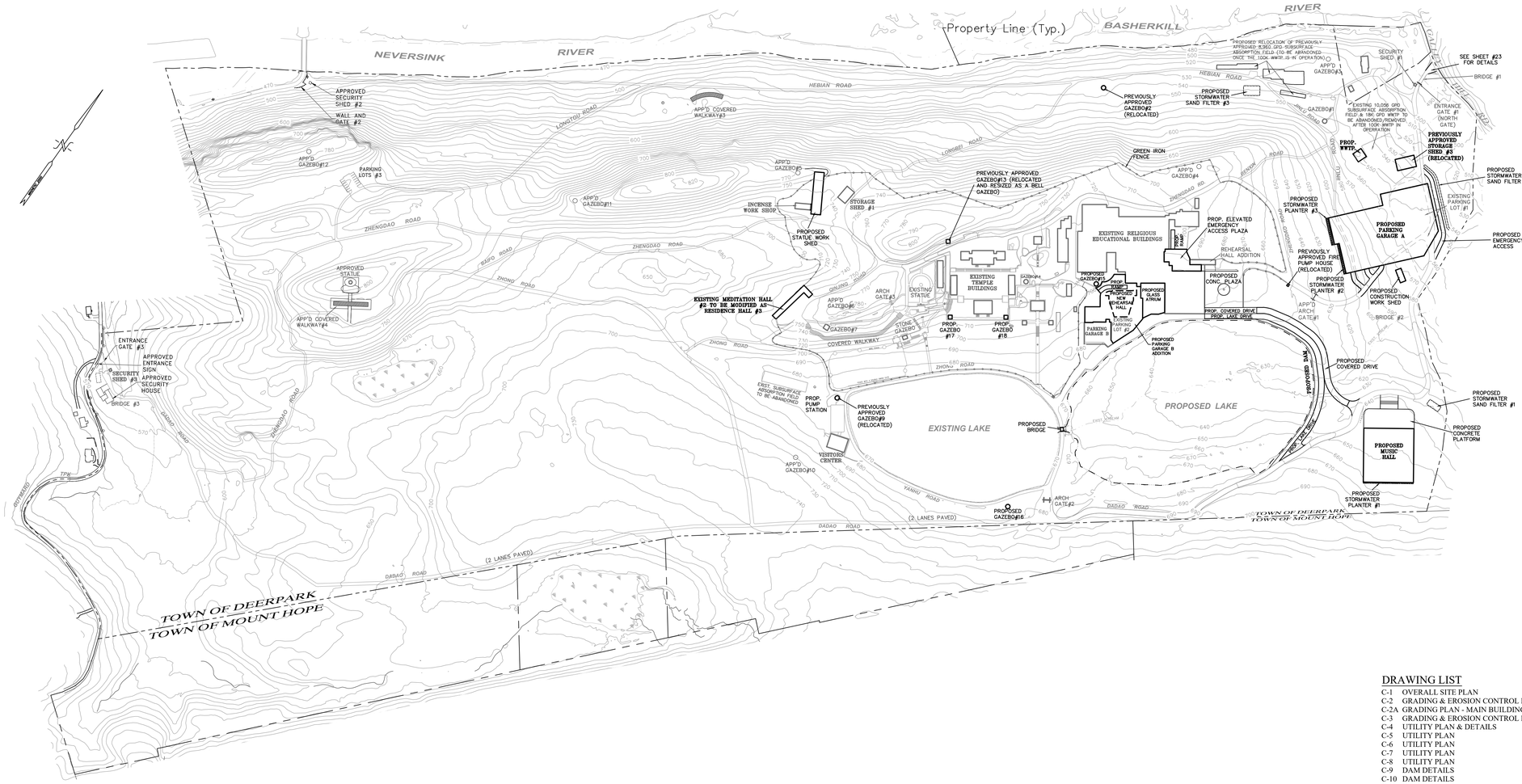

PARKING CALCULATIONS:

PARKING REQUIRED (FOR SCHOOLS):
0.1 – 0.5 SPACE PER STUDENT, 0.80 SPACE PER STAFF PERSON (PER ULI STANDARD)
500 STUDENTS x 0.1 = 50 SPACES
200 STAFFS & WORKERS x 0.8 = 160 SPACES
REQUIRED = 210 SPACES

PARKING REQUIRED (FOR VISITORS):
1 SPACE PER 4 VISITORS
2000 VISITORS / 4 = 500 SPACES

TOTAL REQUIRED = 710 SPACES

PARKING PROVIDED

LOCATION	CAR SPACES	BUS SPACES
PARKING GARAGE A	1,098	42
PARKING GARAGE B AND ADDITION	214	0
PARKING LOT 3	12	0
TOTAL	1,324	42

NOTE:
1. EXISTING PARKING SPACES AT PARKING LOT #1 (81 CARS AND 5 BUSES) WILL BE REPLACED BY THE PARKING SPACES IN PARKING GARAGE A.
2. EXISTING PARKING SPACES AT PARKING LOT #2 AND PARKING GARAGE B (147 CARS) WILL BE REPLACED BY THE PARKING SPACES IN PARKING GARAGE B AND ITS ADDITION.
3. NO CAR OR BUS WILL PARK OUT SIDE OF THE PROPERTY.

TABLE OF BULK REQUIREMENTS

TOWN OF DEERPARK

TL 31-1-21.22 ZONE: RR

	REQUIRED	PROPOSED
MIN. LOT AREA	1 AC	393 AC
MIN. AVERAGE LOT WIDTH/DEPTH	200 FEET	518 FEET
MIN. FRONT YARD	35 FEET	50 FEET
MIN. SIDE YARD	35 FEET	100 FEET
MIN. REAR YARD	35 FEET	NA*
MIN. FLOOR AREA	1000 SF	>1000 SF
MAX. BLDG. HEIGHT	35 FEET	99'-5"**
MAX. BLDG. COVERAGE	20%	2%
MAX. IMPERVIOUS COVERAGE	70%	9%

NOTE: * - Through lot.

**- Height Variance for Pagoda / Tower – issued on July 1, 2004 by Town of Deerpark Zoning Board.
Other Variances Granted by ZBA:
- Height variance to Temple Three and Archway - issued on Nov. 20, 2003.
- Height variance for Multi Purpose Building - issued on April 19, 2007.
- Height variance for Residence/ Reflection/ Meditation Hall - issued on Dec. 20, 2007.
- Height variance for internal fences - approved on April 20, 2017.
- Area variances for North Entrance - approved on April 20, 2017.

GENERAL NOTES:
1. SURVEY BOUNDARY INFORMATION PRODUCED BY CONRAD, CLOSE & EWALD, PROFESSIONAL LAND SURVEYORS, P.C., 161 JERSEY AVE. PORT JERVIS, NY 12771
2. TOPOGRAPHY OBTAINED BY AERIAL PHOTOGRAMMETRY.
3. BENCHMARK 1: BRASS DISK IN NORTHWEST ABUTMENT OF NEVERSINK RIVER BRIDGE AT GRAHAM ROAD. ELEVATION = 474.72
4. BENCHMARK 2: BRASS DISK IN BOULDER ABOUT 0.1 MILE SOUTHWEST OF RAILROAD MILE POST 78 ON OLD RAILROAD RIGHT-OF-WAY ABOUT 75' SOUTHEAST OF EXISTING RAILROAD TRACK. DISK STAMPED A141 1941 ELEVATION = 827.64
5. BENCHMARK 3: BRASS DISK IN NORTHWEST HEADWALL OF OLD BRIDGE ABOUT 0.1 MILE EAST OF RAILROAD MILE POST 79 ON OLD RAILROAD RIGHT-OF-WAY ABOUT 40' SOUTHEAST OF EXISTING RAILROAD TRACK. DISK STAMPED Z140-1941 ELEVATION = 790.17
6. GURDA ROAD IS A PRIVATE ROAD.
7. LANDSCAPING FEATURES, SUCH AS STONE WORKS AND SCULPTURES, WILL BE PLACED IN THE FUTURE ACCORDING TO THE RELATIONSHIP OF THE BUILDINGS TO BE COMPLETED.
8. AT ALL TIMES, THE OCCUPANCY AT DRAGON SPRINGS MAY NOT EXCEED THE EXISTING SEPTIC SYSTEM OCCUPANCY LIMITATION, AS SAME MAY BE AMENDED AND/OR EXPANDED AS NECESSARY FROM TIME TO TIME BY DRAGON SPRINGS UPON APPLICATION AND PRIOR APPROVAL FROM THE PLANNING BOARD, ABSENT EXPRESS WAIVER, AND PRIOR REGULATOR APPROVAL BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION.

GRAPHIC SCALE

300 0 150 300 600 1200

(IN FEET)
1 inch = 300 ft.

LEGEND

- PROPERTY LINE
- × 700 EXISTING SPOT ELEVATION
- A C700 PROPOSED SPOT ELEVATION
- 700 EXISTING CONTOUR LINE
- 700 PROPOSED CONTOUR LINE
- EXISTING WATER BODY
- EXISTING FENCE

DRAWING LIST

Kaijin Liang P.E.
New York State Lic. No. 79716

OVERALL SITE PLAN

Dragon Springs Buddhist, Inc.

Town of Deerpark Orange County, New York

KAIJIN LIANG, P.E.
Consulting Engineer
140 Galley Hill Road
Cuddebackville, NY 12729

Revisions	Description	Date	By
	GENERAL REVISION	10/23/18	MP

Date : 01/28/2018
Scale: 1"=300'
Drawn: MP
Checked : KL

Sheet
C-1

MATCH LINE

(SEE DRAWING No. C-3)

MATCH LINE

PROPOSED CONCRETE RETAINING WALL

STORAGE SHED #1

INCENSE WORK SHOP

PROP. STATUE WORK SHED 50' X 220'

ZHENG DAO ROAD

QINJING ROAD

EXISTING MEDITATION HALL & RESIDENCE HALL TO BE DEMOLISHED

RESIDENCE HALL 3

APP'D GAZEBO #5

APP'D GAZEBO #6

APP'D GAZEBO #7

ARCH GATE #3

REFLECTING POOL

APP'D COVERED WALKWAY #1

COVERED WALKWAY #2

P-HYD #15

STONE GAZEBO

FRUIT TREES

ZHONG ROAD

EXISTING LEACH FIELD TO BE ABANDONED

PROPOSED PUMP STATION

P-HYD #14

FENCE WITH A DOUBLE SWING GATE

PREVIOUSLY APPROVED GAZEBO#9 (TO BE RELOCATED)

P-HYD #13

PREVIOUSLY APPROVED GAZEBO#9 (RELOCATED)

PAVER PLAZA

VISITOR CENTER

APP'D GAZEBO #10

EXISTING LAKE

10' to 15' WIDE PAVED ROAD AND 6' WIDE WOOD DECK ALONG LAKE

YANHU ROAD

PREVIOUSLY APPROVED GAZEBO#3 RELOCATED AND RESIZED AS A BELL GAZEBO

PREVIOUSLY APPROVED GAZEBO#3 (TO BE RELOCATED & RESIZED)

GREEN IRON FENCE (TYP.)

HYD #1

HYD #2

HYD #3

HYD #4

HYD #5

HYD #6

HYD #7

HYD #8

HYD #9

HYD #10

HYD #11

HYD #12

PAGODA

MEDITATION HALL

TEMPLE 3

MEDITATION PAVILION

RESIDENCE 1

RESIDENCE 2

BUDDHA STATUE

CIRCULAR PAVILION W/ PLATFORMS

TEMPLE 2

TEMPLE 1

TWO (2) STONE LIONS

PROPOSED GAZEBO #17

PROPOSED GAZEBO #18

DRUM TOWER

BELL TOWER

APP'D CELLAR

GAZEBO #14

GAZEBO

STORAGE SHED #2

APPROVED AND EXISTING RELIGIOUS EDUCATIONAL BUILDINGS

PROPOSED GAZEBO #15

PROP. RAMP (SLOPE=8%)

PROPOSED NEW REHEARSAL HALL 138'x162'

ROOF EL = 710

STAGE EL =676.5

PROPOSED GLASS ATRIUM 120'x177'

ROOF EL=745.5 (MEAN)

1st FL EL =695

PROPOSED PARKING GARAGE B ADDITION (OVER EXISTING PARKING LOT 2)

2nd FL EL=711.5+705

1st FL EL=693.5

PARKING GARAGE B

ACCESS ROAD

PREVIOUSLY APPROVED FIRE PUMP HOUSE (TO BE RELOCATED)

P-HYD #16

EXISTING CONCRETE RETAINING WALLS

P-HYD #17

ZHENGDAO RD.

APP'D GAZEBO #4

PROP. RAMP (SLOPE=10%)

PROP. ELEVATED EMERGENCY ACCESS PLAZA

INLET PROTECTION (TYP.)

ZHENGDAO ROAD

RENXIN

JINLU

PROPOSED SWALE (TYP.)

PROPOSED NWTP BUILDING 50'x50'

PROPOSED STORMWATER PLANTER #3

PROPOSED PARKING GARAGE A 360'x540'

PROPOSED STORMWATER PLANTER #2

PROPOSED CONCRETE RETAINING WALL

P-HYD #19

ACCESS ROAD

INLET PROTECTION (TYP.)

PREVIOUSLY APPROVED PUMP HOUSE (RELOCATED)

PROPOSED CONCRETE PLAZA 200'x188'

PROPOSED SCULPTURE (8'x20'H)

PROP. WATER FOUNTAIN (63')

APP'D ARCH GATE #1

P-HYD #20

SILT FENCE (TYP.)

COVERED DRIVE

PROPOSED LAKE DRIVE

P-HYD #18 PROPOSED CONCRETE WALL

PROPOSED LAKE DRIVE

(SEE DRAWING No. C-3)

PROPOSED DAM

PROPOSED COVERED DRIVE

PROPOSED COFFERDAM

PROPOSED LAKE

PROPOSED SEDIMENT BASIN FOR SOIL BORROW AREA A=43,500 S.F. V=88,000 C.F.

EXISTING SPILL WAY

EXIST. STREAM

PROPOSED BRIDGE (20'Lx16'W)

EXISTING DAM

PROPOSED LAKE SERVICE SPILLWAY

P-HYD #21

PROPOSED CULVERT (TYP.)

PROPOSED RIPRAP CHANNEL (TYP.)

PROPOSED LAKE EMERGENCY SPILLWAY

ARCH GATE #2

DADAO ROAD

TOWN OF DEERPARK

TOWN OF MOUNT HOPE

MATCH LINE

LEGEND

- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- PROPOSED CATCH BASIN
- PROPOSED TRENCH DRAIN
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- EXISTING CONTOUR LINE
- PROPOSED CONTOUR LINE
- EXISTING WATER BODY
- PROPOSED SWALE
- EXISTING FENCE
- PROPOSED SILT FENCE
- PROPOSED SEEDED AREA WITH ANCHORED STABILIZATION MATS

GRADING PLAN INDEX MAP

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)

1 inch = 100 ft.

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Kaijin Liang P.E.
New York State Lic. No. 79716

GRADING & EROSION CONTROL PLAN

Dragon Springs Buddhist, Inc.

Orange County, New York

Town of Deerpark

KAIJIN LIANG, P.E.
Consulting Engineer
140 Galley Hill Road
Cuddebackville, NY 12729

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Sheet

C-2

APPROVED AND EXISTING
RELIGIOUS EDUCATIONAL
BUILDINGS

PROP. RAMP
(SLOPE=10%)

705.0

PROP. ELEVATED
EMERGENCY
ACCESS PLAZA

716.5 715.0 716.0 716.5 716.5 716.5

674.3

PROPOSED
CONCRETE PLAZA
200'x188'

PROPOSED
SCULPTURE
(8'ø x20'H)

PROP. WATER
FOUNTAIN (63'ø)

674.3

COVERED DRIVE

672.5

PROPOSED LAKE DRIVE

672.0

P-HYD
#18

HYD
#12

PROPOSED
GAZEBO#15

711.5 711.5

PROP. RAMP
(SLOPE=8%)

710.0

711.5

698.0

PROPOSED
NEW REHEARSAL
HALL
138'x162'

ROOF EL = 710
(ROOF USED FOR PARKING)
STAGE EL =676.5

709.5

PROPOSED ROOF PARKING LINES (TYP.)

PROPOSED
PARKING GARAGE B
ADDITION
(OVER EXISTING PARKING
LOT 2)

2nd FL EL=711.5~705
1st FL EL=693.5

711.5

PARKING
GARAGE B

ACCESS ROAD

705.0

705.0

×675

PROPOSED
GLASS ATRIUM
120'x177'

ROOF EL=745.5
(MEAN)
1st FL EL =695

P-HYD
#17

LEGEND

- EXISTING CONTOUR LINE
- PROPOSED CONTOUR LINE
- EXISTING WATER BODY
- PROPOSED SWALE
- EXISTING FENCE
- PROPOSED SILT FENCE
- PROPOSED SEEDED AREA WITH ANCHORED STABILIZATION MATS
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- PROPOSED CATCH BASIN
- PROPOSED TRENCH DRAIN
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
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GRADING PLAN
MAIN BUILDING AREA

Dragon Springs Buddhist, Inc.

Orange County, New York

Town of Deerpark

KAJIN LIANG, P.E.
Consulting Engineer
140 Galley Hill Road
Cuddebackville, NY 12729

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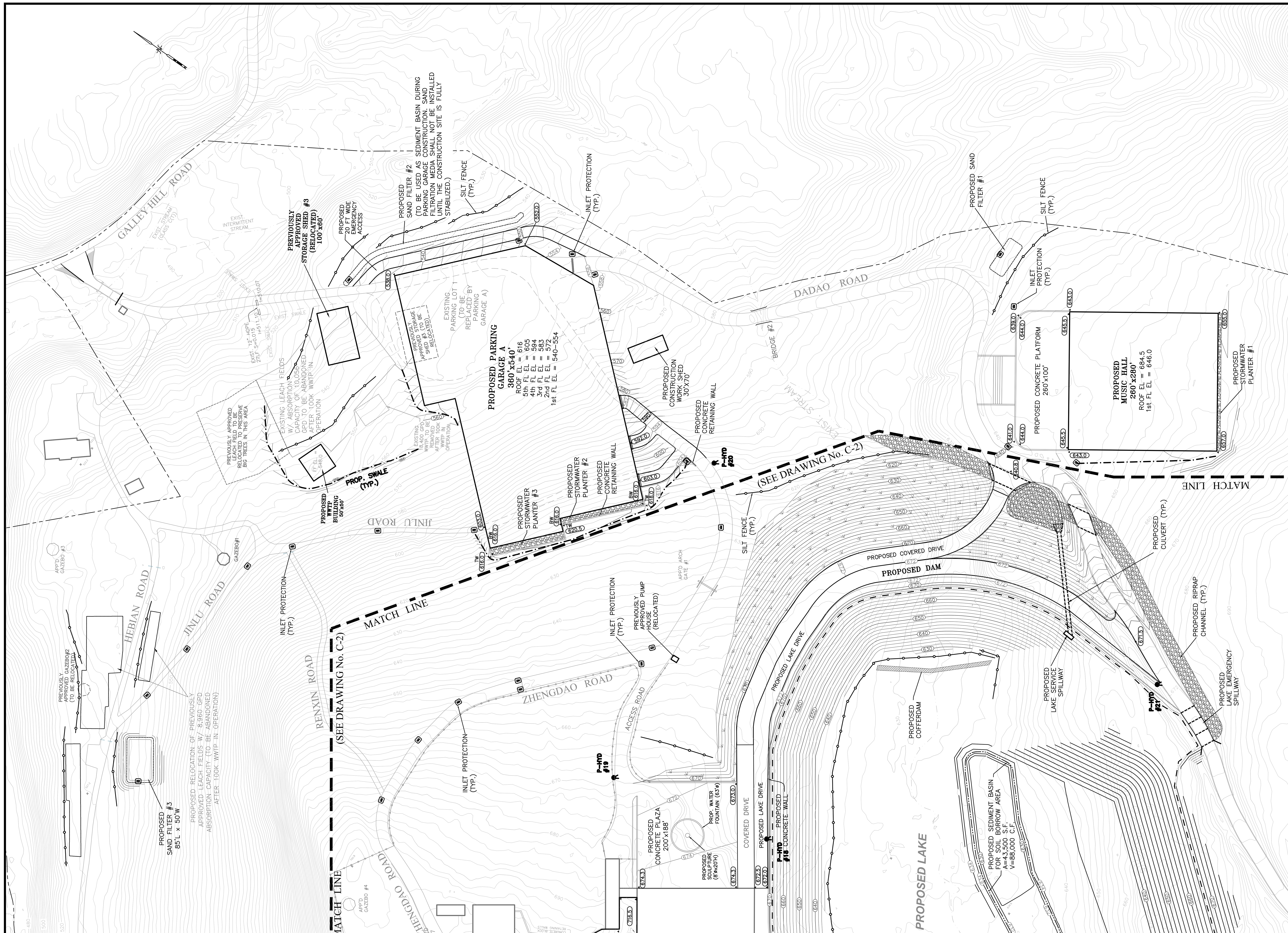
Sheet
C-2A



SEQUENCE OF CONSTRUCTION

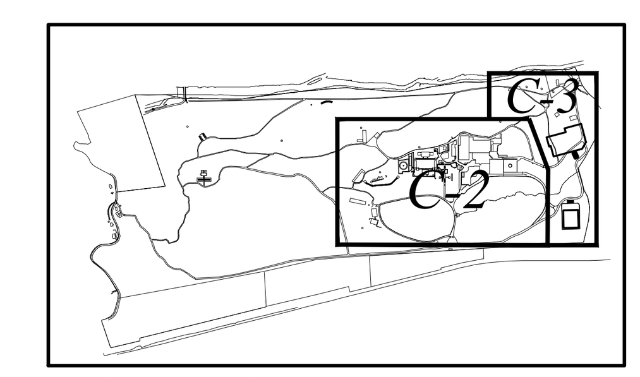
THE WORK IN EACH STEP IS TO BE COMPLETED BEFORE THE NEXT STEP COMMENCES.

