 1/28/04
DRAWN: BNH
CHECKED: BNH
CORRUGATED POLYCARBONATE (DYNAGLAS)
SHEET 4 OF 5

JOB NUMBER
D11552



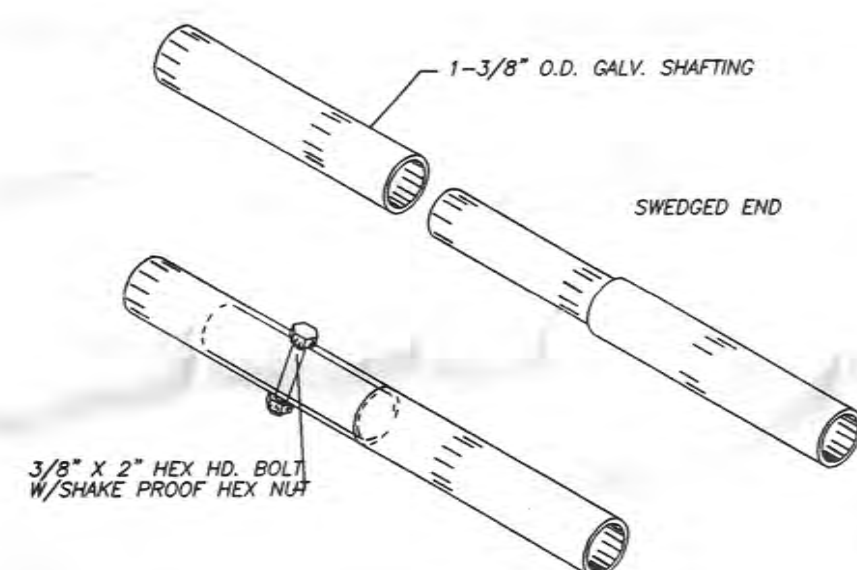
ROOF VENT INSTALLATION INSTRUCTIONS

1. ASSUMING THAT THE RIDGE HAS ALREADY BEEN ATTACHED TO THE RIDGE PURLIN, ATTACH ALUM. SOCKET RAIL TO THE RIDGE WITH #14 X 1" SELF DRILL SCREWS EVERY 12" O.C. SOCKET RAIL CAN BE ATTACHED TO RIDGE ON THE GROUND.
2. ATTACH ALUM. ROOF VENT CLOSURE CHANNEL TO THE APPROPRIATE PURLIN WITH #14 X 1" SELF DRILL SCREWS EVERY 16" ON CENTER. THIS EXTRUSION WILL EVENTUALLY ACCEPT THE ROOF COVERING BELOW THE VENT AND ACT AS THE REST OR STOP FOR THE VENT WINDOW (SEE NOTE #20 FOR VENT CONSTRUCTION OPTION.)
3. INSERT THE ALUM. TOP RAIL EXTRUSION INTO THE ALUM. RIDGE W/SOCKET.
4. WHERE NECESSARY, SPICE THE TOP RAIL TOGETHER USING A VENT SPICE STRUT (1" X 2" X 1/4" X 3/4" BOLTS WITH SHAKE PROOF NUTS. CAULK SPICES).
5. ATTACH AN ALUM. VENT END CHANNEL TO THE TOP RAIL WITH A 1/4" X 3/4" BOLT AND SHAKE PROOF NUT. THESE HOLES WILL NEED TO BE FIELD DRILLED. THE 1" LEG OF THE VENT END CHANNEL WILL SEAT UNDER THE TOP LEG OF THE TOP RAIL. THIS WILL ALLOW THE 2" LEG TO FIT ON TOP OF THE BOTTOM LEG OF TOP RAIL. (REMEMBER TO NOTCH 1-3/8" OF VENT END CHANNEL BOTTOM LEG-SEE VENT FRAME DETAIL.)
6. ATTACH THE OPPOSITE END OF THE VENT END CHANNEL TO THE VENT BOTTOM RAIL. FIELD DRILL HOLES AND USE A 1/4" X 3/4" BOLT AND SHAKE PROOF NUT. SPICE BOTTOM RAIL SIMILAR TO TOP RAIL.
7. ATTACH ALUM. VENT STRUTS TO BOTH THE TOP RAIL AND BOTTOM RAIL WITH A 1/4" X 3/4" BOLT AND SHAKE PROOF NUT. THESE HOLES WILL ALSO NECESSITATE FIELD DRILLING. STRUTS ARE SPACED EVERY 5'0" O.C. VENT END CHANNELS ACT AS STRUTS AT THE START AND END OF THE VENT.
8. ALL VENT END CHANNELS AND STRUTS ARE SENT AT THE REQUIRED LENGTHS. NO FIELD CUTTING WILL BE NECESSARY.
9. REPEAT STEP 7 UNTIL ALL VENT STRUTS ARE INSTALLED.
10. REPEAT STEPS 5 AND 6 AT THE END OF THE VENT. YOU NOW HAVE THE SKELETAL STRUCTURE OF YOUR VENT.
11. REPEAT ENTIRE VENT INSTALLATION INSTRUCTIONS FOR ANY ADDITIONAL REMAINING VENTS.
12. SECURE VENT WINDOWS TO PROTECT AGAINST POSSIBLE WIND DAMAGE.
13. INSTALL RACK ARM LUGS AT EACH VENT END CHANNEL AND STRUT USING (2) 1/4" X 3/4" BOLTS AND SHAKE PROOF NUTS. HOLES WILL BE FIELD DRILLED.
14. INSTALL SHAFT HANGERS AT TRUSS LOCATION OUTLINED IN ABOVE DRAWING.
15. FEED VENT DRIVE SHAFT THROUGH THE SHAFT HANGERS, SPLICE SHAFTS TOGETHER WHERE NECESSARY USING THE 3/8" X 2" HEX HD. BOLT. BE SURE TO PLACE PINNONS ON THE DRIVE SHAFT AS SHAFT IS BEING INSTALLED AT A CORRESPONDING RACK ARM LUG.
16. FEED A RACK ARM THROUGH THE PINION (TEETH UP) TO THE RACK ARM LUG AND COUPLE WITH A PROVIDED COTTER PIN.
17. WHEN ALL RACK ARMS ARE INSTALLED, THEY CAN BE ALIGNED FOR STRAIGHT TRAVEL AND A SET SCREW PLACED IN THE APPROPRIATE HOLES AND TIGHTENED DOWN TO THE DRIVE SHAFT.
18. BE SURE TO REMOVE PREVIOUSLY INSTRUCTED SECURING MATERIAL (STEP 12) BEFORE INSTALLING VENT COVERING.
19. AT THIS TIME IT IS A GOOD IDEA TO THOROUGHLY LUBRICATE THE VENT MECHANISM AS OUTLINED IN THE DETAIL INCLUDED IN THE CONSTRUCTION BOOKLET.
20. WITH SOME PLANNING, THE FIELD DRILLED HOLES CAN BE DONE ON THE GROUND TO HELP WITH THE INSTALLATION. CARRYING THIS ONE STEP FURTHER, THE VENT CAN BE BUILT IN 10' SECTIONS ON THE GROUND AND PLACED INTO THE SOCKET OF RIDGE. THE VENT SPLICE STRUTS WOULD THEN BE LEFT TO CONNECT THE SECTIONS.

