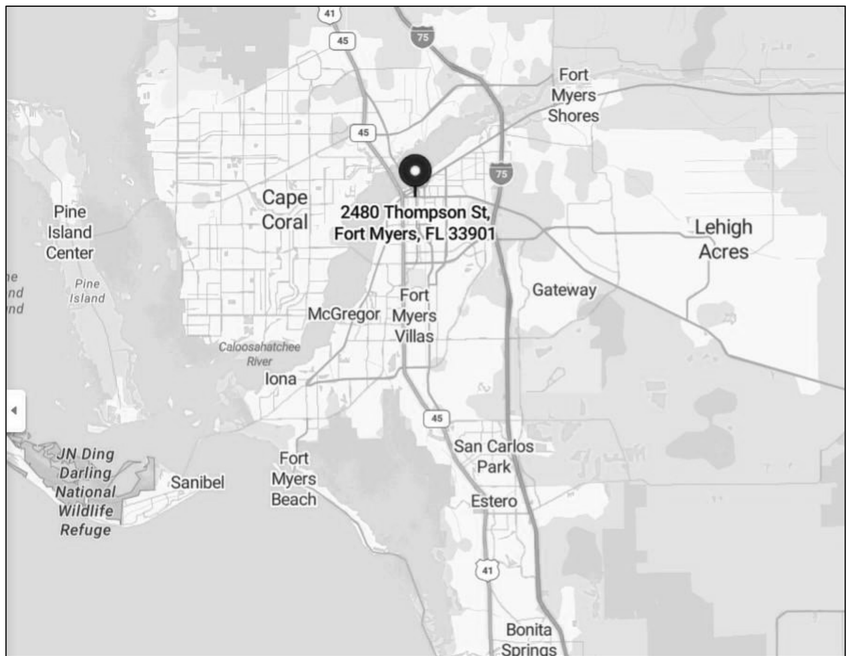
MELVIN MORGAN CONSTITUTIONAL COMPLEX GENERATOR REPLACEMENT

2480 THOMPSON ST
FORT MYERS, FL 33901

07/24/2024

Lee County
Southwest Florida



SITE LOCATION MAP

N

TLC ENGINEERING SOLUTIONS®

13099 S. Cleveland Avenue,
Suite 500
Fort Myers, FL 33907
P 239.275.4240
www.tlc-engineers.com
COA 15

TLC Project No. : 722049

THINK. LISTEN. CREATE.

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Drawing Title:
PROJECT COVER SHEET

Drawing No.:
G001

THIS DRAWING IS BEING RELEASED FOR THE PURPOSE OF FINAL REVIEW SET_____

LEE COUNTY, MELVIN MORGAN GENERATOR

2440 & 2480 THOMPSON STREET, FORT MYERS

SECTION 13, TOWNSHIP 44 SOUTH, RANGE 24 EAST

LEE COUNTY, FLORIDA

LEGAL DESCRIPTION

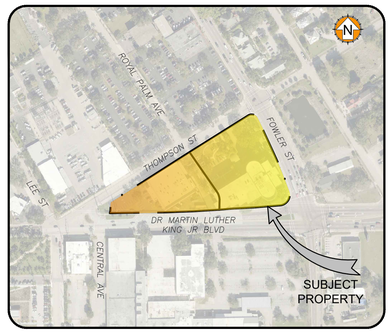
PARL IN SW¼ OF SW ¼ OF SE¼ + VACATED ST DESC OR 2215–2580 LESS RW OR 2342/2049

PARL IN SW ¼ OF SW¼ OF SE ¼ + VACATED R/W DESC OR2202–2427 LESS RW2347/772

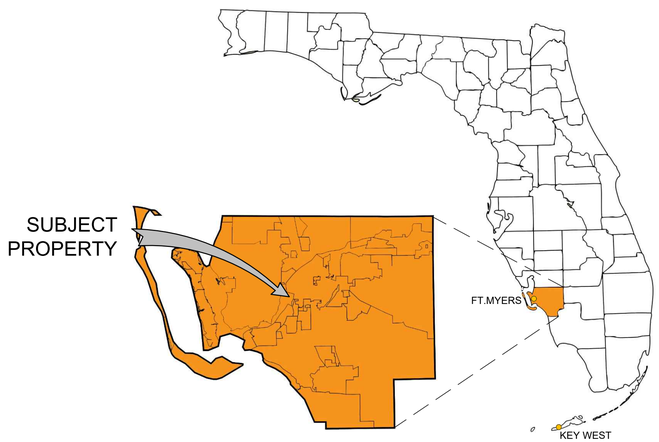
PREPARED FOR:

TLC ENGINEERING SOLUTIONS
13099 S CLEVELAND AVE SUITE 500
FORT MYERS, FL 33907
PHONE: 239-275-4240

INDEX OF DRAWINGS



VICINITY MAP
N.T.S.



LEE COUNTY

GENERAL NOTES

1. ALL ELEVATIONS SHOWN ARE NAVD
2. NAVD + 1.3' = NGVD - TO BE VERIFIED BY SURVEYOR
3. ZONED: CIVIC
4. STRAP: 13-44-24-P3-00010.0000
   13-44-24-P3-00009.0000

DAVIDSON ENGINEERING
ESTABLISHED 1997
4365 Radio Road, Suite 201
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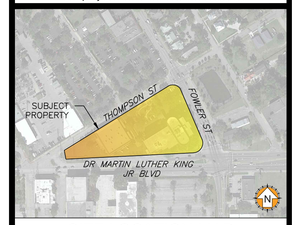

SITE LOCATION MAP

CLIENT:

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13099 S CLEVELAND AV. SUITE 500
FORT MYERS, FL 33907
PHONE: (239)-275-4240
EMAIL: BRETT.SANDS@TLC-ENG.COM

PROJECT:

LEE COUNTY,
MELVIN MORGAN GENERATOR

REVISIONS:

REV.	DATE	DESCRIPTION

SHEET TITLE:

COVER SHEET

PROJECT NO.: 22-0053

SCALE: N/A

SCALE VALID AT 24X36

JEFF L. DAVIDSON, P.E NO. 47161
LEE A. DAVIDSON, P.E. NO. 90969
ANDREW E. RATH, P.E. NO. 73996
RYAN A. WHITE, P.E. NO. 67400

SHEET NO: C-00.01

NOTES: NOT FOR CONSTRUCTION

GENERAL NOTES:

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF FORT MYERS STANDARDS & SPECIFICATIONS.
2. GRADES SHOWN IN GRASSED AREAS ARE TOP OF SOD.
3. ANY DEVIATIONS FROM THESE PLANS BY THE OWNER OR CONTRACTOR REQUIRES PRIOR APPROVAL OF THE ENGINEER.
4. THE STORM WATER MANAGEMENT FACILITIES HAVE BEEN DESIGNED TO CONFORM WITH THE MINIMUM REQUIREMENTS OF COLLIER COUNTY AND/OR ESTABLISHED SOUTH FLORIDA WATER MANAGEMENT DISTRICT PERMIT DESIGN CRITERIA FOR THIS AREA. DOWNSTREAM DRAINAGE BASIN OUTFALL IS REGULATED BY OTHERS. DAVIDSON ENGINEERING INC. CANNOT WARRANT THE WATER MANAGEMENT SYSTEM TO FUNCTION PROPERLY DURING EXTREME STORM EVENTS. PERIODS OF MINOR FLOODING MAY OCCUR DURING NON-DESIGN STORM EVENTS.
5. ALL PROHIBITED EXOTIC VEGETATION AS DEFINED BY CITY CODE SHALL BE REMOVED FROM THE SITE AND IT SHALL BE MAINTAINED FREE OF EXOTICS IN PERPETUITY BY THE PROPERTY OWNER.
6. NATURAL VEGETATION ON SITE SHALL BE RETAINED TO THE MAXIMUM EXTENT POSSIBLE AND SHALL BE BARRICADED WITH ENVIRO-FENCING AT THE DRIP LINE OF VEGETATION FOR THE DURATION OF CONSTRUCTION.
7. THE SURFACE WATER MANAGEMENT SYSTEM ON SITE SHALL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER.
8. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
9. THE FIRE PROTECTION WATER SUPPLY, INCLUDING FIRE HYDRANTS, SHALL BE INSTALLED AND IN SERVICE PRIOR TO PLACING COMBUSTIBLE BUILDING MATERIALS ON SITE.
10. FIRE HYDRANT SHALL BE MARKED IN A UNIFORM MANNER APPROVED BY THE LOCAL FIRE DISTRICT.
11. CONTRACTOR TO INSTALL GAP CONFIGURATION OR TBF WITH A TSP AT THE OPTION OF THE FIRE CONTROL DISTRICT.
12. CONTRACTOR TO INSTALL TAP AND METER/BACKFLOW PREVENTION DEVICE IF METER IS 3" OR LARGER.
13. SEE MASTER DRAINAGE PLAN FOR STORM PIPE SIZES AND DETAILS.
14. THE APPROVAL OF THESE CONSTRUCTION PLANS DOES NOT AUTHORIZE CONSTRUCTION OF REQUIRED IMPROVEMENTS WHICH ARE INCONSISTENT WITH EASEMENTS OF RECORD.
15. CONTRACTOR TO REPAIR OR REPLACE ANY EXISTING TREES, SHRUBS, SERVICES OR IRRIGATION SYSTEMS THAT ARE DAMAGED IN THE WORK AREA.
16. LANDSCAPING SHALL NOT OBSTRUCT, VISUALLY OR FUNCTIONALLY, ANY FIRE PROTECTION DEVICE SUCH AS HYDRANTS, PIV'S, ETC.
17. FIRE HYDRANTS SHALL BE LOCATED WITHIN THREE FEET OF THE CURB LINE OF A FIRE LANE, STREET OR PRIVATE STREET WHEN INSTALLED ALONG SUCH AN ACCESS WAY.
18. CITY OF FORT MYERS IS NOT RESPONSIBLE FOR REPLACING ANY LANDSCAPING DESTROYED DURING THE MAINTENANCE OF WATER AND/OR SEWER.
19. IF DURING THE COURSE OF THE SITE CLEARING, EXCAVATION OR OTHER CONSTRUCTION ACTIVITY, AN HISTORIC OR ARCHAEOLOGICAL ARTIFACT, OR OTHER INDICATOR IS FOUND, ALL DEVELOPMENT WITHIN THE MINIMUM AREA NECESSARY TO PROTECT THE DISCOVERY SHALL BE IMMEDIATELY STOPPED.
20. THE ON-SITE WATER AND/OR WASTEWATER FACILITIES ARE TO BE OWNED AND MAINTAINED BY THE PROJECT DEVELOPER AND/OR MASTER CONDOMINIUM/HOMEOWNER'S ASSOCIATION OR OTHER COMPARABLE PRIVATE OWNERSHIP.
21. POTABLE WATER & IRRIGATION METERS 2" & SMALLER, WITH BACK FLOW PREVENTION DEVICE, SHALL BE SIZED & INSTALLED BY CITY OF FORT MYERS PUBLIC UTILITIES DEPARTMENT. CITY OF FORT MYERS TO INSTALL TAP, SERVICE LEAD AND METER BOX.

1. CALL 800.432.4770 TWO FULL BUSINESS DAYS BEFORE DIGGING.
2. CALL 10 DAYS BEFORE DIGGING WHEN DIGGING UNDER WATER.
3. WAIT THE REQUIRED TIME FOR BURIED UTILITIES TO BE LOCATED AND MARKED.
4. PROTECT THE MARKS DURING YOUR PROJECT.
5. IF MARKS ARE DESTROYED, CALL AGAIN. DIG SAFELY, USING EXTREME CAUTION WHEN DIGGING WITHIN 24 INCHES ON EITHER SIDE OF THE MARKS TO AVOID HITTING THE BURIED UTILITY LINES.

POTABLE WATER MAINS

1. ALL PVC PIPE SHALL CONFORM TO THE STANDARDS OF AWWA C900, OR AWWA C905, LATEST REVISION. ALL PIPE, 4"-12", SHALL BE A MINIMUM OF CLASS 150 AND MEET THE REQUIREMENTS OF DR 18. ALL PVC PIPE 16"-24" SHALL BE PR 165, DR 25 AND SHALL MEET OR EXCEED UNI-BELL B-11. ALL PIPE 4"-12" INSTALLED BELOW PAVED PUBLIC AND PRIVATE ROADWAYS OR PARKING LOT ENTRANCE DRIVEWAY SURFACES SHALL BE PVC AWWA C900 CLASS 200, DR 14 OR PRESSURE CLASS 250 DUCTILE IRON, AS SPECIFIED ABOVE.
2. ALL COLD-WATER METERS-DISPLACEMENT TYPE, BRONZE MAIN CASE, SIZE 1/2 INCH THROUGH 2 INCH SHALL MEET THE REQUIREMENTS OF AWWA C700.
3. ALL WATER METER COMPONENTS THAT COME IN CONTACT WITH DRINKING WATER SHALL CONFORM WITH NSF STANDARD 61.

GRAVITY SEWER MAINS

1. ALL UNPLASTICIZED PVC PIPE SHALL BE OF THE INTEGRAL WALL BELL AND SPIGOT JOINT TYPE, WHICH MEETS OR EXCEEDS ALL REQUIREMENTS SET FORTH IN ASTM D3034, LATEST REVISION. MINIMUM WALL THICKNESS SHALL CONFORM TO ASTM D3034 SDR 26. AT ALL CONFLICT CROSSINGS USING 4"-12" SUBSTITUTE AWWA C900 PVC, CLASS 200, DR 14 AND FOR PVC PIPE 16" AND LARGER USE DR 25.

FIRE PROTECTION NOTES:

1. A SEPARATE PERMIT IS REQUIRED PRIOR TO THE INSTALLATION OF ANY FIRE LINE.
2. INSTALLATION OF ALL UNDERGROUND FIRE LINES SHALL COMPLY WITH THE 2007 EDITION F OF THE NFPA 24.
3. UNDERGROUND FIRE LINES SHALL BE INSTALLED BY AN APPROPRIATELY CERTIFIED FIRE SPRINKLER CONTRACTOR OR A TYPE V UNDERGROUND CONTRACTOR AS DEFINED AND OUTLINED IN 633.021, 633.521 AND 633.539 FS.
4. PIPING USED FOR FIRE PROTECTION SERVICE (I.E. FOR FIRE HYDRANTS AND/OR FIRE SPRINKLER SERVICE) THAT IS RUN UNDER DRIVEWAYS/PAVEMENT SHALL BE BURIED AT A MINIMUM DEPTH OF 36-INCHES.

WATER & SEWER INSPECTION NOTES:

1. EXISTING UNDERGROUND UTILITIES INFORMATION IS BASED ON AVAILABLE RECORD INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE EXISTING UTILITIES AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
2. INSTALLATION OF SUBSURFACE CONSTRUCTION REQUIRED PRIOR TO COMPACTION OF SUBGRADE AND ROADWAY CONSTRUCTION.
3. THE CONTRACTOR SHALL PROVIDE 48 HOURS WRITTEN NOTICE TO THE ENGINEER AND UTILITY COMPANY PRIOR TO THE FOLLOWING:
   A.) COMMENCEMENT OF CONSTRUCTION.
   B.) CHANGES TO APPROVED SCHEDULES, SUBCONTRACTORS OR SUPERINTENDENT.
   C.) UTILITIES:

   * AN INSPECTOR ON BEHALF OF THE COUNTY OR OTHER QUALIFIED EMPLOYEE OF THE COUNTY MUST BE PRESENT DURING INSPECTIONS MARKED WITH AN ASTERISK

   1. HOT TAPS OF POTABLE WATER LINES AND WASTEWATER SYSTEM LINES *
   2. MASTER METER AND BYPASS PIPING
   3. JACK & BORE CASINGS *
   4. PRESSURE TESTS *
   5. INFILTRATION/EXFILTRATION TESTS *
   6. LIFT STATION INSTALLATION, PRIOR TO COVER-UP AND START-UP *
   7. LIFT STATION START-UP *
   8. LAMPING OF SEWER LINES *
   9. PIGGING AND FLUSHING OF WASTEWATER LINES, FORCE MAINS, POTABLE WATER MAINS AND NON-POTABLE IRRIGATION LINES *
   10. TELEVISION VIDEO TAPING OF WASTEWATER LINES AT END OF CONSTRUCTION AND WARRANTY PERIOD
   11. CONFLICT CONSTRUCTION *
   12. CONNECTIONS TO EXISTING POTABLE WATER, NON-POTABLE IRRIGATION WATER AND WASTEWATER SYSTEMS *
   13. 8" DIAMETER OR LARGER CASING INSTALLATIONS *
   14. OTHER SPECIAL REQUIREMENTS AS SPECIFIED BY THE CITY STAFF AT THE TIME OF CONSTRUCTION DOCUMENT APPROVAL
   15. CHLORINATION OF WATER LINES AND RE-FLUSHING OF LINE AFTER CHLORINATION *
   16. INSTALLATION OF TEMPORARY METERS/BACKFLOWS *
   17. BACTERIOLOGICAL SAMPLING *
   18. HOT TAPS TO ANY WATER CONCRETE MAINS, PRESSURE TESTS ON LINES 20" AND GREATER, AND CONNECTIONS TO EXISTING POTABLE SYSTEMS GREATER THAN 12" NEED TO BE INSPECTED BY THE WATER DEPARTMENT AND CDES *
   19. FIRE FLOW TESTING

D.) GENERAL
   1. COMPACTION TESTING
   2. FINAL INSPECTIONS
   3. ROUTINE CITY INSPECTIONS SHALL BE PERFORMED WITHOUT NOTICE ON ALL POTABLE WATER, NON-POTABLE IRRIGATION WATER AND/OR WASTEWATER SYSTEMS CONSTRUCTION TO ENSURE COMPLIANCE WITH CITY APPROVED CONSTRUCTION DOCUMENTS.
   4. FITTINGS SHALL BE USED TO MAINTAIN PLAN ALIGNMENT OF WATER MAINS. DEVIATIONS FROM THE PLAN ALIGNMENT SHALL NOT BE MORE THAN 12" FROM PLAN CENTERLINE OF MAIN. CONTRACTOR SHALL PREPARE RECORD DRAWING OF ALL FITTINGS NOT SHOWN ON THIS PLAN.
   5. CONTRACTOR SHALL CONSTRUCT ALL WATER APPURTENANCES INCLUDING METER BOXES, BLOW-OFFS, VALVE BOXES, AIR RELEASE VALVES, FIRE HYDRANTS, ETC. TO FINISHED GRADE.
   6. ALL WATER MAINS SHALL BE SEPARATED FROM SANITARY SEWER BY A MINIMUM HORIZONTAL DISTANCE OF TEN FEET AND A VERTICAL DISTANCE OF 18 INCHES.
   7. DUCTILE IRON PIPE SHALL MEET THE REQUIREMENTS OF AWWA C-151
   8. POLYVINYL CHLORIDE PIPE (PVC) FOR PIPE SIZES 6" - 14" OR LARGER SHALL MEET THE REQUIREMENTS OF AWWA C-900 (CL200).
   9. POLYVINYL CHLORIDE PIPE (PVC) FOR PIPE SIZES 3" OR LESS SHALL MEET THE REQUIREMENTS OF ASTM D-1785 (SCHEDULE 40 OR SCHEDULE 80) OR ASTM D-2241.
   10. MINIMUM WATER LINE COVER SHALL BE 30".
   11. FIRE HYDRANT ASSEMBLIES SHALL CONFORM TO AWWA C-502 (DRY BARREL) STANDARDS.
   12. BACK FLOW PREVENTOR ASSEMBLIES SHALL CONFORM TO AWWA M-14 STANDARDS.
   13. REFER TO PLAT AND/OR BOUNDARY SURVEY FOR EASEMENTS OF RECORD.
   14. ALL SANITARY SEWER MAINS AND LATERALS SHALL BE ASTM D-3034, SDR 26, COLOR CODED GREEN, UNLESS OTHERWISE NOTED.
   15. FIRE LINES AND ASSOCIATED APPURTENANCES FOR THE BUILDING FIRE SPRINKLER SYSTEM BEYOND THE "POINT OF CONNECTION" SHALL BE THE RESPONSIBILITY OF THE FIRE PROTECTION DESIGNER FOR FINAL LOCATION AND CONFIGURATION.
   16. ALL COLD-WATER METER COMPONENTS THAT COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM WITH NSF STANDARD 61.
   17. ALL COLD-WATER METERS- DISPLACEMENT TYPE, BRONZE MAIN CASE, SIZE 1/2 INCH THROUGH 2 INCH SHALL MEET THE REQUIREMENTS OF AWWA C700
   18. ALL OTHER UTILITY CONDUITS SHALL HAVE A MINIMUM SEPARATION OF 18" VERTICAL AND 5' HORIZONTAL.