1. INSTALL SILT FENCE.
2. ROUGH GRADE ACCESS ROADS.
3. CONSTRUCT AND STABILIZE SEDIMENT BASIN AND TRAPS AND DIVERSION BERMS IF REQUIRED.
4. EROSION CONTROLS AND SEDIMENT TRAPS MUST BE CONSTRUCTED, STABILIZED AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS.
5. CLEAR AND GRUB SITE AND REMOVE TREE STUMPS.
6. STRIP TOPSOIL AND STOCKPILE AS SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN SHEET.
7. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SLOPES MUST BE 2:1 OR FLATTER.
8. INITIATE EARTH MOVING ACTIVITIES FOR SITE DEVELOPMENT. ANY UNSUITABLE MATERIAL IS TO BE REMOVED FROM THE PROJECT SITE.
9. ROUGH GRADE SITE AND STOCKPILE, STABILIZE AND SEED EXCESS MATERIAL.
10. THE SITE GRADING ACTIVITIES SHALL BE INITIATED AND PROCEED IN SUCH A MANNER AS TO DIRECT ALL STORM WATER FROM DISTURBED AREAS TO THE SEDIMENT CONTROL STRUCTURES.
11. ALL GRADING AND EXCAVATION SHALL BE CONTINUOUS THROUGHOUT THE PROJECT UNTIL FINAL STABILIZATION IS ACHIEVED.
12. EXCAVATE FOR BUILDING FOOTINGS AND FOUNDATION.
13. INSTALL INLETS AND CULVERTS AS SHOWN ON THE SITE DRAINAGE AND GRADING PLAN. INSTALL INLET PROTECTION IN ACCORDANCE WITH THE CONSTRUCTION DETAILS
14. INSTALL WASTEWATER CONNECTION AND WATER SYSTEM INCLUDING IF REQUIRED.
15. ROUGH GRADE REMAINING PARKING TO CURB LINE AND STABILIZE WITH SUBBASE.
16. COMPLETE FINAL PAVING OF THE PARKING AREA.
17. RESEED, REMULCH AND RESTABILIZE WHERE NECESSARY.
18. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT TRAPS MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING AND IF SEDIMENT CONTROL BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
19. REMOVE SILT FENCING ONLY AFTER ENTIRE SITE HAS BEEN STABILIZED. VEGETATED AREAS SHALL BE CONSIDERED PERMANENTLY STABILIZED WHEN A UNIFORM 70% VEGETATIVE COVER OF EROSION RESISTANT PERENNIAL SPECIFIED HAS BEEN ACHIEVED, OR THE DISTURBED AREA IS COVERED WITH AN ACCEPTABLE BMP WHICH PERMANENTLY MINIMIZES ACCELERATED EROSION AND SEDIMENTATION. UNTIL SUCH TIME AS THIS STANDARD IS ACHIEVED, INTERIM STABILIZATION MEASURES AND TEMPORARY EROSION AND SEDIMENT CONTROL BMPS THAT ARE USED TO TREAT PROJECT RUNOFF MAY NOT BE REMOVED. DURING PERIODS OF DROUGHT, IRRIGATION SHOULD BE UTILIZED UNTIL STABILIZATION HAS OCCURRED.

EROSION CONTROL SITE INSPECTION FREQUENCY

1. TO ENSURE THE PERFORMANCE OF THE EROSION AND SEDIMENT CONTROL MEASURES, THE CONTRACTOR(S) THAT HAS BEEN IDENTIFIED BY THE OWNER AS BEING RESPONSIBLE FOR THE IMPLEMENTATION OF THE SWPPP SHALL INSPECT THE PRACTICES WITHIN THE ACTIVE WORK AREA DAILY AND AFTER EVERY STORMWATER EVENT THAT GENERATES RUNOFF. IF DEFICIENCIES ARE IDENTIFIED, THE CONTRACTOR SHALL IMPLEMENT THE NECESSARY CORRECTIVE ACTIONS WITHIN ONE BUSINESS DAY OF THE INSPECTION.
2. THE OWNER OR OPERATOR SHALL HAVE A QUALIFIED INSPECTOR TO CONDUCT SITE INSPECTIONS IN CONFORMANCE WITH THE FOLLOWING REQUIREMENTS:

a. WHEN SOIL DISTURBANCES ARE ON–GOING, INSPECTIONS SHALL BE CONDUCTED BY A QUALIFIED INSPECTOR AT LEAST EVERY SEVEN (7) CALENDAR DAYS.
b. WHEN SOIL DISTURBANCE ACTIVITIES HAVE BEEN TEMPORARILY SUSPENDED (WINTER SHUTDOWN, ETC.) AND TEMPORARY STABILIZATION MEASURES HAVE BEEN APPLIED TO ALL DISTURBED AREAS, THE QUALIFIED INSPECTOR SHALL CONDUCT A SITE INSPECTION AT LEAST ONCE EVERY THIRTY (30) CALENDAR DAYS.



GRADING PLAN INDEX MAP

LEGEND

HYD	EXISTING FIRE HYDRANT
P–HYD	PROPOSED FIRE HYDRANT
	PROPOSED CATCH BASIN
	PROPOSED TRENCH DRAIN
× 700	EXISTING SPOT ELEVATION
(700)	PROPOSED SPOT ELEVATION
700	EXISTING CONTOUR LINE
(700)	PROPOSED CONTOUR LINE
	EXISTING WATER BODY
	PROPOSED SWALE
	EXISTING FENCE
	PROPOSED SILT FENCE
	SEEDED AREA WITH ANCHORED STABILIZATION MATS

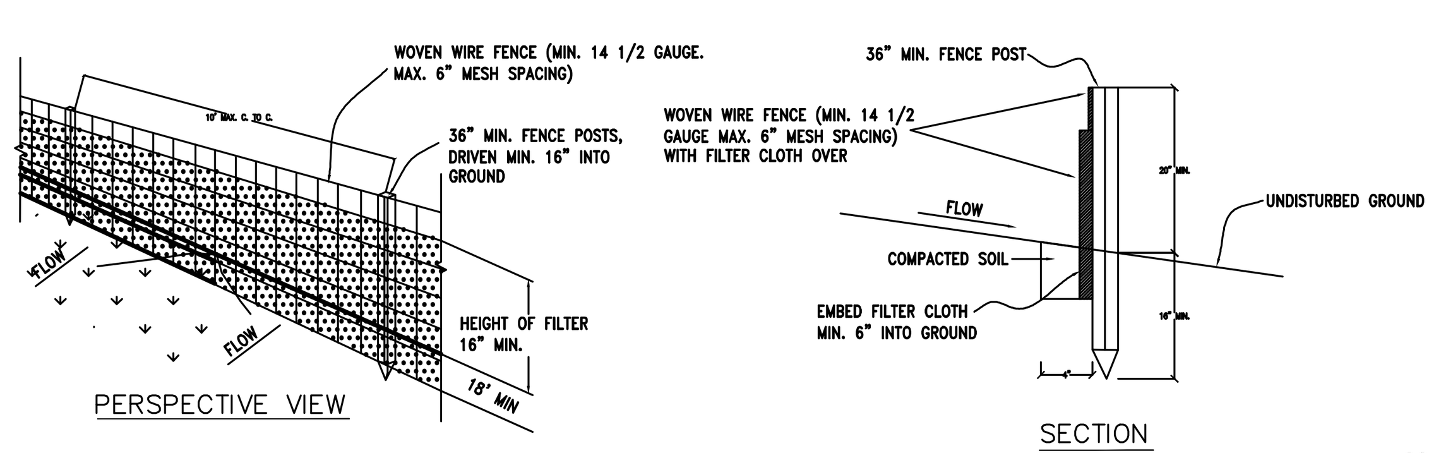
EROSION CONTROL NOTES

1. THE OWNER/CONTRACTOR SHALL PERFORM TEMPORARY CONTROL MEASURES AS DIRECTED BY THE ENGINEER DURING CONSTRUCTION. METHODS SHALL INCORPORATE, BUT NOT BE LIMITED TO, CONSTRUCTION ENTRANCES, DIVERSION BERMS OR SWALES, SEDIMENT BASINS OR TRAPS, STRAW BALES, SILT FENCES, FIBER MATS, CHECK DAMS , GRAVEL, VEGETATIVE GROWTH, MULCHES, AND SIMILAR DEVICES. ALL EROSION CONTROL METHODS USED SHALL BE IN CONFORMANCE TO THE NYSDEC – GUIDELINES FOR EROSION & SEDIMENT CONTROL.

2. VEGETATIVE COVER – GRASS SHALL BE A QUICK GROWING SPECIES (SUCH AS RYE GRASS, ITALIAN RYE GRASS, OR CEREAL GRASSES) SUITABLE TO THE AREA'S SOIL. GRASS SHALL BE SOWN WITH A MULCH CONSISTING OF HAY, STRAW, BARK, JUTE, NETTING, WOOD CHIPS, O.E. FERTILIZER AND SOIL CONDITIONERS OF A STANDARD COMMERCIAL GRADE SHALL BE INCLUDED WITH THE SEEDING AND MULCHING. SEEDING & MULCHING – ALL AREAS DISTURBED BY ON–SITE GRADING, THAT WILL NOT BE CONSTRUCTED UPON, SHOULD BE ESTABLISHED TO PERMANENT VEGETATIVE COVER, USING THE FOLLOWING SEEDING SCHEDULE:

	LBS./ACRE	LBS./1000 SQ. FT.
CREEPING RED FESCUE	10	0.23
TALL FESCUE	15	0.34
CROWN VETCH	15	0.34

ALL SEEDED AREAS TO HAVE AN APPLICATION OF THE FOLLOWING:
LIME – AMOUNT NEEDED TO OBTAIN A P.H. OF 5.5



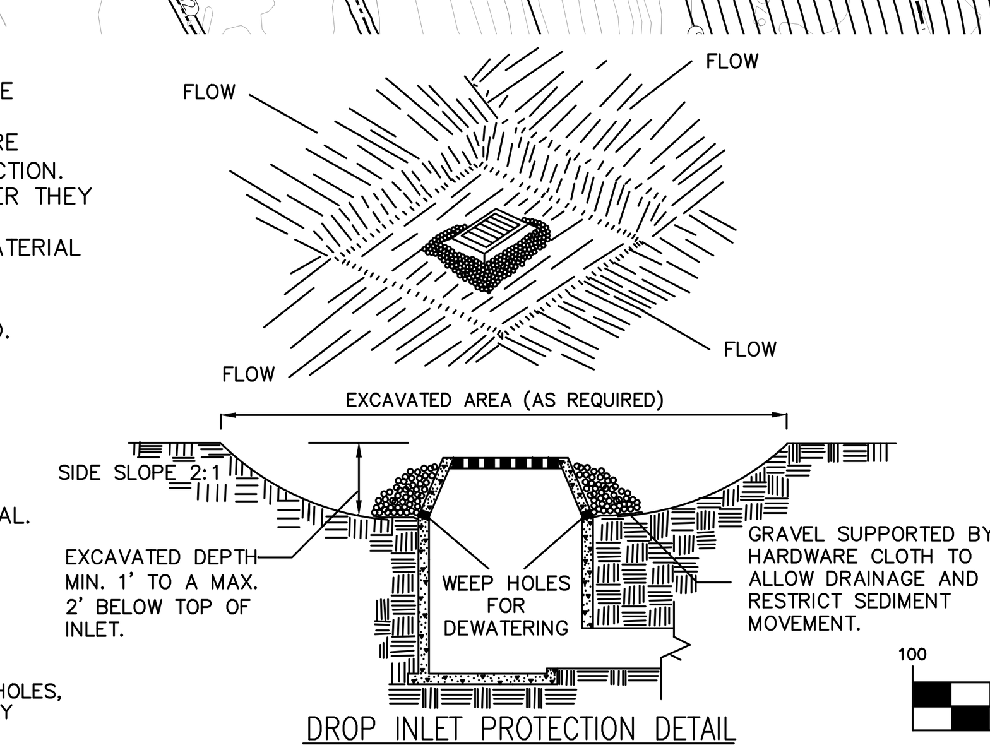
SILT FENCE DETAILS
NTS

SILT FENCE NOTES:
1.WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2.FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3.WHEN TWO SECTION OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4.MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

POSTS : STEEL EITHER "T" OR "U" TYPE OR 2" HARDWOOD.
FENCE : WOVEN WIRE. 14 1/2 GA. 6" MAX. MESH OPENING.
FILTER CLOTH : FILTER X. MIRAFI 100X. STABILINKA T140N OR APPROVED EQUAL.
PREFABRICATED UNIT : GEOFAB. ENVIROFENCE. OR APPROVED EQUAL.

CONSTRUCTION SPECIFICATIONS
1. CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION.
2. GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN.
3. WEEP HOLES SHALL BE PROTECTED BY GRAVEL.
4. UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA, SEAL WEEP HOLES, FILL BASIN WITH STABLE SOIL TO FINAL GRADE, COMPACT IT PROPERLY AND STABILIZE WITH PERMANENT SEEDING.

MAXIMUM DRAINAGE AREA 1 ACRE



DROP INLET PROTECTION DETAIL
NTS

GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

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GRADING & EROSION CONTROL PLAN & DETAILS

Dragon Springs Buddhist, Inc.
Town of Deerpark
Orange County, New York

KAIJIN LIANG, P.E.
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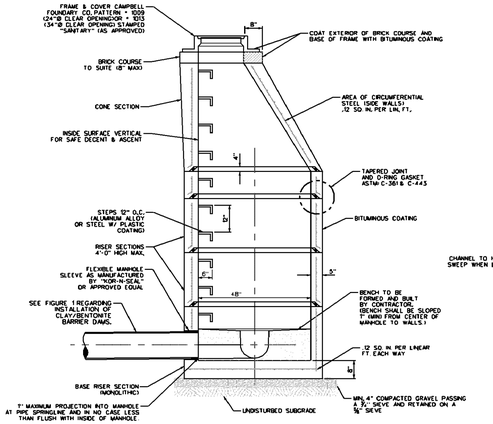
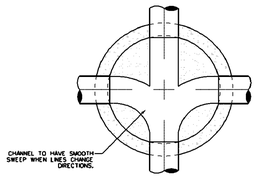
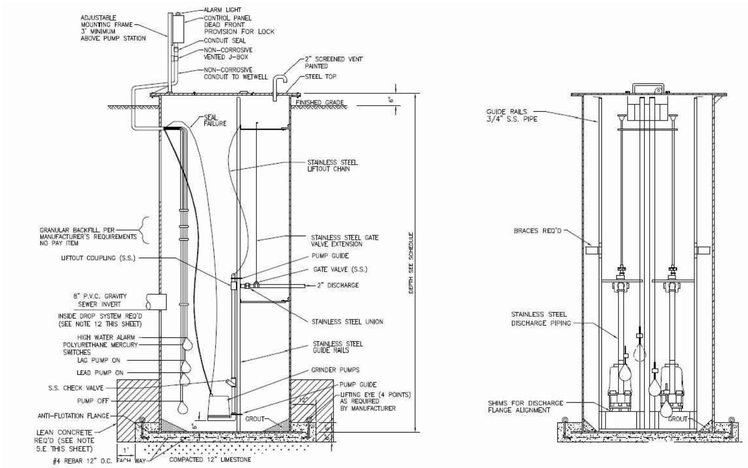


FIGURE 6: PRECAST REINFORCED CONCRETE MANHOLE
N.T.S.

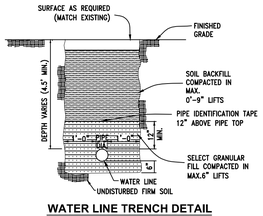
- MANHOLE TO MEET CURRENT REQUIREMENTS OF ASTM-C-478
- JOINTS-LOCK TYPE WITH ROUND RUBBER GASKETS. THE WEIGHT OF EACH SECTION MUST MAKE AN INFILTRATION PROOF JOINT BY FORCING THE GASKET TIGHT.
- ALL MATERIALS AND CONSTRUCTION SHALL MEET THE REQUIREMENTS OF OCSD NO. 1.
- MANHOLE TO BE SUITABLE FOR H-20 LOADING
- MANHOLE EXTERIOR MUST BE 100% BITUMINOUS COATED.
- ALL MATERIALS SHALL CONFORM TO THE STANDARD SPECIFICATIONS, CONSTRUCTION MATERIALS DATED 2002 (NEW YORK STATE STANDARD SPECIFICATIONS) WITH ALL ADDENDAS. ALL FACILITIES MUST BE NEW YORK STATE DEPARTMENT OF TRANSPORTATION APPROVED.



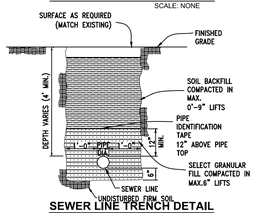
MANHOLE BASE PLAN
N.T.S.



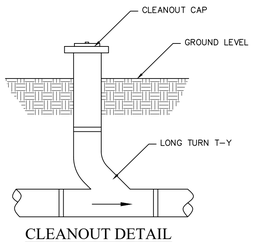
TYPICAL PUMP STATION DETAIL
SCALE: NONE



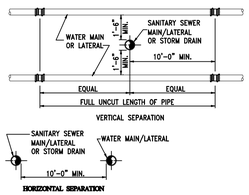
WATER LINE TRENCH DETAIL
SCALE: NONE



SEWER LINE TRENCH DETAIL
SCALE: NONE



CLEANOUT DETAIL
SCALE: NONE



SANITARY/STORM SEWER-WATER MAIN SEPARATION DETAIL
SCALE: NONE

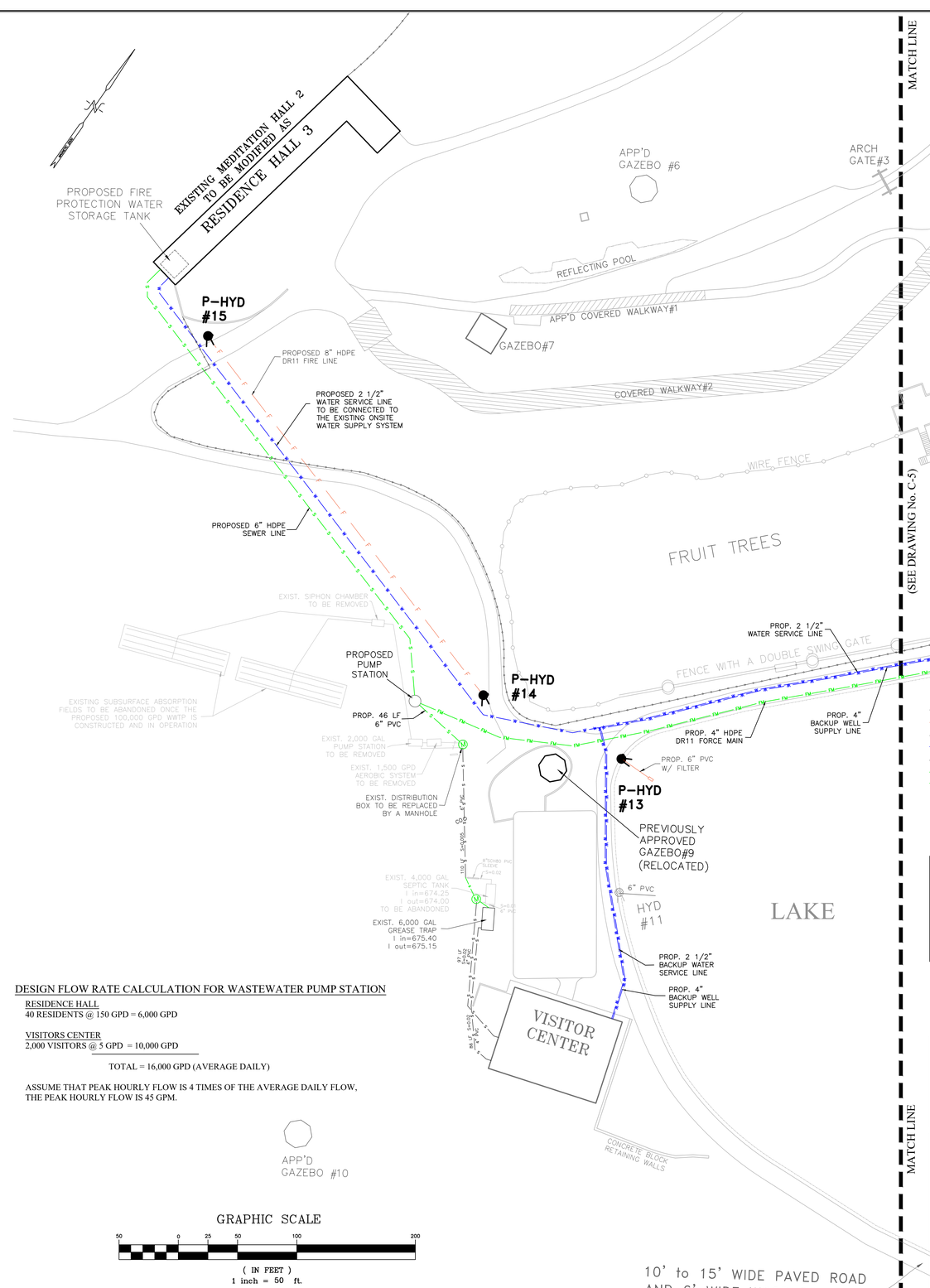
DESIGN FLOW RATE CALCULATION FOR WASTEWATER PUMP STATION

RESIDENCE HALL
40 RESIDENTS @ 150 GPD = 6,000 GPD

VISITORS CENTER
2,000 VISITORS @ 5 GPD = 10,000 GPD

TOTAL = 16,000 GPD (AVERAGE DAILY)

ASSUME THAT PEAK HOURLY FLOW IS 4 TIMES OF THE AVERAGE DAILY FLOW, THE PEAK HOURLY FLOW IS 45 GPM.