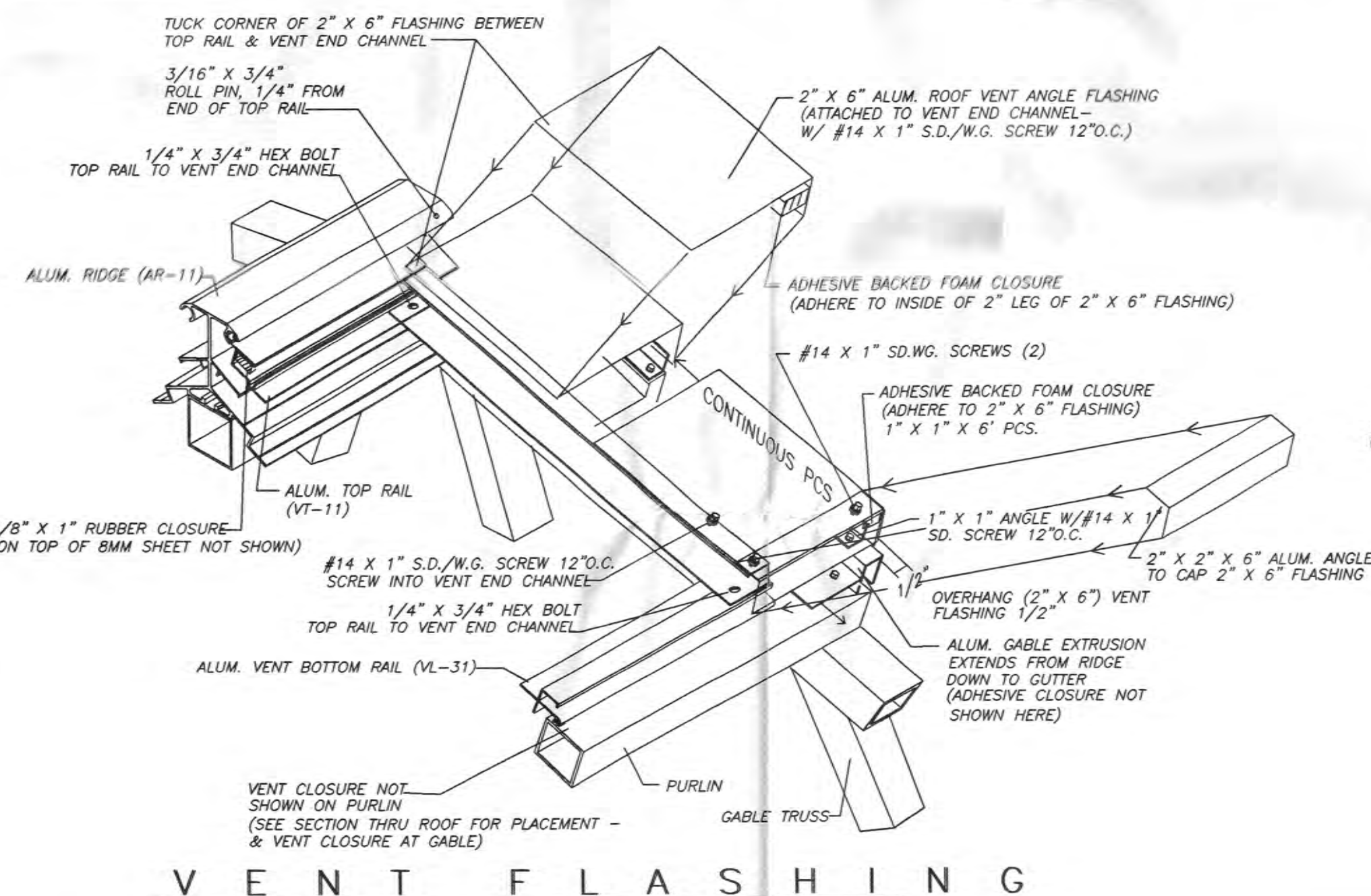


RACK ARM PLACEMENT

** INSTALL MOTOR DRIVE FIRST TO VERIFY PLACEMENT OF SHAFT HANGER

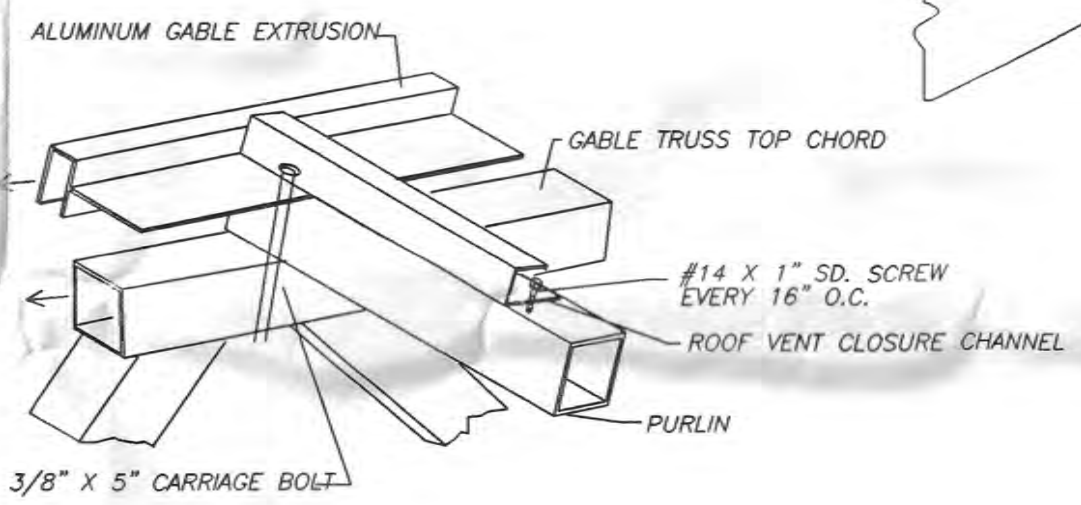


SHAFT SPLICING

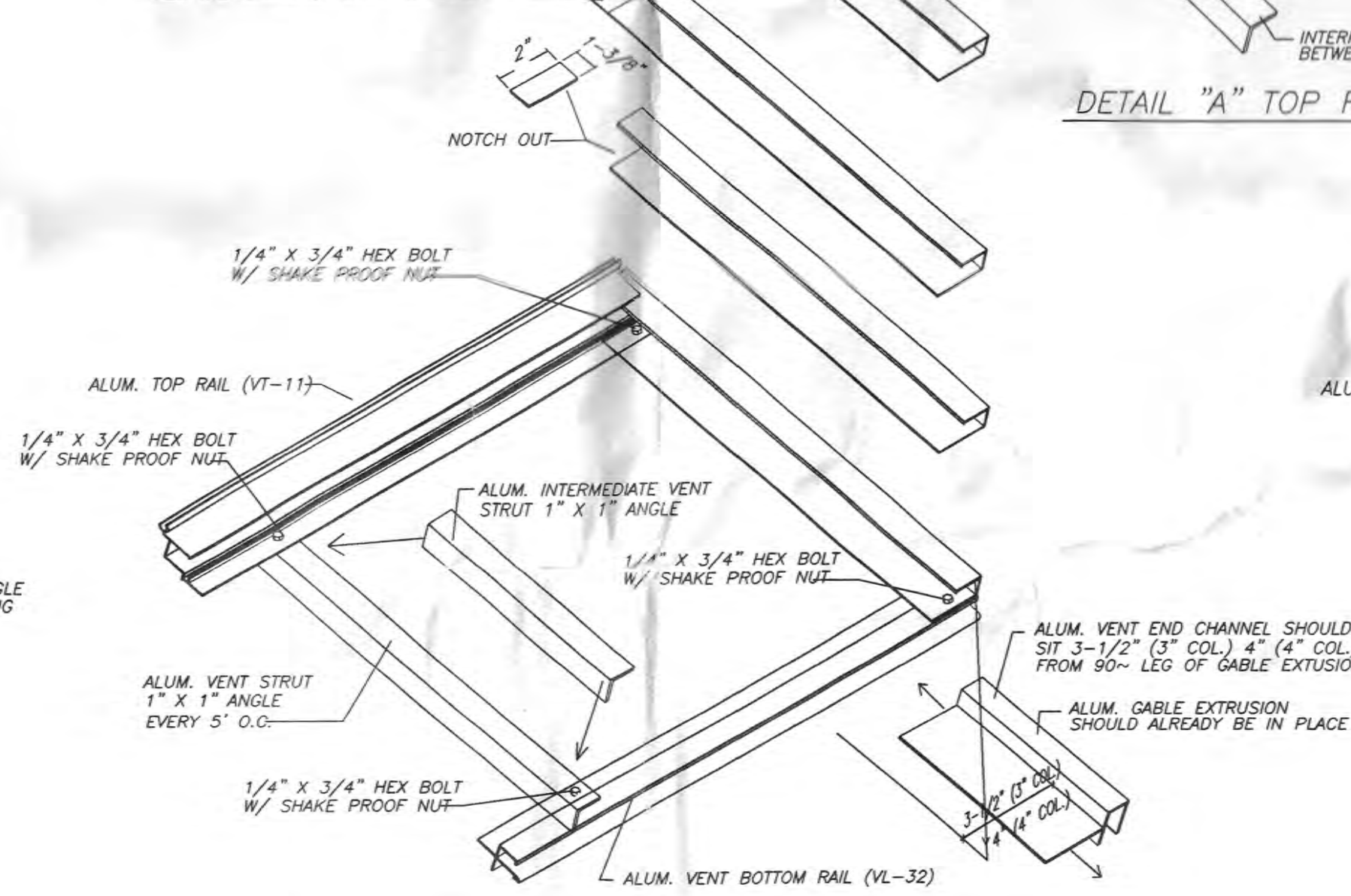


VENT FLASHING

VENT CLOSURE AT GABLE CHANNEL INSIDE VIEW