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Naples, Florida 34104
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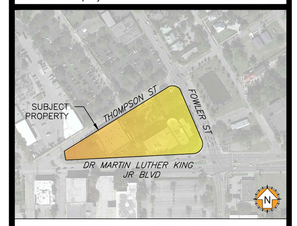
Company Cert. of Authorization No. 00009496



SITE LOCATION MAP

CLIENT:

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PHONE: (239)-275-4240
EMAIL: BRETT.SANDS@TLC-ENG.COM

PROJECT:

LEE COUNTY,
MELVIN MORGAN GENERATOR

REVISIONS:

REV.	DATE	DESCRIPTION

SHEET TITLE:

GENERAL NOTES

PROJECT NO.: 22-0053

SCALE: N/A

SCALE VALID AT 24X36

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LEE A. DAVIDSON, P.E. NO. 90969
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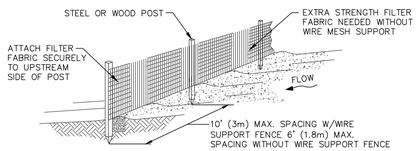
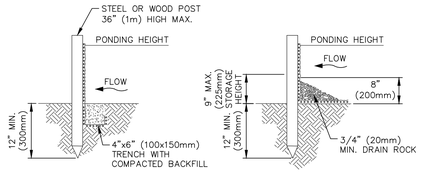
SHEET NO: C-00.10

NOTES: NOT FOR CONSTRUCTION





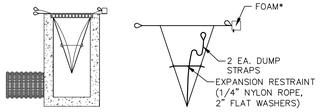
TRENCH DETAIL — INSTALLATION WITHOUT TRENCHING

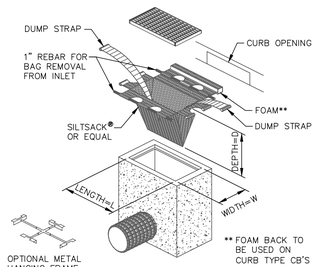
NOTES:
1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" (225mm) MAXIMUM RECOMMENDED STORAGE HEIGHT.
3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

CONSTRUCITON SPECIFICATIONS:
1. THE HEIGHT OF A SILT FENCE SHALL NOT EXCEED 36 INCHES (0.9 M). STORAGE HEIGHT AND PONDING HEIGHT SHALL NEVER EXCEED 18 INCHES (0.5 M).
2. THE FENCE LINE SHALL FOLLOW THE CONTOUR AS CLOSELY AS POSSIBLE.
3. IF POSSIBLE, THE FILTER FABRIC SHALL BE CUT FROM A CONTINUOUS ROLL TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED ONLY AT A SUPPORT POST, WITH A MINIMUM 6 INCH (0.2 M) OVERLAP AND BOTH ENDS SECURELY FASTENED TO THE POST.
4. POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET (3.1 M) APART AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 12 INCHES (0.3 M)). WHEN EXTRA-STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6 FEET (1.8 M).
5. TURN THE ENDS OF THE FENCE UPHILL.
6. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES (101 MM) WIDE AND 6 INCHES (0.2 M) DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
7. WHEN STANDARD-STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1INCH (25.4 MM) LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES (51 MM) AND SHALL NOT EXTEND MORE THAN 36 INCHES (0.9 M) ABOVE THE ORIGINAL GROUND SURFACE.
8. THE STANDARD-STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 6 INCHES (0.2 M) OF THE FABRIC SHALL EXTEND INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES (0.9 M) ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES.
9. WHEN EXTRA-STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS.
10. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE TOE OF THE FILTER FABRIC.
11. SILT FENCES PLACED AT THE TOE OF A SLOPE SHALL BE SET AT LEAST 6 FEET (1.8 M) FROM THE TOE IN ORDER TO INCREASE PONDING VOLUME.
12. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED AND ANY SEDIMENT STORED BEHIND THE SILT FENCE HAS BEEN REMOVED.

INSPECTION AND MAINTENANCE:
1. SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED WEEKLY AFTER EACH SIGNIFICANT STORM (1 INCH (25.4 MM) IN 24 HOUR).
2. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
3. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES 1/3 HEIGHT OF THE FENCE OR 9 INCHES (0.3 M) MAXIMUM.
4. THE REMOVED SEDIMENT SHALL CONFORM WITH THE EXISTING GRADE AND BE VEGETATED OR OTHERWISE STABILIZED.

SILT FENCE BARRIER
N.T.S.

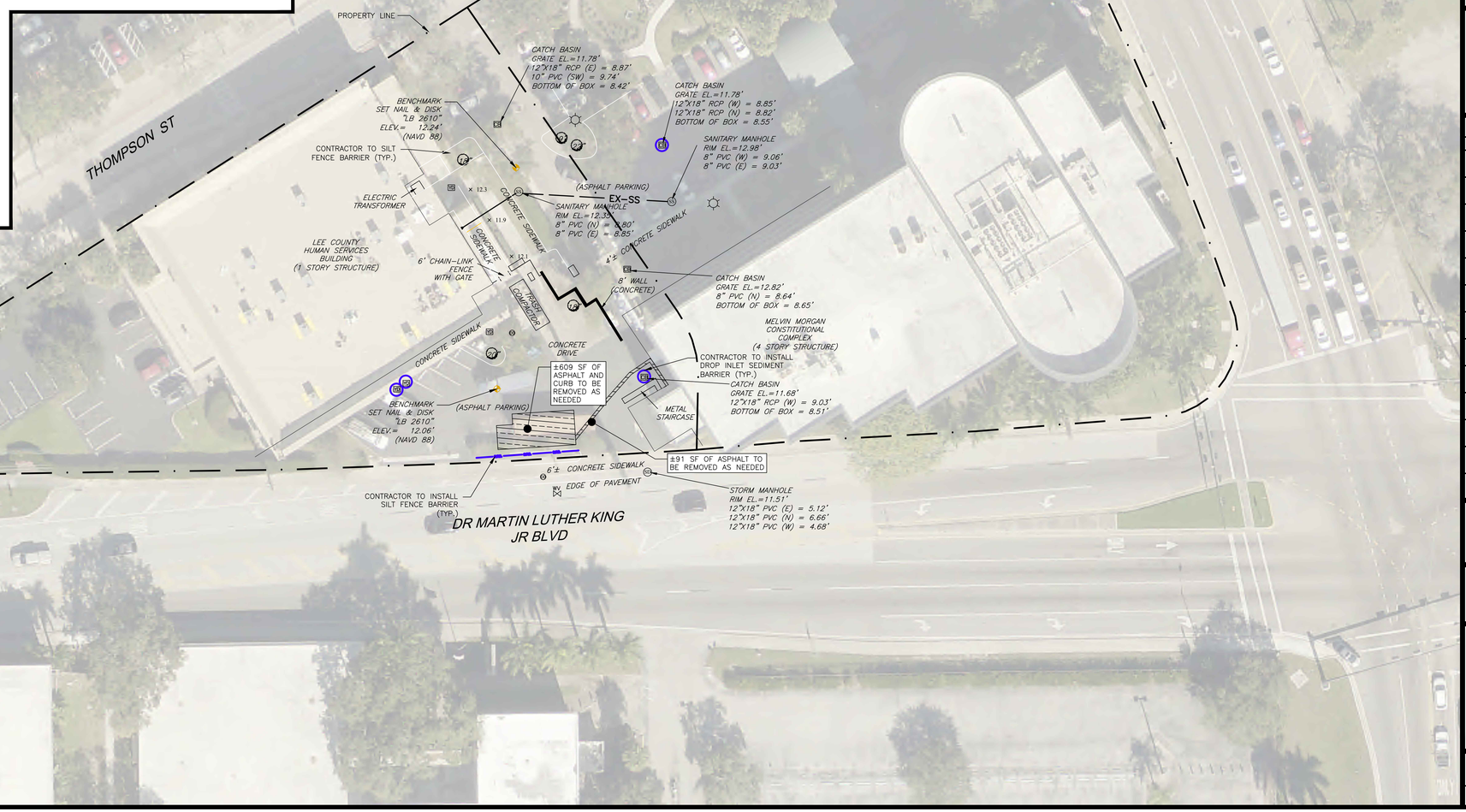




FILTER BAG SEDIMENT TRAPS:
1. FILTER BAGS TO BE INSTALLED ON ALL CATCH BASINS WITHIN PAVED AREAS.
2. PROBABLE SUPPLIERS INCLUDE P.S. CONSTRUCTION FABRICS, INC. (330) 335-3635, FIRELANDS SUPPLY (419) 668-1802, JMD, CO. (440)526-0017.

INSPECTION AND MAINTENANCE:
1. INSPECT THE BARRIER AFTER EACH RAIN AND PROMPTLY MAKE REPAIRS AS NEEDED.
2. SEDIMENT SHALL BE REMOVED AFTER EACH SIGNIFICANT STORM (1 INCH (25 MM) IN 24 HOURS) TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN.
3. THE REMOVED SEDIMENT SHALL BE DEPOSITED IN AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
4. FOR GRAVEL FILTERS: IF THE GRAVEL BECOMES CLOGGED WITH SEDIMENT IT MUST BE CAREFULLY REMOVED FROM THE INLET AND EITHER CLEANED OR REPLACED.

DROP INLET SEDIMENT BARRIER
N.T.S.



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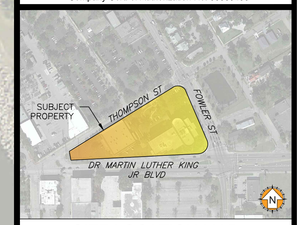

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PROJECT:
LEE COUNTY,
MELVIN MORGAN GENERATOR

REVISIONS:

REV.	DATE	DESCRIPTION

SHEET TITLE:
EXISTING CONDITIONS AND CLEARING PLAN

PROJECT NO.: 22-0053

SCALE: 1" = 30'
SCALE VALID AT 24X36

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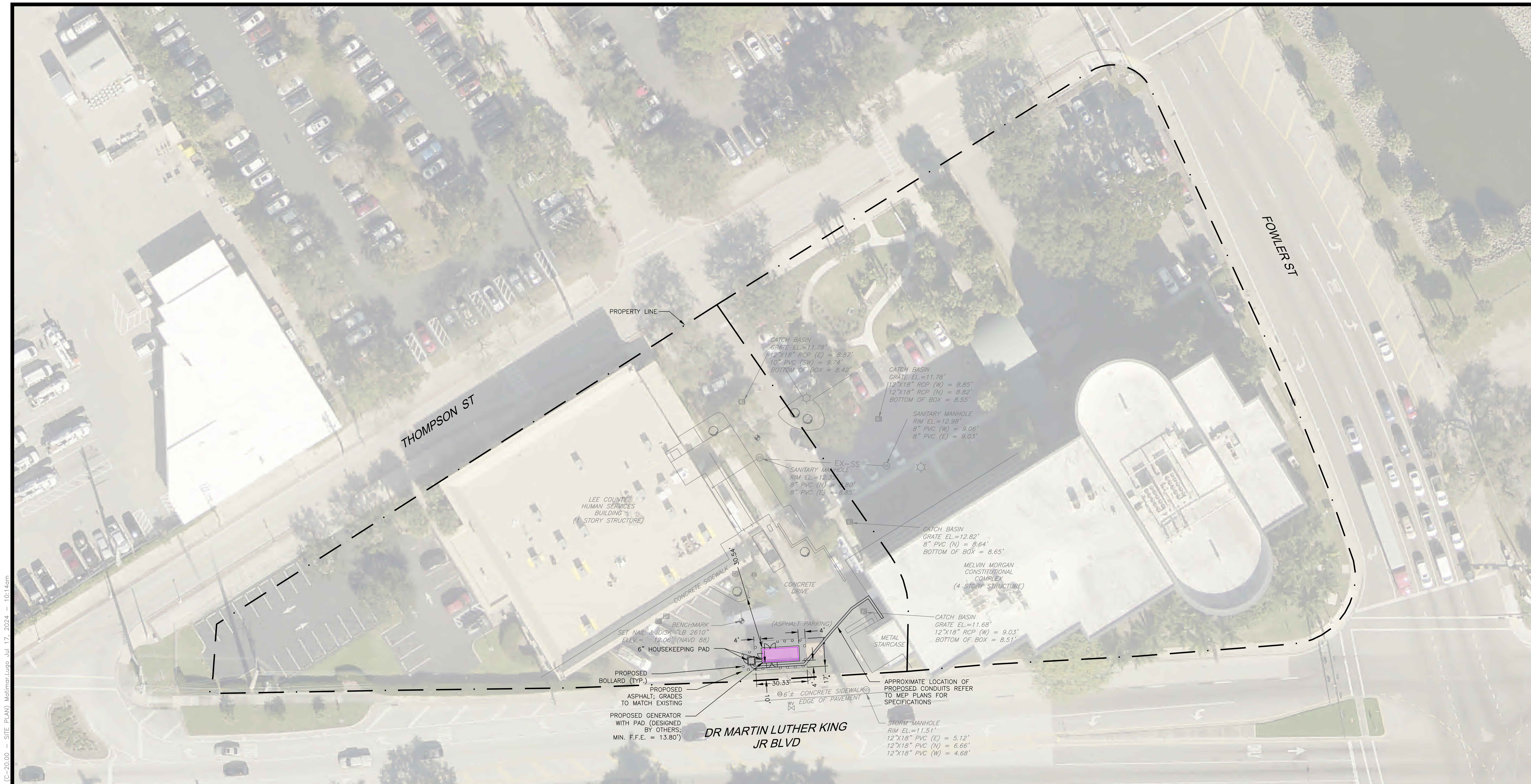
NOTES: NOT FOR CONSTRUCTION

Z:\Active Projects\LV\LEE COUNTY-MELVIN MORGAN GENERATOR\Site Civil\Sheetfiles\C-10.00 - Existing Conditions.dwg (C-10.00 - EX CON) Mollmer Lugo, Jul 17, 2024 - 10:14am

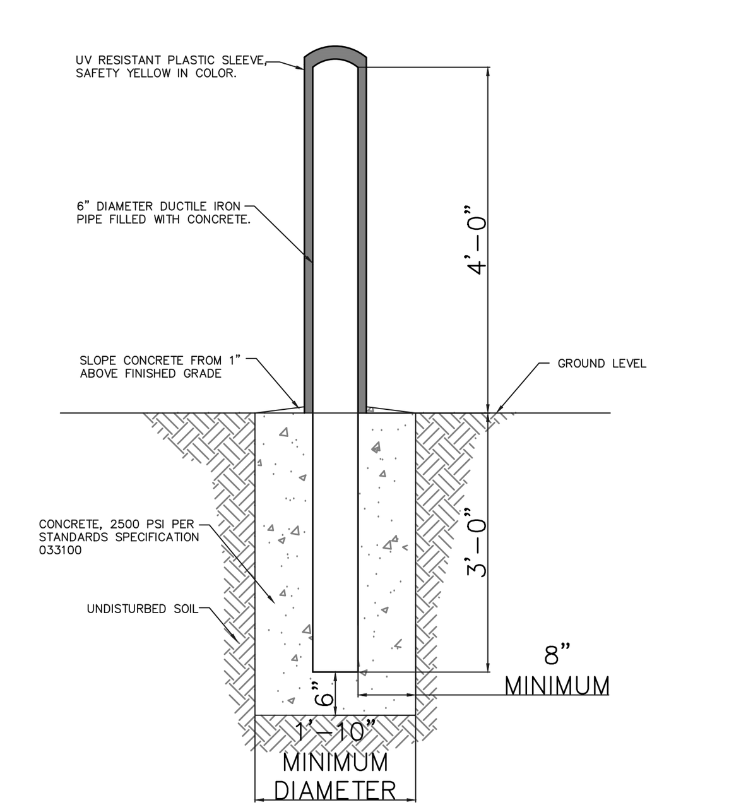


LEGEND

▨	PROPOSED PAVED SURFACE
▨	STANDARD CONCRETE SECTION
🟪	PROPOSED BUILDING
▣	DRAINAGE INLET
○	PROPOSED SIGN LOCATION

GENERAL NOTES:

1. THE APPROVAL OF THESE CONSTRUCTION PLANS DOES NOT AUTHORIZE CONSTRUCTION OF REQUIRED IMPROVEMENTS WHICH ARE INCONSISTENT WITH EASEMENTS OF RECORD.
2. ALL CATEGORY 1 INVASIVE EXOTIC PLANTS AS DEFINED BY THE FLORIDA EXOTIC PEST PLANTS COUNCIL, SHALL BE REMOVED FROM WITHIN THE PRESERVE AREAS AND SUBSEQUENT ANNUAL REMOVAL OF THESE PLANTS (IN PERPETUITY) SHALL BE THE RESPONSIBILITY OF THE OWNER.
3. FIRE FIGHTING WATER SUPPLY SHALL BE AVAILABLE PRIOR TO THE PLACEMENT OR STORAGE OF ANY COMBUSTIBLE MATERIALS ON SITE.
4. ALL PROHIBITED NON–NATIVE/EXOTIC VEGETATION AS DEFINED BY THE LEE COUNTY LDC SHALL BE REMOVED FROM THE SITE & IT SHALL BE MAINTAINED FREE OF EXOTICS IN PERPETUITY. ALL ANNUAL REMOVAL OF EXOTIC VEGETATION SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER
5. THIS SITE PLAN SHALL MEET ALL REQUIREMENTS OF THE LEE COUNTY LDC UNLESS VARIANCES WERE OBTAINED PRIOR TO CONSTRUCTION.
6. THE SURFACE WATER MANAGEMENT SYSTEM & ALL INFRASTRUCTURE IMPROVEMENTS AND ONSITE UTILITIES SHALL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER.