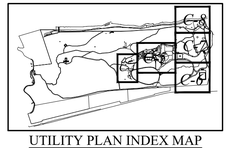
GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

LEGEND

- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- EXISTING FIRE LINE
- PROPOSED FIRE LINE
- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING SEWER PIPE
- PROPOSED SEWER PIPE
- PROPOSED FORCE MAIN
- PROPOSED SEWER MANHOLE



UTILITY PLAN INDEX MAP

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Kaijin Liang P.E.
New York State Lic. No. 79716

UTILITY PLAN & DETAILS

Dragon Springs Buddhist, Inc.
Town of Deerpark Orange County, New York

KAIJIN LIANG, P.E.
Consulting Engineer
140 Galley Hill Road
Cuddebackville, NY 12729

Revisions	Description	By	Date
	GENERAL REVISION	MP	10/23/18

Date :01/28/2018
Scale: 1"=50'
Drawn: MP
Checked : KL

Sheet
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UTILITY PLAN

Dragon Springs Buddhist, Inc.
Orange County, New York
Town of Deerpark

KAIJIN LIANG, P.E.
Consulting Engineer
140 Galley Hill Road
Cuddebackville, NY 12729

MATCH LINE (SEE DRAWING No. C-4)

EXISTING FENCE

PREVIOUSLY APPROVED GAZEBO#13 RELOCATED AND RESIZED AS A BELL GAZEBO

HYD #1 — EXIST. 6" PVC PIPE — HYD #2 — HYD #3 — HYD #4 — HYD #5 — HYD #6

17+00 — 16+00 — 15+00 — 14+00 — 13+00 — 12+00 — 23+57.98 — 23+00 — 22+00 — 21+00 — 20+00 — 19+00 — 18+00

EXIST. 10" PVC PIPE

PROPOSED 10" HDPE DR11 PIPE

TO BE CAPPED

20,000 Gal Above-ground Fire Water Tank

12,000 Gal Above-ground Water Storage Tank

APPROVED AND EXISTING RELIGIOUS EDUCATIONAL BUILDINGS

PROP. RAMP (SLOPE=10%)

PROP. ELEVATED EMERGENCY ACCESS PLAZA

EXIST. 6,000 GALLON PROPANE TANKS

CONCRETE BLOCK RETAINING WALLS

CONCRETE PAVEMENT

PAGODA

MEDITATION HALL

TEMPLE 3

MEDITATION PAVILION

BUDDHA STATUE

CIRCULAR PAVILION W/ PLATFORMS

RESIDENCE 1

RESIDENCE 2

GAZEBO#14

GAZEBO

TEMPLE 2

TEMPLE 1

CONC. BLOCK RETAINING WALL

PROPOSED GAZEBO #17

PROPOSED GAZEBO #18

DRUM TOWER

BELL TOWER

APP'D CELLAR

STONE GAZEBO

ACCESS ROAD

PARKING GARAGE B

PROPOSED PARKING GARAGE B ADDITION (OVER EXISTING PARKING LOT 2)

PROPOSED NEW REHEARSAL HALL 138'x162'

PROPOSED GLASS ATRIUM 120'x177'

PROPOSED GAZEBO #15

PROP. RAMP (SLOPE=8%)

EXIST. 10" PVC PIPE (TO BE ABANDONED)

PROPOSED LAKE

EXISTING CONCRETE RETAINING WALLS

STORAGE SHED #2

PROPOSED 8" HDPE PIPE

E-SMH #2 T=711.50 Iout=707.50

P-SMH #8 T=711.00 Iin=706.16 Iout=701.00

34.3LF S=0.0390 10"HDPE DR11

81 LF S=0.01 8" PVC

115' S=0.01 8" PVC

190.2LF S=0.0455 10"HDPE DR11

P-SMH #9 T=696.34 Iin=692.34 Iout=692.24

168.6LF S=0.1060 8" HDPE DR11

P-SMH #10 T=678.37 Iin=674.37 Iout=674.27

P-SMH #10A

212.8LF S=0.0100 10"HDPE DR11

P-SMH #11 T=672.50 Iin=666.84 Iout=666.74

209.1LF S=0.0100 10"HDPE DR11

P-SMH #12 T=672.50 Iin=664.61 Iout=664.51

250.9LF S=0.0100 10"HDPE DR11

P-SMH #13 T=673.00 Iin=662.42 Iout=662.32

PROP. 6" PVC W/ FILTER

P-HYD #16

P-HYD #17

SMH #1

2" POLY PIPE

6" SDR 35 PVC

4" SDR 35 PVC

1" POLY PIPE

VALVE

PROP. 2 1/2" WATER LINE

PROP. 4" HDPE DR11 FORCE MAIN

HYD #10 — 6" PVC

HYD #8

10" PVC PIPE

DRAIN VALVE

LAKE

MATCH LINE (SEE DRAWING No. C-6)

(SEE DRAWING No. C-7)

LEGEND

HYD	EXISTING FIRE HYDRANT
P-HYD	PROPOSED FIRE HYDRANT
F	EXISTING FIRE LINE
F	PROPOSED FIRE LINE
W	EXISTING WATER LINE
W	PROPOSED WATER LINE
S	EXISTING SEWER PIPE
S	PROPOSED SEWER PIPE
FM	PROPOSED FORCE MAIN
M	EXISTING SEWER MANHOLE
M	PROPOSED SEWER MANHOLE

UTILITY PLAN INDEX MAP

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

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Sheet
C-5

MATCH LINE

(SEE DRAWING No. C-7)

MATCH LINE

MATCH LINE

(SEE DRAWING No. C-5)

(TYP.)

PROPOSED COVERED DRIVE

PROPOSED DAM

PROPOSED
LAKE

PROP. 2 1/2"
WATER LINE

EXISTING STREAM

PROPOSED 8" HDPE
SEWER LINE

PROPOSED SAND
FILTER #1

PROPOSED CONCRETE PLATFORM
260'x100'

PROPOSED
MUSIC HALL
260'x280'

PROPOSED
LAKE SERVICE
SPILLWAY

P-HYD
#21

PROPOSED
CULVERT (TYP.)

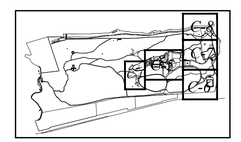
PROPOSED
RIPRAP CHANNEL
(TYP.)

PROPOSED
LAKE EMERGENCY
SPILLWAY

MATCH LINE

LEGEND

	PROPERTY LINE
F	EXISTING FIRE LINE
F	PROPOSED FIRE LINE
W	EXISTING WATER LINE
W	PROPOSED WATER LINE
S	EXISTING SEWER PIPE
S	PROPOSED SEWER PIPE
FM	PROPOSED FORCE MAIN
D	PROPOSED STORM SEWER
Ⓜ	EXISTING SEWER MANHOLE
Ⓜ	PROPOSED SEWER MANHOLE
	PROPOSED CATCH BASIN
HYD	EXISTING FIRE HYDRANT
P-HYD	PROPOSED FIRE HYDRANT



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UTILITY PLAN

Dragon Springs Buddhist, Inc.

Orange County, New York

Town of Deerpark

KAIJIN LIANG, P.E.
Consulting Engineer
140 Galley Hill Road
Cuddebackville, NY 12729

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Sheet
C-6

MATCH LINE

(SEE DRAWING No. C-8)

MATCH LINE

(SEE DRAWING No. C-5)

MATCH LINE

(SEE DRAWING No. C-6)

MATCH LINE

UTILITY PLAN

Dragon Springs Buddhist, Inc.

Orange County, New York

Town of Deerpark

PROPANE TANKS ON CONCRETE PAD W/ CHAIN LINK FENCE

PROP. 145 LF 8" PVC

FLOW MEASUREMENT MANHOLE

POST AERATION TANK

EMERGENCY GENERATOR ON CONCRETE PAD

PROPOSED WWTP BUILDING 50'x50'

ODOR CONTROL UNIT (TYP.)

SLUDGE HOLDING TANK

FLOW SPLITTER BOX

PROP. SMH

(4) SEPTIC TANKS

EXISTING 10,056 GPD SUBSURFACE ABSORPTION FIELDS & RESERVE AREAS TO BE ABANDONED ONCE THE PROPOSED 100,000 GPD WWTP IS CONSTRUCTED AND IN OPERATION.

RESERVE AREAS #5 & #6

SUBSURFACE ABSORPTION AREAS (CONSTRUCTED)

EXISTING 18,400 GPD WWTP TO BE REMOVED AFTER 100K WWTP IN OPERATION

PREVIOUSLY APPROVED STORAGE SHED #3 (RELOCATED) 100'x60'

PROPOSED 20 FT WIDE EMERGENCY ACCESS

PROPOSED SAND FILTER #2

PROPOSED PARKING GARAGE A 360'x540'

APP'D GAZEBO #4

TO BE CAPPED

E-SMH #7 T=593.0 I in=589.0 I out=587.0

201 ELF 8" HDPE DR26 S=0.1875

EXIST. 8"HDPE DR26 S=0.1496

347LF

E-SMH #6 T=648.9 I in=642.9 I in=641.5 PROP. I out=640.9

E-SMH 4 T=689.0 I in=685.0 /6" I in=685.0 /8" I out=682.0

E-SMH #5 T=683.9 I in=678.3 I out=678.2

206LF S=0.0651 10"HDPE DR11

208LF S=0.1046 10"HDPE DR11

P-SMH#16 T=668.76 Iin=664.76 Iout=664.66

89LF S=0.0415 10"HDPE DR11

(EXISTING SEPTIC TANKS TO BE BYPASSED AND ABANDONED)

EXIST. 8"HDPE

2,000 GAL SEPTIC TANK

(2) 6,000 GAL SEPTIC TANKS

PROP. 10" HDPE DR11 PIPE

PROP. 8" HDPE DRAIN S=0.0100

8"HDPE DR11

REHARSAL HALL ADDITION

EXIS. 6,000 GAL GREASE TRAPS

P-HYD #19

PROPOSED CONCRETE PLAZA 200'x188'

EXIST. 8" SANITARY SEWER TO BE ABANDONED

PROPOSED SCULPTURE (8'ø x20'H)

PROP. WATER FOUNTAIN (63'ø)

PROP. 2 1/2" WATER LINE

PREVIOUSLY APPROVED PUMP HOUSE (RELOCATED)

P-SMH #16 T=648.00 Iin=644.50 Iout=644.40

APP'D ARCH GATE #1

PROPOSED CONSTRUCTION WORK SHED 30'X70'

ZHENGDAO ROAD

P-HYD #20

PROPOSED 8" HDPE SEWER LINE

256.2LF S=0.0352 10"HDPE DR11

PROP. 10" HDPE DR11 PIPE

P-SMH #14 T=672.50 Iin=659.81 Iout=659.71

P-SMH #15 T=672.50 Iin=657.20 Iout=657.10

250.9LF S=0.0100 10"HDPE DR11

PROPOSED LAKE DRIVE AND COVERED DRIVE

PROPOSED LAKE DRIVE

P-HYD #18

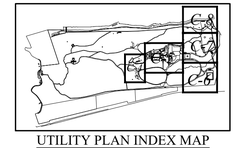
PROP. 6" PVC W/ FILTER

PROP. FILTER (TYP.)

PROPOSED LAKE

LEGEND

	PROPERTY LINE
F	EXISTING FIRE LINE
F	PROPOSED FIRE LINE
W	EXISTING WATER LINE
W	PROPOSED WATER LINE
S	EXISTING SEWER PIPE
S	PROPOSED SEWER PIPE
FM	PROPOSED FORCE MAIN
D	PROPOSED STORM SEWER
M	EXISTING SEWER MANHOLE
M	PROPOSED SEWER MANHOLE
	PROPOSED CATCH BASIN
HYD	EXISTING FIRE HYDRANT
P-HYD	PROPOSED FIRE HYDRANT



UTILITY PLAN INDEX MAP

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GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

KAIJIN LIANG, P.E.
Consulting Engineer
140 Galley Hill Road
Cuddebackville, NY 12729

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Date : 01/28/2018
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Checked : KL

Sheet
C-7

UTILITY PLAN

PROPOSED 8,960 GPD SUBSURFACE ABSORPTION AREA RELOCATION (TO BE ABANDONED AFTER 100K WWTP IN OPERATION)

APP'D GAZEBO #3

HEBIAN ROAD

GALLEY HILL ROAD

PROPOSED SAND FILTER #3 85'L x 50'W

PROPOSED RIP-RAPPED SWALE

JINLU ROAD

NOTE:
EXISTING/APPROVED SUBSURFACE ABSORPTION FIELDS & RESERVE AREAS TO BE ABANDONED ONCE THE PROPOSED 100,000 GPD WWTP IS CONSTRUCTED AND IN OPERATION.

RESERVE AREAS #1 & #2

RESERVE AREAS #3 & #4

APPROVED SUBSURFACE ABSORPTION AREA (TO BE RELOCATED TO PRESERVE THE BIG TREES IN THIS AREA)

DADAO ROAD

EXIST. STREAM (CLASS C(T))

EXIST. INTERMITTENT STREAM

EXIST. SWALE

EXIST. 12" HDPE
27LF S=0.015
I=511.10
I=510.07

GAZEBO#1

MATCH LINE (SEE DRAWING No. C7)

MATCH LINE

PROPANE TANKS ON CONCRETE PAD W/ CHAIN LINK FENCE

PROP. 145 LF 8" PVC

FLOW MEASUREMENT MANHOLE

POST AERATION TANK

EMERGENCY GENERATOR ON CONCRETE PAD

PROPOSED WWTP BUILDING 50'x50'

ODOR CONTROL UNIT (TYP.)

SLUDGE HOLDING TANK

FLOW SPLITTER BOX

PROP. SMH

(4) SEPTIC TANKS

EXISTING 18,400 GPD WWTP TO BE REMOVED AFTER 100K WWTP IN OPERATION

EXISTING 10,056 GPD SUBSURFACE ABSORPTION FIELDS & RESERVE AREAS TO BE ABANDONED ONCE THE PROPOSED 100,000 GPD WWTP IS CONSTRUCTED AND IN OPERATION.

RESERVE AREAS #5 & #6

SUBSURFACE ABSORPTION AREAS (TO BE CONSTRUCTED)

PREVIOUSLY APPROVED STORAGE SHED #3 (RELOCATED) 100'x60'

PROPOSED 20 FT WIDE EMERGENCY ACCESS

PROPOSED SAND FILTER #2

APP'D GAZEBO #4

E-SMH #7
T=593.0
I in=589.0
I out=587.0

201.6LF 8" HDPE DR26 S=0.1875

EXIST. 8"HDPE DR26

5+00 6+00 7+00 8+00 9+00 10+00

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

LEGEND

- PROPERTY LINE
- F — EXISTING FIRE LINE
- F — PROPOSED FIRE LINE
- W — EXISTING WATER LINE
- W — PROPOSED WATER LINE
- S — EXISTING SEWER PIPE
- S — PROPOSED SEWER PIPE
- FM — PROPOSED FORCE MAIN
- D — PROPOSED STORM SEWER
- (M) EXISTING SEWER MANHOLE
- (M) PROPOSED SEWER MANHOLE
- PROPOSED CATCH BASIN
- (D) PROPOSED DRAINAGE MANHOLE

UTILITY PLAN INDEX MAP

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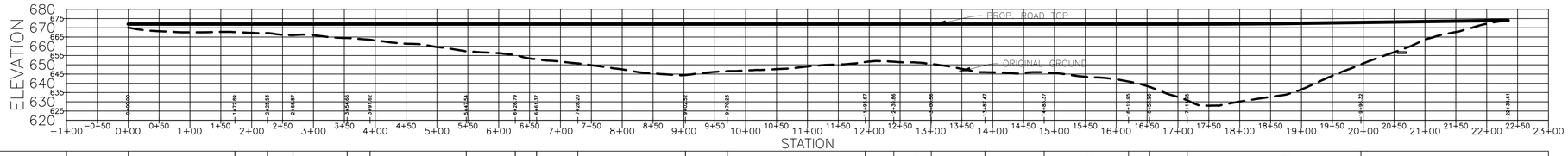
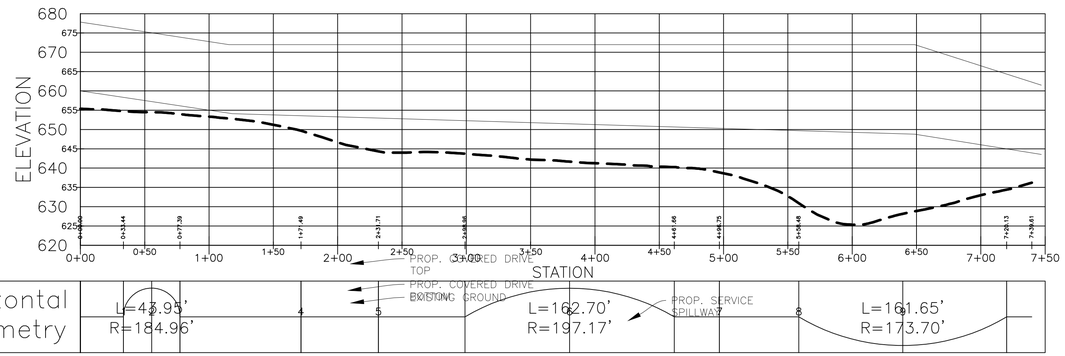
LAKE SIDE ROAD PROFILE

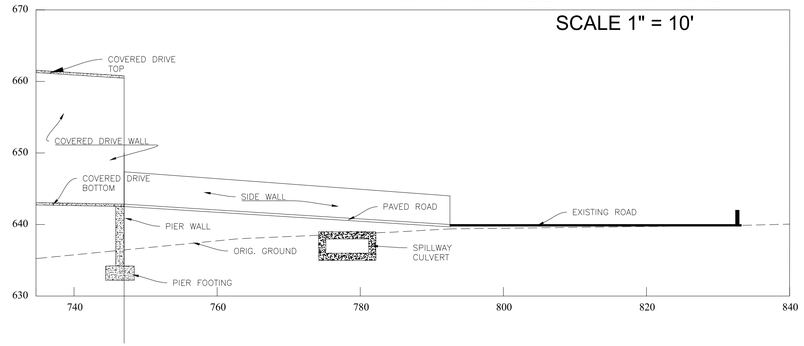


TUNNEL PROFILE



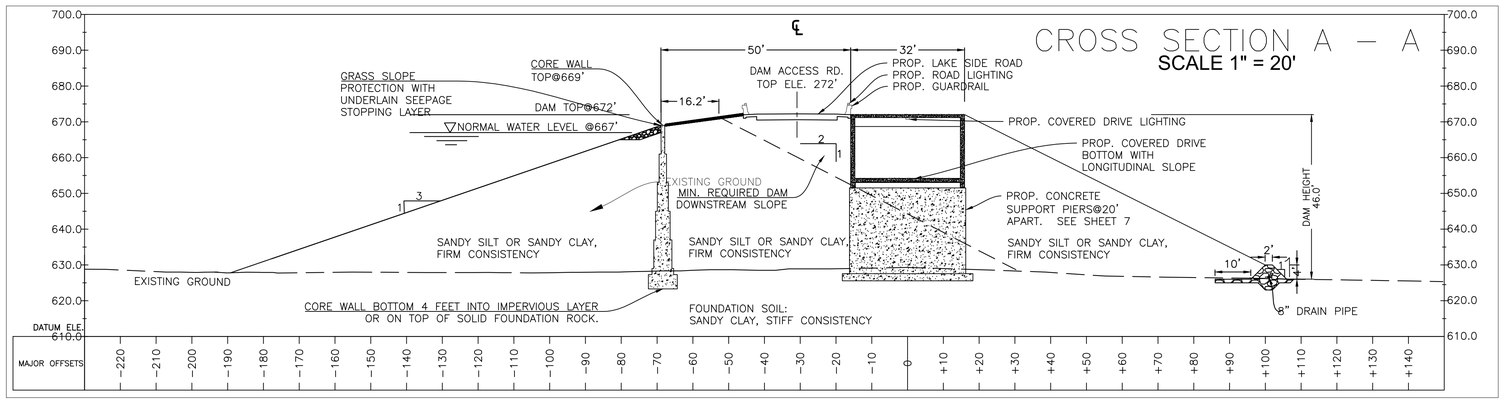
AUX. SPILLWAY UNDER ROAD

SCALE 1" = 10'



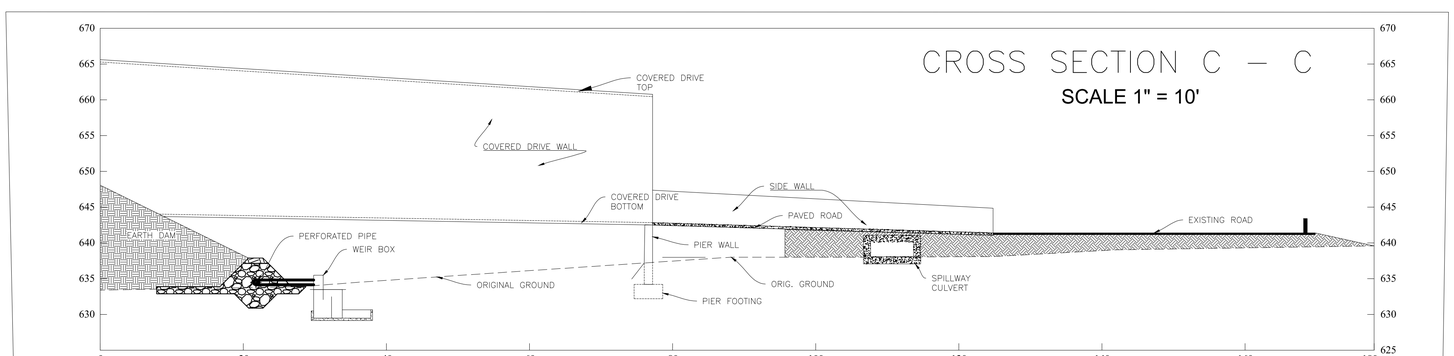
CROSS SECTION A – A

SCALE 1" = 20'



CROSS SECTION C – C

SCALE 1" = 10'



LEGEND

CONTOUR LINE

PROPOSED ROADWAY BOUNDARY

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DAM DETAILS

Dragon Springs Buddhist, Inc.
Orange County, New York
Town of Deerpark

KAIJIN LIANG, P.E.
140 Galley Hill Road
Cuddebackville, NY 12729

By	Date	Description
YD	08/04/18	REV.1 PER DEC COMMENTS

Date : 03/15/2017
Scale: AS SHOWN
Drawn: YD
Checked : KL

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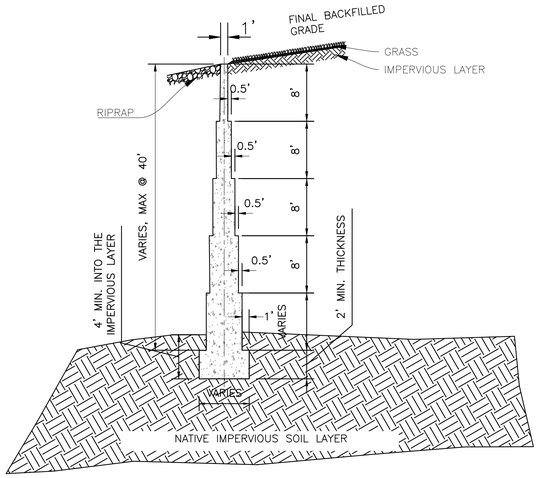
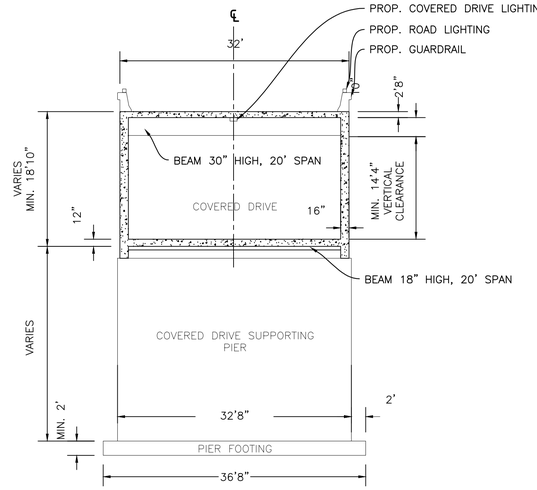
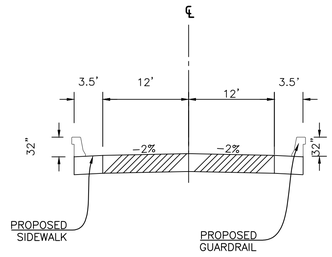