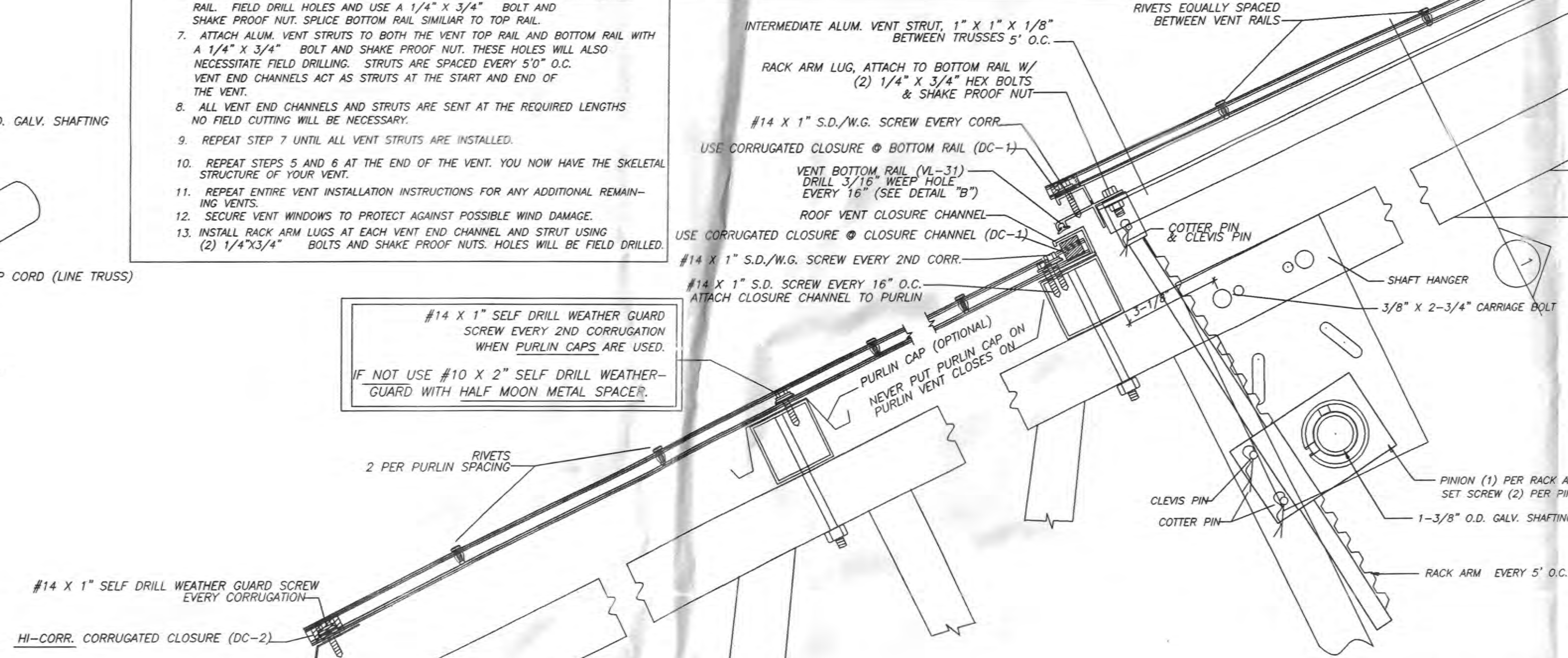


NOTCH OUT 1-3/8\"/>

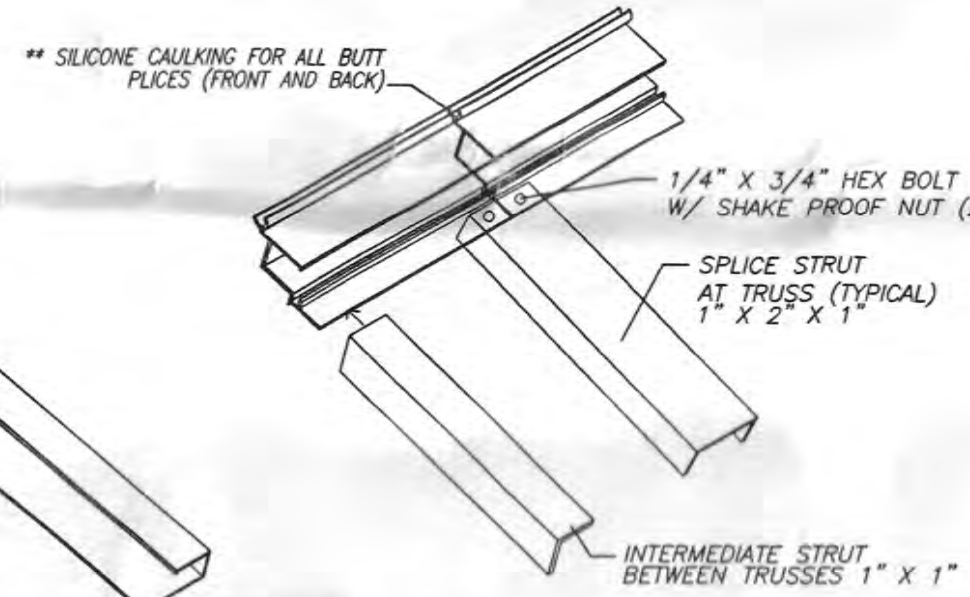


VENT FRAME DETAIL

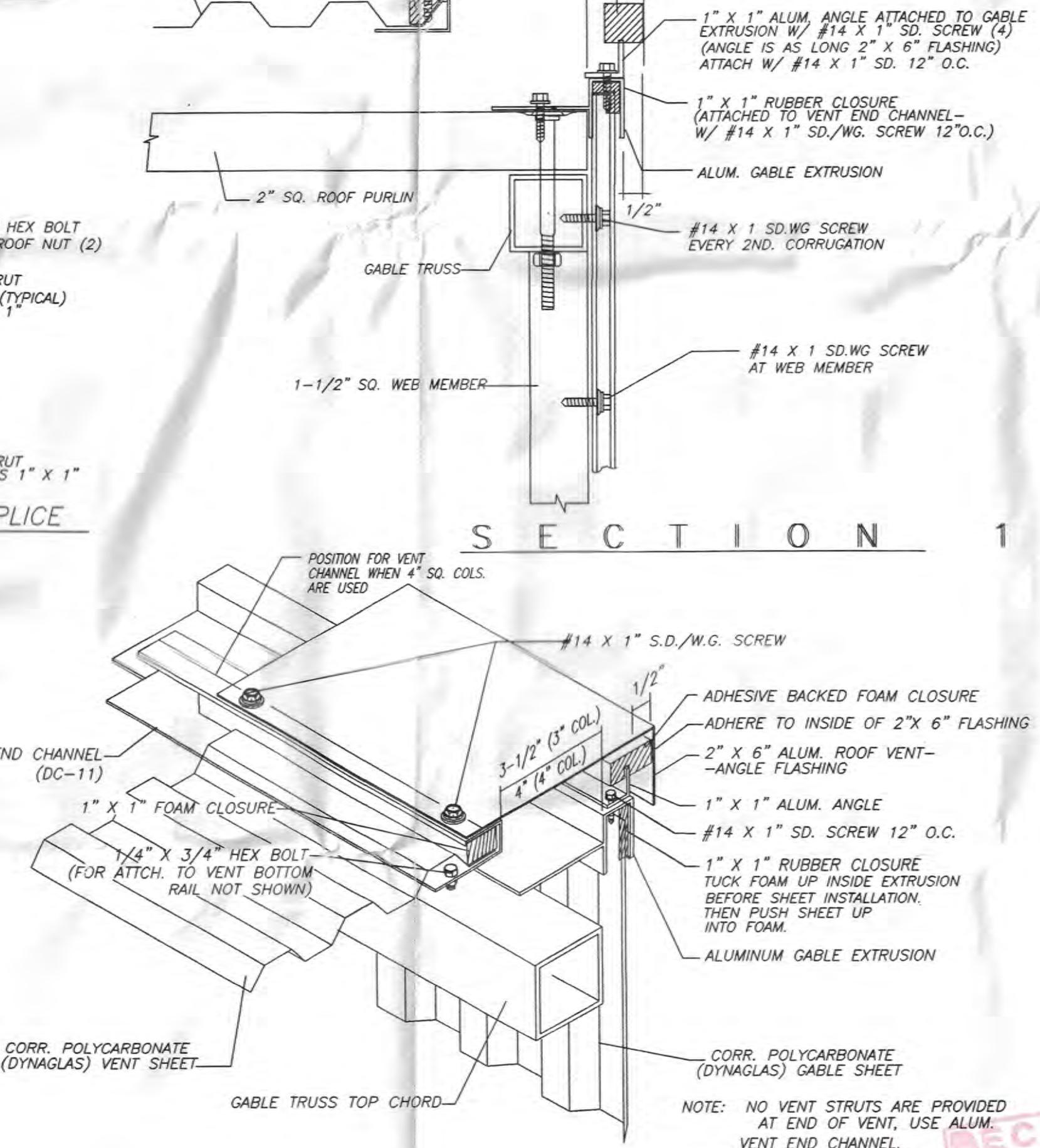
SECTION THRU ROOF



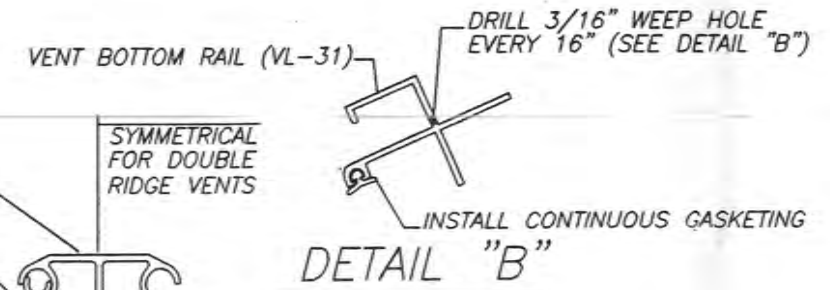
DETAIL "A" TOP RAIL SPLICE



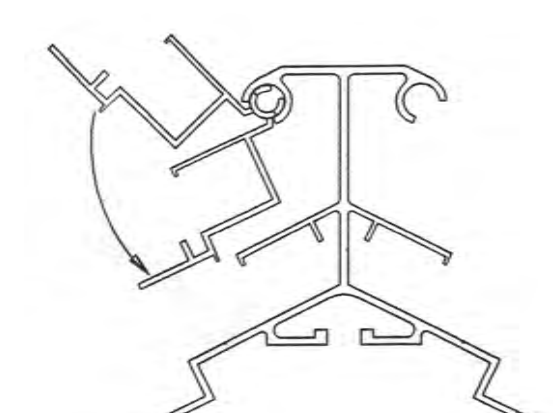
SECTION 1



SECTION 1 ILLUSTRATION



DETAIL "B"



1. ROTATE TOP RAIL AS TO REPRESENT VENT IN AN OVER EXAGGERATED OPEN POSITION.
2. INSERT PIVOT END OF TOP RAIL INTO SOCKET RAIL.
3. ROTATE TOP RAIL TO REPRESENT VENT CLOSING.
4. TOP RAIL IS NOW IN THE CORRECT POSITION.