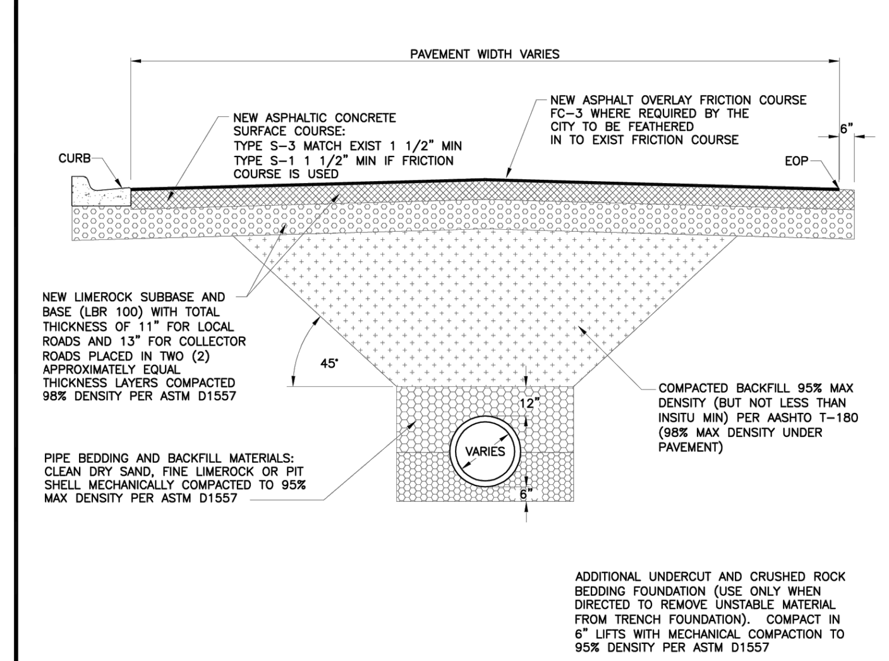


VEHICULAR GUARD POST DETAIL

NTS

REVISION DATE: JULY 2018

SHEET NO. G–11



NOTES:

1. TRENCH WIDTH AT THE GROUND SURFACE SHALL NOT EXCEED 10' ON EITHER SIDE OF THE PIPE CENTER LINE.

2. WHEN SEWER BEDDING AREA IS IN ZONE OF FLUCTUATING GROUND WATER USE # 89 STONE IN LIEU OF #57 STONE IN SOILS THAT ARE PREDOMINANTLY FINE SAND.

N.T.S.

STANDARD DETAILS & SPECIFICATIONS
ALTERNATE STANDARD DETAIL
EXCAVATION BACKFILL & FULL WIDTH PAVEMENT REPLACEMENT

CITY OF FORT MYERS
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

City of Palms

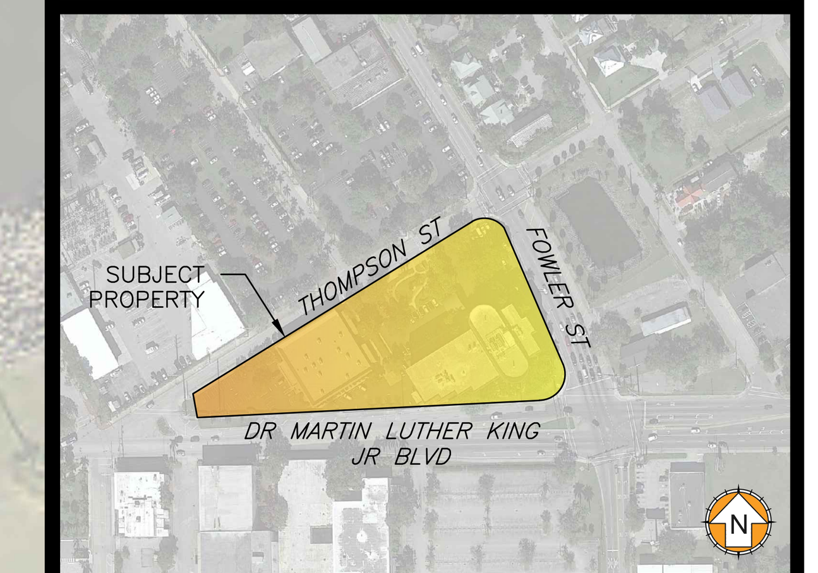
DRAWING: DETAILS\G-06

DATE: 2004

G - 4

DAVIDSON ENGINEERING
ESTABLISHED 1997

4365 Radio Road, Suite 201
Naples, Florida 34104
P: 239.434.6060
Company Cert. of Authorization No. 00009496



SITE LOCATION MAP

CLIENT:

TLC ENGINEERING SOLUTIONS
13099 S CLEVELAND AV. SUITE 500
FORT MYERS, FL 33907
PHONE: (239)-275-4240
EMAIL: BRETT.SANDS@TLC-ENG.COM

PROJECT:

LEE COUNTY,
MELVIN MORGAN GENERATOR

REVISIONS:

REV.	DATE	DESCRIPTION
x	XX/XX/XXXX	REVISION

SHEET TITLE:

SITE PLAN

PROJECT NO.: 22-0053

SCALE: 1" = 30'

SCALE VALID AT 24X36

JEFF L. DAVIDSON, P.E NO. 47161
LEE A. DAVIDSON, P.E. NO. 90969
ANDREW E. RATH, P.E. NO. 73996
RYAN A. WHITE, P.E. NO. 67400

SHEET NO: C-20.00

NOTES: NOT FOR CONSTRUCTION

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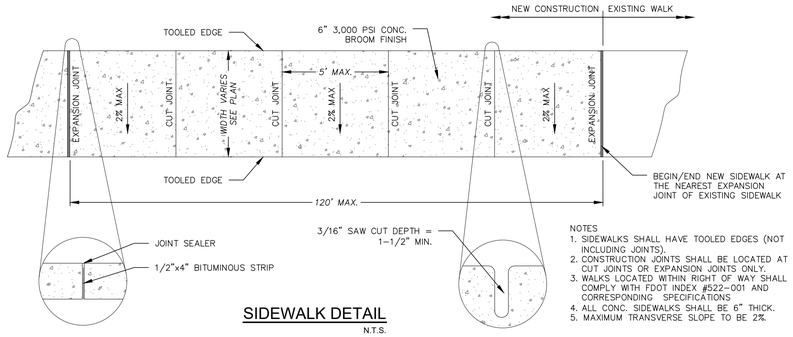
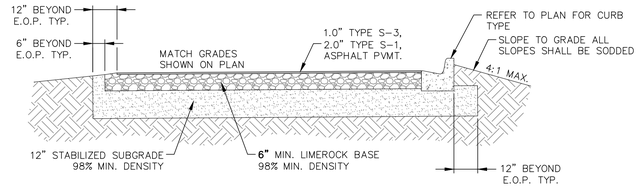


SIDEWALK DETAIL

N.T.S.

NOTES
1. SIDEWALKS SHALL HAVE TOOLED EDGES (NOT INCLUDING JOINTS).
2. CONSTRUCTION JOINTS SHALL BE LOCATED AT CUT JOINTS OR EXPANSION JOINTS ONLY.
3. WALKS LOCATED WITHIN RIGHT OF WAY SHALL COMPLY WITH FDOT INDEX #522-001 AND CORRESPONDING SPECIFICATIONS
4. ALL CONC. SIDEWALKS SHALL BE 6" THICK.
5. MAXIMUM TRANSVERSE SLOPE TO BE 2%.



TYPICAL PAVEMENT SECTION

N.T.S.

DAVIDSON ENGINEERING
ESTABLISHED 1997

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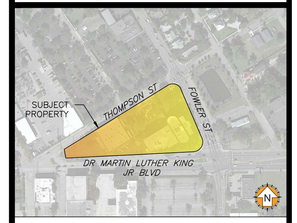
Naples, Florida 34104
P: 239.434.6060
Company Cert. of Authorization No. 00009496



SITE LOCATION MAP

CLIENT:

TLC ENGINEERING SOLUTIONS
13099 S CLEVELAND AV. SUITE 500
FORT MYERS, FL 33907
PHONE: (239)-275-4240
EMAIL: BRETT.SANDS@TLC-ENG.COM

PROJECT:

LEE COUNTY,
MELVIN MORGAN GENERATOR

REVISIONS:

REV.	DATE	DESCRIPTION
1	XX/XX/XXXX	REVISION

SHEET TITLE:

DETAILS

PROJECT NO.:
22-0053

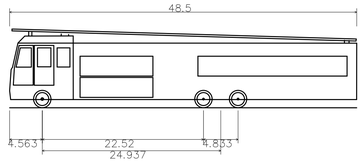
SCALE: N/A

SCALE VALID AT 24X36

JEFF L. DAVIDSON, P.E. NO. 47161
LEE A. DAVIDSON, P.E. NO. 90969
ANDREW E. RATH, P.E. NO. 73996
RYAN A. WHITE, P.E. NO. 67400

SHEET NO: C-26.00

NOTES: NOT FOR CONSTRUCTION



Pierce Quantum 95'	
Overall Length	48.500ft
Overall Width	8.333ft
Overall Body Height	11.000ft
Min Body Ground Clearance	1.144ft
Track Width	6.910ft
Lock-to-lock time	6.00s
Max Wheel Angle	45.00°

LEGEND

- VEHICLE BODY PATH (FORWARD VEHICLE MOTION)
- VEHICLE OVERHANG OUTLINE (FORWARD VEHICLE MOTION)
- VEHICLE BODY PATH (REVERSE VEHICLE MOTION)
- VEHICLE OVERHANG OUTLINE (REVERSE VEHICLE MOTION)

LEE COUNTY HUMAN SERVICES BUILDING (1 STORY STRUCTURE)

MELVIN MORGAN CONSTITUTIONAL COMPLEX (4 STORY STRUCTURE)

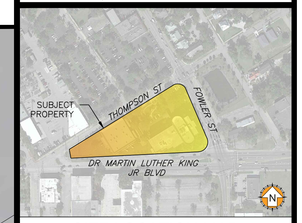
PROPERTY LINE

DR MARTIN LUTHER KING JR BLVD

Pierce Quantum 95'

SUCCESSFUL TURN ATTEMPT

DAVIDSON ENGINEERING
ESTABLISHED 1997
4365 Radio Road, Suite 201
Naples, Florida 34104
P: 239.434.6060
Company Cert. of Authorization No. 00009496



SITE LOCATION MAP

CLIENT:

TLC ENGINEERING SOLUTIONS
13099 S CLEVELAND AV. SUITE 500
FORT MYERS, FL 33907
PHONE: (239)-275-4240
EMAIL: BRETT.SANDS@TLC-ENG.COM

PROJECT:

LEE COUNTY,
MELVIN MORGAN GENERATOR

REVISIONS:

REV.	DATE	DESCRIPTION

SHEET TITLE:

VEHICLE TRACKING 1

PROJECT NO.: 22-0053

SCALE: 1" = 10'

SCALE VALID AT 24X36

JEFF L. DAVIDSON, P.E NO. 47161
LEE A. DAVIDSON, P.E. NO. 90969
ANDREW E. RATH, P.E. NO. 73996
RYAN A. WHITE, P.E. NO. 67400

SHEET NO: C-30.00

NOTES: NOT FOR CONSTRUCTION

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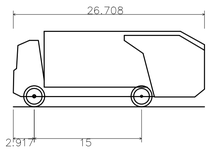


Mack Granite Axle Forward 4x2 GU712 + Wayne PowerLynx PL16

Overall Length	26.708ft
Overall Width	8.375ft
Overall Body Height	10.546ft
Min Body Ground Clearance	1.376ft
Track Width	8.375ft
Lock-to-lock time	6.00s
Curb to Curb Turning Radius	29.300ft

LEGEND

- VEHICLE BODY PATH (FORWARD VEHICLE MOTION)
- VEHICLE OVERHANG OUTLINE (FORWARD VEHICLE MOTION)
- VEHICLE BODY PATH (REVERSE VEHICLE MOTION)
- VEHICLE OVERHANG OUTLINE (REVERSE VEHICLE MOTION)

LEE COUNTY HUMAN SERVICES BUILDING (1 STORY STRUCTURE)

MELVIN MORGAN CONSTITUTIONAL COMPLEX (4 STORY STRUCTURE)

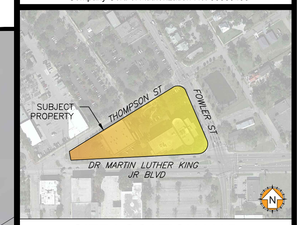
DR MARTIN LUTHER KING JR BLVD

PROPERTY LINE

SUCCESSFUL TURN ATTEMPT

DAVIDSON ENGINEERING
ESTABLISHED 1997

4365 Radio Road, Suite 201
Naples, Florida 34104
P: 239.434.6060
Company Cert. of Authorization No. 00009496



SITE LOCATION MAP

CLIENT:

TLC ENGINEERING SOLUTIONS
13099 S CLEVELAND AV. SUITE 500
FORT MYERS, FL 33907
PHONE: (239)-275-4240
EMAIL: BRETT.SANDS@TLC-ENG.COM

PROJECT:

LEE COUNTY,
MELVIN MORGAN GENERATOR

REVISIONS:

REV.	DATE	DESCRIPTION

SHEET TITLE:

VEHICLE TRACKING 2

PROJECT NO.: 22-0053

SCALE: 1" = 10'

SCALE VALID AT 24X36

JEFF L. DAVIDSON, P.E. NO. 47161
LEE A. DAVIDSON, P.E. NO. 90969
ANDREW E. RATH, P.E. NO. 73996
RYAN A. WHITE, P.E. NO. 67400

SHEET NO: C-30.01

NOTES: NOT FOR CONSTRUCTION

GENERAL STRUCTURAL NOTES

GENERAL: DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE TYPICAL AND APPLY TO SIMILAR SITUATIONS ELSEWHERE, EXCEPT AS OTHERWISE INDICATED. ADAPT REQUIREMENTS OF DETAILS, SECTIONS, PLANS, AND NOTES AT LOCATIONS WHERE CONDITIONS ARE SIMILAR.

CENTER ALL FOOTINGS AND PIERS UNDER COLUMNS ABOVE UNLESS SPECIFICALLY DIMENSIONED OTHERWISE.

STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH JOB SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR SLEEVES, DEPRESSIONS, AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.

CONTRACTOR SHALL LOCATE ALL BURIED UTILITIES PRIOR TO EXCAVATION FOR BUILDING FOUNDATIONS. THE STRUCTURAL ENGINEER SHALL BE NOTIFIED OF POTENTIAL CONFLICTS BETWEEN FOUNDATIONS AND BURIED UTILITIES.

CODE REQUIREMENTS: THE BUILDING STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE 2023 8th EDITION OF THE FLORIDA BUILDING CODE. FOLLOW ALL APPLICABLE PROVISIONS FOR ALL PHASES OF CONSTRUCTION. ADDITIONS ARE IN COMPLIANCE WITH THE 2023 EDITION OF THE FLORIDA EXISTING BUILDING CODE.

DESIGN CRITERIA: DESIGN WAS BASED ON STRENGTH AND DEFLECTION CRITERIA OF THE 2023 FLORIDA BUILDING CODE. THE FOLLOWING LOADS WERE USED FOR DESIGN, WITH LIVE LOADS REDUCED PER THE 2023 FBC.

WIND SPEED (ASCE 7-16)	182 MPH
RISK CATEGORY	III
EXPOSURE	B

FOUNDATIONS: FOUNDATION DESIGN IS BASED ON AN ASSUMED ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSF FOR SILTY SAND AND GRAVELS. FOUNDATIONS SHALL BEAR ON COMPETENT NATIVE SOIL OR COMPACTED STRUCTURAL FILL. IF QUESTIONABLE SOILS OR POTENTIALLY UNSTABLE CONDITIONS ARE ENCOUNTERED, A GEOTECHNICAL ENGINEER SHALL BE RETAINED TO INVESTIGATE AND PROVIDE RECOMMENDATIONS.

CONCRETE: REINFORCED CONCRETE CONSTRUCTION SHALL CONFORM TO THE FBC AND ACI 318 "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE". CONCRETE STRENGTHS SHALL BE VERIFIED BY STANDARD 28-DAY CYLINDER TESTS PER ASTM C39, AND SHALL BE AS FOLLOWS:

f'c	USE
3000 PSI	FOUNDATIONS/SLAB ON GRADE

CEMENT SHALL CONFORM TO ASTM C150, TYPE 1. FLY ASH CONFORMING TO ASTM C618, TYPE F OR TYPE C, MAY BE USED TO REPLACE UP TO 20% OF THE CEMENT CONTENT, PROVIDED THAT THE MIX STRENGTH IS SUBSTANTIATED BY TEST DATA. COARSE AGGREGATE SHALL CONFORM TO ASTM C33 WITH A MAXIMUM SIZE OF 3/4". FINE AGGREGATE SHALL BE CLEAN, DURABLE, NATURAL SAND CONFORMING TO ASTM C33.

A WATER-REDUCING ADMIXTURE, IF USED, SHALL CONFORM TO ASTM C494 AND USED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, SHALL BE INCORPORATED IN CONCRETE DESIGN MIXES. A HIGH-RANGE WATER-REDUCING ADMIXTURE CONFORMING TO ASTM C494, TYPE F OR G, MAY BE USED IN CONCRETE MIXES, PROVIDING THAT THE SLUMP DOES NOT EXCEED 8".

PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CONCRETE EDGES, UNLESS NOTED OTHERWISE. WHERE INDICATED OR REQUIRED, SLOPE CONCRETE SLABS TO DRAINS SHOWN ON PLUMBING AND/OR ARCHITECTURAL DRAWINGS.

REINFORCING STEEL: REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, FOR DEFORMED BAR AND ASTM A1064 FOR SMOOTH WELDED WIRE FABRIC (WWF), UNLESS OTHERWISE NOTED. REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706. REINFORCING STEEL SHALL BE SECURELY TIED IN PLACE WITH #16 ANNEALED IRON WIRE.

ALL DETAILING AND ACCESSORIES SHALL CONFORM TO ACI DETAILING MANUAL SP-66. PROVIDE CHAIRS, SPACERS, BOLSTERS, AND ITEMS IN CONTACT WITH FORMS WITH HOT-DIP GALVANIZED LEGS OR PLASTIC LEGS. ACCURATELY POSITION, SUPPORT, AND SECURE REINFORCEMENT AGAINST DISPLACEMENT BY FORMWORK CONSTRUCTION OR CONCRETE PLACEMENT OPERATIONS. "WET-STICKING" OF REINFORCING IS PROHIBITED.

REQUIRED CONCRETE COVER FOR REINFORCING STEEL (UNLESS NOTED OTHERWISE):

FOOTINGS	3" BOTTOM AND SIDES, 2" TOP
SLABS	3/4"

LAP SPLICE CONTINUOUS VERTICAL OR HORIZONTAL BARS IN CONCRETE MEMBERS IN ACCORDANCE WITH ACI 318-14, FOR CLASS "B" TENSION LAP SPLICES. DO NOT SPLICE CONTINUOUS TOP BARS IN BEAMS AT ENDS OF CLEAR SPANS. SHOW ALL SPLICES ON SHOP DRAWINGS. SPLICE LOCATIONS AND METHODS SUBJECT TO APPROVAL OF STRUCTURAL ENGINEER.

AT SLAB RE-ENTRANT CORNERS, PROVIDE (2) #5 X 4'-0" DIAGONAL BARS. AT SLAB AND WALL OPENINGS PROVIDE A MINIMUM OF (2) #5 BARS ALL FOUR SIDES AND DIAGONALLY; EXTEND THESE BARS A LAP DISTANCE OR A MINIMUM OF 24 " PAST THE OPENING OR HOOK BARS IF DISCONTINUOUS.

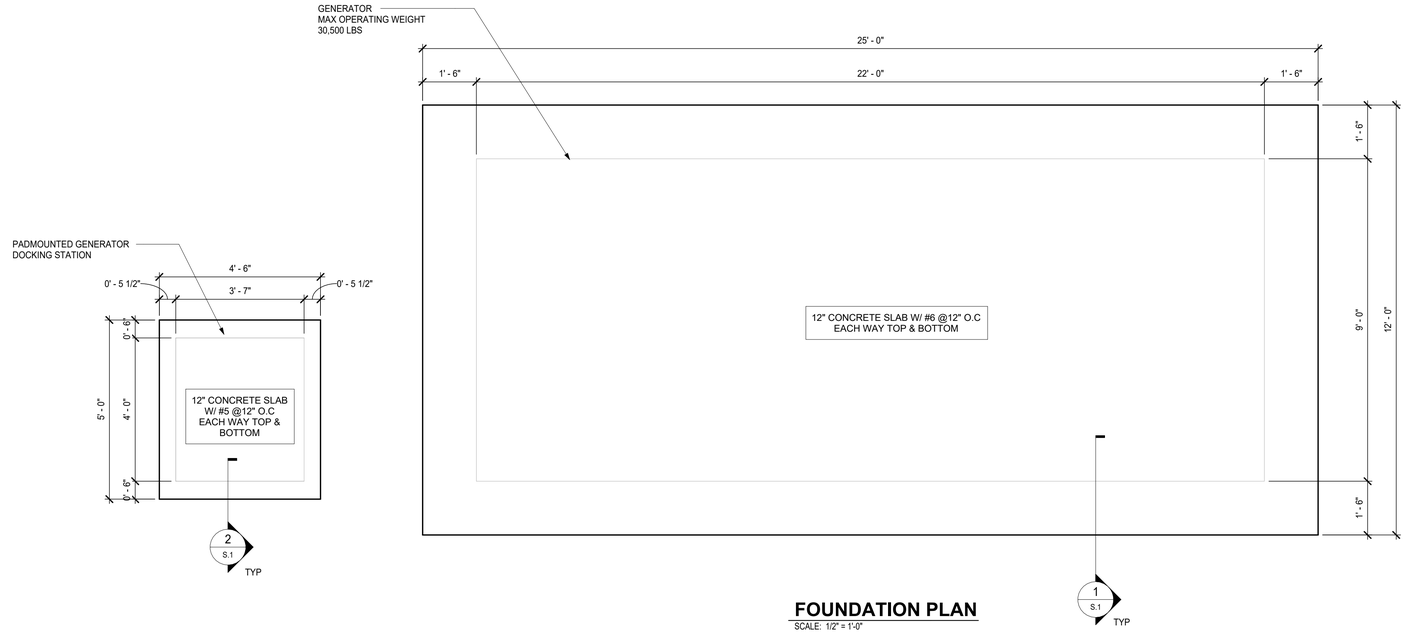
DOWEL ALL WALLS AND COLUMNS TO FOOTINGS WITH BAR SIZE AND SPACING TO MATCH VERTICAL REINFORCING UNLESS OTHERWISE SHOWN.

MECHANICAL ANCHORS: MECHANICAL ANCHORS SHALL HAVE THE ICC-ES EVALUATION REPORT INDICATING CONFORMANCE WITH CURRENT APPLICABLE ICC ES ACCEPTANCE CRITERIA. MECHANICAL ANCHORS SHALL BE EXPANSION TYPE OR SCREW TYPE AS NOTED ON THE DRAWINGS.

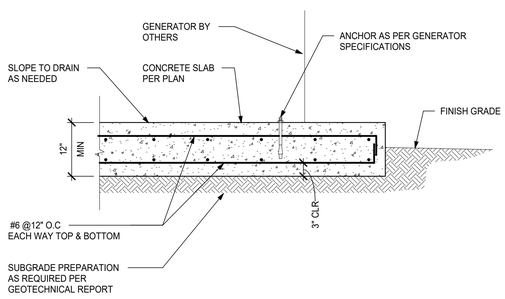
UNLESS OTHERWISE NOTED, PROVIDE CARBON STEEL ANCHORS, ZINC PLATED IN ACCORDANCE WITH ASTM B633 OR HOT-DIPPED GALVANIZED ACCORDING TO ASTM A153. PERMANENTLY EXPOSED ANCHORS SHALL BE STAINLESS STEEL. USE 316 STAINLESS STEEL FOR MECHANICAL EQUIPMENT AND FOR ALUMINUM AND FIBERGLASS STRUCTURES AND ASSEMBLIES.
MINIMUM EMBEDMENT FOR MECHANICAL ANCHORS SHALL BE AS FOLLOWS, OR AS NOTED ON THE DRAWINGS:

1. 1/2" DIAMETER - 3 3/4" EMBEDMENT
2. 5/8" DIAMETER - 5" EMBEDMENT
3. 3/4" DIAMETER - 5 3/4" EMBEDMENT

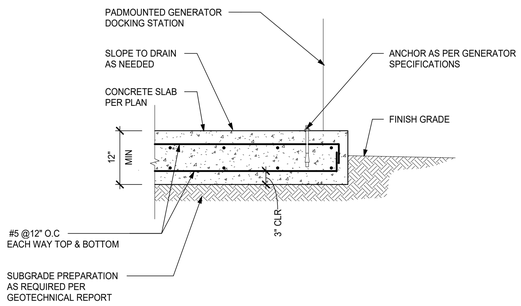
IDENTIFY POSITION OF REINFORCING STEEL AND OTHER EMBEDDED ITEMS PRIOR TO DRILLING HOLES FOR ANCHORS. EXERCISE CARE IN CORING OR DRILLING TO AVOID DAMAGING EXISTING REINFORCING OR EMBEDDED ITEMS. NOTIFY THE ENGINEER IF REINFORCING STEEL OR OTHER EMBEDDED ITEMS ARE ENCOUNTERED DURING DRILLING.



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



1 GENERATOR PAD FOUNDATION
SCALE: 3/4" = 1'-0"



2 PADMOUNTED GENERATOR PAD FOUNDATION
SCALE: 3/4" = 1'-0"

SELECT STRUCTURAL
12573 New Brittany Blvd
Fort Myers, Florida 33907
Phone: (239) 210-5090
info@selectstructural.com
Certification Auth. 28357

SELECT STRUCTURAL

REVISIONS

NO.	DATE	DESCRIPTION

MELVIN MORGAN
CONSTITUTIONAL CENTER

2480 THOMPSON ST FORT MYERS, FL 33901

SEAL

ISSUED DATE: 03-22-2024
DRAWN BY: SK
ENGINEERED BY: AM
SCALE: As indicated
JOB NO.: 24190

SHEET TITLE:
TYPICAL PLAN SHEET

SHEET NO.:
S.1

ELECTRICAL SYMBOL LEGEND

BASIC MATERIALS

SYMBOL	DESCRIPTION
	DEVICE ABBREVIATION TAGS:
6C	POKE-THRU WITH 6" CORE DRILL
8C	POKE-THRU WITH 8" CORE DRILL
ETR	EXISTING TO REMAIN
IG	ISOLATED GROUND (ORANGE DEVICE)
RL	RELOCATED
TR	TAMPER RESISTANT
WP	WEATHERPROOF
	NOTE: DIAGONAL MARKS INDICATED ON ANY DEVICE REPRESENTS DEVICE CONNECTED TO EMERGENCY CIRCUIT (RED DEVICE FOR RECEPTACLE); TYPICAL FOR ANY DEVICE IN LEGEND
	GFCI RECEPTACLE; "WP" INDICATES CAST METAL "IN-USE" WEATHERPROOF COVER, WEATHER-RESISTANT LISTED
	TWO GFCI DUPLEX RECEPTACLES (QUAD) WITH COMMON COVERPLATE
	GFCI RECEPTACLE MOUNTED ABOVE COUNTER
J	JUNCTION BOX WALL MOUNTED
J	JUNCTION BOX MOUNTED IN OR ABOVE CEILING OR IN STRUCTURE
GND	GROUND BUS BAR, COPPER
SPD	SURGE PROTECTIVE DEVICE
ST	SHUNT-TRIP PUSHBUTTON; SEMI-FLUSH WALL MOUNTED UNLESS OTHERWISE NOTED; NEMA 3R FOR EXTERIOR LOCATIONS
EPO	EMERGENCY POWER OFF SHUNT-TRIP PUSHBUTTON, RED MUSHROOM HEAD, CLEAR LEXAN PROTECTIVE COVER
	PUSHBUTTON STATION
	MOTOR CONNECTION
MH	MANHOLE
PB	PULLBOX
HH	HANDHOLE
T	TRANSFORMER
ATS	AUTOMATIC TRANSFER SWITCH
30AR/NF 3R	NEMA RATING; NEMA 1 UNLESS OTHERWISE NOTED NON-FUSED DISCONNECT SWITCH, RATING AS NOTED NF = NON-FUSED AR = AMPERE RATING OF SWITCH 4X SS = NEMA 4X STAINLESS STEEL ENCLOSURE
30AR/20AF 3R	NEMA RATING; NEMA 1 UNLESS OTHERWISE NOTED FUSED DISCONNECT AF = AMPERE RATING OF FUSE AR = AMPERE RATING OF SWITCH 4X SS = NEMA 4X STAINLESS STEEL ENCLOSURE
MCP AMPERE RATING 30/3 0 3R	# OF POLES NEMA RATING; NEMA 1 UNLESS OTHERWISE NOTED COMBINATION MAGNETIC MOTOR STARTER, SIZE AS NOTED, 3-POLE UNLESS OTHERWISE NOTED 4X SS = NEMA 4X STAINLESS STEEL ENCLOSURE NEMA STARTER SIZE
	SWITCHBOARD/ SWITCHGEAR/ DISTRIBUTION PANEL
	BRANCH CIRCUIT PANELBOARD, OVER 240 VOLTS, SURFACE MOUNTED
	BRANCH CIRCUIT PANELBOARD, OVER 240 VOLTS, FLUSH MOUNTED
	CONDUIT CONCEALED ABOVE CEILING OR IN WAL
	CONDUIT EXPOSED
	CONDUIT CONCEALED IN SLAB, UNDERGROUND OR UNDER FLOOR
	CONDUIT HOMERUN TO ELECTRICAL PANEL
UP	CONDUIT TURNING UP
DN	CONDUIT TURNING DOWN
	CONDUIT STUBBED OUT OR UP
	CONDUIT CONTINUED
	FLEXIBLE CONDUIT
	CONDUIT SEAL-OFF FITTING
	GROUND OR GROUND ROD AS NOTED
	EXISTING TO BE REMOVED (HEAVY, DASHED LINE)
	EXISTING TO REMAIN (LIGHT, SOLID LINE)
	NEW (HEAVY, SOLID LINE)

ABBREVIATIONS

AC	ALTERNATING CURRENT
ABV CLG	ABOVE CEILING
ADA	AMERICANS WITH DISABILITIES ACT
AF	AMPERE FRAME
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CAPACITY
AL	ALUMINUM
AMP	AMPERE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ASA	AMERICAN STANDARDS ASSOCIATION
AT	AMPERE TRIP
ATO	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GUAGE
BC	BARE COPPER
BIL	BASIC IMPULSE LEVEL
BRKR OR BKR	BREAKER
C	CONDUIT OR RACEWAY
CKT	CIRCUIT
CB	CIRCUIT BREAKER
CLG	CEILING
CO	CONDUIT OR RACEWAY ONLY
COND	CONDUCTOR
CONN	CONNECTION
CU	COPPER
DEG	DEGREE
DF	DEMAND FACTOR
DISC	DISCONNECT
DISC SW	DISCONNECT SWITCH
GF	GROUND FAULT
GFA	GROUND FAULT ALARM
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
DO	DRAW OUT
DN	DOWN
DPST	DOUBLE POLE SINGLE THROW

ABBREVIATIONS (CONT.)

EMT	ELECTRIC METALLIC TUBING
EO	ELECTRICALLY OPERATED
EOL	END OF LINE
EOR	ENGINEER OF RECORD
ETR	EXISTING TO REMAIN
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FATC	FIRE ALARM TERMINAL CABINET
FBC	FLORIDA BUILDING CODE
FLA	FULL LOAD AMPERES
FM	FACTORY MUTUAL
FT	FEET
GFR	GROUND FAULT RELAY
GND, G	GROUND
HP	HORSEPOWER
HOA	HAND-OFF-AUTOMATIC
HORIZ	HORIZONTAL
IBC	INTERNATIONAL BUILDING CODE
IECC	INTERNATIONAL ENERGY CONSERVATION CODE
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS
IES	ILLUMINATING ENGINEERING SOCIETY
IMC	INTERMEDIATE METAL CONDUIT
IN	INCHES
IPCEA	INSULATED POWER CABLE ENGINEERS ASSOCIATION
IT	INSTANTANEOUS TRIP
JB OR J-BOX	JUNCTION BOX
KCMIL	ONE THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT AMPERES
KW	KILOWATT
KWH	KILOWATT HOURS
LBS	POUNDS
LT	LIGHT
LTG	LIGHTING
MAX	MAXIMUM
MCA	MINIMUM CIRCUIT AMPS
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN SERVICE DISTRIBUTION PANEL
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MOCP	MAXIMUM OVERCURRENT PROTECTION
MSB	MAIN SERVICE SWITCHBOARD
MTD	MOUNTED
MTR	MOTOR
MTS	MANUAL TRANSFER SWITCH
N	NEUTRAL
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NF	NON-FUSED
NL	NON-LINEAR
NO	NORMALLY OPEN OR NUMBER
OL	OVERLOAD
OSHA	OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION
P	POLE
PB	PULLBOX
PF	POWER FACTOR
PNL	PANEL
PR	PAIR
PRI	PRIMARY
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYLCHLORIDE
PWR	POWER
REC, RECEPT	RECEPTACLE
RGS, GRC	RIGID GALVANIZED STEEL CONDUIT
RLA	RUNNING LOAD AMPERES
RPM	REVOLUTIONS PER MINUTE
SCA	SHORT CIRCUIT AMPERES
SEC	SECONDARY
S/N	SOLID NEUTRAL
SPD	SURGE PROTECTIVE DEVICE
SPST	SINGLE POLE SINGLE THROW
SS	STAINLESS STEEL
SST	SOLID STATE TRIP
STD	SHORT TIME TRIP
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TYP	TYPICAL
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UL	UNDERWRITERS LABORATORIES
UTIL	UTILITY
V	VOLT
VA	VOLTAMPERE
VAR	VOLT AMPERE REACTIVE
W	WIRE
WP	WEATHER PROOF
XFMR	TRANSFORMER
XFR	TRANSFER

APPLICABLE CODES

APPLICABLE CODES:
ALL WORK UNDER THIS DIVISION SHALL BE IN STRICT COMPLIANCE AND IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE FOLLOWING CODES AND STANDARDS INCLUDING THE REGULATIONS OF GOVERNING LOCAL, STATE, COUNTY AND OTHER APPLICABLE CODES. REFER TO SPECIFICATIONS FOR ADDITIONAL CODE REQUIREMENTS:

BUILDING CODES:
- FLORIDA BUILDING CODE, 8TH EDITION (2023)
- FLORIDA ENERGY CONSERVATION CODE, 8TH EDITION (2023)
- FLORIDA FIRE PREVENTION CODE, 8TH EDITION (2023)

ADDITIONAL CODES, STANDARDS, AND REQUIREMENTS
1. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
2. INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS (IEEE).
3. NATIONAL ELECTRICAL MANUFACTURER'S ASSOCIATION (NEMA).
4. REQUIREMENTS OF LOCAL POWER COMPANY.
5. THE AMERICANS WITH DISABILITIES ACT (ADA).
6. OWNER'S PUBLISHED DESIGN STANDARDS.

ALL MATERIALS SHALL BE NEW AND FREE OF DEFECTS, AND SHALL BE LISTED BY A NATIONALLY RECOGNIZED TESTING LAB, AS DEFINED BY OSHA. WHERE NO LABELING OR LISTING SERVICE IS AVAILABLE FOR CERTAIN TYPES OF EQUIPMENT, TEST DATA SHALL BE SUBMITTED TO VALIDATE THAT EQUIPMENT MEETS OF EXCEEDS AVAILABLE STANDARDS.