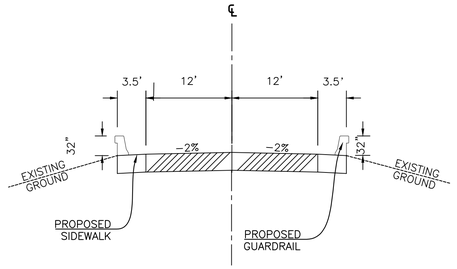
CONCRETE CORE WALL SECTION
SCALE: 1"=10'



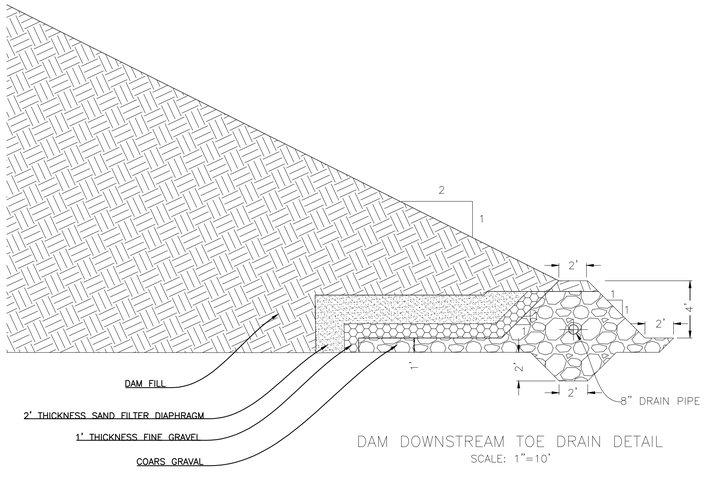
TYPICAL COVERED DRIVE CROSS SECTION
WITH SCALER & FOOTING
SCALE: 1"=10'



LAKE SIDE ROAD TOP
SCALE: 1"=10'



DAM ACCESS RAMP
SCALE: 1"=10'



DAM DOWNSTREAM TOE DRAIN DETAIL
SCALE: 1"=10'

LOGS OF TEST PITS

NO. OF TEST PIT	TEST DATE	TOP SOIL(1)	COLLUVIUM(2)	PONDED WATER
DP #1	5-29-11	0 TO 13 in	13 in TO 15 ft	MOIST TO WET FROM 0 TO 5 ft, FRIM AND DRY FROM 5 ft-15 ft
DP #2	5-29-11	0 TO 13 in	13 in TO 5 ft	MOTTLING AT 3 ft
DP #3	5-29-11	0 TO 13 in	13 in TO 5 ft	MOTTLING AT 3 ft
T #9	7-02-01	0 TO 4 in	4 in TO 10 ft	WATER SEEPAGE AT 1 ft
T #10	7-02-01	0 TO 4 in	4 in TO 10 ft	WATER SEEPAGE AT 1 ft

NOTE:
(1) TOPSOIL: GENERAL BLACK TO DARK GRAY, HIGHLY PLASTIC, WITH PLENTY OF ROOTS, VEGETATION AND ROCKS.
(2) COLLUVIUM: YELLOWISH BROWN, MEDIUM STIFF TO VERY STIFF SILTY AND SANDY CLAY WITH GRAVELS AND BOULDERS.

LEGEND

× 700	EXISTING SPOT ELEVATION
▲700	PROPOSED SPOT ELEVATION
700	PROPOSED CONTOUR LINE
T10	SOIL TEST LOCATION

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Date : 03/15/2017
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DAM GENERAL NOTES

1. DESIGN SPECIFICATIONS:

A. NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, GUIDELINE FOR DESIGN OF DAM, REVISED JANUARY 1989.

B. UNITED STATES BUREAU OF RECLAMATION, DESIGN OF SMALL DAMS, 1977 REVISED REPRINT.

C. AMERICAN CONCRETE INSTITUTE, BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318–89) AND COMMENTARY, ACI 318R–95 / 1995

D. NEW YORK STATE DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES WITH ALL PROVISIONS IN EFFECT AS OF JUNE 1999.

E. CONSTRUCTION AND MATERIALS SPECIFICATIONS: STANDARD SPECIFICATIONS, CONSTRUCTION AND MATERIALS, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, OFFICE OF ENGINEERING, DATED JANUARY 2, 1995 WITH CURRENT ADDITIONS AND MODIFICATIONS.

F. UNITED STATES DEPARTMENT OF AGRICULTURE: AGRICULTURE HANDBOOK NUMBER 590: PONDS–PLANNING, DESIGN, CONSTRUCTION. SOIL CONSERVATION SERVICE.

G. TIME–SAVER STANDARDS, SITE CONSTRUCTION DETAILS MANUAL,NICHOLAS T. DINES AND KYLE D. BROWN, MCGRAW–HILL PUBLISHING COMPANY.

2. DESIGN PARAMETERS:

A. SOIL: UNIT WEIGHT: 125 PCF
SHEAR STRENGTH: 1000 PSF
EQUIVALENT ACTIVE SOIL PRESSURE: 45 PCF
EQUIVALENT PASSIVE SOIL PRESSURE: 350 PCF
FRICTION COEFFICIENT: 0.3
PERMEABILITY: 0.1 TO 1 FEET/YEAR
(1x10–6 to 1x10–7 cm/s).

B. CONCRETE: UNIT WEIGHT: 150 PCF

C. STONE: UNIT WEIGHT: 165 PCF

D. LIVE LOAD SURCHARGE: 250 PSF

3. CONCRETE:

THE SPECIFIED CONCRETE COMPRESSIVE STRENGTH f'c AT 28 DAYS: CLASS A: 3000 PSI

CONCRETE SHALL HAVE ENTRAINED AIR IN ACCORDANCE WITH THE SPECIFICATIONS.

ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED ONE INCH UNLESS OTHERWISE NOTED ON THE PLANS.

CONCRETE COVER MEASURED TO THE FACE OF REINFORCING BAR SHALL BE 3 INCHES, UNLESS OTHERWISE NOTED.

4. REINFORCEMENT:

ALL REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60. ALLOWABLE TENSILE STRESS fs = 24000PSI.

5. CORE WALL AND FOUNDATION NOTES:

A. BACKFILL OF EMBANKMENT MATERIALS ON BOTH SIDES OF THE CORE WALL SHOULD BE DONE SIMULTANEOUS TO MINIMIZE THE DIFFERENCE OF LATERAL EARTH PRESSURES.

B. MIN. FACTORS OF SAFETY AGAINST:
SLIDING: 1.5
OVERTURNING: 2.0

C. FOOTINGS ARE DESIGNED FOR THE FOLLOWING BEARING PRESSURES:
DEAD LOAD: 2,000 PSF
DEAD PLUS LIVE LOAD: 3,000 PSF
ALL LOADS INCLUDING SEISMIC: 4,000 PSF

D. EXCAVATION BELOW PLANNED FOOTING ELEVATION SHALL NOT BE ALLOWED WITHOUT WRITTEN PERMISSION FROM THE ENGINEER.

E. FILL SHALL BE COMPACTED TO THE DEGREE OF COMPACTION AS DETERMINED BY TO ASTM D–1557 TEST METHOD, AS SPECIFIED IN NOTE 6.D BELOW.

F. DAM EMBANKMENT MATERIAL AND SELECT STRUCTURAL FILL SHALL BE PLACED SIMULTANEOUSLY, IN CONTACT. SHEETING OR OTHER MEANS SHALL NOT BE USED TO SEPARATE THE MATERIALS.

G. FOUNDATIONS AND FOOTINGS SHALL BE ON THE BED ROCK OR THE NATIVE IMPERVIOUS LAYER. THE SEEPAGE CUTOFF TRENCH SHOULD BE 4 FEET INTO THE IMPERVIOUS LAYER OR ON THE ROCK TOP WITH ALL SHATTERED AND DISINTEGRATED ROCK REMOVED AND SURFACE FISSURES FILLED WITH CEMENT GROUT. BLASTING OF THE BED ROCK IS NOT ALLOWED UNLESS OTHERWISE SPECIFIED. WHERE THE FINAL DEPTH OF CUTOFF CANNOT BE ESTABLISHED WITH CERTAINTY, THE FINAL DEPTH OF THE CUTOFF TRENCH WILL BE DETERMINED BY THE ENGINEER DURING THE TIME OF CONSTRUCTION.

6. EARTHWORK AND CONSTRUCTION PROCEDURE:

THE RECOMMENDATIONS MADE IN THIS SECTION ARE BASED ON THE ASSUMPTION THAT THE SOIL CONDITIONS DO NOT DEVIATE APPRECIABLY FROM THOSE DISCLOSED IN THE EXPLORATORY TEST PITS AND A WELL DRILLED AT THIS SITE. IF ANY VARIATIONS OR UNDESIRABLE CONDITIONS ARE ENCOUNTERED DURING CONSTRUCTION, THE EFFECTS OF THESE CONDITIONS ON THE RECOMMENDATIONS PRESENTED HEREIN SHALL BE EVALUATED AND, IF NECESSARY, SUPPLEMENTAL RECOMMENDATIONS DEVELOPED. THE RECOMMENDATIONS ARE MADE FOR THE PROPOSED DAM CONSTRUCTION. SIGNIFICANT CHANGES IN LOCATION, TYPE OF STRUCTURES, OR LOADING CONDITIONS SHALL BE EVALUATED AS TO THEIR EFFECTS ON THE RECOMMENDATIONS. IN ADDITION, AN ENGINEER SHALL OBSERVE THE SITE GRADING AND FOUNDATION EXCAVATION WORK TO VERIFY THAT THE SUBSURFACE CONDITIONS USED AS A BASIS FOR THE RECOMMENDATIONS ARE ENCOUNTERED THROUGHOUT THE SITE PREPARATION.

A. SITE PREPARATION:

EARTHWORK SHALL INCLUDE FOLLOWING:

REMOVAL OF EXISTING VEGETATION AND SOFT SILT/MUD IN THE LAKE AREA;
REMOVAL OF EXISTING VEGETATION AND SOFT SILK/MUD IN THE BORROW AREA;
EXCAVATION OF SITE SOILS FOR CONSTRUCTION OF SPREAD FOOTINGS FOR THE COVERED DRIVE PIERS, SERVICE SPILLWAY, AND RETAINING WALLS;
PREPARATION OF AREAS TO RECEIVE FILL;
PLACEMENT OF FILL TO THE DAM EMBANKMENT.

VEGETATION AND DEBRIS SHALL BE REMOVED FROM PLANNED CONSTRUCTION AREAS. TREE ROOTS SHALL BE DUG OUT AND DISPOSED OFF AWAY FROM THE CONSTRUCTION AREAS. THE VEGETATION SHALL BE STRIPPED TO A DEPTH OF AT LEAST 4 INCHES AND EITHER HAULED OFF SITE OR STOCKPILED FOR LATER USE IN PLANTING AREAS.

NATIVE SOILS CAN THEN BE EXCAVATED AND STOCKPILED SEPARATELY FOR LATER USE. WET SOILS SHALL BE SPREAD OUT TO BE DRIED FOR LATER USE. EXCESSIVE SOILS EXCAVATED SHALL BE PROPERLY PLACED AND COMPACTED ALONG THE BANK AREAS.

B. EXCAVATION FOR COVERED DRIVE FOOTINGS AND SERVICE SPILLWAY FOUNDATION

EXCAVATED NATIVE SOIL AND SUITABLE MATERIALS SHALL BE STOCKPILED AND MOISTURE CONDITIONED, I.E., TO BE DRIED IF TOO WET, AND ADDING WATER IF TOO DRY.

THE BOTTOM OF THE AREAS WHERE THE FOOTING SHALL BE CONSTRUCTED SHALL BE PROTECTED BY FIRST CONSTRUCTING A 3–INCH THICK RAT SLAB CONSISTING OF LEAN CONCRETE. THE BOTTOM OF THE FOUNDATION EXCAVATION SHALL BE INSPECTED BY AN ENGINEER BEFORE THE RAT SLAB IS CONSTRUCTED.

C. CONSTRUCTION OF COVERED DRIVE PIERS AND SPILLWAY STRUCTURE

ALL CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE TO THE FOLLOWING DESIGN SPECIFICATIONS:
SECTION 03100 CONCRETE FORM WORK
SECTION 03200 CONCRETE REINFORCEMENT
SECTION 03250 CONCRETE ACCESSORIES
SECTION 03300 CAST–IN–PLACE CONCRETE

D. EARTH EMBANKMENT GENERAL FILL REQUIREMENTS

PREPARE AREAS TO RECEIVE FILL. FILL SHALL BE PLACED AND COMPACTED ACCORDING TO THE SPECIFICATIONS.
DOWNSTREAM TOE DRAIN AND BLANKET SHALL BE BUILT BEFORE THE EARTH FILL OF THIS AREA.

VIBRATORY DRUM COMPACTOR OR SHEETFOOT VIBRATING COMPACTING EQUIPMENT (SUCH AS 815 OR EQUIVALENT) SHALL GENERALLY BE USED. IN AREAS THAT HEAVY EQUIPMENT IS HARD TO REACH, 12–INCH SQUARE HAND COMPACTING DEVICE CAN BE USED.

SOILS, EXCEPT TOPSOIL, ON THE SITE OR IN THE GENERAL VICINITY OF THE PROPERTY ARE GENERALLY SUITABLE FOR FILL OR BACKFILL. NATIVE SOILS FROM EXCAVATION IN THE LAKE AND AT SPILLWAY FOUNDATIONS ARE SUITABLE TO BE USED AS FILL. ALL FILL MATERIAL SHALL BE A SOIL OR SOIL–ROCK MIXTURE FREE OF ORGANIC MATERIAL, DEBRIS, AND OTHER DELETERIOUS SUBSTANCES. THE SOIL SHALL CONTAIN NO ROCKS LARGER THAN 4 INCHES IN GREATEST DIMENSION NOR MORE THAN 15 PERCENT LARGER THAN 2 INCHES. ALL IMPORTED SOIL SHALL BE A SELECT MATERIAL MEETING THE FOREGOING REQUIREMENTS FOR GENERAL FILL AS WELL AS THE FOLLOWING QUALITY REQUIREMENTS:

MAXIMUM PLASTICITY INDEX: 15
PERCENTAGE PASSING NO. 200 SIEVE:
50 MAXIMUM, 5 MINIMUM

THE REQUIREMENT THAT AT LEAST 5 PERCENT PASS THE NUMBER 200 SIEVE IS TO PRECLUDE THE USE OF SAND OR GRAVEL AS SELECT FILL. ALL FILL AND BACKFILL MATERIALS SHALL BE OBSERVED AND TESTED BY AN ENGINEER PRIOR TO USE TO EVALUATE THEIR SUITABILITY.

FILL PLACED TO BRING THE SITE TO GRADE OR TO BACKFILL EXCAVATIONS SHALL BE PLACED IN UNIFORM LIFTS NOT EXCEEDING 8 INCHES IN UNCOMPACTED THICKNESS. EACH LIFT SHALL BE BROUGHT TO A UNIFORM MOISTURE CONTENT PRIOR TO COMPACTING BY EITHER SPRAYING THE SOIL WITH WATER IF IT IS TOO DRY OR AERATING THE MATERIAL IF IT IS TOO WET. ONSITE SOIL SHALL AT LEAST BE 1 PERCENT ABOVE OPTIMUM WATER CONTENT PRIOR TO COMPACTION. FILL SHALL BE COMPACTED TO THE FOLLOWING DEGREE OF COMPACTION AS DETERMINED BY TO ASTM D–1557 TEST METHOD:

FILL	DEGREE COMPACTION
SITE GENERAL FILL OFF DAM	90
UTILITY TRENCH BACKFILL	90
SELECT FILL BELOW FOUNDATIONS	90
ALL FILL IN DAM	93

FILL PLACED ON EXISTING SLOPE SHALL BE KEYED AT THE TOE OF THE FILL SLOPE AND BENCHED IN THE PROCESS OF BRING THE GRADE UP. THE TOE KEY SHALL BE AT LEAST 3 FEET DEEP AND 10 FEET WIDE INTO NATIVE SOIL. IF RIPRAPS ARE USED, A TOE KEY FOR THE RIPRAPS SHALL ALSO BE CONSTRUCTED.
CRUSHED ROCK, IF USED AS BACKFILL, SHALL ALSO BE COMPACTED USING VIBRATING COMPACTING EQUIPMENT.

E. BACKFILL FOR COVERED DRIVE PIERS

FILL ON BOTH SIDES OF THE COVERED DRIVE PIERS SHALL BE PLACED AND COMPACTED SIMULTANEOUSLY WITH THE HEIGHT DIFFERENCE LESS THAN 2 FEET.
GENERAL GUIDANCE FOR FILL, FILL PLACEMENT AND COMPACTION ARE SPECIFIED IN THE ABOVE SECTION (SECTION D).

F. RIPRAPS ON UPSTREAM SLOPE

RIPRAPS SHALL BE KEYED AT BOTTOM OF THE RIPRAPS AND RAISED UP TO FORM A UNIFORM SLOPE OF 3 TO 1 UPSTREAM OF THE CONCRETE CORE WALL. RIPRAP SHALL RANGE FROM CORE WALL TOP TO AT LEAST 2 FEET BELOW THE NORMAL WATER LEVEL.

G. TOE DRAIN

A TOE DRAIN ALONG THE DAM DOWNSTREAM SLOPE TOE SHALL BE CONSTRUCTED. A FILTER DIAPHRAGM AND A LAYER OF FINE STONE/GRAVEL SHALL BE PLACED BETWEEN THE EARTH FILL AND THE TOE DRAIN OR BLANKET. THE FILTER DIAPHRAGM SHALL BE AT LEAST 2 FEET THICK, AND THE FINE STONE/GRAVAL SHALL BE AT LEAST 1 FOOT THICK.
THE TOP 18 INCHES OF THE TOE DRAIN SHALL BE CAPPED WITH PROPERLY COMPACTED CLAYEY FILL TO PREVENT INFILTRATION OF SURFACE RUNOFF.
A PERFORATED DRAINAGE PIPE (8 INCHES IN DIAMETER) SHALL BE PLACED AT BOTTOM OF THE DRAIN AND DISCHARGED THROUGH SOLID PIPES TO A DISSIPATER FURTHER DOWNSTREAM.

H. EROSION CONTROL

BEFORE THE EXCAVATION, A LINE OF SILT FENCE SHALL BE INSTALLED DOWNSTREAM OF THE CONSTRUCTION SITE. THE SILT FENCE SHALL BE INSTALLED ACCORDING TO THE SPECIFICATION. HAY BALES SHALL BE PLACED ALONG THE SILT FENCE TO FILTE RUNOFF FROM THE CONSTRUCTION AREAS, WHERE IT IS NECESSARY AS DETERMINED BY THE SITE ENGINEER.

A COFFERDAM SHALL BE CONSTUCTED BEFORE THE WORK IN THE EXISTING STREAM AREA BEGINS. THE COFFERDAM, TOGETHER WITH A SPECIFIED PUMP, SHALL PROTECT THE CONSTRUCTION SITE FROM THE DESIGN FLOOD.

STOCKPILES OF FILL MATERIALS AND CONSTRUCTION AREAS SHALL BE COVERED BY PLASTIC SHEET DURING RAIN TO MINIMIZED EROSION.

A PLASTIC SHEET SHALL BE PLACED ON THE UPSTREAM SLOPE BEFORE PLACEMENT OF RIPRAPS. FINISHED DOWNSTREAM SLOPE SHALL BE HYDROSEEDED IMMEDIATELY AFTER CONSTRUCTION.

7. HYDROLOGIC DESIGN:

A. HAZARD CLASSIFICATION

THE HAZARD CLASSIFICATION OF THIS DAM IS OF CLASS "A" WHEREAS A DAM FAILURE SHALL DAMAGE NO MORE THAN UNDEVELOPED LANDS OR TOWNSHIP OR COUNTY ROAD.
DAM SIZE IS "LARGE" WHEREAS THE DAM HEIGHT IS HIGHER THAN 40 FEET.

B. DRAINAGE AREA

ACCORDING TO AN USGS TOPOGRAPHIC MAP, THE WATERSHED AREA OF THE PROPOSED LAKE#2 IS 140.5 ACRES.

C. LAKE STORAGE

THE TOP ELEVATION OF THE DAM IS 672 FEET. THE ELEVATION OF THE SERVICE SPILLWAY INBERT IS AT 667 FEET. WATER LEVEL IN THE LAKE#2 SHALL BE KEPT AT AN ELEVATION OF APPROXIMATELY 667 FEET; THE CORRESPONDING STORAGE OF THE LAKE#2 SHALL BE 417.0 ACRE–FEET.

D. HYDROLOGIC DESIGN CRITERIA

THE HAZARD CLASSIFICATION FOR THE DAM IS CLASS A. THE SIZE OF THE DAM IS LARGE BECAUSE THE HEIGHT OF THE DAM IS OVER 40 FEET. ACCORDING TO NY'S DEC GUIDELINES FOR DESIGN OF DAMS, THE HYDROLOGIC CRITERIA FOR THE DESIGN FLOOD SHALL MEET THE FOLLOWING REQUIREMENTS:
SERVICE SPILLWAY DESIGN FLOOD: 10 YEAR FLOOD
DAM DESIGN FLOOD: 150% OF 100 YEAR FLOOD

E. RAINFALL ESTIMATE

ACCORDING TO THE NEW YORK GUIDELINES FOR URBAN EROSION AND SENDIMENT CONTROL, THE RAINFALL IN ORANGE COUNTY IS ESTIMATED TO BE 7.97 INCHES FOR A 100–YEAR FREQUENCY. THE RAINFALL FOR THE 150% OF 100–YEAR FLOOD SHALL BE 11.96 INCHES.