DETAIL A

CORRUGATED PCSS VAIL ROOF VENT ASSEMBLY

DATE: 3/29/95
DRAWN: MAM/BWH
CHECKED:
SALESPERSON:
REVISED:

SHEET # 5
JOB # D11552

NEXUS GREENHOUSE CORPORATION
10983 LEROY DR. NORTHGLENN, COLORADO 80233
(303)457-9199



THE MINISTRY OF
WORKS AND
ENGINEERING
AND HOUSING

P.O. Box HM525 Hamilton HMCX Bermuda
Phone: (441)295-5151

ENGINEERING and
OPERATIONS DIVISION
Fax: (441)295-0170

Mechanical/Electrical Section

ELECTRICAL LEGEND OF SYMBOLS

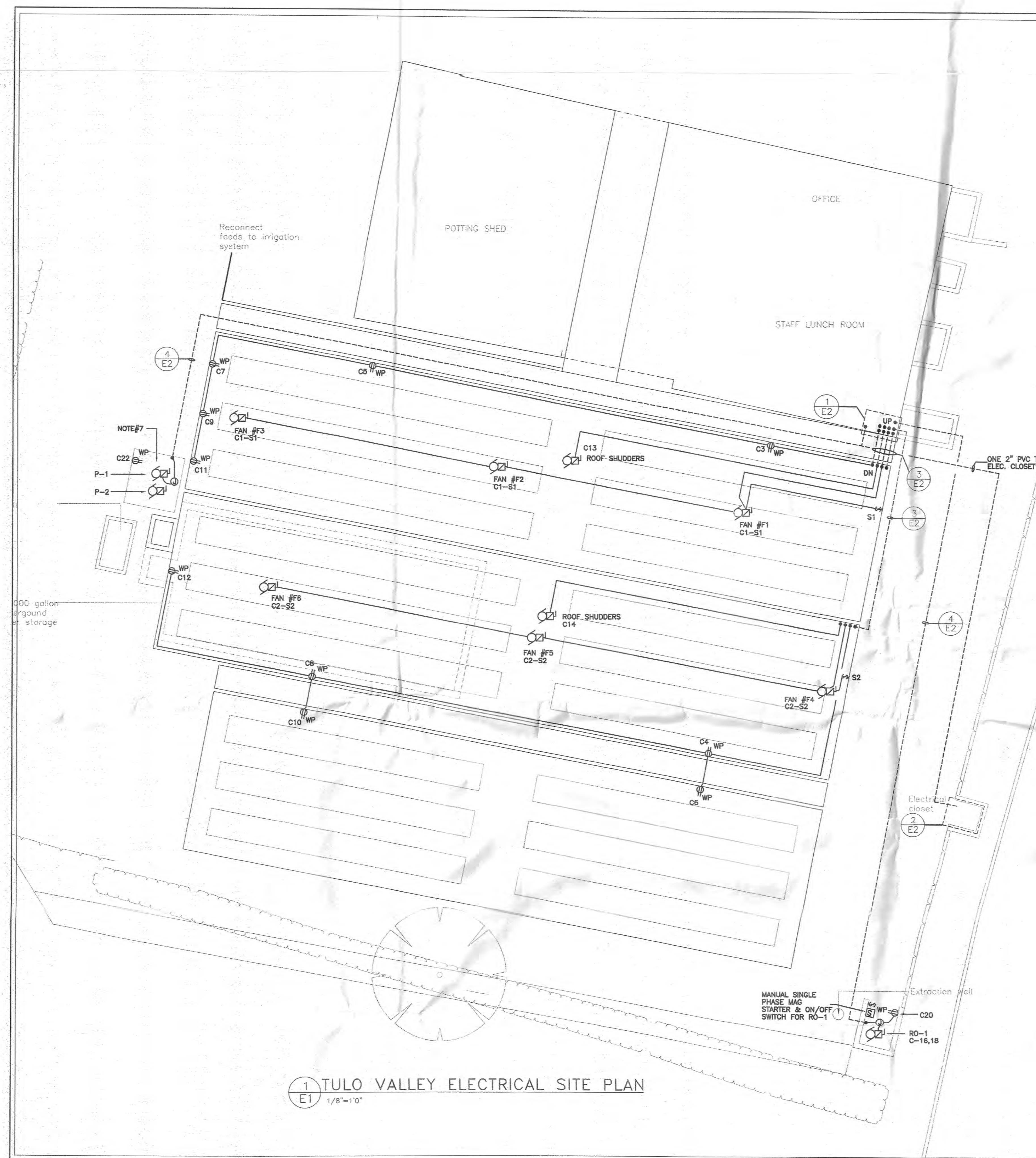
	WEATHERPROOF RECEPTACLE		SURFACE MOUNTED SWITCH
	SURFACE MOUNTED PANEL		DIRECT CONNECT
	JUNCTION BOX		RELAY OR CONTACTOR
	MOTOR C/W FUSED DISCONNECT		STARTER
	FUSED DISCONNECT SWITCH	----	CONDUIT TO BE BURIED
	BELCO METER	----	CONDUIT TO BE SURFACE MOUNTED

GENERAL SPECIFICATIONS:

- CONTRACTOR SHALL EXAMINE ALL CONDITIONS AT THE SITE THAT WILL OR MAY AFFECT ELECTRICAL WORK, AND BECOME FAMILIAR WITH SITE CONDITIONS AND WORK ASSOCIATED WITH ELECTRICAL WORK IN ORDER WHAT YOUR TENDER PRICE INCLUDES FOR EVERYTHING NECESSARY FOR COMPLETION OF THE ELECTRICAL WORK.
- ENSURE THAT MATERIALS AND EQUIPMENT ARE DELIVERED TO SITE AT THE PROPER TIME AND IN SUCH ASSEMBLIES AND SIZES AS SPECIFIED.
- THE ELECTRICAL DRAWINGS ARE PERFORMANCE DRAWINGS, DIAGRAMMATIC, AND SHOW APPROXIMATE LOCATIONS OF EQUIPMENT AND MATERIALS. THE DRAWINGS ARE INTENDED TO CONVEY THE SCOPE OF WORK AND DO NOT SHOW THE ARCHITECTURAL AND STRUCTURAL DETAILS.
- MOTOR CONTROL SCHEDULE DETAIL ARE BOTH MECHANICAL AND ELECTRICAL APPLY TO WORK FOR BOTH DIVISION 15 & 16.
- WHERE REGULATORY CODES, STANDARDS AND REGULATIONS ARE AT VARIANCE WITH THE DRAWINGS AND SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT WILL APPLY.
- DURING CONSTRUCTION, KEEP THE SITE REASONABLE CLEAR OF RUBBISH AND WASTE MATERIAL RESULTING FROM ELECTRICAL WORK ON A DAILY BASIS TO THE SATISFACTION OF THE ENGINEER. BEFORE APPLYING FOR A CERTIFICATE OF SUBSTANTIAL COMPLETION REMOVE ALL OF YOUR RUBBISH AND DEBRIS, AND ARRANGE FOR AND PAY THE REPAIR OF ANY DAMAGE CAUSED AS A RESULT OF ELECTRICAL WORK.
- PROPERLY PROTECT ALL ELECTRICAL EQUIPMENT AND MATERIALS ON SITE FROM DAMAGE DUE TO THE ELEMENTS, THE ELECTRICAL WORK AND THE WORK OF OTHER TRADES TO THE SATISFACTION OF THE ENGINEER. ALL EQUIPMENT AND MATERIALS MUST BE IN NEW CONDITIONS WHEN THE WORK IS SUBSTANTIALLY PERFORMED.
- WHEN WORK BEGINS AT THE SITE, CLEARLY AND ACCURATELY MARK ON A SET OF WHITE PRINTS OF THE CONTRACT DOCUMENTS, ON A DAILY BASIS, ALL CHANGES AND DEVIATIONS FROM THE ROUTING OF SYSTEM FEEDERS AND LOCATIONS OF EQUIPMENT SHOWN ON THE CONTRACT DOCUMENTS. CHANGES INCLUDE THOSE MADE BY ADDENDA, CHANGE ORDERS, AND SITE INSTRUCTIONS.
- WARRANT ALL THE ELECTRICAL WORK TO BE IN STRICT ACCORDANCE WITH THE CONTRACT DOCUMENTS AND FREE FROM DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF ISSUE OF A CERTIFICATE OF SUBSTANTIAL PERFORMANCE OF THE WORK.