NATIONAL FIRE PROTECTION (NFPA) STANDARDS:
- NFPA 10, 2018 EDITION, STANDARD FOR PORTABLE FIRE EXTINGUISHERS.
- NFPA 30, 2018 EDITION, FLAMMABLE AND COMBUSTIBLE LIQUIDS CODE.
- NFPA 37, 2018 EDITION, STANDARD FOR THE INSTALLATION AND USE OF STATIONARY COMBUSTION ENGINES AND GAS TURBINES.
- NFPA 54, 2018 EDITION, NATIONAL FUEL GAS CODE.
- NFPA 70, 2020 EDITION, NATIONAL ELECTRICAL CODE®.
- NFPA 80, 2016 EDITION, STANDARD FOR FIRE DOORS AND OTHER OPENING PROTECTIVES.
- NFPA 85, 2015 EDITION, BOILER AND COMBUSTION SYSTEMS HAZARDS CODE.
- NFPA 101, 2018 EDITION, LIFE SAFETY CODE®.
- NFPA 110, 2016 EDITION, STANDARD FOR EMERGENCY AND STANDBY POWER SYSTEMS.
- NFPA 111, 2016 EDITION, STANDARD ON STORED ELECTRICAL ENERGY EMERGENCY AND STANDBY POWER SYSTEMS.

NOTE: SOME SYMBOLS SHOWN ON THIS LEGEND MAY NOT PERTAIN TO THIS PROJECT.

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ELECTRICAL DEMOLITION NOTES

1. DEVICES, LIGHT FIXTURES AND EQUIPMENT SHOWN IN DASHED LINE TYPE ARE EXISTING TO BE DEMOLISHED; DEVICES, LIGHT FIXTURES AND EQUIPMENT SHOWN IN LIGHT (SCREENED) SOLID LINE TYPE ARE EXISTING TO REMAIN, UNLESS NOTED OTHERWISE.
2. EXISTING EQUIPMENT, LIGHT FIXTURES AND DEVICES SHOWN ARE BASED ON FIELD SURVEYS AND RECORD DRAWINGS PROVIDED BY THE OWNER, AND ARE NOT NECESSARILY INCLUSIVE OF ALL EXISTING ELECTRICAL EQUIPMENT, LIGHT FIXTURES AND DEVICES WITHIN PROJECT AREAS. IT IS THE INTENT THAT THE DEMOLITION PLANS PROVIDE A GENERAL KNOWLEDGE OF THE EXISTING CONDITIONS WITHIN THE PROJECT AREA. ANY DISCREPANCIES OR CONDITIONS NOT SHOWN ON THE PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED ELECTRICAL DEMOLITION WHETHER INDICATED ON THE PLANS OR NOT
3. EXISTING CIRCUITING SHOWN IS BASED ON RECORD DRAWINGS AND THE SURVEYED PANEL DIRECTORIES, WHERE THEY WERE AVAILABLE. THE ACTUAL CONDITIONS MAY VARY. ALL EXISTING CONDITIONS MUST BE VERIFIED PRIOR TO BID. THE CONDITIONS SHOWN ARE INTENDED TO SHOW THE LOCATIONS OF EXISTING DEVICES, LIGHT FIXTURES AND EQUIPMENT, WHERE SHOWN ON THE PLAN DRAWINGS, AND IN NO WAY RELIEVES THE CONTRACTOR FROM PROVIDING ANY AND ALL COORDINATION NECESSARY TO COMPLETE THE NEW WORK. FIELD CONDITIONS SHALL GOVERN.
4. WHERE EXISTING DEVICES ARE INDICATED TO REMAIN OR BE RELOCATED, ARE WITHIN THE SCOPE OF THIS PROJECT AND EXISTING CIRCUITING INFORMATION IS UNAVAILABLE, CONTRACTOR IS TO PROVIDE CIRCUIT TRACING TO IDENTIFY PANEL AND CIRCUIT SERVING THE DEVICE TO AND PROVIDE THAT INFORMATION TO THE ARCHITECT/ENGINEER PRIOR TO ROUTING CONDUITS AND WIRING FOR NEW DEVICES AND EQUIPMENT WITHIN THE SCOPE OF THIS PROJECT.
5. WHERE EXISTING DEVICES ARE TO REMAIN, CONTRACTOR MUST EXTEND EXISTING CIRCUITING WHERE NECESSARY TO MAINTAIN CONTINUITY OF CIRCUIT.
6. COORDINATE WITH THE OWNER FOR DISPOSITION OF ELECTRICAL ITEMS TO BE DEMOLISHED. OWNER SHALL HAVE THE OPTION TO RETAIN REUSABLE ITEMS SUCH AS COVERPLATES, RECEPTACLES, LIGHT FIXTURES, PANELBOARDS, TRANSFORMERS, ETC. NOT BEING USED IN THE FINISHED WORK. COORDINATE WITH THE OWNER PRIOR TO START OF DEMOLITION. PROPERLY AND LEGALLY DISPOSE OF ALL EQUIPMENT AND MATERIALS BEING REMOVED.
7. COORDINATE EXACT AREAS, WALLS, CEILINGS, ETC. TO BE DEMOLISHED WITH ARCHITECTURAL, STRUCTURAL, PLUMBING AND MECHANICAL DEMOLITION PLANS.
8. WHERE EXISTING DEVICES, LIGHT FIXTURES AND EQUIPMENT ARE INDICATED TO BE DEMOLISHED, REMOVE ASSOCIATED CONDUIT AND WIRING BACK TO SOURCE PANEL OR TO NEAREST JUNCTION BOX TO MAINTAIN CIRCUIT CONTINUITY OF DEVICES AND EQUIPMENT TO REMAIN. WHERE PANELS ARE TO REMAIN, TURN BREAKER TO "OFF" POSITION AND LABEL THE CIRCUIT AS "SPARE" ON THE PANEL DIRECTORY.
9. ALL AREAS OUTSIDE THE SCOPE OF CONSTRUCTION ARE TO REMAIN ENERGIZED. COORDINATE PHASING WITH CONSTRUCTION MANAGER AND OWNER PRIOR TO DEMOLITION OF ANY ITEM WHICH MAY RESULT IN INTERRUPTION OF POWER.
10. REFER TO ARCHITECTURAL DEMOLITION DRAWINGS FOR EXTENT OF AREA REQUIRING DEMOLITION AND ADDITIONAL INFORMATION ON ELECTRICAL DEMOLITION WITHIN THAT AREA. DISCONNECT ELECTRICAL SERVICE TO ALL EQUIPMENT BEING REMOVED. DEMOLITION SHALL BE PHASED AS REQUIRED BY DIVISION 1, OR DIRECTED BY THE OWNER.
11. REMOVE ALL CONDUIT LEFT EXPOSED BY REMOVAL OF WALLS AND CEILINGS IN REMODELED OR RENOVATED AREA. CAP BOTH ENDS OF REMAINING CONDUIT IN WALL OR FLOOR WHERE CUT.
12. ELECTRICAL DEVICES CONCEALED BY STORAGE SHELVING, CASEWORK, FURNITURE, ETC., AND NOT NOTED ON THE DEMOLITION DRAWINGS ARE TO BE REMOVED AS REQUIRED, UNLESS SHOWN AS EXISTING TO REMAIN.
13. CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ALL OPENINGS IN EXISTING CONSTRUCTION AFTER REMOVAL OF EQUIPMENT AND ELECTRICAL DEVICES, UNLESS OTHERWISE NOTED ON ARCHITECTURAL PLANS. REPAIRS ARE TO BE DONE TO LOGICAL EDGES OF SURFACES AFFECTED AND SHALL MATCH IMMEDIATELY ADJACENT AREAS IN CONSTRUCTION, MATERIAL, FIRE RATING, FINISH AND COLOR.
14. FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS PRIOR TO COMMENCEMENT OF WORK AND OBTAIN CLARIFICATIONS FROM ARCHITECT/ENGINEER IF NECESSARY.
15. COORDINATE ALL POWER INTERRUPTION WITH CONSTRUCTION MANAGER, OWNER, LANDLORD, AND UTILITY COMPANY (WHERE APPLICABLE) AND DO NOT INTERRUPT POWER WITHOUT WRITTEN PERMISSION. PROVIDE A MINIMUM OF ONE WEEK'S WRITTEN NOTIFICATION PRIOR TO WHEN POWER IS DESIRED TO BE INTERRUPTED. CONTRACTOR SHALL INVESTIGATE AND IDENTIFY ALL LOADS TO BE AFFECTED BY THE REQUESTED INTERRUPTION. CONTRACTOR SHALL SUBMIT WRITTEN SEQUENCE OF STEPS FOR EACH SHUTDOWN ALONG WITH THE ESTIMATED INTERRUPTION DURATIONS. MAKE ARRANGEMENTS TO MAINTAIN POWER TO ALL EXISTING NECESSARY LIGHTING, DEVICES AND EQUIPMENT AS NEEDED AND REQUESTED BY THE OWNER PRIOR TO COMMENCEMENT OF WORK.
16. EXERCISE EXTREME CAUTION WHEN REMOVING/ RELOCATING WIRING AND EQUIPMENT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT OTHER WIRING DEVICES, EQUIPMENT AND LIGHT FIXTURES THAT MAY BE CONNECTED TO THE SAME CIRCUIT REMAIN OPERATIONAL AND ACTIVE.
17. INFORMATION INDICATED IN THE DEMOLITION PORTION OF THE CONTRACT DRAWINGS IS DIAGRAMMATIC IN NATURE. FIELD VERIFY ELECTRICAL CIRCUIT HOMERUNS TO ALL ELECTRICAL ITEMS SCHEDULED TO BE DEMOLISHED AND PERFORM THE WORK AS INTENDED AND DEPICTED ON THE DRAWINGS.
18. UPDATE ALL EXISTING ELECTRICAL EQUIPMENT NAMEPLATES AND DIRECTORIES AS NECESSARY TO REFLECT FINAL AS-BUILT CONDITIONS AT THE END OF CONSTRUCTION.
19. STORE ITEMS INDICATED TO BE RETURNED TO THE OWNER IN A DRY, CLEAN AND PROTECTED AREA. NOTIFY OWNER WHEN ITEMS ARE READY TO BE REMOVED.
20. COORDINATE ANY ALTERATION AND CHANGES TO THE ELECTRICAL SERVICE WITH THE LOCAL UTILITY COMPANY AND THE OWNER PRIOR TO COMMENCEMENT OF WORK.
21. ALL CONDUITS SERVING OTHER SPACES THAT RUN THROUGH THE PROJECT AREA SHALL REMAIN ACTIVE DURING CONSTRUCTION SO AS NOT TO CAUSE DISRUPTION TO THESE OTHER SPACES. ENSURE THAT ALL CONDUITS, NEW OR EXISTING WITHIN THE PROJECT AREA ARE PROPERLY SUPPORTED IN ACCORDANCE WITH THE NEC.
22. REMOVE ALL ABANDONED WIRING AND CONDUIT THAT IS WITHIN THE PROJECT AREA PRIOR TO THE END OF CONSTRUCTION.

ELECTRICAL GENERAL NOTES

COORDINATION:
1. VERIFY AND COORDINATE LOCATIONS OF ANY MISCELLANEOUS EQUIPMENT REQUIRING ELECTRICAL CONNECTIONS WITH APPROVED SHOP DRAWINGS, OWNER-PROVIDED CUT SHEETS, MANUFACTURER'S INSTRUCTIONS, AND EQUIPMENT NAMEPLATE INFORMATION, PRIOR TO ROUGH IN, AND PROVIDE ALL NECESSARY ELECTRICAL REQUIRED.
2. THIS PROJECT REQUIRES COORDINATION DRAWINGS BY THE CONTRACTOR. PARTICIPATE IN THE COORDINATION DRAWING PREPARATION PROCESS AND PROVIDE ALL NECESSARY INFORMATION REQUIRED TO COORDINATE ALL TRADE INFORMATION.
3. ALL WORK ON THE ELECTRICAL SYSTEM REQUIRED BY THE CONTRACT DOCUMENTS SHALL BE COORDINATED WITH THE WORK OF ALL OTHER DIVISIONS/TRADES PRIOR TO COMMENCEMENT OF WORK. AVOID INTERFERENCES WITH THE PROGRESS OF OTHER DIVISIONS/TRADES.
4. REFER TO CIVIL, STRUCTURAL, AND VENDOR EQUIPMENT DRAWINGS FOR RELATED INFORMATION AND ADDITIONAL INSTALLATION REQUIREMENTS TO BE PERFORMED AS PART OF THE WORK.
5. WHERE A DISCREPANCY OR CONFLICT IS FOUND BETWEEN ONE DRAWING AND ANOTHER, OR BETWEEN A DRAWING AND APPLICABLE SPECIFICATIONS, NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY IN WRITTEN FORM. IN GENERAL, THE MOST STRINGENT REQUIREMENT SHALL GOVERN UNLESS THE DISCREPANCY CONFLICTS WITH APPLICABLE CODES OR OWNER'S DESIGN STANDARDS, WHEREIN THE CODE OR OWNER'S DESIGN STANDARDS SHALL GOVERN.
6. CAREFULLY EXAMINE THOSE PORTIONS OF THE BUILDING AND/OR SITE AFFECTED BY THIS WORK PRIOR TO SUBMITTING BID PRICE, SO AS TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND DIFFICULTIES THAT MAY AFFECT EXECUTION OF THE WORK. SUBMISSION OF A BID PRICE SHALL BE CONSTRUED AS EVIDENCE THAT SUCH EXAMINATION HAS BEEN MADE. LATER CLAIMS FOR LABOR, EQUIPMENT AND/OR MATERIALS REQUIRED DUE TO DIFFICULTIES ENCOUNTERED THAT COULD HAVE BEEN REASONABLY OBSERVED WILL NOT BE RECOGNIZED.
7. COORDINATE ALL PROJECT SCHEDULING AND PHASING REQUIREMENTS WITH ARCHITECT/ENGINEER AND OWNER PRIOR TO SUBMITTING BID PRICE. THIS PROJECT MAY REQUIRE PHASING SEQUENCES AND POTENTIAL PREMIUM TIME WORK AND ALL COSTS FOR SUCH SHALL BE INCLUDED IN THE BID PRICE. PROVIDE ADEQUATE WORK FORCE AND EQUIPMENT, AND INCLUDE PREMIUM TIME AS MAY BE REQUIRED IN ORDER TO ADHERE TO THE PROJECT SCHEDULE. ADDITIONALLY, ENSURE THAT LONG LEAD ITEMS DO NOT IMPACT THE PROJECT'S SCHEDULE OR PHASING.
8. ANY TEMPORARY INTERRUPTION OF POWER REQUIRED FOR THE SYSTEM TIE-IN OR SWITCHOVER FOR ANY PORTION OF THE ELECTRICAL SYSTEM SHALL BE PRE-APPROVED IN WRITING BY THE OWNER AND SCHEDULED IN ADVANCE.
9. COORDINATE EXACT REQUIREMENTS WITH THE LOCAL UTILITY COMPANIES AND PROVIDERS AND INCLUDE ALL COSTS FOR PROVIDING TEMPORARY AND PERMANENT SERVICES REQUIRED FOR THIS PROJECT IN THE BID PRICE. BID PRICE SHALL INCLUDE, BUT NOT BE LIMITED TO, EXCAVATION, RACEWAYS, BACKFILL, EQUIPMENT, EQUIPMENT PADS, BACKBOARDS, METERS, GROUNDING, UTILITY ENGINEERING AND IMPACT FEES.
10. CONDUCT WORK OPERATIONS AND DEBRIS REMOVAL IN A MANNER THAT ENSURES MINIMUM INTERFERENCE WITH NORMAL BUSINESS OPERATIONS, TRAFFIC, PARKING, ETC. ONGOING IN ADJACENT OCCUPIED SPACES OR FACILITIES. PROVIDE ALL THAT IS REQUIRED TO EFFECTIVELY PROTECT SURROUNDING OCCUPANTS, EQUIPMENT, FINISHES, FURNITURE, ETC. FROM DAMAGE OR EXCESSIVE NOISE THROUGHOUT THE DURATION OF THIS PROJECT. CONTRACTOR IS RESPONSIBLE FOR ANY LOSSES OR ANY DAMAGE RESULTING FROM THE FAILURE TO ADHERE TO THIS REQUIREMENT. RESTORE DAMAGED ELEMENTS TO ORIGINAL CONDITION TO THE SATISFACTION OF THE ARCHITECT/ENGINEER AND OWNER, AT NO ADDITIONAL COSTS. REPORT OF ANY SUCH OCCURRENCE TO THE ARCHITECT/ENGINEER AND OWNER IMMEDIATELY AND AWAIT WRITTEN DIRECTION PRIOR TO PROCEEDING WITH REPAIRS.
11. COORDINATE THE LOCATION OF ALL DEVICES AND BOXES WITH WINDOWS, MIRRORS, MILLWORK, CABINETS, GLASS CURTAIN WALLS, AND GLASS WALLS PRIOR TO INSTALLATION OF CONDUITS OR BOXES. REVIEW ALL CONTRACT DRAWINGS TO ASCERTAIN ANY CONFLICTS PRIOR TO BIDDING. OBTAIN CLARIFICATION FROM THE ARCHITECT/ENGINEER PRIOR TO BID. CONTRACTOR SHALL NOT BE ENTITLED TO ADDITIONAL COMPENSATION FOR WORK REQUIRED TO RELOCATE RACEWAYS FOR COORDINATION WITH OTHER TRADE'S WORK.