F. HYDROLOGIC SOIL GROUP

SOILS ARE USUALLY CLASSIFIED IN FOUR HYDROLOGIC GROUPS ACCORDING TO INFILTRATION AND TRANSMISSION RATES. BASED ON INFORMATION PROVIDED IN THE GEOTECHNICAL REPORT, THE SOIL IN THE DRAINAGE AREA IS CLASSIFIED AS GROUP C.

10. HYDRAULIC DESIGN

A. PROPOSED SPILLWAY SYSTEM

SPILLWAY PROTECTS THE DAM FROM OVERTOPPING. A SERVICE–AUXILIARY SPILLWAY SYSTEM IS DESIGNED FOR THE PROPOSED DAM#2. IT DISCHARGES THE FLOOD WATER DIRECTLY TO A NATURAL STREAM DOWNSTREAM.

B. DIMENSION OF THE SPILLWAY

THE DIMENSIONS OF THE SPILLWAY ARE DETAILED IN THIS SET OF DRAWINGS.

C. CRITERIA FOR SPILLWAY DESIGN

THE SPILLWAY SYSTEM IS DESIGNED ACCORDING TO CRITERIA SPECIFIED IN THE NYS DEC GUIDELINES FOR DESIGN OF DAMS (JAN. 1985, REVISED JAN. 1989).

11. SEEPAGE CONTROL MEASURES:

THE FILL USED FOR THE DAM IS GENERALLY LOW IN PERMEABILITY.

A CONCRETE CORE WALL IS DESIGNED IN THE DAM TO REDUCE THE SEEPAGE OF THE LAKE WATER THROUGH THE DAM. THE FOOTING OF THE CONCRETE CORE WALL SHALL BE CONSTRUCTED ON THE IMPERVIOUS LAYER OR THE BEDROCK, WHICHEVER IS ENCOUNTERED FIRST. WHEN THEN THE CORE WALL FOOTING IS BUILT ON THE BEDROCK, THE BEDROCK SURFACE SHALL BE CLEAN AND FREE FROM LOOSE PIECES. NO BLASTING OF THE BEDROCK IS ALLOWED.

A TOE DRAIN WITH A RIPRAP BLANKET IS DESIGNED ALONG THE DOWNSTREAM SLOPE TOE LINE. SEEPAGE THROUGH THE DAM SHALL BE COLLECTED BY THE TOE DRAIN. THE WATER IS THEN DRAINED BY A POFORATED PIPE IN THE DRAIN TO THE SEEPAGE WEIR BOX AND THEN DRAINED TO THE DOWNSTREAM NATURAL STREAM.

12. EROSION AND SEDIMENTATION CONTROL

FLOOD WATER DISCHARGED THROUGH THE SERVICE SPILLWAY SHALL FLOW INTO AN ENERGY DISSIPATOR AND THEN TO THE NATURAL STREAM DOWNSTREAM WITH A VELOCITY THAT RESEMBLES THE NATURAL STREAM FLOW AT THE DOWNSTREAM STEAM AND CREATE NO ADDITIONAL EROSION TO THE DOWNSTREAM STEAM BED.

13. BORROW PIT

THE BORROW PIT MUST BE KEPT AT LEAST 2 TIMES THE HEIGHT OF DAM OR 25 FEET, WHICHEVER IS GREATER, FROM THE DOWNSTREAM TOE OF DAM#1 AND FROM THE UPSTREAM TOE OF DAM#2.

EXPOSURE OF PERVIOUS SOILS AND FISSURED ROCK BELOW NORMAL WATER SURFACE OF THE PROPOSED POND, AT BORROW AREAS LOCATED IN OR CONNECTED TO THE RESERVOIR AREA, SHOULD BE AVOIDED.

IF PERVIOUS SOILS OR FISSURED ROCK CONDITIONS ARE ENCOUNTERED DURING BORROW OPERATIONS THESE EXPOSED AREAS SHOULD BE SEALED WITH A SUFFICIENT THICKNESS OF COMPACTED IMPERVIOUS MATERIAL OF NO LESS THAN 2 FEET. AND CONSIDERATION SHOULD BE GIVEN TO UTILIZING A GREATER THICKNESS WHERE SITE CONDITIONS AND HAZARD CLASSIFICATIONS DICTATE.

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DAM DETAILS

Dragon Springs Buddhist, Inc.
Town of Deerpark — Orange County, New York

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Revisions

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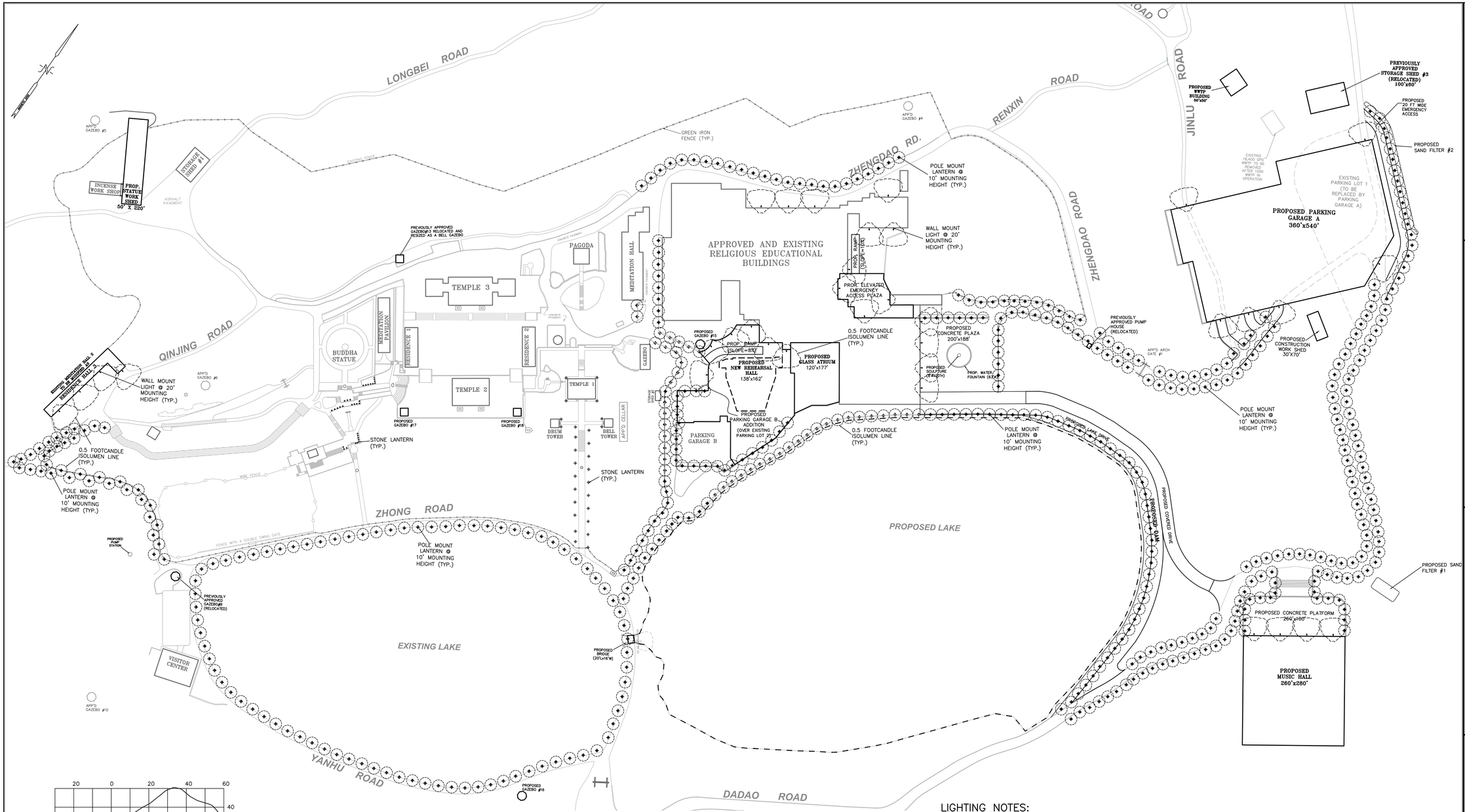
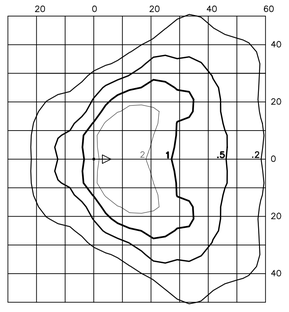
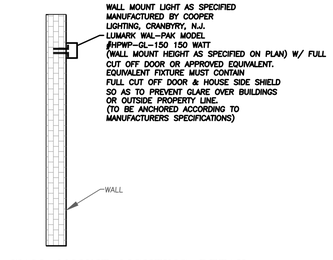




FOOTCANDLE TABLE FOR WALL MOUNTED LIGHTING (20 FT HIGH)
N.T.S.



WALL MOUNT LIGHTING DETAIL
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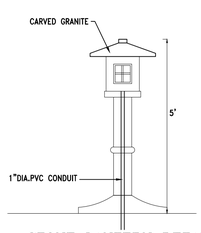
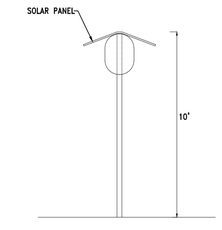


STONE LANTERN DETAIL
N.T.S.



POLE MOUNT LANTERN DETAIL
N.T.S.

LIGHTING NOTES:

1. ALL EXTERIOR LIGHTING SHALL HAVE DAYLIGHT SENSORS OR TIMERS INSTALLED. ALL EXTERIOR LIGHTS ARE TO BE DOWNWARD FACING, AND SHIELDED, TO MINIMIZE SPILL OVER OF GLARE.
2. WALL MOUNT LIGHT AS SPECIFIED MANUFACTURED BY COOPER LIGHTING, CRANBYRY, N.J. LUMARK WAL-PAK MODEL #HPWP-GL-150 150 WATT (WALL MOUNT HEIGHT AS SPECIFIED ON PLAN) W/ FULL CUT OFF DOOR OR APPROVED EQUIVALENT. EQUIVALENT FIXTURE MUST CONTAIN FULL CUT OFF DOOR & HOUSE SIDE SHIELD SO AS TO PREVENT GLARE OVER BUILDINGS OR OUTSIDE PROPERTY LINE. (TO BE ANCHORED ACCORDING TO MANUFACTURERS SPECIFICATIONS)

GRAPHIC SCALE

120 0 60 120 240 480

(IN FEET)
1 inch = 120 ft.

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LIGHTING PLAN

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Revisions		
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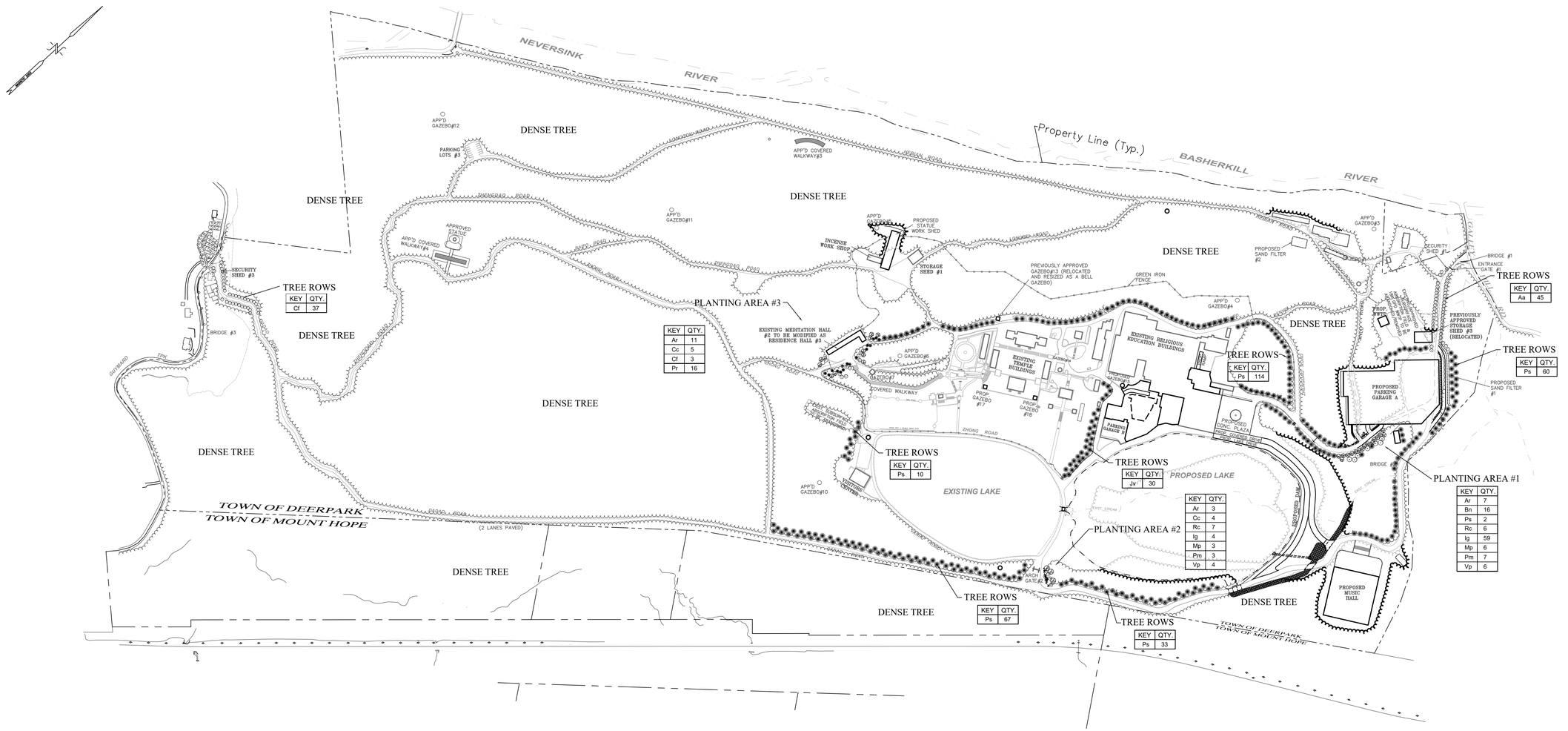

LANDSCAPE NOTES:

1 PLANT MATERIALS COLLECTED FROM WILD SOURCES WILL NOT BE ACCEPTED.

2 STAKING (LAYOUT) OF PLANT MATERIALS TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION. DRAWING MAY BE SCALED FOR APPROXIMATE LAYOUT OF INDIVIDUAL TREES AND PLANTING BEDS.

3 ALL DECIDUOUS AND CONIFEROUS TREES AND SHRUBS SHALL BE PLANTED AND STAKED IN ACCORDANCE WITH THE PLANTING DETAILS ON THIS DRAWING.

4 PLANTS ARE NOT TO BE INSTALLED OR TRANSPLANTED DURING EXTREME HEAT, DROUGHT OR OTHER UNDESIRABLE CONDITIONS. CONTRACTOR SHALL NOT PROCEED IN UNCERTAINTY.

5 TOPSOIL TO BE FREE FROM WEEDS, SUBSOIL, ROOTS, STONES, LUMPS OF CLAY AND TOXIC MATERIAL.

6 SHREDDED BARK MULCH TO BE UNIFORMLY APPLIED UNDER ALL TREES AND IN PLANTING BEDS 4" IN THICKNESS.

7 ANY DEAD OR DAMAGED BRANCHES OF TREES OR SHRUBS TO BE PRUNED ACCORDING TO STANDARDS AND TIMING APPROPRIATE TO EACH SPECIES.

8 ALL TREE LOCATIONS SHALL CONFORM TO THE SETBACK REQUIREMENTS ESTABLISHED BY THE CITY OR MUNICIPALITY.

9 ONLY NONCOMBUSTIBLE MULCH SHALL BE USED IN THE LANDSCAPING AREAS.

10 FINISH GRADES OF ALL TURF AREAS SHALL BE ONE INCH (1") BELOW ADJACENT CURB OR PAVEMENT. FINISH GRADES OF ALL SHRUB AREAS SHALL BE ONE AND HALF INCHES (1-½") BELOW ADJACENT CURB, PAVEMENT OR HEADER.

11 LANDSCAPING FEATURES, SUCH AS STONE WORKS AND SCULPTURES, WILL BE PLACED IN THE FUTURE ACCORDING TO THE RELATIONSHIP OF THE BUILDINGS TO BE COMPLETED.

12 PLANTING BALL – ON B&B MATERIAL, BURLAP AND WIRE BASKET OR OTHER CONTAINER FROM THE UPPER HALF OF THE ROOT BALL AND DISPOSED OF.

13 ALL TAGS, LABELS, ETC. SHALL BE REMOVED FROM THE PLANTS.

14 HEIGHT OF PLANTING SAUCER SHALL BE 3".

TREE PROTECTION NOTES

1 CONSTRUCTION FENCE SHALL BE PLACED AT THE DRIPLINE OF THE TREE TO BE SAVED. FENCE SHALL COMPLETELY ENCIRCLE THE TREES. TO INSTALL FENCE POSTS. AVOID DRIVING POSTS OR STAKES INTO MAJOR ROOTS.

2 DEAD TREES, SCRUB, OR UNDERGROWTH SHALL BE CUT FLUSH WITH ADJACENT GRADE. THERE WILL BE NO SOIL DISTURBANCE UNDER THE DRIP LINE OF TREES TO BE PRESERVED.

3 NO EQUIPMENT OR MACHINERY SHALL BE USED WITHIN THE PROTECTION FENCE. WORK WITHIN THE PROTECTION ZONE SHALL BE DONE MANUALLY.

4 NO STOCKPILING OF MATERIALS, VEHICULAR TRAFFIC, OR STORAGE IS ALLOWED WITHIN THE LIMIT OF THE PROTECTION FENCING.

PLANT LIST

KEY	QTY.	BOTANICAL NAME	COMMON NAME	MIN. SIZE	CONDITION	REMARKS
DECIDUOUS TREES						
Aa	45	*Amelanchier arborea*	Serviceberry	2" cal.	W.B. OR B&B	Uniform
Ar	21	*Acer rubrum*	Red maple	2" cal.	W.B. OR B&B	Uniform
Bn	16	*Betula nigra*	River birch	2" cal.	W.B. OR B&B	Uniform
Cc	9	*Cercis canadensis*	Eastern redbud	2" cal.	W.B. OR B&B	Uniform
Cf	40	*Cornus florida*	Flowering dogwood	2" cal.	W.B. OR B&B	Uniform
CONIFEROUS TREES						
Jv	30	*Juniperus virginiana*	Eastern red cedar	6' HT	W.B. OR B&B	Uniform
Pr	16	*Pinus rigida*	Pitch pine	2" cal.	W.B. OR B&B	Uniform
Ps	286	*Pinus strobus*	White Pine	2" cal.	W.B. OR B&B	Uniform
SHRUBS						
Rc	13	*Aronia arbutifolia*	Red chokeberry		3 gal.	Uniform
Ig	63	*Ilex glabra*	Inkberry		3 gal.	Uniform
Mp	9	*Myrica pensylvanica*	Bayberry		3 gal.	Uniform
Pm	10	*Prunus maritima*	Beach plum		3 gal.	Uniform
Vp	10	*Viburnum prunifolium*	Black viburnum		3 gal.	Uniform

LEGEND

700 EXISTING CONTOUR LINE
EXISTING WATER BODY
EXISTING TREE LINE
EXISTING TREE LINE TO BE REMOVED
PROPOSED TREE LINE

LANDSCAPING LEGEND

PROPOSED DECIDUOUS TREE
PROPOSED CONIFEROUS TREE
PROPOSED SHRUB

GRAPHIC SCALE
300 0 150 300 600 1200
(IN FEET)
1 inch = 300 ft.