NOTES:

- THE ENTIRE ELECTRICAL INSTALLATION SHALL CONFORM TO THE STANDARDS SET OUT IN THE 2002 NEC AND THE MINISTRY OF ENGINEERING DRAWINGS AND SPECIFICATIONS FOR THE TULO VALLEY NURSERY.
- REFER TO THE MECHANICAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL MECHANICAL DEVICES. ELECTRICAL CONTRACTOR SHALL WIRE AND CONNECT ALL DEVICES SHOWN HERE AND AS LISTED IN THE MOTOR CONTROL SCHEDULE.
- ALL ELECTRICAL DEVICES UNLESS SPECIFIED OTHERWISE ARE NEW TO BE SUPPLIED AND INSTALLED.
- ALL CONDUITS SHALL BE RIGID PVC TYPE AND SHALL BE SUPPORTED VIA THE STRUCTURAL BEAMS ABOVE. ALL CONDUIT RUN SURFACE & EXPOSED ON THE EXTERIOR OF BUILDING SHALL BE RIGID GALVANIZED STEEL WITH WEATHERPROOF FITTINGS. THE LAST 3 FEET OF CONDUIT CONNECTION TO MECHANICAL SHALL BE FLEXIBLE TYPE TO ALLOW FOR MOTOR VIBRATION. ALL CONDUIT SHALL BE ROUTED NEATLY PARALLEL OR PERPENDICULAR TO EXTERIOR BUILDING WALLS.
- ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL NEW SINGLE POLE SWITCH TO BE MOUNTED AT GREENHOUSE ENTRANCE FOR ON/OFF FAN CONTROL. FAN CONTROL SHALL BE FOR ALL THREE FANS WITHIN EACH HOUSE. SWITCH TO BE SURFACE MOUNTED AND LABELLED "FAN CONTROL".
- ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL MAG STARTERS FOR THE REVERSE OSMOSIS PLANT RO-1. ELECTRICAL CONTRACTOR SHALL PROVIDE ON/OFF CONTROL MAG STARTERS AND SWITCH TO BE MOUNTED SURFACE AS SHOWN.
- ELECTRICAL CONTRACTOR SHALL CONNECT P1 & P-2 TO NEW FUSED DISCONNECT LOCATED IN THE MAIN ELECTRICAL CLOSET AS SHOWN IN DRAWING E2. WIRE AND CONNECT USING #14-2" C. WIRE AND CONNECT TO DIV 15 SUPPLIED PUMP CONTROL PANEL LOCATED IN PUMPHOUSE.



ISSUED FOR: ISSUED FOR TENDER

AMENDMENTS:

NO	REVISION	BY	APP	DATE

ISSUED FOR TENDER CW DEC 22/04

SCALE: AS NOTED

SURVEY

PREPARED BY: DATE:

DESIGN

PREPARED BY: C. WALTON DATE: DEC 8/04

CHECKED BY: DATE:

DRAWING

PREPARED BY: C. WALTON DATE: DEC 8/04

CHECKED BY: DATE:

APPROVED BY: DATE:

PROJECT NUMBER:

PROJECT NAME:

**TULO VALLEY
NURSERY**

PEMBROKE PARISH

DRAWING FILE LOCATION: ACAD 2002

SHEET TITLE:

ELECTRICAL LAYOUT

SHEET NUMBER:

E-01

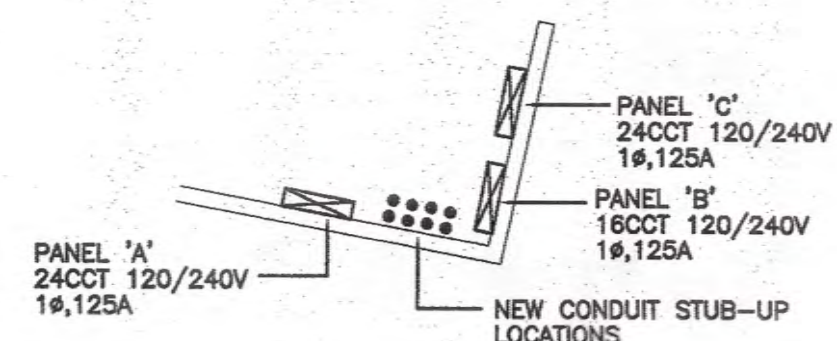
REVISION

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P.O. Box HM525 Hamilton HMCX Bermuda
Phone: (441)295-5151

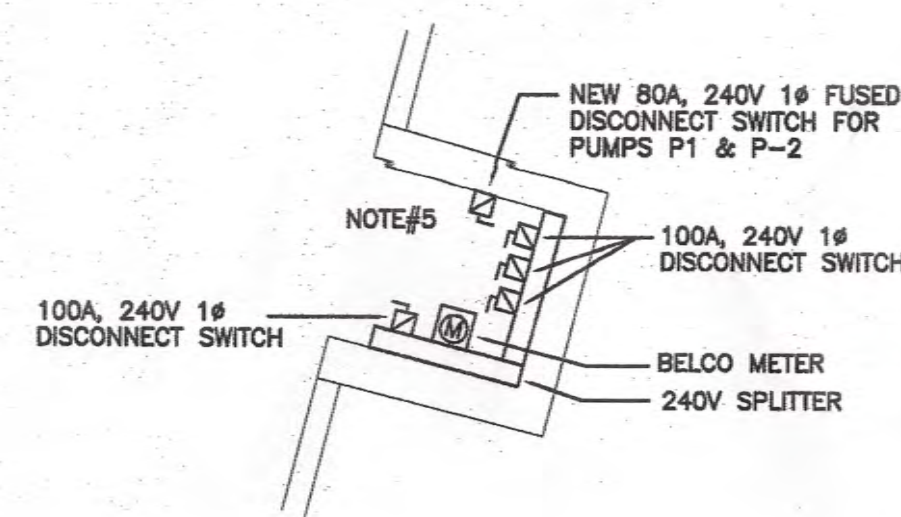
ENGINEERING and
OPERATIONS DIVISION
Fax: (441)295-0170