ELECTRICAL GENERAL NOTES

GENERAL REQUIREMENTS
1. THE DRAWINGS AND APPLICABLE SPECIFICATIONS SHALL BE CONSIDERED SUPPLEMENTARY, ONE TO THE OTHER AND ARE CONSIDERED THE "CONTRACT DOCUMENTS". ALL WORKMANSHIP, METHODS AND/OR MATERIALS DESCRIBED OR IMPLIED BY ONE AND NOT DESCRIBED OR IMPLIED BY THE OTHER SHALL BE PROVIDED, FURNISHED OR PERFORMED AS IF IT HAD APPEARED IN BOTH SECTIONS. THE TERM "CONTRACT DOCUMENTS" DESCRIBED HEREIN IS NOT LIMITED SOLELY TO THE ELECTRICAL PORTION OF THE DRAWINGS AND SPECIFICATIONS, BUT ENCOMPASSES THE DRAWINGS AND SPECIFICATIONS OF ALL DIVISIONS AS A WHOLE.
2. THE DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW EVERY DETAIL OF CONSTRUCTION, METHODS, MATERIALS AND EQUIPMENT, OR EXACT LOCATIONS, ROUTING, ETC. THEY INDICATE THE RESULT TO BE ACHIEVED BY THE ASSEMBLAGE OF SEVERAL SYSTEMS FOR A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM. DO NOT SCALE THE CONTRACT DOCUMENTS. COORDINATE EXACT EQUIPMENT LOCATIONS WITH THE ARCHITECTURAL, CIVIL AND STRUCTURAL CONTRACT DOCUMENTS, AS WELL AS FIELD CONDITIONS, APPROVED SHOP DRAWINGS AND WORK OF ALL OTHER DIVISIONS/TRADES.
3. THE TERM "PROVIDE" USED IN THE CONTRACT DOCUMENTS INDICATES TO FURNISH AND INSTALL MATERIALS REQUIRED FOR CORRECT INSTALLATION OF A COMPLETE SYSTEM, UNLESS SPECIFICALLY NOTED OTHERWISE
4. UNLESS NOTED AS EXISTING, ALL ELECTRICAL INDICATED ON THE CONTRACT DOCUMENTS SHALL BE NEW, SHALL BE U.L. LISTED, AND SHALL BEAR A U.L. LABEL. WHERE NO U.L. LABEL OR LISTING IS AVAILABLE, THE MATERIAL SHALL BE LISTED WITH AN APPROVED, NATIONALLY RECOGNIZED ELECTRICAL TESTING AGENCY
5. PROVIDE EXPERIENCED, QUALIFIED AND RESPONSIBLE SUPERVISION FOR ALL WORK REQUIRED BY THE CONTRACT DOCUMENTS. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, TO THE SATISFACTION OF THE ARCHITECT/ENGINEER AND OWNER.
6. CARRY ALL INSURANCE REQUIRED TO PROTECT AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THIS PROJECT
7. GUARANTEE ALL MATERIALS AND WORKMANSHIP ARE FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE ARCHITECT/ENGINEER AND OWNER, UNLESS NOTED OTHERWISE IN DIVISION 1. AT NO ADDITIONAL COSTS, PROVIDE THE CORRECTION OF ANY DEFECTS INCLUDING REPAIR OR REPLACEMENT.
8. INCLUDE ALL COSTS ASSOCIATED WITH PERMITS, LICENSES, FEES, INSPECTIONS, TESTING AND TEMPORARY POWER IN THE BID PRICE, UNLESS NOTED OTHERWISE.
9. IF HAZARDOUS MATERIALS ARE ENCOUNTERED, COMPLY WITH ALL APPLICABLE RULES, REGULATIONS AND GUIDELINES CONCERNING REMOVAL, HANDLING, DISPOSAL AND PROTECTION AGAINST ENVIRONMENTAL EXPOSURE OR POLLUTION. PROVIDE DOCUMENTATION OF SAID COMPLIANCE.
10. PROVIDE ELECTRONIC SUBMITTALS (PRODUCT DATA & SHOP DRAWINGS) FOR EACH MAJOR COMPONENT OF THE ELECTRICAL SYSTEM FOR REVIEW BY THE ARCHITECT/ENGINEER AND OWNER. MAJOR COMPONENTS INCLUDE, BUT ARE NOT LIMITED TO, RACEWAYS, BOXES, WIRE AND CABLE, EQUIPMENT, DEVICES, LIGHT FIXTURES, SWITCHGEAR, PANELBOARDS, CIRCUIT BREAKERS, SAFETY SWITCHES, FIRE ALARM SYSTEM, ETC. ALL SUBMITTALLS ARE TO BE REVIEWED AND APPROVED BY THE CONTRACTOR FOR CONFORMANCE WITH THE PROJECT REQUIREMENTS PRIOR TO SUBMITTING TO THE ARCHITECT/ENGINEER. ALLOW A MINIMUM OF TEN (10) BUSINESS DAYS FOR REVIEW BY ARCHITECT/ENGINEER, UNLESS NOTED OTHERWISE IN DIVISION 1.
11. THE ELECTRICAL PORTION OF THE CONTRACT DOCUMENTS ARE COORDINATED WITH THE DESIGN BASIS EQUIPMENT SPECIFIED BY DIVISION 26 AND OTHER DIVISIONS. WHERE THE CONTRACTOR ELECTS TO SUBSTITUTE A PRODUCT IN LIEU OF PROVIDING THE DESIGN BASIS, AND SAID SUBSTITUTION IS ACCEPTED BY THE ARCHITECT/ENGINEER AND OWNER, THE CONTRACTOR SHALL MAKE ALL CORRECTIONS TO THE ELECTRICAL SYSTEM NECESSARY IN ORDER TO ENSURE A COMPLETE AND OPERATIONAL INSTALLATION OF THE EQUIPMENT AT NO ADDITIONAL COSTS. WHERE THE CONTRACTOR'S DESIGN SUBSTITUTION RESULTS IN THE NEED FOR THE ENGINEER TO REVISE THE CONTRACT DOCUMENTS, THE ENGINEER RESERVES THE RIGHT TO REQUEST COMPENSATION FROM THE CONTRACTOR FOR SAID SERVICES.
12. MAINTAIN A CURRENT AND ACCURATE SET OF PROJECT RECORD DOCUMENTS (AS-BUILTS) AT THE SITE THROUGHOUT THE DURATION OF THE PROJECT. RECORD DRAWINGS SHALL BE UPDATED EACH DAY TO REFLECT THE ACTUAL LOCATIONS, SIZES, ROUTING, ETC. OF EACH PORTION OF THE ELECTRICAL SYSTEM AFFECTED BY THIS WORK. A FINAL SET OF RECORD DOCUMENTS SHALL BE ISSUED TO THE ARCHITECT/ ENGINEER FOR REVIEW AND THEN SUBMITTED TO THE OWNER WITHIN 30 DAYS AFTER THE DATE OF FINAL ACCEPTANCE. PROVIDE RECORD DRAWINGS OF THE ACTUAL INSTALLATION INCLUDING SINGLE LINE DIAGRAM, POWER RISER DIAGRAM OF THE BUILDING ELECTRICAL DISTRIBUTION SYSTEM, SITE PLANS AND ALL ELECTRICAL FLOOR PLANS, DETAILS, PANEL SCHEDULES, ETC.
13. PROVIDE AN OPERATING AND MAINTENANCE MANUAL TO OWNER PRIOR TO THE FINAL ACCEPTANCE. THE MANUAL SHALL INCLUDE, AS A MINIMUM, (1) SUBMITTAL DATA STATING EQUIPMENT RATING AND SELECTED OPTIONS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE. ALSO PROVIDE TWO OPERATIONS AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE. REQUIRED ROUTINE MAINTENANCE ACTIONS AND METHOD OF OPERATION FOR EQUIPMENT SHALL BE CLEARLY IDENTIFIED, AND THE NAME, PHONE NUMBER AND ADDRESS OF AT LEAST ONE QUALIFIED SERVICE AGENCY.
14. INCLUDE ALL COSTS FOR EXCAVATION, SAW CUTTING, DIRECTIONAL BORING, CORE DRILLING, BACKFILLING, SURFACE RESTORATION, REPAIR OF FINISHES, ETC. THAT IS REQUIRED IN ORDER TO MEET THE PROJECT REQUIREMENTS.
15. INCLUDE IN BID ALL COSTS ASSOCIATED WITH TEMPORARY ELECTRICAL SERVICE AS REQUIRED FOR USE BY ALL TRADES DURING CONSTRUCTION. REMOVE TEMPORARY POWER AT THE COMPLETION OF THE PROJECT. OBTAIN AND PAY FOR ALL REQUIRED PERMITS FOR TEMPORARY POWER. ENGINEER OF RECORD SHALL BE PROVIDED WITH ADDITIONAL COMPENSATION FROM THE CONTRACTOR WHERE SIGNED & SEALED DRAWINGS ARE REQUESTED BY THE CONTRACTOR TO THE ENGINEER OF RECORD IF REQUIRED BY THE AHJ FOR THE TEMPORARY POWER.
16. LOCATE, IDENTIFY, PROTECT AND DOCUMENT ALL UTILITY LINES LOCATED WITHIN THE PROJECT BOUNDARY. FOR LOCATING SITE UTILITIES, CONTACT ALL LOCAL MUNICIPALITIES AND UTILITIES AT LEAST 48 HOURS PRIOR TO DIGGING.
17. INCLUDE IN BID THE TRANSPORT AND DISPOSAL OR RECYLING OF ALL WASTE MATERIALS GENERATED BY THIS PROJECT IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL RULES, REGULATIONS AND GUIDELINES APPLICABLE. COMPLY FULLY WITH ALL APPLICABLE STATUTES REGARDING MERCURY-CONTAINING DEVICES, AND WITH ALL LOCAL, STATE AND FEDERAL APPLICABLE GUIDELINES AT THE TIME OF DISPOSAL. PROVIDE OWNER WITH WRITTEN CERTIFICATION OF ACCEPTED DISPOSAL.

CONDUCTORS
1. ALL WIRE SHALL BE SIZED AS SHOWN ON THE DRAWINGS. IF NO WIRE SIZE IS SHOWN, THEN WIRE SHALL BE #12 AWG.
2. BRANCH CIRCUITS SHALL BE INCREASED IN SIZE AS REQUIRED TO COMPENSATE FOR VOLTAGE DROP FROM LENGTH OF CIRCUIT DUE TO FIELD ROUTING. FINAL INSTALLATION SHALL NOT EXCEED A MAXIMUM OF 3% VOLTAGE DROP FOR BRANCH CIRCUITS. REFER TO VOLTAGE DROP TABLE BELOW FOR CONDUCTOR SIZES FOR BRANCH CIRCUITS AS FOLLOWS:
   - B. 277V, 20A CIRCUITS SHALL BE:
     - i. #12 FROM 0-140FT
     - ii. #10 FROM 141-220FT
     - iii. #8 FROM 221-350FT

   ANYTHING LONGER THAN THE ABOVE SHALL BE SUBMITTED TO THE ENGINEER WITH CALCULATIONS FOR APPROVAL.
3. ALL CONDUCTORS IN CABINETS MUST BE CAREFULLY FORMED AND HARNESSED SO THAT EACH CONDUCTOR DROPS OFF DIRECTLY OPPOSITE TO TERMINAL.
4. ALL WIRE SIZES ARE BASED ON AMPACITIES FOR 60 DEG F TEMPERATURE RATING FROM 0-100A AND 75 DEG. F TEMPERATURE RATING LISTED IN NEC FOR 100A AND ABOVE.
5. ALL CONDUCTORS SHALL BE COPPER, THHN/THWN; SOLID FOR #10 AWG AND SMALLER; STRANDED FOR #8 AWG AND LARGER.
6. CONDUCTORS USED IN WET LOCATIONS, INCLUDING BUT NOT LIMITED TO UNDERGROUND CONDUITS/ DUCTBANKS AND EXTERIOR CONDUITS SHALL COMPLY WITH NEC 310.10 AND BE LISTED FOR USE IN WET LOCATIONS.
7. ALL POWER CIRCUITS HAVE BEEN DESIGNED TO MEET 2% OR LESS VOLTAGE DROP FOR FEEDERS, AND 3% OR LESS VOLTAGE DROP FOR BRANCH CIRCUITS.

IDENTIFICATION
1. PROVIDE TYPED PANEL DIRECTORIES FOR ALL EXISTING PANELBOARDS AFFECTED BY THIS PROJECT. DIRECTORIES SHALL REFLECT PROJECT AS- BUILT CONDITIONS FOR ALL BRANCH CIRCUITS. DIRECTORIES SHALL INCLUDE WHERE EACH PANEL IS FED FROM. ADDITIONALLY, EACH BRANCH CIRCUIT LOAD DESCRIPTION SHALL INCLUDE THE ROOM NUMBER(S) FOR EACH LOAD. ROOM NUMBERS SHALL BE BASED ON ACTUAL ROOM SIGNAGE INSTALLED IN FIELD. COORDINATE EXACT ROOM NUMBERS WITH ARCHITECT/ENGINEER AND OWNER PRIOR TO COMPLETION OF PANEL DIRECTORIES.
2. PROVIDE ENGRAVED PLASTIC LAMINATE NAME TAGS ON EACH SWITCHBOARD, SWITCHGEAR, DISTRIBUTION PANEL, PANELBOARD, MOTOR CONTROL CENTER, SAFETY SWITCH, ENCLOSED CIRCUIT BREAKER, CABINET, STEP-DOWN TRANSFORMER, TRANSFER SWITCH, AND ANY OTHER MAJOR COMPONENT OF THE ELECTRICAL SYSTEM.
3. PROVIDE ENGRAVED PLASTIC LAMINATE NAME TAGS FOR EACH DISTRIBUTION BREAKER OR BRANCH CIRCUIT BREAKER IN SWITCHGEAR, SWITCHBOARDS, MOTOR CONTROL CENTERS AND OTHER DISTRIBUTION EQUIPMENT. NAME TAG SHALL INCLUDE LOAD DESCRIPTION AND ROOM NUMBER FOR EACH LOAD.
4. ARC FLASH DANGER/WARNING LABELS SHALL BE APPLIED TO SWITCHBOARD, PANELBOARDS, AND EQUIPMENT CONTROLLERS PER NEC.
5. PROVIDE NEATLY, HANDWRITTEN IDENTIFICATION ON THE EXTERIOR COVER OF ALL JUNCTION BOXES, PULLBOXES AND WIREWAYS, IDENTIFYING THE PANEL(S)/ CIRCUIT NUMBER(S) CONTAINED WITHIN.
6. PROVIDE A PERMANENT LABEL ON ALL PANELBOARDS, SWITCHBOARDS, SWITCHGEAR, MOTOR CONTROL CENTERS AND DISTRIBUTION PANELS STATING "DO NOT WORK ON EQUIPMENT WHILE ENERGIZED. LOCK-OUT TAG-OUT REQUIRED".
7. PROVIDE REQUIRED IDENTIFICATION PER ANSI STANDARDS, NEC REQUIREMENTS, AND OWNER'S PUBLISHED DESIGN STANDARDS WHERE APPLICABLE.
8. PROVIDE ENGRAVED PHENOLIC LABEL ON ALL NEW SERVICE EQUIPMENT TO INDICATE THE MAXIMUM AVAILABLE FAULT CURRENT AND THE DATE THE FAULT CURRENT CALCULATION WAS PERFORMED. PROVIDE LABEL ON ALL EXISTING SERVICE EQUIPMENT WHEN MODIFICATIONS OCCUR THAT AFFECT THE MAXIMUM AVAILABLE FAULT CURRENT AT THE SERVICE.

ELECTRICAL EQUIPMENT
1. EQUIPMENT SHALL BE OF MATERIALS SUITABLE FOR AND RATED FOR THE ENVIRONMENT IN WHICH THEY ARE TO BE INSTALLED. ALL COMPONENTS OF THE ELECTRICAL SYSTEM LOCATED OUTDOORS OR INDOORS WHERE EXPOSED TO SIGNIFICANT MOISTURE SHALL BE WEATHERPROOF, NEMA 3R, AS A MINIMUM, WHETHER INDICATED ON THE CONTRACT DRAWINGS OR NOT.
2. TERMINATION PROVISIONS FOR ALL ELECTRICAL EQUIPMENT (PANELBOARDS, SWITCHBOARD, TRANSFORMERS, DISCONNECT SWITCHES, MOTOR CONTROLLERS, AUTOMATIC TRANSFER SWITCHES, ENCLOSED CIRCUIT BREAKERS, BUSWAYS, ETC.) SHALL BE LISTED AND IDENTIFIED FOR USE WITH MINIMUM 75 DEG. F CONDUCTORS IN ACCORDANCE WITH NEC.
3. WORKING CLEARANCES FOR ELECTRICAL EQUIPMENT SHALL BE IN COMPLIANCE WITH NEC.
4. THE ELECTRICAL DEDICATED EQUIPMENT SPACE EXTENDING FROM FLOOR TO 6' ABOVE ELECTRICAL EQUIPMENT OR TO THE STRUCTURAL CEILING, WHICHEVER DISTANCE IS LOWER, WITH A WIDTH AND DEPTH OF THE PANELBOARD OR SWITCHBOARD MUST BE CLEAR OF ALL PIPING, DUCTS, ARCHITECTURAL APPURTENANCES AND OTHER EQUIPMENT FOREIGN TO THE ELECTRICAL INSTALLATION IN ACCORDANCE WITH NEC.
5. PROVIDE A REINFORCED CONCRETE PAD, SIZED 4" LARGER IN ALL DIRECTIONS THAN THE FOOTPRINT OF THE EQUIPMENT, AND 4" HIGH, FOR ALL FREESTANDING, FLOOR-MOUNTED ELECTRICAL EQUIPMENT. PROVIDE VIBRATION ISOLATORS AND/OR ANCHORS PER MANUFACTURER'S INSTRUCTIONS.
6. PROVIDE SURGE PROTECTION DEVICE FOR ALL MAIN SERVICE EQUIPMENT, PANELBOARDS SERVING SENSITIVE ELECTRONIC EQUIPMENT (DATA RACKS) OR COMPUTERS, EMERGENCY SWITCHBOARDS AND PANELBOARDS, LIGHTING PANELS SERVING EXTERIOR LIGHTING, POWER CIRCUITS OR LOW VOLTAGE (FIRE ALARM, TELECOMMUNICATIONS) EXITING THE BUILDING. PROVIDE MINIMUM 30A/3P BREAKER IN BRANCH CIRCUIT PANELBOARDS AND 60A/3P IN DISTRIBUTION PANELBOARDS OR SWITCHBOARDS, UNLESS NOTED OTHERWISE, OR PER THE SPD MANUFACTURER'S RECOMMENDATIONS FOR SURGE PROTECTION DEVICE.
7. PROVIDE ARC ENERGY REDUCING MAINTENANCE SWITCH FOR ANY BREAKER RATED (OR ABLE TO BE ADJUSTED TO) 1200A OR HIGHER UNLESS OTHER ARC ENERGY REDUCTION MEANS MEETING NEC 240.87 IS INDICATED ON DRAWINGS/SPECIFICATIONS OR OTHERWISE PROVIDED.
8. FOR ANY PROJECT THAT INCLUDES MULTIPLE ELEVATORS OR THE INSTALLATION/MODIFICATION OF EMERGENCY POWER DISTRIBUTION SYSTEMS (INCLUDING LEGALLY REQUIRED STANDBY SYSTEMS) THE OVERCURRENT PROTECTION DEVICES ASSOCIATED WITH THOSE SYSTEMS SHALL BE SELECTIVELY COORDINATED AS REQUIRED BY THE NEC. PROVIDE DOCUMENTATION TO DEMONSTRATE THE SELECTIVE COORDINATION OF THE DISTRIBUTION SYSTEM TO THE ENGINEER/AHJ. AN OVERCURRENT PROTECTIVE DEVICE COORDINATION STUDY SHALL BE SUBMITTED AT THE SAME TIME AS THE SUBMITTALS FOR ANY EQUIPMENT CONTAINING OVERCURRENT PROTECTION DEVICES. CONTRACTOR SHALL SUBMIT OVERCURRENT PROTECTIVE DEVICE SETTINGS FOR ALL ADJUSTABLE BREAKERS AND SHALL ENSURE ALL DEVICES ARE ADJUSTED TO MATCH APPROVED SETTINGS.