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LANDSCAPE & TREE PLAN

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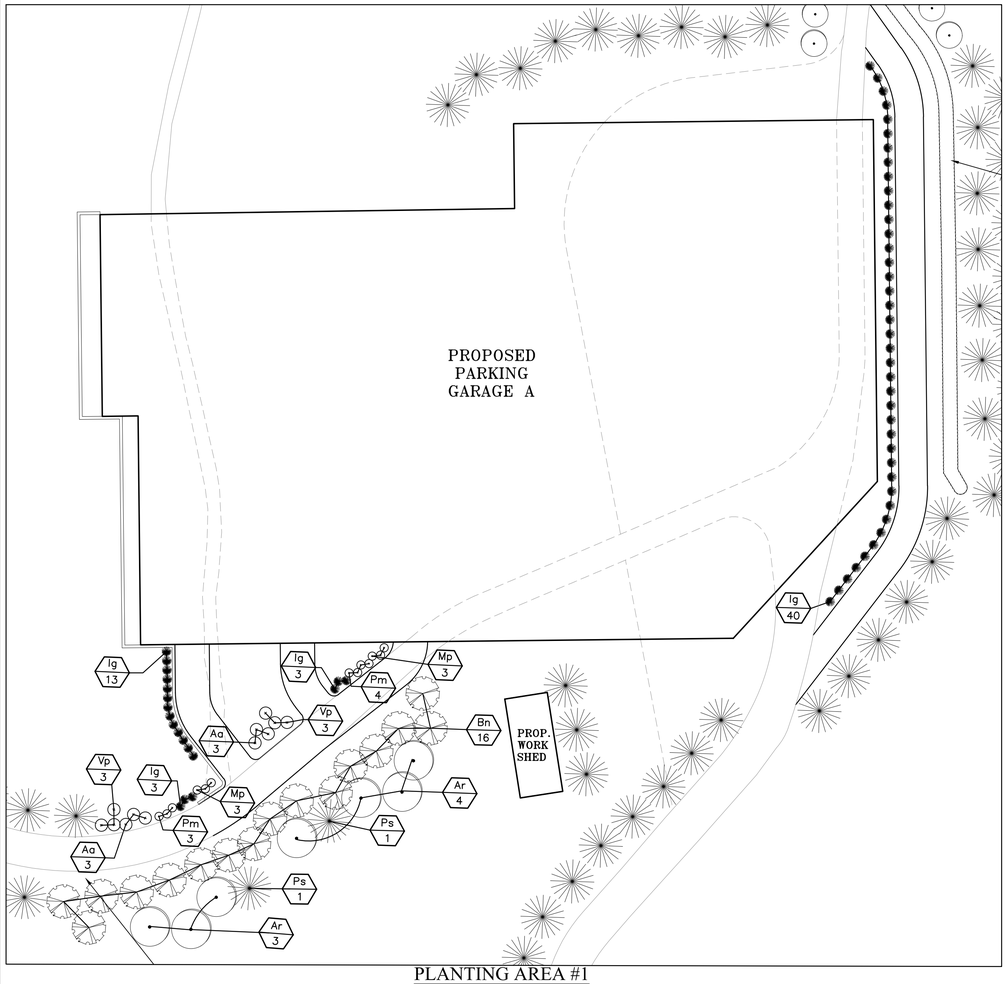
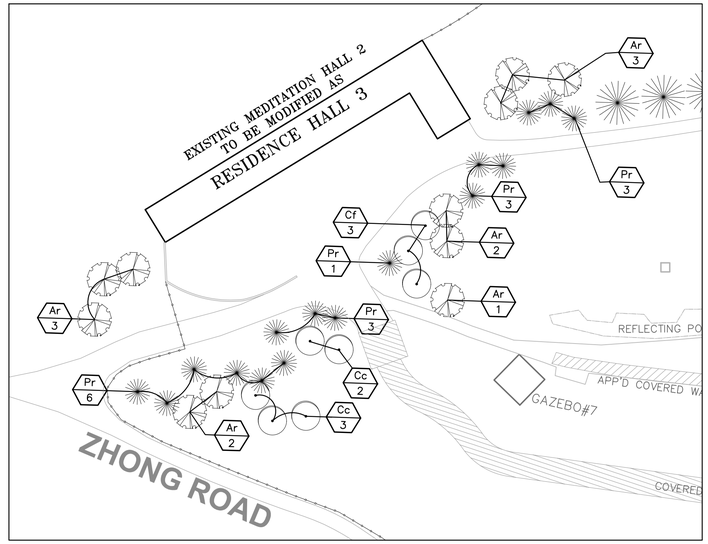
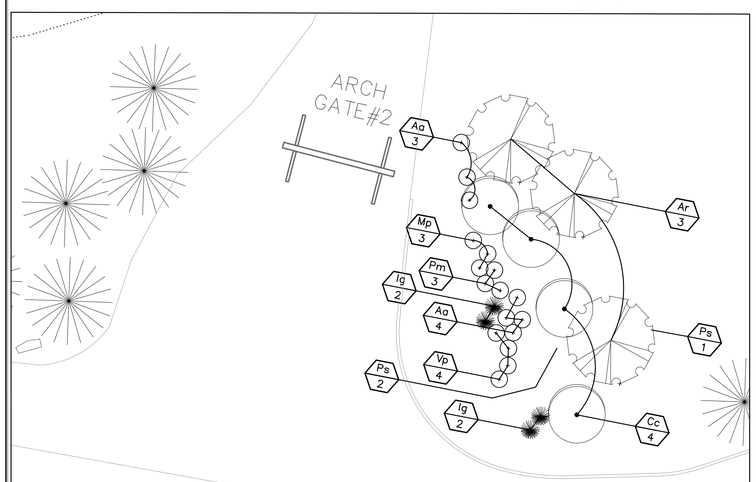


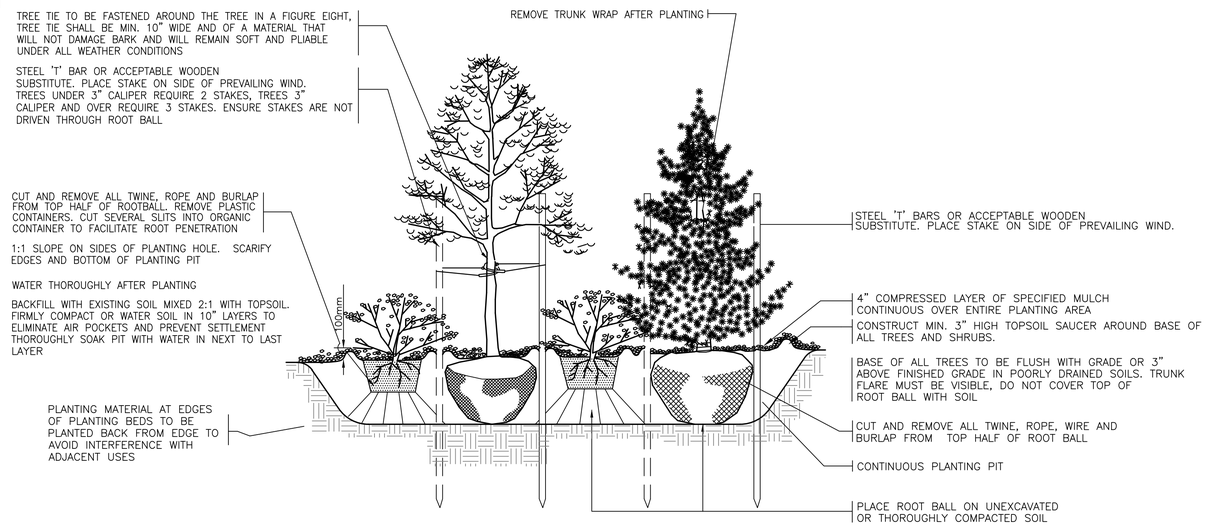
PLANTING AREA #1
PROPOSED PARKING GARAGE A
Scale: 1"=50'



PLANTING AREA #3
PROPOSED RESIDENCE HALL
Scale: 1"=50'



PLANTING AREA #2
ARCH GATE #2
Scale: 1"=25'



CONTINUOUS PLANTING BED DETAIL
N.T.S.

LANDSCAPE DETAILS

Dragon Springs Buddhist, Inc.
Orange County, New York
Town of Deerpark

KAJIN LIANG, P.E.
Consulting Engineer
140 Galley Hill Road
Cuddebackville, NY 12729

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By	Date	Description
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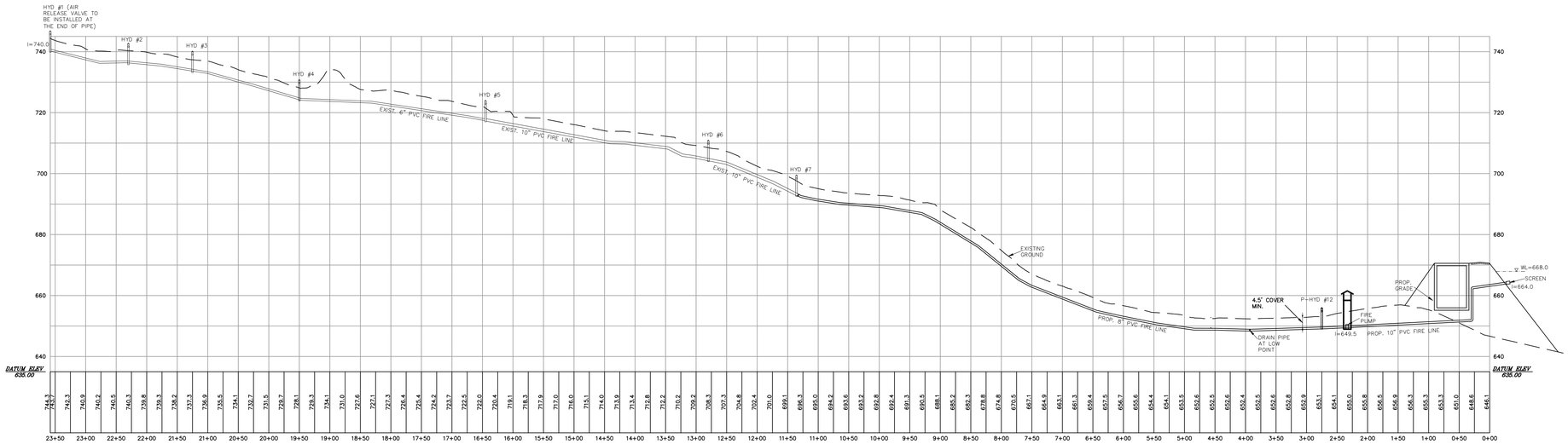
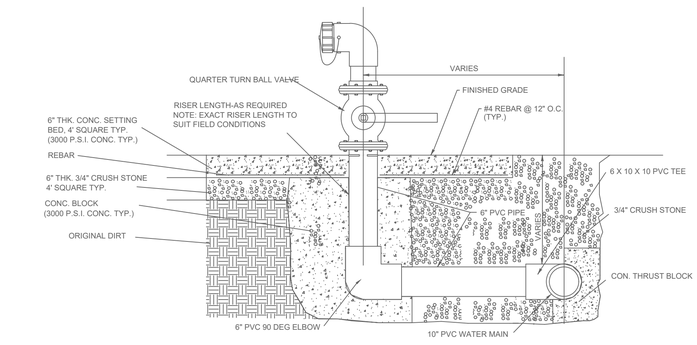


FIRE LINE PROFILE

Scale: 1"=100'/H
1"=20'/V



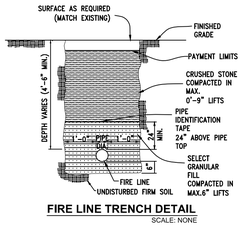
HYDRANT ASSEMBLY DETAIL
SCALE : NONE

SITE FIRE PUMP ROOM FLOOR PLAN
NTS

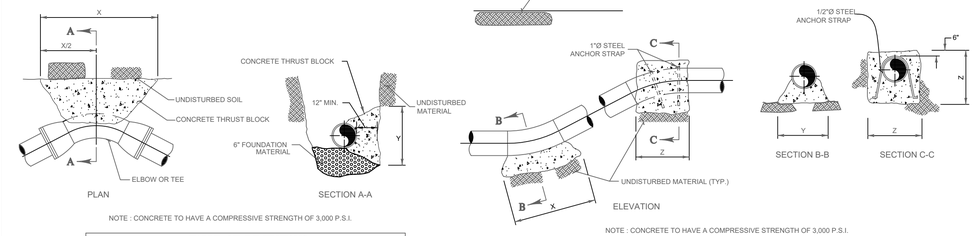
FIRE PUMP HYDRAULIC CALCULATION

	LENGTH (FEET)	FRICTION LOSS (FT)	PRESSURE (FT)
MINIMUM PRESSURE REQUIRED AT HIGHEST HYDRANT			46 FT (20 PSI MIN)
STATIC HEAD- PUMP ELEVATION TO HIGHEST HYDRANT			745'-650.5'=93.5'
PIPE FRICTION LOSS THROUGH FIRE LINE			
1500 GPM THROUGH 6" MAIN (11.0 FT/100 FT)	701 (EXIT.)	77.1	
1500 GPM THROUGH 8" MAIN (2.7 FT/100 FT)	1130 (NEW)	30.5	
1500 GPM THROUGH 10" MAIN (0.9 FT/100 FT)	520 (EXIT.)	4.7	
SUBTOTAL		112.3	
PIPE FRICTION LOSS THROUGH FITTINGS AND VALVES	30% OF PIPE LOSS	33.7	
TOTAL		146	139.5

FIRE PUMP DISCHARGE HEAD REQUIRED AT 1500 GPM FLOW RATE= 146 + 139.5 = 285.5 FT = 124 PSI
FIRE PUMP SELECTED= TWO 750GPM @ 124 PSI, 480V, 3 PHASE



FIRE LINE TRENCH DETAIL
SCALE: NONE



NOTE : CONCRETE TO HAVE A COMPRESSIVE STRENGTH OF 3,000 P.S.I.

TABLE OF DIMENSIONS

PIPE SIZE (BRANCH OF TEE)	90° BEND		45° BEND		22 1/2° BEND		TEE & PLUG	
	X	Y	X	Y	X	Y	X	Y
6"	30"	24"	24"	18"	18"	12"	27"	21"
8"	42"	30"	30"	24"	24"	18"	36"	27"
12"	66"	42"	45"	33"	33"	24"	48"	42"
16"	84"	48"	51"	39"	39"	30"	60"	48"
24"	102"	75"	78"	60"	60"	39"	108"	108"

HORIZONTAL BEND THRUST BLOCK DETAILS
SCALE : NONE

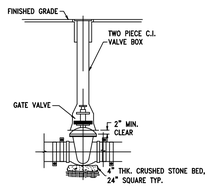
NOTE : CONCRETE TO HAVE A COMPRESSIVE STRENGTH OF 3,000 P.S.I.

TABLE OF DIMENSIONS

PIPE SIZE	90° BEND			45° BEND			22 1/2° BEND		
	X	Y	Z	X	Y	Z	X	Y	Z
6"	30"	24"	48"	24"	18"	39"	18"	12"	33"
8"	42"	30"	60"	30"	24"	48"	24"	18"	39"
12"	66"	42"	75"	45"	33"	60"	33"	24"	51"
16"	84"	48"	97"	51"	39"	75"	39"	30"	62"
24"	102"	75"	120"	78"	60"	90"	60"	39"	72"

VERTICAL BEND THRUST BLOCK DETAILS
NONE

THRUST BLOCK DETAILS
SCALE : NONE



TYPICAL VALVE DETAIL
SCALE: NONE

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New York State Lic. No. 79716

FIRE LINE PROFILE & DETAILS

Dragon Springs Buddhist, Inc.
Orange County, New York
Town of Deerpark

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Revisions
Description: GENERAL REVISION
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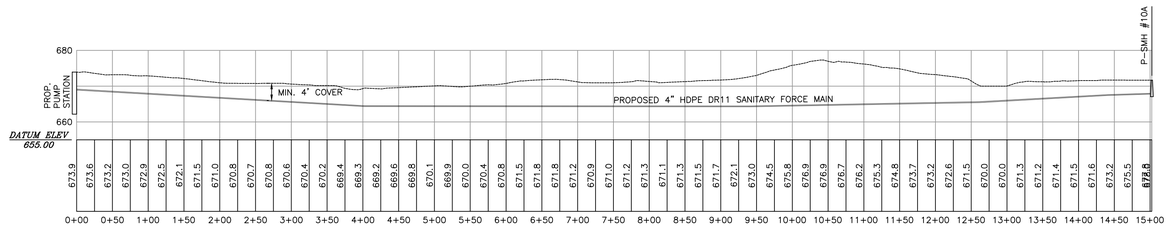
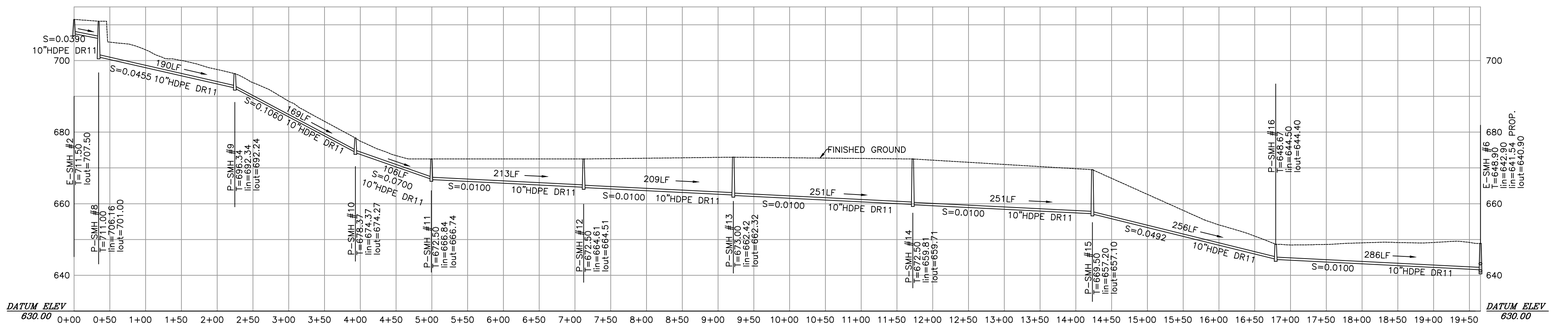


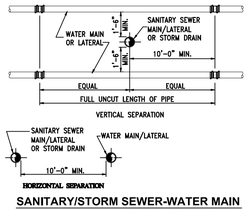
SANITARY FORCE MAIN PROFILE

Scale: 1"=100' /H
1"=20' /V



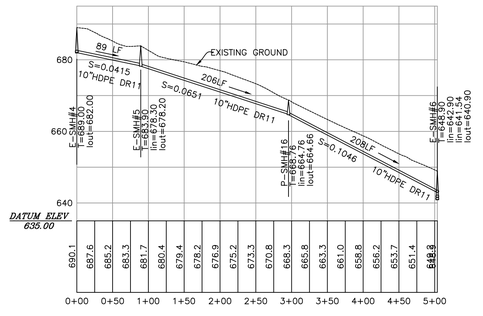
SANITARY SEWER PROFILE (E-SMH#2 TO E-SMH#6)

Scale: 1"=100' /H
1"=20' /V



SANITARY/STORM SEWER-WATER MAIN SEPARATION DETAIL

SCALE: NONE



SANITARY SEWER PROFILE (E-SMH#4 TO E-SMH#6)

Scale: 1"=100' /H
1"=20' /V

Kaijin Liang P.E.
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SANITARY SEWER PROFILES

Dragon Springs Buddhist, Inc.

Orange County, New York

Town of Deerpark

KAIJIN LIANG, P.E.
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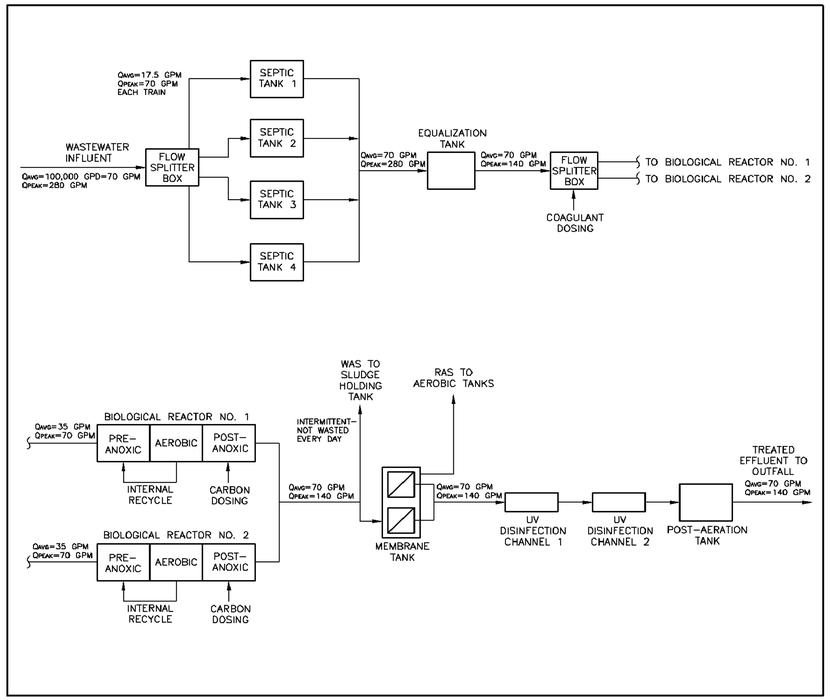

DRAGON SPRINGS BUDDHIST, INC.

WWTP
FLOW BALANCE
SCHEMATIC

OBRIEN&GERE

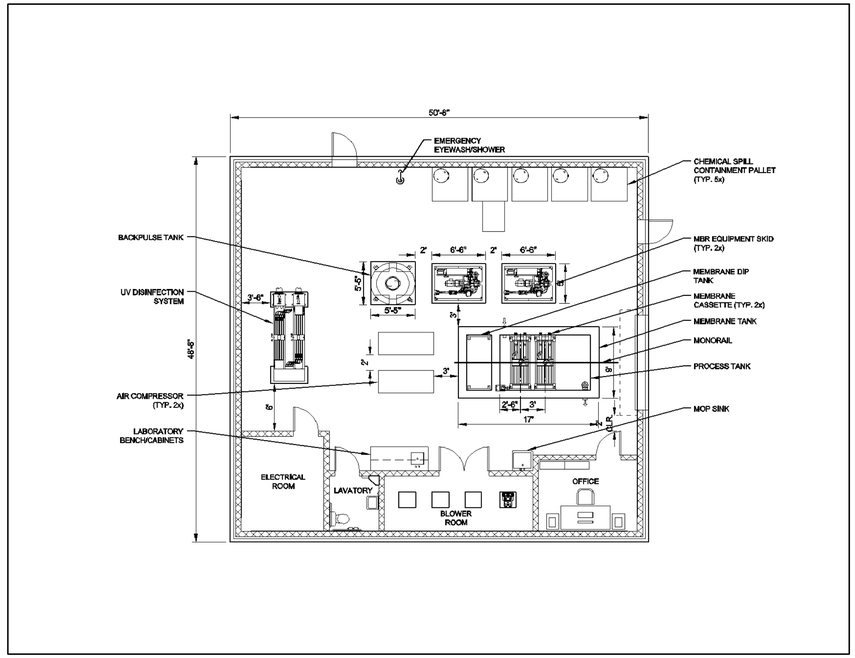

FIGURE 3

PLAN NORTH

DRAGON SPRINGS BUDDHIST, INC.
WASTEWATER TREATMENT PLANT
CUDDEBACKVILLE, NEW YORK

FLOOR PLAN

OBRIEN&GERE

DESIGN FLOW RATE CALCULATION FOR 100,000 GPD WWTP

500 STUDENTS @ 150 GPD = 75,000 GPD
200 STAFF @ 15 GPD = 3,000 GPD
2,000 VISITORS @ 5 GPD = 10,000 GPD

TOTAL = 88,000 GPD

USE 100,000 GPD FOR DESIGN.