Mechanical/Electrical Section



NOTE: ALL DEVICES SHOWN ARE EXISTING
TO REMAIN UNLESS OTHERWISE NOTED

1 EXISTING ELECTRICAL PANEL DETAIL



NOTE: ALL DEVICES SHOWN ARE EXISTING
TO REMAIN UNLESS OTHERWISE NOTED

2 EXISTING ELECTRICAL CLOSET DETAIL

NOTES:

- 1.) THE ENTIRE ELECTRICAL INSTALLATION SHALL CONFORM TO THE STANDARDS SET OUT IN THE 2002 NEC AND THE MINISTRY OF ENGINEERING DRAWINGS AND SPECIFICATIONS FOR THE TULO VALLEY NURSERY.
- 2.) REFER TO THE MECHANICAL DRAWINGS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF ALL MECHANICAL DEVICES. ELECTRICAL CONTRACTOR SHALL WIRE AND CONNECT ALL DEVICES SHOWN HERE AND AS LISTED IN THE MOTOR CONTROL SCHEDULE.
- 3.) ALL ELECTRICAL DEVICES UNLESS SPECIFIED OTHERWISE ARE NEW TO BE SUPPLIED AND INSTALLED.
- 4.) ALL CONDUITS SHALL BE RIGID PVC TYPE AND SHALL BE SUPPORTED VIA THE STRUCTURAL BEAMS ABOVE. ALL CONDUIT RUN SURFACE & EXPOSED ON THE EXTERIOR OF BUILDING SHALL BE RIGID GALVANIZED STEEL WITH WEATHERPROOF FITTINGS. THE LAST 3 FEET OF CONDUIT CONNECTION TO MECHANICAL SHALL BE FLEXIBLE TYPE TO ALLOW FOR MOTOR VIBRATION. ALL CONDUIT SHALL BE ROUTED NEATLY PARALLEL OR PERPENDICULAR TO EXTERIOR BUILDING WALLS.
- 5.) ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL NEW 80A 3-POLE FUSED DISCONNECT SWITCH AND MAIN ELECTRICAL CLOSET AS SHOWN. NO DISCONNECT SHALL BE SURFACE MOUNTED AND CONNECTED TO EXISTING 1/2" SPLITTER. LABEL DISCONNECT IN ELECTRICAL CLOSET "BOOSTER PUMPS, P-1 & P-2".

[illegible]

NOTE: ALL EQUIPMENT NOTED IN SCHEDULE TO BE SUPPLIED AND INSTALLED BY OTHERS

240 VOLTS
240 PHASE
3 WIRE

PANEL 'C' (EXISTING)

LOCATION CORNER
FEEDER

125 A. BUSSING
SURFACE MTG

CIR	BKR	WATTAGE		LTG	REC	MIS	REMARKS	REMARKS	MIS	REC	LTG	WATTAGE		BKR	CIR
		A#	B#									A#	B#		
* 1	20	324				3	FANS	FANS	3				324	20	2
* 3	20		200		1		RECEPT	RECEPT		1			200	20	4
* 5	20	200			1		RECEPT	RECEPT		1		200		20	6
* 7	20		200		1		RECEPT	RECEPT		1			200	20	8
* 9	20	200			1		RECEPT	RECEPT		1		200		20	10
11	20		200		1		RECEPT	RECEPT		1			200	20	12
13	20	746				1	ROOF SHUDDER	ROOF SHUDDER	1			746		20	14
15								RO-1						20	16
17															18
19								RO RECEPT							20
21								PUMP RECEPT							22
23															24
TOTALS		1470	600									1470	600	TOTALS	