ELECTRICAL DEVICES OUTLET BOXES, JUNCTION BOXES
1. IT IS THE INTENT THAT ALL DEVICE OUTLET BOXES (POWER AND SYSTEMS) BE FLUSH MOUNTED IN WALLS, CEILINGS OR FLOORS, AND JUNCTION BOXES FLUSH MOUNTED IN WALLS, CEILINGS, OR FLOORS, OR CONCEALED ABOVE ACCESSIBLE CEILINGS, AND NOT SURFACE MOUNTED, UNLESS SPECIFICALLY NOTED ON THE CONTRACT DRAWINGS, OR UNLESS THE ARCHITECT/ENGINEER GRANTS WRITTEN PERMISSION.
2. ALL COMPONENTS OF THE ELECTRICAL SYSTEM (INCLUDE RACEWAYS, ELECTRICAL EQUIPMENT, OUTLET BOXES, JUNCTION BOXES, ETC.) LOCATED IN A HAZARDOUS (CLASSIFIED) LOCATION SHALL BE APPROVED FOR USE IN SAID LOCATION, AS DEFINED BY THE NEC, WHETHER INDICATED ON THE CONTRACT DOCUMENTS OR NOT.
3. ALL DEVICES SHALL BE MOUNTED VERTICALLY, UNLESS NOTED OTHERWISE.
4. ALL RECEPTACLES SHALL BE MOUNTED SUCH THAT THE GROUND PIN IS MOUNTED UP.
5. ALL EXTERIOR RECEPTACLES OR RECEPTACLES LOCATED IN AREAS SUBJECT TO MOISTURE SHALL BE GFCI TYPE. ALL EXTERIOR RECEPTACLES SHALL WE PROVIDED WITH CAST METAL, IN-USE COVER WHEN ELECTRICAL BOXES ARE LOCATED IN VERTICAL FIRE-RESISTIVE ASSEMBLIES, THEY SHALL BE INSTALLED WITHOUT AFFECTING THE FIRE CLASSIFICATION. ALL OF THE FOLLOWING CONDITIONS SHALL BE MET:
   - A. ALL ELECTRICAL BOXES SHALL BE METALLIC.
   - B. BOX OPENING SHALL OCCUR ONLY ON ONE SIDE OF FRAMING SPACE.
   - C. BOX OPENING SHALL NOT EXCEED 16 SQUARE INCHES.
   - D. ALL CLEARANCES BETWEEN OUTLET BOX AND GYPSUM BOARD SHALL BE COMPLETELY FILLED WITH JOINT COMPOUND (OR OTHER APPROVED MATERIAL).
   - E. PROVIDE A WALL AROUND OUTLETS LARGER THAN 16 SQUARE INCHES. THE INTEGRITY OF THE WALL RATING SHALL BE MAINTAINED.
   - F. THE TOTAL AGGREGATE SURFACE AREA OF THE BOXES SHALL NOT EXCEED 100 SQUARE INCHES PER 100 SQUARE FEET.
   - G. OUTLET BOXES LOCATED ON OPPOSITE SIDES OF FIRE RESISTIVE ASSEMBLIES SHALL BE SEPARATED BY A MINIMUM HORIZONTAL DISTANCE OF 24 INCHES.
   - H. OUTLET BOXES SHALL BE SECURELY FASTENED TO WALL FRAMING MEMBERS.
   - I. THE OPENING IN THE GYPSUM BOARD FACING SHALL BE CUT NOT TO EXCEED 1/8 INCH BETWEEN THE EDGES OF THE OUTLET BOX AND THE EDGES OF THE OPENING.

RACEWAYS
1. FLEXIBLE METAL CONDUIT AND LIQUIDTIGHT FLEXIBLE METAL CONDUIT (FMC & LFMC) SHALL NOT BE USED IN LENGTHS THAT EXCEED 6'-0" UNLESS SPECIFICALLY NOTED OTHERWISE, OR UNLESS THE ARCHITECT/ENGINEER GRANTS WRITTEN PERMISSION.
2. ALL FEEDER AND BRANCH CIRCUIT CONDUCTORS, INCLUDING LOW VOLTAGE SYSTEMS, SHALL BE INSTALLED IN A COMPLETE RACEWAY SYSTEM (CONDUIT) UNLESS SPECIFICALLY NOTED OTHERWISE.
3. THE USE OF ELECTRICAL NON-METALLIC TUBING (ENT) AND LIQUIDTIGHT FLEXIBLE NON-METALLIC CONDUIT (LFNC) ARE PROHIBITED UNLESS SPECIFICALLY NOTED OTHERWISE, OR UNLESS THE ARCHITECT/ENGINEER OR OWNER GRANTS WRITTEN PERMISSION.
4. CONNECTIONS TO TRANSFORMERS, AHU'S, AND PUMPS SHALL BE WITH LIGUIDTIGHT, FLEXIBLE METAL CONDUIT.
5. NO PVC CONDUIT MAY BE USED INSIDE OF BUILDING UNLESS ROUTED UNDERGROUND, AND UNLESS NOTED OTHERWISE.
6. ALL CONDUIT TERMINATIONS AT TERMINAL BOARDS ARE TO HAVE GROUNDING BUSHINGS AT CONDUIT ENDS.
7. ALL CONDUITS ARE TO BE CONCEALED UNLESS IMPOSSIBLE DUE TO EXISTING CONDITIONS (I.E., EXPOSED CEILINGS, BUILDING EXTERIOR WALL RUNS). CONCEAL ALL CONDUITS ABOVE CEILINGS OR IN WALLS AND MILLWORK. WHERE EXISTING CONDITIONS DICTATE THAT CONDUITS CANNOT BE CONCEALED, NOTIFY ARCHITECT/ENGINEER PRIOR TO INSTALLING CONDUIT FOR RESOLUTION TO ROUTING.
8. SEAL ALL PENETRATIONS AND OPENINGS MADE DURING EXECUTION OF WORK IN FIRE-RATED AND SMOKE-RATED WALLS. WALLS SHALL BE SEALED WITH UL-APPROVED PRODUCT WITH THE SAME OR GREATER RATING OF WALL PENETRATED.
9. PROVIDE ALL PENETRATIONS THROUGH FLOORS, WALLS, CEILINGS AND ROOFS WHERE REQUIRED. COORDINATE LOCATIONS AND SIZES WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS, FIELD CONDITIONS AND WORK OF ALL OTHER DIVISIONS/TRADES. ALL OPENINGS ARE TO BE SEALED WATERTIGHT.
10. ALL RACEWAYS THAT TURN UP THROUGH THE SLAB OR INTO ELECTRICAL EQUIPMENT FROM UNDERGROUND SHALL BE RIGID GALVANIZED STEEL (RGS) WITH BITUMASTIC COATING FOR AT LEAST THE FINAL 18" LENGTH. THE USE OF NON-METALLIC CONDUIT ABOVE GRADE IS PROHIBITED.
11. PANEL SCHEDULES AND FLOOR PLANS MAY INDICATE DEDICATED HOMERUNS FOR EACH BRANCH CIRCUIT. BRANCH CIRCUITS MAY BE GROUPED IN A COMMON HOMERUN WHERE THE HOMERUN DOES NOT EXCEED 3 PHASE CONDUCTORS, 3 NEUTRAL CONDUCTORS, AND 1 EQUIPMENT GROUND. THE HOMERUN RACEWAY SIZE AND CONDUCTOR SIZE SHALL BE INCREASED AS NECESSARY TO COMPLY WITH THE NEC FOR 40% MAXIMUM FILL AND DERATING REQUIREMENTS.
12. PROVIDE SEAL OFF FITTINGS, APPROVED FOR SUCH USE, WHERE RACEWAYS PENETRATE BETWEEN A DRY, CONDITIONED ENVIRONMENT AND THE EXTERIOR OR OTHER WET ENVIRONMENTS AND ADDITIONAL AREAS WHERE CONDUITS PASS FROM WARM TO COLD LOCATIONS SUCH AS WALK-IN COOLERS OR FREEZERS, BOILER ROOMS, ETC.
13. PROVIDE POLYOLEFIN JET-LINE #232 (NYLON PULL STRING) IN EACH EMPTY CONDUIT WITH ENGRAVED METAL TAG INDICATING CONDUIT DESIGNATION.
14. ALL HOMERUNS SHALL BE IN 3/4" RACEWAY MINIMUM. 1/2" RACEWAY IS ACCEPTABLE FOR A SINGLE CIRCUIT FROM THE HOMERUN TO REMAINING DEVICES.
15. CONDUIT SHALL USE SET SCREW TYPE FITTINGS OR COMPRESSION FITTINGS.
16. RACEWAYS SHALL NOT BE PERMITTED TO BE INSTALLED WITHIN SLABS.

GROUNDING
1. FIRE PROTECTION PIPING SHALL NOT BE USED FOR GROUNDING.
2. ALL FEEDERS AND BRANCH CIRCUITS SHALL INCLUDE AN EQUIPMENT GROUND CONDUCTOR. METAL RACEWAYS SHALL NOT BE USED AS THE SOLE EQUIPMENT GROUND.
3. WHERE A PHASE CONDUCTOR IS INCREASED IN SIZE DUE TO VOLTAGE DROP, THE EQUIPMENT GROUND CONDUCTOR SHALL BE INCREASED IN SIZE PROPORTIONATELY.
4. PROVIDE A GROUND BUS BAR IN EACH ELECTRICAL ROOM AND TELECOMMUNICATIONS / IDF/ MDF ROOM FOR ALL NEW CONSTRUCTION AND NEW ROOMS IN EXISTING CONSTRUCTION, AND IN EXISTING CONSTRUCTION WHERE THERE IS NONE INSTALLED WITHIN AN EXISTING ROOM.

ELECTRICAL SHEET INDEX

Sheet Number	Sheet Name	Sheet Issue Date
E001	ELECTRICAL LEGEND & NOTES	07/24/2024
E101	POWER PLANS - DEMO	07/24/2024
E201	POWER PLANS - NEW	07/24/2024
E301	ELECTRICAL DETAILS	07/24/2024
E302	ELECTRICAL DETAILS	07/24/2024

WHERE THERE IS A DISCREPANCY BETWEEN ABOVE GENERAL NOTES AND SPECIFICATIONS, WHERE APPLICABLE, SPECIFICATIONS SHALL BE FOLLOWED

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TLC Project No.: 722049
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GENERATOR REPLACEMENT

2480 THOMPSON ST FORT MYERS, FL 33901

Consultants:

Revisions:

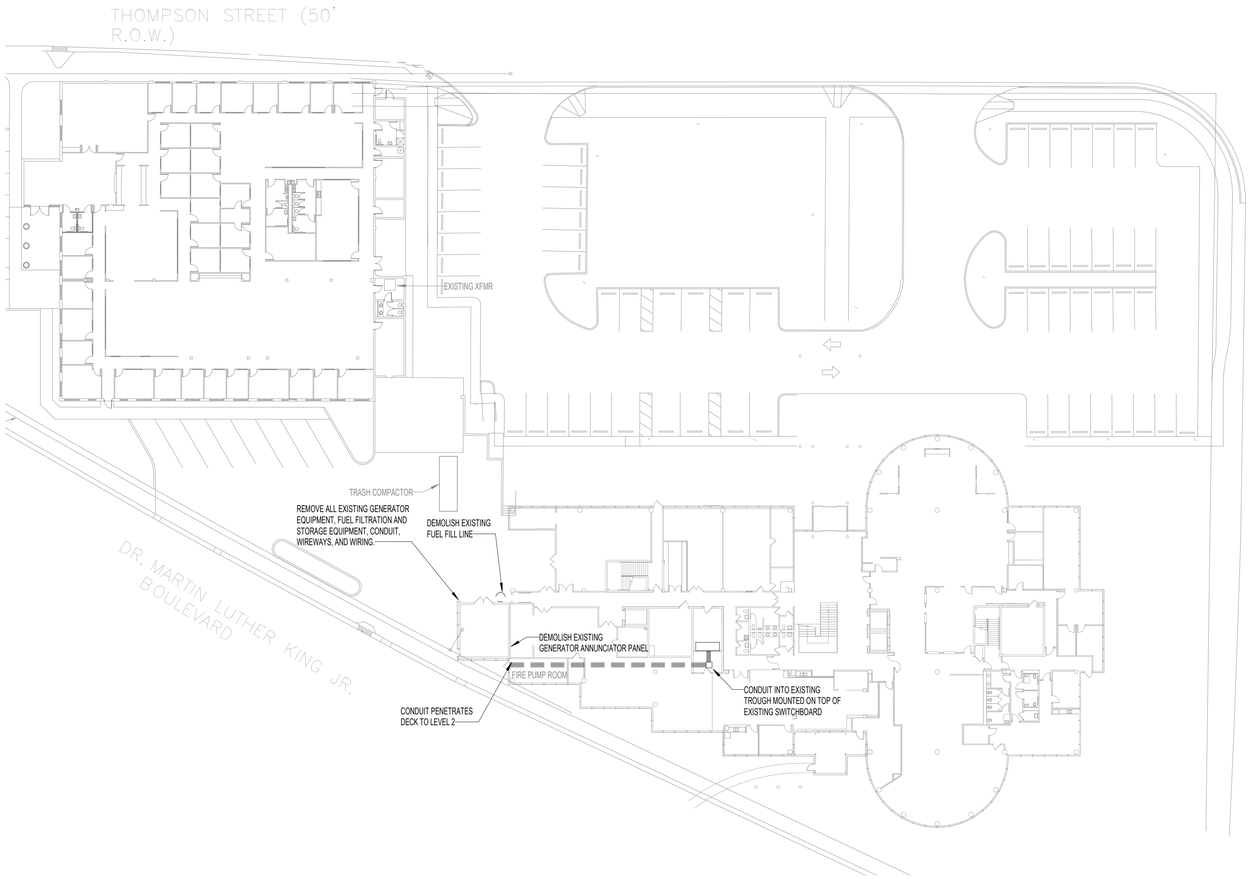
No.	Date	Description

Seal

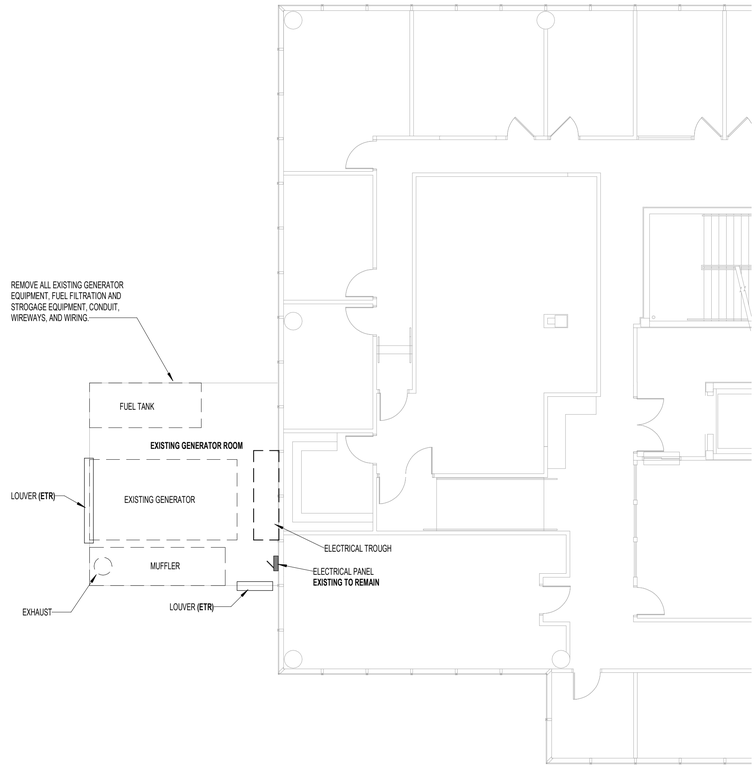
Project No.:	722049
Issue Date:	07/24/2024
Drawn By:	OPH
Approved By:	BLS
Scale:	12" = 1'-0"

Drawing Title:
ELECTRICAL LEGEND & NOTES

Drawing No.:
E001



1 LEVEL 1 - POWER - DEMO
1" = 30'-0"



2 LEVEL 2 - POWER - DEMO
1/8" = 1'-0"

GENERAL NOTES:

1. ALL EXISTING GENERATOR EQUIPMENT, CONDUIT, AND WIRING TO BE DEMOLISHED. CONDUIT THAT IS NOT ACCESSIBLE MAY BE ABANDONED IN PLACE SO LONG AS IT DOES NOT INTERFERE WITH SCOPE OF NEW WORK AND ALL WIRING HAS BEEN DEMOLISHED.
2. COORDINATE WITH THE OWNER FOR DISPOSITION OF ELECTRICAL ITEMS TO BE DEMOLISHED. OWNER SHALL HAVE THE OPTION TO RETAIN REUSABLE ITEMS. ALL DEMOLISHED COMPONENTS NOT RETAINED BY THE OWNER SHALL BE REMOVED FROM SITE AND DISPOSED OF PROPERLY BY THE CONTRACTOR.
3. LOCATIONS OF EXISTING CONDUIT RUNS ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR.
4. DEMOLISH EXISTING GENERATOR CONTROL WIRING TO EXISTING ATO INTEGRAL IN MSB. MSB, ATO, AND ATO WIRING TO FIRE PUMP AND FPL LOAD CURTAILMENT ARE EXISTING TO REMAIN.
5. DEMOLISH ALL EXISTING FACADE PENETRATIONS UNLESS OTHERWISE NOTED. SEAL AND FINISH TO MATCH FACADE.