Kaijin Liang P.E.
New York State Lic. No. 79716

WWTP DETAILS

Dragon Springs Buddhist, Inc.
Orange County, New York
Town of Deerpark

KAIJIN LIANG, P.E.
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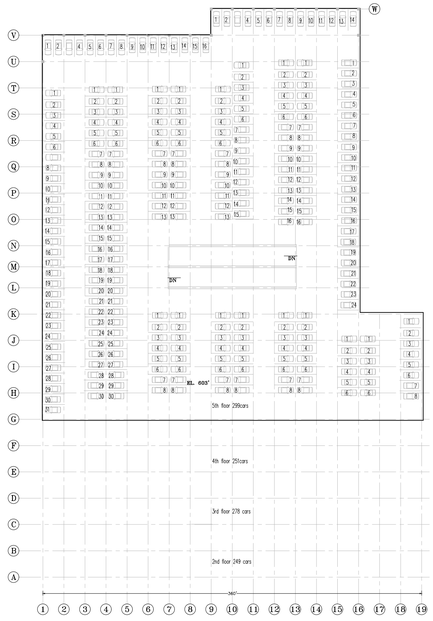
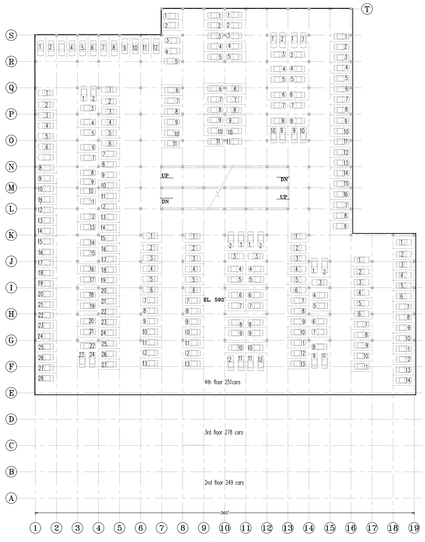
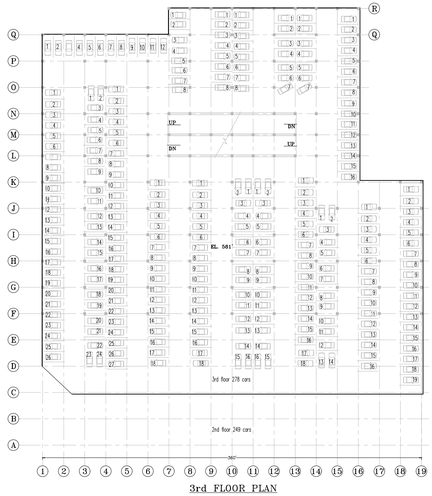


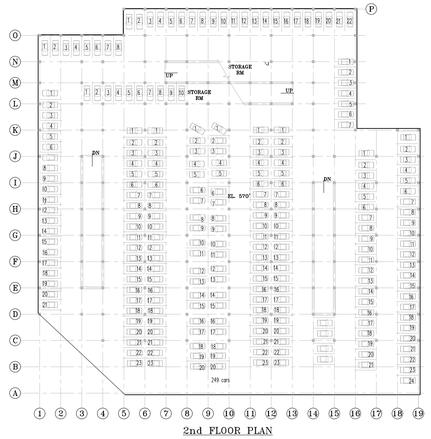
5th FLOOR PLAN



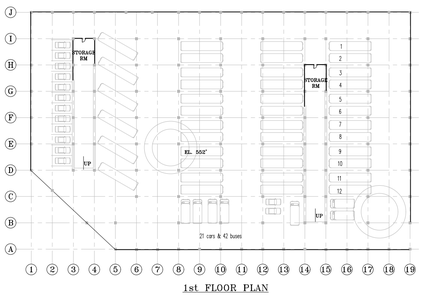
4th FLOOR PLAN



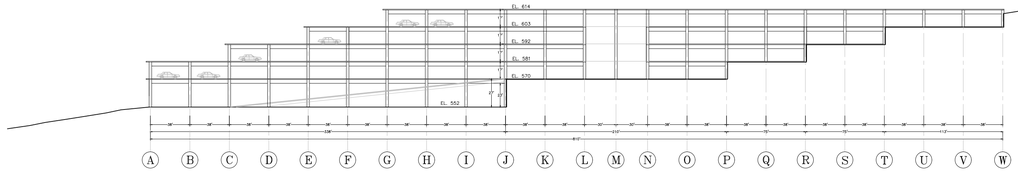
3rd FLOOR PLAN



2nd FLOOR PLAN

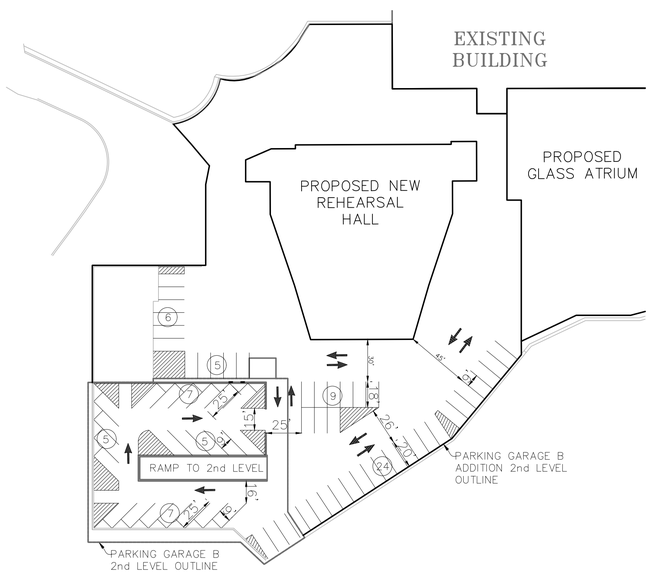


1st FLOOR PLAN

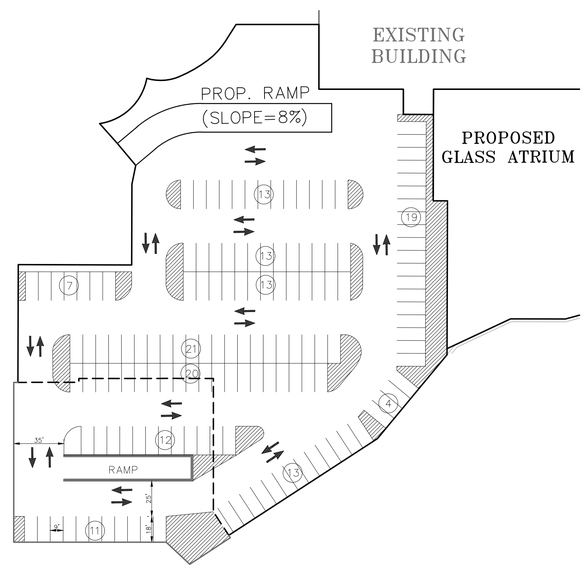


CROSS SECTION

PARKING GARAGE A
FLOOR PLAN AND SECTION
NTS

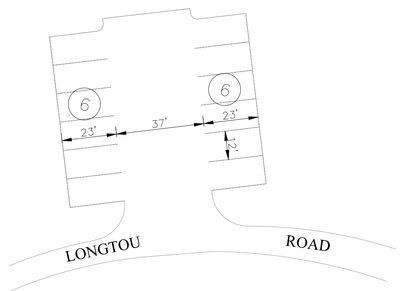


1st LEVEL PARKING **68 CARS**



2nd LEVEL PARKING **146 CARS**

PARKING GARAGE B &
ADDITION PLAN
NTS



EXISTING PARKING LOT #3 PLAN
NTS

Kaijin Liang P.E.
New York State Lic. No. 79716

PARKING LOT PLANS

Dragon Springs Buddhist, Inc.
Orange County, New York
Town of Deerpark

KAIJIN LIANG, P.E.
Consulting Engineer
140 Galley Hill Road
Cuddebackville, NY 12729

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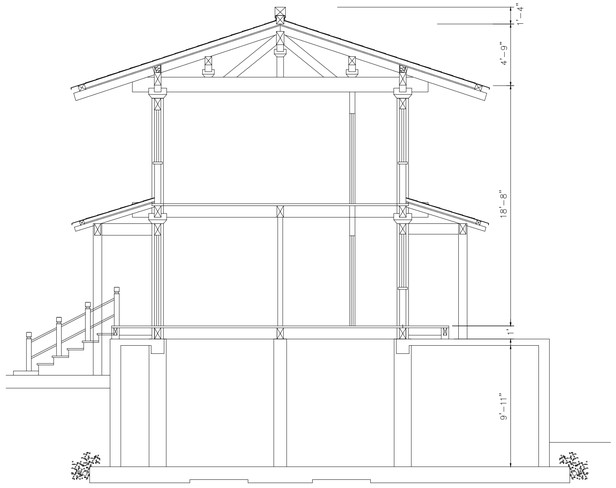
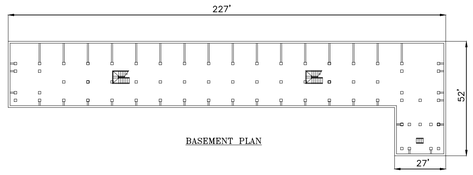
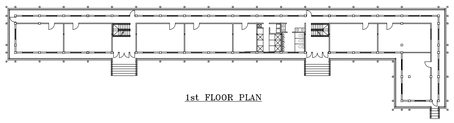


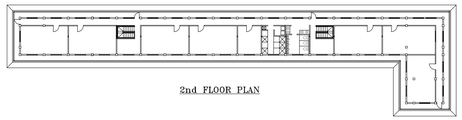
EAST ELEVATION



BASEMENT PLAN



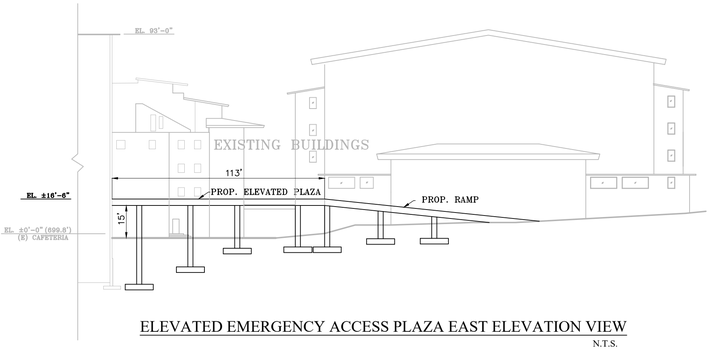
1st FLOOR PLAN



2nd FLOOR PLAN

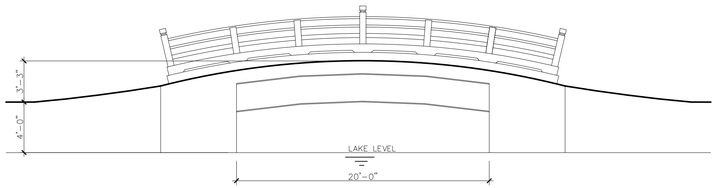
NEW RESIDENCE HALL DETAILS

N.T.S.



ELEVATED EMERGENCY ACCESS PLAZA EAST ELEVATION VIEW

N.T.S.



PROPOSED BRIDGE DETAIL

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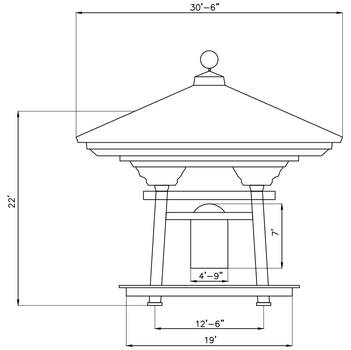

BELL GAZEBO (GAZEBO #13) DETAILS

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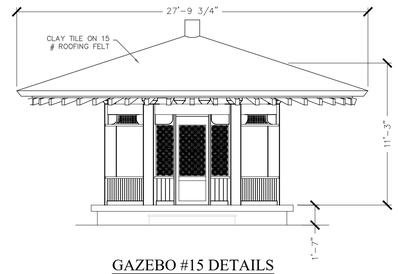
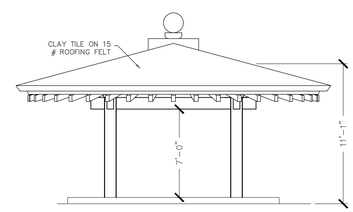


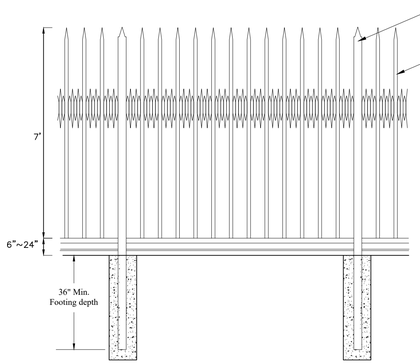
GAZEBO #15 DETAILS

N.T.S.



GAZEBOS #17 & #18 DETAILS

N.T.S.



TYPICAL IRON FENCE DETAIL

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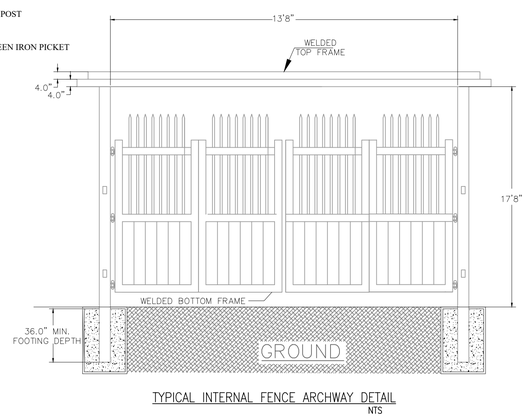
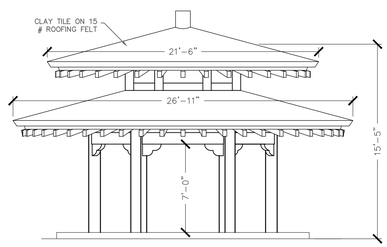


TYPICAL INTERNAL FENCE ARCHWAY DETAIL

NTS



GAZEBO #9 DETAILS

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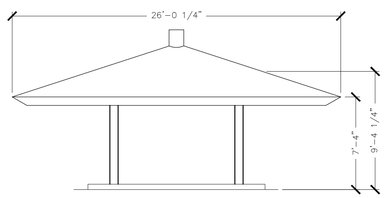
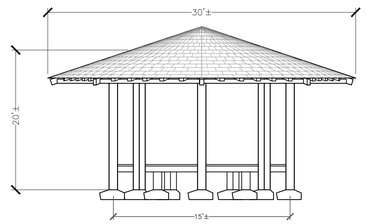


GAZEBO #16 DETAILS

N.T.S.



TYPICAL LANDSCAPING GAZEBO DETAILS

N.T.S.

LANDSCAPING GAZEBO LIST:

1. APPROVED AND CONSTRUCTED LANDSCAPING GAZEBOS: GAZEBOS #1, #7, AND #14.
2. APPROVED AND NOT YET CONSTRUCTED LANDSCAPING GAZEBOS: GAZEBOS #2~#6 AND #10~#12.
3. PROPOSED LANDSCAPING GAZEBOS AND PREVIOUSLY APPROVED LANDSCAPING GAZEBO RELOCATED/RESIZED: GAZEBOS #9, #13, AND #15~#18.

Kaijin Liang P.E.
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BUILDING DETAILS

Dragon Springs Buddhist, Inc.

Orange County, New York

Town of Deerpark

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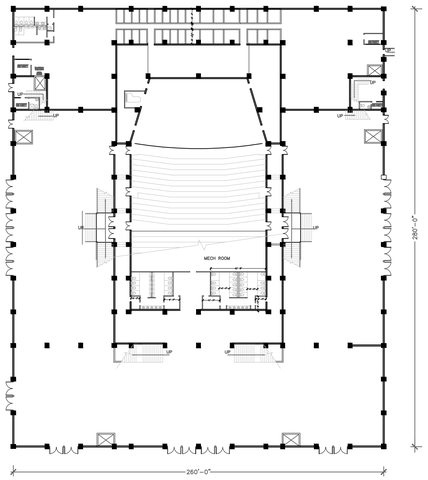
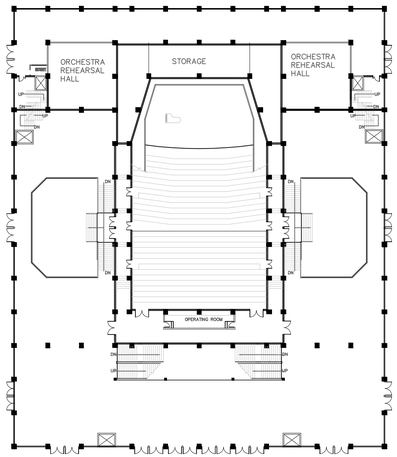
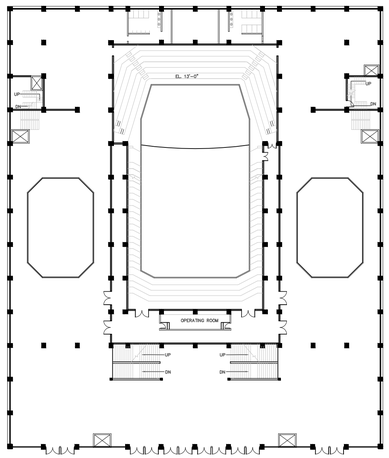


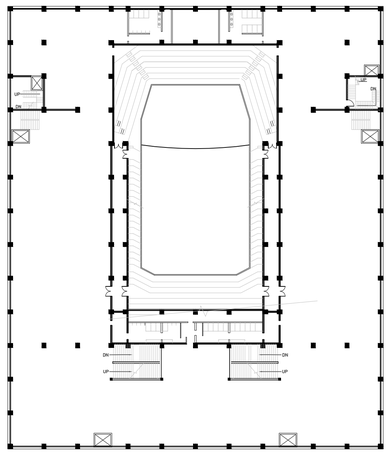
BASEMENT PLAN VIEW



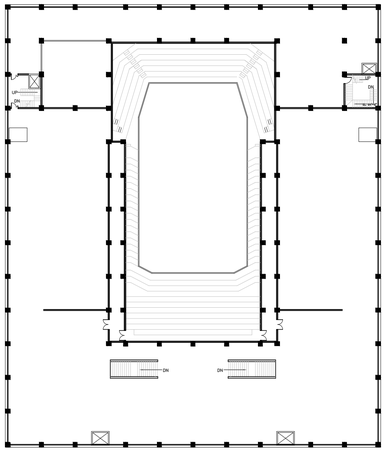
STAGE LEVEL PLAN VIEW



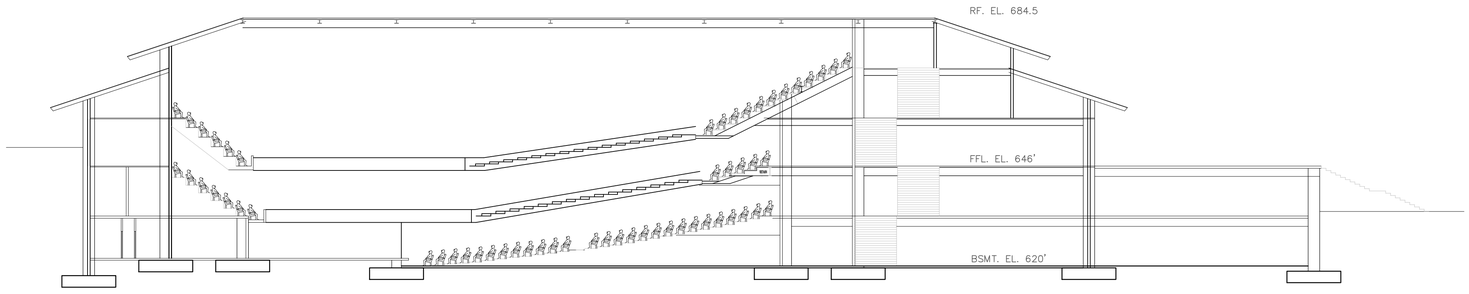
1st. FLOOR PLAN VIEW (EL. 26'-0")



2nd FLOOR PLAN VIEW



3rd FLOOR PLAN VIEW



ELEVATION VIEW

MUSIC HALL DETAILS

N.T.S.

Unauthorized alteration or addition to this plan is a violation of the New York State Education Law

Plans shall not be considered true and valid copies unless they contain the original seal and signature of the Engineer

Kaijin Liang P.E.
New York State Lic. No. 79716

BUILDING DETAILS

Dragon Springs Buddhist, Inc.