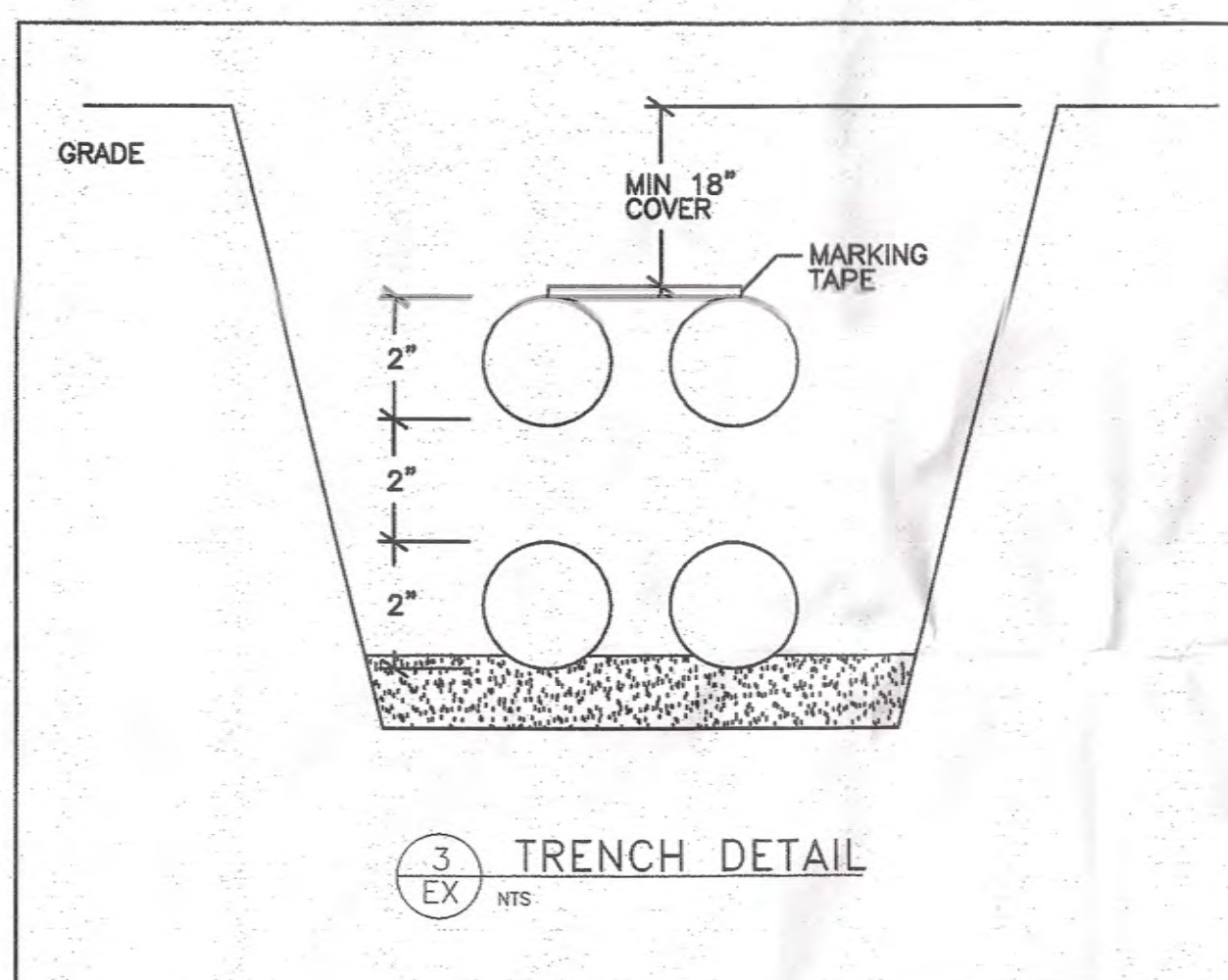
A# TOTAL= 2840

B# TOTAL= 1200

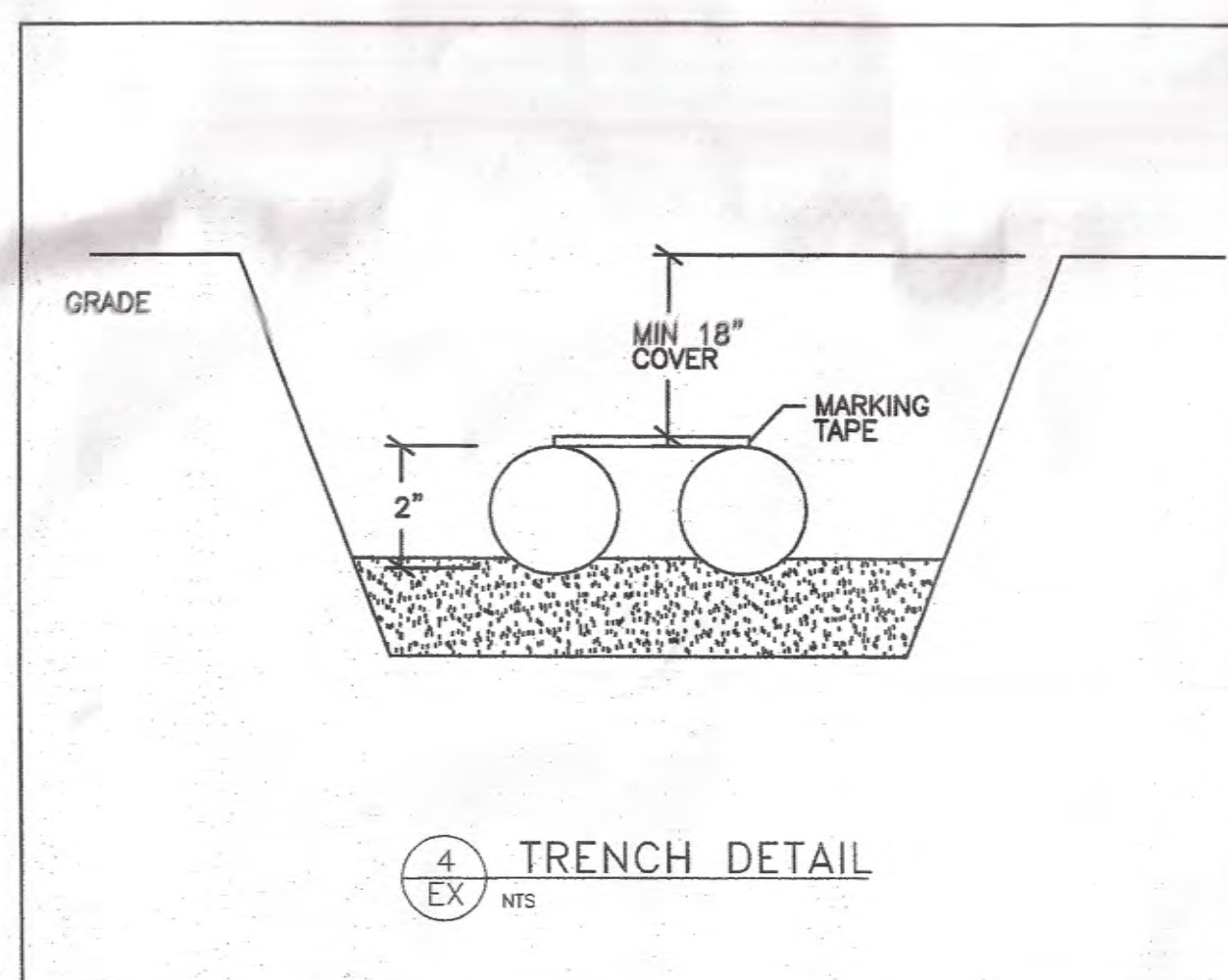
PANEL TOTAL= 4140 WATTS

REMARKS:

- * -DENOTES EXISTING BREAKER TO BE REPLACED WITH NEW AS SHOWN
- * -DENOTES EXISTING BREAKER TO BE REWIRED TO NEW EQUIPMENT AS SHOWN



3 TRENCH DETAIL
EX NTS



4 TRENCH DETAIL
EX NTS

ISSUED FOR: ISSUED FOR TENDER

AMENDMENTS:

NO	REVISION	BY	APP	DATE
----	----------	----	-----	------

0	ISSUED FOR TENDER	CW	DEC 22/04
---	-------------------	----	-----------

SCALE: AS NOTED

SURVEY

PREPARED BY: _____ DATE: _____

DESIGN

PREPARED BY: _____ DATE: _____

C. WALTON DEC 8

DRAWING

PREPARED BY: _____ DATE: _____

C. WALTON DEC 1964

APPROVED BY: _____ DATE: _____

PROJECT NUMBER:

PROJECT NAME:

**TULO VALLEY
NURSERY**

PEMBROKE PARISH

DRAWING FILE LOCATION: ACAD 2002

SHEET TITLE:
**PANEL SCHEDULES &
DETAILS SHEET**

SHEET NUMBER: | REVISION

E-02

REVISION

 Δ

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ENGINEERING and
OPERATIONS DIVISION
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Mechanical/Electrical Section

ISSUED FOR: ISSUED FOR TENDER

AMENDMENTS:

NO | REVISION: | BY | APP | DATE

ISSUED FOR TENDER	TD	DEC 22/04
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SCALE: AS NOTED

SURVEY

PREPARED BY: _____ DATE: _____

DESIGN

PREPARED BY: T. DROESBECK

DATE: DEC 8/04

CHECKED BY: _____ DATE: _____

DRAWING

PREPARED BY: DATE:
T. DROESBECK DEC 8/04

CHECKED BY: _____ DATE: _____

APPROVED BY: _____ DATE: _____

PROJECT NUMBER:

PROJECT NAME:

TULO VALLEY
NURSERY

PEMBROKE PARISH

DRAWING FILE LOCATION: ACAD 2002

SHEET TITLE:

MECHANICAL LAYOUT

SHEET NUMBER:

REVISION

M-01

REVISION
A

0

RECEIVED
JAN 7 1963
DEPARTMENT OF PLANNING
F.B.I.