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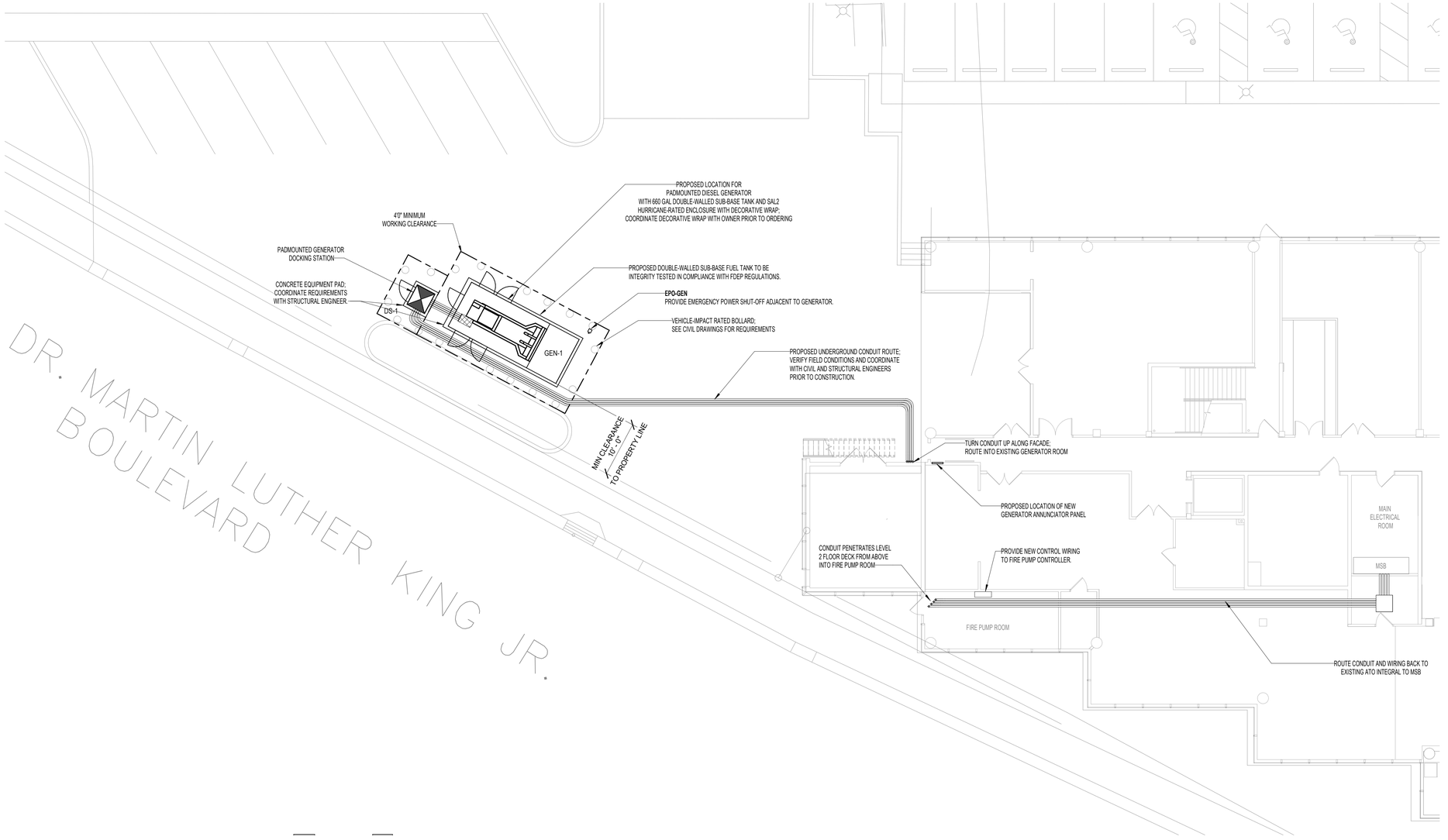
Seal

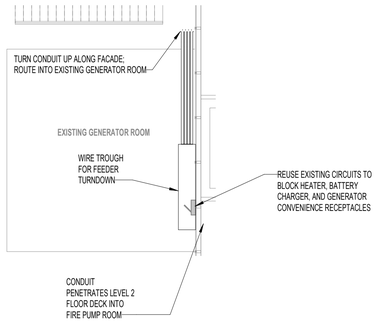
Project No.: 722049
Issue Date: 07/24/2024
Drawn By: OPH
Approved By: BLS
Scale: As indicated

Drawing Title: POWER PLANS - DEMO

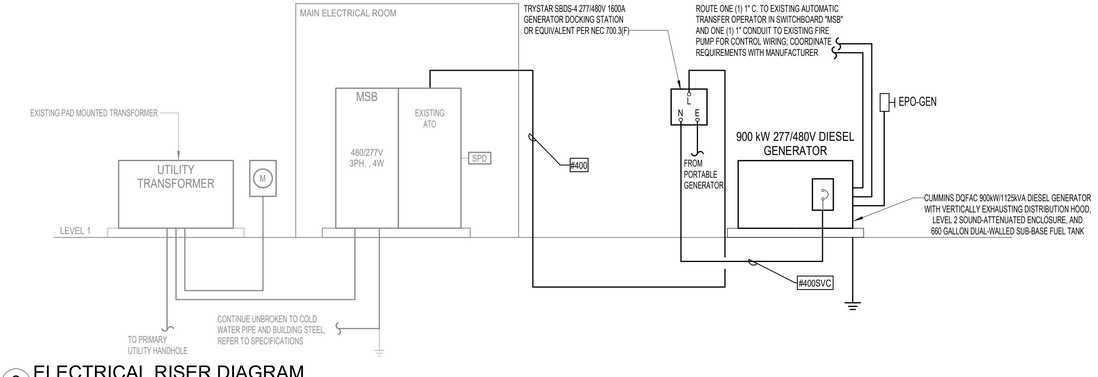
Drawing No.: E101



1 LEVEL 1 - POWER - NEW
1" = 10'-0"



2 LEVEL 2 - POWER - NEW
1/8" = 1'-0"



3 ELECTRICAL RISER DIAGRAM
N.T.S.

GENERAL NOTES:

1. PROVIDE NEW GENERATOR CONTROL WIRING TO EXISTING INTEGRAL ATO IN EXISTING MAIN SWITCHBOARD "MSB".
2. PROVIDE TRAFFIC-RATED BOLLARDS ON ALL SIDES OF GENERATOR AND GENERATOR DOCKING STATION. SPACE BOLLARDS TO PREVENT VEHICULAR IMPACT TO EQUIPMENT ENCLOSURES. MAINTAIN MINIMUM 4' CLEARANCE BETWEEN BOLLARD AND EQUIPMENT ENCLOSURES. COORDINATE REQUIREMENTS WITH CIVIL ENGINEER.
3. VERIFY ALL EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. COORDINATE WITH CIVIL ENGINEER..
4. COORDINATE CONDUIT SLEEVE PENETRATIONS THROUGH FOUNDATION SLABS PRIOR TO CONSTRUCTION. COORDINATE WITH STRUCTURAL ENGINEER.
5. PROVIDE NEW GENERATOR ANNUNCIATOR PANEL AND ROUTE APPROPRIATE COMMUNICATION WIRE AND 1 SPARE STRANDED WIRE. VERIFY FINAL LOCATION WITH OWNER PRIOR TO CONSTRUCTION.
6. PROVIDE ALL REQUIRED INTEGRITY TESTING OF FUEL TANK TO COMPLY WITH FDEP REGULATIONS.
7. MINIMIZE DISRUPTIONS TO NORMAL POWER SERVICE TO THE BUILDING DURING CONSTRUCTION. ALL PLANNED OUTAGES MUST BE COORDINATED WITH AND APPROVED BY THE OWNER.
8. FUEL STORAGE TANK SHALL COMPY WITH NFPA 30.
9. PROVIDE NFPA-COMPLIANT FIRE EXTINGUISHER WITHIN SIGHT OF GENERATOR.
10. PROVIDE SPILL KIT ON SITE.
11. PERFORM ALL REQUIRED PERFORMANCE AND INTEGRITY TESTS IN COMPLIANCE WITH NFPA, FDEP, LEE COUNTY, AND CITY OF FORT MYERS STANDARDS.

ENCLOSURE WRAP NOTES:

1. PROVIDE AESTHETIC WRAP ON BOTH THE GENERATOR AND GENERATOR DOCKING STATION ENCLOSURES. OWNER MUST APPROVE GRAPHICS PRIOR TO ORDERING.
2. WRAPS SHALL NOT INTERFPER WITH ANY OPENINGS, VENTILIATION, ACCESS DOORS, OR OTHER FEATURES IN OR ON THE ENCLOSURE THAT WOULD AFFECT OPERATION.
3. EQUIPMENT FUNCTIONALITY WITH PROPOSED WRAPS MUST BE APPROVED BY ENGINEER AND MANUFACTURER PRIOR TO ORDERING.
4. WRAPS MUST INCLUDE ALL REQUIRED WARNING LABELS TYPICALLY PRESENT ON EQUIPMENT ENCLOSURES.
5. WRAPS SHALL NOT INCLUDE ANY LOGOS, BRANDING, OR OTHER UNAPPROVED GRAPHICS.

COPPER FEEDER SCHEDULE

MARK	NUMBER OF SETS	PHASE CONDUCTORS (QUANTITY) SIZE - AWG	NEUTRAL CONDUCTOR S (QUANTITY) SIZE - AWG	CONDUIT SIZE (QUANTITY) SIZE	GROUNDING CONDUCTORS (QUANTITY) SIZE - AWG	REMARKS
#400	4	(3) #400 KCMIL	(1) #400 KCMIL	(1) 3"	(1) #3/0	75° Cu IN EMT
#400SVC	4	(3) #400 KCMIL	(1) #400 KCMIL	(1) 3"	(1) #3/0	75° Cu IN RMC; SERVICE ENTRY RATED

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GENERATOR REPLACEMENT

2480 THOMPSON ST FORT MYERS, FL 33901

Consultants:

Revisions:

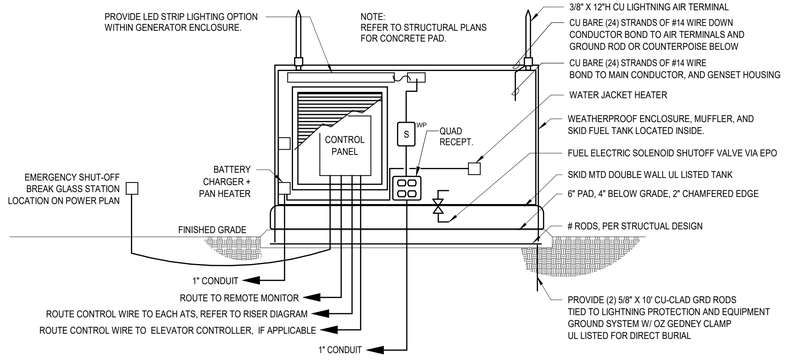
No.	Date	Description

Seal

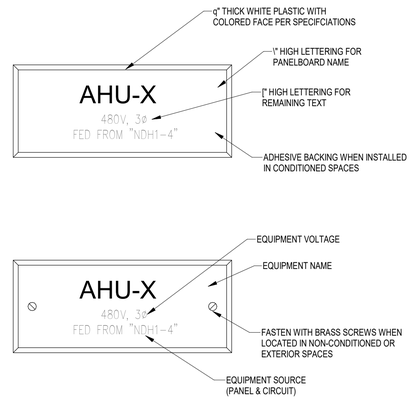
Project No.: 722049
Issue Date: 07/24/2024
Drawn By: OPH
Approved By: BLS
Scale: As indicated

Drawing Title: POWER PLANS - NEW

Drawing No.: E201

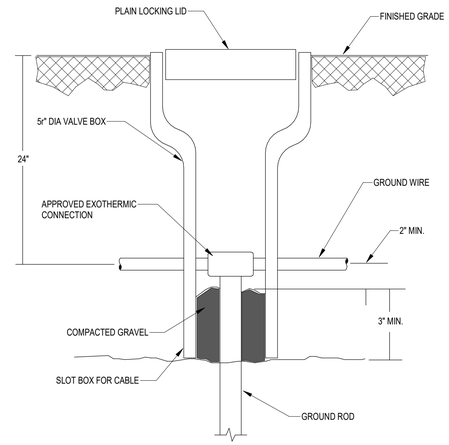


1 GENERATOR DETAIL
N.T.S.

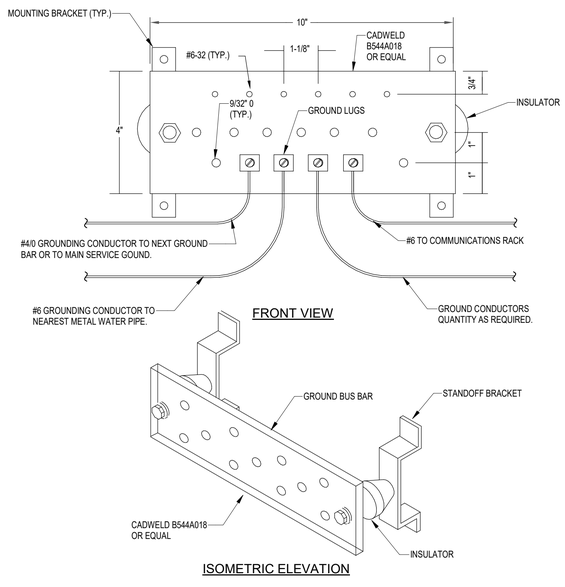


TYPICAL EQUIPMENT

2 EQUIPMENT NAMEPLATE
N.T.S.

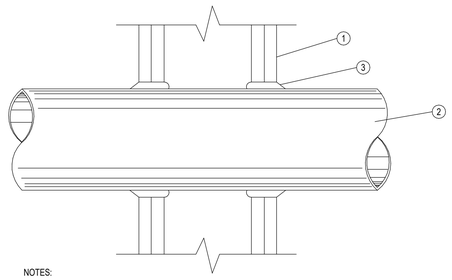


3 GROUND ROD INSPECTION WELL
N.T.S.



ISOMETRIC ELEVATION

4 GROUND BAR
N.T.S.

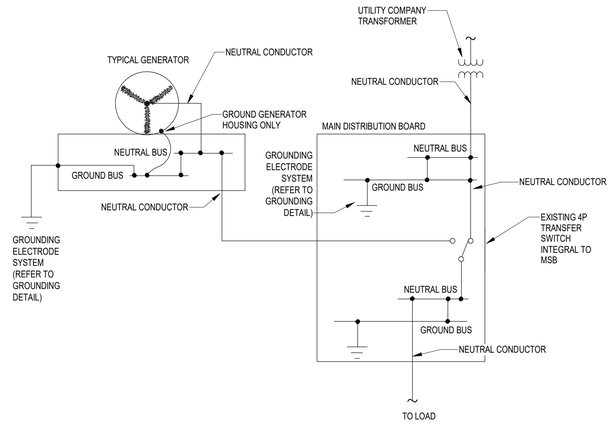


NOTES:

1. WALL ASSEMBLY - THE 1, 2, 3, OR 4 HOUR FIRE-RATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGNS IN THE UL FIRE RESISTANCE DIRECTORY.
2. CONDUIT - NOM 4" DIA OR SMALLER STEEL ELECTRICAL METALLIC TUBING. A MAX OF ONE CONDUIT IS PERMITTED IN THE FIRESTOP SYSTEM. CONDUIT TO BE INSTALLED NEAR CENTER OF STUD CAVITY WIDTH AND TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.
3. FILL VOID OR CAVITY MATERIAL - CAULK FILL MATERIAL BEARING THE UL CLASSIFICATION MARKING INSTALLED TO COMPLETELY FILL ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND GYPSUM WALLBOARD AND WITH A MIN 1/4" DIAM BEAD OF CAULK APPLIED TO PERIMETER OF CONDUIT AT ITS EGRESS FROM THE WALL. CAULK INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS SHOWN IN THE FOLLOWING TABLE. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF THE CONDUIT AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW:

MAX CONDUIT DIAM, IN.	ANNULAR SPACE, IN.	F RATING, HR.	T RATING, HR.
1	0 TO 3/16	1 OR 2	0, 1 OR 2
1	1/4 TO 1/2	3 OR 4	3 OR 4
4	0 TO 1-1/2	1 OR 2	0
6	1/4 TO 1/2	3 OR 4	0
12	3/16 TO 3/8	1 OR 2	0

5 CONDUIT PENETRATION OF FIREWALL
N.T.S.



6 SEPERATELY DERIVED GENERATOR GROUNDING
N.T.S.

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GENERATOR REPLACEMENT

2480 THOMPSON ST FORT MYERS, FL 33901

Consultants:

Revisions:

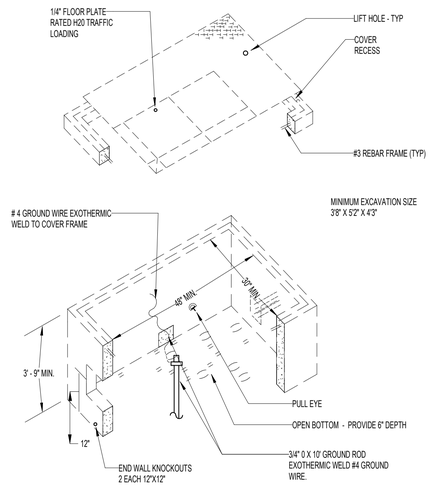
No.	Date	Description

Seal

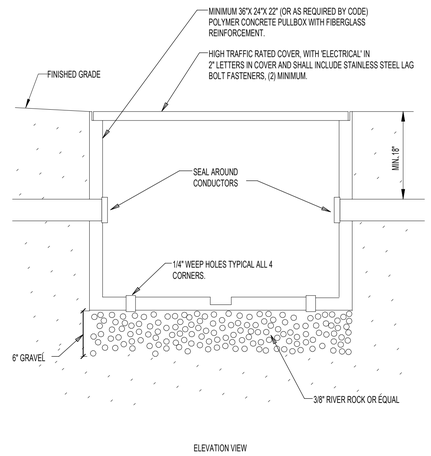
Project No.: 722049
Issue Date: 07/24/2024
Drawn By: OPH
Approved By: BLS
Scale: 12" = 1'-0"

Drawing Title: ELECTRICAL DETAILS

Drawing No.: E301



1 LARGE EXTERIOR TRAFFIC RATED HANDHOLE
N.T.S.



2 TRAFFIC RATED ELECTRICAL HAND HOLE DETAIL
N.T.S.

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TLC Project No.: 722049

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Consultants:

Revisions:

No.	Date	Description

Seal

Project No.: 722049

Issue Date: 07/24/2024

Drawn By: Author

Approved By: Approver

Scale: 12" = 1'-0"

Drawing Title: ELECTRICAL DETAILS

Drawing No.: E302