Orange County, New York

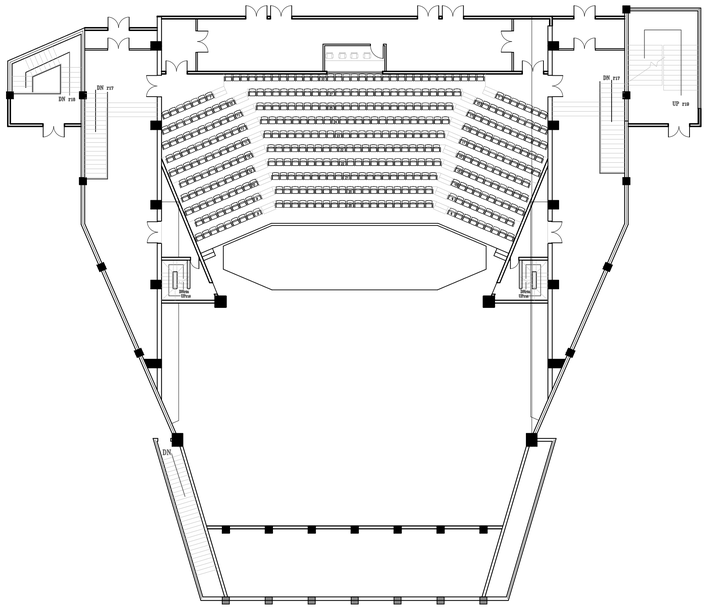
Town of Deerpark

KAIJIN LIANG, P.E.
Consulting Engineer
140 Galley Hill Road
Cuddebackville, NY 12729

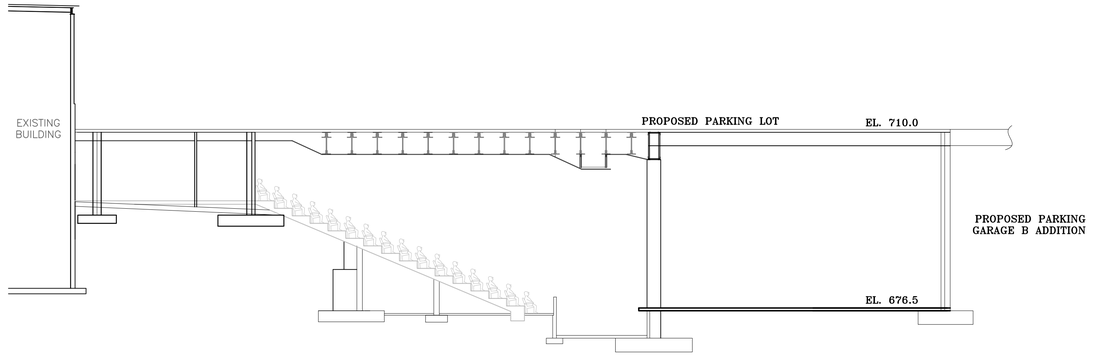
Revisions		
By	Date	Description
MP	10/25/18	GENERAL REVISION

Date : 01/28/2018
Scale: NONE
Drawn: MP
Checked : KL

Sheet
C-20



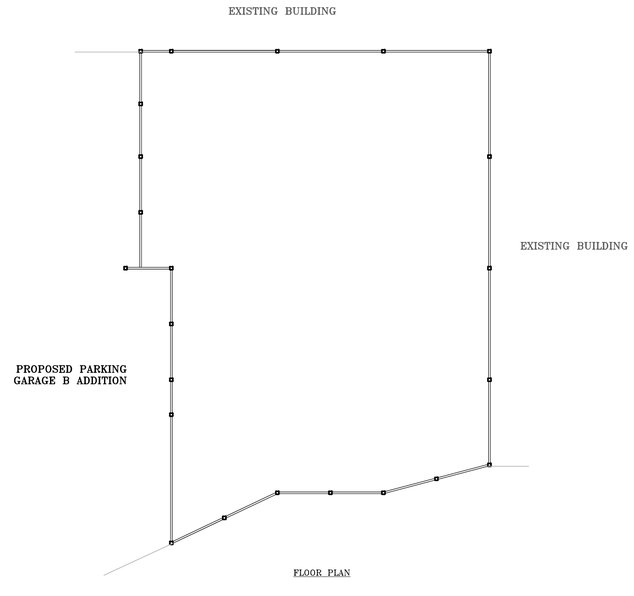
FLOOR PLAN



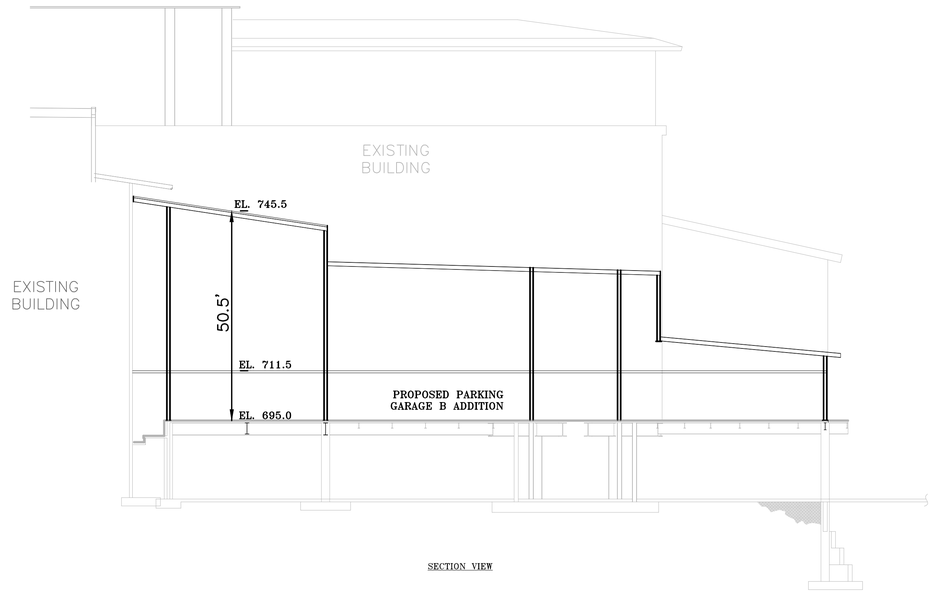
SECTION VIEW

NEW REHEARSAL HALL DETAILS

N.T.S.



FLOOR PLAN



SECTION VIEW

GLASS ATRIUM DETAILS

N.T.S.

BUILDING DETAILS

Dragon Springs Buddhist, Inc.

Orange County, New York

Town of Deerpark

KAIJIN LIANG, P.E.
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Revisions		
Description	Date	By

Date : 09/29/2018
Scale: NONE
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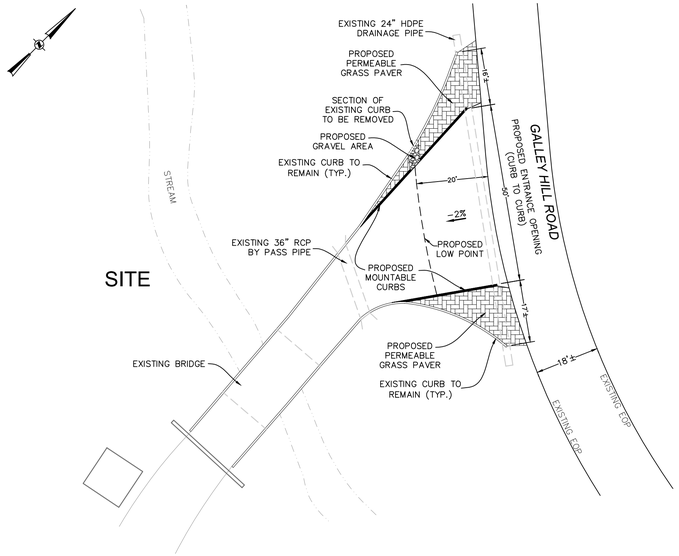
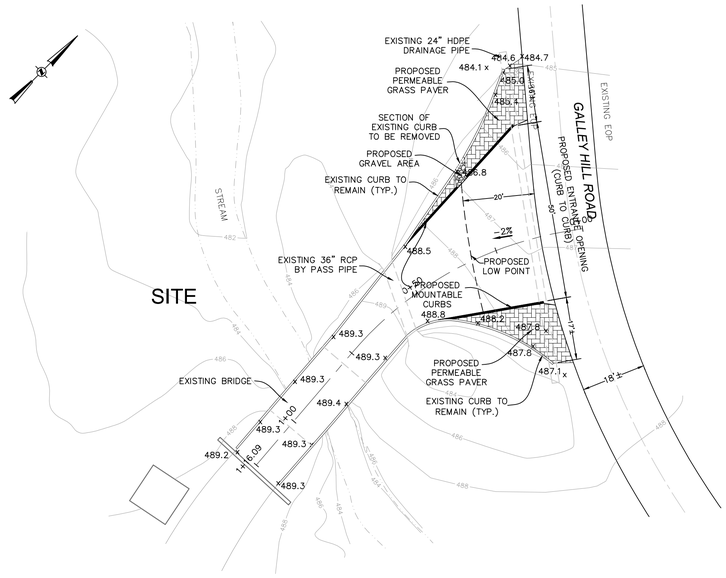
Checked : KL

Sheet
C-21



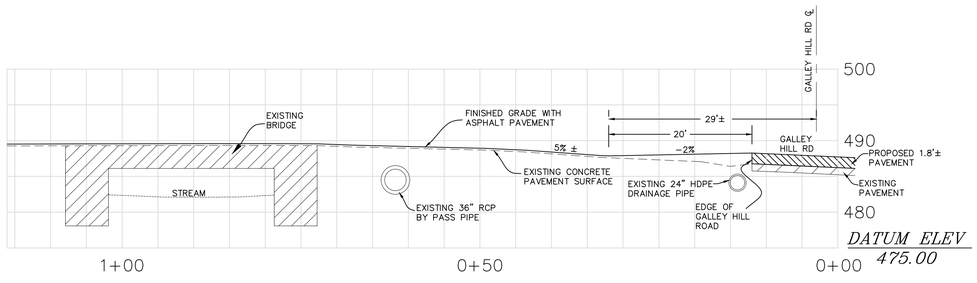
NORTH ENTRANCE RESIZING PLAN

SCALE: 1 IN.= 20 FT.



EXISTING GRADING AT NORTH ENTRANCE

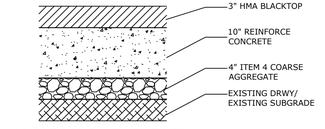
SCALE: 1 IN.= 20 FT.



PROPOSED PROFILE FOR NORTH ENTRANCE

SCALE: 1 IN.= 10 FT. / H&V

NOTE:
1. OVERLAY PAVEMENT COURSES ON GALLEY HILL ROAD SHALL MEET TOWN ROAD STANDARDS.
2. OVERLAY PAVEMENT TRANSITIONS TO THE EXISTING PAVEMENT ON GALLEY HILL ROAD SHALL BE DESIGNED TO MEET TOWN CODES.



PROPOSED PAVEMENT DETAIL

NTS

Kaijin Liang P.E.
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NORTH ENTRANCE DETAILS

Dragon Springs Buddhist, Inc.

Orange County, New York

Town of Deerpark

KAIJIN LIANG, P.E.
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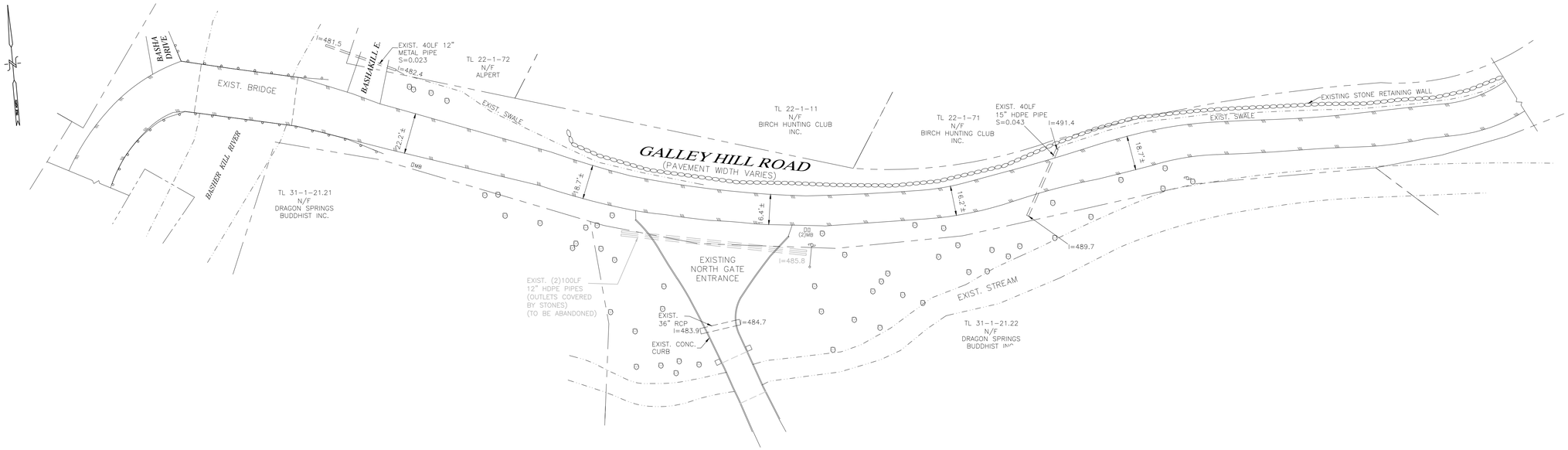
Revisions

By	Date	Description

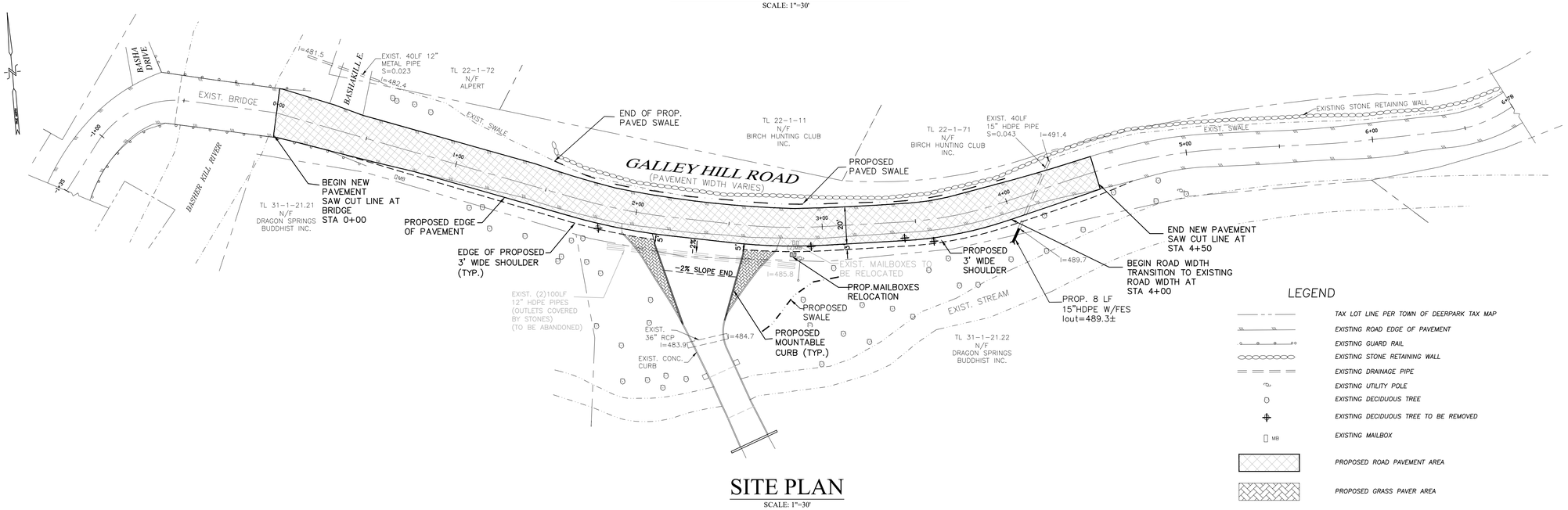
Date : 01/28/18
Scale: NONE
Drawn: MP
Checked : KL

Sheet
C-22



EXISTING CONDITION

SCALE: 1"=30'



SITE PLAN

SCALE: 1"=30'

FOR INFORMATION ONLY, TO BE PERFORMED BY OTHERS.

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

GALLEY HILL ROAD IMPROVEMENT PLAN

Dragon Springs Buddhist, Inc.

Orange County, New York

Town of Deerpark

KAJIN LIANG, P.E.
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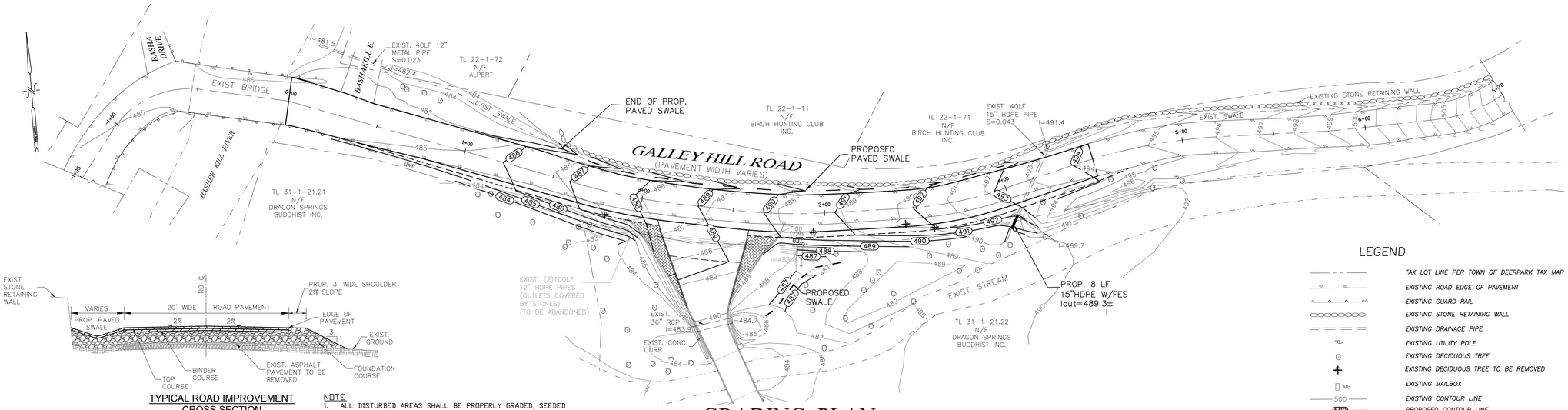
140 Galley Hill Road
Cuddebackville, NY 12729

By	Date	Revisions Description
MP	7-25-18	PER TOWN COMMENTS
MP	7-26-18	ADD NOTE TO OMIT EASE PLANS FOR TOWN ENGINEER USE

Date : 3/9/17
Scale: 1" = 30'
Drawn: MP
Checked : KL

Sheet
C-23

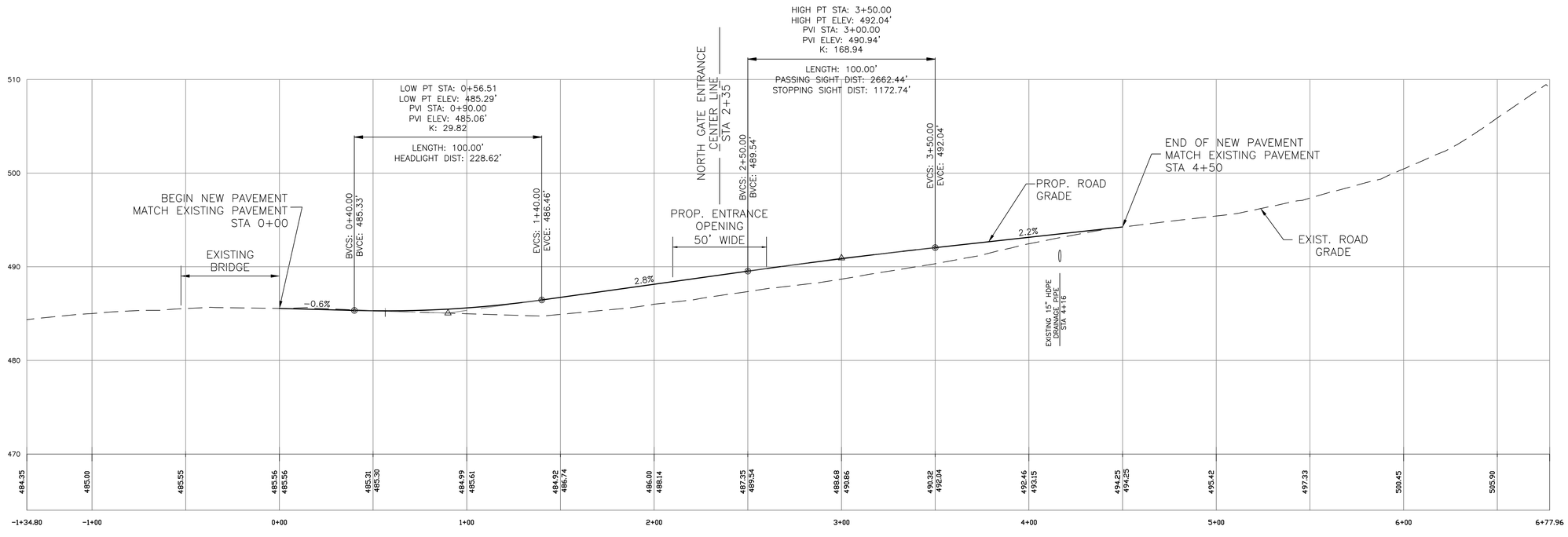


TYPICAL ROAD IMPROVEMENT CROSS SECTION
NTS

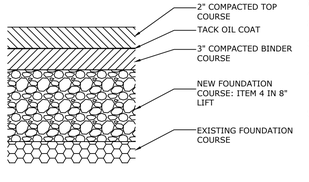
NOTE
1. ALL DISTURBED AREAS SHALL BE PROPERLY GRADED, SEEDED AND STRAWED OR OTHERWISE STABILIZED.

GRADING PLAN
SCALE: 1"=30'

LEGEND
- TAX LOT LINE PER TOWN OF DEERPARK TAX MAP
- EXISTING ROAD EDGE OF PAVEMENT
- EXISTING GUARD RAIL
- EXISTING STONE RETAINING WALL
- EXISTING DRAINAGE PIPE
- EXISTING UTILITY POLE
- EXISTING DECIDUOUS TREE
- EXISTING DECIDUOUS TREE TO BE REMOVED
- MB EXISTING MAILBOX
- 500 EXISTING CONTOUR LINE
- 500 PROPOSED CONTOUR LINE



PROFILE
SCALE: 1"=30'/H; 1"=6'/V



NOTE
1. EXISTING ASPHALT PAVEMENT SHALL BE REMOVED BEFORE THE FOUNDATION COURSE IS LAID.
2. THE FOUNDATION COURSE SHALL CONSIST OF NYS ITEM 4 PLACED IN 8" COMPACTED LIFTS.
3. THE NEW FOUNDATION COURSE SHALL BE PLACE ON THE EXISTING ROAD FOUNDATION COURSE IN LAYERS OF NOT MORE THAN 8" COMPACTED TO 95%.
4. AFTER COMPACTION, THE FOUNDATION COURSE FINE GRADE TO ALLOW FOR A FABRIC TO BE INSTALLED, THEN 3" OF NYS BINDER, TACK COAT, AND 2" OF NYS TOP COURSE APPROVED BY THE TOWN OF DEERPARK SUPERINTENDENT OF HIGHWAYS.
5. AFTER THE FOUNDATION BASE COURSE HAS BEEN INSPECTED AND APPROVED BY THE TOWN OF DEERPARK SUPERINTENDENT OF HIGHWAYS, AND FOUND TO BE AT GRADE, THE CONTRACTOR WILL INSTALL FABRIC, 3" NYS BINDER, TACK COAT, AND 2" NYS TOP, AS APPROVED BY THE TOWN OF DEERPARK HIGHWAY SUPERINTENDENT.

PROPOSED ROAD PAVEMENT DETAIL
NTS

FOR INFORMATION ONLY, TO BE PERFORMED BY OTHERS.

HORIZONTAL GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

VERTICAL GRAPHIC SCALE
6 0 3 6 12 24
(IN FEET)
1 inch = 6 ft.

GRADING PLAN & PROFILE

Dragon Springs Buddhist, Inc.
Orange County, New York
Town of Deerpark

KAIJIN LIANG, P.E.
Consulting Engineer
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Revisions

By	Date	Description
MP	2-25-18	PER TUSCO COMMENTS 1-15-18
MP	5-30-18	ADDED TO RELEASE PLANS FOR TOWN ENGINEER USE

Date : 3/9/17
Scale: 1" = 30'/H; 1"=6'/V
Drawn: MP
Checked : KL

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